

Whaia te pae tawhiti kia tata, Whaia te pae tata kia mau

RIGHTS, RESPONSIBILITIES AND RESISTANCE:
Exploring 'Flax-root' Strategies for Ngāti Whātua Involvement
in Aquaculture within the Kaipara Harbour

by

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Whaia te pae tawhiti kia tata, Whaia te pae tata kia mau

“One eye on the work immediately before us, and the other on the distant horizon”

***Rukua nga tai o te Kaipara
Te moana e ngunguru ana ki te uru
Ka kite kau nga hua o Tangaroa
He oranga mo Ngāti Whātua***

Cleave the depths of the Kaipara
And the raging sea of the west,
Behold the harvest of Tangaroa
For the sustenance of Ngāti Whātua¹

¹ Ngāti Whātua Whakatohea of an unknown origin. Cited in Te Runanga o Ngāti Whātua report by J Walker (1997).

Whaia te pae tawhiti kia tata, Whaia te pae tata kia mau

Rights, Responsibilities and Resistance:

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Monique Badham

ABSTRACT

The ocean (tangaroa) is an environment which has an extensive range of significance and uses for Māori, including commerce, sustenance, and customary practices, as well as providing a source of spiritual well-being and cultural identity. One aquatic resource practice traditionally used by Māori was a form of aquaculture, however the historical and contemporary processes of colonisation have excluded Māori from this customarily significant resource use.

This research embarks on a collaborative approach with Ngāti Whātua (an iwi of the Auckland/Northland region) to rectify this situation through identifying 'flax-root' (on-the-ground and practical) strategies to enhance their involvement in aquaculture within the Kaipara harbour. A 'Māori-Centred' qualitative methodological approach is adopted, incorporating a critical awareness of the colonising potential of research, and a rejection of passive individualistically beneficial research through focussing on 'empowering outcomes' for Māori. A diverse range of key informant interviews are conducted supported by secondary reports and Māori development literature, with the analysis conducted primarily through an adapted version of Hutchings' (2002) 'Mana Wahine Conceptual Framework'.

Findings reveal that Māori resource utilisation agendas fit within wider development paradigms that are multi-dimensional, holistic and embedded in politico-cultural 'rights' and 'responsibilities', which position Māori as unique resource 'developers'. The Kaipara harbour also holds a high level of potential for the realisation of aquaculture aspirations, however a plethora of socio-cultural, economic and political barriers are inhibiting Māori development, particularly within the aquaculture sector. Six key strategic options are identified that aim at realistic and practical 'flax-root' pathways to improve Ngāti Whātua involvement in aquaculture.

Key Words: Aquaculture, colonisation, development, flax-root, Indigenous, Kaipara harbour, kaitiakitanga, Kaupapa Māori, manaakitanga, Māori, Māori centred approach, marine farming, Ngāti Whātua, resource management, tino rangatiratanga, Treaty of Waitangi

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In terms of my personal support team, I would like to thank my partner Mark for his love, patience and advice, my mother France for being my rock, and my whanau for being my greatest source of pride. I would also like to thank Darcy Sullivan for his efforts in teaching me Te Reo, my second mother Rose for lending her proof-reading skills, and to my office mate Rhian for answering my continual linguistic questions.

And finally, I would like to dedicate my thesis to two members of my whanau that have passed on in the duration of my Masters. To my nana, thank you for believing in me, I hope I have made you proud. And to our sister Malia- your passion for life will forever remain an inspiration to me.

Preface

This research has its origins in chance. Walking into the Ngāti Whātua Runanga office in Whangarei to apply for a grant, I was abruptly asked by a man at a computer what I was doing. This man turned out to be Hally Toia, the advisory officer of natural resources for Te Runanga. I mentioned my intentions to embark on an environmental Masters thesis, and that I was particularly interested in Māori resource management. We both saw an opportunity in each other, and the reciprocal research began. A thesis topic was forged collaboratively, with a desire from both sides to embark on research that was empowering and useful.

However, I also have to acknowledge my personal motives for partaking in this research. This is also a journey for identity. My whanau became alienated in my grandmothers' generation, whereby her family were forcibly removed from their papakainga in Okahu Bay (Auckland) for the Queen's tour in 1951. By ballot, my grandmother was forced to relocate to the distant suburbs, and ever since emotional and geographical distance has resulted in alienation. My grandmother married a Frenchman, and became further removed from 'all things Māori'. My mother never knew anything of her whakapapa, yet she would always remind me, 'you are Māori, and you should be proud'. Once I emerged from my teenage years where conformity is paramount, I realised I wanted to find out who I really was, and a good beginning was to find out where I came from. I began my journey by travelling to Europe to meet my French family, and as the pieces of the puzzle began to form, I noticed a gaping hole that lay back in my homeland, Aotearoa.

This issue of identity is of underlying importance to my research. There seems to be an avoidance of the issue of ancestry in Aotearoa/New Zealand, at least within the pakeha culture. Acknowledging ancestry means taking ownership of the past actions of our predecessors. A common response to the issue of colonial atrocities is 'I didn't do it, there's nothing I can do about it, so we need to get over it'. I believe that to move ahead, you must first look behind yourself. What is in the past, is in the past, however what will become the future of Aotearoa/New Zealand is highly dependant on its citizens taking an introspective examination of their own identity, their own past, and consequently the type of country that they wish to exist in. I personally wish to exist as a citizen of a just, vibrant and culturally diverse country, where the chances of succeeding are equal for each citizen, and to participate in a society which actively supports self-determined development for all its citizens.

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Chapter 1 Introduction

“...a people who once depended so heavily on the sea resource...now find themselves almost totally shut out of an economic activity which was so much a part of their way of life” (Waitangi Tribunal 2002, Wai 953, p76)

The ocean (*tangaroa*) is an environment which has a wide range of significance and uses for Māori, including customary practices, commercial enterprises, sustenance, transport and as a source of spiritual well-being and cultural identity. A traditional form of aquaculture was one aquatic resource-use practiced by coastal Māori (an assertion supported by the Waitangi Tribunal, Wai 953 2002). However, the process of colonisation has eroded Māori control (*mana moana*) of, and interactions with, their natural resources. This has consequently resulted in the illegal exclusion of Māori from the resource practice of aquaculture.

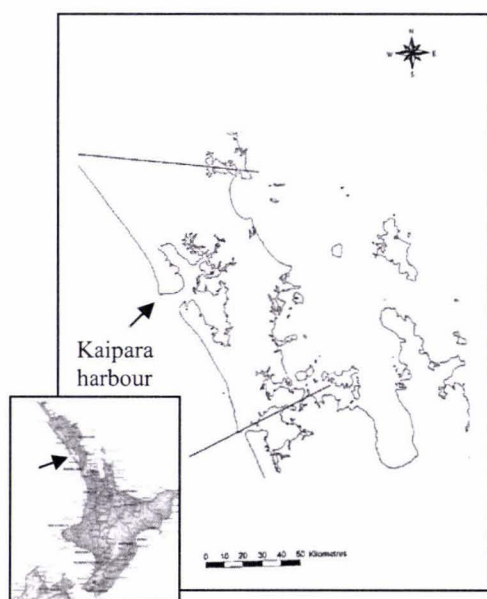


Figure 1. Ngāti Whātua *rohe* and the Kaipara Harbour. Source: adapted from Kawharu, 1998, p134

This research aims to examine the historical causes and current climate that is inhibiting Māori involvement in this resource practice, through focussing on Ngāti Whātua and their pursuit of identifying ‘flax-root’ strategies to achieve self-determined aquaculture development within the Kaipara harbour (see figure 1 for location of tribal boundary/*rohe*¹ and the Kaipara harbour).

Many Māori communities have both traditional and contemporary interests in aquaculture. Iwi/Māori rights to this resource practice stem both from this historical relationship, and the guarantees enshrined

¹ Māori terms/concepts will be italicized to bring attention to the fact that they belong to, and are located in, a Māori cultural framework. However when quoting, Māori terms will be left as they occur in situ. The meanings of Māori words can be found in the glossary (p147).

in *Te Tiriti/Treaty of Waitangi*². The Crown contends that aquaculture is a contemporary development and argues that the level of technology involved infers that Māori have no legitimate customary interest. However, as found by the Waitangi Tribunal (2002, Wai 953) Māori were irrefutably practicing marine farming prior to colonial contact, and such claims made by the Crown deny Māori rights to contemporary development opportunities. The exclusion of Māori from this resource practice was cause for Ngāti Whātua and several other iwi³ to lodge a claim with the Waitangi Tribunal, resulting in the ‘Ahu Moana: Aquaculture and Marine Farming Report’ (2002, Wai 953).

Despite the Waitangi Tribunal’s finding that “...marine farming...forms part of the bundle of Māori rights in the coastal marine area that represent a taonga protected by the Treaty of Waitangi” (Wai 953, 2002⁴), and the Crown’s consequent formulation of the Māori Commercial Aquaculture Claims Settlement Act (2004), genuine action to assist Māori in gaining access to marine farming has been virtually non-existent.

This lack of support coupled with historical and contemporary acts of colonisation, has created a mentality of distrust and disillusionment towards government ‘rhetoric’ which addresses Māori resource rights and wider Māori development. This research is therefore embedded in a philosophy of self-determined ‘flax-root’ development, ‘by Māori, for Māori’. Hence a ‘Māori centred approach’ is utilised in order to define empowering strategies with Ngāti Whātua for the achievement of their aquaculture development aspirations.

This research will demonstrate how aquaculture is a resource practice which is culturally compatible, has a wide range of community benefits, and provides self-determined economic opportunities for Māori. It will also address the potential ecological effects of

² A finding from Ahu Moana (Wai 953, 2002) report on Marine Farming.

³ Ngāti Kahungunu, and during the intervening period Te Atiawa ki te Tau Ihu, Ngai Tahu, Ngāti Koata and Ngāti Kuia submitted claims which were all heard at the same time.

⁴ Wai 953, 2002. Fore note by Judge Caren Wickliffe.

aquaculture in order to ensure that environmental imperatives (both from within the Environmental Studies academic discipline, and from a Māori perspective) are upheld.

As is typical of any issue concerning Māori and natural resource development, this research involves a diverse range of dimensions including equity, self-determination, rights, environmental sustainability, commerce, development, lore, law and culture. Analysing the interactions of these dimensions and how they impact on Māori aquaculture development will form the basis of this research.

Therefore the aim of this Introductory Chapter is to set the scene and indicate the path for the remaining presentation and interpretation of the research findings. This chapter will present the research aims and objectives as well as provide justifications, define key concepts central to this investigation, and give an overview of the following seven chapters.

Research Design

This research is conducted within a Māori centred research paradigm. The following aim and objectives were developed in collaboration with Te Runanga o Ngāti Whātua⁵:

Aim

To identify and define ‘flax-root’ strategies with Ngāti Whātua to achieve their aspirations for aquaculture development in the Kaipara harbour.

This aim will be achieved through the following four objectives:

⁵ Te Runanga refers to the Māori organisational body which governs at an iwi level the affairs of Ngāti Whātua (and its hapu).

Objectives

- 1) To examine the nature of Ngāti Whātua aquaculture development aspirations
- 2) To assess the feasibility of establishing aquaculture in the Kaipara harbour
- 3) To determine the barriers that are inhibiting Māori, and in particular Ngāti Whātua, from achieving their aquaculture and wider development aspirations
- 4) To identify strategic ‘flax-root’ options for the implementation of Ngāti Whātua aquaculture aspirations

Academic Context: Environmental Studies

While I am primarily operating within a Māori centred *kaupapa* (paradigm), it is also important to situate my research within the wider academic discipline of Environmental Studies. Environmental Studies is a ‘holistic’ field with an interdisciplinary focus, and is premised upon the understanding that environmental issues necessitate an examination of the way in which physical, biological and social systems interact⁶. There exists an element of tension between western-based environmentalism and Māori environmental worldviews which emerges in this research. While environmental ‘sustainability’ is a cornerstone of the Māori worldview, the methods and tools used to achieve it can often come in to conflict with mainstream western environmentalism. Māori (and other Indigenous) environmental perspectives are given a significant degree of academic space within the Environmental Studies discipline, and this research is an attempt to further represent Māori perspectives at the post-graduate academic level.

⁶ This description was located in Victoria University Environmental Studies Website.

Research Justification

The following assumptions which underlie this research briefly require justification: the focus on aquaculture as a resource practice, Māori involvement in aquaculture, Māori rights to development, and the locational choice of the Kaipara harbour.

Aquaculture

Aquaculture has been selected as the focus for the achievement of Māori development aspirations for several reasons. The initial justification is the identification by Hally Toia⁷ (advisory officer of natural resources for Te Runanga o Ngāti Whātua and ‘gatekeeper’ for my research) of aquaculture as a strategically important resource. Secondly, aquaculture has the potential to enhance the food production capacity of the oceans, especially given that it is generally accepted the wild fisheries industry has reached, if not exceeded, its maximum harvest capacity (FAO for the UN report in Davenport et al. 2003). The fisheries industry is also widely criticised as unsustainable, responsible for the overfishing of more than 75% of the world fish species (*ibid*). It is hence necessary to develop more sustainable and productive methods of supply to meet the world’s seafood demand.

Aquaculture as a resource use has come under scrutiny in terms of its potential environmental effects. Aquaculture has been practiced for centuries, especially in Asiatic countries, and has been generally regarded as a “benign activity” which, in comparison to the capture⁸ industry “seem[s] sustainable” (Davenport et al. 2003, p19). However, intensification of competition in the industry gives rise to increasing ecological concerns. Despite this, aquaculture is still an “...essential industry providing a crucial part of the world’s food supply” and given the exhaustion of the wild fisheries, is the “...only real

⁷ See appendix 2 for table of Personal Communications. Hally Toia’s role in this research is discussed further in Chapter 3.

⁸ ‘Capture’ industry refers to aquatic resources that have been harvested from the wild. The ‘wild fisheries’ and ‘aquaculture’ are often discussed as being separate entities, however the FAO argue that a more holistic perspective of the interrelationships is required (FAO, 2004).

hope for substantial expansion of aquatic food production” (*ibid.* pv)⁹. Potential ecological impacts will be mitigated through species selection, utilisation of research, and effective and precautionary management/*kaitiakitanga*.

Māori Participation in Aquaculture

In terms of justifying the focus on Māori as an exclusive group and their participation in aquaculture, this research is premised upon the following: firstly, that Māori as *tangata whenua* have a right to utilise their resources, and secondly that there exists a significant research gap surrounding Māori interests in aquaculture. These components are further justified below.

Despite the Crown’s declaration of ownership of the foreshore and seabed (*te takutai moana*¹⁰), this has not negated the relationship/*mana* of Māori relating to this resource. However, such legislation has made access to *te takutai moana* difficult, and the Māori Commercial Aquaculture Claims Settlement Act 2004, designed to compensate Māori for their commercial exclusion, has thus far proved insufficient. Therefore the burden has once again been placed on Māori to attempt to fight for access to their own natural resources.

Furthermore, the Waitangi Tribunal has found that Māori have significant Treaty rights relating to marine farming. The Tribunal has stated that “...in Māori eyes, the Treaty reference to taonga was never limited to fishing places but encompassed broader control and mana over the sea” (Wai 8 1989, p69), hence marine farming is considered to be a part of these treaty rights (Wai 953, 2002).

Secondly, it has been identified through literature scoping that there is a significant research gap surrounding Māori interests and participation in aquaculture. Ngāti Whātua (as with most iwi) acknowledges that a lack of capacity limits their ability to engage in

⁹ Ecological impacts of aquaculture are discussed further on page 21.

¹⁰ Sir Hugh Kawharu suggested this is an appropriate Māori translation (Wai 1071).

their own research. Financial resources are poured into industry research, yet there is little if any, research conducted into the issue of Māori participation in aquaculture. I hope to improve this research gap through post-thesis publication.

Māori Development

In terms of justifying the focus on ‘Māori development’ as an issue, at the most fundamental level, social responsibility for achieving equality is an obvious validation. Indigenous calls for self-determined development, “...many of whom suffer current disadvantage and unequal access to the benefits of development as a legacy of colonization” have been largely ignored (Gibbs 2005, p1365). Despite paternalistic attempts to ‘close the gaps’, statistics still reveal that the Māori population is anything but ‘equal’ in terms of health, education, employment, and other socio-economic indicators (Te Puni Kōkiri¹¹ 2000). The underlying processes of colonisation, and the resource abrogation that it involves, has enabled New Zealand as a colonialist nation to flourish at the expense of the Māori people.

However the principal medium for justifying Māori development is through the *Te Tiriti/Treaty of Waitangi*¹². The Treaty/*Te Tiriti* ensured the protection by the Crown of all Māori ‘*taonga*’¹³, and granted Māori equal citizenship and ‘all the rights and privileges of British subjects’. It has been argued that the Māori signatories would have believed their “...existence as a distinct people would be protected, and that they would enjoy an equitable share in all the benefits and innovations of settlement” (Te Puni Kōkiri 2001, p40). Henare (2000, p23) reiterates that although the principle of development is “...not expressly stated in the Treaty there was a natural expectation that consequent of the Treaty both Māori and *Pakeha* would grow and develop”. Furthermore, Article Two

¹¹ Established in 1992, Previously named the Ministry of Māori Development.

¹² While the Treaty/*Te Tiriti* is central to justifying this research, it is beyond the scope of my thesis to address the Treaty/*Te Tiriti* and the extensive debates which surround it in any depth. Within the realm of this research, both the versions of the Treaty will be referred to in order to acknowledge the dual existence of the contract, even though only the English version receives legal recognition.

¹³ *Taonga* has been interpreted to include more intangible notions such as language and health, genealogical knowledge and important customs (Te Puni Kōkiri [TPK] 2001).

of *Te Tiriti* guaranteed Māori would maintain full '*rangatiratanga*' (sovereignty), however this article was interpreted in English to enshrine only 'chieftainship' (which is of lesser political status). There has been much debate over the differing Māori and English versions of the treaty, and while this thesis will not engage in this debate, it is based on the premise that Māori entered into a Treaty which ensured Māori would continue to hold *rangatiratanga* over their territories.

There exists a plethora of Waitangi Tribunal cases which address Māori rights to development¹⁴ and the "...degree to which modern technologies can be used by Māori to give effect to their Article II rights" (TPK 2001, p68). Throughout these cases, the Tribunal has found that;

"...the Treaty partnership survives societal change, and that Māori are entitled, within certain limits, to develop traditional practices and exploit their resources by acquiring and adapting new skills and technology in the same way as other communities" (TPK 2001, p68).

The right to development, as addressed by the Waitangi Tribunal, has emerged on three different levels: firstly the right to develop resources that Māori used in a traditional manner in 1840, secondly the right to develop resources not known in 1840 in partnership with the Crown, and on the third level, the right of Māori to develop as a people (Wai 776 1999 in Gibbs 2005). However, the courts have adopted a "...more limited view of the right and its application" (Gibbs 2005, p1369). In terms of their development rights regarding the resource issue of aquaculture, iwi/Māori have claimed that their interests in marine farming should not be "...confined to recreation, subsistence, and leisure", but should also "...include commercial enterprise" (Durie 2005, p103).

With regard to justifying Māori development issues within the international arena, in 1986 the General Assembly of the United Nations released its 'Declaration on the Right to Development'. This declaration covered issues such as equity with regard to basic

¹⁴ The principle of 'development' has been addressed in a variety of Waitangi Tribunal claims, including Wai 26, Wai 953, Wai 776, Wai22 and, Wai 1071.

resources and the role of the state in assisting self-determined development. With specific regard to Indigenous development, the ‘Draft United Nations Declaration of the Rights of Indigenous Peoples’ (1994)¹⁵ states that “Indigenous peoples have the right of self-determination” (Article 3). Durie adds that by “...virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development” (Durie 1998, p12).

Kaipara Harbour

When justifying the locational focus on the Kaipara harbour (see figure 2), time and resource constraints restricted the scope to a manageable area. The Kaipara was selected by Hally Toia (advisory officer of natural resources for TRoNW¹⁶) as a target location due its customary significance, the high potential for aquaculture as established in research, and the fact that there exists no iwi contestability¹⁷.

Key Concepts

This section discusses and defines the main concepts used in this research: *mana whenua* /*mana moana*, *manaakitanga* and *kaitiakitanga*, aquaculture and marine farming, Māori development and a ‘flax-root’ approach.

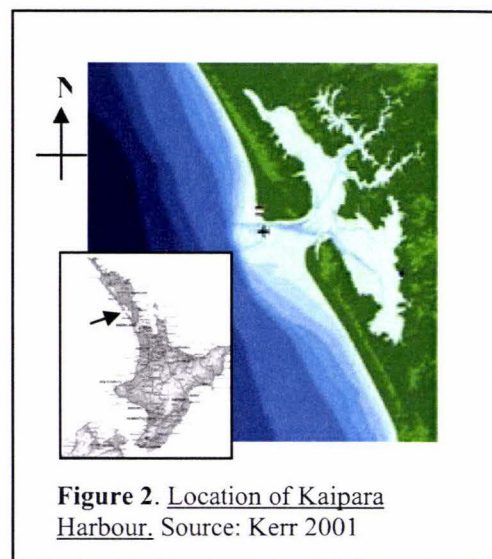


Figure 2. Location of Kaipara Harbour. Source: Kerr 2001

¹⁵ Formulated by the United Nations High Commissioner for Human Rights as a draft in 1994. The Human Rights Council adopted the draft on the 29th of June 2006. However New Zealand, Australia, Canada and the United States are refusing to sign.

¹⁶ Te Runanga o Ngāti Whātua is abbreviated to TRoNW.

¹⁷ Whereas all other harbours in the *rohe* have multiple iwi interests (Toia, Pers Comm).

Mana whenua/Mana moana

The two key concepts of *mana whenua* and *mana moana* underlie this thesis and are pivotal in understanding the following Māori concepts. *Mana whenua* is a traditional customary authority on which the rights to make decisions over land and resources were based. The concept of *mana moana* refers particularly to marine environment and is therefore more specific to the issue of aquaculture. The concept of *mana whenua/mana moana* imbues the holders of the status with rights and powers, as well as important responsibilities. The holders of *mana whenua* status are required to exercise that authority so as to sustain, nurture, replenish and allow the growth of maximum potential within their community. *Mana whenua* rights are recognised in law, by virtue of the Treaty of Waitangi, and in accordance with the principles of the Treaty (s. 8 of the RM Act 1991)¹⁸ and accord Iwi a special status of different order to that of the general public or other interests groups (TRoNW 2003b¹⁹).

Manaakitanga and Kaitiakitanga

Manaakitanga and *kaitiakitanga* are both principles which lie at the heart of the Ngāti Whātua approach to resource development (Tepania Kingi, Pers Comm²⁰). These concepts are interdependent, and in a sense reflective of one another. *Manaakitanga* is both a practice and principle which concerns caring and providing for people, and inversely *kaitiakitanga* relates to caring and providing for *Papatūānuku* (earth). Since humans cannot exist without natural resources, *manaakitanga* is embedded in *kaitiakitanga*. Kawharu²¹ (1998, p30) examines the link between these two concepts and states that "...Manaaki can thus be considered a dimension of kaitiakitanga where it involves a reciprocal exchange between host and guest".

¹⁸ For example, Manawhenua status is explicitly acknowledged as a relevant consideration for resource managers in s. 2 of the RM Act 1991, which defines tangata whenua as the group holding Manawhenua over an area.

¹⁹ This is a document produced as part of a submission by Te Runanga o Ngati Whatua (ARC008b 2003-002) to the Auckland Regional Council regarding a plan change to include aquaculture.

²⁰ Tepania Kingi is the *tikanga* advisor for Te Runanga.

²¹ Unless otherwise stated, Kawharu refers to Merata Kawharu, who conducted her PhD thesis on the principle of *kaitiakitanga*, focusing on Ngāti Whātua.

Manaakitanga is often defined as hospitality, however there are many dimensions to this concept which need to be acknowledged “...in order for cultural principles to have proper legitimacy” (Kawharu 1998, p12). Potiki (2000, p55) adds that *manaakitanga* is “...also about being bound to eternal reciprocal relationships with other iwi and hapu and the need to show and project or extend our mana”²².

The principle and practice of *kaitiakitanga* is similarly complex. While it does form the basis of the Māori environmental ethic, it also incorporates a strong social dimension involving the provision for, and management of, people (Kawharu 1998). *Kaitiakitanga* is essentially “sustainable (resource) management” (*ibid*, p256) and is deeply embedded in the Māori worldview which considers the past to be integral to the present; hence the right to act as *kaitiaki* is embedded in the notions of *whakapapa* and upholding *mana whenua* status.

As with *manaakitanga*, *kaitiakitanga* has also been interpreted one-dimensionally in legislation and policy to mean ‘guardianship’ or ‘stewardship’²³. While this is an important element of *kaitiakitanga*, it fails to account for the wider parameters of the ‘rights’ and ‘responsibilities’ that it encapsulates (Kawharu 1998). The purpose of *kaitiakitanga* is threefold;

“[Firstly]...to cement the hapu’s association with lands and resources and therefore its status. Second, to be able to receive something in return (for instance, food provided by Tane and Papatūānuku), and not least of all, to maintain an economic and political resource base for future generations” (Kawharu 1998, p27).

²² The principle of *manaakitanga* was demonstrated during my practicum at the Runanga offices. At a meeting of *Tai Tokerau* iwi chair people, *kaimoana* played a critical role in the ceremonial importance of the meeting, and in projecting the *mana* of Ngāti Whātua. Great care and pride was taken in preparing the seafood, and in providing for their esteemed guests.

²³ This one-dimensional understanding of *kaitiakitanga* in legislation occurs in the Resource Management Act 1991 and the Fisheries Act 1996. Other legislation which refers to *kaitiakitanga* include the education Act 1989 and the Conservation Act 1987.

The Ngāti Whātua understanding of *kaitiakitanga* reflects Kawharu's research;

“Although sourced in spiritual values and cosmology, *kaitiakitanga* was expressed as a practical institution for control and regulation of the effects of human action on the environment and thus supports active participation by Ngāti Whātua in environmental management decisions...to ensure appropriate remedial action is taken if required to redress ecological imbalances and problems associated with human use and development activity” (TRoNWb 2003, p6)

Therefore the concepts of *manaakitanga* and *kaitiakitanga* reveal the intricate and reciprocal relationships between humans and the environment which underlies the Ngāti Whātua environmental perspective.

Aquaculture and Marine Farming

The Resource Management Act (1991) defines aquaculture activities as “...the breeding, hatching, cultivating, rearing, or on-growing of fish, aquatic life, or seaweed for harvest” which must be under the “...exclusive and continuous possession or control of the person undertaking the activity” and involve the “...occupation of a coastal marine area²⁴” (RMA 1991, part1, s2)²⁵.

The terms ‘marine farming’ and ‘aquaculture’ are often used interchangeably, however the former refers specifically to an aquaculture practice that occupies part of the coastal marine area²⁶.

²⁴ Coastal Marine Area (CMA) is defined in the RMA 1991 the area within 12 nautical miles of the coast. Aquaculture as a broad term includes land-based aquaculture as well, however in the New Zealand context land-based aquaculture is under Ministry of Fisheries (MFish) regulations, therefore this definition relates only to aquaculture occurring in the CMA (which is under the jurisdiction of Regional councils).

²⁵ A similar definition is given in the United Nation Food and Agricultural Organisation (2001) report on aquaculture; “Aquaculture is the farming of aquatic organisms including fish, molluscs, crustaceans and aquatic plants. Farming implies some sort of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated” (FAO 1997 in FAO 2001, p3).

²⁶ Both terms will be used as this research is referring to both marine farming (predominantly) and aquaculture on a broader scale (i.e. including land based interests).

There is no corresponding term or definition for Māori aquaculture or marine farming. However the Ahu Moana Report (Wai 953) concluded (supported by evidence from its other marine related reports) that Māori did utilise a form of aquaculture. Activities included “...collecting and cultivating of mussel spat, the transplanting of shellfish between sites, and the keeping of shellfish beds clear of competing marine life” (Hedley Report in Wai 953 2002, p29).

Māori Development

As reflected in Māoridom itself, there is no homogeneous Māori development (MD) agenda. However the literature does identify common characteristics deriving from the commonalities in the cultural context and circumstances of most iwi/Māori. What differentiates Māori development from hegemonic²⁷/western understandings of development is in the worldview within which it is embedded. Māori development is centred in unique and diverse cultural aspects including *matauranga* (knowledge), *Te Reo* (Māori language) and *tikanga* (customs), in historical circumstances (such as experiences of colonisation) and is founded on the notions of self-determination/*tino rangatiratanga*. Māori development is essentially a move away from “...aping our colonisers” towards “...giv[ing] life to Māori world views in a contemporary context” (Mikaere 2000, p5).

Economics plays a key role in Māori development; however economic profit is usually viewed as interconnected and necessary to create wider socio-cultural development opportunities. Pere (1991) discusses the Māori economic (*ohaoha*) system where pre-contact it was not monetary but was instead based on reciprocity. This historical perspective is important to demonstrate how the economic sphere continues to be viewed as interconnected and shaped by *tikanga*, social practices and principles.

²⁷ Johnston et al. (2004) define the term hegemonic as “...more than the ideology of a dominant elite”, but also includes “...the capacity of a dominant group to exercise control...through the willing acquiescence of citizens to accept subordinate status by their acceptance of cultural, social, and political practices and institutions that are unequal and unjust” (p332). Hegemonic approaches to development are dominated by the interests, values and beliefs of an elite who have inequitable control over the implementation and direction of development agendas.

'Flax-Roots'

The more specific approach to Māori development adopted in this research is defined as 'flax-roots'. This is ultimately a derivative of 'grass-roots' however the semantic change to 'flax' (*harekeke*) is used to embed the concept in the Māori context. While not directly referred to in the Māori development literature, the term 'self-determination' closely correlates. Huhana Mihinui (2002) discusses the importance of understanding resource management at the 'flax-root' level, and uses the intricate processes of utilising and sustaining *harekeke* (flax) as a metaphor demonstrating the intense relationship, traditions and knowledge that exists in the Māori world around this natural resource. This article reveals that it is at this 'flax-root' level that Māori resource management issues are more appropriately understood and examined.

The main feature of a 'flax-root' development approach is that it is grounded in a 'bottom-up' as opposed to a 'top-down' philosophy, and places the power within the hands of the community. Henry (1999) believes a key factor in successful Māori businesses has been their "...community-based nature, harking back to Māori cooperative ventures of last century" (Henry 1999, pp10-11). Loomis, Morrison and Nicholas (1998, p11) also believe the 'grass roots' is where "...Māoridom has maintained effective mana and autonomy" and hence is the strategic level for Māori development initiatives to be targeted.

Overview of Chapters

The following synopses of the proceeding seven chapters is designed to illustrate the wider path this research will take;

Chapter 2 Background Issues

This chapter addresses the contextual issues and foundations of this research. These issues include the current status and history of aquaculture, the characteristics of the Kaipara harbour, contemporary and traditional Māori interests and participation in aquaculture, Ngāti Whātua history and their marine farming interests, the relevant legislation that regulates aquaculture, the effects of colonisation, and a brief discussion around Māori environmental worldviews.

Chapter 3 Research Paradigm and Methodology

Chapter 3 presents the theoretical paradigm and methodology that will direct the approach and design of this research. My positionality as a researcher is addressed, followed by an analysis into the Māori centred (MC) research paradigm. An approach utilising Kaupapa Māori research principles, Ngāti Whātuatanga and two ‘bi-cultural’ research models, is formulated. The methodology adopted is qualitative, which in turn defines the methods used regarding data recruitment, collection, presentation and analysis. The ‘Mana Wahine Conceptual Framework’ (Hutchings, 2002), used for the analysis, is also discussed in depth.

Chapter 4 Literature Review

In order to embed this research within the wider academic context, Māori development theory will be critically reviewed. Given this research operates within a Māori centred research paradigm, this review will privilege the writings of Māori authors. The core findings focus on the evolution and common characteristics of Māori development (MD), the diversity of approaches and models for examining and achieving MD, as well as a critique of government approaches and hegemonic understandings of development. The relationship to Indigenous development theory will also be examined.

Chapter 5 Organisation and Presentation of Findings

Chapter 5 organises and presents the data gathered through key informant interviews and secondary literature analysis. Transcripts and secondary resources are coded using NVivo software in order to establish core themes. A ‘tree root node’ coding system is used to organise the nodes, which are then presented in a thematic narrative style supported by quotes under each of the four objectives. Six case studies are interjected to reinforce the thematic presentation.

Chapter 6 Analytical Discussion of Findings

Chapter 6 maintains the objective structure in order to analytically discuss the findings presented in Chapter 5. Hutchings’ (2002) ‘Mana Wahine Conceptual Framework’ is adapted to include nine ‘Critical Focus Areas’ (CFAs) which are utilised to examine the relationships and interactions between the nodes as well as the key literature findings and issues and concepts discussed in Chapters 1 and 2. Diagrams are also used to support the analysis. A review of the benefits and limitations of the Conceptual Framework concludes the chapter.

Chapter 7 Research Reflections

This chapter briefly reflects on the success, weaknesses and principal lessons that have arisen from this research process, as well as offering suggestions for further research.

Chapter 8 Conclusions

The Conclusion Chapter briefly overviews the chapters, followed by a summary of the key research findings. The concluding discussion provides a space for final insights and commentary into the research process, and addresses the wider implications of the research findings.

Summary

In concluding this chapter, several key aspects of this research were introduced. The topic was presented, followed by the research aims and objectives that were conjointly developed with Ngāti Whātua. The justifications for the approach taken ensued, followed by a delineation of the key concepts which form the basis of this research. A summary of each subsequent chapter was also given to indicate the wider research path. The following chapter will present the background issues in order to contextualise the research.

Chapter 2 Background Issues

“Participation in the aquaculture industry...is a means of regaining and maintaining the traditional relationship of Ngāti Whātua peoples with their ancestral lands and waters, and as a means of assisting in the provision of a sound economic basis” (TRoNWa 2003, p2).

This chapter discusses seven key areas which underlie this research: aquaculture as a resource practice, the Kaipara harbour, Māori historical and contemporary involvement in aquaculture, Ngāti Whātua colonial history and aquaculture interests, relevant aquaculture legislation, colonisation, and a brief exploration into Te Ao Marama (Māori environmental lore). Firstly, aquaculture as an industry including considerations around feasibility and ecological issues will be examined.

Aquaculture

Aquaculture is an industry that has experienced sharp international growth of 11% in output over the last 10 years (Jeffs 2003). New Zealand has also experienced similar accelerated growth trends which are forecast to continue. New Zealand’s aquaculture industry is currently dominated by three species (in order of dominance): Greenshell™ mussels, Pacific Oysters and King or Chinook salmon (*ibid*). Northland’s aquaculture industry is currently dominated by Pacific oysters²⁸, and has a relatively slow growth rate of only 10% per year (Coates 2003). However, Northland has been highlighted as a region well positioned for growth (Stephens 2003; Jeffs 2003). Despite this high level of potential, establishing a feasible aquaculture venture requires an examination of a wide range of considerations²⁹.

²⁸ Pacific oyster industry accounts for about 95% of regional aquaculture earnings and is estimated to generate around \$20 million per annum (Stephens 2003, p34).

²⁹ Examining literature on feasibility is essential for addressing Objective 2; ‘To assess the feasibility of establishing aquaculture in the Kaipara harbour’.

Establishing Feasible Ventures and Minimising Ecological Effects

Such feasibility considerations necessarily include an examination of the ecological environment, an awareness of the biology of the species, locational characteristics of the selected site including other uses and values, as well as analysing the economic and infrastructural requirements³⁰.

There is considerable debate surrounding the ecological effects of aquaculture, and as this thesis is being undertaken within the field of Environmental Studies, it is important to address this issue through a brief review of the literature. Also, upholding the physical and spiritual health of *te tangaroa* (ocean) is central to a Māori environmental worldview, and is of paramount importance to Ngāti Whātua. Below is a brief synopsis of these effects³¹.

Concerns around the ecological effects of aquaculture have become increasingly fervent in the last two decades as a result of competition and more intensive forms of aquaculture. However, practices of aquaculture vary in scale, species and locations, therefore broad generalisations regarding negative ecological effects are erroneous. The majority of the literature suggests that lower trophic level herbivorous species (such as mussels and oysters) tend to have more benign ecological effects than that of higher trophic level carnivorous species (fin-fish such as snapper and kingfish) (Davenport et al. 2003; Economist 2003).

Some of the common ecological issues include: the transmission of disease, pests and genetically modified species, the misuse of antibiotics causing the spread of disease, nutrification from particulate wastes resulting in eutrophication³², and the killing and

³⁰ The literature around establishing feasibility is addressed in the report 'Assessing the Feasibility of Establishing Aquaculture in the Kaipara Harbour' (appendix 4).

³¹ The following discussion is sourced from; Booth 2000; Davenport et al. 2003; Economist, 2003; Neori et al. 2004; Troell et al 2003; FAO, 2001, 2004; Pillay 1990, 1994, 2004; Costa-Pierce 2002.

³² This process involves the addition of organic wastes which reduces the oxygen content of the water as bacteria consume the extra waste. When the oxygen demand caused by the input of organic matter exceeds

injuring of birds and mammals. Aquaculture can also effect the natural balance of the global ecosystem due to the reliance of carnivorous species on fishmeal which is currently derived from the wild fisheries (Davenport et al. 2003). The reliance of much of the aquaculture industry on wild-spawn as opposed to hatchery reared juveniles means it is not operating in a 'closed-cycle' and hence effects the food chain (*ibid*).

However, the majority of the aquaculture literature reveals there are ways to mitigate or reduce these affects. These include species, locational and technological choices, smaller scale operations and conducting an evaluation of the 'assimilative capacity' (the ability of receiving environment to disperse wastes) of the site (Booth 2000). Other alternative approaches include what Costa-Pierce (2002, p343) terms 'ecological aquaculture' which;

“...brings the technical aspects of ecological principles and ecosystems thinking to aquaculture, and incorporates... principles of natural and social ecology, planning for community development, and concerns for the wider social, economic, and environmental contexts of aquaculture”

Another technique involves the use of polyculture systems which employ different trophic level species “...for rearing ecologically compatible species without competing for living space and food resources” (Pillay 2004, p56; Troell et al. 2003; Neori et al. 2004)³³.

Costa-Pierce (2002, pp x-xi) concludes that aquaculture “...often cannot be practiced without some environmental impact, but that impact can be reduced, hopefully to insignificance, if the proper approaches are adopted”. This research acknowledges the potential ecological impacts of aquaculture; however through comprehensive planning, incorporation of research, monitoring and utilisation of *kaitiakitanga* and *matauranga*

the oxygen diffusion rate from overlying waters, water becomes anoxic (without oxygen) (Davenport et al 2003, p30).

³³ NIWA and the Hongoeka Development Trust are currently collaborating on New Zealand's first low-cost, land-based polyculture system. The system involves land-based aquaculture and moving away from monoculture to “...environmentally sustainable polyculture”. The system involves water-recycling, developing appropriate husbandry techniques, with the goal of creating an economically sustainable system accessible to coastal Māori (NIWA website).

(traditional Māori knowledge) such adverse ecological effects can be mitigated. The following section will examine the Kaipara harbour as a location and the current status of aquaculture in the region.

Kaipara Harbour

The Kaipara harbour is a drowned river valley system and New Zealand's largest enclosed waterway, with around 800km of coastline (Forrest, Gibbs, Gillespie and Hatton 2005, p3). It is also described as the largest harbour in the southern hemisphere (Jeffs 2003). The current practice of aquaculture in the Kaipara harbour is minimal, focussed mostly in the northern half of the harbour and utilises mostly longlines and intertidal shellfish farms. While aquaculture in the region is low, a recent NIWA report has highlighted the Kaipara as having "excellent potential" for aquaculture development, with a "...very good range of growing conditions, existing infrastructure and candidate species, as well as an enthusiastic and innovative local aquaculture industry" (Jeffs 2003, Executive Summary). However, the report highlights several serious impediments affecting aquaculture in the region³⁴.

Māori Involvement in Aquaculture

Much *matauranga* (Māori knowledge) has been lost since post-contact times. However, Native Land Court minutes, manuscripts and more recently, Waitangi Tribunal research and reports provide a significant evidential basis³⁵. Several Waitangi Tribunal reports provide valuable insights into Māori involvement and relationships with their marine environment and the resource use of aquaculture³⁶.

³⁴ The characteristics of the Kaipara harbour are discussed in-depth in the report 'Assessing the Feasibility of Establishing Aquaculture in the Kaipara Harbour' (appendix 4).

³⁵ Harmsworth (2002) states that Waitangi Tribunal claims have been both a central catalyst for recording cultural knowledge, and a positive way for developing research capability (Harmsworth 2002).

³⁶ Such reports include the Muriwhenua Claim, Wai 22 (1998) and the Ahu Moana, Wai 953 (2002).

The Waitangi Tribunal (Wai 953, p60) has found that the “...claimants did traditionally engage in the practice of aquaculture” albeit in a more “...rudimentary and less detailed” nature. The Wai 22 (1988) report was also useful in that it demonstrated the extent of the knowledge that Māori possessed around the marine environment. It also outlines the commercial importance of the ocean, as Māori tribes placed “...paramount dependence upon the products of an aquatic economy” (Wai 22, p191). Culturally, *kaimoana* played (and continues to play) a crucial role with regard to *manaakitanga*, and customary occasions such as *tangi* (funerals) and *hui* (meetings). Social networks were also dependent upon the extensive trading relationships that were formulated around *kaimoana* (Wai 953, 2002).

There is no consolidated source of current statistics of Māori involvement in aquaculture. Kirsty Woods of Te Ohu Kaimoana³⁷ suggests some in the industry would quote figures of about 40% of Māori shareholding, but that there are a few different components to this participation (Woods, Email Communication 2006). The most dominant Māori players in aquaculture are the corporations partly owned by Māori by way of the 1992 Fisheries Settlement (for example Sealord is 50% owned by Māori through Aotearoa Fisheries Ltd). There are also independent/iwi-Māori ventures such as those owned by the Wakatu Incorporation (various iwi in the top of the South Island), joint ventures between Whakatohea and Tasman Mussels in the Bay of Plenty and Ngati Kahungunu and Tasman Mussels in the Hawkes Bay³⁸. While several sources indicate a positive and strong representation by iwi/Māori³⁹, the reality, as demonstrated by Ngāti Whātua, is that the current environment is not assisting contemporary Māori involvement in aquaculture.

³⁷ Kirsty Woods’ role at TOKM: Manager, Policy and Fisheries Development.

³⁸ Discussed later in case study 5.

³⁹ According to the 2001 Statistics NZ census data, rates of employment in the aquaculture industry are relatively high with 162 Māori employed in aquaculture, (17.4% of total) and 1,041 in seafood processing (23.4% of total) (NZIER 2002, p23). However, there are no available statistics surrounding the actual ownership of ventures by iwi/Māori.

Te Ohu Kaimoana (TOKM⁴⁰) and Te Puni Kōkiri (TPK⁴¹) have both addressed Māori interests in aquaculture to some degree. TOKM established an aquaculture grant scheme in 1993 (no longer operational), which Ngāti Whātua unsuccessfully applied for in 1994. TPK has primarily addressed Māori interests in aquaculture through reports⁴². However neither of these government initiatives has significantly assisted Māori involvement in aquaculture (Hally Toia, Pers Comm). Ngāti Whātua is one such iwi which is disillusioned by the lack of government support. The following section will address Ngāti Whātua history and aquaculture interests.

Ngāti Whātua

Ngāti Whātua colonial history is one of immense loss. Three principal chiefs of Ngāti Whātua signed *Te Tiriti* in March 1840. The chiefs, seeking enhanced protection and *mana*, invited Governor Hobson to move the capital of New Zealand to Auckland, and share their land. They ‘gifted’⁴³ with goodwill to the Crown, 3000 acres for the development of Auckland city “....on the proviso that land no longer needed or used for its intended purposes would be returned” (Kawharu 1998, p74). By 1850, Ngāti Whātua had lost most of their *Tamaki* isthmus estate (through private sales and confiscations) which covers much of present day Auckland (Blair 2002). More colonial confiscations meant that Ngāti Whātua o Orakei⁴⁴ were forced to exist without a *marae* for forty years, and hundreds of families were evicted from their remaining ancestral *papakāinga* at Okahu Bay in 1951 (Ngāti Whātua o Orakei website).

⁴⁰ Te Ohu Kaimoana is a statutory organisation, whose role is to allocate to mandated iwi organisations fisheries assets held in trust through the 1989 and 1992 Māori Commercial Fisheries Settlement.

⁴¹ Te Puni Kōkiri (Ministry of Māori Development) is a government department solely focused on Māori, and is the principal advisor on Government-Māori relationships (www.tpk.govt.nz)

⁴² In 1996 TPK produced ‘A guide to Aquaculture Development for Māori’ which addressed the viability of aquaculture for Māori, planning and development, export and processing facilities, advantages of joint ventures and a list of networks for assistance (J Walker, 1997). More recently (July 2007), TPK has issued a series of six aquaculture ‘fact sheets’ for assisting Māori in the area of aquaculture. The fact sheets address the following: ‘The Aquaculture Industry’, ‘Roles and Responsibilities in Aquaculture’, ‘Business Services for Aquaculture’, ‘Aquaculture Science Providers’, ‘The Aquaculture Settlement’ and ‘Planning for Aquaculture’ (TPK 2007).

⁴³ The ARC website states they were given 341 pounds in exchange (ARC website).

⁴⁴ Orakei is a hapu of the central *Tamaki*/Auckland region.

The Ngati Whatua hapu and whanau of the Kaipara region also suffered immense loss. The crown chose to negotiate separately with Te Uri o Hau in the Northern Kaipara. The key grievances relate to land loss through confiscation and dubious private sales. In 1842 the Chiefs of Te Uri o Hau and Ngapuhi ceded without payment to the Crown between 2,200 and 3000 hectares as punishment for a retribution crime. Crown purchases between 1854 and 1865 saw 110,000 hectares alienated from Te Uri o Hau, around 60% of their total land holdings. This land alienation and the erosion of the resource base devastated Te Uri o Hau communities.

The Kaipara Report (Wai 674) addressed the other claims in the Kaipara. The major claim lodged by Ngati Whatua in the Southern Kaipara was termed ‘Ngati Whatua o Kaipara ki te Tonga’ (Wai 312) which was lodged on behalf of the whanau and hapu of the several marae in southern Kaipara. The two key issues related to the failure of the Crown actively to protect the land base and its failure to fulfil promises of economic development and provision of services. Most Ngati Whatua land in the southern Kaipara had been alienated by the early twentieth century through both Crown purchases and through the Native Land Court’s facilitation of private purchases. The claimants state that none of the marae in southern Kaipara has a sufficient land base to support today’s local communities.

The Ngāti Whātua *rohe* (refer to figure 1, p4) is extensively coastal (including the Manukau, Kaipara and Whangarei harbour, and the Hauraki gulf). The *rohe* extends from New Zealand’s most urbanised area (Auckland) to more rural areas such as the Kaipara region and Dargaville. Hence the level of interaction with their natural environment is heavily influenced by the degree of urbanisation. For example, Ngāti Whātua o Orakei due to the processes of urbanisation and land loss, has “...not fully exercised customary resource management-kaitiakitanga over their ancestral taonga since at least the 1860s” (Blair 2002, p62)⁴⁵.

⁴⁵ Ngarimu Blair is the current Heritage and Resource Manager for Ngāti Whātua o Orakei.

The body responsible for the organisation and overarching legal responsibilities for Ngāti Whātua is Te Runanga o Ngāti Whātua. This Māori Trust Board was created by an Act of parliament in December 1988 and “...carries out resource management and economic development tasks for Ngāti Whātua’s thirty four marae” and its 21 hapu (Kawharu 1998, p233). Under this Act, TRoNW’s aim is “...bringing the assets of the whole tribe under a unified administration, thereby reaffirming tribal identity, while still preserving local autonomy” (Te Runanga o Ngāti Whātua Act, 1988, s6). Several Ngāti Whātua hapu⁴⁶ have reached Treaty settlement, and the Runanga is currently in the process of organising its independent claim (Toia, Pers Comm).

Ngāti Whātua Marine Farming Interests in the Kaipara Harbour

Ngāti Whātua has strong historical and contemporary interests and interactions with their marine environment, and irrefutably practised a form of aquaculture (Wai 953, 2002). This historic relationship was also addressed by Kearney (1999, cited in Jeffs 2003, p15) who examined customary marine farming in the Rodney district and argued that“...[t]raditional enhancement and careful tending of shellfish...was undoubtedly carried out by iwi”. However, the relationship and utilisation of the marine environment by Māori is undermined by restrictive and unjust legislation which will now be addressed.

Legislation Affecting Māori Participation in Aquaculture

The following section addresses the most relevant legislation which determines the level of involvement available to iwi/Māori in the practice of aquaculture. The Foreshore and Seabed Act, 2004 will be initially addressed, followed by a review of the aquaculture

⁴⁶ For instance Te Uri o Hau (hapu of the Kaipara region) reached settlement in 2002. Orakei has lodged a claim which was ten years in the making. However, despite the agreement in principle that was reached in 2006, the sole *tangata whenua* status of Ngāti Whātua o Orakei was contested, and the claim has been stopped in its tracks by a counter claim (Wai 1362) lodged by rival hapu (Hawke, NZ Herald, 29.05.07).

reforms, and a brief examination of the Māori Commercial Aquaculture Claims Settlement Act, 2004.

Foreshore and Seabed Act, 2004

“Barely a year ago, Tane, Tangaroa and Tawhirimatea [atua] engaged in one of their frequent duals...When their energies were spent, over twenty metres of our tribal land had exchanged places and become part of the foreshore and seabed” (Greensill 2005, p216)

The above quote demonstrates the Māori perspective on the arbitrary delineation of the ‘foreshore and seabed’ (*te takutai moana*). In the Māori worldview, all land is *Papatūānuku* “...whether above the ocean or beneath it” (Sean Ellison in Greensill 2005, p215), hence *rangatiratanga* and *mana whenua* extends to these realms of the marine environment. However, the recognition of this *rangatiratanga* by the New Zealand courts (and the subsequent legal consequences of this finding) was cause for the Crown to embark on a path of neo-colonial abrogation of Māori resource rights.

This issue was thrown into the political arena as a result of a controversial Court of Appeal decision (June 2003) regarding claims to the foreshore and seabed by several Marlborough Sounds iwi⁴⁷. In this case, the court “...departed from the previous understanding that the Crown owned the foreshore and seabed under the common law” effectively meaning “...Māori common law rights in the foreshore and seabed still exist” (Wai 1071, 2004 pxi). An Act of parliament was required to remove these rights, which was something the Crown hastily proceeded to do⁴⁸ (Durie 2005).

⁴⁷ *Ngāti Apa and others v Attorney-General* [2003] 3 NZLR 643 – Marlborough Region. Inns (2005, p220) discusses the reasons for taking the issue to the courts; “Marlborough iwi had a 100 per cent failure record in opposing application for marine farming on customary grounds, and likewise had a 100 per cent failure record in pursuing their own resource consent applications”.

⁴⁸ Within a matter of hours the first version of the foreshore and seabed policy was released. A Bill was introduced into parliament in April 2004 to legislate for Crown ownership. The Bill was passed, but only by a close majority (61 for, 59 against), and became law on the 18 November 2004 (Durie 2005).

Adding to the unjust haste was the public uproar around beach ownership and access. Mutu (2005, p211) in her highly critical review of the issue states that;

“It did not take long for the sinister, anti-Māori underbelly of the Pakeha population to display itself, as reports of a poll⁴⁹ indicated that most were happy to support the legislation”

However, the Waitangi Tribunal noted that this public sentiment was fuelled by one-sided and poor media representation (Wai 1071). Inns (2005, p222) agrees with this role of the media and politicians, and believes the public were in a sense coerced in to this position due to a “...deliberate exploitation of the public confusion between the foreshore and seabed”. A massive public display of opposition to the Bill occurred shortly after with a protest march involving between 15,000 and 25,000⁵⁰ people, which formed the “...single largest ever public demonstration” in New Zealand (Inns 2005, p222).

The findings of the Waitangi Tribunal’s ‘Foreshore and Seabed’ report (Wai 1071, 2004) were highly critical of the Crown’s policy, and found it significantly breached the Treaty of Waitangi⁵¹. Briefly reviewing the Waitangi Tribunal’s findings, it found the policy was biased and discriminated against Māori including the removal of property rights and the ability for redress and compensation (*ibid*). The extent of the discrimination and the disappointing Crown response to the report caused a complaint to be filed by iwi to several UN bodies, including the CERD (Convention on the Elimination of all forms of Racial Discrimination). The CERD issued a damning report on the New Zealand government’s actions, who responded by marginalising its findings⁵² (Inns 2005).

⁴⁹ Poll featured in the NZ Herald, 18 Aug 2003.

⁵⁰ Mutu (2005) states that the numbers were more at the top end, and that the government tried to down play the incident by quoting only 15,000 participants.

⁵¹ The Tribunal found there to be a breach of Article 2, and states the “...the Crown is not driven to act, and so it lacks the necessary moral and legal grounds for overriding the guarantees made to Māori in article 2 of the Treaty” (Wai 1071, p 129). Article 3 was also found to be breached in that the “...Crown is failing to treat Māori and non- Māori citizens equally” (*ibid*). Moreover “...Māori are entitled under article 3 not just to equal treatment but also to the protection of the rule of law” and the Crown has effectively removed this by preventing their ability to go through the court system (Wai 1071, p129).

⁵² The Māori party has since submitted the ‘Foreshore and Seabed Act (Repeal) Bill’ (July 2007).

The relationship between the Foreshore and Seabed Act and Iwi/Māori marine aquaculture interests is clear. The fact that the origin of the F&S Act lies in a landmark case presented by disgruntled Marlborough Sounds iwi who had “100 per cent failure record” (*Ngāti Apa and others v Attorney-General* [2003] 3 NZLR 643) in pursuing their own aquaculture agendas demonstrates the relationship between ownership and access. Aquaculture is a resource use that involves the utilisation of the CMA (Coastal Marine Area), namely the foreshore and the seabed. Whomever owns and controls the foreshore and seabed effectively controls all activities (and revenue gained from the activities) within this natural environment. In a legal system which is based strongly on property rights, the F&S Act denies Māori the status of ‘owners’ (holders of *mana moana*), thereby severely undermining their legal standing and their right to judicial recourse.

In conclusion, the government’s actions surrounding the legislation of the foreshore and seabed equate to “legislative theft” (Greensill 2005, p216), and have been criticised by the Government’s own Treaty authority as being unconstitutional and a breach of the Treaty of Waitangi. Reviewing this legislation in-depth is important to illustrate the extent of the discrimination facing Māori, as well as the hypocrisy which exists in the government rhetoric of assisting Māori development and adhering to the Treaty of Waitangi. The next section will address the effects of the wider aquaculture reforms.

Aquaculture Reforms

The law relating to aquaculture has recently been reformed to include the following;

- The Māori Commercial Aquaculture Claims Settlement Act 2004
- Resource Management Amendment Act (no 2) 2004
- Aquaculture Reform (Repeals and Transitional Provisions) Act 2004
- Fisheries Amendment Act (no 3) 2004
- Foreshore and Seabed Act, 2004

The reforms are complex, and while an in-depth analysis of the legislation is outside the parameters of this research, this section will briefly address the effects of the changes for Māori. Prior to the reforms, aquaculture was controlled at the central government level (Ministry of Fisheries). However, issues around time and cost efficiency saw aquaculture head down a similar path of devolution, and is now governed by the Resource Management Act (RMA) 1991 under the jurisdiction of Regional councils⁵³. The major effect of the reforms for aquaculture management is that the RMA now requires all marine farming in the coastal marine area to take place in an Aquaculture Management Area (AMA) established by Regional authorities and designated in the Regional Coastal Plan (MFish website). A part of the reforms was the inclusion of the Māori Commercial Aquaculture Claims Settlement Act (2004) which will now be addressed.

Māori Commercial Aquaculture Claims Settlement Act, (MCACSA) 2004

The MCACSA specifically relates to the settlement of Māori commercial interests in aquaculture, and therefore requires further discussion. On the surface, this Act is promising in that it has the potential to deliver aquaculture space to iwi/Māori. However as the following discussion will reveal, serious deficiencies in the legislation further undermine the legislative abilities of Māori to participate in aquaculture.

In 2004 the government created an aquaculture settlement act which included the provision of a 20 percent stake in the marine farming industry for Māori worth approximately \$50 million⁵⁴ (Durie 2005). The MCACSA provides a ‘full and final’ settlement of Māori claims to commercial aquaculture on or after 21 September 1992, and places the onus on Regional councils to allocate 20% of aquaculture space to Māori when establishing an Aquaculture Management Area (AMA). The space is then held by

⁵³ MFish maintains the responsibility of testing for Undue Adverse Effects (UAE) on commercial fishing before an AMA can be established.

⁵⁴ The passing of the MCACSA 2004, so coincidentally soon after the Foreshore and Seabed Act (although argued by the Labour government to be an unsettled hangover from the 1992 Māori Fisheries Act), suggests a rationale of ‘compensation’. Hally Toia (Pers Comm) also highlighted this as coincidental timing.

TOKM as the trustee to allocate to iwi⁵⁵ once the processes have been completed (Arthur, McHugh and Owen 2005).

While this would seem to be a positive step for Māori, a recent NZLAW seminar has described the MCACSA as “...fraught with difficulties” (Arthur et al. 2005, p83). The seminar concludes that;

“...iwi may be building up to an expectation that they will receive 20% of ...aquaculture space. However, that is not necessarily going to occur. For example, if a council does not have any new space established, it will not have to allocate the 20% to iwi” (Arthur et al. 2005, p86)

Therefore the MCACSA has thus far provided no aquaculture space, and given that councils are moving slowly in terms of establishing AMAs, it is unlikely to prove beneficial to Māori in the near future. The next issue that will be examined is the process and effects of colonisation.

Colonisation

“Colonisation is not satisfied merely with holding a people in its grip and emptying the native’s brain of all form and content. By a kind of perverted logic it turns to the past of the people and distorts, disfigures and destroys it” (Fanon 1962, p2⁵⁶)

Colonisation has played a key role in creating the current position of disparity and inequality facing the Māori population, and therefore permeates this research. While it is beyond the scope of this research to conduct an extensive review of colonisation theory, it is still important to gain an understanding of its historical and contemporary effects for Indigenous peoples, and in particular for Māori.

⁵⁵ TOKM can decide to take cash settlement, therefore not producing any ‘real’ space for Māori (Arthur et al. 2005). It has also been described as employing a lengthy, complex and heavily burdensome process involving many different ‘hoops’ to jump through (*ibid*).

⁵⁶ Quote cited in ‘Annex Two’ of Ministry of Social Development Community and Government Working Party Report (2001).

Colonisation can be defined as a “...conquest by one foreign culture, which imposes its own political, legal, economic ideology and systems on another, actively suppressing those of the Indigenous people” (Fanon 1962, p2). Colonisation is not a passive process, the settlers who infiltrate the newly ‘acquired’ territories are sent with a purpose, to “...establish control over the resources and territories colonized and to dispossess the Indigenous peoples who were already there” (*ibid*).

With particular regard to Māori, Ward (1974 in Annex 2 of MSD 2001, p2) states that;

“...the colonisation of New Zealand...was substantially an imperial subjugation of a native people, for the benefit of the conquering race in which the notions of white supremacy and racial prejudice...were very much in evidence”

However, Māori resisted decimation and assimilation policies, and after two and a half centuries of “colonial influence”, Māori are taking control of their own development agendas embedded in Māori culture and worldviews.

Te Ao Marama: Māori Worldview

“The concept of a Māori worldview...is based on the assumption that there is a distinct Māori ontology and epistemology grounded in Māori language, values and cultural practices” (Jahnke 2001, p9)

While I previously reiterated the dangers of homogenising ‘Māoridom’, as Jahnke illustrates in the above statement, a general Māori ‘worldview’ can be substantiated, and is valuable to acknowledge for this research. For development to truly be ‘Māori’, it must be embedded in cultural principles and values. The following discussion addresses these key ideas and principles which shape Māori environmental paradigms.

The view of interconnectedness between all things, living and non-living, shapes the way Māori view and act in the natural world. Mikaere (2000, p4) highlights the importance of balance through the principle of *whanaungatanga* (kinship ties);

“The Māori worldview acknowledged the natural order of the universe, the interrelationship of whanaungatanga of all living things to one another and to the environment, and the overreaching principle of balance”

The principle of *mauri*, or ‘life force’ is also used to explain this interconnection, whereby all aspects of the Māori world are seen as sharing the same spiritual essence due to everything’s mutual descent from *ranginui* and *Papatūānuku*. This creates a kind of interdependence between all things (Paterson 1992, 1999). Humans possess *mauri-ora*, which is a “higher order” of *mauri*, and also includes added responsibilities towards other living things (Natural Resources Unit 1991, p2). *Tapu* is another important concept, whereby the spiritual origin of all living things means the natural world shares common *whakapapa* to humans, and is therefore sacred and restricted. For something to become available for human use, or *noa*, the correct rituals must be enacted to remove the *tapu*.

The concept of *mana*, which can be thought of as a kind of authority imbued by the gods, is another important facet of the Māori worldview. Humans do not have innate *mana* over the natural world (as can be understood in the Judeo-Christian environmental ethic), and instead such authority must be gained or earned (Paterson 1992, 1999).

Tikanga defines and shapes the way Māori interact with each other, and the surrounding world. Pere (1991, p34) defines *tikanga* as “Māori custom” and determines what is “...right for a particular occasion”. The importance of this institution is reiterated by Marsden (1992, p1); “...everything is about tikanga, and tikanga is about everything”.

All these ideological principles affect the way Māori see their existence in the world. Orbell (1985, p215) states this worldview means that Māori do not “...see their existence as something separate and opposed to the world around them”. This idea of interconnection is also encapsulated in the term ‘*tangata whenua*’, which refers to the status held by a tribal unit based on continuous occupation of an area over a number of generations (Natural Resource Unit 1991). *Tangata whenua* are said to “...belong to the

land, instead of the land belonging to them” (*ibid*, p3). As a result of this *tangata whenua* status, humans are imbued with responsibilities and obligations to *Papatūānuku*.

Toitu te ao turoa: Māori Sustainability

Māori environmental perspectives and understandings of sustainability often conflict with western environmental regimes (Mikaere 2000). For example, Māori have traditionally taken the ‘undersized’ of some fish species, contending it is sensible to maintain the larger breeding stock (Wai22 1988; Toia, Pers Comm)⁵⁷. This reveals the culturally situated nature of the concept of ‘sustainability’, and the difficulties of forcing one culture to operate within another’s parameters.

Within the Māori worldview there are no strict divides between conservation and exploitation, rather the aim is to achieve a balance through careful management and intricate knowledge of the natural world. As Huhana Bubbles Mihinui aptly states “...[c]onservation is a very important part of resource management, but exploitation is also” and that Māori resource management consists of a kind of balancing act between “...resource use, development, protection [and]...conservation” (Mihinui 2002, pp21-33).

⁵⁷ Interviews have further revealed how environmental management is heavily underwritten with western values, and *matauranga* and Māori values are marginalised and debased as ‘unscientific’. Tepania Kingi discussed a situation regarding a *Kaumtua*’s (Māori elder) anecdotal evidence using the concept of *taniwha*(eels) and local ecological knowledge to oppose the over fishing of the Hokianga harbour. However this evidence was rejected on the basis of being ‘unscientific’ (‘un-western’). The Hokianga remains in a situation of ecological dire straits. This raises the question, whose way of knowing is legitimised?

Summary

This chapter examined seven key background issues which underpin this research. This included the current status of aquaculture nationally and locally, as well as feasibility and ecological issues, the status of aquaculture in the Kaipara harbour, historical and contemporary Māori involvement in aquaculture as well as Ngāti Whātua history and aquaculture interests. This was followed by a review of the legislation which affects Māori participation in aquaculture and the process of colonisation. The chapter concluded with a brief discussion around the key principles which underlie Māori environmental perspectives and approaches to ‘sustainable’ management. The next chapter presents in detail the methodology I have used in this research.

Chapter 3 Research Paradigm and Methodology

“...research is not an innocent or distant academic exercise but an activity that has something at stake and that occurs in a set of political and social conditions” (Smith 1999, p5)

The culturally situated nature of this research has influenced my decision to adopt a Māori centred approach. The historical and potential damage of research into Māori lives necessitates the engagement with a transparent and reflexive approach. This chapter will identify and justify the Māori centred research paradigm and the strategies employed to decolonise the research, followed by an examination of the qualitative methodological approach and the methods of recruitment, data retrieval, organisation, presentation and analysis. This chapter will proceed with a declaration of my positionality and legitimacy as a researcher.

Positionality and Legitimacy

“‘Objectivity’ and ‘scientific neutrality’ remains a smokescreen- often to hide the researcher’s location from themselves as much as from others” (Tolich and Davidson 1999, p65)

This quote reflects the approach that I will be adopting in this research; personalising a pursuit which has so long been advocated as value-free. Bishop (1996, p216) reiterates that research should be treated as a “lived experience” involving an awareness that we are “...somatically involved in the research process- physically, ethically, morally and spiritually”. The concept of declaring the researcher’s ‘position’ is fundamental when operating within both a Māori centred paradigm and a qualitative methodology. The philosophy behind such a declaration is the rejection of the positivist science presumption that research is a neutral, objective activity. Also, by acknowledging one’s worldview, it empowers the researcher to maintain a valuable critical reflexivity.

Firstly, this research is part of a wider personal journey. I believe this contributes to, rather than detracts from, the value of this research. My primary rationale for selecting this research topic is to contribute to the resource management issues of my iwi, Ngāti Whātua. However, on a more personally motivated level, this research presents an opportunity to discover more about my Māori identity and *whakapapa*⁵⁸.

I am a multi-cultural researcher, with Māori, Tahitian, *Pakeha* (French, British, Scottish, Australian, Portuguese) and Indian ancestry. This has important influences on my identity as I have historical roots within both colonising and colonised peoples. I believe this characteristic brings valuable cultural experiences that will contribute to the research. Stokes (1985, p11) reiterates that bicultural researchers are able to “...weigh up sometimes complex cross-cultural situations and perceive very clearly his or her own role, obligations, liabilities and responsibilities”.

As a researcher with Māori *whakapapa*, as well as colonial ancestry who is an invited citizen (through *Te Tiriti*/Treaty of Waitangi), I believe I have a responsibility to contribute to the achievement of social justice, and the decolonisation of *Aotearoa*/New Zealand.

I have been transparent about my ambitions, my identity and my worldviews. While I lack skills in *Te Reo* and *tikanga*, I have surrounded myself with mentors/*tiaki* who can guide me in these areas. I believe I have valuable academic training, a desire to contribute to positive change, coupled with the support and investment of many people, and can therefore legitimately conduct this research.

⁵⁸ Refer to Preface, pii

Research Paradigm

This research is grounded within a Māori centred (MC) research paradigm. However, many of the principles of the Kaupapa Māori (KM) approach will also be incorporated. The fluid boundaries of such Māori research paradigms have enabled me to determine my own methodological parameters (demonstrated in figure 3, p41). The following section will discuss the characteristics adopted from KM theory, bi-cultural models and Ngāti Whatuatanga (values) that constitute my research paradigm.

Kaupapa Māori Approach: Key Characteristics

A Kaupapa Māori approach is “organic” in nature, which means there are “...many ways in which Kaupapa Māori (KM) theory can and is articulated” (Pihama 2001, p102). Stokes (1985) maintains the purpose of KM research should be;

“...to identify and make available knowledge of the Māori world, Māori perspectives and perceptions, Māori cultural values and attitudes in areas which are seen as significant in Māori terms” (Stokes 1985, p6)

This research is epistemologically embedded within all aspects of Māori culture: *Te Reo*, *tikanga*, *matauranga*, and all other ‘cultural specificities’, including Māori people’s lives, their history, and their realities. An understanding and critical awareness of the process of colonisation⁵⁹ is also central, which encapsulates a need to ‘decolonise’ our research methodologies and acknowledge that research is “...inextricably linked to European imperialism and colonialism” (Smith 1999, p1; reiterated in Smith 2000 and Howitt and Stevens 2005).

Acknowledging and reinforcing the legitimacy of *matauranga* (Māori knowledge) is also central to a KM research approach (Pihama 2001). This will be ensured through the privileging of Māori voices and academic sources⁶⁰ in my research, as to continue to

⁵⁹ Colonisation was discussed earlier on page 31.

⁶⁰ However, reports and other sources of ‘western’ based knowledge will be used to support Māori sources of information.

privilege western paradigms and ways of knowing would be to perpetuate colonisation through the presentation of western bias (Smith 1999)⁶¹.

KM research places the onus on beneficial outcomes for Māori and challenges the notion of research for individualistic gain (Bishop 1996). It is also transformative and strategic in nature, and results must be premised on the notion of bringing about positive change (Jahnke and Taiapa 1999).

These characteristics of a KM approach will form the foundation of my research paradigm. However given that I lack the necessary skills in *Te Reo* and *tikanga*, this research will not operate wholly within a KM research paradigm, and instead a Māori centred approach (MC) based on bi-cultural research will be utilised.

Māori Centred Approach

A Māori centred approach (MC) can be defined as the broader paradigm of which KM forms a more radical and marginal (Smith 1999) branch. Jahnke (2001, p16) states a MC approach to research;

“...assumes that Māori people, their language and their culture are at the centre of the research process. Such an approach is necessary for the production of knowledge and the development of theories that best describe and explain the nature and condition of the lives of Māori people”

Adopting principles sourced in *tikanga* and Māori worldviews is a critical element of a MC approach. The following section discusses the principles I have selected from the methodological literature and how I will adhere to them.

I have adopted four KM principles to guide my research (Arohia Durie 1992 in Jahnke and Taiapa 1999); *Mana*, *Mauri*, *Mahitahi* and *Maramatanga*. The principle of ‘*Mana*’

⁶¹ It is also important to understand the restricted nature of *matauranga* which is often treated as *tapu* (Stokes 1985).

should be used in research to ensure that the *mana* (prestige, authority) of a group is enhanced. This principle will be ensured primarily through the respectful manner in which I will conduct myself, based on ‘*he kanohi kitea*’ (face-to-face contact), and through the adoption of an ‘empowering outcomes’ approach.

The principle of ‘*Mauri*’ should be used to ensure that intellectual knowledge is respected and protected (A Durie 1992 in Jahnke and Taiapa 1999). This will mean that knowledge I am granted access to will be treated with respect and confidentiality, and that the ownership of such knowledge will remain with the participants. ‘*Mahitahi*’ refers to the co-operation that should exist between the researcher and the researched. The idea of reciprocity is of key importance to this research which is based on collaboration. ‘*Maramatanga*’ is about providing a “...positive contribution to expressed needs and aspirations of Māori” (*ibid*, p46). This research is predicated on this principle of strategic positive outcomes for Ngāti Whātua, and is adopting an ‘empowering outcomes’ approach.

It is also important to acknowledge the principles that guide Ngāti Whātua as an iwi. The following Ngāti Whāuatanga⁶² will also inform this research: *Manaakitanga*, *Kotahitanga*, *Tumanako*, *Whakapono*, *Aroha* (Toia 2002). The principle of ‘*Manaakitanga*’ was discussed in depth in Chapter 1. ‘*Kotahitanga*’ concerns the promotion of unity within the iwi and its communities. ‘*Tumanako*’ reiterates the importance of sharing a common vision towards fruition. ‘*Whakapono*’ involves the spiritual element of seeking guidance from our creator/*atua*, and ‘*Aroha*’ is the principle of love, in caring and respecting each other and all creation (Toia 2002).

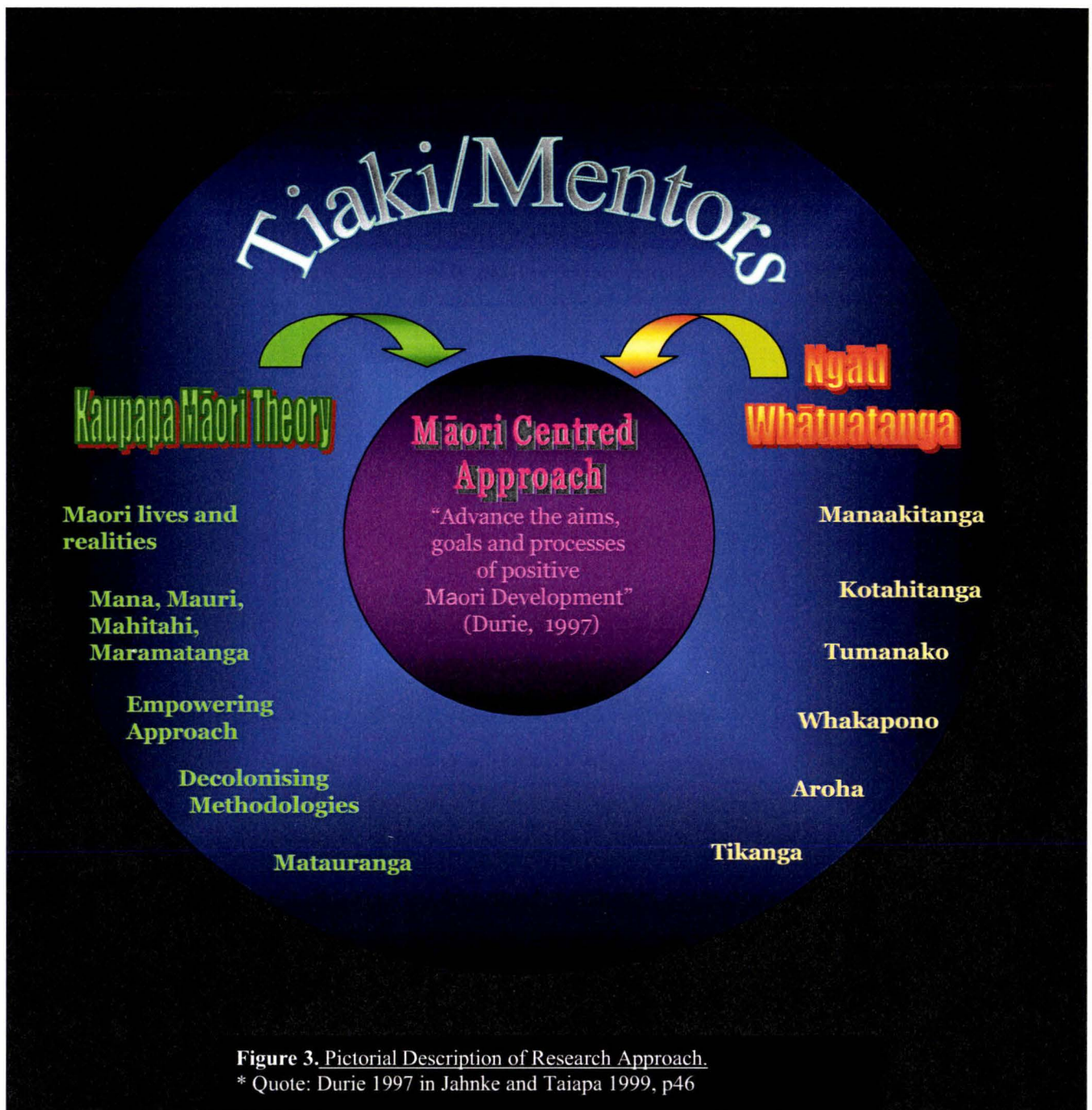
Graham Smith (1992 cited in L.T Smith 1999) provides useful models which can be used by bi-cultural researchers to assist in Māori centred research. I will adopt two of these; the ‘*tiaki*’ and the ‘empowering outcomes’ models. To assist in the areas of *tikanga* and cultural knowledge I have adopted the ‘*tiaki*’ or ‘mentoring model’, which maintains that

⁶² The following data is located in ‘Te Papawhenua o Ngāti Whātua: Ngāti Whātua Iwi Environmental Management Strategy’ (Toia 2002).

authoritative Māori people should guide and sponsor the research. This mentoring will be undertaken by two sources: Hally Toia (advisory officer of natural resources for Te Runanga o Ngāti Whātua) and my university supervisor Jessica Hutchings (Ngai Tahu). The second is the ‘empowering outcomes’ model which will be adopted to ensure my research has strategic and positive outcomes for Ngāti Whātua.

In fitting with a MC approach, a ‘flax-roots’ (as defined on p16) philosophy is also adopted. This places the control, empowerment and ownership of the research with the Māori community. Such an approach will ensure that the development will be rooted in their circumstances and realities.

Figure 3 conceptualises the overall research paradigm and its incorporation of Kaupapa Māori principles and Ngāti Whātua values, under the guidance of *tiaki*/mentors.



Research Decolonisation Strategies

Decolonising the research process is a critical component of Māori centred research (Smith 1999). The methods I will incorporate to ensure my research does not continue to perpetuate colonisation will now be discussed. First and foremost, the fundamental philosophy of this research is to 'do no harm' to the research participants. This will be

ensured by undergoing the university ethics approval process⁶³ which includes considering a code of conduct, ensuring a transparent research approach, and by returning interview scripts back to participants for approval.

Another decolonisation strategy is to provide an academic space which privileges Māori understandings and worldviews. I will also maintain a critical reflexivity and awareness towards my role as a researcher and the power that is inherent in research. One area where the researcher has power is in the voices that are privileged. In this research I will be seeking the opinions of those involved, interested, or with knowledge surrounding, aquaculture. Hence this will most likely tend to privilege those who are able bodied, entrepreneurial, above the age of 25 and deemed to have authority/*mana*. I acknowledge that there will be many marginalised spaces in this research.

Maintaining critical reflexivity is another decolonisation strategy. Reflexivity is “...the self conscious analytical scrutiny of the self as the researcher” (England 1994, p82 in Valentine 1997, p113). The primary methods of maintaining reflexivity is through a research journal which will document my reflections on the research journey, as well as through consistent *korero* with my supervisor. This reflexivity will assist in the critical review of my research in Chapter 7.

The utilisation of a collaborative approach whereby those involved in the research will not be treated as ‘participants’, but as co-producers of the research is another decolonisation method. Dissemination will also be a key feature as research findings will be shared throughout the research process, and at its finality whereby a practicable report will be presented back through *hui* and presentations.

The methodological approach adopted must fit within this wider Māori centred paradigm. A qualitative methodology is compatible and provides extensive literature surrounding

⁶³ Human Ethics Committee approved interviews to be conducted from the 6 August 2006 to April 2007. Approval: No 74/2006. See appendix 1 for copy of Ethics Consent Form, Information sheet and Code of conduct.

appropriate methods to conduct research. The methodology and methods will now be addressed.

Methodology and Methods

Qualitative Methodology

Methodological selection is critical in that it signifies a “...certain order of philosophical commitment” (Tolich and Davidson 1999, p8). Qualitative research is ‘philosophically committed’ to retrieving ‘quality’ data that is rich in pluralism and complexity. It is often defined through its dichotomous relationship with quantitative methodology: inductive rather than deductive, intensive rather than extensive data, and gathers ‘illustrative’ and ‘meaningful’ data as opposed to statistically ‘representative’ data (Mostyn 1985 in Winchester 2005).

There are many defining epistemological characteristics that make this methodological approach harmonious with the Māori centred paradigm. Qualitative methodology locates people, often those who are marginalised in society, at the centre of research. The principles of subjectivity and positionality (Flick 2002) are another shared commonality, as well as supporting ‘action-orientated’ research (Tolich and Davidson 1999). Both approaches also share the recognition and search for diversity in human experiences and reject the notion of homogeneous voices and ‘universal truths’ (*ibid*).

The methodological approach adopted dictates the methods employed. Given that I am concerned with ‘quality’ insights, the following methods will be used.

Methods

The primary data collection method is face-to-face key informant interviews, supported by secondary reports and literature. The following section will address the methods of recruitment, data characteristics, collection, organisation, presentation and analysis techniques.

Recruitment

The recruitment methods include two ‘purposeful’⁶⁴ sampling techniques: ‘snowballing’ and the use of a ‘gatekeeper’. A ‘gatekeeper’ is someone who can “...facilitate an outsider’s entry into a ‘restricted’ location” by vouching for the researcher, and by association granting the researcher a degree of credibility (Tolich and Davidson 1999, p94). This ‘gatekeeper’ role is fulfilled by Hally Toia (Ngāti Whātua). ‘Snowballing’ complements this technique, whereby recruitment “...gains momentum or ‘snowballs’ as the researcher builds up layers of contacts” and creates a research network (Valentine 1997, p116). Tolich and Davidson (1999, p86) indicate that snowballing can lead to a “chaotic interview protocol” and that the use of gatekeepers has the potential danger of “capture” by dominant individuals. However for my research these are the most culturally appropriate and efficient recruitment methods.

Data Characteristics

Eight interviews were conducted with key informants, most of whom are of Ngāti Whātua descent, although some represented wider interest groups⁶⁵ including central government (Te Ohu Kaimoana, Te Puni Kōkiri), industry experts (Biomarine and John Hannah), and the community/environmental sector (Kaipara Forest and Bird). While this research will privilege the knowledge and understandings of Ngāti Whātua, gaining the

⁶⁴ The philosophy behind the sampling choices in qualitative research is that of ‘purposeful sampling’ (meaningful) as opposed to ‘representational’ (statistically significant) sampling (Patton 1970 in Bradshaw and Stratford 2005).

⁶⁵ See appendix 2 for list of participants.

perspectives of other stakeholders will assist in identifying contextual barriers and issues. An information sheet⁶⁶ will be sent out to strategic members of the Te Uri o Hau⁶⁷ community and Te Runanga, as selected by Hally Toia (gatekeeper).

Textual analysis of secondary data will be used to supplement and complement the interviews. The texts that will be analysed comprise Waitangi Tribunal reports, Ministry documents concerning Māori development, central and local government policy, legislation, Ngāti Whātua strategic documents, research reports, and Māori and Indigenous development literature.

Data Collection

The interviews will be semi-structured with open-ended questions predicated on *kanohi-ki-te-kanohi* (face to face) communication⁶⁸. A semi-structured interview has a degree of predetermined structure to ensure certain themes are addressed, however it also incorporates a degree of flexibility (Dunn 2005). The main strength of face-to-face interviewing is that;

“...it is sensitive and people-orientated, allowing interviewees to construct their own accounts of their experiences by describing and explaining their lives in their own words” (Valentine 1997, p111)

In order to refine the research questions, a pilot interview (tested on Hally Toia) will be conducted. Interviews will be tape recorded (and transcribed) and supported by note taking. Tape recording has limitations in that its presence can lead to informants being less forthcoming due to its ‘on record’ nature (Valentine 1997). Participants may also have cultural objections (due to concerns of intellectual property and misuse), and will therefore be able to opt-out of being taped⁶⁹. Once transcribed, interviews will be returned for confirmation prior to data analysis.

⁶⁶ Included in appendix 1.

⁶⁷ Ngāti Whātua hapu of the Kaipara

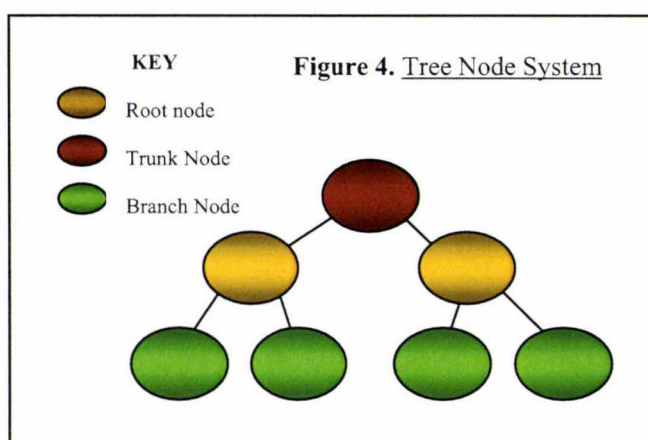
⁶⁸ See appendix 3 for interview schedules.

⁶⁹ In this situation, comprehensive note-taking will occur in-lieu of tape recording.

Data Organisation

The next step in the process is to organise the data for its presentation. The technique that will be used is that of ‘theoretical latent coding’. This involves the breaking down of data into thematic categories (Flick

2002; Dunn 2005). The codes will be developed in-vivo (inductive), as opposed to trying to fit the data into preconceived themes. A ‘tree node’ system (see figure 4) will be used in order to cluster nodes around broader themes, and to demonstrate relationships between



nodes. The coding will be performed through Computer Assisted Qualitative Data Analysis Software (CAQDAS)⁷⁰. The main benefit of coding is that it “...enables data to be organised in such a way that patterns, commonalities, relationships, correspondences, and even disjunctures are identified and brought out for scrutiny” (Cope 2005, p226).

Data Presentation

Once the data has been coded, it will be presented back thematically around each of the four research objectives. Tolich and Davidson (1999) advocate thematic presentation as a useful technique as it incorporates an authorial and narrative flow. The nodes will be used as a guiding structure for the narrative, and will be indicated through font emphasis.

Quotes will be interjected throughout the presentation chapter to give examples of the nodes. Case studies will also be utilised in appropriate locations to give deeper insights into the data gathered.

⁷⁰ The software is called NVivo. There is debate as to the effects such software has on the integrity of the analysis. However, the fact that it acts much like a word processor, with no automated input into the analysis, means these fears are mostly misguided (Flick 2002; Peace and Hoven 2005).

Data Analysis: Conceptual Frameworks

The analysis of the research findings will be conducted primarily through one Conceptual Framework. The Māori centred paradigm which guides this research dictates that the Conceptual Framework must also be grounded in Māori knowledge and understandings. This research draws strongly on Māori development literature, and therefore a Māori development conceptual model would be the most appropriate for analysing this research. However, the history of colonisation and marginalisation of “...Indigenous attempts to articulate their own theories” (Loomis 1999 in Bishop and Tiakiwai 2002, p31) has resulted in a significant gap in Māori development theory and therefore the frameworks available for my research.

A few models exist that would be viable Conceptual Frameworks (discussed in depth in the literature review, p66) such as Durie’s (2002) ‘Tri-axial Framework’, Loomis and Mahima’s (2003) ‘Holistic Resource Inventory Framework’, and the Raukawa ‘Partnership- Two Cultures Development Model’ (Te Wananga-o-Raukawa Research Centre 1998). While each model embodies a range of advantages, none provides a holistic, fluid and thematic approach to the issue of Māori development that is required in this research.

The most useful and appropriate framework is provided by Hutchings’ (2002) ‘Mana Wahine Conceptual Framework’⁷¹ (see figure 5). This framework integrates a range of issues, is fluid in its applicability, and useful in that it highlights relationships between seven ‘Critical Focus Areas’: *tikanga*, *Papatūānuku*, *kaitiaki*, *Te Tiriti o Waitangi*, *decolonisation*, *decision-making* and *intellectual property*.

⁷¹ ‘Mana Wahine’ is term used to describe Māori women’s theories, and is “...about the power of Māori women to resist, challenge, change or transform alienating spaces within systems of domination” (Jahnke 1998, p2 in Hutchings 2002, p38).

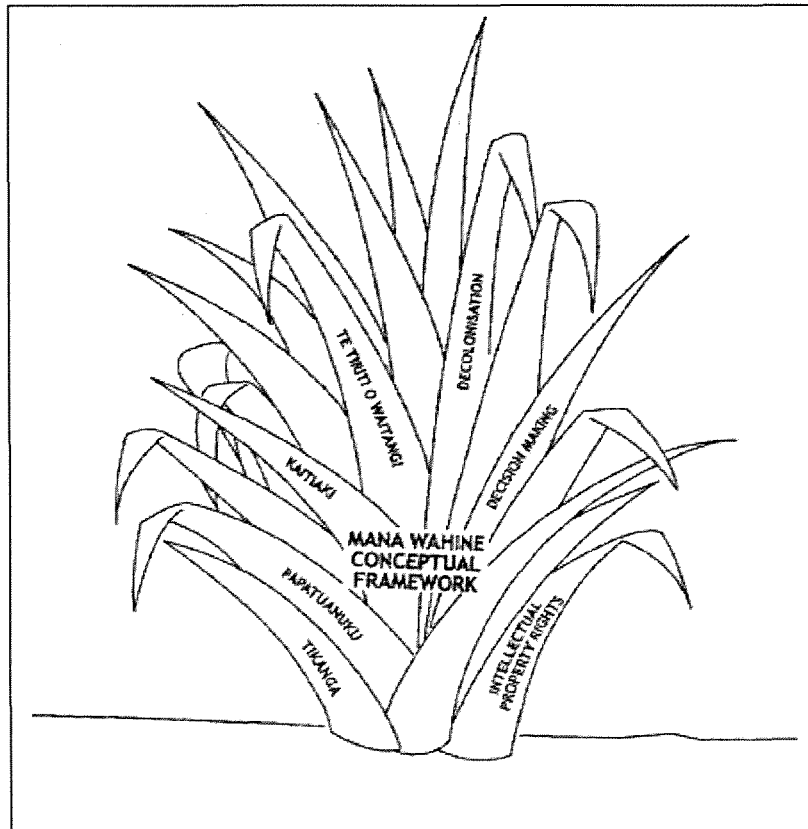


Figure 5. 'Mana Wahine Conceptual Framework' Source: Hutchings 2002, p189

Harekeke (flax) is used metaphorically in this framework to illustrate the "...diversity, multiplicity, and interconnected/woven nature" of Māori worldviews and understandings (Hutchings 2002, p145). The framework demonstrates the centrality of *Papatūānuku* and *whakapapa*, which thus means non-Māori (those without *whakapapa*) are not included in this framework. The roots represent the "...foundation, continual life essence and energy of the conceptual framework" (*ibid*).

While this framework is focussed on the realities of Māori women, it is still sufficiently relevant in that it is embedded in Māori worldviews/*kaupapa*. It is also a reflexive framework, which is open to adaptation for differing research fields. It is Hutchings' intention that others "...make it relevant and specific to their field" so that they can "...engage with this framework" (Hutchings 2002, p152). Hence, after the literature

review and data collection phases are complete, the framework will be adapted to enhance its relevance to the issue of Māori development.

However, for the analysis of Objective 4 (identifying strategic options for the implementation of Ngāti Whātua aquaculture aspirations), a framework which is able to adopt a strategic focus is required. Therefore a SWOT (Strengths, Weaknesses, Opportunities, Threats) framework will be utilised. A SWOT analysis is a “...technique commonly used to assist in identifying the strategic direction for an organization”, and is useful in predicting future problems, and how its’ internal capabilities will affect its reaction to external changes (Paliwal 2006, p500).

Internal ‘Strengths’ and ‘Weaknesses’ are based on the assets, be they physical, human, financial or cultural, as well as past experiences that are accessible to, or absent from the organisation (Prime Minister’s Strategy Unit website). The external ‘Opportunities’ and ‘Threats’ are related to forces that are outside of the organisation’s control, for example future trends, the economy, access to funding, demographics, the physical environment, legislation, and local national and international events (*ibid*). A SWOT analysis is usually undertaken through a four dimensional matrix;

Strengths	Weaknesses
Opportunities	Threats

However, further dimensions can be added to create depth to the analysis (David 1993 from Prime Minister’s Strategy Unit website);

	Strengths	Weaknesses
Opportunities	Opportunity-Strength Strategies Use strengths to take advantage of opportunities.	Opportunity-Weakness Strategies Overcome weakness by taking advantage of opportunities
Threats	Threat-Strength Strategies Use strengths to avoid threats	Threat-Weakness Strategies Minimize weaknesses and avoid threats

Therefore both versions of the SWOT analysis will be utilised for the analysis of objective 4.

Summary

This chapter was initiated with a declaration of my positionality and validity as a multi-cultural researcher. The fluidity of Māori centred paradigms has enabled me to define my own specific research approach which incorporates Kaupapa Māori principles, Ngāti Whātuatanga, as well as two ‘bicultural models’ (‘*tiaki*’ and ‘empowering outcomes’ approaches). Strategies to ensure decolonised research were then discussed, followed by an exploration into the qualitative methodological approach and its compatibility with the MC research paradigm. The methods of recruitment (‘snowballing’ and ‘gatekeeper’ models), data collection (interviews and textual sources), data organisation (thematic coding) and data presentation (thematic narrative, quotes and case studies) were defined, followed by an in-depth examination of Hutchings’ (2002) ‘Mana Wahine Conceptual Framework’ and the SWOT framework used for the analysis of the research findings. The next chapter will review the literature regarding Māori development, and briefly the wider Indigenous development literature.

Chapter 4 Literature Review

“Around the world today...Indigenous peoples are engaged in a massive effort to regain control of their futures, restore their communities, assert the right to govern themselves, and rebuild their capacities to exercise that right effectively” (Cornell 2000 in SMPD⁷² conference 2000, p20)

This research operates within a Māori centred paradigm and is focussed on a development issue, therefore Māori development theory and related Māori centred literature will form the basis of this review. The key characteristics of a Māori approach to development will be examined, as well as government policy, inhibiting barriers, and a review of the diversity of frameworks through which Māori development issues can be analysed. Indigenous development literature will be briefly reviewed to embed Māori development in the international context. This chapter will proceed with a critical examination of the concept of ‘development’.

Development as a Concept

Development is a multifaceted concept most often associated with notions of progress, growth and expansion. The term ‘development’ usually occurs in-conjunction with a prefix (such as economic, sustainable, community, resource, Indigenous or Māori) which dictates the specific approach or philosophy. Lewis (2007, p1) highlights the diverse and evolutionary nature of the concept of ‘development’, which “...brings with it a set of confusing, shifting terminologies and has been prone to rapidly changing fashions”.

In its mainstream understanding, development is most often interpreted within an economic context measured through growth in material wealth. It is consequently heavily

⁷² Abbreviation for School of Māori and Pacific Development. Waikato University ‘Nation Building’ Conference proceedings.

underwritten by western values and rationalisations (Loomis 2000). Therefore hegemonic⁷³ understandings of development “...reflects the perceptions of those belonging to rich sections of the industrial world”, and marginalises the values of other cultures (Young 1995, p4). Those who are marginalised by such understandings of development have lobbied at both academic and ‘grass-root’ levels to incorporate more holistic and cultural considerations (Williams 2004; Ver Beek 2000). The UN Declaration on the Right to Development (1986, Annex) demonstrates the change towards more holistic development perspectives, and the need to recognise the “...comprehensive economic, social, cultural and political process” involved, and the right to self-determination.

The ‘Community Development’ discourse (with the focus on the developing world) also provides more inclusive understandings of development;

“Development is about women and men becoming empowered to bring about positive changes in their lives; about personal growth together with public action; about both the process and the outcome of challenging poverty, oppression, and discrimination; and about the realisation of human potential through social and economic justice. Above all, it is about the process of transforming lives, and transforming societies” (Eade and Williams 1995, in Jenkins 2005, p4)

These more holistic perspectives of development share similarities with the literature around Māori approaches and worldviews, which will now be reviewed.

Māori Development

A disproportionate section of the Māori population of *Aotearoa*/New Zealand occupies a socially, culturally and economically marginalised space. The historical causes for this position are too complex and extensive to address here⁷⁴, however critically acknowledging the role of colonisation in creating this inequitable situation is a central

⁷³ See definition of the term ‘hegemonic’ on page 16.

⁷⁴ The process of colonisation is addressed in more depth in Chapter 2, page 33.

tenet of Māori development (MD) theory (Loomis et al. 1998; Sullivan and Margaritis 2000; Taiepa 1999).

The term “socio-economic disparity” has been used in academic and governmental discourse to describe this disadvantaged position (Chapple 2000, p2). Despite the government’s paternalistic attempts at ‘closing the gaps’ between Māori and *Pakeha*, significant inequities persist with regard to almost every socio-economic indicator⁷⁵. One of the key reasons for this is that Māori are;

“...locked into a vicious circle of underdevelopment: low educational achievement, lower-skilled jobs, high unemployment rates, low income, deprived status, low self-esteem, poor health and high crime rates” (van Meijl 1998, pp395-6).

However, Māori both at the macro and micro level have challenged this situation and taken up their own development initiatives (Sullivan and Margaritis 2000).

As is reflected in the diverse Māori population, there is no homogeneous definition of ‘Māori development’ (*tukua te rangatiratanga*⁷⁶). While the concept of ‘development’ in the Māori psyche is not a new phenomenon (Durie 2002), the emergence of a wider ‘Māori development’ agenda is primarily due to the ‘cultural renaissance’ of the 1970s, where a shift from “cultural survival” to “cultural security” occurred (Henare 2000, p30).

The Hui Taumata series has provided a medium for introducing a unified central MD agenda. Bishop and Tiakiwai (2002, p32) reiterate the importance of these Hui as they “...have grounded and shaped Māori development theory”. The first Hui Whakapumau (1984) was well attended, and focused on the role of economic development in reducing disparities for Māori, while also introducing the concepts of *tinio rangatiratanga*, development, economic self-reliance and cultural advancement (Durie 1998). However, some felt the conference was “...captured by interests from proponents of the New

⁷⁵ For example the life expectancy of a Māori male is 67 years compared with non-Māori (75), and workforce participation rates are around 15% lower for Māori than non-Māori (Loomis and Mahima 2003, p400).

⁷⁶ Durie (2002, p1) suggests this is an accurate translation.

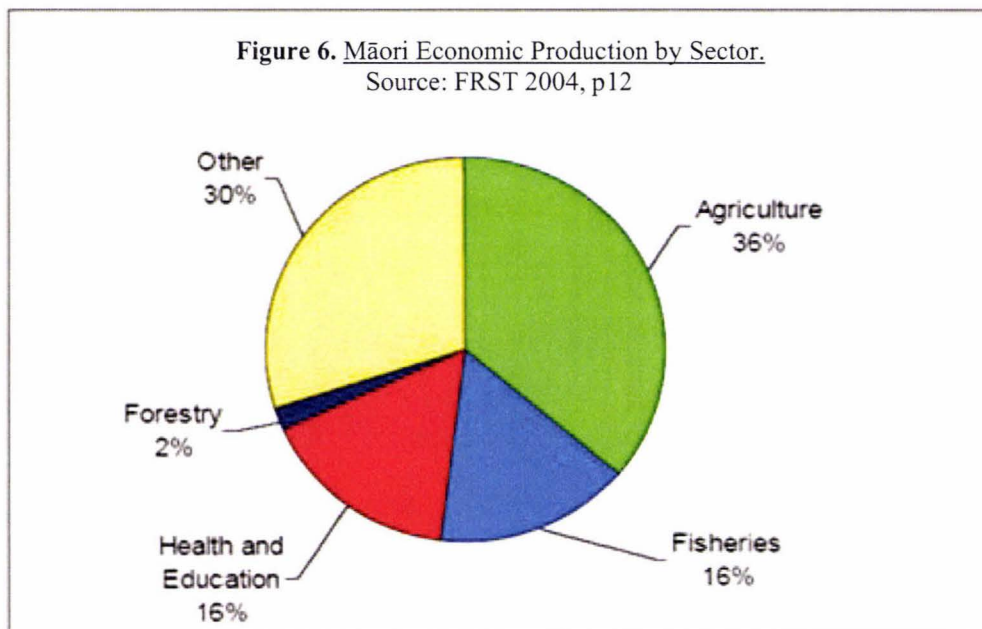
Right” and that the government was merely trying to get rid of the “...ongoing financial obligations to Māori” (Durie 1998, p11 in Bishop and Tiakiwai 2002, p33).

The Hui Taumata (1994) a decade later was designed to reflect on the improvements made since 1984. A key theme was that “...advances should not be at the exclusion of Māori identity” (Chief Justice Durie, in Bishop and Tiakiwai 2002, p35). The major advance made in this ‘decade of Māori Development’ (Kia Pumau Tonu, 1995) was giving “...Māori a greater profile and increased opportunities for participating in commercial and social development initiatives” (Bishop and Tiakiwai 2002, p35). The most recent Hui Taumata was held in 2005 at Te Papa with a continued focus on ‘economic development’ (Jenkins 2005).

Māori economic development has been primarily achieved through the Treaty settlement process (Durie 1995; Loomis and Mahima 2003; TPK 2002). The Tribunal (established in 1975, with retrospective powers granted in 1985) has power to create non-binding reports and recommendations to the Crown regarding Treaty grievances. There is some debate within the literature around the efficacy of the settlement process. Mikaere (2000, p18) is critical and believes settlements “...have been characterised by the trading of a profound relationship with land and resources for cash”, and that most settlements are little more than “symbolic”. The adoption of the ‘western corporatist’ model by iwi through the settlement process has resulted in the emergence of an ‘Indigenous elite’ which perpetuates power divisions (Barcham 1998; Mikaere 2000). Other issues relate to the competition and division settlements can create between iwi (Durie 2002), as well as the equity and democracy of allocations⁷⁷ (Bishop and Tiakiwai 2002; Moon 1999). However Loomis and Mahima (2003, p401) maintain the process is critical in “...facilitating Māori economic growth by extending the Māori asset base” (supported by Bishop and Tiakiwai 2002).

⁷⁷ This is a particular issue with regard to the ‘Sealord deal’ (1992). Moon (1999, p87) states that it “...lack[ed]...a truly valid Māori mandate”. This comment relates to the lack of consultation and inclusion of all iwi, and the view that it unfairly advantaged Ngai Tahu. Urgent High Court action was also taken by at least twelve Māori groups in October 1992 who challenged its validity, and felt it would “...severely prejudice legitimate claims under the Treaty of Waitangi” (*ibid*, p95).

When examining the current economic circumstances facing Māori, several literature sources refer to the concept of the ‘Māori economy’ (TPK 2002; NZIER 2003; Durie 2005). The ‘Māori economy’ contributes around 1.4% to the wider New Zealand



economy, and is often painted as “small” but “robust” (NZIER 2003, p9). Figure 6 demonstrates that over half of Māori activity is in the primary sector, with a significant proportion in fisheries. The other half is comprised of secondary sectors such as health and education, and 30% in the sector labelled ‘other’ includes property investments, recreation and media services (FRST 2004).

There is debate within the literature around the dominant (particularly in government initiated reports) focus on economic development. Harmsworth, Warmenhoven and Pohatu (2004, p13) states that the ‘Māori economy’ is a “...space where cultural and economic aspirations combine” and that “...greater economic development within the Māori collective will also strengthen cultural identity, wellbeing, and tino rangatiratanga” (reiterated in Memon and Cullen 1996). Henare (2000, p22) acknowledges the interdependence between cultural and economic spheres and asserts there “...is no way that we can separate economic development from the important perception of people

development”. However, several academics accurately illustrate that the areas where Māori have made the greatest strides (such as Kohanga Reo⁷⁸) are where culture and identity forms the cornerstone of the development (John Rangihau⁷⁹ in Henare 2000; Kawharu 2001).

While economic development is undeniably beneficial, ultimately MD goals move beyond money maximisation (Professor Whatarangi Winiata in SMPD, 2000). Durie (2002, p4) reiterates the importance of people over economics; “...[u]ltimately, Māori development is about Māori people and if there is economic growth but no improvement in wellbeing, then the exercise is of questionable value”. Mikaere (2000, p22) illustrates her concerns with this economic focus;

“While there are many who argue that economic stability is the key to all else, I fear that economic success is fast becoming an end in itself, rather than the means to an end of Māori self-determination”

The following section will address the common characteristics presented in the literature that define a Māori development approach: the notion of balance and ‘holistic’ aims, the central role of culture and identity, *tikanga*, upholding environmental integrity and achieving *tino rangatiratanga*/self-determination.

Firstly, adopting an inclusive, balanced and holistic approach is central to MD theory (Harmsworth 2002, 2004, 2005; Taiepa 1999; Mulligan, TPK and FoMA⁸⁰ 2005). Harmsworth (2005, p19-20) states the “...challenge for Māori is how to balance [their] aspirations”. Such aspirations relate to culture, values, social institutions, language, knowledge, economic development and the well-being of the people and the environment (Harmsworth 2005; Loomis and Mahima 2003; Taiepa 1999).

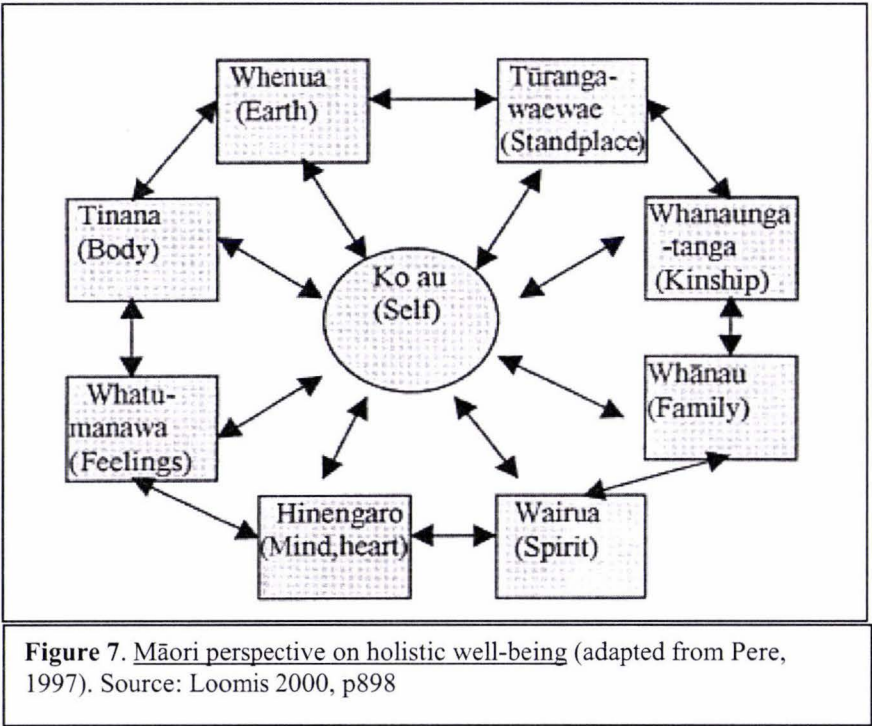
⁷⁸ Kohanga Reo is a total immersion Māori language family programme for young children from birth to age six.

⁷⁹ Tuhoe elder and scholar

⁸⁰ Federation of Māori Authorities

Maintaining a sense of ‘Māoriness’ is another central component of a MD approach (Harmsworth 2002; NZIER 2003; Kawharu 2001; Durie 2002; Mikaere 2000; Bishop and Tiakiwai 2002). Durie (2003, p96) maintains a fundamental starting point is that “...Māori want to retain the distinct identity that comes from a unique heritage, common journeys, a familiar environment, and a set of shared aspirations”. It is therefore important to place the development agenda within Māori paradigms and understandings; “...[i]t is apparent that by slotting ourselves in to a Western model of ‘development’ we are forgetting to look to our own cultural roots for answers” (Mikaere 2000, p22).

Māori identity and cultural values are deeply embedded in Māori worldviews (discussed previously on page 32). Figure 7 below demonstrates how Rangimarie Pere (1997 in Loomis 2000) conceptualises the interconnected and holistic elements central to the Māori worldview.



Development of natural resources is often aligned with environmental degradation, therefore it is important to take cognisance of the position of the environment within a MD approach. Pere’s (1997, in Loomis 2000) holistic understanding demonstrated in

figure 7, depicts the *whenua* (earth) as a critical component of the self (*ko au*). Durie (1998, p5) states that "...[c]lean air, fresh water, access to traditional lands, forests, rivers, the sea, are all on the Māori agenda for tomorrow". However, as was discussed in the 'Te Ao Marama' section (p32), resource utilisation is an integrated element of 'sustainable' resource management (Durie 1998; Mihinui 2002).

Māori groups are keen to utilise their resources to protect their *mana whenua*, their customary authority in an area, and thus secure their identity and achieve their social/cultural and economic well being aspirations. The protection of *mana whenua* is closely intertwined with calls for *tino rangatiratanga*/self determination. Durie discusses the variances in scale and political dimension of *tino rangatiratanga* agendas;

"For many Māori, *tino rangatiratanga* or *mana motuhake* is about working together, collectively, to assert more control over their lives, and achieve a better future. For many Māori in a highly complex world it is simply about developing self-esteem, identity, confidence and hope" (Durie 1998 in Harmsworth et al. 2004, p3)

Potiki (2000, p52) states that regaining power is important as "...we [Māori] have been seduced into the fray upon someone else's battlefield". Harmsworth et al. (2004, p2) concur that external powers continue to define the Māori development agenda and that "...very few Māori in New Zealand have participated in discussions on sustainable development".

With regard to the role of the government in achieving Māori development, calls for *tino rangatiratanga*/self-determination would seem to oppose state intrusion. This view is supported by Loomis and Mahima (2003, p401) who reveal that;

"International and local research suggests that the most effective way to overcome disparities and foster Indigenous development is for the government to get out of the business of running Indigenous affairs"

However a TPK report suggests the state does have a role "...in providing the environment conducive to the formation of self-governing organisations to address development problems" as well as "...allowing political, social and economic space for

self-recognition to occur” (NZIER 2003, pp49). However, despite such promising rhetoric, genuine signs of actions which support self-determination are limited.

Therefore despite the importance of self-determination/*tino rangatiratanga* in MD theory, there is still a dependency on, and a responsibility of the government to provide the conditions necessary to assist self-determined MD (Durie 2002). The United Nations supports this obligation in its ‘Declaration on the Right to Development’, which asserts that it is the responsibility of the state to “...creat[e]...conditions favourable to the development of peoples and individuals” (United Nations 1986, Annex One). However, as will be demonstrated in the proceeding discussion, government policy regarding MD is falling short of its responsibilities.

Government Approach

At the international level, most colonial governments have approached Indigenous development through similarly paternalistic and assimilative methods. Cornell (2006, p10) states that;

“Central governments have tended to respond to Indigenous peoples...with egalitarian and assimilative policies that attempt to address Indigenous disadvantage and facilitate integration into encompassing societies. Thus there is a significant mismatch between the ambitions of Indigenous peoples and the responses of states”

This is reflective of the approach adopted by the New Zealand government, where the major policy direction of recent decades has been focused on improving the conditions of ‘socio-economic disparity’ facing Māori through a ‘closing the gaps’ approach⁸¹ with a focus on “distributive justice” (Humpage 2002 in Cornell 2006, p12). While the government has paid some “...lip-service to the idea of self-determination”, in general the approach has actually been to enhance “state intervention” (Loomis 2000, p11 in Cornell 2006, p10; reiterated by Jenkins 2005).

⁸¹ While officially the government has replaced “closing the gaps” policy with “social equity”, they are essentially the same (Kawharu 2001, p2).

There are many other critics of the ‘closing the gaps’ approach (Loomis 2000; Jenkins 2005; Kawharu 2001; Potiki 2000). The criticisms focus around the incompatibility with self-determination, the Eurocentric nature of the ‘gaps’, and whether it is appropriate or useful to establish *Pakeha* goals for Māori. Such an approach has also been criticised for perpetuating power inequities, and acts as “...proof of their right to rule and proof of Māori as subordinate” (Jenkins 2005, p5). Potiki (2000, p52) is also highly critical of this approach, and states “Closing the gaps represents a pathetic horizon for Māori. Is our vision really to be the same as everybody else?”

With regard to the government’s broader approach to development, the Department of Prime Minister and Cabinet produced a report ‘Sustainable Development for New Zealand: Programme of Action’ in 2003. In reference to Māori, the report states it will ensure “...working in partnership with appropriate Māori authorities to empower Māori in development decisions that affect them” (p10), and that the “...government’s commitments to Māori require it actively to safeguard matters that are important to the wellbeing of Māori culture” (p14).

Barriers and Issues

The literature also extensively addresses the barriers and issues affecting MD. While similar barriers feature in both the academic and government literature, the difference lies in the critical analysis of colonisation and the underlying structural forces responsible for the barriers (absent in government reports).

Geographical marginalisation of Māori in rural areas is one such barrier highlighted in government reports as a locational “choice” that may trap Māori into a path of low growth and development (Tai Tokerau Management Consultants⁸² 2001). The structure of iwi organisations is another issue. The government literature focuses on the efficiency

⁸² A report produced for TPK, henceforth abbreviated as TTMC.

of Māori organisations, and the conflicts between culture and commercialisation (NZIER 2003). However, the Māori centred literature highlights the fact that Māori organisations are essentially ‘colonial constructs’ (Dodd 2000; Ballara 1998 and Barcham 2000 in Cornell 2006; Barcham 1998). Māori responded to European pressure for greater degrees of collective leadership by conglomerating into increasingly larger social groupings creating “...the iwi-isation of Māori society”⁸³ (Barcham 2000, p141 in Cornell 2006, p23). The result of this has been the “...privileg[ing] iwi...over hapu” (Ballara 1998 in Cornell 2006, p23), and the marginalisation of women (Dodd 2000). The adoption of corporate models by some iwi has also been critiqued by Linda Smith (1999, p97 in Dodd 2000, p7) who states that “Some tribes have vigorously pursued a corporate ethos. Is this imperialism? Post colonialism? Tribal development? Progress?”

Several authors (Harmsworth 2005; Bishop and Tiakiwai 2002; Sullivan and Margaritis 2000; Durie 2003; Loomis and Mahima 2003) cite the multiple roles of Māori organisations, internal politics and the need to incorporate cultural values and imperatives as potential barriers for MD. Māori organisations are;

“...expected to grow the tribal estate through profitable commercial investment, while also being looked to for source of funding...and the maintenance of marae and cultural and tribal identity” (Bishop and Tiakiwai 2002, p36).

The collective ownership of assets (a characteristic of Māori property rights) has both advantages and disadvantages for Māori. While it does conflict with the western notions of private property ownership which can lead to “...risk averse and slow decision-making processes” (Loomis et al. 1998, p11), it also allows for shared risk and community cooperation. Te Ture Whenua Māori Act 1993 and the iwi organisations that fall under this legislation “...face unique structural accountabilities” (Mulligan et al. 2005, p24).

⁸³ Iwi structure was diminished due to the rapid urbanisation of Māori, however the advent of Treaty of Waitangi Amendment Act (1985) caused a ‘re-iwi-isation’ as it emphasised iwi as the legitimate social structure with which to identify for Treaty settlements (Barcham 1998). Barcham adds that “Recent...government legislation in New Zealand have acted to rebuild Māori power structures along neo-traditional frameworks” which has polarised Māori society between those that see the “...iwi as the only ‘true’ institutional basis for Māori identity” and those that believe iwi should be a more inclusive term “...embracing the multiple social realities that face modern Māori” (Barcham 1998, p305).

Multiple ownership of land "...makes it a difficult and expensive task to obtain owner permission to develop or utilise the land...[as the] threshold to alienate, or raise capital from a form of security, requires agreement from 75% or more of the owners" (*ibid*).

Macro-level barriers that emerged in the literature relate to poor Māori- government relationships, politics, short government cycles, conservation group opposition and the negative socio-political climate facing Māori.

A history of colonial betrayals and "poor delivery" (FRST 2004, p3) for Māori has resulted in a wariness and distrust towards the government. The short government cycle is another issue which can result in radical shifts in policy, hence undermining long-term MD agendas (Kawharu 2001). Greensill (2005, p212) adds that "...governments come and go at the whim of the people every three years" whereas *tangata whenua* have permanent, long term interests. Māori development also faces some obstacles from the conservation sector. While many Environmental Non-Governmental Organisations (ENGOS) tend to be supportive of Māori concepts of *kaitiakitanga*, "...[t]he notion of use being an element of nature conservation is generally not supported by the conservation lobby groups in this country" (Gillespie 1995 in Taiepa 1999, p30), which is a key component of the Māori environmental worldview.

The external political and social climate surrounding Māori development is volatile. Goodall (2005, p186) addresses this volatility and states that at "...the dawn of the new millennium...the political tide has again turned against Māori"⁸⁴. Despite calls for 'one nation', and the exploitation of Māori culture as a signifier of our 'national' identity, a deep undercurrent of racism pervades *Aotearoa*/New Zealand (Mutu 2005)⁸⁵. Negative Stereotyping is another barrier which means Māori often "...start off on a back foot" in terms of achieving their development aspirations (Ritchie 1990, p19). However, Māori at both 'flax-root' and academic levels have challenged these barriers, and are partaking in

⁸⁴ Goodall describes the recent Foreshore and Seabed Act as the "...starkest example of the recent sea change in approach to these issues in Aotearoa" (Goodall 2005, p186).

⁸⁵ Mutu (2005, p211) again refers to the foreshore and seabed issue. A more recent example of racial stereotyping is in the comments made by TVNZ surrounding the satisfaction of Māori content through such shows as 'Police Ten-7' and 'Shortland Street' (Oliver, NZ Herald website. 24.05.07).

their own development agendas. The following section will discuss three such Māori centred frameworks which can be used to examine the issue of MD.

Approaches and Models

Three differing models will be briefly discussed to represent the diversity within the MD literature; Loomis and Mahima's (2003) 'Holistic Resource Inventory Framework', Durie's (2002) 'Tri-axial Framework' and the Raukawa 'Partnership- Two Cultures Development Model' (Te Wananga-o-Raukawa Research Centre 1998).

Model 1. Holistic Resource Inventory Framework

Loomis and Mahima (2003) have developed a 'Holistic Resource Inventory Framework' model which takes an integrated approach through examining the interactions between four different 'capitals': 'Human', 'Cultural', 'Physical' and 'Economic'. 'Human' capital constitutes capacity and capability; 'Cultural' capital concerns understanding cultural resources and vibrancy, Māori values, and *tikanga*, 'Physical' capital includes an understanding of the physical and natural resources as well as access, and 'Economic' capital concerns understanding the available economic resources, capital, investments, and economic potential. Such an approach is compatible with the characteristics of balance and the Māori perspective on holistic well-being (figure 7) discussed earlier.

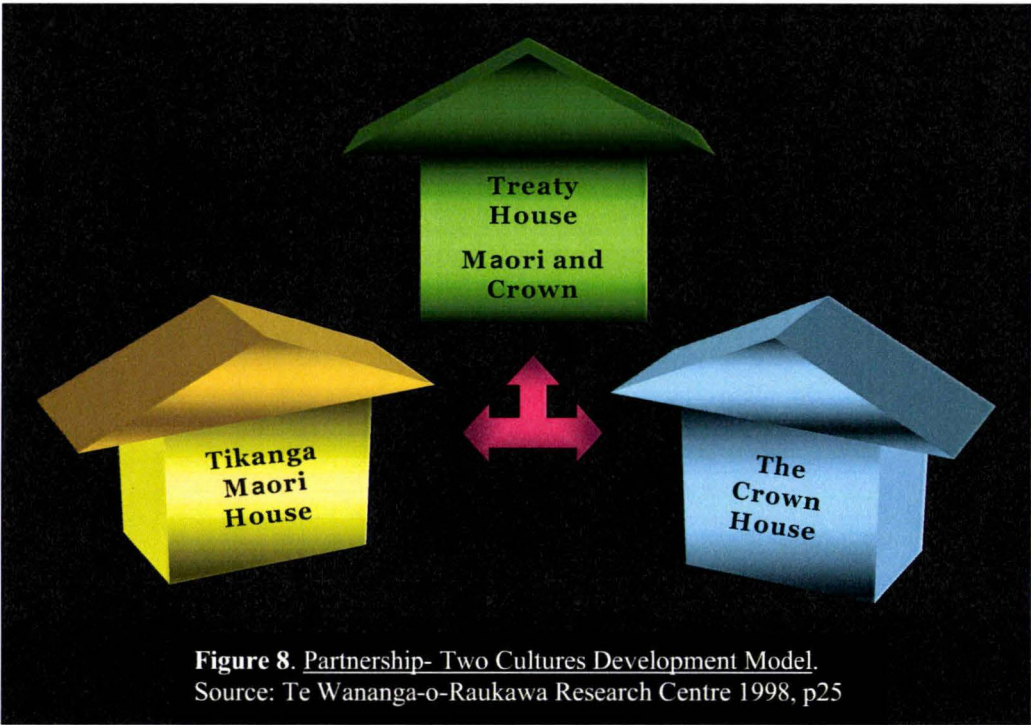
Model 2. Tri-axial Framework

One of Durie's models for examining Māori development is a 'Tri-axial Framework', whereby MD has been conceptualised as an interaction of three axes: a 'Determinants', 'Process' and 'Outcomes' axis (Durie 2001 in Durie 2002). This model aims for a "multi-faceted exploration" of the various factors (Durie 2002, p3). The 'Determinants' axis examines factors that influence Māori development (i.e. inhibitors such as demographics, history, politics and Māori resource capacity), the 'Process' axis examines the methods

for implementation (including Māori worldviews, an ‘empowering’ or integrated approach, strategic relationships), and the ‘Outcome’ axis is synonymous with aspirations (includes human and resource capacities, wellbeing, cultural identity, Māori values, economic development, environmental integrity and autonomy). This model again incorporates a holistic approach (if in a more lineal and systematic fashion), and is more comprehensive than the previous model in that it incorporates barriers.

Model 3. Partnership- Two Cultures Development Model

The ‘Partnership-Two Cultures Development Model’ (Te Wananga-o-Raukawa Research Centre 1998) utilises the Treaty/*Te Tiriti* as a model for advancement in the realities of a bicultural context. Figure 8 demonstrates how MD is reliant upon a partnership (based on the Treaty) with *Pakeha*, and only when the Māori house is strong will both ‘houses’ be able to progress into the Treaty house. Hence much of the focus is on strengthening/developing the *tikanga* Māori house. The importance of the Treaty as the



basis for MD is reiterated by Henare (2000) and Loomis (2000). While this model is useful in that it draws attention to the need for cultural understanding and an acknowledgement of the Treaty, it is less prescriptive in terms of suggesting actual methods for addressing MD. The following section will address the broader Indigenous development literature to draw comparisons, and highlight key issues, which will be useful in examining this Māori development issue.

Indigenous Development

The Indigenous⁸⁶ development literature provides a valuable source of information that is highly applicable to MD approaches. This relevance largely stems from the “share[d] commonalties” in circumstances and histories of colonisation (Gant et al. 2005, pix). Durie (2002, p3) adds that “...comparisons with other Indigenous groups are sometimes more useful measures of Māori progress than a narrow reliance on Māori and non-Māori comparisons”. Indigenous peoples are unique in that they;

“...typically face some distinctive problems...[that result from their]...histories of invasion, destruction, and loss, and from a present in which, too often, outsiders still make the decisions that most affect their lives” (Cornell, in SMPD 2000, p21)

The type of development that this research is concerned with is specifically resource based-development. Howitt, Connell and Hirsch (1996) discuss in-depth the contentious relationships between resources, nations and Indigenous peoples, as resource disputes continue “...to challenge the comfortable myths of unproblematic and uncontested national identities” (Howitt et al. 1996, p9). Howitt et al. adds that when Indigenous peoples attempt to utilise their tribal resources, they are “...often characterised as

⁸⁶ Several different terms are used including ‘First nations’, ‘Indigenous’ and ‘Aboriginal’, however the term ‘Indigenous’ is utilised for this research. Loomis (2000) defines Indigenous peoples as “...the descendents of people commonly thought to be the original inhabitants of a territory, with a distinctive culture and social institutions. They usually have been subjected to colonization...suffering exploitation, discrimination and disadvantage” (Loomis 2000, p5).

antagonistic and being contrary to the interest of centralised, powerful and beneficent state structures” (*ibid*, p20).

The benefit of examining the Indigenous development literature is to place Māori development within the international context and to compare and learn from other Indigenous people’s attempts to achieve self-determined development. Researchers have embarked on comparative Indigenous studies for this purpose. Cornell (2006) conducted comparative research between the Indigenous peoples from USA, Canada, Australia and New Zealand and found many similarities exist⁸⁷. Experiences of colonisation and marginalisation have influenced the way many Indigenous populations view development. The major similarity is the ‘holistic’ nature of Indigenous development aspirations which are marginalised by hegemonic approaches (Loomis 2000; Bishop and Tiakiwai 2002; Loomis 2000; Durie 1998; Young 1995).

Cornell and Kalt’s (1995) comparative research⁸⁸ concluded that the key ingredients for successful Indigenous economic development includes ‘external opportunity’, ‘internal assets’ and adopting an appropriate ‘development strategy’. ‘External opportunity’ involves important political conditions such as sovereignty, market opportunities and access to financial capital. ‘Internal assets’ include the appropriateness of tribal institutions of governance, human capital, natural resources and culture. A broader but crucial factor includes the willingness of mainstream societies to tolerate difference and invest in Indigenous capacities (Cornell in SMPD 2000; Cornell 2006; Cornell and Kalt, 1995).

⁸⁷ While there are substantial differences relating to areas such as population characteristics, life expectancy and degrees of resource ownership and control, there exist enough similarities for meaningful parallels to be drawn (Cornell 2006).

⁸⁸ Research focuses on American Indians, as well as other Indigenous peoples in Canada, Australia and Aotearoa/New Zealand.

A study by Douse (2002) surrounding Aboriginal self-determined development in Australia provides a useful comparison for this research⁸⁹. The Australian government has highlighted aquaculture as an industry with potential to assist Aboriginal development (which provides an independent food source, employment and training opportunities, and a sense of community pride). The ‘cultural specific enterprise model’, which is based on small farm operations, has been used successfully by Aboriginal communities (Douse 2002). The model is “...firmly based on cultural values; is community driven; and is based on principles of maximising employment and minimising mechanisation” (*ibid*, p243).

Summary

In conclusion, this chapter has revealed that hegemonic development models tend to marginalise Māori/Indigenous understandings and approaches. Māori centred approaches to development have emerged in resistance to the deficiencies of colonial models, and to locate development within Māori cultural paradigms. However, creating successful Māori centred development opportunities is difficult in a context dominated by economic rationalism, and a government focussed more on redistributive justice than Māori self-determination. Models and approaches embedded in Māori epistemologies and framed by *Te Tiriti* were addressed, as well as a review of the characteristics which define MD theory and the barriers inhibiting its realisation. The Indigenous development literature revealed the similarities in issues faced by Indigenous populations within colonial contexts, indicating that colonisation and its perpetuating effects is the underlying inhibitor of Indigenous development opportunities. The key points of this literature review are summarised in a table (figure 18) on page 102. The following chapter presents the research findings which have been organised through nodal coding.

⁸⁹ One major commonality between Māori and Australian Aborigines includes their high representation in rural areas which means that they are “...not exposed to the same economic opportunities that other Australians experience in large centres” (Tedesco and Szakiel 2006, piii).

Chapter 5 Organisation and Presentation of Findings

“As a power and authority, Mana whenua confers an exclusive right. However, Mana whenua also carries responsibilities that are centred in the relationship between people and the land” (TRoNW 2003b, p1).

This chapter presents the research findings gathered through key-informant interviews and secondary literature sources. The findings are organised through an in-vivo ‘tree-node’ coding system⁹⁰ which is depicted through diagrams (figure 9, 10 and 12). The organised data is presented back through thematic narrative under each research objective⁹¹ supported by quotes and case studies. The characteristics of the research participants and secondary sources will firstly be introduced.

Participants and Secondary Sources

Eight key informant interviews were conducted with a range of participants⁹²: Hally Toia, the advisory officer of natural resources for Te Runanga o Ngāti Whātua (TRoNW) has been a primary informant due to his critical role in the iwi. Hally has also performed a ‘gatekeeper’ and ‘mentoring’ role in the research. Tepania Kingi is also employed at TRoNW and has an extensive knowledge of Ngāti Whātua *tikanga*. Thomas de Thierry is of Te Uri o Hau/Ngāti Whātua descent and provides a valuable perspective as a community development leader in the small rural town of Te Hana (on the Kaipara). Martin Mariassouce (Te Tao U/Orakei, Ngāti Whātua) is employed at Te Puni Kōkiri as a Commercial Development Manager for the Northern region. Martin has provided a dual perspective on the central government and Ngāti Whātua approach to Māori

⁹⁰ As was discussed previously on page 49. For the purpose of narrative flow the nodes will be indicated by font emphasis. The ‘root’ nodes are the central headings (**bold and underline**) and the trunk and branch nodes are indicated in **bold**. Nodes will be indicated periodically to emphasise their occurrence.

⁹¹ Except for Objective 2 which will not be presented or analysed. See page 81 for an explanation.

⁹² See appendix 2 for a full list of Personal Communication details.

development. Leanne and Adam Thompson are also affiliated with Ngāti Whātua (Te Uri o Hau) and are the owners of Sunshine Oysters (a whanau-run Kaipara oyster farming venture). The Thompsons gave insights into the operational and logistical issues facing small-scale Māori aquaculture ventures. Suzi Phillips is the Convenor of Kaipara Forest and Bird and provides an environmental perspective on aquaculture. Jim Dullimore and John Nicholson are the co-founders Biomarine Limited (which operates in the Kaipara harbour) and discuss aquaculture from a large-scale industry perspective. John Hannah, Manager of the New Zealand School of Fisheries and Chair of Sea Products Limited⁹³ provides an overview of the industry from his affiliation with large industry and iwi operated companies.

The secondary literature presented includes Te Runanga o Ngāti Whātua submissions, meeting minutes and strategic documents, aquaculture hui submissions and relevant government reports.

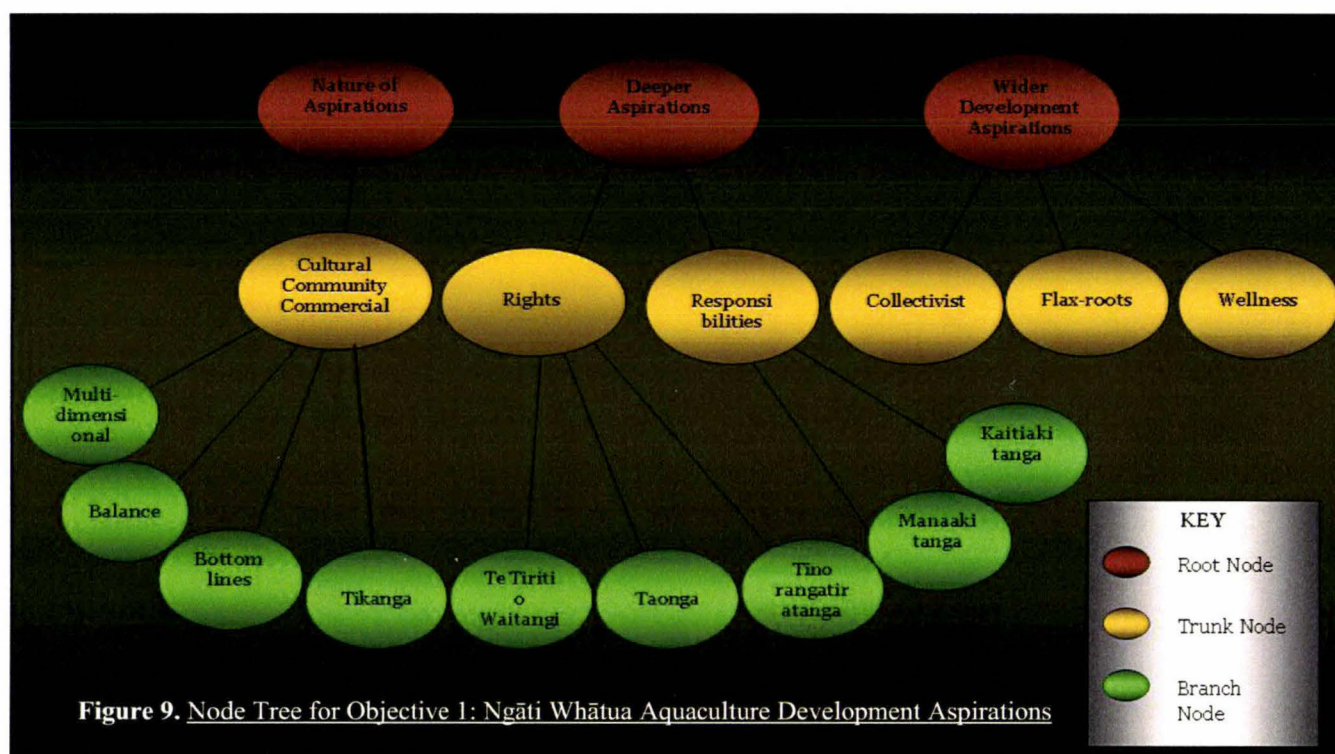
The following section will present the data from these sources under each of the research objectives;

⁹³ Previously General Manager of Sealords and was involved in the company's entry into aquaculture. Sea Products limited is a joint iwi venture.

Objective 1

To examine the nature of Ngāti Whātua aquaculture development aspirations

The themes relating to this objective have been organised through a ‘tree-node’ system (see figure 9) which illustrates the clustering of the nodes. The ‘root’ nodes (red) are the core themes, around which the ‘trunk’ (yellow) and ‘branch’ (green) nodes are clustered. The themes will now be presented through thematic narrative supported by quotes and a case study.



Nature of Aquaculture Aspirations

A central theme that emerged at the strategic Runanga level is that the goals for achieving Ngāti Whātua involvement in aquaculture are **multi-dimensional**, and that maintaining a **balance** between the dimensions is a central aim. Hally Toia (advisory officer of natural

resources for TRoNW) highlights this multi-dimensional and balanced approach when he states that aquaculture should be utilised in a way that;

“...maintains, protects and enhances te taonga o tangaroa...[while also creating a] balance between Ngāti Whātua customary, community and commercial aspirations, in a way that will not jeopardise... but will maintain and enhance the ability of Ngāti Whātua to manaaki” (H Toia, Pers Comm).

It is clear that the attainment and protection of *mana/manaakitanga* is the overarching goal for TRoNW involvement in aquaculture, while also achieving wider social, cultural and environmental objectives. These objectives have been grouped into a **customary**, **community** and **commercial** trunk node (see figure 9). The ‘customary’ goals for aquaculture include enhancing *kaitiaki* capacity, providing *kaimoana* for customary ceremonies, adhering to and strengthening *tikanga* and Traditional Ecological Knowledge (TEK), ensuring traditional harvesting and assisting in the replenishment of wild stocks. The ‘community’ aspirations include providing sustenance, employment and training, infrastructural development, fiscal opportunities and community pride/cohesion. In terms of ‘commercial’ aspirations, these include providing sustainable economic opportunities for constituents, as well as commercialising TEK in an appropriate fashion while maintaining intellectual property rights. While achieving a range of these goals is the aim, there is also an element of hierarchy amongst the three spheres. Customary goals are the most significant, followed by community goals, with commercial objectives positioned as inferior (Toia, Pers Comm). These multi-dimensional goals form the basis of the criteria for assessing the acceptability of a species for aquaculture development⁹⁴.

However aspirations for aquaculture at the ‘flax-root’ level seem to be based more in the economic (**commercial**) imperative of providing for the whanau. Currently the Thompsons’ (owners of Sunshine oysters, a whanau-run aquaculture venture in the Kaipara) central aspiration for aquaculture is to get their business “off the ground”. They have had to take on extra work and go on the benefit in order to supplement their income. Economic self-sufficiency is their main aim, however they do highlight other future

⁹⁴ This criterion was used to select the six species for objective 2.

potential aspirations including training for *rangatahi* and pursuing export avenues (Sunshine Oysters, Pers Comm).

Thomas de Thierry (community development leader in Te Hana/Kaipara) states that marine farming is an “old traditional practice” which has strong **cultural** links. While Thomas believes that aquaculture has some economic potential for Māori, he places a higher importance on the adherence to *tikanga*, their role as *kaitiaki* and maintaining the autonomy of the hapu (de Thierry, Pers Comm).

Discussions with Tepania Kingi (TK) revealed the underlying importance of *tikanga*, and how this influences the Ngāti Whātua approach to aquaculture. The concepts of *tapu* and *noa* guide Ngāti Whātua *tikanga*;

“There are two things in life that you see: things god made, which are sacred [tapu], and things that humans made which are consumable, replaceable [noa]. Things god made must be protected...if we destroy these things, we destroy ourselves” (TK, Pers Comm, [] added).

Knowledge surrounding *tikanga* is maintained and protected by appropriate custodians within the iwi/hapu. TK discusses the oral traditions of passing on *matauranga* (knowledge);

“So don’t ask for any academic reference. I am the academic reference, because they [our ancestors] gave it to me. And then you are going to have it, so you pass it on...from my head to yours” (TK, Pers Comm).

Hence *tikanga* forms the basis of the Ngāti Whātua environmental ‘worldview’, which in turn affects their approach to aquaculture. For instance, Thomas de Thierry is more wary of aquaculture, and states the environmental issues around biosecurity and pollution (relating to aquaculture) need to be resolved⁹⁵. TK supports this approach of environmental **bottom-lines**, and maintains that customary aspirations relating to *tikanga* and *kaitiakitanga/manaakitanga* must be upheld if Ngāti Whātua is to become involved

⁹⁵ A recent proposal by Biomarine was deemed “culturally unsuitable” and hence was opposed by de Thierry’s Oruawharo marae (Thomas de Thierry, Pers Comm).

in any aquaculture venture. TK states that essentially “...if aquaculture has no effects on *Papatūānuku*, then its fine” (Pers Comm).

TRoNW support this view of environmental/cultural **bottom-lines** arguing that nothing should negatively impact on Ngāti Whātua abilities to *manaaki*, or adversely harm *Papatūānuku* (Toia, Pers Comm; Toia and Forsythe 2006). However, TRoNW maintain that interruptions within the marine environment;

“...must be balanced against the opportunity which those marine farms provide to Iwi for sourcing customary food and encouraging a meaningful self-sustaining active working relationship for Iwi with the coastal resources” (TRoNWb 2003, p3)

Deeper Aspirations

At a more fundamental level, the data suggests that the Ngāti Whātua aquaculture agenda fits within deeper desires to gain acknowledgement of the ‘**rights**’ and ‘**responsibilities**’ inferred by their *mana whenua* status;

“As a power and authority, Mana whenua confers an exclusive right. However, Mana whenua also carries responsibilities that are centred in the relationship between people and the land” (TRoNWb 2003, p1).

The ‘**rights**’ that emerged are rooted in this *mana whenua* status as well as in *Te Tiriti/Treaty of Waitangi* (in particular that marine farming is a *taonga* and the desire to attain *tino rangatiratanga* over this *taonga*).

As the “uncontested owners” (Toia, Pers Comm) of the Kaipara harbour, Ngāti Whātua maintain a *mana whenua* status which “...accord iwi a special status of different order to that of the general public or other interests groups, including environmental NGOs” (TRoNWb 2003, p1).

TRoNW maintain that the current exclusion of Ngāti Whātua within aquaculture;

“...severely limits the potential to maintain the traditional relationship of Ngāti Whātua people with their ancestral lands and waters, and to maintain the *taonga* which is marine farming” (TRoNWa 2003, p1).

On signing the Treaty/*Tiriti*, Ngāti Whātua was assured they maintained *tino rangatiratanga* of their various *taonga* (including marine farming). However, given the current lack of iwi/Māori involvement in this resource use, it is clear the control remains in the hands of the government/society. Therefore these aquaculture aspirations fit within the wider agenda of attaining *tino rangatiratanga*. Thomas de Thierry (Pers Comm) states that “...aquaculture is an old traditional practice. However now we are forced to conduct an ancient practice under imposed colonial laws”.

TRoNW reinforces that this is an issue of control and self-governance, and that they need to “...gain access to, use of, [and] control over natural resources in our rohe, to support the creation of iwi, hapu and whanau community development initiatives” (TRoNWb 2003, p9).

However, with the rights that are inferred through *mana whenua* status come considerable **responsibilities**;

“[mana whenua is an]...institutional authority that must be respected and acknowledged...for its responsibilities, to people, to potential, to the whenua itself” (TRoNWb 2003, p1).

As *tangata whenua*, there is a ‘sacred obligation’ on every individual to care and provide for the people (*manaaki*) and for the earth (*kaitiaki*). The principles/institutions of *manaakitanga* and *kaitiakitanga* are the “...two most important things in Māori world” and are “...reciprocal and interdependent” (Pers Comm, Tepania Kingi). As *kaitiaki*, Ngāti Whātua has a sacred obligation to uphold the integrity of *tangaroa*. However it is apparent that the Ngāti Whātua approach to ‘sustainability’ (discussed below) differs significantly to the hegemonic conservationist perspective;

“...the ‘natural environment’ is a liveable environment which includes people and their settlement communities, who are not perceived to be unnatural or inherently exploitative additions to natural ecology. Rather, people and the natural ecology need to coexist in a mutually sustainable relationship” (TRoNWb 2003, p8).

Wider Development Aspirations

The data-set also placed this issue of aquaculture development within the broader Ngāti Whātua development agenda. It is evident that the TRoNW development aspirations differ from those of a purely commercial entity.

Tepania Kingi explains how the Māori societal structure and its **collectivist** characteristics are central to the Ngāti Whātua development perspective. Tepania (Pers Comm) explains how the *mana* of the uri, whanau, hapu and iwi is dependent on, and subservient to, that of the social grouping above;

“It is the duty of every individual to use their combined expertise, all their strength, all their education, for the development and collective strength of that whanau”

Another key feature of their development perspective is that the ultimate goal of any development opportunity entered into by Ngāti Whātua is to provide for the ‘**wellness**’⁹⁶ of its people;

“No matter what Ngāti Whātua does become involved in; health, commercial enterprise and so on, the main aim is always wellness/tikanga- *not* profit. This is hard for some outsiders to understand” (TK, Pers Comm)

⁹⁶ Kingi (Pers Comm) describes ‘wellness’ in terms of three dimensions; *wairua* (spiritual dimension) *hinengaro* (psychological dimension) and *tinana* (physical dimension), all of which are interdependent. Upholding the *mauri* of the individual/community is dependent upon the health of all these dimensions.

In terms of the level for targeting development, a ‘**flax-roots**’ philosophy has been identified as the most efficient and appropriate approach. TRoNW state that the attainment of marine farming space and opportunities would;

“...contribute to the capacity of Ngāti Whātua to build community development projects with outcomes designed to meet the needs of *iwi*, *hapu* and *whanau* and assist in addressing the costs of historic poverty and exclusion” (TRoNWb 2003, p9)

Thomas de Thierry (Pers Comm) supports this perspective when he states that;

“...iwi development should be focussed around developing talent Māori have already got. It has to be at the flax-roots...It’s the only way it is going to happen as government assistance in this area is non-existent”

However, TRoNW maintain that development initiatives should still be “...backed by supportive actions from decision-makers and resource managers” (TRoNWb 2003, p10).

The case study below uses the example of Ngāti Whātua o Orakei (situated in *Tamaki*/Auckland) and their dealings with the return of their *papakāinga* at Okahu Bay to demonstrate the Ngāti Whātua development approach;

Case Study 1 Ngāti Whātua o Orakei and their Papakainga at Okahu Bay

“We could have made millions of dollars off it [*papakāinga* at Okahu Bay]. But, our people decided to put a covenant over it, so it could not be developed, and can be used by our people, and non-Māori; for the pleasure of anyone. If you were another person you would have said ‘that’s crazy, chop it up, put condos on it, lease it for 50 years’. So clearly you have a different value system impacting on our development perspective. But if you think ahead more, you could have a discussion

which says, for future development in longer term propositions, that gives us, Orakei, the moral high ground. What other developer, other than the ARC or ACC or other local body, is actually putting aside green areas for the benefit of all people?” (Martin Mariassouce, Pers Comm).

However, the practical implementation of these aspirations within the Kaipara harbour is highly dependent upon the ecological, infrastructural and economic feasibility, which is addressed in the following objective.

Objective 2

To assess the feasibility of establishing aquaculture in the Kaipara harbour

This objective is designed to amalgamate practical information for Te Runanga o Ngāti Whātua, therefore the data will not benefit from a thematic presentation and further analysis. Instead the findings of this objective have been compiled into a practical report for Ngāti Whātua (‘Assessing the Feasibility of Establishing Aquaculture in the Kaipara harbour’ in appendix 4)⁹⁷.

In summarising the findings of the report, there is a general consensus from those currently involved in aquaculture in the Kaipara region and from scientific reports that the harbour has significant potential for further aquaculture development. The six species selected by TRoNW; *kutai* (green lipped mussels), *tio* (pacific oysters), *paua* (black footed abalone), *parengo* (red seaweed), *inanga* (whitebait) and *tuna* (short and long fin eels) have varying degrees of potential. The warm sheltered harbour with good growing conditions and water quality make the Kaipara an ideal location. However, as the next objective will present, there are a multitude of social, economic and legislative barriers that are inhibiting the realisation of Ngāti Whātua aquaculture development aspirations in the Kaipara harbour.

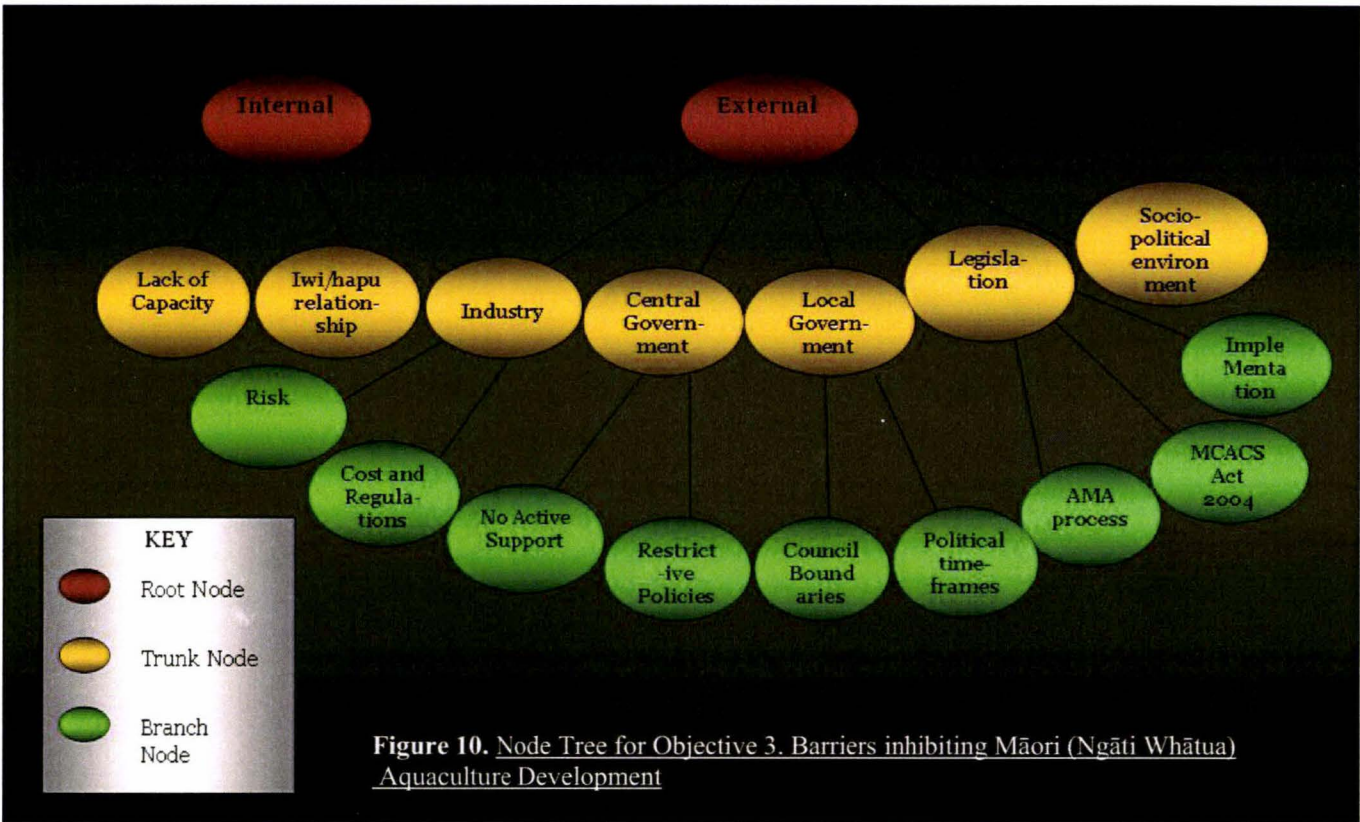
⁹⁷ Following through to this step of creating beneficial and practical outcomes is central to Māori centred Research and an ‘Empowering Outcomes’ approach which I have adopted.

Objective 3

To determine the barriers that are inhibiting Māori, and in particular Ngāti Whātua, from achieving their aquaculture and wider development aspirations

This objective will present the organised themes relating to the barriers inhibiting Māori within the aquaculture sector, and specifically Ngāti Whātua in the Kaipara harbour.

Figure 10 below demonstrates the organisation of the themes, which are clustered around the two ‘root’ nodes categorised as ‘internal’ and external’ barriers;



Internal Barriers

Issues relating to **capacity** and poor **iwi/hapu relationship** have been identified as the two main internal barriers (Pers Comm: Toia, de Thierry, Mariassouce; TTMC 2001).

While Thomas de Thierry (Pers Comm) acknowledges that aquaculture may hold some

potential, he adds that “...Māori are seriously lacking the capital and expertise to get a business started”. At a regional level, a report on Māori aquaculture development in Tai Tokerau (Northland) found that “...Iwi organisations...claim that a lack of finance prohibits developing operations of this nature” (TTMC 2001, p24). The case study below explains how a **lack of capacity** has affected a small scale whanau venture like Sunshine Oysters.

Case Study 2 Barriers Experienced by Sunshine Oysters

The Thompsons’ experience in the industry reveals important insights into the realities of marine farming for small players with little capital. Regarding the RMA process, they state that their “lack of puti” (finance) affects their ability to participate, whereas the “...big industry players” are able to come in and “...pretty much move in wherever they want”. Their lack of financial capital has meant they can only operatively farm a quarter of the space of their farm. The lack of financial return has meant both Adam and Leanne have had to take on other work, and have had to go on the benefit which “...goes against everything we’ve been taught”. Accessing reliable financial advice has also been an issue; last year they received some help from Te Puni Kōkiri, however they have since received detrimental advice from accountants. Last year SO managed to successfully export through Kiaora seafoods, however they could not meet the demand due to lack of labour supply. They can only afford to pay labourers \$10.50 per hour, and it is “rough work” within a distant rural setting. To act as compensation they often let employees live-in, however it is still “virtually impossible” to maintain a workforce. Leanne and Adam Thompson conclude that “...motivation becomes an issue when you get constantly bashed around”, however this is something that has potential for Māori people (Sunshine Oysters, Pers Comm).

A lack of support and poor relationships between TRoNW and some of its hapu (**hapu-iwi relationship**) is identified as another barrier. Thomas de Thierry (Pers Comm) states

the relationship “needs improvement” through better “communication” and that Te Runanga needs to fulfil an “advisory” role. Sunshine Oysters state that they have had no support from either level (hapu or iwi), and in some instances they have had to “fight our own people” over the control of their farm (SO, Pers Comm). The Runanga level also acknowledges this is an impediment and concludes that the Ngāti Whātua “...diverse hapu base” poses a serious threat of causing “...constant in-fighting and poor buy-in at the Hapu level” (Toia and Forsythe 2006, p40).

External Barriers

The external barriers that were raised include the nature of the **industry**, issues at the **central** and **local government** level, **legislation** and a **negative socio-political environment**.

There are several inherent **industry** related barriers that affect iwi/Māori participation in aquaculture. Several information sources identified **costs** and **regulations** as a key issue. Sunshine Oyster (Pers Comm) state that “the costs are insane” and that they have joined a co-op to cover MAF monitoring levies. The strict regulations also affect the farmer’s ability to sell their product. The Tai Tokerau aquaculture report found that “...compliance systems within the industry attract levy costs that present barriers to entry [for Māori]” (TTMC 2001, p24).

The high **risk** nature of the aquaculture industry, due to its relative newness as well as its dependency on the environment and the market (both of which are volatile) causes difficulties in attracting investment (Toia and Forsythe 2006). Sunshine Oysters (Pers Comm) indicate this is an issue, and have only managed to get a quarter of their farm operational due to an inability to secure investment. Several industry sources reiterate the importance of focussing on the marketing end and the high costs involved. Biomarine state there is a tendency in “...New Zealand to look at something it can grow, and then

grow it, and then go to sell it, and realise it's not worth anything", but you have to start at the marketing end (Biomarine Pers Comm, reiterated by John Hannah, Pers Comm).

The government's approach to Māori aquaculture development at the **central level** is both **restrictive** and provides **no active support** avenues. Within government policy and legislation, Māori interests relating to resources are often restricted to the customary sphere which limits the ability of Māori to commercially engage with the natural environment. An example of this is in regard to Te Uri o Hau and the return of their Kaipara Oyster reserves⁹⁸ where use has been restricted to customary gathering, making it uneconomical for these reserves to be developed (Toia, Pers Comm). Also, the central government does not provide direct funding avenues to encourage Māori involvement in aquaculture. Martin Mariassouce discusses the role of Te Puni Kōkiri and the neo-liberal philosophy that it adopts with regard to direct financial investment for profit;

"You have to understand our [TPK's] position in the market place, and the government's position. We actually aren't in a position to directly assist Māori. That's held to be a matter for the private sector, not the public sector" (Mariassouce, Pers Comm)

Issues at the **local government level** that arose concerned the conflicts between *rohe* and **council boundaries** and the lack of certainty resulting from short **political timeframes**. Ngāti Whātua deals with a multitude of regional, city and district councils⁹⁹ which is a particularly serious issue as the Kaipara is under the authority of two regional councils (Toia, Pers Comm). These arbitrary boundaries become an issue when they do not appropriately coincide with iwi/hapu boundaries. For example, Thomas de Thierry's marae (Oruawharo) sits just on the Northern Regional Council (NRC) side of the council boundary, however despite the fact that many of its people reside on the Auckland Regional Council (ARC) side, by law the ARC is not obliged to consult with the marae. When the ARC proposed to put an Aquaculture Management Area (AMA) directly in

⁹⁸ As part of the Te Uri o Hau Settlement Act (2002).

⁹⁹ Ngāti Whātua interacts two regional councils, three city councils, four district councils, and has to take into consideration the activities at least four other surrounding local authorities (Toia, Pers Comm).

front of their Oruawharo marae, they had “...no say in the matter” (de Thierry, Pers Comm).

The changing council political agenda due to short periods in power is a major hindrance to aquaculture. When Biomarine decided to try to farm in the Kaipara, they had a “...pro business council” who supported their proposal, however those councillors were all “...chucked out” in the local elections and the ARC “...suddenly withdrew their support” (Biomarine, Pers Comm).

Several issues were raised relating to the **aquaculture legislation**. These issues focussed around the **AM** (aquaculture management) **process**, the Māori Commercial Aquaculture Claims Settlement Act (**MCACS Act 2004**) and the **implementation** of the legislation.

In 2003 the government reformed the legislation relating to aquaculture (discussed p28). The current exclusion of Māori interests through the restrictive **legislation** caused Ngāti Whātua to lodge a claim with the Waitangi Tribunal (Wai 953, 2002). Ngāti Whātua claimed the reforms would further inhibit Māori involvement in the industry. An Aquaculture Hui held in 2003 revealed that many Māori nation-wide held similar concerns over the reforms;

“Māori would generally be unable to compete on financial terms with large business interests...[and it] does not address equity of access to marine space for Māori” (Aquaculture Hui Submission 2003, p6)¹⁰⁰

The devolution of responsibilities from the Crown to the local authorities through the Aquaculture Management (**AM**) reforms is deemed inappropriate by both Regional councils and Māori (LGNZ 2003; Toia, Pers Comm). Hally Toia (Pers Comm) explains that it is “...inappropriate to have national Treaty related issues resolved at the local government level”.

¹⁰⁰ Te Runanga o Ngāti Whātua also participated in this Hui

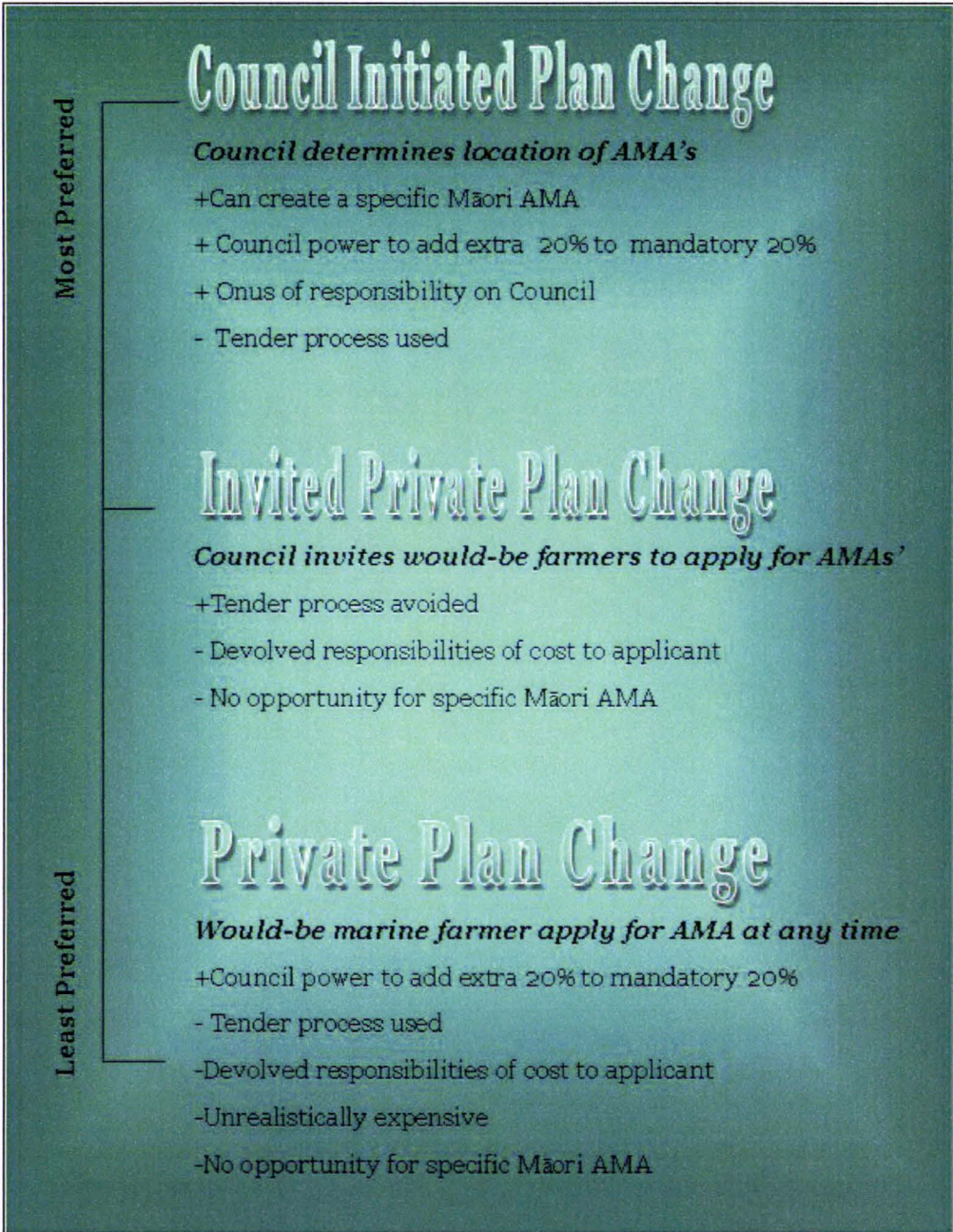
Several issues were also raised regarding the Māori Commercial Aquaculture Claims Settlement Act, 2004 (**MCACSA**). The MCACSA was designed to settle Māori aquaculture commercial interests¹⁰¹. However, multiple deficiencies within the Act are raised (Arthur et al. 2005; LGNZ 2003; Toia, Pers Comm). The most disconcerting reality is that this Act provides no guarantees of actual space for Māori (discussed earlier page 32).

Several issues were also raised regarding the actual **implementation** of the legislation. Due to uncertainties surrounding the AM reforms, many councils have put their aquaculture planning on hold (LGNZ 2003). There are three options available for councils to pursue. The positives and negatives embodied in the three options and the preferred option from the Ngāti Whātua perspective¹⁰² are summarised in figure 11;

¹⁰¹ The Act has been described as a “knee jerk reaction” (Biomarine, Pers Comm) and as a response to the Foreshore and Seabed issue (Toia, Pers Comm).

¹⁰² Diagram has been created from discussion with Hally Toia and from the key points from the TRoNW submission (2006) to the NRC on the proposed aquaculture management plan changes (completed as part of the practicum component of this Masters).

Figure 11. Review of the Three Implementation options available to Councils as they Affect Māori.
Source: Toia, Pers Comm [+ = advantage to Māori, - = disadvantage]



Due to the high expenses involved in the plan change process, invited and private plan changes are most often preferred by council's as the cost are devolved to would-be applicants. This is a key factor for the Ngāti Whatua opposition to these options as it inequitable favours those with financial capacity.

The following case study addresses Biomarine's experience with the legislative process, which illustrates similar issues to those that Ngāti Whātua applicants will face when attempting to gain AMA space and resource consents;

Case Study 3 Biomarine's Experience of the Aquaculture Process

Biomarine have indicated that the two most significant barriers to aquaculture development in the Kaipara are opposition by NGO's and legislation. Biomarine believe most NGO/interest group concerns are philosophically derived in that "...they don't think you should make profit out of public water". Recent attempts by Biomarine to gain Oyster and Mussel farming consents have been rejected by the Environment Court (mostly under Issues of National Importance s6 (a)(b)(d) RMA, 1991). The farms were going to create around 150 fulltime jobs and were supported by TRoNW. The "randomness" of decisions made in the Courts regarding development in the harbour is "disconcerting"¹⁰³. The legislation is also "...incredibly more difficult than it was five or six years ago, because they have put another layer of application on it"¹⁰⁴. The burdensome legislation places even more costs on the applicant¹⁰⁵ (Biomarine, Pers Comm).

¹⁰³ For example, the courts approved a sand mining operation at the mouth of the harbour which poses far greater environmental threats (Biomarine, Pers Comm).

¹⁰⁴ Once an AMA is established, still have to go through the Resource Management Act process which is costly, lengthy, and open to opposition/judicial redress.

¹⁰⁵ For example, Biomarine spent around \$15,000 on marine mammal and bird reports in their recent Environment Court hearings.

The following case study provides an alternative Environmental Non-Governmental Organisation (ENGO) perspective on aquaculture and Māori involvement, offered by Kaipara Forest and Bird¹⁰⁶;

Case Study 4 An ENGO Perspective: Kaipara Forest and Bird

Suzi Phillips (convenor of Kaipara Forest and Bird) says that there is “insufficient research” surrounding the ecological effects of aquaculture in the Kaipara harbour, and it is an inappropriate development option. Many people enjoy the “undeveloped” nature of the Kaipara and do not want to look out on “industrial aquafactories”. Suzi says that Forest and Bird have a “...lot of respect for the Māori people [who]...would not do something that would harm the environment” and that they have a “moral right” to be involved more than industry. In principle, KF&B would “...not oppose such [small scale] ventures by iwi”, but it would depend on the situation, and environmental bottom-lines take precedence. Suzi suggests that eco-cultural tourism has more scope for iwi than aquaculture tourism and will provide more local jobs (Suzi Phillips, Pers Comm).

The final barrier that emerged relates to the negative **socio-political environment** facing Māori (aquaculture) development. Political lobbying and purposeful misrepresentation fuels negative public attitudes towards Māori development¹⁰⁷. Comments such as this made by National Party member Phil Heatley are common;

“This is an industry that’s only 40 years old. It’s fanciful for Māori to claim Treaty rights to any part of it” (Heatley 2004).

The next objective will present strategies embedded in these realities in order to achieve Ngāti Whātua aquaculture aspirations in the Kaipara harbour.

¹⁰⁶ Appellants to Biomarine’s Environment Court hearing.

¹⁰⁷ A prime example of this is the media’s selective representation of the issue and the political lobbying of the foreshore and seabed issue by the National party.

Objective 4

To identify strategic ‘flax-root’ options for the implementation of Ngāti Whātua aquaculture aspirations

In order to overcome these barriers, strategies have been identified in the data-set based in the realities and capacities of Ngāti Whātua. Six different ‘root nodes’ (options) emerged as depicted in figure 12 below; Joint ventures, supporting whanau ventures, providing support avenues, relationship building, aquaculture tourism, and central government lobbying. These six options will be discussed below, supported by quotes and case studies.

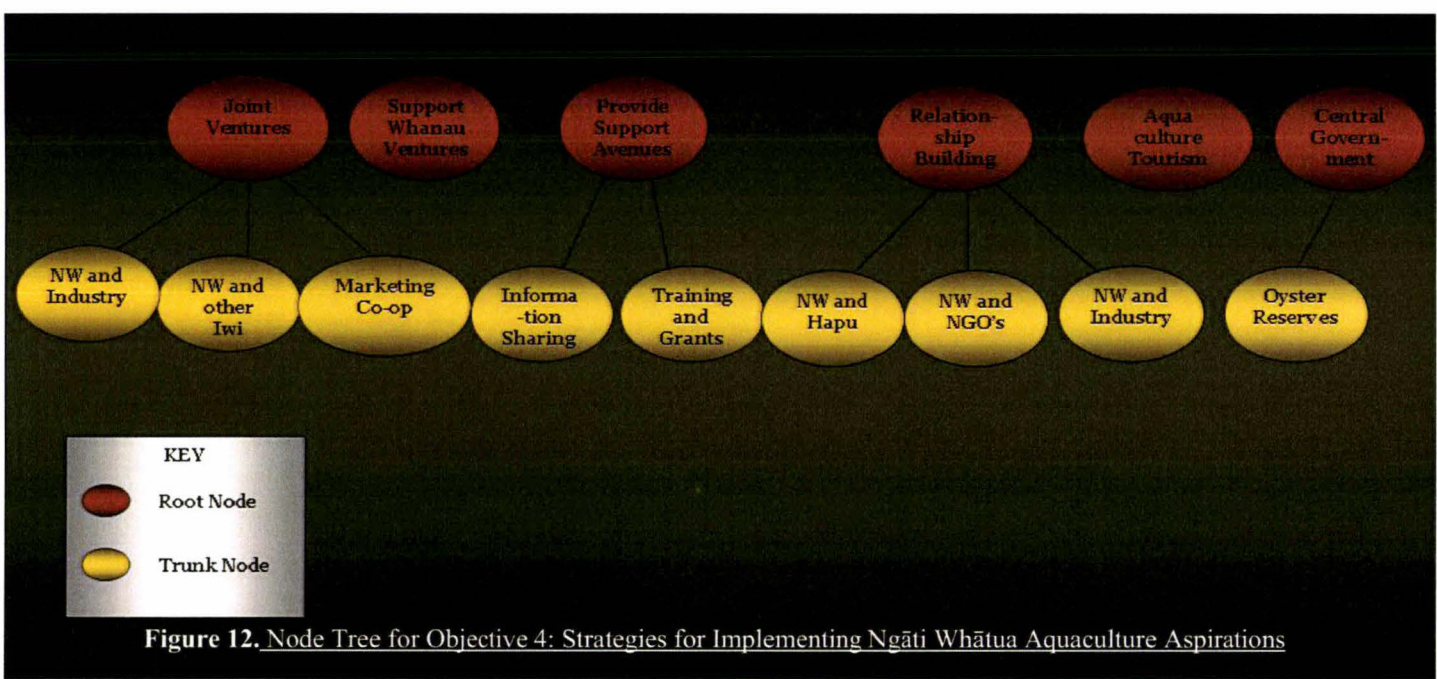


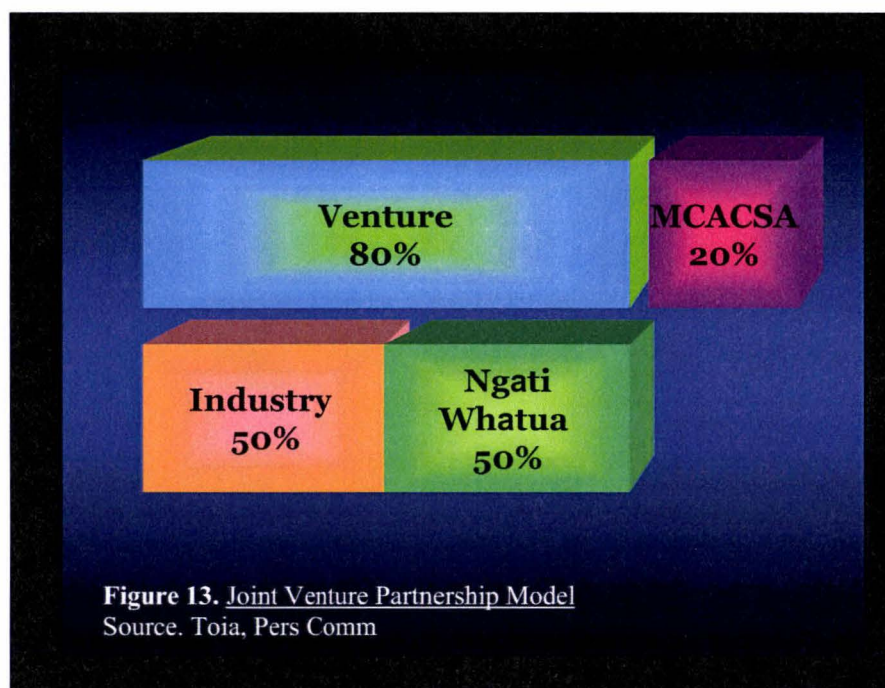
Figure 12. Node Tree for Objective 4: Strategies for Implementing Ngāti Whātua Aquaculture Aspirations

Joint Ventures (JV)

The potential for joint ventures as a strategy was indicated by several sources (Pers Comm: Toia, Hannah, Biomarine). Establishing joint ventures with **industry** would enable shared costs and expertise. Hally Toia has already been meeting with various key

players in the fisheries and aquaculture industry¹⁰⁸. The relationship between Biomarine and TRoNW is one such potential joint venture option¹⁰⁹.

Below (figure 13) is a partnership model that would be appropriate from which to start a JV with industry;



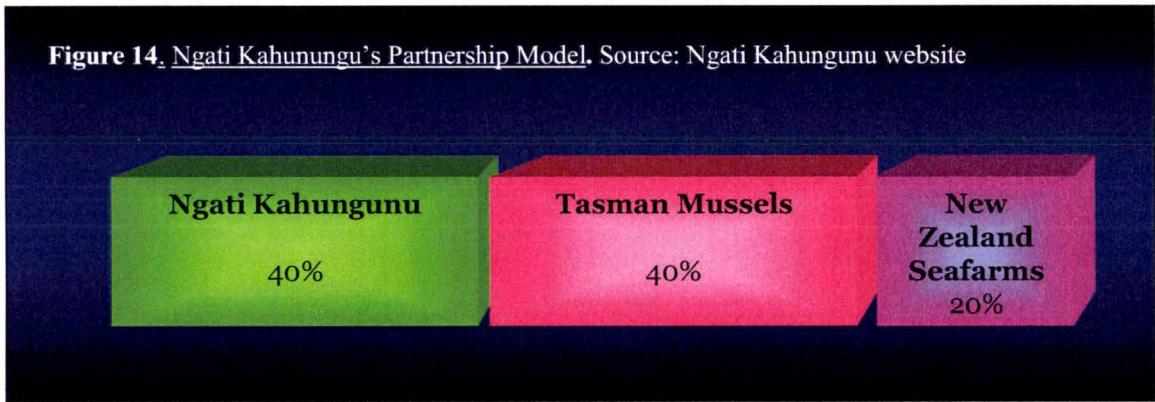
The 20% (MCACSA) should be initially discounted with the remaining 80% divided on an equal 50-50 partnership model. This leaves the industry partner 40% of the initial space, and hence might lack appeal, however this is the only acceptable way to approach this JV option (Toia, Pers Comm). This view is shared by Thomas de Thierry (Pers Comm) who believes that if a hapu-industry venture is to be a reality, it would have to be on a 50/50 basis, with “...both groups at the table receiving the same benefits”. Below is a case study of a successful partnership formed between Ngāti Kahungunu and Tasman Mussels based on a similar model.

¹⁰⁸ In the past Hally has met widely industry such as Sanford, Moana Pacific and Southern Storm, however he has narrowed this down to two: Biomarine and Leah Fisheries.

¹⁰⁹ Cadetships and scholarships were established during the recent consent application where Biomarine agreed to give 0.5% of the gross annual income to NW scholarship fund (Toia, Pers Comm).

Case Study 5 Joint Venture between Ngāti Kahungunu and Tasman Mussels

Ngāti Kahungunu adopted a partnership model with Tasman Mussels (40%) and New Zealand Sea Farms (20%) when developing their offshore mussel farming venture in the Hawkes Bay (see figure 14). The driving motives for establishing the farm are similar to those of Ngāti Whātua including tribal self-sufficiency, improving the quality of the harbour and stock replenishment. Ngāti Kahungunu invested \$8 million, and expects to see a return of \$3 million annually. The farm is expected to provide around 250 to 350 jobs (Ngāti Kahungunu website).



Another strategy is to create joint ventures **with other iwi** (Pers Comm Toia, Hannah). TRoNW has already adopted cooperation strategies with other iwi¹¹⁰ of the Tai Tokerau, whereby Resource Managers, CEOs and iwi chairs have monthly meetings for general discussions, which also acts as an action forum (Toia, Pers Comm). Joint ventures through **marketing co-ops** is another way to streamline costs. Sunshine Oysters (Pers Comm) had a positive experience exporting their product through Kiaora Seafoods. The high standards required by export markets challenged them to grow a better quality product. Biomarine (Pers Comm) also promotes marketing co-ops and suggests that;

¹¹⁰ Ngāti Whātua, Ngapuhi, Ngātiwai, Ngāti Kahu, Te Rarawa, Te Aupouri.

“...if Ngāti Whātua got involved, it would be my recommendation that they got involved in something like this [JEMCO¹¹¹]”



The photo (figure 15) displays JEMCO’s end product ready for export (frozen half shell oysters for export to Japan). Joining co-ops at the operative level to streamline the costs of regulation and compliance is another option (Sunshine Oysters joined such a co-op¹¹²).

Figure 15. JEMCO’s End Product for export: Frozen Oysters in half shell.
Photo: Monique Badham

Independent small-scale whanau ventures (WV)

Another option is to strategically pursue aquaculture on a small scale, through supporting whanau-run ventures such as Sunshine Oysters. The case study below demonstrates the potential such small scale **whanau-run ventures** have for achieving flax-root, self-determined development opportunities;

Case Study 6 Sunshine Oysters- A whanau-run Venture

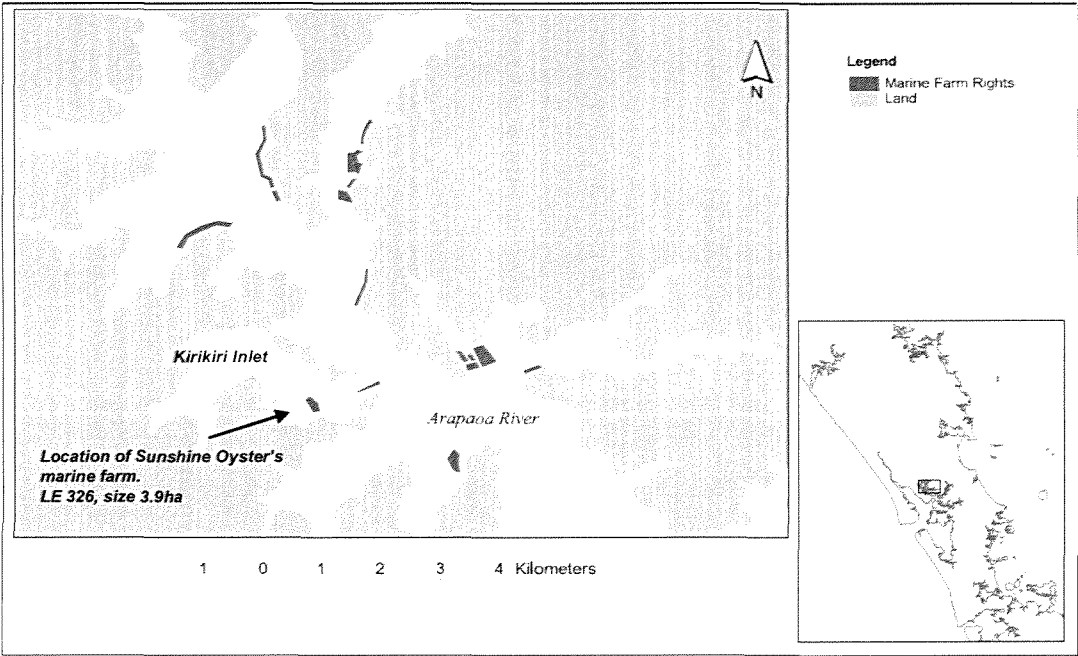
Sunshine oysters run a ‘whanau venture’ that produce oysters off 1.25ha (of a 3.9ha lease) which was a former Ministry of Agriculture and Fisheries (MAF) farm (see figure 16 below). Set up costs involved \$10,000 (per quarter), and they have

¹¹¹ JEMCO is a marketing co op established by Biomarine which includes several big industry players, and target the Japanese export market.

¹¹² However there was a lack of equality in that small farmers had to pay equal costs as the ‘big industry players’ (SO, Pers Comm).

managed to make an annual \$25,000 profit. Their oysters take around 18 months to grow to full harvestable size, and it takes around two years to see a return. They believe that aquaculture has a lot of potential for their people, however the costs and their inability to attract investment or support from their own hapu has tainted their experience. The venture has been profitable, however it is a struggle to be able to provide for the whanau in an industry that has so many barriers (Pers Comm).

Figure 16. Map showing location of Sunshine Oyster marine farm lease in the Kaipara Harbour. Source: Waikato University Website



The benefits of pursuing this ‘small scale’ option include that it produces more employment opportunities per unit of capital invested, is more widely distributed geographically, and is often locally owned enabling improved income distribution (Pillay 1990). Small-scale ventures also have less concentrated environmental effects, and would possibly be more acceptable to environmental NGOs¹¹³.

¹¹³ However, a recent review of Environment Court decisions found it approves more of large regularly shaped blocks more than three nautical miles out to sea rather than in a lot of small developments closer to the coast (Whakatohea Māori Trust website).

Create Support Avenues (SA)

Another strategy is the creation of support networks by TRoNW for constituents who wish to establish an aquaculture venture. Hally states that TRoNW is not in a financial position to provide capital, but it can fulfil an advisory role (Toia, Pers Comm). One possible avenue for TRoNW to pursue includes **information sharing**. A potential format is through an aquaculture database where all relevant documentation and advice can be accessed (Toia, Pers Comm). Another avenue includes supporting and possibly establishing **training/education initiatives** and **grants**, or at least directing interested parties to available funding.

Relationship Building (RB)

It was suggested in the interviews that relationship building would be an advantageous option to pursue. The relationship between **TRoNW** and its **hapu** (in particular Te Uri o Hau) have been highlighted as an area that requires improvement (Pers Comm, de Thierry, Toia). In order to implement any strategy, there needs to be greater cohesion and cooperation between Te Runanga and its hapu. Maintaining open and useful lines of communication with **NGO's** and other interest groups is another critical strategy (as demonstrated through the poor Biomarine-Kaipara Forest and Bird relationship). Hally (Pers Comm) maintains there are no fundamental points of disagreement between Ngāti Whātua and ENGOs such as KF&B. Relationship building with **industry** is another possible option. TRoNW has been pursuing this path for years, having already established relationships with Leah Fisheries and Biomarine (Toia, Pers Comm).

Aquaculture Tourism (AT)

Aquaculture tourism has been flagged as a potential fusing of industries which would provide a compatible relationship and enhance the economic feasibility of aquaculture (Jeffs 2003; Pers Comm, Hannah, Toia, Biomarine). A report on the potential for

aquaculture in the Northland region found that “...aquaculture tourism is a growing phenomenon worldwide” and is a feasible option (Jeffs 2003, p165; supported by Biomarine, Pers Comm). The Northland region is associated with its marine environment and tourism is already an established economic activity (Jeffs 2003). Potential aquaculture tourism activities include aquaculture site tours, recreational fishing, restaurants and an oyster festival (Hannah, Pers Comm). Examples of aquaculture tourism in New Zealand include a Malaysian prawn farm operation in Wairakei (which conducts tours and has own restaurant), Ohiwa oyster farm (which operates a fish and chip shop), and a Paua farm venture in Rotorua (which operates a visitor centre to sell their product) (*ibid*).

The impact of aquaculture tourism on Havelock, a small Marlborough town, demonstrates a successful fusion of these industries. Havelock became involved in mussel farming around 20 years ago, and has managed to turn the tides of its dwindling population and reduced economic opportunities. Havelock utilises its Greenshell™ mussel farms to encourage tourism in the town. The town also holds an annual Havelock Mussel festival. Hannah believes aquaculture tourism has a lot of potential for small coastal communities, such as those in the Kaipara (John Hannah, Pers Comm). Hally envisions that a Māori run aquaculture tourism venture act as a cultural experience, and could involve traditional knowledge narratives (Toia, Pers Comm).

Central Government (CG)

As discussed previously, Te Uri o Hau are restricted to ‘customary’ use of their oyster reserves (returned as part of the Te Uri o Hau Settlement Act, 2002). Te Uri o Hau are currently in the process of discussions with MFish to enable them to gain commercial use of their oyster reserves. Continued lobbying to gain commercial rights to their customary entitlements is another option that should be pursued (Toia, Pers Comm).

Summary

This chapter has organised the data through nodal coding, and has presented the findings through thematic narratives, quotes and case studies. For objective 1, themes surrounding the nature of Ngāti Whātua aquaculture aspirations and how they fit within the wider development paradigm were presented. These aspirations are multi-faceted and holistic and include wider agendas relating to 'rights', as well as ensuring cultural 'responsibilities'. A brief summary of the feasibility of the Kaipara harbour demonstrated that several species would be suitable for aquaculture, and as a location the Kaipara has favourable characteristics. However, objective 3 presented the social, economic and legal barriers that are (and will) inhibit the realisation of these aquaculture, and wider development, aspirations. The three case studies gave a diverse picture of the barriers faced from both a small scale (Sunshine Oysters) and a large scale industry venture (Biomarine), as well as an environmentalist view from Kaipara Forest and Bird. The final objective presented six different options that Ngāti Whātua could pursue. The options approached the issue from several different angles including joint ventures, relationship building and pursuing aquaculture tourism. However the commonality was the focus on 'flax-root' options based on practical and feasible iwi empowerment. The following chapter will analyse and discuss these findings through Hutchings' (2002) adapted 'Mana Wahine Conceptual Framework'.

Chapter 6 Analytical Discussion of Findings

“For well over a century Māori have been excluded from an active role in mainstream governance, including environmental planning. The legacy of this experience is a loss of Māori ownership and control over natural resources... and [has] reduced their own internal capacity to develop and protect their remaining lands” (Taiepa 1999, p27).

This chapter analytically explores the data presented in Chapter 5 using an adapted version of Hutchings’ (2002) ‘Mana Wahine Conceptual Framework’ to guide the discussion. This framework, in-conjunction with the literature review, key concepts and background issues, will be used to identify and analytically discuss the thematic relationships. The chapter will continue to use the objective structure, and will also incorporate diagrams to analytically present the thematic interactions. At the completion of this chapter, the adapted Conceptual Framework will be critically reviewed with regard to its applicability to Māori development issues. Firstly, an examination of the adapted Conceptual Framework and its intended use in this chapter will ensue, followed by a review of the key literature findings.

Conceptual Framework

Hutchings’ (2002) ‘Mana Wahine Conceptual Framework’ provides a useful Māori centred model with which to guide the analytical discussion (see page 47 for further justification). As was previously stated, Hutchings intends the framework to be fluid and inclusive, and encourages researchers to “...make it relevant and specific to their field” (*ibid*, p152). Therefore post-literature review and data gathering, the ‘Critical Focus Areas’ have been altered so that they are more specific to Māori development issues of relevance to this thesis. The additions can be seen in figure 17;



The adapted Framework maintains the same structure and ideological foundations¹¹⁴ as Hutchings’ original model, however the following subtractions (due to the themes absence) and additions (due to its presence in the literature and data-set) have been made: removal of ‘intellectual property rights’ and the ‘de’ from ‘colonisation’, as well as the

¹¹⁴ Compare with Hutchings’ original concept figure 5, page 51

amalgamation of '*kaitiakitanga*' and '*Papatūānuku*'. Additions made include '*ohaoha*' (economics), '*TEK/matauranga*', '*manaakitanga*' and '*tino rangatiratanga*', as well as adding 'values' to '*tikanga*' and 'Treaty of Waitangi' to '*Te Tiriti*'. The addition of the 'roots' is to further indicate the interconnectedness between the different blades of the *harekeke* (CFAs). As Hutchings (2004, p19) states, the framework is grounded in "whakapapa", hence the addition of '*whakapapa*' and '*mana whenua*' at the roots to demonstrate the central issues of 'rights' and 'responsibilities' embodied in these concepts. The circular border has been added to represent the notion of balance, and the need to achieve harmony between the various agendas in a Māori development approach.

The following table (figure 18 over page) revisits the key points from the literature review which will be integrated into this analytical discussion.

Figure 18. Summary of Key Points from Literature Review

1. Development is a diverse concept with multiple understandings.
2. 'Eurocentric' hegemonic understandings dominate and are biased towards economic and materialistic advancement which marginalises alternative/Māori approaches.
3. A shift is occurring towards more holistic understandings of development (including social, environmental, cultural, economic, self-determination and equity).
4. Māori occupy position of socio-economic disparity as a result of colonisation, which is perpetuated through structural processes.
5. Māori have resisted historical assimilation policies and have taken control of their own development agenda.
6. Is an issue of inequitable power; the decision-making sphere is dominated by mainstream and monocultural institutions.
7. Evolution of MD at national level: Hui Whakapumau and Taumata, however dominated by neo-liberalisation and economic policies.
8. Treaty process important role in MD (but viewed critically in terms of rise of 'Indigenous elite' and marginalisation of women and hapu).
9. Māori economy- asset-based, primary industry.
10. Common characteristics of MD; *tino rangatiratanga*, balanced, holistic, *tikanga* and values, Māori 'worldview', environment interconnected and flax- root control.
11. Government has responsibility to facilitate MD. However 'closing the gaps' approach is paternalistic, Eurocentric and sets *Pakeha* standards. Refusal to address the underlying structures responsible for inequality.
12. Diverse approaches to MD: 'Holistic inventory approach', 'Tri-axial Framework', 'Partnership- Two Cultures Development Model'.
13. Multitude of barriers: internal capacity, geographical isolation, organisational and legitimacy issues, conflicts between commercial and cultural aspirations and collective resource ownership, discriminatory legislation, short political timeframes, environmental opposition, marginalisation of Māori worldviews and negative socio-political climate.
14. Indigenous literature- Indigenous populations under colonial governments face similar circumstances when approaching self-determined development. Similarities in holistic approach, importance of cultural values and control by community.

Objective 1

To examine the nature of Ngāti Whātua aquaculture development aspirations

The data presented in Chapter 5 indicated that Ngāti Whātua aspirations for this resource utilisation issue are complex and incorporate a range of social, cultural, commercial, environmental, political and even spiritual facets. It is useful to conceptualise these dimensions in a diagram (see figure 19) to demonstrate the relationships between these aspirations, and the layers and levels on which they occur.

Figure 19. Conceptualising Ngāti Whātua Development Aspirations



The core of the diagram features three overlapping circles, labelled ‘customary’, ‘community’ and ‘commercial’. These are the three main facets of Ngāti Whātua development goals. The gradually changing transparency of these three circles indicates the hierarchy of importance between each sphere: ‘customary’ (lightest yellow), being the most critical, followed by ‘community’, and finally ‘commercial’ goals (Pers Comm, Toia). The interlocking of the three spheres demonstrates the interdependence of each for the achievement of holistic development. The acknowledgement of hierarchy amongst these goals is significant. The positioning of ‘customary’ goals as most important indicates the cultural imperative of adhering to *tikanga* and other principles such as *manaakitanga*. The placing of ‘community’ goals above ‘commercial’ demonstrates the positioning of ‘people’ above ‘profits’. While TRoNW acknowledges the interdependence of these spheres, this prioritising has important consequences on their development decisions (as was demonstrated in case study 1). Despite this notion of hierarchy, the overall aim is to achieve an appropriate balance between these three goals.

The next two layers address the ‘rights’ and ‘responsibilities’ that underlie Ngāti Whātua development aspirations. The first layer behind the linking circles is labelled ‘responsibilities’ whereby the reciprocal (indicated by the arrows) themes ‘*manaakitanga*’ and ‘*kaitiakitanga*’ feature. These have been highlighted by TRoNW as central principles that drive the development agenda, and can also be considered the ‘bottom-lines’ of development; that nothing should negatively impact on Ngāti Whātua (NW) abilities to *manaaki*, or adversely harm *Papatūānuku*.

Figure 19 addresses the ‘rights’ within which NW development goals are embedded. These ‘rights’ essentially stem from their unique *mana whenua* status, as signatories of *Te Tiriti o Waitangi* and partners with the Crown. *Tino rangatiratanga* was enshrined in *Te Tiriti/Treaty of Waitangi*, along with the assurance that all *taonga* (including marine farming) would be protected. The most outer circle in figure 19 is labelled the ‘Ngāti Whātua Development Paradigm’. This ‘paradigm’ refers to the overarching fundamental NW philosophies and approaches to development. These have been coded as ‘collectivity’, ‘well-ness’ and ‘flax-roots’.

While the focus of this research is on the particular resource use of aquaculture, the discussion around these aspirations fits within the wider Ngāti Whātua development paradigm, and also within the broader Māori development literature. This next section will analytically discuss these layers and interactions.

Firstly, the embedded nature of these aspirations in the sphere of ‘responsibilities’ places Māori, as developers, in a unique position. These responsibilities are related to the reciprocal cultural principles of ‘*kaitiakitanga*’ and ‘*manaakitanga*’. While Ngāti Whātua emphasise the importance of these particular principles, the notion of responsibilities is an integral component of the Māori development worldview. The multi-faceted principles of *manaakitanga* and *kaitiakitanga* were addressed in depth in Chapter 1 which revealed the reciprocal and integrated nature of these institutions. *Manaakitanga* embodies a responsibility to utilise *Papatūānuku* to provide sustenance for humans; and *kaitiakitanga* enables, and obliges, humans to reciprocate by acting as stewards, guardians, managers and sustainable users of *Papatūānuku*. These cultural responsibilities to both people and the environment have important ramifications for Māori development decisions: Māori, as *tangata whenua*, have interests in development that are historically rooted, long-term in vision, and are above and move beyond political agendas and timeframes. These interests position Māori as ideal ‘sustainable’ managers of their natural resources.

This development paradigm and its application to natural resource use has been practised in a way that has enabled Māori to live in a state of equilibrium with their environment for centuries prior to colonial contact. Many ‘sustainability’ tools (such as *rahui*, restricted/rotational use and a complex system of knowledge/*matauranga*) existed to ensure a balance between development, commerce, and customary imperatives was attained. However, due to the process of colonisation, and the marginalisation of Māori environmental worldviews and practices, these management tools and consequently their interactions with the natural world have been significantly eroded.

The case study into the Environmental NGO Kaipara Forest and Bird, examined a hegemonic conservationist perspective, and how such views often come into conflict with Māori approaches to environmental management. Suzi Phillips (KF&B) raised valid issues around the potential ecological effects of aquaculture (reiterated by Thomas de Thierry, Pers Comm) which are central to their organisational mandate. The fact that KF&B (and many other ENGOS) respect Māori customary environmental imperatives (such as *kaitiakitanga*), and that they acknowledge Māori have a “moral right” (Suzi Phillips, Pers Comm) to become involved in the industry are promising. However, when the discussion moved towards Māori rights to engage with, and gain economic benefits from their own natural resources through aquaculture, the lines of support became blurred.

This approach is reflected by the Crown in its dealings with Māori resources, whereby ‘rights’ to development are often acknowledged, however when practically implementing these rights there is a tendency to compartmentalise Māori interests as either ‘customary’ or ‘commercial’, thereby inhibiting the ability of Māori to achieve holistic development as defined in their own worldviews. The superimposition of ‘customary’ and ‘commercial’ boundaries upon Māori resource utilisation creates various internal tensions by pitting Māori interests against each other.

A critical cultural component of a Māori environmental worldview is *tikanga*. The most relevant aspect of *tikanga* for the practice of aquaculture is the notion of the sacredness (*tapu*) of all things created by *atua*, and the need to acknowledge the interconnection between all living things. As long as aquaculture, or any resource practice, does not conflict with *tikanga* and undermine the sacrality and sustainability of the *kaimoana* or *Papatūānuku*, then it is essentially compatible.

While there is some legal ‘recognition’ of such Māori environmental concepts, they are often interpreted one-dimensionally with weakly inscribed legal instructions¹¹⁵. For

¹¹⁵ For example, the RMA (1991) includes the following Māori related provisions; ‘**recognise and provide for**...the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi

instance, *kaitiakitanga*, once transposed into a different cultural context, has been interpreted (both in law and common understanding) as ‘stewardship’ or ‘guardianship’. This implies a solely protectorate dimension to *kaitiakitanga* (as indicated in the KF&B interview). However utilisation is a critical component of *kaitiakitanga* and such one-dimensional views confine Māori to ‘guardian’ roles and ignore Māori rights to development within their own environmental ‘lore’ and *tikanga*.

However, with these ‘responsibilities’ comes entrenched legal, customary and citizenship ‘rights’. The existence of ‘rights’ is a critical dimension of the NW development paradigm, which also situates this issue within the political realm. Prior to colonial contact, rights to natural resources were fluid and based on upholding *mana whenua* status through occupancy, utilisation, warfare and diplomacy. However, with the arrival of settlers and the establishment of colonial governance, these customary systems of ‘rights’ were undermined as Māori were alienated from their resource base. Despite the legal solidification of Māori rights in the Treaty/*Te Tiriti o Waitangi*, they were easy for the colonialists to repudiate. Abuses of these rights are not confined to the history books: neo-colonial resource abrogation continues, such as the recent foreshore and seabed confiscation, and to further denigrate Māori, common ‘rights’ to judicial redress as citizens over such abuses are also denied.

Therefore, an inherent component of Māori development agendas (as illustrated in the NW development paradigm, figure 19) is to gain recognition of these rights, and achieve control and self-determination of the development agenda and their natural resources. Ngāti Whātua have pursued legislative avenues to gain recognition of these rights (for example through the ‘Ahu Moana’ Wai 953 claim), however this research is embedded in the reality that while various ‘rhetorical victories’ have occurred, the power of the Crown to determine the access and control available to Māori is so monopolistic that alternative self-reliant avenues must be pursued.

tapu, and other taonga’ (Part 2 s 6, e), ‘have **particular regard to**...*kaitiakitanga*’ (Part 2 s 7, a) and ‘**take into account** the principles of the Treaty of Waitangi’ (Part 2 s 8).

Tino rangatiratanga also emerged as a key component of Māori development agendas (more explicitly in the literature than the interviews). Durie (1998 in Harmsworth et al. 2004) discussed *tino rangatiratanga* as a spectrum, which includes calls for Māori political sovereignty and control, as well as micro-level goals of regaining self-esteem and belief at a personal level. This spectrum was evident in the interviews, whereby at the whanau level, Alan and Leanne Thompson of Sunshine Oysters (Pers Comm) wanted the opportunity to engage in an activity that would enable economic self-reliance. On a hapu level, Thomas de Thierry (Pers Comm) spoke of Te Hanas' aspirations to develop self-determined economic and community opportunities for a small rural town with little government support. At the iwi level, agendas for *tino rangatiratanga* became more political, where TRoNW has the mandate to act on behalf of its hapu to resist and challenge abuses to their *mana whenua* rights.

Tino rangatiratanga is closely related to the issue of power. There has been reluctance by the New Zealand government, and generally other colonialist governments, to address the more political issue of Indigenous self-determination. This is evident in the New Zealand government's (and other colonialist governments') recent refusal to sign the UN Declaration on the Rights of Indigenous Peoples (1994, see p12), which reveals that claims for *tino rangatiratanga*, however politically benign, are perceived to be a challenge to national sovereignty and 'one nation' ideologies.

A further issue relating to this development paradigm is whose aspirations it truly reflects. The literature raised issues around the 'iwi-isation' of Māoridom, and the privileging of iwi over hapu as the legitimate organisational structure (Barcham 2000 and Ballara 1998, in Cornell 2006). The interviews revealed that there does exist diversity between the whanau, hapu and iwi level agendas; mostly in terms of the scale and political nature. However, given that this paradigm has been formulated based on inclusive interviews at the various levels, it can be claimed to be representative and applicable to both macro (iwi) and micro (hapu and whanau) level aspirations.

The outer circle of this paradigm (figure 19) features the three characteristics guiding the broader Ngāti Whātua development approach: wellness, flax-roots and collectivity. As Tepania Kingi (Pers Comm) indicated, the ultimate goal for any NW development venture is ‘wellness’, which is a similarly holistic concept incorporating spiritual (*wairua*), physical (*tinana*) and psychological (*hinengaro*) dimensions. Once again, this places Māori in a unique development position: providing for the ‘wellness’ of a people, both present and future, is a long term task and not one that will be achieved by degrading the resources on which this health depends.

The goal of ‘collectivity’ also has unique development outcomes. The Māori societal structure is underwritten by *whanaungatanga* (kinship relationships), and the responsibilities to support the collectively larger social unit. Therefore Māori development is always part of a bigger picture. However, such social imperatives can come into conflict when operating in a market-driven capitalist society which places impetus on individualistic gain. The literature raises the potential disadvantages this collectivist and cultural view of assets has when operating in an ‘individualistic’ world¹¹⁶.

The third characteristic of this broader development paradigm is the ‘flax-root’ approach. This approach is essentially about providing opportunities and local autonomy for individual, whanau and hapu to pursue their own development agendas. It is also premised on the belief that those closest to *Papatūānuku*, those with *mana whenua*, and who are the *ahi kā* are the ones who have the most legitimate mandate to control their development agenda. This bottom-up, self-help approach also stems from the reality and experience of negligible assistance from the government, as well as the Ngāti Whātua social and organisational structure which emphasises local autonomy (pursuant of Te Runanga o Ngāti Whātua Act, 1988).

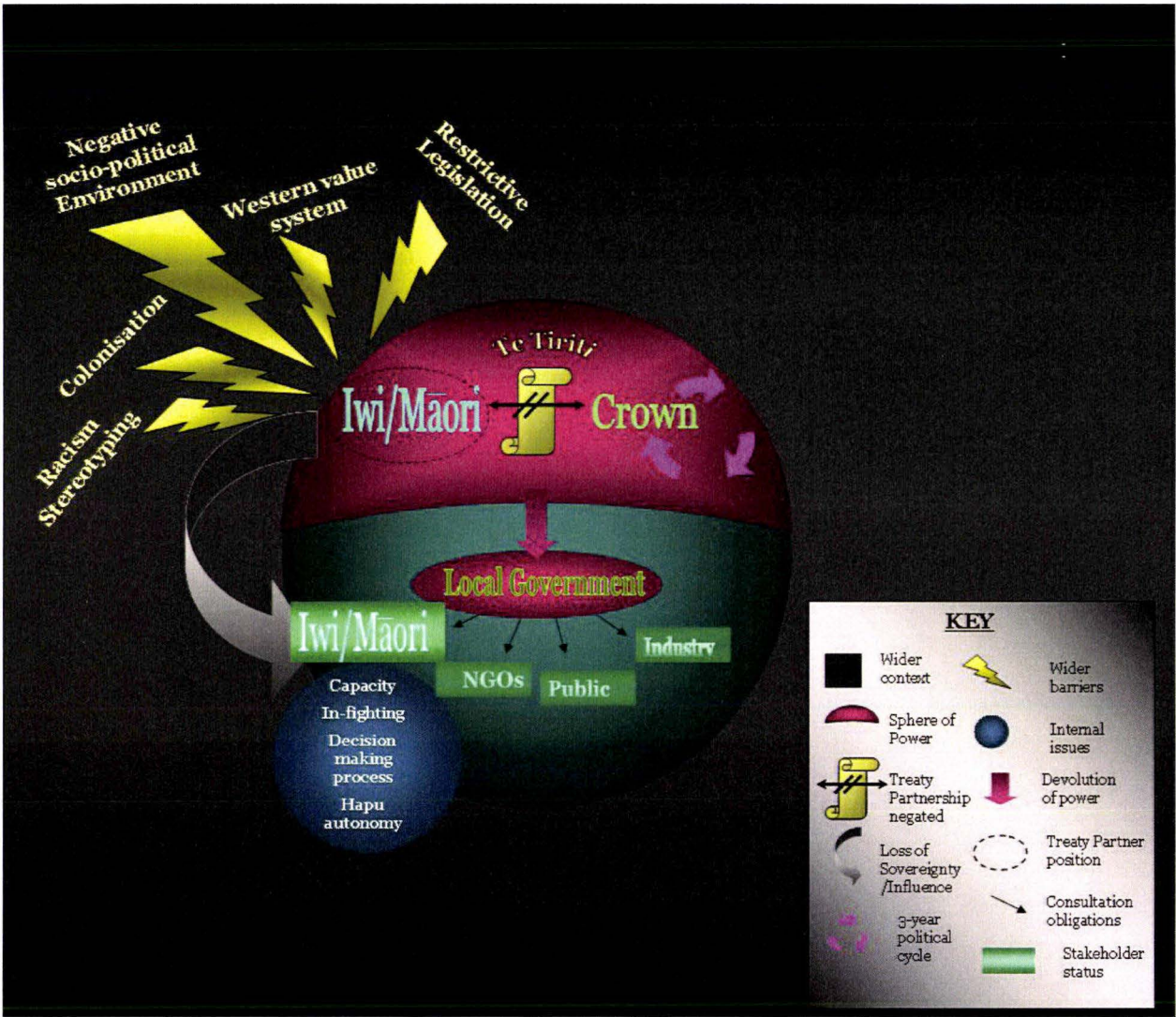
¹¹⁶ (Harmsworth 2005; Bishop and Tiakiwai 2002; Sullivan and Margaritis 2000; Durie 2003; Loomis and Mahima 2003; NZIER 2003).

Therefore the data relating to the nature of Ngāti Whātua aquaculture development aspirations revealed that these goals fit within a broader development paradigm, which is multi-dimensional, multi-layered and embedded within Māori worldviews. The next objective in this research is to assess the feasibility of achieving these aspirations through establishing aquaculture in the Kaipara harbour. However, as in the previous chapter this objective will not contribute to the academic analysis of this issue and the findings have been collated into a practical feasibility report for Ngāti Whātua (see appendix 4). The next objective concerns an examination of how this ‘holistic’ approach to development is marginalised through investigating the barriers which are inhibiting Māori development.

Objective 3

To determine the barriers that are inhibiting Māori, and in particular Ngāti Whātua, from achieving their aquaculture and wider development aspirations

The data presented in Chapter 5 revealed a plethora of socio-political, economic and cultural barriers are inhibiting Māori in the development of their natural resources. A diagram (figure 20) conceptualises these barriers and demonstrate the ‘bigger picture’ in which Māori development agendas are operating. This figure will firstly be annotated in order to justify the positioning of these nodes, followed by a discussion of these relationships through the Conceptual Framework.



The large globe in figure 20 indicates the decision-making context, whereby the upper section is categorised as the ‘power’ sphere. The Crown is featured as dominating this sphere, however ‘iwi/Māori’ placed inside a dotted circle indicates this monopoly is unjust, and a partnership based on the rights enshrined in the Treaty/*Te Tiriti* should be occurring. The Crown has negated its Treaty obligations which has negatively affected Māori sovereignty and political influence. Also, many of the Crown’s powers and responsibilities (including those to iwi/Māori) have been devolved to the local government, who have consequently positioned Māori as ‘stakeholders’ with mere consultation rights.

The smaller globe addresses iwi/Māori issues. This globe has been separated to acknowledge the different worldviews and *mana whenua* rights which separate iwi/Māori from the other ‘stakeholder’ interests. However, this different cultural context can create issues when forced to operate in a western colonial context. This globe features the more internally derived issues relating to capacity, hapu-iwi relationships and the deliberation process. The lightning bolts are representative of the wider barriers which are inhibiting iwi/Māori abilities to engage in their own development agendas. These include colonisation, racism and stereotyping, western-value systems and restrictive legislation, all of which contribute to an overall negative socio-political environment for Māori.

While the presentation of this objective was organised into the themes ‘external’ and ‘internal’ barriers, such compartmentalisation is complicated due to the relationship of causality between the barriers; external processes underlie most of the internal barriers and several of the internal ‘barriers’ are only considered so when examined through an external cultural lens. Therefore the analytical discussion of this objective will take a more holistic perspective of the barriers and the relationships between them.

The fundamental barrier which is inhibiting Māori development is essentially the issue of power, or a lack thereof. The sphere of decision-making power is monopolised by the Crown, which consequently marginalises Māori rights to *tino rangatiratanga*. Despite the legal protection of these rights in *Te Tiriti*/Treaty, the continual negation of this contract

has undermined the legal foundations of Māori power and sovereignty. Devolution of decision-making powers to local government further undermines Māori *tino rangatiratanga*, as it creates ambiguities around the onus of responsibility for the Treaty, as well as affecting the ability of iwi/Māori to gain a meaningful role (beyond consultation) in the decision-making sphere.

In our market-driven economy, power and access to political influence is also interconnected with economics. This is clearly evident in the political lobbying by industry interests who have disproportionate influence, especially the agriculture and fishing sector. However, given the historical situation of resource alienation and confiscation, the Māori asset base has been significantly eroded, thereby further undermining their power and influence.

However, such cultural imperatives (as raised in Objective 1) and values are at odds in a regime which is heavily underwritten by western values and bias. The government's adoption of a neo-liberal philosophy is used to justify the avoidance of providing direct funding to Māori, arguing it is in fact considered to be an issue for the "private sector" (Mariassouce, Pers Comm). However, this philosophy has resulted in a "...weakening of the social contract" (Mathie and Cunningham 2003, p474) between governments and under-privileged communities.

Such an approach also denies the validity of Māori holistic worldviews (which understands economic pursuits to be deeply embedded in culture and values) and instead imposes a compartmentalised management approach onto Māori resource development. This can be seen with regard to the Māori Commercial Aquaculture Claims Settlement Act (2004) which acknowledges only commercial interests, and alternatively the return of Te Uri o Hau Oyster reserves in the Settlement Act (2002) where use is restricted to customary harvesting. This was also revealed as a commonality with other colonial governments, where Indigenous resource interests are continually defined as 'traditional'

(customary). This compartmentalisation is also evident in the conservationist sphere¹¹⁷ through the tendency to romanticise Māori as customary protectors who are diametrically opposed to development.

This marginalisation of Māori worldviews and values is again reflected in the environmental management regime. The issue of council boundaries coming into conflict with *rohe* boundaries and their *mana whenua* responsibilities was raised in the presentation chapter. Such boundaries have an effect on their legal status (as an ‘interested party’) in the RMA, and Māori often have to engage with a variety of regional and district councils, thereby increasing the burdens of consultation. This approach also conflicts with Māori holistic management approaches and *rohe* wide responsibilities, and can counteract integrated environmental management. This is a pertinent issue for NW and the Kaipara harbour which is under the jurisdiction of two regional councils and is therefore vulnerable to the different political agendas of each local body.

The diverse approaches available to local authorities when enforcing their new found aquaculture responsibilities also emerged as an issue. The councils’ implementation options¹¹⁸ demonstrated the degree to which each option would provide advantages and/or disadvantages for Māori gaining involvement in aquaculture. Another legislative area which inadequately deals with Māori interests is the Māori Commercial Aquaculture Claims Settlement Act, 2004. The Act is imbued with a multitude of unresolved legal ambiguities which render it potentially useless as a tool to provide space for Māori.

However, what little legislative and political recognition Māori do have could easily be removed with the unstable changing political tides. The short political timeframes (in particular the three-year government cycle), place Māori interests in a vulnerable position, which are open to reversal at the personal whims of politicians¹¹⁹. Such short political horizons of leadership are not conducive to long-term sustainable goals, and are

¹¹⁷ As revealed in comments made by Suzi Phillips of Kaipara Forest and Bird (Pers Comm).

¹¹⁸ Presented in figure 11, p88

¹¹⁹ For instance the New Zealand First political party recently attempted to pass a bill that would have all references to the Treaty in legislation removed.

in stark contrast to the permanence of Ngāti Whātua interests which are not transient or politically motivated, and whose agenda will continue to be the promotion of collective community 'wellness'.

While such Māori approaches to development are given tokenistic inclusion in government policy, evidence of practically supporting self-determined Māori development is absent. The government has positioned itself dichotomously, as both a protector and antagonist. In terms of the 'protectorate' role, the government states in its 'Sustainable Programme of Action' (Department of Prime Minister and Cabinet 2003, p14) that its "...commitments to Māori require it to actively safeguard matters that are important to the wellbeing of Māori culture" (with regard to the Treaty). This embodies an obligatory and paternalistic approach. Such statements of 'safeguarding' are also particularly ironic given that the Crown continues to threaten Māori development through resource confiscation (for example the Foreshore and Seabed Act).

There is a refusal in both society, and the government initiated MD literature to acknowledge the historical (and contemporary) role of colonisation in creating the current poor levels of Māori development. The government's policy concerning Māori has been historically diverse: from annihilation, 'smoothing of the pillow', assimilation and urbanisation, and the systematic erosion of Māori social and cultural resources. While the government has to some degree supported the Māori cultural renaissance in recent decades, overarching policy continues to adopt a paternalistic strategy of 'closing the gaps'. The focus continues to be one of aiding Māori to 'catch up' to *Pakeha*, without acknowledging the destructive role this history of colonial policy has played in creating this unequal 'playing field'. This approach sets inappropriate *Pakeha* horizons for Māori, reiterates power inequities, and fails to acknowledge the diverse cultural values/aspirations Māori have for their own development (Loomis 2000; Jenkins 2005; Kawharu 2001; Potiki 2000).

An examination of the role of colonisation provides a framework with which to analyse the 'internal' issues that are undermining the abilities of Māori to engage in self-

determined development. One such ‘internal’ barrier that emerged in the literature was the appropriateness and efficacy of the tribal organisation as the major driver of Māori development. However, the literature addressed the fact that Māori organisations are essentially ‘colonial constructs’, and thus many have been encouraged to adopt corporate management models to compete in the marketplace (Dodd 2000; Ballara 1998 and Barcham 2000 in Cornell 2006; Barcham 1998). The encouragement of the “iwi-isation” (Barcham 2000, p141 in Cornell 2006, p23) of Māoridom through government policy has further aggravated iwi-hapu relationships, which was revealed as a barrier throughout this research¹²⁰.

Another ‘barrier’ which has colonial origins is the Māori organisation decision-making process. This process has been described as an impeding factor that leads to risk aversion and slow resolutions (Loomis et al. 1998). However, this is a simplistic representation of the issue, as this process is largely a result of the legal bureaucracy iwi organisations are forced to operate within (consensus gaining is time consuming and difficult). It is also a value-based criticism, as there exists a cultural imperative (at least within Ngāti Whātua) to remain transparent and democratic. This can therefore also be viewed as a strength which creates robust and participatory-based decisions.

The multiple roles and considerations facing iwi/Māori organisations can also hinder internal decision-making processes and create conflicts in a commercial environment. Iwi/Māori organisations are required to act as commercial bodies, utilising collectively owned and culturally significant (*taonga*) resources, adhere to a complex bureaucratic legal system, provide a source of tribal identity, ensure a deliberative and democratic process, all while operating within the often complex parameters of *tikanga*.

The cultural assumptions of these internal barriers are reiterated in the issue of the ‘geographical marginalisation’ of Māori (Tai Tokerau Management Consultants 2001). This affects market and labour accessibility for rural communities, which is of particular

¹²⁰ Refer to page 82.

relevance in the Kaipara harbour. This issue was evident in the case study of Sunshine Oysters (case study 1) where their remote physical location has made it “...virtually impossible to attract and maintain a workforce” (SO, Pers Comm). This has been described in government research as a Māori rural locational ‘choice’ with negative consequences, however while this may disadvantage ventures economically it must be waged against the cultural benefits of maintaining *mana whenua* and *ahi kā*. It is clear that the processes of colonisation and urbanisation have marginalised rural populations (of which a large percentage are Māori), which in turn effects their *ohaoha*/economic opportunities.

Therefore Māori development models are often critiqued and marginalised due to the complications of infusing ‘culture’ into a commercial world. One particular governmental report has highlighted culture as an impeding factor which is “...denying Māori the benefits of development” (The Stafford Group 2000, pp14-15). Such assertions are imbued with value based assumptions that the ultimate goal of development is materialistic improvement. This is in opposition to most MD agendas which view cultural and *ohaoha* spheres as interconnected, and ultimately place people above profits.

The final and most significant barrier that requires discussion is the negative socio-political climate that MD is forced to operate within. When considered in light of the public support of the neo-colonial foreshore and seabed issue, the question has been raised in the literature; are we a society which supports racially discriminating legislation, or were we victims of political manipulation and sensationalist media misrepresentation? Whatever the answer, as long as those with a vested interest in perpetuating such a negative climate against Māori maintain positions of power, self-determined Māori development will not be achieved.

Therefore, these barriers can not be analysed in isolation, but must be viewed within the wider framework of the historical and colonial forces which underlie, and continue to perpetuate a negative climate for Māori development. An assessment of the barriers is a crucial step prior to analysing the aquaculture development strategies for the final

objective. Given the ‘flax-root’ approach, and the need to move beyond rhetoric towards practical and achievable outcomes, the strategies addressed are embedded within the realities of these barriers, as well as the capacities and capabilities of Ngāti Whātua.

Objective 4

To identify strategic ‘flax-root’ options for the implementation of Ngāti Whātua aquaculture aspirations

Following the identification of TRoNW aquaculture development aspirations (objective 1), the formulation of the environmental feasibility report (objective 2, see appendix 4), and the examination of the barriers that may inhibit the realisation of these goals (objective 3), the final step in the research process is to identify flax-root strategies to overcome these obstacles and achieve NW aspirations. Hutchings’ (2002) adapted Conceptual Framework will be utilised for the analytical discussion of this chapter, however in order to strategically analyse the data, an alternative SWOT (Strengths, Weaknesses, Opportunities, Threats) framework will also be utilised¹²¹.

The traditional four-dimensional matrix will be used for the analysis of the six options, however for the initial overview, David’s (1993 from Prime Minister’s Strategy Unit website) six-dimensional-matrix will be utilised. The result of these analyses will be a practical report for Ngāti Whātua; ‘TRoNW: Strategic Aquaculture Options’¹²² (appendix 5). This report examines these six options in a practical format: identifying the costs, responsibilities and timeframes as well as potential barriers and mitigation strategies. At the end of the matrices a critical analytical discussion is presented based on the Conceptual Framework’s Critical Focus Areas, and the degree to which each option will achieve the aspirations discussed in objective 1. This chapter will commence with an overview six-dimensional SWOT analysis (David 1993) of Te Runanga o Ngāti Whātua at an organisational level.

¹²¹ Refer to page 52.

¹²² While Te Runanga o Ngāti Whātua have already embarked on strategic planning with regard to their kaimoana resources (Toia and Forsythe 2006), they have yet to identify strategic options for aquaculture in a comprehensive document, which is the outcome goal of this research.

Overview SWOT Analysis for Te Runanga o Ngāti Whātua for Enhancing participation in Aquaculture¹²³

INTERNAL	Strengths	Weaknesses
	<p>Already have ties/good relationships with other iwi (esp. in Tai Tokerau)</p> <p>Established industry relationships</p> <p><i>Mana whenua</i> over large <i>rohe</i>- extensive coastal environment, high degree of potential for A/C (esp. Kaipara)</p> <p>MCACSA 2004 provides potential ‘bargaining chip’</p> <p>Māori coastal land- (for land based A/C and infrastructure)</p> <p>Customary relationship with marine farming- <i>kaitiaki/TEK/matauranga</i></p>	<p>Lack of labour force and skilled workers</p> <p>Lack of financial capacity (‘asset rich but cash poor’)</p> <p>Poor hapu-iwi relationships</p> <p>Rural setting of Northern communities (affects labour force)</p> <p>Balancing commercial/cultural/community aspirations</p> <p>Lengthy deliberative process (positive democratic outcomes, negative for operating in commercial world)</p>
EXTERNAL	Opportunity-Strength Strategies	Opportunity-Weakness Strategies
<p>Added value products (such as Biomarine’s export quality manufactured oysters)</p> <p>Marketability- ‘Indigenous’ selling point</p> <p>Financial and support avenues e.g. FRST, TPK</p> <p>Learn from positive</p>	<p>Use already established relationships to engage in ventures with iwi and industry</p> <p>Utilise unique Indigenous selling points and assets/attributes</p> <p>Embark strategically by researching other iwis approaches to JVs</p>	<p>Use scholarships to attract training in this area, create benefits to attract people to rural settings</p> <p>Open better lines of communication between iwi and hapu</p> <p>Develop a clear decision-making process to ensure balance met between</p>

¹²³ Information for this matrix gathered from variety of sources; Toia and Forsythe 2006, interviews and other aquaculture literature.

examples (e.g. JV's between iwi and industry)		differing aspirations
Utilise <i>matauranga</i> /TEK		
Threats	Threat-Strength Strategies	Threat-Weakness Strategies
<p>Competition for workers (with other primary industries)</p> <p>Governments restrictive policies</p> <p>Reliance on export dollar</p> <p>Legal barriers</p> <p>Opposition in RMA process (ENGs and other groups)</p> <p>Inability of the MCACSA to provide 20%</p> <p>Negative industry attitude to Māori- inability to attract investment</p> <p>Institutionalised racism</p> <p>High risk nature of A/C</p> <p>Intellectual property rights</p> <p>Lack of decision-making power</p>	<p>Most of external threats are beyond the control and influence of NW, some options;</p> <p>Build relationships with NGO's and opposition groups</p> <p>Continue building relationships with industry to overcome negative perceptions</p> <p>Collaborate at national level with other iwi/hapu for enhanced influence and power in the realm of decision-making e.g. Māori aquaculture lobby group</p>	<p>Form better relationships with hapu</p> <p>Provide assistance for whanau ventures (alternatives to financial-also information and advice)</p>

This overview SWOT analysis for TRoNW has assisted in the following four-dimensional SWOT analyses of each of the six options identified in the presentation chapter;

Option 1 Joint Ventures [with industry, other iwi, and through marketing co-ops]

Strengths	Weaknesses
Reduce set up/operational costs	Possible divergences in overall aspirations
Increase possibilities e.g. scale, production capacity	Industry may not have any community/cultural imperatives
Iwi-iwi= common aspirations for iwi development	Different <i>tikanga</i> (iwi-iwi)
Reciprocity in knowledge and skill sharing	Different management structures/approaches
Employment opportunities	Lack of trained skill base/labour force from NW
Opportunities	Threats
Promising case studies of other such ventures	Burdensome legislation
Already established relationships with iwi and industry	Current court interpretation not in favour of A/C (adverse effects on natural character)
Already established markets (internal and external)	Opposition by stakeholder groups
Dispersed risk and responsibilities	High NZ dollar (negative for exporting)
	Government unsupportive of A/C
	Potential partner may be put off by the 50-50 partnership model
	Inability for TRoNW to provide initial capital
	May need to compromise goals for commercial partnerships

Option 2 Supporting (fiscal) independent small-scale whanau ventures

Strengths	Weaknesses
<p>Greater autonomy placed in hands of community/whanau (flax-roots)</p> <p>Less burden/risks on Runanga</p> <p>Small scale, less ecological effects, and potentially more palatable to ENGOs</p>	<p>TRoNW 'asset rich but cash poor'- (can support through information, networks etc)</p> <p>Less control/input by TRoNW- how ensure works within parameters e.g. <i>tikanga</i></p> <p>Rural setting=lack of infrastructure, access to markets and labour force</p>
Opportunities	Threats
<p>Provides employment and potential training opportunities</p> <p>Pride and self-dependency</p> <p>Utilisation of TEK/<i>matauranga</i></p> <p>Māori coastal land (for land based options)</p>	<p>Lack of uptake/motivation- hard to gauge interest</p> <p>Lack of skills/ training/experience in area</p> <p>Legal issues and costs</p>

Option 3 Create support avenues (non fiscal) for hapu and whanau

Strengths	Weaknesses
<p>Fits within financial constraints of TRoNW</p> <p>Provision of information=tools for establishment</p> <p>Flax-roots approach</p>	<p>Lack of fiscal assets affects degree of support</p> <p>Lack of capacity to establish (time and expertise)</p>
Opportunities	Threats
<p>Database with compiled information/experiences</p> <p>Mentoring/training by others already involved (e.g. Sunshine Oysters)</p> <p>Utilise networks- central government, industry, research institutions (i.e. NIWA)</p>	<p>Low uptake and outreach</p> <p>Passive approach to A/C development</p>

Option 4 Relationship building [with industry, hapu, other iwi, and stakeholders]

Strengths	Weaknesses
Minimal financial costs Create understanding and pre-emptively minimise opposition to resource consent Streamline costs (esp. with industry, where agendas similar)	Different worldviews/agendas Historical causes for issues between iwi/hapu- personal agendas of those in power Multitude of councils to deal with (wariness/distrust of government) Time capacity
Opportunities	Threats
Already established lines for engagement with industry ENGO (e.g. KF&B) respect for iwi	Idealised vision of iwi (Indigenous=customary) Lack of willingness to engage by external parties Council relegated Māori status to a ‘stakeholder’- not ‘Treaty partner’

Option 5 Engage in Aquaculture Tourism

Strengths	Weaknesses
Enhance economic feasibility of already established ventures Utilise <i>tikanga</i> /historical narratives- ‘Indigenous factors’	Low concentration of A/C in Kaipara affects viability of option Lack of finance for initial set-up costs
Opportunities	Threats
International and domestic examples of success Recent NIWA documents highlight it as having high potential in Kaipara	Misappropriation of intellectual property Opposition by ENGOs Negative environmental effects Negative Court interpretation of aquaculture tourism (e.g. Biomarine case)

Option 6 Lobby central government to commercialise customary reserves

Strengths	Weaknesses
Make utilisation economic Empower hapu in own affairs (<i>tino rangatiratanga</i>)	Issues in determining fair allocation- potential for misappropriation by those in power Infighting Unsustainable use (ecological effects)
Opportunities	Threats
Opportunities for replanting of spat for own commercial/customary ventures Spat selling ventures	Government will not come to the table Governments approach- compartmentalised view of customary/commercial spheres

This SWOT analysis has been useful to highlight the strengths and opportunities, as well as predicting the potential threats and internal weaknesses that may compromise each option. The following analytical discussion will address each option and the relationship to the Ngāti Whātua development paradigm (objective 1), as well as any potential conflicts and issues which may arise.

The first option, ‘Joint Ventures’ (JV) will necessitate the greatest degree of compromise to NW development aspirations. This compromise will probably be lessened with regard to JV’s with other iwi, as the need to adhere to *tikanga* and adopt a more holistic approach (such as incorporating more community driven goals) is an imperative shared by most (if not all) Māori organisations. JVs with non-Māori industry players will likely require the adoption of a more profit-driven focus, which may compromise the desire to achieve balanced iwi development. However, the inclusion of the 50/50 partnership model (figure 13, page 92) will enhance *tino rangatiratanga* and power-sharing. Already established relationships with industry players (such as Biomarine) also enhances the potential for understanding and the incorporation of iwi/Māori values. The initial removal

of the 20% (under the MCACSA, 2004) will also provide marine space to be utilised for customary/community aspirations (such as providing kaimoana for *hui* and *tangi*). There are several examples of other iwi operating successfully with industry through JV's. An option to avoid potential conflicts in aspirations/values would be to create JV's at the marketing end (as can be seen in the Sunshine Oysters case study 1).

The second option 'Supporting (fiscal) small-scale whanau ventures' (WV) is the most congruent with a 'flax-root' approach, however it is less feasible in terms of the fiscal support required by NW. This option also places the autonomy and power in the hands of the individual 'would-be' farmers. The second Sunshine Oysters case study (6, p94) demonstrates the potential success of such an option, and how a lack of capacity and support is responsible for the current issues affecting their farm. The fact that small-scale aquaculture has less intense environmental effects is also in fitting with the imperatives of protecting *Papatūānuku* and fulfilling *kaitiaki* responsibilities. It also guarantees the benefits of development are distributed more evenly within the community. It also enables the incorporation of local TEK/*matauranga* and creates community/whanau pride by enabling economic/*ohaoha* opportunities in areas with high unemployment. However, as indicated in the TRoNW SWOT analysis, as an organisation they are 'asset rich', but 'cash poor' (Toia, Pers Comm), thereby reducing their ability to provide fiscal support for such whanau ventures.

Option 3 to 'Create support avenues (non-fiscal)' (SA) is a more passive degree of the above option. While the former option is more targeted and directly supportive (i.e. through investment and fiscal support), this SA option focuses on the non-fiscal support Te Runanga can offer would-be farmers. TRoNW is in a position to provide information and networking opportunities through its relationships with central and local government as well as industry, and through its access to research. Dissemination of such information could take the form of a database, whereby information from this thesis (including background documents) would be made accessible to would-be farmers. While this option is weaker in terms of the support offered in the WV option, it is embedded in the economic/*ohaoha* realities of Ngāti Whātua assets which are 'tied up' in quota and

investments (largely due to the Treaty settlement process). This option is compatible with a 'flax-roots' approach which seeks to give would-be farmers the tools with which to pursue their own ventures.

Option 4, 'Relationship building' (RB) is a supplementary strategy to complement other options. The incorporation of this strategy is designed to mitigate the barriers created by poor relationships due to misunderstandings, ignorance and historical damage. The three different parties indicated for RB include hapu, industry and (E)NGO's. Sunshine Oysters highlighted the issue of the lack of support shown by their hapu, therefore RB between Te Runanga and Te Uri o Hau will potentially create greater cooperation and congruency in approaches in supporting its beneficiaries. RB strategies also fit within the TRoNW imperative of ensuring the autonomy of its hapu.

TRoNW has already established strong relationships with industry which paves the way for the pursuit of JV's. Opposition by ENGOs and other community groups was discussed earlier as a significant barrier to Māori aquaculture development. The poor relationship between Biomarine and KF&B demonstrates the importance of establishing such a RB process. However, the suspicion with which many ENGOs view industry (often warranted) could cause conflicts if TRoNW were to be seen as 'aligned' with industry (with relation to RB and JV's with industry). There exists enough common ground between NW and ENGO's with regard to the central importance of the environment (and managing it sustainably) on which to proceed with the RB strategy. This more passive option does not place any dimension of TRoNW aspirations in conflict.

The fifth option is to pursue 'Aquaculture Tourism' (AT). Obviously requiring the establishment of an aquaculture venture, this is a secondary stage option and visionary in that it highlights options to further enhance the benefits of aquaculture. There are several examples in *Aotearoa*/New Zealand where AT has been successful, and research has shown the Kaipara could also benefit from such an industry (although KF&B contest the feasibility of AT). While tourism tends to have a poor environmental reputation, avenues

for sustainable ‘eco-tourism’ are possible. AT also has the potential to incorporate customary dimensions; such as the infusion of oratory history (utilising TEK/*matauranga*). However this must be pursued with caution to ensure the appropriate use of intellectual property. There are also many community and *ohaoha*/economic benefits from pursuing such an option, as tourism could attract people and business to the wider region and enhance community pride.

The final option discussed was to ‘Lobby central government to commercialise customary reserves’. While the pursuit of this option seems to contradict a ‘flax-root’ approach by focussing on the government level, the end goal of empowering the community to utilise their marine resources means this strategy does fit within a flax-root philosophy. The restrictions placed on the return of these reserves reflects the government’s general approach to Māori development, whereby Māori interests are confined to the ‘customary’ sphere and their rights to economic/*ohaoha* development are ignored. The reserves, from which Ngāti Whātua have been alienated for decades, have the potential to provide a range of economic, customary and community opportunities for Te Uri o Hau. However, such paternalistic restrictions makes the development of these reserves uneconomical, and denies NW their *Te Tiriti*/Treaty rights to development. A potential option for collaborative lobbying at the central government level is to form a Māori aquaculture council (as highlighted in the Aquaculture Hui 2003).

As was concluded in the ‘TRoNW: Strategic Aquaculture Options’ (appendix 5), if possible each of these options should be pursued in order to achieve NW aquaculture aspirations. While each option is diverse in the level/parties targeted (central government, ENGO’s, industry, hapu, whanau), the tools used (database, relationship building, joint business and marketing ventures, political lobbying), the directness of the support offered (direct funding versus information provision), or the timeframe (preliminary versus secondary) in which the option would be implemented, all are embedded within the Ngāti Whātua development paradigm and aquaculture aspirations. While certain options place more emphasis on certain dimensions of the development approach (for example joint ventures is more of an economic pursuit), each option is based within the ‘flax-root’

philosophy of empowering hapu/whanau to endeavour on their own paths for aquaculture involvement. The next section will critically review the use of Hutchings' (2002) adapted 'Mana Wahine Conceptual Framework' in this analysis.

Critical Review of Conceptual Framework

The adapted 'Mana Wahine Conceptual Framework' was particularly useful for the analysis of this research due to its compatibility with the thematic organisation and presentation (Chapter 5), as well as providing a model to address relationships between these nodes and the Framework's 'Critical Focus Areas'. For objective 1, it was initially successful in providing a structure to analyse the multi-dimensional facets of the NW aquaculture development approach. However the value of the framework shifted for the third objective, as it revealed how at odds such a Māori centred framework is in a context which is dominated and defined by an external culture/government. While objective 4 required a separate framework for the analysis, the adapted 'Mana Wahine Conceptual Framework' was again useful for the analytical discussion as it highlighted potential tensions between the CFAs within each option.

The pre-adjustment of this framework meant that divergences between this data-set and other MD research is not evident. However drawing such relationships is not pertinent to this research, as the aim is not to assess Ngāti Whātua aims against other MD approaches, but to highlight NW aspirations in order to develop appropriate strategic options within the *tikanga* and *kaupapa* of this individual iwi. Also, the literature review was able to demonstrate generic characteristics of Māori development approaches which covered this gap in the framework. With regard to the 'Critical Focus Areas', all nine featured relatively evenly throughout the analysis (with the exception of TEK/*matauranga*) which indicates the applicability of each CFA to Māori development research. Therefore, I conclude that Hutchings' (2002) adapted 'Mana Wahine Conceptual Framework' provides a Māori centred, flexible and useful model with which to analyse a Māori development issue.

Summary

This chapter drew together the multiple threads that occur throughout this research (from interviews, literature, key concepts and background issues) and analytically discussed the relationships and tensions that emerged. Hutchings' (2002) 'Mana Wahine Conceptual Framework' was adapted to include nine 'Critical Focus Areas' which were used to inform and structure the discussion, and key literature points were briefly revisited. The nature of Ngāti Whātua aquaculture development aspirations were initially explored through a conceptual diagram which demonstrated the relationships, layers and dimensions of these goals. The issue was then discussed analytically through the adapted Conceptual Framework, and it emerged that these components combine to create a development paradigm that place Ngāti Whātua, and iwi/Māori, in a unique position as sustainable resource managers and community developers.

The barriers that are inhibiting the realisation of these aspirations were then examined, again through a conceptual diagram which illustrated the wider context. The barriers are heavily underwritten by issues of power, and a lack of influence and access to natural resources, the marginalisation of Māori values and management approaches, and the perpetual influences of colonisation. These aspirations and barriers were then used in the final analysis of the six strategic options.

A SWOT analysis was used both at an organisational level, and then applied to each of the six options in order to assess the internal Strengths and Weaknesses, as well as the external Threats and Opportunities. The analytical discussion addressed the degree to which each option is compatible with Ngāti Whātua aspirations and development paradigms, and the degree to which it is feasible based on the socio-political and economic realities. The chapter concluded with a critical review of the usefulness of the adapted Conceptual Framework. The following chapter offers reflections on the research journey.

Chapter 7 Research Reflections

“Reflexivity is the idea that social researchers always remain part of the social world they are studying. Consequently, their understanding of that social world must begin with their experience of life” (Tolich and Davidson 1999, p37)

As was discussed in Chapter 3, an essential component of a Māori centred research approach is to ensure the decolonisation of the research methodology. The key method I adopted to achieve this was through maintaining a reflexive and transparent approach, including the keeping of a research journal and through consistent korero with my supervisor/*tiaki* Jessica Hutchings. This chapter is a further step in this reflective process, and will critically review the degree to which empowerment was achieved, as well as assessing the validity of the research and identifying key lessons and weaknesses.

Has my research been empowering?

The need for the adoption of an ‘empowering approach’ for Māori centred research was raised in the Methodology Chapter. This principle of empowerment and the need to move beyond rhetoric towards practical solutions has guided my approach to this research. One of my goals was to provide academic space for a marginalised issue around which a significant research gap exists; I believe I have achieved this goal. Secondly, the outcome has been the production of two practical reports, ‘Assessing the Feasibility of Establishing Aquaculture in the Kaipara Harbour’ and ‘Te Runanga o Ngāti Whātua: Strategic Aquaculture Options’ (see appendix 4 and 5). These reports are conducted in a useful and appropriate format to ensure these findings are relevant outside of the academic sphere.

Who has it empowered?

Research involves the inevitable task of selecting which spaces are opened and consequently whose voices are privileged. The participants selected were those on whom the development centred, with the initial scope focussed on the hapu level. However, politics and a lack of access shifted the focus to the Runanga level, and the adoption of a broader focus to encapsulate the opinions and knowledge of wider parties (including Kaipara Forest and Bird, Te Puni Kōkiri and industry). While this has reduced the space for the voices at the whanau and hapu level, this has also been beneficial to Ngāti Whātua in that it has enabled a more 'realistic' and comprehensive examination of the issues. Also, as I delved further into the research I realised that in order to partake in a strategic discussion, especially at such a preliminary stage, the Runanga level is the most appropriate level to target.

How will this information be disseminated?

In order for research to further have relevance outside the academic sphere, dissemination in an appropriate format is critical. A presentation to the Runanga will commence on the completion of this thesis and if particular hapu/marae are interested, *hui* will also be held on request. Summarised¹²⁴ copies of the thesis will be offered to the participants of the research. A database is also to be created to collate the background documents and findings from this research for Ngāti Whātua.

Lessons and Weaknesses

While I maintain that this research is both valid and valuable, it is important to address the few methodological issues that arose. One such issue is the comprehensiveness of this

¹²⁴ Unless specifically requested in its full academic format.

research. In terms of my primary data retrieval, I was only able to conduct 8 interviews. This was largely due to the time and resource constraints of conducting a 90-point Masters thesis. Further reasons include geographical distance, short data gathering time periods, and the use of a 'gatekeeper' to access participants. I acknowledge that involving several more participants would have made this research more robust and diverse.

Reflecting on the 'gatekeeper' (Hally Toia) approach, it is clear that politics and personal agendas to some extent affected the selection of participants. However, I feel that the participants selected from within the hapu (Alan and Leanne Thompson and Thomas de Thierry) were appropriate in that they were operating at the 'flax-roots' and deeply involved in their own whanau and hapu development. Also, this 'gatekeeper' approach had the benefit of protecting me from internal politics, and without Hally I would not have had access to these participants and resources.

Another important methodological lesson was that I had to accept the existence of 'closed doors'. I first encountered this when trying to engage with local authorities and also to a degree within Ngāti Whātua, where there was a lack of engagement by some whom I had hoped would have been more forthcoming. However there are various reasons for a lack of engagement, and despite integrity or good intentions, this is a reality for researchers.

The use of the tape recorder in some cases negatively affected the atmosphere of the interviews, and some participants requested that the conversation not be taped. In lieu of recording, comprehensive notes were taken. The interview schedule was useful in that it provided prompts and broad themes to discuss, however I soon realised that creating a less controlled interview environment produced more interesting and genuine responses.

One useful lesson was the 'lifting of the veil' on the neutrality of the Environmental Studies discipline. Until I embarked on research embedded within a different cultural context, I was unaware of the bias that underpins *Aotearoa*/New Zealand's environmental management system and the dominant conservation/environmental arguments.

Witnessing the 'real world' within which Māori organisations must operate was another

valuable lesson. This was experienced particularly through producing a Submission for TRoNW on the NRC's proposed aquaculture changes to the Coastal Policy Statement as part of the practicum component of this Masters degree.

Further Areas for Study

The following indicates research areas that would further assist in closing the research gap surrounding Māori resource (and aquaculture) development:

- Compare the findings from this research to other resource practices where Māori are marginalised, in order to examine the commonalities in barriers and aspirations.
- Utilise Hutchings' (2002) adapted 'Mana Wahine Conceptual Framework' (renamed the 'Tukua te Rangatiratanga Conceptual Framework') to conduct comparative research with other Indigenous peoples resource development initiatives.
- Conduct an in-depth analysis into the legislation surrounding aquaculture and its effects on Māori participation within this resource practice.
- Apply this research model/process to other iwi who are interested in engaging with aquaculture to test its relevance outside Ngāti Whātua paradigms.

Summary

Therefore the adoption of a reflexive approach reveals that reviewing the research process itself yields important findings, while also challenging the researcher to be critically aware of their bias, idealisms and worldviews. Several possible research areas were also indicated which would further assist in closing the research gap around this issue.

Chapter 8 Conclusion

“There are two things in life that you see; things god made, which are sacred, and things that humans made, which are consumable, replaceable. Things god made must be protected...if we destroy these things, we destroy ourselves”
(Tepania Kingi, Pers Comm).

This research has explored the concept and process of development through a Māori cultural lens, by examining Ngāti Whātua aspirations for the resource use of aquaculture. The cultural imperatives embodied in a Māori approach to development places it in opposition to hegemonic understandings, with the emphasis on economic progress, free-market liberalisation and consequently the view that such cultural imperatives act as an anchor in achieving true ‘progress’. However this unique paradigm results in holistic considerations that create distinctive development aspirations and outcomes. This chapter will briefly review the previous seven chapters, summarise the key findings under each of the four objectives, and conclude with a discussion on the findings and the wider implications of this research.

In reviewing the research design, the aim was to identify and establish ‘flax-root’ strategies with Ngāti Whātua to achieve their aspirations for aquaculture in the Kaipara harbour. The four objectives to achieve this aim were;

- 1) To examine the nature of Ngāti Whātua aquaculture development aspirations
- 2) To assess the feasibility of establishing aquaculture in the Kaipara harbour
- 3) To determine the barriers that are inhibiting Māori, and in particular Ngāti Whātua, from achieving their aquaculture and wider development aspirations

- 4) To identify strategic ‘flax-root’ options for the implementation of Ngāti Whātua aquaculture aspirations

Chapter Review

These objectives were explored throughout the first six chapters. Chapters 1 and 2 set the scene and introduced key concepts, justifications and background issues that underlie this research. Chapter 3 then presented the methodological approach that would best achieve the investigation into these objectives. A Māori centred paradigm incorporating Kaupapa Māori theory and Ngāti Whātuatanga principles, as well as an ‘empowering outcomes’ and ‘*tiaki*’ model, formed the basis of the research approach. Qualitative methodology using a variety of recruitment, collection, organisation, presentation and analysis methods was addressed. Chapter 4 then critically reviewed literature relating to Māori development and wider Indigenous development theory. Chapter 5 organised and presented the results from the data gathering phase through a ‘tree-node’ system and a thematic narrative approach supported by quotes and case studies. The analytical discussion of the findings utilised an adapted version of Hutchings’ (2002) ‘Mana Wahine Conceptual Framework’ to interpret and draw relationships between the data-set, literature, key concepts and issues raised throughout the research. Chapter 7 then reflected on the validity of the findings, as well as the methodological approach and the degree to which I had met my decolonisation objectives. This chapter will now present the summarised key findings around the four objectives (phrased as questions) followed by a concluding discussion of the research.

Key Findings

What is the nature of Māori/Ngāti Whātua aspirations for development?

The findings from this objective revealed that although this research is focussing on a specific resource use (aquaculture), the aspirations Ngāti Whātua have for this practice fit within their broader development paradigm. This paradigm is defined by the cultural ‘responsibilities’ that Ngāti Whātua, as *mana whenua*, are obligated to fulfil, and also by a variety of ‘rights’ which are customarily and legally enshrined. Furthermore, this paradigm is shaped by the broader approaches to achieving development which relates to the concepts of ‘well-ness’, ‘collectivity’, and the adoption of ‘flax-root’ philosophies. The key findings are summarised below:

- Multi-dimensional aspirations which incorporate a desire to achieve a balance amongst various goals.
- Bottomlines exist that should not be breached, including *tikanga* and adverse effects on *Papatūānuku*.
- Holistic approach that views customary, community and commercial spheres as interconnected.
- Development paradigm is influenced and shaped by ‘responsibilities’ relating to *maanakitanga* and *kaitiakitanga* as well as adhering to cultural imperatives including lore and *tikanga*.
- Also a wider development agenda of gaining acknowledgement of ‘rights’ relating to *Te Tiriti/Treaty*, *mana whenua* status, *tino rangatiratanga* and *taonga*.
- Environmental integrity is fundamental; however the Māori worldview differs from hegemonic environmental perspectives, as conservation and utilisation ethics are of dual importance.
- Three broader approaches: achieving holistic ‘wellness’ above profits, in a flax-root’ manner which acknowledges local autonomy, and with a desire to achieve ‘collective’ community outcomes.

- Paradigm places Ngāti Whātua, and iwi/Māori, in a unique development position.

Is the Kaipara harbour an appropriate location for aquaculture development?

This objective was designed to assess the characteristics of the Kaipara harbour as a potential scene for the implementation of the aspirations revealed above. The findings were compiled into a practical report for Ngāti Whātua (appendix 4). The findings were based on a wide range of western-science based (aquaculture) literature as well as key informant interviews. A review of six species selected by Ngāti Whātua (based on their customary, commercial and community attributes) were analysed through a table matrix which assessed each of the species against a wide range of considerations. The Kaipara and its physical characteristics were also examined. The following key findings were made:

- Range of considerations necessary when examining the appropriateness of a location for aquaculture: physical environment (hydrology, bathymetry, salinity, temperature, food supply), pests, access to infrastructure, markets and training institutions and other uses (by mammals, birds and other human uses including cultural, recreational and commercial).
- Six species were assessed: *kutai*/mussel, *tio*/oyster, *parengo*/red seaweed, *tuna*/eel, *paua*/abalone and *inanga*/whitebait.
- Species were examined with regard to a range of considerations: ecological, biological, infrastructural and technological requirements, ecological effects, economic feasibility and socio-cultural considerations.
- Differing opinions on environmental health/status of the Kaipara, but there is consensus that the Kaipara holds a relatively high degree of potential for the establishment of aquaculture.

What barriers are inhibiting the achievement of Māori development agendas (particularly Ngāti Whātua and their aquaculture aspirations)?

The third objective was formulated to place Ngāti Whātua aquaculture aspirations within the Kaipara harbour in the ‘real world’ context, by examining the socio, political, economic, legislative and cultural barriers that are/will inhibit the realisation of such Māori development agendas. The barriers are often indicated in government literature as ‘internal’ issues, whereby such culturally situated development paradigms are seen as conflicting with economic development opportunities. However, this thesis has revealed that there are complex interrelationships between barriers, and that they mostly stem from deeper issues relating to power inequities, and wider structural processes resulting from colonisation. The following key findings were made:

- Wide range of barriers that exist internally within Māori organisation structures, and occur externally as a result of the socio-political context. Internal issues are often a result of externally imposed structures and processes, and are viewed as ‘barriers’ due to the use of a different cultural ‘lens’.
- Barriers facing Māori tend to be generic, as indicated in commonalities between this case study and the Māori development literature.
- Internal issues: decision-making legitimacy, multiple roles causing conflict, corporatism jeopardising culture, operating from a position of socio-economic disparity causing a lack of internal ‘capacity’, geographical marginalisation and poor hapu-iwi relationships.
- External issues: restrictive central government approach creating paternalistic and ineffectual policies, the marginalisation of Māori (and Māori values) in the decision-making sphere, fragmented local council boundaries and issues around devolution, short political time frames and the negative socio-political context.
- Aquaculture specific barriers: high costs and regulations, inefficient and restrictive legislation, opposition from the environmental and public sector, the inability to attract investment due to the volatility and high risk nature of the industry, and the need to focus on marketing.

What are the options available to overcome these barriers in accordance with a Māori development approach and a 'flax-root' philosophy?

The final objective placed the findings from objective 1 and 2 within these 'realities' (objective 3), and explored six different options that could be pursued in order to realistically achieve aquaculture development in the Kaipara harbour. These options were analysed through a 'Strengths, Weaknesses, Opportunities, Threats' (SWOT) framework to strategically assess each option. The key findings from this objective were:

- Six Options were revealed in data-set: joint ventures, supporting (fiscal) whanau ventures, create support avenues (non fiscal) for hapu/whanau, relationship building, engaging in aquaculture tourism and attempting to gain commercial use for Te Uri o Hau of their oyster reserves.
- Each option differs in the degree to which it is compatible with aspirations (objective 1).
- Based on capacity and skills available to Te Runanga and the realities of the barriers (objective 3).
- Adoption of a 'flax-root' approach whereby options are targeted at assisting would-be Ngāti Whātua farmers to become involved.
- However, there is a need for strategic direction, therefore Te Runanga level used as medium for planning and information dissemination.
- Recommended that all six options be pursued to target the issue of Ngāti Whātua aquaculture involvement through a diverse range of methods and levels.

Concluding Discussion

These research findings are embedded in the interdependent issues of Māori 'rights' and 'responsibilities'. Māori have rights to marine farming that stem from their customary relationship with *te tangaroa*, and in particular the farming of *kaimoana* through a form

of aquaculture. These ‘rights’ include the protection of *taonga* (including marine farming), access to economic opportunities arising from their natural resources, and the consequent right to develop as a people alongside *Pakeha*. Such rights are enshrined in their *mana whenua* status, and are guaranteed through the Treaty/*Te Tiriti o Waitangi*. However, to maintain *mana whenua* and the rights entailed, various ‘responsibilities’ must also be met. These responsibilities are based around the interconnected institutions of *manaakitanga* and *kaitiakitanga*. *Manaakitanga* encapsulates a reciprocal relationship with other iwi in order to reinforce their *mana* as *tangata whenua*, as well as being able to provide and care for the people. *Kaitiakitanga* is an integral part of *manaakitanga*; *Papatūānuku* provides the sustenance to enable the practice of *manaakitanga*, therefore humans must reciprocate this gift, and interact sustainably with the resource to ensure its continuance.

However these ‘rights’ and the ability to perform these ‘responsibilities’ have been eroded due to the historical and contemporary processes of colonisation. The Waitangi Tribunal acknowledged the existence of these aquaculture and development rights, and the consequent Treaty breaches that exist through the continued exclusion of Māori from this resource. The Crown has responded by superficially addressing the commercial exclusion of Māori from aquaculture through the creation of the Māori Commercial Aquaculture Claims Settlement Act, 2004. However, ambiguities in the legislation, as well as the devolution of the implementation responsibilities to the local councils, have seriously degraded the beneficial potential of such an Act. Furthermore, the devolution of Crown Treaty obligations to the local government level weakens the Māori-Crown relationship, particularly in regard to aquaculture management, where councils are adopting the most ‘cost-effective’ methods through devolving costs to the applicant, thereby further excluding Māori from this practice.

Furthermore, the Crown continues to conduct itself in a schizophrenic fashion, giving with one hand while taking with the other. On one hand the Crown ‘settles’ Treaty grievances, while on the other it continues neo-colonial acts of resource confiscation. The Crown confiscation of *te takutai moana*/foreshore and seabed is the most blatant and

relevant example of this. The Crown argues it is encouraging Māori development when at the same time it is illegally confiscating the very resources on which Māori development depends, grossly breaching the Treaty, and simultaneously undermining the very constitutional system on which our society depends.

Iwi/Māori, as Treaty partners, assumed equal rights and access to the benefits of development was guaranteed. However, given the historical and continuing position of socio-economic disparity of Māori, this guarantee has clearly not been met. Māori continue to occupy the lowest echelons with regard to virtually every socio-economic indicator, and yet the settler population has thrived and New Zealand has surged ahead as a developed country. Yet how is it that the Indigenous peoples of developed nations persistently occupy spaces similar to that of developing nation populations? The answer lies in the nature of colonisation; it is not a process of parity, it favours the colonisers at the expense of the colonised.

Despite an arguably unsupportive climate for Māori Development, many Iwi/Māori have rejected predictions of decimation and assimilation and have embarked on emancipatory agendas to control the development of their own futures, embedded within their own cultural contexts and imperatives. Great strides have been made, and success stories relating to cultural revitalisation such as Kohanga Reo have been driven by a sense of 'Māoriness' and cultural identity. Once it became evident Māori were not going to assimilate, the government embarked on its 'closing the gaps' approach. This paternalistic policy involves an attempt to 'level the playing field' for Māori. However the arrogance of such an approach is evident in the use of *Pakeha* goals for Māori development and a continual reluctance to address or support the fundamental issue of self-determination (refer to the government's opposition to the UN declaration on the Rights of Indigenous Peoples 1994). While there is a clear role, and indeed obligation on the Crown to assist in creating the necessary conditions for Māori development, the power to define the MD agenda should remain in the hands of the participants, beneficiaries, and key drivers of the development.

Despite the existence of some positive rhetoric in government documents, evidence of real action towards supporting Māori self-determined development is absent. There has also been a narrow focus on encouraging economic development as opposed to examining the nature of Māori centred development, and enabling Māori to define their own development agendas. Many iwi/Māori do not wish to adopt the dominant corporate ethos, and instead argue that development without a sense of 'Māoriness' is not worth pursuing. Perhaps this presents an opportunity to examine our own current development path; whether we are achieving true 'progress' and at what environmental, social and cultural costs.

Another important finding concerned the concept of 'sustainability' within our wider environmental management regime and discourse. The analytical discussion of the barriers revealed that understandings of 'sustainability' are dominated by hegemonic, western-based understandings that are underwritten by certain value assumptions. The lack of power and influence of Māori in the discourse, design and implementation of sustainability (and environmental management) mean their understandings and approaches are marginalised.

This raises important issues regarding the discipline of Environmental Studies. As I noted in Chapter 1, the discipline purports a 'holistic approach'. However the question around whose worldviews are included in this understanding of 'holism' must be raised. Universities are essentially colonial learning institutions, and are therefore imbued with certain values. Victoria University's programme does give Māori centred environmental paradigms a degree of academic space through a specific Māori resource management paper, however there is still a large gap in terms of Māori representation on the academic staff, and of Māori students engaging in post-graduate studies. Policy should be implemented within the University to rectify these inequalities, thereby enhancing the influence of Māori perspectives in Environmental Studies discourse and sustainability debates.

Where does this leave Māori in terms of their development aspirations? The forecast for Māori does not look set to improve and the 2020 ‘cut-off’ date for treaty settlements places restrictions on the ability for Māori to gain redistributive justice. Furthermore, this research has revealed that the government can not be relied upon as a source of support beyond rhetoric, and therefore alternative avenues must be sought. The design of this research is premised upon this reality and the need to address natural resource issues by working within these restrictive parameters through strategic utilisation of available Māori capacities. One critical resource iwi/Māori have is their *rangatahi* (youth) and the principles/values of *whanaungatanga* and ‘collectivity’.

Strategic support both within Māori organisations and from the government for Māori education is therefore essential. Scholarships which support Māori research capacities has been one area where the government has ‘walked the talk’, however this beneficial tool became a political football in the recent elections due to its perceived ‘race-based’ favouritism. Universities should continue to support Māori entry into tertiary and further post-graduate studies, targeting areas which benefit Māori centred development. In terms of the future for iwi/Māori, the only option is to continue on their individual development paths, support strategic education and research, and be cognisant of other successful MD examples while simultaneously continuing to challenge abuses to their rights through the available legislative avenues.

In terms of the relationship of this research to the Māori development theoretical field, I argue these findings have engaged, raised issues and tensions, as well as contributed to, the Māori development discourse. However, Māori development theory continues to be dominated by government initiated literature, with its patriarchal, paternalistic and entrenched colonialist perspectives. A lack of internal capacity and the mono-cultural nature of academia, continue to marginalise Māori from participating in this discourse. Therefore further research, conducted within a Māori centred *kaupapa* is required to enhance Māori voice and visibility in this academic sphere. The following questions have arisen as a result of this research, and are areas that require further focus in order to support the change necessary for this visibility to occur:

- How is the environmental discipline and management spheres culturally biased?
- How can Māori gain greater space/freedom to participate in environmental dialogue to improve their visibility and influence?
- Whose understandings and values underpin the development discourse?
- How is colonisation impacting on Māori self-determined development agendas?

Furthermore, I hope this research has also contributed to the Māori centred methodological discourse. I entered this research as a multicultural researcher, lacking the necessary skills in *Te Reo* and *tikanga* to adopt a Kaupapa Māori approach, but still aspiring to engage in Māori research. The approach I adopted was an amalgamation of Kaupapa Māori principles, Ngāti Whātua values, and two of Graham Smith's (1992 cited in Smith 1999) 'bi-cultural' models (a '*tiaki*' an 'empowering outcomes' approach). This model enabled me to partake in Māori research in an appropriate fashion, and to surround myself with the necessary mentors to ensure I was in a valid position to engage in this research. Such models are necessary for researchers in a similar position who wish to engage in empowering Māori research.

This research journey has also revealed the importance of adopting a collaborative and strategically beneficial approach when concerning Māori issues. Research is powerful; it has the power to help, and the power to harm, and for too long research into Māori lives has had the latter effect. I argue that greater lines of collaboration need to be formed, and research needs to move outside of its academic context and made applicable to 'real world' situations. Māori development research engages more than theory. It engages with people on the ground, and should acknowledge their 'flax-root' needs and aspirations.

In conclusion, this research has shown that development is not a passive process; it is shaped by politics, economics, and imbued with socio-cultural and even metaphysical values. However for those who are marginalised from the power spheres, whose approach does not fit within its parameters or who do not have the resources to participate, it is also an inequitable process. Māori have been disadvantaged in the development of

Aotearoa/New Zealand. This attempt by Ngāti Whātua to participate in aquaculture represents one of many ‘flax-root’ attempts by Māori to rectify this position, not in order attain *Pakeha* levels of ‘progress’, but to advance as Māori, and as the determiners of their own development agendas.

Glossary

* Glossary source: Kawharu, 1998; R Walker 2004; Pere 1991

<i>Ahi kā</i>	Keeping the fires of occupation alight (also refers to the people who enact this responsibility)
<i>Atua</i>	Gods and Goddesses
<i>Hapu</i>	Sub-tribe, descendants, pregnant
<i>Harekeke</i>	Flax
<i>Hui</i>	Meeting, gathering
<i>Iwi</i>	Tribe, bones
<i>Kaimoana</i>	Seafood
<i>Kaitiakitanga</i>	Trustee-ship, resource management, guardianship, conservation, keeper
<i>Kanohi-ki-te-kanohi</i>	Face to face interactions
<i>Kaupapa</i>	Plan, rule, topic, medium, paradigm, philosophy
<i>Korero</i>	Talk, speech, history, story, principle
<i>Mana</i>	Authority, power, prestige, psychic force, authority
<i>Manaakitanga</i>	Entertain, look after, hospitality, help
<i>Mana whenua/moana</i>	Authority over land/sea
<i>Matauranga</i>	Knowledge, learning
<i>Mauri</i>	Spiritual essence, life force
<i>Mauri-ora</i>	Unique life force bestowed upon humans
<i>Noa</i>	Common, without sanctity/tapu
<i>Ohaoha</i>	Production, distribution and consumption of goods
<i>Pakeha</i>	Non-Māori citizen of New Zealand who has ancestry outside of Aotearoa
<i>Papakāinga</i>	Residence, village settlement
<i>Papatūānuku</i>	Goddess of Earth, mother of smaller departmental gods. Also used to refer to the earth (whenua) itself.
<i>Puti</i>	Money, financial capital
<i>Rahui</i>	A sustainability tool, customary restrictions placed by a rangatira or kaitiaki on resources to control, or after a death occurs
<i>Rangatahi</i>	Youth, adolescents
<i>Ranginui</i>	Sky father, father of many smaller departmental gods
<i>Rohe</i>	Boundary, territory
<i>Tamaki</i>	Auckland region
<i>Tangaroa</i>	God of the sea, also used to refer to the ocean itself
<i>Tangata whenua</i>	People of the land, tribe who holds authority over a given territory
<i>Tangi</i>	Cry, weep, funeral
<i>Taonga</i>	Treasure, cultural heritage, gift
<i>Tapu</i>	Sacred, prohibited, unclean
<i>Te takutai moana</i>	Foreshore and Seabed
<i>Tiaki</i>	Mentor
<i>Tikanga</i>	Applying what is right for a given context; Lore, protocol, custom, discipline, rule
<i>Tino rangatiratanga</i>	Sovereignty, authority, self-determination
<i>Toitu te ao turoa</i>	Māori term for sustainability
<i>Tukua te rangatiratanga</i>	Māori term for 'Māori development'
<i>Uri</i>	Individual
<i>Wahine</i>	Woman
<i>Whakapapa</i>	Genealogy, layering of generation upon generation
<i>Whanau</i>	Birth, offspring, extended family
<i>Whanaungatanga</i>	Kinship ties, familial relationships
<i>Whenua</i>	Land, afterbirth, earth, country

Acronyms

A/C	Aquaculture
AMA	Aquaculture Management Area
CFA	Critical Focus Area
ENGO	Environmental Non-Governmental Organisation
KF&B	Kaipara Forest and Bird
KM	Kaupapa Māori
LGNZ	Local Government New Zealand
MCACSA	Māori Commercial Aquaculture Claims Settlement Act
MFish	Ministry of Fisheries
MC	Māori Centred
MD	Māori Development
NGO	Non-Governmental Organisation
NW	Ngāti Whātua
RMA	Resource Management Act
SWOT	Strengths Weaknesses Opportunities Threats
TEK	Traditional Ecological Knowledge
TOKM	Te Ohu Kaimoana
TPK	Te Puni Kōkiri
TRoNW	Te Runanga o Ngāti Whātua

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Personal Communications: See Appendix 2 for table of Participants.

NB. References used in appendices are included in individual reports.

Appendices

Appendix 1: Ethics forms

Appendix 2: List of participants

Appendix 3: Interview Schedule

Appendix 4: Assessing the Feasibility of Establishing Aquaculture in the Kaipara Harbour

Appendix 5: Te Runanga o Ngāti Whātua: Strategic Aquaculture Options

**Appendix 1: Human Ethics Committee Forms
including Information Sheet, Consent
Form and Code of Ethics**

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wananga o te Upoko o te Ika a Maui



INFORMATION SHEET

E nga mana, e nga reo, e nga pataka o nga taonga tuku iho tena koutou.

Title of Project: Whaia te pae tawhiti kia tata, Whaia te pae tata kia mau

Rights, Responsibilities and Resistance:

Exploring 'Flax-root' Strategies for Ngāti Whātua Involvement in Aquaculture within the Kaipara Harbour

Tena koe

Researcher

Monique Badham [Ngāti Whātua, Reweti Marae] Masters Student at the School of Geography, Environment and Earth Sciences, Victoria University of Wellington.

Mentors

Hally Toia, Advisory Officer of Natural Resource for Te Runanga o Ngāti Whātua, has been a mentor for me since January 2006.

Dr Jessica Hutchings (Ngati Tahu) is my research supervisor.

Purpose of Research

The main aim of this research is to assist iwi/Māori in the participation in aquaculture. It will focus on Ngāti Whātua and the achievement of aquaculture goals for the Kaipara Harbour. Strategies to overcome barriers will be developed based on literature and the collaboration with the Māori community in the Kaipara. The outcome will be the development of a set of 'flax-root' (on-the-ground and practical) strategies surrounding issues such as species options, locational choices and also strategies to overcome any administrative barriers.

The University has given ethics approval for this research, and Te Runanga o Ngāti Whātua have also endorsed this research. This is a collaborative research effort. The majority of the knowledge used for this research will come from the Māori communities within the Kaipara harbour. The aim of this research is to

achieve a positive development opportunity for Ngāti Whātua through aquaculture. Your involvement in this research would contribute to positive changes for Ngāti Whātua in the area of aquaculture and the associated marine environment.

How can you help?

My intention is to interview Ngāti Whātua people through a discussion format. These discussions will form the basis of my research. I intend to visit the Kaipara harbour during November to gather my data. Our meeting would be conducted personally at a time and location to suit you. With your permission, our discussions may be tape recorded, however taping can be stopped at any time.

You may withdraw from the project at any time without question prior to data collection and analysis (May 2007). Responses will be put into a written report. A copy of the transcript featuring any quotes gained from you will also be available for you to check. Your name and any names you use may be disguised if that is your wish.

All material collected will be treated as confidential, kept in a locked draw, and will be available for return if requested, or alternatively they will be destroyed at the end of the project. My university supervisor, Jessica Hutchings and myself, will be the only two people that will ever have access to the interview data. The thesis will be submitted for marking to the university. If you wish, you may receive a summary of the research report by mail in November 2007.

If you have any questions or would like to receive further information about the project, please contact me at [Address: Monique Badham, 9 Melrose Crescent, Melrose 6003, Wellington, Home phone: (04) 3800293, cell 027 621 8853, email monique.badham@gmail.com] or my supervisor [Address: Jessica Hutchings, Victoria University of Wellington, PO Box 600, Wellington 6140, Work phone: 021 406 226]. I will also be available through the Ngāti Whātua Runanga Office (09) 4382870 Ext 206 from the 14th of November to the 7th of December, 2006.

Kia Ora

Monique Badham
Date: 14 September 2006

Hally Toia
Date: 14 September 2006

.....

.....



CONSENT FOR PARTICIPATION IN RESEARCH

Title of Project: **Whaia te pae tawhiti kia tata, Whaia te pae tata kia mau**

Rights, Responsibilities and Resistance:

Exploring 'Flax-root' Strategies for Ngāti Whātua Involvement in Aquaculture within the Kaipara Harbour

I have been given and have understood an explanation of this thesis project. I have had an opportunity to ask questions and have them answered to my satisfaction. I understand that I may withdraw myself (or any information I have provided) from this project (before data collection and analysis is complete) without having to give reasons.

- ☐ I agree to take part in this research
- ☐ I agree to this discussion being audio taped YES/NO (please circle)
- ☐ I understand that responses/tape recordings will be kept in a locked draw or electronically protected while in use
- ☐ I understand information gathered from me will be used for a Masters Thesis in Environmental Studies, and related research, publications and presentations in the fields of Māori studies, environmental studies, aquaculture journals and forums
- ☐ I would like the tape recordings and/or written responses of my discussion returned to me at the conclusion of the project (otherwise they will be destroyed at the completion of the thesis).
- ☐ I would like to receive a summary of the results of this research when it is completed
- ☐ I would like to receive a copy of the transcript pre-submission to check any quotes/information gained from me
- ☐ I agree to the use of my name/organisation in the thesis, or
- ☐ I would like the use of pseudonyms for myself or my organisation (please indicate what you would like this to be).....

Signed: _____

Date: _____

Name of Participant (please print clearly) : _____

If you have any questions or would like to receive further information about the project, please contact me [Address: Monique Badham, 9 Melrose Crescent, Melrose 6003, Wellington, Home phone: (04) 3800293, Cell phone: 027 621 8853, or Email: monique.badham@gmail.com] or my supervisor [Address: Jessica Hutchings, Victoria University of Wellington, PO Box 600, Wellington 6140, Work phone: 021 406 226]

Code of Conduct for Involvement of Māori Participants

[as submitted to the Human Ethics Committee]

[Source: Mead, L. (1997) cited in Cram, F (2000) 'Rangahau Māori: Tona tika, tona pono- The validity and integrity of Māori research', in Martin Tolich and Carl Davidson (Eds.), *Social Science Research in Aotearoa New Zealand*. Auckland: Pearson Education, pp 35-52].

1. Respect for people

Allowing people to define own space and meet on their own terms.

2. He kanoahi kitea

The importance of meeting with people, face-to-face. Shows willingness to cross space between researcher and researched and spend time with people.

3. Titiro, whakarongo...korero

Importance of watching and listening to understanding the development of trust. Ask who are the kaitiaki as it is these people who will give (or not give) consent based on their cultural information.

4. Manaaki ki te tangata

Collaborative approach to research, research training and reciprocity, "both have something meaningful to contribute" (Cram 2000, p45). Open and flexible research design to enable negotiation and participation, information dissemination and co-authorship.

5. Kia tupato

About being politically astute, culturally safe and reflective about insider/outsider status.

6. Kaua e takahia te mana o te tangata

Not trampling on the mana of the people. Sounding out ideas with people, disseminating research findings, community feedback keeps people informed about the research process and findings. Facilitate a respectful and empowering process (of the people participating and of the knowledge shared).

7. Kaua e mahaki

Not flaunting knowledge. Sharing knowledge and using our qualifications to benefit the community.

Appendix 2. Participant list

Personal Communication Table

Name	Role and Affiliations	Date
Hally Toia	Advisory officer of natural resources, Ngāti Whātua	Multiple communications between 10.10.06-20.02.07
Thomas de Thierry	Community Member of Te Hana, Te Uri o Hau/Ngāti Whātua	27.11.06
Tepania Kingi	Tikanga advisor, Te Runanga o Ngāti Whātua	30.11.06
Martin Mariassouce	Te Puni Kokiri, Commercial Development Manager for the Northern region, Te Tao U/Orakei, Ngāti Whātua	29.11.06
Leanne and Adam Thompson	Owners of Sunshine Oysters, Te Uri o Hau/Ngāti Whātua	07.12.06
Suzi Phillips	Convenor Kaipara Forest and Bird	05.12.06
Jim Dullimore and John Nicholson	Cofounders Biomarine Limited	27.11.06
John Hannah	Manager of the New Zealand School of Fisheries and Chair of Sea Products Limited, ex-General Manager of Sealords Ltd	21.03.07

Email Communication:

Kirsty Woods. Manager, Policy and Fisheries Development at Te Ohu Kaimoana
08.08.06

ALL PARTICIPANTS HAVE GIVEN THEIR CONSENT TO PARTICIPATE IN THIS RESEARCH AND TO HAVE THEIR COMMENTS ATTRIBUTED TO THEM.

Appendix 3. Interview Schedule

(as submitted to the Human Ethics Committee)

Interview Schedule 1. Ngāti Whātua Participants

Style of Interviewing: Key Informant (targeting those involved in resource management, aquaculture, customary uses, authority figures), informal, semi-structured, mostly open-ended questions using prompts, kanohi-ki-ti-kanohi (face-to-face).

Background Questions.

- What is your involvement in resource management of Ngāti Whātua?
 - o Prompts- Kaitiaki, customary kaimoana gathering
- How long lived in area/how long been involved?
- What is your relationship to the marine environment? How does it impact/enhance/affect your life?
 - o Prompts- Kaimoana, spiritually
- What are the different types of activities that currently occur in the marine environment?
 - o Prompts- customary/recreational/commercial

Objective 1. Aquaculture Aspirations

- How would you describe the current level of Ngāti Whātua involvement in aquaculture (rohe/specifically to Kaipara harbour)?
- What aspirations/goals do you have surrounding aquaculture?
 - o Prompts- commercial, customary, tino rangatiratanga/empowerment
- What do you see are the benefits that will come from enhanced involvement/control in aquaculture?
 - o Prompts- Social development, economic growth, reaffirming spiritual connections, tourism

Objective 2. Environmental Potential of the Kaipara harbour

- How do you rate the current environmental state of the harbour?
- What are the main factors/activities affecting the environment of the harbour?
 - o Prompts- human induced
- How have these changed over time?
- What do you see are the main environmental factors affecting practice of aquaculture in this region?
- What needs to be done to solve these?
- What type of aquaculture species/locations/marine farming techniques would you be interested in/in your opinion would be the most appropriate/valuable? Why?
 - o Prompts- purely commercial rationalisation, cultural justifications
- How do you envision this would work?
 - o Prompts- structure within iwi/hapu, expertise, employees, infrastructure
- What needs to be provided/ put in place before this can happen?

Objective 4. Barriers

- What do you see as being the main barriers to your/NW involvement?
 - Prompts:
 - Regulatory- What has been the Regional Councils approach to Māori involvement in a/c in this area?
 - Internal- Any issues with other N/W hapu/ rival iwi? Finances dedicated to this area?
 - Legal- How do you find the current legislation? How do you find the recent amendments? (AMA's). Has the Māori Commercial Aquaculture Claims Settlement Act provided you with any aquaculture space yet? Do you predict it will?
 - Public Perception- Media/publicity of Māori resource management issues (e.g. foreshore and seabed)
 - Stakeholder Groups- Opposition (Industry, Environmental groups, public)
 - Can you make any suggestions for the improvement/overcoming any of these barriers (what can Ngāti Whātua do themselves to empower themselves, what needs to change externally?)
-

Interview Schedule 2. Other Stakeholder/Interest Groups

Style of Interviewing: Key Informant (industry groups, regional council, aquaculture scientists/academics, environmental groups), formal, semi-structured, mostly open-ended questions using prompts, mostly in person although some may be conducted through email/telephone.

Industry:

- What is your general perspective on enhancing iwi/Māori involvement in aquaculture?
 - Prompts: current legislative changes e.g. Māori Commercial Aquaculture Claims Settlement Act giving Māori 20%.
- Do you view iwi/Māori involvement as inhibiting or complimenting your commercial interests? How?
- What do you see as the main barriers facing iwi/Māori?
- What are the main species utilised/locations in Kaipara? What species have potential to be developed in this region?
- What are the main environmental factors effecting further investment in aquaculture in this area?

Environmental and Other Interest Lobby Groups:

- What is you/your organisations opinion of enhancing iwi/Māori (Ngāti Whātua) involvement in aquaculture (specifically in the Kaipara Harbour if in that area)?
- If opposed- Why? What are the reasons?
 - Prompts? Environmental, opposition to perceived special ‘preference’, public access issues?
- How do you rate the current state of the environment of the Kaipara?
- What activities are causing this?
- What is the current state of aquaculture in the Kaipara?
- What effect is aquaculture having on the area?
 - Prompts- Visual, environment, economic

Appendix 4: Assessing the Feasibility of Establishing Aquaculture in the Kaipara Harbour

Appendix 5: Te Runanga o Ngāti Whātua: Strategic Aquaculture Options

These two appendices are practical reports designed for the dissemination of the research findings in a practical format for Ngāti Whātua. Appendix 4 ‘Assessing the Feasibility of Establishing Aquaculture in the Kaipara Harbour’ is the result of the findings from objective 2 and Appendix 5 ‘Te Runanga o Ngāti Whātua: Strategic Aquaculture Options’ is from the findings of objective 4. These reports have been included for transparency purposes, and to demonstrate the strategic and empowering focus of this research by extending the result outside of the academic sphere.

Assessing the Feasibility of Establishing Aquaculture in the Kaipara Harbour



Report Produced for Te Runanga o Ngāti Whātua

by

Monique Badham (Masters Student, School of
Geography, Environment and Earth Sciences,

Victoria University of Wellington, Te Tao U o Ngāti Whātua)

in conjunction with

Hally Toia (Advisory officer of natural resources for Te Runanga o Ngāti Whātua)

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Purpose

This report utilises secondary literature and interviews to assess the feasibility of the Kaipara harbour as a location, as well as the six target species for the pursuance of Ngāti Whātua aquaculture aspirations. This report will initially address the considerations necessary when establishing aquaculture, which is then applied to the analysis of six selected species; *kutai*/mussel, *tio*/oyster, *parengo*/red seaweed, *tuna*/eel, *paua*/abalone and *inanga*/whitebait. The physical characteristics of the Kaipara harbour will then be addressed, including the hydrology, bathymetry, salinity, temperature, food supply, pests, access to infrastructure, markets and training institutions, other uses by mammals and birds, and other potentially conflicting human uses including cultural, recreational and commercial interests. This report should be read with the complimentary report ‘Te Runanga o Ngāti Whātua: Strategic Aquaculture Options’.

Feasibility Literature

There are a variety of factors that need consideration when determining the feasibility of an aquaculture project. Figure 1 below summarises the range of considerations necessary;



Figure 1 demonstrates the plethora of considerations that are necessary to establish the feasibility of an aquaculture venture. Ecological considerations of a location include water quality, food supply, salinity, benthic environment, water turbidity, hydrology, temperature, bathymetry, natural pests, and the natural occurrence of species in area (Kennedy 2003; Grant and Hay 2004)¹. The biological considerations of the species include; growth rates, survival rates, resilience to certain conditions (oxygen, salinity), recruitment policy (location of spat/juvenile supplies) and food conversion ratios also need to be examined. With regard to the locational characteristics of the site, human induced pollution sources (urban, forestry, agricultural), available space, conflicting uses (navigation, recreation, commercial fishing), values (public, cultural and environmental opposition), and the potential impacts that may be caused by the aquaculture development need consideration. Land-based aquaculture requires an examination of the topography, soil types, location to reliable water supply and the power costs if pumping above sea level.

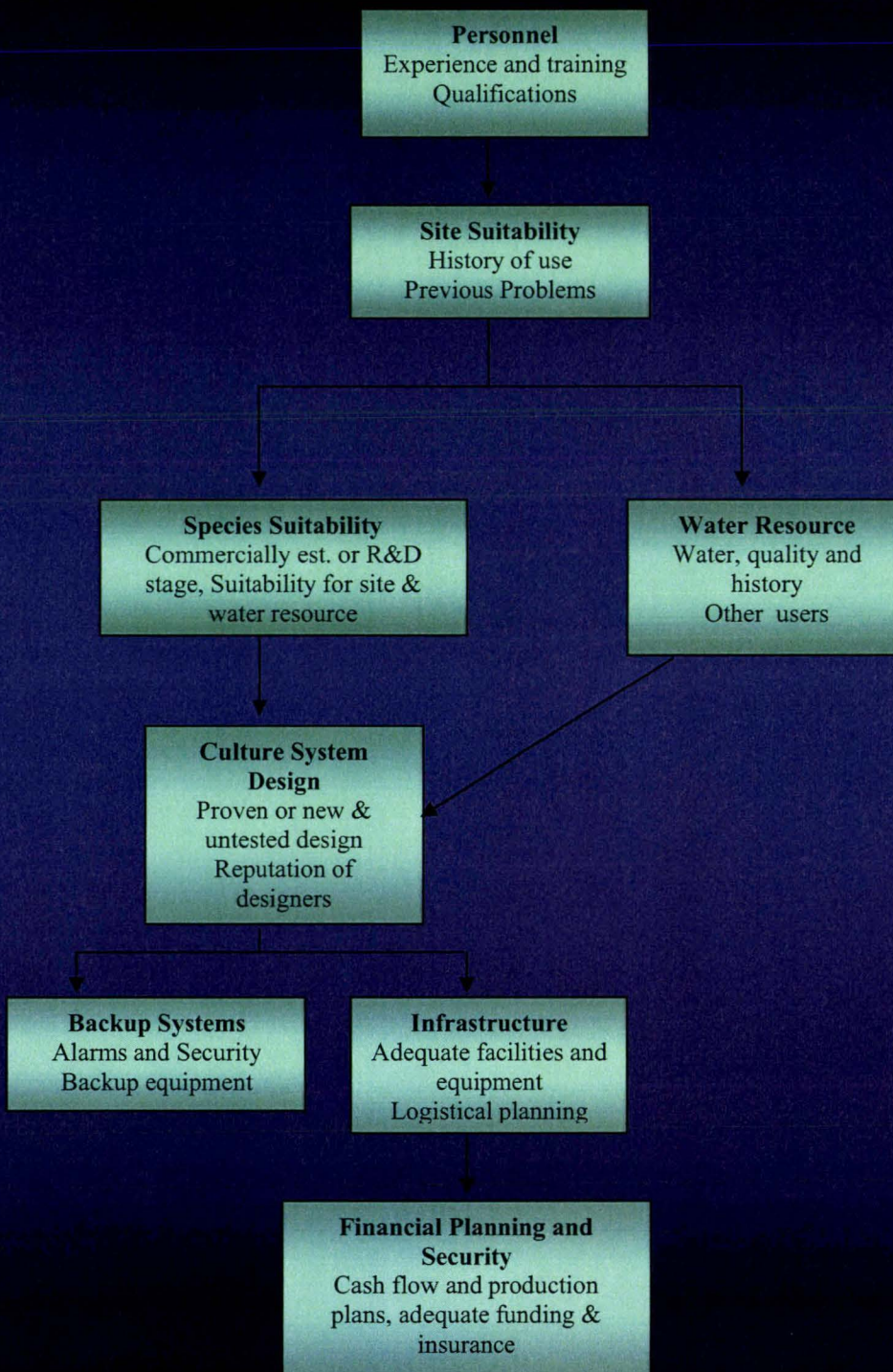
Economic considerations are crucial to the success or failure of an aquaculture project. Such issues include the marketability of the species (demand for product), initial capital to start the venture, the price of input materials (spat, food supplies, employees, marketing, infrastructure, equipment) compared to the price of final product, and saleability (quality matches or surpasses wild counterpart and has a sustainable price).

Aquaculture ventures generally have high infrastructural requirements. Therefore consideration needs to be given to the provision of infrastructural support such as the accessibility of the site (i.e. boat, road, airport access) and access to ports and manufacturing factories and personnel requirements (appropriately qualified and experienced employees). Security and contingency plans also need to be developed. The technology chosen must also be examined with regard to its success and/or failures in other situations, and its appropriateness for the requirements of the individual ventures.


¹ The following discussion of aquaculture considerations is based upon Kennedy 2003 and Grant and Hay 2004.

This flow chart demonstrates similar considerations;

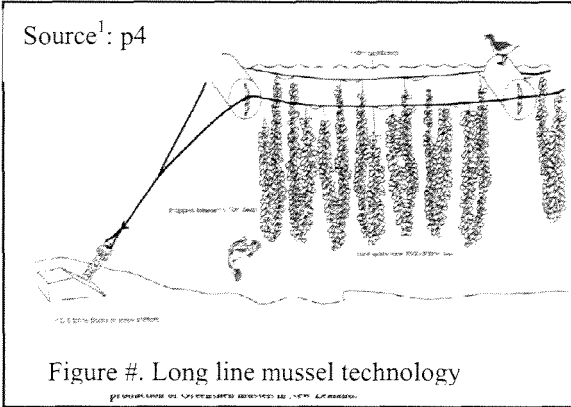
Figure 2. Aquaculture Investment Considerations.
Source: Kennedy 2003




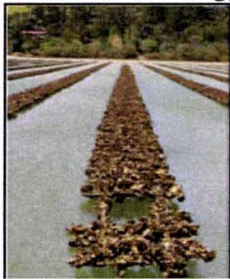
The next section will present data from a range of sources (see list at end of tables) discussing the ecological, biological, economic, technological and infrastructural requirements of the six selected species; *kutai*/mussels, *tio*/pacific oyster, *paua*/abalone, *parengo*/red seaweed, *inanga*/whitebait and *tuna*/eel.

Species	Consideration	Presentation of Data
Kutai, Green Lipped or Greenshell™ Mussels [<i>Perna canaliculus</i>]  Picture source 25	Ecological Requirements	A native bivalve shellfish that occur naturally in areas around the Kaipara ⁴ Tolerant to range of water qualities, however concentrate human pathogens and toxic substances therefore high standards required ² Prefer sheltered waters/low turbidity. Filter feeders: need sites with high primary production (therefore velocity should not exceed 5 cm/s) ¹ Prefer reasonable water depth required (up to 40m) ¹ Prefer saline conditions ¹ Prefer gentle currents ¹ Prefer warmer temperatures ¹ Require ample phytoplankton supply ¹ N/A
	Natural Occurrence	
	Water Quality	
	Water Turbidity	
	Bathymetry	
	Salinity	
	Hydrology	
	Temperature	
	Food Supply	
	Benthic Environment	
	Pests and other related issues	In recent years, toxic algae gymnodinium catenatum has led to an oyster ban ¹
	Biological	Mostly dependant on wild supplies (experimental technology of hatchery raised mussels). 80% of industry spat sourced from Ninety-Mile beach (Northland). Few spat catching ventures in the Kaipara (fibrous ropes are hung in water) ¹ Generally take between 12-18 months to reach harvestable size (around 80mm in length) Can be harvested throughout the year ¹ Considered to be a more “benign” form of aquaculture with “localised impact” ¹ (ii). Positive effect= increase in fish and bird life. Negative effects= excrete high levels of ammonia, faecal matter can cause slightly anaerobic (i.e. lacking oxygen) conditions and a
	Recruitment	
	Growth Rates	
	Ecological Effects	


		consequent reduction in species diversity ⁵ Food supplies can also be a problem when over stocking occurs ²
	Resilience	Reasonably tolerant to a wide range of growing conditions
	Economics	
	Marketability/ Saleability	Most economically important species in New Zealand (responsible for over 60% of industry production) ⁴ A well-proven industry with good economic returns ¹ Exporting dependent on NZ dollar (currently high) Highly competitive- big players (e.g. Sanford ltd, Sealand ltd) dominate. Relatively low-value product Profits dependent on “highly mechanised handling and processing techniques to produce large volumes at low cost” (economies of scale are important) ⁴ (132) No food costs as naturally filter-feed ⁴
	Social Considerations	
	Costs and Benefits to Local Community	High labour involvement Public concern surrounding visual amenity possible environmental impact ¹ , however effective on small scale (minimises negative visual impacts)
	Māori	Culturally significant species for Māori ⁶
	Infrastructural	
	Accessibility of site	Requires access to processing factories ¹
	Personnel requirements	Highly mechanised (requires skilled workers to operate machinery)
	Technology	


	Current Practice	<p>Source¹: p4</p>  <p>Figure #. Long line mussel technology production of mussels in New Zealand</p> <p>Cultivation usually occurs on longlines suspended from buoys (see figure above). Lines usually 10-20m in length, seeded with mussel spat held on with cotton stockings that later disintegrates⁴</p>
	Success/Failure in other examples	<p>Whangape Mussel Spat Catchers Ltd (Far North) is a successful, Māori owned and operated spat gathering company in the Whangape harbour. 2.4ha spat gathering company. Provides work of 17 people.</p>
	Future Technology	<p><u>Offshore mussel farming</u>: Mitigates conflicts, however the economics are different (heavier equipment, more seaworthy boats and greater travelling distances required). Mussels more likely to be shaken off lines by rough conditions, less phytoplankton food supply.</p> <p><u>Hatchery reared spat</u>: (land-based aquaculture) Requires access to water of oceanic quality and stable temperature². Commercial feasibility issues (low value species- compare with cheap wild spat supply). Gain reliability and selective breeding options⁴</p>

Species	Consideration	Discussion
Tio, Pacific Oyster <i>[Crassostrea gigas]</i>  Picture Source ²⁶	Ecological Requirements	Non-native (Asian origin), introduced in 1960's to aid the struggling native Rock Oyster industry ⁴ Bivalve filter feeders prone to contamination accumulation ⁴ Tolerant to water turbidity ⁴ Prosper in shallow harbours at mid-tidal level, continually submerged Farms usually situated at 0.5m below extreme low water neap and up to about 1.5m depth at low tide ⁷ Tolerant: salinities 15‰ to around 36‰ Prefer sheltered conditions, but flow of water important to allow food provision and reduce sediment build up ⁷ Prefer warmer waters (crucial to induce spawning at 20°C) ⁴ Require ample phytoplankton food supply ⁷ Averse to silty conditions ⁷ Over stocking of oysters, fouling by other marine species and predatory flatworms (can be mitigated through proper management) ^{7 & 8}
	Natural Occurrence	
	Water Quality	
	Water Turbidity	
	Bathymetry	
	Salinity	
	Hydrology	
	Temperatures	
	Food Supply	
	Benthic Environment	
	Pests and other related issues	
	Biological	<u>Negative effects:</u> Environmental effects are “minimal”, reversible and highly localized with some increased sedimentation and shell drop beneath the racks ⁷ (25). Also light pollution, noise and servicing requirements ²³ Can also affect water flows, and composition of the organisms living in the sediment ² <u>Positive effects:</u> attracting fish and other species diversity, help stabilise estuaries ⁸ and help the cycling of nutrients ⁷ . Described as a ‘sunrise industry’ with little/no negative environmental
	Recruitment	
	Growth Rates	
	Ecological Effects	

		impacts ⁸ and as a “clean business” ²⁴
	Resilience	Tolerant to a wide range of growing conditions
	Economics	
	Marketability/ Saleability	Pacific oyster culture a significant contributor to the Northland economy (estimated production figures exceeding \$20M in revenue) (ii) ⁷ Increasingly competitive industry (locally and overseas) ⁴ Fetch a high market price (more than \$3.40/dozen), in high demand in overseas markets (85% of Northland produced oysters are exported) ⁴
	Social Considerations	
	Costs and Benefits to Local Community	High economic flow on effects, employment- labour intensive ⁴
	Māori	While not native, it is still a culturally significant species ⁶ . Māori own approximately 60% oyster leases in northland ⁴
	Infrastructural	
	Accessibility of site	Requires access to processing oyster factories ⁴
	Personnel requirements	Labour intensive and requires trained workers for machinery and production ⁴
	Technology	Current technology mostly based on intertidal rack systems (photo left).
	Current Practice	 <p>Oysters are held on by sticks, small plastic baskets or mesh bags, flat trays or scallop shells⁴ Racks usually one metre above the sea floor (avoids pest problems) ² Optimum stock density usually 4-5 dozen per 1.2m stick⁷</p> <p>Oyster Rack technology Source⁴ :p2</p>
	Success/Failure in other examples	See Sunshine Oyster and Biomarine Case Studies page 32.
	Future	<u>Mixture of inter and sub-tidal</u> : involves hatchery


	Technology	<p>reared spat deployed to an intertidal or subtidal nursery system, then moved into on-growing farms in grow-out bags or trays, then ‘hardened off’ in the intertidal before sale⁷.</p> <p><u>‘Single seed’ production techniques:</u> oysters manually placed in swinging mesh bags to reduce risk of pests and create uniform growth see Biomarine case study p33⁷</p>
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Species	Consideration	Discussion
Paua, Common black paua/abalone <i>[Haliotis iris]</i>  Source ²⁹	Ecological Requirements	
	Natural Occurrence	Native, found around most of New Zealand's coastline. Naturally found in Northland, although not in abundance. More commonly found on exposed rocky coastlines, in shallow sub tidal areas and away from freshwater sources ⁴
	Water Quality	Susceptible to poor water quality ⁴
	Water Turbidity	Prefer low turbidity but high oxygen levels ⁴
	Bathymetry	N/A: land based aquaculture
	Salinity and pH	Prefer saline and non-acidic conditions ⁴
	Hydrology	N/A
	Temperatures	Prefer lower water temperatures (18°C optimal, over 25°C lethal) ⁴
	Food Supply	Herbivorous- require large amounts of macro-algae. Prefer red seaweeds (legal constraints for harvesting wild seaweed) ⁴ A mix of artificial feed and seaweeds for dietary variations maintains growth rate ⁷
	Benthic Environment	N/A
	Pests and other related issues	Very few diseases (most related to poor conditions/holdings) ⁴
	Biological	
	Recruitment	All aquaculture paua supplied from hatchery ⁷
	Growth Rates	Takes 4-5y of on growing to reach harvestable size of 75-100mm ⁷
	Ecological Effects	Land based paua farming has little/no detrimental effects
	Resilience	Have low tolerance levels and high larval mortality rates
	Economics	

	Marketability/ Saleability	<p>High value species with good market potential (fetch more than \$60 a kilogram)⁷</p> <p>Industry not reaching projected capacity (NZ industry still producing less than 3 tonnes of meat per year)²²</p> <p>Black skin of common paua significantly reduces export market appeal⁷</p> <p>Most paua is canned after bleaching for sale to Asian markets (especially to China). High demand for the shell for pearl for jewellery. High costs of hatchery rearing (\$0.50 to \$1.25 each for 10-20mm juvenile common paua)⁷</p> <p>Artificial feed can be expensive (\$6- 7 per kg) (84)⁷</p>
	Social Considerations	
	Costs and Benefits to Local Community	Little/no negative effects (land based). Low employment levels required ²²
	Māori	High level of cultural significance ⁶
	Infrastructural	
	Accessibility of site	N/A: Land based
	Personnel requirements	Low labour requirements, high level of expertise needed ⁷
	Technology	
	Current Practice	 <p>Reticulation system at NIWA's Bream Bay aquaculture park¹⁰</p>


		<p><u>Land-based methods</u>: Most used technology (see photo above). Use shallow raceways (around 200mm deep and 600mm wide)⁴. Flow-through systems (large volumes of seawater are pumped through tanks)⁹. Reticulation (use recycled water and produces rapid growth rates of up to 50% faster, control of water temperature/quality and reduces high water pumping costs)⁹</p> <p><u>Marine based technology</u>: relies largely on barrel culture. Avoids costs of land, however there high level of food wastage, escaping paua, high rates of mortality and shell worm and unable to control temperatures⁴</p> <p><u>Artificial rearing</u>: Technology involving the artificial rearing of paua been successfully developed.</p>
	Success/Failure in other examples	Eastland aquaculture contracted NIWA to design a reticulation system in 2003 which was greatly successful, and encouraged OceanNZ Blue Paua Ltd to follow suit ⁹
	Future Technology	<p><u>Polyculture</u> (Paua and Seaweed farming): technology under development. <i>Gracilaria chilensis</i> (discussed later) are easy to grow, and thrive on effluent such as that provided from paua farms. Solve problem of feed, and reduce water recycling costs. However more complex growing system^{4&12}</p>

	Land Based Considerations	Flat land along the coast is preferable.
	Topography	

Species	Consideration	Discussion
Parengo, Red Seaweed [<i>Gracilaria Seaweeds</i>]  <div>Source ³²</div>	Ecological Requirements	
	Natural Occurrence	Four parengo species are native Red seaweeds are found in a variety of locations (range from intertidal harbours and other nutrient rich waters such as sheltered and exposed coasts) ⁴
	Water Quality	Low degree of water quality required ⁴
	Water Turbidity	Survive in varying water turbidity ⁴
	Bathymetry	Intertidally on sheltered and exposed coasts sometimes extending to the sub tidal ⁴
	Salinity	Variety of salinities: optimal 20-33 parts per thousand ⁴
	Hydrology	[Not applicable]
	Water Temperatures	Tolerate wider variety of temperatures-varying temperatures (optimal 10-28°C) ⁴
	Food Supply	Absorb minerals and gases directly from sea water ³³
	Benthic Environment	Occur in variety of benthic environments ⁴
	Pests	Predators
	Biological	
	Recruitment	Wild supply (are some legal constraints around harvesting wild seaweed) ⁴
	Growth Rates	Finely branched and can grow extremely high ⁴
	Ecological Effects	Potential ecological impacts include seabed disturbance due to clearing, minor change in ecosystem balance, disruptions to natural physical and biological processes and increased siltation ¹¹
	Resilience	Highly resilient species ⁴
	Economics	
	Marketability/ Saleability	Red seaweeds are used largely as fodder crop for herbivorous species such as paua, as a raw or processed food source, or to provide agar chemicals (a gelling agent used in food and chemicals) and cosmetic

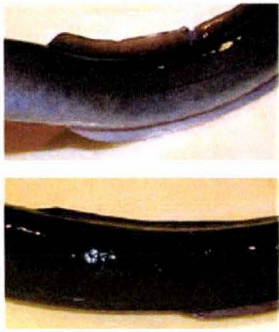
		<p>and pharmaceutical products^{4 & 12}</p> <p>Poor market prospects for seaweed cultivation (commercially-low value)⁴, however Parengo is undersupplied in NZ and opportunities for exporting dried parengo as a food item exist²²</p> <p>No viable export markets (developing nations can produce at low cost and closer to markets)⁴</p> <p>Can be sold as dried paua feed (pays up to \$2,000 per tonne) but quantities involved are small⁴</p>
	Social Considerations	
	Costs and Benefits to Local Community	N/A: Experimental
	Māori	Seaweeds have cultural importance in terms of medicine and as a food source ⁶
	Infrastructural	
	Accessibility of site	N/A: Experimental
	Personnel requirements	N/A: Experimental
	Technology	
	Current Practice	<u>Open marine environment</u> : <i>Gracilaria</i> seaweed can be grown on the seafloor, nets or lines, and on floating rafts.
	Success/Failure in other examples	Several attempts (e.g. Mahurangi Harbour) at farming this macroalgae species thus far not been successful (mostly due to other fish consuming seaweed)
	Future Technology	<u>Land-based Polyculture</u> : Farmed in ponds, raceways or tanks. Ponds are usually around 1 ha in size and around 1m deep with some flow exchange of water desirable to assure salinity. Effluent water from other aquaculture activities (such as paua farming) can be pumped through

		these ponds to allow the seaweed to strip the nutrients from wastewater ⁴
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Species	Consideration	Discussion
<p>Inanga, Whitebait <i>[Galaxias maculatus]</i></p>  <p>Source²⁸</p>	Ecological Requirements	
	Natural Occurrence	Inanga are the ‘juvenile stage’ of about five species of native <i>galaxiid</i> fish, of which inanga (the smallest of the five) makes up the majority of the catch. Adult inanga live in freshwater, their eggs are then washed out to sea. Once developed into juveniles they migrate upstream as white bait. Locations where inanga are found include open rivers, streams, lakes, and swamps near the coast (all around NZ) ¹³
	Water Quality	Water quality important in first few weeks of life cycle ¹⁴
	Water Turbidity	N/A
	Bathymetry	N/A
	Salinity	Mixture of fresh and salt water at different stages of their lifecycle ¹⁴
	Hydrology	N/A
	Water Temperatures	Can tolerate water temperatures over 30 °C for very short periods, but their preferred temperature is about 20 °C ³⁴
	Food Supply	Phytoplankton ¹⁴
	Benthic Environment	NA
	Pests	Predators (eels, other fish)
	Biological	
	Recruitment	Wild
	Growth Rates	Rapid growth rates (rarely exceed 110 mm)
	Ecological Effects	Positive outcomes (see Mitchell’s experiment below)
	Resilience	Naturally high (99.5%) larval mortality rate is the biggest threat to the commerciality of inanga ¹⁴
	Economics	
	Marketability/ Saleability	Demand for whitebait has soared due to the collapse of the whitebait fishery in the Waikato (result of draining wetlands for dairy farming) ¹⁵ One of New Zealand’s highest-value

		seafoods, known to fetch up to \$250/kg and seldom less than \$100/kg ¹⁵
	Social Considerations	
	Costs and Benefits to Local Community	N/A- Experimental
	Māori	High cultural significance to Māori ⁶
	Infrastructural	
	Accessibility of site	Not applicable: in experimental stages
	Personnel requirements	
	Technology	
	Current Practice/ Successful	<p>Until recently, there has been no successful, commercially viable culturing techniques of inanga. Charles Mitchell (biological consultant) managed to artificially rear whitebait with potentially commercially viable returns (on Raglan based property)¹⁶</p> <p><u>Project</u>: involves spawning of over 50,000 adult inanga between May and October in his six ponds (each 140m long). System completely reliant on natural processes and energies (no electricity). Water is supplied by gravity and tidal energy, the wind provides aeration and natural tidal triggers prompt spawning and egg laying¹⁵</p> <p>An estimated 250 million whitebait larvae were released into the Raglan Harbour from June until September, where the juveniles of the brood stock return four months later^{16&31}.</p>

		<p><u>Food</u>: experimenting with use of organic wastes to feed the zooplankton (feed on the bacteria and algae produced during the breakdown of wastes in water) on which the inanga subsequently feed on. Mitchell's farmed whitebait produce more than three times more eggs than wild whitebait while being protected from disease and predators. Able to boost population by around 25% per year, however still not enough to base an aquaculture project on. Research needed into breaking high mortality pattern^{15 & 16}</p>
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Species	Consideration	Discussion
<p>Tuna, Longfin and Shortfin Eel [<i>Anguilla dieffenbachia</i> and <i>Anguilla Australis</i>]</p>  <p>Source²⁹</p>	Ecological Requirements	
	Natural Occurrence	Shortfinned and longfinned tuna (distinguished by the length of their dorsal fin) are native to New Zealand Short-fin eels (grow to about 100cm, weigh up to 2kg) are more commonly found in coastal lagoons, lowland lakes, and slow flowing rivers and streams. Long-fin eels (grow up to 180cm and can weigh 20kg) appear to prefer stonier faster flowing rivers ⁴
	Water Quality	Require high water quality
	Water Turbidity	NA: Land based
	Bathymetry	NA: Land based
	Salinity/pH	Freshwater, pH levels must be 7.0-8.0
	Hydrology	NA: Land based
	Water Temperatures	Eels can be temperature sensitive (temperatures above 28°C can retard growth, cause stress/fatalities, below 23°C can cause decreased metabolism and growth) ¹⁷
	Food Supply	Eels are carnivorous and NZ's 'top' freshwater predator (feed on koura, insects and fish and some aquatic plants) ^{17 & 18} Glass eels often reject artificial feed, and should be initially fed on 'wild' food (minced worms or fish) then quickly weaned on to artificial feed (expensive and imported)
	Pests and other issues	Cannibalism a common occurrence (naturally aggressive), therefore grading recommended every 4-8 weeks. Nocturnal feeders, so reduced light infiltration is critical ¹⁷
	Biological	
	Recruitment	<u>Wild</u> : Eel culture highly dependant on the harvesting of wild juveniles (depleted, although is reliable supply from Waikato) ¹⁸
	Growth Rates	Long fin: up to 180cm and 20kg Short fin: up to 100cm, 2kg ⁴
	Resilience	Eels susceptible to disease and dissolved oxygen concentrations

	Ecological Effects	Eel farming has low environmental impacts ¹⁷ however removal of glass eels depletes wild stocks
	Economics	<p>High market value. Efficient as can be farmed at high density. Strong market for eels both domestically and internationally. Wild taste of NZ eel depletes export value. Principle markets: Europe, Asia, and small amount to Australia</p> <p>Format: 60%=Frozen, 15%= chilled, 20%= live⁴</p> <p>High demand for glass eels (fetch prices of between US\$750 to US\$10,000 per kg). Export of wild glass eel is now prohibited in NZ (market opportunities for artificially reared glass eels to international market)^{4 & 19}</p> <p>Low costs involved in establishing land based systems</p> <p>Is still largely uneconomic- potential for low technology pond culture (returns still 2-3 years off)²²</p>
	Marketability/ Saleability	
	Social Considerations	N/A- experimental
	Costs and Benefits to Local Community	
	Māori	High cultural significance to Māori. Ngāti Whātua have access to preliminary quota.
	Infrastructural	N/A- experimental
	Accessibility of site	
	Personnel requirements	N/A- experimental
	Other issues	Legal constraints: illegal to catch any eel under 220g as undersized fish under fisheries regulation
	Technology	

	Current Practice	Variety of reliable established systems exist (low density flow-through pond culture, semi intensive pond and tank culture, high density re-circulation tank culture, outdoor pond culture, thermal effluent systems) ^{4&17}
	Success/Failure in other examples	Reasons for failure of industry in the 1970s, include unfamiliarity with culture techniques, food costs, depressed export prices, irregular supplies of glass eels and disease. Recent technological advances means now more efficient ⁴ Recent research conducted at the Mahurangi Technical Institute (MTI) suggests that artificially hatched glass eels at a commercial scale is only a few years away ¹⁹
	Future Technology	Recirculating water systems: use a number of tanks, whereby intensive filtration and purification using bio-filters strip the nutrient waste from the water and recycles it through the tanks ¹⁸ . <u>Benefits:</u> Advanced and reliable technology with greater ability to prevent disease and higher growth rates, smaller land requirements, site selection less critical, less water quantity requirements <u>Disadvantages:</u> requires high initial investment and highly skilled staff, still requires good quality source of water The potential for brackish water farming using high quality salt water is currently under study ⁴
	Land based considerations	
	Topography	Gently sloping topography maximises the use of gravity for filling and draining ponds ¹⁷ Must not be susceptible to flooding
	Soil types	N/A
	Water requirements/supply	Dependant on technique utilised- large requirements for pond culture, less for reticulation systems

Footnotes for Tables

- ¹ = Jeffs, 2003a
- ² = Grant and Hay, 2004
- ³ = Pillay, 1990
- ⁴ = Jeffs, 2003
- ⁵ = Burnell, 1995 in Jeffs, 2003a
- ⁶ = Toia, H. Pers Comm, 2006
- ⁷ = Jeffs, 2003b
- ⁸ = Biomarine. Pers Comm, 2006
- ⁹ = NIWA Website (a)
- ¹⁰ = Heath, 2006
- ¹¹ = Booth, 2000
- ¹² = Troell et al, 2003
- ¹³ = NIWA Website (a)
- ¹⁴ = NZHerald 16.01.06
- ¹⁵ = Stevenson 01.04.06
- ¹⁶ = FRST 2002
- ¹⁷ = FAO 2004
- ¹⁸ = NIWA Website(c)
- ¹⁹ = FRST Website.
- ²⁰ = Pootenar et al., 2003
- ²¹ = Kennedy 2003
- ²² = Toia and Forsythe, 2006
- ²³ = Kaipara Forest and Bird, Suzi Phillips, Pers Comm 2006
- ²⁴ = Leanne and Adam Thompson, Pers Comm, 2006
- ²⁵ = Sealord Website
- ²⁶ = Misc Website 1
- ²⁷ = Misc Website 2
- ²⁸ = NIWA Website (d)
- ²⁹ = Misc Website 3
- ³⁰ = Misc Website 4
- ³¹ = Country Calendar 2006
- ³² = Misc Website 5
- ³³ = Misc website 6
- ³⁴ = Richardson and Taylor 2004

Complete reference list at end of report

Kaipara Harbour: Locational Considerations

A recent (2003) NIWA evaluation of the Northern half of the Kaipara harbour found that;

“...the study area has some major physical and logistic advantages and disadvantages for aquaculture development” (Jeffs 2003, p47)

This section of the report will address the characteristics of the Kaipara harbour to determine its appropriateness as a location for Ngāti Whātua aquaculture ventures.

Source of literature includes NIWA, Department of Conservation, aquaculture literature, industry and Ngāti Whātua.

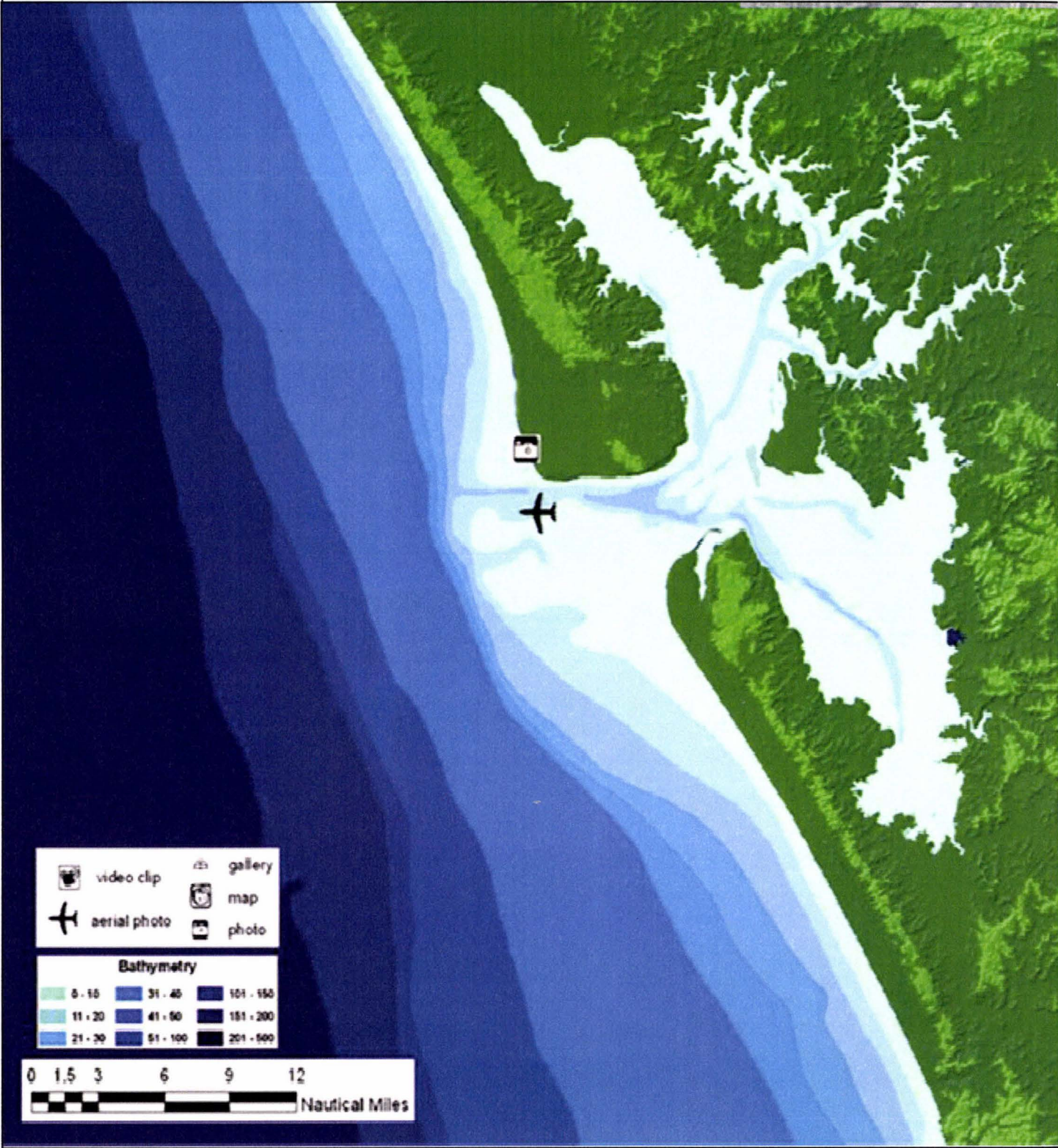
Physical Environment

The Kaipara harbour is New Zealand’s largest estuarine system (94,700 ha) with over 800 km of coastline. It is a sheltered environment, with deeply indented sheltered rocky shores. Highly productive intertidal sand and mud flats dominate (43% of total area) with a significant mangrove population (10% coverage) situated mostly in the Northern and Southern regions. There exists a high degree of biodiversity with large areas of “relatively unmodified sequences of habitats”, such as mangroves, salt marshes, salt meadows and maritime rushes (Kerr 2001).

Bathymetry

As shown in the map below, the Kaipara is a shallow harbour, with the majority of the water depths sitting between 0-10m with some deeper channels up to 30m.

Figure 3. Map of Kaipara Harbour showing Bathymetry. Source. Kerr, 2001



Sheltered locality results in tides with a maximum range of 3.7 m. The wide entrance and high energy waves at the mouth means the water gets a flushed out at each tidal cycle (Ngāti Whātua Meeting Minutes. Ref 8/3/4).

Salinity

High level of freshwater input from the numerous rivers that feed into the harbour (*ibid*)

Temperature

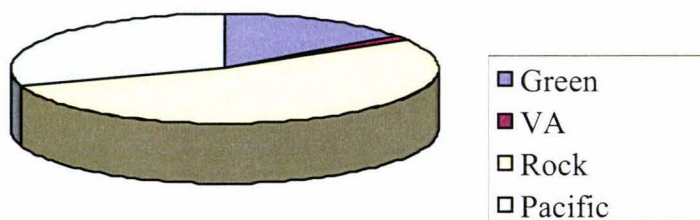
Warm temperatures in the Kaipara creates a natural defence against the algal blooms and ideal conditions for food growth e.g. plankton (*ibid*).

Food

Good production of food, ideal for mussels, oysters, scallops and land based paua farming (*ibid*).

Current Marine Farming in Kaipara

Figure 4. Pie graph describing the types of marine farms administered by licenses, leases and permits in the Ngāti Whātua Rohe Source: Walker, J 1997



Marine farming in the Kaipara is dominated mostly by oysters, and secondarily by mussels (see figure 4). The spatial distribution of marine farms has occurred in a ribbon like shape due to the convoluted river channels and shorelines and has focused on inshore

sheltered inter-tidal areas (Waikato website).

Other Uses

Fish Species

Provides “high quality habitats” for many fish species including snapper, grey mullet, sole, kahawai, trevally, red gurnard, yellow-eyed mullet, skates, rays, sharks, white bait and flounders (Kerr 2001; Leanne and Adam Thomson, Pers Comm).

Mammals

A variety of dolphins and whales have been recorded in the Kaipara. Three Delphinid species have been recorded within the Harbour or adjacent coastal waters (including the endangered Maui dolphin). Orcas have also been recorded from the Pahi River (Fisher, 2005).

Birds

The Kaipara harbour has been described as one of the most “...ornithological important harbours in New Zealand” (Pierce 2005). It is a feeding ground for large numbers of migratory species from the Northern Hemisphere (at least three of which are globally threatened species). The map below shows the areas of high shorebird use (mainly in upper reaches of harbour) (Kerr 2001).

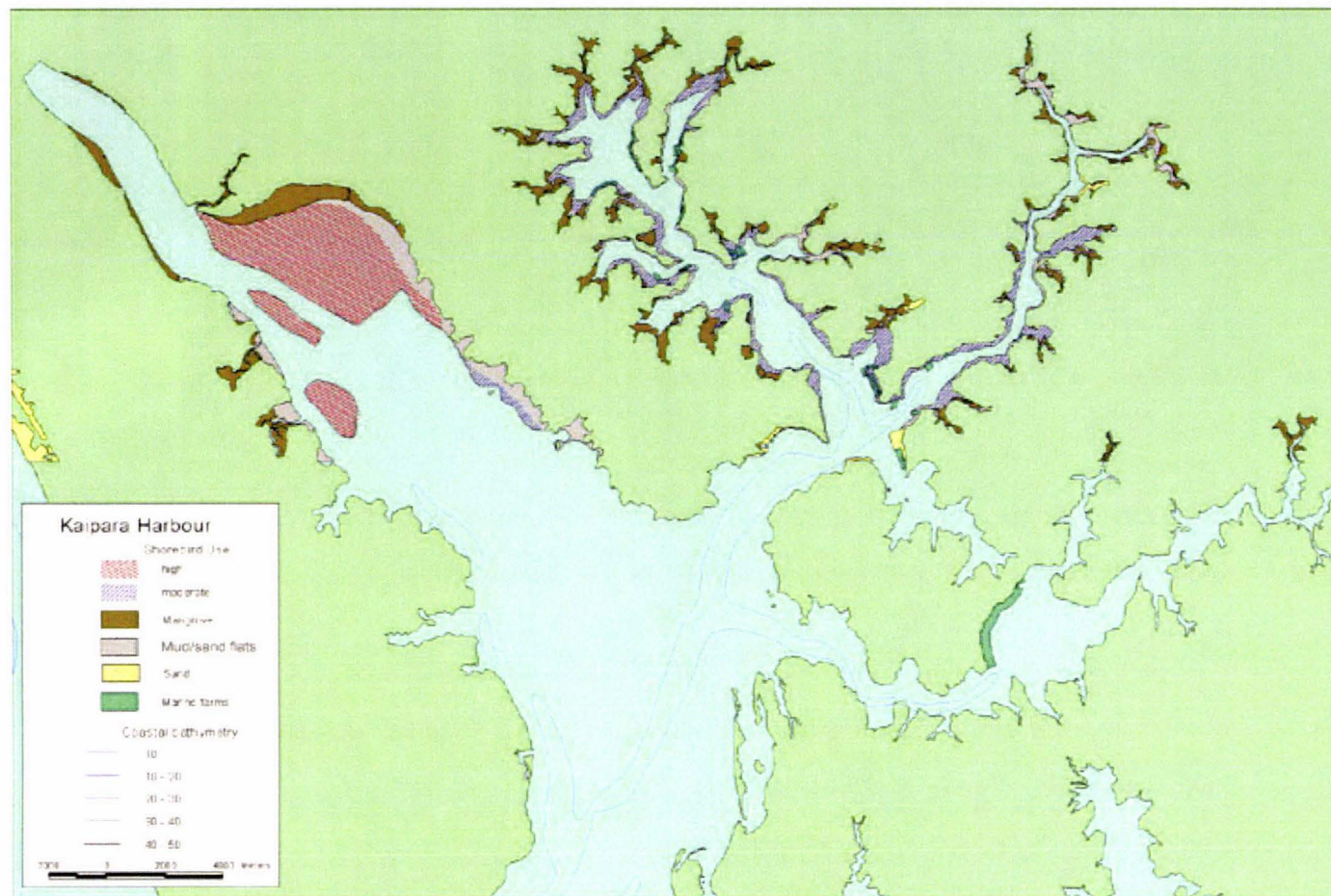


Figure 5. Ornithological Use in the Northern Kaipara. Source: Kerr 2001

Human Uses

Commercial: Sand extraction near the entrance (Pahi), commercial fishing (mostly rig, school shark, flounder and mullet) (Jeffs 2003), sewerage and industrial discharge, land and water buffers, port and wharf management areas (ARC website).

Recreational: mostly fishing and boating, as well as popular beaches, tourist charter routes. The harbour is “increasingly sought after for holiday properties and investment” (Jeffs 2003, p51), marine reserves.

Cultural: Mahinga kai customary grounds.

Despite these various human uses, the harbour remains relatively undeveloped (Jeffs, 2003).

Environmental Status

There is consensus that various historical and current human actions have, and continue to, degrade the environmental health of the harbour. The main pollution sources are land-based. Historical clearing for pastoralisation has led to an increase in silt in the harbour. Prior to human impact, the Kaipara “probably had rocky shores and crystal clear water” (Biomarine, Pers Comm). Current land-uses that continue to degrade the environment include agriculture, run-off from subdivisions, water contaminations from septic tanks (Jeffs 2003; Thompson, Pers Comm). Biomarine state that “people let their cattle wander around through the mangroves”, however with riparian planting and better management this issue is being mitigated. Thomas de Thierry adds that the sand mining at the entrance of the harbour has caused silt deposit, an increase in sting rays and a decrease in snapper (Thomas de Thierry, Pers Comm).

However there are differing opinions on whether the harbour still holds potential for aquaculture. The Thompsons (owners of Sunshine Oysters) believe that while the area is over fished, and there are pollution issues, the harbour still maintains the fastest growing conditions and good water quality (Pers Comm). Thomas de Thierry believes the Kaipara is one of the “last unpolluted harbours in New Zealand” (Pers Comm). Jeffs agrees that there has been relatively little pollution from terrestrial or human inputs (Jeffs 2003). However, Biomarine maintain that the potential of the harbour is “relatively limited”, especially in the south, and has less than ideal growing conditions (particularly in the upper Kaipara) (Pers Comm). Possible reasons for this include the Asian date mussel (discussed below) which may be filtering out the good food, or the increased sedimentation which raises the compensation point (where there is enough light for plankton to actually grow) meaning less production as well as stressing the animals and creating pseudo faeces (Biomarine, Pers Comm).

Pests and Disease

The main pest is the Asian date mussel which arrived 3-4 years ago. However the harbours location and isolation acts as its “own defence” against toxins that have attacked other areas of New Zealand (Ngāti Whātua Meeting Minutes. Ref 8/3/4).

Infrastructure

Kaipara has good accessibility through facilities such as wharves, jetties, boat ramps and mooring areas. Whangarei also has a good maritime service industry (Jeffs 2003).

Expertise and Training

Educational training facilities are available (Northland polytechnic) as well as the NIWA aquaculture facility at Bream Bay (Jeffs 2003).

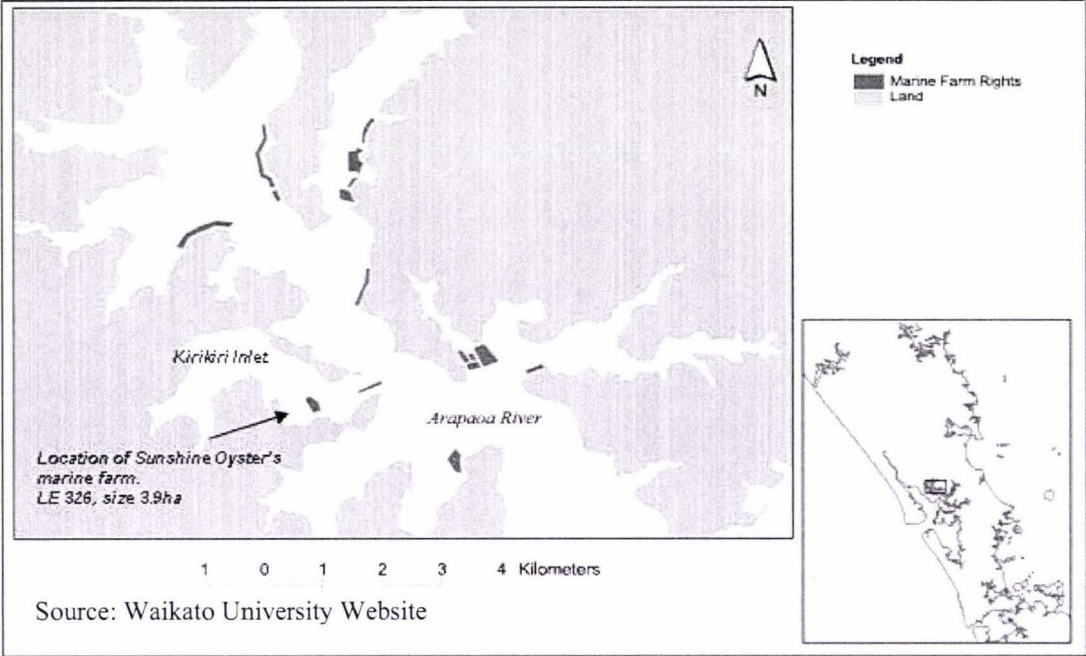
Land-based Aquaculture

Plenty of low lying land adjacent to coast (Māori coastal land) (Jeffs 2003)

The next section will present two case studies of ventures operating in the Kaipara harbour; a small-scaled whanau run venture, and a large commercial scale oyster and processing venture.

Case Study 1: Sunshine Oysters, Small-scale Oyster farming in Kaipara

Figure 6. Map Showing location of Sunshine Oyster marine farm in the Kaipara Harbour.



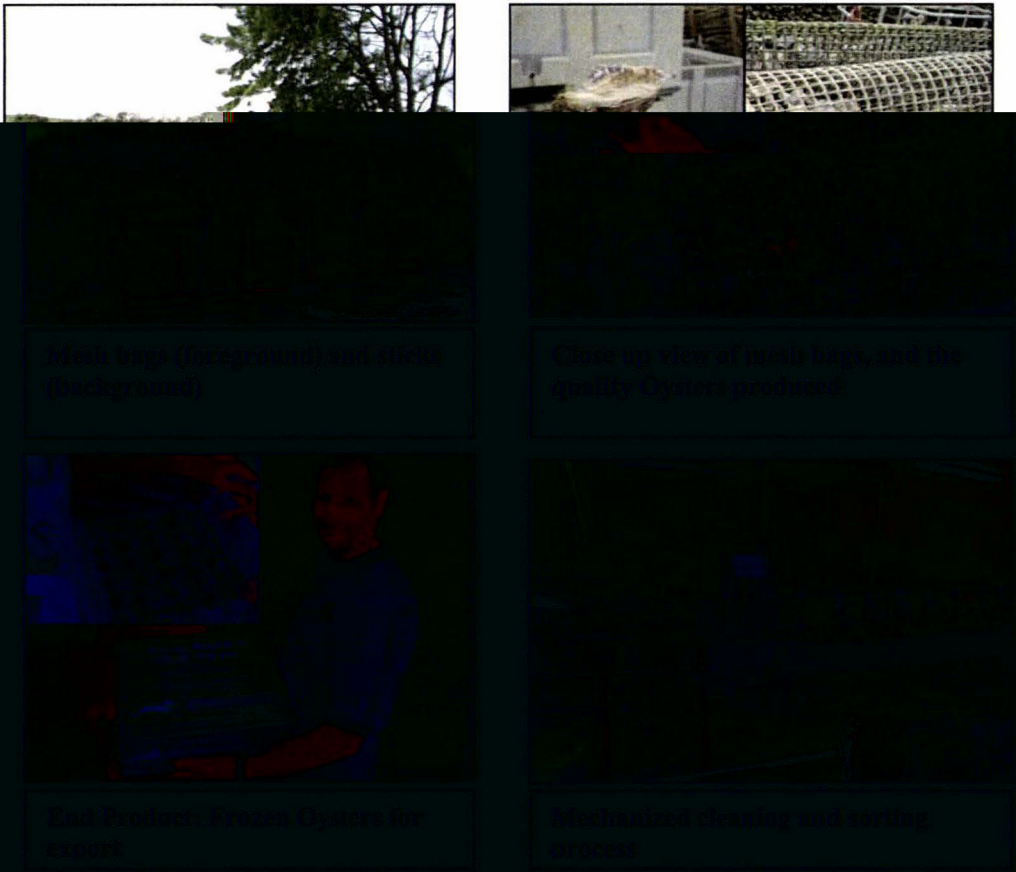
Sunshine oysters run a ‘whanau venture’ whereby they produce oysters off 1.25ha of their 3.9ha farm. The farm has great economic potential. Set up costs involve \$10,000 per quarter, and off the current quarter they have managed to make a \$25,000 profit. They managed to successfully export their product last year through Kiaora seafoods and found their oysters where of exportable quality. Their oysters take around 18 months to grow to full harvestable size. It takes around two years to get a return. Their oysters fetch around \$2.60-\$2.75 per dozen. The technology they currently employ is ropes (cheaper than sticks which would have cost four times as much to set up). They harvest their own spat from the wild on to the ropes. Their farm is in a good location, however access is restricted to water. They maintain the industry, while full of barriers for such a venture as theirs, still has a lot of potential (Thompson, Pers Comm).

Case Study 2: Biomarine, Large-scale Oyster farming in the Kaipara

At the other end of the spectrum, Biomarine is a large ‘vertically integrated’ oyster and mussel farming company. Their oyster farming operation in the Kaipara is productive and highly mechanised, utilising both the Mahurangi and Kaipara harbour. The technology used involves a combination of mesh bags (85 oysters per bag) and sticks (see photos below).

While the bags produce more uniform growth, the extra handling incurs greater costs which are not retrieved when sold. Biomarine created a successful joint marketing co-op called JEMCO. Marketing is important, and in New Zealand there is a tendency to “look at something it can grow, and then grow it, and then go to sell it, and realise it’s not worth anything” (Pers Comm, Biomarine).

Figure 7. Photo Montage: Biomarine Processing Factory
Source: Badham 2006



Conclusion

This report has assessed the feasibility of establishing aquaculture ventures in the Kaipara harbour through the presentation of findings and opinions from a variety of sources. Literature around the considerations necessary to assess feasibility was initially addressed which was then applied to six selected species; *kutai*/mussel, *tio*/oyster, *parengo*/red seaweed, *tuna*/eel, *paua*/abalone and *inanga*/whitebait. While some of the technology surrounding these species is still in the experimental stages, many are high value (especially eels, *inanga* and *paua*), and given New Zealand's dependency on mussels and oysters, diversifying into such markets would be beneficial. There is significant amount of easily accessible research into new technologies surrounding aquaculture, particularly from NIWA. However, once target species have been selected, careful consideration into the marketing and economic issues is essential (as was raised by industry experts).

The Kaipara as a harbour is relatively undeveloped, especially given its suitable ecological characteristics. This could be due to geographical distance, as well as resistance by other stakeholders (particularly environmental and community NGO's). While issues around pollution, pests and other uses by animals and humans do cause some problems, its proximity and cultural significance makes it an appropriate location for Ngāti Whātua aquaculture interests. The two case studies of Sunshine Oysters and Biomarine demonstrate the high level of potential the Kaipara has for both small scale, and large commercial ventures. If Ngāti Whātua were to embark on larger scale aquaculture, careful examination of the ecological effects would be required to ensure such ventures do not compromise environmental imperatives/*kaitiakitanga*. If the Kaipara does pose too difficult a location to establish aquaculture, potential for land-based aquaculture on adjacent Māori coastal land is a definite possibility, especially utilising mangroves for *inanga* ranching.

Therefore it is the finding of this report that the Kaipara as a location has a significant degree of potential for the establishment of Ngāti Whātua aquaculture aspirations. The next step should be a comprehensive examination of the target species and the specific

locations in conjunction with a preliminary financing report into the capital that would be available to invest in such ventures.

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Te Runanga o Ngāti Whātua: Strategic Aquaculture Options



Picture Source see reference list

Report Produced for Te Runanga o Ngāti Whātua

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Introduction

The purpose of this report is to present different options for Te Runanga o Ngāti Whātua (TRoNW) to pursue in order to increase participation and involvement in aquaculture. While Ngāti Whātua has already embarked on a preliminary research strategy, a more detailed examination of specific options has not yet occurred.

This report is based in the realities of the internal capacities of Te Runanga, and the external barriers. The focus is on the Kaipara harbour due to the high degree of potential it holds for aquaculture¹ (see report ‘Assessing the Feasibility of Establishing Aquaculture in the Kaipara Harbour’). The information is based on collaborative research project between TRoNW and Victoria University Masters Student Monique Badham (Ngāti Whātua). The data collected includes interviews with key informants both internally (within the iwi and hapu) and externally (industry, TPK, Kaipara Forest and Bird), as well as from aquaculture and Māori development secondary sources.

The strategy is based on a SWOT analysis (internal **strengths** and **weaknesses** and external **opportunities** and **threats**) conducted into each strategic option (see appendix 1 for matrix SWOT analysis). The purpose of the strategy is to indicate the overall aim TRoNW is attempting to achieve, and to assess each option based on its feasibility, contribution to achieving the overall aim, methods, timeframes and costs involved, responsibilities, potential barriers and mitigation strategies.

The six different options address the aim of attaining greater involvement in aquaculture from various angles- the initial set-up phase, providing support for constituents, mitigating barriers, utilising customary resources for commercial purposes, and for enhancing industry performance further down the track. It is the overall recommendation of this report that all six options are pursued in conjunction where possible to strategically achieve the overall aim.

¹ As identified in recent NIWA report: Jeffs (2003).

Method

The structure used in this report to assess each option:

- 1. **Rationale:** Justifying the option
- 2. **Feasibility:** Overall assessment of the appropriateness of option
- 3. **Contribution and Compatibility with Aim:** Identifying conflicts and issues between different objectives.
- 4. **Method and Timeframes:** Practical steps involved and the approximate timeframes².
- 5. **Cost Ranking**³
 - 5= > 1 million
 - 4= 500,000- 1,000,000
 - 3= 100,000-500,000
 - 2=50,000-100,000
 - 1= <10,000
- 6. **Responsibility:** Identifying the person(s) that have the appropriate expertise/position to assume responsibility.
- 7. **Barriers and Strategies to Overcome:** Identifying potential barriers and ways to mitigate their effect.

² Timeframes are only approximate, and based on literature and interviews

³ Costs are only approximate, and based on literature and interviews

Ngāti Whātua Mission statement for Aquaculture

TRoNW have identified this as the aim for aquaculture development;

“To protect and enhance the mana and manaaki of Ngāti Whātua by extracting the maximum social, environmental and economic value from aquatic resources through economic prosperity, increased employment, improved education, the restoration and maintenance of environmental values” (Toia and Forsythe 2006, piv).

The following section will discuss each option with regard to the attainment of this aim.

EXPLORATION OF OPTIONS

Option 1- Te Runanga embarks on Joint Ventures with Industry and Other Iwi

Rationale

TRoNW has already laid the groundwork for the development of partnerships with industry and other iwi/hapu. This option has the benefits of sharing costs, creating economies of scale through being able to establish larger ventures, and reciprocal skill and knowledge sharing between partners. Research has found costs and legal constraints to be one of the major impediments to establishing aquaculture ventures. Given the competition for markets, joining a trustworthy co-op such as JEMCO is also advisable in order to gain access to export markets that would be otherwise inaccessible.

Feasibility

This option has a high degree of feasibility. TRoNW are not in a financial position to develop an aquaculture project of an economic scale. Having access to already established processing plants and other infrastructure would lessen the burden of set up costs. There are plenty of examples of successful joint ventures between different iwi, and between iwi and industry. Also the potential to add the 20% (allocated under the MCACSA⁴ 2004) on to the proposal to provide for customary use and kaimoana for the community. Potential industry options include Biomarine and Leah fisheries, and iwi with potential include those in the Tai Tokerau region such as Nga puhi, Ngāti wai, Ngāti Kahu, Te Rarawa, Te Aupouri. Potential marketing co-ops include JEMCO, Lee Fisheries and Kia ora seafoods.

Contribution and Compatibility with Aim

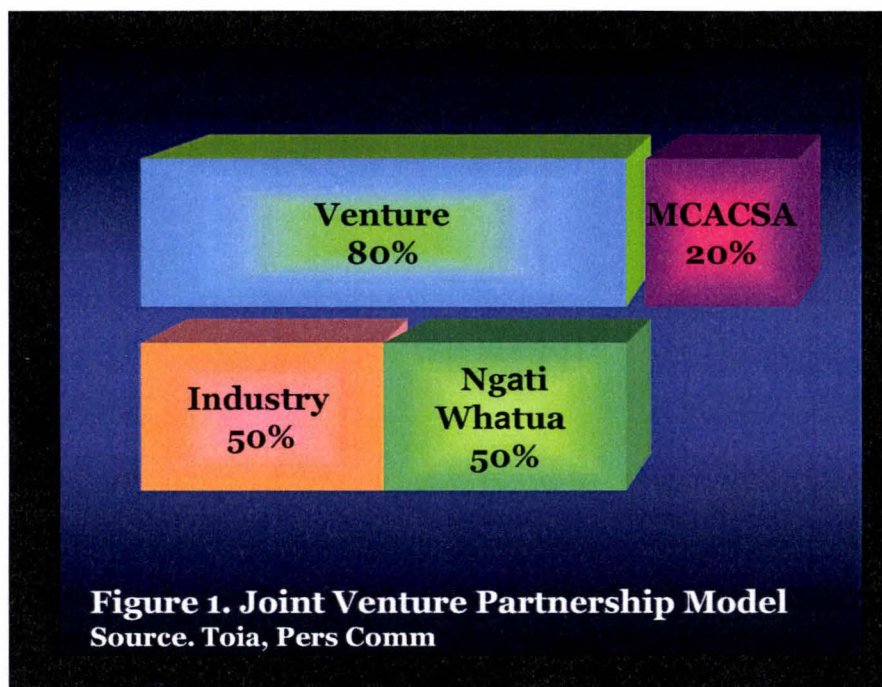
Such an option would go a considerable way in achieving the overall aim, particularly the commercial aspects. Jobs would also be created for members of the community, however there may be issues over who gains preferential employment given the multi-party situation. Conflict may also arise with regard to kaitiaki responsibilities, and the need to gain commercial profits if the project embarked upon is to have environmental effects. As

⁴ Māori Commercial Aquaculture Claims Settlement Act

long as the project is approached through a 50/50 partnership model (see figure 1 below), then the project can be considered to adhere to principles of self-determination/*tino rangatiratanga*.

Method and Timeframes

The method to such a partnership must be premised on the 50/50 basis. The figure below demonstrates how such a model would work.



The steps involved are as follows;

1. **Scoping:** Potential parties should be examined. Time frame: 12 months (currently undertaken).
2. **Establishment:** Relationship building, and clarification of the aims of the project. Consider creation of a joint company, business plan (important to include dispute resolution processes). Time frame: 6 months.
3. **Preliminary Study:** Feasibility report- Site selection (see the complementary report 'Assessing the Feasibility of Establishing Aquaculture in the Kaipara

- Harbour’), species, human resources, markets, infrastructure, technology, gauge community attitude. Time frame: 2-3 months.
4. **Community Consultation:** Hold hui open to whole community. Will reiterate importance of local community development. Time frame: 4 months.
 5. **Resource Consent-** Lodge claim with local council. Time frame: 6-24 months
 6. **Pilot Project-** If needed, for example concerns around environmental effects.
Time frame: 12 months
 7. **Establishment of Commercial Project:** Proceed with caution. Time frame: 6 months
 8. **Marketing:** Can take up to 2 years to see first returns.

Total Time: Approximately between 3-5 years before see any return.

Responsibility

Hally Toia (advisor of natural resources for Ngāti Whātua) has already put time and effort into establishing relationships. It is advisable that another Ngāti Whātua employee with expertise/skills is employed to embark on such a project, should this option be selected.

Cost Ranking: 5

Potential Barriers and Strategies to Overcome

Potential Barriers	Strategies to Overcome
Differing expectations	Extensive preliminary discussions (step 1) to ensure enough common ground
Environmental effects	Ensure research around species selected show minimal effects, precautionary approach, pilot study
Legal barriers and interest group opposition	Ensure sound resource consent submitted, appropriate and extensive consultation/community participation (step 3)
Refusal of partnership model	Establish reciprocal benefits- enhance assets TRoNW has to offer
Lack of finance	Seek external funding research avenues- e.g FRST
Relationship breakdown	Have a sound conflict resolution process in tact

Option 2- Support Independent small-scale Whanau ventures

Rationale

There are currently very few Ngāti Whātua hapu/whanau that are actively involved in aquaculture in the Kaipara. Interviews with one such whanau-run venture (Sunshine Oysters) identified a lack of support and funding as the main impediment to their venture.

Feasibility

The financial feasibility of this option is in question as TRoNW are asset rich, but cash poor. Support would most likely be given through opening avenues available through connections and role as the tribal organisation. In terms of the socio-cultural feasibility, this is a desirable option as it is in fitting with the principle of devolution and autonomy, as well as assisting community development.

Contribution and Compatibility with Aim

While this option will not directly provide Te Runanga with an iwi level economic development opportunity, it is achieving the criteria of providing community development, and to a degree customary use. As before stated, it is also in fitting with a 'flax-roots' approach placing the power in the hands of hapu and whanau. The environmental effects of small scale projects are also lessened, therefore reduced conflict with role as kaitiaki. Also, allows for the provision of application of TEK/*matauranga* and up-skilling/training.

Method and Timeframes

The steps involved are as follows;

1. **Establish resources available for supporting ventures** (financial, information, other industry/hapu for potential JV). Time frame: 2 months
2. **Develop process by which to inform interested parties** (Hui, newsletters, meetings etc). Time frame: 6 months

3. **Development of criteria which projects must meet-** (prove own capacity, skills/training, business plan, developed proposal). Time frame: 1 month
4. **Decision process-** To determine who should receive support. Ongoing.
5. **Undergo Steps 3-8 of option 1.** Time frame: 3-4 years.

Total Time: 9 months to establish process, plus a further 3-4 years for project to get off the ground.

Responsibility

See Option 1.

Cost Ranking

1-3, depending on degree of support being given.

Potential Barriers Strategies to Overcome

Potential Barriers	Strategies to Overcome
Inability to provide financial support	Provide support through other avenues- information (see option 3), access to industry/government advice etc
No uptake	Option will become void
Legislation and opposition	Preparation and relationship building (see option 4) will potentially reduce opposition.
Labour force issues- rural, lack of skills	Create incentives to encourage labour force into rural settings- incorporate training programmes/qualifications, as well as scholarships

Option 3- Create Support Avenues

Rationale

This option is closely related to the previous option, however it focuses on non-fiscal approaches to information provision using Te Runanga access to research and central government assistance. The Sunshine Oyster venture highlighted the lack of advice as an inhibiting factor to the effective running of their project. The medium that would be most viable would include a database that combines a variety of resources (primarily from this research) into one location for ease of access. All external research documents available to TRoNW could be included, as well as links to advice avenues such as TPK free legal services, and industry. This would assist particularly in the previous option when preparing a feasibility report. Research available would cover a range of factors; environmental science, economics, marketing, infrastructural requirements, success and failure examples, and potential mentoring avenues.

Feasibility

This would require little financial input, except for the time and expertise of someone's services to compile such a database. However the benefits that the pursuit of such an option will provide will be significant.

Contribution and Compatibility with Aim

This option does contribute to the achievement of the overarching goal, and does not appear to conflict with any aspect. It is in fitting with a 'flax-root' approach, by providing the power to the individuals to establish their own ventures.

Method and Timeframes

The steps involved are as follows;

1. **Identify/contract appropriate skilled person to undertake database** (within financial means)- Time frame: 1 month
2. **Provide/compile research available to TRoNW**- Time frame: 2 months

- 3. **Upload database-** Time frame: 2 months
- 4. **Establish access avenues/Distribution-** Time frame: 1 month

Total Time: 6 months

Responsibility

Most likely need to outsource. Research already compiled from this research.

Cost Ranking

1

Potential Barriers Strategies to Overcome

Potential Barriers	Strategies to Overcome
Accessibility	Multiple access points- at marae, on disc, send via hardcopy,
Intellectual Property rights	Ensure control held by appropriate people

Option 4- Relationship Building

Rationale

The issue of troubled internal (iwi-hapu) relationships, as well as relationships with councils have been identified as an issue impeding development. Relationship building with ENGO's (such as Kaipara Forest and Bird) who provide the most significant opposition to aquaculture development in the Kaipara harbour is another strategy to mitigate this barrier. KF&B have indicated they have a lot of "respect" for Māori, and acknowledge their position as kaitiaki (Suzi Phillips, KF&B, Pers Comm).

Feasibility

This is a low cost option that requires relatively low time input. However, this option requires goodwill and acceptance from both sides for it to be feasible.

Contribution and Compatibility with Aim

This option is focussed more on the removal of barriers, in order for the other options to be able to work more successfully. It is therefore an important option to pursue.

Method and Timeframes

The steps involved are as follows;

1. **Approach parties-** Time frame: 2 months
2. **Establish a memorandum of understanding-** Time frame: 1 month
3. **Arrange periodic meetings (monthly)-** Time frame: ongoing

Total Time

3 months

Responsibility

The primary responsibility of Hally Toia to initiate relationship building when regarding natural resources.

Cost Ranking

1

Potential Barriers Strategies to Overcome

Potential Barriers	Strategies to Overcome
Multitude of councils	Focus primarily on the ARC and NRC-responsible for aquaculture
ENGO wary of iwi motives	Acknowledge the similarities in goals of both groups (kaitiaki/conservation)
Overcome distrust with government	Take time and good faith on both sides

Option 5- Aquaculture Tourism

Rationale

Aquaculture and tourism are two industries that are potentially compatible and provide means for increased profit and interest in the product. There exist many domestic (e.g. Marlborough, Havelock) and international (Eyre's Peninsula in Adelaide) examples where this relationship has been symbiotic. The inclusion of traditional narratives, and the historical importance of kaimoana gives Māori a unique marketing tool in the tourism industry. Projects could include boat tours, the establishment of restaurants/food outlet stores on site, combined aquaculture trails, and a seafood festival.

Feasibility

A recent NIWA report (Jeffs, 2003⁵) highlighted the Kaipara harbour as having a high degree of potential for aquaculture tourism. The establishment of an aquaculture trail will need to include a collective of farmers, however the set up costs would not be excessive. It would also provide an outlet for the marketing of the product. However, this option is clearly dependent on the initial upstart of a farm (e.g. through option 1-2).

Contribution and Compatibility with Aim

This option is further down the track, and acts as an addition to previous options. It would contribute to the overarching aim of sustainable aquaculture development. However discussions would need to be had around the appropriate use of the traditional narratives, and to ensure benign environmental effects of this additional industry.

Method and Timeframes

The steps involved are as follows;

1. **Establish a marine farm-** (see option 1-2). Time frame: 3-5 years.

⁵ An opinion supported by Biomarine and Hannah (Pers Comm)

- 2. **Address feasibility of tourism options/participants-** Combined tourism trail/festival, independent outlet, restaurant, boat tours. Look at success and failures, marketing costs etc. Time frame: 3 months
- 3. **Source funding-** Time frame: 1 month
- 4. **Implement strategy-** Depends on the option selected. Time frame: between 6 months-24 months

Total Time

Between 10 months- 3 years

Responsibility

Will depend on what level Ngāti Whātua becomes involved in. Burden of responsibility will most likely be shared if a collective of farmers forms.

Cost

4-5

Potential Barriers Strategies to Overcome

Potential Barriers	Strategies to Overcome
Opposition by public, especially ENGO's	Same as option 1, page 8
Costs	Partnerships/JV's. Take time for projects to make profit
Low concentration of A/C farms in Kaipara, potentially unfeasible	Allow time for more to develop
Misappropriation of IP	Ensure avenues set up to protect

Option 6- Commercialisation of Customary Oyster Reserves

Rationale

Te Uri o Hau were returned their oyster reserves as part of the Te Uri o Hau Settlement, 2003. However, MFish currently restricts the use of these reserves to customary gathering only. This makes the development of these reserves uneconomical. There is current potential for the spat to be replanted onto surrounding farms.

Feasibility

Currently constrained by legislation, however Te Uri o Hau is in discussions with MFish to change this status. It would be a feasible option as it would provide a free source of spat for farmers, thereby lowering costs, and giving them a competitive edge.

Contribution and Compatibility with Aim

At the moment, the reserves are providing only for customary objectives. However if this option goes ahead it would open them to the holistic range of goals. There is a potential conflict between commercial and customary goals for the reserves, however careful management will mitigate this.

Method and Timeframes

The steps involved are as follows;

1. **Te Uri o Hau continue talks with MFish** to change the status. Proceeding. Time frame: likely within next 2 years.
2. **Establish protocol for allocation** of spat, ensure sustainable management, consultation with Te Runanga- Time frame: 2 months
3. **Monitoring and ongoing management-** Time frame: ongoing

Total Time

24-26 months until can be utilised

Responsibility

Te Uri o Hau, with support from TRoNW where possible.

Cost Ranking

1-3

Potential Barriers Strategies to Overcome

Potential Barriers	Strategies to Overcome
Dependent on the government: restrictive policies separate customary/commercial spheres	Pressure and consultation
Unsuitable utilisation of reserves	Ensure appropriate protocol and monitoring

Overall Recommendation

The six options identified here address the ultimate goal from a variety of angles and approaches. Option 1 [Joint ventures] has a high degree of potential, and the first scoping stage should be completed in order to further pursue this option. Option 2 [support whanau ventures] devolves obligations/control of the development of aquaculture to the 'flax-roots', and therefore is in fitting with the overall TRoNW approach to development. If resources to support whanau ventures can be accessed, this option should definitely be pursued. Option 3 [Create support avenues] is low-cost and efficient. However alone it will not ensure improvements in aquaculture participation. Option 4 [Relationship building] is similarly low cost, but also important in order to smooth out some of the bumps that will likely occur. Option 5 [Aquaculture tourism] has some potential, however given the lack of NW participation in aquaculture, this option is a long way off, but is still an option to keep in mind for future developments. Option 6 [Gain commercial access to oyster reserves] is a peripheral strategy, but would provide a good source of spat and a competitive edge.

The timeframes involved are relatively long term, and range from three months to five years, therefore decisions should be made as to the strategic direction as soon as practicable. The complimentary report 'Assessing the Feasibility of Establishing Aquaculture in the Kaipara Harbour' should be read in conjunction with this report in order to assess the potential species and locational issues of the Kaipara harbour.

Therefore it is this report's recommendation that a mixture of the options be utilised based on the financial means available to TRoNW. This preliminary report should be reviewed by Te Runanga and consultations should be held with hapu in order to identify the most appropriate path forward. The next step should be a more detailed strategy plan resulting from deliberations.

Reference List

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John Hannah. Manager of the New Zealand School of Fisheries and Chair of Sea Products Limited, ex-General Manager of Sealords Ltd. 21.03.07

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Appendix 1- SWOT analysis of each option

For the purposes of this thesis, this appendix has not been repeated here- Refer to Chapter 6 of Thesis.