

Guidelines for Implementing an Ecosystem Approach to Management of Arctic Marine Ecosystems

Arctic Council Joint PAME, CAFF, AMAP, SDWG
Ecosystem Approach Expert Group

PAME II October 3 2018

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Background

- * Six EA workshops in 2011-2018, and a first international EA conference in August 2016 (Fairbanks, Alaska)
- * Setting geographical boundaries, defining a framework, assessing data issues, reviewing case studies, and setting ecological objectives
- * 6th workshop (January 2017 Seattle): scope and start work on development of guidelines for EA in the Arctic
- * Goal of Guidelines: to assist scientists, policy-makers, managers and communities in implementing an ecosystem approach for Arctic marine ecosystems.

EA Framework

Possible Methodology for Applying EA

FUNDAMENTAL

IDENTIFY
the ecosystem



DESCRIBE
the ecosystem



OPERATIONAL

Set ecological
OBJECTIVES



ASSESS
the ecosystem



VALUE
the ecosystem



MANAGEMENT

MANAGE
human activities

Definition of EBFM – EA Framework

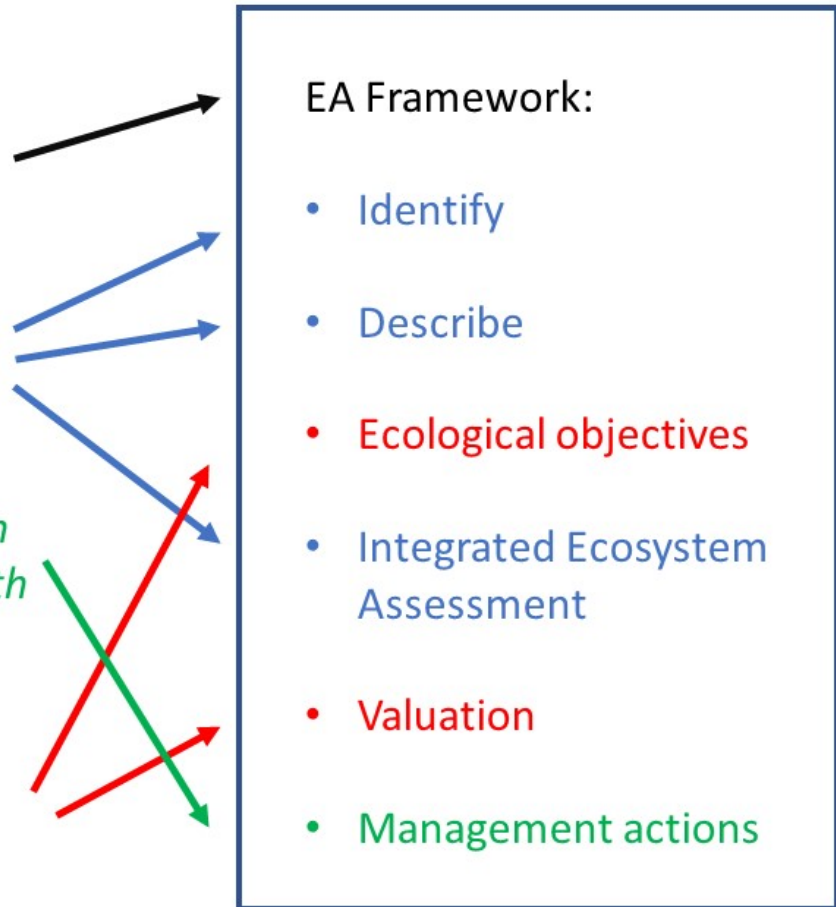
Definition: *Ecosystem based management is:*

the comprehensive, integrated management of human activities

based on best available scientific and traditional knowledge about the ecosystem and its dynamics,

in order to identify and take action on influences that are critical to the health of ecosystems,

thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity.



General points

- * Arctic peoples' knowledge (indigenous, local, traditional) is essential to all aspects of EA
- * Communication, participation and inclusivity are important
- * Implementation of EA is a dynamic and ongoing process (monitor, evaluate and adapt)

Identify

- * Large Marine Ecosystems (LMEs) define geographic scale and boundaries for EA
- * Scale integration is an important consideration (smaller, larger and transboundary)

Describe

- * What are the key characteristics of the ecosystem?
- * How are they connected into a functional unit?
- * Conceptual models
- * Include human activities along with the natural (non-human) components and processes
- * Traditional and Local Knowledge equally with physical, biological and social science knowledge
- * Spatial (e.g., hotspots) and temporal components (e.g., climate change)

Ecological objectives

- * Balance between:
 - * Exploitive use and conservation
 - * Nations/managers and local communities
- * Reflect ecological features and be related to the impacts of human activities
- * Linked to management, social and cultural objectives
- * Spatial component (e.g., VMEs)
- * Scale integration (e.g., spawning and breeding areas)

Assess

- * Integrated Ecosystem Assessment (IEA)
- * Assessment of the status and trends in all relevant ecosystem components
- * Includes human impacts and socioeconomic factors
- * Distinguish impacts of human activities from natural variability
- * Comprehensive monitoring is essential
- * Traditional and Local Knowledge (TLK) and science knowledge contribute
- * Need an advisory mechanism to translate IEA into management measures

Value

- * Include indigenous peoples and local communities in the process of valuation
- * Non-monetary/non-market values are important (e.g., social, cultural)
- * Perhaps some features of the ecosystem will be defined as non-negotiable

Manage

- * Provide updated information on the changes that are taking place in the ecosystem, thereby allowing adaptive adjustment of management decisions and actions, in accordance with new conditions
- * Communication is an important part of successful management
 - * Among regulatory groups/agencies
 - * Between managers and the public

Next steps and timeline

- * Present Guidelines and seek feedback at CAFF Arctic Biodiversity Congress, 9-12 October, Rovaniemi
- * Invite feedback on Guidelines from AMAP, CAFF and SDWG
- * Timeline
 - * Comments to EA-EG chairs by November 9
 - * Revised Guidelines to PAME by early January 2019 (30 days before PAME-I 2019 meeting)
 - * Present to Ministers in spring 2019