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UN Open-ended Informal Consultative Process on  
Oceans and Law of the Sea  
Ecosystem approaches and oceans

# Demystifying the concept and understanding its implications

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## Different Approaches - the angle

- Sustainability differs according to perspective.
- Cultural philosophies guide resource use.
  - each EAF/EBFM/EBMoF/EAM framework guided by a group/societal philosophical perspective
  - many commonalities with subtle differences.
- The Earth's life support systems are crumbling especially at sea.
- WWF's approach to ecosystem-based management is derived from a need to ensure healthy, productive, functioning ecosystems.
  - This protects biodiversity and ensures sustainable resource use.
- Ecosystem recovery needs to be the objective of all fisheries management from now on - not just the fishery.





## EBM is:

"Management of the uses and values of ecosystems in conjunction with stakeholders to ensure ecological integrity is maintained, and recognising that ecosystems are dynamic and inherently uncertain." (WWF Definition)

- Most importantly, across different frameworks there are common, widely agreed on elements, i.e. bycatch reduction, harvest strategies, the precautionary approach...
- However, we need together to agree the serious and catalytic steps that must be taken, now, to apply all elements of EBM to enable ecosystems, threatened species and associated target fish populations to recover.



## Principles

Ecosystem-based management (*Ward et al, 2002*) has objectives and targets that:

1. Focus on maintaining the natural structure and function of ecosystems and their productivity
2. Incorporate human use and values of ecosystems in managing the resource
3. Recognise that ecosystems are dynamic and constantly changing
4. Are based on a shared vision of all stakeholders
5. Are based on scientific knowledge, adapted by continual learning and monitoring.





## EBM is a realistically holistic approach to management

WWF believes that the management of a target stock or stocks is not the sole purpose of EBM.

Related and dependent species including predatory fish, seabirds, marine mammals and habitats that affect or are affected by fisheries, are all within the framework of an effective EBM system.

Similarly, EBM is not a tool for manipulating the ecosystem to the lowest common denominator by removing predators. It is overfishing which has reduced fish populations not natural predators.

EBM restores the health of the ecosystem and therefore restores target fish populations and predators alike.

The essence of EBM is the recognition that maintaining the natural structure, health and function of all levels and components of ecosystems is the central purpose of management.



## Practical Building Blocks

- Marine Stewardship Council (MSC) certified fisheries - have a clear annual, continuous improvement framework through which to implement actions.
- WWF's EBM framework offers practical implementation guidance in 12 Guidelines and Steps. ([www.panda.org](http://www.panda.org))
- Examples of elements in action in areas where WWF is working with stakeholders e.g. Bering, Barents, Sulu-Sulawesi, New Zealand, South West Atlantic, Gulf of California, East Africa, West Africa, Meso-american Reef, North Sea....





## The Twelve Steps...

1. Identify stakeholder community.
2. Prepare a map of ecoregions and habitats.
3. Identify partners and their interests/responsibilities.
4. Establish ecosystem values.
5. Determine major factors influencing ecosystem values.
6. Conduct Ecological Risk Assessment (ERA).
7. Establish objectives and targets.
8. Establish strategies for achieving targets.
9. Design information system, including monitoring.
10. Establish research and information needs and priorities.
11. Design performance assessment and review processes.
12. Prepare education and training package for fishers.



## Conclusions

A successful EBM system will:

- Operate within a supportive policy framework, e.g. Management Advisory Committees (Australia), Regional Advisory Committees (EU), Management Councils (US), functional RFMOs.
- Recognise economic, cultural and social interests as factors that may affect resource management,
- Recognise ecological values and incorporate them into management, e.g. implementing MPAs to protect spawning aggregations
- Provide adequate information on utilised species to ensure that overfishing is low risk, e.g. applying the precautionary approach and enabling populations rebuilding by setting MSY based on recovery targets.





## Conclusions and transition



- EBM is possible and functioning now.
- No shortage of theoretical 'how to' guidance.
- Shortage of understanding 'angle & perspective' (the why) and that now is possible (not a massive leap).
- Objectives need to be framed for Ecosystem Recovery (WWF's - primary focus).
- Enlightened, self-interested industry wants it.
- Start with implementing the possible/practical elements and shift to full framework over time. Allowing for the paradigm shift once momentum created.
- Precautionary target species decisions are the most important requirement (e.g. raise MSY).
- 2005-2015 - decade of implementation: the decade recovery began.

