Te Kete Kaitiakitanga

Tools to enable kaitiakitanga & ecosystem-based management

May 2024

Report

Introduction

Te Kete Kaitiakitanga is a simple toolkit which aims to provide guidance and means of assessment to support ensuring kaitiakitanga is appropriately provided for alongside EBM. It has been designed in collaboration with a range of partners for the use of agencies, organisations and iwi/hapū wishing to improve marine governance and management outcomes.

The opportunity

In Te Ao Māori, **Kaitiakitanga**[1] is variously defined but represents the obligation arising from a kin relationship to nurture or care for a person or thing. This obligation encompasses the need to care for and nurture not only physical but spiritual well-being. It is an inherited commitment that links mana atua, mana tangata and mana whenua mana moana (hereafter referred to as mana moana)[2],te ao wairua (the spiritual realm) with te ao turoa (the natural world, including humans) [3]. Kaitiaki are those that whakapapa to, and take responsibility for, a place and its natural elements. Kaitiakitanga is the active embodiment by humans in this role as kaitiaki.

The Sustainable Seas National Science Challenge has designed an **ecosystem-based management (EBM)**[4] approach tailored to our specific context here in Aotearoa New Zealand. This EBM approach is founded upon seven principles that provide a holistic and inclusive way to manage marine environments and the competing uses for and demands on them, as well as the ways they are valued. This EBM approach aims to allow various actors within the marine governance and management to better understand the implications of resource management decisions and manage the interface between land and sea more effectively.

Given the synergies between kaitiakitanga and EBM, there is a real opportunity to achieve enhanced marine governance and management outcomes by establishing the conditions that can support the equitable application of either or both ethics of care.

Te Kete Kaitiakitanga

Te Kete Kaitiakitanga is a simple toolkit designed to enable and enhance kaitiakitanga and EBM across the whole marine governance and management system.

Te Kete Kaitiakitanga has been developed within a three-year Sustainable Seas research project involving extensive work with kaitiaki and practitioners across the marine governance and management system and close co-development with a 15-member Project Advisory Group[5]. To characterise the marine governance and management system, our research utilised the *Three Spheres of Influence Framework*[6] as a basis for exploring how to enable an equitable, appropriate and enduring approach. This research also built on earlier work revealing the existence of numerous efforts to develop and

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[1] See Reference Material for a description of Kaitiakitanga

[2] For the purposes of this toolkit references to 'mana moana' emcompass mana whenua and recognises the mana, mandate, authority and obligations a particular grouping of tāngata whenua has in relation to place (land or marine) and the ecosystems, taonga (gifts) and resources within.

[3] Selby et al (2010) p1 [Quoted in Hui-te-ana-nui report p104]

[4] See Reference Material for a description of EBM

[5] The Project Advisory Group members are identified in the Mihi at the end of this document

[6] Proposed by Matike Mai Aotearoa: The Independent Working Group on Constitutional Transformation (2016) made up of Māori scholars and practitioners and by thorough engagement with iwi and hapū (refer to their report here).

implement a more holistic and integrated Aotearoa-specific approach. It noted that many of the principles of EBM are already in practice, though only a handful demonstrated the application of all seven principles of EBM.

However, it also showed that the current system does not equitably provide adequate conditions to enable kaitiakitanga alongside EBM. Mana Moana have unique connections, a range of rights and interests, and hold deep, placed-based knowledge invaluable to understanding and providing for more effective marine governance and management. The research identified that activating a holistic, Aotearoa-specific approach encompassing kaitiakitanga and EBM required a real focus on enabling kaitiakitanga. If successful this has significant potential to achieve greater positive impacts for people and place through stronger, deeper connections with local ecosystems and our moana.

Te Kete Kaitiakitanga, therefore, aims to provide guidance and means of assessment to support ensuring kaitiakitanga is appropriately provided for alongside EBM. Applied as a package authentically and with genuine intention to honour the integrity of kaitiakitanga, Te Kete Kaitiakitanga offers a framework for transformative change.

The toolkit

Te Kete Kaitiakitanga comprises three simple tools:

- *E Toru Ngā Mea* – information to advise and help users gain an understanding of the critical elements required for Mana Moana involvement in marine governance and management.
- *Mahi Tūhonohono* – guidance to support users to provide for those critical elements to the necessary extent.
- *Te Tiriti Relationship Enhancer* – an assessment tool that enables users to evaluate their organisational approach to implementing marine governance and management in a way that provides equity of opportunities and outcomes across the socio-ecological and cultural seascape.

All three tools are centered around relationships, transparency and accountability. They aim to support equity and opportunity in the marine governance and management system - a system largely founded upon western approaches, structures, institutions, and knowledge. The tools enable users to explore relationships, knowledge and approaches founded in te ao Māori that offer the opportunity to enhance the well-being of people and the ocean through kaitiakitanga and EBM. In particular they aim to support making greater space for te ao Māori, particularly rangatiratanga (Māori leadership), mātauranga (knowledge and knowledge making), and tikanga (best practice).

Who should use this toolkit

Te Kete Kaitiakitanga is designed to support and enable place-based practitioners (e.g. iwi/hapū kaitiaki, community-led conservation groups etc), policymakers, and others engaged in marine governance and management. This includes Mana Moana, central and local government agencies, business entities and communities. Essentially, users from any part of the system can adopt and apply the tools in slightly different ways to achieve the best outcomes. They can assist users in equally valuing and equitably applying both ethics of care – kaitiakitanga and EBM.

How to use the toolkit

The tools within Te Kete Kaitiakitanga should be engaged sequentially. Users start with an internal inquiry through *E Toru Ngā Mea*, transitioning to an external outreach phase through *Mahi Tūhonohono*, and then to an evaluative phase focused on transparency, accountability and continuous improvement through *Te Tiriti Relationship Enhancer*.

The following sections provide an overview of the tools, with step-by-step guidance for specific users. Links to a range of Sustainable Seas and other documents and information is included at the end of this toolkit to support greater user understanding of kaitiakitanga, EBM and the application of both.

1: E Toru Ngā Mea
Understanding the critical elements of kaitiakitanga

E Toru Ngā Mea[7] – literally meaning 'three things' - is a simple but powerful formula comprising three te ao Māori principles necessary to activate and enable kaitiakitanga in a marine governance and management context.

Common challenges or issues relevant to enabling kaitiakitanga emerged through our research around three key themes:

- Rangatiratanga | Authority, agency and leadership
- Mātauranga | Knowledge and knowledge-making
- Tikanga | Best practice

We found that enabling kaitiakitanga relied on the application of these three themes or principles, that they were interconnected and interdependent, and that where possible needed to be enabled simultaneously to be truly effective.
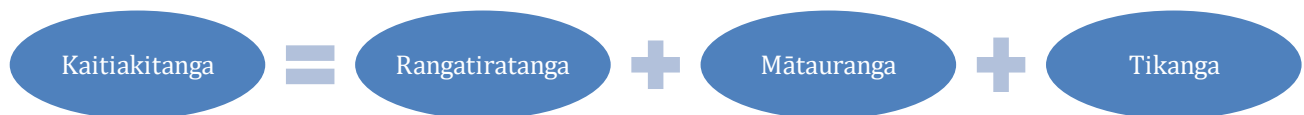
The formula above must be applied within the context of Mana Moana as they are the only ones who can determine and define the appropriate authority, knowledge, and practices necessary for marine governance and management within a kaitiakitanga approach. In other words, identifying who has rangatiratanga; what mātauranga exists and is relevant; and what practices are applied and followed – can only be defined by Mana Moana in the context of their people, place, time and space. Such considerations include biophysical, cultural, socio-cultural and political factors, and collectively, determine appropriate scale/s (i.e. iwi, hapū, whānau, uri, pan-tribal or collective).

When used in this way, *E Toru Ngā Mea* can guide and support upholding the integrity of Mana Moana involvement in marine governance and management. Conceptually, E Toru Ngā Mea helps us to recognise that there are multiple meanings and embodiments of kaitiakitanga, there is no simple definition or tick box guide. Using this formula can help to ensure that we ask the right questions and consider the critical principles which guide and help to enact a responsive and continually evolving kaitiakitanga.

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[7] *E Toru Ngā Mea* is a well known waiata or song, often sung to inspire collaboration and community. The original waiata speaks of three important things – the principle of whakapono (belief and trust), tūmanako (hope), and aroha (love, respect and compassion). The tool is named after the waiata because our research has indicated that authentically enabling kaitiakitanga requires the three critical elements of rangatiratanga, mātauranga and tikanga.

Identifying interests and applying E Toru Ngā Mea

To use *E Toru Ngā Mea*, whether you are kaitiaki, community, government agency or other, it is important to identify who has interests and 'user rights' in relation to any prospective marine governance and management approach, and the extent they wish to be involved. We designed another simple tool (Fig. 1 below) to assist, based on recommendations by the Waitangi Tribunal regarding 'rights and interests' in its report *Ko Aotearoa Tenei* (2011:112).

The simple step of appropriately identifying who has rights and interests in a specific marine governance and management context is important. This tool can help get the basics right, from the start. It is designed to support a much needed paradigm shift for Aotearoa and deliver appropriate kaitiaki involvement and outcomes. The following sets of rights and interests are important:

- Control by Māori of environmental management in respect of taonga, where it is found that the Kaitiaki interest should be accorded priority;
- Partnership models for environmental management in respect of taonga, where it is found that Kaitiaki should have a say in decision-making, but other voices should also be heard; and
- Effective influence and appropriate priority to the Kaitiaki interests in all areas of environmental management when the decisions are made by others.
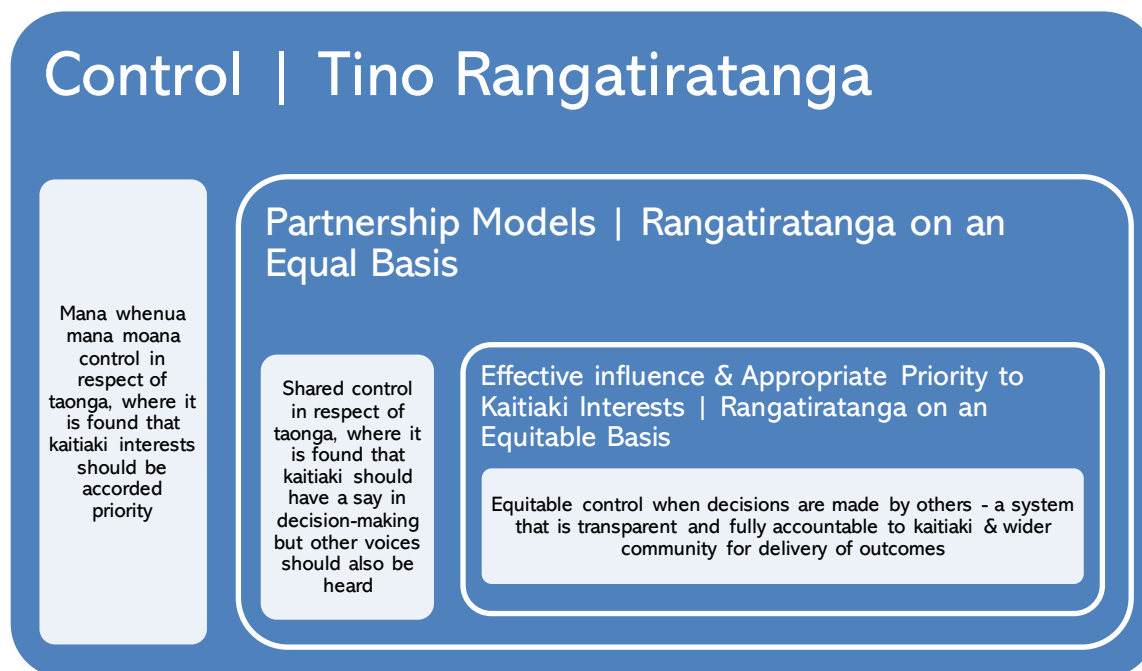
Figure 1: Rights and Interests Model for meaningful and equitable Aotearoa-specific, people and place-based marine governance and management.

The Tribunal noted that this approach "allows all legitimate interests (including the interests of the environment itself) to be considered against an agreed set of principles, and balanced case by case"

(Waitangi Tribunal, 2011:112). Transparency and full accountability to kaitiaki and the wider community are considered essential for the system's delivery of these outcomes.

The following checklists provide some guidance to support your early scoping and serve as valuable preparation for any engagement process.

Guidance for tāngata whenua	Guidance for tāngata Tiriti (including agencies, organisations, community groups)
Step 1: Contextualise things – gain an understanding of the marine governance and/or management context for you as tāngata whenua: 1. What area, and who is potentially affected? 2. Which taonga does it relate to? 3. Does it relate to the health & wellbeing of a wider ecosystem? 4. Is it a concern or issue? 5. Is it an opportunity? 6. How much of a priority is it?	**Step 1: Contextualise things** – gain an understanding of the marine governance and/or management context: 1. What area, and who, is potentially affected? 2. What scale/s of governance and management are important? 3. Who has Mana Moana status in the area? 4. Are they pre or post Treaty or Takutai Moana settlement? 5. What are the current structures, views and positions of Mana Moana in the area? 6. Are they likely to be interested or concerned? 7. Is it an opportunity? 8. Do you have a pre-existing relationship with any or all the relevant Mana Moana? 9. If not, how will you initiate engagement and begin to build an appropriate relationship? 10. Who are the local/regional authorities and what are their relationships like with Mana Moana? 11. Does it make sense to go through those local authorities first to obtain some background information so you can do some initial research?
Step 2: Capacity and capability – work out the level of capacity and capability you have to engage: 1. Does this context require others to be involved? 2. Can you make this happen, or will you need to get support? 3. Where can you get the required support to help and is it accessible to you?	**Step 2: Capacity and capability** – work out the level of capacity and capability you have to engage: 1. What cultural competency do you or your organisation have? 2. Have you set resource aside for engagement with Mana Moana? 3. If Mana Moana have initiated marine governance and management activities in this context, how informed and prepared are you to engage appropriately? 4. What can you bring to the table? 5. How much time do you have to commit to this and is it enough? 6. Where can you get additional support to help and is it accessible to you?
Step 3: User rights and interests – where does what you've discovered thus far fit into the 'rights and interests' model.	**Step 3: User rights and interests** – Mana Moana groups are likely to have different rights and interests, and although they are unlikely to want to engage in everything, there will be some marine governance and management initiatives

Confirm this with the necessary authorities e.g. iwi, hapū, whānau etc.	that they will have a strong interest in. They may even wish to lead or partner in the initiative. The 'rights and interests' model can help identify the level and extent of likely interest and will require some research to ensure a sound understanding. Ultimately it is only the Mana Moana group/s themselves who can confirm their 'rights and interests' so it is critical that you provide them with good information about the initiative and potential implications for them and their rohe moana. Note: This only refers to the rights and interests of Mana Moana groups – not there may well be other rights and interests groups to consider.
Step 4: E Toru Ngā Mea – consider what your anticipated level of interest, capacity and capability for involvement means for each of the following aspects or elements of kaitiakitanga: Rangatiratanga: • Who makes decisions? • How many people need to be involved? • At what level of governance and/or management? Mātauranga: • Do you already have sufficient mātauranga, or are there gaps? • Who are the knowledge holders? • Who else needs to be involved? Tikanga: • How should this kaupapa operate? • Who has the necessary tikanga expertise? • How should you and/or others be involved?	**Step 4: E Toru Ngā Mea** – if you do not already have a good relationship with Mana Moana, make sure you consider each of the following aspects or elements of kaitiakitanga before engaging or preparing a proposal: Rangatiratanga: • Who makes decisions? • How many people need to be involved? • At what level of governance and/or management? Mātauranga: • Are you aware of any relevant mātauranga (through other projects or avenues) or who the knowledge holders are? • What is your group or agency's position and view on how mātauranga will be recognised and provided for in the marine governance and management initiative? • Is there an aspiration for co-learning and co-creation of new knowledge? Tikanga: • Are you familiar with the local tikanga and kawa? • Do you or someone in your group or organisation have cultural awareness and competency sufficient to engage Mana Moana appropriately? • How should you and/or others be involved? • Has resourcing been set aside for this purpose (e.g. to support the involvement of kaumatua/kuia, marae etc.)?
Step 5: What does it mean for you? Once you understand the kaitiakitanga principles as they apply to the context you are considering, you will be able to articulate what kaitiakitanga means for you, what things need to be addressed, planned, prioritised, financed or resourced, actioned etc.	

Step 6: Embarking on a collaborative marine governance and management approach	Step 5: Embarking on a collaborative marine governance and management approach
This step is conditional on whether you want or need to engage with anybody else. If you do need to engage with a government agency, industry organisation, community group or other iwi, hapū or whānau etc., then we suggest trying the other complimentary tools:	Once you have developed an understanding in relation to what would be required to enable kaitiakitanga within your marine governance and management context, you may wish to try the other complimentary tools to support any engagement with Mana Moana:
• Mahi Tūhonohono - which supports relationship building. • Te Tiriti Relationship Enhancer - which supports quality assurance.	• Mahi Tūhonohono - which supports relationship building. • Te Tiriti Relationship Enhancer - which supports quality assurance.

Mahi Tūhonohono provides a simple framework for working together in respectful, reciprocal, and mutually beneficial ways. It extends on the consideration of *E Toru Ngā Mea* by offering a Te Tiriti o Waitangi based (Tiriti-based) approach to provide for kaitiakitanga activation.

> *"In Ngāti Kahungunu, the phrase we use is mahi tūhono, and so treaties are seen as work that brings people together" – the late Moana Jackson (Ngāti Kahungunu)*

Te Tiriti o Waitangi (Te Tiriti) was not the first example of the use of 'treaty' in Aotearoa. Prior to European arrival, treaties (or *mahi tūhono*) provided important mechanisms for supporting relationships between iwi and hapū, who were and often still are, fiercely independent entities. Treaties were used for a variety of reasons, including making trading agreements, peace-making after conflict, and in border regulation.

Te Tiriti (signed in 1840 between Crown representatives and Māori rangatira or chiefs), is widely recognised as New Zealand's founding document. It is also recognised by leading academics, experts and commentators as providing a framework for bringing people together. Some have offered ideas and recommendations for constitutional transformation based on Te Tiriti (such as that envisioned by Matike Mai Aotearoa). Such changes would create greater equity and provision for applying kaitiakitanga. In lieu of such change, *Mahi Tūhonohono* provides guidance to support working together to effectively enable kaitiakitanga using a Tiriti-based analysis.

There are many useful sources of guidance and resources to support Tiriti-based approaches, relationships and operations (such as The Network Waitangi Ōtautahi[8]) and are worth exploration to inform assessment against Te Tiriti itself. Te Kete Kaitiakitanga and *Mahi Tūhonohono* can be used alongside such assessment or independently to enable pragmatic recognition and provision for kaitiakitanga in alignment with Te Tiriti rights, interests, and obligations.

Applying Mahi Tūhonohono – a three step process

1. Identify

We invite users to reimagine and identify the marine governance and management outcomes you want to achieve. Whether you are a kaitiaki, community group, rangatahi, Crown agency official, governor, practitioner, planner, business person, or researcher, consider your specific context and what marine governance or management aspiration you have whether it be at the coast, for the marae, a tourism or commercial venture, resource management need, for policy and planning, or something else.

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[8] The Network Waitangi Ōtautahi website provides information and resources to support greater understanding and awareness of Te Tiriti o Waitangi, and guidance on providing for a Treaty-based multicultural future (https://nwo.org.nz)

2. Analyse

Using *E Toru Ngā Mea* where Rangatiratanga + Mātauranga + Tikanga = Kaitiakitanga, consider:

What will it take to whakamana or empower your whānau, community or organisation to achieve those outcomes?

E Toru Ngā Mea focused on an internal inquiry to assist your understanding of **what** kaitiakitanga is in terms of the three key enabling ingredients (Rangatiratanga, Mātauranga and Tikanga). It also aimed to support you to begin your own research or capacity and capability building to meet those requirements. The 'rights and interests' model offered an initial indicator for you to consider the potential extent of Mana Moana interests in marine governance and management.

Mahi Tūhonohono begins to put that internal inquiry to further practice. Rather than a simple fact-finding mission, it encourages you to begin a deeper assessment into **how** kaitiakitanga will be enabled in a specific marine governance and management context. The following checklists provide guidance to support this inquiry:

Guidance for tāngata whenua	*Guidance for agencies, organisations, community groups*
Consider whether you require internal processes to determine what the three principles of Rangatiratanga, Mātauranga, and Tikanga mean for you and your context. Perhaps you need to explore potential relationships with other parts of the system (e.g. with your community, government agencies, commercial ventures etc. to achieve your desired outcomes). Here are some prompts: • Who needs to be involved in early discussions, scoping and relationship building? • Why do they need to be involved and to what extent? • How will you engage with them and what resources will it require? • Is there funding avaialble to support such engagement from within your hapū or iwi, or externally? • What are the advantages and disadvantages to bringing your own resources to this engagement? • What knowledge informs this kaupapa? • What other knowledge and/or data is required, or would assist the outcomes that you and/or the external party want to achieve? • What are your/their timeframes?	Consider the cultural competence and awareness of your group or organisation based on the 3 principles of Rangatiratanga, Mātauranga and Tikanga to support development of Tiriti-based marine governance and management relationships. Here are some questions to help: • What do you already know? • What relationships currently exist? • How strong / positive are they? • Are any of the formal arrangements (e.g. Mana Whakahono a Rohe or Treaty settlement arrangements) in place? • Are you familiar with relevant Treaty settlement and Takutai Moana claims and documentation (such as iwi planning documents on relevant topics)? • Do you know how many Mana Moana entities you need to engage and if not do you know where to find out? • How does their Rangatiratanga, Mātauranga and Tikanga fit in this context at this point in time? • Does your agency or group hold any of their mātauranga, and have any familiarity with their tikanga already? • Do you know the right person to contact and their preferred contact method? (If not, check tribal

• How much capacity and capability exists and do you need to find more?	websites and/or consult regional and unitary councils and/or Crown agencies for advice) • Are you clear about what mandate, agency, data and knowledge you or your organisation has in relation to the outcomes you want to achieve? • If there are gaps, how will you proceed?

3. Share

Mahi Tūhonoho is an exercise that enables you to analyse, assess and prepare yourselves before engaging – a means of undertaking due diligence before embarking in good faith.

If and when both or all parties are eager to engage, it can be useful to undertake the analysis and assessment together. One option might be that you do an independent assessment first, share your results, then work together to address differences and find synergies and points of affinity to progress with from there. The guidance could be used throughout any marine governance and management initiative, to consider appropriateness in planning and scoping stages and to evaluate how well activities or approaches are enabling kaitiakitanga and aligning with Te Tiriti obligations.

Users could develop a 'baseline' of how well marine governance and management aligns with *E Toru Ngā Mea* and maintain a record of that measurement in a shared system (e.g. online platform). The evaluation could be run regularly over the duration of the initiative to support the strengthening or maintenance of already strong relationships for effective marine governance and management tailored for Aotearoa. A more in-depth critical analysis is provided by the following Te Tiriti Relationhip Enhancer tool.

One tool utilised by our research to support collaborative, action-planning, was *Future Search.* We were involved in a 3-day intensive Future Search workshop co-facilitated by Ngāti Paoa ki Waiheke and the Waiheke Marine Project early in their marine governance and management partnership. We also held a 1-day Future Search workshop with 40 representatives from government agencies, and you can find out more (including to gain an understanding of the *Future Search* methodology) by visiting:

https://www.sustainableseaschallenge.co.nz/tools-and-resources/kāwanatanga-future-search-workshop-summary-report/

The effort, energy, relationship building, outputs, and outcomes of that 3-day process were instrumental to the ongoing success of the partnership and momentum of regenerating Waiheke's marine ecosystems; including the co-development of an 'Action Tracker' as part of our research.

3: Te Tiriti Relationship Enhancer
Assessing system design to enhance the enablement of kaitiakitanga

Te Tiriti Relationship Enhancer is a tool that builds on *Mahi Tūhonohono* and *E Toru Ngā Mea*. The process is more in-depth and evaluative, shifting focus away from relationship building and strengthening, towards elements of transparency and accountability, and more aligned with an audit. As an assessment tool it might also be useful to underpin corporate disclosure for example, and as encouraged by the Sustainable Seas Blue Economy Principles.

The tool assists users in evaluating how well marine governance and management initiatives are measuring up to the rights, needs, and aspirations of Mana Moana. It can help to achieve equity and indigenous and environmental justice by ensuring that Te Tiriti partners and their respective worldviews, values, systems, and processes are equally valued and given space within the marine governance and management system. The importance of this was highlighted in the initial systematic review conducted for this research (Parsons et al., 2021). Through a critical analysis of texts (documents and language used in any initiative), users can identify where approaches are going well and where there are gaps or areas that need greater attention.

Te Tiriti Relationship Enhancer recognises that although Te Tiriti o Waitangi was signed almost two centuries ago, its provisions and opportunities have never been realised. This has created an environment that does not provide for kaitiakitanga in that Rangatiratanga, Mātauranga and Tikanga have been actively inhibited. *Te Tiriti Relationship Enhancer* uses texts to reassess and rebalance the dynamics of authority and practice, and support a marine governance and management approach that operates in aroha, and is mana-enhancing.

Texts are sensitive barometers of social process, momentum, and diversity. A critical analysis of texts can be revealing in terms of highlighting ideological language and the social representations that inform them (Chouliaraki & Fairclough 1999). As with the *Mahi Tūhonohono*, this tool draws from an already established methodology for the critical analysis of texts and their associated discourses through a Tiriti lens[9].

The tool can be applied to marine governance and management plans, policies, strategies, funding bids, and any related documents that involve or are relevant to Mana Moana. Alignment with Te Tiriti and the principles of kaitiakitanga can be measured, and an assessment made of whether the text and the context it relates to, upholds and honours the rights, interests, and values of all involved. Like *E Toru Ngā Mea* and *Mahi Tūhonohono*, this tool can be used for any scale, context, and stage of initiative. Put simply, it is an accessible Tiriti-based tool to maintain or encourage transparency and accountability in and across marine governance and management.

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[9] The tool is adapted from an earlier Aotearoa-specific tool, the Critical Tiriti Analysis (CTA) developed by Came et al. 2020 which was initially developed for the health and medical sector.

Applying the tool

The tool involves a review of texts against the principles of kaitiakitanga. The review process has six defined phases[10]:

STEP	PHASE	PROCESS
1	Choice	Choose a text and a question or issue you want to constructively critique
2	Orientation	"Word Search" key terms identified through the Mahi Tūhonohono tool that Mana Moana positively associated with marine governance and management (i.e. terms related to enabling and giving effect to the principles of rangatiratanga, mātauranga, and tikanga). For example Tiriti, Treaty, rangatira/rangatiratanga, kaitiaki/kaitiakitanga, mana whenua, mana moana, tikanga, mātauranga, Māori, mauri. Record the resultant number of terms. That number provides a simple first measure of the extent of Tiriti and E Toru Ngā Mea compliance.
3	Close Reading	A second, close reading (critique) of the texts against the three principles (rangatiratanga, mātauranga, and tikanga). You may also want to include a close reading against elements of Te Tiriti: preamble, Articles I, II, III, and Article IV an oral article.
4	Determination	Apply a series of indicators (for example, policy development, performance, and evaluation) that could be ranked on a Likert-type scale for each of the three (or five if using Te Tiriti) points of analysis outlined above.
5	Strengthening Practice	Summarise key recommendations that emerge from steps 1 – 3 for how to strengthen practice within the given context.
6	Māori Final Word	Make conclusions relevant to your specific context in relation to enhancing the mana and rangatiratanga of Mana Moana to better enable kaitiakitanga and a Tiriti-based marine governance and management system. This section is reserved for Mana Moana (or a person from their delegation).

A critical evaluation using this tool can provide a deeper understanding of language and patterns to identify what has led, or is in the process of leading, to the development and operation of an Aotearoa-based marine governance and management approach, including approaches based on EBM and kaitiakitanga. At the same time, it supports the identification of inconsistencies and ambivalence that might offer possibilities for approaches to shift or be re-designed to take a more holistic, integrated, and just, Tiriti-based or aligned pathway.

Our research project tested this methodology on the Sustainable Seas National Science Challenge revealing insights about its strengths and weaknesses with regard to the way it has provided for kaitiakitanga and the extent to which it has applied a Tiriti-based approach.

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[10] Adapted from Came et al. (2020)

He Mihi

Ehara taku toa i te toa takitahi, he toa takitini taku toa | My strength is not individual, it is collective.

Postcolonial relationships are non-homogenous, differing across time and place in Aotearoa and throughout the postcolonial world. It is important to hear and capture the many voices from both those in power, and at the margins and those spaces in between. We are extremely grateful to the substantial number of research partners and participants that were engaged in the research project that informed *Te Kete Kaitiakitanga*.

Our approach resulted in both an intentional collective advisory group and a more spontaneous collective of interested participants who chose to engage in our research or host us as presenters, panelists, or participants at relevant events over the course of our research.

Method	Type	Rangatiratanga Sphere	Kāwanatanga Sphere	Relational/Oritetanga Sphere
1	Project Advisory Group	Michelle Cherrington (Moana NZ); William Wright (Kaipara Uri); Tame Te Rangi (Ngāti Whātua/Kaipara Uri/Tikapa Moana); Wheturangi Rutene (Ngāti Kahu); Lucy Tukua (Ngāti Paoa); Maru Samuels (Iwi Collective Partnership).	Erica Gregory (Environmental Protection Agency); Richard Ford (Ministry Primary Industries & NZ Fisheries); Debbie Freeman (Department of Conservation); Michaela Manly (formerly Ministry for the Environment).	Dr Meg Parsons (University of Auckland); Katherine Short (Terra Moana); Raewyn Peart (Environmental Defence Society); Vince Kerr (Kerr & Ass./Mountains to Sea Trust); Glenn Edney (Ocean ecologist/PhD candidate).
2	Sphere of Influence Partnerships	Moana New Zealand, the largest Māori-owned seafood company, which provided a corporate context within the rangatiratanga sphere.	Cross-government agencies collaborative working group, which included key representatives from EPA, MPI, DOC, and MFE (see cell above) and research that involved wider colleagues from each agency.	Waiheke Marine Project and Ngāti Paoa ki Waiheke, a flax-roots initiative focused on the protection and regeneration of Waiheke Island's marine environment through the use of action-based kaitiakitanga. They are developing 'an Ahu Moana approach in an urban context'.
3	Individuals and groups from across the whole system	A multitude of people, agencies, organisations, conferences, hui, wānanga across SOI – both national and international audiences and in-person and online.		

Our small team of three was honoured to have hundreds of kōrero with actors from across the whole system. Those many narratives - sharing experiences, learnings, and insights all contributed to the co-development of the three tools. We also acknowledge and thank the Sustainable Seas National Science Challenge and Ministry of Business, Innovation, and Employment for funding and supporting our endeavours.

In closing, we reflect on a whakatauākī by Te Puea Herangi:

Mahia te mahi, hei painga mo te iwi,

and expand it to:

Mahia te mahi, hei painga mo te moana.

Te Kete Kaitiakitanga
Supporting reference material

Kaitiakitanga

Kaitiakitanga is an ethic of care, embodied by (but not limited to) humans aka Kaitiaki that whakapapa to a place and all of its natural entities, and have inherited obligations to care for those respectively.

Te Ao Māori (the Māori world, ways of thinking, or worldviews) is founded on relationality, reciprocity, and respect between all things (living and non-living) and this is understood through whakapapa (genealogical connections) and whanaungatanga (kinship). Though there are shared principles and values across tangata whenua from different rohe (tribal regions), there are multiple Te Ao Māori views because each iwi, hapū and whānau has their own understanding based on their relationships with the unique environments within their different rohe. Their respective identities, obligations and responsibilities regarding MGM are based on those ways of knowing (mātauranga) and being (tikanga) in relationship with Te Ao Tūroa (natural environment), as it pertains to their rohe. Te Ao Tūroa cannot be isolated from the people that inhabit it.

In Te Ao Māori, people do not own the land, sea, or other taonga (gifts – often considered 'resources' in western vernacular). Rather, they are the teina (younger sibling) connected through whakapapa to those taonga which are tuakana (older siblings). According to Dr Henare Tuwhangai "Māori people did not just own whenua or Te Ao Turoa, but that they, the people, were also the possession and the land and Te Ao Turoa were the possessors" (in Henare 1988:28). Mana whenua mana moana describes iwi/hapū/whānau who are imbued with mana and rangatiratanga over specific whenua (land) and moana (sea), which is based on strength of whakapapa ties and length of occupation. Jackson (2017:110) found that "Mana whenua and mana moana status is implicit and mandatory for the exercise of kaitiakitanga".

Kaitiakitanga is the manifestation of the Māori 'ethic of care', which can include environmental contexts and/or humans, but also extends beyond humans. The inclusion of kaitiakitanga within contemporary environmental legislation and policies often associates it exclusively with humans, which has likely influenced the more modern construction and normalisation of kaitiaki as people (though kaitiaki can take many other forms within the natural environment). Mana whenua mana moana can embody the role of 'kaitiaki' in which they practice kaitiakitanga. A dialectical relationship exists between kaitiakitanga and rangatiratanga. Kaitiakitanga is both an expression and affirmation of rangatiratanga; and rangatiratanga is the authority for kaitiakitanga to be exercised (Kawharu, 2000:353). Harmsworth (2005) adds that kaitiakitanga "is the practice of spiritual and physical guardianship based on tikanga" (p. 129) and asserts that,

kaitiakitanga is an 'active' rather than 'passive' guardianship or custodianship. It conferred obligations rather than a right to make decisions, and placed obligations to make wise decisions about resource management, and to sustain the wellbeing of iwi, hapū, and whānau. All had the collective responsibility to ensure that resources were managed wisely…Kaitiakitanga is inextricably linked to tino rangatiratanga.

Kaitiakitanga is an active form of management of human relationships with the taiao, rather than the Western ethic of 'conservation' which separates people from the environment and makes them passive carers or conservers and preservers 'of nature' McAllister et al. (2023). Whereas customarily, Kaitiakitanga includes active harvesting and use, based on respect and reciprocity including harvesting of taonga species. One example is the traditional harvesting of a native seabird called tītī or 'muttonbirds' (Sooty Shearwater chicks) by Rakiura (Ngāi Tahu) Māori, a practice that has occurred for centuries in accordance with mātauranga and tikanga. Since 2002, mana whenua and Otago University researchers have implemented a bicultural research approach to study the harvest, with Māori research aspirations being at the centre and across all aspects of the programme but both Indigenous knowledge and ecological science contributing valid data (Lyver and Moller, 2012). The aim is not to integrate the two knowledge systems, which is considered "unlikely because of the spiritual and holistic aspects that partially define traditional knowledge. However, parallel use of the two knowledge systems may improve the understanding and decision-making for conservation and natural resource use" (Lyver, 2002).

Kaitiakitanga is an intersectionality of multiple discourses, in particular rangatiratanga, tikanga, and mātauranga, which together give effect to kaitiakitanga. In her seminal work on kaitiakitanga, Māori researcher Anne-Marie Jackson (2017) articulates and discusses the many "complex" discourses associated with kaitiakitanga. Jackson (2017: iii) characterises mātauranga as "a complex knowledge system comprising intergenerational beliefs, values and practices, that comprises what is known and how it is known, that can be utilised to sustainably manage the marine environment". Jackson's research found (2017:132) that mātauranga is embodied by people/kaitiaki through oral traditions including: tikanga (customs and protocols), karakia (incantations), whakapapa (genealogies), mōteatea (chants), pūrākau (stories and narratives), maramataka (lunar calendar and heavenly bodies), kupu (relevant words), waka voyaging traditions, and kaitiakitanga (guardianship), pēpeha (tribal sayings) and whakataukī (proverbs).

Jackson (2017:40-41) concludes in her report that "tikanga is composed of a complex array of beliefs, values, principles and precedents, which can be defined in a number of different ways". The most common interpretation is as custom or Te Ao Māori way of doing things which governs interactions between ourselves, ecosystems (including people), and the celestial world. However, Hirini Mead (another profound Māori scholar) (2003) posits that tikanga may also refer to a role, plan, or method which has implications for the practice of kaitiakitanga. Mead (2003) and Jackson (2017) relate tikanga to mātauranga which provides the complex and vast knowledge base, evolving with time, conveying the view that one must understand both, together, to understand either at all. Mead (2003:7) explains that "mātauranga Māori might be carried in the minds, tikanga Māori puts that knowledge into practice and adds the aspects of correctness and ritual support". It is this respect and reverence that elevates Te Ao Māori (and other indigenous knowledges) above modernist ontologies and offers more than procedural, technocratic "resource management".

Kaitiakitanga is embedded within an interwoven set of values, morals, ethics and principles that emerge through the dynamic and always evolving creation process in which humanity and all of the natural world are constantly becoming. In Māori culture this is expressed as "I te kore, ki te pō, ki te ao mārama" which is commonly translated to "out of the nothingness, into the night, into the world of light".

> *...the cosmos began with a surge of primal power. From this, thought emerged, followed by memory, the mind-heart, knowledge, darkness and the kore (the nothingness, potential forms of existence). Tapu, or cosmic power, was the source of all creation. It brought complementary forms of life together, generating new beings.*

Tapu (cosmic power), mana (privilege, authority, reciprocal obligations that come with it), wairua (spirit), hau (breath), and mauri (an essential life force) emerge through the cosmos, becoming inherited by entities in Te Ao Marama. Everything has sacred potential and must be respected in that sense; the greater the potential or realised potential, the greater the tapu and subsequent levels of respect and reverence. Everything has mauri to be maintained and protected. Mauri is the spark of life, vitality, and energy. The regenerative life-essence that connects people and spirit (wairua) to each other and all other entities within Te Ao Tūroa (the natural world). Mauri flows, and where it is strong, ecosystems and communities flourish. However, when mauri is degraded and weak, so are the respective ecosystems and communities, requiring kaitiaki to take restorative action to rebalance the system (Whaanga-Schollum 2019).

In the practice of kaitiakitanga, environmental resources are understood as taonga (gifts) inherited through whakapapa, along with the obligation to care for those taonga. Sir James Henare (2001) described this as:

> The Māori word 'whenua' – land, is the term used for both the land and placenta or afterbirth, therefore, the land for Māori people has the same deep significance as the placenta, which surrounds the embryo. Giving it warmth and security, a mauri, a life force that relates to and interacts with Mother Earth's forces.

Humanity is therefore fundamentally connected through whakapapa to Papatūānuku, and the ongoing creation process occurs through networks of kinship and connection, transmitting whakapapa and transgenerational mātauranga and tikanga. There is a regenerative relationality or reciprocal exchange that exists between the hearts and minds of individual people, and between human beings and matter (Salmond et al. 2019). This philosophy is shared with indigenous nations across the Pacific, and beyond (for example refer Simpson 2017). Interconnections between humans, non-humans, and more-than-humans manifest in tune or rhythm with one another. The vitality of humanity is therefore reflected by that of the natural environment. Psychological and social dis-ease are attributed to the errors of the past – degradation and loss of land and taonga. In sum, ill treatment of Papatūānuku our Earth Mother produces unwell communities and vice versa (Henare 2001:205).

The complexity of ethics regarding Te Ao Māori has been characterised as 'a spiral of traditional ethics, which simultaneously presents Māori worldview and acts as a check on that worldview' (Henare et al. 2021:64-65; Henare, 2003):

- Tikanga te ao mārama: ethic of wholeness, evolving, cosmos
- Tikanga te ao hurihuri: ethic of change and tradition
- Tikanga tapu: ethic of existence, being with potentiality, power, the sacred
- Tikanga mauri: ethic of life essences, vitalism, reverence for life
- Tikanga mana: ethic of power, authority, and common good, actualization of tapu
- Tikanga hau: ethic of spiritual power of obligatory reciprocity in relationships with nature, life force, breath of life
- Tikanga wairua: ethic of the spirit and spirituality
- Tikanga tika: ethic of the distinctive nature of things, of the right way, of the quest for justice
- Tikanga whanau: ethic of family, tangata - the human person
- Tikanga whanaungatanga: ethic of belonging, reverence for the human person
- Tikanga tiakitanga: ethic of guardianship, of creation, land, seas, forests, environment

- Tikanga houhou rongo: ethic of peace and reconciliation, restoration
- Tikanga kotahitanga: ethic of solidarity with people and the natural world and common good
- Tikanga manaakitanga-atawhai: ethic of love and honour, solidarity, reciprocity

This fundamental set of virtues and ethics has governed the exercise of rangatiratanga since the nineteenth century, remaining functional within Māori society today. The list above (part of a broader framework by Henare et al. 2021) was offered by Henare as a set of virtues and ethics to inform Māori relationships with Māori, and relationships between Tangata Whenua and Tangata Tiriti. It is therefore useful for guiding relationships within a Tiriti-based marine governance and management context.

[This research focused on people as kaitiaki but in Te Ao Māori other beings (both human and more than human) can be kaitiaki too.]

Ecosystem-Based Management

The Sustainable Seas National Science Challenge (one of 11 nation-wide, and government funded science "challenges") embarked on an ambitious, mission-led response to address complex, interdisciplinary issues including marine governance and management, and to spend science investment more strategically within Aotearoa. The Challenge was a collaboration of researchers, scientists, practitioners, and others that work across boundaries to address the multiple and overlapping socio-ecological, political, cultural and economic issues now associated with this focus area. It brought together 220+ researchers from 36 organisations across Aotearoa New Zealand and had numerous advisory groups. Māori specialists and tribal representatives as well as government agency officials were involved across the Challenge, with input within the governance and leadership structure including the kāhui Māori (Māori advisory group) and stakeholder panel (which included government organisations, communities, industry, researchers, resource managers and NGOs), and within specific themes and projects. The government's Vision Mātauranga policy ensured that Māori knowledge was included, both in its own theme and across all other themes, and that there would be outputs and outcomes relevant for Māori (Hewitt et al. 2018).

During the establishment phase the Challenge determined an Ecosystem-Based Management (EBM) agenda as the research focus (Hewitt et al. 2018:10). EBM was chosen for its capacity to move away from sector-specific, siloed management toward more holistic, integrated, decentralised and collaborative management that values and prioritises interrelated socio-ecological factors as well as economic ones. To characterise EBM and tailor it to Aotearoa, the Challenge developed a working definition and seven key principles (refer Figure below).

Figure 1: The Sustainable Seas National Science Challenge's conceptualisation of EBM for Aotearoa.

These principles, the definition, objective, and mission were developed with input from stakeholders and Māori partners. The Challenge referred to the EBM concept as a work in progress which was anticipated to evolve (Hewitt et al. 2018).

Definition: A holistic and inclusive way to manage marine environments and the competing uses for, demands on, and ways that New Zealanders value them.

Challenge Objective: Enhanced utilisation of our marine resources within environmental and biological constraints.

Challenge Mission: Transformation of Aotearoa New Zealand's ability to enhance our marine economy, and to improve decision-making and the health of our seas through ecosystem-based management.

In a settler colonial context such as Aotearoa New Zealand, there are significant tensions that arise as different worldviews come into contact. For instance, both the Challenge objective and mission emphasise human use and economic productivity, which reflects the political economic context within which science funding in Aotearoa New Zealand is determined. This can be seen as the continued privileging of western 'modernist' onto-political perspectives and governance agendas that have emerged through colonial expansion. 'Modernity' is an ensemble of socio-cultural norms, attitudes and practices that follow enlightenment thinking and a tendency to separate nature from culture. According to Fisher

et al. (2022) "modernist governance arrangements, therefore, tend to simplify the natural world and the myriad socio-natural relationships that exist in relation to places, to conceive of participation, rights, and property in constrained terms and rely on prescriptive or technocractic solutions to address environmental problems (DePuy et al. 2021; Makey et al. 2021). In contrast, Māori-led and Māori-centric research undertaken in the Challenge emphasises values beyond economic value, and an understanding of the moana that emphasises relationality and connection between tāngata whenua and te taiao (the environment) across past, present, and future generations. Moreover, research that emphasises the agency and mana of tāngata whenua in exercising authority, the reimagining of economic futures and an indigenised blue economy, and which contemplates new models of marine management that better reflect Te Tiriti rights and interests represent important developments to challenge 'modernist' assumptions underpinning governance and management.

Notwithstanding the 'baggage' that accompanies EBM as a western concept (Fisher et al., 2022), there is evidence of EBM enabling a shift to more holistic and inclusive management practices in Aotearoa that are better able to accommodate Māori rights and interests and expression of Te Ao Māori. However, the relationship between EBM and kaitiakitanga requires careful navigation to ensure that rangatiratanga, mātauranga and tikanga of mana whenua is foregrounded and respected.

Some Māori scholars suggest it is possible to use "ecosystem" thinking in relation to Māori under certain conditions. For example Garth Harmsworth and Shaun Awatere (2013:246) argue that:

Respecting and valuing the Māori world view and Māori concepts is an essential first step to understanding the iwi/hapū perspective of ecosystems. The term ecosystem needs to be understood within Māori contexts and frameworks (e.g. Douglas 1984; Awatere et al. 2011, 2012) to be meaningful to Māori and allow them to participate more fully in dialogue, protection and sustainability of ecosystems through inclusive management planning and policy setting.

Further Reading:

Enabling Kaitiakitanga and EBM – Information about this Sustainable Seas National Science Challenge project: https://www.sustainableseaschallenge.co.nz/our-research/enabling-kaitiakitanga-and-ebm/

Matike Mai Aotearoa: The Independent Working Group on Constitutional Transformation (refer to their report here published in 2016

The Network Waitangi Ōtautahi website provides information and resources to support greater understanding and awareness of Te Tiriti o Waitangi, and guidance on providing for a Treaty-based multicultural future (https://nwo.org.nz)

Future Search information: https://www.sustainableseaschallenge.co.nz/tools-and-resources/kāwanatanga-future-search-workshop-summary-report/