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Bright Spots in Integrated Management of Canada's Oceans and Coasts

Sondra Eger, Natalie C. Ban, Chelsea Boaler, Irene Brueckner-Irwin, Simon Courtenay, Graham Epstein, Carie Hoover, Jim Mclsaac, and Robert L. Stephenson

There is a large and growing consensus that environmental management must move toward an integrated approach to govern human activities in coastal and marine areas (e.g., Armitage, Charles, and Berkes 2017; Bennett et al. 2018; Stephenson et al. 2019, 2021). Current centralized and sector-based approaches have proven inadequate in addressing the externalities of individual sectors, resulting in a range of unintended consequences from social and biophysical feedback (Pikitch et al. 2004; Cury et al. 2011). Furthermore, sector-based management often neglects the consideration and informed decision making of trade-offs across different actors, activities, and objectives, as well as an understanding of the cumulative effects of human activities. Despite the explicit need for integrated management (IM), it remains relatively rare in Canada. This chapter highlights progress in changing governance to respond to changing oceans and access to resources as seen in previous chapters. Additionally, it contributes to the theory and practice of IM by examining the conditions in which IM approaches have emerged in Canada's coastal and marine areas.

The literature on IM has evolved over the past 30 years to encompass diverse approaches toward understanding and classifying different types of management integration (Underdal 1980; Cicin-Sain 1993; Thia-Eng 1993; Cicin-Sain and Knecht 1998; Lockwood et al. 2010; Eger et al. 2021). For instance, Dickinson, Rutherford, and Gunton (2010) suggest that integration involves linkages and coordination across different sectors (horizontal),

levels of government (vertical), spaces and sustainable development objectives. In general, IM refers to a comprehensive, collaborative, and coordinated approach toward planning and managing human activities in ecosystems. The intention of IM is to move beyond traditional sector-based approaches to coordinate the governance of human activities in ecosystems, and to provide mechanisms to reconcile diverse interests and values (e.g., Sainsbury and Sumaila 2003; Foley et al. 2010; Foster, Haward, and Coffen-Smout 2005; Stephenson et al. 2019).

Institutions reflect the rules, norms, and conventions that provide a guide for human interactions and decision making (Kooiman and Bavinck 2005; Armitage et al. 2009) are especially salient. Environmental governance in Canada is largely organized around a traditional sector-based approach in which different departments and branches of government are responsible for different activities. Such an approach tends to neglect externalities and cumulative effects of human activities, and lacks mechanisms for adequate, transparent, equitable consideration of trade-offs and evaluation of cumulative performance (Stephenson et al. 2019). In contrast, IM requires a "whole-of-government approach" to effectively integrate management across different departments and levels (e.g., municipal, provincial, federal, Indigenous). Examples of IM include the New South Wales Marine Estate (Brooks et al. 2020), Great Barrier Reef Marine Park (Commonwealth of Australia 2018), the Barents Sea (Olsen et al. 2016), and the North Sea (Interdepartmental Directors' Consultative Committee North Sea 2015).