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» PROJECT 4.2 - OUTPUT 10

# Designing law and policy for marine ecosystems

July 2023



Summary

## About

### ***Project 4.2 - Output 10 - end user appropriate format***

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» For more information on this project, visit:  
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## About the Sustainable Seas National Science Challenge

Our vision is for Aotearoa New Zealand to have healthy marine ecosystems that provide value for all New Zealanders. We have 75 research projects that bring together around 250 scientists, social scientists, economists, and experts in mātauranga Māori and policy from across Aotearoa New Zealand. We are one of 11 National Science Challenges, funded by the Ministry of Business, Innovation & Employment.

Learn more [www.sustainableseaschallenge.co.nz](https://www.sustainableseaschallenge.co.nz)



## Te take

## The issue

The health and wellbeing of our precious marine environments are under increasing pressure due to the cumulative effects of human mismanagement and climate change.

We need robust, effective and flexible legal and policy frameworks if we are to better manage relationships between people and marine ecosystems and resources in Aotearoa New Zealand. This is a significant challenge, because of the multiple sectors and scales involved in marine management, and the existence of conflicting marine uses and values.

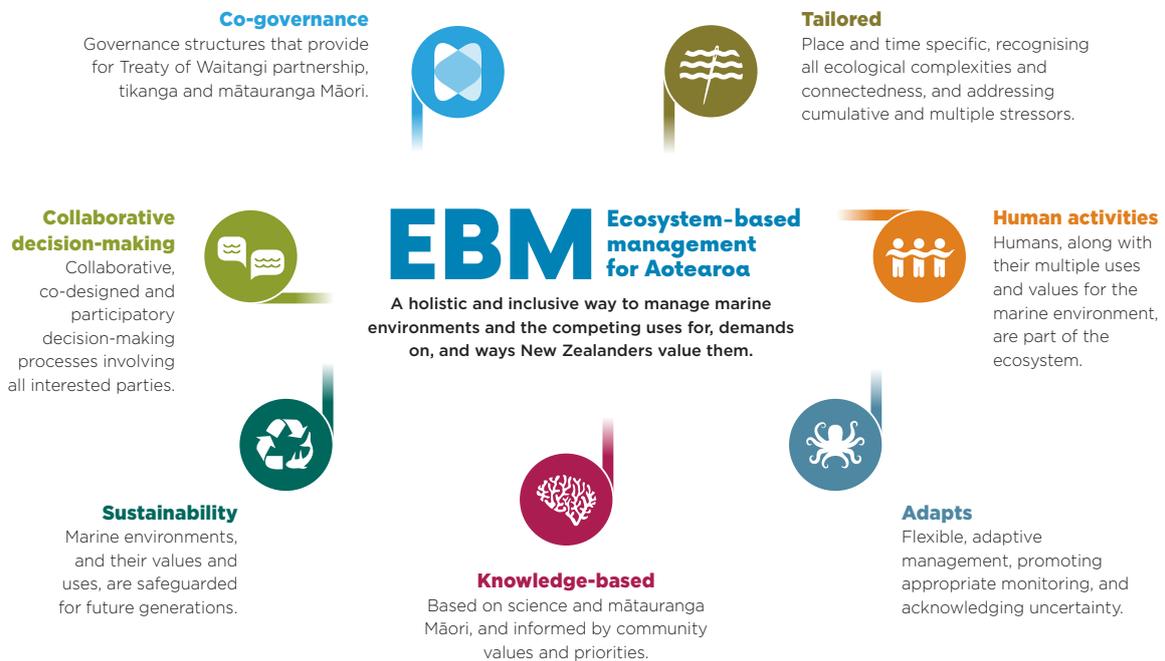


## What is EBM and what does it mean for marine law and policy?

The need for marine law and policy to enable ecosystem-based management (EBM) has increasing support internationally. EBM involves managing

the marine environment in a holistic and inclusive way. This means that competing uses are managed in a way that does not degrade the marine environment, and recognising that humans are part of the ecosystem. [Sustainable Seas has developed the following seven principles of EBM.](#)

We have developed – with input from stakeholders and Māori partners – a definition and principles for EBM for Aotearoa. These are a work in progress, and will continue to evolve.



Our project on Law and Policy for EBM aims to *identify what opportunities exist for EBM implementation and determine what needs to change to support successful implementation of EBM in Aotearoa New Zealand.*

## **Anchors and Hooks for EBM**

First, our researchers looked outside of Aotearoa at [attempts to embed EBM in laws and policies of other countries.](#)

We found that wherever we looked there was a large degree of complexity and fragmentation of marine law across different sectors and scales. We concluded that **some degree of fragmentation of marine law and policy is inevitable** when managing the marine environment because of the complexity of the ocean and human relationships with it.

This meant that we should avoid the temptation to try and solve this complexity through 'one law to rule them all' - Instead our attention should be focused on combinations of policy approaches to support EBM across sectors and scales. We found that the best way to support EBM was a combination of what we called anchors and hooks.

- **Anchors** - *high-level norms or objectives that set a vision for EBM across the multiple sectors and scales of legal and policy frameworks applying to the ocean.*
- **Hooks** - *combinations of rules and institutions to support an EBM approach, which could remain in sectoral legislation or operate at different scales, but needed to be consistent with each other.*

We also found that properly accounting for Indigenous marine rights and authority in law and policy were unfinished business wherever we looked, that resourcing and funding is key to the success of law and policy, and that marine spatial planning might be a hook - but **EBM is more than just marine spatial planning.**

We spent some time thinking about how EBM sat alongside existing approaches towards more integrated or collaborative marine law and policy. We argued that EBM is not an end-point to be arrived at and then that's done - it requires an **ongoing (and deliberately) iterative process** of interactions and collaborations of the different rules and organisations making and implementing marine policy.



Because EBM is really about relationships between peoples and marine places, we can't just create a law to 'do' EBM. Instead, we need to focus on the **processes and capacity of people** to support an EBM approach which will just keep on going,

and adapting as change keeps happening. *This figure shows a range of possible approaches to implementing EBM on a two-dimensional model, with relational EBM in the top-left quadrant.*



### Existing Policy Opportunities at Regional and Local Scales

Next, our researchers analysed [existing legal and policy mechanisms that support EBM at the regional and local scale](#). The research focused on the relationship between the Resource Management Act 1991, the Fisheries Act 1996 and the Marine and Coastal Area (Takutai Moana) Act 2012 as they affect marine environments. Because these three laws apply across different spatial and temporal scales and have different purposes it is difficult to effectively align their regulatory tools. There were a range of legal and policy tools already existing that could support EBM (eg Rahui), although these were not widely or consistently implemented. This

research emphasises the need to resource capability at the regional level to integrate and develop underutilised regulatory options.

### Learning from Examples of Innovative Governance

Then, our researchers explored [possibilities for supporting EBM through trends in governance approaches in Aotearoa New Zealand](#). We identified that environmental governance in Aotearoa is currently undergoing a shift – one that increasingly emphasises collaboration between Government and communities and the importance of place-based decision-making. There is also shift in governance arrangements around how the

environment is understood in relation to people, which is informed by, and better aligns with, Māori worldviews, knowledges, and values. We proposed four pou (or enabling conditions) to generate new kinds of governance models that can accommodate both Indigenous and non-Indigenous worldviews, knowledges, and values:

- enacting interactive administrative arrangements;
- diversifying knowledge production;
- prioritizing equity, justice, and social difference; and
- recognizing interconnections and interconnectedness.

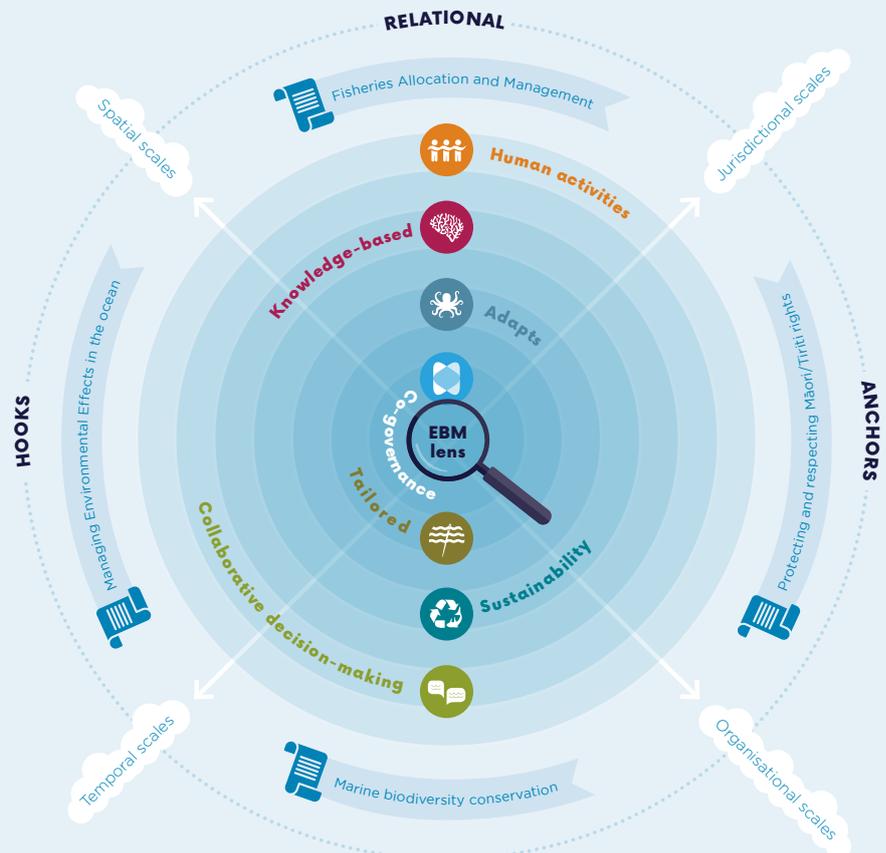
These investigations led us to the pressing question underpinning our work: How can law centre the health of ocean ecosystems and related people in integrated marine decision-making, in a Tiriti-compliant manner?

## We undertook a detailed analysis of opportunities for law and policy in Aotearoa New Zealand to support EBM

We focused on four core areas of marine law and policy - fisheries regulation, biodiversity conservation, environmental effects management, and Māori/Tiriti rights. We applied learning from our earlier research - including anchors and hooks - to look for examples of where law can support relationships between people and place in diverse ways. We were also conscious of the need to implement EBM in holistic and integrated decision making across temporal and spatial scales. And as well as using usual methods of legal and policy analysis, and literature review, we tested our ideas through workshops with a range of central and local” to “In addition to our analysis of current legislation and policy, we completed literature reviews and tested our findings and ideas through workshops with a range of central and local government and industry stakeholders and hapū (figure 1).

## Method for uncovering opportunities for ecosystem-based management in Aotearoa New Zealand Law and Policy

**Figure 1:** This model summarises the method and approach to this research to uncover opportunities for EBM in Aotearoa New Zealand. The model explains the parameters for the study, including: 1. We restricted the scope of the study as shown in the scrolls to law and policy centered on; a. fishing allocation and management, b. marine biodiversity and conservation, c. managing environmental effects in the ocean, and d. protecting and respecting Māori/Tiriti rights; 2. As shown in the clouds we sought to understand the complex interaction of law and policy across multiple scales; spatial, temporal, organizational and within the laws and policies themselves; 3. We looked for opportunities to introduce options that align/meet with the seven principles of EBM developed by [Hewitt et al](#) (2018) as represented by the concentric circles; and 4. We sought to build upon the ‘hooks’ and ‘anchors’ approach to ‘relational EBM’ developed by [Macpherson et al](#) (2020), as shown in the border panes.



## Ngā whakataunga

## Findings

In this research we highlight **key, time sensitive opportunities** within four key areas of Aotearoa New Zealand's marine law and policy to align law and its implementation more closely to the reality of the ocean as a living, related ecosystem to which people have reciprocal relationships.

A more **holistic, relational, ecosystem-based approach** to managing the ocean would acknowledge the interdependencies between related living and non-living marine ecosystem components, including people. It would move away from fragmented, siloed or single-sector approaches to marine management and instead manage relationships between ecosystem components and the cumulative impacts of multiple activities across sectors and scales in a way that is flexible and adaptive (timely) to climate change.

Enabling EBM will be especially important as New Zealand proceeds with environmental law reforms affecting the ocean, including the long-awaited climate adaptation legislation.

### **There are many existing, proposed or possible legal and policy hooks that can enable EBM**

We found a range of legal and policy mechanisms that can enable EBM as **hooks**, spread across fisheries, conservation, environmental planning and Māori-Tiriti rights. Our review highlighted the importance of:

- **Partnership and power-sharing** with Māori across all sectors and scales

and in policy design, content and implementation.

- **Integrated and holistic planning** for managing environmental affects in the ocean that reflects the multi-directional and multi-faceted operation of living marine ecosystems and related communities across temporal and spatial scales.
- **Place-based collaboration** in marine governance rather than just top-down policy and legislation.
- **Biocultural and flexible marine protection regimes** that center Māori authority and allow for balanced and reciprocal protection and use of marine areas; and
- **Integrated, ecosystem-based and collaborative oceans planning** that integrates and mediates multiple values and perspectives.

In many situations, there are already supportive laws, or promising reform initiatives underway, although these tend to be ad hoc and not well integrated. EBM hooks need to be consistent, integrated and coordinated across sectoral legislation and scales. Key examples of EBM hooks are included in the table (figure 2), alongside the enabling processes to support the integration of EBM hooks.



## We need to agree on the Fundamental Marine Principles to anchor EBM across sectors and scales

The table also sets out things that we see as anchors to frame a high-level vision for marine law and policy in Aotearoa New Zealand – these inevitably include Te Tiriti foremost, but there is a need to articulate ‘Fundamental Marine Principles’ to anchor legal and policy hooks across sectors and scales.



## Relational Ecosystem-based Marine Management (Aotearoa New Zealand)

Figure 2: Summary of Anchors, Hooks and enabling conditions and processes

- Existing
- In development
- Potential

<b>Anchors</b>	<ul style="list-style-type: none"> <li>● <i>Te Tiriti o Waitangi</i></li> <li>● International Law (UNDRIP, CBD, UNCLOS, precautionary principle)</li> </ul>	<ul style="list-style-type: none"> <li>● Environmental rights and responsibilities (NZBORA)</li> <li>● Fundamental Marine Principles</li> </ul>		
<b>Enabling Conditions</b>	<ul style="list-style-type: none"> <li>● Moana Aotearoa Ministry (leadership, oversight and whole of government co-ordination)</li> <li>● Resourcing (funding, capacity, people, information, and knowledge (science and <i>mātauranga</i>))</li> </ul>			
<b>Hooks</b>	<p><b>Fisheries</b></p> <ul style="list-style-type: none"> <li>● National fisheries policy framework (including research and funding)</li> <li>● Place-based, cross-sectoral fisheries collaboration/committees (e.g., Rock Lobster, NPOAs)</li> <li>● Multi-species fisheries plans (e.g., Inshore Finfish Draft Plan)</li> <li>● Habitats of particular significance</li> <li>● Rights/allocation for the environment</li> <li>● Collaborative governance and power-sharing with <i>iwi</i> and <i>hapū</i> (e.g., <i>iwi/hapū</i> fisheries management, <i>iwi/hapū</i>-led place-based fisheries collaboration/committees)</li> <li>● Bycatch management</li> </ul>	<p><b>Environmental effects</b></p> <ul style="list-style-type: none"> <li>● Integrated, cross-jurisdiction terrestrial, freshwater, coastal and marine planning and decision-making (e.g., <i>Ki uta ki tai</i> approach, Kotahi Plan (Hawke’s Bay), NZCPS, <i>Te Mana o Te Wai</i>)</li> <li>● Prioritise ecosystem health (e.g., <i>Te Oranga o Te Taiao, Te Mana o Te Wai</i>) and precautionary approach</li> <li>● Limited, flexible. Multi-sector area-based planning (e.g., MSP)</li> <li>● Localised risk assessments and <i>mātauranga</i> Māori approaches (e.g., <i>māuri</i> models, restoration)</li> <li>● Collaborative governance and power-sharing with <i>iwi</i> and <i>hapū</i> (e.g., <i>mana whakahono ā rohe</i>, transfers of power, <i>Ahu Moana</i> (Hauraki Gulf), <i>rāhui</i>)</li> </ul>	<p><b>Biodiversity conservation</b></p> <ul style="list-style-type: none"> <li>● Ocean as living and related ecosystem (e.g., <i>Te Mana o Te Taiao, Marine and Coastal Protection and Management Principles</i>)</li> <li>● Biocultural, Mixed-use MPAs (e.g., Kaikoura, Fiordland)</li> <li>● Adaptive/flexible corridor/habitat/bioregional marine protections (Including species interactions and seasonal dynamics)</li> <li>● Place-based, integrated MPA governance co-managed or devolved to <i>iwi</i> and <i>hapū</i> (e.g., Transfers of powers, customary fisheries, <i>rāhui, wahi tapu</i>)</li> <li>● Bycatch management</li> <li>● Marine restoration</li> </ul>	<p><b>Māori/Tiriti</b></p> <ul style="list-style-type: none"> <li>● Protected Māori fishing rights (<i>Te Tiriti</i>)</li> <li>● Māori partnership approach in all areas of marine management.</li> <li>● Statutory, place-based marine management (marine customary title, customary fisheries, <i>rāhui</i>)</li> <li>● Non-statutory place-based marine management (e.g., Kaipara Integrated Marine Protection, <i>rāhui</i>)</li> <li>● Place-based collaborative governance and power-sharing with <i>iwi</i> and <i>hapū</i></li> </ul>
<b>Enabling Processes</b>	<ul style="list-style-type: none"> <li>● Māori partnership approach</li> <li>● Tikanga and <i>mātauranga</i> Māori (Māori law and knowledge)</li> <li>● Place-based collaborative governance and power-sharing with <i>iwi</i> and <i>hapū</i></li> </ul>			

## We need to put in place enabling conditions to anchor EBM across sectors and scales

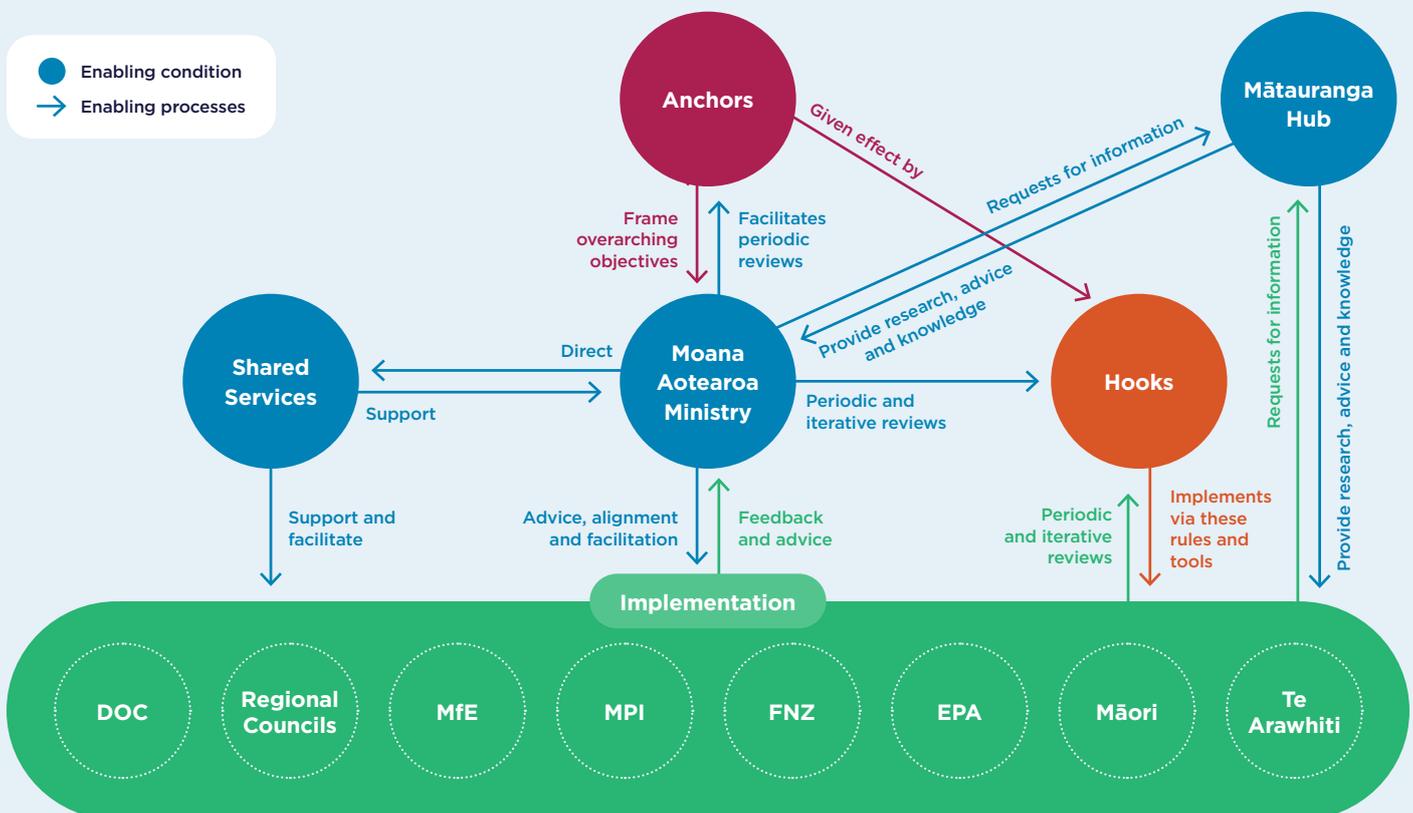
We found that implementing EBM hooks can (and should) take place across a range of temporal and spatial scales, as guided by a strong anchor for an EBM approach. But, for this to happen, whole-of-government leadership and coordination is needed, to integrate and coordinate work across sectoral silos.

Such an integrated approach is very difficult, our research suggests, where officers have reporting lines and obligations only within a sectoral line department. Many have argued for an

“oceans agency” to support cross-sectoral collaboration and hold the government to account for implementing the rule of law. We go further and argue that Aotearoa New Zealand needs a **Ministry for the Ocean**, to match the Ministerial portfolio for the ocean, reflecting the complexity of marine management and departing from the terrestrial bias of our existing laws and institutions. A dedicated Ministry would ensure a coherent, whole-of-government approach to leadership, oversight, coordination and alignment of marine policy, provided that this is done in a way that is consistent with the Tiriti-partnership. The following figure provides a starting point for how this could work.

## Ecosystem-based Management (Aotearoa New Zealand)

A conceptual model for administrative arrangements



The above implementation list is illustrative only.

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Entity name	Description/function
● <b>Anchors</b>	Overarching or constitutional-level legal and policy objectives that set a mandate for EBM. High-level "norm"-setting.
● <b>Hooks</b>	Combinations of rules, tools and processes that reinforce and enable a coordinated approach to EBM across a range of scales (jurisdictions, sectors, ecological, geographical and temporal). Enabled and implemented through governance and management agencies and organisations with community participation. Can be regulatory and non-regulatory.
● <b>Implementation</b>	Operational management and administrative functions performed by central and local government agencies and iwi organisations. Operate across a range of scales. Individually and collectively aligned to achieve outcomes as directed by overarching Anchors through utilisation of appropriate Hooks.. Implementation supporting Moana Aotearoa Ministry, Mātauranga Hub and Shared Services.
● <b>Moana Aotearoa Ministry</b>	<b>Function:</b> Provide whole of government leadership and drive alignment of activities for Aotearoa New Zealand's oceans management. <b>Primary purpose:</b> To determine and influence overarching or constitutional level outcomes for our Aotearoa New Zealand's ocean (Anchors). To provide leadership across Aotearoa New Zealand in achieving oceans outcomes. To ensure development and implementation of oceans law and policy gives effect to the principles of Tiriti and Māori rights and interests. <b>Secondary purpose:</b> To support development and implementation of international, national, regional and local policies and management for our oceans (Hooks) through: <ul style="list-style-type: none"> <li>• Facilitating and supporting alignment (and prioritisation where necessary) across management agencies and organisations.</li> <li>• Developing a performance framework and metrics to monitor (and drive) effective implementation of activities to meet oceans policy objectives.</li> </ul>
● <b>Mātauranga hub</b>	<b>Function:</b> Support implementation of EBM through provision of relevant science, knowledge and experience. A network of core (full-time) and on-call experts (with expertise in multiple disciplines) supporting development and implementation of oceans governance and management across multiple dimensions (e.g. jurisdictions, sectors) and scales for Aotearoa New Zealand.
● <b>Shared services</b>	<b>Function:</b> To support the activities of the Moana Aotearoa Ministry and implementation agencies. Assist with developing and adopting consistent approaches across multiple jurisdictions, sectors and spatial scales, as and where appropriate. Facilitate and support activities across multiple implementation organisations as and where appropriate. Critical skills and knowledge to include facilitation expertise and knowledge across multiple jurisdictions, geographic and ecological scales.

## I muri mai

## Next steps

A transition towards marine law and policy that reflects the realities of ocean ecosystems and related communities will require buy in and support from a range of partners and stakeholders. In our next research, we will explore how Aotearoa New Zealand can transition towards EBM and ensure that marine policy reform is equitable, legitimate and enduring.





Cape Reinga



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