

MAPPING THE MĀORI MARINE ECONOMY



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SUMMARY

The Māori marine economy (MME) has emerged out of Māori responses and adaptations to Crown-created institutions and structures that are different from traditional Māori institutions. These institutions aim to deliver the Crown's obligations to Māori under the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, Māori Commercial Aquaculture Claims Settlements Act 2004 and Māori Fisheries Act 2004. These statutes and the institutional structures they create place limitations on the commercial options available to Māori entities and create tensions between traditional forms of economic organisation and the contemporary corporate–beneficiary approaches. The fisheries settlement process has led to the fragmentation of quota with small Māori entities in particular struggling to achieve the scale and concentration of quota assets necessary to actively engage in commercial fishing.

Despite these constraints, the vast majority of Māori entities with fisheries interests are engaging and succeeding in the marine economy. The level of activity exists on a spectrum, from those engaged in Annual Catch Entitlement (ACE) trading and the development of joint ventures with third parties to fish quota, through to those actively fishing, processing, exporting, marine farming and engaged in marine-based tourism. A number of large Māori commercial entities, and a range of smaller entities that have accumulated concentrations of high value quota, are building premium value chains centred on kaitiaki (custodial) values. We had inadequate data to determine the extent to which Māori are engaged in the non-market (customary) economy; a desktop examination has, however, revealed limited engagement. Similarly, the establishment of marine governance rights through taiāpure and mātaihai (customary fishing grounds) is limited, with only 14 per cent of iwi (tribes) having actively put in place such structures.

As part of this project, we surveyed 24 people involved in Māori customary (90% of participants) and commercial fishing (13%) on their application of mātauranga Māori (Māori knowledge) in fisheries. Seventy-one per cent of respondents indicate that mātauranga Māori is extremely important, but 64% rate the ability for Māori to exercise kaitiakitanga (guardianship) as limited. Respondents rate profitability (84%) and ocean health (mauri o te moana) (86%) as equally important. There is a surprising degree of awareness of ecosystem-based management (EBM) (82%) and more than half (56%) support this approach.

In regard to the growth and scale of Māori assets in the marine economy, our analysis shows that Māori have acquired \$321 million in quota assets in addition to the \$314 million in settlement quota. Māori have moved from owning 10% of New Zealand's fishing quota to 20% of New Zealand's quota by value. There is a significant cohort of innovative and growing businesses in the MME, who are leading this growth.

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Acronyms

ACE	Annual Catch Entitlement
AMT	Area Management Tools
DOC	Department of Conservation
EBM	Ecosystem-based Management
EEZ	Exclusive Economic Zone
FMA	Fisheries Management Areas
ICP	Iwi Collective Partnership
ITQ	Individual Transferable Quota
MAF	Ministry of Agriculture and Forestry
MBIE	Ministry of Business, Innovation and Employment
MFAT	Ministry of Foreign Affairs and Trade
MfE	Ministry for the Environment
MIO	Mandated Iwi Organisations
MME	Māori marine economy
MOD	Ministry of Defence
MOJ	Ministry of Justice
MPI	Ministry for Primary Industries
NZCP	New Zealand Coastal Policy Statement
NZDF	New Zealand Defence Force
PKW	Parininihi ki Waitotara
PMU	Police Maritime Unit
QMA	Quota Management Area
QMS	Quota Management System
RMA	Resource Management Act
SET	Settlement Quota
TAC	Total Allowable Catch

Contract and related outputs

This report has been completed under contract between the National Institute of Water and Atmospheric Research Limited (NIWA) as host of the Sustainable Seas National Science Challenge and Massey University as the subcontractor dated 16 February 2018, to be completed by 30 June 2019 [MBIE contract number: C01X1515]. This report is provided in fulfilment of the following outputs: Output 1. Mapping report of MME complete.

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INTRODUCTION

About the Sustainable Seas National Science Challenge

The objective of the Sustainable Seas National Science Challenge (the Challenge) is to enhance utilisation of our marine resources within environmental and biological constraints. As the Challenge notes, there is a growing conflict between New Zealand's many uses of the marine environment, focused particularly on the needs of its important marine economy and protection of the marine environment itself.

Tangaroa research programme

As the Māori driven and focused component of the wider Challenge, the Tangaroa research programme is dedicated to exploring the development of ecosystem-based management (EBM) that is founded on, and informed by, mātauranga Māori and tikanga Māori. Research within this programme is investigating mātauranga-inspired innovations that enable Māori to participate as partners and leaders in marine management and decision-making. It is within this wider context that the Tangaroa research project 'Whai Rawa, Whai Mana, Whai Oranga' operates, seeking to explore ways in which mātauranga Māori can be harnessed to ensure that the Māori marine economy (MME) operates in a manner that is both profitable and sustainable over the long-term.

Whai rawa, whai mana, whai oranga

One of the key components of the Whai Rawa, Whai Mana, Whai Oranga project was mapping the Māori marine economy (MME), with an initial focus on the fisheries sector. To be useful the map had to be comprehensive, identifying key nodes and the networks that connect them. The map we developed is an institutional one, showing the governmental,

Advisory Committee



Distinguished Professor Graham Smith



Distinguished Professor Sir Hirini Mead



Judge Layne Harvey



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Robert Edwards

organisational and operational nodes in the MME, comprising the institutions and actors that constrain and enable this economy and the Māori entities that operate within it.

This report provides a description of the economic approach taken to mapping the MME, followed by a network map outlining the underlying structure of the MME (see Figure 1). The components of Figure 1 are sequentially defined, followed by a network analysis where critical interactions between nodes are examined. The report also provides results from a survey of people involved in Māori fisheries entities (see Annex 1 for the survey questionnaire and Annex 2 for survey results). The survey focuses on the importance and ways in which mātauranga Māori is incorporated in their activities. This is followed by an analysis of the nature and scope of the MME in terms of its Māori economic actors and their activity (see Annex 3 for map of the MME). Finally, we examine the value, scale and growth of the MME focusing on the fisheries sector using FishServe and other datasets (see Annex 4).

Mātauranga Māori Advisory Committee

The research team are fortunate to have had the guidance of a Mātauranga Māori Advisory Committee comprising distinguished Māori scholars, business leaders and practitioner-experts. Their advice and counsel on matters pertaining to the conceptual and practical application of mātauranga Māori to our research has been extremely helpful and we are grateful for this. The Mātauranga Māori Advisory Committee members are:

- Tā Hirini Moko Mead
- Tā Mark Solomon
- Distinguished Professor Graham Smith
- Judge Layne Harvey
- Ms Dickie Farrar
- Mr Robert Edwards

Research team

The Whai Rawa Whai Mana Whai Oranga research team comprises 11 members from several institutions that affiliate to Ngā Pae o Te Māramatanga, the Māori Centre of Research Excellence, specifically within the Whai Rawa – Māori economy research theme. The research team members are identified in the adjacent inset. In summary the research team comprises:

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Research team



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An institutional economics approach

Mapping the MME involved the loose adoption of institutional economics. The reason for taking this approach is that we wish to convey that the MME, as it currently operates, is an emergent property of Crown-created institutions. This is outlined in the Figure 1 map below, which demonstrates how a set of institutional structures creates the parameters in which Māori entities can operate economically, and in turn the parameters that constrain the business models and approaches Māori adopt. The map breaks the MME into governmental, organisational and operational levels. The governmental level includes regulatory structures and governmental bodies. These institutions include ministries, departments, courts, and the Waitangi Tribunal. These entities are pivotal in administering, enforcing and adjudicating economic activity in the MME. The organisational level outlines the types of actors that participate in and regulate economic activity at this level, while the operational level covers types of economic activity.

The regulatory structure also creates the property rights regime in which Māori operate, in particular, the creation of settlement quota, customary title and customary take, each of which dictates the resources that Māori have access to and the form that access takes. The Māori property rights regime dictates the types of businesses Māori form, particularly the development of ACE trading companies and iwi collective initiatives where iwi consolidate settlement quota in joint venture companies. The property rights structure also frames the economic activity around mineral extraction and marine-related tourism, while determining the ways in which 'cultural' harvest, as part of the non-market economy, can take place and the purposes to which that harvest can be applied. Finally, regulation dictates the powers that Māori can express in the

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marine estate, through the appointment of tangata tiaki (to administer customary take), the roles of rūnanga (tribal councils) and marae komiti (committees) in the formation of coastal marine management plans, and the development of mātaihai and taiāpure customary reserves.

Together the institutional and regulatory structure largely channels the expression of Māori environmental, commercial, and cultural imperatives, goals, and ambitions within the marine economy. This is represented in Figure 1 below, which will guide the sections that follow. Firstly the acts and regulations that make up the central government regulatory structure will be outlined. After this the governmental, organisational and operational nodes of the key columns defined by the dotted green lines in the map will be outlined. This will enable better connection between the relevant governmental, organisational and operational levels.

GOVERNMENTAL LEVEL INSTITUTIONS

Central government regulatory structure

Fisheries Act 1983

The Fisheries Act 1983 created a framework for the management and conservation of fisheries and fishery resources within the Territorial Sea and Exclusive Economic Zone of New Zealand through the establishment of the Quota Management System (QMS). The QMS privatised what had previously been a common right in New Zealand. However, it also helped catalyse the legal pursuit of treaty settlements: “the designation of fishing quota as a right to harvest fish also created an opportunity for Māori to claim that the QMS was a formal abrogation of their Treaty rights” (De Alessi, 2012, p. 399). A key part of the QMS is individual transferable quota (ITQ). The ITQ “redistributed commercial quotas with the goal of professionalizing the industry, and rationalized the regime in terms of conservation policy” (Webster, 2002, p. 344). ITQs were initially allocated to fishermen as fixed annual tonnages in perpetuity, based on their average catch-level over two of the previous three years. The government was relying on being able to purchase quota on the open market as and when it needed to reduce the total catch from a fishery.¹ After several years of rising costs the government switched to denominating the quotas as a share of the Total Allowable Catch (TAC), which it set every year.² There are legislative limits on aggregation for particular stocks and regions, and limitations on foreign quota holdings, with the aim of restricting consolidation of quota.³

Fisheries Amendment Act 1986

The Fisheries Amendment Act 1986 introduced 10 Fisheries Management Areas (FMAs), which define New Zealand’s Exclusive Economic Zone (EEZ). Due to various fish population biologies, some Quota Management Areas (QMAs) incorporate multiple FMAs while others cover only part of a single FMA, leading to a varying number of QMAs per species.⁴

Māori Fisheries Act 1989

The Māori Fisheries Act 1989 was an interim settlement with Māori for their treaty grievances relating to the historic loss of marine rights and the newly enacted QMS. The Act created what was then called the Māori Fisheries Commission (now Māori Fisheries Trust, or Te Ohu Kaimoana, or TOKM) and gave Māori 10% of fishing quota in New Zealand’s quota management system, as well as shares in fishing companies and cash.⁵ The Act was predicated on the assumption that the litigation by Māori would continue.⁶

¹ http://motu-www.motu.org.nz/wpapers/03_02.pdf

² http://motu-www.motu.org.nz/wpapers/03_02.pdf

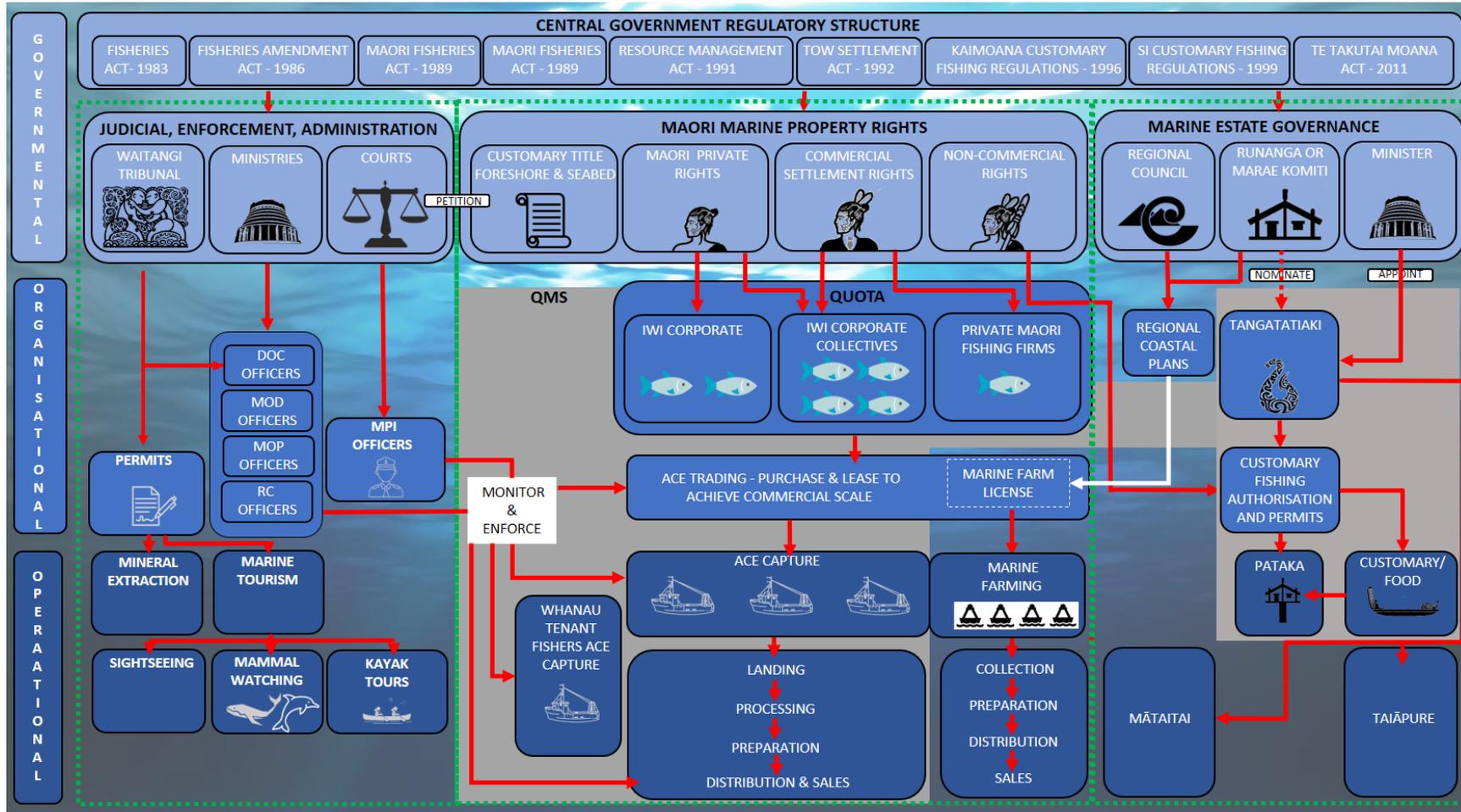
³ http://motu-www.motu.org.nz/wpapers/03_02.pdf

⁴ http://motu-www.motu.org.nz/wpapers/07_02.pdf

⁵ <https://www.waitangitribunal.govt.nz/assets/Documents/Publications/Te-Manutukutuku-Issue-20.pdf>

⁶ https://www.victoria.ac.nz/_data/assets/pdf_file/0007/845611/Boast.pdf

Figure 1 Institutional structure of the Māori marine economy



Resource Management Act 1991

The Resource Management Act (RMA) 1991 is New Zealand's main legislation on how the country should manage the environment.⁷ The RMA promotes the sustainable management of natural and physical resources, encompassing water—and consequently fisheries—within its jurisdiction. The regional councils, created in 1991 for this specific purpose, are charged with enforcing the RMA.

Regional coastal plans are plans prepared by regional councils and unitary authorities for the coastal marine area of a region. Their purpose is to assist these councils in achieving sustainable management of their coastal environments. The plans include objectives, policies and rules that govern what activities the councils will allow, control or prohibit in the coastal environment. The plans are a tool used to manage any actual or potential effects from the use, development or protection of the coastal marine area.⁸

In terms of the Resource Management Act 1991, all regional councils are required to prepare a regional coastal plan.⁹ To ensure consistency and integration of the management of the coastal environment throughout New Zealand, regional coastal plans must give effect to the New Zealand Coastal Policy Statement 2010 (NZCPS).¹⁰ See Figure 2 for a statement of what the New Zealand Coastal Policy Statement 2010 states in relation to the Treaty of Waitangi, tangata whenua and Māori interests.¹¹

Figure 2 Treaty of Waitangi and coastal policy

In taking account of the principles of the Treaty of Waitangi (Te Tiriti o Waitangi), and kaitiakitanga, in relation to the coastal environment [persons exercising functions and powers under the Resource Management 1991 should]:

- a. recognise that tangata whenua have traditional and continuing cultural relationships with areas of the coastal environment, including places where they have lived and fished for generations;
- b. involve iwi authorities or hapū on behalf of tangata whenua in the preparation of regional policy statements, and plans, by undertaking effective consultation with tangata whenua; with such consultation to be early, meaningful, and as far as practicable in accordance with tikanga Māori;
- c. with the consent of tangata whenua and as far as practicable in accordance with tikanga Māori, incorporate mātauranga Māori¹ in regional policy statements, in plans,

⁷ <http://www.mfe.govt.nz/rma>

⁸ <https://www.doc.govt.nz/about-us/our-role/managing-conservation/coastal-management/regional-coastal-plans/>

⁹ <https://www.doc.govt.nz/about-us/our-role/managing-conservation/coastal-management/regional-coastal-plans/>

¹⁰ <https://www.doc.govt.nz/about-us/science-publications/conservation-publications/marine-and-coastal/new-zealand-coastal-policy-statement/new-zealand-coastal-policy-statement-2010/policy-1-extent-and-characteristics-of-the-coastal-environment/>

¹¹ <https://www.doc.govt.nz/about-us/science-publications/conservation-publications/marine-and-coastal/new-zealand-coastal-policy-statement/new-zealand-coastal-policy-statement-2010/policy-2-the-treaty-of-waitangi-tangata-whenua-and-maori/>

- and in the consideration of applications for resource consents, notices of requirement for designation and private plan changes;
- d. provide opportunities in appropriate circumstances for Māori involvement in decision making, for example when a consent application or notice of requirement is dealing with cultural localities or issues of cultural significance, and Māori experts, including pūkenga [a person skilled or versed in the customary and traditional knowledge, tikanga, arts, histories and genealogies of a particular iwi or hapū], may have knowledge not otherwise available;
 - e. take into account any relevant iwi resource management plan and any other relevant planning document recognised by the appropriate iwi authority or hapū and lodged with the council, to the extent that its content has a bearing on resource management issues in the region or district; and
 - i. where appropriate incorporate references to, or material from, iwi resource management plans in regional policy statements and in plans; and
 - ii. consider providing practical assistance to iwi or hapū who have indicated a wish to develop iwi resource management plans;
 - f. provide for opportunities for tangata whenua to exercise kaitiakitanga over waters, forests, lands, and fisheries in the coastal environment through such measures as:
 - i. bringing cultural understanding to monitoring of natural resources;
 - ii. providing appropriate methods for the management, maintenance and protection of the taonga of tangata whenua;
 - iii. having regard to regulations, rules or bylaws relating to ensuring sustainability of fisheries resources such as taiāpure, mahinga mātaimai or other non-commercial Māori customary fishing;
 - g. in consultation and collaboration with tangata whenua, working as far as practicable in accordance with tikanga Māori, and recognising that tangata whenua have the right to choose not to identify places or values of historic, cultural or spiritual significance or special value:
 - i. recognise the importance of Māori cultural and heritage values through such methods as historic heritage, landscape and cultural impact assessments; and
 - ii. provide for the identification, assessment, protection and management of areas or sites of significance or special value to Māori, including by historic analysis and archaeological survey and the development of methods such as alert layers and predictive methodologies for identifying areas of high potential for undiscovered Māori heritage, for example coastal pā or fishing villages.

Treaty of Waitangi (Fisheries Claims) Settlement Act 1992

The Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 was the final settlement of the grievances, predicated on the expectation that further litigation would be stopped by this statute.¹² It was precipitated by the sale of 50% of Sealord, which held 22% of New Zealand's quota.¹³ In addition, the final settlement guaranteed Māori would get 20% of all

¹² https://www.victoria.ac.nz/data/assets/pdf_file/0007/845611/Boast.pdf

¹³ https://www.victoria.ac.nz/data/assets/pdf_file/0007/845611/Boast.pdf

new species brought into the QMS.¹⁴ The Māori Fisheries Commission, which had been established under the 1989 settlement, became the Treaty of Waitangi Fisheries Commission in the final settlement.¹⁵ The 1992 Act amended the 1989 Māori Fisheries Act, enabling the commission to allocate the pre-Sealord assets and it also amended the Treaty of Waitangi Act 1975, preventing the Waitangi Tribunal not only from inquiring into ‘commercial fishing or commercial fisheries’ but also into the Sealord deed.¹⁶

Fisheries Act 1996

The Fisheries Act 1996 focused on a number of key areas, including:

- the application and administration of the QMS;
- measures that contribute to the sustainability of fisheries resources and avoiding, remedying or mitigating any adverse effects of fishing on the aquatic environment;
- recognition of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 and the creation of tools for customary use and fishery management practices; and
- allocation of Total Allowable Catch (TAC) between Māori customary, recreational, and commercial fishers.¹⁷

Ministry for Primary Industries (MPI) is responsible for administering the Fisheries Act 1996 and its regulations.¹⁸ The Act also created ACE which are the right to catch a certain amount of fish stock during a fishing year. ACE can be bought, sold and transferred, separating the quota ownership right from the fish access right.¹⁹ ACE entitles its holder to harvest a set volume of fish species from a specific geographical area around the coast of New Zealand known as a Fisheries Management Area (FMA). ACE volumes are set by the Minister of Fisheries (MPI) annually and fluctuate depending on a number of factors including the sustainability of the species. Unlike ITQs, ACEs are not restricted by consolidation limits. The Act also laid out the parameters of two of the three Area Management Tools (AMTs) available to Māori to help sustainably manage traditional customary fishing grounds, taiāpure and rāhui.

Fisheries (Kaimoana Customary Fishing) Regulations 1998 and Fisheries (South Island Customary Fishing) Regulations 1999

The Fisheries (Kaimoana Customary Fishing) Regulations 1998 and Fisheries (South Island Customary Fishing) Regulations 1999 saw the Crown recognise the importance of traditional fisheries to Māori and that the “Crown’s Treaty duty is to help recognise use and management practices and provide protection for and scope for exercise of rangatiratanga in respect of traditional fisheries.”²⁰ The key component was introducing legislation empowering the making of regulations recognising and providing for customary food gathering and the special relationship between the tangata whenua and places of

¹⁴ <https://teara.govt.nz/en/te-hi-ika-maori-fishing/page-6>

¹⁵ <https://teara.govt.nz/en/te-hi-ika-maori-fishing/page-6>

¹⁶ https://www.victoria.ac.nz/_data/assets/pdf_file/0007/845611/Boast.pdf

¹⁷ <https://www.mpi.govt.nz/law-and-policy/legal-overviews/fisheries/>

¹⁸ <https://www.mpi.govt.nz/law-and-policy/legal-overviews/fisheries/>

¹⁹ <https://cloudfront.escholarship.org/dist/prd/content/qt7hq099dr/qt7hq099dr.pdf>

²⁰ <http://www.legislation.govt.nz/regulation/public/1998/0434/latest/DLM267987.html>

importance for customary food gathering.²¹ Under the regulations, mātaītai reserves were able to be created and guardians (tangata kaitiaki or tangata tiaki) can be appointed for a specific rohe moana (defined customary fishing area).²² The Fisheries (Kaimoana Customary Fishing) Regulations 1998 applying to the North Island and Chatham Islands and a separate piece of legislation, the Fisheries (South Island Customary Fishing) Regulations 1999, applying to the South Island, were enacted and together these are known as the ‘customary regulations.’²³ Critically, however, the regulations defined this ‘customary’ food gathering as uneconomic, requiring it to be neither commercial nor involve commercial gain or trade. The customary regulations saw the third AMT, the mātaītai, created. The 1992 Act had created an obligation for the Crown to develop regulations to provide for marine mahinga kai (customary food) gathering by Māori but these were only created by the 1998 and 1999 Acts.²⁴

Māori Fisheries Act 2004

The Treaty of Waitangi Fisheries Commission had been charged with facilitating Māori entry into the fishing industry and allocating fishery assets to tribes. The method by which fishery assets were allocated was finalised with the Māori Fisheries Act 2004.²⁵ When this Act was passed it was anticipated that tribes would receive around half of the estimated \$750 million in settlement assets. The Act disbanded the Treaty of Waitangi Fisheries Commission, reallocating its assets to a newly formed company, Aotearoa Fisheries Limited, and its sole voting shareholder, Te Ohu Kaimoana Trust.²⁶

Marine and Coastal Area (Takutai Moana) Act 2011

The Marine and Coastal Area (Takutai Moana) Act 2011 was passed as a result of the furore caused by the Labour-led government’s 2004 Foreshore and Seabed Act.²⁷ In 2009, the National-led government, as part of their confidence-and-supply agreement with the Māori Party, undertook a review of the Foreshore and Seabed Act. The Marine and Coastal Area (Takutai Moana) Act 2011 repealed the 2004 Act, replacing Crown ownership of the foreshore and seabed with a ‘no ownership’ regime, and restoring the right of iwi to seek customary rights and title in court.²⁸ This Act legislated the exclusive customary interests of Māori in what are otherwise public areas of the foreshore and seabed. These interests prevent existing rights and uses, including public access, navigation, fishing, aquaculture and mining.²⁹

²¹ <http://www.legislation.govt.nz/regulation/public/1998/0434/latest/DLM267987.html>

²² <https://www.mpi.govt.nz/law-and-policy/maori-customary-fishing/>

²³ <https://www.mpi.govt.nz/law-and-policy/maori-customary-fishing/>

²⁴ <http://www.mahingakai.org.nz/resources/what-are-amts/>

²⁵ <https://teara.govt.nz/en/te-hi-ika-maori-fishing/page-6>

²⁶ <https://teara.govt.nz/en/te-hi-ika-maori-fishing/page-6>

²⁷ <https://teara.govt.nz/en/law-of-the-foreshore-and-seabed/page-5>

²⁸ <https://teara.govt.nz/en/law-of-the-foreshore-and-seabed/page-5>

²⁹ <https://teara.govt.nz/en/law-of-the-foreshore-and-seabed/page-5>

Judicial, enforcement, administration

Waitangi Tribunal

The Waitangi Tribunal is a permanent commission of inquiry established under the Treaty of Waitangi Act 1975. The Tribunal is charged with investigating and making recommendations on claims brought by Māori relating to actions or omissions of the Crown, in the period largely since 1840, that breach promises made in the Treaty of Waitangi.³⁰ The tribunal is not a court of law, meaning that the Crown can ignore the recommendations, as occurred during the foreshore and seabed dispute. The tribunal has overseen several critical disputes over marine resources, including the Muriwhenua Claim and the Ngāi Tahu Claim. The Treaty of Waitangi (Fisheries Claims) Settlement Act 1992 was a 'final settlement,' aiming to settle the Crown's obligations in respect of 'all claims (current and future)' that relate to commercial fishing for 'all Māori.' However, in the years following the Act the tribunal – as well as a several levels of the judiciary – heard the case of urban Māori authorities who disagreed with the method by which the Treaty of Waitangi Fisheries Commission allocated quota (Webster, 2002).

Courts

The New Zealand courts system provides several functions in the MME. They have provided the means by which various groups have appealed against Crown legislation and regulation and the decisions regarding quota and cash allocation by the Treaty of Waitangi Fisheries Commission. The courts are also the means by which the crimes outlined in various legislation and regulations regarding fishing are prosecuted. The High Court is also involved in overseeing applications for the customary marine title created by the 2011 Act, with 202 applicants choosing the High Court rather than the Crown to hear their cases.³¹

Ministries

There are a number of ministries and departments that have a direct interest or involvement in the MME: the Ministry for the Environment (MfE) (tasked with managing and sustaining the marine environment); the Ministry for Primary Industries (tasked with managing and enforcing the QMS); the Ministry of Business, Innovation and Employment (MBIE) (tasked with development of commercial actors in the marine economy); the Ministry of Justice (MOJ) (tasked with oversight of the legislative framework, judiciary and punishment of infringements to the QMS); the Ministry of Foreign Affairs and Trade (MFAT) (tasked with international trade issues relating to the marine economy); the Ministry of Defence (MOD) (tasked with supporting MPI in managing and enforcing the QMS); and, the Department of Conservation (DOC) (tasked with managing and protecting marine reserves).

³⁰ <https://www.waitangitribunal.govt.nz/>

³¹ <https://minterellison.co.nz/our-view/marine-and-coastal-area-takutai-moana-claims-have-a-long-road-ahead>

Māori marine property rights

Customary title, foreshore and seabed

The Marine and Coastal Area (Takutai Moana) Act 2011 restored the iwi ability to seek customary rights and title in court.³² The Act delineates two types of customary right. The first is protected customary rights, under which Māori customary activities, uses and practices (e.g., waka launching) are recognised and protected.³³ These rights need to have been exercised since at least 1840, though they are allowed to have evolved over time. The second is a customary marine title that covers a specified area of the common marine and coastal area. Customary marine title is the highest form of protection of Māori rights and interests available, though is not a fee simple title that indicates permanent and absolute ownership.³⁴ To obtain legal recognition of either protected customary rights or customary marine title, whānau, hapū and iwi can apply to the court or they are able to negotiate directly with the Crown. As the stronger of the two, customary marine title has strict requirements and can only be granted if the applicant group has held the area in accordance with tikanga (custom) and has used and occupied the area exclusively since at least 1840, or after a customary transfer, without any substantial interruption.³⁵ Customary marine title is inalienable, meaning that the area cannot be sold on. There are eight key rights gained through customary marine title:

- A Resource Management Act permission right which lets the group say yes or no to activities that need resource consents or permits;
- A Conservation Permission Right which lets the group say yes or no to certain conservation activities;
- The right to be notified and consulted when other groups apply for marine mammal watching permits;
- The right to be consulted about changes to Coastal Policy Statements;
- A wāhi tapu protection right which lets the group seek recognition of a wāhi tapu (sacred site) and restrict access to the area if needed;
- The ownership of minerals other than petroleum, gold, silver, and uranium;
- The interim ownership of taonga tūturu³⁶ found in the area, and;
- The ability to prepare a planning document which sets out the group's objectives and policies for the management of resources in the area.³⁷

The Crown set a deadline for applications for customary marine title of April 3, 2017 and received 385 in total, with 202 opting to be heard by the High Court.³⁸ The thresholds a

³² <https://teara.govt.nz/en/law-of-the-foreshore-and-seabed/page-5>

³³ <https://teara.govt.nz/en/law-of-the-foreshore-and-seabed/page-5>

³⁴ <https://teara.govt.nz/en/law-of-the-foreshore-and-seabed/page-5>

³⁵ <https://teara.govt.nz/en/law-of-the-foreshore-and-seabed/page-5>

³⁶ Taonga tūturu means an object that (a) relates to Māori culture, history, or society; and (b) was, or appears to have been (i) manufactured or modified in New Zealand by Māori; or (ii) brought into New Zealand by Māori; or (iii) used by Māori; and (c) is more than 50 years old

<https://mch.govt.nz/nz-identity-heritage/protected-objects/taongatuturu>

³⁷ https://ngaitahu.iwi.nz/our_stories/takutai-moana-tk74/

³⁸ <https://minterrellison.co.nz/our-view/marine-and-coastal-area-takutai-moana-claims-have-a-long-road-ahead>

group needs to pass to be granted this title are difficult to meet and some applicants have experienced issues gaining recognition.³⁹ To date, no applications have been granted.

Commercial settlement rights

As legislated in the Fisheries Act 1996 and the Māori Fisheries Act 2004 (and their respective Amendments), Mandated Iwi Organisations have been given quota for a variety of fisheries. This 'settlement quota' is legally distinct from the other quota delineated by the QMS, as expressly stated in the 1996 Fisheries Act.⁴⁰ Settlement quota is labelled as SET and it is not only distinguished by a different name but also has different legal restrictions.⁴¹ One of the major differences is that unlike other quota, settlement quota cannot be sold on the open market but rather is only able to be traded to other iwi.⁴² It is restricted both in who can trade it and in the means of exchange, by trade rather than cash purchase.⁴³ As the Iwi Collective Partnership notes, trading SET is "a really complicated legal process. To highlight the difficulties, no settlement quota has been sold in the 12 years since first allocated."⁴⁴ The SET iwi received is often fragmented, particularly the deepwater quota. "Most, if not all, iwi have small deepwater holdings that are objectively uneconomic to fish independently, necessitating some form of ACE leasing arrangement. The small size of iwi holdings is a result of some settlement quota being held in the centralised companies, and the remainder of the quota being devolved to 57 iwi, creating highly fragmented ownership."⁴⁵

Marine estate governance

Regional Councils

In the 1990s, thirteen regional councils were established to implement and enforce the RMA. One of their roles is to manage marine areas through the development of regional coastal plans extending from mean high water springs to the edge of the territorial sea. Regional councils are also charged with preparing regional policy statements which apply over both water and land areas and are intended to guide the decisions of territorial authorities that manage land use and development. In 1994, the first New Zealand Coastal Policy Statement was promulgated at a central government level to guide coastal management at regional and local levels.

Rūnanga and marae komiti

The nomination of individuals to serve as tangata kaitiaki for customary fishing areas is performed by the local rūnanga or marae komiti. The composition of the entity making the choice of appointment depends on the rohe in which it is occurring. If there is any dispute regarding who the representative tangata whenua of the area is the competing parties need to resolve the issue themselves before they approach the minister.⁴⁶ They do not have the

³⁹ <https://minterellison.co.nz/our-view/marine-and-coastal-area-takutai-moana-claims-have-a-long-road-ahead>

⁴⁰ <https://www.iwicollective.co.nz/the-inconvenient-truth-of-maori-fisheries/>

⁴¹ <https://www.iwicollective.co.nz/the-inconvenient-truth-of-maori-fisheries/>

⁴² <https://www.iwicollective.co.nz/the-inconvenient-truth-of-maori-fisheries/>

⁴³ <http://www.iwiika.maori.nz/ahc/exchange-settlement-quota.htm>

⁴⁴ <https://www.iwicollective.co.nz/the-inconvenient-truth-of-maori-fisheries/>

⁴⁵ http://img.scoop.co.nz/media/pdfs/1111/20111007_FNL_FCV_Submission.pdf

⁴⁶ <http://www.nzlii.org/nz/journals/WkoLawRw/2000/4.html>

power to appoint the tangata kaitiaki, but must lodge an application with MPI.⁴⁷ Tangata whenua are also provided scope in the regulations to have input into the activities of commercial and recreational fishers in their customary fisheries, with 'iwi planning' documents able to be submitted under the RMA and, consequently, taken into consideration by local and regional councils in the development of their plans and the reviewing of resource consents.⁴⁸ They are also able to make bylaws in their mātaimai, which apply to everyone fishing in the mātaimai.

Te Ohu Kaimoana/Treaty of Waitangi Fisheries Commission

Te Ohu Kaimoana (TOKM) is a statutory organisation with a governance and advocacy role in Māori fisheries.⁴⁹ TOKM replaced the Māori Fisheries Commission which was created by the Māori Fisheries Act 1989.⁵⁰ TOKM was established to further Māori fishing and fisheries-related activities as well as being tasked with transferring fisheries assets and funds from the settlement to iwi organisations.⁵¹ The 2004 Māori Fisheries Act restructured TOKM, splitting it up into a set of companies and trusts: Te Ohu Kaimoana Trust, which governs the allocation and management of assets; Te Ohu Kaimoana Trustees Limited, which administers the rules of the Te Ohu Kaimoana Trust and holds the assets until they are allocated; Te Kāwai Taumata, which appoints and removes directors from Te Ohu Kaimoana Trustees Limited; Aotearoa Fisheries Limited, which controls the commercial side of the assets; Te Pūtea Whakatupu Trust, which uses its income to fund education and research related to Māori freshwater fishing; and Te Wai Māori Trust, which is mandated to advance Māori commercial freshwater fisheries (Lock & Leslie, 2007).⁵² TOKM has a list of duties and functions based around:

- Recognising mandated iwi organisations (MIOs) and their accompanying asset holding companies (AHCs) once they meet the requirements in the Act;
- Transferring fisheries settlement assets to each MIO as per the allocation methodology set out in the Act;
- Holding supervisory powers over the other settlement entities in the Te Ohu Kaimoana Group, including:
 - Aotearoa Fisheries Limited;
 - Te Pūtea Whakatupu Trust; and
 - Te Wai Māori Trust;
- Appointing directors to these entities and, in the case of the latter two, providing their original funding and approving annual plans, including their fund distribution policies;
- Providing assistance to Te Kawai Taumata, which is called together as required to appoint directors to Te Ohu Kaimoana Trustee Limited;

⁴⁷ <http://www.environmentguide.org.nz/issues/marine/kaitiakitanga/im:2083/>

⁴⁸ <http://www.nzlii.org/nz/journals/WkoLawRw/2000/4.html>

⁴⁹ <https://fs.fish.govt.nz/Page.aspx?pk=78&dk=1851>

⁵⁰ <https://fs.fish.govt.nz/Page.aspx?pk=78&dk=1851>

<https://www.waitangitribunal.govt.nz/assets/Documents/Publications/Te-Manutukutuku-Issue-20.pdf>

⁵¹ <https://teohu.maori.nz/settlement-history/>

⁵² http://motu-www.motu.org.nz/wpapers/07_02.pdf

- Participating in regulatory and industry processes to protect and enhance the interests of iwi and Māori in fisheries and fisheries-related activities.⁵³

⁵³ <https://teohu.maori.nz/who-we-are/about-us/>

ORGANISATIONAL LEVEL INSTITUTIONS

Judicial, enforcement, administration

Ministry for Primary Industries fisheries officers

Ministry for Primary Industries (MPI) fishery officers cover both inshore and offshore fisheries, scouting the coastline from cars and boats as well as working in offices, local and foreign fishing vessels, fish-processing factories and retail outlets. Fishery officers are authorised to enforce and administer the Fisheries Act 1996. This Act confers on them the following powers: “power of entry, search and questioning, power of arrest, power to give directions to the master, power to use reasonable force, power to take copies of documents and power to seize.”⁵⁴ Fishery officers have a range of tasks including to: “collect data on caught fish and the working conditions on boats; inspect fishing vessels and retail outlets such as cafes and fish shops; enforce commercial catch limits and ensure that commercial fishing businesses have the correct documentation; enforce fish and shellfish quotas; educate people on fishery regulations; undertake investigative and surveillance work; take legal action against people who break the fisheries laws; gather, record and analyse information relating to the fishing industry; and, assist iwi groups with access to their customary fishing rights.”⁵⁵

Department of Conservation rangers

The Marine Reserves Act 1971 provides for the protection and preservation of marine life in established reserves and for the maintenance of the reserve as a natural habitat for marine life. DOC is responsible for the implementation, management and monitoring of New Zealand’s 44 marine reserves.⁵⁶ DOC rangers are tasked with preventing poaching in marine reserves and work in conjunction with MPI fishery officers.

Ministry of Defence

Both the New Zealand Navy and Air Force conduct joint operations with MPI fishery officers.⁵⁷ The relationship between the Ministry of Agriculture and Forestry (MAF) and the New Zealand Defence Force (NZDF) was formalised by a 1990 memorandum of understanding that specified the arrangements for co-operation in the provision of fisheries aerial and surface surveillance.⁵⁸ The Fisheries Act 1996 states that every officer in command of any vessel or aircraft of the NZDF is deemed to be a fishery officer and may, without warrant, exercise the powers conferred on fishery officers.⁵⁹ While all Navy vessels are tasked with patrolling New Zealand’s fisheries, it is the primary purpose of the four inshore patrol and two offshore patrol vessels of the Patrol Force, which undertakes regular patrols in support of the MOF around New Zealand waters. During these patrols, fishery

⁵⁴ <http://www.fao.org/docrep/007/y2776e/y2776e04.htm>

⁵⁵ <https://www.careers.govt.nz/jobs-database/farming-fishing-forestry-and-mining/aquaculture-fishing/fishery-officer/>

⁵⁶ <https://www.doc.govt.nz/nature/habitats/marine/type-1-marine-protected-areas-marine-reserves/>

⁵⁷ <http://www.nzdf.mil.nz/media-centre/news/2018/20180209-joint-fisheries-patrol-sends-message-on-sustainable-fishing.htm>

⁵⁸ https://dpmc.govt.nz/sites/default/files/2017-03/annex_iii_a_fisheries-aerial_surveillance.pdf

⁵⁹ <http://www.legislation.govt.nz/act/public/1996/0088/latest/whole.html#DLM398399>

officers board and check commercial and recreational fishing boats to make sure that both catch and quota limits are being observed by fishers.⁶⁰ The Air Force provides its aircraft for multi-agency operations where aerial surveillance provides the best means of detecting illegal fishing.⁶¹

New Zealand Police

The New Zealand Police has a legislated role in enforcement of fisheries law. Under the 1996 Fisheries Act, every constable is deemed to “be a fishery officer and may, without warrant, exercise the powers conferred on fishery officers.”⁶² The Police Maritime Unit (PMU) in particular works in conjunction with MPI fishery officers on multi-agency protocols, and PMU crews are designated as MPI fishery officers and have specialist knowledge of maritime law and offences.⁶³

Permits

Marine mining and marine tourism are also components of the MME. Both of these activities require permits. Permits to mine in New Zealand are issued by New Zealand Petroleum and Minerals, which is part of MBIE.⁶⁴ Operating a marine tourism business requires permits specific to the type of business. Maritime New Zealand is tasked with the licensing required to operate a commercial vessel.⁶⁵ WorkSafe New Zealand requires registration and auditing for any commercial ventures in the marine economy.⁶⁶ Regional council permission is required for business activities that take place in their marine jurisdiction. The Marine Mammals Protection Regulations state that any marine tourism that involves interacting with marine mammals requires a permit that is issued by DOC.⁶⁷

Māori marine property rights

Iwi corporate collectives

Because some quota allocated to iwi were not commercially realisable on an individual basis, several iwi have combined quota under new corporate entities. The largest of these corporate collectives, both by the number of iwi and volume of quota shares, is the Iwi Collective Partnership (ICP), which is a limited partnership established by 16 North Island iwi.⁶⁸ ICP actively fishes its quota, but there are other collectives that pool their quota then trade the ACE. Sealord has signed five-year arrangements with the Top of the South Collective, which includes Ngāti Koata, Ngāti Tama, Te Ātiawa, Te Ātiawa Taranaki and Te Kupenga o Maniapoto, to fish their ACE in a profit-sharing deal.⁶⁹

⁶⁰ <http://navy.mil.nz/oe/ops/nz/fishery-and-border-patrols.htm>

⁶¹ <https://www.stuff.co.nz/national/crime/77086924/null>

⁶² <http://www.legislation.govt.nz/act/public/1996/0088/latest/whole.html#DLM398399>

⁶³ <https://www.policeassn.org.nz/newsroom/publications/featured-articles/day-life-maritime-unit>

⁶⁴ <https://www.nzpam.govt.nz/permits/minerals/>

⁶⁵ <https://www.maritimenz.govt.nz/commercial/environment/operators/tourist-vessels.asp>

⁶⁶ <https://www.maritimenz.govt.nz/commercial/safety/safety-management-systems/adventure-activity/default.asp>

⁶⁷ <https://www.doc.govt.nz/get-involved/apply-for-permits/interacting-with-marine-mammals/>

⁶⁸ <https://www.iwicollective.co.nz>

⁶⁹ <https://www.nbr.co.nz/article/sealord-signs-quota-pooling-deal-iwi-164623>

Mandated iwi organisations

In the 2004 Māori Fisheries Act, it was determined that iwi need to meet certain governance criteria to become Mandated Iwi Organisations (MIOs) to receive fisheries assets and that there can be only one MIO per iwi.⁷⁰ To qualify, the MIO must be set up as either a company, trust or incorporated society that has directors, trustees or office holders that have been either elected or appointed in accordance with the organisation's constitution.⁷¹ Furthermore, the MIO needs to maintain a current register of all iwi members.

Quota Management System

As outlined in the 1983 Fisheries Act, the QMS is the core mechanism for fisheries management. The QMS sets a yearly catch limit—the total allowable catch or TAC—for every fish stock (a species of fish, shellfish or seaweed from a particular area).⁷² By controlling the amount of fish taken from each stock, the QMS is focused on keeping New Zealand fisheries sustainable. Fish stocks in the QMS are separated by Quota Management Areas (QMAs). These areas are based on administrative and biological factors for the species such as how many fish there are in different regions.

Tangata kaitiaki

Once appointed by the Minister of Fisheries the tangata kaitiaki has the authority to “govern the date when fishing is to occur, who can take the fish, the quantity and size of each species to be caught, the fishing method, the area where fishing is to occur, the purpose and venue for which the fish are needed, and any other matters that the tangata kaitiaki considers necessary.”⁷³ Tangata kaitiaki are required to maintain accurate records of the authorisations that they issue and the quantities of various species of fish taken and they report back to their respective tangata whenua every year regarding fishery management, and to MPI each quarter on the quantity and species that have been taken and from where they were caught.⁷⁴ Tangata kaitiaki are also involved in the fisheries management processes, helping to set TAC and provide advice on regulations. Tangata kaitiaki manage the fishing in mātaihai, though fishery officers are tasked with their enforcement.

Customary fishing authorisation and permits

Tangata kaitiaki can authorise any individuals to fish in mātaihai “for customary food gathering purposes from within the whole or any part of the area/rohe moana, for which the Tangata Kaitiaki/Tiaki has been appointed.”⁷⁵ The authorisation needs to specify:

- The date or dates that the species may be taken;
- The persons who are authorised to take the species;
- The species that may be taken;
- The quantity of each species that may be taken;
- Size limits relating to each species to be taken;

⁷⁰ Webster 2002

⁷¹ http://motu-www.motu.org.nz/wpapers/07_02.pdf

⁷² <https://www.mpi.govt.nz/law-and-policy/legal-overviews/fisheries/quota-management-system/>

⁷³ <http://www.nzlii.org/nz/journals/WkoLawRw/2000/4.html>

⁷⁴ <http://www.nzlii.org/nz/journals/WkoLawRw/2000/4.html>

⁷⁵ <http://www.legislation.govt.nz/regulation/public/1998/0434/latest/DLM268637.html>

- The method by which each species may be taken;
- The area or areas in which the species may be taken;
- The purpose for which the species may be taken;
- The venue at which the catch may be used; and
- Any other matters concerning customary food gathering the tangata kaitiaki (tiaki) may reasonably specify, including instructions for the disposal of any fish, aquatic life, or seaweed taken as an inevitable consequence of taking the fish, aquatic life, or seaweed to which the authorisation relates.⁷⁶

The authorised fishers must carry their permit when they are fishing.

⁷⁶ <http://www.legislation.govt.nz/regulation/public/1998/0434/latest/DLM268637.html>

OPERATIONAL LEVEL INSTITUTIONS

Judicial, enforcement, administration

Marine mineral extraction

Marine mineral extraction is a component of the wider marine economy. There are no known Māori businesses operating in this sector.

Marine tourism

There are a number of different forms of marine tourism, including sightseeing, whale and dolphin watching, and kayak or canoe tours. Māori are active in all of these areas. Ngāti Awa operate White Island Tours, which takes tours to the volcano at White Island.⁷⁷ An example of a Māori marine tourism operator that interacts with marine mammals is Whale Watch Kaikōura, which is owned by Ngāti Kuri, a Ngāi Tahu hapū, with Ngāi Tahu as a shareholder. The Marine Mammals Protection Regulations 1992 sets out conditions governing commercial marine mammal guiding to view.

Māori marine property rights

Māori corporate collectives

Some iwi corporate collectives actively fish their quota. An example is Port Nicholson Fisheries, which is the largest Māori-owned exporter of live lobster. Port Nicholson Fisheries was an existing company purchased by Parininihi ki Waitotara (PKW)—a Māori land incorporation—the ICP and an iwi, Ngāti Mutunga ki Wharekauri (Chatham Islands) in 2013. The company has since had a further nine iwi buy into it as well as what was Aotearoa Fisheries Limited but is now Moana New Zealand.⁷⁸ The company processes 650 tonnes of lobster quota—almost half of the North Island and Chatham Islands’ TAC and around 23% of New Zealand’s total live lobster exports.⁷⁹

Iwi fishing firms

A number of iwi have their own fishing operations, including processing and sales, which utilise their iwi quota and quota traded with other iwi, often with whānau firms conducting the fishing. Ngāti Porou “are one of the very few iwi who process [their] own fish from [their] quota, and participate in every aspect of the seafood industry.”⁸⁰ Ngāti Porou returned to fishing in “1993 as a part of the Ngāti Porou Rūnanga’s economic development unit, leasing [their] ACE (Annual Catch Entitlement) from Te Ohu Kaimoana.”⁸¹ Their company, Ngāti Porou Seafoods, currently generates most of its income through partnerships, explaining that while it “will be some time before Ngāti Porou Seafoods gets the majority of its income from higher margin retail products” as they “don’t have the products, quota mix or vessels landing in Gisborne” they “look for opportunities to move up

⁷⁷ <https://www.whiteisland.co.nz/about.html>

⁷⁸ <https://poutama.co.nz/port-nicholson-fisheries-lp/>

<https://www.npsl.co.nz/our-business/strategic-partnerships/port-nicholson/>

⁷⁹ <https://www.npsl.co.nz/our-business/strategic-partnerships/port-nicholson/>

⁸⁰ <https://www.npsl.co.nz/our-business/operations/>

⁸¹ <https://www.npsl.co.nz/about/group/>

the value chain, and develop products where it can be commercially justified.”⁸² Ngāti Porou Seafoods’ assets have grown in value to \$35 million and they currently employ 35 people. Ngāi Tahu also have their own fishing company, Ngāi Tahu Seafood, which was set up following a recommendation by the Waitangi Tribunal in 1992 to manage the fishing quota received by Ngāi Tahu. Ngāi Tahu Seafood has an integrated fishing, processing and distribution chain and supplies seafood to international and domestic markets, under its TAHU brand. Most seafood is caught against Ngāi Tahu quota by Ngāi Tahu whānau fishers.

Private Māori fishing firms

A number of private Māori fishing firms also operate independently in the marine economy. These are firms that have purchased quota on the open market, rather than the settlement quota that tenant whānau fishers utilise. An example of a privately-owned Māori fishing firm is Okains Bay Longline Fishing. While privately owned, many of these firms still operate using Māori values as their core guide. Okains Bay Longline Fishing “uses only the more environmentally friendly longline technique, no trawling or gill netting.”⁸³ As the owner, a Ngāi Tahu tribal member, explains, the major issue with long lines is seabird bycatch, and

*[w]e’ve been really proactive in solving this problem. I’ve been involved with writing the [industry] code of practice. On our latest boat we put in an underwater setting pipe at huge cost. We chose to ask for observers on our boats. They were on for six weeks. In that time we set 850,000 hooks and caught three muttonbirds. It wasn’t bad, although it’s not perfect.*⁸⁴

The company also “developed recyclable cardboard packing featuring water-based inks, instead of the traditional polystyrene boxes used by the fishing industry... [and their] fishing vessel [is] run on a biodiesel mix made in New Zealand from recycled cooking oil and sustainably-grown canola.”⁸⁵ While some private Māori fishing firms sell their catch to processors who then process and distribute the product, others such as Okains Bay Longline Fishing process their own fish and control the entire supply chain, selling directly to retailers nationally and internationally.

Whānau tenant fishers

Whānau tenant fishers get their settlement quota from processors who have purchased it from iwi, and they are then usually required to sell their fish back to the same processor. An example of this is the Connor whānau, who lease quota from their iwi, Ngāi Tahu, and from other iwi and sell some of their catch under their own brand and some under a Ngāi Tahu brand.⁸⁶ While these whānau fishers operate in the commercial environment, many also conduct themselves according to Māori values, particularly, whanaungatanga and kaitiakitanga. The Connors “have a strong sense of kaitiakitanga—a vision for their business to remain profitable and sustainable for their whānau in future.”⁸⁷ While some whānau

⁸² <https://www.npsl.co.nz/our-business/domestic-market-channels/>

⁸³ <https://ngaitahu.iwi.nz/wp-content/uploads/2013/09/TeKarakas37.pdf>

⁸⁴ <https://ngaitahu.iwi.nz/wp-content/uploads/2013/09/TeKarakas37.pdf>

⁸⁵ https://ngaitahu.iwi.nz/our_stories/7133/

⁸⁶ https://ngaitahu.iwi.nz/our_stories/whanau-business-a-way-of-life-tk77/

⁸⁷ https://ngaitahu.iwi.nz/our_stories/whanau-business-a-way-of-life-tk77/

tenant fishers are able to operate profitably their situation can be more limited than private Māori fishing firms as they are reliant on the processor for both the quota and purchasing, which means they are unable to negotiate prices.

ACE purchase and lease

Annual Catch Entitlements can be purchased or leased. Many iwi lease the ACE for their SET to processors or fishing companies because their ACE is uneconomic to fish. In some cases this ACE is then purchased by tenant whānau fishers who are then beholden to the processor from whom they purchased the ACE. Operational fishers need to ensure they have the right ACEs for the year's catches, which must be register through FishServe.⁸⁸

Marine estate governance

Pātaka

Under the customary regulations, fish can be stored for communal activity at a later time. This storage is referred to as pātaka.

Customary harvest

The 1992 Treaty of Waitangi (Fisheries Claims) Settlement Act and the customary regulations allow Māori to harvest fish for non-commercial purposes in both mātaimai and taiāpure. While the fish can be used for koha (gifting), to the extent that such purpose is consistent with tikanga Māori it cannot be used for pecuniary gain or trade.⁸⁹ With regard to taiāpure the actual fishing activity can be undertaken by a commercial fisher provided they operate under a customary authorisation and separate the catch from commercial catch.⁹⁰

Mātaimai

Mātaimai are customary fishery management areas created by the customary regulations of 1998/1999. Mātaimai provide for traditional fishing through local Māori management and allow both customary and recreational catch, though commercial fishing is generally not permitted.⁹¹ To be approved the Minister of Fisheries must be satisfied that: a special relationship exists between tangata whenua and the area of the proposed reserve; the proposed reserve is a traditional fishing ground; the proposed reserve can be effectively managed by the tangata whenua; the general management aims are consistent with the sustainable use of the fisheries resources in the area; the proposed mātaimai reserve is not a marine reserve; the reserve will not unreasonably affect the ability of the local community to take fish for non-commercial purposes; the reserve will not prevent persons with a commercial interest in a species from taking their quota or annual catch entitlements, or those with a commercial fishing permit from taking fish within the fishing management area; and, the reserve will not unreasonably prevent non-commercial fishers from fishing within the fishing management area.⁹² Mātaimai can be established in lakes, rivers, estuaries and coastal areas. While in theory mātaimai can be constituted and run entirely by Māori, in

⁸⁸ <https://www.fishserve.co.nz/information/annual-catch-entitlement>

⁸⁹ <https://openseas.org.nz/customary-fishers/>

⁹⁰ <https://openseas.org.nz/customary-fishers/>

⁹¹ <https://www.mpi.govt.nz/law-and-policy/maori-customary-fishing/managing-customary-fisheries/>

⁹² <http://www.legislation.govt.nz/regulation/public/1998/0434/latest/DLM268637.html>

practice there are generally other interest groups who help to co-manage these areas. Some mātaihai reserves have bylaws that tangata kaitiaki/tiaki (guardians) use to manage non-commercial fishing. Bylaws apply to all people fishing in a mātaihai reserve.

Taiāpure

Taiāpure are customary fishing areas significant to Māori and can be established “in relation to areas of New Zealand fisheries waters (being estuarine or littoral coastal waters) that have customarily been of special significance to any iwi or hapū either – (a) as a source of food; or (b) for spiritual or cultural reasons” (Fisheries Act 1996). Both commercial and non-commercial fishing are allowed in taiāpure. Each taiāpure has a management committee, with “members from local iwi or hapū and often commercial and recreational fishers as well as other interested parties (e.g., scientists, environmental groups). The committee can recommend regulations to the Minister of Fisheries and the regulations can only be made with respect to fishing or fishing related activities within the taiāpure.”⁹³ When a taiāpure is established, the local tangata whenua can nominate people for the taiāpure management committee. The committee is then appointed by the Minister of Fisheries, with consultation from the Minister for Māori Development. The management committee can provide recommendations to the Minister of Fisheries for regulations (under the Fisheries Act) to manage taiāpure fisheries, relating to: species fished; fishing seasons; sizes and amounts of fish; fishing areas; and fishing methods.

Rāhui

Rāhui, or temporary closures, are the second Area Management Tool (AMT) created in the 1996 Act. This enables the Ministry to temporarily close a fishery, or to restrict a particular method of fishing in lakes, rivers, estuaries and the sea. These closures and restrictions adhere to the traditional Māori sustainability mechanism of rāhui, with the reason for the closure or restriction being to improve the size and/or availability of fish stocks that have been depleted, as well as to recognise and provide for the use and management practices of Māori in fisheries sustainability operations.⁹⁴ A temporary closure can be recommended by anyone and the Ministry must consult with tangata whenua when assessing any proposal.

⁹³ <http://www.mahingakai.org.nz/resources/what-are-amts/>

⁹⁴ <http://www.mahingakai.org.nz/resources/what-are-amts/>

SURVEYING MĀORI FISHERIES ENTERPRISES

Introduction

As part of the research, we conducted an online survey of people who have various roles in the Māori marine economy (see Annex 1 Survey questionnaire). The survey targeted those in governance, management and advisory roles in Māori marine-based enterprises involved in fisheries. The purpose was to understand the importance of mātauranga Māori in the activities of Māori marine-based enterprises and how this knowledge was being applied in customary and commercial fisheries, enterprise practice, innovation, marketing and environmental management (see Annex 2 for the results).

Target participants

We distributed the survey to iwi and Māori fisheries companies and individuals in this sector. There are around 108 iwi fisheries trusts and subsidiary asset holding companies established under the Māori Fisheries Act 2004. In addition, individual fishers, privately owned Māori marine-based enterprises, and whānau and hapū-based enterprises operate within the Māori marine economy. We were aiming for response rate of 50, but only 24 responses were received over the period the survey was open (May-June 2019). Consequently, the results are indicative rather than representative. For some questions (e.g., innovation, branding, traceability), responses were particularly low, and consequently, are not included in this report. The survey may be re-run in the next phase of the Sustainable Seas research should the opportunity arise.

Participants in the Māori marine economy

On the ethnicity of respondents (Q8), most identify as Māori (70%), with four indicating affiliation with other ethnic groups. In terms of ownership interests (Q3), over half the respondents (54%) are registered members of an iwi with fisheries assets, while one owns a fishing business and two are investors. More of half the respondents (64%) have not governed a Māori marine-based enterprise (Q33). Of those that had governance experience, 23% had been trustees, 18% directors and 23% marae representatives (Q4). Eight respondents identified room for improvement in the governance of their enterprises. There is, however, a sizeable group that have had other roles (36%), including customary, consulting or advisory roles.

Māori marine-based enterprises

As to the profit motive (Q9) for Māori marine-based enterprises, 84% of respondents felt that maximising profits was either important (58%) or extremely important (26%). Ninety

percent of respondents considered their enterprises either profitable (40%) or highly profitable (50%) with one business loss-making (10%) (Q11).

Kaitiakitanga (guardianship, stewardship)

We asked respondents to indicate the level of their agreement with seven statements about the meaning of kaitiakitanga (Q89) (see Table 1 for results, which indicate those who strongly agreed with the statements. Sixty-four percent of respondents rate the ability of Māori to exercise kaitiakitanga (Q28) as “neither good nor poor” and “somewhat poor” (32%). Only 14% think that the ability to exercise kaitiakitanga is very good.

Table 1 Kaitiakitanga

Statement	%	#
The use of Māori knowledge and Western knowledge to care for the environment.	63.16%	12
Preserving the natural environment for future generations using traditional knowledge.	57.89%	11
An appropriate balance between protection and development of natural resources.	57.89%	11
An essential principle in order to meet cultural obligations of manaakitanga.	52.63%	10
Local (whānau and hapū) control and management of local marine environment.	42.11%	8
Kaitiakitanga means something different to sustainable development.	26.32%	5
Kaitiakitanga means very much the same thing as sustainable development.	15.79%	3

Mauri o te moana: Health of the oceans

On the importance of the mauri o te moana (Q23), 86% of respondents felt that maintaining the mauri (health) of the oceans was either important (9%) or extremely important (77%). Most respondents (77%) felt that the health of the oceans across Aotearoa is declining (Q24). Of those who considered that the mauri of the moana nationally had declined (Q25), they attributed this to: land-based activities (25%), poor management (18%), and poor governance of the marine environment (18%).

Ecosystem-Based Management

Most respondents (82%) had heard of ecosystem-based management (EBM) (Q29) and 56% of the respondents support EBM (Q30).

Tikanga Māori (Māori culture) and te reo Māori (Māori language)

Seventy-eight percent of the respondents indicate that Māori culture is either extremely important (64%) or important (14%). One respondent considered tikanga unimportant. The top three ways in which tikanga was applied in Māori marine-based enterprises were: mātauranga-a-rohe (e.g., knowledge of land and seascapes)—22%; karakia/incantation—20%; and māramataka (Māori fishing calendar)—18% (Q39). Eighty-one percent of the

respondents indicated that te reo Māori is either extremely important (52%) or very important (29%) (Q41). Eighty-one percent of the respondents either use te reo Māori in their organisations frequently (38%) or occasionally (43%) (Q42).

Traditional knowledge

Most respondents (71%) think that it is extremely important to preserve Māori traditional fishing knowledge and practices (Q43). Most respondents (90%) have been involved in customary fishing (Q46). The top four reasons respondents identify for their engagement in customary fishing are (Q47) to:

- Provide kai (food) for whānau consumption and sharing (21%)
- Supply tangi (funerals) and hui (meetings) with kaimoana (seafood) (21%)
- Maintain connections (19%)
- Pass on traditions to the next generation (19%).

More than half the respondents (58%) use a pātaka kai (storehouse) system for fisheries resources (Q48). Around half of the respondents are either highly concerned (29%) or concerned (24%) about passing on traditional knowledge regarding Tangaroa (Q52). The other half are either somewhat concerned (24%) or not concerned at all (14%).

NATURE AND SCOPE OF MĀORI MARINE ECONOMY ACTIVITY

Network analysis

The map of the MME in Annex 3 reveals a number of critical connections and interactions which we explore below, but taken as a whole, the analysis also provides a singular insight: the MME is embedded in a complex institutional framework spanning governmental, organisational and operational levels. This analysis examines these three levels to explore the connections and interactions, focusing on constraints and opportunities. This section largely focuses on commercial components of the MME rather than the non-market customary realm.

Governmental constraints

There are numerous pieces of legislation that constrain and shape the MME and a large array of actors that govern, adjudicate, manage and enforce the MME at the governmental level. This is something recognised by the Sustainable Seas National Science Challenge (2019, p. 2) which notes that:

The legal framework applying to the management of New Zealand's marine area is complex and fragmented. At least 20 pieces of legislation apply to the marine environment and many different central and regional government agencies are responsible for administering the law and managing the marine environment. New Zealand's legislation was developed for a range of different purposes (e.g., marine mammal protection, conservation, regulation of fisheries) and there is no consistent management approach across all the different types of legislation. Some legislation was first passed over 50 years ago. There are also some Acts which only apply to a particular area of New Zealand, such as the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005 which applies only in Fiordland. Some provision has been made for Māori customary rights and those under Te Tiriti o Waitangi/The Treaty of Waitangi in the marine area but these have yet to be fully resolved and may result in additional place-specific management arrangements. Together, this means that New Zealand's marine environment is not managed holistically. At the same time, there are increasing pressures on the marine space and its resources.

The complex nature of this framework makes organisational and operational change more difficult as the governmental level has so many constraints. There are a number of components that create that complexity.

One of these complexities is the numerous property rights Māori have in the MME. In total there are five different forms of Māori marine property rights. The first of these is Māori Individual Transferable Quota (ITQ), which is distinct from the other quota, with more restrictive rules applied to it including that it cannot be sold on the open market. It is also fragmented. This means that, to be economic, ITQ has to be leased out, or more appropriate quota must be purchased, or it needs to be fished collectively. This results in much of the financial benefit being leaked into the general economy, requiring more expenditure than some iwi may be able to afford, or forcing Māori organisations to assume particular

grouping responses. Settlement quota (or SET quota) can only be traded with other iwi. Trading SET quota is a complicated process with none sold since first allocated.⁹⁵ Furthermore, deepwater quota is often fragmented:

Most, if not all, iwi have small deepwater holdings that are objectively uneconomic to fish independently, necessitating some form of ACE leasing arrangement. The small size of iwi holdings is a result of some Settlement quota being held in the centralised companies, and the remainder of the quota being devolved to 57 iwi, creating highly fragmented ownership (Katene, 2011, p. 8).

As well as SET quota, Māori also have several forms of customary harvest rights—the mātaítai and taiāpure—which are subject to restrictions regarding harvest methods. One of the major restrictions on both these harvest rights are that they cannot be used for pecuniary gain. This reinforces a divide that is common in colonised Indigenous groups: that their traditional practices were not ‘economic.’ The next two forms of rights of Māori have been those delineated by the Marine and Coastal Area (Takutai Moana) Act 2011—protected customary rights and customary marine title. While the first of these has little to no financial potential, with customary marine title there are possible income streams through both resource extraction and marine mammal watching operations.

Not only are Māori fishing rights complex, but referencing the commercial quota TOKM noted in 2017 that it was important Māori had an

understanding of the fundamentally political (and therefore fragile) nature of Māori fisheries rights... When the fragility of Māori fisheries rights is fully understood, it becomes clear that the Māori fisheries strategy is not concerned with fishing but with the maintenance and advancement of collective Māori fishing rights as guaranteed under the Deed of Settlement through the establishment of a partnership between Iwi and the Crown to develop Treaty-based policy to guide New Zealand’s fisheries management.⁹⁶

There is, then, an understanding at the highest levels that the rights are very much contingent on ongoing political beneficence from the government—the QMS is a legislative manifestation that could be manipulated or revoked through the same legislative function. As TOKM outlines, “Iwi are now more diverse in their views regarding how fisheries rights should be balanced and exercised. This lack of unity creates risk when dealing with a Treaty Partner which is highly selective in its approach to dealing with Māori issues.”⁹⁷

The wider marine property rights that emerge out of the various pieces of legislation are also complex and have been categorised as ‘mismatched’ with regard to sustainability objectives by Yandle (2007). Yandle (2007) outlined these mismatches for recreational fishers in property rights dimensions (temporally, spatially and quantitatively) as well as

⁹⁵ <https://www.iwicollective.co.nz/the-inconvenient-truth-of-maori-fisheries/>

⁹⁶ <https://teohu.maori.nz/wp-content/uploads/2018/12/Maori-Fisheries-Strategy.pdf>

⁹⁷ <https://teohu.maori.nz/wp-content/uploads/2018/12/Maori-Fisheries-Strategy.pdf>

mismatches in the property rights bundles (between ITQ owners and ACE holders) across the three types of Māori customary fisheries rights. With regard to mismatches in property rights dimensions Yandle (2007) notes that temporally, the limited duration of ACE discourages sustainable resource use, while spatially, the rights overlap, with commercial and recreational fishers rights superseded by other marine interests such as aquaculture, mātaihai, marine reserves, resource extraction and submarine cables which can result in a reduction in commercial fishers' functional fishery and a resultant pressure to increase catch from these areas. Moreover, there is a "significant conflict over the rights to fish recognized for commercial, recreational, and customary Māori fishers, with only commercial fishers holding a well-defined quantitative property right" (Yandle, 2007, p. 12).

Further explaining the mismatches in the property rights bundles, Yandle (2007) outlines several examples: (i) ITQ owners have a stronger rights bundle as they share management rights with the government and have de facto exclusion rights, while ACE holders have only access and withdrawal rights, and thus few incentives to support long-term sustainability efforts; (ii) similarly, the three Māori customary fisheries rights bundles are mismatched—the strongest rights are held by the mātaihai and the weakest the Kaimoana arrangement; and (iii) unlike commercial and customary Māori fishers, recreational fishers do not have well-defined property rights.

In the late 1990s there was "concern that existing legislation and regulation dealing with the ocean domain did not provide an 'integrated' or 'holistic' approach. Community and market approaches were intertwined with regulatory approaches that centred on to sectoral management" (Vince & Haward, 2009, p. 414). This led to the development of an 'Oceans Policy,' though as Vince and Haward (2009) noted a decade after it was first proposed, this never eventuated in the holistic, overarching approach that it promised to be. Rather, the legislation that covers New Zealand's marine estate remains broken into numerous components, from the many general fisheries and Māori fisheries acts through to the RMA and the many other statutes that cover environmental and resource extractive aspects.⁹⁸ This complexity is a hinderance to EBM as the core focus of EBM is integrated and holistic management of an ecosystem—the legislative framework is counterproductive to this outcome.

Equally, the array of governmental actors in New Zealand's marine estate is complex and involves a number of different actors, though Māori lack any real governance authority. TOKM, as well as being a holding body for the efficacious management of iwi fishing assets, is essentially an advocate that can lobby governance entities, having no mandated power itself, and while rūnanga and marae komiti are charged with nominating tangata kaitiaki their nominees are appointed by MPI. The closest Māori come to any specific governance role is through their mandated engagement with regional councils under the RMA, though the RMA does not cover fisheries specifically. The wider governance situation includes central government through a number of different ministries, particularly MPI, MBIE, MfE and DOC. Other key governance actors in the marine estate are regional councils who, as noted, are responsible for the RMA. Generally, marine estate governance is a patchwork

⁹⁸ <http://www.environmentguide.org.nz/issues/marine/marine-management/legislation/>

comprising central government actors focused on their regulatory spheres of interest, and regional government actors restricted to their geologically-defined areas of interest.

Another issue with marine governance in New Zealand is that in some sense it has been delegated to corporate actors. As Vince and Haward (2009, p. 414) explain, the QMS has “encouraged the introduction of corporate models of governance in New Zealand fisheries, with quota association ‘companies’ taking the place of traditional associations or councils.” After outlining the formation of species-specific ‘management companies’ they go on to explain that:

... the use of tradeable rights and the creation of quasi-market approaches by such ‘trades’ in fisheries management tackles the ‘tragedy of the commons’ by creating private property regimes, based on what have been termed ‘privatarian’ approaches to common pool resources. The development of ITQs creates quasi-property rights provides an opportunity to utilise market mechanisms and allows the market to determine the value of the quota or its component ‘units.’ Setting the total allowable catch (TAC) and determining quota and unit shares of the TAC provides a powerful tool for fisheries managers in the control of fishing effort and ‘technology creep.’ One effect has been to increase the direct interest and involvement of fishers in the management of their fisheries and help and enhance the network nature of governance (Vince & Haward, 2009, p. 414).

Corporate governance is considered a negative impactor on Māori influence at this level, as corporate actors are not bound by the Treaty in the same way that public actors are.

Governmental opportunities

The most obvious opportunity from the governmental level is the collective scale of Māori fishing rights. While these have also been highlighted as a constraint, this is largely when they are viewed at the iwi level. Taken as a whole, Māori control roughly 30 per cent of commercial fishing, which puts them in a dominant position in the sector if this influence is wielded in a unified fashion. As TOKM chief executive Dion Tuuta explains, “[w]e have to find ways of reversing the fragmentation that has occurred since the allocation process but in a way that respects the mana and identity of individual iwi.”⁹⁹ Speaking of his own iwi, which holds 0.19% of Māori quota, Tuuta explains that “[t]hat’s barely a rounding error... We stand little or no chance on our own and we are by no means alone in that situation.” TOKM itself stated in its 2017 strategy document that it should focus on “reorganising into an agent of Mandated Iwi Organisations to act as an influencer and advocate for the protection and advancement of Māori collective fisheries rights based on strong knowledge, integrity and relationships.”¹⁰⁰ It also stated that the MIO need to work together, explaining that they need to be “collectively identifying, developing and promoting fisheries leadership to advocate protect and advance the full range of collective Māori traditional fisheries rights

⁹⁹https://www.seafood.org.nz/media/news/news/?tx_ttnews%5Btt_news%5D=1249&cHash=7c2753b539100455fd951c3fe5956d28

¹⁰⁰ <https://teohu.maori.nz/wp-content/uploads/2018/12/Maori-Fisheries-Strategy.pdf>

with the best support possible.”¹⁰¹ The report goes on to note that MIO need to be “working collectively to develop national and regional fisheries policy which protects and advances the full range of Māori traditional fisheries rights guaranteed under the Deed of Settlement.”¹⁰² While there is a lot of action in the collective area already, as TOKM has noted, this needs to increase if the opportunities are to be fully realised. While this collective work needs to occur at the organisational and operational levels, it also needs to push up into the governmental level.

As TOKM writes:

*[a]s a result of the collective Treaty settlement all Iwi individual fisheries rights are dependent upon the rights of every other Iwi being maintained. The protection and maintenance of Iwi rights ultimately requires collective action by all Iwi but the choice of how those secured rights are exercised is the decision of each individual Iwi.*¹⁰³

As well as TOKM acting as a lobbyist, MIOs also need to work together to ensure that their rights are protected, the best economic outcomes are achieved and Māori are actively engaged in the sector.

Organisational constraints

The complexity of the organisational level largely emerges out of issues from the governmental level, particularly Māori fishing rights. The main complexities at the organisational level are threefold. First, is the condition under which to receive fisheries assets Māori had to form MIOs with prescribed structural and functional parameters. Second, MIO may not have gained a financially viable asset forcing these entities to form joint ventures or lease out their quota. Third, TOKM has several organisational layers that can impede operations.

The need to operate as an MIO is restrictive. While MIO are conceived as ‘traditional’ structures, they are essentially centralised and scaled corporate organisations that sit in direct contrast to the decentralised hapū and sub-hapū forms that existed prior to, and during, early colonisation (Reid & Rout, 2016). Not only does the MIO concept place rights at a level that does not fit with the traditional rights model, but it also compels Māori to organise and operate according a corporate-beneficiary model (Reid & Rout, 2016), which McCormack (2018, p. 282) describes as a blend of “a corporate structure with a charitable trust fund complex.” The contrasts between these forms of economic organisation are outlined in Figure 3. This figure demonstrates how, in the traditional hapū-centric model, property rights to fish (fish icons below) were held at whānau and hapū scales under the jurisdiction of the chief with collective support of the tribe. Conversely, under the contemporary corporate-beneficiary model property rights are centralised in trusts under

¹⁰¹ <https://teohu.maori.nz/wp-content/uploads/2018/12/Maori-Fisheries-Strategy.pdf>

¹⁰² <https://teohu.maori.nz/wp-content/uploads/2018/12/Maori-Fisheries-Strategy.pdf>

¹⁰³ <https://teohu.maori.nz/wp-content/uploads/2018/12/Maori-Fisheries-Strategy.pdf>

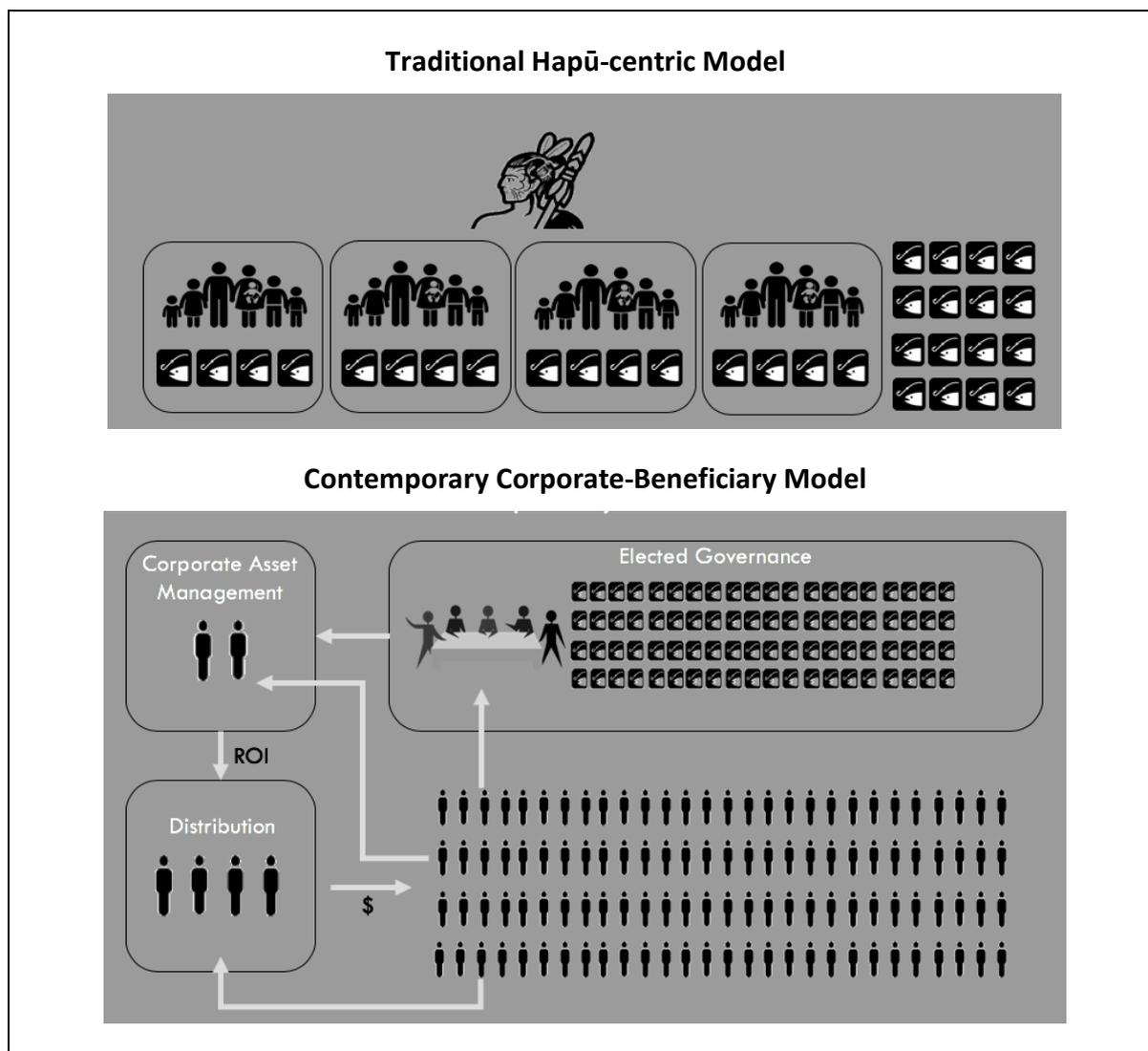
the governance of elected members of tribal groups and managed by corporate entities which provide dividends to tribal beneficiaries.

The requirements for an MIO outline that iwi “can choose whatever legal structure they wish provided it meets the minimum standard set by Te Ohu Kaimoana” (Webster, 2002, p. 352). However, as Webster (2002, p. 352) notes, while this may appear to give a degree of latitude “for traditional Māori ways, the crucial words are ‘legal structure’ and ‘minimum standards.’” In reality, for iwi to manage their fisheries assets they must invest in the assets, monitor their performance, extract a dividend and make reinvestment decisions, meaning they must meet “certain ‘structural’ criteria” (Webster, 2002, p. 352). In effect, corporate commercial fisheries are a corporate ‘bolt on’ to existing tribal structures that do not necessarily culturally align.

Many of the new iwi structures that have evolved in the current MME are often passive actors, leasing out their quota—or more specifically their ACE—rather than fishing it themselves (McCormack, 2010). McCormack (2018, p. 283) outlines five reasons for this:

First, many iwi do not have the technology or capital to harvest, in particular, deep-sea fish. Second, the quota held for a particular species is often too small to sustain a local fishing venture and is leased to companies that then aggregate it. Third, iwi-owned quota packages often contain a disproportionate amount of high-volume species on the lower end of the commercially valuable spectrum; economic viability, thus, requires leasing. Fourth, while some Māori settlement quota is owned as part of a more diversified set of asset holdings, for many iwi fishing quota is their only significant asset. Thus reducing risks and reaping the highest profit from the least amount of capital input may be the only rational economic choice. Finally, more wealth can be generated from trading activities than chasing fish in the sea.

Figure 3 The hapū centric model versus the corporate beneficiary model



Many MIOs lease some or all of their ACE. Several examples illustrate the point. Ngāpuhi, who are yet to settle their historic claims with the Crown, used to fish their own quota but decided to put it “out to tender because of what chief executive officer Alison Thom said had been ‘slim returns’ to the rūnanga in recent years.”¹⁰⁴ Their deepsea ACE is leased by a private firm and Moana leases the inshore ACE—the Ngāpuhi MIO has also sold their shares in their fishing boat.¹⁰⁵ Ngāi Tahu, which is one of the wealthiest MIOs and has the largest quota, lease their wetfish ACE but have agreed catch plans for Ngāi Tahu fishers with their lease partners. Ngāi Tahu are also owner, operator and supplier in three species—lobster, abalone and Bluff oysters—which are sold under their own brand, TAHU.¹⁰⁶ Waikato-Tainui,

¹⁰⁴ https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=216673

¹⁰⁵ https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=216673

¹⁰⁶ <https://ngaitahu.iwi.nz/investment/ngai-tahu-seafood/>

another of the wealthiest MIOs, has never and does not currently actively fish any of its quota, leasing its ACE to Sealord.¹⁰⁷

Several pan-iwi joint ventures have formed to overcome quota fragmentation, two are ICP and Port Nicholson Fisheries, as previously discussed. Similarly, the Te Ātiawa Taranaki Collective comprises 10 Iwi from Taranaki, Whanganui, Rangitikei and the Kapiti Coast, who have banded together to collectivise their quota into usable amounts, from which they lease their ACE to Sealord.¹⁰⁸

The 2004 Māori Fisheries Act saw TOKM restructured. The associated trusts are effectively a new form of pan-iwi organisation that have a variety of legislated roles. As a Ngāpuhi representative explained in a hearing about TOKM, “the two layers between iwi and Aotearoa Fisheries ... those two layers of bureaucracy between that company and the iwi should be removed.”¹⁰⁹ While TOKM has certainly achieved many positive business outcomes some view the institution as distancing Māori from the active usage of their fishing rights.

Organisational opportunities

There are three key opportunities at the organisational level: (i) values-oriented organisations; (ii) integrated supply chains; and (iii) branding and marketing potential.

Orienting Māori fisheries towards values-centric organisational structures, policies and processes is important as this not only provides a highly functional and sustainable business model, but also delivers a powerful point of difference with regard to international branding and marketing. Much has been written about the efficacy of Māori values as a guiding force in business and this is particularly important for primary sectors as they have such a critical relationship with the ecosystems in which they operate (Harmsworth, 2005; Spiller, Erakovic, Hēnare, & Pio, 2011).

Recent research in another national science challenge by two of this report’s authors found that the core values of whai rawa (profitability), kaitiakitanga (environmental care), mana whakahaere (governance) and whanaungatanga (communal focus) all work in synergy (Reid & Rout, 2019). That is to say, if a Māori business focuses on one of these values, the others seem to improve; though the findings are provisional. Key to this finding is that a focus on profitability within a wider tikanga framework is beneficial to maintaining the other core values.

One of the key arguments of the Whai Rawa Whai Mana Whai Oranga project is that Māori need to adopt what has been referred to as a ‘kaitiaki-centred business model.’ Driven by a long-term ethic of guardianship and care, kaitiaki-centred business models embed Māori commercial and social activity within sustainable ecosystem processes to support the

¹⁰⁷ <http://www.stuff.co.nz/business/industries/9124388/Sealord-in-Waikato-Tainui-Fisheries-quota-link>

¹⁰⁸ <https://www.sealord.com/nz/newsroom/sealord-iwi-collaborations-to-see-increased-returns/>

¹⁰⁹ <https://www.radionz.co.nz/news/te-manu-korihi/273000/should-the-maori-fisheries-body-be-canned>

integrated management of marine ecosystems and economies. While the value of kaitiakitanga is generally framed with an almost exclusively environmental focus by Crown entities that have incorporated it in legislation, when taken in context of a Māori worldview, kaitiakitanga can be understood in a far more expansive manner. As well as guarding and caring for the environment, kaitiakitanga encapsulates the same guardianship and care for humanity, both because humans are viewed as a part of the environment and because the concept of mauri and the centrality of relationships means that interactions between humans and the environment must aim to be mutually beneficial. While the values can work together in different ways, as we explore below, there is one relational network that seems both most common and most effective when it comes to understanding the kaitiaki-centred business model: kaitiakitanga is facilitated by rangatiratanga and mana whakahaere and leads not only to whanaungatanga and manaakitanga but also whai rawa. In other words, a values-centric model can not only deliver social and cultural benefits but can also be economically beneficial as well.

The ICP, for instance, is based around set of core Māori values: whanaungatanga—mutual respect and integrity in all we do; kotahitanga—building lasting relationships; manaakitanga—looking after each other, being supportive, honest and open; mākohakoha—high levels of achievement through expertise, and effective and efficient management; kaitiakitanga—guardians of resources for today and future generations; whakaaronui—vision, creativity, innovation, pro-activeness and initiative.¹¹⁰

Moana New Zealand also has an organisation centred on Māori values, which they detail as: kaitiakitanga—custodians for our future generations; manaakitanga—looking after people our way; whakapapa—our genealogy, where we're from; and whakatipuranga—prosperity for future generations.¹¹¹ The organisation has surveyed their stakeholders to affirm community expectations, are a member of the New Zealand Sustainable Business Council, have adopted best practice, integrated reporting and the Natural Capital Protocol which measures their environmental footprint (waste, water and energy efficiency).¹¹² Certainly many of these components are also elements adopted by non-Māori businesses, but these can all be seen as part of a wider value-embedding by Moana. TOKM is also clear on the centrality of Māori values, stating that “Te Ohu Kaimoana’s purpose in a strategy is clear: to defend the rights of all iwi and Māori in accordance with Māori values and the Deed of Settlement.”¹¹³

Organisationally, Māori fishing companies can also maximise opportunities by integrating their supply chain. This resonates with opportunities at the governmental level, which are reinforced by emphasising Māori values at firm-level, driven by a holistic Māori worldview. As a business proposition, integration of the fisheries value chain enables Māori businesses to ensure that the chain is efficient and effective and it enables them to add value by connecting with the market and consumers. ICP, Moana and Ngāi Tahu Seafood are all

¹¹⁰ <https://www.terarawa.iwi.nz/pou/economic/fisheries>

¹¹¹ <http://moana.co.nz/wp-content/uploads/2017/09/MOA-1739-External-Sustainability-Journey-2017-f.pdf>

¹¹² <http://moana.co.nz/wp-content/uploads/2017/09/MOA-1739-External-Sustainability-Journey-2017-f.pdf>

¹¹³ https://teohu.maori.nz/wp-content/uploads/2018/09/Maori_Fisheries_Strategy_27_February_2017.pdf

working on the integrated value chain model. ICP provides an organisational structure that allows its members to be actively engaged in all areas of the New Zealand fisheries value chain from asset management to sales and marketing.

Moana has introduced a number of initiatives to this end, including a provenance scheme that enables customers to click a QR code that provides them with detailed information regarding the product; finding ways to get their product to market quicker and fresher; as well as becoming accredited with a range of certification schemes.¹¹⁴ The company has been “investing significantly in its supply chain assets across all business divisions, and when its focus shifted to demand and direct consumer engagement, it made sense to create the Moana brand in keeping with the refreshed direction. Over the last three years alone the company has invested \$55 million in infrastructure renewal.”¹¹⁵ Likewise Ngāi Tahu Seafood has been investing in their supply chain, with an integrated fishing, processing and distribution chain that sees the company controlling virtually every aspect of the chain.¹¹⁶ While not all Māori fisheries companies have the same access to financial and social capital necessary to fully control their supply chain, working collectively they could do.

Connected to this is the branding and marketing potential that comes from organisations embedding and enacting Māori values. Craig Ellison, chair of both Seafood New Zealand and Ngāi Tahu Seafood, believes that Māori have great brands and a great brand story, but have not realised their full value. He explains that “[y]our role as managers, directors, participants in the sector is to lead and collaboration on the basis of shared values is the way forward” (Pankhurst, 2018, p. 1). Certainly, some Māori fishing companies are using this as a means of creating effective branding and marketing strategies. The rebranding of Aotearoa Fisheries Ltd to Moana was part of a wider transition. As the CEO explains, “the brand shares a ‘deep sense of responsibility’ to its people and the Kaimoana to protect the environment for future generations. The new brand embodies this and tells our story of true connection, true provenance, true to nature and true for generations.”¹¹⁷ Moana’s campaign “aims to show the connection between the people of Moana New Zealand, the places they fish and harvest and the kaimoana they share sustainably with the world.”¹¹⁸ Here the connection between branding and marketing and the emphasis on Māori values is clear, the Moana QR code is a key component of this new branding and marketing strategy as it enables the company to directly communicate with the customer. Just as the integration of supply chains is not an option for any individual MIO, the potential of branding and marketing is in the collective action of many MIOs. As a recent Westpac report noted, “[j]oint certification and/or a marketing campaign that emphasises the premium value of New Zealand seafood products may be more effective than the current fragmented

¹¹⁴ <https://idealog.co.nz/venture/2016/07/aotearoa-fisheries-rebrands-moana-new-zealand-deliver-premium-kiwi-seafood-world>

¹¹⁵ https://www.seafood.org.nz/media/news/news/?tx_ttnews%5Btt_news%5D=903&cHash=5af958f779860039654f4ece3e4e067a

¹¹⁶ <https://www.ngaitahuseafood.com/operations/>

¹¹⁷ <https://idealog.co.nz/venture/2016/07/aotearoa-fisheries-rebrands-moana-new-zealand-deliver-premium-kiwi-seafood-world>

¹¹⁸ <https://stoppress.co.nz/news/Aotearoa-Fisheries-name-Moana-New-Zealand>

approach.”¹¹⁹ While this refers to the entire seafood industry, MIOs are in a position to put this into action as they are bound by shared Māori values and the situation.

Operational constraints

As with the organisational level, the complexities of the operational level largely emerge out of the governmental level. Three key issues can be identified at this level: (i) MIOs require large social and financial capital to actively fish their quota; (ii) many private Māori fishing companies are reluctant to use SET quota and also face the same social and financial capital restraints as MIOs if they wish to operate freely; and (iii) for whānau tenant fishers there is limited operational freedom.

First, the MIOs and pan-iwi collectives face a range of operational issues that emerge from the fisheries rights situation. For instance, even if an iwi has sufficient quota to actively fish a species, they need the capital as well as skills, knowledge, experience and motivation to operate such a venture. This requires not just the purchase of vessels to fish, but the requisite processing and distribution capacity. For many iwi this is a difficult threshold to meet and one that has many risks. Several have gone from actively fishing their quota back to leasing it out, as they have either struggled financially or have faced other limitations that have impacted their operations.

The second issue is that private Māori fishing firms are often reluctant to use Māori fisheries quota because of the restrictions that come with it. While this is not necessarily an issue for the private companies in terms of finances, there are less tangible problems that can be discerned, particularly that the potential for the settlement quota to work as a way of unifying hapū and iwi is not actualised. In other words, the potential for the quota to reinforce core Māori values like whanaungatanga is unrealised in the current system. While traditional rights were a functional means of allocating resources they can also be understood as creating and maintaining core kin-bonds within social groupings. The operational reality of many private Māori fishing companies deciding to operate using market quota rather than SET quota indicates that the MME has issues of fracturing that work against these traditional bonds. Private Māori fishing firms must also either sell their catch to a processor on the open market or decide to take control of the value chain in the same way that the MIO need to. While there are examples of this being done successfully, this requires the same capital, skills, knowledge, experience and motivation as the MIO and this can be difficult at this operational scale.

The third problem is whānau tenant fishers who are limited in their operational ability to sell fish on the open market. While this is not always a problem, it can be for some fishers, and it can also be seen as restricting the expression of core Māori values, particularly the traditional flexibility of Māori property rights. Māori generally allocated property rights among individuals, whānau and hapū “on a functional rather than a geographical basis” (Banner, 1999, p. 811). Furthermore, depending on the situation, the rights would shift so that both the resource user and the resource itself were protected. The current system that

¹¹⁹ <https://stoppress.co.nz/news/Aotearoa-Fisheries-name-Moana-New-Zealand>

effectively sees some fishers indentured, with a right that is fixed rather than flexible, runs counter to the way traditional rights worked at the operational level.

Operational opportunities

There are two main operational opportunities: (i) sustainable fishing methods; and (ii) increased Māori employment in the fishing sector.

Operating sustainably provides an opportunity for Māori fishing companies, as this is a growing concern for many consumers around the world. It also connects with core Māori values. One example of a Māori fishing company operating with kaitiakitanga, manaakitanga and whanaungatanga as a primary focus is Okains Bay Seafood, which is built on the principle of care of people and place. As the owner Greg Summerton explains,

[t]he world is waking up to the need for sustainable seafood. It's not just about showing our fish come from the clean waters of New Zealand. We need to demonstrate that we are looking after our sea and fish for future generations. All fish are caught using hook and bait long lining, meaning we can target high-value species and leave other fish undisturbed. This has low impact on the seabed and produces better quality fish because they are less stressed in the catching process. We've also invested in a bio diesel fuelled fleet to reduce our carbon footprint.¹²⁰

At the other end of the scale, Moana has invested in Precision Seafood Harvesting (PSH) fishing technology which “replaces traditional nets, instead containing fish inside a flexible PVC tubular receptacle with holes that allow undersized fish to swim out. As well as bringing the fish on-board largely undamaged, the method also allows for better targeting of specific species and better tracking of when and where the fish was caught.”¹²¹ Both of these operational approaches emerge out of the centrality of Māori values to the business, kaitiakitanga, manaakitanga and whanaungatanga, in particular. As well as enacting these core values, they also offer a tangible means of adding value to the product through effective marketing to consumers who seek a more environmentally sound harvested catch.

Another opportunity at the operational level is increasing the levels of Māori actively employed in the fishing sector, which also connects with core Māori values, manaakitanga and whanaungatanga, in particular, and can also be a function of integrating the supply chain. Part of the purpose of the Māori Fisheries Act 2004 was to see more Māori engaged in the fishing sector and this opportunity would also help see more Māori directly benefiting from the fisheries assets than they currently do. One example of this is the collaborative agreement signed in 2019 with Sealord, a major force in New Zealand deep sea fisheries and owned 50% by Māori and iwi, which aims to, amongst other initiatives, provide iwi members opportunities for training and employment.¹²² Moana is also seeking to employ more

¹²⁰https://www.seafood.org.nz/publications/seafood-nz-magazine/article/?tx_ttnews%5Btt_news%5D=988&cHash=b728f1e2713226a390345cb6019123e1

¹²¹ <https://idealog.co.nz/venture/2016/07/aotearoa-fisheries-rebrands-moana-new-zealand-deliver-premium-kiwi-seafood-world>

¹²² <http://www.scoop.co.nz/stories/BU1903/S00639/sealord-and-iwi-join-forces-to-create-opportunities.htm>

Māori.¹²³ That said, there needs to be a greater focus on this opportunity as many Māori have left the sector since the QMS was introduced (Webster, 2002).

¹²³ <http://moana.co.nz/our-people/>

VALUE AND IMPACT OF THE MĀORI MARINE ECONOMY

Māori enterprises actively growing fisheries interests

We have outlined in detail how the Māori marine economy emerges from Māori responses and adaptation to Crown-created institutions and structures that are, organisationally, very different from traditional Māori social forms. Despite the limitations and tensions that this situation presents, Māori have responded positively, and in turn, experienced significant economic growth, and are increasingly dominant in the fisheries sector. Furthermore, Māori are making an impact in other areas of the marine economy such as tourism. In the following figures an attempt is made to capture and communicate the scale of the MME.

The map of the MME in Annex 3 identifies all of the entities in the MME that could be determined as 100% Māori owned, orders them in terms of their scale, and determines their types of activity. These entities include iwi settlement entities, and Māori trusts and incorporations. There are also a limited number of relatively small, privately owned Māori fishing companies that were not included. These were excluded given that the shareholding and ownership structures of these entities could not be validated through desktop analysis.

Firstly, the MME map outlines whether or not the entity has a share in Moana New Zealand, whether or not it is self-managing its quota and whether or not they are actively acquiring new quota. The results demonstrate that most activity is being undertaken by iwi settlement entities, which have a share in Moana New Zealand. Furthermore, 100% of these settlement entities are managing their own quota, through ACE trading, while 61% of the Māori organisations overall are actively acquiring more quota. This indicates an overall strong and growing Māori interest in fisheries.

Secondly, the MME map demonstrates the extent and depth to which Māori commercial entities are engaged in different parts of the MME. Analysis shows that 45% of businesses have gone into joint-venture partnerships with other iwi and non-Māori fishing companies to fish their quota. 8% are fishing their own quota, 10% are processing their own fish, 10% are self-branding, and 8% are exporting, of which 90% are exporting under their own brand. This activity is primarily limited to Moana New Zealand, large post-settlement entities and several smaller iwi that have concentrated quota in high-value species such as kōura and pāua.

In addition to wild catch, 13% of Māori entities have licenses to marine farm, while 8% are marine farming. Only one iwi, Ngāi Tahu, has secured two marine mammal watching permits (in Kaikōura and Akaroa) for tourism purposes, while operating the highly successful Kaikōura Whale Watch. Another iwi, Ngāti Awa, also operates marine tours which transport tourists to an active offshore volcano.

Developing Māori customary and commercial fishing activity

In regard to non-market economic activity the data available via desktop is less reliable. Nonetheless, we found that 13% of iwi were involved in non-market customary fishing, 9% were utilising the pātaka system (allows commercial vessels to harvest customary fish), and

14% have established taiāpure and mātaimai. We suspect that the number involved in customary fishing is higher, while the numbers using the pātaka system and taiāpure and mātaimai are likely to be accurate. Finally, our analysis suggests that 60% of Māori organisations engaged in the marine economy are also engaged in marine governance forums. This figure is also likely to be higher given the institutional structure of the MME.

Overall, the majority of Māori entities with economic interests in the marine economy are active rather than passive, with most acting as ACE traders at a minimum, with a significant number involved in joint ventures, while a small yet significant group in terms of economic scale are operating their own successful fishing, marine farming, and processing export companies under their own brands.

Valuing the Māori fisheries sector

In addition to the analysis of MME activity, we investigated the value and growth of Māori fisheries-related enterprises in the MME. The results from this analysis can be found in Figure 27 through to Figure 58 in Annex 4.

Data sources

The data for this analysis was drawn primarily from Fish Serve. Data was obtained that identified all owners of New Zealand quota. This data included the quantity of quota owned, the estimated ACE available to each owner, the type of species owned and the quota management area (QMA) of the species. A full search of the database was then undertaken to identify 100% Māori owned companies with quota. Individuals acting as quota investors were excluded from consideration given that there was no way of verifying whether they were Māori or not. The two-year average trading price for the ACE (as of September 30, 2018) for each species, in each QMA, was also purchased from Fish Serve. The average trading price was then multiplied by the estimated ACE owned by Māori commercial interests for each QMA to arrive at a total value of the ACE owned by each entity.

Valuation methodology

Quota management areas where less than 10% of ACE was being caught were excluded from the calculation to ensure that ACE with little or no value was removed from consideration. In some cases the average ACE trading value was missing for some species. To resolve this, ACE valuations in the financial statements of Māori charitable companies were used to extrapolate and calculate the average ACE price as at 30 September 2018.¹²⁴ Once the value of the ACE owned by each Māori entity was calculated, the actual quota value was calculated on the presumption that the ACE value is on average 11% of the value of the quota value. This 11% figure was calculated by averaging the quota and ACE trading prices for a series of species then determining the percentage of the ACE trading value in relation to the quota trading value. Finally, the valuation of the quota for each Māori entity appearing in the database was compared to the quota valuations in the financial statements of available iwi annual reports. It was found that the valuations in the database were consistently within plus or minus 10% of the valuations in iwi annual reports. However, it needs to be noted that the valuations within the financial statements of Māori commercial entities should be considered authoritative.

Finally, in addition to working out the value of the quota owned by each Māori entity, the values of investments in Moana New Zealand were also calculated. This was undertaken by multiplying the fraction of their ownership in relation to the total value of Moana New Zealand as at 30 September 2018.

Māori fisheries sector growing in value

The values of the quota owned by different iwi and non-iwi commercial entities were analysed. The results are in Figure 27 through to Figure 30, while Figure 31 provides an overview of all Māori quota-owning entities and their relative size as a percentage. This demonstrates that Ngāi Tahu owns the most quota with \$140m in its ownership. This is followed by Ngāti Kahungunu, Ngāpuhi, Ngāti Mutunga (Rēkohu), Ngāti Porou, Moriori, Waikato-Tainui, Hauraki, and Waitōtara Incorporation, each of which has quota valued at over \$10m. Another 56 Māori entities own quota valued at under \$10m.

Figure 32 shows the total value of quota owned by all Māori entities, which is \$653m. This figure includes the quota owned by pan-iwi entities Moana New Zealand and Te Ohu

¹²⁴ It is important to note that there was little data available regarding the ACE trading price of crayfish and there were significant variations in the trading prices of quota. There were also significant variations for lobster across QMAs. To address this, the current valuations of lobster assets held by iwi, for which data could be obtained, were divided by the amount of quota they owned to arrive at a per kilogram valuation for lobster. Given significant variation between valuations, a conservative figure was selected. However, as the value of lobster to the Māori fisheries is significant, this conservative valuation has a significant effect on the value of the overall MME.

Kaimoana, in addition to the quota owned by independent iwi and other Māori businesses. Figure 33 shows the quota owned by Māori in comparison to all other owners of New Zealand quota. It shows that Māori currently own and control 20% of New Zealand's quota.

In addition to quota values, the database enabled the calculation of quota value by species. Figure 34 through to Figure 36 outline the most valuable species from highest to lowest. Figure 34 shows that rock lobster is the most valuable species at \$165m followed closely by pāua at \$124m. Stocks of snapper, hoki, scampi, orange roughy, ling, terakihi, southern bluefin tuna and gurnard are all worth over \$10m.

Figure 37 through to Figure 40 explore the growth in Māori interests in quota by comparing the value of quota obtained at settlement (in 2018 prices) in comparison to quota acquired since settlement. The results are summarised in Figure 41, which demonstrates that 34 iwi have accumulated more quota. The leading iwi is Ngāti Whare, a small inland iwi that has grown its interests in quota by 187%. Other leading iwi include: Ngāi Tahu, Ngāti Kuia, Ngāti Mutunga, Tūhoe, and Tainui—all of which have grown their quota interests by more than 60%. An overall analysis is provided in Figure 42, which demonstrates that iwi have more than doubled their interests in quota, from \$314m to \$636m.

The value of iwi shareholdings in Moana New Zealand was also calculated (see Figures 43-46). The largest shareholding is held by Ngāpuhi at \$57m, followed by Ngāti Porou at \$34m, and Kahungunu at \$28m. Iwi with a shareholding worth over \$10m include: Waikato-Tainui; Ngāi Tahu; Te Arawa; Ngāti Tūwharetoa; Maniapoto; Tūhoe; and Ngāti Raukawa ki te Tonga. Figure 47 provides an overview of all iwi in regard to the value of the shareholding in Moana New Zealand.

Figure 48 through to Figure 56 outline the combined value of quota and shareholdings in Moana New Zealand to arrive at a total value for each iwi. Taking into account this combined value, Ngāi Tahu has the largest fisheries interests at \$161m followed by Ngāpuhi at \$79m, Kahungunu at \$52m, and Ngāti Porou at \$51m. Other Māori entities with a combined value over \$10m include: Waikato-Tainui, Te Arawa, Ngāti Tūwharetoa; Tūhoe; Maniapoto; Ngāti Mutunga; Moriori; Ngāti Raukawa ki te Tonga; Hauraki; Ngāti Whātua; Te Ātiawa (Taranaki); and Ngāti Awa. The combined value of all of these entities is \$859m, which is outlined in Figure 57.

Finally, Figure 58 shows the investment value a Māori entity has in Moana New Zealand relative to the investment value they have in quota, represented as a percentage. The value represents the extent to which a Māori entity is actively or passively managing its economic interests in the marine economy. That is, the extent to which their assets are managed by a trustee compared to their own management. Those with the lowest percentage may be deemed to be highly independent and active, whilst those with the highest percentage the least independent. The following entities appear to have the highest level of independence: Wakatū; Moriori; Ngāti Mutunga (Rēkohu); Ngāti Tama; Ngāi Tahu; and Ngāti Rārua.

CONCLUSIONS

The MME emerges from Māori responses and adaptations to Crown-created institutions and structures that are organisationally very different from traditional Māori social forms. The institutional structure places limitations on the commercial options available to Māori entities and creates tensions between traditional economic forms of organisation and corporate-beneficiary approaches. Furthermore, the settlement process led to the fragmentation of quota with particularly small Māori entities struggling to achieve the scale and concentration of quota assets necessary to engage in commercial fishing operations. However, a number of large Māori entities, and a range of smaller entities that have accumulated high-value quota of particular species, do engage in their own fishing operations including fishing, processing, self-branding and export.

Despite constraints, we found that most Māori entities are actively engaged in the marine economy, with only a small number passive. The level of activity exists on a spectrum, from those simply engaged in ACE trading and joint ventures with third parties to fish quota, through to those actively fishing, processing, exporting, marine farming, and engaged in marine-based tourism. The most active across the entire spectrum is Ngāi Tahu, followed by Ngāti Kahungunu and Ngāti Porou. There was inadequate data to determine the extent to which Māori were engaged in the non-market/customary economy; however, a desktop examination has revealed fairly limited engagement. Likewise the establishment of marine governance rights through taiāpure and mātaihai is limited, with only 14% of iwi having actively put in place such structures.

In our survey of Māori marine-based enterprises, we had 24 mainly Māori respondents who affiliate with Mandated Iwi Organisations, with a few having governance experience and some having private enterprise ownership, and customary, consulting and advisory roles in Māori fisheries. There was a sense that the mauri (health) of the moana (seas) around Aotearoa and locally was declining, which respondents attribute to land-base activity and poor governance and management of marine environments. There was a high degree of awareness of ecosystem-based management, with most supportive of this approach. Mātauranga Māori, tikanga and te reo were important elements of Māori fisheries knowledge and practice. Most share the view of kaitiakitanga as the use of Māori knowledge and Western knowledge to care for the environment, but respondents felt Māori were constrained in their ability to exercise of kaitiakitanga.

In regard to the growth and scale of Māori assets in the marine economy, Māori have acquired an additional \$321m in quota assets in relation to the \$314m in settlement quota assets. The fastest growth in quota accumulation was exhibited by Ngāti Whare, which has grown its interests in quota by 187%, this was followed by Ngāi Tahu, Ngāti Kuia, Ngāti Mutunga, Tūhoe, and Tainui—all of which have grown their quota interests by more than 60%.

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ANNEX 1 SURVEY QUESTIONNAIRE

Introduction

Tēnā koe

Ngā mihi nui i ngā āhuetanga o te wā

Whai rawa, whai mana, whai oranga: Mapping the Māori marine economy

Within the Sustainable Seas National Science Challenge, our research team is developing a picture of the Māori marine economy. The purpose of this survey is to seek the views of those who work with and for marine-based Māori enterprises, particularly those in the fisheries sector - commercial, customary and recreational. We want to learn more about how Māori enterprises are applying mātauranga Māori (traditional knowledge) to their marine-based activities.

We invite Māori and non-Māori to complete this survey. The survey takes about 15 minutes to complete. Your responses remain confidential and your identity will not be revealed. Only combined responses will be reported. Massey University is administering the survey. Click [here](#) for more information on the project. Your responses will help shape research, policy and practice.

Please provide your email address at the end of the survey to receive a copy of the results. To start the survey, please click **agree** below or do not agree if you don't wish to participate.

Please contact Dr Jason Mika (e: j.p.mika@massey.ac.nz; t: +64 6 951 9361) or Dr John Reid (e: john.reid@canterbury.ac.nz; t: +64 3 369 5525) with any queries.

Thanks for your participation.

Dr Jason Mika and Dr John Reid

Project co-leaders

- Agree
- Do not agree

Introduction

Which of the following roles have you had/do you have in the Māori fisheries sector?

Ownership

- I am a registered member of an Iwi with fisheries assets
- I own a Māori fishing business
- I am an investor
- Other (please describe)

Governance

- I am a governor (e.g. trustee) that owns and administers quota, licenses, or concessions
- I am a director of a tribally owned fishing business
- I am a tribal or marae kōmiti representative involved in customary fishing
- Other (please describe)

Management

- I am a manager in a tribally owned Māori fishing business
- I am a manager in a privately owned Māori fishing business
- Other (please describe)

Operations

- I work in a tribally owned fishing business
- I work in a privately owned Māori fishing business
- I work on a fishing vessel
- Other (please describe)

Customary

- I am a customary harvester/fisher
- I am a tangata tiaki (custodian, guardian)
- I am a recreational fisher
- Other (please describe)

Please indicate your ethnicity:

- Māori
- New Zealand European
- Chinese
- Japanese
- Korean
- Russian
- Samoan
- Tongan
- Niuean
- Indian
- Other (please describe)

WHAI RAWA (Māori economy)

How important is it for marine-based Māori businesses to maximise profits?

- Extremely important
- Important
- Somewhat important
- Not that important
- Not important at all

Are you actively involved in a Māori fishing business?

- No
- Yes

How would you describe the profitability of the business?

- Highly profitable
- Making profit (somewhat profitable)
- Breaking even
- Making a loss (sometimes loss-making)
- Making a substantial loss (often loss-making)
- Don't know

Is your business any of the following:

- An iwi collective, or part of an iwi collective
- An iwi or hapū owned business
- Privately owned Māori business
- Other (please describe)

Which of the following commercial activities apply to your business:

- Trading (selling or buying) Annual Catch Entitlement (ACE)
- Actively fishing or harvesting ACE
- Selling landed fish to a processor
- Processing fish
- Operating fish farm, please describe (please describe what species and region)

- Other (please describe)

Do you market products under your own brand?

- No

Yes

Do you make sustainability claims in your branding?

No
 Yes

Do you think sustainability branding provides you with premiums?

No
 Yes

Do you use Māori or tribal specific branding strategy?

No
 Yes

Do you use a system for tracing your product's origins?

No
 Yes

Do you think cultural branding adds value to your product?

No
 Yes

What value do you think branding adds to your product?

- Novelty
- Connecting to people and place
- The close relationship Māori have with the moana
- No additional value is created
- Other (please describe)

What is the most significant barrier to implementing your branding strategy?

- Lack of capability and capacity
- Other (please describe)

KAITIAKITANGA (Guardianship)

Please answer to what extent do you agree or disagree with the following statements on the meaning of kaitiakitanga (guardianship):

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly agree
Preserving the natural environment for future generations using traditional knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly agree
An appropriate balance between protection and development of natural resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The use of Māori knowledge and Western knowledge to care for the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kaitiakitanga means very much the same thing as sustainable development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kaitiakitanga means something different to sustainable development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local (whānau and hapū) control and management of local marine environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An essential principle in order to meet cultural obligations of manaakitanga	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How important is maintaining the mauri (health) of Tangaroa (oceans)?

- Extremely important
- Important
- Somewhat important
- Not that important
- Not important at all

Across Aotearoa New Zealand, do you think the mauri (health) of Tangaroa (oceans) is:

- Improving
- Stable
- Declining

What do you think is leading to this decline?

- Land-based activity (e.g. farm runoff)
- Commercial over-fishing/resource use
- Recreational over-fishing/resource use
- Customary over-fishing
- Poor management
- Poor governance
- Other (please describe)

In your local area is the mauri (health) of Tangaroa (oceans):

- Growing
- Stable
- Declining

What do you think is leading to this decline?

- Land-based activity (e.g. farm runoff)
- Commercial over-fishing/resource use
- Recreational over-fishing/resource use
- Customary over-fishing
- Poor management
- Poor governance

Other (please describe)

How would you describe the ability of Māori to exercise kaitiakitanga (guardianship) in the marine environment?

- Excellent
- Very good
- Neither good nor poor
- Somewhat poor
- Very poor
- Other (please describe)

Have you heard of Ecosystem-Based Management (EBM) approaches to managing the marine environment?

- No
- Yes

To what extent do you support Ecosystem-Based Management?

- Fully supportive
- Somewhat supportive
- Not supportive at all
- Other (please describe)

KAWANATANGA (Governance)

How well do you think fisheries in Aotearoa are being managed?

- Excellent
- Very well
- Well
- Somewhat poorly
- Very poorly
- Don't know
- Other (please describe)

Which of the following areas need improving?

- The Quota Management System (QMS)
- Quota setting processes
- Quota and ACE trading practices
- Monitoring and enforcement of fishing and processing
- Ownership rights in the marine estate
- Regulation of the marine estate (e.g. role of regional councils, ministries etc.)
- Other (please describe)
- Don't know

Have you governed a marine-based Māori enterprise as a trustee or director?

- No
- Yes

At which levels do you have experience?

- Pan iwi (entities involving more than one iwi)
- Iwi
- Hapū
- Private business
- Other (please describe)

Do you think there is room to improve governance practice in your organisation?

- No
- Yes

How can governance in your organisation be improved?

- Capability, knowledge and expertise of governors
- Responding to interpersonal issues
- Responding to tribal issues
- Systems, processes, and policies
- Regulatory compliance
- Other (please describe)

How would you rate your organisation's capacity for innovation?

- Excellent
- Very good

- Neither good nor poor
- Poor
- Very Poor
- Don't know

TE AO MAORI (Māori Culture)

How important is tikanga Māori (Māori culture) to you?

- Extremely important
- Important
- Somewhat important
- Not that important
- Unimportant

Do you apply tikanga Māori in your fishing activities?

- No
- Yes

How do you apply tikanga Māori in your activities?

- Narratives/stories
- Waiata/songs
- Karakia/incantation
- Mātauranga-a-rohe (e.g., knowledge of the land and seascapes)
- Traditional navigation (e.g., wayfinding)
- Māramataka (Māori fishing calendar)

Other

How important is te reo Māori (Māori language) to you?

- Extremely Important
- Very important
- Somewhat important
- Not that important
- Unimportant

How frequently is te reo Māori used in your organisation

- Frequently
- Occasionally
- Rarely
- Very rarely
- Not at all

How important is it to preserve Māori traditional fishing knowledge and practices?

- Extremely Important
- Important
- Somewhat important
- Not that important
- Unimportant

Do you support employing Māori in marine-based enterprises?

- Strongly supportive
- Supportive
- Somewhat supportive
- Not supportive
- Other (please describe)

Do you support partnerships between Iwi and private Māori businesses?

- Strongly supportive
- Supportive
- Somewhat supportive
- Not supportive
- Other (please describe)

Have you been involved in customary fishing?

- No
- Yes

Please identify your reasons for engaging in customary fishing?

- Provide kai (food) for whānau consumption and sharing
- Maintain connections
- Retain mana moana (traditional authority) over water
- Pass on traditions to the next generation

- To supply tangi (funerals) and hui (meetings) with kaimoana (seafood)
- Other

Do you use a pataka (storehouse) system for fisheries resources?

- No
- Yes
- Don't know

Do you have a process for appointing tangata tiaki (traditional guardians)?

- No
Explanation (if required):

- Yes
Explanation (if required):

Are you satisfied with the appointment process for tangata tiaki?

- No
- Yes

Where can improvements be made?

- Marae kōmiti or rūnanga appointment processes

Ministry appointment processes

Other (please describe)

Are you concerned about the passing on of mātauranga Māori (traditional knowledge) regarding Tangaroa to future generations?

Highly concerned

Concerned

Somewhat concerned

Not concerned at all

Other (please describe)

Block 5

If you would like a copy of the findings of this research, please provide your email address

Email address

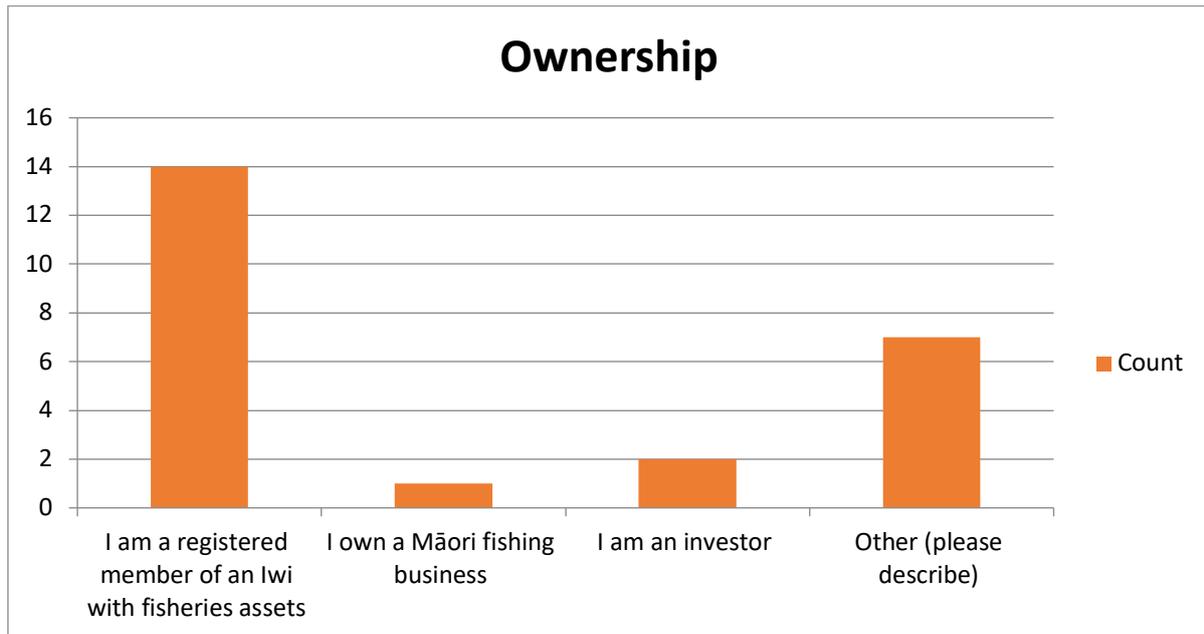
Re-enter your email address

ANNEX 2 SURVEY RESULTS

Ownership (Q3)

We asked respondents to indicate the type of ownership interest they might have in a Māori marine-based enterprise. Over half of the respondents (58%) are registered members of an iwi with fisheries assets.

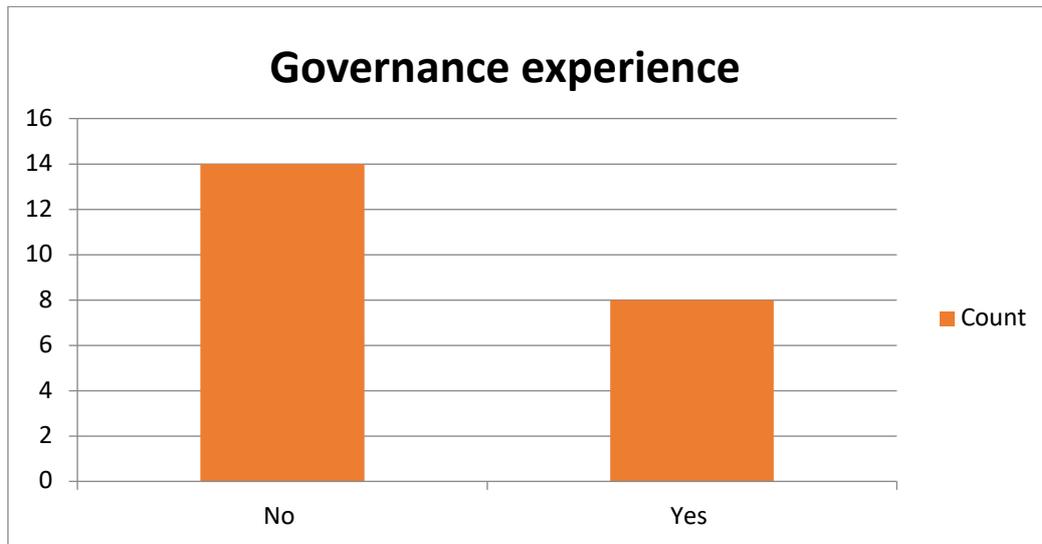
Figure 4 Ownership interests in Māori marine-based enterprises



Governance (Q33)

We asked respondents if they have governed a marine-based Māori enterprise as a trustee or director? More of half of the respondents (64%) have not governed a marine-based Māori enterprise as a trustee or director.

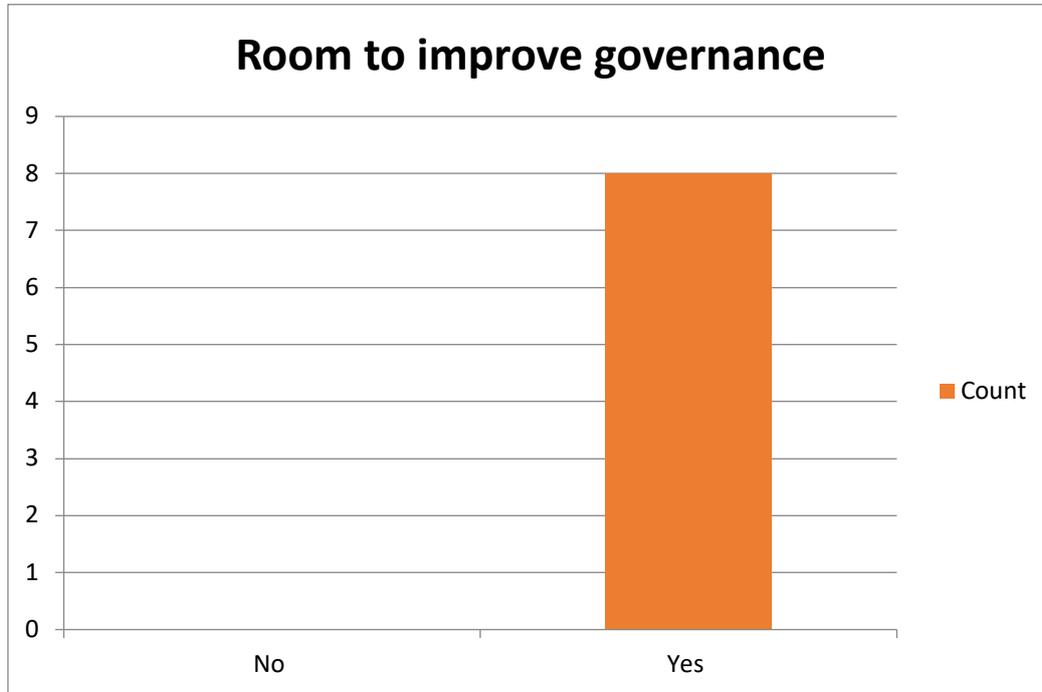
Figure 5 Governance experience



Governance improvement (Q35)

We asked respondents, do they think there is room to improve governance practice in their organization? All eight respondents that answered this question think that there is room to improve the governance practice in their organisation.

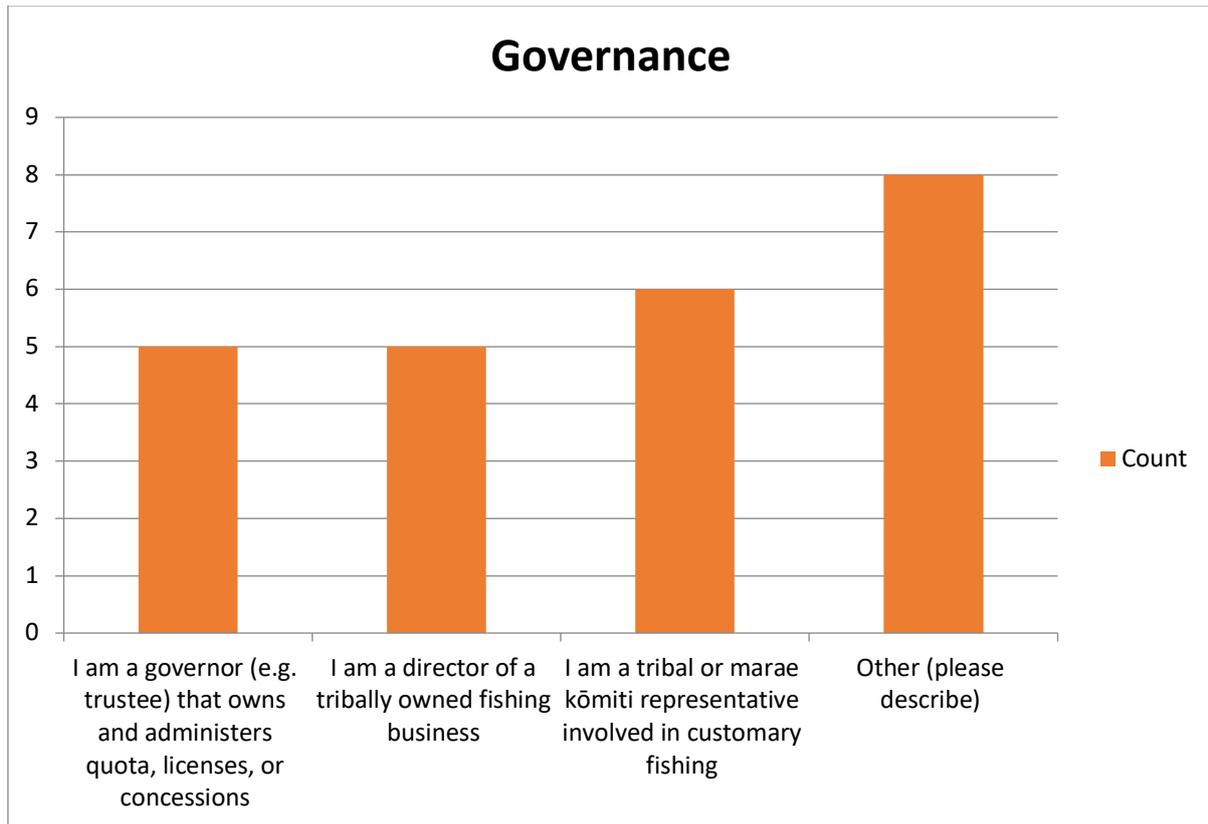
Figure 6 Improving governance



Governance roles (Q4)

We asked respondents to indicate the governance roles they had within Māori marine-based enterprises. There is a broad mix of governance participation as a trustee (21%), director (21%) and marae representative (25%) among respondents. There is, however, a sizeable group that has other roles (33%), including customary and consulting or advisory roles.

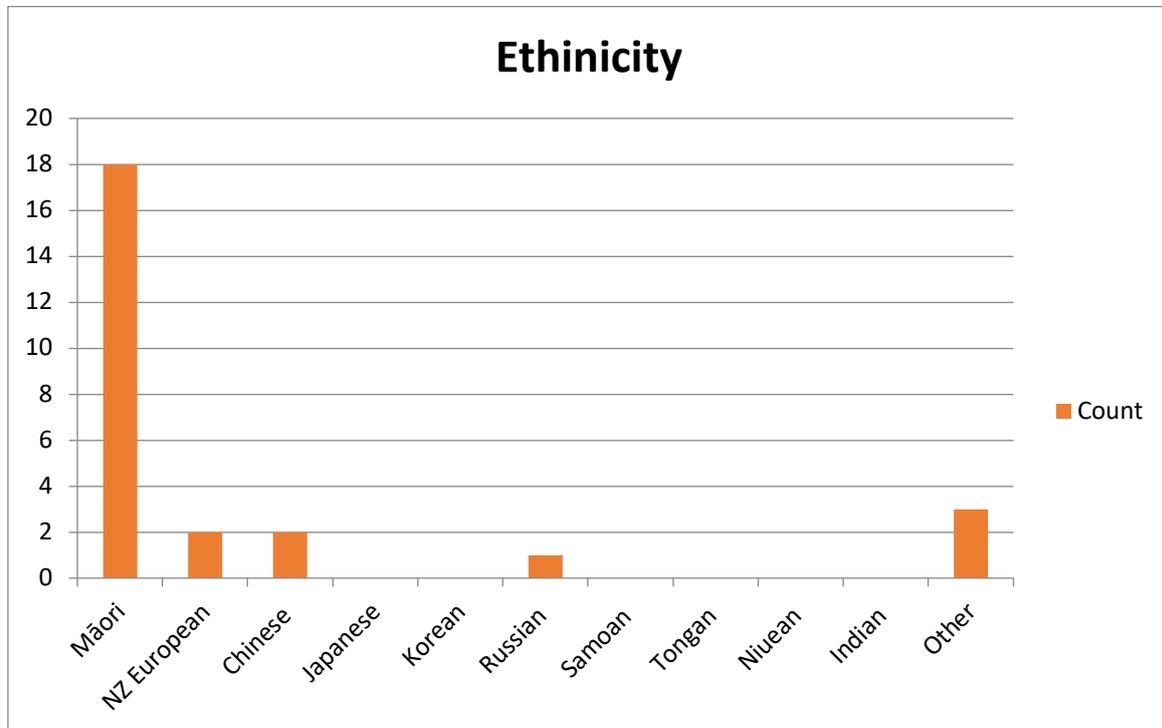
Figure 7 Governance experience



Q8 – Ethnicity

We asked respondents to indicate their ethnicity. Most respondents are Māori (72%), with four also indicating other ethnicities (Scottish, Pākehā, British, Chinese).

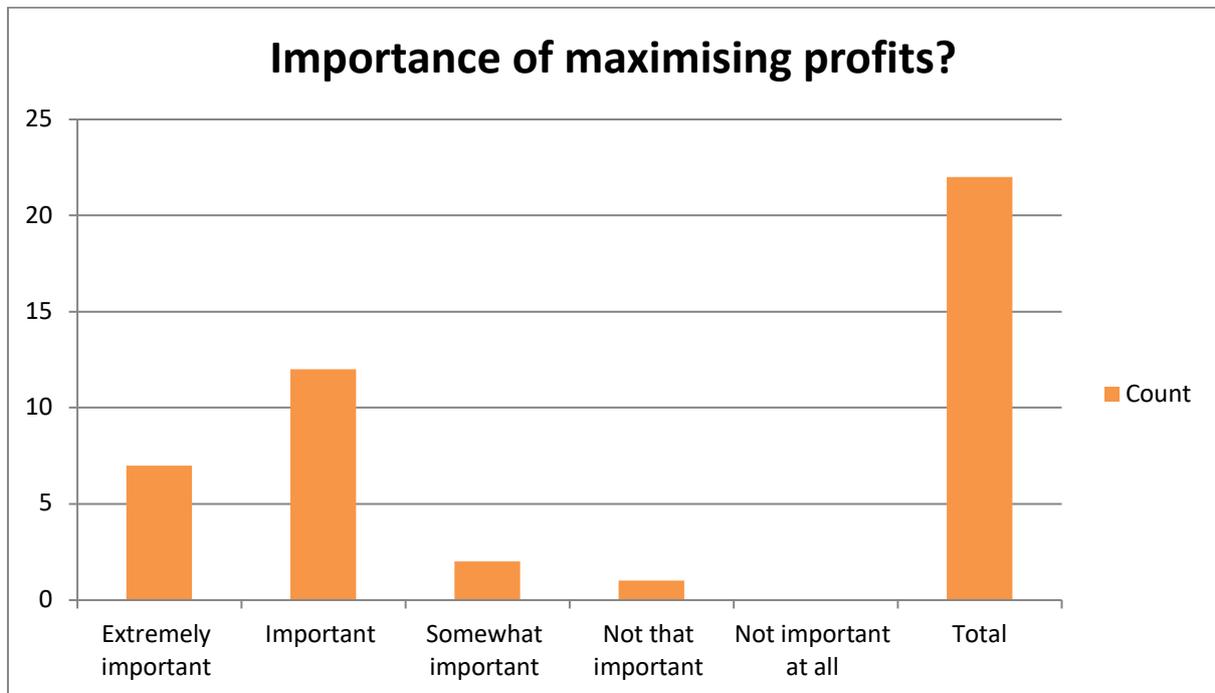
Figure 8 Ethnic affiliation



Q9 – Profit imperative

We asked respondents how important is it for marine-based Māori businesses to maximise profit? Eighty-seven percent (87%) of respondents felt that maximising profits was either important (55%) or extremely important (32%) in Māori fishing enterprises.

Figure 9 Profit imperative

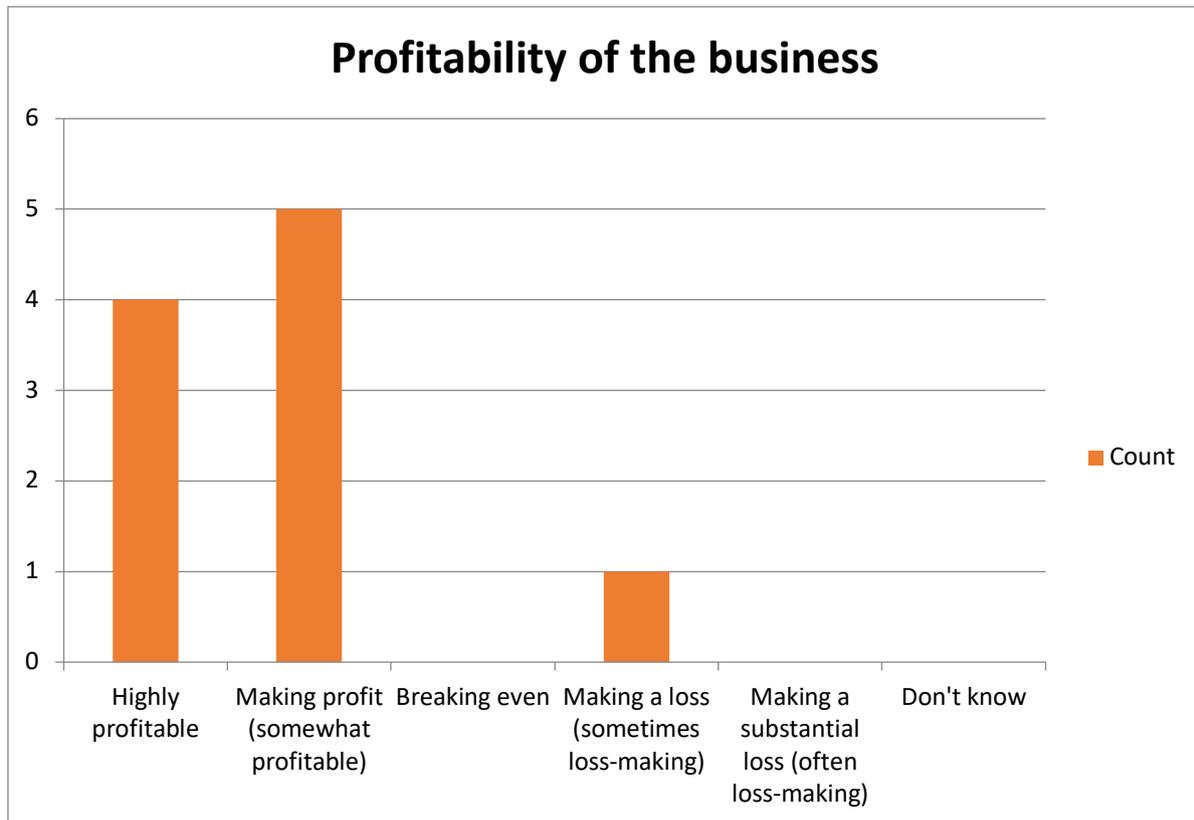


Q11 – Business profitability

We asked respondents how they describe the profitability of their business?

Nine out of 10 (90%) respondents indicated their enterprises were highly profitable or somewhat profitable, with one making losses.

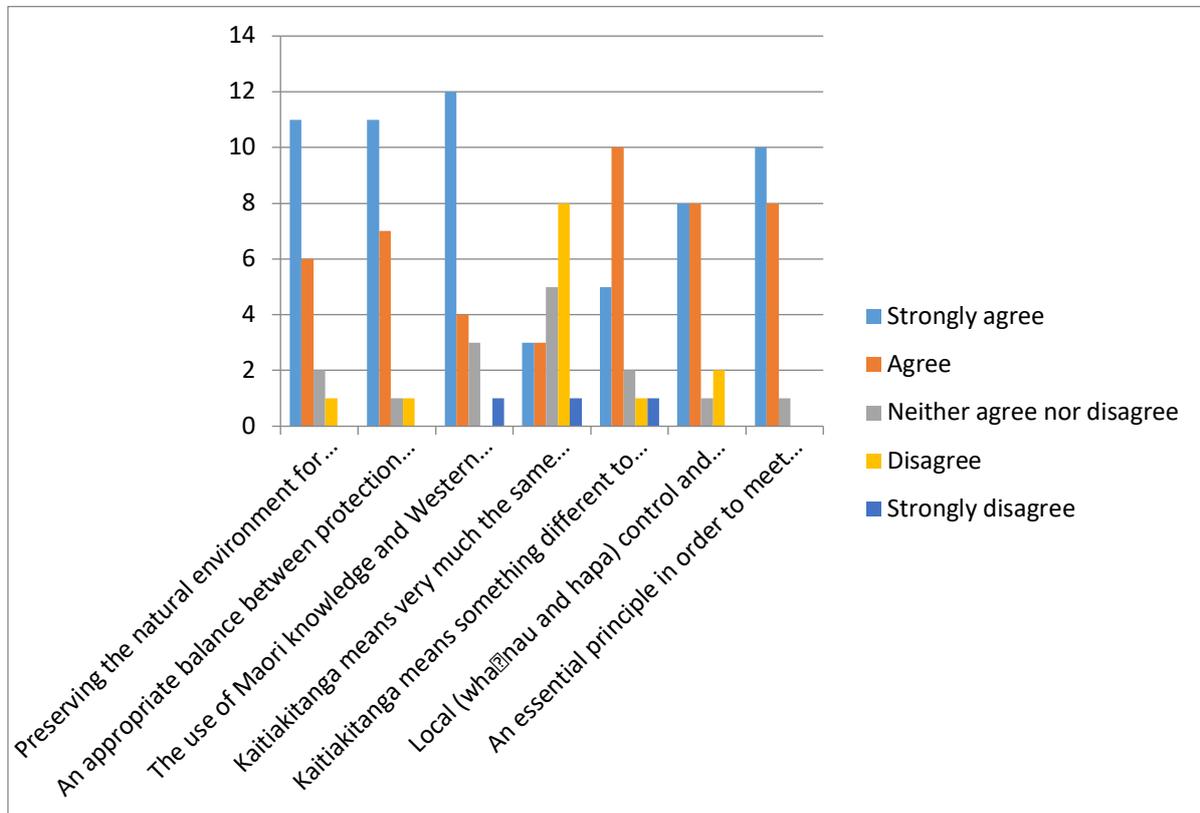
Figure 10 Business profitability



Q89 – Kaitiakitanga

We asked respondents the degree to which their understanding of kaitiakitanga corresponds with several statements indicating different perspectives.

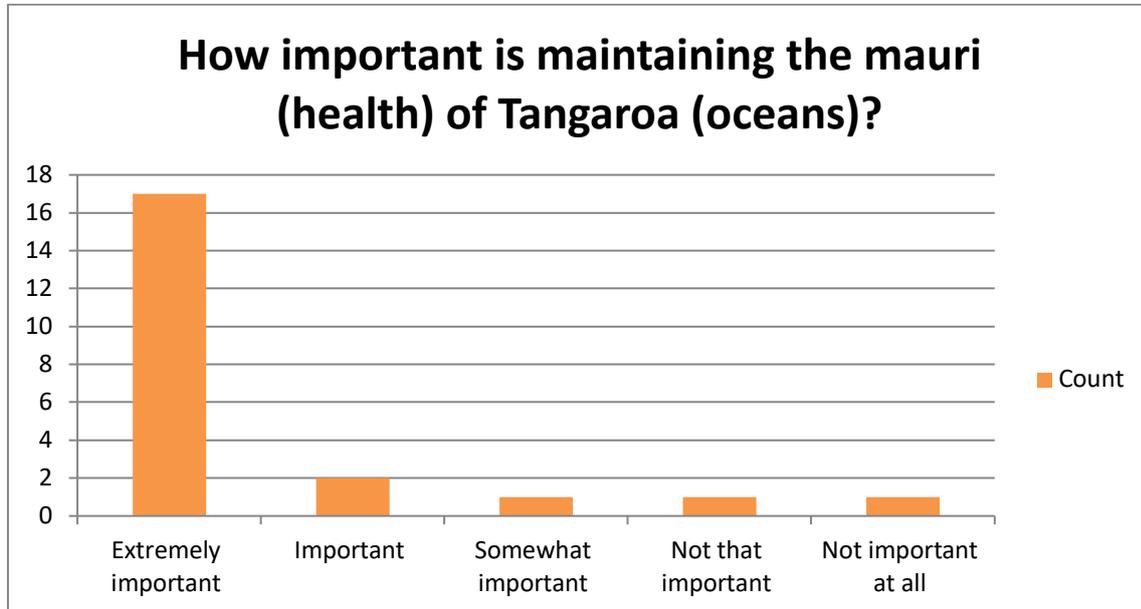
Figure 11 Kaitiakitanga



Q23 – Te mauri ō Tangaroa (the health of the oceans)

We asked respondents how important is maintaining the mauri (health) of Tangaroa (oceans)? Eighty-six percent of respondents felt that maintaining the mauri (health) of the oceans was either important (9%) or extremely important (77%).

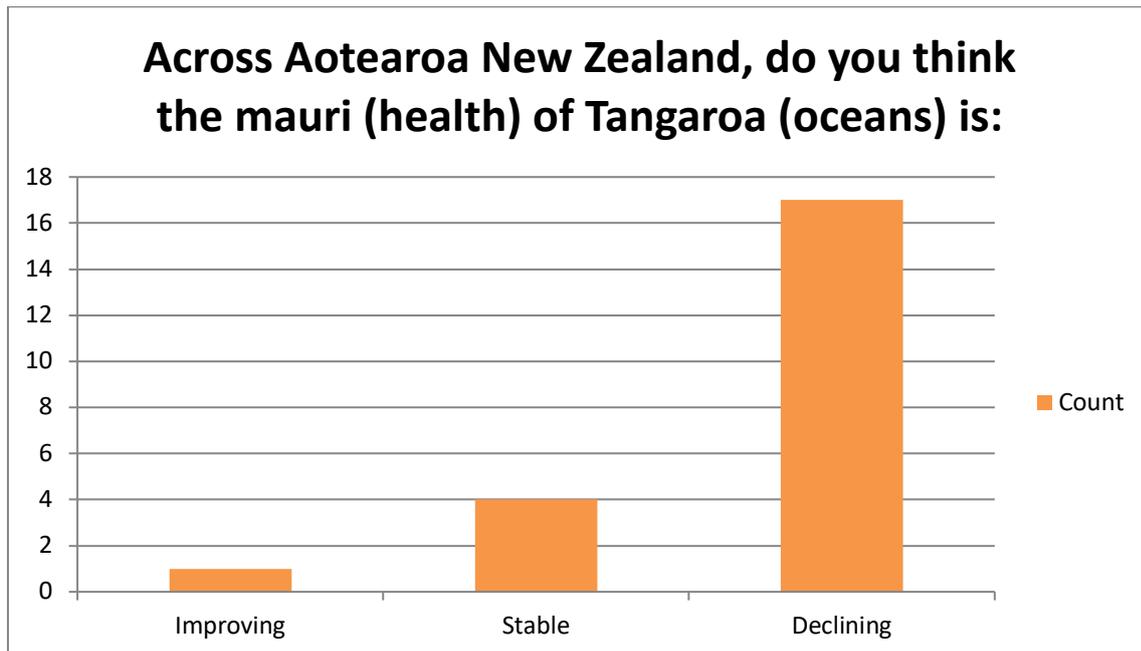
Figure 12 Importance of mauri o te moana



Q24 – Aotearoa

We asked respondents, across Aotearoa New Zealand, do you think the mauri (health) of Tangaroa (oceans) is improving, stable, or declining? Most respondents (77%) think that the health of the oceans across Aotearoa is declining.

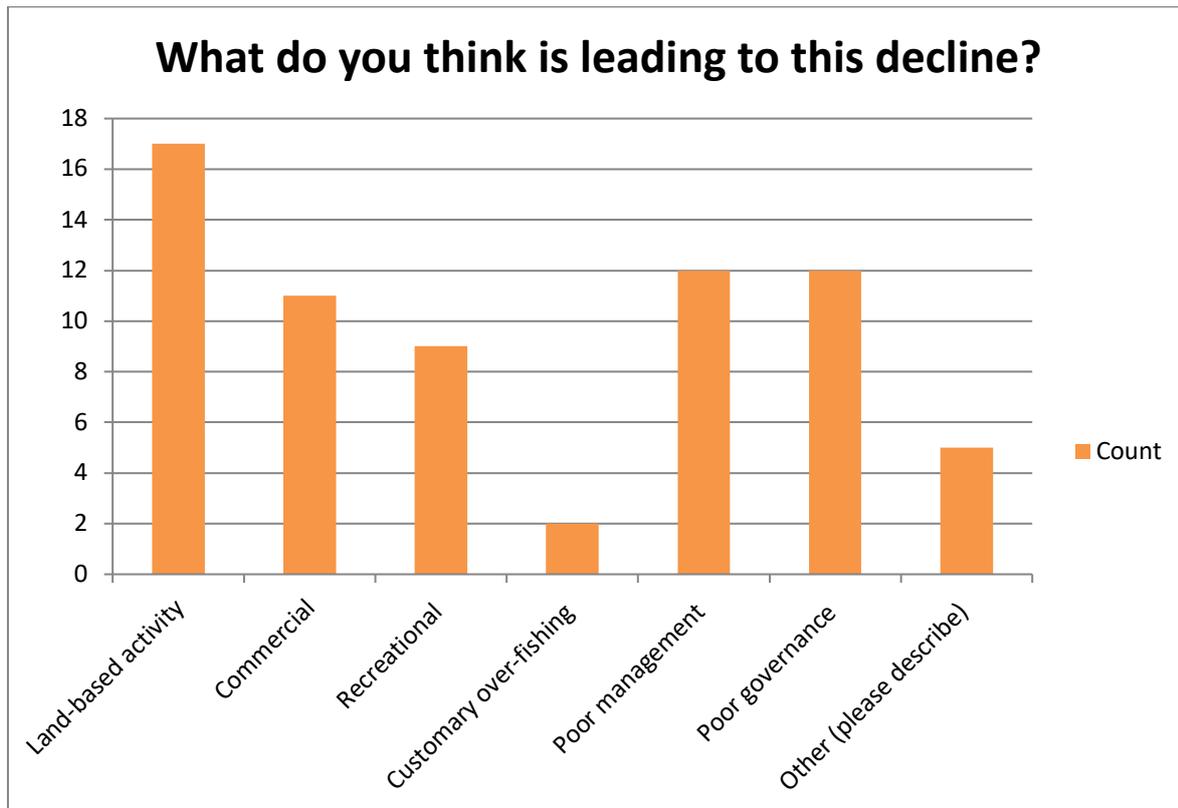
Figure 13 Mauri o te moana o Aotearoa



Q25 Cause of decline

We asked those respondents that felt te mauri ō Tangaroa was declining, what they thought was leading to this decline? The top three reasons: land-based activities (25%), poor management (18%), poor governance (18%) of the marine environment.

Figure 14 Perceived causes of decline in mauri o te moana

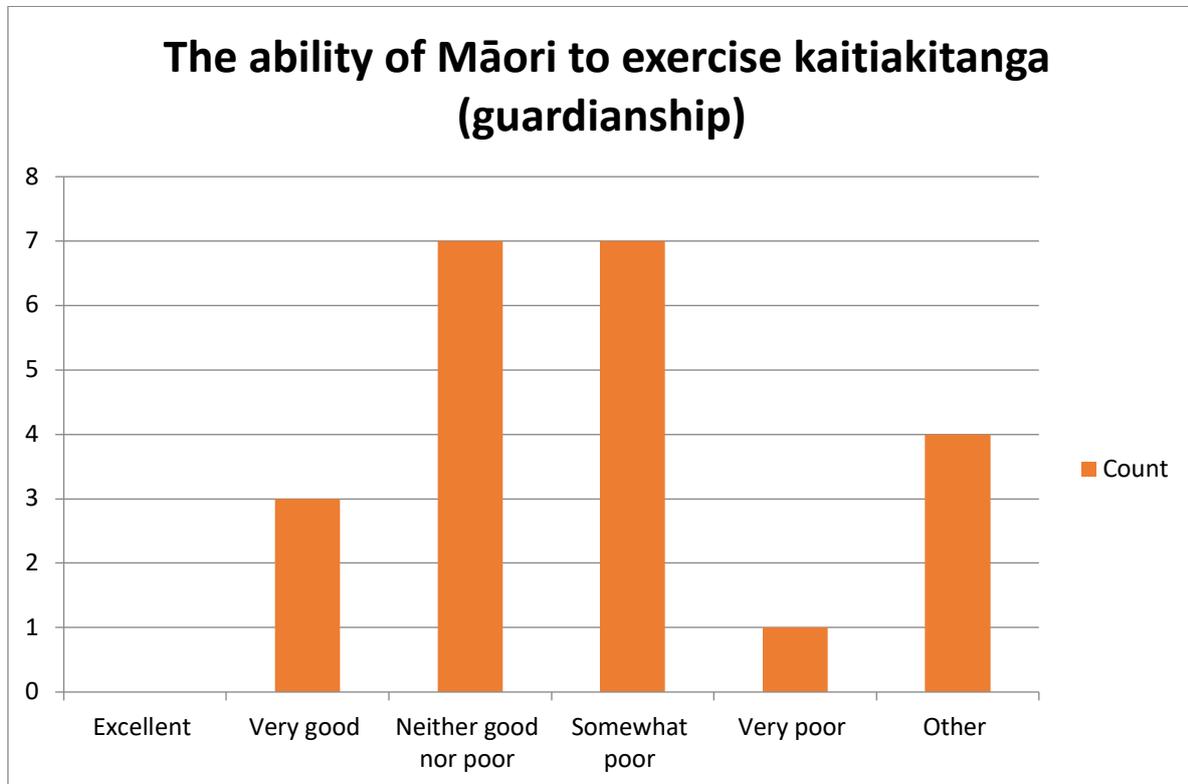


Q28 – Exercising kaitiakitanga

We asked respondents about the ability of Māori to exercise kaitiakitanga (guardianship) in the marine environment? Sixty-four percent of the respondents describe the ability of Māori to exercise guardianship in marine environment as “neither good nor poor” (32%) and

“somewhat poor” (32%). Only 14% think that the ability to exercise kaitiakitanga is very good.

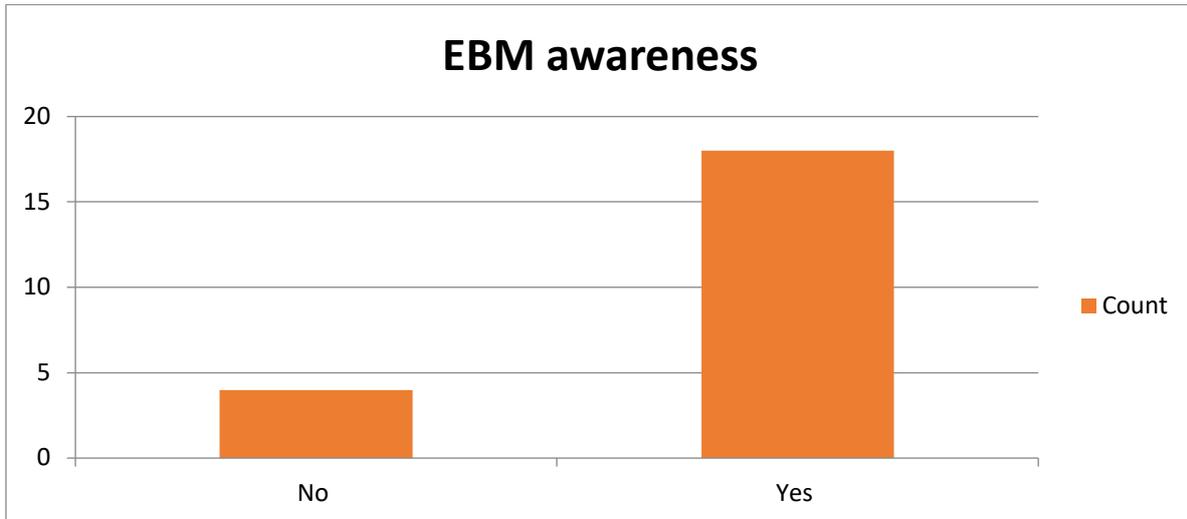
Figure 15 Exercising kaitiakitanga



Q29 – Awareness of EBM

We asked respondents if they have heard of Ecosystem-Based Management (EBM) approaches to managing the marine environment? Most of the respondents (82%) have heard of EBM.

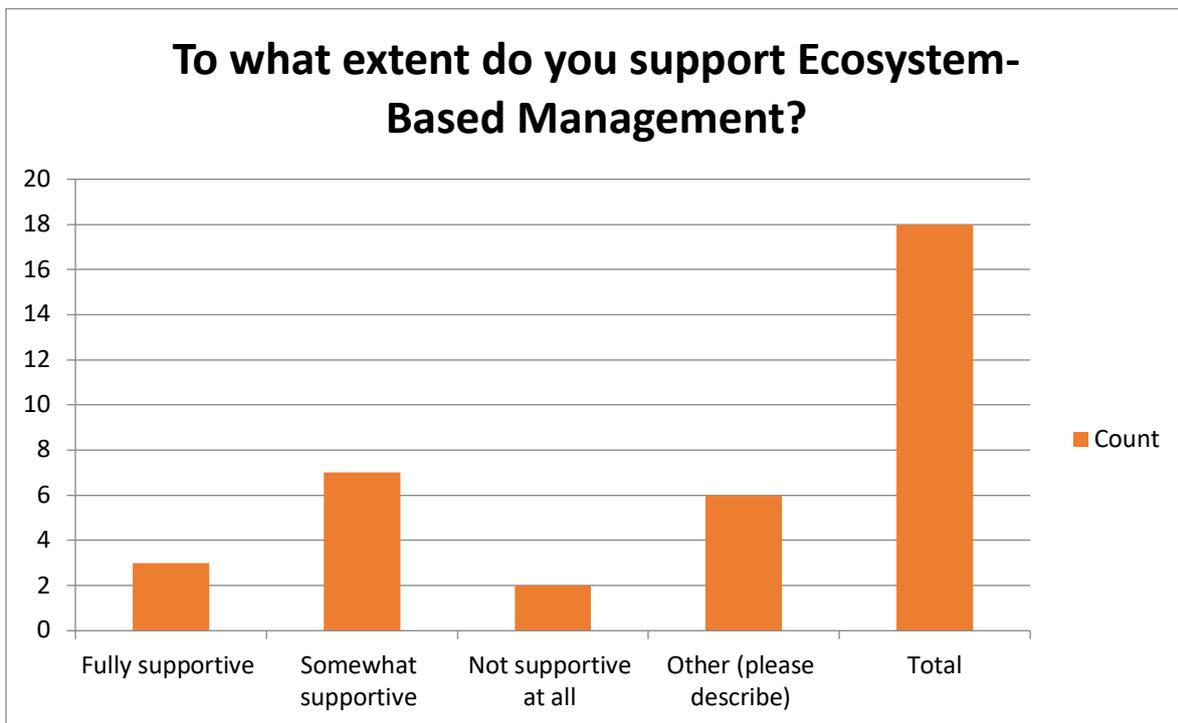
Figure 16 EBM awareness



Q30 – Support for EBM

We asked respondents to what extent do they support Ecosystem-Based Management? Fifty-six percent of the respondents support EBM.

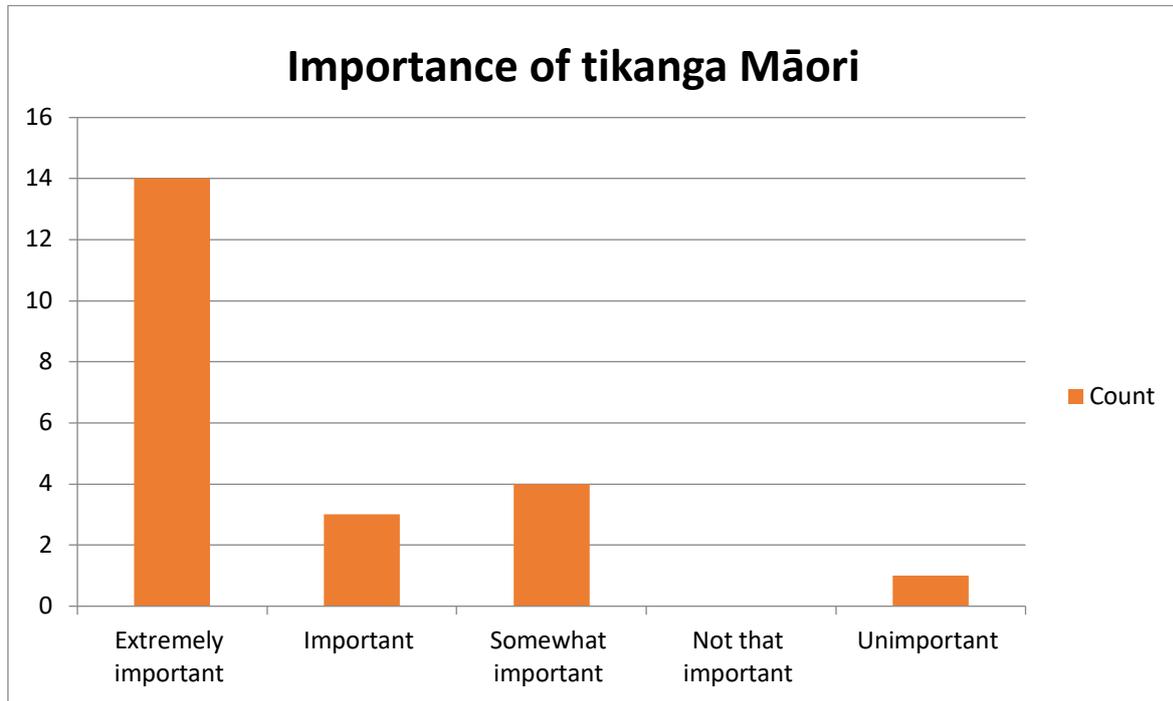
Figure 17 EBM support



Q38 – Importance of tikanga Māori (Māori culture)

We asked respondents how important is tikanga Māori to them? Seventy-eight percent of the respondents indicate that Māori culture is either extremely important (64%) or important (14%). One respondent considered tikanga unimportant.

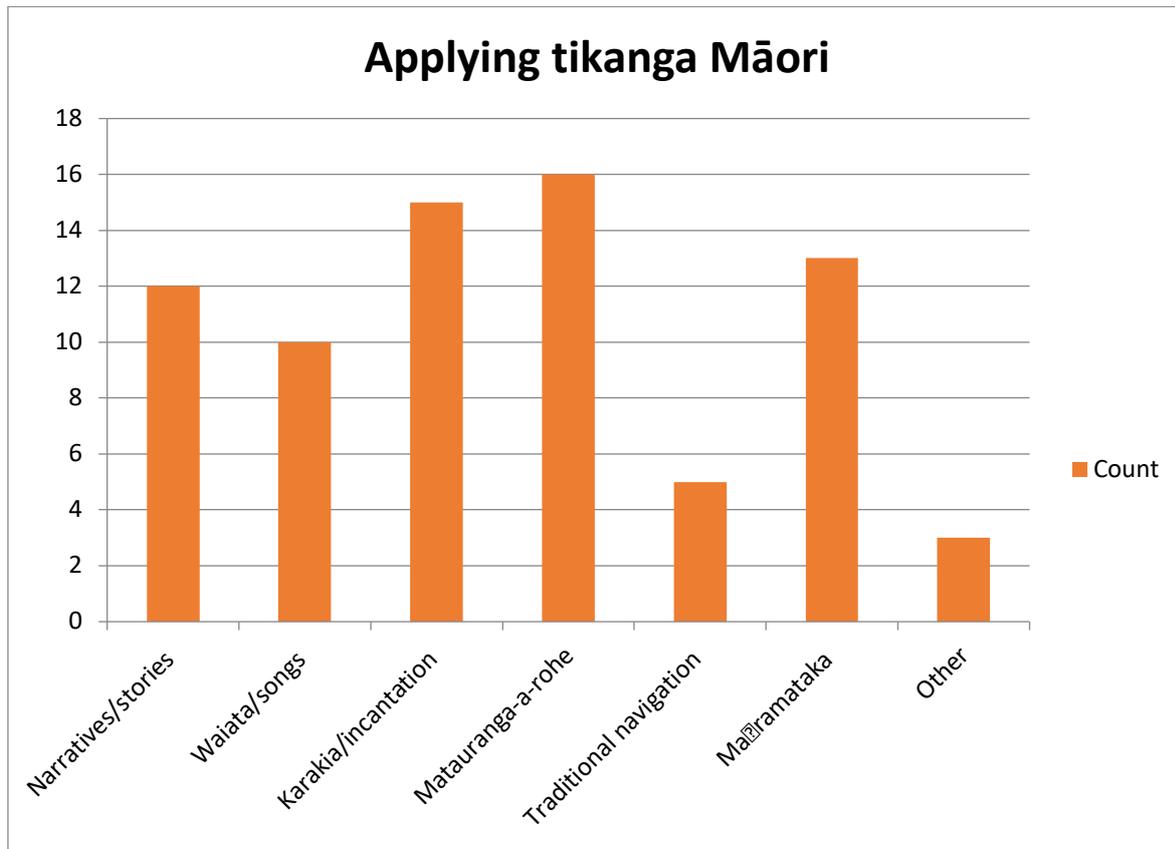
Figure 18 Importance of tikanga Māori



Q40 – Applying tikanga Māori (Māori culture)

We asked respondents how they apply tikanga Māori in their activities? The top three ways are: mātauranga-a-rohe (e.g., knowledge of the land and seascapes)—22%; karakia/incantation—20%; and māramataka (Māori fishing calendar)—18%.

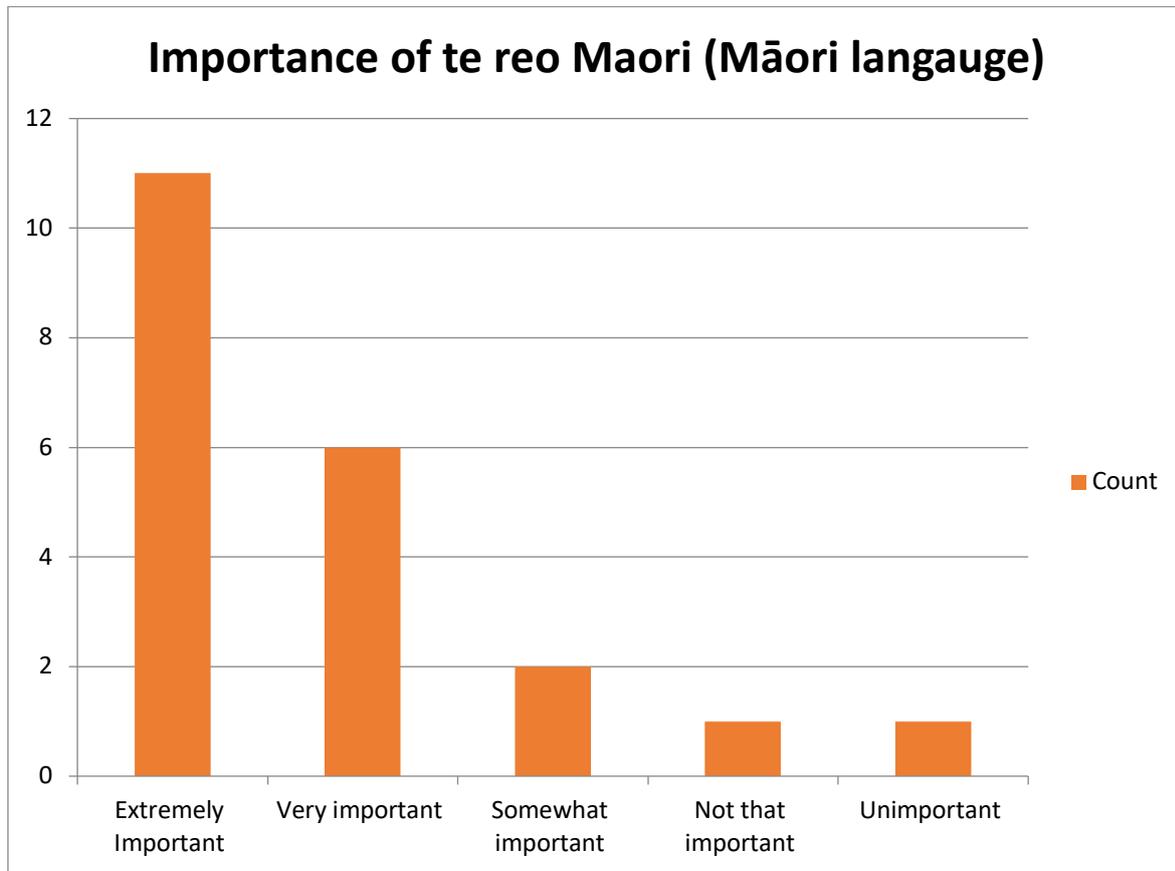
Figure 19 Applying tikanga



Q41 – Importance of te reo Māori (Māori language)

We asked respondents how important te reo Māori (the Māori language) is to them? Eighty-one percent of the respondents responded that te reo Māori is either extremely important (52%) or very important (29%).

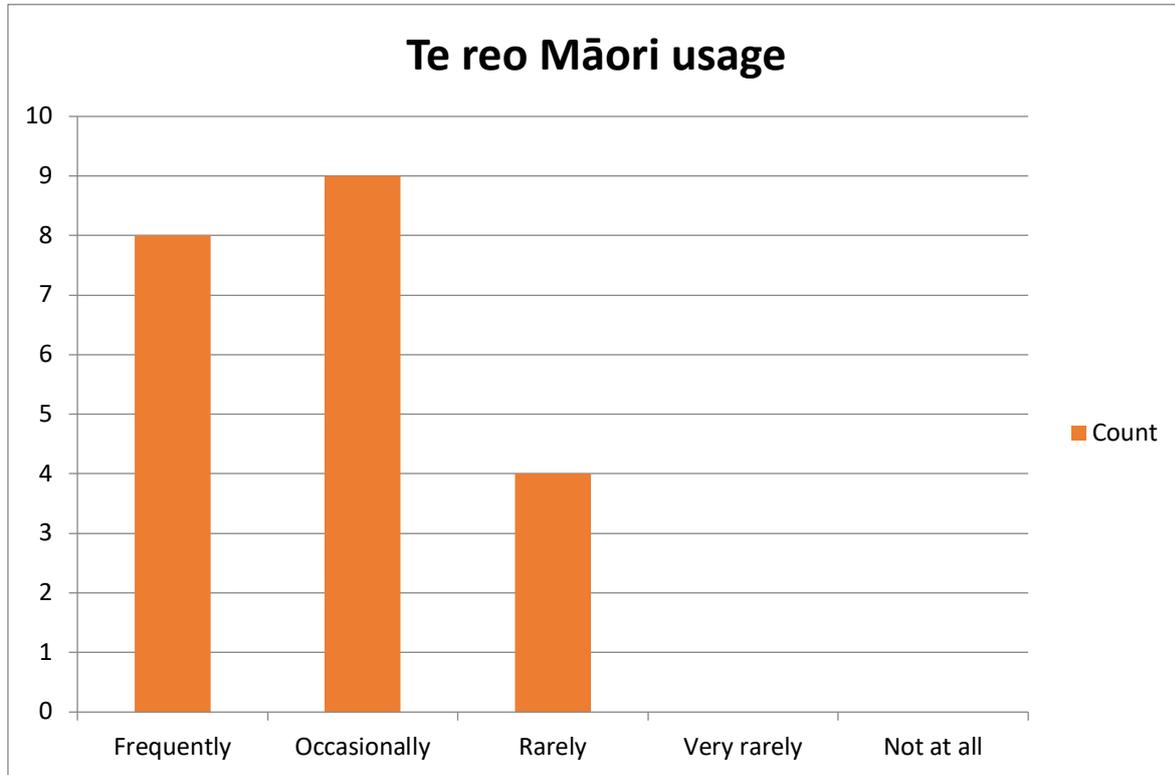
Figure 20 Importance of te reo



Q42 – Te reo usage

We asked respondents how frequently te reo Māori is used in their organisations? Eighty-one percent of the respondents either use te reo Māori in their organisations frequently (38%) or occasionally (43%).

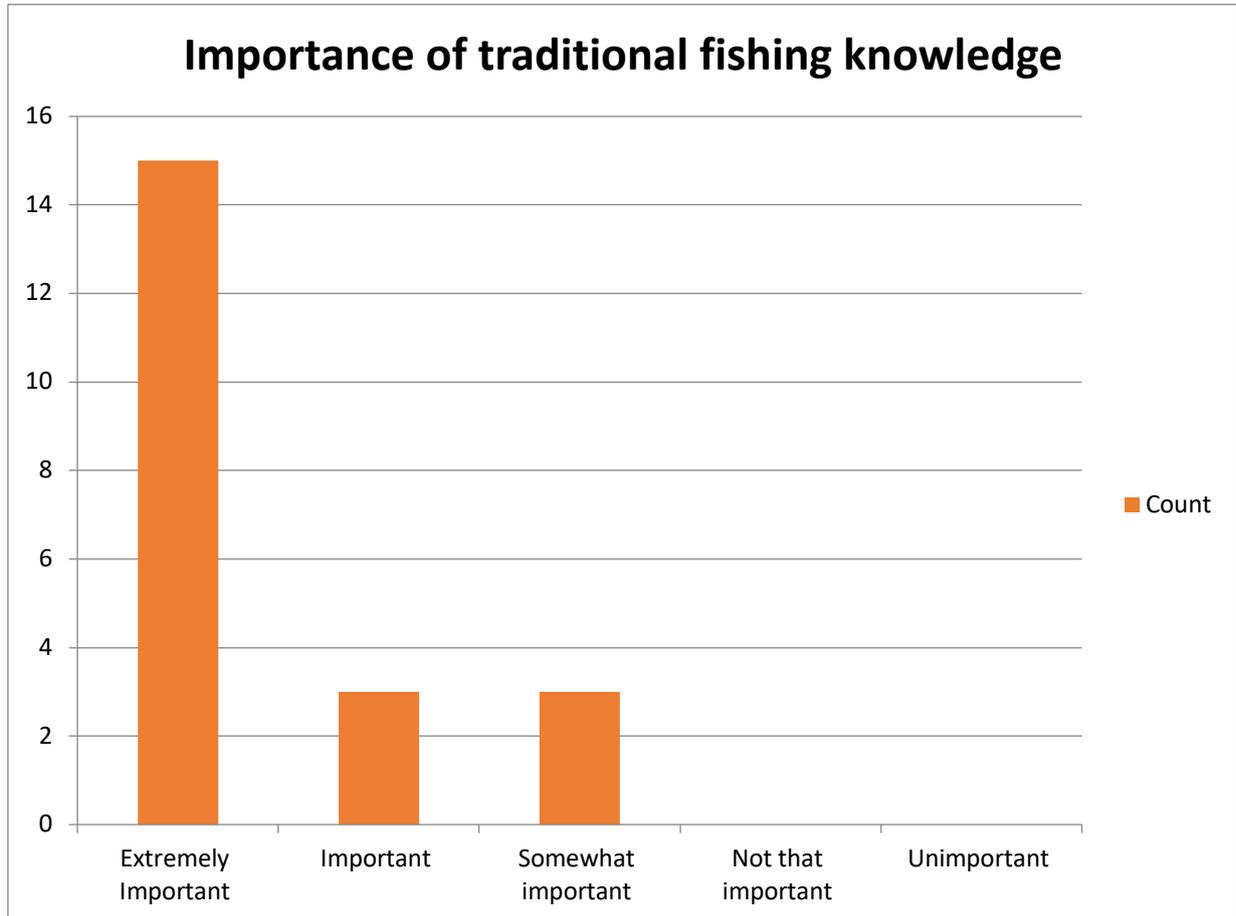
Figure 21 Te reo Māori



Q43 – Traditional knowledge

We asked respondents how important it is to preserve Māori traditional fishing knowledge and practices? Most respondents (71%) think that it is extremely important to preserve Māori traditional fishing knowledge and practices.

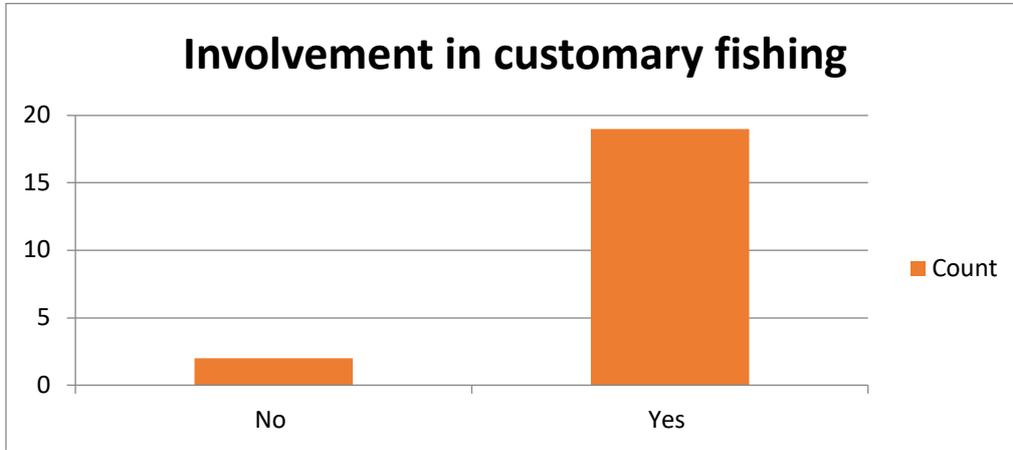
Figure 22 Traditional knowledge



Q46 – Customary fishing

We asked respondents if they have you been involved in customary fishing? Most of the respondents (90%) have been involved in customary fishing.

Figure 23 Customary fishing



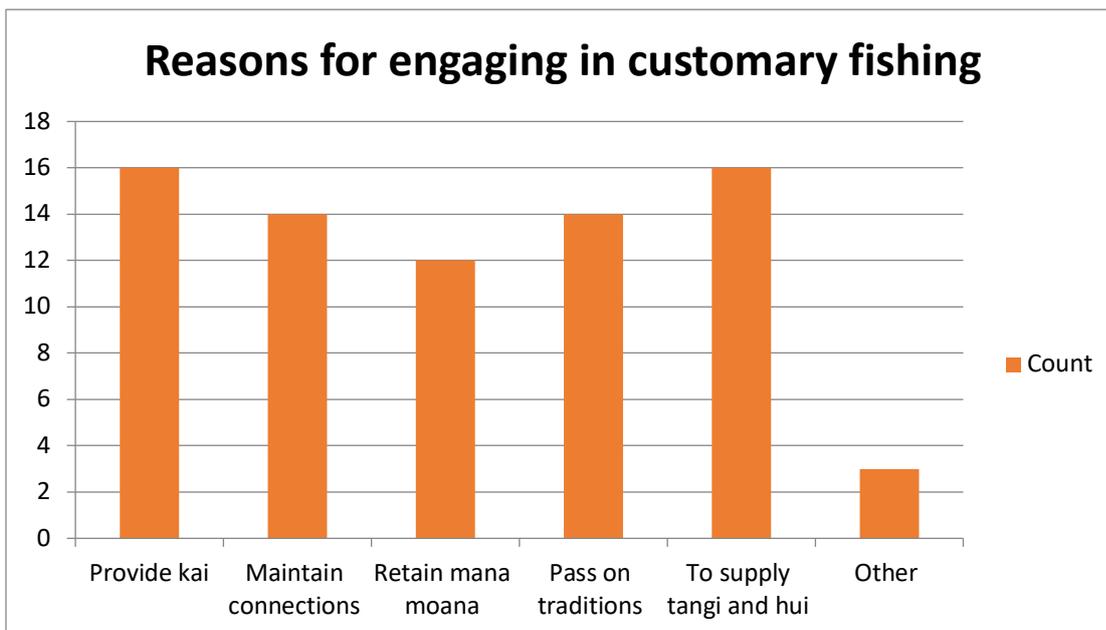
Q47 – Rationale for customary fishing

We asked respondents to identify their reasons for engaging in customary fishing?

The top four reasons to engage in customary fishing are:

- Provide kai (food) for whānau consumption and sharing (21%)
- To supply tangi (funerals) and hui (meetings) with kaimoana (seafood) (21%)
- Maintain connections (19%)
- Pass on traditions to the next generation (19%)

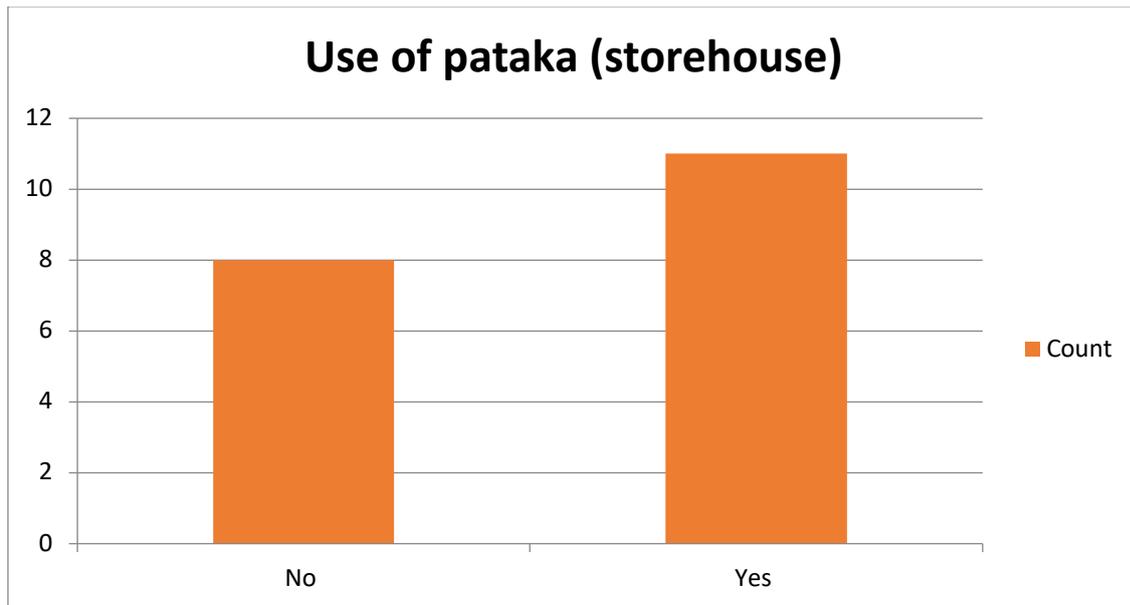
Figure 24 Customary fishing



Q48 – Pātaka kai

We asked respondents if they use a pātaka (storehouse) system for fisheries resources? More than half of the respondents (58%) use pātaka (storehouse) system for fisheries resources.

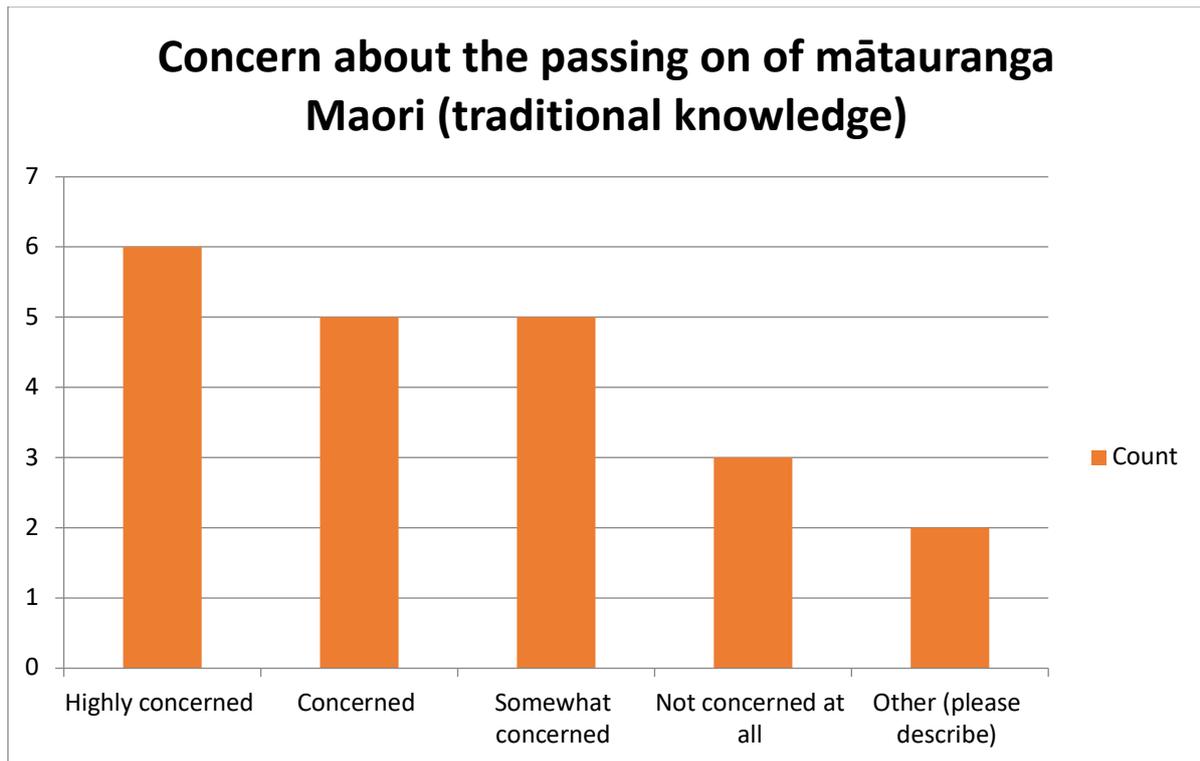
Figure 25 Pātaka kai



Q52 – Traditional knowledge retention

We asked respondents whether they were concerned about the passing on of mātauranga Māori (traditional knowledge) regarding Tangaroa to future generations? Around half of the respondents are either highly concerned (29%) or concerned (24%) about passing on the traditional knowledge regarding Tangaroa to future generations. The other half are either somewhat concerned (24%), or not concerned at all (14%).

Figure 26 Mātauranga Māori



ANNEX 3 MAP OF THE MĀORI MARINE ECONOMY

Table 2 Map of the Māori marine economy

Tribe / Māori Entity (Ordered by Commercial Size)	Stake in Moana NZ	Self-Managing Quota	Acquiring Quota	JV with External to Fish Quota	Fishing Own Quota	License to Marine Farm	Marine Farming	Process	Self-Brand	Export	Engaged in Customary Fishing	Employ Pātaka System	Established Taiāpure or Mātaitai	Marine Mammal Permit	Marine Tourism	Involved in marine governance forums
Moana New Zealand	★	★	★	★	★	★	★	★	★	★	★	★	★		★	★
Ngāi Tahu	★	★	★	★	★	★	★	★	★	★						
Ngāpuhi	★	★	★	★												
Kahungunu#	★	★	★	★	★			★	★		★	★	★			
Ngāti Porou	★	★	★	★		★		★	★	★	★		★			
Waikato-Tainui	★	★	★	★							★	★	★			
Te Arawa	★	★	★	★												
Ngāti Tūwharetoa#	★	★	★	★												
Tūhoe#	★	★	★													
Maniapoto#	★	★	★	★							★		★			

Tribe / Māori Entity (Ordered by Commercial Size)	Stake in Moana NZ	Self-Managing Quota	Acquiring Quota	JV with External to Fish Quota	Fishing Own Quota	License to Marine Farm	Marine Farming	Process	Self-Brand	Export	Engaged in Customary Fishing	Employ Pātaka System	Established Taiāpure or Mātaitai	Marine Mammal Permit	Marine Tourism	Involved in marine governance forums
Ngāti Mutunga (Chatham Islands)	★	★	★	★	★							★				
Hauraki	★	★				★	★									
Hokotehi Moriori	★	★	★								★					
Ngāti Raukawa ki te Taonga #	★	★	★													
Ngāti Whātua	★	★	★									★				
Te Ātiawa (Taranaki) #	★	★		★												
Ngāti Awa	★	★	★	★							★		★			
Waitotara Incorporation		★	★													
Raukawa #	★	★	★													
Ngāi Te Rangi #	★	★	★	★												
Te Rarawa #	★	★	★	★												
Wakatū		★			★			★	★	★						

Tribe / Māori Entity (Ordered by Commercial Size)	Stake in Moana NZ	Self-Managing Quota	Acquiring Quota	JV with External to Fish Quota	Fishing Own Quota	License to Marine Farm	Marine Farming	Process	Self-Brand	Export	Engaged in Customary Fishing	Employ Pātaka System	Established Taiāpure or Mātaitai	Marine Mammal Permit	Marine Tourism	Involved in marine governance forums
Whakatōhea	★	★	★	★		★	★									
Ngāti Toa #	★	★	★													
Te Aupōuri #	★	★														
Whanganui Iwi #	★	★														
Ngāti Kahu #	★	★														
Taranaki Iwi	★	★		★								★				
Ngāti Ranginui	★	★	★	★				★	★	★						
Rangitāne (Te Ika a Maui)	★	★	★													
Ngātiwai	★	★	★													
Ngāti Ruanui	★	★	★	★												
Ngāti Kuri #	★	★														
Ngāti Whare #	★	★	★	★												

Tribe / Māori Entity (Ordered by Commercial Size)	Stake in Moana NZ	Self-Managing Quota	Acquiring Quota	JV with External to Fish Quota	Fishing Own Quota	License to Marine Farm	Marine Farming	Process	Self-Brand	Export	Engaged in Customary Fishing	Employ Pātaka System	Established Taiāpure or Mātaitai	Marine Mammal Permit	Marine Tourism	Involved in marine governance forums
Ngāti Kuaia #	★	★	★										★			
Ngāitakoto #	★	★	★													
Te Ātiawa (Te Waka a Maui) #	★	★	★													
Ngāti Apa ki te Rā Tō #	★	★														
Te Kahui o Rauru #	★	★		★												
Ngāti Rārua	★	★	★	★		★	★									
Te Aitanga ā Māhaki #	★	★		★												
Rangitāne (Te Waka a Maui)	★	★	★			★										
Ngāti Kahu ki Whaingaroa	★	★														
Ngāti Tama	★	★	★			★										
Ngāruahine	★	★	★													
Rongowhakaata Iwi #	★	★	★	★												

Tribe / Māori Entity (Ordered by Commercial Size)	Stake in Moana NZ	Self-Managing Quota	Acquiring Quota	JV with External to Fish Quota	Fishing Own Quota	License to Marine Farm	Marine Farming	Process	Self-Brand	Export	Engaged in Customary Fishing	Employ Pātaka System	Established Taiāpure or Mātaitai	Marine Mammal Permit	Marine Tourism	Involved in marine governance forums
Te Ātiawa (Poneke) #	★	★	★													
Ngāi Tāmanuhiri	★	★									★		★			
Ngātai #	★	★	★	★												
Ngāti Apa #	★	★														
Te Iwi Muaūpoko	★	★														
Ngāti Mutunga (Taranaki) #	★	★	★													
Ngāti Pūkenga #	★	★														
Ngāti Manawa #	★	★		★												
Ngāti Hauiti #	★	★		★												
Te Ātiawa (Kāpiti) #	★	★	★	★												
Ngāti Maru	★	★									★		★			
Ngāti Koata	★	★				★	★									

Tribe / Māori Entity (Ordered by Commercial Size)	Stake in Moana NZ	Self-Managing Quota	Acquiring Quota	JV with External to Fish Quota	Fishing Own Quota	License to Marine Farm	Marine Farming	Process	Self-Brand	Export	Engaged in Customary Fishing	Employ Pātaka System	Established Taiāpure or Mātaitai	Marine Mammal Permit	Marine Tourism	Involved in marine governance forums
Akapatiki A Block Incorporated #		★														
Tapuika Iwi	★	★														
Tuini Waaka Whānau Trust #		★														
Te Rūnanga O Wharekauri Rēkohu #	★	★														
# Limited or inconclusive information available through desktop search regarding entity																

ANNEX 4 VALUE OF THE MĀORI MARINE ECONOMY: FISHERIES SECTOR

The graphics and the data analysis upon which they are based were produced by Reid (2019).

Figure 27 Value of quota owned by Māori entities over \$10m

Figure 28 Value of quota owned by Māori entities between \$8.6m and \$2.8m



Figure 29 Value of quota owned by Māori entities between \$2.8m and \$1m

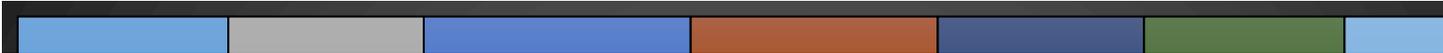


Figure 30 Value of quota owned by Māori entities between \$1m and \$0.03m



Figure 31 % Breakdown of Māori quota owned by individual Māori entities (\$409m)

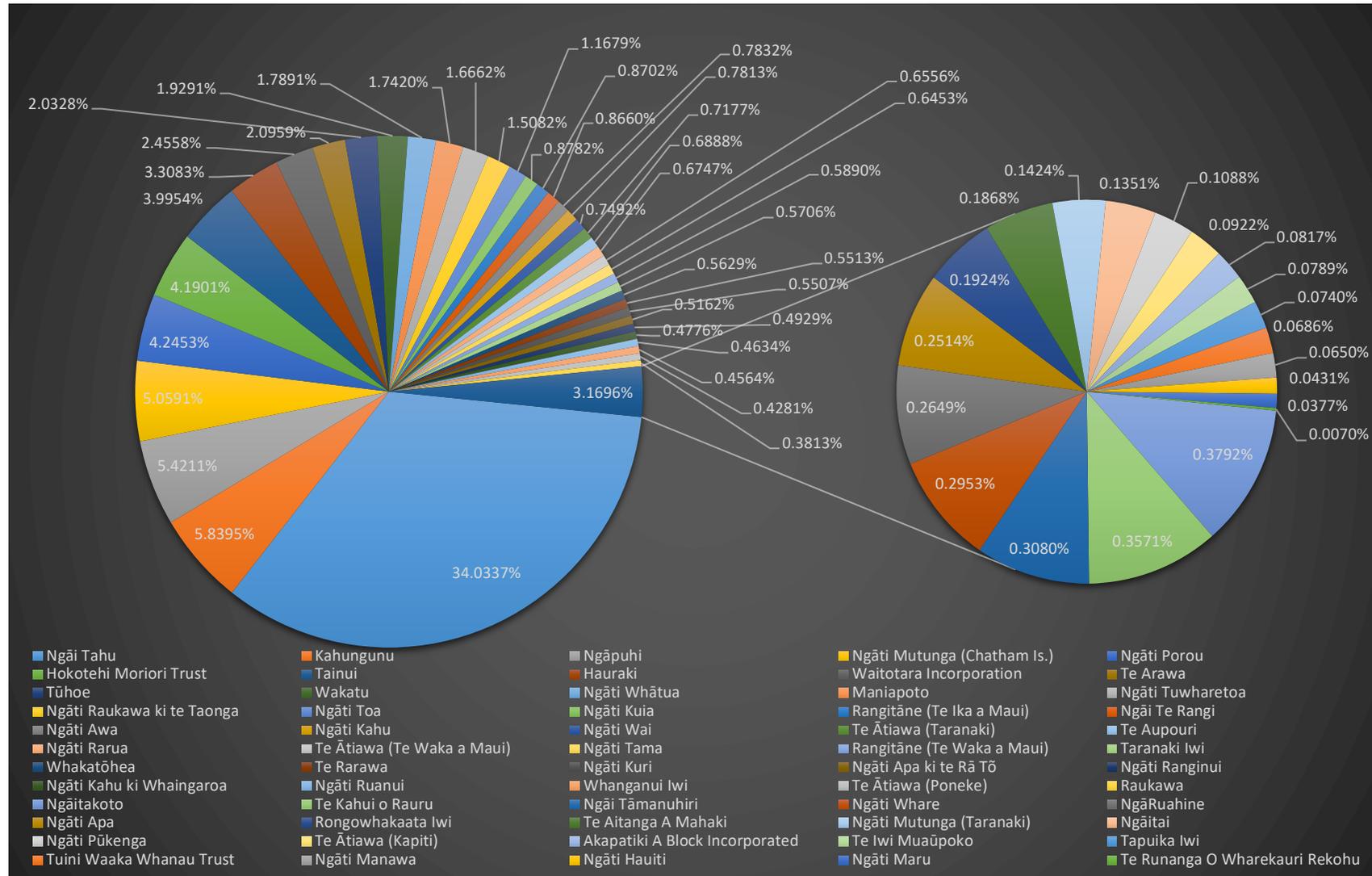


Figure 32 Total value of quota (\$652m) owned by pan-tribal and individual Māori entities as of 2018

Figure 33 Māori share of New Zealand quota by value

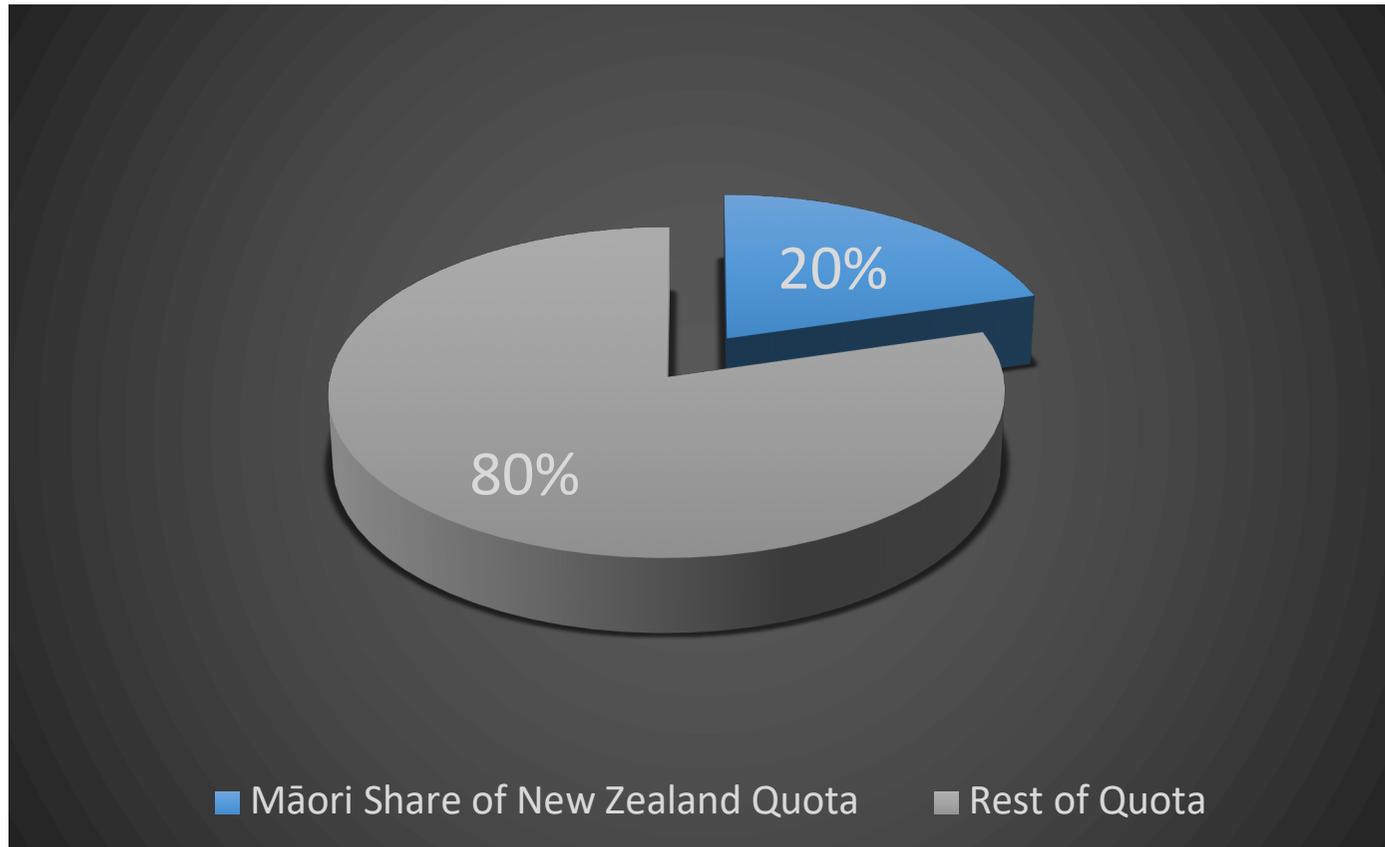


Figure 34 Quota species owned by Māori entities in order of value \$165m to \$10m as of 2018



Figure 35 Quota species owned by Māori entities in order of value \$8m to \$5m as of 2018

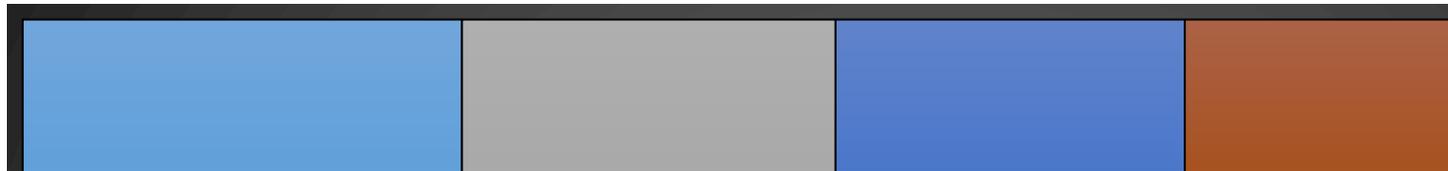


Figure 36 Quota species owner by Māori entities in order of value \$5m to \$2m as of 2018

Figure 37 Quota assets acquired in addition to settlement quota by Māori entities \$130m to \$13m as of 2018

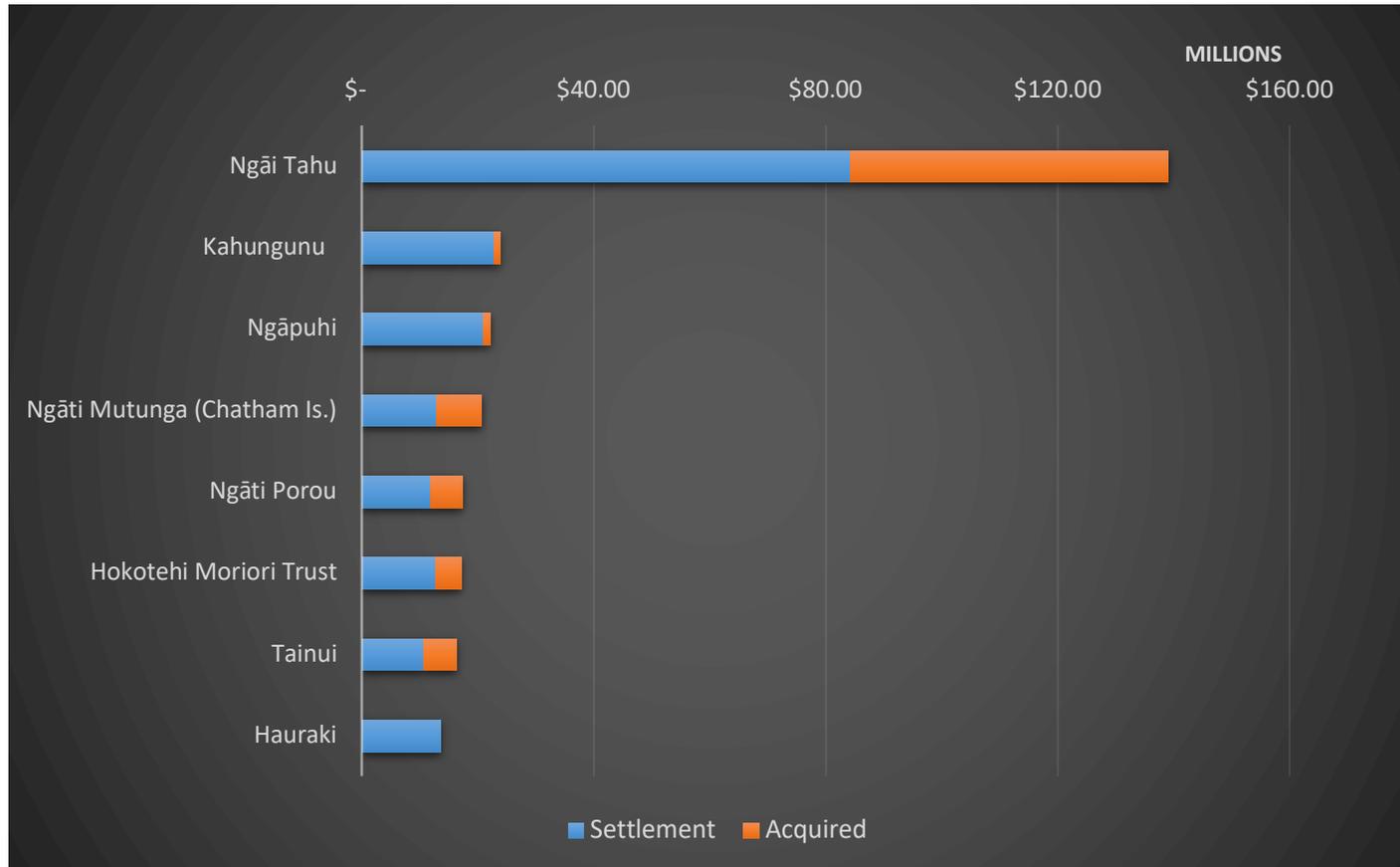


Figure 38 Value of quota assets acquired in addition to settlement quota by Māori entities \$8.6m-\$4.8m as of 2018

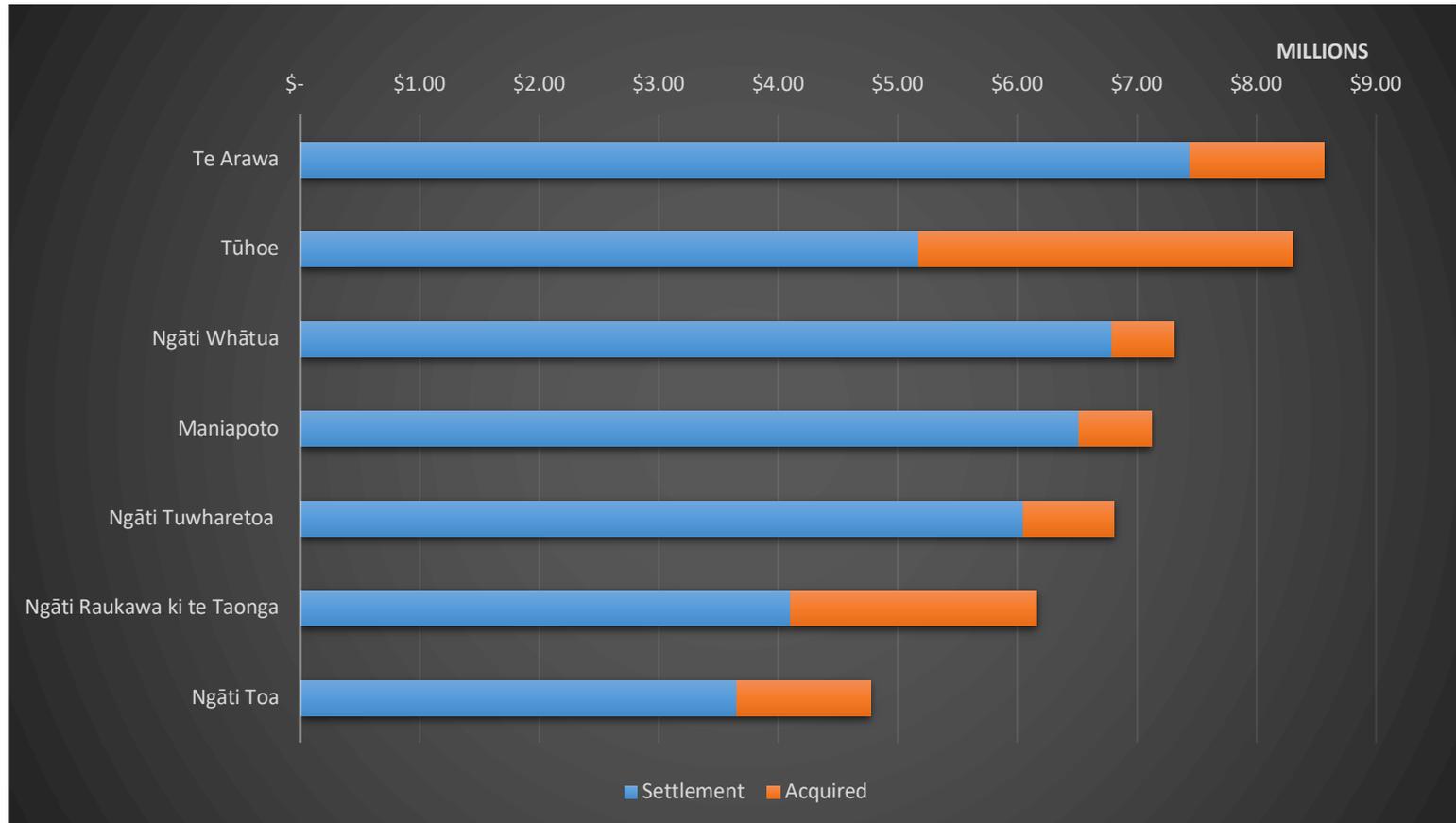


Figure 39 Value of quota assets acquired in addition to settlement quota by Māori entities \$3.7m to \$1.8m as of 2018

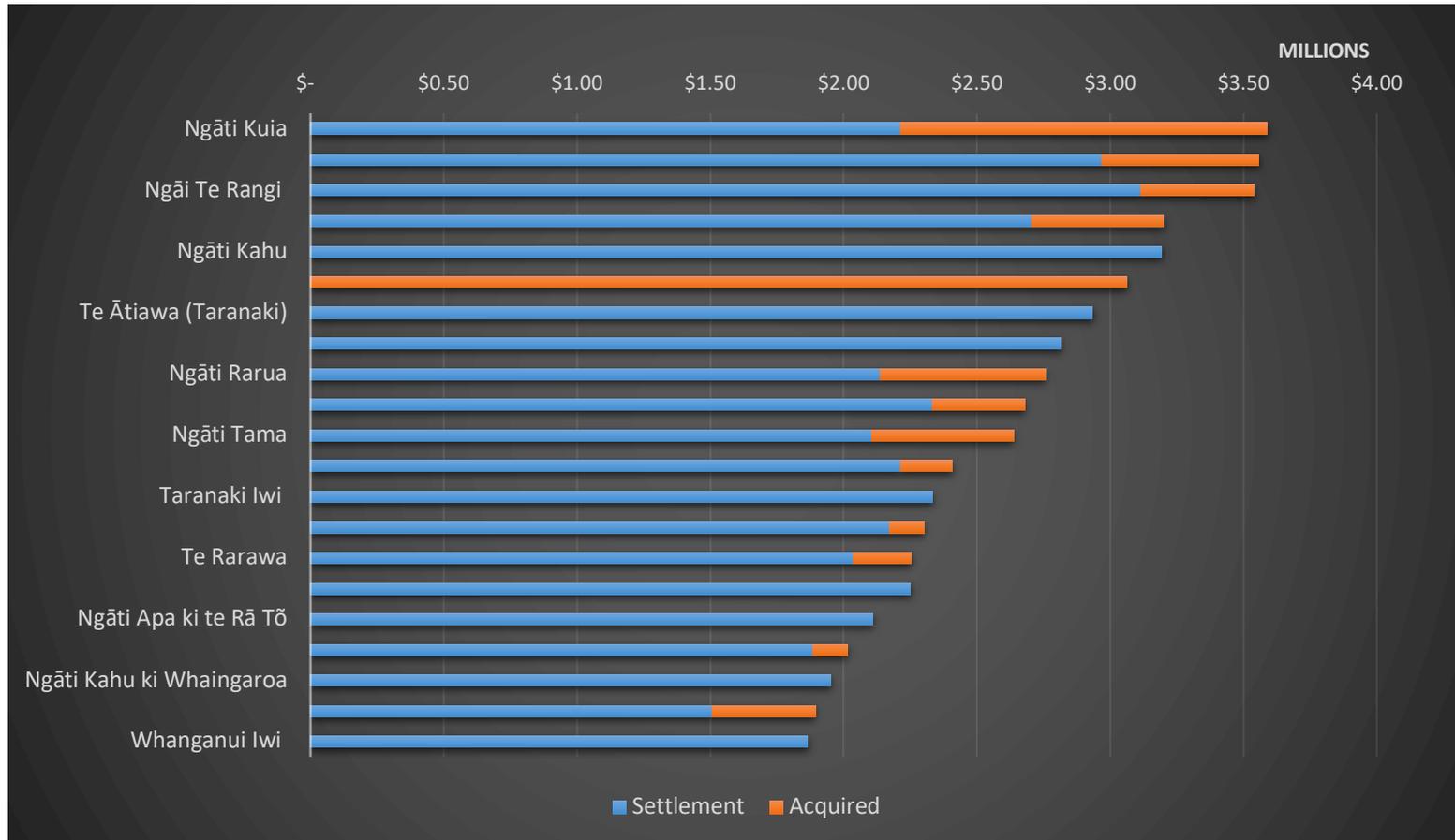


Figure 40 Value of quota assets acquired by Māori entities in addition to settlement assets as of 2018 - \$2m and below



Figure 41 Growth in quota value above settlement quota value 2018

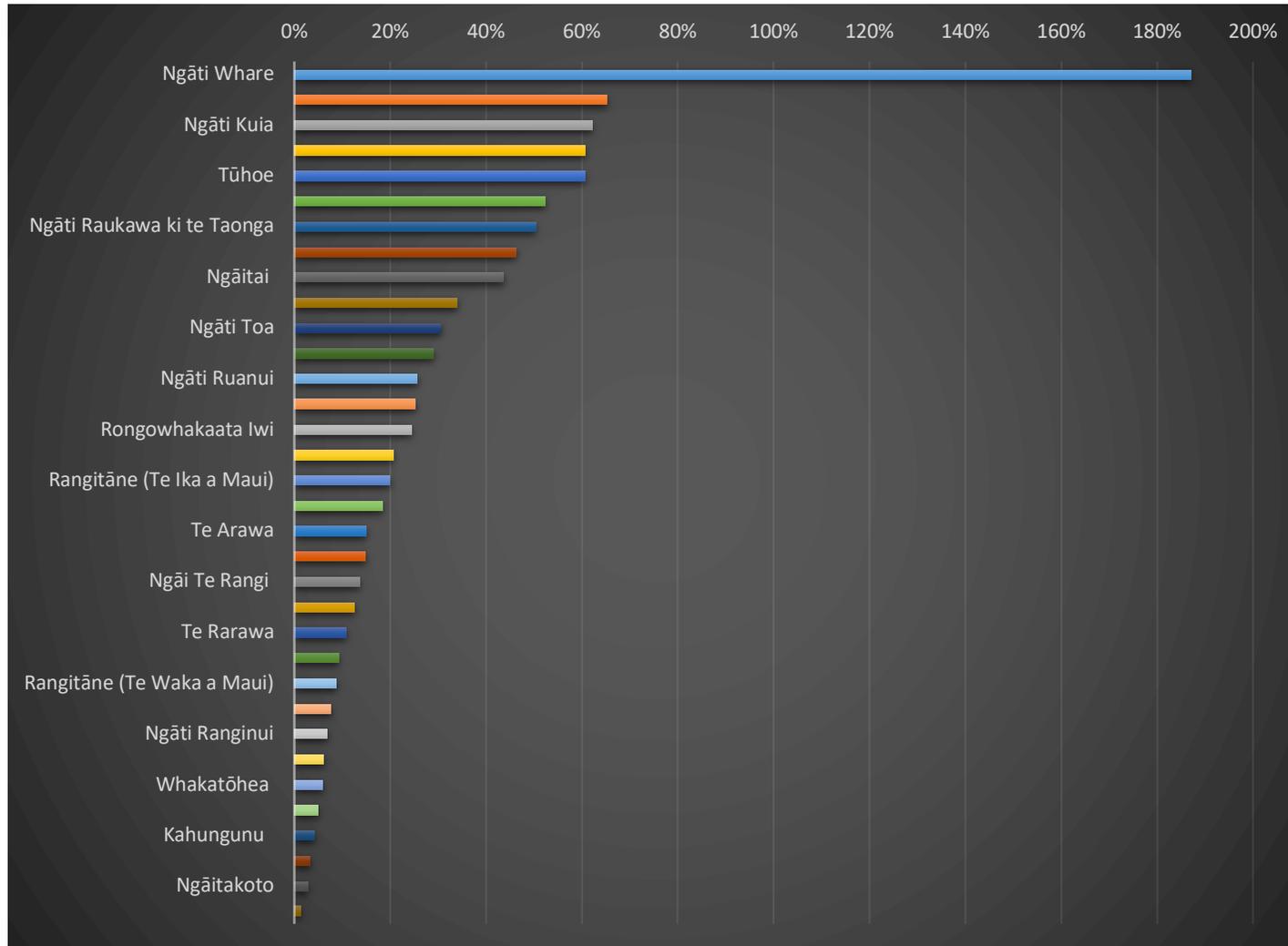


Figure 42 Growth in Māori quota ownership to \$636m among settlement iwi

Figure 43 Value of shareholdings in Moana New Zealand by Māori entity over \$10m as of 2018



Figure 44 Value of shareholdings in Moana New Zealand by Māori entity between \$3m and \$5m as of 2017

Figure 45 Value of shareholdings in Moana New Zealand by Māori entity between \$1m and \$3m as of 2017



Figure 46 Value of shareholdings in Moana New Zealand by Māori entity under \$1m as of 2017

Figure 47 Value of shareholdings in Moana New Zealand by Māori entity as of 2018

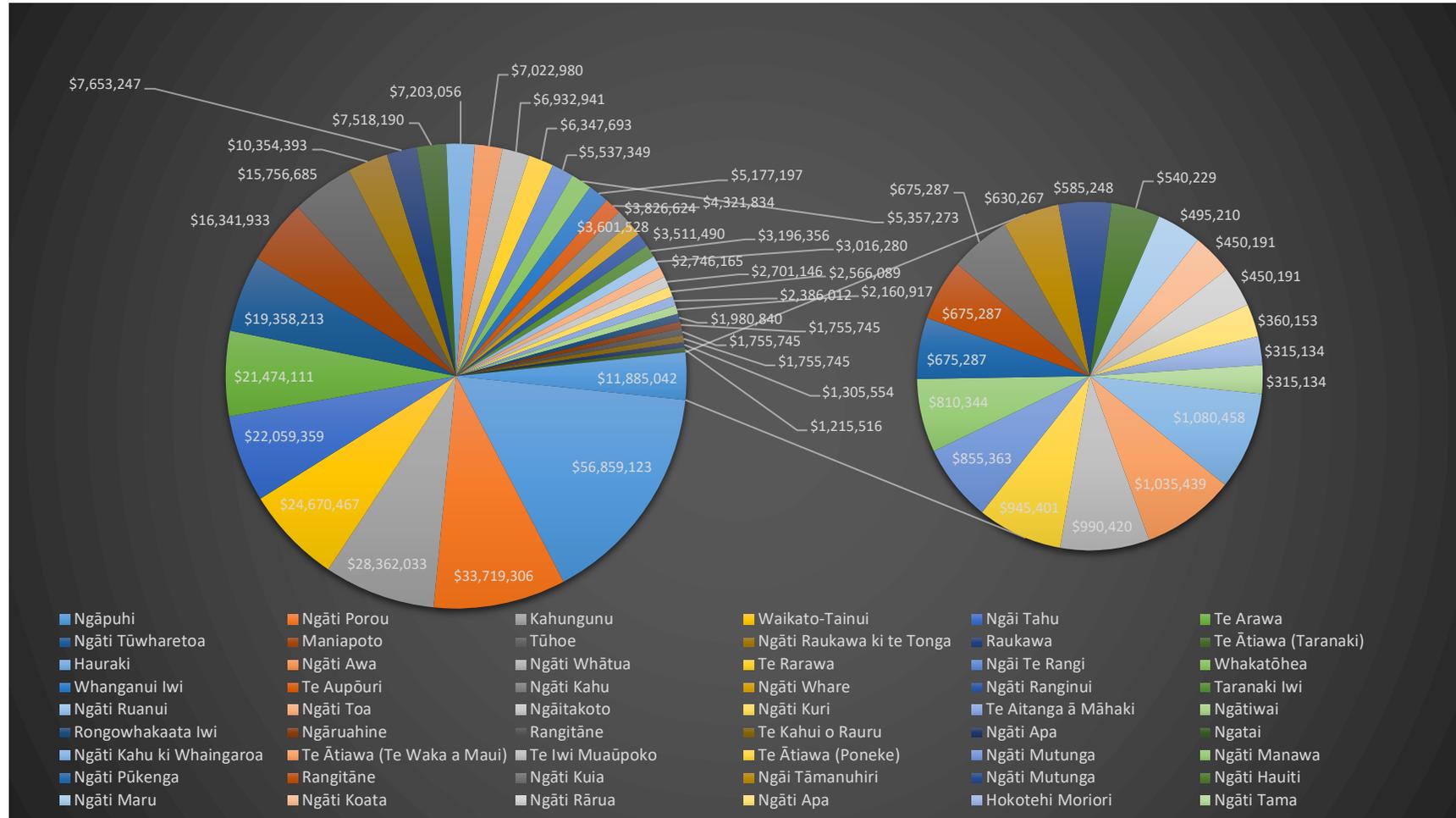


Figure 48 Total equity in Moana New Zealand and value of quota owned for Māori entities between \$162m and \$10m as of 2018

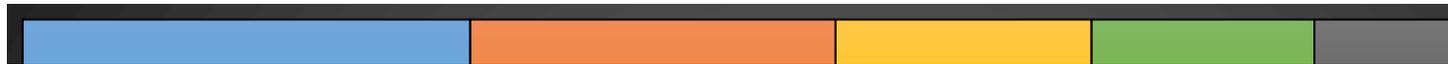


Figure 49 Total equity in Moana New Zealand and value of quota owned for Māori entities between \$10m and \$4.9m as of 2018

Figure 50 Total equity in Moana New Zealand and value of quota owned for Māori entities between \$4.9m and \$2.5m as of 2018

Figure 51 Total equity in Moana New Zealand and value of quota owned for Māori entities between \$2.5m and \$.028m as of 2018

Figure 53 Total equity in Moana New Zealand and value of quota owned for Māori entities over \$10m as of 2018

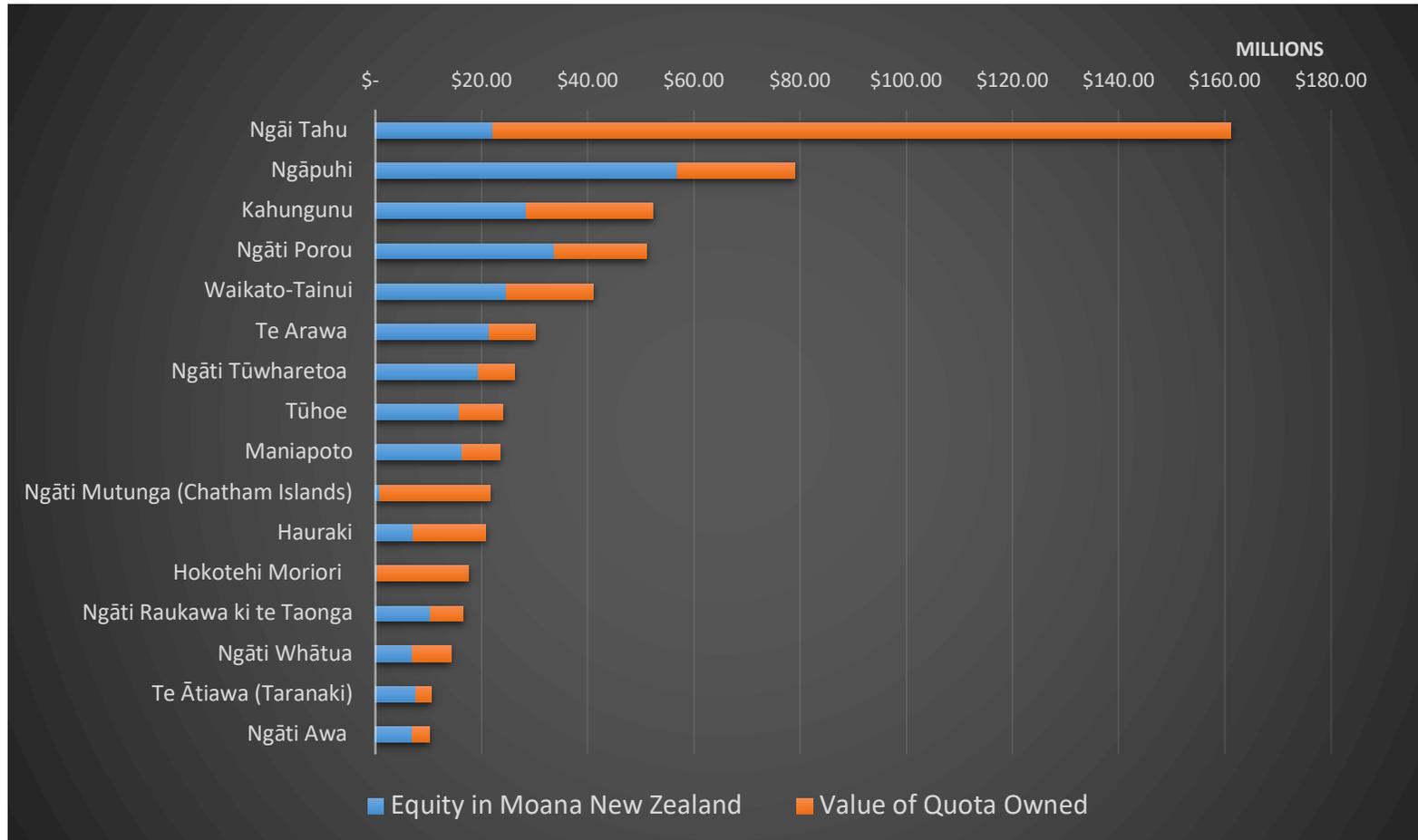


Figure 54 Total equity in Moana New Zealand and value of quota owned for Māori entities Between \$4.4m and \$10m as of 2018

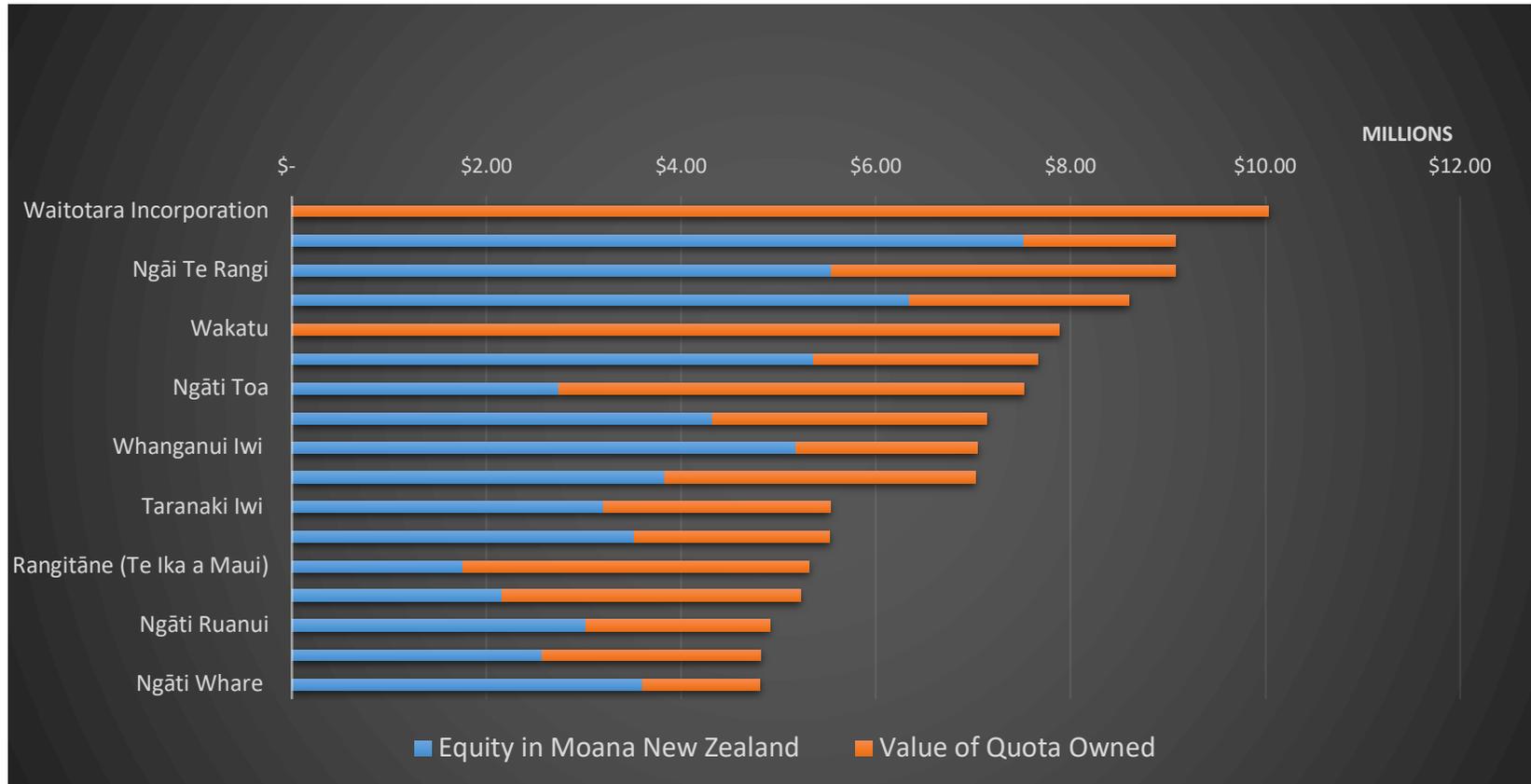


Figure 55 Total equity in Moana New Zealand and value of quota owned for Māori entities between \$1.8m and \$4.4m as of 2018

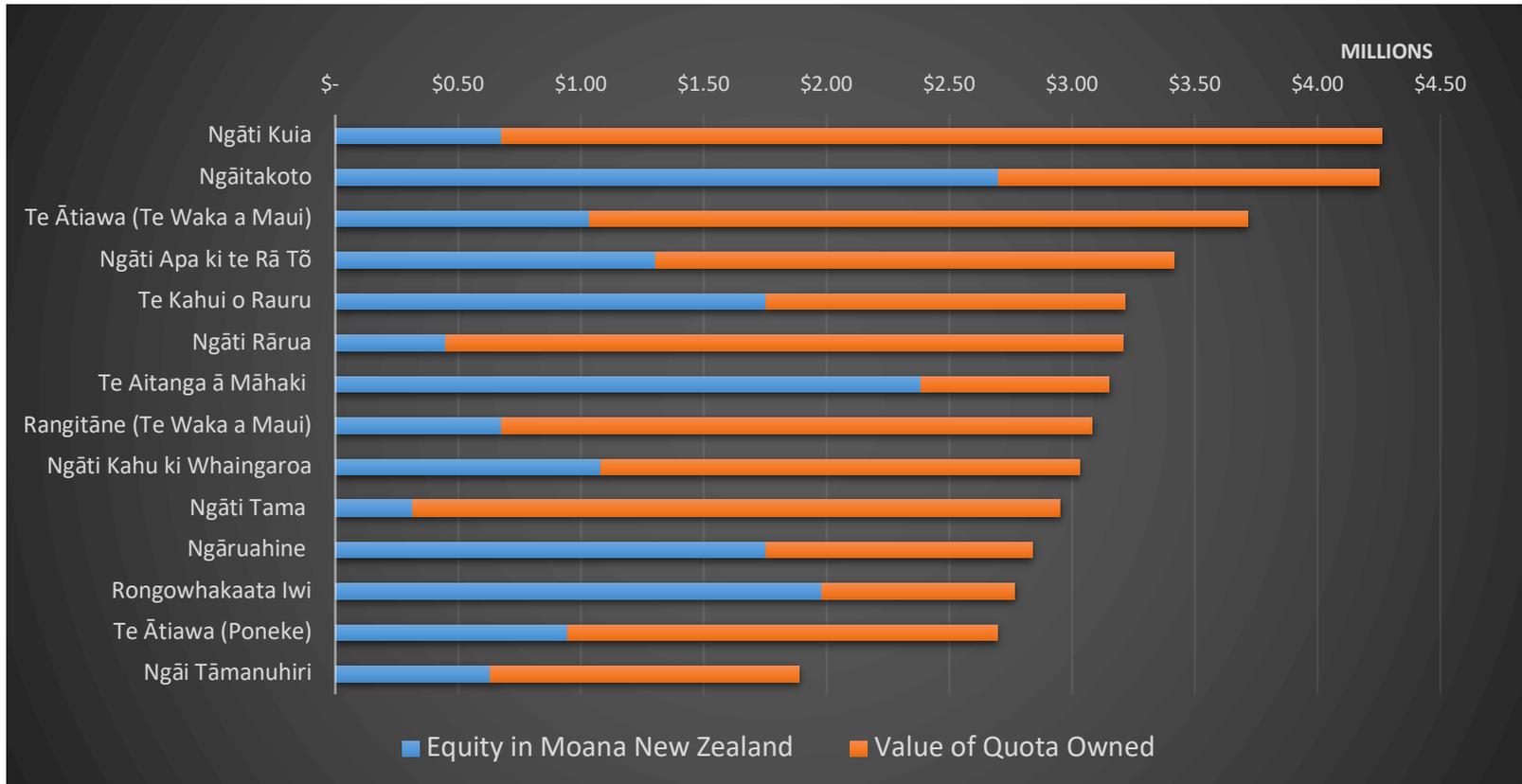


Figure 56 Total equity in Moana New Zealand and value of quota owned for Māori entities between \$1.8m and \$0.03m as of 2018

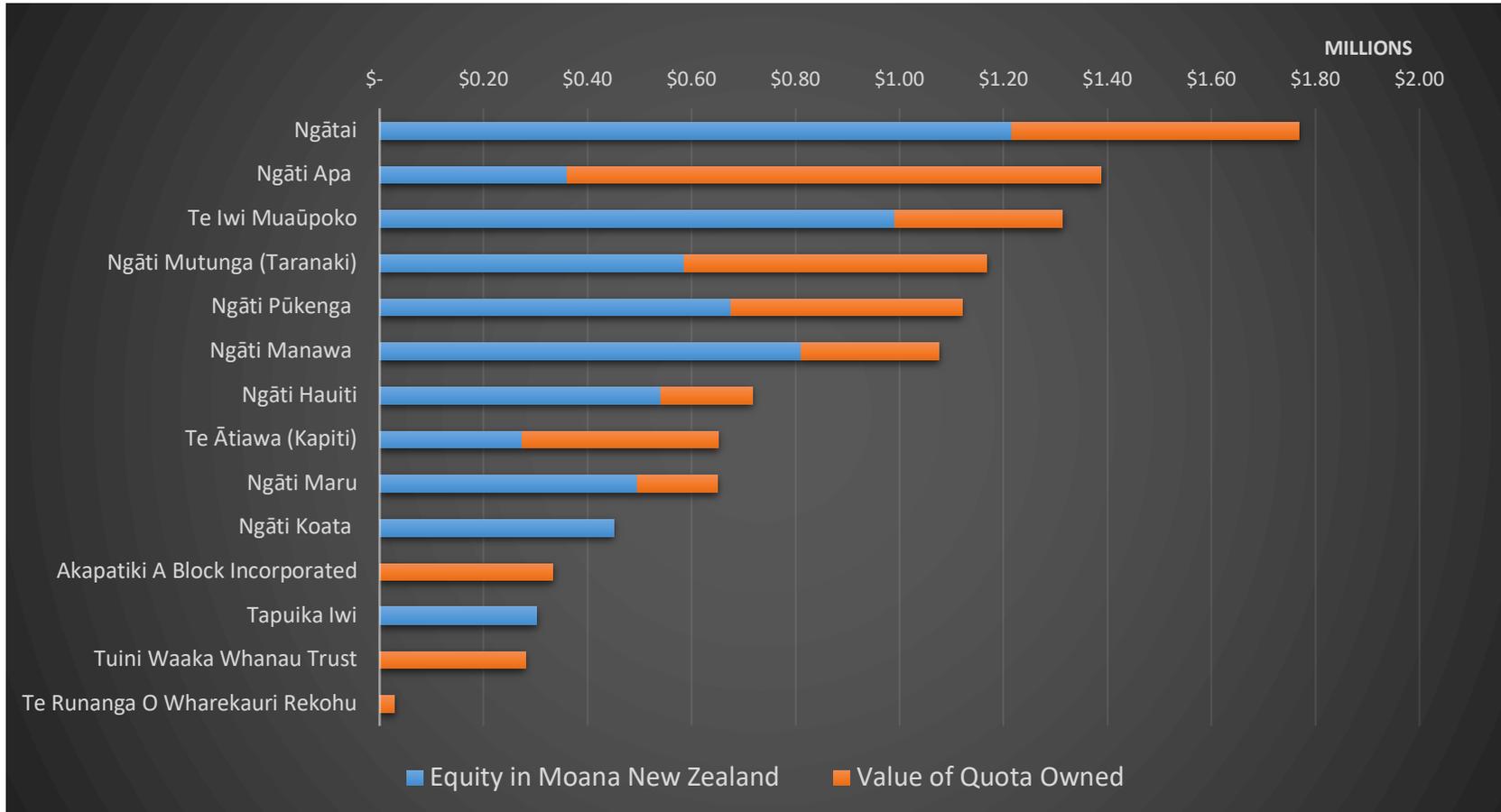


Figure 57 Total Māori interests in quota and Moana New Zealand – \$859m

Figure 58 Equity in Moana New Zealand relative to quota in active management and ownership by Māori entity

