Socio-economic Monitoring by Caribbean Challenge MPA Managers (Caribbean Challenge SocMon) South Coast Marine Park (Proposed)
St. Vincent and the Grenadines
Sept-Oct 2012

<u>Site monitoring plan for MPA follow-up study</u>

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 collect socio-economic data to inform management planning of the South Coast Marine Conservation Area. |

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

Monitoring objectives (Smart, Measurable, Attainable, Realistic and Time-bound)
1. To identify a core set of socio-economic indicators for assessing change in resource conditions and patterns of use over the next 3-5 years
2. To identify a range of socio-economic uses/use patterns in the SCMCA
3. To determine stakeholders awareness, attitudes and perceptions of the coastal and marine resources in the SCMCA
4. To measure the impact of management arrangements on stakeholders livelihoods and the area's natural resources

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)
1. Major tourist hub on St. Vincent with a large population center.	As per Fisheries regulation 1987.
2. Threats to the coastal and marine resources	
3. SVG's commitment to the Caribbean Challenge and other international obligations.	
4. Significant biodiversity and heritage resources within the SCMCA.	
5. The SCMCA is expected to be upgraded to a Marine Park under the St. Vincent and the Grenadines National Parks and Protected Areas System Plan 2010-2014.	
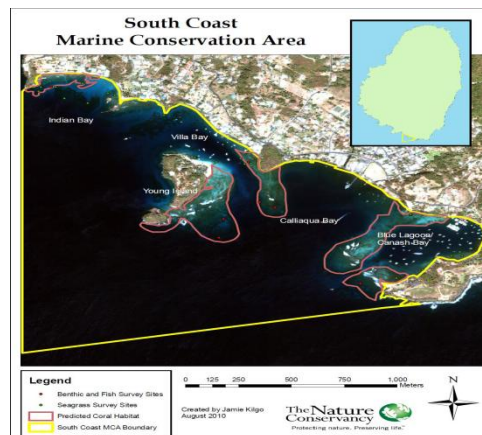
3. Stakeholder identification

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]
Marine ancillary services (boat and engine repairs) 1.Pollution (chemical, solid waste) 2. Aesthetics.	K. P. Marine, SVG Coast Guard	Boat owners, fishermen
Hotels and restaurants 1.Pollution (gray water); 2.Competition for use of beaches	Hoteliers	Guests
Fishing 1.Fish Landing on unauthorized areas 2. Abandoned boats	Fishermen	Calliaqua Fisherman's Cooperative (CALFICO) Fisheries Division

Study area activity or issue	Primary stakeholder [and organisation]	Secondary stakeholder [and organisation]
Recreation (diving, swimming etc) 1.Littering 2. Competition for beach space. 3.Walking and bathing of dogs and domesticated animals on beaches 4. Speeding of boats in restricted areas 5. Unauthorized moorings 6.Lack of Rest rooms	Locals and tourists	Dive centers, hotels, guest houses, restaurants
Vending 1.Unauthorized Vending 2.Improper garbage disposal	Vendors	Locals and tourist
Pollution 1. Gray Water 2. Improper garbage disposal 3. Siltation	Community (hoteliers, yachts owners, individuals)	Solid Waste Management Unit
Flash Floods	Beachfront households and businesses	Physical Planning Unit, Ministry of Housing

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.

Stakeholders (1° and 2°)	Location of stakeholder	Key informants for stakeholders
Canash Beach Hotel	Canash Bay	Burt Williams
Restaurant	Glen	Dawn Smith
K. P Marine	Calliaqua	Keith Howard
Coast Guard	Calliaqua	Cmdr. Deon Henry
Fishers	Calliaqua	Wilfred Tannis - CALFICO
Dive operators	Villa	Dive St. Vincent, Indigo Dive
Young Island	Young Island	Bianca Porter

Stakeholders (1° and 2°)	Location of stakeholder	Key informants for stakeholders
Agency stakeholders:	Kingstown	
National Parks		Andrew Lockhart
Forestry		Bradford Latham
Fisheries		Lucine Edwards
Ministry of Tourism		Bernard John
Solid waste Management Unit		Winsbert Quow
Physical Planning Department		Anthony Bowman
Marine Administration		Cmdr David Robin

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
Marine Biologist	To verify the conditions of the marine environment	Fisheries- Lucine Edwards, Tobago Cays Marine Parks-Olando Harvey.
Sociologist/ Rural Development Specialist	Study the community dynamics and provide guidance to the study	Rural Development Unit, Ministry of Agriculture Forestry, Fisheries Rural Transformation and Industry
GIS technician	Technical assistance pertaining to location of stakeholders and key informants	Physical Planning Department – Dornet Hull and Forestry Department- Cornelius Lyttle
Statistician	Technical support in administering survey and analysis of results	Tourism – Bernard John
Enumerators	To collect data	SocMon Trainees
Coastal zone manager	To provide information pertaining to the coastal issues in the area	Physical Planning Department – Anthony Bowman
Coordinator	Organise logistics for meetings, transport, data collection & analysis, CEPA	Andrew Lockhart – NPA

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								
Refine goals and objectives for site assessment	x							
Establish boundaries for the study area as well as sampling frame	x							
Site Visits (reconnaissance)	x							
Prepare questionnaires for key informants and other stakeholders	x							
Gathering and training of enumerators		x	x					
Secondary data collection								
Previous studies done by TCMP, Fisheries, UNEP	x	x	x					
Census*		x	x					
Maps		x						
Primary data collection and observation								
Administer pre-test survey for key informant and other stakeholders		x						
Data collection key informants			x					
Data collection household surveys			x					
Data analysis and interpretation								
Enter and code data				x				
Analyze and review data				x	x			
Validation, communication, adaptation								
Draft report					x	x		
Inform stakeholders							x	
Finalize report							x	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
Stationery (pens, pencils, paper, clip boards etc)	For enumerators	To be purchased
Computers and printers	Printing for questionnaires	Use of personal and agency resources
Vehicles	Transport enumerators and stationery etc	Use of personal and agency resources

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 (XCD)	Total cost (XCD)
Preparatory activities			
Site Visit (reconnaissance)	1	150	150
Prepare questionnaires for key informant and other stakeholders	2 Reams paper	25	50
	1 Ink	180	180
	Consultancy	1500	1500
Gathering and training of enumerators	(phone credit)		60
	5 clipboards	15	75
	1 pack pencils	10	10
	1 pack pens		
	1 pack erasers	25	25
		25	25
	5 ID badges	5	25
Gathering and training of enumerators (contd)	Refreshment (15 persons)	12	180

Description of expense	No. of units	Unit cost (XCD)	Total cost (XCD)
Venue		150	150
Secondary data collection			
Map of protected area	10	10	100
Map of settlements and infrastructure	10	10	100
Interviews and observation			
Data collection from key informants	2 enumerators x 1 day	65	130
Data collection household surveys	5 enumerators x 2 days	65	650
Data analysis and interpretation			
Data Analysis			In-kind
Draft report			In-kind
Validation, communication, adaptation			
Inform stakeholders: venue	2 meetings	150	300
Transportation	2	150	300
Refreshments (100 persons per meeting)	200	12	2400
Audio visual devices			In-kind
Final report	5 spiral-bound copies	53	265
Sum total of SocMon costs			6675

* = currency used [$EC]

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**	**1,2,3,4**	Previous studies done by TCMP, Fisheries, UNEP Census* , Maps
K2.	Population		
K3.	Number of households		
K 4.	Migration rate		
K5.	Age		
K6.	Gender		
K7.	Education		

	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
K8.	Literacy		
K9.	Ethnicity		
K10.	Religion		
K11.	Language		
K12.	**Occupation**	**2**	
K13.	Community infrastructure and business development		
K14.	**Activities**	**1,2**	
K15.	**Goods and services**	**1,2**	
K16.	Types of use		
K17.	Value of goods and services		
K18.	Goods and services market orientation		

	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**
K19.	**Use patterns**	**1,2**	
K20.	**Levels and types of impact**	**3**	
K21.	Level of use by outsiders		
K22.	Household use		
K23.	Stakeholders		
K24.	Tourist profile		
K25.	**Management body**	**4**	
K26.	Management plan		
K27.	Enabling legislation		
K28.	Management resources		
K29.	Formal tenure and rules		

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**
K30.	Informal tenure and rules, customs and traditions		
K31.	Stakeholder participation		
K32.	Community and stakeholder organisations		
[New]			

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**	
S2.	**Gender**	**1,2**	
S3.	Ethnicity		
S4.	**Education**	**1,2**	

	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**
S5.	Religion		
S6.	Language		
S7.	**Occupation**	**1,2**	
S8.	Household size		
S9.	Household income		
S10.	**Household activities**	**1,2**	
S11.	Household goods and services		
S12.	Types of household uses		
S13.	Household market orientation		
S14.	Household uses		
S15.	Non-market and non-use values		

	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
S16.	**Perceptions of resource conditions**	**1, 3**	
S17.	**Perceived threats**	**1, 3**	
S18.	**Awareness of rules and regulations**	**1, 3**	
S19.	Compliance		
S20.	Enforcement		
S21.	Participation in decision-making		
S22.	Membership in stakeholder organisations		
S23.	**Perceived coastal management problems**	**1, 3, 4**	
S24.	**Perceived coastal management solutions**	**1, 3, 4**	
S25.	**Perceived community problems**	**1, 3**	

	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**
S26.	Success in coastal management		
S27.	**Challenges in coastal management**	**4**	
S28.	Material style of life	**1**	
[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 **Hoteliers, restaurant operators/owners, dive operators, coast guard, fishers, boat repairs and retailers.**	**Estimated number of households in study area and means of obtaining estimate** **1500 (number to be verified with the Statistical Unit or the Land & Surveys Department)**
No. of informants: 8	**Approx. sample size: 100 (households)**
Selection process: **Availability (only these exist)**	**Sample selection method:** **Simple random sampling**

11. Visualization techniques

The GCRMN manual describes several visualization 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	To be used to present Key Informant data
Transects - 119		
Timelines - 121		
Seasonal calendars - 125		
Historical transects - 129		
Decision trees - 131		
Venn diagrams - 133		
Flow charts – 136		
Ranking - 138	1 2 3 4	To show how age and gender affect the results of the variables to be measured in lieu of the 4 objectives outlined above.
Graphs	1, 2, 3, 4	Different types of graphs will be used to show comparisons and contrasts among the various user groups, different kinds of user impacts on the resources, and other variable to be measured.

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.

1. Time: Limited time to complete the Project
2. Cost/Budget: Limited financial resources
3. Expertise: To be out-sourced. Possibly as part the consultancy

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 matters to address, i.e. issues in arrangements for communication and validation.

Target audience	Communication product(s)	Communication pathway(s)	Practical matters
Residents and users of SCMP	Public service announcement Public meetings	Consultation	Notification, venue availability, date and time, competing activities or events
Private sector and government agencies	Project brief/executive summary	Emails and follow-up calls	Notification, venue availability, date and time, competing activities or events

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. Repeat survey in 5 years
2. Look for synergies with other projects and programmes relating to SCMP

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. Financial
2. Personnel (numbers and expertise)

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
Marine planning for the proposed South Coast Marine Park Project 2011-2012	Data from SocMon study will help to inform activities on this project.

17. Informing MPA management and/or policy decisions in St. Vincent and the Grenadines

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. Protected areas planning and management
2. Fisheries management
3. Land use/coastal zone management
4. Compliance and enforcement
5. Communication, education, public awareness and outreach

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 St. Vincent and the Grenadines.

1. Refer to 17
2. SCMP (Proposed) as the first MPA on St. Vincent should be used as a point of reference to help inform management decision as per MPA planning and management on the island.

19. Any additional notes (optional)

This plan is subject to peer review before approval.