

Socio-economic Monitoring by Caribbean Challenge by MPA Managers (Caribbean Challenge SocMon) Sandy Island Oyster Bed (SIOB) MPA

Site monitoring plan for MPA follow-up study

1. Goal and objectives guiding socio-economic monitoring

Monitoring must have a goal and specific objectives for being undertaken. These are often based on management plans (e.g. fisheries, MPA, tourism) or other expressions of policy.

Monitoring goal
To determine impacts, and attitudes and perceptions trends of the Sandy Island/Oyster Bed Marine Protected Area (SIOBMPA), on persons living and working in communities adjacent to the MPA.

SMART objectives for socio-economic monitoring (please be as specific as possible)

Monitoring objectives (Specific, Measurable, Attainable, Realistic and Time-bound)
To obtain MPA stakeholder feedback on the MPA management process, impacts and effectiveness of management activities within the protected area before and after the establishment of the MPA.
To determine the current conditions of the coastal and marine resources.
To identify the specific uses of the MPA and its resources by households within the adjacent communities.

2. Defining the study area

Using the information on issues and stakeholders, define the geographic area appropriate for the study site (contains all or most critical activities/issues and stakeholders). Document the specific selection criteria that you used. Clearly identifying the study area is important in identifying use patterns and potential threats to resources. The study area should include where the stakeholders live and work.

Study area selection criteria	Study area description (or attach area map)
The L'Esterre area has the highest concentration of users, especially fishermen	The land area adjacent to SIOBMPA, starting from Lauriston and ending at Tyrrel Bay, using the main road (including the old airport road) as a delineating line (including the first row of buildings on the landward side of the roadway. (May include the households to the east of the boundary on the Lauriston end.)

3. Stakeholder identification

Stakeholder identification and selecting the boundaries for the study site are iterative processes. Start by identifying the activities in the area and then determine who the likely stakeholders are. Name their organisation, if any.

Study area activity or issue	Primary stakeholder [and organisation]	Secondary stakeholder [and organisation]
Fishing	Fishers	Fisheries Extension Officer
Diving	Divers	Dive operators, GBT
Boating	Water Taxis, Inter-island Ferries, Yachts	Ports Authority, Regatta Committee
Business	Vendors, Aquaculture Enthusiast, Guest houses, Rentals	Fisheries, GBT

4. Stakeholder locations and key informants

The communities where SocMon will take place will depend primarily on the stakeholders involved in coastal management. Suggest key persons who can talk about the larger population. The communities where SocMon will take place will depend primarily on the stakeholders involved in coastal management. Suggest key persons who can talk about the larger population.

Stakeholders (1° and 2°)	Location of stakeholder	Key informants for stakeholders
Fisher Folk (Pot)	L'Esterre	Herbert "Jobaco" Placid
Fisher Folk (Pot)	L'Esterre	Albert "Doctor" Mitchell
Fisher Folk (Seine)	L'Esterre	Francis "Give Us" Joseph
Divers	Hillsborough	Werner "Max" Nagel
Guesthouses/small hotels	L'Esterre	Cammie Joseph
Vendors (Restaurant)	Lower St. Pierre	Joan Joseph (?)
Vendors (Beach)	Lower St. Pierre	Joyce Bristol
Kayak Rentals	Tyrrel Bay	Georg Schmidt
Water Taxi	L'Esterre	Bo/Egbert (Hard Wood)
Water Taxi	L'Esterre	Curtis
Water Taxi	Tyrrel Bay	Troy Augustine
Aquaculture Enthusiast	L'Esterre	Christopher "Cobra" Bartholomew

5. SocMon team and tasks

Although an initial study or monitoring can be done by a single person (e.g. MSc student), the process is intended to be undertaken by an interdisciplinary team, the size and the required talents of which partly depend on the goal and objectives of the study or monitoring program. What types of expertise do you need and where from?

Role on team (or skill requirement)	Specific tasks	Proposed team member name and affiliation
Project management	Supervision of project duties and finances, questionnaire design, analysis	Davon Baker
	Questionnaire design, data input and analysis	Norland Cox
Community liaison	Raising awareness about the project and assisting with field data collection, questionnaire design	Jody Placid
OUT OF COUNTRY	AVAILABILITY UNKNOWN	Brian Whyte
	Questionnaire review	Desmond Nicholas
Community liaison	Raising awareness and data collection	Angelo Alexander
Community liaison	Raising awareness, data collection and input	Bryan Prince
Data Entry	Data collection awareness and input	Anique Coy

6. Work plan schedule

A SocMon study should take no more than one month, however duration varies between 3 -8 weeks, so you need to schedule your work accordingly, remembering the SocMon stages including validation. Set out tasks under each heading

Activity / task	Time unit →	Wk1	Wk2	Wk3	Wk4	Wk5	Wk6	Wk7	Wk8
Preparatory activities									
Community meeting to announce project work		x							
Scoping visit to project study area to confirm study area boundaries and communities etc.		x							
Secondary data collection									
Collation and review of prior baseline data to determine data relevant for comparison		x	x						
Identification and collection of other sources of secondary data		x	x						

Activity / task	Time unit →	Wk1	Wk2	Wk3	Wk4	Wk5	Wk6	Wk7	Wk8
– management plan, reports, maps, photographs etc.									
Review other secondary sources of data		x	x						
Primary data collection and observation									
Timeline or historical matrix of changes in MPA use and resource conditions			x	x					
Timeline of management interventions and activities, and successes/failures			x	x					
Design key informant interview guide			x	x					
Conduct key informant interviews				x					
Design household survey				x	x				
Pre-test household survey				x	x				
Data analysis and interpretation									
Survey coding and data entry					x	x			
Quantitative analysis of survey data						x			
Comparison of survey data with baseline data previously collected						x			
Interpretation of results						x			
Validation, communication, adaptation									
Validation meeting with community to provide feedback and to confirm findings							x		
Preparation of project report							x	x	
Communication of findings and key learning to MPA committee, MPA communities, Ministry of Carriacou and Petite Martinique Affairs								x	x
Recommendations for adaptive management									x

7. Critical research resources required (budget and non-budget)

Many resources will be used in the research, but there are usually just a few that are so critical the assessment may not be able to proceed without them. You must know early what these are.

Resource description	Use of resource	Comments on availability
Meeting venues	Announcement of project and activities, and validation	Rental
Stationery (paper, pens and associated supplies)	Key informant interviews, household surveys and communication	To be purchased. Printing may be in-kind
Vehicle	Transportation to project sites	Rental
Laptop and multi-media projector	Community meetings (project announcement and validation, data analysis)	In-kind
Data analyst	Review and analysis of previously collected baseline data	SocMon team members

8. Budget

The SocMon methodology is intended to be affordable so that monitoring can be sustained. Pay close attention to what are realistic costs, including in-kind contributions that may be available. Use the work plan schedule to estimate the monitoring costs, broken down by SocMon stage in order to provide information on required cash flow based on the schedule. Critical resources can be skills (communication specialist, visual artist etc.).

Description of expense	No. of units	Unit cost*	Total cost*
Preparatory activities			
Community meeting to announce project and activities: Refreshments	1	\$15.00	\$450.00
Community meeting to announce project and activities: Venue rental	1	\$400.00	\$400.00
Transportation costs for site visit scoping	1	\$30.00	\$30.00
Secondary data collection			
Compilation, review and analysis of baseline data: Researcher/data analyst stipend	1	\$500.00	\$500.00
Photocopying costs/acquisition fees for relevant secondary data	1	\$500.00	\$500.00
Interviews and observation			
Interviewer stipend: key informant interviews and household survey – 5 interviewers @ XCD 15.00 per person x # of interviews	65	\$15.00	\$975.00
Transportation cost per interviewer	3	\$30	\$90.00

Description of expense	No. of units	Unit cost*	Total cost*
Data analysis and interpretation			
Data analyst stipend	1	\$500.00	\$500.00
Reporting	1	\$600.00	\$600.00
Validation, communication, adaptation			
Community validation meeting: Venue rental	1	\$400.00	\$400.00
Community validation meeting: Refreshments @ XCD 15.00 x 30 persons	1	\$15.00	\$450.00
Communication outputs/media: Flyers, radio announcements, newspaper articles	1	\$250.00	\$250.00
Planning for adaptive management based on project findings: MPA committee meeting	1	\$500.00	\$500.00
Design and implementation of adaptive management activity	1	\$1000.00	\$1000.00
Sum total of SocMoncosts			\$6745.00

* = currency used [XCD]

Budget explanatory notes (use if needed to explain calculations/estimations)

9. Key variables to be monitored

Based on the goal and objectives of the monitoring, you need to determine which (if not all) of the SocMon Caribbean variables need to be measured, sources of secondary information to consult before interviewing (key informant or household), and practical considerations for each variable. The practical considerations include levels of difficulty in acquiring information, issues, error or uncertainty, challenges in implementing fieldwork, links to data sources that are desirable, etc.

**Remember the two types of variables: Key informant interview/secondary sources variables (K) and survey variables (S).*

Also remember that if a variable specific to your purposes of monitoring is not available among the 60 SocMon Caribbean variables, you can add new variables.

KEY INFORMANT INTERVIEW/SECONDARY SOURCES VARIABLES			
Var. No.	Variable to be monitored	Obj. 1, 2, 3...	Secondary sources of information & practical considerations, constraints and challenges with secondary data sources and carrying out fieldwork
K1.	Study area	2, 3	Grenada Board of Tourism
K2.	Population	1,2,3	National Population Census
K3.	Number of households	1,2,3	National Population Census
K 4.	Migration rate		
K5.	Age	1, 2, 3	National Population Census
K6.	Gender	1, 2, 3	National Population Census
K7.	Education	1, 2, 3	National Population Census
K8.	Literacy		

KEY INFORMANT INTERVIEW/SECONDARY SOURCES VARIABLES			
Var. No.	Variable to be monitored	Obj. 1, 2, 3...	Secondary sources of information & practical considerations, constraints and challenges with secondary data sources and carrying out fieldwork
K9.	Ethnicity		
K10.	Religion		
K11.	Language		
K12.	Occupation	1, 2, 3	National Population Census
K13.	Community infrastructure and business development	1, 3	Utility Companies – Grenlec, LIME, Flow; Public Health office; Public Works Division – Ministry of Carriacou & Petite Martinique Affairs
K14.	Activities	3	Fisheries Office – Ministry, Grenada Board of Tourism
K15.	Goods and services	1, 3	Fisheries Office – Ministry, Grenada Board of Tourism
K16.	Types of use	1, 3	Fisheries Office – Ministry, Grenada Board of Tourism
K17.	Value of goods and services		
K18.	Goods and services market orientation		
K19.	Use patterns	1, 3	General Public

KEY INFORMANT INTERVIEW/SECONDARY SOURCES VARIABLES			
Var. No.	Variable to be monitored	Obj. 1, 2, 3...	Secondary sources of information & practical considerations, constraints and challenges with secondary data sources and carrying out fieldwork
K20.	Levels and types of impact	1,2	General Public
K21.	Level of use by outsiders		
K22.	Household use	1,3	Constraint: secondary information may be difficult to source.
K23.	Stakeholders	1	
K24.	Tourist profile	2	Grenada Board of Toursim
K25.	Management body		
K26.	Management plan	1	SIOBMPA
K27.	Enabling legislation		
K28.	Management resources		
K29.	Formal tenure and rules		
K30.	Informal tenure and rules, customs and traditions		

KEY INFORMANT INTERVIEW/SECONDARY SOURCES VARIABLES			
Var. No.	Variable to be monitored	Obj. 1, 2, 3...	Secondary sources of information & practical considerations, constraints and challenges with secondary data sources and carrying out fieldwork
K31.	Stakeholder participation	1	
K32.	Community and stakeholder organisations	1	
[K33]	Perceptions of management effectiveness	1	SIOBMPA – from stakeholder meeting in April

SURVEY VARIABLES			
Var. No.	Variable to be monitored	Obj. 1, 2, 3...	Secondary sources of information & practical considerations, constraints and challenges with secondary data sources and carrying out fieldwork
S1.	Age	1, 2, 3	National Population Census
S2.	Gender	1, 2, 3	National Population Census
S3.	Ethnicity		
S4.	Education	1, 2, 3	National Population Census
S5.	Religion		

SURVEY VARIABLES			
Var. No.	Variable to be monitored	Obj. 1, 2, 3...	Secondary sources of information & practical considerations, constraints and challenges with secondary data sources and carrying out fieldwork
S6.	Language		
S7.	Occupation	1, 3	National Population Census
S8.	Household size	1, 2, 3	National Population Census
S9.	Household income	1, 2, 3	National Population Census
S10.	Household activities	3	Fisheries Office, Grenada Board of Tourism
S11.	Household goods and services	1, 3	Fisheries Office, Grenada Board of Tourism
S12.	Types of household uses	1, 2, 3	Fisheries Office, Grenada Board of Tourism
S13.	Household market orientation		
S14.	Household uses	1, 3	Fisheries Office, Grenada Board of Tourism
S15.	Non-market and non-use values		
S16.	Perceptions of resource conditions	1, 2	Community Meeting & Consultation

SURVEY VARIABLES			
Var. No.	Variable to be monitored	Obj. 1, 2, 3...	Secondary sources of information & practical considerations, constraints and challenges with secondary data sources and carrying out fieldwork
S17.	Perceived threats	1, 2	
S18.	Awareness of rules and regulations	1, 2, 3	
S19.	Compliance	1, 2, 3	SIOBMPA (Wardens)
S20.	Enforcement	1	SIOBMPA
S21.	Participation in decision-making	1	Workshop/Training reports, etc. Fisheries Office, SIOBMPA, SusGren, etc.
S22.	Membership in stakeholder organisations		SusGren
S23.	Perceived coastal management problems	1, 2	SusGren
S24.	Perceived coastal management solutions	1, 2	SusGren
S25.	Perceived community problems	1	SusGren
S26.	Success in coastal management	1	SIOBMPA (Workshop reports)

SURVEY VARIABLES			
Var. No.	Variable to be monitored	Obj. 1, 2, 3...	Secondary sources of information & practical considerations, constraints and challenges with secondary data sources and carrying out fieldwork
S27.	Challenges in coastal management	1	SIOBMPA (Workshop reports)
S28.	Material style of life	1, 2, 3	National Population Census
[New]			

10. Interview sample design

Depending on many factors ranging from the objectives of monitoring to area demographics, you need to determine 'how' and 'how many' for selection of key informants and households.

a. Key informants	b. Households
Critical information areas Fishers Water Taxis Dive Operators Small Businesses	Estimated number of households in study area and means of obtaining estimate
No. of informants:10	Approx. sample size:50
Selection process: Household: Every 2 houses Key Informants: Specific stakeholders	Sample selection method: Random

11. Visualisation techniques

The GCRMN manual describes several visualisation techniques that are useful for collecting, displaying and communicating socio-economic data informatively to document or assist decision-making. Many methods may be used simultaneously or sequentially. The means of presenting socio-economic monitoring results is critical in showing relationships among the data. Which methods will you use?

Technique and page in manual	Variable and objective nos.	Notes on application of the technique to the variable and objectives (e.g. for all or some stakeholders? Issues?)
Maps – 113	2, 3	Map past and present MPA uses and resource conditions
Transects - 119		
Timelines - 121	1	Timeline of implemented management measures/interventions with accompanying successes/failures if evident yet
Seasonal calendars - 125		
Historical transects - 129	2, 3	Historical transects to show change in MPA use over time and/or change in coastal and marine resource conditions
Decision trees - 131		
Venn diagrams - 133		
Flow charts – 136		
Ranking - 138		

12. Key points to consider in data analysis and interpretation

Depending on the nature of the study site and your monitoring process there are often special points to consider as you analyse and interpret data. These may be assumptions, constraints or expertise required. You will need to know these beforehand and to write them up with results.

1Assistance with report compilation may be necessary given team members work committments

13. Communication plan and issues in arrangements for communication and validation

Communication and validation of results and key learning is often done in workshops, but other means are used to supplement this and ensure that various audiences receive the outputs. However done, there will always be some practical mattersto address, i.e. issues in arrangements for communication and validation.

Target audience	Communication product(s)	Communication pathway(s)	Practical matters
Resource users (fishermen etc.)	PowerPoint presentations	Community meeting	Low meeting attendance/fishermen may not be keen to attend meeting Informal methods/meetings rather than formal may be more effective at reaching this audience
	Public service announcements (PSAs)	Radioprogrammes	Budget may not allow for PSAs
	Newspaper articles	Newspaper	
Government ministers and Senior Managers (C&PMA)	Executive summary/brief	Meeting (one-on-one or group) E-communication	Availability of ministers
SIOBMPA Board	Brief/Report	Meeting	

14. Plans for sustaining monitoring over the next five years

A socio-economic monitoring program is usually repeated every 2-5 years. The frequency of monitoring depends on the site situation and data needs for the site. List plans for sustained monitoring five years from now.

1 A follow-up survey to be conducted 3 years afterward. Thereafter, surveys may be done every 3 to 5 years.

15. Challenges of implementing a sustained monitoring program at your site

Implementing a SocMon monitoring program at coastal sites may be challenging for a number of reasons including lack of human and financial resources, lack of fully functional integrated coastal management, etc. Provide a list of challenges, if any, for your site.

1 Need for more technical training of MPA staff.

2 Lack of well-established management

3

16. Initiatives/projects that may impact on SocMon at the site and future use of SocMon for socio-economic monitoring

It is important to know if there are any on-going or planned initiatives or projects at your site to determine relevance to the SocMon study, possibility for synergy; prevent duplication and intrusion in communities. List any initiatives or projects that are on-going or slated for your site.

Initiative/project	Impact on SocMon study
CARIBSAVE	Possible respondent fatigue and duplication of work. May aid in MPA awareness and acceptance, by way of token support for fishers.
Reef Restoration Project	Community involvement may improve acceptance.

17. Informing MPA management and/or policy decisions in Grenada

SocMon is a very useful methodology that may be used for guiding management of coastal resources and informing policy decisions. List a few areas where SocMon may be used for such.

1 Informing management on the ways in which adjacent communities are affected by active marine management.
2 Help in improving effectiveness of management.
3 Help to gauge community involvement in the management process.
4

18. Potential for adaptive management using SocMon

SocMon can be especially useful in adaptive management in order to improve management, planning, impacts, accountability etc. List a few areas which will have the greatest potential for adaptive management if SocMon is used for monitoring in MPAs in Grenada.

1	Possibility to feed into a revised management plan.
2	May highlight need for livelihoods, training, and other forms of tangible benefits to the community.
3	Help to highlight the need (or otherwise) for a more participatory approach to the management of the area.
4	

19. Any additional notes (optional)
