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FUTURE OCEAN AND COASTAL INFRASTRUCTURES
AN OFI PROJECT

Integrated Ocean Management in Australia

(Integrated Ocean Management Update 2)

Integrated Management is an approach that links (integrates) planning, decision-making and management arrangements across sectors in a unified framework, to enable a more comprehensive view of sustainability and the consideration of cumulative effects and trade-offs. Evaluation of nine key features and five phases important to Integrated Management has been investigated in seven Australian case studies.

The primary rationale for IM is to overcome major deficiencies of sector-based management including: a) management of diverse activities by different agencies using different approaches, b) management generally focused on a subset of primarily ecological objectives that do not properly articulate or evaluate social, cultural, economic and institutional objectives, c) no mechanisms to evaluate or advise on trade-offs among objectives or among activities in relation to objectives and d) no mechanisms to evaluate the cumulative effects of all managed activities (**Fact sheet 1**; Stephenson et al 2019).

Stephenson et al (2019) articulate a framework to help guide the practical implementation and evaluation of IM. They argue that IM will be most easily and effectively achieved by linking and modifying existing sector-based plans in an overarching IM initiative that has nine key features and five phases of implementation (**Figure 1)**.

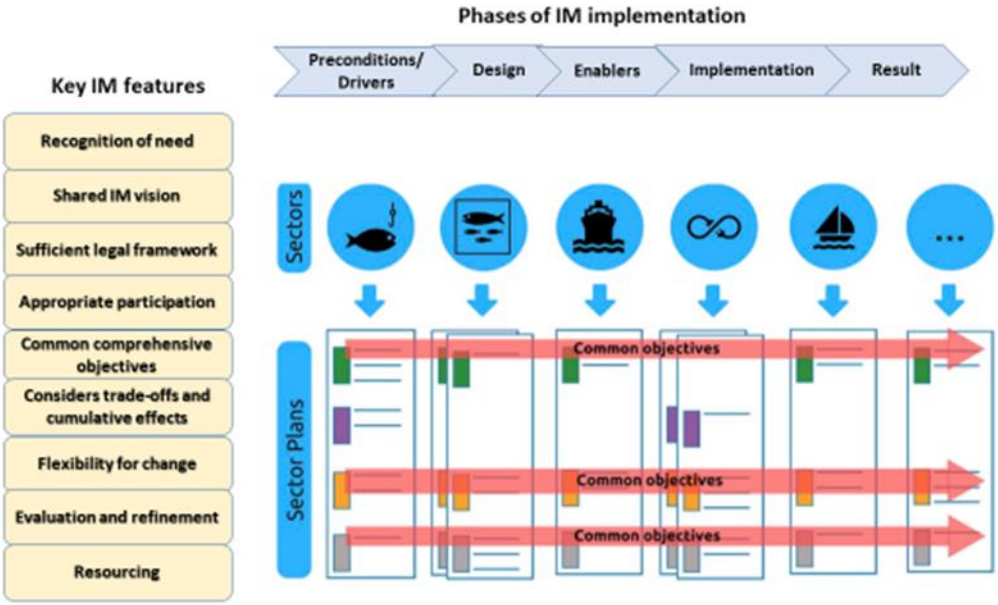

Figure 1. Lens for evaluation of Integrated Management: The nine key features of Integrated Management (IM) and five phases that make up the likely process of implementation form both a template for implementation, and a lens for examination of the effectiveness, of IM. Source: Stephenson et al 2023.

The importance of these features and phases was evaluated in seven Australian case studies: the Gladstone Harbour Project, the Great Barrier Reef, the Northern Prawn fishery and regional development, the South-East Queensland Healthy Waterways Partnership, the Australian Oceans Policy, the New South Wales

Marine Estate reforms, and progress toward Integrated Management in the Spencer Gulf (Stephenson et al, 2023). The relative influence of features on IM outcomes is shown in **Figure 2**. Although all features are important, the legal and institutional framework is considered to have most influence, and therefore to be most important of the key features.

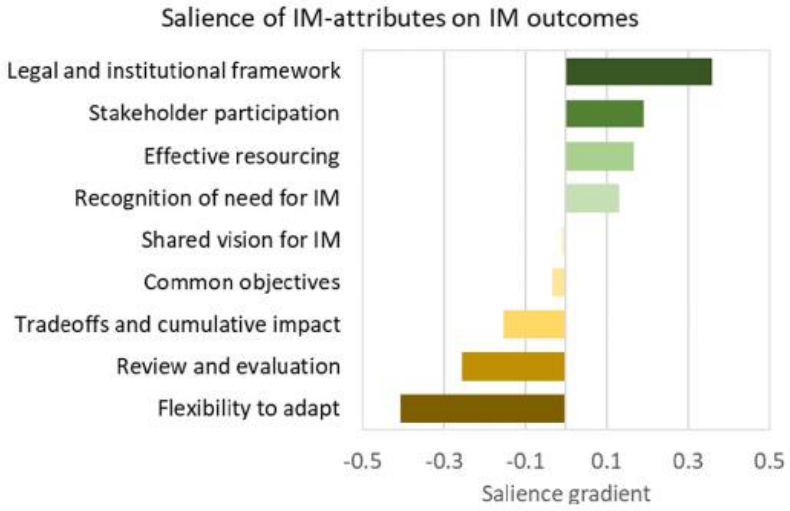

Fig 2. Gradient of salience, or the relative strength of influence, of the nine features on IM outcomes. Standardized scores are on a scale from −1.0 to +1.0, with a score of 0 indicating no salience, and scores toward ±1.0 indicating increasing positive or negative salience. Source: Stephenson et al 2023

We suggest that the IM framework is useful 1) as a lens for evaluation of performance of management, 2) as a framework to retrofit or enhance current management, and 3) as a template for the design of new integrated management situations. We predict that the framework will facilitate implementation of comprehensive ecosystem-based management, marine spatial planning, and the aspirations of blue economy in which there is the need to link multiple activities through a comprehensive suite of objectives in a unified approach. The framework will be useful for navigating the integration of new activities (for example, establishing IM to include addition of offshore wind energy development, or multi-trophic aquaculture), where there is a need to consider potential displacement, trade-offs among objectives in relation to activities, and the relative benefit (pros and cons) of alternate management scenarios. The framework will also be beneficial in the modifications and required improvement in management of existing activities (e.g. retrofit of management to reduce conflict, address trade-offs, better share available space, consider cumulative effects of management of multiple activities) in the face of change.

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