

Institutional Arrangements for Local Management of Marine Areas in the Eastern Caribbean

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ABSTRACT

There is interest in MPAs in the eastern Caribbean and efforts to establish them. These initiatives have mainly been government led, but some have been participatory, resulting in government sharing management authority. Such initiatives have aimed for consultative or collaborative co-management (as in Grenada to date), but seldom delegated or community-based co-management (as attempted in Saint Lucia and Dominica). In the Pacific region, locally managed marine areas (LMMAs) are commonplace and key to biodiversity conservation and sustainable livelihoods. Eastern Caribbean fisheries legislation provides for local area management authorities (LAMAs), but if and how these provisions are used differs among countries. LAMAs may potentially be alternative or supplementary marine governance arrangements in relation to MPAs, similar to LMMAs in the Pacific. This paper reports on institutional and governance aspects of CERMES Local Area Management Project (LAMP). The aims were to provide a SWOT analysis of existing LAMAs, identify strategies for addressing sustainable fisheries by improving existing LAMAs and establishing others, and develop a strategy for establishing LAMAs or another management mechanism to allow community management of resources to reduce fishing pressure in and around MPAs. From January to September 2010 field research, workshops and communication took place in the study sites - Dominica and Grenada - using participatory methods. Lessons learned from the LAMA in Dominica, the potential for improvement there, and the application of lessons to Grenada were examined to help advance the governance of coastal and marine resources in these and other countries in the eastern Caribbean.

KEY WORDS: Institutions, local area management authority, marine resource governance

Los Arreglos Institucionales para la Gestión Local de las Zonas Marinas en el Caribe Oriental

PALABRAS CLAVE: Institucionales, gestión local, Caribe Oriental

Les Arrangements Institutionnels pour la Gestion Locale des Zones Marines dans les Caraïbes Orientales

MOTS CLÉS: Institutionnels, gestion locale, Caraïbes Orientales

INTRODUCTION

The Nature Conservancy (TNC) received a grant from the United States Agency for International Development (USAID) to conduct the *Marine and Coastal Biodiversity Threat Abatement in the Eastern Caribbean project*. This project is intricately linked to moving the region towards achieving long-term protected area management goals and therefore protecting the biodiversity contained within the protected areas systems of each country. TNC and USAID suggest that a comprehensive package to improve the management of marine resource biodiversity must include improved capacity for managing the marine environment in use zones; policies and regulations that support management of marine biodiversity; economic development, benefit sharing and involvement of primary users; and educational outreach to involve the public, business interests and policy decision makers (McConney et al. 2010a, McConney et al. 2010b, McConney et al. 2010c).

The Nature Conservancy's (TNC) primary strategy in the insular Caribbean is to help countries meet and exceed their commitments to the Convention for Biological Diversity (CBD) Program of Work for Protected Areas (PoWPA) to establish an effectively managed network of marine protected areas (MPAs). This includes attention to

marine resource governance. To assist with the latter, TNC partnered with The University of the West Indies, Centre for Resource Management and Environmental Studies (CERMES), Marine Resource Governance in the Eastern Caribbean (MarGov) project. The goal of MarGov, grant funded primarily by the International Development Research Centre (IDRC) of Canada, is to understand marine resource governance related to small-scale fisheries and coastal management in the eastern Caribbean using complex adaptive system (CAS) and social-ecological system (SES) concepts. The partnership between TNC and CERMES MarGov project initiated the Local Area Management Project (LAMP) from January to September 2010.

Approximately four percent (4%) of the Eastern Caribbean's marine shelf is under some form of protection. However, less than one in five of these areas is considered to be effectively managed. In the Pacific region the locally managed marine area (LMMA) is a commonplace customary cultural feature and key to biodiversity conservation and sustainable livelihoods (Govan 2009). Tenure over lagoons, and coral reef areas is part of the tradition of governance. When the OECS harmonized fisheries legislation was being drafted in the early 1980s

several provisions were borrowed from legislation and practices in the Pacific. One of these was the locally managed fishery area and governance over that space being delegated to a local area management authority (LAMA). Incorporated into their Fisheries Acts, Saint Lucia and Dominica have used the provision to set up marine protected areas that have, respectively, a not-for-profit company and a community-based institution managing them. The case of Saint Lucia's Soufriere Marine Management Area (SMMA) has been reasonably well documented, but the Soufriere/Scott's Head Marine Reserve (SSMR) in Dominica has been much less studied. Grenada, on the other hand, has disregarded this provision in their Fisheries Act and established marine reserves under another provision with regulations developed for management (McConney et al. 2010c).

Since the Dominica and Grenada MPA sites all have the potential to inform thinking about local area management as an institution of marine governance the LAMP chose to focus on these islands for its research. The Soufriere/Scotts Head Marine Reserve (SSMR) was the selected specific study site within Dominica given its history of having a LAMA as an informal institution that was later formally institutionalised by law and administrative practice. The research purpose was to learn about the LAMA within the context of the SSMR and coastal and fisheries management and to present the key learning in the context of more general application to the eastern Caribbean that includes Grenada, the other LAMP study site which has several MPAs at different stages of development (McConney *et al.* 2010 a and b). Some of these areas may be amenable to local, rather than state-led national level, governance which to date has focused on various co-management arrangements. This work contributed towards meeting the following project deliverables:

- i) Provision of a strengths, weaknesses, opportunities and threats (SWOT) analysis of existing Local Area Management Authorities (LAMAs) – and identify strategies for addressing sustainable fisheries by improving existing LAMAs and establishing additional ones (Dominica focus),
- ii) Strategy for establishing LAMA or other management mechanism to allow community management of resources that would result in reduced fishing pressure in and around the MPA (Dominica focus),
- iii) Identify enabling policy, legislation, institutions and regulatory conditions required for establishment and effective functioning of Local Area Management Authorities (LAMAs) for fisheries management as provided for in OECS harmonized legislation for fisheries (Shared focus),
- iv) Increased and shared knowledge of LAMAs as a form of legally institutionalized fisheries governance that facilitates local level stakeholder involvement (Shared focus)

- v) Communication products and pathways for influencing policy makers and other key change agents on effective regional fisheries governance (Shared focus)

This paper focuses on the governance aspects of the research, while communication is addressed elsewhere.



Figure 1. MPA study sites were located in Dominica and Grenada

METHODS

The LAMP research methods were informed and guided by the participatory action research (PAR) methodology of the MarGov project. LAMP involved stakeholders actively in research from inception to validation and helped to develop capacity on site. There were advocacy elements that made it 'action' research. These aimed to promote and facilitate good marine resource governance. They encouraged movement away from the concepts of conventional top-down resource governance towards emerging ones of complex adaptive systems and social-ecological systems that promise better insight into persistent problems. The focus was on research rather than development or "fixing". This emphasised obtaining data, information and knowledge through learning and experimentation. It was different from suggesting that the project offered "the answer" to any problem. The major conceptual framework that guided the research concerned institutional analysis through review of secondary sources of data, stakeholder identification, historical matrix and SWOT (strengths, weaknesses, opportunities, threats) analyses, interviews and on-site observations. The framework was much more loosely applied to Grenada than Dominica since the former had neither a LAMA nor co-management actually in place at the time of investigation (McConney et al. 2010a and b).

The thrust of the Grenada research was to determine the extent to which local area management was feasible either in the form of the LAMA or, more likely, through greater emphasis on local or community-based co-management versus the current model of national level co-management even if implemented at the site/local level. Whereas in Dominica the focus was on the single marine reserve that had a LAMA, in Grenada the LAMP looked at all three MPAs that were at different points along the trajectory towards co-management (McConney et al. 2010b).

Institutional Analysis

The institutional analysis, based on the model shown in Figure 2, tied together information from the various sources (documents, inception workshop, interviews, observation) and built to key learning about the SSMR/LAMA system through examination of interactions and outcomes.

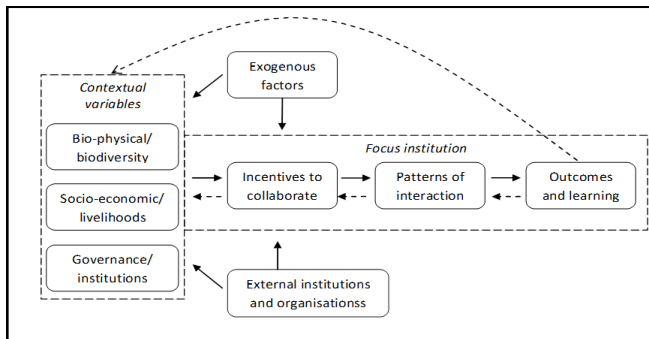


Figure 2. Institutional analysis conceptual research framework

Secondary Data Sources

Secondary data on the SSMR and LAMA were acquired from documents and the internet. Additional secondary data, laws, documents and personal contact information available more readily or only in Dominica was provided by an on-site research assistant from the Fisheries Division contracted by LAMP. Fisheries Division files on the SSMR and LAMA were made available without restriction. Some LAMA members also made their personal records of LAMA meetings available (McConney et al. 2010a). Although historical documentation was scarce in Dominica it was virtually absent in Grenada in relation to the main purpose of LAMP (McConney et al. 2010b).

Workshops and Meetings

An inception project workshop was held on 9 March 2010 in Scotts Head, Dominica. Several methods of investigation were presented, and some implemented, during the workshop. The purpose of the workshop was twofold – (1) to explain the project to key stakeholders and (2) to obtain their expert input into filling knowledge gaps

in the secondary data through stakeholder identification, historical matrix and SWOT analysis, and to identify new issues via a facilitated group process. (McConney et al. 2010a).

There was no major inception workshop in Grenada. Instead, the team insinuated itself into the ongoing work plan of the MPA Coordinator who focused upon officially launching the MPAs (two declared since 2001) and establishing co-management arrangements. Unlike Dominica where meetings were called by LAMP, in Grenada most of the events were called by or done in collaboration with the MPA Coordinator. This included the LAMP terminal workshop that brought stakeholders from all of the Grenada MPAs together for the first time as well as brought over two Dominica LAMA members in a knowledge exchange initiative (McConney et al. 2010b).

Interviews and Observations

Using the stakeholder identification, people involved in the SSMR LAMA and accessible to the researchers were contacted and most were interviewed using unstructured or semi-structured techniques. A few additional persons, mainly fishers and a businessperson encountered in the area of the SSMR, were informally and opportunistically interviewed. The interviews filled gaps in the other methods, helped to triangulate and interpret other information, and provided more current perspectives than many documents. Field notes were compiled from the interviews and incorporated into research findings (McConney et al. 2010a). Given the few days available for fieldwork, the observations were very limited. In Grenada only informal and group interviews were conducted, but there was much reliance upon participant observation as the LAMP team members assisted with various assignments and participated in events organised by the MPA Coordinator. Photographs supplemented observations (McConney et al. 2010b).

Validation

Dominica LAMP research findings were presented at a validation workshop held at the Fisheries Division on 19 July 2010. Participants comprised mainly key informants who had been interviewed during the inception site visit (in March) and other stakeholders. Site visits to Soufriere and Scotts Head were made from 20 - 21 July 2010 to obtain feedback from community members and other stakeholders not at the validation workshop (McConney et al. 2010a).

For this validation visit, CERMES partnered with the Caribbean Natural Resources Institute (CANARI) and Panos Caribbean for perspectives on institutional analysis and communication. In addition, two Grenada participants -- the MPA Coordinator, Fisheries Division, and a Woburn/Clarke's Court Bay (WCCB) MPA Steering Committee member -- joined the extended LAMP team. The MPA Coordinator was invited to learn from the Dominica experiences and was interested in SMMA stakeholder

views in terms of setting up the MPAs in Grenada. The WCCB MPA committee member was particularly interested in the Dominica story and its application to the soon-to-be-launched WCCB MPA (McConney et al. 2010a).

The validation session was informal and highly interactive. The draft executive summary of the LAMP report was circulated to all participants prior to the validation meeting. Key bio-physical, socio-economic and governance findings as well as recommendations from the LAMP research were discussed individually.

RESULTS

Dominica

Documents and data concerning the SSMR and LAMA were found mainly on the internet and in the Fisheries Division. More ecological documents, such as dive survey results and academic papers, exist than those consulted. They all point to reasonably healthy ecological conditions in the SSMR. The socio-economic and livelihood documents and data were scarcer, but several related to poverty assessments and disaster recovery or mitigation reports as described in the contextual variables. Although not all socio-economic data sources were examined (e.g. census and labour force surveys), the general impression from literature is of an area with narrow livelihood opportunities due, in part, to limited entrepreneurial capacity amongst residents, and conditions that do not encourage high investment. A livelihoods analysis of the settlements around the SSMR was not available. No complete record of the LAMA is available anywhere. It is highly fragmented. (McConney et al. 2010a)

More attention was paid to governance. Key legal institutional documents examined were the several pieces of legislation that set up the SSMR and LAMA, along with the original and the recent draft SSMR management plans. There were also little-known draft bye-laws for the LAMA and several copies of LAMA meeting minutes. Governance, or institutions more generally, seemed to have received the least research attention or administrative documentation with respect to the SSMR and LAMA compared to ecology (the common concern of MPAs) and livelihoods (a stated priority interest of the Fisheries Division). The institutional analysis (see below) presents the bulk of results obtained using these methods (McConney et al. 2010a).

The Dominica LAMP inception workshop helped to complete stakeholder identification, a historical matrix and SWOT analysis on the spot. The matrix clearly shows the ecological and livelihood concerns in the origins of the SSMR, with the legally constituted MPA and its LAMA coming into being quite awhile after functioning informally. Participants recall the first ten years of the arrangement, when it was informal, as being the most dynamic and relatively free of conflict. The trends analysis also shows that the demise of the LAMA as a governance institution

has not yet appeared to have had disastrous impacts on the bio-physical aspects of the SSMR since the wardens have been functioning despite the governance handicap. Livelihoods also appear to be in need of attention. This historical matrix is incomplete in terms of details and some dates need to be further validated. Sources suggested that more projects had taken place in the area. These details are, however, not likely to change the larger picture of major trends illustrated in the matrix. See McConney et al. (2010a) for more details.

With respect to the SWOT analysis, strengths were strongly associated mainly with the early and informal phase of the LAMA. Weaknesses were conversely associated with later and current phases. The opportunities presented were centred on the LAMA still having strong community support as an institution, even if there was less confidence in its current leaders. Threats were focused upon the shared feeling that the LAMA was running out of time to get its act together. In this respect, either it would lose its remaining capacity, or it would be displaced by an alternative arrangement such as authority being exercised more directly by Fisheries Division (McConney et al. 2010a).

In summary, the experiences with the LAMA were mixed. The dominant factor was consensus that the LAMA was controlled or led by a few people who were involved from the start, and who were not inclined to share power or change their ways even as they saw the LAMA decline. This decline, they said, did not affect the ecological health of the SSMR much, but some said livelihoods in the area had been constrained by legislation, LAMA decisions as well as other factors. Changes to improve the LAMA ranged from doing nothing but putting new people in charge, to more drastic changes such as downsizing and reconfiguring the structure of the LAMA. Additional knowledge for understanding and interpreting the LAMA came mainly from the fisheries authority and LAMA leaders. Insight included maintaining the cultural and economic identity of the people and place, and working with the limited leadership and entrepreneurial capacity. The team's observations were restricted by the few days of fieldwork, and they appreciated that their ability to triangulate and validate the information from literature, inception workshop and interviews was limited. However, sufficient information was obtained to fit into the institutional analysis framework. See McConney et al. (2010) for the detailed institutional analysis and its outcomes and key learning that led to the following recommendations being made to the validation meeting:

- i) Conduct a more thorough institutional analysis to provide better information for decisions, including monitoring and evaluation to facilitate social learning and adaptive management;
- ii) Review the Lawrence et al. (1994) and Hoggarth (2002) management plans in the light of current best practices to develop an acceptable manage-

- ment plan as the foremost priority;
- iii) Introduce regular measurement of MPA management effectiveness such as from the “How is your MPA doing?” guidebook or similar, along with incentives to sustain the measurement;
 - iv) Find short-term funds for immediately hiring a full-time manager for the SSMR to solve the current operational problems and assist in guiding the process of management planning;
 - v) Develop, along with the management plan, a sustainable financing plan with a view to sustaining the salary and benefits of the manager, wardens and other essential staff;
 - vi) Obtain a legal-administrative review of SSMR/LAMA legislation, by-laws and procedures to fix any inconsistencies and ensure all is put in place to support the new management plan;
 - vii) Re-structure the LAMA to have a small executive board of core stakeholders surrounded by a broader stakeholder advisory group, both of which have clear terms of reference;
 - viii) Develop a communications strategy and plan for the LAMA after doing communication needs and capacity assessments to determine what is needed and the capacity to deliver it;
 - ix) Network the LAMA closely with community and business development agencies that can assist in meeting the needs of the residents without overburdening the LAMA with demands;
 - x) Establish a SSMR Foundation or something similar as a means of growing revenue not to be immediately spent and channelling any excess funds into community development activities;
 - xi) Initiate orientation and career development training for LAMA members and SSMR staff respectively in order to increase their capacities and keep a record for future requirements;
 - xii) Create closer linkages between the SSMR and other MPAs in the Caribbean in order to build networked capacity and information exchange that could reduce the management burden, and
 - xiii) Align the SSMR vision, mission and objectives more with the Medium-Term Growth and Social Protection Strategy that seeks to optimise synergies between fishing and tourism.

Grenada

In the Grenada situation, the Chief Fisheries Officer informed LAMP that MPA-related policies were being built more by practice than through more formal dictates from policy-makers. He said that the situation was very dynamic and that current policy favoured MPAs since Grenada had been prominent in its support of the Caribbean Challenge. The Fisheries Division, which has legal responsibility for MPAs under the 1986 Fisheries Act and 2001 Fisheries (Marine Protected Areas) Regulations, was

forging ahead with its MPA programme, taking advantage of the political will which was beginning to translate into available budget (McConney et al. 2010b).

Most of the protected areas literature in Grenada was recent and was linked to a number of national and regional projects involving the TNC (e.g. Sector 2006, MacLeod 2007, OECS (e.g. Gardner 2006) and Sustainable Grenadines Project (e.g. SusGren 2008), for example. The LAMP team was able to acquire much of this electronically. However, there was little being recorded by the Fisheries Division on combining the results from the various initiatives or tracking its own co-management pathway except for what various consultants left behind (McConney et al. 2010b).

There had been several recent reviews of Grenada’s legislation in relation to protected areas (e.g. Gardner 2006). For LAMP a key factor was that sections 19 and 20 of the Fisheries Act that provide for local fisheries management areas and the establishment of local area management authorities (LAMAs) in provisions identical to those in Dominica have not been utilised. Instead section 23 that enables the Minister responsible for fisheries to declare marine reserves has been used. The 2001 Fisheries (Marine Protected Areas) Regulations establish governance structures, enforcement and other features (McConney et al. 2010b). However, these regulations are problematic. Apparent errors in drafting have made them difficult to interpret especially in relation to the governance structure encompassing the national MPA committee, the site-level committees and the MPA coordinator or manager. Added to this is the possibility of the entire structure changing if the proposed single protected areas authority is ever implemented rather than the current divided responsibilities undertaken by several agencies (McConney et al. 2010b).

In its quest to advance, the Fisheries Division has resorted to interpreting the confusing regulations to its advantage to experiment with various governance structures that approximate to the legal regime without trying to follow it precisely. This adaptive and informal approach is to be applauded once there is adequate legal backing for the decisions made and actions taken. An example of this is the forging of co-management agreements between the national MPA committee appointed by Cabinet and the site-level co-management committees that appear to have no legal standing or identity despite the considerable responsibility and possible legal liability that they have assumed.

SIOBMPA has a long history of local stakeholder engagement (CCA and CEC 2003, Byrne and Phillips 2006, SusGren 2008). Co-management of this MPA was on the cards for a long time. Although not “marketed” as local area management, because of distance from the mainland centres of governance, the powers delegated to the ministry on Carriacou and the smallness of the user groups, it always has been *de facto* local area management. Although SIOBMPA was the first to have a management plan (The Nature Conservancy and Grenada Fisheries

Division 2007), the plan explicitly focuses more on conservation and financing than governance.

In the initial stages the MPA was to have been managed by an indigenous NGO, the Carriacou Environmental Committee (CEC). Internal problems within the CEC and between this NGO and other agencies worked to rule out what could have been fairly straightforward delegated co-management. It then became necessary to establish a broader co-management committee that still had an overwhelmingly local composition and character. Thus, for most intents and purposes, the latter committee was synonymous with a LAMA apart from the legal foundation and legal jurisdiction under the Fisheries Act. McConney obtained detailed insight into how local area management could be further strengthened as he assisted the SIOBMPA co-management committee to craft an agreement between itself and the government at the invitation of the MPA Coordinator (McConney et al. 2010b).

In the case of the MBMPA, the co-management committee there does not have as long a history as the stakeholders at the SIOBMPA, but efforts to establish a management regime for the MBMPA have been in progress almost from the time of its declaration. Indeed while SIOBMPA was following a path of informal management, the MBMPA held the attention of the Fisheries Division, its use by dive operators and proximity to the capital perhaps being factors (McConney et al. 2010b). The LAMP team did not conduct fieldwork and visits to the MBMPA as much as to the other two in part because a consultancy to draft a management plan for the MPA was currently in progress as part of a larger package of donor assistance. The team did not want to interfere with this consultancy or cause confusion over who was doing what. It was decided that the main point of engagement would be to review the draft management plan to determine the likely fit with local area management (McConney et al. 2010b). Review of documents being used by the consultant to draft the management plan, while excellent in terms of interdisciplinary research, are low in governance content.

The table of contents of the draft management plan shows higher socio-economic and governance content than in the SIOBMPA management plan. But yet the governance provisions of the plan are fairly rudimentary. It makes little change to the status quo and does not explicitly advocate local area management. In the case of MBMPA, based upon the LAMP observations and advice of the fisheries officer, the Roby (2010) plan may be appropriate given the slimmer chance of sustaining a local area management structure since it had been suggested by fisheries officers that there was only limited use of the marine and coastal areas by the adjacent communities and within these, only by specialised interests such as fishers (McConney et al. 2010b).

Of greatest interest as a learning opportunity for introducing local area management is the WCCBMPA.

The MPA Coordinator assessed that this area may be suitable for local area management based mainly upon a few strong NGOs that are active in the area. Two of these are the Grenada Fund for Conservation (GFC) launched in 2007 and the Woburn Woodlands Development Organisation launched in 2009 (McConney et al. 2010b). Despite stronger civil society institutions than in the other areas, this area could also become difficult to co-manage given the number of existing, suspended and proposed infrastructure investments and developments in the area. Most of the issues concern tourism and nautical tourism. The LAMP team found that relatively little information on the ecological, socio-economic and governance aspects of the WCCB area was readily available compared to the other two MPAs. A full-scale study of these contexts would be necessary in order to provide an institutional analysis. The area, however, was clearly highly contested in terms of conservation versus development and it was not clear that it was an appropriate site for a MPA with strong conservation objectives unless the authorities were willing to reverse or rescind development permissions already granted and others that were rumoured. If local area management were to proceed, it would likely be as much on a commercial/business basis as a community basis (McConney et al. 2010b).

Dominica and Grenada Validation and Follow-up

Lively discussion was generated during presentation of the key findings during the validation session in Dominica. For the most part, the comments validated the key findings and recommendations. This helped to better understand the LAMA as an institution of governance for the area and to learn from the SSMR experiences so that lessons could be applied to Grenada (McConney et al. 2010a). At the validation workshop, consensus was built to hold a meeting on reviving or restructuring the LAMA. After not having had LAMA meetings for five years this was seen as a major success of the validation workshop. A core group of persons met on 28 July 2010 to discuss the way forward for the LAMA, establish a working group, develop a terms of reference and define the tasks of the working group. However, due to the absence of key LAMA members, lack of a copy of the LAMA draft constitution as well as lack of full support for such a working group by meeting participants, no progress has been made to date in restructuring or reviving the LAMA. Personality clashes and lack of leadership plague the LAMA interests at this time (McConney et al. 2010a).

In Grenada, two LAMA stakeholders, Vivian Titre the head warden and Billy Lawrence from the watersports association, were invited to and participated in the LAMP termination workshop held in Carriacou, Grenada, as the other part of the exchange visit between the two LAMP study sites. This workshop also served as the validation meeting for Grenada. Following a presentation on SMMR project findings a discussion was held on how some of the

lessons learned there could be applied to the SIOBMPA, MBMPA and WCCBMPA in Grenada. There was much appreciation of the exchange visit and opportunities to network that it provided to both study sites. However, for the SSMR, progress hinges upon making progress with reforming the institutions of governance.

DISCUSSION

The research revealed that policies supportive of civil society involvement were important in both study countries. These policies translated into legislation that could enable community-based co-management. Establishing the institutions for such co-management, more formally in the case of Dominica and more informally in the case of Grenada, was the common next step. In both cases the legislative framework was not perfect but the deficiencies did not constrain the initiative. Indeed the legislation was either used or ignored as a matter of convenience in an instrumental manner (McConney et al. 2010c).

Conventional wisdom is that legislation or strong customary traditions are fundamental to local area management. However, it may be equally true that legislation can constrain creativity and innovation in the crafting of appropriate institutions. The approach taken in Grenada to learn-by-doing is unconventional but may turn out to be quite effective and adaptive. In contrast, the LAMA in Dominica did not prove to be a learning institution. Instead the same issues arose over time and were not addressed. The LAMA, although governed only be an unfinished constitution, has chosen not to amend its structure or ways of operating despite numerous instances of internal conflict and an ineffective arrangement for dealing with stakeholder concerns (McConney et al. 2010c).

The study sites showed that policy is important and legislation less so. But, also critical is appropriate institutional design. The Grenada case suggests that local level institutions may not be feasible in all situations, and that national level co-management can be a viable option in such cases in order to maintain the thrust of participatory management. The Dominica case showed that a good initial institutional design can outlive its usefulness if it does not adapt to changing circumstances (McConney et al. 2010c).

The project provided more information on the LAMA in Dominica than previously existed. It shared the results of a rapid institutional analysis with both the stakeholders at that site and with those in a country that was in a position to make good use of the new knowledge. The latter in Grenada have shown considerable interest in learning from the SSMR LAMA. Although stakeholders in Dominica are not enthusiastic about reforming their governance institution due to several factors that have resulted in half a decade of inertia, it is also apparent from feedback that the study has increased levels of awareness

about the options available for initiating a process of reform (McConney et al. 2010c).

Although local area management is not deeply culturally embedded as a tradition in the Caribbean, unlike the Pacific, there are existing policy, legal and institutional foundations for advancing local level marine resource governance with compatible conservation and sustainable livelihood objectives. Although MPAs and locally managed areas need not be synonymous, it is likely that this will be the case in the eastern Caribbean. In many cases local area management can be expressed as community-based co-management with delegation of authority to institutions that may be informal or formal. These institutions will inevitably require an extended period for the development of locally relevant adaptive capacity along with support throughout the process of governance reform that will be necessary as the patterns of authority change to focus more on the local level. In all of this, effective communication to engage multiple stakeholders at levels from policy to practice is essential (McConney et al. 2010c).

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