

Compilation of questionnaires used in
socio-economic monitoring research projects
(Release 1 – July 2008)



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1 INTRODUCTION

This document is a compilation of questionnaires and interview guides applied in a variety of socio-economic monitoring (SocMon) research projects in the Caribbean. The release of this compilation is a work in progress that we hope will become useful in assisting researchers in designing similar SocMon questionnaires and in identifying social, economic, cultural and governance characteristics that have been surveyed in communities throughout the region. The inclusion of these questionnaires is for information only and does not imply that we are encouraging or endorsing only the use of what is in the compilation. This document is divided into seven sections according to research project. Each section is preceded by a brief overview of the research with the questionnaire and/or interview guide following. For detailed information on these projects, some reports may be downloaded from the CERMES website at <http://cavehill.uwi.edu/cermes>. For those reports not on the CERMES website, please contact Maria Pena, Project Officer, CERMES.

2 ASSESSMENT OF SOCIO-ECONOMIC CONDITIONS AT PLACENCIA, HOPKINS AND MONKEY RIVER IN BELIZE

The purpose of this socioeconomic assessment was to provide baseline data on the social and economic conditions of three of five coastal fishing communities supporting Friends of Nature (FON) in the co-management of two marine reserves in southern Belize. FON is a non-governmental, membership organization, based in Placencia, Belize. Fishermen, tour guides and business people form FON's Board of Directors. Originally known as Friends of Laughing Bird Caye, the organisation lobbied the Government of Belize to declare Laughing Bird Caye, which had been used historically as a fishing camp, as a National Park and to protect biodiversity and promote the sustainability of the natural resources off the coast of Placencia. FON also has a co-management agreement with the Fisheries Department for the management of Gladden Spit Marine Reserve. Gladden Spit is one of the very few spawning aggregation sites in Belize and this is where whale sharks also make appearance in the months of April, May and June as part of their migration route (Perez 2003).

2.1 FON household questionnaire

Date and time: _____ Name of respondent: _____
Interviewer: _____ Respondent #: _____
Location: _____

Demographics

1. How many people live in this household? _____
2. How long has this household been located in the community? _____
3. What are the 3 most important occupations of household members in order of the amount of income generated?

1st. _____, 2nd. _____, 3rd. _____

4. What are the household's primary, secondary and tertiary most important sources of income?

1st. _____, 2nd. _____, 3rd. _____

5. Are any females living in the household involved in an income-generating activity?

Yes _____ What activity? _____

No _____

6. Is any member of this household a member of a formal and/or informal organization?

Yes _____ Who? _____ What organization? _____

No _____ Who? _____ What organization? _____

7. How would you describe the condition of marine resources five years ago?

very good ___ good ___ not good not bad ___ bad ___ very bad ___

8. How would you describe the conditions of marine resources today?

very good ___ good ___ not good not bad ___ bad ___ very bad ___

9. (For non-fishing households) On average, how many days a month does the household fish to supply food? _____

10. What marine recreational activities do members of the household engage in on a regular basis?

_____, _____

Friends of Nature

11. Are you familiar with Friends of Nature?

Yes _____ No _____

12. What do you think is the main purpose of Friends of Nature?

13. What 2 things do you think Friends of Nature has done that have worked well?

1. _____, 2. _____

14. What 2 things do you think Friends of Nature has done that have not worked well?

1. _____, 2. _____.

15. What 2 things do you think Friends of Nature can do to improve their work regarding coastal/marine management in the community?

1. _____, 2. _____.

16. Do you know who is the representative of Friends of Nature in the village?

Yes _____ No _____

17. Are you consulted on decisions made by Friends of Nature?

Yes _____ No _____

18. To what extent can you participate in decision-making by Friends of Nature?

Full active participation ___ active participation ___ some participation ___
little participation ___ no participation ___

19. What two things would you suggest that Friends of Nature could do to improve participation in decision-making?

1. _____, 2. _____.

20. Do you think that the people in your village can work together to solve community problems?

Yes _____ No _____

21. Do you think that fishermen can work together alone to solve a problem in the fishery?

Yes _____ No _____

22. Should the government, the people or both, work to solve a problem in the fishery?

government only _____ people only _____ both _____

Rules

23. Do you know of any Marine Protected Areas (MPA) in the area?

Yes _____ No _____

24. If yes, is the MPA beneficial to Belizean marine resources?

Yes _____ No _____

25. Are you familiar with any rules and regulations related to:

Commercial fishing _____; recreational fishing _____; tourism fishing _____;

Mangroove use _____; reef use _____; hotel development _____; residential development _____; snorkel/diving _____; beach use _____; MPA _____.

Threats and problems

26. What are the top three major threats to the community?

Threats: 1. _____, 2. _____, 3. _____

27. What are the top three major problems for the community?

Problems: 1. _____, 2. _____, 3. _____

28. What do you think are the possible solutions to these problems?

Solutions: 1. _____, 2. _____, 3. _____

29. What are the top three major threats to the marine resources?

Threats: 1. _____, 2. _____, 3. _____

30. What are the top three major problems for the marine resources?

Problems: 1. _____, 2. _____, 3. _____

31. What do you think are the possible solutions to these problems?

Solutions: 1. _____, 2. _____, 3. _____

32. Are you obtaining benefits as result of development in the area?

Yes _____ What benefits _____

No _____

Material style of life

33. Does the household have or own the following:

land _____ house _____, boat _____, car _____, washer _____, VCR _____, cell phone _____, TV _____, stereo _____, refrigerator _____, stove _____

Type of roof: tin _____ thatch _____ cement _____ shingle _____

Type of outside structure of wall: wood _____ cement _____ plywood _____

Windows: wooden shutters _____, metal shutters _____, glass shutters _____, glass _____

Floors: cement _____, wood _____, tile _____, dirt _____, carpet _____

3 ESTABLISHING A SOCIO-ECONOMIC MONITORING PROGRAM FOR GLOVER'S REEF ATOLL, BELIZE

In an effort to strengthen the management of the Glover's Reef Marine Reserve in Belize, a socio-economic monitoring program is being developed. Although the Glover's Reef Marine Reserve was declared in 1993, comprehensive socioeconomic data have not been systematically collected for the site, apart from a couple of surveys in two of the communities that fish the area. Fishing is the most important activity on the Atoll, a traditional area for harvesting lobster, conch and finfish. Tourism is the second major social and economic force, which is developing rapidly with the main activities including snorkeling, scuba diving, kayaking, and sport fishing. In this study questionnaires were developed during a training workshop, and were tailored for fishermen, tour guides and households. The surveys were conducted during May, June and July 2004 in the three main communities of fishermen and tour guides that are active on Glover's Reef, namely Sarteneja, Dangriga and Hopkins. The SocMon protocol developed for the Caribbean was applied and the results provide a baseline of the socio-economic status of the Atoll against which future surveys can be compared. The information includes summaries on

demographics, marine activities conducted, attitudes and perceptions, threats and problems perceived, and material style of life. Based on the results of the data analysis conducted, some preliminary recommendations for improving management are made. By continuing this program information will be generated which should ensure adaptive management occurs, introducing management measures that are acceptable and effective (Gibson et al. 2005).

3.1 Glover's Reef fishermen questionnaire

Date and time: _____ Captain: _____ Crew: _____
 Interviewer: _____ Respondent #: _____
 Location: _____

Demographics

1. How old are you? _____
2. What is your level of education?
 Primary _____ Secondary _____ Associates _____
3. How many people live in your household? _____
4. Which job provides you with the most income?
 1st _____,
 2nd _____,
 3rd _____
5. Are any other members in your household involved in an income-generating activity?
 Yes _____ Who _____ What activity? _____
 No _____
6. Are there any females in your household who are involved in the fishing business?
 Yes _____ Who _____ What activity? _____
 No _____

Coastal and Marine/Fishing Activities

7. How many years have you fished at Glover's Reef?
 Less than 5 years _____ 5 – 10 years _____ More than 10 years _____
8. What percentage of your total catch per year is caught at Glovers Reef?
 0-25% _____ 25-50% _____ 50-75% _____ 75-100% _____
9. What is the average number of days of each fishing trip spent at Glover's Reef?
 _____ days
10. How many fishing trips to Glover's Reef do you make each year? _____ trips

11. What are the top 4 species that you target at Glover's Reef?

1) _____ 2) _____ 3) _____ 4) _____

12. What are the gear types that you use at Glover's Reef?

1) _____

2) _____

3) _____

13. How many crew members are usually on your boat? _____ crew

14. What percentage of your boat's total catch from Glover's Reef is usually or generally sold to:

Cooperative _____ Hotels/Restaurants _____ Local markets _____

Own use _____ Other _____

15. How would you describe the condition of fisheries resources five years ago at Glover's Reef?

very good ___ good ___ not good ___ not bad ___ bad ___ very bad ___

16. How would you describe the conditions of fisheries resources today at Grovers Reef?

very good ___ good ___ not good ___ not bad ___ bad ___ very bad ___

Why do you think the conditions have changed? _____

17. Do you think that fishermen can work together to solve a problem in the fishery?

Yes ___ No ___ Don't know ___

18. Should the government alone, the fishermen alone or both together, work to solve a problem in the fishery?

government only ___ fishermen only ___ both ___

19. Would you support Glover's Reef being managed in partnership between government and another group? Such as an NGO, Fishing Cooperative etc.

Yes ___ No ___ Don't know ___

Attitudes and Perceptions

20. Are you aware that Grovers Reef is a Marine Reserve?

Yes ___ No ___

21. Are you aware of the Grovers Reef Marine Reserve management zones?

Yes ___ No ___

22. Are you familiar with any rules and regulations in the Glover's Reef Marine Reserve related to:

Commercial fishing _____; Sport fishing _____; Mangrove use _____;

Resort Development _____; Tourism snorkel/diving _____

23. Are you a member of a fishing co-operative?

Yes ___ Which? _____

No ___

24. How do you feel your co-operative represents you on the Glover's Reef Advisory Committee?

Very well ___ Well ___ Fair ___ Poor ___ Don't know ___

25. Are you a member of any other organization in Sarteneja?

Yes ___ What organization? _____

No ___

26. If you were able to change to another occupation that provided equal or more income than your fishing occupation would you be willing to change occupations?

Yes ___ No ___

27. If so, what would you be interested in?

Tour guide ___, Sportfishing guide ___, Aquaculture ___, Information Technician ___, SCUBA guide ___, Kayaking guide ___, other ___

28. If you could choose an occupation for your children, what would it be?

29. Indicate degree of agreement with the following statements using the scale: don't know (6), strongly agree (5), agree (4), neutral (3), disagree (2), or strongly disagree (1)

_____ a) The Marine Reserve is important for protecting the Atoll's coral reef system

_____ b) The conservation zone is helping to sustain fish stocks

_____ c) More area should be opened to fishing in the marine reserve

_____ d) Penalties for illegal fishing should be increased

_____ e) Mangroves should be protected at Glover's Reef

_____ f) Enforcement of the reserve regulations is adequate

_____ g) Participation in management decisions about Glover's Reef Marine Reserve is important to you.

_____ h) The closure of the North East Point spawning aggregation site is a good management measure.

_____ i) Most fishermen respect the marine reserve regulations.

Threats and problems

30. What do you think are the top three major **problems** for the Glovers Reef marine resources?

Problems:

- 1 _____,
- 2 _____,
- 3 _____

31. What do you think are the possible **solutions** to these problems?

Solutions:

- 1 _____,
- 2 _____,
- 3 _____

Material style of life.

32. Do you have or own the following:

Farm land _____ house lot _____ house _____ sailboat _____ skiff _____ outboard engine _____ canoe _____ vehicle _____ bicycle _____ washer _____ VCR _____ phone _____ TV _____ stereo _____ refrigerator _____ stove _____

33. The roof of your house is made up of what type of material:

thatch _____ zinc _____ cement _____

The wall of your house is made out of what type of material:

palmetto _____ plywood _____ wood _____ cement _____

Windows: wooden _____ metal _____ glass _____

Floors: dirt _____ cement _____ wood _____ tile _____

3.2 Glover's Reef household questionnaire

Date and time: _____ Respondent #: _____

Interviewer: _____ Location: _____

Demographics

1. How old are you? _____

2. What is your level of education?

Primary _____ Secondary _____ Associates _____

3. How many people live in your household? _____

4. Which job provides your household with the most income?

1st. _____, 2nd. _____, 3rd. _____

5. Are there any females in your household who are involved in the fishing business?

Yes _____ Who _____ What activity? _____

No _____

Coastal and Marine/Fishing Activities

6. Is any of the fish caught by your family at Glover's Reef used for food by the household?

Yes _____

No _____

7. Have you or any of your children visited Glover's Reef?

Yes _____

No _____

8. Do you think that people in your community can work together to solve a problem in the fishing or tourism industries?

Yes _____ No _____ Don't know _____

9. Should the government alone, the people alone or both together, work to solve a problem in the fishing or tourism industries?

government only _____ people only _____ both _____

10. Would you support Glover's Reef being managed in partnership between government and another group? Such as an NGO, Fishing Cooperative etc.

Yes _____ No _____ Don't know _____

Attitudes and Perceptions

11. Are you aware that Grovers Reef is a Marine Reserve?

Yes _____ No _____

12. Are you aware of the Grovers Reef Marine Reserve management zones?

Yes _____ No _____

13. Are you a member of any organization in Dangriga/Hopkins?

Yes _____ What organization? _____

No _____

14. If you could choose an occupation for your children, what would it be?

15. How would you describe the condition of the marine resources five years ago at Glover's Reef?

Very good ___ good ___ not good ___ bad ___ very bad ___

16. How would you describe the condition of the marine resources today at Glover's Reef?

Very good ___ good ___ not good ___ bad ___ very bad ___

17. Indicate degree of agreement with the following statements using the scale: don't know (6), strongly agree (5), agree (4), neutral (3), disagree (2), or strongly disagree (1)

- ___ a) The Marine Reserve is important for protecting the Atoll's coral reef system
- ___ b) Fisheries are adequately managed and enforced.
- ___ c) Penalties for illegal fishing should be increased
- ___ d) Mangroves should be protected at Glover's Reef
- ___ e) Participation in management decisions about Glover's Reef Marine Reserve is important to you.
- ___ f) Most fishermen respect the marine reserve regulations.
- ___ g) Marine protected areas are beneficial to Belizean marine resources.
- ___ h) Children need to learn more about marine conservation at school.
- ___ i) Tourism has been good for your community.
- ___ j) Tourism has been good for your household.

Threats and problems

18. What do you think are the top three major **problems** for the Glovers Reef marine resources?

Problems: 1. _____, 2. _____, 3. _____.

19. What do you think are the possible **solutions** to these problems?

Solutions: 1. _____, 2. _____, 3. _____.

Material style of life.

20. Do you have or own the following:

Farm land _____ Own house lot _____ own house _____ vehicle _____ bicycle _____
 washer _____ VCR _____ phone _____ TV _____ stereo _____
 refrigerator _____ stove _____

21. The roof of your house is made up of what type of material:

thatch _____ zinc _____ cement _____

Type wall of your house is made out of what type of material:

palmetto _____ plywood _____ wood _____ cement _____

Windows: wooden _____ metal _____ glass _____

Floors: dirt _____ cement _____ wood _____ tile _____

3.3 Glover's Reef tour guide questionnaire

Date and time: _____ Respondent #: _____

Interviewer: _____ Location: _____

Demographics

1. How old are you? _____

2. What is your level of education?

Primary _____ Secondary _____ Associates _____

3. How many people live in your household? _____

4. Which job provides you with the most income?

1st. _____, 2nd. _____, 3rd. _____

5. Are any other members in your household involved in an income-generating activity?

Yes _____ Who _____ What activity? _____

No _____

Coastal and Marine/Fishing Activities

6. How many years have you used the Reserve as a tour guide?

Less than 5 years _____ 5 – 10 years _____ More than 10 years _____

7. What part of the Reserve do you visit/use?

South end _____ North end _____ East reef _____ West reef _____

Cayes _____ Other _____

8. What type of guiding to Glover's Reef do you do?

Sportfishing _____ Dive _____ Snorkel _____ Kayak _____ General _____ Other _____

9. What percentage of your annual business is done at Glovers Reef?

0-25% _____ 25-50% _____ 50-75% _____ 75-100% _____

10. What are the major months in the year for your guide business to Glover's Reef?

J ___ F ___ M ___ A ___ M ___ J ___ J ___ A ___ S ___ O ___ N ___ D ___

11. How many guide trips to Glover's Reef do you make each year? ___ trips

12. What is the average number of people that you take on a trip to Glover's Reef for?:

Sportfishing _____ Dive _____ Snorkel _____ Kayak _____ General _____ Other _____

13. What are the top 4 sportfishing species that you target at Glover's Reef?

1) _____ 2) _____ 3) _____ 4) _____

14. What is the charge/fee per person per trip for:

Sportfishing _____ Dive _____ Snorkel _____ Kayak _____ General _____ Other _____

15. How many crew members are usually on your boat? _____ crew

16. What type of information do you provide your tourists on marine resource conservation and protection?

17. What type of education materials on marine resource conservation and protection would be useful to you and your tourists?

18. How would you rank visitor satisfaction after visiting the reserve?

Fair _____ Good _____ Very good _____ Excellent _____

19. How would you describe the condition of fisheries resources five years ago at Glover's Reef?

very good____ good _____ not good _____not bad _____ bad _____ very bad____

20. How would you describe the conditions of fisheries resources today at Glovers Reef?

very good____ good _____ not good _____not bad _____ bad _____very bad_____

21. Why do you think the conditions have changed?

22. Would you support Glover's Reef being managed in partnership between government and another group? Such as an NGO, Fishing Cooperative etc.

Yes _____ No _____ Don't know _____

Attitudes and Perceptions

23. Are you aware that Glovers Reef is a Marine Reserve?

Yes _____ No_____

24. Are you aware of the Glovers Reef Marine Reserve management zones?

Yes_____ No_____

25. Are you familiar with any rules and regulations in the Glover's Reef Marine Reserve related to:

Commercial fishing_____; sport fishing _____; Mangrove use_____; resort development_____; tourism snorkel/diving_____

26. Are you a member of a tourism association?

Yes _____ Which? _____

No _____

27. How do you feel your tourism association represents you on the Glover's Reef Advisory Committee?

Very well _____ Well _____ Fair_____ Poor_____ Don't know _____

28. Are you a member of any other organization in Dangriga/Hopkins?

Yes _____ What organization? _____

No _____

29. Indicate degree of agreement with the following statements using the scale: don't know (6) strongly agree (5), agree (4), neutral (3), disagree (2), or strongly disagree (1)

_____ a) The Marine Reserve is important for protecting the Atoll's coral reef system

_____ b) The conservation zone is helping to sustain fish stocks

- ___ c) All sportfishing should be catch and release
- ___ d) Penalties for illegal fishing should be increased
- ___ e) Mangroves should be protected at Glover's Reef
- ___ f) Enforcement of the reserve regulations is adequate
- ___ g) Participation in management decisions about Glover's Reef Marine Reserve is important to you.
- ___ h) Facilities for tourists at the reserve headquarters at Middle Caye are adequate.
- ___ i) Most fishermen respect the marine reserve regulations.
- ___ j) Most tour guides respect the marine reserve regulations.

Threats and problems

30. What do you think are the top three major **problems** for the Glovers Reef marine resources?

Problems: 1. _____, 2. _____, 3. _____.

31. What do you think are the possible **solutions** to these problems?

Solutions: 1. _____, 2. _____, 3. _____.

Material style of life.

32. Do you have or own:

Farm land _____ house lot _____ house _____ skiff _____ outboard
 engine _____ vehicle _____ bicycle _____ washer _____ VCR _____ phone
 _____ TV _____ stereo _____ refrigerator _____ stove _____

33. The roof of your house is made up of what type of material:

thatch _____ zinc _____ cement _____

Type wall of your house is made out of what type of material:

palmetto _____ plywood _____ wood _____ cement _____

Windows: wooden _____ metal _____ glass _____

Floors: dirt _____ cement _____ wood _____ tile _____

4 UNEP SOCIO-ECONOMIC MONITORING FOR CARIBBEAN COASTAL MANAGEMENT (SOCMON CARIBBEAN) SITE PROJECTS

4.1 Linking the social with the natural: A socio-economic review of Shoal Bay and Island Harbour, Anguilla

Most socio-economic information on Anguilla centres on demographic and employment data – population size, age, gender, ethnicity, religion, level of unemployment, occupation, infrastructure, and facilities. Information on natural resources and area use is limited. Data on the nearshore, coral reef, and marine park use are almost nonexistent. Limited information makes management of these resources and areas and enforcement of relevant regulations, legislation, and policies difficult – particularly of those areas that

have been identified as in need of special management, namely, Anguilla's five marine parks. Given this apparent information gap, from August 2005 to April 2006, the Anguilla National Trust (ANT) and the Department of Fisheries and Marine Resources (DFMR) (Government of Anguilla [GOA]) conducted a socioeconomic assessment of the communities that border one of Anguilla's most popular coastal areas – the Shoal Bay-Island Harbour Marine Park.

The goal of the assessment was to collect and document baseline socio-economic data of the Shoal Bay-Island Harbour Marine Park. Objectives of the study were five-fold:

1. To determine the level of public awareness (Anguillians and visitors) regarding the marine park;
2. To determine and document the various uses of the marine park;
3. To quantify the level of activity (including, but not limited to, fishing, diving, snorkelling, swimming, and boating) within the marine park boundaries;
4. To gauge the level of community support for a functioning marine park; and
5. To assess the level of management capacity of marine park stakeholders (Mukhida and Gumbs, n.d.)

4.1.1 Marine use and views survey – Residents

Section A: General demographics and individual economics

A1) What is your **age**? (circle)

under 20 / 20-29 / 30-39 / 40-49 / 50-59 / 60+ years

A2) **Gender**? Male / Female

A3) What is your **ethnicity**?

Caucasian / Hispanic / Black / Asian / East Indian / other (identify)

A4) Highest level of **education completed**?

primary / secondary / college / graduate school / other training (identify)

A5) **Marital** status?

single / cohabitating / divorced or separated / widowed

A6) How many **children** do you have?

A7) Where were you **born**?

A8) How long have you **lived in Anguilla**? All my life / years

A9) What is your current **housing type**?

house / apartment / public housing / other (identify)

A10) What is your **house made of**?

wood / cement brick / other (identify)

A11) Do you **own or rent**?

own / rent

A12) How many **people live in your household** (including yourself)?
adults / # children (=18 years old)

A13) What is (are) your current **income generating activity (activities)** (occupations)? If you are retired, sick, or temporarily unemployed, then please give your occupation(s) when you were working. If your primary occupation is a homemaker, please list that in addition to any income generating activities.

Activity (from activity that generates most income to least) & # years

- i.
- ii.
- iii.

A14) What is your **contribution to total household income** (percentage)? %

Section B: Use of the marine environment

B1) When you visit the beach or go out on the water, which activities do you undertake on your visit(s)? (check all that apply)

- Beach walking & sunning
- SCUBA diving
- Power-boating
- Sailing
- Dining/Entertainment
- Snorkelling
- Swimming
- Fishing
- Other (identify)
- Viewing historical/archaeological sites

[If activities include fishing, go to SECTION C, if not SKIP SECTION C]

[If activities include SNORKELLING or SCUBA DIVING, go to B2, if not go to B3]

B2) What kind of marine experience are you looking for? (viewing of species of marine life and/or marine environment)? (list)

B3) Did you know that Shoal Bay-Island Harbour is a MARINE PARK?

yes / no

B4) How often do you visit Shoal Bay-Island Harbour Marine Park?

Never / # times/year

[If interviewee visits the Park, go to SECTION D, if never visits Marine Park, SKIP SECTION D]

Section C: Fishing

C1) Please describe your typical fishing trip - use more paper if necessary

Target species & Gear (What are you fishing for? What gear are you using?)	Frequency of effort (# of times per week or season, how often do you go fishing, & when?)	Location & Habitat (Describe where you go - use a map if necessary - is it a reef, seagrass, deep sea, etc.)	Estimated catch (Amount - # of fish & weight [lbs] or average size)	Type of operation (Commercial, subsistence, recreational – what do you do with your catch?)
Species 1				
Species 2				
Species 3				

C2) For each of the species listed in C1, how is their availability (abundance or ease of catch) compared to ten years ago?

Species 1: much higher / higher / same / lower / much lower / don't know

Species 2: much higher / higher / same / lower / much lower / don't know

Species 3: much higher / higher / same / lower / much lower / don't know

C3) Do you own or have **access to a boat** that you regularly fish from?
 yes / no

C3a) Do you own the vessel or are you crew?
 own / rent / borrow / crew

C3b) What type of vessel?
 power / sail / other (identify)

C3c) Hull material? fiberglass / wood / other (identify)

C3d) What is the vessel length? ft

C3e) How many persons usually go out on this vessel? #

[Repeat the above for multiple vessels, mark to the side]

C4) Are there any **specific months** when there is **increased targeted fishing activity**, where, and why (e.g. grouper spawning or other fish aggregations, lobster crawl, turtles mating season, etc.)

Species Months (Start - End) Where (location & habitat) Why

1. _____
2. _____
3. _____

Section D: Shoal Bay-Island Harbour Marine Park

D1) What **attributes are important** to you in choosing **Shoal Bay-Island Harbour Marine Park** over another local destination?

Rate from	Most important.....Least Important				
Accessibility	1	2	3	4	5
Quality of beaches	1	2	3	4	5
Quality of fishing	1	2	3	4	5
Restaurants/ entertainment	1	2	3	4	5
Clear water	1	2	3	4	5
Other (identify)	1	2	3	4	5

D2) When you visit Shoal Bay-Island Harbour Marine Park, what activities are you interested in participating in?

Rate from	Most interested.....Least Interested				
Beach walking & sunning	1	2	3	4	5
Sailing	1	2	3	4	5
Power-boating	1	2	3	4	5
Swimming	1	2	3	4	5
Snorkelling	1	2	3	4	5
SCUBA diving	1	2	3	4	5
Dining/ entertainment	1	2	3	4	5
Viewing historical/ archaeological sites	1	2	3	4	5
Fishing	1	2	3	4	5
Other (identify)	1	2	3	4	5

D3) Are there any other activities that you would like to participate in that are not currently available? (identify)

D4) Should any activities NOT be allowed in the Park? (identify)

D5) Do you support the implementation of a USER FEE in order to participate in the activities listed previously (Question D2) in the Park if you knew that the money from this fee would go towards the management of the Park?

yes / no

[If yes, go to D6, if *no*, skip to D7]

D6) If YES, which of these activities should have an associated fee & how much would you be willing to pay? (check appropriate)

	No fee	\$1-\$2	\$3-\$5	\$6-\$10	\$11-\$20	\$21-\$30	over \$30
Park entrance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Beach walking and sunning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sailing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power-boating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Swimming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Snorkelling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SCUBA diving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dining/entertainment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Viewing historical/ archaeological sites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fishing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D6a) If NO, why not?

D7) Do you support the ban of fishing inside the park boundaries? yes / no

D7a) If NO, why not?

D8) What is your overall impression of Shoal Bay-Island Harbour Marine Park? (circle one)

excellent / pretty good / fair / just okay / poor

Section E: Perception of the marine environment and policy

E1) What is the **current level of fishing activity** throughout **Anguilla**? (circle one)

high / correct level / low / none / don't know

E2) What is the **current level/quantity of tourism activity** throughout **Anguilla**? (circle one)

high / correct level / low / none / don't know

E3) What is the **current condition** of **Anguilla's coral reefs** compared to ten years ago?
(circle one)

much better / better / same / worse / much worse / don't know

E4) What is the **current condition** of **Anguilla's beaches** compared to ten years ago?
(circle one)

much better / better / same / worse / much worse / don't know

E5) In ten years, what do you feel will be the **top negative impact to Anguilla's marine environment**?

over-fishing / pollution / coastal development / hurricane or storms / other (identify)

E6) What is your over-all impression of the **management of Anguilla's Marine Parks**?
(circle one)

excellent / pretty good / fair / just okay / poor / don't know

E7) Do you support a **ban of spearfishing inside Anguilla's Marine Parks**? yes / no

[If *yes*, go to E8, if *no*, SKIP to E7b]

E7b) If NO, why not?

E8) What is overall impression of the **enforcement of Fishing Regulations in Anguilla**?
(circle one)

excellent / pretty good / fair / just okay / poor / don't know

E9) Who should be responsible for the **management of Shoal Bay-Island Harbour Marine Park**? (circle one)

the community / government / Anguilla National Trust / a collaborative arrangement /
don't know / other (identify)

E9a) If YES for a collaborative arrangement, between which organisations/institutions?
(circle all that apply)

the community / government / Anguilla National Trust / other (identify)

E10) How important are these **sources of information** to your knowledge/understanding
of the following:

i. the **marine environment**: types and locations of different species; fish behaviour;
tides; etc.

ii. **marine management**: fishing rules and regulations; marine park location and
regulations; etc.

(Rate importance - VI (very important), SI (somewhat important); NVI (not very
important))

	Marine Environment	Marine Management			
Local knowledge/Word of mouth	VI / SI / NVI	VI / SI / NVI			
Personal experience	VI / SI / NVI	VI / SI / NVI			
Government official	VI / SI / NVI	VI / SI / NVI			
Formal education	VI / SI / NVI	VI / SI / NVI			
Television	VI / SI / NVI	VI / SI / NVI			
Radio (incl. VHF)	VI / SI / NVI	VI / SI / NVI			
Newspaper/Magazine	VI / SI / NVI	VI / SI / NVI			
Internet	VI / SI / NVI	VI / SI / NVI			
Other (identify)	VI / SI / NVI	VI / SI / NVI			
E11) Do you have any additional comments?					
4.1.2 Marine use and views survey – Visitors					
1) Is this your first visit to Anguilla? yes / no					
2) How many persons are in your group? #					
3) What is the purpose of your trip ? pleasure / business / other (identify)					
4) What attributes are important to you in choosing Anguilla over another destination? (Please rate from 1 to 5, 1 being the most important, 5 being the least important)					
Rate from	Most important.....Least important				
Cost	1	2	3	4	5
Quality of the beaches	1	2	3	4	5
Quality of fishing	1	2	3	4	5

Quality of SCUBA diving/snorkelling	1	2	3	4	5
Clear water	1	2	3	4	5
Other (identify)	1	2	3	4	5

5) Where are you from (**country**)?

6) What is your intended **length of stay** (days)? #

7) What was your **method of travel** to Anguilla?
airplane / sailboat / ferry / power-boat / other

8) Did you know that **Shoal Bay-Island Harbour** is a MARINE PARK?
yes / no

[If *yes*, go to 8a, if *no*, SKIP to 9)

8a) Where did you **find out** about Shoal Bay-Island Harbour Marine Park? (identify)

9) How often do you **visit** Shoal Bay-Island Harbour Marine Park?
1st visit / #times/year

10) What **attributes** are important to you in choosing **Shoal Bay-Island Harbour Marine Park** over another local destination?

Rate from	Most important.....Least important				
Accessibility	1	2	3	4	5
Quality of beaches	1	2	3	4	5
Quality of fishing	1	2	3	4	5
Quality of marine life viewing	1	2	3	4	5
Restaurants/ Entertainment	1	2	3	4	5
Clear water	1	2	3	4	5
Other (identify)	1	2	3	4	5

11) During your visit to **Shoal Bay-Island Harbour Marine Park**, what **activities** are you interested in participating in and which ones will you do on this visit?

	Rate from (1) Most interested to (5) Least interested					Undertake?
Beach walking & sunning	1	2	3	4	5	yes/no
Sailing	1	2	3	4	5	yes/no
Power-boating	1	2	3	4	5	yes/no
Swimming	1	2	3	4	5	yes/no

	Rate from (1) Most interested to (5) Least interested					Undertake?
Snorkelling	1	2	3	4	5	yes/no
SCUBA diving	1	2	3	4	5	yes/no
Dining/Entertainment	1	2	3	4	5	yes/no
Viewing historical/ archaeological sites	1	2	3	4	5	yes/no
Fishing	1	2	3	4	5	yes/no
Other (identify)	1	2	3	4	5	yes/no

11a) If YES for SNORKELLING or SCUBA DIVING, what kind of marine experience are you looking for?

(viewing particular species of marine life and/or marine environment) (identify)

11b) Have you been or do you intend to SNORKEL or SCUBA DIVE in any other locations around Anguilla?

yes / no

If YES, WHERE and which activity?

Location Activity

1. snorkelling / SCUBA diving
- 2 snorkelling / SCUBA diving
3. snorkelling / SCUBA diving

12) Are there any other activities that you would like to participate in that are not currently available in the Park? (identify)

13) Should any activities NOT be allowed in the Park?

14) What are your **typical per day expenses** for this visit to **Anguilla** (total expenses, including hotel, restaurants, entertainment, etc.) (note currency)? \$

15) Do you support the implementation of a USER FEE in order to participate in the activities listed previously

(Question 11) in the Park if you knew that the money from this fee would go towards the management the Park? yes / no

[If *yes*, go to 15b, if *no* SKIP to 15c]

15b) If YES, which of these activities should have an associated fee & how much would you be willing to pay? (Please note: this fee is separate from any gear or rental fee)

	No fee	\$1-\$2	\$3-\$5	\$6-\$10	\$11-\$20	\$21-\$30	over \$30
Park entrance	•	•	•	•	•	•	•
Beach walking and sunning	•	•	•	•	•	•	•
Sailing	•	•	•	•	•	•	•
Power-boating	•	•	•	•	•	•	•
Swimming	•	•	•	•	•	•	•
Snorkelling	•	•	•	•	•	•	•
SCUBA diving	•	•	•	•	•	•	•
Dining/entertainment	•	•	•	•	•	•	•
Viewing historical/ archaeological sites	•	•	•	•	•	•	•
Fishing	•	•	•	•	•	•	•
Other	•	•	•	•	•	•	•

15c) If NO, why not?

16) What is your overall impression of Shoal Bay-Island Harbour Marine Park?

excellent / pretty good / fair / just okay / poor

17) Do you have any additional comments?

4.1.3 Guidelines for key informant interviews

Questions for all stakeholders

1. Purpose of interview

2. Information about the informant

(a) Age

(b) Where do you live?

(c) How long have you been living there?

(d) Position within the community (employment and number of years)

(e) Level of education (optional)

3. Shoal Bay/Island Harbour Marine Park

(a) Marine Park awareness

- i. Aware that area is a marine park?
 - ii. Aware of when it was established?
 - iii. Aware of why it was established?
 - iv. Aware of marine park regulations and any associated fees?
- (b) Activities
- i. What activities currently take place within the marine park? (eg swimming, snorkelling, diving, fishing (types of fishing), reef tours, jet skiing, sailing/boating, other water sports)
 - ii. Do any of these activities have associated user fees?
 - iii. Are there any activities that should not occur within marine park boundaries?
 - iv. Are there any activities that currently do not take place within the marine park, but should?
 - v. Are there any activities that occurred in the park in the past but not any more? / Has there been a change in how the area has been used over the years?
 - vi. Should activities be allowed in only certain parts of the marine park (ie should the marine park be zoned)?
 - vii. Which activities should have associated user fees?
 - viii. Should spearfishing be allowed within the marine park?
 - Impact of spearfishing on fish stocks?
 - ix. Should the moratorium on sea turtle harvesting continue?
 - Are you interested in helping to collect information and/or in helping monitor beaches during sea turtle nesting season?
- (c) Management
- i. Were you consulted regarding the creation of the marine park?
 - ii. Aware of who currently manages the area?
 - iii. Who should manage the area?
 - iv. Role of informant/associated stakeholder group within the management system/ (along the co-management scale – ranging from instructive to informative.
- (d) Environmental awareness
- i. Has the area changed over the years?

Anguilla Tourist Board and Anguilla Hotel and Tourism Association

1. Is the marine park part of a marketing strategy for Anguilla?
 - a. If so, how is it advertised/promoted?
2. Do tourists ask about the marine park?

- a. If so, what information do you provide?
- 3. Impact of tourism on coastal resources?
 - a. Impact of tourism on the marine park?
- 4. Role of nature-based tourism?
- 5. What are the opportunities and constraints of managing the marine park
- 6. How would you describe the current state of the coastal environment/resources?
- 7. What is the level of public awareness concerning the marine park?
 - a. If it is poor or minimal, how can it be improved?
- 8. Plans for future coastal development?

Department of Fisheries and Marine Resources

- 1. Does/Can the DFMR have a role within marine park management?
- 2. What are the opportunities and constraints of managing the marine park?
- 3. How would you describe the current state of the coastal environment/resources?
- 4. What is the level of public awareness concerning the marine park?
 - a. If it is poor or minimal, how can it be improved?
- 5. Plans for future coastal development?
- 6. Impact of tourism on coastal resources?
 - a. Impact of tourism on the marine park
- 7. Role of nature-based tourism

Dive Operator

- 1. Can you give us an idea of the number of divers/visitors to your dive shop each year, the numbers diving/ snorkelling within SB/IH park itself, and any change in use patterns?
- 2. High season, low season for divers?
- 3. Where divers originate from?

Department of Environment and Department of Physical Planning

- 1. Does/Can the DoE have a role within marine park management?
- 2. What are the opportunities and constraints of managing the marine park?
- 3. How would you describe the current state of the coastal environment/resources?
- 4. What is the level of public awareness concerning the marine park?
 - a. If it is poor or minimal, how can it be improved?

5. Plans for future coastal development?
6. Impact of tourism on coastal resources?
 - a. Impact of tourism on the marine park
7. Role of nature-based tourism

Restaurateurs and Hoteliers

1. What are your occupancy rates?
 - a. High season
 - b. Low season
2. Number of meals?
 - a. High season
 - b. Low season
3. Do you advertise the marine park to visitors?
 - a. If so, what information do you provide?
 - b. Do visitors ask about the marine park?

4.2 Socio-economic monitoring in Soufriere Marine Management Area (SMMA)

Soufriere is a small town located on the south west coast of St. Lucia. The area is an established tourist destination and sustains an important artisanal fishery and has numerous local recreational areas. The Soufriere Marine Management Area (SMMA) is a marine park established to protect and conserve marine resources particularly the well-developed fringing coral reefs which is important to both the fishing and tourism sectors. Geographically, part of the SMMA also falls within the designated Pitons Management Area which is the only World Heritage Site in St. Lucia. The SMMA was formally established by the Government of St. Lucia on July 1st, 1995 with technical assistance from the French following a series of stakeholder consultations and negotiations with an aim to conserve natural coastal and marine resources and facilitate sustainable use of the area. The Agreement to Manage the Soufriere Marine Management Area was reviewed in 1998 and again in 2003. In 2005, a ten year institutional review of the Soufriere Marine Management Association was conducted. Included in the review was a proposed socio-economic monitoring to provide a baseline for future monitoring. Awareness of the social and economic factors affecting the SMMA will allow the management staff to tailor management strategies to suit the current socioeconomic climate. This information gleaned from socio-economic monitoring will also be used to demonstrate to the public and to policy makers the importance of protecting the coastal and marine environment and garner support for revising and implementing new management policies.

4.2.1 SMMA questionnaire

Questionnaire No. _____	Group: _____
Interviewer's Name _____	Notes: _____

All relevant sections must be completed. The name of the "Group" at the top of the questionnaire is critical, that is, coastal resident, fisherman, diver, snorkeller, yachtsman, water taxi operator, hotelier, restaurateur, small business owner, etc. Sections A to F and K must be answered by all respondents. Sections G to J must be answered only by the specific group indicated.

A. GENERAL

1. How old are you?

15 – 19 yrs ____ 20 – 29 yrs ____ 30 – 39 yrs ____ 40 – 49 yrs ____

50 – 59 yrs ____ 60 – 69 yrs ____ 70 + yrs ____ Not Stated ____

2. Gender?

Male ____ Female ____

3. Where do you live?

Soufriere ____ Other district (*Please specify*) _____

B. PERCEPTION ON GOALS AND OBJECTIVES

4. a) Have you heard about the Soufriere Marine Management Area (SMMA_[NC21])?

Yes _____ No _____

b) If yes, why do you think that the SMMA was set up or what do you think is its role or objective?

5. Who do you think is responsible for maintaining the health of the marine environment (coral reef, fish, beaches, water quality, etc) in and around the SMMA? *Tick all that are named. Do not prompt*

Government of Saint. Lucia ____ Department of Fisheries ____

SMMA _____ Soufriere Foundation _____ Soufriere Community

_____ Town Council ____ Environmental Health ____ Other _____

6. What do you perceive as the role of the SMMA Rangers?

7. What do you perceive as the role of the SMMA Manager?

8. What do you perceive as the role of the Board of Directors?

9. a) In your opinion, has the SMMA done anything for the Soufriere community that is noteworthy or that has worked well?

Yes _____ No _____

b) If yes, what has the SMMA done for the Soufriere community that is noteworthy or that has worked well?

10. a) In your opinion, is the SMMA contributing sufficiently to the Soufriere community?

Yes _____ No _____

b) If no, how can the SMMA play a more significant role in the community?

11. Do you think the SMMA is doing more than it should in the community?

Yes _____ No _____

Explain

C. AWARENESS

The Resource

12. a) Are you familiar with the SMMA zones? Yes _____ No _____

b) If yes, name two of these zones . _____ and _____

13. a) Are the zones you named important to the Soufriere community?

Yes _____ No _____

b) If yes, how do the named zones contribute to the Soufriere community

14. How would you describe the condition/health of the following coastal resources (beaches, coral reef, fish, water quality) in the SMMA?

Scale (5) Excellent (4) Good (3) Average (2) Poor (1) Don't Know

	10 years ago	Present
Fish		
Coral		
Water quality		
Beaches		

15. What activities do you think negatively affect marine resources (coral reef, fish, water quality, beaches) within the SMMA? *Tick all that are named. Do not prompt*

Poor fertilizer and pesticide application _____ Poor sewage disposal _____

Runoff from land/sedimentation _____ Yachting and anchor damage _____

Diving _____ Litter _____ Poor planning _____

Over fishing and/or destructive fishing practices _____

Other (*Please specify*) _____

16. From among the answers provided, which activity would you say has had the greatest negative impact on SMMA resources (coral reef, fish, water quality, beaches)? (*Record all detail provided*)

17. a) Do you think that the degradation of coastal resources (coral reef, fish, water quality, beaches) affects the Soufriere community in any way?

Yes _____ No _____

b) If yes, how do you think that degradation of coastal resources (coral reef, fish, water quality, beaches) affects the Soufriere community? (*Record all detail provided*)

18. What do you think that the SMMA can do to improve the health and better manage the coastal resources (coral reef, fish, water quality, beaches) in the SMMA?

19. What do you think that you can do to improve the health of the coastal resources (coral reef, fish, water quality, beaches) in the SMMA?

Enforcement

20. Are you familiar with the rules and regulations that govern the use of the SMMA?

Very Familiar ____ Somewhat Familiar ____ Not Familiar ____ Don't Know ____

21. Name one of the rules/regulations that govern the SMMA.

22. To whom do all the rules and regulations governing the SMMA apply? (N.B. not only the one named above) *Tick all that are named. Do not prompt*

Fisherman ____ Divers ____ Snorkellers ____ Yachtsmen ____

Tourists ____ Locals ____ Everyone ____ Don't know ____

23. a) Are there any ongoing conflicts between resource users?

Yes ____ No ____ Don't Know ____ Not Sure ____

b) If yes, what is the most significant conflict that is ongoing and where is it occurring?

Conflict _____

Area _____

24. Do you have any recommendations for how this conflict can be resolved?

D. LIVELIHOODS AND ECONOMY

25. What activities are you and family members engaged in that contribute to the household's income?

Activity	Rank <i>(from [1] as the largest income earner, to the smallest income earners [2], [3] etc.)</i>

26. a) Has the establishment of the SMMA affected (positively or negatively) your income?

Yes _____ No _____

b) If yes, how has the establishment of the SMMA affected your income?

Increased _____ Decreased _____

27. Why do you think that tourists come to Soufriere? (*Tick all that apply. Do not prompt*)

Diving and/or Snorkelling _____ Yachting/sailing _____ Honey Moon _____

Pitons/World Heritage Site _____ Sulphur Springs and/or Botanical Gardens _____

Sites and attractions _____ Other (*Please specify*) _____

28. a) Has tourism in Soufriere influenced (positively or negatively) your life?

Yes _____ No _____

b) If yes, how has tourism in Soufriere influenced your life?

Positively _____ Negatively _____

29. Would you like to see tourism develop further in Soufriere?

Yes _____ No _____

Why?

30. What other economic (money making) activities would you like to see develop in Soufriere?

31. Do you think that the SMMA can contribute more significantly to your livelihood?

Yes _____ No _____

32. If yes, how do you think that the SMMA can contribute meaningfully to your livelihood?

E. FUTURE MONITORING

The Resource

33. Are you aware of any monitoring activities that the SMMA is doing to check on the health of the coastal resources (beaches, coral reef, fish, water quality)?

Yes _____ No _____

34. If yes, name one monitoring activity that the SMMA is doing to check on the health of the coastal resources (coral reef, fish, water quality, beaches)?

35. a) Do you see a role for yourself in assisting the SMMA with monitoring?

Yes _____ No _____

b) If yes, what role do you think that you can play to assist the SMMA with monitoring?

Enforcement

36. a) Do you think that that rules and regulations that govern the SMMA are fair and just?

Yes _____ No _____

b) To what extent do you think that people comply (voluntarily) with these rules and regulations?

Always _____ Often _____ Occasionally _____ Rarely _____ Never _____

37. In your opinion, to what extent are the rules and regulations that govern the SMMA enforced (by Rangers, Police, Department of Fisheries)?

Always _____ Often _____ Occasionally _____ Rarely _____ Never _____

38. Who do you think mostly breaks the rules and regulations that govern the SMMA?
Tick the one that is named. Do not prompt

Soufriere fishermen _____ Fishermen from other communities _____

Divers/Snorkellers _____ Yachtsmen _____ Coastal residents from Soufriere _____

Other (*Please specify*) _____

48. Why do you think people break the rules and regulations governing the SMMA?

50. Do you feel comfortable reporting someone to the authorities (SMMA Rangers, Department of Fisheries, District Police, Marine Police) who has broken the rules and regulations governing the SMMA?

SMMA Rangers _____ Yes _____ No Why? _____

Department of Fisheries _____ Yes _____ No Why? _____

District Police _____ Yes _____ No Why? _____

Marine Police _____ Yes _____ No Why? _____

51. How do you think that a person who breaks the rules and regulations that govern the SMMA should be punished? *Tick all that are named. Do not prompt*

No punishment _____ Depends on the offence _____ Released with warning _____

Pay a fine _____ Banned from SMMA _____ Confiscate gear/equipment _____

Put in jail _____ Other (*Please specify*) _____

52. Do you think that it is best for the SMMA Rangers to originate (come from) and reside (live) in the Soufriere community or elsewhere? *Tick one*

Soufriere community ____ Other community _____ Does not matter _____

Why _____

53. What do you think that the SMMA can do to encourage people to comply (follow) with the rules and regulations governing the SMMA?

Recognition (Awards) _____ Incentives (training and gear) _____

Better sensitization _____ Contribute to community activities _____

Other _____

54. What do you think that the SMMA can do to improve enforcement within the SMMA?

Longer sentences _____ Heftier fines _____

More rangers _____ Marine Police base in Soufriere _____

Other _____

55. What do you think that you can do to assist with the improvement of compliance and enforcement in the SMMA? [*following rules and regulations and punishing those who break them*]

F. PERCEPTIONS ON PERFORMANCE

56. In your opinion, do you think that the SMMA is achieving its objectives?

Yes ____ No ____ Somewhat ____ Don't know ____

57. Do you think that the SMMA has improved marine resources, it's uses and activities? (*beaches, coral reef, fish, water quality*)

Marine Resources Yes ____ No ____

How?

Marine uses and activities Yes ____ No ____

How?

58. In your opinion, how effective are the SMMA Rangers in conducting their duties?

Very effective ____ Somewhat effective ____ Not effective ____ Don't know ____

59. In your opinion, how effective is the SMMA Manager in conducting his duties?

Very effective ____ Somewhat effective ____ Not effective ____ Don't know ____

60. Do you think that the SMMA has an adequate number of rangers and equipment to effectively carry out its tasks?

Rangers: Yes _____ No _____ Don't know _____

Equipment: Yes _____ No _____ Don't know _____

61. How effectively do you think that the SMMA is being managed?

Very effectively ____ Somewhat effectively ____ Not effectively ____ Don't know ____

G. FISHERMEN

63. In what type of fishing are you engaged? *Tick all that are named. Do not prompt*

Pot ____ Line ____ Seine ____ Deep sea ____ Other (*Please specify*) _____

64. What equipment/gear do you own? *Please prompt*

Nets _____ (*Please specify type*) Boat _____

Spear Gun _____ Fish pots _____

Other (*Please specify*) _____

65. How much do you spend per week/month (whichever respondent is more comfortable supplying) on the following items?

Gas _____ (w) (m) Boat maintenance _____ (w) (m) Storage rental _____ (w) (m)

Crew (Matlo) _____ (w) (m) Equipment repair/replacement _____ (w) (m) Other _____ (w) (m)

66. How often in a given week do you fish in the SMMA?

Twice a week ____ Three times a week ____ Every day ____ Other (*Please specify*) _____

66. List the five most important species (types) that you catch in the SMMA.

Target Species Name Fishing gear used Name of place harvested

67. On average, how much (in pounds) reef fish or pot fish do you catch in the SMMA per trip/per day/per week (*let respondent answer using the time frame with which he feels most comfortable*)?

_____ (trip) (day) (week)

68. On average, how much (*percentage, pounds or description such as 'most'*) reef fish or pot fish caught in the SMMA do you eat and sell? (*Indicate unit used i.e. %, lbs, etc.*)

Eat _____ Sell _____

69. On average, how much (in pounds) pelagic (deep sea) fish do you catch per week/per day/per trip (*let respondent answer using the time frame with which he feels comfortable*)?

_____ (trip) (day) (week)

70. On average, how much (*percentage, pounds or description such as 'most'*) pelagic (deep sea) fish do you eat and sell? (*Indicate unit used i.e. %, lbs, etc.*)

Eat _____ Sell _____

71. Are there any areas in the SMMA that you have difficulty going to or are prevented from using for fishing?

Yes _____ No _____

Explain

72. How important, do you think is the health of the marine environment (coral reef, fish, water quality, beaches) to your livelihood?

Extremely important _____ Reasonably important _____

Not important _____ Don't Know _____

73. Do you think that fishermen contribute to marine environment (coral reef, fish, water quality, beaches) destruction in any way?

Yes _____ No _____

Explain

H. DIVERS/SNORKELLERS

74. Rate the current condition of the following dive/snorkel sites, the state of coral and water quality and the abundance and diversity of marine life.

Site	State of coral 1.Excellent 2.Good 3.Average 4.Poor 5 Can't say	Water quality 1.Excellent 2.Good 3.Average 4.Poor 5 Can't say	Abundance of marine life 1.High 2.Average 3.Low 4.Can't say	Diversity of marine life 1.High 2.Average 3.Low 4.Can't say	Avg. no. of dives per: (allow respondent to select week or month)		Ave. no. of divers per: (allow respondent to select week or month)	
					week	month	week	month
Coral Gardens								
Jalousie								
Piton Wall								

					Avg. no. of dives per: <i>(allow respondent to select week or month)</i>	Ave. no. of divers per: <i>(allow respondent to select week or month)</i>
Superman's Flight						
Pinnacles						
Trou Diable						
Grand Caille						
Fairyland						
Anse Chastanet Reef						
Turtle Reef						
Anse Cochon						
Wreck of Lesleen M.						
Wreck of Daini Koyomaru						
Other <i>(Please specify)</i>						
Other <i>(Please specify)</i>						

75. How much do you spend per week/month (*whichever respondent is more comfortable supplying*) on the following items?

Gas _____ (w) (m) Boat maintenance _____ (w) (m) Storage rental _____ (w) (m)
 Crew _____ (w) (m) Equipment repair/replacement _____ (w) (m)
 Material _____ (w) (m) Other _____ (w) (m)

76. Are there problems with dive/snorkel access or prohibition/restriction from such in the SMMA?

Yes _____ No _____

Explain

77. How important, do you think is the health of the marine environment (beaches, coral reef, fish, water quality) to your livelihood?

Extremely important _____ Reasonably important _____

Not important _____ Don't Know _____

78. Do you think that divers/snorkellers contribute to marine environment (beaches, coral reef, fish, water quality) degradation in any way?

Yes _____ No _____

Explain

I. YATCHSMEN, WATER TAXIS, OTHER BOATMEN

79. How often during a given week do you patronize (visit) local restaurants and other businesses in Soufriere or carry passengers to these places? *Please tick one. [Peak: December – April] Off-Peak*

[May – November]

Peak Twice weekly _____ Three times weekly _____ Every day _____

Other _____ *(Please indicate)*

Off-peak Twice weekly _____ Three times weekly _____ Every day _____ Other _____ *(Please indicate)*

Repeat Yachtsmen only

When you visit the SMMA, how often do you and your guests patronize (visit) local restaurants and other businesses in Soufriere?

Always ____ Often ____ Occasionally ____ Rarely ____ Never ____

81. Are there problems with mooring/anchorage access in the SMMA?

Yes _____ No _____

Explain

82. How important, do you think is the health of the marine environment (coral reef, fish, water quality, beaches) to your livelihood/yachting?

Extremely important _____ Reasonably important _____

Not important _____ Don't Know _____

83. Do you think that boatmen (yachters, water taxis, etc) contribute to marine environment (coral reef, fish, water quality, beaches) degradation in any way?

Yes _____ No _____

Explain

J. HOTELS, RESTAURANTS & SMALL BUSINESS OWNERS

84. What year was your business established? _____

85. On average, how many of your customers (divers, snorkellers, tour visitors) visit/use the SMMA per week?

Peak: Divers and snorkellers _____ Tour visitors _____

Other _____

Off-peak: Divers and snorkellers _____ Tour visitors _____

Other _____

85. Are there problems with visitor access to your business directly related to the SMMA?

Yes _____ No _____

Explain

86. How important, do you think is the health of the marine environment (coral reef, fish, water quality, beaches) to your business?

Extremely important _____ Reasonably important _____

Not important _____ Don't Know _____

87. Do you think that your business contributes to marine environment (coral reef, fish, water quality, beaches) degradation in any way?

Yes _____ No _____

Explain

88. Do you see your business as being profitable to you?

Yes _____ No _____

89. Do you intend on expanding your business within the next five to ten years?

Yes _____ No _____ Why?

K. ANY ADDITIONAL COMMENTS

4.3 Carriacou, Sandy Island/Oyster Bed Marine Protected Area: Socio-economic monitoring (SocMon) survey of nearby communities

4.3.1 Questionnaire

The first four questions are to be filled out by the Research Assistant before conducting interview

Date of survey: dd-mm-yy..... _____

Start time: _____

Interviewer ID: _____

Community: _____

Research Assistant Introduction

The Carriacou Environmental Committee, along with Caribbean Regional Environmental Programme, are conducting a baseline SocMon study to assess and monitor the main activities within the Sandy Island / Oyster Bed area, to include, Fishing, Diving and Recreation. The information collected will assist in identifying the relationship or impact of the Marine Park Area [MPA] implementation on the livelihood of stakeholders and activities, within the study area. In addition, the SocMon will provide information on how to apply the best management strategy for the MPA, its stakeholders, marine resources and appropriate awareness programs. Simply answer as well as you can. It is important for you to know your answers will be kept confidential. The questions will take no more than 20 minutes of your time.

Record the gender without asking it

1) Male Female

2) How old are you (*read out categories*)

15-20 21-26 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65 66-over

(guess the respondent's age if he/she is unwilling to give it)

3) Where do you live?

Harvey Vale

Hillsborough

L'Esterre

Paradise Beach

Belmont/Bellevue

Bogles

Windward

Mt. Pleasant

Others _____

4) What religion are you? *(Read out categories)*

Catholic

Anglican

Pentecost

Seven Days

Evangelist

Other _____

5) No. of Dependants [choose age range]:

? 0-5

? 6-10

? 11-20

? 21-30

? 31-40

? 41-60

? Over 60

6) What was your highest level of education?

None Primary Secondary College University-Bachelors

Post-graduate studies- Masters, Doctorate

7) What is your occupation? _____

8) Are you employed Full Time Part Time Sporadically

Other _____

9) How much do you earn monthly? *(read out categories)*

? 0-500

? 500-1000

? 1000 - 1500

? 1500 - 2000

? 2000 - 3000

? over 3000

10) Have you ever heard about the Sandy Island /Oyster Bed Project?

Yes No _____

What have you heard? _____

11) Thank you. In your own words, please describe the current state of Sandy Island/Oyster Bed Area:

12) Would you say you visit Sandy Island/Oyster Bed Area: Regularly, Often, Seldom, Never. If “never” skip next question and continue with question #18 substituting “you” with “others”

13) Have you visited Sandy Island in the last two years? Yes No

14) Has the general state of Sandy Island/Oyster Bed Area gotten better, worse or stayed the same in the past two years?

Better Worse Stayed Same

15) If “better” or “worse” please explain _____

16) When you visit Sandy Island/Oyster Bed Area is it for: Recreation, Work, Other

If “other,” please describe: _____

17) What kind of recreational activities do you or others engage in- on or near Sandy Island/Oyster Bed Area?

Walk bathe picnic fish dive bird watch cook Other

18) What kind of occupational (work related) activities do you or others engage in- on or near Sandy Island? _____

19) In your opinion, how much harm are these activities causing Sandy Island/Oyster Bed Area?

Much Some Little None Unsure

20) Please tell me about any type of damage you see occurring on Sandy Island/Oyster Bed Area:

Sand mining, plant destruction, littering, dumping, fires, beach erosion/destruction, animal habitat destruction, reef destruction,

Other _____

21) Which problems are most severe? Please list the problems in order of most severe to least severe.

22) The creation of rules and regulations regarding the use of the area around Sandy Island/Oyster Bed Area would help the problem...

Much Some Little None Unsure

23) What is a Marine Protected Area?

If respondent does not know,

24) Does the term "Marine Protect Area" seem positive or negative to you?

25) What types of plants are found on Sandy Island?

Palm, coconut trees, vines, shrubs, others

26) What type of animals can be found on or near Sandy Island/Oyster Bed Area?

27) What type of animals/Fish can be found in the reefs and sea surrounding Sandy Island?

28) How would you rank the fish catch from the Sandy Island/Oyster Bed Area?

Getting scarcer getting smaller getting bigger Other

29) Increased human presence on or near Sandy Island/Oyster Bed Area affects these plants and animals...

Much Some Little None Unsure

30) Do you know where the Oyster Bed is in Carriacou?

Yes No Unsure

31) How important is it to keep Sandy Island/Oyster Bed Area as a healthy, thriving place for plants and animals?

Very Some Little None Unsure

32) To what extent would you agree with the statement “I would support a Sandy Island /Oyster Bed Area marine area conservation effort”?

Strongly Agree Agree Neutral Disagree Strongly Disagree

33) Why? _____

Thank you. You're doing very well. We have just a few more questions and then we are done.

34) To what extent do you agree with this statement: “Sandy Island and its surrounding marine environment are important to me”?

Strongly Agree Agree Neutral Disagree Strongly Disagree

35) Why did you respond this way? _____

36) To what extent do you agree with the statement “I think that Sandy Island and its surrounding marine environment are in danger”

Strongly Agree Agree Neutral Disagree Strongly Disagree

37) Why did you respond this way?

38) In your opinion do you think protecting Sandy Island / Oyster Bed Area will save the Plants, Fishes, Corals and Islands?

Please explain your answer:

Thank you. The last few questions are on people's 'willingness to pay' to visit Sandy Island/Oyster Bed Area:

39) In your opinion who do you think should pay for the protection of Sandy Island/Oyster Bed Area: Check all that apply.

Carriacouians Petite Martiniqueians Grenadians from the Mainland

Native Visitors [Carriacouians from aboard] Foreign Tourists

Government Other

How much should these sets of visitors pay?

If indicated above, Carriacouians and Petite Martiniqueians: 1 EC, 2 EC, 5 EC, 10, EC, other

Visitors [Carriacouians from aboard]

1 EC, 2 EC, 5 EC, 10, EC

Grenadian from the Mainland:

1 EC, 2 EC, 5 EC, 10, EC

Foreign Tourists.

1 US, 2 US, 5 US, 10 US

Lastly. Do you have any other comments?

4.4 Socio-economic monitoring in Cades Bay Marine Reserve, Antigua and Barbuda

The primary purpose of this socioeconomic assessment is to provide an avenue to demonstrate some of the principles that were the basis of a training course on Social and Economic Monitoring (SocMon) in Marine Protected Areas (MPAs) held in St. Lucia, 9-13 May 2005. The Cades Bay Marine Reserve (CBMR), one of the four established marine reserves of Antigua and Barbuda, is the main study site from which baseline data on the social and economic conditions will be studied. The project is jointly funded by UNEP-CAR/RCU and NOAA. The project has three (3) focal areas on which specific objectives are based. These are management, monitoring and communication. Most of the primary data were collected through interviews carried out in the three (3) communities, Old Road, Urlings and Johnsons Point, using a household questionnaire. Emphasis was placed on key stakeholders such as fishermen and their activities since the three main communities were traditionally fishing villages. It is evident that fishing is still a major economic activity but all three communities depend on tourism based activities as sources of income (James 2007).

4.4.1 Cades Bay Marine Reserve (CBMR) questionnaire

Questionnaire Number: _____ Location :(Village) _____

1) What work do you do? _____ Sex: ? Male ? Female

Compliance and Enforcement

2) On a scale of 1 to 5 (1=No Compliance, 5=Full Compliance) to what extent do people comply with coastal management rules and regulations? (Fisheries Regulations, DCA rules, etc.)

3) On a scale of 1 to 5 (1=No Enforcement, 5=Full Enforcement) to what extent are the rules and regulations enforced? _____ (DCA, Fisheries, Government enforcing laws)

4) On a scale of 1 to 5 (1=No Participation, 5=Full Participation) to what extent do you participate in or is involved in making decisions on how the coast including CBMR is managed? _____

Livelihood

5) Has your means of income changed since the establishment of CBMR? (1999)

? Yes ? No

How?

Marine Resource Uses and Activities

6) How would you describe current coastal resource conditions on a scale from Very Good (5), Good (4), Not Good Not Bad (3), Bad (2), to Very Bad (1)

Amount of Fish seen or caught _____ The Quality of Water _____ Condition of

Beaches _____ Condition of Coral reefs _____

7) Has the CBMR enhanced the uses of marine resource and increased the number of activities within the community? ? Yes ? No

How? _____

Governance

8) Were your views represented in how CBMR would be managed when it was established?

? Yes ? No

Are your views better represented now? ? Yes ? No

Fish Technology and Practices (only fishers)

9) What changes have been made in fishing technology and practices since the establishment of the CBMR? (Changes in boats, fishing gear, how you fish, etc.)

10) What changes in the quality and quantity of marine resources have you noticed over the past 5years?

Amount of Fish/Lobster/Conch: ? Positive ? Negative ? No change ? Don't know

The Quality of Water: ? Positive ? Negative ? No change ? Don't know

Condition of Beaches: ? Positive ? Negative ? No change ? Don't know

Condition of Coral reef: ? Positive ? Negative ? No change ? Don't know

General (All)

11) What problem do you think will occur with the establishment of CBMR?

12) What are some of the things you would like to see happening in the CBMR area?

5 INFORMATION FOR THE NEGRIL MARINE PARK'S FISHERIES MANAGEMENT PLAN

Years of overfishing and habitat destruction have led to a decline in fisheries throughout the Negril Marine Park (NMP). Still today, the communities around the NMP are dependent on fisheries resources for food and income. Currently, there is no active fisheries management for the park and the benefits the fisheries provide will continue to decline if no management plan is implemented. The Negril Coral Reef Preservation Society is looking to improve the fish stocks through the development of a Fisheries Management Plan (FMP) within the framework of the Park's general management plan and governing policy.

The main objectives of this research were to determine the kind of information needed for the FMP; how the information should be generated and the implications of information use for management. A socio-economic monitoring survey, 1998 Jamaica fisheries census, fisheries management plan consultation meetings and interviews with charter boat fishers and restaurant owners provided adequate means for demonstrating the generation of information relevant to the FMP (Blackman 2005).

5.1 Individual and household survey for Negril Marine Park by the Negril Coral Reef Preservation Society (NCRPS)

This survey is being done by the non-governmental organization that manages the Negril Marine Park so as to improve how the area is managed. Any information you give cannot be traced back to you. You will not be personally identified in any reports. So that you know what is going on, you will be invited to a meeting where the information from the whole survey will be presented. After a few years you may be asked questions again to see if things have changed.

Date _____ Settlement _____
yyyy – mm – dd

Record questionnaire number, settlement, respondent identity and address on separate sheet Write DK = do not know and NR = no response as appropriate by the question where necessary

This survey asks the head of the household about his or her opinions, and about other people in the household. I would like to speak to the head of the household or the person closest to head.

1. What is your relationship to the head of the household?
 head of household
 wife / husband of head
 common law partner of head
 child of head / head's spouse / head's partner

- parent of head / head's spouse / head's partner
- brother / sister of head / head's spouse / head's partner
- other relative of head / head's spouse / head's partner
- other (explain) _____

The Negril Marine Park stretches along the coast from the mouth of the New Savannah River, by Broughton, in the south to Davis Cove in the north ... and out to sea for two miles from the coast. This is what it looks like on a map ... and this is where we are now. Discuss if necessary.
 [SHOW MAP, KEEP NEARBY TO REFER TO, TELL PERSON THEY CAN KEEP IT AFTERWARDS]

2. Have you heard about the Negril Marine Park before now?
 yes ... In about what year did you first hear of the NMP? _____
 no

The Negril Coral Reef Preservation Society, or NCRPS for short, is the non-governmental organization responsible for managing the Negril Marine Park along with the government.

3. Have you heard about the Negril Coral Reef Preservation Society, or NCRPS, before now?
 yes ... In about what year did you first hear of the NCRPS? _____
 no

In order to better manage the NMP the NCRPS needs to know how people use the area now. We would like to know how you and others in your household, that includes all of the people who live in this house, use the Negril Marine Park and its coastline for both work and pleasure.

4. What activities do you and others in your household do in the Negril Marine Park and along its coast for work or fun?
 5. Can you describe this activity in a bit more detail?
 6. Does this activity typically generate income, or not?
 7. Where along the area of the Negril Marine Park does the activity mostly take place?

Q4	Q5	Q6	Q7
Activity done in NMP e.g. fishing, tourism	Specifics of activity e.g. snapper, diving	Income from it Put Yes or No	Location of activity e.g. Orange Bay, whole area
a.			

Q4	Q5	Q6	Q7
Activity done in NMP e.g. fishing, tourism	Specifics of activity e.g. snapper, diving	Income from it Put Yes or No	Location of activity e.g. Orange Bay, whole area
b.			
c.			
d.			
e.			

8. What, in your own opinion, should be the main purpose of the Negril Marine Park?

9. Thinking back from when you first knew of it, has the Negril Marine Park been beneficial?

Yes

→ How?

No

→ Why?

10. The marine resources of the area include the beaches, seagrass and mangroves, reefs and fisheries. How would you generally describe the condition of each of these marine resources based on the locations in the NMP that you are familiar with (tick choice, write DK or NR).

- a. ten years ago (1995)
- b. five years ago (2000)
- c. today (2005)?

	10 (a) Beaches	Ten years ago — 1995	Five years ago — 2000	Today — 2005
5	very good			
4	good			
3	neither good nor bad			
2	bad			
1	very bad			

	10 (b) Seagrass beds and mangroves	Ten years ago — 1995	Five years ago — 2000	Today — 2005
5	very good			
4	good			
3	neither good nor bad			
2	bad			
1	very bad			

	10 (c) Coral reefs and shallow reef fisheries	Ten years ago — 1995	Five years ago — 2000	Today — 2005
5	very good			
4	good			
3	neither good nor bad			
2	bad			
1	very bad			

	10 (d) Offshore, deep water, fisheries	Ten years ago — 1995	Five years ago — 2000	Today — 2005
5	very good			
4	good			
3	neither good nor bad			
2	bad			
1	very bad			

11. Thinking about these marine resources of the park (beaches, seagrass, mangroves, reefs, fisheries), what are the three main problems that you have observed with these resources?

12. What are the three main solutions that you recommend to solve the three problems?

Q11 Nature of problem	Q12 Recommended solution
1	
2	
3	

13. What, if anything, have you seen done that has really improved the NMP in any big way?

14. Whose responsibility is it to solve problems within the Marine Park ? (tick all that apply)

- Government agencies e.g. NEPA, Fisheries Division
- Negril Coral Reef Preservation Society (NCRPS)
- Negril Area Environmental Protection Trust (NEPT)
- Negril-Green Island Area Local Planning Authority (NGIALPA)
- Parish Development Councils (Hanover and Westmoreland)
- Fishermen, watersports operators etc. who work inside the NMP
- Businesses like hotels, tour operators, around the marine park
- Other people who live or farm in the area around the marine park
- Other (not listed) Identify _____

15. Which of the above would you say should have the most responsibility for taking decisions about managing the marine park? (tick only one)

- Government agencies e.g. NEPA, Fisheries Division
- Negril Coral Reef Preservation Society (NCRPS)
- Negril Area Environmental Protection Trust (NEPT)
- Negril-Green Island Area Local Planning Authority (NGIALPA)
- Parish Development Councils (Hanover and Westmoreland)

- Fishermen, watersports operators etc. who work inside the NMP
- Businesses like hotels, tour operators, around the marine park
- Other people who live or farm in the area around the marine park
- Other (not listed) Identify_____

16. How much influence do you think that you can have on how the NMP is managed?

- Very much influence
- Much influence
- Some influence
- Little influence
- No influence at all

17. Have you ever participated in any meeting, workshop or other event organized by NCRPS or any other agency to get your input into matters related to the Negril Marine Park?

- Yes
→ Describe?

- No
→ Reason?

18. What would cause you to contribute to decisions concerning how the NMP is managed?

19. If there was no Negril Marine Park tomorrow, just the regular sea coast without a park, would it make a difference to you?

- Yes
→ How?

- No
→ Why?

20. Various types of fishing and tourism are two of the main uses of the Negril Marine Park. Do you think that fishing and tourism can thrive well together in the NMP to provide livelihoods?

- Yes
→ How?

- No
→ Why?

21. What do you think about the amounts of fishing and tourism that you see in the whole NMP?

	Q21	Amount of fishing	Amount of tourism
1	Way too much		
2	Too much		
3	Just right		
4	Too little		
5	Way too little		

22. Do you think that fishermen of various ages, types of fishing etc. can work together among themselves to solve fishery problems in the marine park?

Yes

→ How?

No

→ Why?

23. About how many times a week do you normally have a meal that includes seafood (fish, lobster, conch)? Times per week _____

24. Of the seafood that you eat over the course of a month, in what order would you rank where that seafood came from according to the amount of it that you have eaten? (insert 1, 2, 3)

From within the Negril Marine Park

From Jamaica, but outside of the Negril Marine Park

From outside of Jamaica, imported seafood

25. Based on these three sources of the seafood that you eat, where do you mostly buy each?

Source of seafood consumed	Where seafood is mostly purchased
From within the Negril Marine Park	
From Jamaica, but outside of the NMP	
From outside of Jamaica, imported seafood	

In order to relate your information to the 2001 national census and other studies that describe the Negril area we need to get some basic information on the household in which you live.

26. Sex of respondent (observed)

Male

Female

27. What is your date of birth? _____
yyyy – mm – dd

28. How old were you on your last birthday? _____ years old

1st.

2nd

3rd

36. What else, if anything, brings income into the household, including from overseas sources?

37. Are there additional sources of household income that you would rather not describe?

Yes

No

38. What other income-generating activities do members of the household want to get involved in, but have not yet got involved in the particular type of work?

39. For each alternative income-generating activity, what is the main reason why it has not been done yet by household members?

Q38 Alternative income-generating activity	Q39 Reason for not pursuing it yet

40. Are you or others in the household currently being trained for any specific new occupation?

Yes

→ What?

No

→ Why?

41. How long has the household been located in this settlement?

Years ago _____

Year date _____

42. If, over the past 5 years, members >16 have joined the household from somewhere else, or left the household to go and live somewhere else,

a. where have they come from?

b. where have they gone to?

Q42 a. Where members joined from	Q42 b. Where members left to go to

43. What organizations, of any kind, do people in this household belong to?

Self or relationship of household member to respondent	Kind of organization e.g. fishing cooperative, church group, sport team	Name of organization (if known)

44. Which is the best way to get information to you about the Negril Marine Park?

- | | |
|---|--|
| <input type="checkbox"/> Television | <input type="checkbox"/> Radio |
| <input type="checkbox"/> School | <input type="checkbox"/> Workplace |
| <input type="checkbox"/> Flyers/posters | <input type="checkbox"/> Newspapers |
| <input type="checkbox"/> Area liming spot | <input type="checkbox"/> Organization (Name) |

Other
(Please describe)

45. If you wanted to get information about the Negril Marine Park to the attention of the NCRPS management of the park, what would you do to ensure it is successfully communicated?

46. To compare your area to others around the Negril Marine Park we ask you about property

- | | | | |
|-------------------------------|-------------------------------|-----------------------------------|--------------------------------|
| a. Material(s) of outer walls | <input type="checkbox"/> wood | <input type="checkbox"/> concrete | <input type="checkbox"/> metal |
| b. Material(s) of roof | <input type="checkbox"/> wood | <input type="checkbox"/> metal | <input type="checkbox"/> tile |
| c. Material(s) of floors | <input type="checkbox"/> wood | <input type="checkbox"/> concrete | <input type="checkbox"/> tile |

- d. Does household own land house boat
 car TV refrigerator stove
 stereo
- e. Main source of lighting electricity kerosene other
- f. Main source of water piped into house piped into yard
 standpipe

47. The ability to make choices is often determined by household income. What do you think is the household's weekly, monthly or annual income from everyone's sources of income?

Weekly income	Monthly income	Annual income
<input type="checkbox"/> less than 1,000	<input type="checkbox"/> less than 3,500	<input type="checkbox"/> less than 40,000
<input type="checkbox"/> 1,000 – 1,499	<input type="checkbox"/> 3,500 – 5,999	<input type="checkbox"/> 40,000 – 79,999
<input type="checkbox"/> 1,500 – 5,999	<input type="checkbox"/> 6,000 – 24,999	<input type="checkbox"/> 80,000 – 299,999
<input type="checkbox"/> 6,000 – 9,999	<input type="checkbox"/> 25,000 – 39,999	<input type="checkbox"/> 300,000 – 499,999
<input type="checkbox"/> 10,000 – 19,999	<input type="checkbox"/> 40,000 – 79,999	<input type="checkbox"/> 500,000 – 999,999
<input type="checkbox"/> 20,000 – 29,999	<input type="checkbox"/> 80,000 – 129,999	<input type="checkbox"/> 1,000,000 – 1,499,999
<input type="checkbox"/> 30,000 – 59,999	<input type="checkbox"/> 130,000 and over	<input type="checkbox"/> 1.5 million – 2,999,999
<input type="checkbox"/> 60,000 and over		<input type="checkbox"/> 3 million and over

48. Is there anything else that you would like to say about the NMP that I have not asked about?

49. Is there anything you would like to know about the NMP? I will pass along your questions.

50. Would you attend the meeting where the results of the survey will be presented?
 Y N

On behalf of the NCRPS — Thanks very much indeed for your assistance. Please keep the map

6 SOCIO-ECONOMIC PROFILE OF FISHERIES IN THE GRENADINES ISLANDS

For proper and effective management of fisheries, there is a need to understand not only their biophysical environment but also their demographic and socio-economic environment and dynamics. From June to August 2006, students from the Centre for Resource Management and Environmental Studies (CERMES) embarked on a trans-boundary socio-economic and livelihood assessment of fisheries in the Grenadines. The study was divided into two stages and took place in the Vincentian islands of Bequia, Mustique, Canouan, Mayreau and Union Island and the Grenadian islands of Petit Martinique and Carriacou.

The goal of the first stage was to create a basic demographic profile of the fishers and to gather data on their gear and resource-use patterns. This was done through extensive interviews at all of the major fishing villages in the Grenadines. During this stage 267 fishers were interviewed. The second phase of this project aimed to create a more detailed socio-economic profile of the fisheries. This stage involved acquiring more detail on temporal and spatial features of fishing practices, information on the market orientation of the fishers, revenue, expenditures and material style of life (Gill et al. 2007).

6.1 Rapid assessment survey

Rapid Assessment/Inventory Survey			
Location: _____			
Respondent #: _____		Date: _____	
<i>Respondent Information & Fishing Practices</i>			
1. a) Respondent name: _____	b) M	F	
2. a) Age: _____	b) Address: _____		
3. a) Is fishing your primary occupation?	Y	N	
b) Do you get most of your income from fishing?	Y	N	
c) What percentage of your income is from fishing? _____%			
4. How long have you been fishing (years)? _____			
<i>Boat Information</i>			
5. Name of Boat: _____		Registration Number: _____	
6. a) Name of Owner: _____	b) M	F	
7. Average number of crew working on boat: _____			
8. Name and sex of other crew:			

9. What gear is used on the boat?

10. Length of Boat: _____

11. Type of Boat (wood, fibreglass, pirogue, cigarette, flatstern, other):
_____.

12. # of engines: ____ Brand: _____ Horsepower _____
Brand: _____ Horsepower _____

13. Where do you operate from? _____

14. What kind of fishing do you do? What islands do you mostly fish around?

15. a) Do you know of any places where fish gather to breed? Y N
b) What kind of fish? _____
c) Location/s _____

16. Will you be willing to take part in a more in depth interview? Y N

Contact Info: _____

6.2 In-depth survey

**Detailed interview for collecting socio-economic data
on Grenadine fisheries**

The purpose of this study is to gather detailed socio-economic information on fishing in the Grenadines. This looks at how you fish, sell your fish, fishing expenses and other aspects of your livelihood. Information on individuals will not be shared or reported.

1. Respondent #: _____ Location _____ Date _____

Resource Use Patterns: This looks at the different types of fishing that you do and where and when you fish.

2. Are you a: boat owner ? captain ? crew member ? solo fisher ?

3. How many fishing trips do you make per week?

J	F	M	A	M	J	J	A	S	O	N	D

4. This table looks at how you would normally fish.

Species Group	Average hours fished per trip	Average lbs caught per trip	Where species are caught (island)	Gear Used	What months
1.					
2.					
3.					
4.					
5.					
6.					

Goods and Services: This section will look at how you are able to sell fish and on average what you get for your fish. It also looks at some of the expenses of your fishing trips.

5. How and where do you sell your fish? How much do you get for the fish?

Location	Species Group	Price Received per lb	Quantity of catch sold		
			Most	About Half	Few
1	1				
	2				
	3				
	4				
2	1				
	2				
	3				

	4				
3	1				
	2				
	3				
	4				
4	1				
	2				
	3				
	4				

6. Reasons for selling to different merchants:

Location	Reliable buyers	Price	Convenience	Other reason(s)
1				
2				
3				
4				

7. How many boats do you own? _____

8. What fishing gear do you own?

_____ -

9. What was the initial cost of the :

boat \$ _____ engine \$ _____ gear \$ _____

10. What are the average costs of the following (per trip):

Item	Amount	Cost
Fuel and oil		
Gear		

Item	Amount	Cost
Bait		
Food		

11. How often do you service engine? _____ Bottom Paint? _____

12. Cleaning of Boats: Where? _____ With? _____ How Often?

13. What are some of your other fishing costs? (e.g. insurance, repairs)

Repairs \$_____ per mth yr

Insurance \$_____ per mth yr

Gear \$_____ per mth yr

Other:_____ \$_____ per mth yr

Other:_____ \$_____ per mth yr

14. If you have a share system in place (for crew), how is the money distributed?

Demographic Information: This is some personal information that will help us to know more about the fishers.

What is your marital status?

Single ? Married ? Common law ? Divorced ? Other: _____

15. What was the last school you went to?

Primary ? Secondary ? Post Secondary ?

Professional/ Vocational/ Training ?

16. Ethnicity:

African/Negro/Black ? Carib ? East Indian ?

Mixed ? White/Caucasian ? Other: _____

17. What is your religion?

Anglican ? Pentecostal ? Seven- day Adventist ? Roman Catholic ? Jehovah
Witness ? Methodist ? Other: _____

18. What are your four main sources of income in the past year? (**Ranked and give
proportion**)

1. _____ %
2. _____ %
3. _____ %
4. _____ %

19. Are you the main provider for the household? Y N

20. This table looks at who lives in your house and their occupations:

Household Members (in relation to household head)	Age	Gender	Primary occupation	Secondary occupation

Material style of life: This section looks at some aspects of your quality of life..

21. Do you own land? Y N

22. Is your house you live in:

Your own ? rented ? family /friends ?

23. Type of roof:

galvanized ? shingle ?

24. Type of outside structural walls:

concrete ? wood ?

25. Type of Floor covering: Tile ? cement ? bare wood ? dirt ?
vinyl ? carpet ?

26. Does your household have:
electricity ? vehicle ? TV_? telephone ? stove ? washing machine ?
refrigerator ? VCR/DVD? computer ?

7 DETERMINATION OF THE SOCIO-ECONOMIC IMPORTANCE OF THE LOBSTER FISHERY OF THE BRITISH VIRGIN ISLANDS

The British Virgin Islands is heavily dependent on tourism and the Caribbean spiny lobster (*Panulirus argus*) is one of the delicacies which the visitors enjoy. The British Virgin Islands 1998 Fisheries Management Plan identified signs of overfishing in the lobster fishery throughout the territory with acute overfishing in certain areas. Measures were implemented in the 2003 Fisheries Management Regulations aimed at conserving this species. Among these measures, the closed season for lobster, from March through June, was the one expected by the stakeholders to cause hardship. This closed season was expected to have negative socio-economic impacts on fishers and restaurants. These stakeholders therefore asked for a socio-economic survey to be made. This survey was arranged by the Conservation and Fisheries Department of the Ministry of Labour and Natural Resources which has responsibility for the fishing industry.

The objectives of the survey were to determine the economics of the lobster fishery in respect of expenditure and revenue and describe its social importance to the stakeholders. It was also to update and expand a previous economic survey to specifically include lobster. The survey was also to establish or strengthen linkages among stakeholders for research on the lobster fishery through the use of participatory research methods and to recommend a system of socio-economic monitoring for the lobster fishery. The primary methods for conducting the survey were questionnaires, focus group meetings and key informant interviews (Franklin 2007).

7.1 Fishers' questionnaire

Section A

1. Respondent age_____.
2. Sex of respondent (*observed*) Male_____, Female_____.
3. In which area do you live? _____.
4. Are you a believer? Y___, N___, N/R___
5. If not, what is your citizenship?_____.
6. How long have you been fishing?_____.
7. How long have you been fishing lobster?_____.
8. What is your mooring site _____.

9. What landing sites do you normally use?

10. Boat

a) type _____ length _____ feet

b) engine type: Outboard, Inboard, O/I _____ HP _____

11. What is the current value of the boat and engine? _____, N/R _____.

12. Are you the

Boat owner Y __, N __ Captain? Y __, N __ Crew? Y __, N __, N/R _____.

13. a) Do you normally fish on other boats Y _____, N _____

If yes.

b) How many other boats do you fish on _____

For boat owner/captain. –

14. How many Crew members do you have:

Full time. _____, Part time. _____.

Are any of them related to you?

1. Full time _____, Part time _____, Relationship _____,

2. Full time _____, Part time _____, Relationship _____,

3. Full time _____, Part time _____, Relationship _____,

4. Full time _____, Part time _____, Relationship _____,

15. a) Is there a sharing system for the catch or money? Y __, N __ D/K _____

b) How is the catch or money shared?

Owner _____%, Captain _____%, Crew, _____%, Boat _____%,

Engine _____%, Gear _____%, Other _____%, D/K _____

16. How much of your income do you make from fishing?

_____ % OR 3/4 _____ 1/2 _____, 1/4 _____.

17. With the exception of fishing, what are your other sources of personal income in order of importance/value?

1 being most important

Farming _____,

Business _____,

Office work _____,

Construction _____,

Investment _____,

Other _____

Household Income

18. Are you the main provider for the household? Y ____, N ____, NR ____

19. Who are the members of your household?

	<i>H1</i>	<i>H2</i>	<i>H3</i>	<i>H4</i>	<i>H5</i>	<i>H6</i>
	Household Members (by <u>role</u>)	Age	Gender	Education level completed if over 16 in age	Primary occupation	Secondary occupation
1						
2						
3						
4						
5						
6						
7						
8						

Wife, Son, etc

Fishing season.

20. What species do you set out to catch?

Lobster ____, Fish ____, Both ____, Any other (name) _____,

21. How do you fish in terms of species and gear throughout the year?

Target species	J	F	M	A	M	J	J	A	S	O	N	D
1.												
Fishing gear(s)						Area(s)						
2.												
Fishing gear(s)						Area(s)						
3.												
Fishing gear(s)						Area(s)						
4.												
Fishing gear(s)						Area(s)						

(use the map, write the grid numbers in the table)

22. Is there a specific time in the year when lobsters are berried / have eggs

Y___, N___, D/K___.

When is that _____

23. Is there a specific time in the year when lobsters have tar spots

Y___, N___, D/K___.

When _____

24. Is there a specific time in the year when lobsters moult Y___, N___, D/K___

(shell light in colour and soft)

When _____

25. Is there a specific time in the year when there are more **male than female** or more **female than male** lobsters Y___, N___, D/K___.

More **Male**.

J	F	M	A	M	J	J	A	S	O	N	D

More Female

J	F	M	A	M	J	J	A	S	O	N	D

(females have an extra claw on last leg- closest to tail - and may have eggs or tar spot,)

Section B

26. Do you own fishing gear?

27. How much gear do you use or own

- Fish pots:** Number____, Value____. Lifespan____, _____
- Lobster pots:** Number____, Value____. Lifespan____, _____
- Hook and line** Number____, Value____. Lifespan____, _____
- Trolling rods** Number____, Value____. Lifespan____, _____
- Vertical long lines** Number____. Value____. Lifespan____, _____
- Horizontal long lines** Number____. Value____. Lifespan____, _____
- Gill net** Number____. Value____. Lifespan____, _____
- Beach seine** Number____. Value____. Lifespan____, _____
- Other** _____, Number____. Value____. Lifespan____, _____

28. Do you dive while fishing? Y___, N___, N/R

29. Do you use SCUBA while fishing? Y___, N___, N/R

During an average week this season:

30. Number of trips made _____,

31. Number of crew _____,

32. Average total length of trip (time spent out from shore) _____ hours,

33. Average time spent using gear _____ hours,

(using fishing gear: hauling pots or setting and hauling nets or lines, or time spent diving)

34. **Fishing effort :**

Number of traps hauled _____.

Number of dives _____

35. **Average total catch per trip** _____ (lbs)

Fish Species _____ Weight _____ Price per pound \$ _____

Species _____ Weight _____ Price per pound \$ _____

Species _____ Weight _____ Price per pound \$ _____

Lobster Weight _____ Price per pound \$ _____

Other (Conch, Whelk, any other?)

Species _____ Weight _____ Price per pound _____

Species _____ Weight _____ Price per pound _____

36. In general, what percentage/proportion of the catch is sold

Fish _____% Lobster _____% Other _____%

37. Who do you sell the catch to

	Fish	Lobster	Other
BVI Fishing Complex			
General public			
Hotel / Restaurant			
Fish Buyer			
Other			

38. What is your reason for choosing this market outlet

Price____.Nearness____.Have always done it this way____Other_____.

39. Average total value per trip \$ _____

40. Average operating cost per trip (*quantities can be substituted*)

Gas \$ _____,

Oil \$ _____,

Engine oil \$ _____,

Ice \$ _____,
 Bait \$ _____,
 Food \$ _____,
 Other (name) _____, \$ _____,

41. On average, how many traps do you lose in a year outside of hurricane damage?
 _____.

Investment in electronic equipment

42. If you own or use any of the following, what is its age and value

Equipment	Age	Cost
Fish finder		
GPS		
Depth Sounder		
Other navigation equipment		
VHF Radio		

Licences

Do you have the following licences?

Fishing Licence Y___, N___, N/R
 Coastal Craft Licence Y___, N___, N/R

Safety equipment

43. If you have the following safety gear on board, what is the age and value?

Equipment	Number	Age	Value
Life jackets			
Life rings			
Flares			
Fire extinguisher			
Sound signalling device			
Anchor			
Bilge pump			
Other safety equipment			

Maintenance

44. How often does the boat need repairs? _____

45. What is the estimated cost of repair or maintenance each year \$ _____

46. Is the boat or gear insured? Y___, N___, N/R
47. What is the annual cost of insurance for the boat? \$_____
48. What is the annual cost of insurance for the gear? \$_____
49. Do you have a loan on the boat.or gear? Y___, N___, N/R
50. What is the amount of the loan?

7.2 Attitudes and perceptions regarding resources and management

Attitudes and Perceptions Regarding Resources and Management

1. Are you aware of the rules and regulations related to lobster fishing
Y___, N___, N/R___.
2. On a scale of 1 to 5 (1=no compliance, 5=full compliance), to what extent do people
comply with fisheries rules and regulations for lobster?
_____ DK___, NR___
3. On a scale of 1 to 5 (1=no enforcement, 5=full enforcement), to what extent are the
rules and regulations for lobster enforced? _____
4. Have you noticed a change in abundance of fish or lobster
 - a). between 2000 and 2005 Y___, N___. Increase____, Decrease____
 - b). between 1995 and 2000 Y___, N___. Increase____, Decrease____
5. Have you noticed a change in the number of fishers
 - a). between 2000 and 2005 Y___, N___. Increase____, Decrease____
 - b). between 1995 and 2000 Y___, N___. Increase____, Decrease____
6. Has the demand for lobster changed in the last 5 years? (quantity required)
No change _____, Increasing _____, Decreasing_____.
7. Has the price paid for lobster changed in the last 5 years?
No change _____, Increasing _____, Decreasing_____
8. Do you agree or disagree with having a lobster closed- season.
Agree____, Disagree____, DK_____ NR

(closed season is March through June)

If they agree with a closed season,

9. In your opinion, in which months should lobsters not be harvested?

J	F	M	A	M	J	J	A	S	O	N	D

10. Do you agree or disagree with the minimum size restrictions.

Agree____, Disagree____, DK____ NR

(minimum length 3.5 inches; minimum tail weight of 12 ounces [Fisheries Regulations 21.3.b])

11. Do you agree or disagree with the restrictions on gear that can be used.

Agree____, Disagree____,DK____ NR _____.

(No person may spear, hook or otherwise impale a lobster. – [Fisheries Regulations 21.2.b])

No person may use spear-gun or SCUBA diving equipment for fishing. – [Fisheries Act 50.1] -)

12. Do you agree or disagree with the restrictions on taking lobsters with eggs.

Agree____, Disagree____, DK____ NR _____.

13. Do you agree or disagree with the restrictions on taking lobsters that are moulting.

Agree____, Disagree____, DK____ NR _____.

(No person shall harm... have in his possession, sell or purchase a lobster that is undersized, carrying eggs or moulting. [Fisheries Regulations 21.1])

14. Should the government, the fishermen or both make decisions on managing the fisheries

Government only____, Fishers only _____ Both,_____.

15. Have you been affected by the fisheries regulations on lobster (***for example closed season minimum size, fishing method, prohibition from taking berried lobster***)

Y _____, N_____. DK____ NR _____.

16. If not, do you think you will be affected by these regulations?

Y _____, N_____. NR _____.

(if yes to either of the 2 questions above)

17. In what way have you been affected or do you think you will be affected by these regulations?

18. Were you aware of any consultation meetings before the regulations were established? Yes_____, No_____ .

19. What do you think are the major threats to the lobster fishery?

1. _____,
2. _____,
3. _____,
4. _____,
5. _____,

20. Are you a member of a fisherfolk or similar organisation? Y___, N___ .

21. If so, which one? _____.

7.3 Restaurant questionnaire

RESTAURANT QUESTIONNAIRE

Date day _____ / month _____ / year _____

Restaurant name _____

Respondent's name _____

1. What year was the restaurant opened? _____.
2. How many people are employed?

	Male	Female	Or give total number
Full time			
Part time			
Seasonal			

3. Has the restaurant changed in size over the past 5 years?
Grown bigger, [____] Grown smaller, [____] Remained the same, [____]
4. Is there an "off season" when the restaurant is closed? Yes [____] No [____]
When is that? _____.
5. What are the peak months for business?

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

6. If available, what is the average number of guests per week during the "peak" months? _____
7. What is the average number of guests per week during the other "off-peak" months? _____

8. What amount of lobster do you buy monthly?

Jan _____	Jul _____
Feb _____	Aug _____
Mar _____	Sept _____
Apr _____	Oct _____
May _____	Nov _____
Jun _____	Dec _____

9. Where do you buy the lobster and in what proportions?

BVI fishermen _____
Supplier _____
Import _____
Other (name) _____

10. Does the cost of lobster you buy change during the year? Yes [___] No [___]

11. What is the purchase price of lobster per pound?

Jan \$ _____	Jul \$ _____
Feb \$ _____	Aug \$ _____
Mar \$ _____	Sept \$ _____
Apr \$ _____	Oct \$ _____
May \$ _____	Nov \$ _____
Jun \$ _____	Dec \$ _____

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