A Management Capacity Assessment of Selected Coral Reef Marine Protected Areas in the Caribbean

Una Evaluación de la Capacidad de Manejo de Determinadas Areas Marinas Protegidas de Arrecifes de Coral en el Caribe

Une Evaluation des Capacités de Gestion des Aires Marines Protégées Sélectionnées Récifs Coralliens dans les Caraïbes

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ABSTRACT

This report presents the findings of an assessment of capacity building needs for the management of marine protected areas (MPAs) in the Caribbean region. A total of 27 MPA sites in 10 countries and territories were included in the assessment, which is an initiative of NOAA Coral Reef Conservation Program (CRCP) in partnership with the Caribbean Marine Protected Area Management Network and Forum (CaMPAM). A gap analysis of existing MPA capacity documents revealed a great deal of variation in the purpose, geographic scope, methodology, and nature of capacity information that has been collected to date. As such, a broad-based comparison of existing information was challenging and would likely not provide an accurate analysis. Accordingly, for this assessment a new survey tool was developed based on a modified version of an existing NOAA Coral Reef Conservation Program MPA Management Assessment checklist (http://coralreef.noaa.gov/resources/publicationsdata/). This tool, intended to be a guided self-assessment, was used by the consultants in an interview process whereby they read through questions with site managers and then allowed the managers to self-select the answers that they deemed most appropriate for their site's situation. Each question was followed by a more thorough discussion about why that answer was selected. The regional results demonstrate that the current perceived capacity of sites is greatest in relation to zoning/boundaries, governance, management planning, stakeholder engagement, conflict resolution mechanisms, and outreach and education. Current perceived capacity of sites is lowest in relation to alternative livelihoods, socioeconomic monitoring, and fisheries management. Priority MPA management capacity needs as identified by managers are: 1) enforcement (10 sites) 2) financing (9 sites) 3) management planning, bio-physical monitoring, socio-economic monitoring (7 sites), and 4) MPA effectiveness evaluation, and outreach and education (6 sites). Preferred approaches to capacity building at a regional scale are: 1) technical support, 2) training, 3) more staff, 4) learning exchanges, and 5) higher education course. Individual site results provide more detailed information under the "rationale" narrative sections and can inform users of more specific details of the local situation and capacity strengths, and challenges.

KEY WORDS: MPA, capacity, assessment, NOAA, CaMPAM

EXECUTIVE SUMMARY

This assessment is an initiative of NOAA Coral Reef Conservation Program (CRCP) in partnership with the Caribbean Marine Protected Area Management Network and Forum (CaMPAM). The initiative is intended to inform and enable targeted efforts to better address MPA management capacity gaps in the Caribbean region, both internally by NOAA and through CaMPAM as a regional network. The findings are also expected to be of value to other organizations involved in coral reef conservation, and it sought to update existing information on the capacity needs of MPAs in the region. The consultant team was hired to help facilitate the design and implementation of the assessment. The objectives of the assessment included: reviewing existing information in order to identify key gaps in MPA management capacity information for countries and MPA sites in the Caribbean Region; identifying 5-year priority MPA management capacity needs for up to three demonstration MPA sites in each of nine Caribbean countries; and providing key information to CaMPAM and NOAA CRCP about MPA management capacity needs in demonstration sites to guide programmatic planning and services such as training, funding, and technical support.

To fulfill the objectives, the approach involved a gap analysis of existing MPA capacity documents that were compiled and reviewed. The documents reviewed varied greatly in purpose, geographic scope, methodology, and capacity information collected. As such, a broad based comparison of information was challenging and would likely not provide an accurate analysis. Additionally, the assessment was intended to focus on-site level management capacity, of which there

were very few direct studies. Therefore, the information reviewed was broken down into a variety of categories to inform the decision-making process for the MPA Management Capacity Assessment project (e.g. methodology, capacity indicators, existing capacity information per country).

Given limited resources, the project was restricted in the number of sites that could be assessed. The initial findings of the gap analysis were used to support the selection of countries to carry out the MPA Management Capacity Assessment, as well as to develop the appropriate methodology to meet the objectives. The consultants worked with the CaMPAM Executive Team (ET), represented by NOAA, the United Nations Caribbean Environment Programme, the Gulf and Caribbean Fisheries Institute and the CaMPAM Coordination staff, to develop a set of criteria to rank the most suitable Caribbean countries and territories to carry out the MPA capacity assessment. These criteria included ecological significance; international commitments to the Caribbean Challenge, the Cartagena Convention's SPAW Protocol, and/or the MAR Fund; evidence that the country was investing in MPAs as a tool for conservation, and linkages to U.S. coral reef ecosystems. Based on these criteria, the following ten countries were selected for the assessment The Bahamas, Belize, British Virgin Islands, Dutch Caribbean (Saba & St. Eustatius specifically), Honduras, Grenada, Mexico, St. Lucia, St. Vincent and the Grenadines, and Turks and Caicos Islands.

After reviewing a variety of tools that could be used to carry out the assessment, it was determined that the NOAA Coral Reef Conservation Program MPA Management Assessment Checklist provided a good foundation for the collection of information, but that there were additional capacity areas critical to cover in the Caribbean region. The consultants used input from the CaMPAM ET as well as other methods to expand the NOAA MPA Checklist, using the same general question format. Additional questions were also added to aid understanding of priority capacity needs and capacity building approaches of interest at the site level.

As a next step, MPA management agencies in each country were contacted to explore their interest in participating in the assessment. Upon agreeing to participate in the project, the MPA agencies were asked to identify up to three specific sites that would be most appropriate for the assessment. Specific criteria developed by CaMPAM were provided to the agency representatives to help them select specific sites to carry out the assessment. The criteria, included biological value (high), conservation viability (high), and degree of threat (medium to low) as perceived by jurisdictional representatives. Each country/ jurisdiction selected one to three sites for an anticipated total of 27 sites.

The MPA Management Capacity Assessment was then completed through a desk review, site visits, and report development.

i) Desk review - A desk review was conducted of the existing capacity assessment reports or other relevant information that could inform results of this effort for each specific country and selected sites (e.g. management plans, capacity building plans, national system plans). This information was used to prepare for discussions with site managers.
ii) Site visits - Site visits were conducted in most countries/jurisdictions where the consultants met with focus groups of MPA managers and site staff to complete the survey for each selected site. The surveys were completed through interviews where detailed information on each assessment area was collected. Other country or regional experts that support management of the site and/or that could offer insights to capacity challenges and needs were also consulted in order to help inform the consultants' background knowledge.
iii) Report development – Upon completion of the site visits and interviews, the site reports were compiled to summarize the results from each MPA, including the capacity strengths, capacity challenges, and priority capacity needs at each site. The site reports were then sent back to site managers for review and edits prior to finalization. This step enabled managers to correct any information that may have been captured incorrectly or was sensitive and should not be made public.

Similar to the NOAA MPA Management Capacity Checklist, the assessment tool employed a tiered approach to measure MPA management capacity, with the first tier reflecting little to no capacity and the third tier reflecting high capacity in the assessment area. While not absolute, it's probable that MPAs that have been recently established or just initiating management activities will normally rank at tier 1 or 2 for most assessment categories. Additionally, MPAs that are more mature and that have been implementing management activities for some time are more likely to rank at tier 2 or 3. This tool was designed to be a guided self-assessment, in which the consultants carried out an interview process where they read through each tier with site managers, and then allowed managers to self-select which tier was most appropriate for the site situation.

The assessment survey tool captured information for each site on the current level of capacity and needs to improve capacity in the following 24 thematic assessment areas:

i) Site designation and design,
ii) Socioeconomic monitoring,
iii) Fisheries management,
iv) Management planning,
v) MPA effectiveness, evaluation, and adaptive management,

vi) Integrated coastal management,
vii) Ecological network development,
viii) Stakeholder engagement,
ix) Partnerships/coordination,
x) Governance,
xi) Financing,
xii) Organizational management,
xiii) On-site management,
xiv) Outreach and education,
xv) Sustainable tourism,
xvi) Enforcement,
xvii) Conflict resolution mechanisms,
xviii) Economic valuation,
xix) Boundaries,
xx) Resilience to climate change,
xxi) Emergency response process or team,
xxii) Biophysical monitoring,
xxiii) Alternative livelihoods, and
xxiv) Use of ecosystem-based management principles.

In addition to site capacity results, a summary of all site results was developed to provide a quick glance of the collective information gathered. It should be noted, however, that this assessment was not designed to provide "regional" results or compare information across sites. Rather the assessment was focused on gathering site-specific information and management capacity needs. Therefore, it should be used only as a basic guideline for making regional analyses. Much more detailed information is provided in site chapter results, which should be used to help address capacity needs.

A total of 27 MPA sites were assessed for this project. The results demonstrate that the current capacity of sites perceived to be greatest in relation to zoning/boundaries, governance, management planning, stakeholder engagement, conflict resolution mechanisms, and outreach and education subjects. The thematic areas perceived to have the lowest current capacity are alternative livelihoods, socioeconomic monitoring, and fisheries management.

The priority MPA management capacity needs most often identified by managers are:

i) Enforcement (10 sites),
ii) Financing (9 sites),
iii) Management planning, bio-physical monitoring, and socio-economic monitoring (7 sites),
iv) MPA effectiveness evaluation, and
v) Outreach and education (6 sites). The priority capacity building approaches most often identified were technical support, training, and more staff.

In summary, it is interesting to note that some sites identified their current capacity as tier 3 for specific capacity areas, while also identifying those areas as a priority capacity building need. The reasons for this might reflect a number of different factors. In some cases, while capacity is normally high, the current situation has created a need for support, while in other cases more support is needed to maintain high capacity. It also may relate to the importance placed on that capacity as a core task that needs the strongest capacity possible. In all cases, site managers felt that tier 3 was appropriate. Therefore, it is important to read the detailed rationale for each site specifically before assuming that tier three means no capacity support is needed.

In many cases, "MPA effectiveness evaluation" was often understood to mean "management" effectiveness evaluation only with little or no regard for biological or socio-economic factors. Additionally, many sites have little to no bio-physical monitoring and specifically no numerical indicators of success for conservation of natural resources. Finally, very few sites were measuring social indicators of success such as knowledge, attitudes and perceptions of local stakeholder about the MPA. Overall, existing efforts to evaluate "MPA Effectiveness" with quantifiable indicators that provide a holistic view (i.e. biological, social, and management) of the success of a site in reaching its goals was rare.

As mentioned previously this assessment was carried out as a guided self-assessment, and therefore the tiers reported are based on the participants' own perception. Supplemental details captured within the discussion and presented in the rationale section under each capacity area in the sites chapter can more fully inform users of the local situation and capacity strengths and challenges. It is therefore important to recognize that the most actionable and revealing information provided in this report can be found in the details provided under each site chapter in the "rationale" narratives for each assessment area. As such, it is recommended that users of this report carefully read through details of the site chapters before assuming certain strengths/needs/ or challenges purely based on tier selection.

Based on the site level information and regional summary results, the consultants noted a few possible next steps and recommendations. To help ensure that priority capacity needs are supported it is recommended that the various marine conservation programs in the region work together to collectively determine effective ways of providing support to meet these needs through a collective strategic planning process for the region. Throughout the assessment process, discussions with various regional organizations highlighted the great value and benefit in supporting more collaboration among these groups. This assessment provides an excellent opportunity for relevant national and regional organizations to identify which thematic areas they can best provide assistance and to look for new opportunities to collaboratively address gaps in capacity. This follow-up approach would also help to ensure country partners that regional organizations are directly supporting needs identified on the ground.

There are also opportunities at certain sites that are ripe for support and would provide a foundation for regional models. Regional support organizations can work with sites/countries that have strengths in particular areas and work with them to establish "regional models" that could be replicated at other sites. For example, The Bahamas has recently passed an amendment to their protected area law that allows for The Bahamas National Trust to train and deputize volunteer enforcement officers. If done successfully, this volunteer enforcement program could significantly help MPAs address a challenge that many sites in the region face (i.e. not enough enforcement staff). This program, if effectively implemented, may serve as a regional model by identifying and sharing the process that was implemented to make this program successful. This approach provides an opportunity for financial support that could have broader impact than one country.

Finally, some challenges commonly faced among many sites might be best addressed through a regional approach. This is particularly the case for monitoring (both biological and social). Often times, the challenge in carrying out regular monitoring programs is dealing with a lack of staff and limitations on their availability. To address this issue, we suggest that CaMPAM considers establishing a "roving" support team that could help develop appropriate biological monitoring protocols for a site, and collect and analyze the data. This team could be a mixture of monitoring experts and staff from other sites (as part of a learning/sharing network). This team might work with local site staff in each country to carry out these tasks and also provide the additional numbers and expertise needed to complete annual assessments as well as providing support for data analysis and development of adaptive management options. This approach could allow a decrease in the amount of resources required to help each site collect valuable information on status and trends of marine resources within the MPA, to evaluate MPA effectiveness, and to inform adaptive management strategies. The same approach can be carried out for socio-economic monitoring. This approach can also help improve data quality and accuracy. This approach is already being piloted in the Dutch Caribbean islands and their results can provide insights towards the development of this approach as a model for the region.

The citation for the complete capacity assessment report is:

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An electronic file of the report can be accessed online at:

http://campam.gcfi.org/CapAssess/CapacityAssessmentReport2011/index.html