Enabling effective marine spatial planning for ecological and economic wellbeing

Our current marine management system focuses on single sectors and single consent decision-making and does not consider multiple users, activities, or values. Continuing this focus will lead to further degradation of the marine ecosystem and missed opportunities for a thriving blue economy.

Marine Spatial Planning (MSP) enables multiple uses and values to be considered to achieve ecological, cultural, economic, and social objectives.

About this document

This summary presents key aspects of marine spatial planning, including processes and tools. It recommends how to use MSP effectively to manage the different uses and values we have for the ocean — from commercial and recreational uses to the customary and spiritual benefits of having a healthy ocean.

Marine spatial planning is not a specific tool but a broad term to describe a process to inform the use of marine spaces and resources and how those uses interact.

The advice in this summary is based on Sustainable Seas National Science Challenge research. For more information and examples of marine spatial planning in action, see our full guidance document.

Recommendations

Marine spatial planning uses data and knowledge to assess the diversity of overlapping uses of the marine environment, and how, in combination, these uses affect social, cultural, economic and environmental values. MSP can be used to support more effective decision making.

While MSP has been used nationally and internationally, MSP has historically been applied in a siloed way that considers the spatial management of only one or a few sectors. At regional scales, resource consent decisions are often approved with limited consideration of the cumulative effects occurring from multiple uses and stressors.

We recommend that marine spatial planning in Aotearoa New Zealand is:

- applied at small (eg rohe moana scale) and regional (eg Hauraki Gulf, Kaikōura) scales to inform decisions about spatial management
- underpinned by participatory processes that are accessible to all relevant parties, with clear and effective communication of MSP objectives and management goals
- evidence-based, but not stalled by lack of ‘perfect’ data. Decisions can still be informed and made with imperfect data, acknowledging gaps and uncertainties with precautionary decision-making
- used to enable decision-makers to consider and integrate multiple and cumulative stressors into spatial planning
- informed by ecosystem-based management principles and integrated across multiple activities and stressors to holistically assess and achieve environmental, economic, social, and cultural well-being
- used to consider ecological scales that may cross management or legislative area-based boundaries
- used to inform the allocation of marine space to support economic development opportunities that uphold blue economy principles, ie generating economic value for Aotearoa while contributing positively to ecological, social, and cultural well-being.


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What is marine spatial planning?

Marine spatial planning is a participatory process designed to manage the competing demands of space for ecosystems and resources. In MSP, spatial management is optimised across multiple uses and users (figure 1).

Marine spatial planning should be evidence-based but should not be stalled by lack of 'perfect' data. MSP is underutilised due to misconceptions that it requires substantial technical capacity and datasets to be effective. However, MSP is a process that can be fitted to scale, and to the data and knowledge available. Simple maps informed by local knowledge can be used to guide allocation of resource use, with recognition of locations and uncertainty.

Marine spatial planning processes can vary in scale and complexity. When available, high resolution quantitative data reflecting stressors, uses, and biodiversity can be used. Complex data compilation is more common for large scale processes involving one or more commercial uses, particularly when there are likely to be impacts on seafloor habitats and biodiversity. Used correctly, MSP can inform management of multiple overlapping resource uses and activities in a proactive fashion, improving environmental and economic outcomes compared to single sector or single consenting-based approaches.

Effective use of MSP takes time to bring together relevant partners, to agree to objectives, and to compile data and knowledge to inform spatial planning.

Marine spatial planning should recognise Māori rights and interests and uphold Te Tiriti o Waitangi by enhancing and implementing mātauranga Māori as an integral part of the process.

Decision-support tools are available

Many decision-support tools are available to inform MSP at local, regional, and national scales.

These tools vary from simple maps which can be drawn on, to software developed to assist analysts and decision-makers in making better decisions and in informing the public.

One visualisation tool created by Sustainable Seas is called **Te Ukaipo o Hinemoana**. This spatial decision support tool is designed to help visualise the spatial extent and patterns of multiple stressors from land and sea to better understand how stressors overlap with each other and with the distributions of marine organisms, habitats, and ecosystems. A regional case study in Hawke's Bay has used the tool to showcase ki uta ki tai – the interconnections from the mountains to the sea – and provide a holistic view of social-ecological systems, which align with mātauranga Māori.

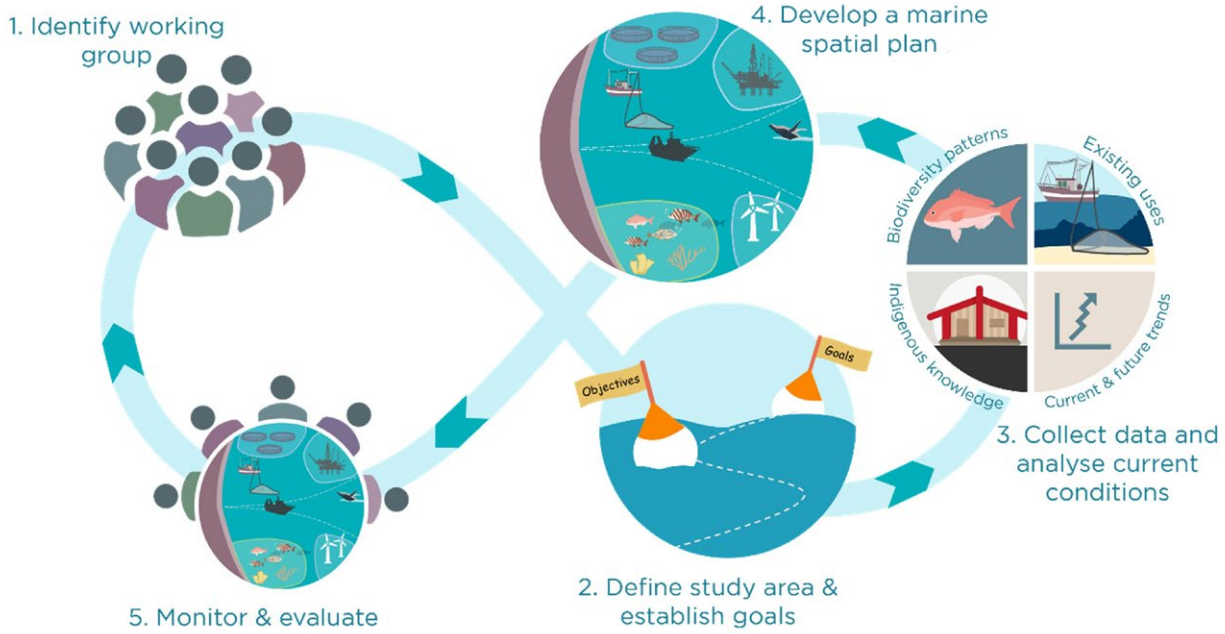

Figure 1 Key steps in a participatory MSP process

Note: the process is continuous and does not necessarily end at 'monitor and evaluate'

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

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