"Management over ownership": Modern community cooperation in Langalanga Lagoon, Solomon Islands

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Abstract

In many Pacific Island countries, modernity has weakened the foundation of community-based resource management. In this article we describe a cooperative process among six communities in Langalanga Lagoon in order to explore how collective efforts to improve natural resource management can evolve in situations where natural resources are degraded and contested, and where both traditional and centralised mechanisms to control use have either been weakened or are missing. For over five years, communities in Langalanga Lagoon have gone through several phases of increasing cooperation initiated and driven by community members to reach a level of association that has been formalised as a community-based organisation. A management plan for a locally managed marine area has been developed, but has not yet been fully implemented. Although community cooperation has been predominantly an internal negotiation, activities by non-governmental organisations have facilitated its development. This case study in Langalanga Lagoon demonstrates that, in some situations, the role of a management partner is to support emerging processes that may only be part of a longer journey. Although sustainable fishing has not been achieved in Langalanga Lagoon, the re-invented community cooperation suggests that degrading trajectories can be altered through community-driven processes, even when suitable conditions for community-based resource management are absent.

Introduction

Pacific Island communities must negotiate an uncertain future under the impact of rapid social and environmental change (Bell et al. 2009; UNEP 2016; Watson et al. 2016). The degradation of coastal ecosystems is particularly worrying because about half of Pacific Island households derive their food and income from coastal fisheries (SPC 2015). A central challenge for managing Pacific Island coastal fisheries for food security and livelihoods is how to respond to a range of modern social and ecological drivers of change (Bell et al. 2016; Sulu et al. 2015).

National government agencies in Pacific Island countries and territories often lack the capacity to effectively manage coastal fisheries (Govan 2014). Therefore, community-based resource management (CBRM) has become a dominant policy approach in the region (Govan et al. 2009; Cohen et al. 2014; Jupiter et al. 2014; SPC 2015). In Solomon Islands, for example, CBRM is identified as the national strategy to improve food security, adapt to climate change, and conserve threatened species (MECM/MFMR 2010). This community-based approach builds on customary marine tenure, traditional ecological knowledge, and existing leadership structures as the foundations of communal efforts to safeguard resources (Johannes 2002). How CBRM is formed and institutionalised varies, but seems to benefit from clear system boundaries and aspects of legitimacy (Abernethy et al. 2014) — attributes that appear increasingly challenging as populations grow and urbanise. Understanding how community-based approaches can develop in these settings is a central problem for policies and strategies seeking to spread CBRM.

In this article, we draw on a case study from Langalanga Lagoon in Malaita Province, Solomon Islands (Fig. 1), where several communities of different tribal origins have settled over a long time. The lagoon is adjacent to the provincial capital, Auki, which influences daily life in the lagoon, including through providing access to markets. Six communities in the lagoon are working together to improve resource management. We use this case to explore how community-based resource management can evolve in contemporary Pacific Island situations where natural resources are degraded and highly contested, and both traditional and centralised mechanisms to control use are either weakened or

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missing. We draw on participatory action research documentation to describe events as they unfolded over five years: from small scattered initiatives to the formalisation of a community-based organisation and the development of a management plan for a locally managed marine area (LMMA).

Langalanga Lagoon

Langalanga Lagoon is one of the most densely populated regions of Malaita Province (SINSO 2009). The narrow lagoon is fringed by mangrove forests and sago wetlands. The lagoon is inhabited by two ethnic groups: the Langalanga and the Kwara'ae. According to oral history, the Langalanga people are originally migrants from different parts of Malaita who settled in the mangroves and on artificial islands built from coral rubble, approximately 15 generations ago (Goto 1996). Over time these newcomers merged into a distinct cultural group with their own language and culture. They are called, and refer to themselves, as *solwata pipol*, reflecting the fact that their livelihoods principally revolve around the sea (Sulu et al. 2015). The Kwara'ae, in contrast, are known as the *bush pipol*. Historically, they relied on shifting cultivation on the forested slopes, and bartered root crops for fish with the *solwata pipol* (Burt 1982). From the 1920s, the Kwara'ae settled in villages in the lowlands, and started clearing land for cocoa and coconut plantations. Most land is under customary ownership by the Kwara'ae (Burt 1994). But the people of Langalanga Lagoon have ancestral fishing rights in the lagoon.

Until the 1940s, the main form of resource management in Langalanga Lagoon was the establishment of closed areas, in which fishing on a reef was periodically banned, usually in preparation for a feast. The closing of a reef was ritually sanctioned by traditional priests (*fataabu*), most often sacrificing pigs to the gods. In addition, there were gender-specific taboos that prevented women from entering certain reefs. Furthermore, there was a prohibition on eating certain marine species, such as sharks and sea cucumbers (Sulu et al. 2015). Christianisation resulted in the demise of these traditional management practices. Most people in the lagoon no longer consider the violation of traditional taboos as dangerous. Nowadays reefs are open to everyone, and sea cucumbers and shark fins are commonly sold to generate income. The use of destructive fishing practices, particularly dynamite fishing (Mauli 2009), has led to a significant decline in reef fish catches (Roeger et al. 2015)

Increasing population, food insecurity, livelihood demands, market pressures, destructive fishing practices, and weakened governance regimes have contributed to the decline of marine resources. There have been several attempts to establish LMMAs in Langalanga Lagoon (e.g. CRISP/FSPI 2005), but these have been unsuccessful. The reasons for these failures have not been systematically evaluated, but are generally attributed to high livelihood demands, misuse of funds among officials undermining credibility, and a lack of effective community-based governance structures.

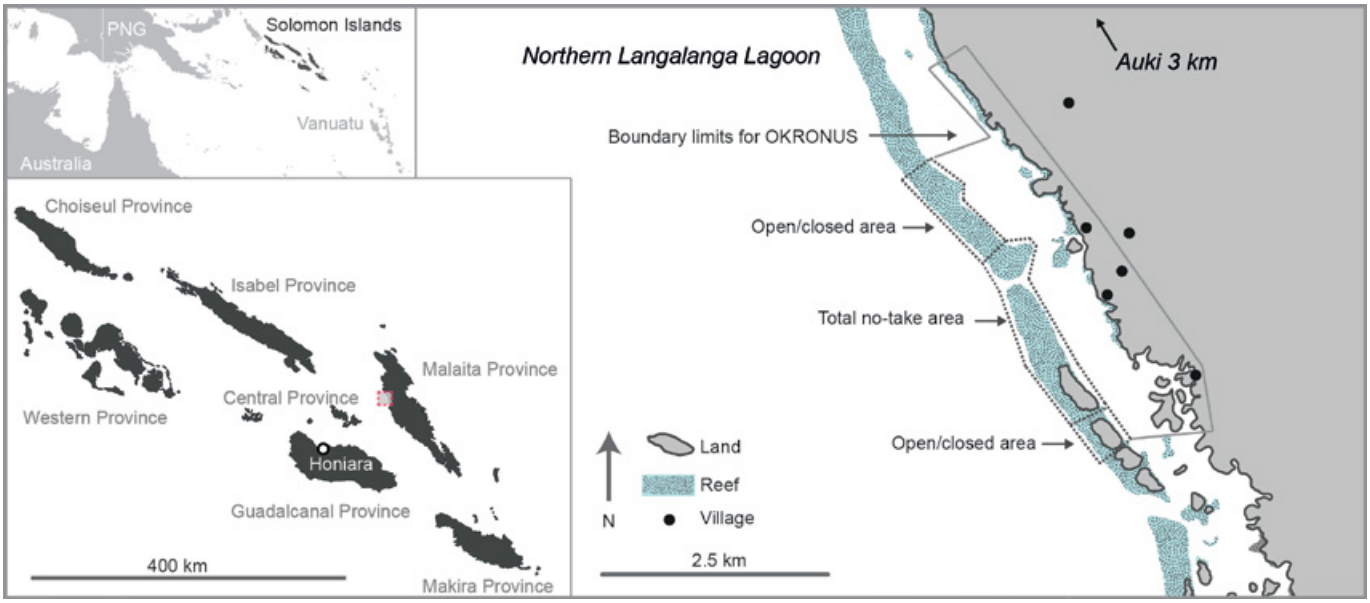

Figure 1. Langalanga Lagoon on the west coast of Malaita Province in Solomon Islands. The approximate locations of villages are shown by black circles and the boundaries of the locally managed marine area are outlined.

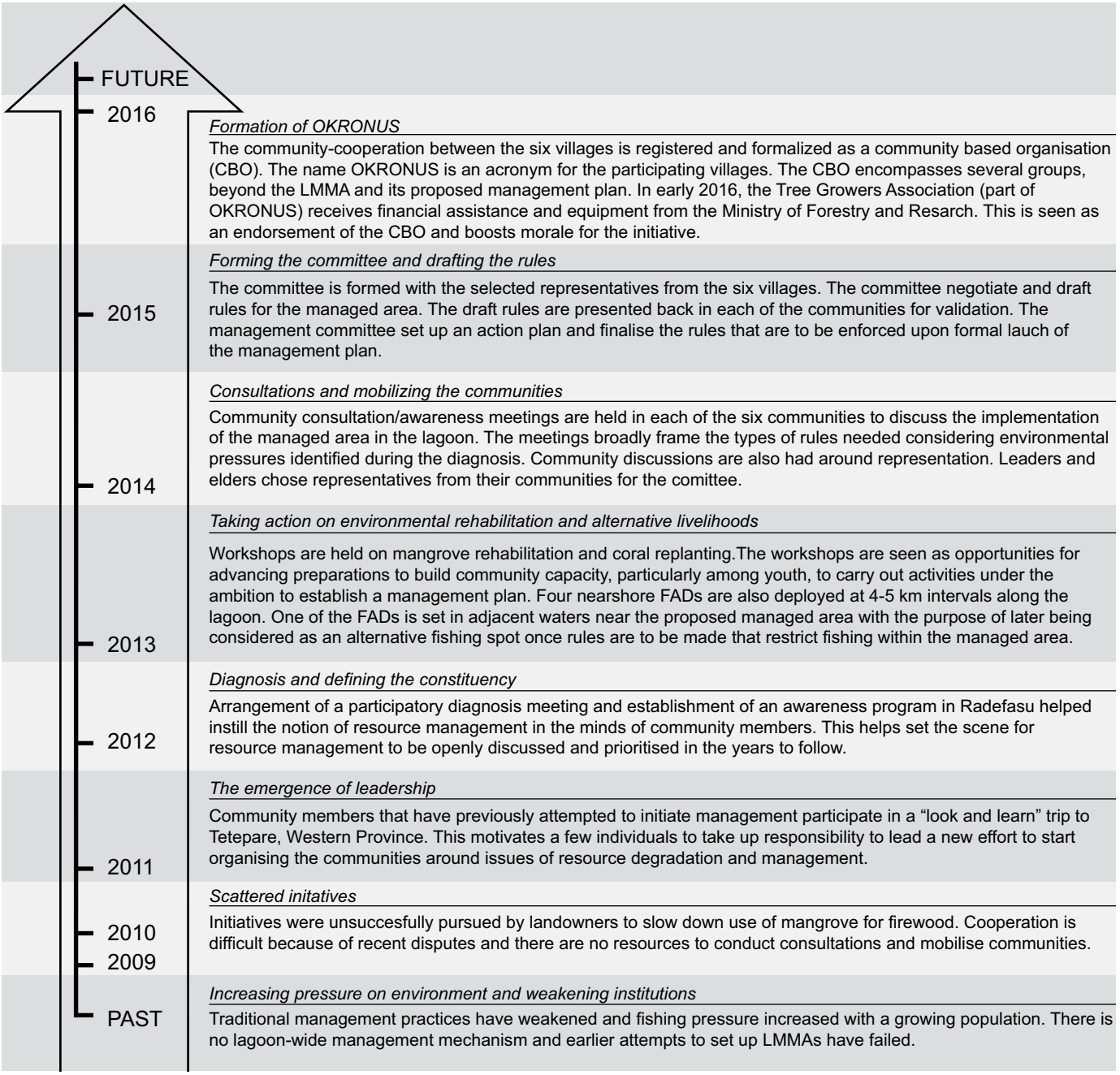

Figure 2. Timeline illustrating the processes leading to the formalisation of the community-based organisation.

Figure 3. Photos from Langalanga during the community cooperation process: A. Participatory diagnosis meeting; B. Mangrove replanting training; C. Coral replanting training; D. FAD deployment near the LMMA; E. Kiko stove training. (Photo A: Reuben Sulu; Photos B-D: Wade Fairley; Photo E: Meshach Sukulu)

Against the background of lagoon-wide uncertainty around governance and continued impacts on coastal environment, six communities (Oibola, Kona, Radefasu, Oneoneabu, Ura, and Sita) — comprising both Kwara'e and Langalanga people — are now working together to improve resource management. Here, we present a narrative of the community cooperation process that resulted in the creation of a management committee for the proposed Rarata/Sulialaga LMMA, and ultimately to the formalisation of a community-based organisation, illustrated in a timeline in Figure 2.

Description of the community cooperation process

Scattered initiatives and the emergence of leadership

The communal efforts to improve resource management were initiated and driven by two of the authors of this paper (DO and BW). These two men represent what is commonly referred to as "resource people" in Solomon Islands – community members who initiate communal activities. Their parents were leading figures in the community and have instilled in them the importance of managing marine resources. Growing up with this mind-set and witnessing the degradation of the marine resources they aimed at improving resource management.

At first their efforts focused on the conservation of mangroves in two villages. In 2009–2010, they made several unsuccessful attempts to ban the use of mangroves as fuel wood. This failure was due to limited resources and capacity to conduct consultation meetings and awareness programmes in neighbouring villages that were also exploiting mangroves, and the lack of alternative fuel sources (Albert and Schwarz 2013).

In 2011 the resource people visited Tetepare Island, in Western Province, for a "look and learn" trip (arranged by the Australian People for Health, Education and Development Abroad and WorldFish), where an LMMA is implemented as part of an island-wide conservation initiative. This trip helped provide a glimpse of what might be achieved, and motivated the resource people to

mobilise communities around marine resource management. They started engaging neighbouring communities in dialogues on the degraded state of coastal fisheries.

Diagnosis and defining the constituency

In 2011, discussions on marine resource management started to gain momentum. The Provincial Fisheries Division was approached to inquire about the possibility of establishing a marine managed area, and to seek awareness materials that could be used to facilitate community meetings.

Recognising these local efforts, WorldFish in 2012 arranged a workshop in Auki for interested people to design a project based on the ecosystem approach to fisheries management (EAFM) (Fig. 3A). The workshop brought together participants from different villages and followed a participatory diagnosis structure (Eriksson et al. 2016), where participants identify, prioritise and mobilise around shared issues.

Community members drew on their observations and experience to develop a suitable management model. They suggested that engaging six communities in negotiations on a proposed LMMA would be required. The resource people presented the LMMA to the communities for approval or consent, which offered people in these communities the chance to express their views on any implications and costs. The main reason for this inclusive approach was to avoid triggering disputes or conflicts.

Taking action on environmental rehabilitation

The 2012 diagnosis workshop identified key issues to be addressed, including: habitat rehabilitation, enhanced livelihoods to help reduce pressure on reef and mangrove resources, alternatives to the heavy use of mangrove firewood, development of awareness raising material, and addressing governance issues.

Habitat rehabilitation had already begun in 2010, when some people voluntarily tested ways to improve the marine environment, one of which was mangrove replanting. Following the diagnosis workshop in 2012, mangrove rehabilitation and coral replanting workshops were arranged by non-governmental organisations (i.e. WorldFish, World Wildlife Fund, and Save the Children; Fig. 3B, C). These workshops enabled community members to take action and to further raise awareness and community capacity to carry out rehabilitation activities. This was seen as an important outcome, ensuring that community members, particularly youth, can implement these activities on their own.

Under the EAFM project, support was provided for the development and deployment of nearshore fish aggregating devices (FADs) as a response to the diagnosis priority of enhanced livelihoods (Fig. 3D). Four FADs were constructed, which involved training community members in how to build and maintain them by WorldFish staff, with the support of the Provincial Fisheries Division and MFMR. The FADs were deployed outside of the reef and were designed to attract pelagic fish. One FAD deployed near the proposed managed area was meant to be an alternative fishing location once rules were applied to the managed area. The project also supported the production of a DVD as a response to the diagnosis priority to produce awareness materials. The DVD was later used in community consultations to attract participants, and to generate a starting point for discussion when addressing cooperative management mechanisms.

Consultations and mobilising communities

In July 2014, having felt that there was support for a marine managed area, resource people arranged meetings in each of the six communities. Again, it is important to note that these meetings were facilitated and led by the resource people themselves. A WorldFish staff member from one of the participating communities assisted, but there was otherwise no involvement of external people. In total, 522 participants attended these meetings, which were arranged with assistance from chiefs, landowner representatives, elders and church leaders.

At the meetings, it was explained that the establishment of an LMMA is a community-driven initiative, and that those taking the lead do so voluntarily. WorldFish provided funds for transport to the meetings, and the production of awareness materials and equipment, but there were no personal payments. This was clarified for all communities in order to avoid the suspicion that leading figures were engaging in activities to secure funds for personal gain. In the past, community representatives or fisheries officers have misused donor funds, which led to community members developing a cynical view of people who associated themselves with NGOs.

The meetings called for immediate actions to address the rate at which marine resources were declining. Discussions stressed the importance of taking action to manage resources without getting distracted by conflicts over tenure: the so-called "management over ownership" approach. A draft management plan, including proposed boundaries for a managed area (Fig. 1), was developed, highlighting the need for shared responsibility and cooperation among the six communities. The

approach was meant to be adaptive and so could be amended to accommodate the interest of members of respective communities, regardless of an individual's status in them.

The meetings emphasised objectives to rehabilitate habitats and ensure sustainability of fisheries-associated livelihoods and food security. Sensitive issues, such as ownership and economic benefits, which could trigger conflict among the different individuals and communities, were avoided. Cooperation among the different communities had always been to be a complex issue, primarily due to conflicts over land and marine resources. But in this case, despite the differences and challenges, the communities agreed to work together and acknowledge the need for cooperation to address this common issue. Everyone could see for themselves the degradation of the marine environment, which helped in reaching an agreement and mobilising involvement. Communities were also informed of plans to register the management plan under appropriate legal provision so that enforcement could be tackled even beyond local levels.

Forming the committee and drafting the rules

Having gained the assurance and consent from all leaders and tribes within the six communities to work together towards the shared management plan for the LMMA, a committee was formed. The management committee consisted of representatives from the six villages who were chosen by tribal leaders, village chiefs, church leaders, women's group leaders, youth leaders and elders. The aspiration was to assure a fair selection of representatives in the interest of the entire community.

The selected committee developed an action plan to establish the LMMA. The purpose of the committee was to make management decisions as well as take the lead in implementing activities that were outlined in their action plan.

Upon establishing the management committee (with 19 representatives from the six communities), a meeting was organised in August 2014 to draft rules and regulations. The committee agreed on the boundaries limits of the management area, and then returned to each community to discuss these rules. Being aware of the need for broad involvement, everyone was encouraged to voice their views, including women, who are usually left out of decision-making in this region (Lawless and Teioli 2015). Women's views and suggestions were encouraged in an effort to ensure their voices were reflected in the final rules. In April 2015, the committee met again to finalise the rules.

Formation of the community-based organisation

In 2015, the committee planned to register as a community-based organisation (CBO). In Solomon Islands, registering as a CBO means empowering a community to become self-competent in trying to address its own challenges with little support from partners. The process of registering a CBO in Solomon Islands involves submitting a registration form, a common seal and a constitution to the Company House's Registrar, under the Ministry of Commerce, Industries, Labour and Immigration. This process was carried out with financial support from WorldFish.

By 2015, mangrove replanting had become a considerable activity in the area. The reforestation division under the Ministry of Forestry and Research conducted awareness talks in some of these communities, promoting the incentive to support tree growers through registered associations. This triggered initial discussion around the CBO structure: whether to register an association specifically for tree growers, or a broader umbrella body that would represent all the communities, covering broad objectives under which all other sectors or initiatives (e.g. tree growers association) would reside. The latter was agreed on and the CBO was registered towards the end of 2015 as the OKRONUS Resource Management and Development Trust, with broad objectives that cater for any community group that might form now or in the future.[4]

A central aim of registering a CBO was to provide a platform upon which community cooperation could be harnessed to strengthen governance. Although it has been a long-time ambition of resource people to establish a formal entity to try and encourage cooperation in the absence of traditional governance systems, it was seen as impossible until having gone through the lengthy process.

OKRONUS offers a new and formal entry point to engage with for ministries and NGOs. In November 2015, WorldFish and Kastom Gaden Association arranged a training workshop in making a clay stove (known as a kiko stove) in all six villages, attracting 89 men and 137 women (Fig. 3E). This is more than six times as many participants as past habitat rehabilitation workshops had attracted, showcasing increasing participation rates in communal activities. The stoves are meant to increase fuel wood efficiency and reduce pressure on mangroves for fire wood, responding to one of the diagnosis priorities from 2012. In early 2016, the tree growers association received financial support and equipment from the Ministry of Forestry and Research to further its work on mangrove rehabilitation. This is seen as an endorsement within the communities and boosts morale around the CBO.

[4] OKRONUS is an acronym for the six participating villages: Oibola, Kona, Radefasu, Oneoneabu, Ura and Sita

Discussion

The ability of communities to self-govern coastal ecosystems and resources depends on clear system boundaries, such as places with a clearly defined area under management and a distinct set of resources users can agree on (Govan et al. 2009). In many modern Pacific Island situations, these conditions seem arduous because populations increase, migrate, urbanise and compete for declining resources. In Langalanga Lagoon, traditional institutions have weakened, which has led to land disputes (Sulu et al. 2015). Although there is still a long way to go to achieve the goal of sustainable fishing practices in Langalanga Lagoon, the "management over ownership" approach suggests that degrading trajectories can be altered through a community-driven process, even when suitable conditions for CBRM appear absent.

The longevity and positive outcomes of community-based initiatives depend on internal community processes (Abernethy et al. 2014). For example, social norms, perceptions and historical dynamics of how access to resources has been controlled can, at least in part, explain variable outcomes from CBRM (Blythe et al. in prep.). Here, we have tried to identify milestones in the journey towards community-based resource management in Langalanga Lagoon. Organisation emerged as an internal process, meaning that it was initiated and driven by community members and not a co-management partner with a set project start and end date. These community members were catalysts and led the work towards the LMMA management plan and establishment of a CBO, allowing time for the conversation to mature and find neutrality.

Leadership is important in developing new governance institutions (Gutierrez et al. 2011), and its legitimacy can determine how marine tenure conflicts emerge and are resolved in modern situations (Adhuri 2004). In Langalanga Lagoon, leadership seems to have emerged through a combination of traditional resource ownership, disappointment of past failures of external interventions, a strong connection with land and sea, and a frustration with ongoing environmental degradation. However, leadership seems also to have emerged as an obligation, responding to expectation from the community for resource people and traditional leaders to "step up". At the same time, the history of disputes means that leadership was a sensitive issue. Of the six communities involved, some had never been in conflict with each other, and having mediators from these neutral communities involved in the initial consultation phases helped to promote neutrality of the initiative and the attempted neutral position of local traditional leaders.

Defining the management constituency is now widely accepted as an integral part of fisheries management (Andrew et al. 2007). Although community cooperation has been predominantly an internal negotiation, activities by NGOs have facilitated its development. The lengthy participatory diagnosis convened by WorldFish during 2011–2012, followed by regular and deliberate internal consultations led by traditional leaders and community members, seems to have mobilised community cooperation (van der Ploeg et al. 2015). The diagnosis process facilitated the identification, prioritisation and mobilisation around issues. The activities that followed (e.g. mangrove replanting workshop, coral replanting workshop, deployment of FADs, recording and presentation of awareness raising DVD) helped convene communities around their prioritised actions, and facilitated conversations around shared resources and their management.

In situations like Langalanga Lagoon with different ethnic groups and tribes with histories of disputes over land boundaries and resource ownership, external partners must be sensitive to the social fabric within and among communities. The process that we have described has taken five years and the LMMA is not yet implemented. Allowing the process to take time for consultations and sensitivities was critical, considering the fragile ground for cooperation from the history of land disputes. This serves as a lesson that, in some situations, the role of a management partner is not to rush through the internal processes seen as necessary to achieve a management plan or an implemented LMMA, but rather to identify and support emerging processes that may only be part of a longer journey.

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