

**“A Practical Approach to Ecosystem-Based Management”**  
**Segment 3A: Lessons Learned from implementation of ecosystem approaches at the national level in developed States**

A conceptual framework has been developed to guide the national application of an ecosystem based approach to oceans management and Canada is implementing this approach in five large ocean management areas. This discussion will focus on the framework, the tools developed to advance its implementation, the caveats and lessons learned to date. One of the over-riding considerations in regards to Canada’s approach to oceans management is maintenance of ecosystem health with a focus on objective-based decision making. Ecosystem objectives address the ecosystem structure, function and physical-chemical properties of the system.

Canada’s approach to oceans management is also area-based with marine areas within Canada’s jurisdiction delineated into “eco-regions” within which larger scale ocean management planning areas and smaller coastal planning units are nested. For an ecosystem-based approach to be relevant and effective, two complementary approaches have been developed and are being tested. The bottom-up (activity-based) approach involves establishing ecosystem-based objectives based on a review of the activities which may have a significant impact on specific ecosystem properties or components. The ‘top-down’ (ecosystem-property-based) approach is based on the identification of the key ecosystem properties and components without prior consideration of human activities that may be impacting on the system. Combination of the two approaches joins the rigour of the scientific process with the identification of meaningful management measures that can be readily understood by stakeholders.

In order to be effective application of an ecosystem-based approach to management requires good, although not perfect science. More importantly the scientific analysis and advice needs to be cross disciplinary, over different time and spatial scales. It can not be just a scientific exercise but must result in the identification of changed management decisions and governance processes. Clearly the starting point needs to be the use of all of the available knowledge for the planning area, and its interpretation within a risk management framework. Identification and addressing of key information gaps should occur as time and resources permit, as the concept of adaptive management and precaution work hand in hand with an ecosystem-based management approach.

Any discussions respecting the development of a collaborative international Ecosystem Based Management Framework or Plan should rely on the collation and interpretation of the international body of science for a specific planning area combined with a review of the activities which may be impacting on that ecosystem. Existing international scientific advisory bodies and existing governance mechanisms offer a very good starting point for implementation of EBM in international waters. The development of a conceptual framework for EBM would guide the implementation and testing of approaches which are underway in various jurisdiction, and would facilitate (and make less costly) the wider dissemination of this approach.