

Research Proposal

Δ	. PROJECT TITLE	T2 Huataukina o hapū e! Prosperous moana; prosperous people	
	"SHORT" TITLE	Huataukina	
В	. THEME / PROGRAMME	Tangaroa Programme	

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D. CO-DEVELOPED WITH			
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Selwyn Parata	for the management	Hinekehu	Introductory youtube video
Agnes Walker	area between		Error! Hyperlink reference not valid.
Kapa Keelan	Rahuimanuka to		
Joe Ngarimu	Mataahu		
Sam Awarau	Takutai Kaitiaki	Ngai Taharoa, Te Whānau	Essential Partners
George Jahnke	Trustees (Waipiro) for	a Iritekura, Te Whānau a	
Sharon Harrison	the management area	Rakairoa, Te Whānau a Te	Introductory youtube video
Wiki Gilvray	between Mataahui to Koutunui Head	Haemata	Error! Hyperlink reference not valid.
Selwyn Parata	Chairperson	Te Runanga o Ngati Porou	Watching Brief
Herewini Te Koha	CEO	Te Runanga o Ngati Porou	Watching Brief
Matanuku Mahuika	Partner	Kahui Legal	Watching Brief
Whaimutu Dewes	Chairperson	Ngati Porou Seafoods Ltd	Watching Brief
David Wilson	Deputy CEO	Gisborne District Council	Watching Brief
Graeme Atkins	Local Ranger	DoC	Watching Brief
Kura Paul-Burke	Project Leader	T1 Awhi Mai Awhi Atu	Project Link
Dan Hikuroa	Project Leader	4.1 Treaty Relationships and EBM	Project Link

E. ABSTRACT

'Huataukina' is a metaphor for the challenge facing many kaitiaki and marine managers around New Zealand. 'Huataukina' once symbolised an abundance of taonga species and a thriving community but now heralds a biodiversity tipping point and the quest for kaitiaki to restore balance and the prosperity of their hapū and iwi.

The Nga Rohe Moana o Nga Hapū o Ngati Porou Act 2019 (the Act) is a unique piece of legislation that contributes to the legal expression, protection, and recognition of the continued exercise of mana by nga whānau me nga hapū o Ngati Porou who have and continue to exercise control over their lands and waters. The Deed sets out four high-level principles that are founded on hapū aspirations and have guided the Deed of Agreement between nga hapū o Ngāti Porou and the Crown. These include:

- Toitu te mana Atua hapū regulate and undertake activities on, over or within their rohe moana;
- Toitu te mana moana me te mana whenua recognising the unbroken, inalienable and enduring mana of hapū;
- Toitu te mana tangata recognising the right of hapū to exercise influence over activities impacting their rohe moana;
- **Toitu te Tiriti o Waitangi** acknowledges the partnerships between nga hapū o Ngāti Porou and the Crown will be based on honour and integrity.

Huataukina o hapū e: Prosperous Moana, Prosperous People provides a ground-breaking opportunity for hapū-driven research to give meaningful effect to these principles. Case studies and development of tools and frameworks with two of the Acts' six Takutai Kaitiaki Trusts will be anchored in Whareponga and Waipiro Bay. Outputs such as a Mauri Compass tool for the marine environment will enable kaitiaki to better manage their rohe moana, build hapū capacity and capability and provide insights into how mātauranga Maori and western science can inform the implementation of EBM in place, with insights of national relevance.

F. RELEVANCE TO CHALLENGE OBJECTIVE

Phase 1 research identified that existing policy and legislation for marine management does not adequately provide for the expression of kaitiakitanga or a Te Ao Maori worldview. This research project through the enactment of the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019 (the Act) provides a unique opportunity for hapū to express their mana and kaitiakitanga over nga rohe moana in which they have continued to have an unbroken and enduring relationship. The way in which this will be given effect to is through hapū led research, development of tools, processes, frameworks and policies that will inform decision-making practices for hapū and other decision-makers.

The approach and outputs of this project are of key relevance to the Challenge Objective to enhance utilisation of marine resources within environmental and biological constraints through its focus on a new and unique piece of marine Treaty of Waitangi legislation, as well as through the collaboration of place based mātauranga Maori and science to inform decision making and management. In particular this project informs three high level outcomes identified by the Challenge, namely F02 Improved decision making using an EBM approach; F03 Improved health of our seas; and F04 Increased involvement of tikanga and mātauranga Maori.

G. OUTPUTS	This project will produce the following Outputs:	Linked to which Theory of Change Outputs:	Explain briefly your plan to ensure uptake by iwi and stakeholders:
	A database / repository of existing knowledge and information relating to the marine ecosystems of the two case study rohe moana.	(a) Biophysical and socio- ecological knowledge that supports the development of understanding and tools that underpin EBM as a viable approach to managing Aotearoa New Zealand's marine environment. (b) Traditional, local and other cultural knowledge that supports EBM is understood/recognised.	 Leadership and participation of the two Hapū Trusts in the collection and collation of the information, as well as the design and development of the database / repository. Information to include hapū kaitiaki based data and knowledge collected over an extended period. Relevant co-development agencies and partners will also contribute to this output through the provision of relevant research reports and publications. This contribution aligns with the requirements of the Act.
	Scientific dive survey report for the two case study rohe moana.	(a) Biophysical and socio- ecological knowledge that supports the development of understanding and tools that underpin EBM as a viable approach to managing Aotearoa New Zealand's marine environment. (b) Traditional, local and other cultural knowledge that supports EBM is understood/recognised.	A biophysical and socio-ecological report developed by hapū kaitiaki working collaboratively with MUSA environmental team. This work will support the development and understanding of marine ecosystems and is enhanced through local kaitiaki and hapū knowledge of their rohe moana.
	A co-developed matauranga Maori	a) Biophysical and socio- ecological knowledge that	The Mauri Compass freshwater version was trialled at Whareponga Marae in

	based mauri compass model calibrated specifically for the marine environment.	supports the development of understanding and tools that underpin EBM as a viable approach to managing Aotearoa New Zealand's marine environment. (b) Traditional, local and other cultural knowledge that supports EBM is understood/recognised.	 2016. The noho-marae wananga process proved to be a successful method of engagement and uptake. These connections, track record and experiences will assist uptake with this output. The model calibration will be codeveloped with the two case study Hapū Trusts through hapū-led rangahau methods. Wananga and presentations with the two Trusts, hapū and iwi utilising an active participatory research approach will ensure a thorough engagement process. Wider stakeholders (e.g. council and other agencies) co-developed and endorse the Mauri Compass Awa version and are available to assist if required with the Moana version. Presentations at various fora (including conferences, iwi research hui etc) will help to disseminate the findings.
4.	A Preliminary Toitu Principles based state of the rohe moana report that provides an assessment and analysis of existing knowledge and information about the two case study rohe moana.	(a) Biophysical and socioecological knowledge that supports the development of understanding and tools that underpin EBM as a viable approach to managing Aotearoa New Zealand's marine environment. (b) Traditional, local and other cultural knowledge that supports EBM is understood/recognised. (e) Scales of management and place-based strategies that reduce environmental risks are identified and demonstrated.	 A sub-group of key researchers, Takutai Kaitiaki Trust representatives and codevelopment partners will provide leadership, oversight and participation in the development of the report. The report will identify issues and priorities to be addressed through long-term planning and the utilisation of tools developed through this project (e.g. hapū centric decision making frameworks). The report builds on previous work completed by Pia Pohatu and the State of the Takiwa Environmental Monitoring Report for Hikurangi Takiwa Hapū Trust 2015.
5.	A hapū centric decision- making framework over a rohe moana.	(b) Traditional, local and other cultural knowledge that supports EBM is understood/recognised. (e) Scales of management and place-based strategies that reduce environmental risks are identified and demonstrated.	 The decision-making framework will be codesigned with the two case study Takutai Kaitiaki Trusts, including testing against the Toitu Principles and existing decision making actions that support sustainable practice by whānau. Different governance structures will be examined and tested and may provide insights.
6.	A co-designed policy framework that applies a mātauranga Maori based approach to EBM, supporting Maori rights, interests, values and implementation of the Act.	(b) Traditional, local and other cultural knowledge that supports EBM is understood/recognised. (e) Scales of management and place-based strategies that reduce environmental risks are identified and demonstrated. (g) Governance and policy practices that support EBM identified, evaluated and packaged for targeted decision-makers.	 The policy framework will be co-designed and developed with the two case study Hapū Trusts, relevant agencies and other key co-development partners as noted in the Act. This will occur through a series of wananga, hui and testing supporting ownership of implementation and long term uptake. Utilisation of support for the aims and outcomes of the project from Te Runanganui o Ngati Porou to enable wider engagement.

		•	Presentations and conferences.
7. A Final Report.	a) Biophysical and socio- ecological knowledge that supports the development of understanding and tools that are accessibly packaged. (b) Traditional, local and other cultural knowledge that supports EBM is understood/recognised.	•	The Final Report will outline the frameworks, approaches and learnings from the research and be presented in a format suitable to provide insights for iwi and marine management stakeholders. Specific insights and learnings for agencies with responsibilities for administering key areas of marine management.

H. OUTCOMES | This project will contribute to the following Theory of Change Outcomes:

- (2) Decision-making practices that are more inclusive, multi-sectoral and account for the effects from cumulative and multiple activities are adopted;
- (3) Knowledge from the Challenge (matauranga and science) is used in decision-making to improve ecological health and influences Aotearoa New Zealand's marine management practice and policy;
- (4) The complementarity of local expression of kaitiakitanga and EBM are well understood and enabled;
- (7) Maori rights, interests and values are supported through the application of EBM
- (8) Researchers and iwi and stakeholders involved during the life of the challenge continue to actively promote, research in, and use knowledge from the Challenge

INTRODUCTION

Ko Hikurangi te maunga

Ko Waiapu te awa

Ko Ngati Porou te iwi

Ko te takutai moana te take

Ko Nga Rohe Moana o Nga Hapū o Ngati Porou te ture!

Existing policy and legislation for marine management does not sufficiently enable the expression of kaitiakitanga and the application of Te Ao Māori contexts to be utilised within current Ecosystem Based Management practices.

Through the Ngã Rohe Moana o Ngã Hapū o Ngāti Porou Act, the Crown acknowledges that ngã hapū o Ngati Porou continue to assert ongoing and enduring ownership interests over nga rohe moana o Ngāti Porou and that they are unbroken by the Marine and Coastal Area Act. Ngā Hapū o Ngati Porou uphold their reo (language), whakapapa (relationships and connections) and tikanga (practice/s), unique perspectives and experiences. Living within their place informs their mātauranga, their ways of knowing and doing.

Huataukina is the kaupapa rangahau o Whareponga me Waipiro that will implement the Act through a programme of hapu-centred approaches focussed on the reciprocity of prosperous people (Pp) and prosperous moana (Pm). These approaches will achieve (i) mātauranga hapū capacity and capability building of hapū members (Pp); (ii) kawanatanga hapu capacity and capability building (Pp); (iii) sharing mātauranga and kawanatanga tikanga with marine stakeholders (Pm); (iv) evaluating institutional practices of Crown policy, governance and knowledge management systems (Pm) and (Pp).

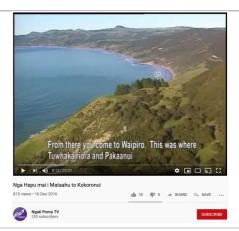
The laboratory, workshop and knowledge development space of Huataukina o hapu e is the rohe moana of Whareponga and Waipiro. Enhancing the utilisation of marine resources within environmental and biological constraints is a lived daily experience for hapū members who are, through their whakapapa (relationships and connections) innately part of their moana-and-whenua-scapes.

Taken together, the activities and approaches of Huataukina recognise the contests of privilege that different sources of knowledge create. These contests provide the settings for emergent and new learning practices to transform relationships, methods and knowledge that will assure our moana and whenua are available to future generations as taonga tuku iho.

In 2003, a series of video interviews were filmed with several pakeke representing nga hapu o Ngati Porou. Each pakeke shared korero about how their hapū exclusively used and occupied te takutai moana and tai whenua from 1840 to the present day. These interviews are among the collection of foreshore and seabed customary evidence gathered over the past 16 years.



Taina Ngarimu,
Chairman of the Takutai Kaitiaki Trust at Whareponga
https://youtu.be/a9MdhAhedqY



Waipiro Bay Takutai Kaitiaki Trust https://youtu.be/9VG-MTtnreQ

J. AIMS

The research aims of Huataukina are to:

- Unlock the potential of the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act (Treaty of Waitangi based legislation), mātauranga Maori and western science to give effect to the practice of kaitiakitanga over nga rohe moana o Ngāti Porou;
- Create mātauranga-a-hapū frameworks, processes and tools that will enable kaitiaki and other decision-makers to protect and manage the rohe moana o nga hapū o Ngāti Porou;
- Build whānau and hapū capability to actively participate in the decision-making and management of nga rohe moana o nga hapū o Ngāti Porou.
- Develop understanding and guidance relevant to the application of a whānau, hapū, iwi and mātauranga Maori based approach to EBM in two hapū rohe moana case studies.

K. PROPOSED RESEARCH

This project represents a strongly hapū-led and informed research approach that is iterative, non-linear and aimed primarily to supporting hapū aspirations relevant to their traditional and contemporary relationship with their rohe moana. The research builds on substantial work undertaken through previous research of relevance in the region (e.g. Harmsworth, G., Warmenhoven, T., Pohatu, P., (2004). Ruru, I. H., Kanz W.A. (2019). Hepburn, C. D., Richards D.K., T. Neha. (2012)), as well as through the settlement process toward the passing of the Nga Rohe Moana o Nga Hapū o Ngati Porou Act 2019 (the Act).

Particularly informative to our overall approach is work previously undertaken (Harmsworth, G., Warmenhoven, T. and Pohatu. P.(2004)) outlining practical steps relevant to mātauranga for sustainable hapū development:

- a. Develop frameworks and models based on case studies, hui, interviews, wānanga, collaborative learning and action participatory work programmes. These then have the potential to be applied and used in other parts of the country.
- b. Establish and explore the role of mātauranga Maori or indigenous knowledge within sustainable hapu development.
- c. Achieve sustainable hapu development by working with kaitiaki and hapū to find out about their lives, their issues and their aspirations.
- d. Examine the role and use of Māori knowledge (mātauranga Māori) within these frameworks and models, and develop strategies for the revitalisation and creation of Māori knowledge and its use.
- e. Build Maori research capability and social capacity by increasing skills, learning, and training through education, western science, mātauranga Māori, and research, and then applying this collaborative learning.
- f. Use whakakotahitanga—participatory processes—from programme concept to completion, as well as inclusive management structures, to ensure effective delivery to hapū whānau, and other end-users.
- g. Keep in mind, eight key components that can contribute to Māori knowledge and development objectives:
 - i. A focus on recording, retaining, and using mātauranga Māori in a context of sustainable hapū and whānau

- development.
- ii. A focus on building capacity through training, participatory research, new skills, and networking.
- iii. The development of Māori research methodologies for and by Māori.
- iv. Sustainable use of natural resources through the principles of kaitiakitanga.
- v. Improved Māori resource utilisation through the use and integration of Māori, non-Māori, and science knowledge.
- vi. The identification of the key components of Māori governance and leadership.
- vii. Māori economic development, and the development of skills and opportunities at the hapū level to develop businesses, market and export opportunities such as indigenous branding, and culturally based products and services.
- viii. The development of indicators or a framework that enables a local community to evaluate the role of their hapū in their day-to-day living, and strategically engages stakeholders at various levels to progress a range of community concerns, issues and aspirations.

To achieve the research aims and identified outputs of this project, we will focus on two of the six hapu rohe moana noted in the Act - the rohe moana of Whareponga and Waipiro. These two rohe moana are administered under the Act by two Takutai Kaitiaki Trusts (Hapu Trusts). Representatives from each of the Trusts will play leadership and participation roles throughout the research, as well as providing oversight and guidance to our research approach. Project Co-Leader *Ngarangi Walker* will lead the project management and communication aspects of the project on behalf of AgFirst Consultants and the project team.

Our research aims can be broadly outlined across three activity categories – knowledge collection and assessment, knowledge development, and knowledge sharing. Below is a summary of each area of activity planned within these categories but we note that the annual review of the project may lead to changes in approach, output type or anticipated outcome.

1. Knowledge collection and assessment

A significant volume of knowledge and information relevant to the marine environments of the two case study rohe moana exists both in tangible form (e.g. research and other publications), and intangible form (held by kaumatua and kuia). An important first step will be to utilise a kaupapa Maori approach to collect through literature review, interviews and wananga, the existing knowledge and information of relevance. This will require the leveraging and in some cases establishing of partnerships necessary within, and associated with, the case study rohe moana to identify key sources of knowledge. This process will dominate a Maori driven approach to the collection of knowledge, particularly where it is held by whānau and hapū. Nepe (1991) notes that 'kaupapa Maori has its origins in a metaphysical base that is distinctively Maori. This influences the way Maori people think, understand, interpret and interact within their world'. Co-development agencies and partners will also contribute to this work through the provision of relevant research reports and publications, which aligns with requirements under the Act. *Pia Pohatu* brings extensive experience in undertaking kaupapa Maori, mātauranga-informed, participatory research with/in Maori communities promoting environmental and social restoration, wellbeing, leadership and benefit sharing. Pia will lead and provide oversight to a team of hapu researchers and data management experts in the collection, assessment and storage of information and knowledge.

The research team have established a partnership with MUSA Environmental a private consultancy experienced in marine field research. Joe Burke has significant experience as a commercial and scientific diver with recent experience including more than a decade of monitoring and mauri assessment surveys and the provision of information and evidence for Environment Court proceedings. Joe will provide training and oversight to the completion of a scientific dive survey based on hapu kaitiaki information, knowledge and observations collected by kaitiaki over several years. In particular Joe will work with hap ū researcher Justin Tibble to enable the collection of dive survey data that will inform completion of a biophysical and socio-ecological report to be produced in accessible formats that supports hapū understandings and knowledge of their rohe moana, In particular this work will focus on the presence of increasingly problematic kina barrens in the two case study rohe moana, for which Justin has led work by kaitiaki to gather data and images for the past several years. *Dr Nick Shears* brings 16 years of quantitative research expertise in whole-reef ecosystems and will lead the overall assessment of information gathered from output 2. The knowledge, information and data will be analysed and integrated into an overall Preliminary Toitu Principles based state of the rohe moana report that will identify issues and priorities to be addressed through future research, long term planning, and will inform the development and utilisation of tools developed through this project. The reports development will be lead by *Pia Pohatu* and *Dr Nick Shears* and will build on previous work completed by Pia for the State of the Takiwa Environmental Monitoring Report completed for Hikurangi Takiwa Hapu Trust in 2015. This will be a key project output in terms of informing both the case study hapu, but also wider hapu, iwi and agency interests in the region.

The knowledge, information and data will be brought together into a pataka mātauranga or **database / repository** that will be codesigned and developed with our hapu trust partners to ensure enduring accessibility and ease of use for multiple purposes. This will be an important output for both the hapu and the wider iwi in terms of enabling effective implementation of the Act. We will

also consult with agencies who have responsibilities relevant to the Act, and the general aspirations of the hapu to ensure the pataka can support interaction and decision making for the management of the rohe moana. This stage of the project will involve exploring options utilised both internally within Ngati Porou, and by other hapū and iwi to identify the most appropriate and useable model. In particular the team will utilise the experience of *Ngarangi Walker* and *Pia Pohatu* to support the development of this important output. Our existing and potential connections with other Challenge projects will also be informative and could support completion of this aspect of the project including T4 – Te Tahuhu Matatau o Tangaroa (co-led by Ngati Porou member Reagan Fairlie); 1.1 – Understanding Ecological responses to cumulative effects; 1.2 – Tools for incorporating ecological responses to cumulative effects into spatially explicit decision support tools). *Ngarangi Walker* will be instrumental in coordinating and facilitating both the exploration of options and models, as well as the connections to other projects, hapū, and wider stakeholders. Her background in management studies, management communications and public relations, as well as relationship management (including in the science sector) will be valuable in leading this aspect of the project.

Collectively these activities enable the utilisation of kaitiaki mātauranga and science to support and inform activity categories 2 & 3. In addition the alienation of hapū in the management of their rohe moana over time as a result of legislative and other mechanisms has impacted on the connection of people to place. This stage of the project is critical to securing active hapū and whānau participation in the project as well as revitalising their relationship and knowledge of their rohe moana.

Connections and collaborations with other key Challenge projects (such as 1.1, 1.2, T1, T4 and 4.3) will also inform and support these activities with opportunities for mutual sharing of information and insights planned across the duration of the project.

2. Knowledge development

Mauri is a well-recognised and often used value and measure of wellbeing. For us in Ngati Porou, our role as kaitiaki is defined by our responsibility of guardianship of the mana, tapu and mauri of our environment – of its plans, animals, waters and land. Mauri is now a compulsory freshwater value in the Tairawhiti Resource Management Plan, and is increasingly playing a significant role in decision making and management under new national policy and regulation such as Te Mana o Te Wai.

The Mauri Compass is a mātauranga Māori based tool for assessing the mauri of water. The mauri compass was originally designed by Ian Ruru and David Wilson (Deputy CEO Gisborne District Council) as a framework and tool for assessing and restoring the mauri of freshwater systems in the Gisborne Region. Its success reflects its alignment to Maori approaches to decision making process, its strength in supporting and growing influence in local planning, and its contribution to our specific hapu and iwi planning processes in Te Tairawhiti. Huataukina provides a significant research opportunity to further develop, customise and calibrate the Mauri Compass as a tool to inform kaitiaki and other resource managers with responsibilities to the marine environment around NZ. The compass has been modified to support utilisation in a marine management context to assess the effects of the marine Gisborne City wastewater outfall pipe on the mauri of Turanganui a Kiwa (Poverty Bay). Successful modification relies on a collaborative process between hapu, iwi, resource managers and biophysical scientists.

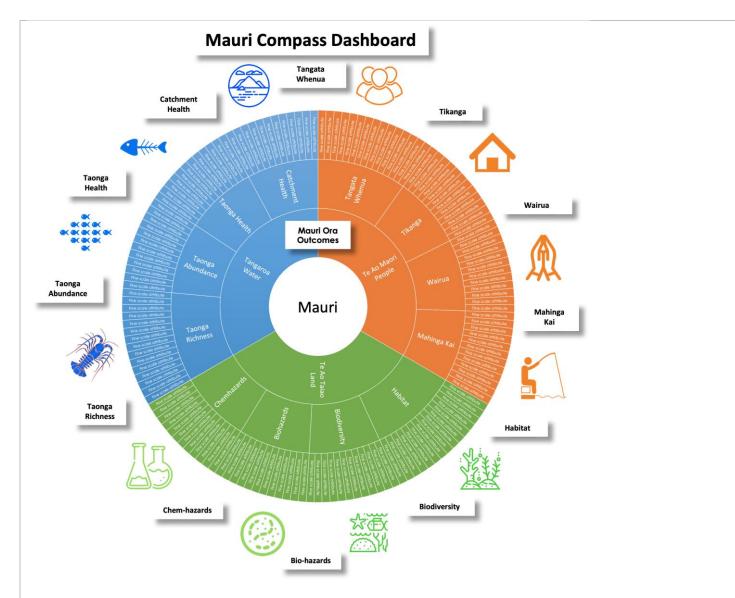


Figure 1: The Mauri Compass Dashboard

The Mauri Compass Dashboard enables us to quantify past, current and aspirational states of mauri for the two case study areas as a tool to assist kaitiaki to better manage their rohe moana. Huataukina will identify and calibrate new fine scale attributes specifically for the marine environment that can underpin EBM as a viable approach to managing NZs coastal waters. This process of calibration for the marine environment will involve the co-development of the two hapu Trusts through a process of iterative development, discussion, trial, discussion, modification, reflection, re-testing, refinement. This will be undertaken throughout the project and will be informed by wananga processes with hapu and kaitiaki representatives. We will also engage with wider stakeholders throughout the calibration process including with Gisborne District Council who co-developed and endorsed the Mauri Compass for freshwater contexts. *Ian Ruru* will lead this work given his intimate knowledge and experience of the tool, its development and its application. The tool has now be applied in several contexts including integrating mauri into stormwater management (Kanz 2020), cultural assessments of mortuary waste management (Ruru 2019) and cultural assessments of municipal wastewater management.

A further important area of knowledge development, instrumental both to informing the implementation of the Act, and to empowering hapu, is the development of a hapū centric decision making framework over the rohe moana. The framework will be co-designed and developed with the two case study hapu trusts including testing against the Toitu Principles of the Act and existing decision making actions to support sustainable practice by whānau. Through the wānanga processes employed by our project we will apply a kaupapa Māori methodology to work with whānau to test what they know against what they do and then identify mismatches and areas requiring development. The ultimate aim is to ensure our approaches to making decisions are informed by whānau and hapū knowledge and practice through being formalised, expanded and made transparent. This process enables us to then be both informed by other people, places, learning and knowledge, as well as informing the establishment of an EBM approach founded on our own mātauranga and tikanga. As part of this framework, we'll also be developing a means of evaluating our processes and decision making over time using the Toitū Principles as signposts. This will build on work undertaken in the

Preliminary Toitū Principles based state of the rohe moana report to enable update, comparison and evaluation of actions and decisions taken in the rohe moana to assess success.

One of the key areas of impact for the project rests on being able to draw on all of the learning and insight together into a form that can support:

- Implementation of the Act by informing the work under the Act including the development of collaborative agreements and arrangements.
- Hapū and Māori rights, interests and values in the management and decision making for the rohe moana and beyond.
- The ability of the Challenge to develop and EBM approach informed by mātauranga Māori.

Important in achieving this is the development of a **co-designed policy framework** that applies a mātauranga based approach. This framework will be underpinned by the Toitū Principles of the Act and enable and inform our existing and future focussed work within the rohe moana, as well as with our partners noted in the Act. *Riripeti Reedy* will provide oversight and leadership of the development of the hapū centric decision making framework and policy framework parts of the project with *Pia Pohatu* driving the work in collaboration with other team members and co-development partners. Riripeti has a Master of Social Policy from Victoria University of Wellington and brings a wealth of experience having worked in government and the tertiary sectors with over 25 years experience in the research and policy application space. Her expertise both in this policy and research space, as well as her connections to the rohe will be valuable in undertaking this work.

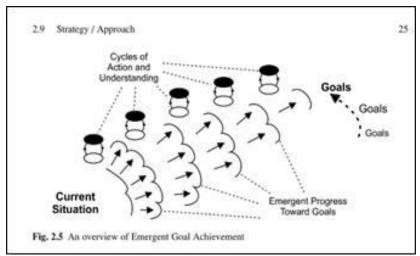


Figure 2: G. Coffey - A Systems Approach to Leadership (2010) presented at ARAL 8th World Congress, Melbourne.

Pia Pohatu will also work with others in the team to bring the practical steps identified in previous work (Harmsworth, G., Warmenhoven, T. and Pohatu. P.(2004). In addition our co-development partners and connections to council and relevant agencies (required under the Act) bring legal, policy, commercial and technical expertise that will be utilised to support this development work. The wananga process employed through the project will also provide a key mechanism for informing this work.

3. Knowledge sharing

As noted, all of the outputs of the project will be co-designed and developed with our case study hapu, and in some cases with other interests and agencies, to ensure appropriate fit for purpose usability and uptake. The last activity category of the project focusses very strongly on this ensuring that we are able to share the knowledge, learning, tools, frameworks and insights in the most useful way for our key audiences. This is addressed in more detail under Project Communication (section P) but there are two key elements noted here.

First is the production of a **Final Project Report** that outlines the processes, findings and learning from the project. This report will represent a drawing together of the work within the project and will be presented in a form suitable to provide insights for iwi and marine management stakeholders primarily. This is likely to include through publications (including informal publications), multimedia forms that can be accessed easily by different audiences, and presentations (conferences, hui and wananga). The team will also be cognisant of the Challenges aims for synthesis across it's research in the design and development of the report to ensure meaningful and tangible uses within a broader Challenge context. *Ian Ruru* and *Ngarangi Walker* will lead the development of the report in very close collaboration with other members of the wider team who have lead activities across the project.

As well as looking to share our knowledge and findings with our broader hapu network, our relevant Ngāti Porou entities, other iwi and agencies, we recognise the potential for high levels of interest and relevance for other indigenous peoples. We have existing relationships and connections with indigenous academics and communities in Hawaii, Rapanui, Canada and with Mapuche whānau in Chile and Argentina. The team is keen to explore opportunities to specifically connect with these communities for this project and to provide conference and other presentations to international indigenous forums of relevance. We recognise the unique nature of our circumstances (e.g. through the Act), and the potential to inform and learn from the experiences of other indigenous groups embarking on similar work to reinstate, revitalise, and heal our relationships to the moana.

L. LINKS TO PHASE | RESEARCH

Huataukina builds on the body of work in Phase I, including:

- 1. Huataukina to iwi e: Developing marine bioactives from kina;
- 2. Whaia te Mana Maori Whakahaere Totika ki Tangaroa in pursuit of Maori governance jurisdiction models over marine resources
- 3. Tuhonohono: Tikanga Maori me te Ture Pakeha ki Takutai Moana;
- 4. He Pou Tokomanawa: Kaitiakitanga in practice in our marine environment
- 5. Tahuhu Matatau Te Ao Tangaroa: Empowering kaitiaki;
- 6. Mauri Moana, Mauri Tangata, Mauri Ora Documenting social values; and

M. LINKS TO & INTERDEPENDENCIES WITH PHASE II RESEARCH PROJECTS

Huataukina acknowledges there are connections across a number of projects in Phase II. At the time of writing of this proposal key projects in Phase II that our research plan to work closely with include:

- **T1: Awhi Mai, Awhi Atu:** We will work together to share and enhance opportunities that raise awareness of kaitiakitanga and how it can inform EBM implementation and acceptance by non-Maori in marine management practices. The Huataukina and Awhi Mai, Awhi Atu teams will co-host wananga for the whānau and hapu to attend in their different rohe moana.
- T4: Te Tahuhu Matatau o Tangaroa, mai Tangaroa Moana ki te Ao: Empowering the kaitiaki of Tangaroa from Tauranga Moana to Aotearoa and Beyond: a component of our research is to create a database/repository of existing knowledge and information relating to the marine ecosystems of the two-case study rohe moana. We will work with Regan Fairlie and his team to share knowledge and information on how we may capture and make accessible relevant information to assist hapū and kaitiaki in managing their rohe moana
- **4.1: Treaty relationships and EBM:** The Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act, creates a Treaty relationship between the hapū of Ngāti Porou and the Crown. It will be important to connect with Dan Hikuroa and his team, as the precedent that this Act has set will inform how the Crown may approach the management of the marine environment under the Marine and Coastal Area Act and other key pieces of legislation.
- 1.1: Understanding Ecological responses to cumulative effects: Our dive survey work to record and assess the presence of Kina barrens in the two case study hapu rohe moana will be informed by work undertaken in 1.1 and Dr Nick Shears sit across both projects.

Other Phase II projects that we are keen to engage with at later stages of our project include:

- Options for policy and legislative change to enable EBM across scales (4.2)
- EBM and Kaitiakitanga (4.3)

N. VISION MĀTAURANGA (VM)

Whakarongo ake au ki te hirea waha o Maui e ki mai nei. Toia te waka nei ka maunu ki te wai ka hoe ki te moana whiu ake tana matau mau ake tona ika ko Aotearoa. Hutia ka eke kei runga whakaetetete mai ko Hikurangi te maunga rongonui e rongo nei nga lwi e

This whole research proposal reflects the ability of the research team and participating hapu to unlock their potential and the potential of their knowledge and resources for the benefit of whānau, hapu, iwi, roopu Maori and wider Aotearoa New Zealand.

Na nga Toitutanga o te Ture Moana o nga Hapu o Ngati Porou me te reo Maori ka tae e te marea ki te mau ki nga rereketanga o te EBM ki to tatau nei kaitiakitanga.

Ko te tumanako o tenei kaupapa rangahau, kia tarea e tatau te iwi Maori ki te hiki i to tatou nei matauranga, o tatou nei korero, o tatou waiata, purakau hoki. Ko enei nga kawenga o te reo o te taiao. Mena ka ngaro te reo, ka ngaro te iwi Maori me to tatou nei matauranga!

Ki a matou nei, ko te manako o Vision Matauranga – kia tarea e tatau te iwi Maori ki te whakahihiko i o tatau nei wawata ma nga mahi putaiao, rangahau hoki.

Ko nga tikanga o nga hapu: nga wananga me te whakarite o nga ahuatanga Maori whānau kia tae e te hapu ki te whakatutuki i o ratou ake wawata.

Ko te puawaitanga o tenei kaupapa ko tenei:

ka mohio te tangata ki tona moana, ka ora te tangata;

ka mohio te moana ki te tangata, ka ora te moana.

"Arohamai, hautakina to iwi e"

- Kuini Moehau Reedy (personal communication)

Vision Mātauranga Deliverables

Partnerships:

VM P1. Evidence of the development of hapu capability resulting from the project.

VM P2. A clear display of the commitment and participation of key co-development partners.

Distinctive Contribution:

VM D1. Evidence of the involvement of the two Takutai Kaitiaki Trusts in the design and development of key project outputs.

VM D2. Local knowledge and practice is captured and has informed key project outputs.

Meaningful Outcomes:

VM M1. At least one of the Takutai Kaitiaki Trusts uses the tools and information gathered through the project.

VM M2. Positive feedback is received by recipients of project information, tools and/or frameworks.

O. ENGAGEMENT REQUIRED WITH IWI AND STAKEHOLDERS

This project is ground in "whānaungatanga: a space to be ourselves" (Carlson et al. 2016) and has arisen from the challenges faced by whānau, hapu, iwi and Indigenous people's all over the world; a lack of capacity and capability that exists because of a multitude of issues including colonisation, urbanisation and depopulation – effects of colonisation – on rural Maori communities.

The Toitu principles guide and inform the project teams engagement with whānau, hapū, and other stakeholders underpinned by: Whakapapa — our genealogical connections through our lineage to both people and place and our standing as people within our taiao/environment, including moana and whenua. Through our whakapapa we are a part of our taiao, not separated from it; Whānaungatanga — how we relate to one and other; the whānau and hapu participants; in the moana and the whenua; also our connection from maunga to moana.

This project has been co-developed with 7 out of 49 hapu of Ngati Porou:

- Te Aitanga a Mate, Ngati Hinekehu, Te Aowera; who are the hapu kaitiaki of Whareponga; and
- Te Whānau a Te Haemata, Te Whānau a Rakairoa, Ngai Taharora and Te Whānau a Iritekura; who are the hapu kaitiaki of Waipiro; and is supported by two of six Hapu Kaitiaki Trusts who have responsibility through the Act;
- Selwyn Parata, chair of Te Runanganui o Ngati Porou also chairs Whareponga marae committee and is a trustee of their Hapu Kaitiaki Trust;
- Agnes Walker, past project leader of Ngati Porou Takutai Moana of Te Runanganui o Ngati Porou, is also a trustee of their Hapu Kaitiaki Trust;

AgFirst Consultants (Contracting Organisation)

- Hilton Collier (Ngati Porou) is a farm management consultant with more than 35 years of experience, particularly in the Hawkes Bay and East Coast areas, where he has strong links to Māori agribusiness. Founding shareholder of Agfirst, Hilton is a Trustee for Tarawhiti Land Development Trust and is involved with Firstlight (Wagyu beef) and The New Zealand Merino Company. Hilton has a Bachelor of Agricultural Science from Lincoln University.
- Hilton is the General Manager of Ngati Porou's Pakihiroa Farms Limited and is on the Governance Group of the Our Land our Water National Science Challenge.

• Ongoing project engagement with whānau, hapu and iwi as well as others with key influence is paramount to project success and will be lead and coordinated by Co-Leader Ngarangi Walker. The role of **Ngarangi** and the project team is to support the growth of capacity and capability and therefore, participation, of whānau and hapu to help guide and inform their Trusts.

Hapū Engagement

The Two Takutai Kaitiaki Trusts

• Our research team will regularly be in contact with the two Takutai Kaitiaki Trusts as they will be providing, oversight, leadership and direction to our research. In addition, our wananga process and iterative action research approach requires high levels of engagement throughout the project and is reflected in our milestones.

Ngā Hapū o Ngāti Porou

• There are currently 47 hapū who are parties to the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act. We will provide regular updates through the Co-ordinating Working Group (representatives from each of the Takutai Kaitiaki Trusts who sit on this Group). Agnes Walker is a key advisor to this project and a representative on this Group.

Iwi Engagement

Te Runanganui o Ngāti Porou

- In 2003 **Te Runanganui o Ngāti Porou** (previously Te Rūnanga o Ngāti Porou) supported applications by hapū to the Maori Land Court to have the foreshore and seabed in the Ngāti Porou rohe declared Maori customary land. Since this time Te Runanganui o Ngāti Porou have played a facilitative role in supporting hapū to finalise the Deed of Agreement and recently the enactment of the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019.
- Our research team will provide regular updates to Te Runanganui o Ngāti Porou about the progress of our research. Noting that the Chairperson of Te Runanganui o Ngāti Porou is also the Chairperson of the Whareponga marae committee.

Ngāti Porou Seafood Limited

- This is a great opportunity for our hapū/kaitiaki to work closely with those managing our commercial interests and facilitate improved connections between our commercial and customary interests.
- A letter of support from Ngāti Porou Seafood Limited is attached to this proposal.

Local Government

• The Gisborne District Council: They are the only local authority within the rohe moana o nga hapū o Ngāti Porou. The have a number of obligations under the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act and are therefore a key policy and decision-making entity with regard to the rohe moana o Ngāti Porou. We have engaged with the Deputy CE Dave Wilson who worked with Ian Ruru on the development of the mauri compass. As and when required, the Huataukina team will facilitate with the hapū kaitiaki trusts and support their relationships with the Gisborne District Council and central government.

Central Government

• There are a number of central government agencies under the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act that are required to be parties to the management arrangements under the Act. Like the GDC, the Huataukina team will facilitate with the hapū kaitiaki trusts and support their relationships to engage with the Ministry for Primary Industries/Fisheries NZ. The Department of Conservation, the Ministry for the Environment and Heritage NZ, as and when required to achieve our research aims.

P. PROJECT COMMUNICATIONS

Communicating the process of design, trials and implementation is critical to the success of this project and therefore we will engage with our whānau through a number of mediums and channels. With a strong background in broadcast media and communications *Ngarangi Walker* will design, develop and work with Maumahara Consulting and Katarina White of Creative Cat Ltd to effectively deliver consumable content for Maori specific audiences.

Ngarangi will also work with the Challenge communications team on what they can share across the Challenge stakeholders and further afield. Having worked at Radio Ngati Porou, Gisborne District Council, TVNZ and Maori Television, Ngarangi is well placed to ensure Huataukina has wide reach across multiple platforms for creative content. In addition, Ian Ruru is well connected to a range of relevant organisations through his existing and related work and is also well placed to support project communications work. In

particular Ian has previously been instrumental in the development of audio-visual resources that provide a sound platform for information dissemination and capability development.

Critical to keeping our partners and wider iwi interests is that we will create a series of audio-visual reports and updates on our research activities to be shared through social media and other forums. The whānau can then see what we are doing and how they might be able to become involved.

The key communication channels are likely to include:

- Regular marae, hapū and iwi hui
- Board of Directors meetings
- Kura kaupapa, schools and Universities
- Local media (Gisborne Herald, Iwi Radio, Social Media including Facebook and Youtube video)
- Conference presentations, public symposia and publications
- Webinars

Q. RISK & MITIGATION

Ability to engage effectively with Hapū members

 $Problem: Due \ to \ the \ Covid \ 19 \ situation \ we \ may \ not \ be \ able \ to \ engage \ adequately \ with \ our \ hap \bar{u} \ members \ at \ critical \ times.$

Risk: High

Remedy: We have designed our milestones and activities to plan for active engagement opportunities to begin and intensify 6-8 months after project start. We will identify hapū members that we can engage with now over the phone or via video-calling, then set aside time later in the research project to engage with the other hapū members that we may not have been able to engage with during the lock-down period.

Wānanga Disruptions

Problem: Wananga is a key aspect of participatory action research, however due to Covid 19 it may not be possible to host wananga in the way we had initially planned to do so.

Risk: High

Remedy: We will explore all video calling options (zoom, skype, MS Teams, WhatsApp etc) to investigate what medium will be the best way to engage with our whānau virtually. We will also need to assess and create ways for whānau to access broadband. Dependent on the duration of the Covid 19 impacted timeframe, we will need to continuously reassess this approach and will inform the Challenge early if we have any issues. We will also engage with other Tangaroa projects to share ideas on how they are dealing with this issue.

Perception that western science is not evident in this proposal.

Problem: There is a perception that this research project does not have the western science rigour required.

Risk: High

Remedy: The focus of this project is to enable the expression of kaitiakitanga and the application of a Te Ao Maori worldview. The priority of this research is to ensure we capture the mātauranga Maori from our hapū members so that we can support them in the management of their rohe moana. However, to remedy this concern we have sought the commitment of Dr Nick Shears from the University of Auckland who will guide and review the development of our hapū-based tools from a western science perspective.

R. CONSENTS & APPROVAL required to undertake

Kei ia hapū to ratou ake tikanga, mana moana hoki me te rangatiratanga mo nga hononga ki te whānau, hapū, iwi hoki. Ano hoki, kei i a Hapū Kaitiaki Trust o ratau ake mahi karauna kia ahei te katoa.

MUSA Environmental, Joseph Burke, will be our lead technical and scientific diver and will be responsible for ensuring we meet rigorous health and safety obligations.

The relevant consents and approvals will be sought, if and when necessary.

S. REFERENCES

- Carlson, T., Barnes, H.M., Reid, S., McCreanor, T. (2016). Whānaungatanga: A space to be ourselves. In Journal of Indigenous Wellbeing Te Mauri Pimatisiwin. Vol 1, issue 2, article 5. Published by Te Rau Matatini.
- Colliver, R., Goff, S., Reedy, R., Vaartjes, V. (2015). Systemic Pedagogy: A Design for Action Researcher Collective Self Development in ALAR Journal Vol 21 No1
- Durie, M. (2011). Nga tini whetu navigating Maori futures. Wellington, NZ: Huia Publishers.
- Edwards P, Sharma-Wallace L, Barnard T, Velarde SJ, Warmenhoven T, Fitzgerald G, Harrison D, Garrett L, Porou T, & Pohatu P (2019). Sustainable livelihoods approaches to inform government-local partnerships and decision-making in vulnerable environments. New Zealand Geographer, 0(0). doi:doi:10.1111/nzg.12214
- Edwards P, Velarde SJ, Sharma-Wallace L, Barnard T, Pohatu P, Warmenhoven T, Porou T, Harrison D, Dunningham A (2018). Forest scholars empowering communities: A case study from the East Coast of New Zealand. Forest Policy and Economics 91:46-53, doi:10.1016/j.forpol.2017.09.001
- Greenwood, M. (2014). Walking in the interfaces: A story of coming to know. In Enhancing matauranga Maori and global indigenous knowledge.
- Harmsworth, G., T. Warmenhoven, and P. Pohatu, Matauranga for sustainable hapū development, 2004. He Oranga Mo Nga Uri Tuku Iho Trust.
- Harmsworth, G.; Warmenhoven, T.; Pohatu, P. 2001: A Waiapu catchment management strategy: To stimulate interest and planning in the Waiapu, a strategy to underpin environmental management, economic development and sustain cultural values. A document for community and stakeholder discussion. Te Whare Wānanga o Ngāti Porou and Manaaki Whenua. 11 p.
- Harmsworth, G.; Warmenhoven T.; Pohatu, P.; Page, M. 2002b: Waiapu Catchment Technical Report: Māori community goals for enhancing ecosystem health. Foundation for Research, Science, and Technology (FRST) contract TWWX0001. Landcare Research report LC0102/100 for Te Whare Wananga o Ngāti Porou, Ruatorea (unpublished). 185 p.
- Harmsworth, G.; Warmenhoven T. 2002: The Waiapu project: Māori community goals for enhancing ecosystem health. Broadsheet, New Zealand Association of Resource Management (NZARM). 11 p. http://www.landcareresearch.co.nz/research/social/indigenous_index.asp
- Hepburn, C.D.; Richards D.K.; and T. Neha. (2012). Ka Whakapiri Ora te Ha o Te Aitanga a Mate me Te Tari Putaio Kaimoana Workshop and baseline survey of Te Rohe Moana o Te Aitanga a Mate, January 2011. He Kōhinga Rangahau No 10. 27 pp. University of Otago, Dunedin.
- Kanz, W.; Ruru I.H.; Wilson D. 2020: The Mauri Compass Integrating Mauri into Stormwater Management. New Zealand Stormwater Conference 2020. Tauranga. 20pp.
- Ministry for the Environment and Ministry for Primary Industries (2018). Essential Freshwater: Healthy Water, Fairly Allocated. Wellington: Ministry for the Environment and Ministry for Primary Industries.
- Ministry for the Environment & Stats NZ (2019). New Zealand's Environmental Reporting Series: Environment Aotearoa 2019. 130pp.
- Northland Regional Council. (2019). Retrieved from https://www.nrc.govt.nz/media/13642/kaupapa-maori-assessments-final-jan-2019.pdf
- Nepe, T. (1991). Te toi huarewa tipuna kaupapa Maori an educational intervention system. (Masters thesis, University of Auckland, Auckland, New Zealand.
- Pizzirani S, McLaren SJ, Forster ME, Pohatu P, Porou TTW, Warmenhoven TA (2018). The distinctive recognition of culture within LCSA: realising the quadruple bottom line. International Journal of Life Cycle Assessment 23(3): 663-682, doi:10.1007/s11367-016-1193-7
- Pohatu P, Warmenhoven T (2007). Set the overgrowth alight and the new shoots will spring forth: New Directions in Community Based Research. AlterNative An International Journal of Indigenous Peoples, doi:10.1177/117718010700300208

- Rainforth, H. J. & Harmsworth, G. R. (2019). Kaupapa Māori Freshwater Assessments: A summary of iwi and hapū-based tools, frameworks and methods for assessing freshwater environments. Perception Planning Ltd. 115 pp.
- Reedy, T.TK., (2013). Toku Rangatiratanga n ate Mana Matauranga "Knowledge and Power Set Me Free... in Nuttall, J. (Ed). (2003). Weaving Te Wharik (2nd Edition). NZCER Press.
- Ruru, I. H. (2000). An investigation into the commercial feasibility of Jasus edwardsii aquaculture in New Zealand (Thesis, Master of Science (MSc)). University of Waikato, Hamilton, New Zealand. Retrieved from https://hdl.handle.net/10289/8641
- Ruru, I. H.; Chisnall, B. L. (2004). Whānau a Kai, Te Aitanga a Mahaki Customary Eel Fisheries: Lake Repongaere. Final Research Report EEL2003–02, 32pp. Ministry of Fisheries, Wellington.
- Ruru, I. H. (2006). Te Aitanga a Mahaki Environmental Inventory and Iwi Planning Document, 28 pp. Ministry for the Environment, Wellington.
- Ruru, I. H.; Chisnall, B. L. (2007). Te Aitanga a Mahaki Management of Customary Eel Fisheries. Final Research Report EEL2005–02, 62 pp. Ministry of Fisheries, Wellington.
- Ruru, I. H.; Chisnall, B. L. (2008): Taharoa Lakes customary eel fisheries. Final research report for the Ministry of Fisheries EEL2006-06, 50pp. Ministry of Fisheries, Wellington.
- Ruru, I. H.; Dunn, A. (2017). Turanganui a Kiwa Water Quality Enhancement Project Scoping Report, 65 pp. Gisborne District Council, Gisborne.
- Ruru, I. H. (2017). Respect and Dignity. A Cultural Assessment for Separating Mortuary Byproducts from the Gisborne Municipal Sewage System, 17 pp. Te Runanga o Turanganui a Kiwa, Gisborne.
- Ruru, I. H.; Farmer, R.; Barber, A.; Pere, J.; Smith, M. (2017). A Cultural Framework for addressing Wastewater Management in Turanganui a Kiwa, 27pp. Te Runanga o Turanganui a Kiwa, Gisborne.
- Ruru, I. H. (2017). Water Quality Measuring Methods Case Study. Mauri Compass: Methods and Application within the National Policy Statement for Freshwater, 27 pp. Maumahara Consultancy Services Ltd, Gisborne.
- Ruru, I. H. (2018). Assessing the Mauri of the Waipaoa River using the Mauri Compass, 48 pp. Te Wai Maori Trust, Wellington.
- Ruru, I. H. (2019). A Mātauranga Māori Assessment of the Mauri of the Makauri Aquifer by Te Aitanga a Māhaki, 32 pp. Maumahara Consultancy Services Ltd, Gisborne.
- Ruru I. H.; Kanz W.A. (2019). The Mauri Compass a Mātauranga Māori Tool for Assessing the Mauri of Water. Version 1.0, 47 pp. Gisborne District Council, Gisborne.
- Ruru, P. B.; Ruru, I. H.; (2007). Upstream migration of glass eels in the Waipaoa River, 20pp. Te Wai Maori Trust, Wellington.
- Sharma-Wallace L, Velarde SJ, Edwards P, Warmenhoven T, Pohatu P (2019). Exploring Adaptive Governance for Indigenous Peoples: Lessons from Aotearoa New Zealand's Erosion Control Funding Programme. Society and Natural Resources. doi:10.1080/08941920.2018.1557308
- Smith, L.T., (1999). Decolonizing methodologies research and indigenous peoples. London, New York: Zed Books. Dunedin, NZ: University of Otago Press.
- Subritzky, P.; Pritchard, D.; Richards, D.; van Halderen, L.; Gillies, T.; Kearney, E.; Jackson, S.; Jackson, A-M.; and Hepburn, C. (2017). Fisheries survey of Te Rohe Moana o Te Aitanga a Mate 2016: Preliminary Report, 33 pp. Te Tiaki Mahinga Kai, Dunedin.