

CERMES Regional Project on Enhancing Management Effectiveness at Three  
Marine Protected Areas in St. Vincent and the Grenadines, Jamaica & Belize

QH  
91.75  
.B42  
I53  
2006

**Inception Training Workshop for Enhancing the  
Management Effectiveness of the  
Sapodilla Cayes Marine Reserve  
Punta Gorda, Belize, 4-5 February 2006**



**Centre for Resource Management and Environmental Studies (CERMES)  
University of the West Indies, Faculty of Pure and Applied Sciences  
Cave Hill Campus, Barbados**

2006

CERMES Regional Project on Enhancing Management Effectiveness at Three Marine Protected Areas in St. Vincent and the Grenadines, Jamaica & Belize

**Inception Training Workshop for Enhancing the Management Effectiveness of the Sapodilla Cayes Marine Reserve**

**Punta Gorda, Belize, 4-5 February 2006**

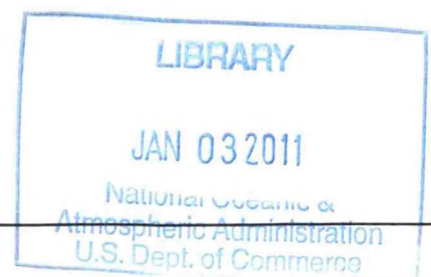


QH  
91.75  
.B42  
I53  
2006



Centre for Resource Management and Environmental Studies (CERMES)  
University of the West Indies, Faculty of Pure and Applied Sciences  
Cave Hill Campus, Barbados

2006





## CONTENTS

<b>1</b>	<b>INTRODUCTION</b> .....	1
<b>2</b>	<b>MANAGEMENT GOALS, OBJECTIVES AND INDICATORS</b> .....	1
<b>3</b>	<b>IMPLEMENTING THE EVALUATION</b> .....	2
3.1	B4 Composition and structure of the community .....	2
3.2	B8 Water quality .....	3
3.3	S1 Local marine resource use patterns.....	4
3.4	S14 Distribution of formal knowledge to the community .....	5
3.5	G5 Existence and adequacy of enabling legislation .....	6
3.6	G11 Level of training provided to stakeholders in participation .....	8
3.7	G12 Level of stakeholder participation and satisfaction in management processes and activities .....	8
3.8	G13 Level of stakeholder involvement in surveillance, monitoring and enforcement. ....	10
3.9	G14 Clearly defined enforcement procedures .....	11
3.10	G15 Enforcement coverage.....	11
<b>4</b>	<b>OTHER MATTERS</b> .....	12
4.1	Integration of indicators.....	12
4.2	MBRS indicators and evaluation .....	12
4.3	Evaluation team .....	13
4.4	Mid-term meeting .....	13
4.5	Terminal workshop .....	13
<b>5.</b>	<b>CONCLUSION</b> .....	13
<b>6.</b>	<b>REFERENCES</b> .....	14
<b>7.</b>	<b>APPENDICES</b> .....	15
	Appendix 1: Project announcement .....	15
	Appendix 2: Programme .....	17
	Appendix 3: Participants .....	19
	Appendix 4: Worksheet 1 — Form to use in tracking the steps of an evaluation .....	20
	Appendix 5: Worksheet 2 — Form on which to list your goals, objectives and indicators .....	22
	Appendix 6: Worksheet 3 — Indicator prioritization .....	25

Citation

CERMES. 2006. Report of the Inception Training Workshop for Enhancing the Management Effectiveness of the Sapodilla Cayes Marine Reserve, Punta Gorda, Belize, 4-5 February 2006. CERMES Regional Project on Enhancing Management Effectiveness at Three Marine Protected Areas in St. Vincent and the Grenadines, Jamaica and Belize. Report No. 3. 26pp.

Disclaimer

This report was prepared by the Centre for Resource Management and Environmental Studies (CERMES) under Coral Reef Conservation Grant NA05NOS4631049 from the National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce. The statements, findings, conclusions and recommendations are those of the author(s) and do not necessarily reflect the views of NOAA or the U.S. Department of Commerce.

Contact

Dr. Patrick McConney  
Senior Lecturer, CERMES  
UWI Cave Hill Campus  
St. Michael, Barbados

Tel: 246-417-4725  
Fax: 246-424-4204  
Email: [pmcconney@caribsurf.com](mailto:pmcconney@caribsurf.com)  
Web site: [www.cavehill.uwi.edu/cermes](http://www.cavehill.uwi.edu/cermes)



## 1 INTRODUCTION

The context and background to the project, as appears in the announcement (Appendix 1), was outlined by Patrick McConney, the CERMES project manager. The workshop programme (Appendix 2) was agreed to by participants (Appendix 3) who came from southern Belize and Belize City. They were drawn from governmental and non-governmental organisations that are stakeholders in the management of the Sapodilla Cayes marine Reserve (SCMR).

Some of the participants had attended workshops or meetings on marine protected area (MPA) management effectiveness but not with the SCMR as the focus. Each participant received a copy of the guidebook *How is your MPA doing?* (Pomeroy et al. 2004) and its worksheets. The workshop was held in the conference room of the Sea Front Inn through arrangements made by the Toledo Association for Sustainable Tourism and Empowerment (TASTE).

## 2 MANAGEMENT GOALS, OBJECTIVES AND INDICATORS

Bob Pomeroy, the lead author of the guidebook and the project's method trainer and adviser, introduced the marine protected area management effectiveness (MPA ME) methodology. He described how the methodology had evolved and had been applied in other locations around the world. Worksheet 1 (Appendix 4) is a checklist of the steps to be followed.

Some participants pointed out that procedures for evaluating management effectiveness had been developed under the Mesoamerican Barrier Reef System (MBRS) Project and also the recent Belize National Protected Area System plan. The Fisheries Department is committed to using the MBRS methods (MBRS 2004) as part of the regional project. These methods are a result of combining several approaches, including the contents of the guidebook, and are compatible with the training to be delivered at the workshop. It was also noted that the methods in Pomeroy et al. (2004) were previously presented in an April 2005 workshop hosted by the Wildlife Conservation Society (WCS) Belize Program and facilitated by John Parks of the U.S. National Oceanic and Atmospheric Administration (NOAA), the granting agency of the present project.

A key point in all methods is that evaluation must be based on the goals and objectives of the particular MPA. The SCMR has a strategic plan with 5 goals, each having two objectives (TASTE 2004). The goals and objectives were entered into Worksheet 2 (Appendix 5). Participants ranked them (goals 1, 3, 2, 5, 4) and then selected those that were most relevant and feasible to evaluate. The second goal (on carrying capacity) had not been operationalised and hence could not be evaluated. It was eliminated.

Objectives from the remaining four goals were then selected. During this process the participants discovered that several of the goals and objectives were not clear or were multi-faceted. Some contain several distinct components, rather than one specific thrust, and are hence too complex. Some objectives were more akin to activities and one of these was re-worded for clarity during the discussions. This was a learning process revealing that the goals and objectives were not really in active use for monitoring. However, the goals and objectives were still considered relevant.

Following the methodological steps presented by Bob Pomeroy, the participants used the SCMR goals and objectives to identify overlapping goals and objectives in the guidebook, along with a large selection of associated indicators. These are also shown in Appendix 5. The number of indicators selected in the first round was large because the goals and objectives are complex. The

participants subsequently prioritised then through discussion and the smaller set agreed upon went forward to the next step.

### 3 IMPLEMENTING THE EVALUATION

The smaller set of indicators was examined in detail and further prioritised (Appendix 6 with Worksheet 3). For each indicator participants then considered the following factors related to implementation:

- Human resource needs and the evaluation team (Worksheets 4 and 9)
- Equipment needs (Worksheet 5)
- Budget needs (Worksheet 6)
- Timeline
- Audience (Worksheets 7 and 8)
- Outputs

Handouts of the above additional worksheets prepared by the guidebook authors were used for guidance, but were not filled out in the workshop. Participants used an integrated form with the key information to organise their thoughts on each indicator as an activity within the project. The selected indicators and their evaluation arrangements are presented below.

#### 3.1 B4 Composition and structure of the community

This will be used to evaluate goal 3a, “well-managed monitoring of biodiversity”. Community level ecological assessment is already being partly done through the Synoptic Monitoring Programme in collaboration with TIDE and Reef CI. There are eight monitoring sites for benthic cover and fish population density at all sites. Coral health assessment uses the MBRS protocol. Seagrass monitoring is to start in March.

##### Human resources and evaluation team (Worksheets 4 and 9)

Team leader is Godwin Humes (soon going on training to monitor seagrass). Team members are Christina Garcia, TIDE personnel, Reef CI, Port Honduras Marine Reserve staff, Fisheries Department in PG and SCMR staff.

Human resource gaps in SCMR staff for data analysis now, but MBRS is hiring consultants to do analysis and reporting. SCMR now does only data entry (Christina). No data analysis and reporting has yet been fully done for SCMR. MBRS is to supply these skills.

##### Equipment and budget (Worksheets 5 and 6)

SCMR has coral and fish monitoring equipment. The MBRS and Fish Department supply all else. It is an ongoing programme with no requirements from this project.

##### Timeline

Activity description	F	M	A	M	J	J	A	S	O
Monitoring		X							
Data analysis by MBRS			X	X					
Reporting									X



### Audiences and outputs (Worksheets 7 and 8)

Name of audience	Primary or Secondary?	Type of output Communication
TASTE-SCMR	P	Detailed report
Fisheries Department	p	Detailed report

### 3.2 B8 Water quality

Waste management practices are to be evaluated. SCMR is to start doing faecal coliforms and nutrients on the Cayes soon by researching freshwater lenses. Coliform contamination was previously detected in the water table. SCMR has sent sampling data from November 2005 from 5 sites monitored 3 times per week to Fisheries Department but no analyses have been done yet on this project (to establish a baseline from water quality) which ends in July 2006. SCMR will get data analysis arranged perhaps through assistance from TIDE.

Under the MBRS project water samples for full analysis are to go to CINVESTAV from one more site in association with the Fisheries Department. Basic and MBRS monitoring will continue unaffected. TASTE wants two additional monitoring sites on Lime Caye and Hunting Caye with analyses to be done via University of Belize using linkage to TNC. This component may be funded by the MPA ME project. Samples may have to be sent abroad for analysis or to BAHA or maybe hospital lab. As an alternative to these, TASTE will investigate adding the two more sites to the CINVESTAV monitoring.

### Human resources and evaluation team (Worksheets 4 and 9)

Team leader is Godwin Humes. Team members are Jack Nightingale, Christina Garcia and Jason Guy. Others agencies involved are CINVESTAV and TIDE.

### Equipment and budget (Worksheets 5 and 6)

Equipment available includes sensors and probes at TASTE. Equipment required is uncertain. There is insufficient information for budgeting and work planning at the moment.

### Timeline

The timeline applies only to existing activities, not additional sampling that SCMR wants done. The timing of data analysis and reporting depends on other projects.

Activity description	F	M	A	M	J	J	A	S	O
Basic monitoring (12 times per month by SCMR staff)	X	X	X	X	X	X	X	X	X
CINVESTAV monitoring (one site for all parameters)		X	X	X	X	X	X	X	X
PACT project report due						X			
Data analysis							X	X	
Reporting									X



**Audiences and outputs** (Worksheets 7 and 8)

Name of audience	Primary or Secondary?	Type of output Communication
Fish. Dept.	P	Technical report
TASTE	P	Technical report
MBRS	P	Technical report
NGOs (TIDE, FON)	P	Technical report
Conservation International	P	Technical report
Dept. of Environment	P	Technical report
University of Belize	P	Technical report
Earthwatch	P	Technical report
Cayes residents, users	S	Executive summary
PROARCA	P	Technical report
PACT	P	Technical report
Guatemala agencies	P	Technical report

**3.3 S1 Local marine resource use patterns**

Indicator B1 (Focal species abundance) was discarded as a viable means of evaluating SCMR Goal 1(b) to “eliminate poaching in Belize fishing grounds” due to the absence of recorded data. This indicator which relies instead on local knowledge was substituted. The main activity will be key informant surveying to get perceptions and observations on illegal fishing. Features include:

- Design about 10 questions.
- Locally need to interview about 20 people.
- Belize sampling in Punta Gorda, Punta Negra, Monkey River, Placencia, Sarteneja.
- Can be repeated every 3-6 months perhaps not only in Belize, but also in Guatemala.
- Can use an umbrella organisation in Guatemala to assist with interviewing among its 27 member fisher organisations.

**Human resources and evaluation team** (Worksheets 4 and 9)

It may require a fisher to do the interviews as there may be few or false responses to persons in authority. Team leader will be Victor Jacobs, a fisher leader (not present at the workshop). Team members are Godwin Humes for questionnaire design; Jack Nightingale to assist. Isais Majil will supply the names of potential respondents.

**Equipment and budget** (Worksheets 5 and 6)

Paul’s boat can be rented at BZE\$100/day.

Equipment and activities description (project-funded)	Cost (USD)
Stationery, copying (in-kind from Fish Dept) and office supplies	30
Transportation (by boat rental and fuel, oil) BZE\$100/day for boat use;	100
Fuel for the boat for two trips	500
Boat supplies, refreshments	30
<b>Total</b>	<b>660</b>

## Timeline

Activity description	F	M	A	M	J	J	A	S	O
Survey design									
First field trip		X							
Second field trip					X				
Data analysis						X			
Reporting							X		

### Audiences and outputs (Worksheets 7 and 8)

Information may be considered sensitive even though neither the identities of respondents, nor the names and nationalities of illegal fishers, will be revealed.

Name of audience	Primary or Secondary?	Type of output communication
Fisherfolk	P	Presentation meetings
Fisheries Department	P	Detailed report
TASTE	P	Detailed report
Local NGOs (TIDE, FON)	P	Detailed report
Town Council	P	Detailed report
MP for the area	P	Detailed report
Teachers (who work with TASTE)	P	Detailed report
University of Belize	P	Detailed report
Donor agencies	P	Detailed report
External NGOs (Earth Watch)	P	Detailed report
News media	S	Release or newsletter

### 3.4 S14 Distribution of formal knowledge to the community

This relates to measuring the understanding of SCMR in the TriGOH area, and the effectiveness of SCMR education and outreach programmes. It requires feedback on educational programmes. TASTE has a report from a consultant via COMPACT on previous educational outreach including survey data showing changes in awareness. There was a second COMPACT study repeating and expanding this, but TASTE is unsure if the report would be available before October. It may be possible to fast track the production of this output from the second COMPACT study or the study can be repeated under this project.

It should take about 2 weeks to re-visit the schools, then about 2 more weeks to analyse and report. May take BZE\$2,500 for fees plus travel expenses of BZE\$1,000. A focal group of teachers done previously can also be repeated. TASTE also wants to visit fishers to assess if information has reached them in Honduras. This would take an additional week (BZE\$1000).



**Human resources and evaluation team** (Worksheets 4 and 9)

Team leader is Jack Nightingale. Main team member is a bi-lingual consultant to be identified and hired.

**Equipment and budget** (Worksheets 5 and 6)

Equipment will be covered by the fees. A new questionnaire will be needed for the fisher survey.

<b>Equipment and activities description (project-funded)</b>	<b>Cost (USD)</b>
Fees	1500
Transportation	500
Fisher survey	500
<b>Total</b>	<b>2500</b>

**Timeline**

<b>Activity description</b>	<b>F</b>	<b>M</b>	<b>A</b>	<b>M</b>	<b>J</b>	<b>J</b>	<b>A</b>	<b>S</b>	<b>O</b>
Surveys				X					
Analysis					X				
Reporting						X			

**Audiences and outputs** (Worksheets 7 and 8)

<b>Name of audience</b>	<b>Primary or Secondary?</b>	<b>Type of output Communication</b>
TASTE Board	P	Consolidated report
Fish. Dept	P	Consolidated report
COMPACT	P	Consolidated report
CISP	P	Consolidated report
Donors	P	Consolidated report
MBRS	P	Consolidated report
Ministry of Education	P	Consolidated report
University of Belize	P	Consolidated report
NGOs (SATIIM, TIDE)	P	Consolidated report
Guatemala and Honduras fisher groups	P	Executive summary

Need executive summary and Spanish translation version.

**3.5 G5 Existence and adequacy of enabling legislation**

This is to be used for SCMR objectives 1a (enforce zoning) and 3b (waste management practices and regulations):

1a) SCMR has a proposal for MPA zoning but no draft legislation (but legal template exists). A hold up is the national protected area plan and policy. However the proposed zones are known.



3b) There may be no waste management regulations for the Cayes. A draft was being done by CZMAI. There were planning and development guidelines (southern development guidelines) endorsed by government authorities but not adopted for implementation. SCMR may implement these informally but ultimately needs formal approval. Some activities on the Cayes require environmental compliance plans or other documents that record customary practice even if not legalised. An on site assessment by an environmental authority may be required at the stage of determining the appropriateness of the guidelines or legislation.

#### Human resources and evaluation team (Worksheets 4 and 9)

Team leader is Jack Nightingale. Team members are Christina Garcia and Isais Majil. Leandra Cho-Ricketts is to get a copy of the development guidelines form CZMAI.

#### Equipment and budget (Worksheets 5 and 6)

No specialised equipment is required.

Equipment and activities description (project-funded)	Cost (USD)
Trip to Belize City to go to Belmopan and overnight (obtaining documentation)	100
Stationery, communications and copying	50
Group meeting for analysis and recommendations	100
<b>Total</b>	<b>250</b>

#### Timeline

Activity description	F	M	A	M	J	J	A	S	O
Obtain existing documentation			X						
Analysis of findings (group meeting)				X					
Reporting results					X				

#### Audiences and outputs (Worksheets 7 and 8)

Name of audience	Primary or Secondary?	Type of output communication
TASTE-SCMR	P	
Advisory committee	P	
Fisheries Department	P	
Dept. of Environment	P	
Cayes residents	S	
General public	S	
Area representative	S	
Other NGOs	S	
Fishers	P	

Two summary reports (one for each objective) with recommendations on follow-up are needed.

### 3.6 G11 Level of training provided to stakeholders in participation

This is related to goal 5, objective (b). There have been participation capacity-building efforts recorded as workshop outputs. Registers of participants exist (e.g. for Board training, enforcement training, etc.). SCMR can undertake interviews/surveys of past participants located in several communities in the region.

#### Human resources and evaluation team (Worksheets 4 and 9)

Team leader is Christina Garcia. Team members are Jack Nightingale, Denise Frank and Paul Jacobs.

#### Equipment and budget (Worksheets 5 and 6)

Equipment and activities description (project-funded)	Cost (USD)
Stationery, office supplies, copying	50
Boat transport (rental, food, fuel)	500
<b>Total</b>	<b>550</b>

#### Timeline

Activity description	F	M	A	M	J	J	A	S	O
Obtain documentation		X							
Design survey/interviews		X							
Administer instruments			X						
Data analysis				X					
Report findings					X				

#### Audiences and outputs (Worksheets 7 and 8)

Name of audience	Primary or Secondary?	Type of output communication
TASTE-SCMR	P	Activity report
Advisory committee	P	
Fisheries Department	P	
General public	S	Newsletter article
Donor agencies	P	
Other NGOs		
Fishers		

### 3.7 G12 Level of stakeholder participation and satisfaction in management processes and activities

It will be used for goal 5 objectives 5a and 5b to measure the amount of people actively involved in and satisfied with management initiatives. TASTE has records of selected respondents and can do this indicator with some overlap with G11, but the people are not exactly the same. Need here to assess people who were not involved in training. This should include the advisory committee



and the board as key stakeholders since they represent various constituencies and should have reported to their constituent members (e.g. tour guides). This does not always happen. People selected to bodies do not always know how to be effective representatives. Not all stakeholders are represented on these bodies, so they may have to be identified and approached separately. Dissatisfied stakeholders must also be polled as well as people who refuse to be representatives due to issues with participation processes.

### Human resources and evaluation team (Worksheets 4 and 9)

Team leader is Seleem Chan. Team members are Christina Garcia, Jack Nightingale, Jason Guy, Paul Jacobs, Godwin Humes. Denise Frank and Seleem Chan will do data analysis. Others involved may be students (about 5 from PG) or other interviewers rewarded with stipends.

### Equipment and budget (Worksheets 5 and 6)

About fifteen people are on the advisory committee and can be reached by phone and email. Visits may not be necessary. Interviews could be partially done at a meeting of the bodies. Some community surveys will require boat transport. Will do 10 people on the Cayes, and in PG about 50 people out of a population of 4,000.

Equipment and activities description (project-funded)	Cost (USD)
Communications (phone, email)	50
Meeting expenses (catering, travel reimbursement)	200
Community surveys (boat to the Cayes)	150
Interviewer stipends	50
<b>Total</b>	<b>450</b>

### Timeline

Activity description	F	M	A	M	J	J	A	S	O
Obtain documentation		X							
Design survey/interviews	X								
Board and committee meeting				X					
Administer community instruments			X						
Data analysis					X				
Report findings						X			

### Audiences and outputs (Worksheets 7 and 8)

Name of audience	Primary or Secondary?	Type of communication
TASTE-SCMR	P	Activity report
Advisory committee	P	
Fisheries Department	P	
General public	S	Newsletter article
Donor agencies	P	Summary on request
Other NGOs	S	
Fishers etc.	P	



### 3.8 G13 Level of stakeholder involvement in surveillance, monitoring and enforcement

This is to evaluate the elimination of poaching in the fishing grounds of Belize by measuring stakeholder participation in the patrols. The latter occurred under a Rio Grande Fishermen’s Cooperative grant and will be done again by TASTE-SCMR soon. It is also related to G14 and G15 measurements.

#### Human resources and evaluation team (Worksheets 4 and 9)

Team leader is Jason Guy. Team members include TASTE-SCMR staff and Lyndon Rodney of the Fisheries Department. Others involved will be the Rio Grande cooperative members who previously participated in patrolling.

#### Equipment and budget (Worksheets 5 and 6)

TASTE will do ‘before and after’ interviews with the 4 new community rangers in relation to their period on patrol, and interview the previous ten fisher participants under the finished COMPACT project (these fishers were from Punta Gorda, Monkey River, Punta Negra).

Equipment and activities description (project-funded)	Cost (USD)
Boat transportation	100
Office supplies and communications	50
<b>Total</b>	<b>150</b>

#### Timeline

Activity description	F	M	A	M	J	J	A	S	O
Obtain documentation on previous participants	X								
Design short survey instrument		X							
Conduct interviews with previous and incoming		X							
Conduct interviews with prospective after experience							X		
Data analysis								X	
Reporting									X

#### Audiences and outputs (Worksheets 7 and 8)

Name of audience	Primary or Secondary?	Type of output Communication
TASTE-SCMR	P	Activity report
Advisory committee	P	
Fisheries Department	P	
General public	S	Newsletter article, Press release
Donor agencies	P	Summary on request
Other NGOs	S	
Fishing cooperative	P	Activity report

### 3.9 G14 Clearly defined enforcement procedures

This requires checking enforcement guidelines implementation. It is an internal evaluation, the results of which are not to be widely shared in detail.

#### Human resources and evaluation team (Worksheets 4 and 9)

Team leader is Jason Guy. Team members are Michael Norales, Lyndon Rodney and Alex Nolberto (all from Fisheries Department). Others involved include Janet Gibson of WCS.

#### Equipment and budget (Worksheets 5 and 6)

Equipment and activities description (project-funded)	Cost (USD)
Transportation for Fish Dept participants (diesel fuel 20 gallons)	75
Stationery	25
Accommodation and meals	100
<b>Total</b>	<b>200</b>

#### Timeline

Activity description	F	M	A	M	J	J	A	S	O
Assemble documentation		X							
Undertake analysis			X						
Meeting of rangers			X						
Report findings				X					

#### Audiences and outputs (Worksheets 7 and 8)

Name of audience	Primary or Secondary?	Type of output communication
Fisheries Dept	P	Enforcement report
TASTE-SCMR	P	Enforcement report

This activity can use an enforcement evaluation done at Glovers Reef by WCS as a template. It is to be written up shortly.

### 3.10 G15 Enforcement coverage

This requires checking enforcement patrol records including Coast Guard and joint patrols. It will include BDF infantry and police. As an internal measurement it will not be widely shared in detail. A joint task force is being assembled, so improvement in coverage should be noticed within six months. Activity may also include information from fishers such as coverage of areas in which fishers report infractions.

#### Human resources and evaluation team (Worksheets 4 and 9)

Team leader is Jason Guy. Team members are Michael Norales, Lyndon Rodney and Alex Nolberto (all from Fisheries Department). Others involved include Janet Gibson of WCS, BDF officers, Coast Guard officers, Customs, Immigration and TIDE.



### Equipment and budget (Worksheets 5 and 6)

Use an available base map to chart areas of coverage and patterns of patrolling over time including locations of observations, arrest etc.

<b>Equipment and activities description (project-funded)</b>	<b>Cost (USD)</b>
Transportation for Fish Dept participants (diesel fuel 20 gallons)	75
Stationery	25
Accommodation and meals	100
Meeting catering (for 10 people in Mar and Sep)	120
<b>Total</b>	<b>320</b>

### Timeline

<b>Activity description</b>	<b>F</b>	<b>M</b>	<b>A</b>	<b>M</b>	<b>J</b>	<b>J</b>	<b>A</b>	<b>S</b>	<b>O</b>
Assemble documentation		X						X	
Report findings									X
Undertake second analysis after joint patrols									X
Initial task force meeting with other organisations		X							
Second task force meeting with other organisations								X	

### Audiences and outputs (Worksheets 7 and 8)

<b>Name of audience</b>	<b>Primary or Secondary?</b>	<b>Type of output communication</b>
Fisheries Dept	P	Enforcement report
TASTE-SCMR	P	
Task force agencies	P	
TIDE	P	
General public	P	Press releases

## 4 OTHER MATTERS

### 4.1 Integration of indicators

There is potential for general stakeholder surveys G12 and S14 (with Seleem and Jack as leaders) to be integrated. Leaders need to try to coordinate survey instrument design to identify respondents and schedule interviews with further coordination before fieldwork (an end of February meeting of leaders may be convenient).

### 4.2 MBRS indicators and evaluation

The workshop briefly examined the lists of indicators in the MBRS (2004) manual for the rapid evaluation of management effectiveness. At a glance these indicators overlap significantly with those selected by participants for the SCMR evaluation. No incompatibility was noticed. It was reported that the evaluation for the SCMR under the MBRS project has not yet been planned, but it needs to be completed, or at least have funds allocated to undertake it, before mid-2006. It is



possible therefore that these two projects can be coordinated and synergies developed between them to the benefit of all involved. This will be followed up by the Fisheries Department and TASTE-SCMR.

#### **4.3 Evaluation team**

The evaluation team was assembled as the workshop progressed. Core members are the activity team leaders under the overall coordination of Jack Nightingale the TASTE coordinator for the SCMR. He will be the contact person, administrative head and financial manager for all matters concerning the SCMR management effectiveness evaluation.

#### **4.4 Mid-term meeting**

Participants recommended that a mid-term meeting of team leaders and members needs to be included in the overall budget. It should cover some travel and accommodation expenses.

#### **4.5 Terminal workshop**

The terminal workshop for this project is planned to coincide with the hosting by the government of Belize of the 59th annual meeting of the Gulf and Caribbean Fisheries Institute (GCFI) in November 2006. TASTE consented to host the terminal workshop at a facility on Hunting Caye in the SCMR that is currently under construction, provided that adequate funding was available. The workshop may take place for the day and a half before GCFI which is likely to take place in Belize City. It will be necessary to acquire additional counterpart funding for this to occur. The CERMES project manager will examine the feasibility of this arrangement with TASTE.

### **5. CONCLUSION**

Informally, participants assessed the workshop as having been useful but too short. The optional formal evaluation sheet was also filled out by several participants and will be reported on separately. Administrative setup of the project will continue in February. The field evaluation period will be February – September 2006 prior to the meeting at the Gulf and Caribbean Fisheries Institute (GCFI) in Belize in November 2006. After this phase, emphasis will be on documenting lessons learned and setting up the follow-up grants for adaptive management.

Patrick McConney and Bob Pomeroy thanked those attending for their very active participation and TASTE-SCMR for the assistance with local logistics. It was hoped that the University of Belize can also use this project as a learning experience for faculty and students, strengthening the ties with the University of the West Indies. The summary workshop report will soon be circulated. Now that all three inception workshops and draft budgets were finished there may need to be trade-offs to ensure that implementation is feasible.

Jack Nightingale of TASTE-SCMR closed the workshop on a positive note by observing that, despite many challenges, progress was being made in the co-management of the SCMR. He noted the many partners that maintained an interest in the SCMR and the dedication of TASTE to evaluating past and present management, learning from successes and failures, and implementing adaptive management to ensure sustainability. Just the exercise of re-examining the SCMR goals and objectives to develop indicators had been very instructive, resulting in the realisation that some of these may need to be re-formulated before the end of the plan period.

## 6. REFERENCES

MBRS. 2004. Manual for the Rapid Evaluation of Management Effectiveness in Marine Protected Areas of Mesoamerica. Technical Document No. 17. Project for the Conservation and Sustainable Use of the Mesoamerican Barrier Reef System (MBRS). Guatemala City, Guatemala. 53pp.

Pomeroy, R. S., J. E. Parks, and L. M. Watson. 2004. How Is Your MPA Doing? A guidebook of natural and social indicators for evaluating marine protected area management effectiveness. The World Conservation Union (IUCN). Gland, Switzerland. 230 pp.

TASTE. 2004. Sapodilla Cayes Marine Reserve (SCMR) 2004-2009 Strategic Plan. Toledo Association for Sustainable Tourism and Empowerment (TASTE). 130p.



## 7. APPENDICES

### Appendix 1: Project announcement

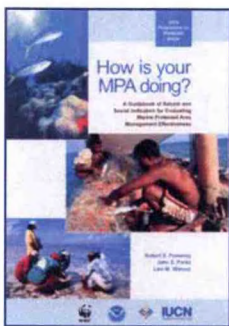
The Centre for Resource Management and Environmental Studies (CERMES) of the University of the West Indies (UWI) Cave Hill Campus is implementing a project to evaluate marine protected area (MPA) management effectiveness, and to learn lessons from this process, at three MPA sites in the Caribbean:

Belize — Sapodilla Cayes Marine Reserve (other Belize MPAs already have similar projects planned)

Jamaica — Negril Marine Park (currently doing a socioeconomic study which this should complement)

St. Vincent and the Grenadines — Tobago Cays Marine Park (currently rearranging its management)

### Why a project about MPA management effectiveness?



MPAs are important ecological, economic, social and cultural assets for Caribbean countries and beyond, partly due to their significance to tourism earnings in the region. Despite many projects and proposals, and good intentions, management authorities and small field staffs have struggled with very inadequate capacity to manage most MPAs in the region. This situation needs to be remedied immediately.

A recent guidebook entitled "*How is your MPA doing?*" sets out new methods for evaluating how a marine park is being managed. Bio-physical, socio-economic and governance indicators of MPA management are assessed using existing information, natural and social science surveys, and various other means of data collection.

### What will actually be done from October 2005 to March 2007?

The summary specific objectives for this project funded by a NOAA Coral Reef Conservation Grant are:

To conduct participatory management effectiveness research and evaluations by training at least 30 people across three MPA sites.

To improve MPAs in the region by monitoring outcomes documented in lessons learned combined with training and communication materials for coursework, research, management and coastal policy.

The project has four main components:

Inception site-specific training workshops in MPA management effectiveness and evaluation

Participatory management effectiveness research and evaluations at the three MPA locations

A terminal joint workshop on lessons learned and the consequent adaptation of management

Production of training materials based on experiences of the process and on lessons learned

### **What are likely to be the main benefits from this project?**

The goal is to promote and institutionalise improved and adaptive coastal management practices and policies in the Caribbean through use of applied research and interdisciplinary training. The project will contribute towards building capacity in MPA management effectiveness evaluation in the Caribbean. Project participants will assess MPA management effectiveness under three main headings:

Bio-physical ... status of the resources, fish populations, water quality, environmental conditions, etc.

Socio-economic ... value of the area to various users, culture, livelihoods, sources of income, etc.

Governance ... achieving goals and objectives, capacity for management, stakeholder groups, etc.

Knowing the strengths and weaknesses of management in the past facilitates making improvements. Integration with the university's communications network, teaching and research programmes, curriculum development and other initiatives will add value to the project and its regional impact through sharing lessons learned and disseminating output products. Participatory and community-based approaches will facilitate stakeholder involvement and adaptive management to ensure that the best practices are institutionalized based upon the lessons learned and the skills acquired during the project or afterwards.



## Appendix 2: Programme

When: Saturday 4<sup>th</sup> – Sunday 5<sup>th</sup>, February 2006

Where: Sea Front Inn, Punta Gorda, Belize

### Workshop goals and objectives

The **goal** is for marine protected area (MPA) managers and key stakeholders in the Sapodilla Cayes Marine Reserve (SCMR) to learn how to conduct an evaluation of management effectiveness for the MPA using the methods in the WCPA/WWF *"How Is Your MPA Doing?"* guidebook. There are **three objectives** associated with this inception training workshop:

- (1) To select the most appropriate biophysical, socioeconomic and governance indicators with which to assess the management effectiveness of the SCMR
- (2) To understand the process, expected outputs, and resource needs to complete an evaluation
- (3) To develop a feasible work plan and timeline for the evaluation based on the Guidebook.

Day One: Saturday 4 February 2006

<i>Time</i>	<i>Agenda Items</i>
08:30	<u>Registration and document distribution</u>
08:45	<u>Welcome and Introduction</u> <ul style="list-style-type: none"> <li>▪ Welcome to participants and trainer</li> <li>▪ Review workshop goals and objectives</li> <li>▪ Workshop logistics, questions &amp; answers</li> </ul>
09:00	<u>Session One: Introduction to the guidebook</u> <ul style="list-style-type: none"> <li>▪ Overview of the MPA Management Effectiveness Initiative</li> <li>▪ Introduction to the indicators and evaluation process</li> </ul>
09:30	Break
10:00	<u>Session Two: Match your MPA aims against those in the guidebook</u> <ul style="list-style-type: none"> <li>▪ Overview of part 1; introduce and complete steps 1-1(a) through (e)</li> </ul>
11:00	<u>Session Three: Select a relevant set of possible indicators</u> <ul style="list-style-type: none"> <li>▪ Introduce and complete steps 1-2(a) and (b)</li> </ul>
12:00	Lunch
13:00	<u>Session Four: Review and prioritize which indicators you will measure</u> <ul style="list-style-type: none"> <li>▪ Introduce and complete steps 1-3(a) through (d)</li> </ul>
14:00	<u>Session Five: Identify how the selected indicators relate to one another</u> <ul style="list-style-type: none"> <li>▪ Introduce and complete steps 1-4</li> </ul>
15:00	Break
15:30	<u>Session Six: Assess Resource Needs for Conducting the Evaluation</u> <ul style="list-style-type: none"> <li>▪ Overview of Part 2; Introduce and complete steps 2-1(a) through (d)</li> </ul>
16:30	<u>Session Seven: Determine the Audience(s) for the Results</u>

<i>Time</i>	<i>Agenda Items</i>
	<ul style="list-style-type: none"> <li>▪ Introduce and complete steps 2-2(a) and (b)</li> </ul>
17:00	<p><u>Session Eight: Determine Who Should Participate in the Evaluation</u></p> <ul style="list-style-type: none"> <li>▪ Introduce and complete steps 2-3(a) through (d)</li> </ul>
17:30	Day wrap-up
1800	Social event

Day Two: Sunday 5 February 2006

<i>Time</i>	<i>Agenda Items</i>
08:00	<ul style="list-style-type: none"> <li>▪ Review of previous day's activities</li> </ul>
08:30	<p><u>Session Nine: Indicator selection, prioritization and assigning the resources</u></p> <ul style="list-style-type: none"> <li>▪ Participants briefly present results of: (a) MPA goals &amp; objectives matched; (b) indicators selected and prioritized; (c) target audience(s); and (d) expected evaluation participants</li> </ul>
09:30	Break
10:00	<p><u>Session Ten: Develop an Evaluation Timeline and Work plan</u></p> <ul style="list-style-type: none"> <li>▪ Introduction to Steps 2-4(a) through (c)</li> <li>▪ Implementation of work: (1) biophysical indicators; (2) socioeconomic indicators; (3) governance indicators; (4) training materials and outreach communication</li> </ul>
12:00	Lunch
13:00	<p><u>Session Twelve: Collecting and Analyzing the Data; Using the Results</u></p> <ul style="list-style-type: none"> <li>▪ Overview of Parts 3 (Steps 3-1 through 3-5) and 4 (Steps 4-1 &amp; 4-2)</li> </ul>
14:30	<p><u>Session Thirteen: Next Steps</u></p> <ul style="list-style-type: none"> <li>▪ Short-term: finalizing implementing and work plans</li> <li>▪ Long-term: follow-up technical assistance and funds</li> </ul>
15:00	Break
15:30	<p><u>Session Fourteen: Workshop Evaluation and Close</u></p> <ul style="list-style-type: none"> <li>▪ Review progress against workshop goal and objectives, participant expectations</li> <li>▪ Closing remarks</li> </ul>
16:00	Departures



### Appendix 3: Participants

Name	Organisation or other affiliation	Contact phone and email
1. Isais Majil	Fisheries Department	224-4552; <a href="mailto:isaismajil@yahoo.com">isaismajil@yahoo.com</a>
2. Dwight Neal	Friends of Nature	523-3377 / 523- 3501; <a href="mailto:fon-tech@btl.net">fon-tech@btl.net</a>
3. Godwin Humes	Sapodilla Cayes Marine Reserve	702-0026; <a href="mailto:gads26@yahoo.com">gads26@yahoo.com</a>
4. Jason Guy	Sapodilla Cayes Marine Reserve	600-9822 / 722-2660; <a href="mailto:jahson_2004@yahoo.com">jahson_2004@yahoo.com</a>
5. Seleem Chan	SATIIM	<a href="mailto:satiim@btl.net">satiim@btl.net</a> or <a href="mailto:seleem_chan23@yahoo.com">seleem_chan23@yahoo.com</a>
6. Placida Requena	TASTE	
7. Christina Garcia	TASTE	722- 0191; <a href="mailto:taste_scmr@btl.net">taste_scmr@btl.net</a>
8. Jack Nightingale	TASTE	722- 0191; <a href="mailto:taste_scmr@btl.net">taste_scmr@btl.net</a>
9. Gabriella Palma	TASTE	722- 0191; <a href="mailto:taste_scmr@btl.net">taste_scmr@btl.net</a>
10. Paul Jacobs	TASTE	
11. Yvonne Villoria	TASTE	722-2470; <a href="mailto:demdatsdoin@btl.net">demdatsdoin@btl.net</a>
12. Alfredo villoria	TASTE	722-2470; <a href="mailto:demdatsdoin@btl.net">demdatsdoin@btl.net</a>
13. Denise Frank	TASTE / Peace Corps	<a href="mailto:dfdenise@earthlink.net">dfdenise@earthlink.net</a>
14. Arlenie Perez	University of Belize	822-3680 ext 447; <a href="mailto:aperez@ub.edu.bz">aperez@ub.edu.bz</a>
15. Leandra Ricketts	University of Belize	822-3680 ext 446; <a href="mailto:lricketts@ub.edu.bz">lricketts@ub.edu.bz</a>
16. Robert Pomeroy	University of Connecticut	860 405-9215; <a href="mailto:robert.pomeroy@uconn.edu">robert.pomeroy@uconn.edu</a>
17. Patrick McConney	UWI, CERMES	246-417-4725; <a href="mailto:pmcconney@caribsurf.com">pmcconney@caribsurf.com</a>

Not all participants attended all workshop sessions. Some came only for the first day.

## Appendix 4: Worksheet 1 — Form to use in tracking the steps of an evaluation

### Part 1: Selecting Your Indicators

- 1-1 Identify your MPA goals and objectives**
- 1-1a Locate the management plan and other relevant information relating to your MPA
- 1-1b Review the documents and identify the goals and objectives (see Box 4, The Goals and Objectives of an MPA)
- 1-1c List the goals and objectives of your MPA on the worksheet provided (Worksheet 2)
- 1-1d Identify the goals and associated objectives of your MPA that overlap with those listed in the summary tables of goals and objectives (see Figures 2, 3 and 4 in Section 2)
- 1-1e List the overlapping goals and objectives on the worksheet (using the numbers and names in the summary tables)
- 1-2 Match relevant indicators to your MPA goals and objectives**
- 1-2a Identify the indicators that match your list of goals and objectives (see Figures 2, 3 and 4 in Section 2)
- 1-2b List the relevant indicators on the worksheet (using the numbers and names in the summary tables)
- 1-3 Review and prioritize the indicators identified**
- 1-3a Review each indicator identified from the description in Appendix 1
- 1-3b Determine the feasibility of measuring the indicators identified
- 1-3c If it is not feasible to measure all indicators, prioritize them
- 1-3d Complete the list of selected indicators
- 1-4 Identify how the selected indicators relate to one another**

### Part 2: Planning your evaluation

- 2-1 Assess resource needs for measuring your indicators**
- 2-1a Determine the estimated human resources needed to measure and analyze the selected indicators
- 2-1b Determine the equipment needed to measure and analyze the selected indicators
- 2-1c Estimate the budget that will be needed for the evaluation
- 2-1d Analyze the available human resources, equipment and budget; if not sufficient, develop a plan to secure funds. Secure additional resources as necessary.
- 2-2 Determine the audience(s) who will receive the evaluation results**
- 2-2a Identify the target audience(s)
- 2-2b Determine and prioritize the primary audience(s)
- 2-3 Identify who should participate in the evaluation**
- 2-3a Determine the level of expertise that is needed to conduct the evaluation
- 2-3b Determine which staff or non-staff will conduct the evaluation
- 2-3c Determine how and when to involve the stakeholders



- 2-3d Create the evaluation team and determine the people responsible for each task
- 2-4 **Develop a timeline and a workplan for the evaluation**
- 2-4a Determine the amount of time needed for each activity
- 2-4b Determine when the data need to be collected
- 2-4c Develop an evaluation workplan

### **Part 3: Conducting your evaluation**

*(The checklist may be open at this step for many months while the chosen indicators are evaluated, surveys carried out, and reports completed in accordance with the evaluation techniques suggested in Section 2)*

- 3-1 **Implement your evaluation workplan**
- 3-2 **Collect data**
- 3-2a Study and understand the data collection methods
- 3-2b Familiarize yourself with the best practices and principles for collecting data in the field
- 3-2c Determine the sampling approach
- 3-2d Ensure everything is in place for data collection
- 3-3 **Manage collected data**
- 3-3a Determine who will be the 'data manager'
- 3-3b Determine how collected data will be submitted to the data manager
- 3-3c Code the data
- 3-3d Develop a system for storing and entering the data
- 3-3e Collate and review the data set
- 3-3f Determine how to make the data available for analysis and sharing
- 3-4 **Analyze collected data**
- 3-4a Review the questions being asked by the evaluation
- 3-4b Complete a preliminary analysis
- 3-4c Determine and prepare analysis
- 3-4d Capture and prepare results
- 3-5 **Encourage peer review and independent evaluation of results**

### **Part 4: Communicating results and adapting management**

- 4-1 **Share results with target audiences**
  - 4-1a Determine which format to use to provide evaluation results and to reach the target audience most effectively
  - 4-1b Develop a strategy and a timeline for delivery of results
  - 4-1c Tell your story! Communicate your findings to the stakeholders
  - 4-2 **Use results to adapt management strategies**
- (This step should never be closed since adaptive management is an open-ended tool).*

**Appendix 5: Worksheet 2 — Form on which to list your goals, objectives and indicators**

Items selected for the management effectiveness evaluation are in **bold**

GOALS RELATED TO YOUR MPA	OVERLAPPING GOALS FROM SUMMARY TABLES (Figures 2, 3 and 4 in Section 2)	OBJECTIVES RELATED TO YOUR MPA	OVERLAPPING OBJECTIVES FROM SUMMARY TABLES (Figures 2, 3 and 4 in Section 2)	RELEVANT INDICATORS FROM SUMMARY TABLES (Figures 2, 3 and 4 in Section 2)
<p>1) To develop sustainable fisheries in the SCMR through establishment of ownership by local southern Belizean fishers and user groups of the fisheries resources</p>	<p>Governance G1, G2, G4 Bio-physical B1</p>	<p>a) Establish and enforce zoning</p> <p>b) Eliminate poaching in Belize fishing grounds</p>	<p>Governance 1B, 2A, 2B, 2C, 2E</p> <p>Governance 2E, 4A, 4D, 4E Bio-physical 1A, 1D</p>	<p>G5 Existence and adequacy of enabling legislation G4, , G13, G14</p> <p>S1 Local marine resource patterns G5 Existence and adequacy of enabling legislation, G13 Level of stakeholder involvement in surveillance, monitoring and enforcement, G14 Clearly defined enforcement procedures, G15 Enforcement coverage</p> <p>B1, B2, B4, B6, B7, G4, G6,</p> <p>B3, B4, B5, B8, B9</p>
<p>2) To manage tourism within the carrying capacity of the SCMR</p>	<p>Bio-physical B4 Governance G1</p>	<p>a) Research carrying capacities in the SCMR and publish results</p>	<p>Bio-physical 4A, 4C</p>	<p>B3, B4, B5, B8, B9</p>



GOALS RELATED TO YOUR MPA	OVERLAPPING GOALS FROM SUMMARY TABLES (Figures 2, 3 and 4 in Section 2)	OBJECTIVES RELATED TO YOUR MPA	OVERLAPPING OBJECTIVES FROM SUMMARY TABLES (Figures 2, 3 and 4 in Section 2)	RELEVANT INDICATORS FROM SUMMARY TABLES (Figures 2, 3 and 4 in Section 2)
		b) Create tourism sub-committee in advisory committee to establish policies on carrying capacities in SCMR	Governance 1C	G2
3) To conserve and protect biodiversity and habitat in the SCMR for sustainable use of present and future generations of Belize	Bio-physical B2 Governance G1, G2	a) Establish well managed monitoring of biodiversity [research and monitoring provide good data for real time management decisions] b) Establish waste management practices and regulations	Bio-physical 2A  Bio-physical 2E Governance 1B, 2E	B4 Composition and structure of the community, B5, B7, B9 B8 Water quality G5 Existence and adequacy of enabling legislation, G13 Level of stakeholder involvement in surveillance, monitoring and enforcement, G14 Clearly defined enforcement procedures B4 G4
B4) To address uses and activities outside of the SCMR, which threaten conservation and protection of biodiversity within the SCMR	Socioeconomic S6	a) Establish Tri-National understanding of the SCMR as a transboundary area; its goals and objectives, regulations and care  b) Establish regional education and outreach programs	Socioeconomic 6B	S14 Distribution of formal knowledge to the community S2, S3, S14 Distribution of formal knowledge to the community S2, 3,13,

GOALS RELATED TO YOUR MPA	OVERLAPPING GOALS FROM SUMMARY TABLES (Figures 2, 3 and 4 in Section 2)	OBJECTIVES RELATED TO YOUR MPA	OVERLAPPING OBJECTIVES FROM SUMMARY TABLES (Figures 2, 3 and 4 in Section 2)	RELEVANT INDICATORS FROM SUMMARY TABLES (Figures 2, 3 and 4 in Section 2)
5) To ensure proper administration and implementation of the SCMR Management Plan	Governance G3	a) Organize and implement multi-stakeholder meetings once per year to review progress  b) Include community stakeholders in management decision making processes	Governance 3A	G12 Level of stakeholder participation and satisfaction in management processes and activities  G11 Level of training provided to stakeholders in participation G12 Level of stakeholder participation and satisfaction in management processes and activities



**Appendix 6: Worksheet 3 — Indicator prioritization**

<i>Relevant indicators identified (taken from worksheet 2)</i>	<i>Difficulty rating (1-5)</i>	<i>Known technical capacity gaps</i>	<i>Known requirement or equipment gaps</i>	<i>Feasibility (0-4)</i>	<i>Priority (hi/med/lo)</i>	<i>Selected</i>
<b>Biophysical</b> 1) B1 Focal species abundance	3	Doing grouper, lobster conch at present. No gaps.	Have boat and GPS. Getting staff divers trained. Volunteers dive already. No gaps.	4	Hi	No
2) B2 Focal species population abundance	4	Reef CI are doing population structure studies at present for the grouper, lobster and conch. SCMR will have capacity to continue. No gaps.	Assistance from Reef CI and Earthwatch will continue these studies with SCMR.	3	Med	No
3) B4 Composition and structure of the community	4	Synoptic monitoring programme (SMP) doing only some aspects. Doing coral, fish now. Seagrass to soon start. Mangrove and water quality in the SMP. Pollution and mangrove not for SCMR. Need training for staff in pollution monitoring.	No equipment yet for seagrass, just now starting. Only need quadrats. Not enough collection bottles and capacity to analyse water samples. Note CINVESTAV is one of the partners for the pollution monitoring.	2	Hi	Yes
4) B8 Water quality	3	Doing basic water monitoring now for salinity, temperature, conductivity, dissolved solids. Need training for staff in water monitoring. Synoptic monitoring being planned now.	Note CINVESTAV is one of the partners for the pollution monitoring as SCMR is a MBRS monitoring site. Local capacity may be developed at UB.	4	Hi	Yes

<i>Relevant indicators identified (taken from worksheet 2)</i>	<i>Difficulty rating (1-5)</i>	<i>Known technical capacity gaps</i>	<i>Known requirement or equipment gaps</i>	<i>Feasibility (0-4)</i>	<i>Priority (hi/med/lo)</i>	<i>Selected</i>
<b>Socioeconomic</b>						
1) S14 Distribution of formal knowledge to the community	2	Have done SocMon training and social surveys. No gaps.	No gaps. Did one similar already.	4	Hi	Yes
2) S1 Local marine resource patterns	3	No gaps	No gaps	4	Hi	Yes
<b>Governance</b>						
1) G5 Existence and adequacy of enabling legislation	2	None	None	4	Hi	Yes
2) G11 Level of training provided to stakeholders in participation	2	Have records including events for training people in participation methods	None	4	Hi	Yes
3) G12 Level of stakeholder participation and satisfaction in management processes and activities	3	Records less on this topic compared to participation training.	None	4	Hi	Yes
4) G13 Level of stakeholder involvement in surveillance, monitoring and enforcement	2	No extended history of doing this, but it is about to re-start now. Cannot measure this from existing records.	None, once records are compiled.	4	Hi	Yes
5) G14 Clearly defined enforcement procedures	2	Procedures exist in writing and are available at TASTE	None	4	Hi	Yes
6) G15 Enforcement coverage	2	Patrol records are available at TASTE	None	4	Hi	Yes

total # identified = 12

total # selected = 10