

Proposed steps in the development of a revised plan for PNCIMA: context for understanding the role of identifying valued ecosystem components

Background

- The PNCIMA plan is intended to reflect an ecosystem-based approach.
- There are several primary themes proposed for the PNCIMA plan: risk assessment of valued PNCIMA ecosystem components (ecological, economic, cultural), coordinating management processes, and integrating marine protected area network planning.
- These focal themes are intended to (a) set a broad ecosystem context, (b) respond to stakeholder interests in the integration of PNCIMA planning and MPA planning, and (c) inform planning work happening in individual sectors or at other scales.
- Continued work with other federal agencies, the province, First Nations, and stakeholders will be key to further defining and developing this work.

Steps in the development of a plan

1. Develop ecosystem-based principles, goals, and objectives
 - a. *Description* –draft principles and goals will provide a broad framework of guidance reflecting an ecosystem based approach and a long term direction for oceans management. Objectives will reflect a more focused and specific set of things that we intend to achieve in support of these broader goals through PNCIMA planning. Principles and goals can be drawn from work done to date (see below for draft goals). Objectives will require further drafting to make them more focused, in line with the revised direction for the plan.
 - b. *Outputs* - concise sets of principles, goals and objectives reflecting balanced consideration of ecological, socio-economic, and cultural values; measurable objectives specific to an MPA network.
2. Identify valued ecosystem components (VECs)
 - a. *Description* - places, elements (e.g., species, biological communities), or processes that are significant from a PNCIMA ecosystem perspective. These can be ecological, economic, or cultural in nature. They are the base units for risk assessment that will enable focusing and prioritization in the planning process. They may also serve as inputs to MPA network planning. Existing work on ecologically and biologically significant areas & ecologically significant species, the PNCIMA atlas human use maps, provincial coastal plans, First Nations community plan products are all examples of potential inputs to this.
 - b. *Outputs* - A synthesized set of VECs and descriptions of what is important about them.
3. Establish pathways of effects
 - a. *Description* - representation of predicted relationships between human activities, the stressors associated with activities (e.g., release of contaminants), and the environmental effects or impacts (e.g., change in water quality) they may have on VECs. These will be developed for marine activities within PNCIMA to inform subsequent risk assessment on VECs.
 - b. *Outputs* - pathways of effects models for marine activities in PNCIMA. These would be intermediate outputs intended to support subsequent risk assessment work rather than components of the final plan itself.



4. Regulatory Summary
 - a. *Description* - a descriptive mapping exercise that outlines existing regulatory and policy tools in place to address effects on VECs identified in #3, and clarifies responsibilities among authorities.
 - b. *Outputs* - regulatory summaries or roadmaps for marine topics; analysis to determine where existing MPAs overlap with identified VECs.
5. Conduct risk assessment of VECs
 - a. *Description* – assessment of most significant stressors and impacts on VECs to inform prioritization of VECs at highest risk of harm from human activities
 - b. *Outputs* - priority VECs and knowledge gaps, strategies or EBM checklists of considerations for management of VECs.
6. Coordinate management processes
 - a. *Description*: assessment of opportunities to improve coordination and efficiencies among different initiatives, and between PNCIMA and other initiatives (e.g., MPA planning, integrated fisheries management planning processes). This work can happen largely concurrently with the components above.
 - b. *Outputs* – defined linkages between PNCIMA planning and other planning initiatives, strategies for improved coordination and efficiency, strategies for information sharing.
7. Develop implementation plan and adaptive management framework
 - a. *Description*: these are the final components of the plan that outline how it will be implemented and adjusted/updated to account for changing conditions through time. Some of this work can happen concurrently with work described above.
 - b. *Outputs* – implementation plan and adaptive management framework.

Draft EBM Goals for PNCIMA:

These goals are interconnected and cannot be taken as separate from one another. It is the purpose of the EBM framework to achieve:

1. Integrity of the marine ecosystems in PNCIMA, primarily with respect to their structure, function and resilience,
2. Human well-being supported through societal, economic, spiritual and cultural connections to marine ecosystems in PNCIMA,
3. Collaborative, effective, transparent, integrated governance and management and public engagement, and,

Improved understanding of complex marine ecosystems and changing marine environments.