

PARTNERING OF THE FISHERIES AND ENVIRONMENT SECTORS IN THE PACIFIC ON AN ECOSYSTEM APPROACH TO FISHERIES MANAGEMENT

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Introduction

All the Pacific Island countries and territories have, through various international agreements and commitments, endorsed the adoption and implementation of the Ecosystem Approach to Fisheries (EAF) management. While there has been some progress, in general the Pacific Island government fisheries agencies have found the application and operationalisation of EAF for coastal fisheries—mostly composed of subsistence, artisanal and small-scale commercial—a challenge.

Simultaneously, the environment sector (government and non-government) has been increasingly focused on applying an Ecosystem-Based Management (EBM) approach to environmental management and biodiversity conservation activities within the Pacific. In general the fisheries and environment sectors have been operating in parallel, and at times have been perceived to be at odds with each other. This tends to be particularly evident at the local level with community-based resource management and conservation activities. This paper presents some collaborative initiatives undertaken to better understand what EAF is in the Pacific context and how it might be applied, and to develop guidelines for a community-based ecosystem approach to fisheries management that combines approaches developed by both the fisheries and environment sectors.

Ecosystem Approach to Fisheries Management in the Pacific Islands Region

Ecosystem Approach to Fisheries

The Food and Agriculture Organisation of the United Nations (FAO) defines EAF as an “...approach to fisheries [that] strives to balance diverse societal objectives, by taking into account 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.” The purpose of EAF is therefore “...to plan, develop and manage fisheries in a manner that addresses the multiple needs and desires of societies, without jeopardizing the options for future generations to benefit from the full range of goods and services provided by the marine ecosystem” (FAO 2003). The EAF, as promoted by FAO, is a strategy that promotes conservation, sustainable use and equitable sharing of ecosystem services. These are concepts entrenched in the Code of Conduct for Responsible Fisheries and its associated instruments and the EAF framework contributes to their comprehensive implementation.

EAF Pacific Islands Context

In late 2007, building on a Secretariat of the Pacific Community (SPC) workshop on EAF for coastal fisheries and aquaculture, SPC, with support from The Nature Conservancy (TNC), initiated a study to assess progress on the implementation of EAF within the Pacific Islands region. It was also tasked to develop common principles and approaches for in-country application of EAF, and to identify the types of assistance and support that might be required. The results of that study are available in Preston (2008, 2009).

The report noted that the implementation of EAF was progressing within the region, albeit at a slow to moderate pace. Some countries were applying EAF-compliant measures, such as community-based management or co-management, establishment of marine protected areas (MPAs) and marine managed areas (MMAs), and fishery development activities that reduce the pressure on coastal fisheries. However, these were not being applied within an EAF framework. Few, if any, countries had laws or specific policies committing them to EAF.

The report found that, “More important than the challenges are the opportunities that EAF presents to establish fishery and coastal ecosystem management arrangements that are in line with the Pacific Way [*which emphasises the roles of communities, custom, area-based management and user rights*], and contribute more effectively to the maintenance of livelihoods, lifestyles and ecosystem services than conventional fishery management systems have done.”

Many of the EAF principles are in line with the traditional and customary ways of operating in the Pacific—avoidance of sectoral specialisations, greater local participation in decision-making and recognition of the non-commercial values and benefits of coastal resources. While a lot of the EAF literature emphasises the need for strong science and data, many of the principles of EAF can be applied in their absence. This will be the case in much of the Pacific, where many coastal fisheries management decisions—especially for community-based fisheries—need to be made with limited or other forms of information and knowledge.

The SPC/TNC study highlighted the key principles relevant to applying EAF in the Pacific as:

- Not allowing fishing operations to cause undue disruption or damage to ecosystems through overfishing, depletion of non-target species, habitat damage or pollution;

- Ensuring ecosystems are healthy and resilient so that they can endure unexpected environmental and other shocks;
- Improving compliance with fishery management measures through greater stakeholder engagement;
- Recognising that marine resources have alternative values (such as recreation and tourism) in addition to extractive ones.

In practice, implementation of the EAF will require Pacific Island countries and territories to:

- Scale back unrealistic expectations of the amounts that coastal fisheries can produce;
- Apply a conservative, precautionary approach to fisheries management, often without the benefit of fishery information;
- Set aside reserves or protected areas to increase ecosystem resilience;
- Promote more stakeholder participation in the fishery management process;
- Establish rights-based methods of fishery management, instead of open-access ‘free for all’ arrangements;
- Establish integrated coastal management mechanisms that involve many sectors, not just fisheries.

The SPC/TNC study identifies a range of approaches and key strategies for Pacific fisheries agencies to adopt and implement EAF, but emphasises that moving towards the EAF will be incremental process, building on existing management—it will be ‘evolutionary, not revolutionary’.

Subsequently, FAO and SPC initiated two Pacific sub-regional workshops in late 2008 and early 2009 to introduce the principles, practices and methodologies for EAF planning and implementation. The workshops also reviewed the priorities for implementing EAF for coastal fisheries within the Pacific Islands region, and considered ways to resolve obstacles to implementation. A strong recommendation from both sub-regional workshops was the need to develop EAF guidelines for the Pacific Islands’ coastal fisheries that integrate the FAO EAF framework with SPC’s community-based fisheries management approach, and incorporate EBM planning and management frameworks used by the environment sector within the region.

Ecosystem-Based Management

The environment sector within the Pacific (government and non-government) has been increasingly employing an EBM approach to environmental management and biodiversity conservation activities, at the national as well as at the local and community levels. The most frequently cited definition of EBM is the “Scientific Consensus Statement on Marine Ecosystem-Based Management” (March 21, 2005. Prepared by scientists and policy experts to provide information about coasts and oceans to U.S. policy-makers), which states:

“Ecosystem-based management is an integrated approach to management that considers the entire ecosystem, including humans. The goal of ecosystem-based management is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans want and need.”

EAF differs from EBM in that it is focused on managing fisheries—a single sector—within an ecosystem context. EAF applies EBM thinking to fisheries management by incorporating consideration of ecosystems, habitats and societal objectives into fisheries management decisions, rather than managing only for single species or target stocks. It is important to

recognize that EAF does not explicitly attempt to manage for multiple sectors, in contrast to EBM which does. While the term Ecosystem-Based Fisheries Management (EBFM) is sometimes considered a synonym of EAF, it is also used to refer to geographically specified fisheries management within an ecosystem management context (Pomeroy et al. 2010).

Marine Ecosystem-Based Conservation

Within the Pacific Islands region, marine ecosystem-based conservation has been typified by the application of the Locally Managed Marine Areas Network approach (Govan 2008), the Conservation Action Planning integrated process for planning, implementing, and measuring conservation projects (TNC 2007), and the use of the Miradi conservation project management tool (<https://miradi.org>), which is based on the broader “Open Standards for the Practice of Conservation” (<http://www.conservationmeasures.org>). Many of these approaches and tools are being applied at the local community level, where fisheries issues are frequently being addressed within the broader context of environmental management and marine biodiversity conservation. It is increasingly recognised that effective coastal biodiversity conservation in the Pacific will not be achieved without addressing sustainable marine resource use, as people—and their needs—are an integral part of the ecosystem.

Community-Based Coastal Fisheries Management

Community-based coastal fisheries management within the Pacific Islands region has, broadly speaking, been addressed by one or more of three general means: traditional and customary management; government fisheries agencies’ supported management; or through environmental/conservation management. Traditional and customary management is still strong in many parts of the Pacific, and in more remote areas is often the only option. However, in other areas it is weakening and is under pressure from external forces and social and economic changes. Government supported community-based fisheries management has been developed and supported by SPC through its earlier Community-Based Fisheries Management approach (see King and Lambeth 2000).

The SPC/TNC review of EAF in the Pacific and the FAO/SPC EAF workshops highlighted the considerable correlation and convergence between the various approaches, and identified the potential benefits for both fisheries and conservation in aligning these various approaches and frameworks, especially in respect of community-based fisheries management.

The SPC, FAO and TNC collaborated to produce guidelines for a community-based ecosystem approach to fisheries management (CEAFM) (SPC 2010). These guidelines are intended to assist communities, government agencies (fisheries and environment) and non-governmental organisations in the Pacific Islands region to work together to develop and implement community-owned fisheries management plans for designated areas. The guidelines note:

“CEAFM represents a combination of three different perspectives; namely, fisheries management, ecosystem management and community-based management. An appropriate definition of CEAFM is therefore the management of fisheries, within an ecosystem context, by local communities working with government and other partners.” (SPC 2010:4)

Conclusions

At present, conventional coastal fisheries management in many Pacific Island countries and territories is failing. It has been recognised that the EAF provides an improved approach to developing and managing coastal fisheries, and addresses the need to consider fisheries in terms of the broader coastal environment. The principles of EAF are also seen as being more in line with the traditional and customary ways of managing within the Pacific, than conventional fisheries management. Due to the broad range of issues involved, the full implementation of EAF will require close collaboration between communities, a range of government agencies responsible for managing activities that impact on marine ecosystems, and the non-governmental groups. A key element to the future implementation of EAF in the Pacific Islands region will be the promotion of community-based fisheries management.

While these partnerships are still nascent, the process of developing the CEAFM guidelines demonstrated that despite differing mandates, missions and management objectives, there was recognition and understanding that the fisheries and environment sectors can benefit from closer collaboration and even integration of their activities, rather than continuing on parallel paths. The goal is the more effective, practical and efficient management of coastal fisheries, marine resources and the habitats they need to survive.

The guidelines and the collaborative approach are currently being applied and tested within the Pacific by local agencies and communities. To further this collaborative process, the SPC will be hosting a regional workshop on “Approaches to the Implementation and Monitoring of Community-based Ecosystem Approach to Fisheries Management: Finding common ground between the coastal fisheries and conservation approaches in the Pacific” in December 2010. This workshop is the next step in bringing together fisheries, conservation and NGO agendas to focus, and where possible, align approaches on management and monitoring by communities and others across the region.

References

- FAO Fisheries Department. 2003. *The ecosystem approach to fisheries*. FAO Technical Guidelines for Responsible Fisheries, No. 4, Suppl. 2. Rome. 112 p.
- Govan, H., Aalbersberg, W., Tawake, A. and Parks, J. 2008. *Locally-Managed Marine Areas: A Guide for Practitioners*. The Locally-Managed Marine Area (LMMA) Network. http://lmmanetwork.org/Site_Documents/Grouped/LLMAGuide.pdf
- King, M. And Lambeth, L. 2000. *Fisheries Management by Communities: A manual on promoting the management of subsistence fisheries by Pacific Island communities*. Secretariat of the Pacific Community, Noumea, New Caledonia.
- Pomeroy, R., Garces, L., Pido, M., Silvestre, G. 2010. Ecosystem-based fisheries management in small-scale tropical marine fisheries: Emerging models of governance arrangements in the Philippines. *Marine Policy* 34(2):298-308
- Preston, G. 2008. *The Ecosystem Approach to Coastal Fisheries and Aquaculture in Pacific Island Countries. Part 1: A Review of the Current Status. Part 2: Principles and Approaches for Strategic Implementation*. Report to the Secretariat of the Pacific Community and The Nature Conservancy. *TNC Pacific Island Countries Report No. 1/08*.
(http://www.spc.int/DigitalLibrary/Doc/FAME/Manuals/Preston_2009_EcosystemApproachFisheries.pdf)

- Preston, G. 2009. *The Ecosystem Approach to Coastal Fisheries and Aquaculture in Pacific Island Countries and Territories. (Booklet)*. Secretariat of the Pacific Community and The Nature Conservancy. Noumea, New Caledonia.
(http://www.spc.int/DigitalLibrary/Doc/FAME/Manuals/Preston_EAFM_Booklet.pdf)
- SPC. 2010. *A Community-Based Ecosystem Approach to Fisheries Management: Guidelines for Pacific Island Countries*. Secretariat of the Pacific Community, Noumea, New Caledonia.
(http://www.spc.int/coastfish/index.php?option=com_content&Itemid=30&id=58)
- TNC, 2007. *Conservation Action Planning Handbook: Developing Strategies, Taking Action and Measuring Success at Any Scale*. The Nature Conservancy, Arlington, VA.
(www.conservationgateway.org/cap)

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