

Extending Land Management Approaches to Coastal and Oceans Management: A Framework for Evaluating the Role of Tenure Information in Canadian Marine Protected Areas

Abstract

Canada's approach to coastal and oceans management consists of a complex, multi-layered system of laws, policies, organizations, and strategies. It is a fragmented approach to resource management and results in redundant efforts, inefficiency, ineffectiveness, and lack of coordination among agencies. One of the challenges encountered by Canada's approach is to use, share, and manage information resources effectively.

In particular, there is a need to provide complete and integrated inventories of information to mitigate conflicts among the growing ocean users, as well as to reduce administrative, jurisdictional and regulatory complexities. However, there is no comprehensive strategy to deal with the fractured and incomplete sets of data that are the legacy of the complex administrative and legal structures. Managing that information better should be the foundation for better decision-making regarding coastal and oceans resources.

To address this challenge, this research provides a systems view of marine management with a focus on the role of the information on rights, responsibilities, and restraints in marine space, i.e. the tenure information. Marine management consists of several processes including, administration of marine activities, uses and interests; which depend on management of tenure information.

This research investigates the role of tenure information and its management in implementing the Marine Protected Area (MPA) program by the Department of Fisheries and Oceans, Canada. Stakeholders in MPA establishment (e.g., government planners, environmental interest groups, coastal communities, and individual owners) often only have a vague understanding of the complexity of rights that may exist. Better management of this tenure information can therefore improve stakeholder participation. In this research, a framework for managing tenure information management for Canadian MPAs is designed. This framework is developed from a primary MPA case study - the Musquash Estuary in New Brunswick, and then is tested in a comparative analysis with additional case studies.

The major conclusion of the research is that a framework should be based on three tenure information management activities: (1) determining tenure information requirements; (2) determining tenure information use; and (3) understanding the role of tenure information management groups. These activities facilitate the description of tenure information categories, their characteristics, their management, and their role in MPA establishment. Recommendations on the broader application of this framework in marine space management are also proposed.