

Developing pathways to a flourishing blue economy

The seas are central to our wellbeing. Aotearoa New Zealand has a large marine territory, which puts the blue economy at the forefront for economic growth, international opportunities, and New Zealand's future. Using our marine resources sustainably can help restore and protect the long-term health of the ocean and secure intergenerational prosperity for all.

To achieve this, we need to act now, and we need to shift the way we use our ocean. We need to transition to a blue economy that delivers economic value and contributes positively to social, cultural, and ecological wellbeing.

About this document

This document outlines how Aotearoa New Zealand can build effective pathways towards a vibrant blue economy – based on research from the Sustainable Seas National Science Challenge.

A blue economy for Aotearoa New Zealand means marine activities that generate economic value and contribute positively to social, cultural, and ecological well-being.

This document recommends ways to make blue economy activities investable and to guide decision-making and investment. The recommendations and explanations that follow encourage a shift towards high-value products and services that meet the expectations of New Zealand communities and international markets.

Recommendations

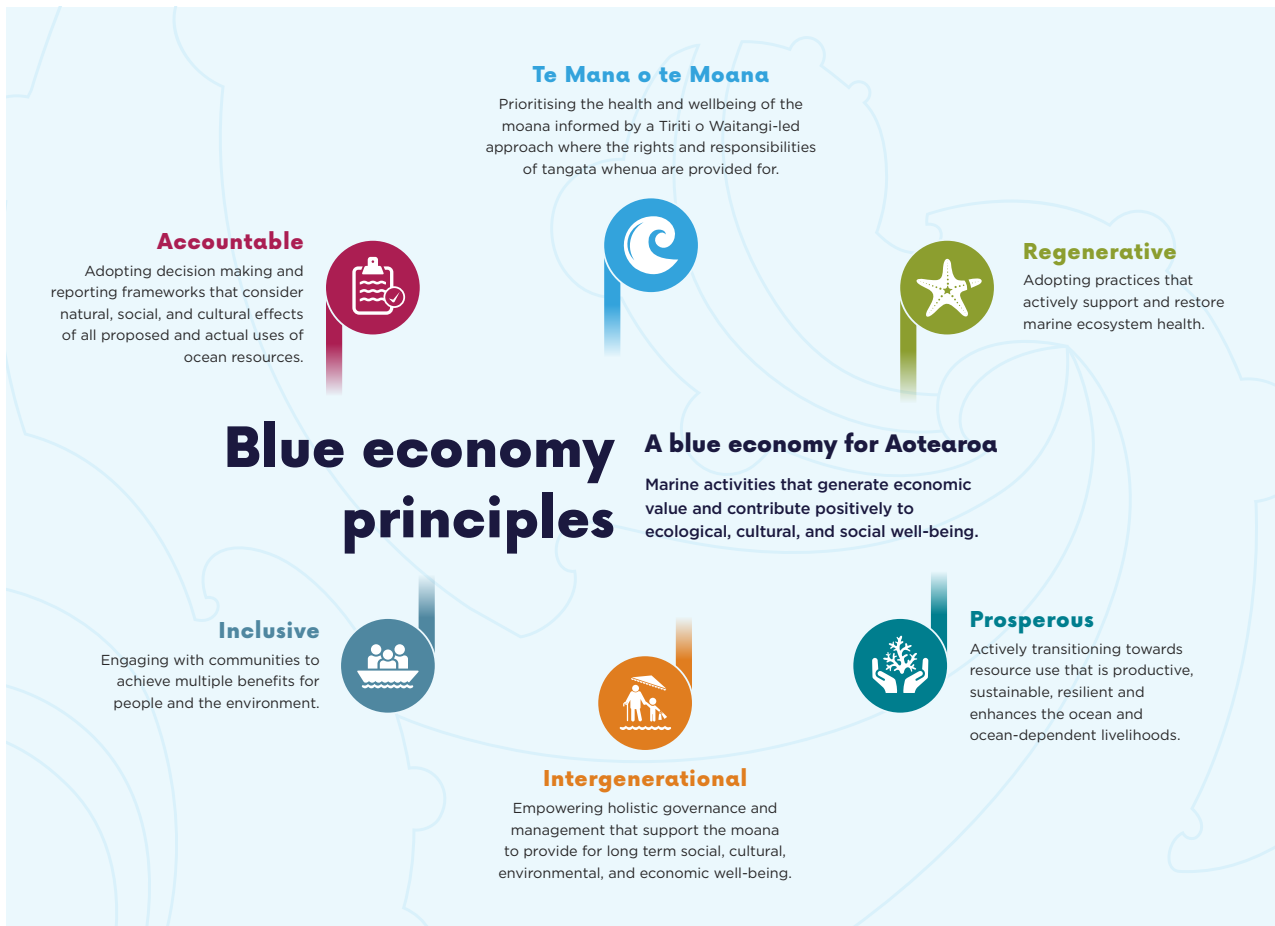
The recommendations below are based on our research findings. They generally align with stated government policy to grow the economy. Our recommendations centre on adopting blue economy principles (figure 1) that embrace te mana o te moana, support and restore marine ecosystem health, enhance livelihoods, and delivering prosperity and social and cultural values for all New Zealanders.

A blue economy needs to be brought into existence through a transitions approach (Lewis et al 2020) to economic development – an approach that's principles-based, open-ended, organic, shared, and adaptive. This approach will support government agencies, businesses, iwi, hapū, whānau, and communities to identify immediate and future economic objectives and directions.

Our research has led to the following recommendations – summarised below and then explained in full.

- » Adopt the blue economy principles to guide economic development strategies and set expectations that require a transition from business-as-usual investment and resource use.
- » Embed the blue economy principles in economic development and resource management policy and budgets.
- » Enable Māori to build a Māori blue economy and lead development directions in the wider blue economy that align with Māori aspirations and institutions.
- » Prioritise place-based investment and environmental management in developing blue economy policy and practice.
- » Provide core funding for a specialist, independent blue economy development organisation(s).
- » Reform and redirect environmental management regulations and oceans governance to enshrine the blue economy principles.





Principle	What this might mean in practice
	<ul style="list-style-type: none"> • Prioritising the health and well-being of the ocean in all marine estate management • Considering a Te Tiriti o Waitangi-led approach involving partnership and collaboration with tangata whenua • Understanding the relevant rights and interests of tangata whenua • Supporting kaitiakitanga - the responsibility of tangata whenua to preserve, restore, enhance, and guide the sustainable use of the moana for present and future generations • Using appropriate tikanga and mātauranga Māori to guide decisions and actions
	<ul style="list-style-type: none"> • Using the blue economy principles to guide branding, marketing, and promotional campaigns • Seeking out restorative finance options • Adopting best practice environmental and social certification schemes
	<ul style="list-style-type: none"> • Adopting 'four capitals', 'nature-based disclosure', or other multiple-bottom line reporting regimes • Adopting transparent, evidence-based decision-making and reporting processes around environmental and community impacts (adverse and beneficial) • Measuring and reporting progress against local, national, and international benchmarks such as the Sustainable Development Goals, the blue economy principles, or appropriate certification standards
	<ul style="list-style-type: none"> • Moving from harm reduction approaches to designing for minimised harm and actively restoring damaged environments as part of standard practice • Investing in circular economy solutions • Establishing funding mechanisms that prioritise regenerative business models • Contributing productively to ecosystem-based management of the marine environment
	<ul style="list-style-type: none"> • Taking a multi-generational approach to investment and prioritisation decisions • Developing regulatory approaches, science funding, and business development models that prioritise intergenerational strategies and commitments
	<ul style="list-style-type: none"> • Engaging communities in relevant decision-making through participatory processes and responding meaningfully to community interests and concerns • Developing novel ways to share the benefits of marine resource use with communities • Developing regulatory approaches, science funding and business development models that enable community engagement

Figure 1 The blue economy principles

Adopt the blue economy principles

Adopting the blue economy principles as guidelines for national, sectoral, and regional economic development strategies will set expectations that will require a transition from business-as-usual investment, resource use, and management by all private, iwi/hapū, and public resource users and managers.

Many of the recommendations in this guidance document centre on the blue economy principles. Our researchers and partners developed these principles after reviewing international blue economy principles and researching and establishing a set of **blue economy principles** through a uniquely Aotearoa lens (figure 1).

The principles:

- make a blue economy investable by offering investors and entrepreneurs opportunities to secure market access and market advantage, while de-risking their investments from market, regulatory, or community concerns with negative social and environmental impacts
- establish a framework for investment, management, and regulatory decision-making
- establish a foundation for aligning diverse values and interests, shaping policy settings, and fostering collective objectives and solutions that will meet both national and regional economic objectives as well as community concerns.

The principles provide a guide for:

- policy making and priority setting in government
- developing new business models
- stimulating collective value propositions in regional development strategies
- developing supportive planning and consenting in environmental management regimes.

Blue economy principles work with the development of either voluntary or statutory nature-based disclosure regimes or other forms of sustainability reporting to meet market, finance, and supply chain directives.



Embed the blue economy principles in economic development and resource management policy and budgets

The blue economy principles should be embedded in the work of:

- regional and national economic development agencies, including setting funding criteria for capability funding
- marine resource managers over all geographical scales, including guiding coastal plans, regional and district planning, resource management, and consenting processes.
- science and research management agencies, including setting criteria for science, innovation, or research funding local and national agencies should report against the principles.

Enable Māori to use their assets to build a Māori blue economy and lead development directions in the wider blue economy that align with Māori aspirations and institutions

Iwi and hapū are major collective holders of marine assets, investors in the use of marine resources, and pivotal actors in the management and regulation of marine environments. Māori aspirations prioritise ocean health, intergenerational returns, cultural and livelihood considerations, and high-value products. Indigenising the blue economy will facilitate economic, social, and environmental gains in line with blue economy approaches (Hikuroa et al 2020, Mika et al 2022, Rout et al 2024, Lewis et al 2024). Māori are primary active custodians of the ocean, yet opportunities to develop pathways of their own choosing at whānau, hapū, and iwi scale are limited (Mika et al 2022).

Economic activities led by Māori are likely to be based on business models that exemplify blue economy principles – supporting and investing in these activities is a core pathway to establishing a successful blue economy and breaking from historical trajectories of colonisation.

Māori businesses at whānau, hapū, and iwi scale need support to become active and leading contributors to national and regional blue economy development. This includes support for:

- business initiatives: targeted capability funding, tailored access to finance, and business development advice
- non-commercial blue economy resource use: security of property rights to gather and harvest, regulatory recognition of the livelihood and cultural use values of marine resources, and opportunities to trade resources outside of mainstream market channels.

This support will also ensure that policy priorities, regulation, and the setting of place-based value propositions align with Māori rights, interests, and aspirations.

Much more needs to be done to recognise mana whenua, Māori blue economy aspirations, and their economic power and vision. Three ways to achieve this are to:

- enable hapū and iwi to build a Māori blue economy from independent decision-making and investment decisions for assets they control
- embrace three principles of a Māori economy – Pāhekoheko, Auahatanga, and Whakatautika (Whitehead et al 2023, Rout et al 2024)
- extend Māori insights to goal setting, value propositions, and management and regulation to national and regional use of marine resources – indigenising the blue economy in this way is a powerful model for transitioning to regional and national blue economies.

Prioritise place-based investment and environmental management when developing blue economy policy and practice

Regions are an important scale at which place-based development can be conceived and implemented. The blue economy principles prioritise a place-based approach for Māori rights and aspirations, environment, community, and livelihoods.

A national blue economy development strategy needs to be built from place-up by building and implementing collective value propositions for the use, stewarding, and restoration of marine resources.

Regions are where ocean ecosystems and terrestrial environments and the uses of natural resources that affect them are managed. They are also places where iwi, hapū, and whānau rights, interests and values, and wider community concerns, come together. Communities form, develop identities, and participate in resource management. While not all these activities are within the same formal boundaries (region, rohe, township, community, Fisheries Management Areas are not the same thing), it makes sense to consider collective value propositions, development priorities, and environmental and social effects and opportunities at the regional scale.

Provide core funding for a specialist, independent blue economy development organisation(s)

A vibrant blue economy depends on novel value propositions and business models and aligned interests at different scales across multiple sectors. Funding a specialist, independent blue economy development organisation(s) will:

- support national and regional economic development agencies

- catalyse business and investor interests
- foster collaboration among investors, businesses (including iwi/hapū businesses), and community and science organisations.

Collaboration will help develop value propositions that align blue economy, ecosystem-based management, and te ao Māori principles.

An independent blue economy organisation (for example, Moananui) will foster novel value propositions and build entrepreneurial and business capability in the blue economy. This type of organisation will:

- support and help coordinate national and regional economic development agencies, independent research, and cross-sector initiatives
- link networks of investors and entrepreneurs
- support the activities of central and government agencies
- support businesses on their journey to becoming a blue economy business
- provide a meeting point for Māori businesses and organisations

An independent organisation has the potential to convert competition among businesses and science providers into cooperation in our regional and national interests.

Reform and redirect environmental management regulations and oceans governance to enshrine the blue economy principles

Any pathway to a thriving blue economy must be inclusive and intergenerational in its vision and initiatives – with solutions that balance opportunity with effects (*Marine governance – sustaining ocean outcomes for future generations*¹ and *Enabling ecosystem-based management in Aotearoa New Zealand's marine law and policy*²).

Achieving this requires a flexible, affordable, and effective environmental management regime that makes a blue economy investable. By this, we mean creating conditions that are attractive to would-be investors on blue economy terms and ensuring win-win outcomes between investors communities, and environmental health.

Resource management models that are participatory and based on opportunities, along with planning and consenting approaches based on blue economy principles, can bring together community voice, iwi aspirations, business interests, regional interests, and ecological imperatives. Doing this will deliver more efficient regulatory processes for blue economy initiatives (Sundae et al 2018, Le Heron et al 2019, Le Heron et al 2021, Lewis et al 2021, Lewis et al 2024, Tadaki et al 2020). Any reforms should begin with, and be led by, the blue economy principles.

How do we transition to a blue economy?

Our research identified three crucial pillars that support a shift to a successful blue economy (EnviroStrat 2019).

1. Blue economy business models and novel value propositions (Lewis et al 2018; Lewis et al 2024)
2. A place-based development approach (Lewis et al 2024, NZIER 2023)
3. An adaptive blue economy rules regime that mandates the blue economy principles as criteria in all reform initiatives

Figure 2 shows these pillars and how the principles can guide policy setting, investment, and regulation towards a future blue economy. The vision is a holistic economy that's consistent with, supported by, and integrated into an ecosystem-based resource management framework and an indigenised blue economy framework (Rout et al 2024). It identifies specific interventions that will enable this - these interventions are outlined in our recommendations.



© Jake Kokot, Unsplash

Our research has identified pathways to a thriving blue economy.

- Place-based regional development
- Collective catalysation, for example Moananui
- Nature-based corporate reporting
- Restoration finance
- Collective sector-building
- Māori-led economy

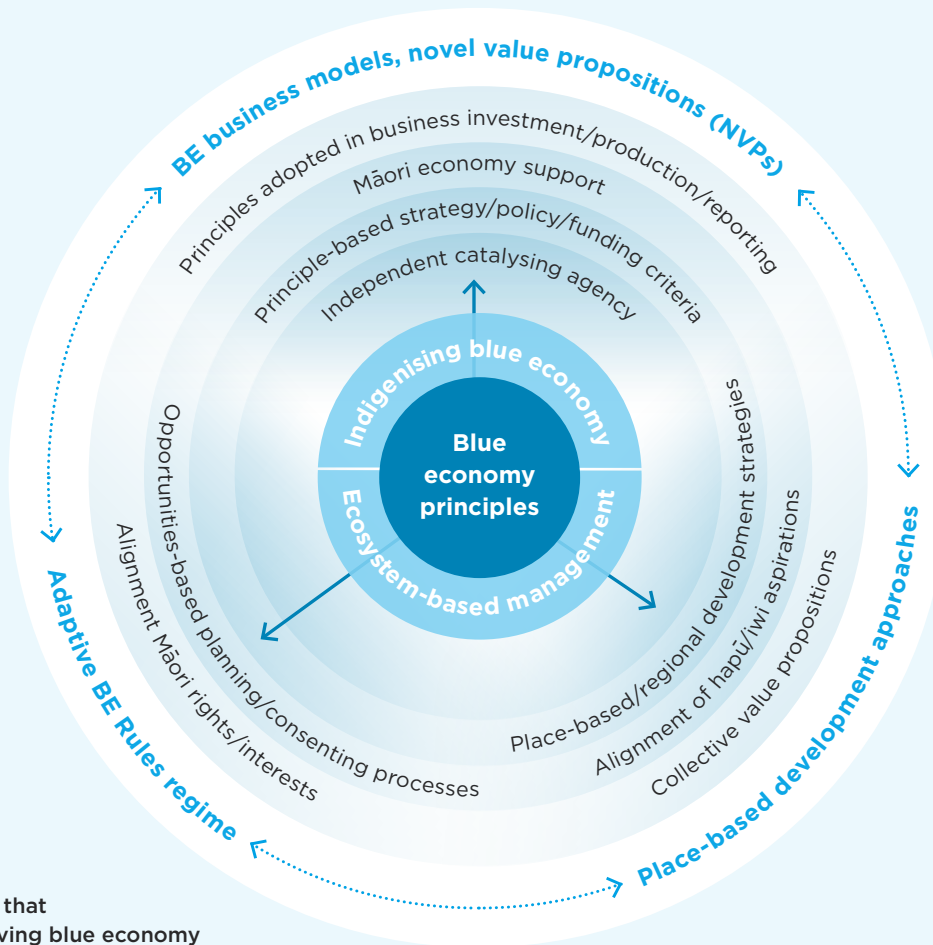


Figure 2 Pillars that underpin a thriving blue economy

Existing sectors need support to adapt

To develop sector priorities, a blue economy transition should involve supporting existing sectors to adopt the principles and restructure practices. A transition should also encourage the development of new sectors based on the blue economy principles.

Government-led economic development priorities will shift across time, but Figures 2 and 3 offer a guiding framework for setting pathways in any context. For example, Figure 3 emphasises aquaculture-led growth strategies in marine spaces and commitments to regional development, while Figure 2 offers guidance on how to implement such a strategy. These figures offer support for developing and implementing policy directives into bioeconomy and circular economy strategies.

A shift to restorative activities is needed

A blue economy transition must shift the emphasis in business practice from reducing environmental harm to investing in initiatives that actively restore degraded environments – and that contribute to community goals as part of investment and business models (Envirostrat 2019). This shift requires:

- alternative business models
- new value-added options
- trust building with communities (NZIER 2023).

This approach will change the conditions under which investment decisions are made and stimulate new resource use practices, both commercial and non-commercial. Doing these well will de-risk investment decisions for businesses. It's important to build on these opportunities to produce a high-value blue economy that recognises and accepts its community and environmental responsibilities.

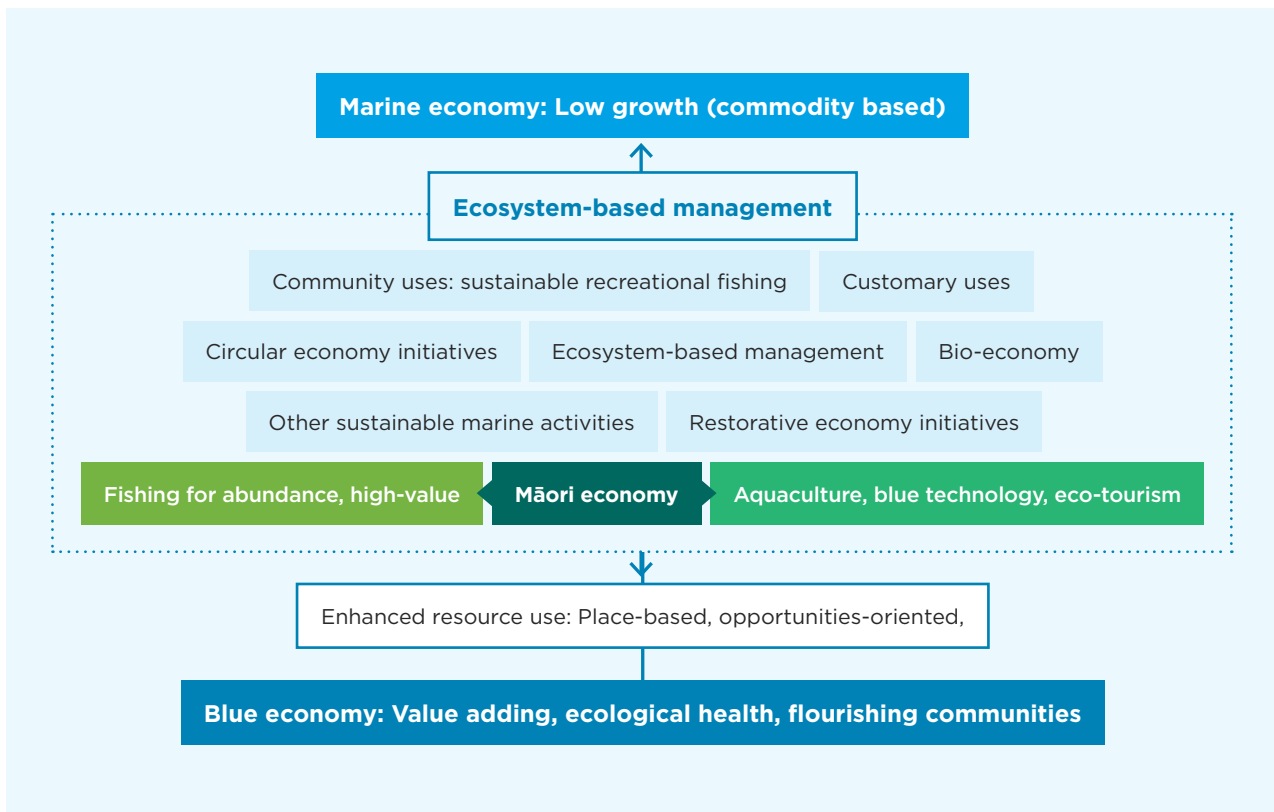


Figure 3 A sector-based transition pathway

Existing opportunities lead the way

Multiple opportunities exist to build a blue economy in New Zealand. These include:

- realising business opportunities to de-risk and add value to investments in marine economy activities
- using the blue economy principles to guide policy and de-risk and channel investment into high-value business opportunities
- supporting and stimulating Māori blue economy development, for example, by supporting capability development, financing, and building the frameworks of Pāhekoheko, Auahatanga, and Whakatautika (Rout et al 2024)
- encouraging new environmentally focused sectors such as seaweed, mussels, and eco-tourism (Ferretti et al 2023) or extending existing blue economy initiatives such as those in aquaculture (Lewis et al 2020, EnviroStrat 2019)
- catalysing high-value blue economy investment
- cultivating blue economy champions as well as key connections and relationships across sectors
- building frameworks, networks, and organisations to guide the development of new sectors, for example, a seaweed sector framework (Sustainable Seas 2022) and the Aotearoa New Zealand Seaweed Association
- developing restoration economy frameworks and initiatives, for example Hauraki Gulf (Lima et al 2023), Investment Frameworks (Lima et al 2023), GreenWave Aotearoa, and Kinanomics
- redirecting development in existing sectors through blue economy frameworks, for example wild fisheries, blue-tech, tourism, ports and shipping
- developing enhanced sustainability reporting and nature-based disclosures regimes (Peacocke et al (2022)
- encouraging place-based blue economy development initiatives (Lewis et al 2020, NZIER 2023, Lewis et al 2018, 2024) that are built on collective value propositions, for example holistic investment cases that direct attention to intergenerationality, community, Te Tiriti o Waitangi, and environment, as well as businesses co-developed with investors, aquaculturists, hapū, iwi, and communities, for example, Kaikoura (Lewis et al 2018, 2024); and the Marahau ecotourism initiative (NZIER 2024)
- developing regional and national economic development strategies and policies that encourage businesses, sectors, and development agencies to take up these various opportunities.



Moananui

Moananui is an independent blue economy agency that aims to open new opportunities and accelerate the blue economy. Moananui includes 30 private and public partners from different sectors, with activities that include:

- innovation summits
- sector conferences
- partner forums
- conversations across sectors and between public and private individuals and organisations
- educational programmes
- exchanges with international partners.

Moananui has embedded the blue economy principles in its partnership pledge and seeks to enact them in its work to foster opportunities and create networks and collective value propositions.

An international trailblazer, Moananui's work programme and rapid growth shows the value of bringing together diverse interests to enact the blue economy principles and build collective value propositions across competing demands on ocean resources.

References

- Envirostrat (2019). **Transitioning to a Blue Economy: Scoping and horizon scanning**. Sustainable Seas National Science Challenge.
- Ferretti E, Lewis N, Thrush S, Lucrezi S, & Hillman J (2023). **Making a place special—The development of Restorative Marine Ecotourism at a dive destination village**. *Frontiers in Sustainable Tourism* 2: 1282392.
- Hikuroa D, Le Heron R, & Le Heron E (2020). **Re-commoning in the spirit of Ki Uta Ki Tai (mountains to the sea): towards generative economic-environment transitionings**. In Prince R, Henry M, Gallagher A, Morris C, & Fitzherbert S (eds.), *Markets in their place* (pp. 82–101). Routledge.
- Le Heron E, Allen W, Le Heron R, Logie J, et al (2021). **What does success look like? An indicative rubric to assess and guide the performance of marine participatory processes**. *Ecology and Society*, 26(1):29.
- Le Heron E, Logie J, Allen W, Le Heron R, Blackett P, Davies K, Greenaway A, Glavovic B, & Hikuroa D (2019). **Diversity, contestation, participation in Aotearoa New Zealand's multi-use/user marine spaces**. *Marine Policy* 106: 103536.
- Lewis N (2018). **Cultivating diverse values by rethinking blue economy in New Zealand**. In *Towards Coastal Resilience and Sustainability* (pp. 94–108).
- Lewis N, Le Heron R, Hikuroa D, & Le Heron E (2024). **Rent as a regional asset: rent platforms and regional development in Kaikōura, Aotearoa New Zealand**. *Regional Studies*, 58(1), 151–163.
- Lewis N, Le Heron R, Hikuroa D & Le Heron E (2021). **Making a blue economy in Kaikoura: A participatory processes approach**. Sustainable Seas National Science Challenge.
- Lewis N, Le Heron R, Hikuroa D, Le Heron E, Davies K, Fitzherbert S, James G, Wynd D, McLellan G, Dowell A, Petersen I, Barrett J, Sharp E, Ribeiro R, Catley S, Baldoni M, & Le Heron K (2020). **Creating value from a blue economy**. Sustainable Seas National Science Challenge.
- Lima S, Stancu C, Cortés Acosta S, Bridger T, & Peacocke L (2023). **Report for Sustainable Seas National Science Challenge project 2.2 Encouraging restorative economies in NZ marine spaces** (MBIE Contract Number: C01X1901)
- Peacocke L, Stancu C, Diplock J, & Short K, (2022). **Sustainability Disclosures in the Blue Economy**. Report for Sustainable Seas National Science Challenges Project BE 1: Sustainability Disclosures and BE 2: Applying BE Principles (MBIE Contract Number: C01X1901)
- Mika J, Rout M, Reid J, Bodwitch H, Gillies A, Lythberg B, Hikuroa D, Mackey L, Awatere S, Wiremu F, Rakena M, Davies K, & Robertson N (2022). **Whai rawa, whai mana, whai oranga: Māori marine economy: It's definition, principles, and structure**. Sustainable Seas National Science Challenge.
- NZIER (2023). **Building an interconnected blue economy in place: creating restorative surpluses**. Sustainable Seas National Science Challenge.
- NZIER (2024). **How to develop the Blue Economy: a summary report**. Sustainable Seas National Science Challenge.
- Rout M, Reid J, Mika J, Whitehead J, Gillies A, Wiremu F, McLellan G, & Ruha C (2024). **Indigenising the blue economy in Aotearoa New Zealand**. *Marine Policy* 161: 105987.
- Šunde C, Sinner J, Tadaki M, Stephenson J, Glavovic B, Awatere S, Giorgetti A, Lewis N, Young A, & Chan K (2018). **Valuation as destruction? The social effects of valuation processes in contested marine spaces**. *Marine Policy* 97: 170–178.
- Sustainable Seas National Science Challenge (2022). **Aotearoa New Zealand's Seaweed Sector Framework**.
- Sustainable Seas National Science Challenge (2024). **Marine governance – sustaining ocean outcomes for future generations!**. sustainableseaschallenge.co.nz/tools-and-resources/marine-governance-sustaining-ocean-outcomes-for-future-generations
- Sustainable Seas National Science Challenge (2024). **Enabling ecosystem-based management in Aotearoa New Zealand's marine law and policy?**. sustainableseaschallenge.co.nz/tools-and-resources/enabling-ecosystem-based-management-in-aotearoa
- Tadaki M, Sinner J, Šunde C, Giorgetti A, Glavovic B, Awatere S, Lewis N, & Stephenson J (2020). **Four propositions about how valuation intervenes in local environmental politics**. *People and Nature* 3(1): 190–203.
- Whitehead J, Rout M, Mika J, Reid J, Wiremu F, Gillies A, McLellan G, Ruha C, & Tainui R (2023). **Auahatanga from Authenticity: Maximising opportunities for Akaroa Salmon and Ōnuku Rūnanga**. Sustainable Seas National Science Challenge.

Contact information

Nick Lewis / n.lewis@auckland.ac.nz

This document was prepared by Richard L Heron, Maru Samuels, Johnny O'Donnell, Jodie Kuntzsch, John Reid and Nigel Bradly. We thank Challenge researchers and co-development partners for participating in workshops and reviewing drafts that informed the content.

For more information and support with marine management decisions, please see our other synthesis project summaries and guidance documents in this series.