

Overview: Reclaiming "Protected Areas" as a Livelihood Tool for Pacific Island People

Pacific Islands at risk

The future of Pacific Island peoples is inextricably linked to the region's coastal ecosystems. Unsurprisingly and with the exception of inland populations in Papua New Guinea, fish provides and is expected to provide the major source of protein for a rapidly growing population for at least the next 20 years (CEC 2000, UNDP 2002, Bell 2007).

The role played by Pacific Island reef ecosystems extends far beyond that of sustenance or income generation and includes such vital functions as protection from extreme natural phenomena and providing a central element of Island society and culture – the very identity of Pacific Islanders (Johannes 1981, Hviding 1996, Whittingham et al. 2003).

The increasing pressure on these life-supporting ecosystems has been a cause for concern for decades now and the region has seen numerous efforts to sustain or improve people's livelihoods on the one hand and to support the conservation of coral reef systems on the other. After the many millions of dollars spent on these initiatives, what prospects are there for Island peoples?

What has been done?

Projects, such as aquaculture, tourism, handicrafts and offshore fishing, which attempt to diversify livelihoods in order to reduce the extractive pressure on coastal resources, have not achieved even a fraction of their intended impact. Instead, it appears that these projects may even distract both donors and communities from addressing more effective forms of resource management (World Bank 2000, Gillett et al. 2007).

Several decades of conservation funding seem to have underperformed with respect to intended impacts and amounts invested (e.g., Foale 2001, Baines et al. 2002, 2006, Lees and Siwatibau 2007) accomplishing largely theoretical gains and less certain tangible benefits. For example, numerous "paper" protected areas (i.e., legislated but not functional; cf. World bank 2000, Huber and McGregor 2002), the development of largely unenforced and unenforceable policy and legislation, at the regional level such as the unimplemented Pacific Islands Regional Oceans Policy or the Action Strategy for Nature Conservation (Tortell 2007) or the national level (Healy 2006). The accumulation of research studies that do not address priorities as expressed by leaders or communities have even led the Prime Minister of Papua New Guinea and the Chair of the Pacific Islands Forum to comment that "... too much emphasis, indeed unfair focus, is placed on conservation with little regard for the economic and social development needs of our peoples. ... An appropriate balance needs to be found in the debate on this issue."

The particular characteristics of the region account for some of the challenges faced by conservation and livelihood projects as evidenced above – isolation, distance from markets or even government institutions, restricted human capacity, natural hazards and civil unrest have all played their parts. However, an important and recurring theme is that many interventions are not grounded in local reality nor do they respond to the priorities of local people (Govan 1993, 1997, Lal and Keen 2002).

Integrated resource management as the basis for sustainable livelihoods?

The realization that local aspirations, livelihoods, conservation and inshore fisheries management should be integrated has seen an increasing emphasis on collaborative and participatory approaches worldwide (Govan 1997, Whittingham et al. 2003). In many respects, the Pacific has taken the lead with hundreds of communities in Fiji, Vanuatu, Solomon Islands, Samoa, Papua New Guinea, Tuvalu and Micronesia now proactively managing their coastal resources. Approaches range from customary or traditional to complex multistakeholder comanagement (Johannes 2002, Govan et al. 2006, LMMA 2006, FSPI 2004–2006).

These approaches are known by many names: LMMA, VBRMA, CBRM, CCA, CBFM, VFMP³ to name a few. A comprehensive review and analysis of progress made is overdue but there is now sufficient evidence to discern a path towards sustainable livelihoods and reef conservation. The following livelihood benefits seem reasonably achievable and have been documented:

- Biodiversity conservation: localized recovery or protection of vulnerable species such as large food fish or marine turtles (Johannes and Hickey 2004, LMMA 2006, McClanahan et al. 2006).
- Improved fishery landings: experiences from within the region and nearby Philippines show that, depending on species, catches may be sustained or increased (Tawake 2001, Russ et al. 2004, Abesamis and Russ 2005, but see concerns in Foale and Menele 2004, Hillborn et al. 2004).

³ Locally managed marine areas, village-based resource management areas, community-based resource management, community conservation area, community-based fisheries management, village fisheries management plans.

- Governance: communities may improve decision-making processes, link to other organizations and institutions, influence policy development, reduce internal conflicts and, central to resource management, improve compliance and enforcement (LMMA 2006, Leisher et al. 2007, Pomeroy et al. 2007, Tawake, in prep).
- Community organization: simple resource planning and facilitation processes are being used to support community endeavors in other fields (Chambers 1992, Inglis et al. 1997). Community institutions established for management may be used for other purposes or be adapted to handle other types of projects³.
- Resilience and adaptation: supporting local stewardship and promoting understanding of people's potential impact on resources provides a basis for response to new threats in the context of adaptive management and help provide local security (Thaman et al. 2005, Cinner et al. 2006).
- Health: improving or securing the supply of marine protein has a direct impact on community well-being aside from the potential to use the same planning process for other community priorities including health (Leisher et al. 2007).
- Integrated resource management: addressing a wide range of issues such as watersheds, waste management, community events and so on (Thaman et al. 2005, FSPI 2006).
- Cultural survival: the considered use of traditional management measures and knowledge may slow the loss of valuable aspects of culture and improve management success, for example the use of, and respect for, tabu areas or other traditional closures (FSPI 2006, LMMA 2006).
- Security of tenure: Pacific Island communities usually regard the traditional rights of ownership and access to resources as vital to their livelihoods, and indeed identity, and perceive that these are being eroded. Community-based management may be seen as a means of re-asserting these rights.

Although all these benefits will by no means necessarily accrue in all cases the proliferation and endurance of a great many sites across the region with relatively little outside support strongly suggests that communities do feel that the approaches have an overall beneficial impact on their livelihoods – quantitative evidence of these wider benefits is becoming available (Leisher et al. 2007).

Characteristics of community-based adaptive management initiatives

The approach that can be broadly termed community-based adaptive management (CBAM) (Govan et al. 2008) seems to hold much promise for reefs and livelihoods but it is worth outlining what seem to be some of the vital components of the successful and enduring initiatives:

Community-based: The management is carried out primarily by the community and the relevant user groups and also involves appropriately the locally and nationally relevant institutional and private stakeholders. This makes optimum use of social capital such as existing (or assigned) resource rights, local governance, traditional and local information, self-interest and self-enforcement capacity.

Adaptive management: The local community sets priorities and establishes objectives and proposed actions based on the available, and usually local, information, actions are implemented and results are checked periodically⁴. Plans represent a community agreement and are frequently simple one-page documents. Results of checking/monitoring and any new information are used to review the plan and modify the plan as appropriate. Management tools selected tend to be simple to implement or enforce such as area or seasonal closures, restrictions on specific fishing techniques, waste management and restoration activities. Experience suggests that some benefits should be tangible and prompt in order to fuel continued management but these need not be monetary.

It is clear that CBAM is a simple and not even alien concept given its similarity to many traditional resource management approaches (Hickey 2006, Cinner et al. 2007). What is relatively new, or at least so far not widely accepted⁵, is the proposal that this approach should form the basis for securing the well-being of both reefs and communities of the Pacific Islands.

The way forward for people and reefs in the Pacific

Of course, a few hundred communities practising adaptive management across the region are unlikely to make a wide impact on livelihoods or reefs. Furthermore, recent calls to promote marine protected areas (MPAs), citing some of the above list of benefits in support, miss the point in confusing a specific management tool with wider sustainable management.

The potential of the Pacific Island experience is not so much to attain a "representative network of MPAs" but rather the much more widely called for systems of integrated coastal (or island) management (ICM) that address livelihoods, development, inshore fisheries and conservation as a whole (Whittingham et al. 2003, Bell et al. 2006, World Bank

³ FSPI 2006 (cf. Paonangisu, Vanuatu): participatory marine resource planning exercises have been used subsequently by other projects, e.g., Small Grants programs in Solomon Islands.

⁴ In Fiji, many villages even define quantitative goals and then monitor them scientifically.

⁵ See, for example, Johannes (1998) and the case for data-less management.

2006). The MPA enthusiasts should not fret though; these community-based approaches usually generate the most enforceable examples of closed areas/MPAs in the region and often serve as stepping stones to larger systems of protected areas or conservation initiatives (Aswani and Hamilton 2004, Tawake, in prep.).

Achieving the potential of ICM based on CBAM will involve developing strategies that integrate hitherto separate conservation, fisheries and livelihood sectors and address some relatively neglected but vital areas:

- **Strengthen and adapt national and subnational policy and institutional frameworks** in support of ICM based on community-driven adaptive management. This is vital to provide robustness to external drivers such as population increases, market pressure and terrestrial impacts. The strengthening of institutional capacity will require innovative approaches from NGOs and donors, imaginative and tailored institutional structures that may adapt or hybridize traditional or national institutions. Bridges between these and other stakeholders can be built using networks and umbrellas, examples of which are now established in the region (Ostrom 1990, Anderies et al. 2004, Berkes 2004, Cinner and Aswani 2007, Cinner et al. 2007, Tawake, in prep.). These support networks or umbrellas have proven useful in the advancement of national community-based management in Fiji and also in Solomon Islands and Micronesia (Fiji Locally Managed Marine Area Network, Solomon Island Locally Managed Marine Area Network, and Pacific Islands Marine Protected Areas Community).
- **Strive for highly cost-effective and locally appropriate approaches.** These should not require expensive technical inputs or analysis (e.g., natural or social sciences) at the outset. Local government, community or NGO staff can facilitate and initiate management at the earliest opportunity based on experiences elsewhere, rules of thumb and community knowledge. Any new information can later be incorporated into cycles of adaptive management in which progress is evaluated and improvements sought. The costs of establishing and supporting communities must be in the order of hundreds of dollars per year for them to be sustained in the long run by government – emerging data suggest that this is achievable⁷.
- **Research needs to be more responsive to the needs of the managers**, i.e., communities and their support agencies. At present, research and capacity priorities are often derived from outside the region and based on models of management that are not applicable. There is now considerable technical support capacity in the region but agencies face the challenge of discerning priorities on the ground. New approaches to improving communication between communities and their support agencies on the one hand and research institutions on the other are needed⁸.
- **Avoid raising unrealistic expectations.** Communities are getting involved because they want to better manage their resources for their own benefit. Unrealistically promoting the benefits of MPAs or providing “incentives” are common strategies despite the lack of demonstrable long-term success. Not only are these financially unsustainable in a national ICM framework but they also erode the vital empowerment and ownership communities achieve when they observe the connection between their actions and accrued benefits.
- **Encourage interdisciplinary and cross-sectoral approaches.** A number of agencies have overlapping responsibilities (e.g., environment, fisheries and disaster preparedness/adaptation) which could interface with communities through a single community-based adaptive management approach, cutting costs and ensuring “holistic” and integrated approaches.

In conclusion, one of the untapped riches of the Pacific has begun to show its true potential: villages, communities, tribes, clans and districts are planning, implementing and enforcing management at the local level. The challenge for policymakers, scientists, government and non-government institutions is to support and promote this decentralized island way as a vital foundation in a truly regional approach to integrated island management that can address the pressing issues associated with sustaining the region’s reefs and livelihoods⁹.

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⁷ Data from FLMMA and SI FSP/SIDT sites suggest that currently village sites can be supported for around US\$2,000 per year during their startup phase (maybe 3 years). The bulk of cash expenditure is in transport and salaries. There is every reason to suppose that this can be substantially reduced at economies of scale.

⁸ Wilson (2007) warns that self-interest frequently clouds the priority setting capacity of researchers.

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