

RECOFI Technical Workshop on Spatial Planning for Marine Capture Fisheries and Aquaculture Doha, Qatar 24–28 October 2010



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Purpose

Understanding EAF

 Understanding how spatial tools (GIS, remote sensing, mapping) can support EAF

to:

Use EAF principles to develop our regional strategy



Presentation outline

- EAF concepts and principles
- GIS showcase and its role in EAF
- Challenges and opportunities

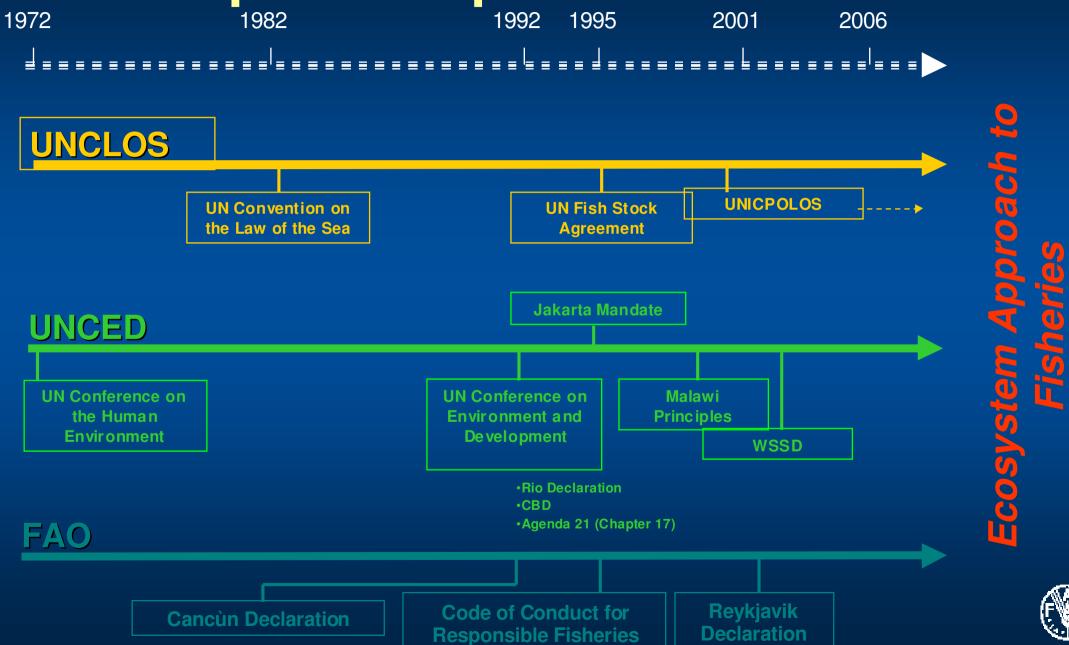


EAF concepts and principles – Why EAF?

- Increasing societal awareness of the impacts of fisheries on marine ecosystems
- Advances in science (environmental effects on fishery resources and effects of fishing on non-target species and habitats, food-chain effects and biodiversity)
- Poor performance of current management practices
- Recognition of a wide range of societal interests in marine ecosystems



Concept development



EAF Definition



FAO guidelines (FAO, 2003)

"An Ecosystem Approach to Fisheries strives to balance diverse societal objectives, by taking account of the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries."



Principles background

- None of the principles that underlie the EAF are new. They can all be traced in earlier instruments, agreements, declarations.
- Implementation of these principles lags behind in relation to their formulation in agreed international instruments
- The EAF highlights and reorganizes the principles of sustainable development making there application more imperative



Principles (Normative)



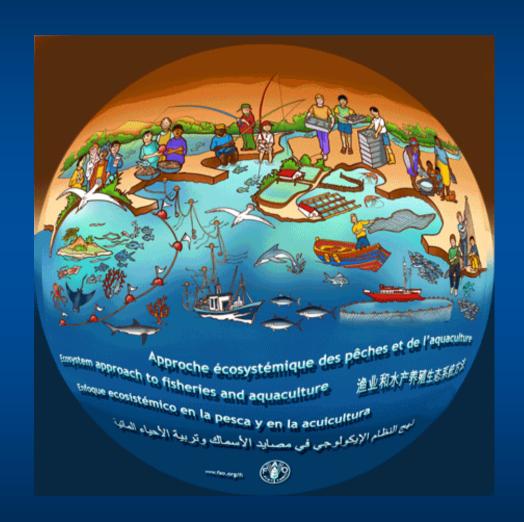


- Maintaining ecosystem integrity
- Improving human well-being and equity
- intra-generational equity



Principles (Operational/implementation)

- Apply the precautionary approach
- Developing adaptive systems
- Ensure compatibility of management measures (across jurisdictions)
- Broaden stakeholder participation
- Use incentives
- Promote sectoral integration





Principles (Cognitive)



- Improve research to better understand ecosystems in all its components
- Conservation and management decisions should be based on the best available knowledge
- Encourage research towards selective and environmentally safe fishing gear and practices



The extension concept

Conventional approach

Extension

Ecosystem approach

Few objectives

Sectoral

Target / non target species

Stock / fishery scale

Predictive

Scientific knowledge

Prescriptions

Multiple objectives

Integrated, cross sectoral

Biodiversity & environment

Multiple (nested) scales

Adaptive

Extended knowledge

Incentives

Top-down Interactive / Participatory

Corporate Public / Transparent



Key steps in an EAF





The spatial dimension of EAF

- Spatial considerations have become more manifest
- GIS is becoming increasingly embedded in fishery and wider ecosystem management processes
- Ability to generate visual representations of complex ecosystem processes and
- Facilitate communication with and among stakeholders.
- Spatial tools can interact with the EAF processes by providing a platform for
 - mapping,
 - modelling,
 - management and
 - communication.



next...

how spatial tools have been used in marine fisheries and in support of an EAF...

