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Learning from innovative governance examples to enhance EBM practices

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Summary

**This is a summary of a report by the Sustainable Seas National Science Challenge project
*Policy and legislation for EBM, (Project code 4.2)***

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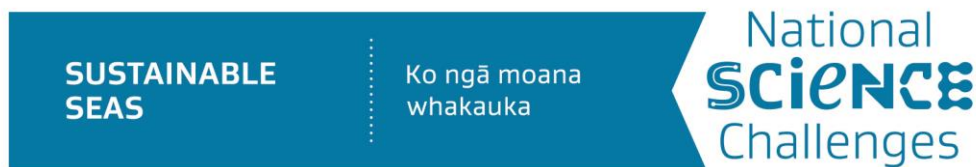
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For more information on this project, visit:

sustainableseaschallenge.co.nz/our-research/policy-and-legislation-for-ebm

To download the full report, 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.

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Background

The Sustainable Seas National Science Challenge is exploring opportunities for law and policy to support ecosystem-based management (EBM) in Aotearoa New Zealand's (NZ) marine environment.

Our previous research included a review of international approaches to providing for EBM in law and policy of other countries and found 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. We also acknowledge that recognising and providing for the rights of Indigenous peoples (Māori in NZ) is critical to any marine reform process.

The research summarised here draws on an analysis of existing arrangements in Aotearoa New Zealand that provides insights into enabling conditions to support governance for EBM. Rather than advocating a 'perfect model' of governance for EBM, we find potential in existing innovative arrangements in Aotearoa New Zealand—which increasingly uphold Māori worldviews, knowledges, and values—to support EBM as a strategic approach to managing marine environments. The published paper, [Broadening environmental governance ontologies to enhance ecosystem-based management in Aotearoa New Zealand](#) (Fisher et al., 2022), is the third and final paper produced in support of Research Aim 1 which *seeks to identify legal, governance and practice change options for EBM* (see Section 6 below).

Key findings

- Recent changes in environmental governance in Aotearoa NZ, such as co-governance and other hybrid arrangements, are transforming how governance is performed and by whom.
- Environmental governance in Aotearoa NZ increasingly emphasises collaboration between state and non-state actors and the importance of place and enabling place-based decision-making for enhancing social and environmental outcomes.
- There is an apparent shift in how the environment is understood in relation to people and others (more-than-humans/nonhumans), which is informed by, and better aligns with, Māori worldviews, knowledges, and values.
- Recent governance arrangements increasingly embrace a more relational paradigm, reflective of Māori worldviews, which has the potential to transform exploitative and extractive practices towards ethical practices premised on reciprocity and collective action to ensure sustainability.
- Our analysis finds potential in EBM as a strategic approach to managing the marine environment because of the synergies with Indigenous and relational worldviews and knowledges, particularly given the emphasis on interconnectedness, inclusivity, diversity, and relationality.
- We expanded our analysis beyond marine governance as a way of situating EBM into a larger context and suggested the need to consider the broader institutional context as this might provide opportunities for leveraging changes and improvements in the operationalisation of EBM.

- We propose four pou (or enabling conditions) to enable and enhance governance for EBM that we contend can accommodate both Indigenous and non-Indigenous worldviews, knowledges, and values.

What we did

This research and our analysis were informed by the transdisciplinary expertise of the research team from geography, law, ecology, planning, political studies, Indigenous rights, and environmental management. The research comprised two components: i) a review of international literature focused on environmental governance; and ii) a desktop analysis of Aotearoa NZ governance examples.

Our review of environmental governance literature and research related to EBM (and marine governance more broadly) traced changes in governance approaches and identified possibilities for enhancing EBM that account for different worldviews, knowledges, and values. We were particularly interested in international and national examples relating to the inclusion of Indigenous peoples, knowledges, and values in decision-making and in challenging some of the taken-for-granted assumptions that tend to conceive of the environment in simplistic terms and to oversimplify the myriad relationships between people and environments.

Our desktop analysis entailed examining seven governance arrangements in Aotearoa NZ that spanned different environmental domains, and which reflected aspects of Māori worldviews, knowledges, and values. Our research was grounded in governance innovations occurring in Aotearoa NZ that have been at least partly shaped by political (and cultural) resurgence among Māori, and the growing influence of Te Ao Māori (Māori worldview) and *mātauranga* (Māori knowledge system) in shaping formal and informal governance and institutional arrangements.

Our analysis extended beyond marine examples to reflect the changes occurring more widely in Aotearoa NZ that demonstrate the conceptual broadening of environmental governance, and to position marine governance into a larger governance context. We wanted to show what might be possible (to enhance the implementation of EBM in Aotearoa NZ) by emphasising what is already being done in other domains. Other than Ōhiwa Harbour and Integrated Kaipara Harbour Management Group (both of which are marine-based examples), our examples relate to rivers, freshwater, forests, land (soil), and biodiversity. Two of our examples relate to the establishment of legal personhood – Te Urewera and Te Awa Tupua (Whanganui River) – which are both regarded as ground-breaking legislation.

The examples were also chosen because they represent different forms of governance: place-based non-statutory models, place-based statutory models, and decentralised models that are national in orientation but implemented locally and which range from formal (statutory) to voluntary arrangements (see Figure 1 for locations of the place-based examples). In addition, each of the examples seek to engage multiple actors (both state and non-state) across multiple levels, they identify the contribution Indigenous knowledge can make to environmental governance and advocate for its use, they are underpinned by values and principles emphasising inclusion and just processes in achieving environmental outcomes, and they exhibit a sensitivity to diverse ways of knowing the world as evident in the incorporation of Māori language, concepts, and values.

The governance examples are:

1. Integrated Kaipara Harbour Management Group
2. Ōhiwa Harbour Implementation Forum
3. Te Awa Tupua (Whanganui River Claims Settlement) Act 2017
4. Te Urewera Act 2014
5. *Te Mana o te Wai*/National Policy Statement on Freshwater Management 2020
6. *Te Mana o te Taiao*/NZ Biodiversity Strategy
7. *Hua Parakore*

These examples provide evidence of transformations occurring within Aotearoa NZ regarding how the environment is understood and the relationship between people and the environment that could support the wider uptake of EBM. The governance examples are summarised in Table 1.

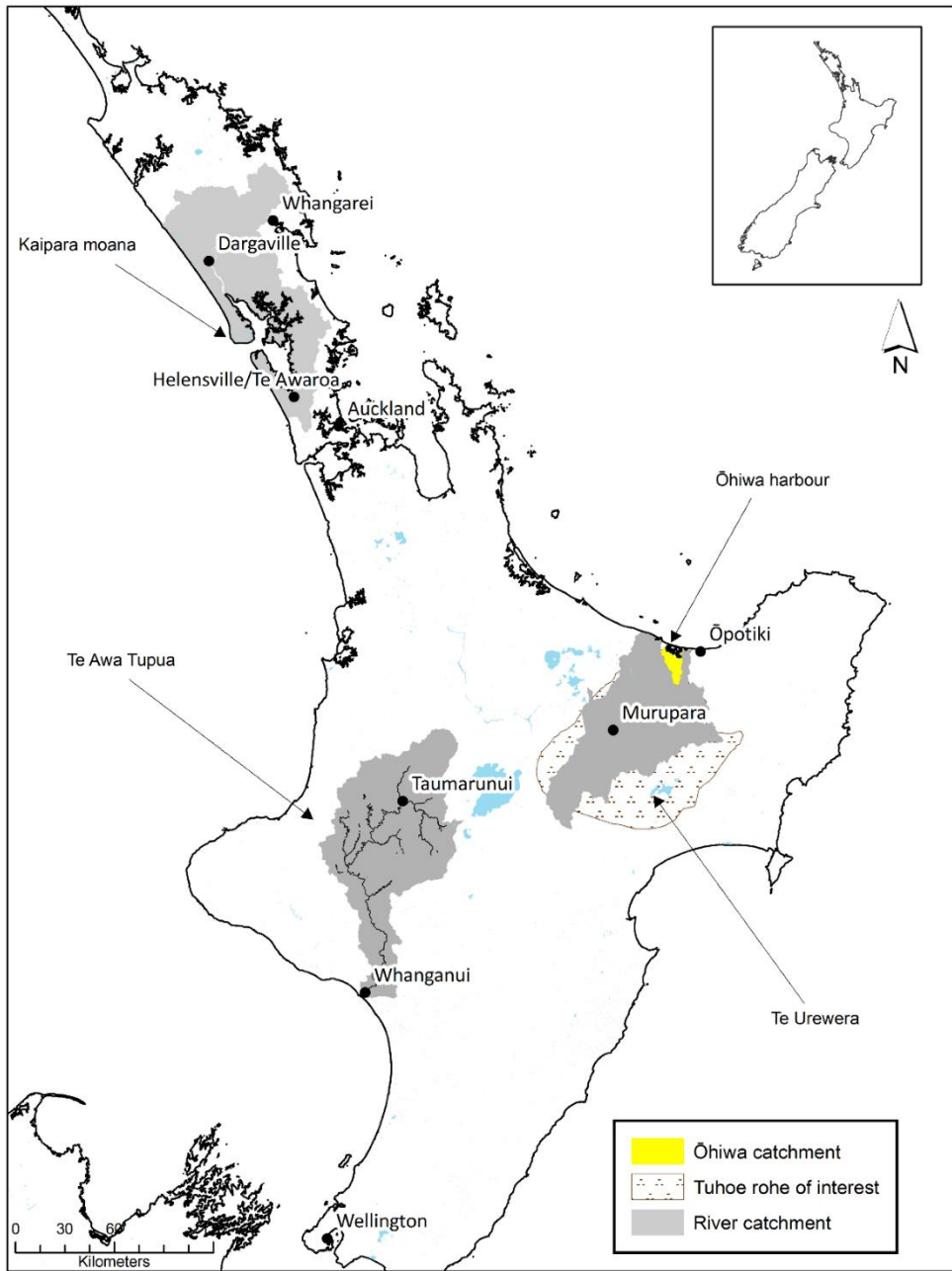


Figure 1. Locations of place-based governance examples.

Table 1. Summary of governance examples analysed

Governance example	Description
Integrated Kaipara Harbour Management Group (IKHMG)	<p>Place-based, iwi-led collaborative entity involving iwi/hapū, local government authorities and national government agencies.</p> <p>The Kaipara Harbour, located on the west coast of the North Island, is the largest estuarine ecosystem in Aotearoa NZ, the largest harbour in the southern hemisphere, and of the largest harbours in the world (Haggit et al. 2008). The catchment area is approximately 640,000 hectares (IKHMG 2011). IKHMG is an iwi-led co-management platform established in 2005 by Ngā Kaitiaki Taiao o Kaipara (comprising Te Uri o Hau and Ngāti Whātua o Kaipara, two iwi with interests in the Kaipara) and Te Uri o Hau Settlement Trust (the post-settlement entity created following the 2002 Treaty settlement leading to Te Uri o Hau Claims Settlement Act 2002 (IKHMG 2011). Its purpose is “to promote integrated and co-ordinated interagency management and kaitiakitanga of the Kaipara harbour and its catchment” (IKHMG 2011: 10).</p>
Ōhiwa Harbour Implementation Forum (OHIF)	<p>Place-based, non-statutory collaborative forum involving local iwi, local government authorities, and national agencies.</p> <p>Ōhiwa Harbour is a shallow estuarine system located on the east coast of the North Island in the Bay of Plenty region. OHIF was formed in 2008 and comprises representatives from local government (Ōpōtiki District Council, Whakatāne District Council, Bay of Plenty Regional Council) and iwi (Whakatōhea, Ūpokorehe, Ngāti Awa, and Ngāi Tūhoe (Te Waimana Kaaku)). These groups were signatories to the 2008 Ōhiwa Harbour Strategy, which was initiated by Bay of Plenty Regional Council in 2002 and involved an extensive consultation process (Bay of Plenty Regional Council et al. 2014; Lowry 2012). The purpose of the Strategy is to "oversee and monitor the implementation of the Ōhiwa Harbour strategy" (Ōhiwa Strategy 2014). OHIF is responsible for implementing the Strategy, which promotes integrated resource management along with the need to integrate plans, processes and practices used by councils, government departments, iwi, hapū and communities (Environment Bay of Plenty et al. 2008).</p>

<p>Te Awa Tupua (Whanganui River Claims Settlement) Act 2017</p>	<p>Place-based governance arrangements resulting from Treaty settlement legislation: Te Awa Tupua (Whanganui River Claims Settlement) Act 2017.</p> <p>The Act declares Te Awa Tupua “an indivisible and living whole” and encompasses the river from its headwaters in the mountains to the Tasman Sea (s 12) and establishes the River as a legal person with “all the rights, powers, duties, and liabilities of a legal person” (s 14). Decision-makers must act using Tupua te Kawa, which comprises the intrinsic values that represent the essence of Te Awa Tupua (s 13). Te Pou Tupua is the ‘human face of the river’, which is charged with acting in the River’s interests (ss 18–19) alongside a range of other place-based governance entities.</p>
<p>Te Urewera Act 2014</p>	<p>Place-based governance arrangements resulting from Treaty settlement legislation: Te Urewera Act 2014.</p> <p>Te Urewera Act recognises Te Urewera as ‘ancient and enduring, a fortress of nature, alive with history’ and a place ‘of spiritual value, with its own mana and mauri’ (Te Urewera Act, s 3). The Act establishes Te Urewera as a legal entity, with rights, powers, duties, and liabilities of a legal person (s 11(1), which are exercised and performed on behalf of, and in the name of, Te Urewera, by the Te Urewera Board (s 11(2). The Act removes the national park status of the land, and vests ownership of the land in the legal entity ‘Te Urewera’, under the governance of the Te Urewera Board (s 12(2)(c)). Tūhoetanga is identified as the way to give expression to Te Urewera (s5, s18(2)).</p>
<p><i>Te Mana o te Wai</i>/National Policy Statement on Freshwater Management 2020</p>	<p>A national-scale policy established under the Resource Management Act and Local Government Act and implemented through a decentralised and hierarchical governance model.</p> <p>Te Mana o te Wai is a fundamental concept in the National Policy Statement on Freshwater Management (NPSFM) 2020. National Policy Statements are issued under the Resource Management Act 1991 (administered by the Ministry for the Environment) and provide national direction to local governments for matters of national significance, and which</p>

	are relevant to achieving the purpose of the Act (New Zealand Government 2020).
<i>Te Mana o te Taiao</i> /NZ Biodiversity Strategy	<p>A national-scale strategy implemented by government agencies as well as other actors across multiple scales.</p> <p>The strategy sets the “direction for the protection, restoration and sustainable use of biodiversity, particularly indigenous biodiversity, in Aotearoa New Zealand” (Department of Conservation 2020: 13). TMoTW applies to land, freshwater, estuaries and wetlands, and the marine environment (to the outer edge of the Exclusive Economic Zone and extended continental shelf) and encompasses public lands, private land and Māori-owned land. All species are covered (indigenous and non-indigenous species, as well as migratory species) (Department of Conservation 2020).</p>
<i>Hua Parakore</i>	<p>Hua Parakore is a Kaupapa Māori (Māori-led, Māori-centric) approach to managing soil ecosystems in line with Te Ao Māori worldviews (Te Waka Kai Ora 2011).</p> <p>Hua Parakore was initiated and driven by Te Waka Kai Ora (National Māori Organics Authority of Aotearoa), who are in partnership with Organics Aotearoa NZ. It is based on mātauranga, tikanga and te reo and draws upon the wisdom of tūpuna (ancestors). Growers seeking verification embark on a 3-stage process: Kākano, Tipu Ranga and Hua Parakore (Te Waka Kai Ora 2011). Hua Parakore was developed through a Kaupapa Māori research programme and is understood as Kai Atua or a pure product (Hutchings et al. 2018). Hua Parakore aligns with the NZ Standard for Organic Production NZSA 8410.2003 (Hutchings et al. 2012).</p>

What we found

There are a range of governance innovations in Aotearoa NZ that better recognise obligations and responsibilities towards Māori as Treaty partners and which provide opportunities for kaitiakitanga, rangatiratanga, and mātauranga. These innovations present opportunities for enhancing marine governance and EBM.

There is a shift towards institutional arrangements that emphasise holistic and integrated approaches to the environment, that seek to enhance connections across domains (ki uta ki tai), that are cognisant of different yet overlapping spatial scales (e.g., place-based and national) and temporal scales (e.g., within and across generations), and which accommodate different worldviews

and knowledges. These shifts align broadly with the EBM principles identified by Hewitt et al., (2018)[1] to enhance marine governance and management in Aotearoa.

We identified four pou (or enabling conditions) that we argue provide opportunities to enable and enhance governance for EBM—as a strategic approach to marine management—and which can accommodate both Indigenous and non-Indigenous worldviews, knowledges, and values. These pou are (see also Fig. 1): *i) enacting interactive administrative arrangements; ii) diversifying knowledge production; iii) prioritising equity, justice, and social difference; and iv) recognising interconnections and interconnectedness*. The pou align with the EBM principles identified by Hewitt et al., (2018) and the emphasis on place-based, tailored, holistic, and sustainable approaches to marine governance and management that centres the Treaty of Waitangi and accommodates both mātauranga alongside scientific information.

Figure 1. Pou to enhance the implementation of EBM



We also started to consider the relationship between these pou and the ‘hooks’ and ‘anchors’ we theorised in our earlier research (Macpherson et al., 2021)[2]. **Hooks**—detailed rules, processes, and institutions—were evident in each of the examples. There are clear rules regarding the functions and responsibilities of those who are party to the collaborative arrangement, as well as attempts to articulate how specific administrative arrangements connect with other laws, policies, and plans. **Anchors**—high-level, overarching, or constitutional norms, values, or objectives that are consistent across regulatory frameworks—were evident in *NZ Biodiversity Strategy/Te Mana o Te Taiao* and *National Policy Statement on Freshwater Management/Te Mana o te Wai*. Both these examples provide overarching policy objectives (anchors) that apply across their respective regulatory regimes,

and reflect a normative shift consistent with holistic, integrated, and intergenerational modes of governance that recognise the importance of Indigenous rights and interests.

Implications of our research

This research builds on our previous work by emphasising relational thinking and processes as important features of EBM, and for connecting pou (or enabling conditions) to support governance for EBM with ‘hooks’ and ‘anchors’ in existing law and policy. The four pou identified in this research are already evident in Aotearoa NZ, as are innovative arrangements founded on diverse knowledges, values, and worldviews and which emphasise relationality.

We conclude that strengthening these pou could enhance governance for EBM by promoting collaborative, inclusive institutional arrangements capable of upholding Māori worldviews, knowledge, and values while being responsive to social-ecological complexity. We assert these changes are already occurring; therefore, focusing on how to support these changes ought to be a priority. Furthermore, identifying hooks and anchors alongside these pou provides a means for identifying opportunities for operationalising EBM and enhancing EBM practices without requiring radical legislative or policy changes. This continues to be a focus of our ongoing research.

How this research fits with previous and future work

Our Sustainable Seas National Science Challenge project is exploring opportunities for law and policy to support ecosystem-based management (EBM) in Aotearoa New Zealand’s (NZ) marine environment. The project’s research evolves over three key research aims: *Aim 1 seeks to identify legal, governance and practice change options for EBM. Aim 2 seeks to identify options for management of risk at different scales. Aim 3 seeks to evaluate and recommend specific actions to support implementation of EBM.*

In support of **Aim 1** we have to date produced:

1. A review of [international approaches to providing for EBM in law and policy of other countries](#) (Macpherson et al, 2021) where we found decision makers can categorise EBM as a relational process grounded in informal rules, such as values and norms, and reinforced by formal rules, such as law and legislation. Thinking about EBM as an institutional system that integrates **hooks** (formal rules) and **anchors** (informal rules) is likely to foster collaboration across scales and deliver more successful outcomes for the marine environment and their communities and.
2. A [characterisation of the regulatory seascape in Aotearoa New Zealand](#) (Ulrich et al 2022) where it is observed that perceived implementation failures are causing current legislative approaches to marine system management to underdeliver across scales. This has led to an increase in the number of community-level responses being deployed to address issues with marine ecosystem health at the local level. These patterns of ‘unplanned’ reform can be a driver of change in the management and governance of biodiverse marine biogenic habitats in Aotearoa NZ.

3. [An analysis of governance examples in Aotearoa NZ](#) (Fisher et al., 2022) and identification of four pou, or enabling conditions, that could support the operationalisation of EBM. The research argues that EBM has potential as a strategic approach to managing the marine environment because it is holistic and has synergies with Indigenous and relational worldviews and knowledges, particularly given the emphasis on interconnectedness, inclusivity, diversity, and relationality.

Research in support of research **Aim 2** is ongoing. This research uses as its foundation two case studies; firstly, a System Dynamic Mapping exercise (supported by an Agent-based Model) to understand multi-species finfish complexes in Tasman and Golden Bays and, secondly, working with Tangata Whenua iwi in Ōhiwa Harbour looking at mismatches of management and species behaviour. Links to the System Mapping exercise can be found below¹ and a full article addressing research aim 2 in the first quarter of 2023.

The first of two papers into research **Aim 3** is the forthcoming publication in *Oceans Development and International Law* (forthcoming 2023) titled ‘Designing law and policy for the health and resilience of marine and coastal ecosystems – Lessons from (and for) Aotearoa New Zealand’. Here we explored opportunities for marine reforms to deliver outcomes aligned with an ecosystem-based approach in Aotearoa NZ. Continuing to build on our earlier theories (hooks and anchors) we identify key, time-sensitive opportunities across different jurisdictions to better align law and policy to the reality and functioning of marine ecosystems, in a way that meaningfully intersects with the others. Many of these ‘hooks’ can be found in existing legislation.

References

1. Hewitt, J., et al., *Proposed ecosystem-based management principles for New Zealand*. Resource Management Journal, 2018. **November**: p. 10-13.
2. Macpherson, E., et al., ‘Hooks’ and ‘Anchors’ for relational ecosystem-based marine management. *Marine Policy*, 2021. **130**: p. 104561.