People and Reefs in the Pacific – People and Livelihoods

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Pacific Islands at Risk
The future of Pacific Island peoples is inextricably linked to their 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.

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.

The increasing pressure on these life supporting ecosystems has been 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 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, trying to diversify livelihoods in order to reduce the extractive pressure on coastal resources, have not achieved even a fraction of their intended impact. Worryingly, it appears that these projects may even distract both donors and communities from addressing more effective forms of resource management.

Several decades of conservation funding seem to have generally under-performed also with the output of paper vastly outweighing tangible impacts. This is apparent in the numerous “paper” protected areas, the development of unenforceable policy and legislation and the accumulation of largely misguided or irrelevant research studies.

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. But 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.

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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. 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 the customary or traditional to complex multi-stakeholder co-
management.

These approaches are known by as many names as there are sponsors; LMMA,
VBRMA, CBRM, CBFM, VFMP 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.
- Improved fishery landings: experiences from within the region and nearby
  Philippines show that, depending on species, catches may be sustained or
  increased.
- Governance: communities may improve decision-making processes, link to
  other organizations and institutions, influence policy development, reduce
  internal conflicts and of course, central to resource management, improve
  compliance and enforcement.
- Community organization: simple resource planning and facilitation processes
  are being used to support community endeavors in other fields. Community
  institutions used for management may be used for other purposes or be adapted
  to handle other types of projects.
- 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 helps
  provide local security.
- Health: improving or securing the supply of marine protein has a direct impact
  on community wellbeing aside from the potential to use the same planning
  process for other community priorities including health.

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8 Locally Managed Marine Areas, Village Based Resource Management Areas, Community Based
Resource Management, Community Based Fisheries Management, Village Fisheries Management Plans.
10 Tawake et al. 2001, Russ et al 2004, Abesamis and Russ 2005 but see concerns e.g. Foale and Menele
13 FSPI 2006 (cf. Paonangisu, Vanuatu), Participatory marine resource planning exercises have been used
subsequently by other projects e.g. Small Grants programmes in Solomon Islands
Although by no means will all these benefits 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.

**Characteristics of community based adaptive management initiatives**

The approach which can be broadly termed Community-Based Adaptive Management (CBAM) 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 but also, involving 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 periodically. 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 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 are not usually monetary.

It is clear that community based adaptive management is a simple and not even alien concept given its similarity to many traditional resource management approaches. What is relatively new, or at least so far not widely accepted, is the proposal that this approach should form the basis for securing the wellbeing 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 practicing 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 the Western Conservationists’ dream of “representative networks of MPAs” but rather the much more widely called for systems of Integrated Coastal (or Island) Management (ICM)

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17 See for example Johannes 1998 and the case for data-less management
that address livelihoods, development, inshore fisheries and conservation as a whole\textsuperscript{18}. 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\textsuperscript{19}.

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

- **Strengthen and adapt national and sub-national 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 which 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\textsuperscript{20}.

- **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, new information can later be incorporated into cycles of adaptive management. The costs in establishing and supporting communities must be in the order of hundreds of dollars for them to be sustained in the long run by government – emerging data suggests that this is achievable\textsuperscript{21}.

- **Research needs to be more responsive to the needs of the managers** AKA communities and their support agencies. At present research and capacity priorities are often derived from outside the region based on models of management that are not applicable. There now is 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 needed\textsuperscript{22}.

- **Avoid disappointments foretold**. Communities are getting involved because they want to manage their resources better for their own benefit. Unrealistically promoting the benefits of MPAs or providing “incentives” are common strategies despite the lack of demonstrable long term success. These are not only financially un-sustainable in a national ICM framework but also erode the

\textsuperscript{18} Whittingham et al. 2003, Bell et al. 2006, World bank 2006.

\textsuperscript{19} Tawake in Prep., Aswani and Hamilton 2004.


\textsuperscript{21} Data from FLMMA and SI FSP/SIDT sites suggest that currently village sites can be supported for around 2,000USD per year during their start up 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.

\textsuperscript{22} Wilson 2007 warns that self interest frequently clouds the priority setting capacity of researchers.
vital empowerment and ownership communities achieve when observe the connection between their actions and accrued benefits.

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 policy-makers, scientists, government and non government institutions is to support and promote this de-centralized 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 livelihoods.23

23 The following are acknowledged for their valued discussion and contribution: Daniel Afzal, Zaidy Khan, Bob Gillett, Bill Aalbersberg and of course all the communities across the region who actually do this stuff!
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