Report of the first workshop on adaptive capacity for marine protected area governance in the eastern Caribbean

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OPENING AND INTRODUCTORY SESSION

The workshop held at the Tropicana Inn, St. George's, was opened by Johnson St. Louis who had been Acting Chief Fisheries Officer for the past several months during the leave of Chief Fisheries Officer Justin Rennie. The latter was unable to attend the opening due to pressing duties. Mr. St. Louis noted the long and beneficial relationship that the Fisheries Division of Grenada had with the Centre for Resource Management and Environmental Studies (CERMES) in its pursuit of sustainable fisheries and marine protected areas (MPAs). The government of Grenada was committed to meeting its international and regional obligations to meet targets set for protected areas. He welcomed all present and encouraged all to contribute to a successful workshop. Media coverage for the brief opening was provided by the Grenada Broadcasting Network.

MPA Governance project manager, Patrick McConney of CERMES, outlined the workshop programme (Appendix 1) and invited participants from the five MPAs and two MPA authorities in the three countries to introduce themselves (Appendix 2). He then presented an overview of the project (Appendix 3) to provide background and context to the workshop, relating it also to the CERMES project on Marine resource governance in the eastern Caribbean (MarGov). He encouraged participants to visit the MPA Governance web page on the CERMES web site that was currently under construction.

Prior to the break there was a brief discussion on the state of the SIOBMPA management plan makeover. It was also established that the recent Grenada workshop on the sustainable financing trust fund did not include financing plans for individual MPAs. James Finlay, former Chief Fisheries Officer and current consultant for the formulation of a WCCBMPA management plan joined the workshop and participated in the discussion.

SETTING THE SCENE AND COMMUNICATING KEY CONCEPTS

McConney asked participants to share their expectations of what they wanted to achieve in the workshop. Expectations included the following:

- Know how MPA governance can become more effective
- Increased collaboration among MPAs to improve management systems
- Identify TOOLS [emphasis added] for MPA governance (e.g. for data sharing)
- Practical ideas for SMMA and CAMMA in St Lucia
- Simple methods of governance that work
- More information on climate change for MPAs
- Governance related to pollution and waste management

Bob Pomeroy, the workshop's main resource person, then presented information on the key concepts via a slide presentation (Appendix 4) that merged into the next agenda item on adaptive capacity through the practical exercises embedded in the presentation. These and the discussion are presented below.

ADAPTIVE CAPACITY FOR MPA GOVERNANCE IN PRACTICE

Governance arrangements sparked much discussion. This included the difference between 'community-based' and 'co-management' arrangements. If the stakeholder was not based in the area of the MPA the governance arrangement was more likely to be one of co-management. CERMES MPA specialist Zaidy Khan added that 'community-based' in the Pacific context was usually where the community owned the resources in the area, and 'stakeholders' were those who used but not necessarily owned the resources. Property rights are critically important considerations in MPA governance.

Distinguishing 'private sector' as meaning for-profit firms led to a discussion of whether one can have the five governance types in one MPA. This is not likely, but in a larger managed marine area there may be several types of governance. It was also said that centralised governance can tend towards co-management (e.g. at the TCMP) by being participatory. There was lively debate over how a MPA board was moving towards more centralised management due to decreasing community representation on the Board except for specific interest groups who were mainly politically appointments. But this was not centralisation in the sense of being under the control of any government agency.

In a practical exercise participants described the governance arrangements at the five MPAs in site groups and presented results on flip chart sheets and later on the threats to governance. They are shown in action.

Participants set out the formal structures and discussed the level of co-management, or lack of it, at each of the five MPAs. In the discussion WCCBMPA was named as a Caribbean Challenge demonstration site in the very earliest stages of establishment. As participants described the evolution of governance structures the WCCBMPA was concerned about how to make the various bodies at a MPA work well together. Differences in the Pacific region with LMMAs and community ownership were talked of in the context of many topics including waste management responsibilities.

Privately leased marine areas such as at marinas can serve MPA functions but this is not necessarily so in all cases. A private island, such as Calivigny Island, can perhaps go further to promote and demonstrate marine conservation than a marina given its tourism interests. There was discussion of whether degradation allowed in one area can be compensated for by conservation elsewhere … the notion of 'sacrificial' areas within MPAs.

The principles of good governance such as equal versus equitable representation on MPA boards attracted attention, as did measures of inclusiveness. Not all participants were familiar with the principles but all saw the importance of having these demonstrated at their MPAs.

Ecosystem-based management (EBM) emphasises the need for inter-sectoral collaboration. As an example, the SMMA is situated within the Pitons Management Area (PMA) and is working with watershed management.

Climate change and variability were extensively discussed. Impacts are uncertain and there has been little incorporation into MPA planning yet. MPA managers not clear on what to expect so do not know how to prepare. Concern is greatest about larger amplitude of variability that takes climate events beyond the scope of normal coping such as flash floods and more frequent hurricanes. MPAs need to look at historical data and much of this is only available as local knowledge, not as reliable scientific records. Much data are collected regularly and there is now a need to interpret them differently. Participants asked: Do MPAs have the capacity to interpret science and make their own decisions? If they do have the capacity, then for what spatial scale is it? MPAs need help to adapt to climate change and variability.

In another practical exercise participants sought to answer: 'Do you have, or have you had, threats to your MPA governance arrangements?' broken into sub-questions. Responses were again flip-charted followed by discussion in some cases. The latter included the following points.

What is done to increase public awareness at the SMMA & CAMMA? School tours and lessons on the MPAs. People are aware of the SMMA but sometimes need to be reminded of the boundaries.

Would it be more efficient to have a smaller MPA? No, referring to Callum Roberts work that demonstrated MPA success. SMMA does not have the in-house capacity to analyse fish landings and does not know current status of the fish stocks in the MPA. A query about the purpose of data collection if data is not analysed by the MPA led to discussion of capacity being built through networks such as with scientists.

We need to consider the scale of governance. In the SMMA case there were many external factors at higher levels of governance. Subsidiarity was not evident as decisions were not taken at the level of implementation.

There were queries about the representation of CBOs and NGOs (civil society) on the board of the TCMP. The TCMP recognises the need for the preparation for change (of government, of MPA manager, etc.) based on past experience.

The power of civil society networks was evident when the Friends of the Tobago Cayes demonstrated their capacity to mobilise international concern over the possible privatisation of the TCMP that could have resulted in the displacement of community stakeholders and the loss of their livelihoods. TCMP case shows how to use external agencies to put pressure on governments.

At the MBMPA it was said that private sector stakeholders were getting frustrated with the fee system and some management logistics. The MPA needs more staff to be more efficient. Does the MPA generate sufficient funds to hire new staff? No, because fees were set low. Not all users are willing to pay the higher fees that may facilitate additional management resources. For example, cruise ship operators do not want to pay high MPA fees because they would have to raise their fees to customers. Government has to address this. Some of the private sector stakeholders of the MBMPA are turning up less to meetings having not seen action as a result of attending meetings.

It was said that fishers only support MPAs after they see tangible benefits from the MPA (catch-22 situation). More effort is needed to engage fisherfolk in MPA management. Participants raised questions such as "how to get the fisher forks engaged? How to we get the buy-in of fishermen into MPA management decision-making?

ADAPTIVE CAPACITY SELF-ASSESSMENT

Four of the five MPAs (not WCCBMPA) are profiled n the MPA capacity assessment report by Gombos and others (2011). McConney reiterated from the project overview that one of the aims of the MPA Governance project was to connect to this report as well as assess adaptive capacity before and after the workshops and follow-up activities. He led participants through a brief review of the sections of the report by Gombos and others that addressed their MPAs.

The purpose was to refresh memories and clarify interpretations of the text and scores. Ratings for governance, resilience to climate change, ecosystem-based management, conflict resolution, MPA effectiveness evaluation, stakeholder engagement and others were highlighted. It was noted that governance was interpreted in the report as essentially the legal regime whereas the MPA governance project took a much broader perspective as explained by Pomeroy. In each case the participants reviewed and elaborated upon the reasoning behind their assignment of the tiers.

Following the review of ratings in the report the participants were introduced to the MPA site and personal adaptive capacity assessment instruments in Appendix 5. McConney explained their use and the variables to be measured. Participants then filled them out individually and handed them in for compilation.

The same instruments will be used towards the end of the project to determine any changes in adaptive capacity that may be attributable to the MPA Governance project or other factors. This would be a version of the monitoring and evaluation method known as 'outcome mapping'.

Several participants remarked that even during the previous sessions of the workshop their knowledge of the topics (e.g. climate change) had expanded such that they now knew that their knowledge and capacity was actually less that at the start. The workshop discussed the paradox of increasing capacity resulting in lower scores since the world view of participants would have changed as well. Indeed a feature of resilience thinking is appreciating how much you do not know and the uncertainty attending what you do know.

Next day McConney presented the compilation of MPA site and personal capacity assessments. Subsequently more were filled out and an updated set of graphs is presented below. The graphs show the range and mean of the scores self-reported for each variable. Some participants provided additional interpretative information in response notes for each variable.

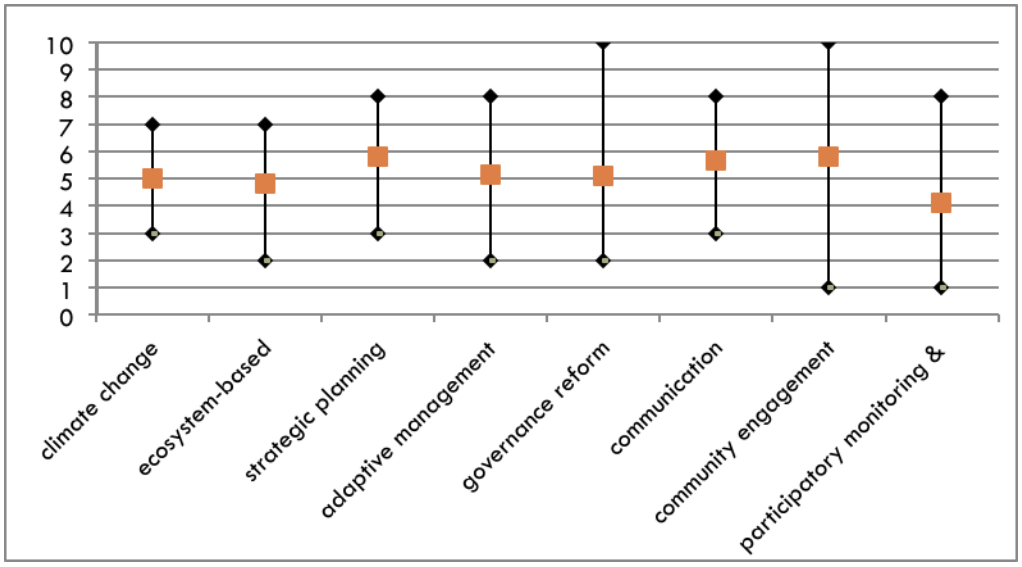

FIGURE 1 MPA SITE CAPACITY SELF-ASSESSMENTS

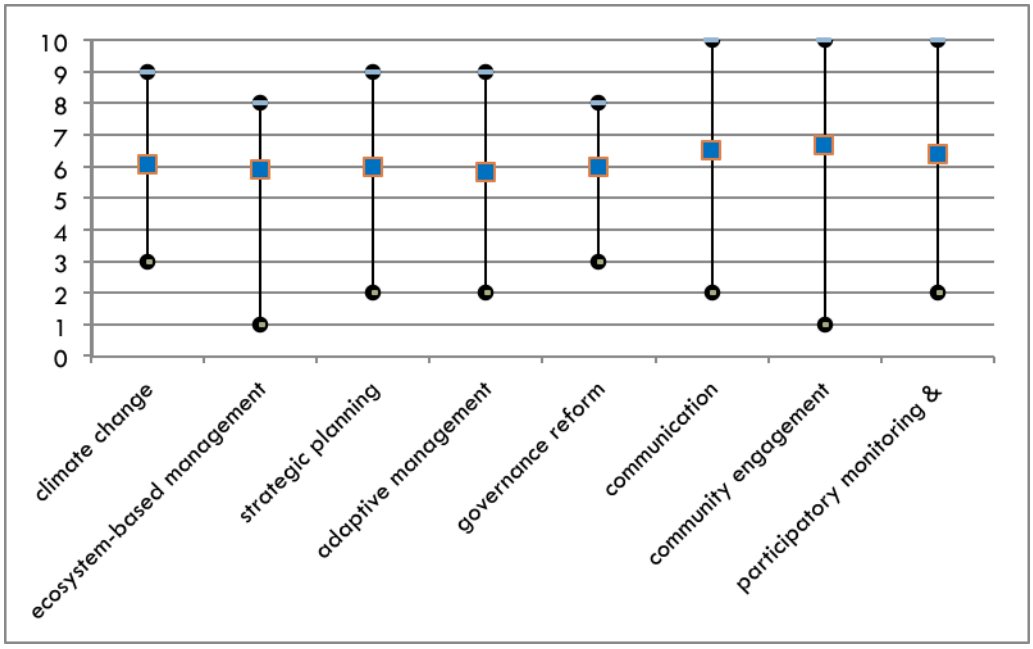

FIGURE 2 PERSONAL CAPACITY SELF-ASSESSMENTS

McConney briefly noted the patterns among the scores, saying he hoped the project would help to close the gaps (narrow the range) and move the average scores higher (demonstrating added adaptive capacity). At the MPA site level scores generally averaged between 4 and 6. Participatory monitoring and evaluation (PM&E) stood out as the most apparent area for strengthening. Strategic planning was boosted by the recent formulation of several site management plans which were said to be strategic, although it was not always clear to what extent they were actively being implemented and adapted. Range was greatest in governance reform and community engagement. This suggests, perhaps, that this is fertile ground for the MPA sites with the greatest capacity to assist those with the least or to exchange information on experiences and adaptation.

The personal self-assessments were, on average, slightly higher than the site assessments but fairly similar in scoring around 6. The ranges for communication, community engagement and PM&E suggested information exchange at the personal level could be rewarding. EBM showed a skew that reflected a few people with medium-high capacity and several more who may like to learn much more. Governance reform had the smallest range and lowest high score, confirming that it was an area requiring considerable attention.

ADAPTIVE CAPACITY FOR MPA GOVERNANCE IN PRACTICE (CONTINUED)

Reflections on Day 1 were the first agenda item next morning. It was said that the climate change discussion opened many minds to new information and connections among climate impacts. Commenting on the project's focus upon governance it was noted that the MPAs do not have the capacity to address ecological matters either. There was concern that a MPA like the SMMA, which has been around since 1995, is still facing compliance and information management challenges. So what future will the WCCBMPA face with livelihoods for example? A debate ensued on the need for continuous adaptation and capacity building in the context of changing circumstances that defied the elusive notion of equilibrium or stability. There would be no rest!

Bob Pomeroy continued presenting on this topic (Appendix 4), starting the day with resilience. Discussion ensued on whether 'preventing failure' or 'enabling success' better reflects the aim of resilience. Prevention of failure was seen as more realistic, sending a more pointed message that taking no action had consequences. Participants were told how the loss (by stealing) of the patrol boat at SIOBMPA caused more caution in other areas as well …learning and adaptation were occurring … resulting in fewer surprises in other areas as well.

Examples of adaptive capacity included the SIOBMPA recovering from hurricane and mangrove damage. The types of responses to perturbations or impacts were discussed. Institutional memory was considered vital for learning. The SMMA described its reporting system and how report archives are maintained by the Fisheries Department for future access. There was further discussion of process documentation and record-keeping as tools for developing capacity and building institutional memory. Participants raised the issue of MPAs not knowing that historical information exists, and so are ignorant about asking for it. There was interest in getting training in conflict management and negotiation.

Adaptive management was distinguished from trial and error. Trial and error with informal or no learning was compared to experimentation with good formal and informal documentation for learning and adaptation. It was stressed that adaptive management is not a case of making a mistake and moving on (without learning).

There is a prominent role for communication in bringing people into the learning experiment of adaptive management. Within the latter, if there are only long term goals in a MPA management plan, then shorter periods need to be set up for regular review. One participant noted that military agencies are good at documenting processes that go outside standard operating procedures (SOP) in order to learn from them.

There was considerable discussion of the four steps in adaptive management as set out in the workshop background paper by John Parks. There was consideration of various evaluation guidelines and scorecards used by MPAs around the region. This led to a deeper examination of management effectiveness (ME) and Bob Pomeroy's presentation of the guidebook "How is your MPA doing?". He took participants through the governance goals and some methods for evaluating MPA-ME (Appendix 6). Pomeroy and McConney

reminded participants that training in MPA-ME methods was available to them and they could also consult the several studies of Caribbean MPAs available for download from the CERMES web site and elsewhere.

Participants voiced their need to be guided towards the most relevant resources. Resource references were shared by McConney from his electronic library as a result of this request. The Saint Lucia participants also shared documents on the SMMA. See Appendix 7 for lists of both. During the course of the project the participants could expect to receive additional resource documents, many by email or via the project web page subject to the constraints of copyright.

FIELD TRIP TO WOBURN/CLARKE'S COURT BAY MPA

Field trip preparation was led by Zaidy Khan who showed slides of the WCCBMPA and invited discussion of the scenes and issues so illustrated. She related them to the topics covered by the MPA workshop. Khan and participant Jeremy Telesford handled the logistics. The latter arranged transportation by bus and boat. The latter was generously provided to the workshop by the owners of Calivigny Island.

Steve Nimrod and James Finlay were the main resource persons for the field trip. Nimrod, who is chairman of the MBMPA and a marine scientist at the St. George's University, is also a resident in the WCCBMPA area. He provided detailed information on the area as a linked social-ecological system while Jeremy navigated within and outside of the MPA. James Finlay, recently contracted to provide MPA management planning information, added information on the area and his terms of reference. The tour covered fisheries, tourism, recreation, port operations, yachting, marinas, mangrove wetlands, terrestrial ecosystems, property, residences and very much more. The map and photos below provide only a glimpse of this complex area.

FIGURE 3 WCCBMPA ROUGH BOUNDARIES AROUND MPA AND ADJACENT SETTLEMENTS
(Source: CERMES LAMP document collection)

After briefly reviewing highlights of the second day's presentation, the focus of reflections on Day Two was the field trip. The discussion used the main headings of Pomeroy's presentation to guide the contributions of participants who noted the following as being particularly important.

1. Government arrangements

- Knowledge of users, perceptions (diverse stakeholders)
- Include inland activities (practice EBM)
- Requires co-management (sub-structure of arrangements)

2. Good governance

- Equity, inclusion, representation , power
- Economic power related to "political" power
- Leadership is evident (e.g. by S. Nimrod)

3. EBM and climate change

- Complex issues abound, e.g. mangroves, multiple area uses/users
- Multiple watersheds with deep embayments
- Uncertainty of climate change impacts on investments and livelihoods
- Impacts on area ecology come from several inter-related sources

4. Resilience and adaptation

- Behaviour is driven by benefits/incentives
- Ecological resilience can be achieved via zoning
- Include sugar factory, marinas, etc. in the system
- Need a different approach at WCCB compared to other MPAs
- Yachters' governance structure exits, but informal

5. Management effectiveness

- Compliance with decisions is an indicator
- Respect for governance structure is another
- Level of use relates to sustainable financing

FORMULATION OF FOLLOW-UP ACTIVITY

The main order of business on this last morning was the formulation of follow-up activity funded by the project. McConney explained some of the design principles for follow-up and the concept note form (Appendix 8). The ideas in the proposal could be used as guides, all activities had four-week timelines and financing was limited. Participants broke into MPA groups to formulate their activities assisted by the three

resource persons (Pomeroy, Khan, McConney). The table below shows what each MPA team proposed as the title at the time. They presented their concepts to the workshop.

TABLE 1 MPA FOLLOW-UP ACTIVITY THEMES AND TITLES FIRST DRAFTS

MPA	Activity theme or title (first draft)
Sandy Island/Oyster Bed (SIOBMPA)	Attitudes and ethics of conservation, compliance, enforcement
Molinere/Beausejour (MBMPA)	Management effectiveness
Woburn/Clarke's Court Bay (WCCBMPA)	Stakeholder engagement for leadership
Soufriere Marine Management Area (SMMA)	Scoping the terms of reference for a 10-year strategic plan
Tobago Cays Marine Park (TCMP)	Stakeholder participation in governance

Zaidy Khan, as field manager for the MPA Governance project, will be the main resource person for follow-up. The budget for follow-up to the first workshop, unlike the subsequent workshops, does not cover travel to the MPA sites. Assistance is expected to be remote, via email. McConney is to provide a reporting template.

SYNTHESIS OF KEY LEARNING, NEXT STEPS, CLOSE

The intensity of discussion and in-depth reflections on both days made a prolonged synthesis of key learning quite unnecessary. McConney wrapped up with a reminder that sharing information and tools for adaptive management was the responsibility of all project participants. He encouraged more inter-site communication than was the custom and reiterated the importance of low cost and effective communication for building adaptive capacity. Information exchange directly among the MPA sites was a key ingredient of success.

Participants reminded that their capacity development needs went beyond governance. Bio-physical matters were still of prime concern even if beyond the direct scope of the present project. The cross-cutting issue of climate change, although being dealt with on several fronts in most countries, was not being comprehensively addressed by MPA boards, managers or field staff. A participant noted that much training remained at too high a level, seeking to build on weak foundations of science education and skills such as report writing. It was not surprising that many achieved limited success. There was also demand for training in conflict management.

Regarding next steps, McConney reiterated the responsibilities and timeline for follow-up activities that must be completed, reported upon and the reports shared for collective learning before the next workshop that was tentatively scheduled for 22-24 Feb in Grenada at the same or another affordable venue. Zaidy Khan and the Grenada MPA participants would investigate the feasible options within the very tight budget.

Before the close participants filled out a one-page workshop evaluation form (Appendix 9) which McConney said was part of the project's adaptive management tools. The evaluation results, compiled later, are below.

Much or all of the expectations participants had, and shared at the start of the workshop, were met. These expectations were kept in view and revisited often throughout the workshop. Participants had noted where

expectations were not well aligned with the workshop content. Participants thought that the stated workshop objectives were less well met. Some said that these expectations in the proposal were too ambitious.

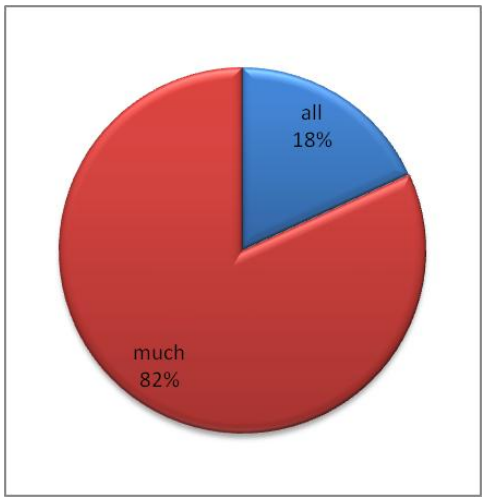

FIGURE 4 OWN EXPECTATIONS

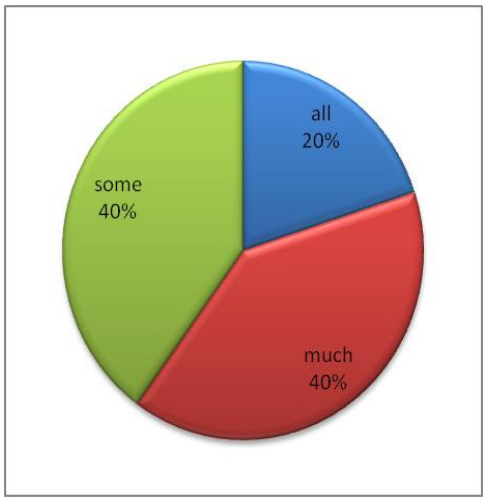

FIGURE 5 STATED EXPECTATIONS

FIGURE 6 OVERALL BENEFITS

FIGURE 7 OVERALL ARRANGEMENTS

Overall benefits from the workshop were mainly excellent or good. However, overall arrangements were less satisfactory. The main issues concerned the hotel rooms and the conference room and the catering not being up to the standard to which participants were accustomed. The learning environment needs to be addressed.

What people liked about the workshop included the high level of interaction, learning about 'How is your MPA doing?' from the lead author, the field trip, the wealth of research/reference material made available; having experienced resource persons, and having planned follow-up action decided at the workshop. Some of the disappointments reported included not providing transportation allowances for the locals, the lecture type structure of the workshop, and the absence of some important Grenada stakeholders. Before the end of the workshop McConney assured that the evaluation results would be seriously considered as feedback.

APPENDICES

Appendix 1- Programme

Focus: Evaluating marine protected area (MPA) management effectiveness…with emphasis on ecosystem-based management (EBM), climate change and governance

Mon 21	**Day one**
0845	On time arrival for registration, document distribution, logistic arrangements
0900	Opening and introductory session also for guests and media • Welcoming remarks and address: *Government representative(s)* • Overview of adaptive capacity for MPA governance in the eastern Caribbean: *CERMES*
0945	BREAK
1000	Setting the scene and communicating key concepts: *Resource persons and participants* • Workshop objectives and expectations • Understanding adaptive capacity • Measuring management effectiveness
1230	LUNCH
1330	Adaptive capacity for MPA governance in practice: *Resource persons and participants* • Incorporating governance, EBM and climate change • Clarification and questions from the presentations • Application to governance at participants' MPAs
1530	BREAK
1545	Adaptive capacity self-assessment by MPA site and discussion: *Participants*
1630	Close
Tue 22	**Day two**
0830	Reflections: *Participants*
0845	Adaptive capacity for MPA governance in practice: *Resource persons and participants*
0945	BREAK
1000	Adaptive capacity for MPA governance in practice: *Resource persons and participants*
1230	LUNCH
1330	Preparation for field trip: *Grenada MPA team*
1430	Field trip to Woburn/Clarke's Court Bay MPA: *Resource persons and participants*
1730	Return
Wed 23	**Day three**
0830	Reflections: *Participants*
0845	Formulation of follow-up activity: *Resource persons and participants*
0945	BREAK
1000	Formulation of follow-up activity: *Resource persons and participants*
1145	Synthesis of key learning, next steps, close: *Resource persons and participants*
1230	LUNCH
1330	Departures

Appendix 2 - Participants

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Appendix 3 - Project overview

Adaptive capacity for marine protected area governance in the eastern Caribbean

Overview of a MPA project
1 Oct 2011 – 1 Oct 2012
Implemented by CERMES
Funded mainly by NOAA

Opportunity

- NOAA Coral Reef Conservation Program (CRCP) International Strategy…Objective 2
- Develop and implement comprehensive long-term capacity building programs for existing MPAs, based on capacity assessments to provide training, technical assistance, and follow-up support specifically for:
  - management planning and effectiveness evaluation;
  - integrated monitoring linked to strategic planning;
  - communication and community engagement; and
  - strengthening governance and adaptation to change
- International Coral Reef Conservation Cooperative Agreement competitive call

2

Participating countries and MPA sites

- Grenada
  - Sandy Island/Oyster Bed (SIOBMPA)
  - Molinere/Beausejour (MBMPA)
  - Woburn/Clarke's Court Bay (WCCBMPA)
- Saint Lucia
  - Soufriere Marine Management Area (SMMA)
- St. Vincent and the Grenadines
  - Tobago Cays Marine Park (TCMP)

3

Problem!

- Most MPA interventions focus upon bio-physical, and sometimes socio-economic, activities and benefits.
- Few focus on governance despite growing evidence that ecologically well-designed and managed MPAs fail due to insufficient attention to the human dimension of governance.

4

Solution?

- Focus on what can or does make MPA governance sustainable or resilient enough to absorb shocks and carry on as strategically planned
- Focus further on the features that give MPA governance arrangements the capacity to be adaptive for this

5

Cooperative Agreement Goals and Objectives

- Strengthen adaptive capacity building for the governance of MPAs in the eastern Caribbean based on resilience thinking at the site level
  - Develop the adaptive capacity of key stakeholders in Grenada for MPA governance mainly through four linked training workshops with follow-up practical learning by doing
  - Extend the above capacity development to Saint Lucia and St. Vincent and the Grenadines for a limited comparison of MPA sites so as to inform potential replication
  - Document and foster learning from the outcomes of objectives 1 and 2 regionally and internationally through use of multiple media for communication with MPA interests

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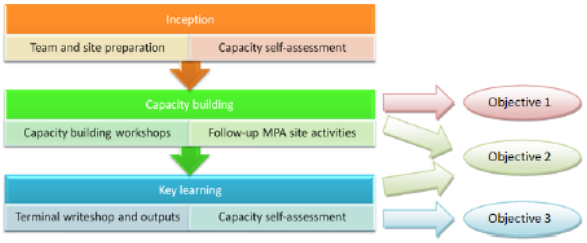
Implementation strategy



Morning	Afternoon
Introductions, information and discussion	Practical group exercises
Reflection, information and discussion	Field trip and networking
Reflection, information and discussion	Synthesis and follow-up

Capacity

- *World view*: a coherent frame of reference that the organisation uses to interpret the environment it operates in and define its place within that environment
- *Culture*: a way of doing things that enables the organisation to achieve its objectives, and a belief that it can be effective and have an impact
- *Adaptive strategies*: practices and policies that enable an organisation to adapt and respond to changes in its operating environment
- *Linkages*: an ability to develop and manage relationships with individuals, groups, and organisations in pursuit of overall goals
- *Structure*: a clear definition of roles, functions, lines of communication, and mechanisms for accountability
- *Skills*: knowledge, abilities, and competencies
- *Material resources*: technology, finance, and equipment

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Objective 1: Develop the adaptive capacity of key stakeholders in Grenada for MPA governance through four linked training workshops with follow-up practical learning by doing

1. Evaluating management effectiveness emphasizing EBM, climate change, governance (Nov 2011)
2. Strategic planning, governance reform and adaptive management capacity for resilience (Feb/Mar 2012)
3. Communication, community engagement, and participatory monitoring and evaluation (Apr/May 2012)

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Evaluating management effectiveness emphasizing EBM, climate change and governance

- Refresh perspectives on protected area concepts and purpose in a global/regional context
- Critically review their management plans and other current major MPA guiding documents
- Know how to evaluate MPA management effectiveness (ME) with emphasis on governance
- Appreciate the importance of ecosystem-based management (EBM) and resilience thinking
- Understand how to situate their MPA-ME in the context of EBM, including climate change
- Design improvements to test in adaptive management and based on their rapid evaluation
- Review the concepts and issues of climate change and relate them to MPA governance
- Identify priorities for adaptive management capacity building for follow-up in this project
- Understand adaptive capacity for governance and refine their MPA capacity self-assessment
- Establish systems for participatory monitoring and evaluation (PM&E) and action learning

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Examples of possible options for follow-up activity with linkages to content of workshop

- Rationalize MPA management systems taking uncertainty more into account
- Recommend amendments to the management plan governance sections
- Develop terms of reference (TOR) for legislative review and improvements
- Means of strengthening links between scientific research and MPA governance
- Institutional mapping of stakeholders from EBM and resilience perspectives
- Survey of attitudes and ethics of conservation compliance and enforcement
- Sharing experiences from the Pacific Locally Managed Marine Areas (LMMA)
- Assessment of the demand by stakeholders for participation (e.g. drivers, benefits)
- Social network analysis and other methods related to resilience and complexity
- Additional information on concepts and issues of climate change related to MPAs

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Strategic planning, governance reform and adaptive management capacity for resilience

- Appreciate the importance of strategic planning in addition to management planning
- Know how to engage in participatory strategic planning for their and other organizations
- Have a better understanding of the pros and cons of MPA governance arrangements
- Be able to translate the principles of good governance into MPA management practices
- Comprehend systems they can implement for improving the efficiency of decision-making
- Be able to apply resilience thinking to organizational governance and networking
- Understand vulnerability to climate change, and mitigation and adaptation responses
- Identify bio-physical, socio-economic and governance indicators to monitor for resilience

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Examples of possible options for follow-up activity with linkages to content of workshop

- Formulation of site-specific strategic plans or revision of existing strategic plans
- Assessment of and practical exercises in conflict management mechanisms
- Practical exercises in multi-stakeholder resource management negotiation
- Training for MPA senor staff and board on enhancing board effectiveness
- Recommend amendments to existing content or new co-management agreements
- Integrating science with local knowledge to devise grounded monitoring tools
- Introductory project management and leadership of community-based activities
- Basic financial and administrative systems for small environmental NGOs/CBOs
- Development of specific systems for participatory monitoring and evaluation
- Revision or updating of stakeholder analysis to support governance reform
- Institutional analysis of co-management arrangements for policy reform
- Multi-sector responses to climate change and their integration at the site level

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Communication, community engagement, and participatory monitoring and evaluation

- Understand the principles and dynamics of communication processes
- Know how to formulate their own communication strategies and plans
- Appreciate the levels of participation related to governance such as co-management
- Review and revise the approaches used to engage and mobilize communities
- Determine what aspects of their MPA governance are in need of greater participation
- Develop systems for incorporating more participatory monitoring and evaluation

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Examples of possible options for follow-up activity with linkages to content of workshop

- Communication campaign to improve compliance with MPA rules, regulations
- Integrated communication needs and communication capacity assessments
- Introduction to social marketing for changes in knowledge, attitudes, practices
- Participatory development of a site-level communications strategy and plan
- Tools and techniques for improving community engagement and empowerment
- Communication for consensus-building structured on shared interest negotiations
- Up grading skills in facilitation and consultative participatory processes
- Assisting computer users to bookmark key internet references, resources
- Techniques to re-orient governance and practices to build a participatory culture
- Demonstrating the cost-effectiveness of internet use for management
- Acquiring and sharing electronic documents to build site level MPA e-libraries
- Basic human resource development including career, succession planning
- Communication for climate change vulnerability assessment/adaptation

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Objective 2: Extend the capacity development to Saint Lucia and St. Vincent and the Grenadines for a limited comparison of MPA sites so as to inform potential replication

- Promote networking to strengthen ties among MPAs
- Participants from Saint Lucia and St Vincent and the Grenadines will be integrated into the project
- Major part of the project's continuous PM&E
- At the end they will be able to conclude whether the design for Grenada can be applied fully in their countries or, if not, how capacity building needs to be tailored differently to be more successful

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Objective 3: Document and foster learning from the outcomes of objectives 1 and 2 regionally and internationally through use of multiple media for communication with MPA interests

- Understanding process of institutional learning, and using the lessons learned to retain adaptive capacity
- Action learning group methodology along with participatory monitoring and evaluation.
- Writeshops have proven effective means for project participants to pull together key learning while simultaneously building capacity.

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Lessons learned from building adaptive capacity for MPA governance in the eastern Caribbean

- Review the entire project, their involvement and key lessons learned in the process
- Evaluate the project implementation communication strategy/plan
- Experience the mechanisms of creating a comprehensive set of project reporting outputs
- Better understand the process of report writing and producing other visual products

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Examples of possible options for follow-up activity with linkages to content of workshop

- Further involvement in finishing the production of the final reports
- Development of site-specific outputs such as web page notices, stories
- Creation of site-specific communication products for the local media
- Filling of any gaps in project files to aid MPA site institutional memory
- Sharing of project outputs further through personal and MPA networks
- High level national MPA meetings for project outputs to influence policy

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What else

- Task timetable
  - Gantt chart of what happens when (tight)
- Products (outputs) and outcomes
  - What will be produced for what intended impact (all participants have a role in this)
- Evaluating success
  - Quality of changes in knowledge, attitudes and practices for building capacity, not only skills
- Risk management
  - Schedule, content, commitment, budget, etc.

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What else

- Partner justification and roles
  - CERMES, CANARI, Panos Caribbean, Khan, Pomeroy, MPA management, MPA authorities
- Budget and narrative
  - Detailed expenditure, under-budgeted
- Sources of matching funds
  - Mainly CERMES, some participant in-kind
- References and resources
  - Long list participants should be aware of

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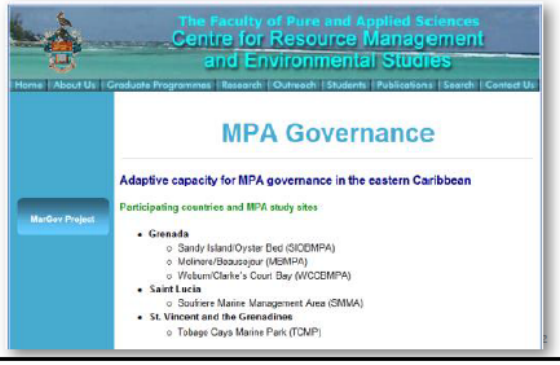
Visit the web page, ask questions!



Appendix 4 - Marine protected area governance

Marine Protected Area Governance

Robert S. Pomeroy

Resource Governance

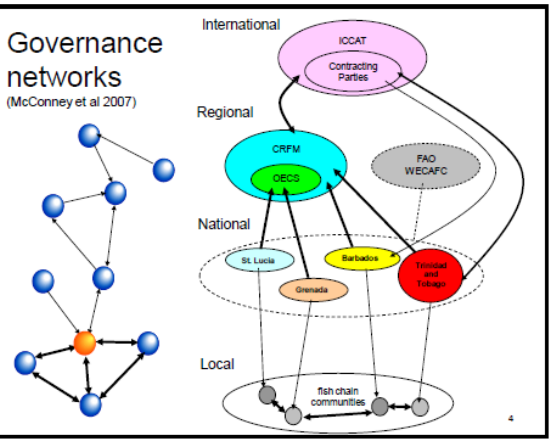
- By definition, an MPA is a governance tool.
- It limits, forbids or otherwise controls use patterns and human activity through a structure of rights and rules.
- Resource governance is the way in which users and their intentions are managed through a set of rights, rules, and shared social norms and strategies.
- This includes enforcement mecha-nisms, such as policing measures and punish-ments, as well as formal and informal incentives to direct human behavior and use.

Resource Governance

- Resource governance can include: a) formal and informal forms of resource ownership; b) use rights and the laws that support these rights; and c) the rules, rights and regula-tions that dictate how resources can and cannot be used.
- Resource governance is defined by formal organizations and law, traditional bodies, and/or accepted practice.
- Resource governance takes place at four related levels: local, provincial/state, national, and international.

Governance networks

(McConney et al 2007)



MPA Governance

MPAs can be governed under a variety of arrangements:

- Traditional (based on pre-colonial management systems and TEK, taboo systems)
- Community-based (led by resource users)
- Co-management
- Centralized (led by government agency)
- Private (private sector led)

MPA Governance

EXERCISE

Describe the main features of the governance arrangements for your MPA?

1. Grenada
2. St. Lucia
3. St. Vincent and the Grenadines

MPA Governance

- The governance, or institutional, issues are central to achieving an effective MPA.
- Governance issues can either support or constrain successful implementation of an MPA.

MPA Governance

- MPAs are social institutions.
- In essence, an MPA is a socially constructed set of rules that collectively governs human interactions with a specified area of the marine environment.
- Rules define MPA boundaries, the activities that may take place within these boundaries, and the individuals who may engage in MPA activities.
- Rules also specify protocols for enforcing MPA rules, monitoring the effectiveness of these rules, and for resolving stakeholder conflicts.

MPA Governance

- Most importantly, rules govern the decision-making processes that establish MPA boundaries, resource use rights, monitoring and enforcement systems, and conflict resolution mechanisms.
- Thus, the design of an MPA is the specific configuration of rules that defines, explicitly or implicitly, *who* may do *what*—and *where*, *when*, and *how* they may do it—with respect to the portion of the marine environment designated as an MPA.

MPA Governance

- The configuration of MPA rules and the processes through which these rules are developed, implemented, and adapted over time, significantly influence MPA success

MPA Governance

- The four principal elements of MPA design – decision-making arrangements, resource use rules, monitoring and enforcement systems, and conflict resolution mechanisms –directly and indirectly shape human resource use patterns and, ultimately, the biological and social performance of MPAs.
- Each of these four MPA design elements may have both formal and informal components derived from diverse sources, including legal statutes, policy statements, judicial decisions, organizational practices, social norms, and cultural traditions.

MPA Governance

- As a result, the *de facto* rules that *actually* govern MPAs often differ sharply from the *de jure* designs established through formal legal structures and policy processes.

MPA Governance

- The environment in which the MPA operates incorporates biophysical, economic, social, political and institutional elements at the community, regional, national and international levels, all of which can influence the goals and objectives pursued by the MPA and its success.
- MPAs are designed and implemented by people, and there are both natural and human impacts from their use.
- How MPAs perform is directly linked to human behavior and how humans want them to perform.

Good Governance

- While the concept of "governance" is descriptive, the idea of "good governance" is *standard-setting*, i.e. normative in nature.

The five general principles of good governance are:

- Accountability: the governing body should be able and willing to show the extent to which its actions and decisions are consistent with clearly-defined and agreed upon objectives.

Good Governance

- Transparency: the governing body's actions, decisions and decision-making processes should be open to an appropriate level of scrutiny by other parts of government, civil society and, in some instances, outside institutions and governments.
- Responsiveness: the governing body should have the capacity and flexibility to respond rapidly to societal changes, and take into account the expectations of civil society in identifying the public interest, and should be willing to critically re-examine the role of the governing body.

Good Governance

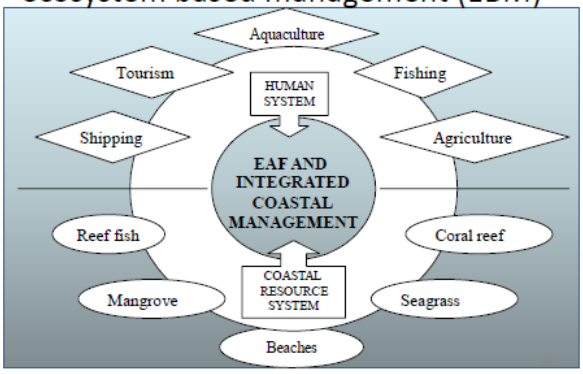
- Efficiency and effectiveness: the governing body should strive to produce quality public outputs, including services delivered to citizens, at the best cost, and ensure that outputs meet the original intentions of policymakers.
- Rule of law: the governing body should enforce equally transparent laws, regulations and codes.

Good Governance

Further principal elements of "good governance" are:

- consensus-orientation,
- participation,
- equality and inclusiveness,
- decentralization, and
- forward vision (the governing body's ability to anticipate future problems and issues based on current data and trends and develop policies that take into account future costs and anticipated changes (e.g. demographic, economic, environmental, etc.))

Fisheries and coastal resources in ecosystem based management (EBM)



Ecosystem based Management

- Governance describes how a resource is governed, and the principles of good governance suggest the ways in which a resource *ought* to be governed.
- The complexity of the issues facing marine and coastal ecosystems in the region will require that governance must be integrated, just as ecosystems are interconnected.
- Ecosystem-based management, or EBM, is an approach that goes beyond examining single issues, species, or ecosystem functions in isolation.

Ecosystem based Management

- Fisheries management, MPAs, seascapes or climate change adaptation cannot individually by themselves provide solutions.
- EBM recognizes the complexity of marine and coastal ecosystems, the connections among them, the linkages with the land and freshwater, interactions with people, and the need for inter-sectoral governance.

Ecosystem based Management

- Rather than single sector management, the EBM process seeks management of the whole ecosystem; integrating all sectors that impact, or are impacted by, the ecosystem; with coordinated management at all levels relevant to the ecosystem.
- EBM builds on what is already being done through sector or issue specific approaches.
- It does not require that everything be done all at once but allows for prioritization of the most important management issues and actions.

Ecosystem based Management

- EBM can improve the way we manage marine and coastal ecosystems, but it will require better scientific research to understand ecosystems and improved coordination and communication across sectors.

Ability to Achieve

While MPA implementation is based on the plan and agreements, the quality and effectiveness of MPA implementation are shaped by a number of governance issues or the "ability to achieve":

- Institutions (the different organizations which are involved in governing the resource such as formal institutions (e.g. national fisheries agency, local government unit or a community-based fisheries association) and informal institutions (e.g. norms and culture);

Ability to Achieve

- A collaborative decision-making process;
- Legal authority to manage;
- Adequate and dedicated resources (personnel, funding, equipment) for management;
- Information and data to support monitoring and learning-by-doing;
- Key political support;
- Staff skills and commitment;

Ability to Achieve

- Coordination arrangements with government, external agents, resource user groups and community members;
- Community support through participatory processes;
- Enforcement and compliance;
- Conflict management mechanism;

Ability to Achieve

- External factors affecting governance - A variety of factors external to the MPA may have an impact on MPA governance.
- These are factors which are beyond the control of the MPA, and at times higher level entities.
- These are surprises or shocks to the community or management system, brought about by macroeconomic, social, political or natural occurrences or interventions which may affect the survival of the MPA.

Ability to Achieve

- They may include market forces, hurricanes, climate change, civil unrest, development, elections and inflation.
- They should be viewed in an historical and dynamic perspective.

Ability to Achieve

Climate change can impact MPAs through multiple path-ways:

- Ocean currents
- Sea level rise
- Rainfall (drought and increase)
- Evaporation
- River flows
- Lake levels
- Thermal structure
- Storm severity
- Storm frequency
- Acidifcation
- Salinity
- Sea Surface Temperature
- Ice cover
- El Nino -Southern Oscillation (ENSO)

Ability to Achieve

Climate Change Effects and Impacts

- Production ecology (species composition, production and yield, species distribution, diseases, coral bleaching, calcification)
- Fishing operations (safety and efficiency, infrastructure)
- Communities livelihoods (social vulnerability, loss/damage to livelihood assets, income, livelihood strategies, risk to health and life, displacement and conflict)
- Wider society and economy (food security, adaptation and mitigation costs, market impacts, water allocation, floodplain and coastal defense)

Ability to Achieve

Climate Change Effects and Impacts

- Climate-induced changes to resource flows can fundamentally affect the viability of livelihoods
- The impacts of climate variability and change can be linked to various elements of livelihood such as impact on assets and changes in livelihood strategies and outcomes

Impacts of climate variability and change on livelihoods assets:

- Changes in natural capital
- Damage to physical capital, reduced financial capital
- Impacts on human capital and social capital

Exercise

What are the expected impacts of climate change to your MPA?

Exercise

- Do you have or have had threats to your MPA governance arrangements?
- If so, what are/were they? Were they sudden or slow? Were they internal or external?
- What was or is the response?
- Was the response successful?
- What were the lessons learned?

Moving Forward

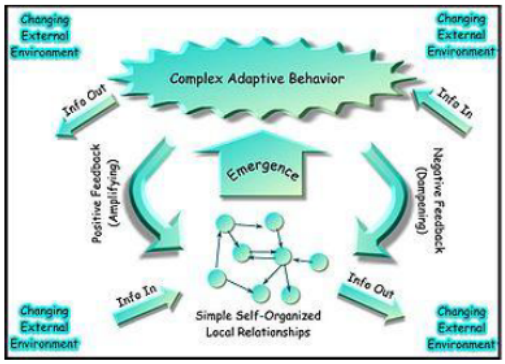
Developing the capacity to adapt and be resilient to various threats to MPA governance.

A number of concepts and approaches:

- Adaptive capacity
- Adaptive management
- Ecosystem based management
- Management effectiveness
- Resilience
- Strategic planning

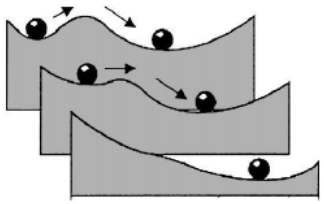
Complex Adaptive Systems

(Wikipedia)



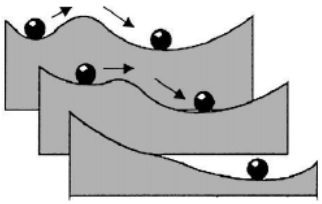
What is resilience?

- Resilience is the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks



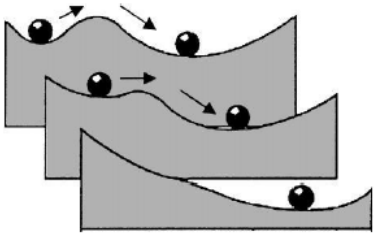
What is resilience?

- Resilience is the ability to deal with change and still continue to develop.



Resilience

(Gunderson 2000)



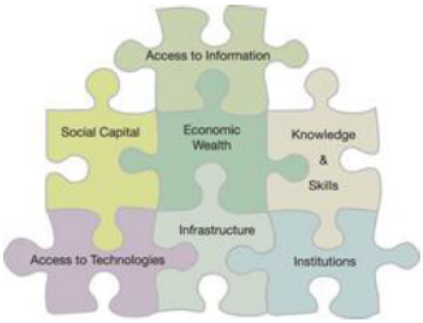
Valleys represent stability domains, balls represent the system, and arrows represent disturbances. Engineering resilience is determined by the slopes. Ecological resilience is described as the width. Adaptive capacity refers to the ability of the system to remain in a stability domain, as its shape changes (http://mysite.verizon.net/vzesz4a6/current/id610.html)

Resilience

- A **resilient** MPA is one that "*absorbs stress and reorganizes itself following disturbance, while still delivering benefits*".
- MPA governance aims to "*prevent the MPA from failing to deliver benefits by nurturing and preserving ecological, social, and institutional attributes that enable it to endure, renew and reorganize itself*".

Adaptive capacity

(Natural Resources Canada 2007)



Adaptive Capacity

- Adaptation is a process through which a system changes in response to, or in anticipation of, a changing environment.
- Adaptive capacity is the ability to experiment, learn and foster innovative solutions.

Building Resilience & Adaptive Capacity

1) Learning to live with change and uncertainty

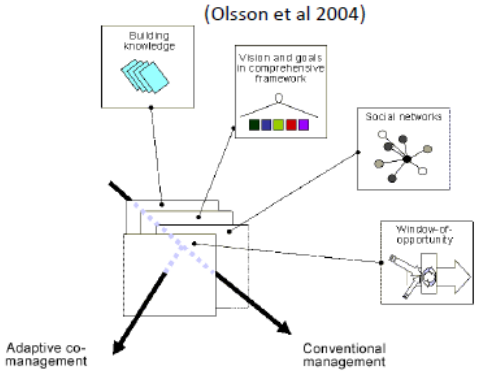
2) Promoting diversity

3) Combining different sources of knowledge

4) Encouraging self-organisation

Transformative change

(Olsson et al 2004)



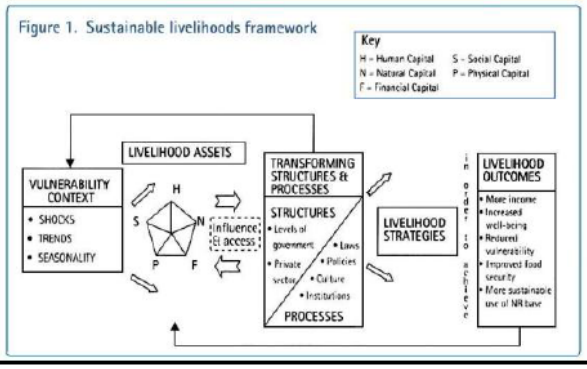
1. Living with change and uncertainty

Learning from crises – what can we learn from past events that affected our ancestors? what have we learnt from crises we've experienced, for example Hurricane? What can we learn from our neighbors?

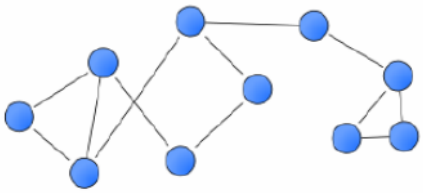
Building capacity to respond to change – observing change, understanding change, communicating change and responding to change.

Developing coping strategies – building a portfolio of livelihood activities, building social networks, reducing dependence on any one resource / livelihood activity.

Livelihoods (FAO and many others)



Network



A set of actors (nodes) linked by specified relationships (ties)

2. Promoting diversity

Maintaining diversity of institutions – enhancing both traditional and modern institutions, overlap and integration of management agencies, NGOs, private partners etc.

Maintain diversity of ecological functions – to retain system function and information for re-organisation (ecological memory)

Use social memory – source of information for learning and innovation from individuals and groups who have experienced past disturbance.

Support experimentation – mistake-making, creativity and learning.

3. Combining knowledge

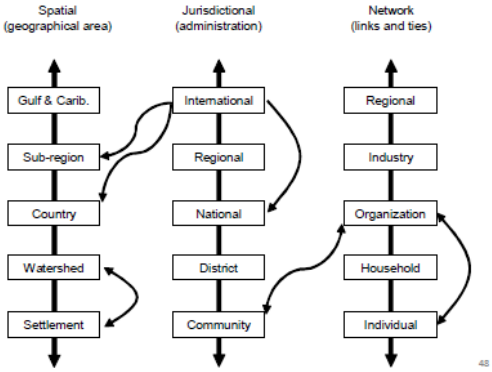
Building capacity to monitor the environment – through community observation, consensus, participatory research or science collaborations

Combining local and scientific knowledge – Is this possible for adaptive management at the local level?

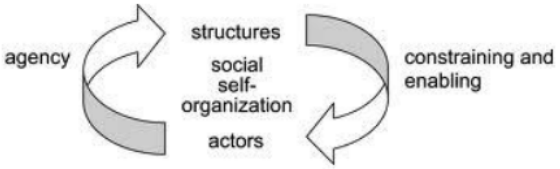
Building capacity for participatory management.

Creating cross-scale mechanisms to share knowledge – learning from stakeholders at different scales, learning from stakeholders in different systems or different places.

Scale, cross-scale (McConney et al 2007)



Self-organisation



Note: This model of social self-organisation was first introduced by Hofkirchner (1998) and elaborated in a number of further works such as Fuchs (2003a, c)

4. Encourage self-organisation

Self-organisation is the capacity to organise and re-organise with minimal input from outside the fishery.

Building capacity for fishers and their communities to self-organise – leadership skills, capacity building, financial management.

Self-organising for equal access to fisheries and distribution of benefits.

Building conflict management mechanisms.

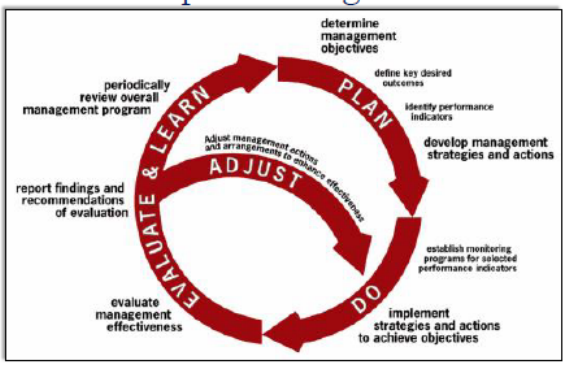
Matching the scales of change, impact and mgt response – are traditional management measure appropriate for ecosystem-based mgt?

Building Resilience & Adaptive Capacity

Learning to Live with Change and Uncertainty	Promote diversity for reorganisation and renewal
Learning from crises Building capacity to respond to change Developing coping strategies	Maintain diversity of institutions Maintain diversity of functional groups – ecological memory. Use social memory Support experimentation
Combining different kinds of knowledge	**Promote self-organisation**
Building capacity to monitor the environment Combining local and scientific knowledge Building capacity for participatory management Creating cross-scale mechanisms to share knowledge	Building capacity for resource-users to self-organise Self-organising for equal access to fisheries and distribution of benefits Building conflict management mechanisms Matching the scale of ecosystem and governance Creating multi-level governance

Borrowed from Berkes and Seixas, 2005

Adaptive Management



Borrowed from CSIRO, Australia

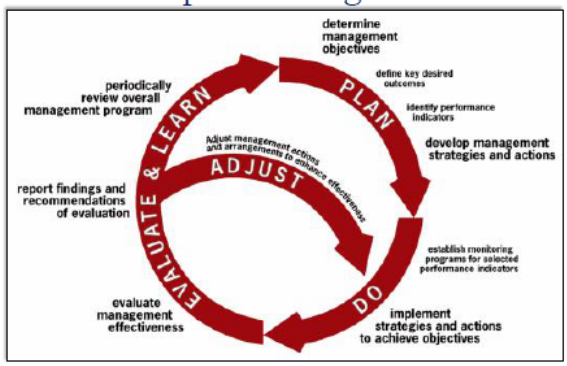
Adaptive Management

- Resilient MPAs can be promoted through adaptive management
- Adaptive management (AM) is the formal process of systematically testing management assumptions through time, learning periodically from the evaluation results of such testing, and using this learning to regularly revise and improve upon management practices.

Adaptive Management

- In other words, AM is the process of testing our assumptions in order to learn and adapt our future action.
- The intention of using this test-learn-adapt, or 'learning by doing', approach is that the results of such regular testing and learning allows decision makers and managers to adapt and/or make decisions regarding future management efforts in a timely and informed manner

Adaptive Management



Borrowed from CSIRO, Australia

Adaptive Management

- AM is an experimentally-designed process that rigorously tests hypotheses regarding how management interventions and/or policies used are assumed to lead to reduced or abated threats negatively impacting natural resources, thereby promoting effective resource management.
- Adaptive management and deliberate, focused "learning by doing" is not a new concept. In fact, similar approaches have been used for centuries in managing limited stocks of natural resources.

Adaptive Management

The deliberate, experimentally-designed 'learning by doing' process used under an AM approach is thought to be in direct contrast to a random or opportunistic 'trial-and-error' approach to learning characterized by non-AM approaches in natural resources management.

Adaptive Management

The theoretical intention of using an AM framework to guide natural resource management efforts is that doing so will generate three sets of results:

(1) improved effectiveness of management actions taken;

(2) reduced uncertainty; and

(3) empirical learning leads to knowledge that improves our understanding of how our management and policy interventions affect natural systems

A Practical Approach to Adaptive Management

There are four steps:

Step 1: Develop a plan;

Step 2: Take action;

Step 3: Evaluate progress; and

Step 4: Adjust future action.

Each of these four steps has a recommended set of associated tasks that should be completed before moving on to the next step. Upon completion of these four steps, one cycle of AM process has been achieved. From here, the process returns to step one and the cycle begins again.

A Practical Approach to Adaptive Management

Adaptive management differs from the conventional practice of management by emphasizing the importance of feedback from the resource in shaping policy, followed by further systematic experimentation to shape subsequent policy, and so on. In other words, it is iterative, repeating a process of steps to bring the manager and user closer to a desired result

Learning for Adaptive Management

Learning-by-doing ⟷ Experimentation

experience, reflection, abstraction, experimentation

Passive	Active
Basic	Complex
Less risk	More risk
Iterative	Deliberate
Individual & group	Group
Normative	Instrumental

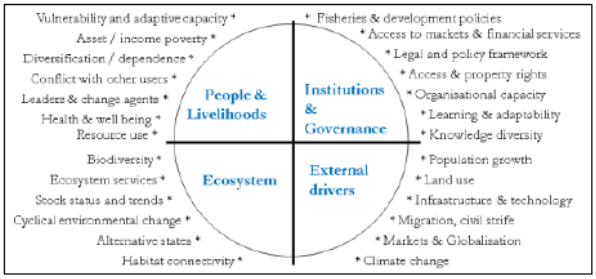
A Practical Approach to Adaptive Management

Step 1: Develop a plan

Task 1(a): *Engage fishers and other stakeholders*
Task 1(b): *Describe the current situation in the MPA*
Task 1(c): *Define MPA management goals and strategies to be used*
Task 1(d): *Outline the shared assumptions to be tested*
Task 1(e): *Define the MPA management objectives and strategic activities*
Task 1(f): *Define how the effectiveness of the plan will be measured*

Diagnosis radar

An integrated framework for diagnosis of threats and opportunities



A Practical Approach to Adaptive Management

Step 2: Take Action

Task 2(a): *Secure the resources and permissions necessary to implement the plan*
Task 2(b): *Designate and organize an implementation team*
Task 2(c): *Initiate safety protocols*
Task 2(d): *Implement monitoring workplan and collect baseline data*
Task 2(e): *Implement activity workplans across objectives*
Task 2(f): *Initiate communication plan*

A Practical Approach to Adaptive Management

Step 3: Evaluate Progress

Task 3(a): *Regularly evaluate the plan's administrative progress*
Task 3(b): *Periodically evaluate the plan's management effectiveness*
Task 3(c): *Manage and analyze monitoring data collected*
Task 3(d): *Share evaluation results with target audiences*
Task 3(e): *Encourage peer review and independent validation of results*

A Practical Approach to Adaptive Management

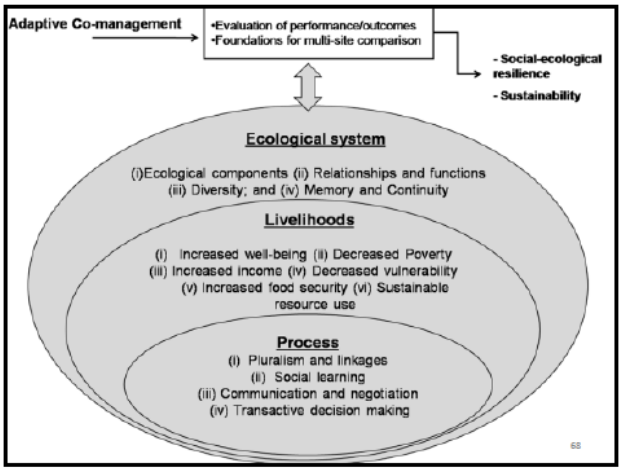
Step 4: Adjust Future Action

Task 4(a): *Systematically review and check shared assumptions against evaluation findings*
Task 4(b): *Identify and discuss potential implications of evaluation findings*
Task 4(c): *Capture learning from completed AM cycle*
Task 4(d): *Communicate adaptive response taken with target audiences*

A Practical Approach to Adaptive Management

Iteration

Go back to develop a (revised, if necessary) plan; take (adjusted, if necessary) action



Exercise

- How does resilience thinking and adaptive capacity build on other management frameworks? Does it add anything new?
- Is resilience thinking and adaptive capacity, or parts of it, useful for you in managing MPAs?
- Can we manage adaptively? How?
- Can we monitor and manage critical thresholds? How?

Strategic Planning

Strategic planning is a management tool for organizing the present on the basis of the projections of the desired future.

A strategic plan is a road map to lead an organization from where it is now to where it wants to be in five or ten years.

Strategic Planning

- A strategic plan or management plan documents an explicit set of goals, objectives, and activities that will be undertaken over a specified period of time and area, and articulates how the conservation strategy being used is designed to address the **threats** present.
- While not all MPAs require a complete management plan to begin operation, eventually a comprehensive plan will be needed to guide the long-term goals and development of the area.

How is your MPA doing?

MPA Management Effectiveness

Appendix 5 - Capacity self-assessment

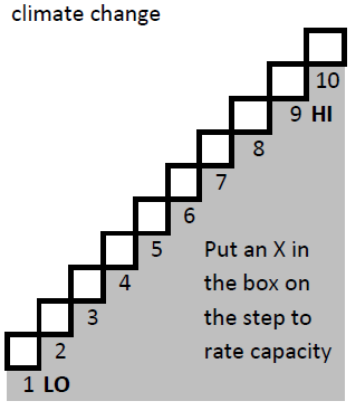
MPA site assessment

Adaptive capacity for MPA governance in the eastern Caribbean --- MPA site assessment

MPA site _____ Respondent _____ Date _____ (d d / m m / y y)

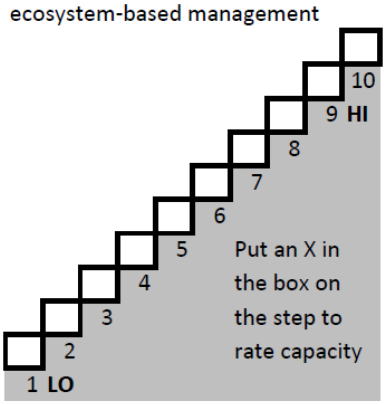
Use the 10-step scale to rate the capacity of governance arrangements at your MPA to deal with the following aspects of MPA governance that are linked to thinking about resilience
The assessmemt is not anonymous, but respondents will not be identified by name in reports

A climate change



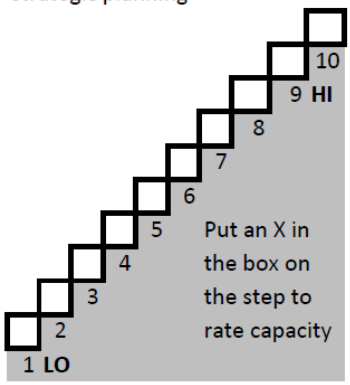
notes

B ecosystem-based management



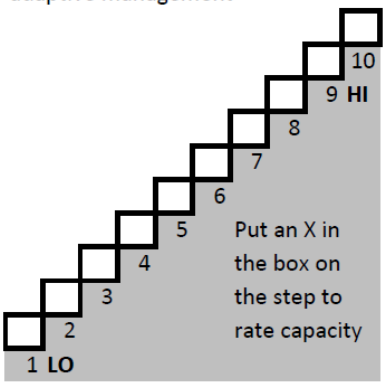
notes

C strategic planning



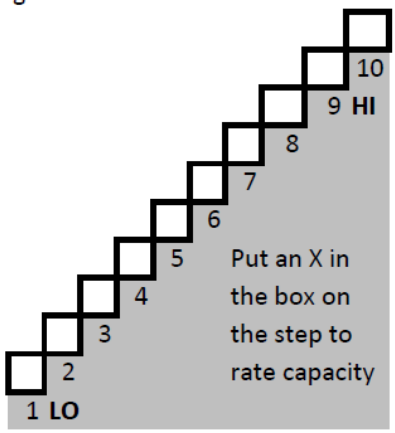
notes

D adaptive management



notes

E governance reform



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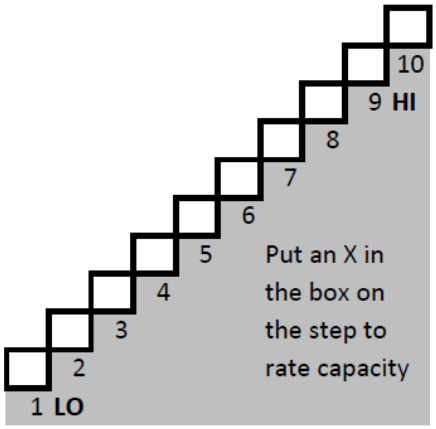
F communication



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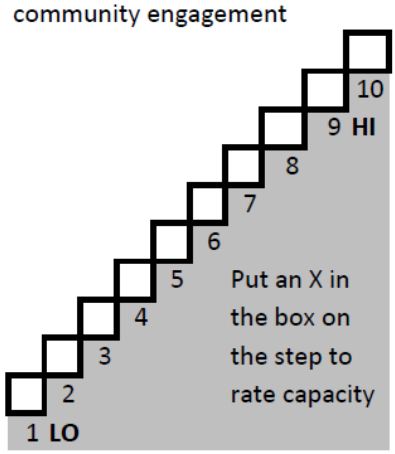
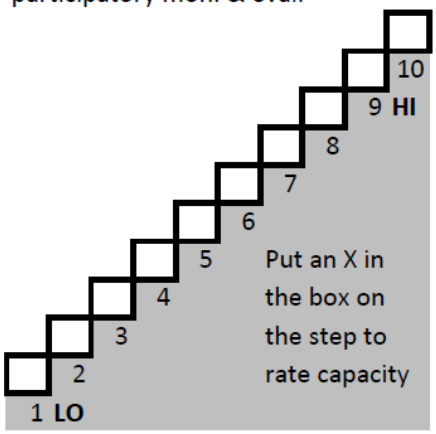
G community engagement



notes

H participatory mon. & eval.



notes

any other notes on adaptive capacity related to governance at your MPA

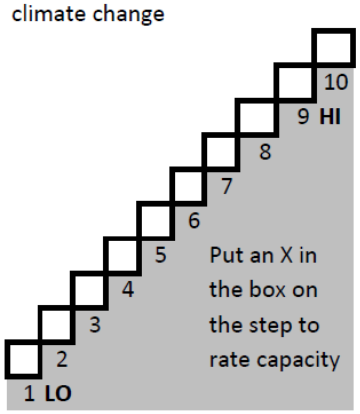
Personal assessment

Adaptive capacity for MPA governance in the eastern Caribbean --- personal assessment

MPA site _____ Respondent _____ Date _____ (d d | m m | y y)

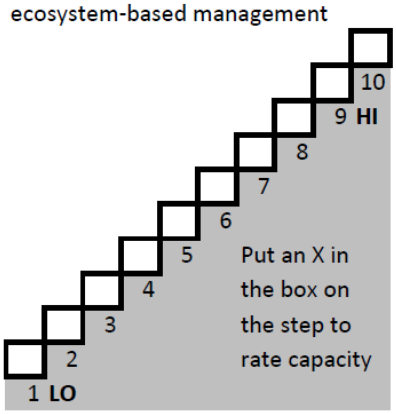
Use the 10-step scale to rate your capacity to fully understand governance at the MPA related to the following aspects of MPA governance that are also linked to thinking about resilience
The assessmemt is not anonymous, but respondents will not be identified by name in reports

A climate change



notes

B ecosystem-based management



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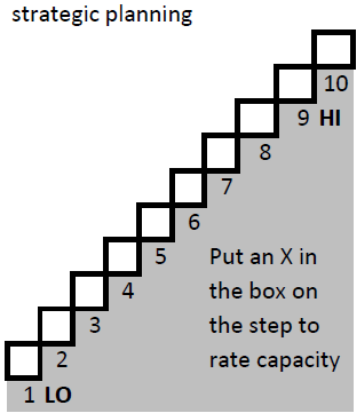
C strategic planning



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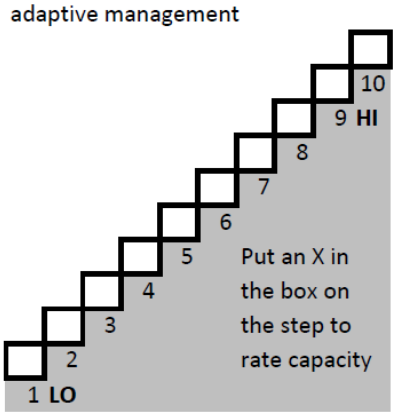
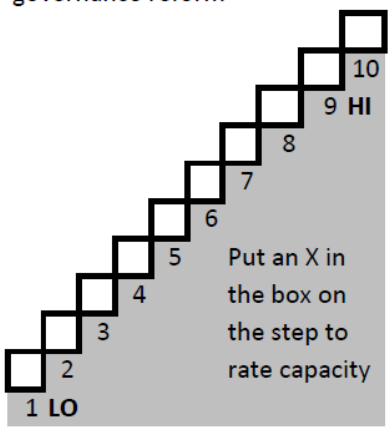
D adaptive management



notes

E governance reform



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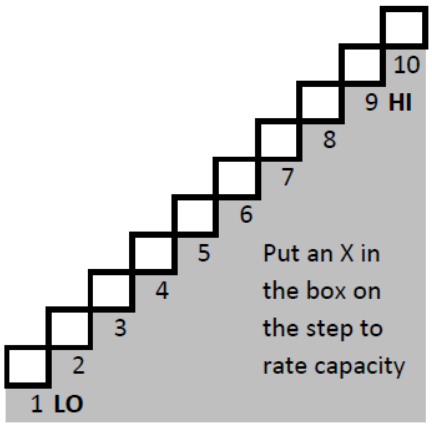
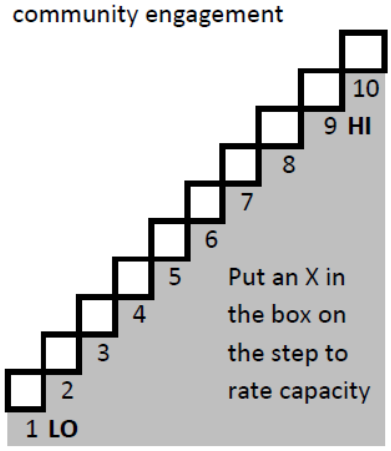
F communication



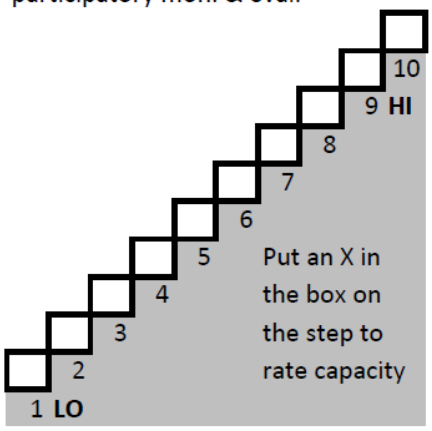
notes

G community engagement



notes

H participatory mon. & eval.



notes

any other notes on your knowledge of governance related to your adaptive capacity

Appendix 6 – Management effectiveness governance evaluation

Introducing the MPA guidebook's
Governance Indicators *(n=16)*

5th World Parks Congress, Session 3D
12th September 2003

There are 5 governance goals…

1 - Effective management structures and strategies maintained
2 - Effective legal structures and strategies for management maintained
3 - Effective stakeholder participation and representation ensured
4 - Management plan compliance by resource users enhanced
5 - Resource use conflicts managed and reduced

… each with associated objectives.

1 - Effective management structures and strategies maintained *(6 associated objs)*
2 - Effective legal structures and strategies for management maintained
3 - Effective stakeholder participation and representation ensured
4 - Management plan compliance by resource users enhanced
5 - Resource use conflicts managed and reduced

… each with associated objectives.

1 - Effective management structures and strategies maintained
2 - Effective legal structures and strategies for management maintained *(5 associated objs)*
3 - Effective stakeholder participation and representation ensured
4 - Management plan compliance by resource users enhanced
5 - Resource use conflicts managed and reduced

… each with associated objectives.

1 - Effective management structures and strategies maintained
2 - Effective legal structures and strategies for management maintained
3 - Effective stakeholder participation and representation ensured *(3 associated objs)*
4 - Management plan compliance by resource users enhanced
5 - Resource use conflicts managed and reduced

… each with associated objectives.

1 - Effective management structures and strategies maintained
2 - Effective legal structures and strategies for management maintained
3 - Effective stakeholder participation and representation ensured
4 - Management plan compliance by resource users enhanced *(6 associated objs)*
5 - Resource use conflicts managed and reduced

… each with associated objectives.

1 - Effective management structures and strategies maintained
2 - Effective legal structures and strategies for management maintained
3 - Effective stakeholder participation and representation ensured
4 - Management plan compliance by resource users enhanced
5 - Resource use conflicts managed and reduced *(1 associated obj)*

There are 16 Governance Indicators:

G1 - Level of resource conflict
G2 - Existence of a decision-making & mngmnt body
G3 - Existence and adoption of a management plan
G4 - Local understanding of MPA rules & regulations
G5 - Existence and adequacy of enabling legislation
G6 - Availability & allocation of MPA admin resources
G7 - Existence & application of sci. research & input
G8 - Existence & activity level of community org.(s)
G9 - Degree of interaction btwn managers & stkhldrs
G10 - Proportion of stkhldrs trained in sustainable use

There are 16 Governance Indicators:

G11 - Level of training provided to stkhldrs in particp.
G12 - Level of stkhldr particp. & satisfaction in management process & activities
G13 - Level of stkhldr involvement in surveillance, monitoring, & enforcement
G14 - Clearly defined enforcement procedures
G15 - Enforcement coverage
G16 - Degree of information dissemination to encourage stkhldr compliance

4 focus on stakeholder participation:

G9 - Degree of interaction btwn managers & stkhldrs
G11 - Level of training provided to stkhldrs in particp.
G12 - Level of stkhldr particp. & satisfaction in management process & activities
G13 - Level of stkhldr involvement in surveillance, monitoring, & enforcement

A few are *input* & *process* focused…

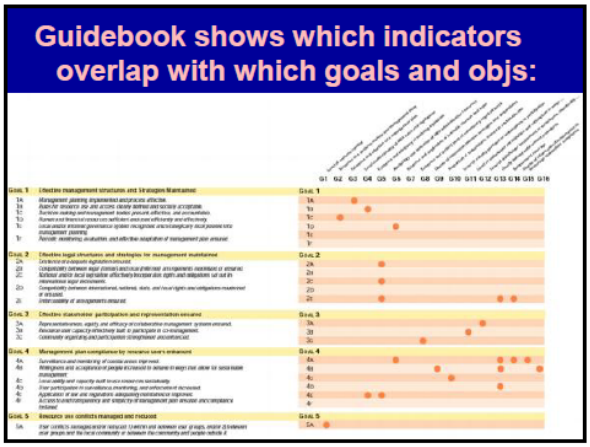
G14 - Clearly defined enforcement procedures
G15 - Enforcement coverage

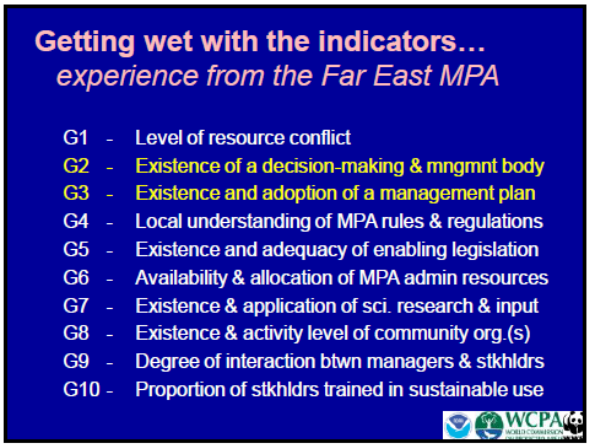
G10 - Proportion of stkhldrs trained in sustainable use
G11 - Level of training provided to stkhldrs in particp.

… while others look at *outputs*.

G2 - Existence of a decision-making & mngmnt body
G3 - Existence and adoption of a management plan
G8 - Existence & activity level of community org.(s)

G12 - Level of stkhldr particp. & satisfaction in management process & activities


Guidebook shows which indicators overlap with which goals and objs:


Getting wet with the indicators…
experience from the Far East MPA
G1 - Level of resource conflict
G2 - Existence of a decision-making & mngmnt body
G3 - Existence and adoption of a management plan
G4 - Local understanding of MPA rules & regulations
G5 - Existence and adequacy of enabling legislation
G6 - Availability & allocation of MPA admin resources
G7 - Existence & application of sci. research & input
G8 - Existence & activity level of community org.(s)
G9 - Degree of interaction btwn managers & stkhldrs
G10 - Proportion of stkhldrs trained in sustainable use
WCPA

Appendix 7 – Reference documents shared

Workshop readings [citations incomplete]

Christie, P. and A. T. White. Best practices in governance and enforcement of marine protected areas: an overview. Background paper 4

Gombos, M., A. Arrivillaga, D. Wusinich-Mendez, B. Glazer, S. Frew, G. Bustamante, E. Doyle, A. Vanzella-Khouri, A. Acosta, and B. Causey. 2011. A Management Capacity Assessment of Selected Coral Reef Marine Protected Areas in the Caribbean. Commissioned by the National Oceanic and Atmospheric Administration (NOAA) Coral Reef Conservation Program (CRCP), the Gulf and Caribbean Fisheries Institute (GCFI) and by the UNEP-CEP Caribbean Marine Protected Area Management Network and Forum (CaMPAM). 269 pp.

Hall, S. 2011. Climate Change and Other External Drivers in Small-scale Fisheries: Practical Steps for Responding in R. S. Pomeroy and N. Andrew (eds.) Small-scale Fisheries Management: Frameworks and Approaches for the Developing World. CABI Publishing, Oxfordshire. 258 pp

Module 3: Implementing the Plan – Governance

Parks, J. 2011. Adaptive Management in Small-scale Fisheries: a Practical Approach in R. S. Pomeroy and N. Andrew (eds.) Small-scale Fisheries Management: Frameworks and Approaches for the Developing World. CABI Publishing, Oxfordshire. 258 pp

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Shared by Saint Lucia

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For further reading

Costantini, M., M. Spoto and G. Cid. 2003. Application of the WCPA-Marine /WWF Guidebook on Evaluating Management in MPAs. Miramare. A Demonstration Case. WCPA-Marine, WWF International and NOAA –National Ocean Service.

Davis, C. and G. Moretti. 2005. Enforcing U.S. Marine Protected Areas Synthesis Report. National Marine Protected Areas Center. Report by the National Marine Protected Areas Center in cooperation with the National Oceanic and Atompheric Adminstration Coastal Services Center, Siver Spring, Maryland.

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Joseph, E., S. Ellis, T. McAdam, W. Kostka and L. Watson. 2003. Application of the WCPA-Marine /WWF Guidebook on Evaluating Management in MPAs. Lenger Island A Demonstration Case. WCPA-Marine, WWF International and NOAA –National Ocean Service.

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UNEP. 2008. Guidelines and Criteria for the evaluation of protected areas to be listed under the SPAW protocol. Final report, Annex V. United Nations Environment Program, United Nations.

WWF.1996. Marine Protected Ares Providing a future for fish and people. Global Marine Programme WWF International, Switzerland.

Appendix 8 - Follow-up activity

Features of follow-up

Ideas (extracted from the project proposal)

Examples of possible options for follow-up activity with linkages to content of workshops
• Rationalize MPA management systems taking uncertainty more into account • Recommend amendments to the management plan governance sections • Develop terms of reference (TOR) for legislative review and improvements • Means of strengthening links between scientific research and MPA governance • Institutional mapping of stakeholders from EBM and resilience perspectives • Survey of attitudes and ethics of conservation compliance and enforcement • Sharing experiences from the Pacific Locally Managed Marine Areas (LMMA) • Assessment of the demand by stakeholders for participation (e.g. drivers, benefits) • Social network analysis and other methods related to resilience and complexity • Additional information on concepts and issues of climate change related to MPAs
Reporting on workshop and follow-up activity
A workshop report will be produced within 7 days using a standard reporting template. A report on the follow-up activities will be produced at least 1 week before the next workshop so that participants can assist in monitoring and evaluating project progress as well as share in learning

Time frame

It would be good to get any follow-up activity done within 4 weeks… the implementation period

Financing

expense	unit cost	units 1	type 1	federal	matching
Workshop 1 follow-up activities					
Grenada fieldwork	500.00	4	day	2,000.00	500.00
Grenadines fieldwork	500.00	2	day	1,000.00	250.00
Saint Lucia fieldwork	500.00	2	day	1,000.00	250.00
~~Field manager flight~~	~~275.00~~	~~0~~	~~return~~	~~-~~	
~~Resource person flight~~	~~250.00~~	~~0~~	~~return~~	~~-~~	
~~Accommodation and per diems~~	~~100.00~~	~~0~~	~~night~~	~~-~~	
Sub-total				4,000.00	1,000.00
expense	**unit cost**	**units 1**	**type 1**	**federal**	**matching**
Workshop 2 follow-up activities					
Grenada fieldwork	500.00	6	day	3,000.00	1,000.00
Grenadines fieldwork	500.00	4	day	2,000.00	500.00
Saint Lucia fieldwork	500.00	4	day	2,000.00	500.00
Field manager flight	275.00	1	return	275.00	
Resource person flight	250.00	1	return	250.00	
Accommodation and per diems	100.00	4	night	400.00	
Sub-total				7,925.00	2,000.00

Follow-up form

Please complete all sections and submit as an email attachment to patrick.mcconney@cavehill.uwi.edu

1. Contact information

Workshop #		Theme of activity	
Title of activity			
Organisation			
Town/location			
Area/parish			
Country			
Activity leader			
Title of post held			
Telephone(s)			
Facsimile(s)			
Email address(es)			
Skype name(s)			

We will use e-mail for most communication so give addresses that are reliable and are checked regularly.
Type responses in the boxes below and they will expand to fit the text. Try to be concise but very clear.

2. What is the purpose/objective of your activity related to adaptive capacity for MPA governance? (<100 words)

3. What specific (measurable, verifiable) outputs will you achieve by the end of the activity? (3-5 bullet points)

4. What is your scheduled work plan and budget for the 1-4 week activity? (Insert or delete rows as necessary)

Task description (major tasks to be accomplished for deliverables)	Wk1	Wk2	Wk3	Wk4	Cost (USD)

Task description (major tasks to be accomplished for deliverables)				Wk1	Wk2	Wk3	Wk4	Cost (USD)
Start date		End date		Total budget for activity =				

5. In the table below list the critical resources or stakeholders in the activity and their roles. (Insert or delete rows)

Critical resource or stakeholder identified	Role in implementing the activity or specific tasks

6. Are there any assumptions or circumstances that may impact on successful implementation? (<100 words)

7. If you are not authorised to sign follow-up agreements on behalf of your organisation, identify the person who is

Authorised person	
Title of post held	

8. Any other pertinent information (<100 words)

Submitted to CERMES on (dd/mm/yy)		By (name)	

The completed form is not expected to exceed three pages in length. Thank you.

Appendix 9 - Evaluation form

Circle workshop number: 1 2 3 4	**Date (dd/mm/yy):**

This evaluation is anonymous and intended only to assist the organisers in evaluating the event. For your information the summary of the survey results will be included in the workshop report. Kindly answer all parts to all questions. Due to the small number of participants we need your evaluation.

Kindly answer all of these questions *Answer these as well if you wish to*

Main evaluation question for the workshop	**Optional additional information if you wish**
How much of your expectations did the workshop meet? *Circle the number that best matches your rating* All Much Some Little None 5 4 3 2 1	The main highlight was … The disappointment was …

The workshop had some stated expectations	**Optional additional information if you wish**
To what extent were these expectations met? *Circle the number that best matches your rating* All Much Some Little None 5 4 3 2 1	The highlight of meeting these was … The disappointment of these was …

How do you rate overall benefits from the workshop?	**Share any additional comments in this space**
Circle the number that best matches your rating Excellent Good Okay Fair Poor 5 4 3 2 1	

How would you rate workshop arrangements overall?
Circle the number that best matches your rating Excellent Good Okay Fair Poor 5 4 3 2 1