

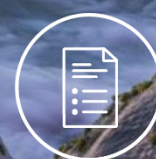
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Encouraging coastal and marine restorative economies in Aotearoa New Zealand

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August 2021



Summary

**This is a summary of a report by the Sustainable Seas National Science Challenge project
*Restorative marine economies (Project code 2.2)***

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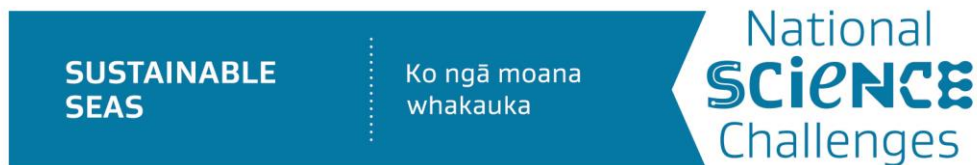
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For more information on this project, visit:

sustainableseaschallenge.co.nz/our-research/restorative-marine-economies

[To download the full report, visit:

sustainableseaschallenge.co.nz/tools-and-resources/encouraging-restorative-economies



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.

www.sustainableseaschallenge.co.nz

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Encouraging coastal and marine restorative economies in Aotearoa New Zealand

This report lays the foundations for developing restorative economies in Aotearoa New Zealand marine and coastal spaces through a desktop review of existing literature and local and international restoration initiatives.

Restorative economies: when restoration initiatives become part of the blue economy

Numerous economic opportunities have been identified within the protection and restorations of coastal and marine ecosystems. Restorative economies differ from traditional restoration initiatives in that they merge ecosystem restoration with business activities. They are practical models that (1) foster new investment opportunities and business enterprises, *aiming to* (2) reduce and remove drivers of ecosystem degradation and recreate ecosystems (Figure 1).

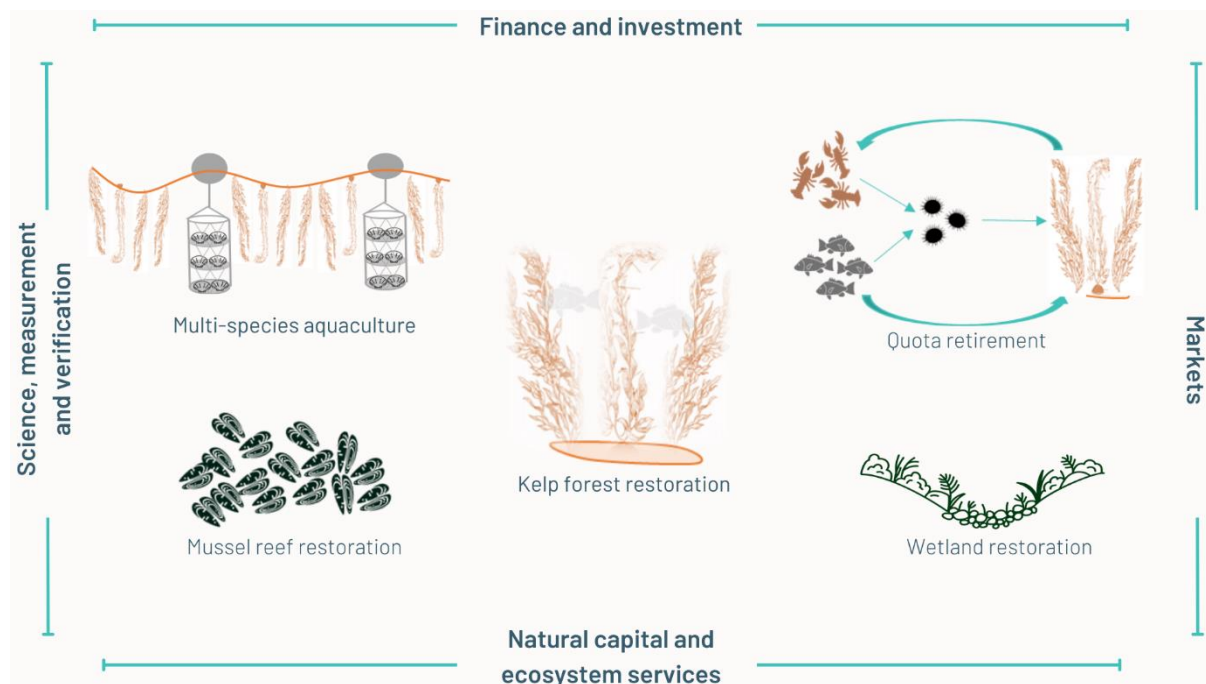


Figure 1. A seascape-level restorative economies model, showing the factors that influence their development (along the green axes). Note that the scope of a restorative economies model is large-scale. They cover multiple habitats or ecosystems and actors and span across the land-sea interface, eg wetlands, across the marine environment, eg rocky reefs to open seas.

Insights from coastal and marine restoration initiatives

- A desktop review of restoration initiatives in the blue environment helps us to identify common factors of conservation-focused initiatives and to understand how to develop such initiatives into restorative economies. The review provides insights about the range of blue ecosystems covered, the scale and scope of the initiative, key players, and funding sources.

- We observe standard features, including:
 - The scale of restoration initiatives ranges from small community-driven solutions to large-scale projects and from a single ecosystem, eg mangroves, to multiple ecosystems, ie seascapes.
 - Upscaling restoration initiatives is possible when the initial restoration targets have been met, providing reasons to expand efforts.
 - Scaling-up restoration projects to meet international commitments involves many players from diverse backgrounds. This is seen in international models where the projects have been used as a tool to meet national commitments to the Paris Agreement.
 - Local volunteers play a large part in the success of restoration initiatives.
 - Science plays an essential role.
 - Funding comes from various sources (private, philanthropic, and government).
- **Assessing restorative economies: a value proposition**

We can identify specific needs for investment opportunities in restorative economies by undertaking assessments across social, cultural, environmental, and financial attributes.

Such assessments establish:

- Current conditions in the marine and coastal economy.
- Trends and the drivers for change.
- Opportunities and risks to economic diversification and environmental effects.
- The expected results and benefits to society.

Barriers and opportunities to restorative economies

With an increasing call to reduce environmental impacts, coupled with the understanding of human dependence on coastal and marine environments, we expect restorative economies to be widely implemented. However, this is not the case and global risk assessments reveal that nature loss and climate change threatens economies and general wellbeing. To understand why and determine how we can encourage them in Aotearoa New Zealand, we identify barriers and opportunities to implementing restorative economies. Some of these are outlined in Table 1.

Table 1. Barriers and opportunities to establishing restorative economies

Barriers	Opportunities
<p>Restorative economies face a unique suite of social, economic, environmental, and cultural barriers.</p> <ul style="list-style-type: none"> • Barriers are case-dependent and hinge on several factors, such as environmental policy and access to infrastructure and technology. • The infancy of environmental markets and blue carbon are a hurdle, and the knowledge gaps and uncertainty around natural capital and long-term horizons creates hesitancy to invest. • Lack of clarity of who should bear the costs or benefit from natural capital protection and restoration. • Activating revenues and quantifying returns on nature investments is complex compared to other forms of capital, such as infrastructure, even though nature generates a higher rate of return. 	<p>There is an opportunity to achieve climate and biodiversity goals within restorative economies through Nature-based Solutions (NbS)[1].</p> <ul style="list-style-type: none"> • There is an opportunity to establish NbS in Aotearoa New Zealand, based on the importance of coastal and marine ecosystems to resilience and community well being, including inclusive transformations in fisheries and aquaculture • Connecting place-based solutions -- these are restoration initiatives driven by local communities to benefit the community, eg food provisioning or improved water quality or by externalities, the local communities benefit, eg carbon sequestration and carbon credits through mangrove restoration. • The government's investment and budget allocation offer an opportunity to stimulate private investment in solutions that address climate change and conservation the Aotearoa New Zealand coastal and marine spaces.

[1] NbS are defined as actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human wellbeing and biodiversity benefits.

Following steps of our research

The following research phase focuses on understanding the needs and expectations of potential investors in restorative economies. In addition, we will be examining and developing integrated impact investment and biophysical metrics.

For more information on this project and related sources, visit:

<https://www.sustainableseaschallenge.co.nz/our-research/restorative-marine-economies/>