

ECOSYSTEM BASED MANAGEMENT OF FISHERIES

The ideas of ecosystem-based management build on the initiatives and events of the 1990s, including the development of the FAO Code of Conduct for Responsible Fisheries and the 1998 WWF/ IUCN International Marine Policy, Creating a Sea Change.

Ecosystem-Based Management (EBM) has evolved in response to the:

- (1) effect of the environment on the resource being exploited, and
- (2) effect of resource exploitation on the environment.

Recognising that ecosystems and fish stocks are dynamic, achieving genuine sustainability will require substantial buffers to allow for uncertainties in our understanding and permit ecosystems and fish stocks to adapt and respond to changes. It is also important to recognise that we will never possess the full extent of the facts and necessary information when making decisions. A highly precautionary approach will therefore always be needed.

The Principles and 12 steps of Ecosystem-Based Management click

http://www.mengo.org/articles/Principles_of_EBM.pdf.

Key Gaps towards Implementation of EBMF

To overcome the main obstacles to the adoption and implementation of EBM, nine key gaps and enabling activities are suggested. WWF-Malaysia is focusing on the first three gaps for its first phase of EBM work. These activities will set the field for follow-up activities in the following phases.

1. Improve **education and awareness** about Ecosystem-Based Management of marine capture fisheries and its potential benefits.
WWF-M Activities:
 - a. Translated and reprinted two WWF materials on EBM
 - b. Training programme for fisheries officials (June 2009)
 - c. Training programme for fishermen (2009/ 2010)
2. Document and promote good models for **stakeholder engagement** in management planning.
WWF-M Activities:
 - a. Documentation of the WWF-M Kudat Priority Conservation Area work in Sabah (2009)
 - b. Possible documentation of Penang Inshore Fisherman Welfare Association work (2009)
3. Develop and promote robust procedures for determining ecosystem management **objectives, indicators and targets**.
WWF-M Activities:
 - a. Common Vision Workshop with stakeholders (2010)

These activities will enable WWF-M to identify partners and stakeholders and in implementing the first 3 steps of EBM.

The next gaps to address will be:

4. Conduct **assessments of existing management systems** in major global fisheries.
5. Fishers and stakeholders to collaborate in a pilot program to implement **fully-protected reserves** within fisheries, to provide areas for conservation of biodiversity.
6. Foster **integrated regional planning, management and assessment** activities.
7. Foster the design and implementation of a **global fund to restructure fisheries** to reduce effort in a manner that increases sustainability.
8. In partnership with other stakeholders undertake specific case studies to design and **implement EBM as demonstration projects in selected fisheries.**
9. Involve other sectors in EBM of the marine environment.

Malaysia's fisheries are at risk of collapse. The declines in demersal fish biomass and densities, as shown by research surveys of the Department of Fisheries, since 1980s is as high as 90%. It is clear that urgent action is needed. These steps in adopting and implementing EBM, can move Malaysia towards restoring fisheries and ensuring a sustainable and profitable fish supply and industry. However, this will require a dedicated effort from all parties (federal and state management agencies, fishing industry, local communities, academia, and NGOs) to reformulate the fisheries management paradigm in Malaysia.

References:

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