Tailoring Ecosystem-Based Management Implementation to the Tropical Western Pacific

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PRINCIPLES AND PRACTICE OF ECOSYSTEM-BASED MANAGEMENT
A GUIDE FOR CONSERVATION PRACTITIONERS IN THE TROPICAL WESTERN PACIFIC

By Pepe Clarke and Stacy Jupiter

Launched at COP10 by:
What is Ecosystem-Based Management?

Approach that considers connections between humans and the environment, emphasizing:

- connectivity within and between systems
- protection/restoration of key processes and functions
- maintenance of services on which people depend
A Framework for Managing Threats

- Land use change
- Population increase
- Fishing pressure
- Climate change
Why Develop An EBM Guide?

- Few examples of successful implementation on the ground
- Examples that exist typically focus on temperate systems in developed countries (without coral reefs)
- More “top-down” governance and management structures may not be as applicable in many developing states
Why Develop An EBM Guide?

Guide tailored to needs of practitioners in states characterized by:

- high biodiversity and endemism
- strong links between terrestrial, freshwater and marine systems through small water catchments
- heavy reliance on marine resources
- high population growth and increased market access
- moderate to high levels of poverty
- traditional tenure and management systems
- strong role of community-based management
- high vulnerability to ecosystem degradation
Learning from Experience

- Workshop in August 2009 with EBM practitioners from across Western Pacific
- Noted experience implementing EBM shared certain common features which differs from EBM practice in developed world

Fiji

Indonesia

Palau
• Adopt an integrated approach to ecosystem management
  *Capitalize on Pacific traditions of humans living in harmony with nature (e.g. vanua, ahupua’a, tabinau, puava)*

• Maintain healthy, productive and resilient ecosystems
  *Identify and preserve key functional nodes (e.g. biological: herbivorous fish; social: local champions and messengers)*

• Maintain and restore connectivity between social and ecological systems
  *Manage for movement of materials (e.g. through ICM), organisms (e.g. larval transport) and knowledge (e.g. through kinship ties)*

• Incorporate economic, social and cultural values
  *Consider alternative livelihoods and compensation schemes to adequately make up for loss of access to resources from conservation and management actions*

• Recognize uncertainty and plan for adaptive management
  *Promote flexible management institutions (e.g. through LMMA) which can respond quickly to changing environmental conditions*
Featured Contents: In Focus Sections

- Locally Managed Marine Areas
- Understanding and Valuing Ecosystem Services
- Ecosystem-Based Adaptation to Climate Change
- Initiating Ecosystem-Based Management

Using Specific Examples from Case Studies

- Socioeconomic Assessment and Monitoring
- Law, Custom and Ecosystem-Based Management
- Ecosystem Approach to Fisheries Management
- Designing Protected Area Networks
### Fringing Reef

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In Focus: Community-Based Management

Gap Analysis Results with Differential Effectiveness Weightings

[Graph showing habitat types and their protection percentages across different scenarios (1, 2, 3).]
Major Lessons Learned

- Ecosystem management processes should respect the needs, interests, rights and aspirations of local communities, and contribute to local as well as national goals.
- Effective EBM requires an understanding of biological, social and cultural connectivity.
- Management should be adaptive and iterative as new information becomes available.
- EBM provides a cost-effective approach for reducing vulnerability to climate change impacts.
- Collaborative partnerships and broad stakeholder participation greatly enhance management effectiveness.
For More Information:

www.wcs.org/EBMguide
www.wcsfiji.org
sjupiter@wcs.org

Select publications:

*The importance of ecosystem-based management for conserving aquatic migratory pathways on tropical high islands: a case study from Fiji*


Ecosystem-Based Management in Fiji: Successes and Challenges after Five Years of Implementation

doi:10.1155/2011/940765

Law, custom and community-based natural resource management in Kubulau District (Fiji)