

**He mōumou kai, he
mōumou tāngata:
Kai governance, kai
sovereignty and the
(re)production of kai —
Enhancing culturally
matched outcomes**

A research report prepared for
Ngā Pae o te Māramatanga

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He rārangi upoko: Table of contents

Contents	4
1. Executive summary	7
1.1 Recommendations	7
2. Introduction	8
2.1 Project formation	8
2.2 Research partners	8
2.3 Research team	8
2.4 Expert advisory group	9
2.5 Kai Expert group	9
2.6 Duration of the research	11
2.7 Purpose	11
2.8 Aim	11
2.9 Objectives and outputs	12
2.10 Research questions	12
3. Literature review	14
4. Research methodology	20
4.1 Methodology	20
4.2 Data gathering	20
4.3 Data analysis	20
4.4 Data verification	20
5. Collective framework (Mana Kai)	21
5.1 Mana atua	26
5.2 Mana tūpuna	26
5.3 Mana Māori	27
5.4 Mana whenua / Mana moana	27
5.5 Mana tangata	27
5.6 Mana rawa	28
5.7. Mana motuhake	28

6. Case Studies	30
6.1 Whanganui: Te Morehu Whenua	30
6.2 Whakatāne: REKA Trust	34
6.3 Ōpōtiki: Whakatōhea Mussels Ltd	38
7. Conclusion	41
8. He rārangi rauemi: References	44
9. Kuputaka: Glossary	54
10. Conceptual design	60
11. Appendices	61
11.1 Acquisition and dissemination of knowledge: Hui	61
11.2 Ngā kaumātua e wetewete i ngā whanonga rangahau	65
11.3 Declaration of Takahiwai	68
11.4 Acquisition and dissemination of knowledge: Conferences and symposia	71
11.5 Mapping: Ngāti Awa mahinga kai	74



1. Executive summary

This report focusses on kai as a culturally defined Māori notion, and examines ways in which Māori are protecting, maintaining, and regaining control over their kai sources, kai systems, and kai practices. A literature review built on Māori and Indigenous perspectives of kai and a transforming framework of culturally matched outcomes (traditional and customary) based on āhuatanga Māori (Māori attributes) according to tikanga Māori kai practices (Smith, 2011; Talbot,

2011; Tawhai, 2013), kai sovereignty, and kai security (Agarwal 2014; Edelman et al., 2014; Hutchings, 2015; Moeke-Pickering et al., 2015; Shirley, 2013; Stein et al., 2017) in the (re)production of kai will be used to analyse kai initiatives. The intention is to position this research so that it has the potential to inform government policy, planning and debate that protects, maintains, and retains control by Māori over their kai sources, kai systems, and kai practices.

1.1 Recommendations

The following are recommended from this research:

- I. **That** government legislation and policies *shall give effect* to Te Tiriti o Waitangi, in particular the right of Māori to food security and the protection, maintenance, retention, control, and decision-making authority over their traditional and customary kai sources, kai systems, and kai practices. This can be immediately implemented in any new legislation or policy and amended in existing legislation or policy within the next 9 years (three government terms) to redress and restore the well-being, health, social, cultural, economic, and environmental inequities upon Māori.
- II. **That** all programmes of future kai research be tested against the Mana Kai Framework to ensure its outcomes do not disadvantage Māori.
- III. **That** further research be funded by government or a Centre of Research Excellence to be conducted over the next 3 years to test a wider selection of case studies against the tenets of the Mana Kai Framework.
- IV. **That** the Mana Kai Framework be reviewed at the end of the first 3 years, and every 3-year cycle thereafter using Kaupapa Māori methodologies that are informed by āhuatanga Māori according to tikanga Māori and mātauranga Māori to ensure it is effective.

2. Introduction

2.1 Project formation

The origins of this project emanated from a discussion led by Professor Linda Tuhiwai Smith, Aroha Te Pareake Mead, and Taima Moeke-Pickering for Ngāti Awa, titled, *Ngāti Awa Food Governance*. This discussion was intended to stimulate a conversation about Ngāti Awa Food Governance Policy and the implementation of a Plan of Action that would ensure the iwi could: (i) feed itself in 25, 50 or 100 years; (ii) be able to manaaki (being generous in caring and treatment of others) its manuhiri (visitors); (iii) attain economic independence; and (iv) maintain inherent eco-sustainable rights over its wai (water) and whenua (land).

Years later, a revised form of this research was undertaken to consider a wider range of participants and development of a kai framework to test a selection of kai sovereignty initiatives.

In 2017, Ngā Pae o te Māramatanga developed three research themes: Whai Rawa (Māori Economies); Te Tai Ao (The Natural Environment); and Mauri Ora (Human Flourishing). The themes intended to embrace the aspects of economics, environment, and well-being to be informed and enhanced by te reo Māori (Māori language), tikanga Māori, and mātauranga Māori. Several hui (meetings) were called to discuss the development of this kai project, confirm research questions, and establish participation of researchers from across the sector including hapori (community). All those who showed an interest in this research were invited to participate.

2.2 Research partners

This is a collaborative research project involving three hapori organisations (Te Atawhai o Te Ao, Te Puna Ora o Mataatua, and REKA Trust), four Ngā Pae o te Māramatanga partner institutions (Te Whare Wānanga o Awanuiārangī, Te Atawhai o Te Ao, University of Waikato, and University of Otago), specialist expert advisory mātauranga Māori members (Waitangi Tribunal, Te Whare Wānanga o Awanuiārangī, and the Māori Land

Court), and specialist expert advisory kai members (University of Waikato and University of Otago).

All research partners involved in this research have well-established relationships with hapori organisations; whānau, hapū and iwi; research and educational institutions, as well as further networks to expert advisors.

2.3 Research team

The research team included:

Ms Fiona Wiremu – Principal Investigator and Executive Director of Te Whare Wānanga o Awanuiārangī. Her tribal affiliations include Ngāi Tūhoe (tribe within the Bay of Plenty area) and Ngāti Ranginui (tribe within the Tauranga area).

Dr Rāwiri Tinirau – Principal Investigator and Director of Te Atawhai o Te Ao, an independent Māori research institute for environment and health. His tribal affiliations include Te Āti Haunui-a-Pāpārangī/Whanganui (tribe within the Whanganui area); Ngāti Tūwharetoa (tribe within the central North Island); Ngāti Porou (tribe within the East Coast area of the North Island); Ngā Rauru Kītahi (tribe within the south Taranaki area); Ngāti Ruanui (tribe within the south Taranaki area); Ngā Wairiki-Ngāti Apa (tribe within the Rangitikei district); Ngāti Rangi (tribe within the Ruapehu district); Ngāti Maru (tribe within the Taranaki area); Ngāti Kahungunu (tribe within the Hawkes Bay area); Ngāi Tūhoe; Te Whakatōhea (tribe within the eastern Bay of Plenty); Te Whānau-a-Apanui (tribe within the eastern Bay of Plenty); Te Arawa (tribe within the Rotorua district); Rangitāne (tribe within the Manawatū, southern Hawkes Bay, Wairarapa and Wairau districts); and Ngāi Tahu/Kati Māmoe (tribe of the South Island).

Distinguished Professor Graham Hingangaroa

Smith – Associate Investigator and Te Toi Ihorei ki Purehuroa of Massey University. His tribal affiliations include Te Aitanga a Hauiti (tribe within the East Coast area); Ngā Wairiki-Ngāti Apa; Ngāti Kahungunu; and Ngāi Tahu/Kati Māmoe.

Dr Annemarie Gillies – Associate Investigator and previously the research Director at Te Puna Ora o Mataatua and is the Pouarahi Rārangi Kōrero at Heritage Aotearoa New Zealand Pouhere Taonga. Her tribal affiliations include Ngāti Kahungunu; Ngāti Awa (tribe within the eastern Bay of Plenty); Te Whānau-a-Apanui; Te Arawa.

Dr Cheryl Waerea-i-te-rangi Smith – Associate Investigator; and Senior Research fellow/Emeritus Director of Te Atawhai o Te Ao. Her tribal affiliations include Ngā Wairiki-Ngāti Apa; Ngāti Kahungunu; Te Aitanga a Hauiti; Ngāi Tahu/Kati Māmoe.

Mrs Mate Heitia – Associate Investigator and Director/Owner of REKA Trust. Her tribal affiliations include Ngāti Pūkeko (tribe within the eastern Bay of Plenty); Ngāti Awa; Ngāi Te Rangi (tribe within the Tauranga area); Te Whānau-a-Apanui; Ngāi Tai (tribe within eastern Bay of Plenty and Auckland area); Tūhourangi (tribe within the Rotorua district); Ngāti Tūwharetoa ki Kawerau (tribe within the eastern Bay of Plenty area).

Additional members of the research team included:

Ms Julia Coates – Research Assistant, from Te Puna Ora o Mataatua. Her tribal affiliations include Ngāti Awa; Ngāti Hine (tribe within the Northland area); Ngāti Tūwharetoa; Tūhourangi; Ngāi Tūhoe; Te Whānau-a-Apanui.

Ms Courtney O’Sullivan – Research Intern, studying at the University of Otago. Her tribal affiliations include Ngāti Awa; Ngāti Maru (tribe of the Hauraki area).

2.4 Expert advisory group

An advisory group was established of proficient experts in āhuetanga Māori according to tikanga Māori, mātauranga Māori and te reo Māori to inform this research. They included:

Tā Hirini Moko Mead – Waitangi Tribunal, Whakaruruhau (senior advisor) of Te Rūnanga o Ngāti Awa, and member of Te Toi Apārangi (Royal Society of New Zealand) and Inaugural Writer in Residence at Te Whare Wānanga o Awanuiārangi. His tribal affiliations include Ngāti Awa; Ngāti Tūwharetoa; Ngāi Tūhoe; Tūhourangi. Tā Hirini Mead is a prominent and influential educator, scholar, historian, author, artist, writer and Māori leader.

Judge Layne Harvey – Māori Land Court, Waitangi Tribunal, Environment Court (alternate), and Chairman of Te Whare Wānanga o Awanuiārangi. His tribal affiliations include Ngāti Awa; Rongowhakaata (tribe within the Gisborne area); Te Aitanga-a-Mahaki (tribe within the Gisborne area); Te Whānau-a-Apanui; Ngāti Kahungunu ki Te Wairoa (tribe within the northern Hawkes Bay area). Judge Harvey is a leading authority on Māori land law, trusts, and iwi authorities, and is an educator, scholar, historian, author, and Māori leader.

2.5 Kai expert group

An expert advisory group was established of experienced researchers in respect of kai. They are:

Professor Linda Tuhiwai Smith – Co-Deputy Chairperson of Te Whare Wānanga o Awanuiārangi. Her tribal affiliations include Ngāti Porou and Ngāti Awa. Professor Smith is one of the most influential and internationally recognised Māori scholars and researchers of the 21st Century. She has written numerous books, articles, lectures, and research that are cited by academics worldwide and is one of the most renowned Indigenous thinkers of our time.



Dr Lyn Carter – retired from Te Tumu (School of Māori, Pacific and Indigenous studies), University of Otago in 2020. Her tribal affiliations include Kāi Tahu; Kāti Mamoe; Waitaha (tribe of the South Island); and Te Rapuwai (tribe of the South Island). Dr Carter is a scholar, having researched, taught, and written numerous books, articles, and lectures.

2.6 Duration of the research

The duration of this platform research was for 24 months; however, it was extended due to the impact of te mate urutā (pandemic).

2.7 Purpose

The purpose of a platform project, funded by Ngā Pae o te Māramatanga, is to support collaborative and coordinated approaches to research by bringing together a cross-sectorial and multi-disciplinary team of emerging and established researchers to work in more meaningful ways to produce innovative and inspirational outcomes that are cumulative and cohesive.

Western conceptions underpinning the politics of food are generally unable to fully account for Māori understandings related to kai. This report focusses on the distinction between *kai* as a culturally defined Māori notion and western interpretations of *food*.

For most countries, the production and consumption of food decisions are driven by economics, whereby the dominant food industry influences government policies, taking control / sovereignty of local and national food systems, which then impact on Māori traditions and practices, threatening our health and well-being. The examination of issues relative to food excess *versus* scarcity, production *versus* supply and demand, accumulation and control of markets *versus* traditional systems of mātauranga Māori, disease and poverty *versus* health and well-being, and whānau, hapū and iwi cultural nuances reveal the intersection of food politics, economic policies, and reproduction of the dominant societal power inequalities (Smith, Gillies & Wiremu, 2017).

These inequalities are reflected in Māori and Indigenous peoples' burden of health, and lifestyles. For example, the prevalence of diabetes, heart conditions, mental health, homelessness, and other socio-economic impacts such as high levels of under-achievement in education, high unemployment, lack of housing, low or no income, and violence and crime.

He moumou kai, he moumou tāngata (Tuhoe 'moumou kai, moumou taonga, moumou tangata ki te Po', which emphasised Tuhoe's fame for generosity with food and 'things of value', as well as for their fighting prowess) examines a post-Treaty settlement era that moves beyond deficit explanations to explore solutions of kai initiatives that fortify our existence and future as healthy Māori people (mauri ora). The report describes a state of existence where we are no longer at risk because our kai sources (te tai ao), including access to kai, growing kai, preparing kai, the lore (traditional Māori world views)/law pertaining to kai, and control of kai systems (whai rawa), are no longer diminishing.

2.8 Aim

The aim of this research is to test a transforming framework of culturally matched outcomes against a sample selection of kai sovereignty initiatives, to affirm tino rangatiratanga (self-development), Māori/iwi positionality (kaupapa Māori), multiple interventions (transforming), reflective praxis and criticality that act both horizontally and vertically (inclusivity) (Smith, Tinirau, Gillies & Warriner, 2015).

2.9 Objectives and outputs

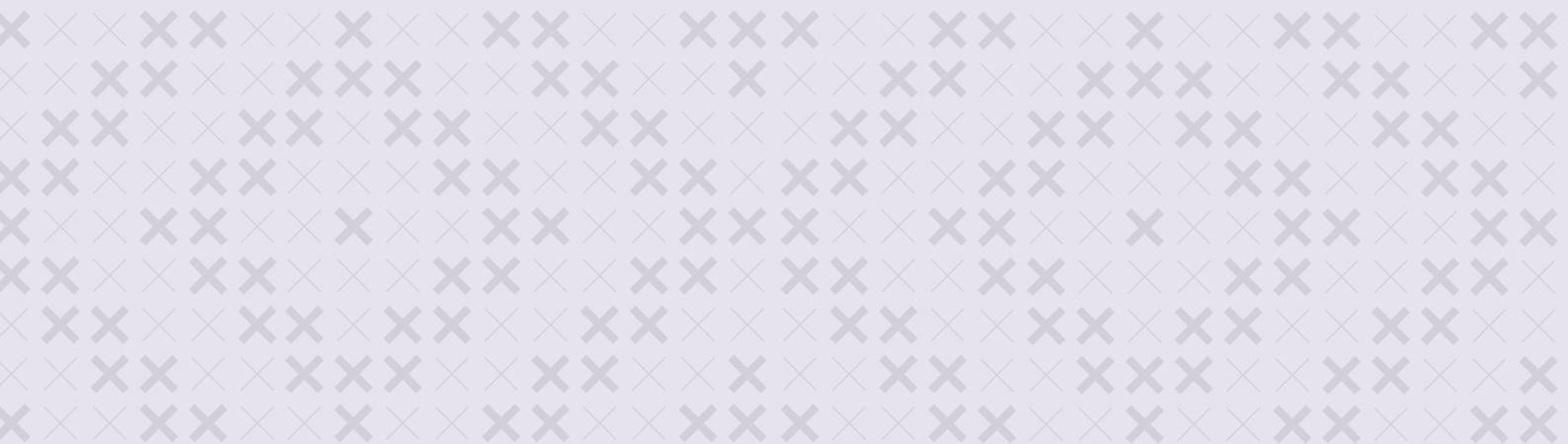
To answer the research questions the following was essential:

- i. Position this research so that it has the potential to inform government policy, planning, and debate. Gathering mātauranga Māori by participating in hui, symposia, conferences, wānanga, presentations, and other forums of knowledge acquisition and dissemination.
- ii. Produce a literature review that features Māori and Indigenous perspectives.
- iii. Forge and strengthen relationships locally, regionally, nationally, and internationally that will contribute to this research and future kai research.
- iv. Enhance and build on te reo Māori me ōna tikanga by contributing to mātauranga Māori.
- v. Establish an expert advisory mātauranga Māori and specialist kai advisory group to inform this research.
- vi. Develop a transforming framework of culturally matched outcomes.
- vii. Test the framework against a sample of case studies and disseminate the findings in the form of a report and/or journal article.

2.10 Research questions

The study responds to the following questions to enable Māori to protect and reclaim control over kai:

- i. In what ways do current western systems impact on kai Māori producing assets, such as whenua, wai, and moana?
- ii. How can Māori regain control of kai within the western politics of food?
- iii. How do Māori maintain control of traditional and customary ways of growing, harvesting, distributing and preparing kai?





3. Literature review

This review of literature aims to focus on Indigenous perspectives of kai and the notion of 'he rongoā ngā kai' – food is medicine, as it relates to discussions of food sovereignty, food security, food politics, and food justice. One of the most challenging issues for Māori and other Indigenous peoples is that as Indigenous foods across the world are diminishing, mainly because of disconnection from lands, so too is the mātauranga surrounding the growing, nurturing, and uses of those traditional foods. The fear is that if Indigenous peoples continue to be alienated from their lands, they will also be alienated from their ability to continue to grow and nurture the land and its fruits. It is likely the people will therefore diminish.

The importance of land to food/kai production cannot be underestimated, and for Indigenous people the connection to the land and its environs is without question tantamount to identity and belonging. There have been times in Aotearoa New Zealand's recent history where *the diminishing of people* has materialised. For example, the impacts of settler arrival, the accompanying wars, disease, and land alienations brought about Māori depopulation. In 1896 the Māori population had declined from approximately 200,000 in 1840 to 42,000 (Durie, 1994). Later wars, including World War I, the influenza pandemic of 1918, and World War II, all impacted adversely on Māori communities, especially on Māori leadership. Without strong leadership and planned *by Māori for Māori* development, the machinations of governmental policies of urbanisation, assimilation, integration, and biculturalism have continued to marginalise larger proportions of Māori, especially those in the lower socio-economic levels of Aotearoa New Zealand society. Other Indigenous populations across the world have had similar experiences in their longer histories of colonisation; however, remnants of the oral and cultural traditions of food have remained (Coté, 2016; Huambachano, 2019).

Western views of land are different from the way Indigenous peoples view land. Kimmerer (2013) points out that Indigenous peoples have never surrendered or given up their notions or meanings of land – it is not a commodity to be bought and sold, it is a gift.

To Indigenous peoples a healthy landscape is good medicine. Land shapes identity and connects people to their ancestors and other inhabitants such as animals, birds, trees, and waterways. Land is the source of all that sustains people and Kimmerer suggests that it is also our pharmacy – where medicine abounds. Kimmerer (2013, cited in Coté, 2016, p. 1) supports the idea of humans engaging with land in a stable, sustainable relationship “where people and the land are good medicine for each other”. The relationship assumes obligations and responsibilities to care for the land, keeping it and waterways free from contaminants and nurture the life it supports – plant, animal and human. Land will therefore provide the necessary natural ingredients with natural medicinal qualities (Coté, 2016).

Both international research (Agarwal, 2014; Ibarra et al., 2011; First Nations Development Unit, 2015; Grey & Patel, 2015; Huambachano, 2015, 2018, 2019) and domestic studies (Howard, 2017; Hutchings et al., 2012; Hutchings, 2015; Moeke-Pickering et al., 2015; Shirley, 2013) explore notions of Indigenous interpretations of food sovereignty, food security, food politics, food justice, food as sacred medicine, and for Māori 'he rongoā ngā kai' – 'food is medicine'. There are cultural and spiritual connotations around kai (even when described by other Indigenous groups) that manifest in Māori or Indigenous well-being.

Every society over time has stored knowledge on the acquisition and use of food to sustain their own health and wellness (Hassel, 2006). In particular, Indigenous societies all over the world draw from thousands of years of epistemological traditions and observations linked to food, nutrition and health. For example, Indigenous peoples' perspectives of nutrition highlight “plant and animal resources as both food and medicine” and in North America, these are integral to American Indian tribal communities in addressing modern chronic health issues (Hassel, 2006, p. 115) such as diabetes, obesity, heart disease, and some cancers. Stein (2016) also suggests that Indigenous perspectives and understanding emphasise that food is not just a commodity – it serves as both a medicine and a connector of people with their whānau, hāpori,

culture, and history. It is multi-dimensional, with simultaneous interactions informing and nurturing the whole. Many Indigenous groups hold to holistic models of health and long-held traditional knowledge to better inform the health and well-being of Indigenous communities. Indigenous models, therefore, reinforce notions of human health and well-being as a continuum across life spans.

The interface of tribal knowledge, culture, and science with western systems and science has three interactive levels of cultural diversity, according to Hassel (2006), and exemplars from both biomedicine (western science) as well as examples from Indigenous healing practitioners are provided. The layers of cultural diversity are identified as artefacts, epistemology, and a metaphysical world view. Artefacts are those visible structures and processes (often hard to decipher) but explained via a biomedical view as pharmaceuticals (White, 2007, 2009, 2011), hospitals, food; and the Indigenous description of the same is described as herbs, sweat lodge, medicine wheel. Epistemologies are the knowledge systems, ways of knowing and understanding that in a biomedical world is explained as “evidence-based”, “objective”, “physically measurable data”, while the Indigenous elements include oral histories, and holistic observation. The metaphysical world view level of cultural diversity alludes to unconscious, taken-for-granted beliefs, perceptions, thoughts, and feelings (ultimate source of values and action). These are expressed as “human manipulation of the natural world for human benefit” and “what we do to the earth we do to ourselves” from a western and Indigenous perspective respectively (see Figures 1 & 2 in Hassel, 2006, p. 117). Indigenous scholars also require Indigenous peoples to be involved in the food space education, politics, sovereignty, security, and justice from the outset, rather than as an after-thought.

However, conversations remain centred on Indigenous peoples’ lack of involvement in those spaces whereas, Indigenous peoples can plainly see, there is huge potential to add value, insight, and improved Indigenous well-being through the consideration of traditional, customary, and cultural perspectives in key sectors. Such knowledge has been disregarded and/or ignored

and this can be seen in generic literature relating to Indigenous peoples’ perspectives, aspirations, and solutions regarding food security, food sovereignty, and food justice. Such issues can be simply described as:

- food security or access to food – is a basic human right;
- control of food systems/food sovereignty – is an individual and hapori right; and
- which includes the ability for communities to have input into laws on food – food justice.

While these descriptions are simplistic, Kuhnlein and Receveur (1996) suggest the issues about food security, food sovereignty, and food justice culminate in, and influence the politics of nations, meaning access to food and retention of the knowledge about traditional food and sustainability requires that the politics of food be addressed. Howard (2017), and Kuhnlein and Receveur (1996) go further and highlight the fact that “whoever controls food controls the world” (p. 1), and Fonte 2013 (cited in Howard, 2017, p. 1) states that “food is vested with political power.” These assertions make sense, especially to those populations such as Indigenous peoples and other impoverished peoples from third world countries who have limited access to the key resources and appropriate food needed to survive.

Issues and concerns (that is, the politics) about current and future global food shortages (Bowers, et al. 2009) are not new phenomena, and have challenged nations for decades, even for generations. However, Hutchings et al. (2012) and Moeke-Pickering et al. (2015) claim that it is the Indigenous populations of the world who have borne the brunt of the inequalities of western system control of food politics, food security, food sovereignty, and food justice. But it is in fact Indigenous peoples of the world who have been found to be more attuned with land and environments that sustain and nurture human beings (Reid & Rout, 2015). More recently, and as a result of the impacts of environmental and climate changes, some quarters in the modern developed countries have acknowledged the possibility that Indigenous knowledge, tradition and customs just may hold the answers, and are looking to Indigenous

populations for solutions (Agrawal, 1995, 2002) to the world's food problems. This appears to be the case even though modern neo-liberalist governments with their dominant agricultural food systems still seek to maintain control over access to food (Pimbert, 2009, 2010). Howard (2017) and Pimbert (2009, 2010) also blame the dominant colonisers and their agricultural systems along with their penchant for neo-liberalist politics for the current rampant global food insecurity and the various flow-on effects that manifest in high levels of poverty, malnutrition, malnourishment, and the range of chronic modern diseases that impact on populations and on Indigenous populations (Shirley, 2013). Neo-liberalist politics with ensuing dominant agricultural systems have globalised food and therefore globalised control of food, increasing global competition and removing control from local communities (Howard, 2017).

Food sovereignty at local (Pimbert, 2009, 2010; Wittman, 2011), hapori, whānau, hapū, and iwi levels is about taking back control of food systems and validating provenance (Reid & Rout, 2016) for better and improved health and cultural well-being (Reid et al., 2016). Indigenous food sovereignty is about utilising traditional and contemporary knowledge systems, balancing western and Indigenous knowledge (Durie, 2004) to ensure food is accessible, safe, nutritious, and sustainable for future generations. Durie (2004) maintains that the right food – be it traditional or contemporary – has medicinal properties, supporting notions of *he rongoā ngā kai*.

Indigenous groups are, often at the grass roots of the global food sovereignty movement, changing dynamics and focus from national self-sufficiency to local self-sufficiency (Agrawal, 2014). Indigenous peoples are also those most likely to experience food insecurity, have less input into laws about food, and have no control over the dominant food systems (Grey & Patel, 2015; Howard, 2017).

As a result of generational marginalisation and oppression, Indigenous people's traditions, customs, and knowledge of sustainable food sovereignty systems has been largely discounted (Agrawal, 1995, 2002).

Pre-colonisation Indigenous food sovereignty systems, land, culture, diet, and nutrition have been replaced by coloniser organisations, classifications, structures, methods, techniques, practices, and approaches to control food systems, culture, and knowledge. As a result, contemporary food systems, diet, and nutrition have been found to affect Indigenous populations differently (Grey & Patel, 2015; Hutchings et al., 2012; Hutchings, 2015; Shirley, 2013;) and lead to modern chronic diseases such as heart diseases, diabetes, cancers, and obesity.

In many of the developing countries, small-scale farmers and fishers (Altieri, 2009; Pimbert, 2006, 2009, 2010;) are touted as being outdated and encouraged to move to cities for employment and to buy their food from supermarkets where there is better variety from all over the world, food security is assured with promises of food for all people in a 'free market system', so therefore no need to grow food. However, it became apparent in 2008 that this was not the case and that wealthy countries began to hoard food, for example, when the price of rice peaked, importing countries were hit hardest and the number of hungry people worldwide increased almost overnight to over 200 million (Pimbert, 2009), because local prices increased fourfold in some countries. In Aotearoa New Zealand similar situations occurred and poverty in New Zealand has become an increasing problem. Most recently this problem has been compounded through the spread of te mate urutā virus, with many countries announcing recessionary economies.

For Indigenous people, food is linked to identity, community, socio-cultural understandings, and economic institutions. Food is used in rituals. For example, there are certain foods that coastal people, hapū and whānau must provide at events, hui, and special occasions to uphold their mana in te ao Māori (the Māori world). Food forms part of being able to care for and feed visitors (manaakitanga). Some fruits,

berries, bush, and sea plants, and vegetables are used for rongoā and have properties known to help prevent and combat modern chronic diseases. Discussions from various authors also included the best times for food collection and seasonal aspects utilising maramataka Māori (Māori calendar; lunar cycle dictating fishing, horticulture and agricultural activities) based on food gathering and storage (Barlow, 1991; Beattie, 1994; Best, 1973, 1974; Durie, 1994, 1998; Firth, 1973; Harawira, 1997; Higgins & Moorfield, 2004; Tawhai, 2013; Te Rangihiroa, 1949).

Coastal hapū traded with hapū from the forests or inland – each tribe well known for being able to supply their specialties. Before colonisation, Māori held food sovereignty and had sufficient, and sustainable, food systems. They traded new technologies with whalers and sealers from northern Europe and later with missionaries and small numbers of settlers. However, from 1840 onwards Māori were systematically alienated from their lands and resources and traditional food systems weakened (Hutchings et al., 2012). The current food sovereignty movement across the world is about reclaiming local food systems, reversing the effects of colonisation, and becoming food sovereign and food secure once again (Ibarra et al, 2011). In Aotearoa New Zealand self-development and self-sufficiency can be seen at marae (traditional place of gathering) and around whānau homes, kura (schools), and workplaces – māra kai (kai garden) are being established, planted, and nurtured by hapori. Growing one’s own food provides both individual and collective well-being, re-establishing the ability of hapori to attain food sovereignty, food security, and participate once again in food justice laws, policy and planning, in their communities (First Nations Development Institute [FNDI], 2014).

The health implications that arise from concerns for food sovereignty, food security, and food justice are becoming increasingly evident in Aotearoa New Zealand, particularly with the increasing levels of poverty experienced in most towns and cities (Agrawal, 1995).

In Aotearoa New Zealand, social, economic, health and education, determinants have been explored and are being associated with Māori, who are more likely to experience poverty than non-Māori because they generally experience lower levels of educational achievement, lower incomes, lower levels of employment, lower levels of health, high smoking and alcohol intake, and high levels of social disconnection (sole parenting, sexual and physical abuse) (Carter et al., 2010)

Such experiences resonate with other Indigenous groups across the world, and it is those socio-economic determinants of health that are manifest in food insecurity, lack of control over food, and no food protection policies or laws that support traditional knowledge. It has been internationally acknowledged through the Overseas Development Institute (ODI) publications that food security “offers the best hope of swiftly reducing mass poverty” (Food and Agriculture Organization of the United Nations [FAO], 2008, p. 3). The diagram below shows the interrelatedness between food sovereignty and food insecurity and the poverty cycle (adapted from FAO, 2008, p. 3).

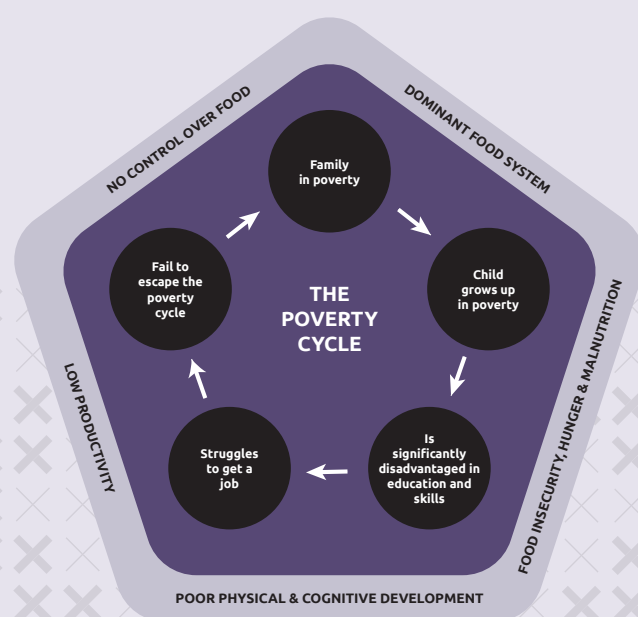


Figure: interrelatedness between food sovereignty and food insecurity and the poverty cycle (adapted from FAO, 2008, p. 3).

Food sovereignty is a local-level phenomenon that challenges neo-liberal, free market politics of nations. Researchers have suggested that new food regimes should be premised on food sovereignty and self-development because with these come transformative change at economic social and cultural levels (Howard, 2017; Smith, Tinirau et al., 2015; Smith, Gillies et al., 2017; Stein, 2016; Stein et al., 2017a, 2017b, 2018;).

As an emerging paradigm suggested by Wittman (2011), food sovereignty has much to contribute to environmental ethics, politics, and movements for social and environmental justice and the reclamation of cultural knowledge and identity. Health issues that arise from a lack of access to and control of nutritious food are numerous. In Aotearoa New Zealand this is manifest in widespread poverty, chronic disease, and unequal access to a range of socio-cultural services, including health, education, housing, and employment, and often results in a lower quality of health care (Edelman et al., 2014). In all such determinants of health in New Zealand, Māori experience is far greater than that of other ethnic populations (Durie, 2004; Hutchings et al., 2012; Moeke-Pickering, 2015); it is similar, however, to the experiences of other Indigenous groups across the world.

This project impacts on more than one issue. A major outcome will be Māori communities informed on issues of food and potential health implications from food insecurity, lack of control over food systems, minimal effects on laws that impact behaviours and access to food producers, retailers and consumers, and finally government politics – neo-liberalism and free market systems. Nutrition or lack of access to nutritious foods will have deleterious effects on the health and well-being of whānau Māori.

As it is, many Indigenous populations already regard access to food (food security) for all as the best medicine for good health. Reducing food insecurity, increasing food sovereignty, and providing guidelines, policies and procedures that protect food growing environments will therefore contribute to improved health outcomes for Māori and other Indigenous groups who experience negative health, including poor nutrition and poor social, cultural and economic status, especially where

populations are prevented from fully participating in society. Most recently, elements of homelessness and poverty have been attributed to food insecurity (Child Action Poverty Group, 2008; Stevenson, 2011). Eliminating food insecurity is likely to lift people out of poverty and potentially homelessness.

Supporting these types of solutions, researchers such as McMahon (2013) have identified that systematically charting and recording food systems of selected communities, the status of food security and food insecurity within communities, legalities to be dealt with to ensure food sovereignty and food security, and a review of local, national, and global politics that include food safety and impact on selected communities and their food security, are absolutely necessary.

McMahon (2013) and many others suggest that systematic collection of these data provides much required evidence while at the same time endorses *he rongoā ngā kai – food is medicine*. Such a collection creates opportunities, time and space to progress the decolonisation of food systems, reducing coloniser control over food production, distribution and consumption, improving access to nutritious food, and developing policy/laws at individual, whānau, hapū, tribal, hapori, as well as at local and central government levels. A key to changing the status quo is to engage communities in developing a tool or tools to capture and assess their own food systems, traditional and contemporary (Roskrug, 2012, 2014), their access to food, and their participation in law/lore-making about kai. Such activity enables hapori and Indigenous planning for food sustainability and resilient healthy communities.



4. Research methodology

4.1 Methodology

This research is underscored by Kaupapa Māori pedagogy (Smith, 1997) utilising tikanga Māori (Mead, 2003) in accordance with āhuatanga Māori and Indigenous methodologies (Chilisa, 2011; Smith, 1999;). Te reo Māori is a valued component of maintaining the mana of participants who offered their mātauranga Māori. A range of methods in which participants could convey their knowledge (in te reo Māori or English) and views in an individual or group environment were offered. These approaches align well with Māori development and the post-Treaty development element of this research, which respects local ways of knowing, being, and practice. The methodology adopted for Māori/Indigenous research seeks to gain a holistic perspective and understandings of these practices and relationships (Smith, 1999).

We have utilised a common range of eclectic research methods and methodologies that include descriptive (semi-structured interviews and fact-finding enquiries), analytical (analysis of facts from relevant research, reports and literature), applied (in-action to test the collective framework against theoretical underpinnings and case studies/projects), fundamental (generalisations taken from case studies, interviews, reports and literature to infer trends and patterns), qualitative (motivations), and empirical (based on our own and interviewees experience or observations).

Researchers have completed projects involving Māori social, cultural, economic, and environmental well-being that supports whānau, hapū, iwi and hapori development. The contribution of knowledge and experience by all researchers is substantial. All contributions have been critiqued through a Kaupapa Māori, community-based Tikanga Rangahau ethics process, facilitated through Te Atawhai o Te Ao.

4.2 Data gathering

The intention of the researchers was to maximise existing research opportunities to complement this research. In effect, our aim is to access research and kai sovereignty activities, completed or in progress, that directly relate to kai security, kai systems, kai practices, and the (re)production of kai. Through this collaborative partnership arrangement (hapori, wānanga, and universities), our collective skills, experiences, and networks can be utilised to advance this research further.

Each researcher was involved in the examination of 'kai' initiatives. This included participating in hui, wānanga (traditional form of learning), conferences and symposiums as well as analysing reports or publications relative to this topic.

4.3 Data analysis

A narrative of each of the studies involved in the research based on document analysis, literature review, interview data, and other research methodologies occurred.

4.4 Data verification

The researchers presented preliminary findings and feedback to the participants. The aim is threefold:

- i. To provide the participants with relevant information from the research in a timely fashion;
- ii. To allow participants to comment on the findings, verify them, or present contrary or additional information; and
- iii. To ascertain solution-based strategies for future kai research.

5. Collective framework (Mana Kai)

The development of the *Mana Kai Framework* was built on various expressions of mana that incorporate āhuatanga Māori according to tikanga Māori and mātauranga Māori.

The framework is based on the tenets of mana atua, mana tūpuna, mana Māori, mana whenua/mana moana, mana tangata, mana rawa, and mana motuhake. An overarching aim was to develop a robust Kaupapa Māori process whereby kai sovereignty initiatives could be tested against the various expressions of mana defined and discussed further within this report.

To develop this framework, the research team engaged in 76 hui (Appendix 11.1) during this project: two of these were overseas, 28 were in person, and the remainder digitally or online. The reasons for conducting many hui was to gather as much of a diverse range of examples from participants. Digital hui saved on time and cost in gathering researchers and participants together, as most were spread across Aotearoa New Zealand and the world. There were numerous activities, wānanga, and other forums organised that discussed research on kai sovereignty, and practical examples occurred in rural areas, towns, and cities across Aotearoa New Zealand.

The first hui arranged by the research team was with our mātauranga Māori advisory and kai expert panellists in November 2018. This led to a discussion on how some Māori attribute the manaakitanga and provision of kai at hui or events as an indicator of the mana of an individual, whānau, hapū or iwi; that is, people of mana are perceived as providers. International scholars in attendance from Canada (Mohawk Nation and Kamloops First Nation) discussed traditional food sources and environmental impacts affecting the health and well-being of Indigenous people. This hui reinforced the failure of western systems to protect and maintain Māori and Indigenous rights to their traditional and customary kai sources, kai systems, and kai practices. It also signalled that Māori and Indigenous-led solutions can be implemented to benefit society generally.

The research team held a wānanga in January 2019 and brought together kaumātua (elderly) from the Eastern Bay of Plenty region who are expert knowledge holders and practitioners of kai sovereignty. The rangatira (elderly persons held in the highest esteem) conducted themselves predominantly in te reo Māori (Appendix 11.2) and spoke of mātauranga that is transferred and received, which should be by mutual consent, understanding, and intention. They have witnessed, over their collective years, that access to fast or processed food is about convenience; however, this has interfered with the transference of traditional and customary mātauranga pertaining to kai sources, kai systems, and kai practices, both inter- and intra-generationally. A resurgence in disseminating traditional and customary mātauranga is emerging, but not at the same pace as modern neo-liberalist governments asserting their control and dominance over agricultural food systems. The rangatira recommended that more wānanga be held, where rangatira, rangatahi (young adults) and tamariki (children) could come together regularly, and mātauranga could be transferred to retain our traditions and customs.



Image: (L-R) Julia Coates, Dr Annemarie Gillies, Mate Heitia, Ngamihi Norma Crapp, Maanu Paul, Fiona Wiremu, Dr Rāwiri Tinirau, Molly Turnbull, Distinguished Professor Graham Hingangaroa Smith & Courtney O’Sullivan (missing: Dr Cheryl Waerea-i-te-Rangi Smith).

At the Pacific Food Sovereignty and Traditional Knowledge Conference held at Takahiwai Marae near Whangārei (city in the Northland region of Aotearoa New Zealand) in February 2019, proponents of kai sovereignty came together and produced the Declaration of Takahiwai (Appendix 11.3). The Declaration affirmed and recognised that the treasures that the atua, Papatūānuku (Earth Mother, wife of Ranginui, from which all living things originate) and Ranginui (Sky Father, husband of Papatūānuku, from which all living things originate), gifted us, would sustain our lives; that the traditional mātauranga of our tūpuna (elders) are essential in providing us with guidance; and that we should work collectively to create solutions that are sustainable for future generations based on our traditional ways of knowing and being. The 18 commitments for action are underpinned by the condition that we, as Māori and Indigenous peoples, cannot wait for anyone else to enact change or ensure we are healthy and well – Māori and Indigenous peoples must do it ourselves.

The abundance of Indigenous knowledge about traditional kai sources, planting, cultivating, and preparing kai gave the research team opportunities to connect with international Indigenous researchers in food sovereignty. In June 2019, the research team hosted 11 International kai researchers and three domestic kai researchers who were presenting their own research on food sovereignty, food security,

and food governance at the NAISA (Native American Indigenous Studies Association) International Conference held at the University of Waikato in Hamilton. International scholars came from the University of Guelph in Ontario, Canada; Cornell University in New York; a community-based representative in Australia; University of Wisconsin in Madison; Brown University in Rhode Island; University of Kansas; Na’ah Illahee Fund in Seattle Washington; University of Washington in Seattle; University of British Columbia in Canada; Michigan State University in Michigan; University of Victoria in Canada; University of Hawai’i at Mānoa; and Columbia University. This wānanga reinforced the notion that Indigenous peoples across the world are enacting their own traditions and practices as they implement food sovereignty initiatives in their own regions, irrespective of policies or legislation that privilege corporations and businesses.



Image: Kai/food sovereignty researchers 2019 NAISA (Native American Indigenous Studies Association) Conference, Hamilton.

The research team disseminated their findings at 11 conferences and symposia (Appendix 11.4); of the six international conferences, two were delivered overseas. The common themes focused on food politics, economic policies and the reproduction of the dominant societal power that continues to perpetuate inequalities against Māori and Indigenous peoples. An analysis of traditional and customary practices of localised kai interventions and activities highlighted that despite the inequities of colonisation,

Māori and Indigenous peoples continue to maintain and disseminate their traditions inter- and intra-generationally.

From February 2019 to February 2020, and as part of the Whakatika Survey, Te Atawhai o Te Ao conducted a survey about kai with 2,073 participants, of which 66% were female and the ages of all respondents were from 16 years old, plus (Smith et al., 2021). The questions and main responses included:

Does anyone in your whānau have knowledge of kai?

The majority of respondents (76%) said that all or most of their whānau had knowledge of Māori kai. Kaumātua and those living in marae/papakāinga were more likely to say all of their whānau had knowledge of Māori kai (49% and 51% respectively).

How often does anyone in your whānau actively harvest, gather or buy kai?

Sixty-four per cent of respondents said that their whānau actively harvest, gather or buy Māori kai all of the time or often. As with the previous question, kaumātua were more likely than other age groups to say that their whānau accessed Māori kai all of the time (36%) as were those in marae/papakāinga settings (44%) compared to urban locations.

If you can, please name three types of kai that were served on your marae or at home in the past.

Most people could give at least one example of traditional Māori kai (87%), but often other examples were also provided. We categorised responses into three broad areas, keeping in mind both the ingredient and the method of preparation:

- Traditional kai, using ingredients and methods that pre-date the arrival of Pākehā;
- Adapted kai, which might involve traditional cooking methods used to prepare non-traditional food (such as different types of meats) or traditional methods (of hunting or gardening) for collecting food; and,
- Non-traditional kai, which people provided to us – sometimes with Māori names – but are neither traditional nor adapted from traditional kai preparation methods or sources.



Are those kai still being served on your marae or at home today?

Seventy-seven per cent of respondents said that the examples they gave of Māori kai were still served on their marae or in their homes today. There was a slight pattern by age, where rangatahi were more likely (80%), and kaumātua were less likely (71%) to say traditional Māori kai were still served on their marae or at home.

How do you feel about still being served kai at your marae or at home?

Eighty-six per cent of respondents said they felt proud to be served Māori kai at their marae or in their homes. More than half the respondents felt connected to their tūpuna (51%) through the serving of Māori kai and similar numbers felt satisfied (50%). It was rare for people not to feel anything specific about serving or being served Māori kai (1%).

There was little variation by age or location in these results, although females were slightly more likely to feel connected to their tūpuna through kai (53%) than males (47%) and were more likely to feel satisfied and comforted by Māori kai.

In the comments on this question, a small number of people indicated they do not enjoy Māori kai. Most, however, reemphasised the sense of pride they feel at serving and being served Māori kai.

How do you feel about not being served kai at your marae or at home?

There was a sense of pōuri or deep grief among 38% of respondents at not being served Māori kai at their marae or at home. Feeling pōuri increased with age, with kaumātua being most likely to identify these feelings (46%) and rangatahi least likely (27%).

In the comments to this question, people reiterated the sense of sadness and disappointment, but often acknowledged that there was a wider context to reduced access to Māori kai, including limited time and knowledge required to prepare kai, pollution and environmental degradation. Instances where traditional kai was not served were seen as negative, but that did not undermine the manaakitanga of the marae or whānau at home.

How important is it to you, to still be able to harvest, gather or buy kai?

The majority of respondents (87%) said it was very or extremely important to still be able to harvest, gather or buy Māori kai. There was little variation by gender or location, but there was a slight difference amongst age groups. For example, respondents in the mātua age group were more likely to say that access to Māori kai was extremely important (68% compared to 61% across all age groups).



How does it make you feel when you cannot harvest, gather or buy kai?

When it came to harvesting, gathering or buying Māori kai, the sense of sadness was even more pronounced than when it came to not being served Māori kai on a marae or at home. Fifty-three per cent of respondents felt pōuri when this happened, and a large proportion of respondents (32%) felt riri, angry or annoyed.

Feeling pōuri increased with age, with kaumātua more likely to express deep sadness at not being able to harvest, gather or buy Māori kai (64%) compared to rangatahi (21%).



What kai activities are you involved with?

Most respondents (76%) were involved in cooking Māori kai for their whānau, hapū or iwi. A little over a third of people were involved in growing kai or rongoā (37%) and a number of people were involved in activities related to the moana (helping to protect the coastlines (26%) and opposing seabed mining (30%)). Thirteen per cent of respondents said they were not involved in kai related activities.

Hunting and fishing were common examples provided by respondents, including mutton birding/ tītī harvesting and eeling. These were also acknowledged in some comments as collective activities – often undertaken by whānau.

A number of respondents also talked about kaitiakitanga over the natural environment and protecting te taiao, and involvement in hapū and iwi governance as a way to “to fight for the preservation of mahinga kai sites” (Survey respondent, 63, wahine).

Given the importance of kai to Māori, in terms of sustenance, connection to whānau, ancestors and culture, it is not surprising that respondents expressed strong feelings about kai. These feelings were positive when it came to being able to access kai and negative when it came to being unable to access kai.

This survey iterated the notion that traditional kai practices were undertaken on the marae and that most participants could cook traditional and customary kai. When the kai identified by participants as being connected to their culture and identity were not offered, participants felt ashamed and humiliated as they felt their mana as a whānau, hapū, and iwi had been diminished.

The research also conducted a mapping exercise of one iwi, Ngāti Awa, and their mahinga kai (Appendix 11.5), traditional food sources and ecosystems. This map described traditional kai sources and kai systems, featuring variants of kai. The historical mātauranga of these sources were known to their tūpuna, as they had been captured in publicly available records. This knowledge could therefore be used to research what may have caused a change to the ecosystem, if the kai source was no longer available. More important, it also highlighted what kai could grow in that area – providing an opportunity to reintroduce species into the eco-system.

It is worth mentioning that while there are organisations in Aotearoa New Zealand that use named tenets such as mana atua, mana tūpuna, mana whenua, and mana tangata to assess against social determinants, this is the first framework that uses these tenets to test against kai sovereignty initiatives.

5.1 Mana atua

Mana atua refers to those activities associated with various atua (Durie, 1994), whose sacred power is embodied in those “who conform to sacred ritual and principles” (Barlow, 1991, p. 61). Durie (1994) states that our origin stories, based on the exploits and attributes of atua, provide a model “for examining connections and interdependencies which occur between forests and oceans, fish and fowl, the rivers and the soil and between people and the elements” (pp. 21–22).

Atua are responsible for particular kai. For example, Tāne (an atua of the forests; uri of Ranginui and Papatūānuku) is the atua for birds, insects and trees; Rongo (an atua of cultivated food; uri of Ranginui and Papatūānuku), such as kumara (*Ipomoea batatas*; sweet potato); fish and sea-life come under the protection of Tangaroa (an atua of the ocean and fish; uri of Ranginui and Papatūānuku); and uncultivated foods and wild vegetables are the domain of Haumie-tiketike (an atua of uncultivated foods and wild vegetables; uri of Ranginui and Papatūānuku) (Te Rangi Hiroa, 1949). There are some iwi variances: Whanganui, for example, tend to offer the first catch to the atua Maru (an atua of fishing in the Whanganui Awa and related waterways; uri of Ranginui and Papatūānuku) (Tinirau et al., 2019). Initiatives that promote kai sovereignty must, therefore, respect that kai has a whakapapa (genealogy); kai is derived from domains associated with atua, and links between and across atua and their domains are critical to understanding the notion and importance of kai.

5.2 Mana tūpuna

Mana tūpuna is power derived through lineage, passed down through the generations, with those inheriting mana tūpuna responsible for carrying out duties to maintain this power (Barlow, 1991). Mead describes the inheritance of mana: “parents with a high level of mana and tapu (sacred) will pass onto their children a correspondingly enhanced increment of mana” (2003, p. 51). Mana tūpuna embraces tribal identity and heritage, as well as knowledge, te reo Māori, and tikanga Māori (Durie, 1998). In his seminal work, Rangihau (1992) stated

my being Māori is absolutely dependent on my history as a Tūhoe person against being a Māori person ... to me, Tūhoetanga means that I do the things that are meaningful to Tūhoe. But I cannot do the things that are meaningful to other people (p. 190).

Thus, the importance of carrying inherited responsibilities must be articulated and realised through kai sovereignty initiatives; it suggests a duty of care and obligations to our ancestors and the collective in ways that are meaningful to a particular whānau, hapū, and iwi.

5.3 Mana Māori

In contrast to the previous discussion on mana tūpuna, mana Māori are the rights and authority associated with being Māori. The expression of Māori cultural values through tikanga (customary or correct way of doing something) might differ across whānau, hapū, and iwi, but the values themselves are believed to be commonly held principles (Knox, 2005; Tinirau, 2017). Phillips et al. (2016) suggest that Māori values, concepts, and practices such as whakapapa, whanaungatanga (familial connections and relationships between and across whānau), and tikanga are central to mahinga kai, which stem from origin stories concerning atua. Furthermore, traditional narratives refer to times where atua and tūpuna enjoyed food, secure lifestyles, and good health. These provide inspiration for applying universal Māori values in contemporary times within kai sovereignty initiatives, to promote healthy living and wellness.

5.4 Mana whenua / Mana moana

Mana whenua relates to the

... power associated with the ability of the land to produce bounties of nature ... a person who possessed land has the power to produce a livelihood for family and tribe, and every effort is made to protect these rights (Barlow, 1991, pp. 61-62).

This is supported by Mahuika (1992), who says that territorial claims defined by one's ancestry infer a responsibility to the collective and future generations. Connection to one's traditional territories is believed to enhance well-being (Te Atawhai o Te Ao, 2016).

Mana moana relates to authority over lakes and seas, though Faiers (2013) describes issues associated with mana whenua and mana moana, as due to the "overlay of crown rule and interpretation [that] has interfered with individuals' tribal understandings of tūrangawaewae [sense of identity connected to a traditional home base]" (p. 83).

A Māori worldview would consider mana whenua and mana moana together with the obligations that come with tiakitanga (the ability to guard and protect treasures, whānau and future generations) or kaitiakitanga (Marsden & Hēnare, 2003; Forster, 2012; Tinirau, 2017), which require the safeguarding of knowledge, resources, and the protection and sustainability of kai and the natural environment. Kai sovereignty initiatives, therefore, must have regard for tiakitanga responsibilities.

5.5 Mana tangata

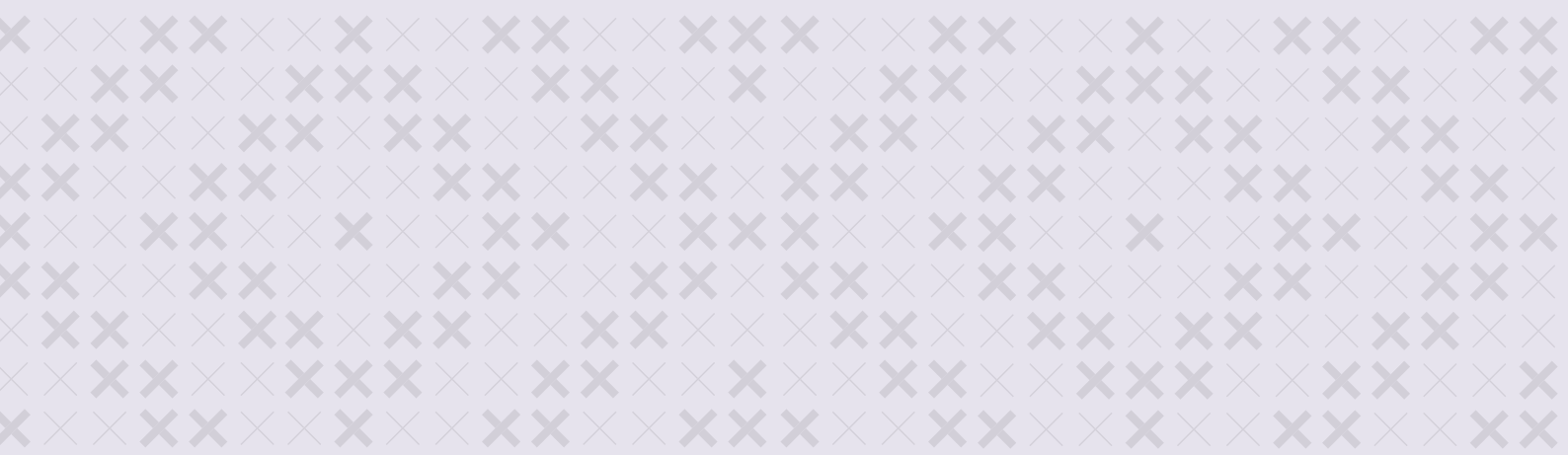
Mana tangata is mana held according to one's personal abilities (Barlow, 1991), crafted through experience and knowledge acquisition. Mahuika (1992, p. 45) states that mana tangata is defined as "the power to direct human activity". This concept has been extended to include "continuity of life, humility, caring for others, and leading by example" (Te Atawhai o Te Ao, 2016, p. 1). Mana itself has been described by Mead as "a social quality that requires other people to recognise one's achievement and accord respect" (2003, p. 51). What these definitions have in common is that a person or people must use their skills and abilities for the benefit of others (including intergenerationally), so that those who require greater assistance will receive the necessary support (Smith, 1997). Thus, kai sovereignty initiatives must enhance the mana of others (now and in the future), and address equity issues that exist for those Māori who are vulnerable.

5.6 Mana rawa

Rawa is defined by Williams (1971) as goods or property, though in more recent times, rawa refers to wealth and prosperity, with whai rawa meaning wealthy, or to be in the pursuit of prosperity. Mana rawa, however, inspires notions of more holistic understandings of wealth and prosperity. In a report on strategies for Māori economic development, Smith et al. (2015) found that wealth creation was a common theme across four iwi case studies and associated critical success factors contribute to iwi/Māori well-being. Similarly, well-being is enhanced by resource development and business opportunities, while also being cognisant of social, cultural and environmental factors (Henare & Awatere, 2016). It is important to consider kai sovereignty initiatives against economic development imperatives of whānau, hapū and iwi, including participation in micro-, meso- and macro-economies. Furthermore, kai sovereignty initiatives also stimulate broader and deeper exploration of concepts such as wealth, prosperity, and well-being, from Māori and Indigenous perspectives.

5.7. Mana motuhake

Mana motuhake is the enactment of Māori sovereignty and authority through self-determination. According to Durie (1998), mana motuhake requires a commitment to Māori advancement while strongly emphasising “independence from state and Crown ... [implying] a measure of defiance” (p. 220). Set against a backdrop of various consequences stemming from colonisation, Māori have had to reconfigure and adjust to ensure our survival (Wiremu et al., 2019), and have formed and maintained relationships with those who share similar values and struggles, including Māori-to-Māori and Māori-to-Indigenous partnerships. Kai sovereignty initiatives, therefore, must be sensitive to the struggle to maintain mana motuhake, and must be committed to activating self-development strategies locally and internationally.





6. Case studies

The results of the Mana Kai Framework discusses each of the tenets and propose a critical pātai (question) under each tenet, by which kai sovereignty initiatives (case studies) are analysed.

The pātai are:

- i. **Mana atua:** Does the kai sovereignty initiative involve kai that have whakapapa to atua? Please name the atua and their relationship to the kai.
- ii. **Mana tūpuna:** How does the kai sovereignty initiative empower whānau, hapū and iwi to realise their inherited responsibilities from tūpuna?
- iii. **Mana Māori:** How does the kai sovereignty initiative honour Māori values, and encourage Māori to live well as Māori? Please identify the Māori values and the example(s) of living well.
- iv. **Mana whenua/mana moana:** How does the kai sovereignty initiative encourage sustainable environmental practices?
- v. **Mana tangata:** How does the kai sovereignty initiative seek to address equity issues and enhance the mana of others?
- vi. **Mana rawa:** How does the kai sovereignty initiative contribute to economic development, wealth, prosperity and well-being for whānau, hapū and/or iwi?
- vii. **Mana motuhake:** How does the kai sovereignty initiative activate self-development strategies, and leverage off new and existing relationships?

Three case studies have been selected to test the framework. These include:

- i. Whanganui: Te Morehu Whenua
- ii. Whakatāne: REKA Trust
- iii. Ōpōtiki: Whakatōhea Mussels Limited

6.1 Whanganui: Te Morehu Whenua

The name Te Morehu Whenua is derived from a statement made by Taitoko Te Rangihiwini (Major Kemp) to Timi Kara (Sir James Carroll). The latter offered assurances that lands vested in the Crown would be protected, to which Taitoko replied:


E Timi: Te morehu tangata, te morehu whenua
ki a koe – To you James: I leave the remnants of
the people and the remnants of the land.

In 2019, Te Morehu Whenua held two wānanga at Rānana Marae and Pūtiki Wharanui Marae in Whanganui.

Each wānanga transmitted inter- and intra-generational customary, traditional, and contemporary mātauranga Māori from pahake (elders versed in tikanga Māori) and mātua (adults) to rangatahi and tamariki. Tamariki and rangatahi were taught about where to source their kai, the eco-systems that interconnect to produce kai, and the practices of growing, gathering, cultivating, harvesting, cooking, and preserving kai, all the while applying the tenets. These tenets are the learnt traditions and customs pertaining to: pōwhiri (formal welcome); karanga (ceremonial calling); whaikōrero (formal speech); karakia (prayers), mihi mihi (greetings, tributes); waiata (songs; singing); koha (giving); using a hapū maramataka, hopu tuna (catching eels); tari tuna (bobbing method for catching eel); collecting kākahi (freshwater mussels); and in addition learning about climate change and its impact on kai sources, kai systems, and kai practices.



In response to the research questions, the following was determined:




In what ways do current western systems impact on kai Māori producing assets, such as whenua, wai and moana (ocean)?

Climate change, local, regional, and national laws and regulations impact on Māori and inhibit them from practising their traditional and customary rights pertaining to kai. Further, western education systems do not educate tamariki and rangatahi to observe, learn, and practise their traditional and customary rights. Those who live away from home, who travelled to look for work or as part of the urban-migration may not be privy to whānau-, hapū- or iwi-specific knowledge about their whenua, awa (river), moana, kai sources, kai systems, and kai practices.



How can Māori regain control of kai within the western politics of food?

Māori can regain control of kai by continuing to practice their kai related activities, but also through working to educate the Crown, government agencies and others about the impact of legislation and policies on their kai sources, kai systems, and kai practices.



How do Māori maintain control of traditional and customary ways of growing, harvesting, distributing and preparing kai?

In this study, the pahake of the marae, whānau, hapū, and iwi were able to disseminate mātauranga Māori to their tamariki and rangatahi. This transference of knowledge and the holding of ongoing wānanga embeds and normalises practices in the next generation; the future holders of the knowledge systems.



Mana atua

Te Morehu Whenua uses three methods that integrate the whakapapa of kai to atua. The first uses hapū maramataka for the appropriate fishing times and energy levels that correspond with the atua, Tangaroa. Tangaroa oversees six days within the hapū maramataka that are optimal for fishing with high energy levels. Therefore, these six days become the appropriate times to hold wānanga on catching tuna. The second method is being mindful that when collecting materials from the ngahere (forest) that enable us to catch tuna, we are in the domain of Tāne. The last method is offering the first catch of tuna to the atua, Maru. Maru is acknowledged by the hapū as the primary atua associated with fishing in the Whanganui River and related waterways.

Mana tūpuna

The activities of Te Morehu Whenua are part of a long-term hapū aspirational framework and succession plan that incorporates education on participants' whakapapa to their environment. This education imparts participants' future responsibilities for the environment, with the aspiration for Te Morehu Whenua to stay connected through developing an understanding for and love of kai once abundant for their tūpuna. Through wānanga on marae, Te Morehu Whenua can become familiar with kai gathering places and participants are able to realise their inherited responsibilities to these special places. Moreover, the skills learnt through wānanga regarding the preparation of tuna, transmits practical and traditional knowledge of kai, which includes hopu tuna, tango paru (deslime), pāwhara/pāwhera (de-bone and open), tunu (cook), and tuku kai (sharing of kai). Through learning these methods of customary kai preparation, Te Morehu Whenua are realising their responsibilities of ensuring hapū knowledge is held and transmitted, and the environment of tuna is maintained.

Mana Māori

Te Morehu Whenua embody and practice values associated with whakapapa, whanaungatanga, and tikanga. Whakapapa is realised through understanding the connections between kai and atua, between the participants and places where kai is gathered, and through appreciating that the kai gathered maintains the health of their tūpuna. Whanaungatanga is integrated through building an understanding of whakapapa with and between participants, and through working together to achieve common goals. Tikanga, based on traditional values, is manifested through examining the ways in which kai is gathered, and the ritual observances associated with preparing, sharing, and partaking in kai. These practices, still relevant today, are founded on hapū knowledge.

Mana whenua / Mana moana

Te Morehu Whenua draw on Whanganui knowledge of traditional fishing methods to encourage sustainable environmental practices. This knowledge includes using hapū maramataka for appropriate times for fishing and observing the flow and clarity of the Whanganui River for kai activities. Furthermore, being careful not to take more kai than is required is reaffirmed throughout all wānanga.

Mana tangata

Te Morehu Whenua addresses equity issues and enhances the mana of others through facilitating the learning of knowledge of their whakapapa within the context of kai sovereignty. Through encouraging Te Morehu Whenua to explore their whakapapa in terms of descent and in relation to the environment, they become more confident within themselves as they understand the inextricable connections between people and place. This can create long-term succession and the transmission of knowledge by connecting participants to marae and home environments through learning about the customary kai practices of Whanganui tūpuna and how to keep these practices and places alive. Being able to share traditional kai is also a way of enhancing the mana of both the giver and receiver of kai. Equity is further addressed through sharing knowledge of kai with those who have not previously participated in those kai-gathering activities relevant to Whanganui.

Mana rawa

Te Morehu Whenua contribute to both the richness and the enhancement of cultural well-being for whānau, hapū, and iwi. Through learning and maintaining as well as transmitting valuable knowledge of Whanganui kai practices, Te Morehu Whenua are ensuring that traditional knowledge practices of kai are maintained. This will contribute to the health and wealth of the participants and therefore the hapū. Economic development is enhanced through growing knowledge and practices associated with a hapū economy. It recognises the bounty within the hapū, rohe, and uri and progressing kaupapa that aim to improve the quality of life for hapū members. Wānanga associated with Te Morehu Whenua are economically sustainable, and whānau contribute to kai and travel expenses. Other costs are met through hapū and marae relationships with funders.

Mana motuhake

Te Morehu Whenua leverages off new and existing relationships by aligning with experts of areas of traditional kai knowledge who are brought in to share their learning and insight. This creates overlapping and mutually beneficial relationships, which enable both Te Morehu Whenua and the experts who share their knowledge to explore and share aligning experiences. In the future, it is hoped that participants will be able to carry this knowledge forward, activate these learnings within their own whānau, and share this knowledge within the hapū and with other Whanganui hapū.

6.2 Whakatāne: REKA Trust

REKA is an Aotearoa New Zealand Charitable Trust established in 2008. It was created in response to whānau and hapū dying prematurely and suffering ill health from degenerative diseases such as heart disease, cancer, diabetes, and obesity, all of which can be linked to inadequate nutrition.


Research (Moeke-Pickering et al., 2015), explored the key elements that are required in developing strategies for Māori food security and food sovereignty. The research project titled *Engaging communities in strategies aimed at improving food security and food sovereignty with hapū and iwi in the Eastern Bay of Plenty*, was undertaken focussing on food insecurity with Māori communities. It examined food insecurity issues to determine what might support Māori communities to enjoy healthy lifestyles with a key focus on food sovereignty.

Five food sovereignty strategies were implemented:

- i. Reka*Wa*: teaching and working with whānau and hapū on their marae in their communities;
- ii. Reka*Kura*: teaching tamariki and their teachers in their school environment;
- iii. Reka*Whenua*: working with Māori land owners to best use their whenua, awa and moana for whai rawa;
- iv. Reka*Rangahau*: working with researchers and scholars to connect theoretical underpinnings in applied food sovereignty initiatives; and
- v. Reka*Hapori*: working with lower socio-economic communities to develop wellness food sovereignty initiatives

All food sovereignty strategies above are implemented with the underlying premise of being “of the atua”.

In response to the research questions the following was determined:




In what ways do current western systems impact on kai Māori producing assets, such as whenua, wai, and moana?

Land loss and urban drift migration were directly attributed to a sense of disconnection and demise of mātauranga Māori pertaining to traditional and customary kai practices, sources and systems. Intergenerational trauma and colonisation tactics that sought to assimilate or eliminate Māori culture and identity has interrupted knowledge received from some participants; particularly for those who moved away and stayed away from their tūrangawaewae.



How can Māori regain control of kai within the western politics of food?

This research highlighted that kai sovereignty initiatives can intervene in the western politics of food. Five grass-root initiatives connected to tamariki and their kaiako (teachers) in kura, who took knowledge of kai home with them; and teaching adults in their own communities supported them to regain control of the kai sources, kai systems, and kai practices. These teachings reconnected them to their tūpuna and supported the participants to search for more traditional knowledge.



How do Māori maintain control of traditional and customary ways of growing, harvesting, distributing and preparing kai?

Māori must be ever vigilant in respect to laws and policies that may impact kai sources, systems, and practices. They must also be cognisant of climate change and environmental impacts that disrupt their food sources. Socio-economic deprivation hinders Māori from practising their kai activities. This research highlighted that teaching, connecting, and creating communities of learning is paramount to ongoing success and traditional knowledge dissemination.



Mana atua

Research was developed to investigate the impact of colonisation on Māori nutrition, health and well-being. The acronym REKA means sweet, delicious, and delectable. *Rapua E te iwi ngā Kai o ngā Atua* means to search for the sweet, delicious, delectable food of the atua. The five strategies undertaken in this research are premised on the fact that all the atua are acknowledged, and concepts of food sovereignty is expressed through Māori culture and our origin stories.

Reka*Rangahau* was the strategy designed to work with researchers and scholars to ensure a connection with theoretical underpinnings, including atua when applying food sovereignty initiatives. This research engaged with Māori and Indigenous scholars to ensure spiritual elements and applied practices were attained.

Mana tūpuna

Whānau Māori are more likely to be affected by food insecurity than any other group in Aotearoa New Zealand. Research projects dedicated to food security in Aotearoa New Zealand, and more recently focused on food security and Māori (Carter et al., 2010; Hutchings et al., 2012; Stevenson, 2013; Te Hotu Manawa, 2009) suggest there is a rise of food insecurity among Māori families, in many cases because the knowledge from tūpuna has been lost.

In response to these concerns, the research project brought together 40 participants (both men and women, 18 years of age and older) from ahu whenua trusts, Māori health providers and employees, sustainable lifestyle, gardeners, hunter gatherers, and a selection of individuals to understand the dearth of knowledge about food security but, more importantly, to develop food sovereignty strategies to revive cultural knowledge and skills and promote food secure lifestyles.

Reka*Wa* is a food sovereignty strategy that leverages off existing relationships with whānau, hapū, and iwi, including Te Rūnanga o Ngāti Awa, a tribal post-Treaty settlement entity. It is intended to empower whānau, hapū, and iwi, by working inside their communities,

on their land with their descendants. Land, soil, and irrigation vary, depending on where a whānau, hapū or iwi reside, therefore the transference of mātauranga was specific to the locale, based on knowledge from their tūpuna and targeted to ensure maximum quality and yield. Wānanga were held with eight hapū and marae to learn how to grow kai, build raised mārā kai beds using recycled resources, and plant fruit and nut trees for the mostly low-income participants. They were taught how to prepare, cook, and eat the kai from the mārā in healthy tasty meals and were encouraged to keep actively fit in their daily lives, by participating in an array of physical activities that were delivered at REKA wānanga. These wānanga encouraged participants to utilise different systems, including permaculture and organics – both were intended to ensure sustainable environmental practices were utilised. Participants sought to ensure that whichever method was used, access to clean water and unpolluted kai from the sea and the land were paramount.

Mana Māori

The recognition of food security must consider traditional and cultural knowledge and practices (FAO, 2007). Te Kupenga, Aotearoa New Zealand's first survey of Māori well-being, showed that 70% of Māori said it was important for them to be involved with Māori culture (Stats NZ Tatauranga Aotearoa, 2013). The survey outlines four areas of cultural well-being through which individuals connect to te ao Māori, including wairua (spirituality), tikanga, te reo Māori, and whanaungatanga (kinship, familial connections) (Stats NZ, 2013). In addition, with regard to Māori education pedagogy that emphasises the long history of tikanga and mātauranga Māori, one must look to the past for answers to the present (and future) – this is due to the emphasis put on respecting the traditions and tikanga of the past and through the importance of relationships with the ancestors, the recognition of which is a critical factor for Māori educational achievement (Stats NZ, 2013). Ancestors are respected and venerated due to their "role as repositories of the mana (power/prestige) or spiritual status of their tribe or clan" (Lewis & Forman, 1982, p. 46). According to Salmond (1982), the past is of special importance to

Māori as it identifies what is in front rather than behind, given the words and deeds of ancestors to which one should aspire.

Connecting with two local Whakatāne primary kura that had over 200 tauira (students), REKA introduced the rangatahi and tamariki to fresh and seasonal kai that they could grow and harvest, on school grounds. They would then be able to take that mātauranga with them and create their own gardens at home. The kai strategy was called REKA*Kura*, mai te kura māra ki te puku (from the garden to your stomach). A consequence of educating tamariki to realise their inherited responsibilities was promoting te reo me ōna tikanga (language and practices), local tribal histories, mātauranga Māori, aroha (love, compassion), manaaki, tautoko (support), awhi (embrace) and tuakana-teina (big brother-little brother; big sister-little sister) relationships, that is, the intragenerational transference of knowledge.

Mana whenua / Mana moana

Māori have a holistic view of the environment, which is similar to other Indigenous people who also understand health and well-being from a holistic perspective, and believe that all life is interrelated, including the environment and the cosmos (Lee & Armstrong, 1995). The earth and nature are imbued with spirituality and regarded by many Indigenous people with care, appreciation, respect, awe, humility, and reciprocity (Stevens, 1998, p. 21).

Reka*Whenua* encourages a long-term sustainable use. This means working within environmental conditions to improve land productivity and yield, but ensuring environmental practices leave the whenua, awa and moana in a better condition than when the whānau, hapū and iwi received it.

Mana tangata

Research has found that the best way of improving the quality of life in developed countries is through reducing inequalities (Wilkinson & Pickett, 2010). One of the key messages of the *2012 State of Food Insecurity in the World* report by the FAO is that although economic growth can raise incomes and reduce hunger, it does not reach everyone, and policies are needed that specifically target the poor and rural areas to ensure sustainable and equitable economic growth (2012). Unequal societies suffer from a lack of social cohesion, a lack of opportunity, poor health, and poor well-being (Rashbrooke, 2013). Rashbrooke suggests the New Zealand Government take steps to address the growing issue, including ensuring a living wage, redistributing the wealth through taxes and benefits, building shared communities, boosting skills, and tackling the housing market (Rashbrooke, 2013).

The kai sovereignty strategy developed was Reka*Hapori*. Its intention was to empower and enhance the mana of individuals, whānau, hapū, and iwi by ensuring not only that necessities such as quality kai could be prepared as delicious meals but also, and more importantly, that whānau, hapū, and iwi had the power to make their own decisions about when and where they sourced their food and what they ate.

Mana rawa

Matlon (2003) draws the link between the role of small-scale agriculture and the alleviation of hunger and poverty, including in diversifying diets, as a source of nutrition, improving livelihoods, and generating income through increasing local food production. Research supports the potential contribution of Indigenous knowledge to food security and sustainable food production, both internationally (Gorgestani, 2000; Sen, 2005) and within Aotearoa New Zealand (Huambachano, 2015).

The food sovereignty strategy implemented to achieve mana rawa was REKA*Whenua*. The project worked with Māori landowners to form business clusters to grow both traditional kai, including superfoods pūhā (*Sonchus arvensis*; sowthistle), kūmara (*Ipomoea batatas*; sweet potato), kamokamo (*Cucurbita spp*; stubby green vegetable marrow or gourd), sweetcorn, and watermelon, but also to commercially produce berries, mānuka honey and oil, hemp and medicinal cannabis, macadamia nuts, herbs, and microgreens.

Mana motuhake

Food sovereignty is suggested as an alternative to top-down government interventions (such as food handouts) and promotes local food production and community-based models of agroecology. It is a call for peoples' rights to shape and craft food policy and focuses on developing local agricultural and food production using local resources to achieve self-sufficiency (Patel, 2009).

REKA is an example of mana motuhake, or self-development. The power to self-develop is a key strategy. Self-development strategies and models need to be defended at both theoretical (logic) and practical (implementation) levels. Moreover, we need to give more attention to its enactment, its ownership by the people, and therefore its potential to transform the persisting high and disproportionate levels of Māori social, economic and cultural underdevelopment. (Smith et al., 2015).

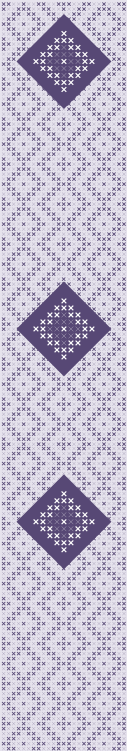
Māori and Indigenous peoples generally value relationships that go beyond economic gains.

6.3 Ōpōtiki: Whakatōhea Mussels Ltd

In 2019, a case study grounded within the region of Whakatōhea, in Ōpōtiki, was undertaken as part of the National Science Challenge: Sustainable Seas, under the Tangaroa theme.

Whakatōhea is a tribe based in the eastern Bay of Plenty, Aotearoa New Zealand. The primary research was about kaitiaki centred business models (Rout et al., 2019); however, a subsequent outcome was learning about how businesses practise mana. Seven entities were part of this study, with a focus on the Māori marine economy, including mussel growth, harvest, and sale. Of the seven businesses, four were completely owned by the iwi. Whakatōhea iwi also owned a 54% shareholding in an open, ocean water space, where the mussels were grown and harvested. The major lessor (80%) of the open, ocean water space is Whakatōhea Mussels (Ōpōtiki) Ltd, which is commercially owned. The research found evidence of an integrated ecosystem-based management model imbued with mātauranga Māori, tikanga, kawa (Māori customs), and other Māori practices. This research revealed kai sources, kai systems, and kai practices, existed and were actively practised.

In response to the research questions, the following was determined:



In what ways do current western systems impact on kai Māori producing assets, such as whenua, wai, and moana?

This research was primarily focussed on the moana; it surmised that for an integrated ecosystem-based management model to be successful, a true partnership must exist between the Crown and Whakatōhea. Legislation and policies have historically impeded Māori to utilise their kai producing assets to their full potential.

How can Māori regain control of kai within the western politics of food?

Māori can gain control in the politics of food by being at the decision-making table as true Te Tiriti o Waitangi (the Treaty of Waitangi) partners. Kai sources, kai systems, and kai practices that are led and managed by iwi-Māori are more likely to rebalance the dynamics of power and control.

How do Māori maintain control of traditional and customary ways of growing, harvesting, distributing and preparing kai?

This research showed that by working in collaboration with non-Māori entities, Whakatōhea could influence others to include their practices and beliefs in their operations and governance decision making. By being at the decision-making table, Whakatōhea had converted non-Māori into valuing mātauranga Māori, tikanga, and kawa.

Mana atua

The research theme was part of the Tangaroa stream of the National Science Challenge; a direct acknowledgement that all research carried out under this domain would recognise the atua, Tangaroa. Whakatōhea Mussels (Ōpōtiki) Ltd grew, harvested, and sold mussels—a delicacy and traditional food source for Māori. While Whakatōhea Māori Trust Board owned 4.73% of the shareholding, the remainder was owned privately by individuals, trusts and other commercial entities. Regardless of the tribal/iwi shareholding, Whakatōhea Mussels (Ōpōtiki) Ltd recognised kawa and tikanga practices associated with te ao Māori and with the iwi of Whakatōhea.

Mana tūpuna

While Whakatōhea Mussels (Ōpōtiki) Ltd is the operational arm of the mussel production, Eastern Sea Farms is the lessor of the open ocean water-space where the mussels were grown and harvested. Whakatōhea iwi owns 54% of the shareholding in Eastern Sea Farms. Whakatōhea Māori Trust Board is responsible to the uri who whakapapa to

their two tūpuna, Tūtāmure (ancestor of Whakatōhea) and Muriwai (ancestor of Whakatōhea). The uri of Whakatōhea have a vested interest that any businesses that lease the open ocean water-space must consider and practise activities that are cognisant with the teachings of Whakatōhea's values. Therefore, Whakatōhea Mussels (Ōpōtiki) Ltd has inherent responsibilities to the uri of Tūtāmure and Muriwai.

Mana Māori

It must be iterated that Whakatōhea Mussels (Ōpōtiki) Ltd is commercially owned, not necessarily Māori owned; however, because of its close links to the iwi of Whakatōhea it has embedded Māori values and practices in its operations. These include karakia at Board meetings, karakia before boats set sail, and karakia to bless any new boats used in its operations. Whakatōhea Mussels (Ōpōtiki) Ltd also donates mussels to marae in the Whakatōhea region during times of tangihanga (funeral). Further, the business employs and trains locals who whakapapa to the iwi – creating economic gains for individuals, whānau, hapū, and iwi.

Mana whenua / Mana moana

This study emphasised ecosystem-based management (EBM) that enabled Māori and others to collaborate in effective marine management and decision-making. Two of the opportunities (Rout et al. 2019) that arose from this research were the enhancement of the eco-system that had resulted in the introduction of additional marine life (oysters, sponges, surf clams, fish stocks and new species) and the development of an iwi coastal strategy that included kawa, tikanga, and traditional/customary practices to sustain a marine ecosystem, above and below the sea. Unfortunately, Whakatōhea had over 143,879 acres of whenua confiscated by the Crown, limiting their access and utilisation to tribal-owned whenua.

Mana tangata

Through the construction of their business structures, Whakatōhea maintain controlling interests over the open ocean water-space. Further, some trustees on the 100% owned tribal entity, Whakatōhea Māori Trust Board, are also directors on the other six entities involved in the study. The mana of the iwi is therefore upheld through the governance and board structures and the ensuing decisions across all seven entities.

Mana rawa

This study highlighted how the entity structures and their connectedness could contribute to economic development for whānau, hapū, iwi, and hapori. The impetus for owning and developing a mussel farm was to create whai rawa. By investing in open ocean development the intention was that the economy would grow the town of Ōpōtiki and it would thrive once more. A thriving town means more businesses would open, school rolls would increase, and more homes would be built to cater for the influx of employment opportunities – all the while benefitting the locals, inclusive of those who are of Whakatōhea descent.

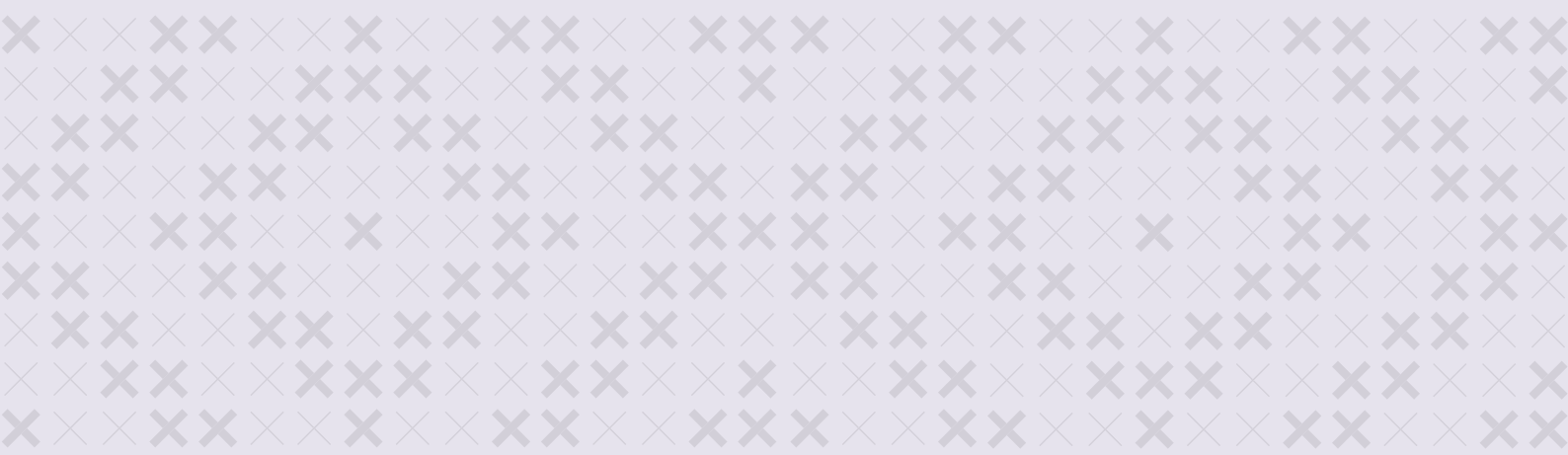
Mana motuhake

The investment by the iwi of Whakatōhea in the open ocean water space and in the operations themselves is not simply an action of economic development but also of self-development. The research highlighted both new relationships with Whakatōhea Mussels (Ōpōtiki) Ltd, Whakatōhea Aquaculture (Ōpōtiki) Ltd, Eastern Sea Farms Ltd, Sanford, Gulf Mussels, and Hauraki and the strengthening of existing relationships. Working collectively for common goals that would produce win-win situations for all involved supports mana motuhake by Whakatōhea.

7. Conclusion

In conclusion, this research shows that western systems have detrimentally impacted Māori kai sources, kai systems, and kai practices and that protecting, maintaining, and regaining control by Māori of their traditions and customs is a long and arduous process.

The transference of Māori and Indigenous traditions and customs is occurring every-day in many ways between Māori-Māori, Māori-Indigenous, kaumātua/pahake-rangatahi/tamariki and rangatahi/tamariki-rangatahi/tamariki. The transforming framework of culturally matched outcomes (Mana Kai Framework) assessed case studies against various expressions of mana that incorporated āhuetanga Māori according to tikanga Māori and mātauranga Māori. This highlights that kai sovereignty initiatives are making a positive impact in society. The study reinforces the view that the Crown and government agencies must work collegially and in partnership with Māori, in accordance with Te Tiriti o Waitangi, to effect and enact long-term sustainable and equitable change.







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9. Kuputaka: Glossary

ahu whenua	common land trust
āhuatanga Māori	Māori attributes
aroha	love, compassion, sympathy, empathy, caring
arapaki / tukutuku	ornamental lattice-work - used particularly between carvings around the walls of meeting houses.
awa	river
awhi	embrace
hāngī	food cooked under-ground (pits) or in steamer/oven (above ground)
hapori	community
hapū	cluster of extended families, descended from an eponymous ancestor
Haumie-tiketike	an atua of uncultivated foods and wild vegetables, uri of Ranginui and Papatūānuku
He mōmou kai, he mōmou tāngata	Tuhoe 'mōmou kai, mōmou taonga, mōmou tangata ki te Po', which emphasised Tuhoe's fame for generosity with food and 'things of value', as well as for their fighting prowess (Waitangi Tribunal, 2017)
he rongoā ngā kai	food is medicine
hīnaki	eel trap
hopu tuna	catching eels
hui	meetings
iwi	tribe; nation
kai	socio-cultural defined Māori notion interlinked with food
kaiako	teachers
kaitiakitanga	guardianship, stewardship
kākahi	freshwater mussels
kamokamo	<i>Cucurbita spp</i> ; stubby green vegetable marrow or gourd
karakia	prayer
karanga	ceremonial calling
kaumātua	elderly
Kaupapa Māori	Māori methodologies
kawa	Māori customs
kāwanatanga	governance
kina	<i>Evechinus chloroticus</i> ; sea urchin endemic to Aotearoa New Zealand
koha	gifting, an offering
kōura	crayfish
kūmara	<i>Ipomoea batatas</i> ; sweet potato
kura	school

māra kai	kai garden
mahinga kai	garden, food-gathering place
mana	power, status, prestige, and the potential to provide or remove benefits
mana atua	sacred ritual and principles associated with various gods
Mana Kai (framework)	framework whereby kai sovereignty initiatives can be tested against various expressions of mana defined in this report
mana Māori	rights and authority associated with being Māori
mana moana	power associated with the ability of the ocean to produce bounties of sea-life
mana motuhake	enactment of Māori sovereignty and authority through self-determination
mana rawa	holistic understandings of wealth and prosperity
mana tangata	mana held according to one's personal abilities
mana tūpuna	power derived or bestowed through lineage
mana whenua	power associated with the ability of the land to produce bounties of nature
manaaki	being generous in caring and treatment of others
manaakitanga	to care for and feed visitors
manuhiri	visitors
marae	traditional place of gathering
maramataka Māori	Māori calendar; lunar cycle dictating fishing, horticultural and agricultural activities
Maru	an atua of fishing in the Whanganui River and related waterways, uri of Ranginui and Papatūānuku
mātauranga Māori	Māori knowledge
mate urutā	pandemic
mauri ora	human flourishing
mihimihi	to greet, pay tribute to
moana	ocean
Muriwai	ancestor of Te Whakatōhea
ngā kete o te mātauranga	baskets of knowledge
Ngā Pae o Te Māramatanga	Aotearoa New Zealand's Māori Centre of Research Excellence
Ngā Rauru Kītahi	tribe within the South Taranaki area
Ngā Wairiki Ngāti Apa	tribe within the Rangitīkei district
ngahere	bush; forest
Ngāi Tahu	tribe within the South Island
Ngāi Te Rangi	tribe within the Tauranga area
Tūhoe / Ngai Tūhoe	tribe within the Bay of Plenty area

Ngāti Awa	tribe within the eastern Bay of Plenty area
Ngāti Hīne	tribe within the Northland area
Ngāti Kahungunu	tribe within the Hawkes Bay area
Ngāti Kahungunu ki Te Wairoa	tribe within the northern Hawkes Bay area
Ngāti Maru	tribe within the Taranaki area
Ngāti Porou	tribe within the East Coast area of the North Island
Ngāti Pūkeko	tribe within the eastern Bay of Plenty area
Ngāti Rangī	tribe within the Ruapehu district
Ngāti Ranginui	tribe within the Tauranga area
Ngāti Ruanui	tribe within the south Taranaki area
Ngāti Tūwharetoa ki Kawerau	tribe within the eastern Bay of Plenty area
noa	without restriction, without conditions
Ōpōtiki	small town in the eastern Bay of Plenty area
pā tuna	eel weir
pahake	elders versed in tikanga Māori
Papatūānuku	Earth mother; wife of Ranginui; from which all living things originate
pātai	question
pātaka kai	raised house for kai
pātiki	flounder
pāua	<i>Haliotis iris</i> ; large edible sea snail
pāwhara/pāwhera	de-bone and open
Pouhere Taonga	Heritage New Zealand
pōwhiri	formal welcome
pūhā	<i>Sonchus arvensis</i> ; sowthistle
rama tuna	to catch eels by torchlight
rangatahi	young adults
rangatira	elder, person held in high esteem
Ranginui	Sky father; husband of Papatūānuku; from which all living things originate
Rangitāne	tribe within the Manawatū, southern Hawkes Bay, Wairarapa and Wairau districts
rapua	search
rapua e te iwi ngā kai o ngā atua	search for the sweet, delicious, delectable food of the atua

rawa	goods or property; wealth and prosperity
retireti	traditional device used to lure and catch fish
rewana	yeast bread
Rongo	an atua of cultivated foods, uri of Ranginui and Papatūānuku
rongoā	medicine
Rongowhakaata	tribe within the Gisborne area
Takahiwai	place and marae, near Whangārei
tamariki	children
Tāne	an atua of the forests, uri of Ranginui and Papatūānuku
Tangaroa	an atua of the ocean and fish, uri of Ranginui and Papatūānuku
tangata whenua	people of the land
tango paru	deslime
tapu	sacred
tauira	student
tautoko	support
Te Aitanga-a-Mahaki	tribe within the Gisborne area
Te Aitanga-a-Hauiti	tribe within the Tairāwhiti area
Te Arawa	confederation of tribes in the Rotorua-Maketu area
Te Atawhai o Te Ao	independent Māori research institute for environment and health
Te Āti Haunui-a-Pāpārangī	tribe within the Whanganui area
Te Kupenga	Aotearoa New Zealand's first survey of Māori well-being
Te Puna Ora o Mataatua	health, medical, social and employment provider based in Whakatāne established by Te Whānau Poutirirangiora a Papa, collective of kaumātua representing iwi of Mataatua
Te Rapuwai	tribe within the South Island
te reo Māori	Māori language
Te Rūnanga o Ngāti Awa	Crown recognised entity responsible for representing the collective interests of Ngāti Awa, which includes managing their collective taonga and resources
te tai ao	the natural environment
Te Tiriti o Waitangi	The Treaty of Waitangi
Te Toi Apārangi	Royal Society of New Zealand
Te Tumu	School of Māori, Pacific & Indigenous studies, University of Otago
Te Whakatōhea	tribe within the eastern Bay of Plenty area
Te Whānau-a-Apanui	tribe within the eastern Bay of Plenty area

Te Whare Wānanga o Awanuiārangi	place of higher learning based in Whakatāne, established to help the learning needs of Māori communities that were not found in conventional tertiary institutions of Aotearoa New Zealand
teina	younger brother/s (of a male), younger sister/s (of a female)
tiakitanga	the ability to guard and protect ancestral treasures, whānau and future generations
tikanga	customary or correct way of doing something
tikanga Māori	Māori practices
tikanga rangahau	ethics process
tino rangatiratanga	sovereignty
tohatoha	spread, scatter
tari tuna	bobbing method for catching eel
tuakana	older brother/s (of a male), older sister/s (of a female)
tuakana-teina	big brother-little brother; big sister-little sister
Tūhoe / Ngai Tūhoe	tribe within the Bay of Plenty area
Tūhoetanga	expression of being an uri of Tūhoe
Tūhourangi	tribe within the Rotorua district
tuku kai	sharing of kai
tukutuku / arapaki	ornamental lattice-work - used particularly between carvings around the walls of meeting houses.
tuna	eel
tunu	cook
tūpuna	ancestor
tūrangawaewae	sense of identity connected to a traditional home base
Tūtāmure	ancestor of Te Whakatōhea
Tūwharetoa	tribe within the central North island
utu piharau	lamprey (<i>Geotria australis</i>) weirs
wai	water
waiata	songs; singing
wairua	spirituality
Waitaha	tribe of the South Island
wānanga	traditional form of learning
whai rawa	Māori economies
whaikōrero	formal speech
whakahaumanu	justice
whakahaumarū	security

whakapapa	genealogy
whakaruruhau	senior advisor
whānau	families
whanaungatanga	familial connections and relationships between and across whānau
Whangārei	city in the Northland region
whenua	land

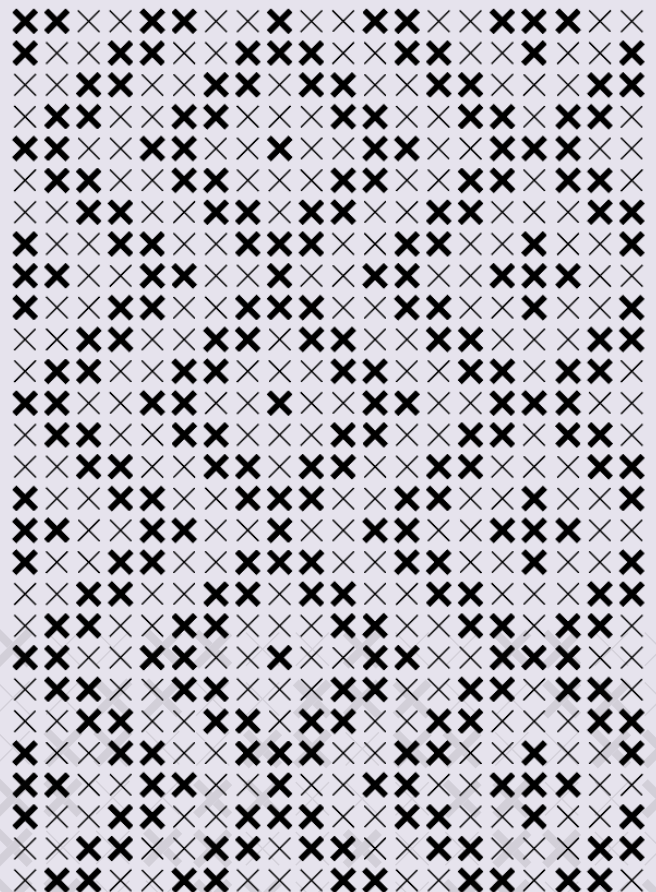
10. Ngā āhuatanga toi: Conceptual design

E kī ana te kōrero, ko ngā mate i Kōhi me tangi mai i Kawerau, ko ngā mate o Kawerau me tangi atu i Kōhi. Kei te tangi te ngākau ki a rātou mā kua hinga atu, ā, e takoto mai rā i runga i ngā marae maha o te motu. Ko Simone Magner tērā, e moe mai rā i te mātotorutanga o te tangata. Kāti. Hoki mai rā ki a tātou te hunga ora, tēnā koutou, tēnā tātou.

This research report shows that colonialism has had a detrimental impact on our kai sources, kai systems and kai practices. In the process of taking our practices back, the landscape and waterscape images (captured by Simone Magner) of the Ōhiwa harbour honour this kaupapa, as Ōhiwa has been recognised for centuries as a place with an abundance of natural resources, including sustainable food sources. This is further enhanced or reinforced when we consider the practices of the artist that captured these images. Simone Magner's passion to find the right image, in the right light and at the right angle requires discipline; this discipline included rising before the sun so that images, like the one on the front cover, could be enjoyed. These photos of Ōhiwa were originally captured for He mangōpare amohia: Strategies for Māori economic development (2015), and we wish to acknowledge the primary author of that report, Distinguished Professor Graham Hingangaroa Smith, for agreeing to the reproduction of these photographs, as a way of honouring the memory and work of the late Simone Magner.

In considering our current environment against various social, political, ecological, and economic factors, as well as climate change, we are in a highly volatile situation. The environment's natural response to climate change includes never before seen weather patterns that are causing devastation in those places, but also have wider, far reaching consequences. The pātiki pattern has been selected as the UV overlay and symbol used throughout this publication. It is a representation of the flounder and is a specific pattern used for tukutuku/arapaki panels that adorn the walls of meeting houses. The pātiki was chosen because it represents abundance, growth and prosperity. Further to this, the pattern represents the diamond shape of the pātiki. In the context of this report, the point in the middle of the pātiki represents the choices we make;

those choices ripple out and impact others, and likewise, their choices ripple and impact us. We are reliant on multiple strategies to achieve better outcomes for all, thus reinforcing the findings of this report. The pātiki pattern also represents the transference of knowledge, which is critical to the restoration and maintenance of kai sources, systems and practices. The process of this transference is also a source of healing from intergenerational trauma, and like the lines in the pātiki pattern, it will ripple out and impact positively on future generations. Finally, the pātiki pattern, with each individual stitch, is an acknowledgement of and represents those knowledge holders, whānau, hapū, iwi, hapori, organisations etc., that have and that will, contribute positively to this new future.



Detail of tukutuku (pātiki) design.

11. Appendices

11.1 Acquisition and dissemination of knowledge: Hui

1. Wiremu, F., & Tinirau, R. (2021). Face-to-face hui, Te Atawhai o Te Ao, Whanganui, June 17-14, 2021. *Finalise report*.
2. Wiremu, F., & Tinirau, R. (2020). Face-to-face hui, Te Atawhai o Te Ao, Whanganui, May 20, 2020. *Progress report*.
3. Wiremu, F., & Tinirau, R. (2020). Digital/online hui, March 31, 2020. *Progress report*.
4. Wiremu, F., Awatere, S., & Spiller, C. (2020). Digital/online hui, with Ngā Pae o te Māramatanga, March 31, 2020. *Progress report and site visit*.
5. Wiremu, F., & Awatere, S., & Others (2020). Digital/online hui, with Ngā Pae o te Māramatanga, March 31, 2020. *Whai Rawa Theme research hui*.
6. Wiremu, F., Tinirau, R., Gillies, A., Heitia, M., & Coates, J. (2020). Digital/online hui, March 16, 2020. *Progress report*.
7. Wiremu, F., Tinirau, R., & Heitia, M. (2020). Digital/online hui, March 05, 2020. *Progress report*.
8. Wiremu, F., Tinirau, R., Gillies, A., Heitia, M., & Smith, C. (2020). Digital/online hui, January 16, 2020. *Progress report*.
9. Wiremu, F., Tinirau, R., Gillies, A., & Heitia, M. (2019). Digital/online hui, November 22, 2019. *Progress report*.
10. Wiremu, F., Tinirau, R., Gillies, A., Heitia, M., & Coates, J. (2019). Digital/online hui, September 25, 2019. *Progress report*.
11. Wiremu, F., Awatere, S., & Others (2019). Digital/online hui, with Ngā Pae o te Māramatanga, September 25, 2019. *Whai Rawa Theme research hui*.
12. Wiremu, F., Tinirau, R., Gillies, A., Heitia, M., & Coates, J. (2019). Digital/online hui, September 05, 2019. *Progress report*.
13. Wiremu, F., & Gillies, A. (2019). Face-to-face hui, Hastings, August 28, 2019. *Progress report*.
14. Wiremu, F., Awatere, S., Henare, M. & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, July 30, 2019. *Whai Rawa Theme research hui*.
15. Wiremu, F., Awatere, S., Henare, M. & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, July 24, 2019. *Whai Rawa Theme research hui*.
16. Wiremu, F., Rewi, P., Sharples, P., Patrick, D., & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, June 20, 2019. *2019 NPM Seed and Scope funding round (Te Reo me ngā Tikanga)*.
17. Wiremu, F., & Gillies, A. (2019). Digital/online hui, June 19, 2019. *Progress report*.
18. Wiremu, F., & Collier, R. (2019). Face-to-face hui, Te Whare Wānanga o Awanuiārangi, Whakatāne, June 18, 2019. *Kōrero regarding archival kai documentary series*.
19. Wiremu, F., & Wana, S. (2019). Face-to-face hui, Te Whare Wānanga o Awanuiārangi, Whakatāne, June 13, 2019. *PhD student and seeding proposal*.
20. Wiremu, F., & Patrick, D. (2019). Face-to-face hui, at Waipapa Marae, Auckland, June 10, 2019. *Media Workshop*.
21. Wiremu, F., Tinirau, R., Gillies, A., Heitia, M., Coates, J., & Smith, C. (2019). Digital/online hui, June 04, 2019. *Progress report*.
22. Wiremu, F., & Wana, S. (2019). Face-to-face hui, at Te Whare Wānanga o Awanuiārangi, Whakatāne, May 28, 2019. *PhD student and seeding proposal*.

23. Wiremu, F., & Smith, G. (2019). Face-to-face hui, at Te Whare Wānanga o Awanuiārangī, Whakatāne, May 27, 2019. *Progress report*.
24. Wiremu, F., Tinirau, R., Gillies, A., Henare, M., & Awatere, S. (2019). Face-to-face hui, at Te Whare Wānanga o Awanuiārangī, Whakatāne, May 23, 2019. *Site visit from Ngā Pae o te Māramatanga*.
25. Wiremu, F., Awatere, S., Henare, M. & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, May 22, 2019. *Whai Rawa Theme research hui*.
26. Wiremu, F., & Jean, G. (2019). Face-to-face hui, at Te Whare Wānanga o Awanuiārangī, Whakatāne, May 19, 2019. Master's student completing her degree in Food Sovereignty at the University of Auckland on the Iwi of Whakatohea.
27. Wiremu, F., Smith, G., & Smith, L. (2019). Face-to-face hui, at Anchorage, Alaska, May 07, 2019. *Indigenous Leadership Retreat - Alaska Native Heritage Center in Anchorage*.
28. Wiremu, F., Tinirau, R. Cote', C., & Balbas, S. (2019). Face-to-face hui, at Anchorage, Alaska, May 04-03, 2019. *Living Breath of wā̄tāb?altxw 2019 Foods Symposium at university of Washington, Seattle*.
29. Wiremu, F., Awatere, S., Henare, M. & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, April 18, 2019. *Whai Rawa Theme research hui*.
30. Wiremu, F., Rewi, P., Sharples, P., Patrick, D., & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, April 17, 2019. *2019 NPM Seed and Scope funding round (Te Reo me ngā Tikanga)*.
31. Wiremu, F., Awatere, S., Henare, M. & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, April 17, 2019. *Whai Rawa Theme research hui*.
32. Wiremu, F., Awatere, S., Henare, M. & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, April 16, 2019. *Whai Rawa Theme research hui*.
33. Wiremu, F., Rewi, P., Sharples, P., Patrick, D., & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, April 12, 2019. *2019 NPM Seed and Scope funding round (Te Reo me ngā Tikanga)*.
34. Wiremu, F., & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, April 10, 2019. *2019 NPM Seed and Scope funding round (Mauri Ora: Human Flourishing)*.
35. Wiremu, F., & Tinirau., R. (2019). Face-to-face hui, at Rotorua, April 09, 2019. *Discuss Keynote presentation to be held in Washington, Seattle*.
36. Wiremu, F., Moewaka-Barnes, H., Mercier, O., & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, April 03, 2019. *2019 NPM Seed and Scope funding round (Te Tai Ao)*.
37. Wiremu, F., & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, April 03, 2019. *2019 NPM Seed and Scope funding round (Mauri Ora: Human Flourishing)*.
38. Wiremu, F., Tinirau, R., Gillies, A., Heitia, M., Coates, J., & Smith, C. (2019). Digital/online hui, April 03, 2019. *Progress report*.
39. Wiremu, F., & Tinirau, R. (2019). Digital/online hui, April 02, 2019. *Discuss IUHPE 23rd World Conference in Health Promotion in Rotorua*
40. Wiremu, F., Reid, P., Rua, M., & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, March 27, 2019. *2019 NPM Seed and Scope funding round (Mauri Ora: Human Flourishing)*.
41. Wiremu, F., & Gillies, A. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, March 27, 2019. *Whai Rawa Theme research hui*.

42. Wiremu, F., & Tinirau, R. (2019). Digital/online hui, March 20, 2019. *Progress report*.
43. Wiremu, F., Sayer, J., & Swan, E. (2019). Digital/online hui, March 18, 2019. *Editors of a special issue of Gender, Work and Organisations*.
44. Wiremu, F., & Smith, G. (2019). Digital/online hui, March 14, 2019. *Progress report*.
45. Wiremu, F., Rewi, P., Nikora, L., & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, March 07, 2019. *2019 NPM Seed and Scope funding round (Te Reo me ngā Tikanga)*.
46. Wiremu, F., Gillies, A., & Heitia, M. (2019). Digital/online hui, March 06, 2019. *Progress report*.
47. Wiremu, F., Gillies, A., & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, February 28, 2019. *NPM Internship hui*.
48. Wiremu, F., & Taipeti, N. (2019). Digital/online hui, February 22, 2019. *Kōrero about te reo Māori 'kai' booklet*.
49. Wiremu, F., & Sullivan, C. (2019). Digital/online hui, February 21, 2019. *Finalise NPM intern-report*.
50. Wiremu, F., Gillies, A., & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, February 10, 2019. *NPM Internship hui*.
51. Wiremu, F., & Smith, G. (2019). Digital/online hui, February 07, 2019. *Progress report*.
52. Wiremu, F., & Smith, G. (2019). Digital/online hui, February 01, 2019. *Progress report*.
53. Wiremu, F., & Sullivan, C. (2019). Digital/online hui, January 30, 2019. *NPM intern-report*.
54. Wiremu, F., & Sullivan, C. (2019). Digital/online hui, January 28, 2019. *NPM intern-report*.
55. Wiremu, F., Awatere, S., & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, January 23, 2019. *Whai Rawa Theme research hui*.
56. Wiremu, F., Gillies, A., Sullivan, C., Nikora, L., Patrick, D., & Others. (2019). Digital/online hui, with Ngā Pae o te Māramatanga, January 21, 2019. *NPM Internship hui*.
57. Wiremu, F., Gillies, A., & Coates, J. (2019). Face-to-face hui, at Te Whare Wānanga o Awanuiārangi, January 14, 2019. *Research assistant tasks*.
58. Wiremu, F., & Sullivan, C. (2018). Digital/online hui, December 24, 2018. *NPM intern-report*.
59. Wiremu, F., & Sullivan, C. (2018). Digital/online hui, December 18, 2018. *NPM intern-report*.
60. Wiremu, F., & Sullivan, C. (2018). Digital/online hui, December 14, 2018. *NPM intern-report*.
61. Patrick, D., Smith, L.T., Smith, G. H., Wiremu, F., Heitia, M., Mercier, O., Letica, S., Huot, F., Traverse, M., Gray, B., & Patzer, R. (2018). Face-to-face hui, at Ngā Pae o te Māramatanga, Auckland, December 07, 2018. *Canadian Delegation*.
62. Wiremu, F., Gillies, A., Sullivan, C., Smith, G., Nikora, L., Patrick, D., & Others. (2018). Digital/online hui, with Ngā Pae o te Māramatanga, December 06, 2018. *NPM Internship hui*.
63. Wiremu, F., & Taipeti, N. (2018). Face-to-face hui, at Te Whare Wānanga o Awanuiārangi, Whakatāne, December 05, 2018. *Kōrero about te reo Māori 'kai' booklet*.
64. Wiremu, F., & Sullivan, C. (2018). Digital/online hui, December 04, 2018. *NPM intern-report*.
65. Wiremu, F., & Taipeti, N. (2018). Face-to-face hui, at Te Whare Wānanga o Awanuiārangi, Whakatāne, December 03, 2018. *Kōrero about te reo Māori 'kai' booklet*.
66. Wiremu, F., Smith, G., Gillies, A., Heitia, M., Coates, J., & Sullivan, C. (2018). Face-to-face hui, at Te Whare Wānanga o Awanuiārangi, Whakatāne, November 30, 2018. *Progress report*.

67. Wiremu, F., & Taipeti, N. (2018). Face-to-face hui, at Te Whare Wānanga o Awanuiārangi, Whakatāne, November 30, 2018. *Kōrero about te reo Māori 'kai' booklet.*
68. Wiremu, F., Smith, G., Gillies, A., Awatere, S., & Others. (2018). Digital/online hui, with Ngā Pae o te Māramatanga, November 28, 2018. *Whai Rawa Theme research hui.*
69. Wiremu, F., Smith, G., Gillies, A., Heitia, M., & Sullivan, C. (2018). Digital/online hui, November 27, 2018. *Progress report.*
70. Wiremu, F., & Sullivan, C. (2018). Face-to-face hui, at Te Whare Wānanga o Awanuiārangi, Whakatāne, November 19, 2018. *NPM intern-report.*
71. Wiremu, F., Tinirau, R., Smith, G., Gillies, A., Smith, C., & Heitia, M. (2018). Face-to-face hui, at Avani Metropolis, Auckland, November 16, 2018. *Progress report.*
72. Wiremu, F., & Mead, H., M. (2018). Digital/online hui, November 15, 2018. *Mātauranga Māori dissemination from Tā Hirini Moko Mead.*
73. Wiremu, F., Tinirau, R., Smith, G., Gillies, A., Smith, C., & Heitia, M. (2018). Face-to-face hui, at Avani Metropolis, Auckland, November 15-12, 2018. *Progress report.*
74. Wiremu, F., & Sullivan, C. (2018). Digital/online hui, November 09, 2018. *NPM intern-report.*
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11.2 Ngā kaumātua e wetewete i ngā whanonga rangahau

Te kāwanatanga o te kai, te rangatiratanga o te kai, te whakaputanga o te kai:

He mōumou kai, he mōumou tāngata

Te whakamana i ngā whakaputanga a ahurea

Ngā kaumātua e wetewete i ngā whanonga rangahau

Te rangi me te wāhi

24 Hanuere 2019, Te Whare Wānanga o Awanuiārangī

Te hunga i tae tinana mai

Molly Turnbull, Fiona Wiremu, Rāwiri Tinirau, Courtney Sullivan, Julia Coates, Maanu Paul, Ngamihi Norma Crapp, Annemarie Gillies, Graham Smith, Mate Heitia

Te whakamārama i te rangahau

I horahia te whakamāramatanga ki mua i te aroaro o ngā tāngata i tae tinana mai. Ko te rangahau nei e kimi ana i ngā rerekētanga i waenganui i te kai ki tā te Māori, me te kai ki tā te ao auraki. Ko tā te whakataukī “He mōumou kai, he mōumou tāngata” e mea nei, e tāmia ana te orangatonutanga me te ānamata o te hauora Māori (Mauri Ora), nā runga i ngā taupā ki te kohikohi kai, ngā mahinga kai, te kawa o te kai, me ngā whakahaerenga o te taiao kai. Ki te kore he wai, ki te kore he kai, ka ngaro te tangata.

He nui ake ngā whaipānga o te kai, ki tā te Māori. He hononga torowhānui te kai ki te wairuatanga, te tuakiritanga, te whakapapa, te reo, me te ahurea Māori. Ko te taha ki ngā mātauranga e ai ki te kai, ko te whakatō, te whakatipu, te kohikohi, te hī ika, te aruaru, me te whakarite i te kai he tuāpapa matua mo te taha whakahoahoa, te ahurea, te hauora me te orangatonutanga o te whānau me ngā hapori.

E aronuitia ana mātou ki te tūranga o te kai mo te karo i te tāmītanga, me te tauarotanga a pāpori, a pūtea, a ahurei hoki.

Te aronga matua o te hui: Ngā whanonga rangahau

I tēnei rangi tonu, e wetewete ana mātou i ngā whanonga rangahau a te hunga rangahau Kaupapa Māori, kaupapa hapori. Ko ngā whanonga e kōrerohia nei, ko te tomonga, ko te kohikohi, ko te whakaute me te whakamahi i ngā mātauranga Māori.

He aha te whanonga rangahau?

Mā ngā tikanga ā mātou whanonga rangahau e whakaritea, i runga i te mōhio kei te pērā tonu te ao e nohonoho nei tātou. E noho tangata whenua ana te tikanga i roto i a mātou, nā reira, ka māmā tā mātou mahi rangahau ā tikanga nei. Nā runga i ngā rerekētanga ā tikanga nei ki ia whānau, hapū, iwi hoki, me mātua mōhio mātou ki ngā tikanga rangahau e hāneanea ai te noho o te rautaki. Ki tā te Māori, he wā tōna, he wāhi hoki tōna mō ngā mea katoa. He mātauranga ēnei i ahu mai i ngā mahi kai. He rerekē te maramataka ki ia takiwā, ki ia tangata, ā, he tika hoki. Me pēnei hoki te aro atu ki ngā mahi rangahau. Nā Cherryl Smith rāua ko Paul Reynolds te pukapuka *Auē: Genes and genetics*, e ai ki ngā whakaaro Māori ki te panoni ira. Tērā pea ka noho hei pānuitanga mā tātou, e hono ai ki ā tātou whanonga rangahau.

Te aroā

Ko te mana e ai ki ngā kaupapa rangahau, ka noho ki ngā whānau, hapū, iwi hoki nā rātou te aronga o ngā rangahau. Ehara ia Ngāi Rangahau tērā mana. Nā runga i tērā, me tūpato te hunga rangahau, me āta wetewete kōrero mo ngā taipitopitonga e rangahautia ana hei whakaputanga. Me pono ngā mahi, me tūturu te hononga ki te hapori, me aro hoki ki ngā whakaaro, ngā nawe hoki. Me āta tiaki te kairangahau i ngā tohatohanga kōrerō, me āta whakarongo ki te hunga tohatoha.

Te arotau a te kairangahau

Me ō rawa te kuhunga o te kairangahau ki te kaupapa rangahau, ki te hapori rangahau hoki. Hei tauira, he hiahia nō te hunga kaumātua ki te hui tahi, ki te āta wetewete kaupapa kōrero. I ētehi atu wā, tērā pea me noho tahi te kaumātua ki te mokopuna, whakaako ai. Mā tēnei āhuatanga ka puāwai te tuku ihotanga o ngā kōrero, ngā matauranga hoki, e āhei ai te noho hei

kōrero mō te whānau, hapū, iwi hoki. He hiahia nō te hunga nei kia kua ngā kairangahau tauwiwi ngā mahi rangahau e tutuki, rānei, mā te whānau, hapū, iwi hoki tō rātou ake kaupapa e kawē.

Te hua o te rangahau

Me whai hua te rangahau mō te hapori nā rātou ngā kaupapa rangahau e nōhia. Me whai hua hoki ngā mahi rangahau mō te ānamata o te iwi. Me whakaako tamariki ki ngā mahi kai, mā te pouaka whakaata, ngā pukapuka ipurangi, ngā rautaki mātauranga ki ngā kōhanga reo, te kura me te kāinga, e whai hua ai tēnei kaupapa rangahau. E oke tonu nei ētehi o ēnei kaupapa i tēnei wā tonu.

Whakaaetanga

E whakaaronuitia ana me pēhea rawa a Ngāi Tākohā te whakaae atu ki tēnei mahi rangahau, ā tuhituhi, ā waha rānei. Me mātua mōhio a Ngāi Tākohā ki tēnei mea te whakaae, anō hoki, he aha ngā kaupapa e whakaaetia ana.

Pātai rangahau

Anei ētehi paku pātai rangahau

- He aha ngā karakia mō te whakatipu, te kohikohi me te hauhake i ngā kai? Ētehi e reo tupu ana, e īnoi ana mō te whitinga o te rā, mō te hekenga o te ua, mō te pai o te hauhake rānei.
- Ko wai mā rātou e whakatipu, e kohikohi, e hauhake ana i ngā kai? He rōpū mō ia wāhanga o ngā mahinga kai.
- Inahea te whakatipu, te kohikohi, me te hauhake i ngā kai? He aha ai? Mā te maramataka e mārama ai te whānau, hapū, iwi hoki hei āwhea ēnei mahi, he aha ai hoki.

Hononga ki kaupapa kē atu

He whakaarotanga ēnei mō ngā mahi rangahau a haere ake nei:

Kia maumahara ki ngā kai: E hoki mahara ana te hui ki ngā kai o tā rātou tamarikitanga, me ngā kai e kaingia tonutia i ēnei rā. E hoki mahara ana ētehi ki te tawara o

te parāoa tawa me te hināu, te kōtore rīwai, tāwiniwini me te māikaika. Anō hoki ko te parāoa pāhūhū (ka tunua ki runga i te ahi, papatahi tōna hanga, he rerekē ki te parāoa korōua, he nui, he tāroaroa te hanga). Arā hoki ngā tūpuna, ko rātou mā ngā tino tauira mō te mahi kai; ko ō rātou ingoa e hāngai ana ki ngā mahi kai, pērā i a Toi Kairākau.

Te whakarauora tikanga: He nui ngā tikanga e whai pānga ana ki te kai. Me mātua whakaarohia te whakarauoratanga ō aua tikanga. Hei tauira, he mea whakatupu te māikaika pā tata ana ki te urupā, ā, ka tukuna he karakia whakanoa i mua rawa i te kohikohi. E āhei ana te tangata te kohikohi kai ki ia wāhi, i runga i te tikanga pēnei i te ahi kā. Ko te whakamāramatanga o te ahi kā, ko te oko e pupuri nei i ngā rākau/taputapu rānei e whai wāhi ai te ahi kia muramura (ia te tau). E ai ki te ao Māori, e whakapono ana ētehi whānau, hapū, iwi hoki ki ngā rautaki whakarekareka i te kākano. Ka tohaina ngā kai katoa, ka ringa rau te hauhake me te kohikohi kai. Ka tiakina ngā kākano mō tētehi wāhanga, e whai wāhi ai te orangatonutanga o ngā tupu. Me whai wāhi ēnei momo kōrero ki ngā mahi rangahau, me whai wāhi hoki ngā kaumātua te huihui, te wetewete i ēnei tūmomo mahi.

Panoni tikanga: Kua panoni ētehi tikanga kai, i runga i te taenga mai o tauwiwi, o ngā rerekētanga ā taiao, ā ture, ā aha rānei. Hei tauira, ka hūnuku te iwi Navajo ki ngā whenua Hopi, ā, ka panoni i ngā rautaki rerekē mō ngā kai rerekē. Tērā pea he oranga ki roto i ngā mātauranga Lakota, Novajo hoki, hei whakaarotanga mā tātou. Tērā tētehi pukapuka *Heke tangata: Māori in markets and cities* nā Brian Easton e kōrero ana mō te hūnuku a Ngāi Māori ki ngā tāone nui, me ngā take pūtea mai i te tau 1945. Kāore e kore he whai pānga ēnei panonitanga ki te hauora, ki te tikanga hoki.

Whakatau i ngā kai "pai": Kei te tipu matomato te hiakai ki ngā kai pai mō te tinana, ki ngā taputapu me ngā rongoā o te taiao. He momo rongoā te kai, ā, me āta kimihia ērā rongoā. E whakapono ana te hunga huihui kāore rawa rātou i kaha pāngia ki te māuiui i ā rātou e tamariki ana, tērā pea nā ngā kai rātou i pēnei ai. I ēnei rā e kaupēhi ana ngā mātauranga mō ngā kai pai, i runga i te māmā o te hoko kai, te iti o te wā kia

tātou, me te kuare ki ngā mātauranga kai. He nui te wai o roto i te kamokamo. He nui hoki ngā Omega 3 me to 6 ō roto i te tītī (kuia), te kānae, te moki me te poaka kunekune, hei awahina atu i te hunga mate hukahuka.

Ngā kupu me ngā hua mō te kai: Ko te ‘parakore’ te ingoa e karangahia nei i ngā kai māori ki Te Tai Tokerau, nā Percy Tipene o Ngāti Hine i tapa. Ki konei, ko te ‘hua Māori’ kē. He mea ahu mai te ‘kai māori’ ō Ngāi Pakeha i ngā rautaki nō Amerika. Ko Tahuri Whenua Incorporated Society (Te Papaiōea) tētehi kohikohinga Māori e whakatupu ana i ngā hua whenua.

Whakatupu i ngā rākau taketake: I toko ake te pātai mēnā rānei e āhei ana te whakamahia i te Provincial Growth Fund hei whakatupu i ngā rākau taketake, te whakarauora taiao repo, te whakatupu raupō hei whakapaipai i ngā ara wai māori. Me āta tirohia ngā rautaki a te Kāwanatanga, pēnei i te kotahi piriona rākau – hei whai pūtea mō Ngāi Māori, anō nei, hei whakatupu i ngā kai me te whakaora i te taiao.

Ngā kīrearea: Me whai hua ngā rautaki mō ngā pūrerehua mā me ērā atu kīrearea. I ngā rā ōnamata, ko ngā pungarehu me te wai ētehi taputapu hei whakakore i ngā pūrerehua me ngā kīrearea.

Rangahau kē atu/ō mua: Tē taea e Ngāi Māori te hoko atu i ngā pukenga, i runga i ngā ture a te Kāwanatanga o ngā tau 1880 e kīa nei, nā rātou te mana hoko i ngā tīma/kaipuke. Tōna 20 tau ki muri, i rangahautia ngā mahi māra a te Māori e tētehi kairangahau tipu. Tērā pea he wāriu tō ērā rangahautanga ki tēnei mahi ō tātou. Nā Eddie Paul ētehi rangahau mō ngā māra kai o Ngāti Awa. Me whai wāhi hoki te ripoata *Ko Aotearoa tēnei: Report on the Wai 262 claim* ki ēnei mahi rangahau.

Whakaputanga

Kei raro iho nei ētehi whakaputanga hei āpiti atu ki ngā kōrero o runga:

- He hui anō (tōna rite nei) me ngā pahake/kaumātua o Whanganui. Mā Te Atawhai o Te Ao e whakarite (i waenganui i te Pepuere).
- Whakawhānuitia i ngā rangahautanga, e whai wāhi ki te whakahono i ngā mahi o nehe ki ngā mahi hou e angitū ai tātou ki ngā wāhanga pai.

- Tērā pea me whakatū hui ahurei mō te kai e whai wāhi a whānau, a hapū, a iwi hoki te whakaatu i ngā pukenga kai e whakarangatira ai i a rātou. He hua hoki o roto i te whakaako ki te marea mō ngā mahi whakatō, tupu, hauhake me te kohikohi kai. Kei Kāwhia tonu tētehi hui ahurei pēnei.
- Me tuhi pepa mō ngā wāhi e āhei ai te whakarauora i ngā mahinga kai a te Māori. Hei tauira, ngā tikanga taketake, ngā matauranga o nehe, aha atu, hei apitihanga atu ki te ripoata.
- Mā Rāwiri te ripoata mō te hui nei.

Tuku taonga

I tukuna ētehi taonga ki ngā kaumātua i tae tinana mai ki te hui.

11.3 Declaration of Takahiwai

Takahiwai Marae, Aotearoa (New Zealand)

5 February 2019

From 4-5 February 2019, we gathered for the Pacific Food Sovereignty and Traditional Knowledge Conference hosted by Takahiwai Marae. We express our heartfelt appreciation to our hosts for their warm and wonderful hospitality. We also thank Te Rau Matatini, Te Kōpū and the International Indian Treaty Council for bringing us together for vital discussions and knowledge sharing about Food Sovereignty, Traditional Knowledge and Climate Change.

We were reminded at this gathering by our elders that the treasures that the gods gave us to sustain our lives, the gifts of the Sky Father and Earth Mother like the tuna (eel), plants and fish, fauna and forests still belong to us, as Te Tiriti o Waitangi also affirms.

We, as Indigenous Peoples of Aotearoa New Zealand, the Americas and the world have been given the responsibility to take care of these sacred treasures, to protect and care for them, to learn from them and use them in a way that ensures their health and survival so that our future generations will also be strong and healthy. We were also reminded by our youth about the fears they have for their futures because of the changes they are seeing in our natural environment.

Our traditional knowledge, Indigenous sciences, and evidence-based ancestral practices are still alive and strong. These include the interconnected understandings about our star navigation systems, lunar calendars, deep and shallow fresh and sea waters, seasons, wind, weather, high and low tides, high and low energies, and the natural migration patterns of birds, fish, sea mammals and other living things. These interlinked elements make up our traditional food systems.

All parts of the universe are connected and move in natural cycles. What binds them together is the balance among all things. The balance of the sacred elements

is what creates Mauri (life force). This balance needs to be restored so our Peoples, families and Mother Earth can be healed. The ancient stories and understandings handed down from our tūpuna, continue to provide us with guidelines about what to do and not do, and how to be resilient. Time has passed but the stories are still here.

Indigenous Peoples did not create the imbalance that has resulted in the monumental environmental crisis called Climate Change. It was caused by the destructive, blind and callous greed of the corporations and powerful states who refuse to change their ways despite many clear warnings from their own scientists, Indigenous Peoples and the Earth herself. Indigenous Peoples of Aotearoa New Zealand, and Indigenous Nations around the world, along with our traditional food sources and ways of life, are on the front lines of the impacts. The global tipping point is fast approaching. We are called upon to take radical, conscious, peaceful and sustained action for our collective survival.

We express our concern and solidarity for Pacific Nations that are already being forced to flee their ancestral homes on Islands where their survival is threatened by rising sea water because of Climate Change. How will they maintain their political and food sovereignty, national identity and ways of life away from their traditional homelands? We call upon the countries that have caused this extreme violation of their rights to take responsibility for these impacts, and offer real solutions.

We came together as representatives of Māori and Indigenous Peoples of the Americas to express our collective commitment to work for solutions in our own communities, regions and the international arena, based on our traditional ways of knowing and being. We accept the sacred responsibility to keep these ways alive and pass them on to new generations, as they were passed down to us by our tūpuna.

We therefore make the following commitments for action, as discussed at this gathering:

1. To protect our traditional foods from over harvesting, pollution and depletion by

commercial interests; to implement our own sustainable management and monitoring tools, systems and practices to measure and restore the health of our foods and ecosystems; and to demand that governments and corporations clean up the areas where they have released contamination.

2. To ensure that traditional foods are maintained or restored as the basis for our family food consumption and daily diets, based on the principles of well-being and whai rawa (the abundance of our local/tribal and Indigenous Nation economies).
3. To ensure that our Peoples understand the nutritional and health as well as cultural, spiritual, environmental and economic value of traditionally-produced and prepared foods as compared to industrial, mass-produced foods.
4. To protect the habitats of our traditional food sources from contamination due to chemical spills, pesticides use, fossil fuel production including refineries and pipelines, genetically modified plants, seeds and animals, and destruction by urbanisation and industrialisation.
5. To insist that governments and UN Bodies fully respect Indigenous Peoples' food sovereignty based on our rights to self-determination, land, water, sustainable production, resource management and culture, when adopting their laws, policies and programs.
6. To demand that governments halt activities, policies and production methods that contribute to Climate Change and undermine our food sovereignty and take immediate and meaningful steps to transition away from all aspects of fossil fuel-based energy production and to ensure full access for Indigenous Peoples to food gathering, production and breeding areas.
7. To support family and community-based, culturally-appropriate food production including gardens, gathering, seed collection and

traditional knowledge-sharing among Māori as the foundation of true agro-ecology to replace fast foods, industrial farming and supermarket dependency.

8. To support the creation of Māori Food sovereignty zones and food production collectives to protect and promote traditional fishing, planting and gathering places and methods and defend our Treaty rights to food, lands, water and resources.
9. To engage actively in the new Cultural Exchange Platform for mitigating Climate Change at the UN Framework Convention on Climate Change, as long as our rights to traditional knowledge, cultural heritage and food production practices are respected and safeguarded.
10. To initiate our own research projects to monitor the health of our eco-and food systems and develop programs for restoration and healing as needed.
11. To defend the rights of Indigenous Pacific Island Peoples who are forced to leave their islands as a result of Climate Change to their political and cultural identities, self-determination and traditional food sovereignty.
12. To seek out and listen to the time-tested wisdom of our elders and apply these understandings in response to the threats we are now facing as our tupuna also foresaw.
13. To consistently and with clear intent include our youth and children in family food production and sharing traditional teachings, and to take time to feed and nourish them with these teachings so that our Peoples will continue to grow in strength and well-being. To listen to our youth as they propose solutions with new ways of thinking to address the crisis they are seeing in their futures, and to make space for their involvement and leadership.

14. To demand that States fully honour and implement the UN Declaration on the Rights of Indigenous Peoples, Treaties with Indigenous Nations, the Paris Agreement on Climate Change and all other international commitments without qualification. We commit to hold them accountable to these international agreements that impact our rights and ways of life.
15. To commit to the continuation, and where needed the restoration, of our languages to be able to fully express what we know and who we are.
16. To insist that States and UN Bodies respect our perspectives, concerns, rights, cultural values and ways of knowing in the development of programs and policies addressing Climate Change and ensure our active participation in assessing and evaluating their effectiveness.
17. To restore and implement climate and ecological care in our local/tribal economic activities and structures based on the principle of Kainga (traditional kinship-based production systems) as included in Te Tiriti o Waitangi (1840) and also expressed in He Whakaputanga o Te Rangatira o Nu Tireni (1835 New Zealand Declaration of Independence). We will no longer endorse the abuse of our Earth and Sky parents by the dominant economic systems.
18. To not waste food, to eat what we are provided by the earth and sea, to share and not take more than we need like how we lived in the past. We understand that going back to the traditional foods that nurtured us as children can provide healing for our body and soul.

Finally, and most important, we commit to reconnect with who we are, where we are from and where we stand on this earth. We commit to learn from the things we see, hear, smell, taste and feel, to have our spirits and minds cooled by the ocean and warmed by the fire. We commit to decolonise our ways of being, knowing, teaching, learning, speaking, planting and eating, to apply our ancestral understandings, stories

and values to the realities we are living today, and to listen to what the life forces that surround us say to us about what we must do.

All life is connected. If we can heal our lands and our waters, we will heal ourselves. When we heal ourselves and our families, we can heal our world. We will agree to share what is most precious to us in the hopes that other Indigenous Peoples will also share what they have with us. What we are facing requires an unwavering commitment to sharing, long term vision, strategic planning, courage and caring for the mana that feeds all life. We are the change we have been waiting for. Our survival, as always, is in our hands.

Adopted by consensus February 5, 2019, Takahiwai Marae, Aotearoa New Zealand

11.4 Acquisition and dissemination of knowledge: Conferences and symposia

1. Wiremu, F., Tinirau, R., & Heitia, M., (2021, June 6). *He kākano i ruia mai i Rangiātea: I am a seed sown from Rangiātea* [Online presentation]. Living Breath of wəʔəbʔaltxw 2021 Indigenous Foods Symposium, University of Washington, Seattle, USA.
2. Wiremu, F., & Heitia, M., (2020, November 18-20). *Mana kai: He moumou kai, he moumou tāngata* [online presentation]. International Indigenous Research Conference, Ngā Pae o te Māramatanga, University of Auckland, Aotearoa New Zealand.
3. Wiremu, F., Huambachano, M., & Wehi, P. (2020, June 30). *Rapua ngā purapura kia tipu ai a tātou tamariki Māori: Find the good seeds to enable our children to grow* [Online presentation]. HDCA (Human Development & Capability Association) Conference, Massey University, Aotearoa New Zealand.
4. Wiremu, F., Tinirau, R., Heitia, M., & Coates, N. (2019, December 12). *He moumou kai, he moumou tāngata kai governance, kai sovereignty: social optimisation, environmental sustainability and inter-generational equity* [Presentation]. Inaugural Mahika Kai Conference, Lincoln University, Christchurch, Aotearoa New Zealand.
5. Wiremu, F., Smith, C., Gillies, A., Heitia, M., & Coates, N. (2019, June 29). *Kai governance, kai sovereignty, and the (re)generation of Māori cultural capital* [Presentation]. NAISA (Native American and Indigenous Studies Association) Conference, University of Waikato, Hamilton, Aotearoa New Zealand.
6. Wiremu, F., & Tinirau, R. (2019, May 3). *He moumou kai, he moumou tāngata: Kai governance, kai sovereignty, and the (re)production of Kai – He rongoā ngā kai (kai as medicine)* [Keynote presentation]. Living Breath of wəʔəbʔaltxw 2019 Indigenous Foods Symposium, University of Washington, Seattle, USA.
7. Wiremu, F., & Tinirau, R. (2019, April 9). *Kai governance, kai sovereignty, and the (re) production of kai: He moumou kai, he moumou tāngata. Māori notion of 'kai' as an indicator of health and well-being* [Presentation]. IUHPE 23rd World Conference on Health Promotion, Novotel Hotel, Rotorua, Aotearoa New Zealand.
8. Wiremu, F., Tinirau, R., Gillies, A., & Smith, C. (2019, February 12). *Kai governance/kai sovereignty/kai (re)production: He moumou kai, he moumou tāngata. Enhancing culturally matched outcomes.* [Presentation]. Ngā Pae o te Māramatanga, Primary Investigators Wānanga, Rānana Marae, Whanganui.
9. Wiremu, F. (2018, December 8). *Kai governance/kai sovereignty/kai (re)production: He moumou kai, he moumou tāngata. Enhancing culturally matched outcomes.* [Presentation]. Ngā Pae o te Māramatanga Writing Retreat, Te Whare Wānanga o Awanuiāraangi, Whakatāne, Aotearoa New Zealand.
10. Wiremu, F. (2018, November 20). *Kai governance/kai sovereignty/kai (re)production: He moumou kai, he moumou tāngata – Enhancing culturally matched outcomes* [Paper presented]. Feeding the Futures Symposium, Massey University, Manawatū Campus, Palmerston North, Aotearoa New Zealand.
11. Wiremu, F., Tinirau, R., Smith, G.H., Gillies, A., Smith, C., & Heitia, M. (2018, November 12-16). *Kai governance/kai sovereignty/kai (re) production: He moumou kai, he moumou tāngata – Enhancing culturally matched outcomes* [Paper presented]. International Indigenous Research Conference, Ngā Pae o te Māramatanga, University of Auckland, Aotearoa New Zealand.





Hī-moki

Hī-moki is in the mouth of the Whakatāne River and was regarded as a very significant fishing spot.

Kōpua Huruuru

Kōpua Huruuru is an area of water north-east of Te Puke-a-Hawaiki and encompasses the shoreline and bed of rocks north of it. This area was well known as a harvesting place for seafood.

Te Toka o Te Rua o Te Ika

On the eastern coastline of Koohi Point Scenic Reserve is Te Toka o te Rua o te Ika (Fish Hole), a bay renowned by Ngāti Awa for the varieties of fish that dwell there. In the middle of this bay is a rock island of the same name. Located off its eastern point is a submerged rock called Whakāri of the same name as the island volcano. Whakāri and the adjoining bay, Pipiko, are popular nesting areas for the grey-faced petrel commonly known as muttonbird or tītī. The area was also a popular spot from which Ngāti Awa people collected kaimoana, including kōura, pāua, and kina.

Ōtarawairere

Paparoa and Ōtarawairere are also areas on the eastern side of Koohi Point Scenic Reserve that were well known as recreational sites for the collection of seafood.

Taumata Kahawai Pā

Another pa at Te Rae Kōhi was Taumata Kahawai. The name of this pa signifies a lookout place for kahawai. Taumata Kahawai was occupied by the chief Taiwhakaea I, founder of the hapū of Te Patutātahi or Ngāi Taiwhakaea, and of Ngāti Ikapuku. These hapū were responsible for observing the ocean and surrounding shores for possible invasion and shoals of fish.

Te Rae a Te Tāmure

Other pa sites within the Koohi Point Scenic Reserve include Te Rae o Te Tāmure, Kōhi, and Te Whakaterere. Te Rae o Te Tāmure Pa is situated on the ridge between Ōhope west and Ōtarawairere beach at Te Rae Kōhi. It runs north from the vicinity of Ōtarawairere down to the cliffs at the seaside edge of the ridge. Situated at the bottom of the cliff is a very important fishing rock called Whanga-pānui where snapper would gather in abundance (hence the name “The Gathering Place of Snapper”).

Mokorua

The lands of the Mokorua Scenic Reserve were always regarded by Ngāti Awa, particularly the hapū of the Whakatāne area, as a valuable source of foods such as birds including the kererū. Since ancient times the lands of the Mokorua Scenic Reserve have on occasion been the cause of many disputes because of the abundant nature of the area for food gathering. All elements of the natural environment possess a life force and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāti Awa whānui to the Mokorua Scenic Reserve.

Ōhope

The Ōhope Scenic Reserve was rich in resources and provided an abundance of wildlife, plant, and vegetation for the hapū of Ngāti Awa that lived within or near the Reserve. The Reserve was a favourite food gathering place for the hapū of Ngāti Awa. The use of the Reserve area has been evidenced by the discovery of artefacts along the creek bed of Te Huki o to Tuna (Spit of the Eel) in past years.

To ensnare some of the abundant bird life within the area known today as the Ōhope Scenic Reserve the people of the hapū would hollow out miro logs as drinking troughs for birds such as kererū and wait in hiding for them. The medicinal qualities of the plant life in the Ōhope Scenic Reserve were also important to Ngāti Awa. These cultural aspects of the Reserve constitute an essential part of the heritage of Ngāti Awa.

Moutohorā

There were a number of pā sites on Moutohorā that were used by the hapū of Ngāti Awa who occupied the island. Raetihi is one such pā. The unusual feature of Raetihi is that it has stone walls on the lower north-eastern side of the pā. Moutohorā was occupied for relatively short periods of time when people travelled to the island to gather food. Gathering tītī (mutton bird – grey faced petrels) and kaimoana from Moutohorā were regular seasonal activities for the Whakatāne based hapū of Ngāti Awa.

Te Puna Wai (The Water Spring) is a small spring on Moutohorā. Te Puna Wai was the only reliable source of fresh water. However, during a very dry summer it was necessary to carry additional water to Moutohorā from Whakatāne. Te Ratahi (McEwens Bay) was where the hapū of Ngāti Awa living on Moutohorā established their gardens and grew kūmara and other root vegetables.

The abundant resources of Moutohorā made it a valuable place to live for those hapū of Ngāti Awa fortunate enough to occupy the island. The gathering of tītī was always a traditional and annual activity involving many of the hapū of Ngāti Awa. Ngāti Awa people used the cultural practice of rāhui (temporary restrictions) to ensure the tītī were never depleted completely on the island. Moutohorā was also useful as a lookout point to intercept any intruders who were en route to some other part of the eastern coast. Moutohorā has always been a rich source of pāua, kina, crayfish, and the popular varieties of shellfish for the hapū of Ngāti Awa.

Ōhiwa

The Ōhiwa harbour has provided Ngāti Awa hapū with all the resources of life they required to survive. The harbour provided an abundance of fish and shellfish such as flounder, kahawai, mussels, pipi, cockles, scallops, and oysters. The harbour was also rich in bird life and building material. The Ngāti Awa hapū, Ngāti Hokopū and Ngāti Wharepaia settled throughout the Ōhiwa Harbour. Ōtao was a favourite place of Ngāti Hokopū for gathering kaimoana particularly pipi, scallops, and cockles.

Throughout the years Ngāti Awa have exercised custodianship over the harbour and have imposed rāhui when appropriate, restricting the taking of mussels, scallops, and other kaimoana. Proper and sustainable management of Ōhiwa Harbour has always been at the heart of the relationship of Ngāti Awa with the harbour.

Rangitāiki River

The Rangitāiki River has been a treasured taonga and resource for Ngāti Awa. Traditionally, the Rangitāiki River and, in times past, the associated swamp area has been a source of food as well as a communication waterway.

There were several taniwha and tipua (guardian spirits) that lived in and along the Rangitāiki River. Hine-i-Whāroa was a tipua in the form of a white eel that lived in the Rangitāiki River. Hine-i-Whāroa was the kaitiaki of all the other eels that lived in the river. Hine-i-Whāroa became the kaitiaki that limited the number of eels that could be caught by the people thereby ensuring that the fishery would survive. No matter how hard the people tried to catch Hine-i-Whāroa to clear the way so they would have unrestricted access to all eels, they could never do so.

Te Pūtere

Several settlements have been established by the hapū of Ngāti Awa along the Rangitāiki River. Such settlements highlight the connections of Ngāti Awa with the Rangitāiki River and their occupation of the river's catchments. One such settlement was Te Pūtere, located on the coast between the Tarawera and Rangitāiki Rivers. Te Pūtere was a block of land slightly higher than the surrounding swamp area, originally inhabited by Ngāti Patuwai and later Te Patutātahi, Te Pahipoto, and Te Patuwai. Inland hapū used Te Pūtere as a fishing nohoanga allowing them access to the resources of the lower reaches of the Rangitāiki River and the sea.

Rangitāiki Awa

The Rangitāiki River provided the hapū of Ngāti Awa, particularly those living in pā along the river, with abundant food and material resources. Water from the river was used by Ngāti Awa to irrigate crops along the riverbanks. Flax and raupō grew well along the river and, in times past, in the swamp ground. These provided materials for clothing, building, and trade for Ngāti Awa hapū. Fish, eels, and birds were also in plentiful supply. Not only did the Rangitāiki River provide the Ngāti Awa hapū with food, trade, and building materials, but it also allowed easy internal movement for the hapū of Ngāti Awa from one end of the rohe to the other, and provided refuge in times of danger.

Before the swamp was drained, the vegetation there was mainly raupō, flax, and rushes, with ti-tree and cabbage trees on the higher ridges. The swamp provided Māori with food; in particular, eels, fish, and birds (the drainage of the swamp uncovered the remains of many eel weirs in the old watercourses). The swamp also provided Māori with flax and raupō, allowed easy movement within the Ngāti Awa territory, and offered a place of refuge. The higher land in the swamp and the land along the riverbanks also provided places for the cultivation of kūmara, potatoes, maize, wheat, and melons, and a flour mill operated at Matatā before 1900.

The Rangitāiki River provided Ngāti Awa hapū with food, trade and building materials and allowed easy internal movement for the hapū of Ngāti Awa from one end of the rohe to the other. The tipuna of Ngāti Awa had considerable knowledge of whakapapa, traditional trails and tauranga waka, places to gather kai and other taonga. Their knowledge of the resources of the Rangitāiki River, the relationship of people with the river and their dependence on it, and tikanga ensure the proper and sustainable utilisation of resources.

Many varieties of tuna were traditionally caught by people who lived along the Rangitāiki and its tributaries, including black eels (mataamoe), silver-bellied eels (paewai), blind eels (piharau), and yellow-bellied eels. In many instances, specific individuals and families has special knowledge of fishing methods and

had the responsibility to pass their knowledge to the next generation. There were several traditional fishing methods, including hīnaki (eel trap), retireti (traditional device used to lure and catch fish), rama tuna (to catch eels by torchlight), fern beds or boxes and line fishing. Many iwi had their own maramataka and carefully managed their eels fishery in accordance with tikanga.

Tarawera Awa

The Tarawera River was a major food and water resource to the Ngāti Awa people both prior to and since the arrival of the Mātaatua waka. Ngāti Awa people resided in several pā sites located along the riverbank. Such sites are significant to Ngāti Awa and illustrate Ngāti Awa connections to the Tarawera River.

The Tarawera River provided an abundance of fish, eels, kākahi, and whitebait for the hapū of Ngāti Awa. The junction of the Waikāmihi Stream and the Tarawera River was an important fishing location for whitebait, eels, and other fish for Te Tāwera hapū of Ngāti Awa. As well as being an abundant source of food for the hapū of Ngāti Awa, the Tarawera River was also used as a highway to assist the transportation of materials and people up and down the river. Waka that travelled up and down the Tarawera River were launched at Ōkauneke.

Matahina

The rich soils and waterways of the Rangitāiki and the Matahina Valley provided Ngāti Awa hapū with an abundance of food (birds, animals, fish), building materials, material for clothing, and cultivation sites.

Ōkōrero/Rangitāiki River mouth

The Rangitāiki River is home to three types of īnanga (whitebait), which normally lay their eggs in freshwater. After the eggs hatch, they quickly migrate to sea before they come back to lay their eggs. Traditionally, the abundance of whitepait provided local iwi with essential food in a protein-limited world.

Matirerau

Ngāti Awa traditions record the arrival at Whakatāne of the Mataatua canoe, which had sailed from the ancestral homeland Hawaiki. Those aboard brought the kūmara to Kākahoroa, and a parcel of soil from Rangiātea to place in the garden, Matirerau, in Whakatāne.

Rangitāiki/Tarawera/Whakatāne wetlands

The massive Rangitāiki/Tarawera/Whakatāne salt marsh wetland used to offer an ideal breeding ground for īnanga right in the middle of the Bay of Plenty. They breed on seasonally floodable estuarine wetlands, and their life-cycle is dependent on the dynamic of freshwater and saltwater exchange.



Ōnamata (ancient times)

Lake Matahina

Crown control of the Rangitāiki and its tributaries from the late nineteenth century has had a huge impact on tuna and those that depended upon them. The eel fisheries and other resources that were traditionally relied upon for cultural and physical sustenance have been severely impacted. Specifically, the construction of the Matahina, Aniwhenua and Whao power schemes now inhibit the ability of both young elvers to travel upstream and the downstream journey of adult eels out to sea to spawn.

Ngāti Awa Rivers and Streams

Īnanga are common and they do not need to travel very far. They breed on seasonally flooding estuarine wetlands, and their life-cycle is dependent on the dynamic of freshwater and seawater exchange. Today, we can find īnanga in the Rangitāiki River, Western Drain, Waikāmihi Stream, Mangaone Stream, Reid's Central Canal and upstream of the Ōtarere Stream/Drain of the Rangitāiki Plains and the Whakatāne River.

Lower Rangitāiki River

The Rangitāiki River is home to three types of īnanga, which normally lay their eggs in freshwater. After they hatch, they quickly migrate to sea before they come back to lay eggs.

Giant kōkōpu are the agile giant, although they are the same size as other whitebait in the family when hatched. The giant kōkōpu is special to the lower Rangitāiki. With some luck you may find the secretive giant kōkōpu in the Rangitāiki River, Ngākauroa Stream/Drain, Western Drain, Awaitei Canal, Omeheu Canal, Waikāmihi Stream and the Te Rahu Canal of the Rangitāiki River.

Rangitāiki Plains

The total Rangitāiki Plains area is approximately 30,000 hectares. Today, more than 80% is in dairy and approximately 3% in horticulture.

In the early twentieth century, engineering and technology solutions altered the Rangitāiki River catchment landscape to what we see today. A law passed in 1910 allowed 40,000 hectares of Rangitāiki wetland to be drained and converted into fertile grazing land. Later, in the 1930s, people discovered applying cobaltised super phosphate to previously barren areas made them suitable for farmland and large-scale forestry. Soil became richer and more fertile in areas previously incapable of supporting farming or planting pines.

Changes to the Rangitāiki River catchment landscape accelerated drastically after the World Wars and the Depression. Poverty limited the ability of people to look after their resources for future generations. Virgin land was divided up and sold for farming. Land that was not suitable for farming was planted with fast-growing pine for a good economic return. Meanwhile, tāngata whenua became restricted in accessing traditional food resources along the Rangitāiki River. Eel weirs were taken off to make way for logs being carried down the river.

Forestry and dairy industries have boomed in the Rangitāiki catchment, which has become one of the country's primary producing areas with a strong export focus. However, in the process of making the Rangitāiki catchment profitable, many activities have changed the natural pattern of the Rangitāiki River and diminished its natural features and characteristics. In the 1960s, the local community underwent rapid change; their livelihood shifted from an eel culture to a forestry culture in one generation.

Te Teko

Kamokamo, sweetcorn, watermelon

Rangitāiki Awa

Crown control of the Rangitāiki and its tributaries from the late nineteenth century has had a huge impact on tuna and those that depended upon them. The eel fisheries and other resources that were traditionally relied upon for cultural and physical sustenance have been severely impacted. Specifically, the construction of the Matahina, Aniwhenua and Whao power schemes now inhibit the ability of both young elvers to travel upstream and the downstream journey of adult eels out to sea to spawn. Flood control measures that required the removal or changes to their habitat, together with commercial harvesting of tuna, have also contributed to their decline.

Ecological health of the Rangitāiki River downstream from Edgecumbe and in the Te Teko reach was considered to be in 'fair' condition. The ecological health of the river here differs greatly from what could have been predicted in its natural state. It has been modified with land drainage, stopbanks and riprap to minimise bank erosion. A wide range of fish are found in the river, including īnanga, bullies, tuna (shortfin and longfin eels) and kōkopu. The Matahina Dam stops the successful migration of many of these fish, so a trap-and-transfer programme has been implemented.

The Rangitāiki River holds wild trout (introduced around the turn of the twentieth century) and is recognised for providing great fishing waters by Aotearoa New Zealand freshwater anglers. The lower and mid Rangitāiki River hold many trout in a variety of fast water and long run habitats. There are several cold-water stream inflows that provide good summer fishing at their stream mouths when the river is warm and these tributaries also have spawning runs of trout that are targeted by anglers during the autumn.

Lake Aniwhenua/Aniwaniwa

Lake Āniwaniwa (previous name Lake Aniwhenua) was one of the North Island's most productive lakes, with many trophy fish caught. In more recent years, Āniwaniwa still provides good rainbow and brown trout to shoreline fly and spoon or stalking from drifting boats. During the summer, the lake is affected by weed in the water, so the better fishing is in the spring and autumn.

