Report of the UNEP Regional Training Workshop on Socio-economic Monitoring for Caribbean Coastal Management (SocMon Caribbean) Soufriere, St. Lucia, 9 – 13 May 2005

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1 Opening session

1.1 Introduction of organizers and participants

Dr. Patrick McConney, the training course coordinator, introduced himself as a Lecturer at the Centre for Resource Management and Environmental Studies (CERMES) of the University of the West Indies Cave Hill Campus in Barbados. He also introduced Ms Rhonda Lee as a training and research assistant also from CERMES. Dr. McConney noted that, as a resource person supporting the methodology in the English-speaking Caribbean and as a person involved in leading outreach at CERMES, he was pleased to see the interest reflected in SocMon by the number of participants attending the workshop.

Ms Heidi Savelli Söderberg, Junior Professional Officer at the United Nations Environmental Programme (UNEP) Caribbean Environmental Programme (CEP) and Regional Coordinating Unit in Kingston, Jamaica, informally opened the workshop with a few words of welcome. She noted that financial assistance for the UNEP Regional Training Workshop on Socio-economic Monitoring for Caribbean Coastal Management (SocMon Caribbean) was received from the National Oceanic and Atmospheric Administration (NOAA) Coral Reef Conservation Grant Programme and the CEP. The workshop was being implemented under the capacity building framework of UNEP-CEP, UNEP-CAR/RCU, International Coral Reef Action Network (ICRAN) Project and the Caribbean Marine Protected Area Managers Network and Forum (CaMPAM). Marine protected area (MPA) managers, and governmental or non-governmental personnel mainly from the English-speaking Caribbean, whose work is related to MPA management were selected to receive training and implement follow up socio-economic monitoring at home, at sites connected with their work.

Mr. Kai Wulf, manager of the Soufriere Marine Management Area (SMMA) that generously served as local host for the workshop, also welcomed participants to the SMMA and the conference room of the Soufriere Foundation where many sessions would be held. He wished participants a comfortable stay at their accommodation at the Still Plantation and Beach Resort on the luxuriant grounds of the plantation.

The participants from Anguilla, Antigua and Barbuda, Grenada, Jamaica, Mexico, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago briefly introduced themselves (Appendix 1). They appreciated being hosted and joined by the staff of one of the best known MPAs in the region. They also welcomed having colleagues from St. Lucia's Department of Fisheries at the workshop.

1.2 Workshop objectives and arrangements

Dr. McConney reviewed the items in the participants' folders and the workshop programme (Appendix 2). In addition to the workshop training materials, participants received several other documents and CDs related to MPAs provided by UNEP, the Caribbean Natural Resources Institute (CANARI) and the UWI Coastal Management Research Network (COMARE Net) that is managed by CERMES.

The workshop programme was accepted, and participants indicated what personal equipment (digital cameras and laptop computers) they had brought as urged in the workshop preparatory notes. The workshop logistics were addressed, including ensuring that everyone had the opportunity to tour and learn about the SMMA. Participants were divided into two teams, one of which would use Soufriere as their study site while the other would travel to Canaries with the SMMA rangers to do research there.

Participants were reminded that the workshop's practical format emphasised their role in active, rather than passive, learning. What participants got out of the workshop would be proportional to the effort that they put into the assignments, and should prepare them for conducting their own fieldwork on return. The commitment from their organisations to engage in socio-economic monitoring as follow-up to the training would be supported by grants of US$2,000 per country represented at the workshop.

If participants completed their initial monitoring and reporting within the next few months, UNEP would consider sponsoring the presentation of results at the 58th annual meeting of the Gulf and Caribbean Fisheries Institute (GCFI) to be held in San Andres Island, Columbia, from 7-11 November 2005. This would depend on available funding and their abstracts being accepted for oral or poster presentation.

2 Overview of SocMon Caribbean and case studies

2.1 Overview presentation

Rhonda Lee and Patrick McConney presented an overview of the SocMon Caribbean methodology drawing upon the *Socioeconomic monitoring guidelines for coastal managers in the Caribbean* and the *Socioeconomic manual for coral reef management* (Appendix 3). Participants received electronic and paper copies of both publications.

UNEP's overall objective for the regional training workshop was to build capacity among managers, local government authorities, and local community leaders to establish socioeconomic monitoring programmes for MPAs. Hence the workshop had two specific purposes:

1. To introduce the concepts of socioeconomic monitoring based on SocMon Caribbean
2. To prepare participants to use SocMon Caribbean as an immediate follow-up

The slide presentation and discussion reflected the wide range of tools and methods that can be used in socio-economic monitoring and sharing the research results for use in decision-making. Of extreme importance are the techniques for visualising data and communicating information in simple fashion. One of the main messages of the presentation was that surveys and questionnaires alone do not constitute socio-economic monitoring, and that there are often superior alternatives especially when gathering information for the first time in baseline studies. In this respect, participants were warned to avoid contributing to 'shifting baselines'. They were strongly encouraged to conduct thorough historical analyses, including obtaining oral histories. In many cases large amounts of relatively inaccessible secondary data exists in the offices of government agencies, non-governmental organisations, university departments and private consultants. The value of validating findings with the communities studied, and of extracting the points of key learning, was reinforced.

2.2 Case studies

Three case studies were presented to illustrate the diverse application of SocMon in the Caribbean. In the case of the Negril Marine Park in Jamaica the study is a work in progress, in early stages of implementation. Participants appreciated the iterative relationship between defining the study area and stakeholders. It was the comprehensiveness of the La Parguera study in Puerto Rico that caught the attention of the workshop, and in particular the use of mapping as a tool in SocMon and coastal management. The Glovers Reef study from Belize highlighted the interactions of fishing with MPA management and the representation of fishers on multi-stakeholder bodies. The cases were made available for presentation by colleagues at the Negril Coral Reef Preservation Society (NCRPS), the University of Puerto Rico (UPR) and the Wildlife Conservation Society (WCS) respectively. The cases assisted the participants to see what the organisation and products of their own research could look like. Even before this they would have the opportunity to present cases from their training fieldwork.

3 Study site research training and presentations

In preparation for practical work at the two study sites the participants benefited from four additional presentations. One on Canaries was compiled by the course coordinator during a reconnaissance trip guided by a key informant recommended by the Department of Fisheries. Unlike the Soufriere Marine Management Area (SMMA), there were no prepared presentations on the Canaries/Anse la Raye Marine Management Area (CAMMA). Mr. Kai Wulf, Manager of the SMMA, presented a video and a slide presentation on that MPA, the rangers for which also maintain the CAMMA. Mr. Allan Smith of CANARI made a presentation on participatory mapping and geographic information systems (GIS)

that have been used to integrate bio-physical, socio-economic and political factors for better coastal management. Participants were keenly interested in the application of mapping and GIS techniques.

Two groups of nine participants were formed to study Soufriere and Canaries with guidance from Rhonda Lee and Patrick McConney respectively. After the study site presentations they decided on research goals and objectives before receiving background secondary data and working through the remainder of the preparatory activities set out in Appendix 4. A survey design guide is in Appendix 5.

In the morning the two groups met to share the information and experiences of the day before prior to breaking into the teams to plan the fieldwork for the afternoon on Tuesday and Wednesday. Both groups analysed their secondary data, sought information from key informants and conducted personal interviews using brief questionnaires. On Thursday afternoon the groups presented their findings for validation and constructive criticism from their peers and local stakeholders.

3.1 Soufriere study site

The Soufriere SocMon team, under the leadership of Mr. David Popo, selected a management oriented goal with the focus question: “How has the SMMA initiative affected livelihoods in Soufriere over the past 10yrs?” They concerned themselves with issues of compliance and enforcement, livelihoods, marine resource uses and activities, governance, fisheries technology and practices, and perceptions of change. They conducted several interviews with key informants and completed 18 household survey questionnaires of their own design. Digital photos were taken to illustrate points in their presentation. The results were displayed in tables, charts, a seasonal calendar and other media.

Although the study was designed to accommodate the very short period for field work, and to focus on the experience of conducting a SocMon assessment, participants thought that some useful findings were obtained. Foremost was the observation that tested sampling protocols are critical in household survey design given the heterogeneous nature of settlement in Soufriere. Some parts of the town are more ‘connected’ to coastal and marine activities, and the SMMA, than others. However, overall there was positive feedback on several indicators of SMMA success and livelihoods. Representation of some stakeholders on the SMMA’s board of management, and communication with stakeholder groups, were found to be areas of concern that SMMA management was already trying to address. In particular, stakeholders need to build their capacities in order to participate effectively in management.

3.2 Canaries study site

The Canaries SocMon team, lead by Mr. Seon Ferrari, chose a development oriented goal with the focus question: “What types of development, based on marine resource use and activity in the CAMMA, are appropriate for Canaries?” They investigated past, present and proposed contributions of marine resource use to income and revenue; the challenges and opportunities connected with this; alternative livelihood strategies; and the social and cultural characteristics of the village. Unlike the Soufriere, secondary data on the CAMMA and Canaries were relatively scarce and the assessment was seen as being baseline and exploratory. In addition to key informants, 20 household survey questionnaires of their own design were administered. In addition, some of the Canaries interviewing had to be done with fishers in patois (creole) so bilingual considerations of interpretation, communication etc. were addressed in the fieldwork. Results were presented as described above.

The team was surprised at how rapidly the data accumulated in what was originally a data-poor case. An early and fundamental finding was that, unlike the case of the widely-known SMMA, it was mainly the people who used marine resources for their livelihoods who knew about CAMMA. Most of the villagers appeared not to know about the CAMMA, and therefore it was often counterproductive to use it as a point of reference in the investigation. The assessment confirmed that fishing, minor tourism and remittances from abroad sustained Canaries. Unemployment was high since there were only a few small businesses in the village, but there was an abundance of young people and children. There is a strong sense of community in the densely populated village that makes much use of the nearby river, beach and sea, but sees these resources as having only limited development potential.

3.3 Key learning from training

Each day participants were invited to share their training experiences and to discuss their key learning from the workshop. Several of the main points shared are set out below.

- There is an iterative relationship between preparatory planning and field research
- Planning needs to be flexible so as to accommodate surprises encountered in the field
- The assignment of specific tasks to team members increases the level of participation
- It is easy to initially be overwhelmed in the planning by the number of tasks to be done
- Preparatory planning became more efficient with practice and better team organisation
- Respondents were generally cooperative and not intimidated by the interview process
- Interviewers need to know their interview guides or questionnaires well and plan their interviews
- It is important to use good background information for planning the sampling procedures
- You need to look out for conflicts between secondary and primary data, and explain them
- One may need to "screen out" respondents who are unable to properly answer any questions
- The daily team debriefings were useful for identifying gaps and providing new perspectives
- The fieldwork assists in gaining more confidence in the methods than possible in the classroom
- The workshop was an adaptive process leading to learning; few things followed a rigid "recipe"
- Researchers must appreciate the limitations of SocMon for livelihoods analysis, gender analysis or other specialised investigations for which specific conceptual frameworks and methods exist
- The use of the SocMon variables in the research may depend on the goal of the monitoring, and additional variables may be needed, but the study may then evolve into a "one-off" assessment
- Be guided by goals and objectives to keep on track, and avoid inundation by irrelevant information
- Intensive workshops reduce the amount of time available for reflection and "higher learning"
- The initial focus (by questions or goals) may exclude other interesting and relevant avenues that are discovered in the process of doing the research; these should be flagged for later attention
- The mix of methods introduced in the training may not be included in all monitoring programmes

4 Preparation of proposals for follow-up studies

The last day of the workshop saw the participants preparing draft project proposals for implementation at their work sites on return home. This was assisted by the two course coordinators. A template of tables (Appendix 6) provided a simplified and standard guide. To this template the participants added background papers, maps, brochures and other documentation that they had brought to the workshop for this purpose. The proposed locations for monitoring with draft proposal authors are shown below.

Authors	**Proposed location**
Ann Snook, Mercedes Sánchez	Xcalak National Park, Mexico
Ashram Sankar	Matura Bay, Trinidad and Tobago
Hardin Jn.Pierre, David T Popo	Point Sable Area, St. Lucia
Farah Mukhida, James Gumbs	Shoal Bay/Island Harbour Marine Park, Anguilla
Bernard Blue, Brian Zane	Montego Bay Marine Park, Jamaica
Mark Archibald, Philmore James	Cades Bay Marine Reserve, Antigua and Barbuda
Elijah Jn. Baptiste, Peter Butcher	Soufriere marine Management Area, St. Lucia
Norland Cox, Virginia Fleary-Noel	Sandy Island Oyster Bed, Carriacou, Grenada
Olando Harvey	Tobago Cayes Marine Park, St. Vincent and the Grenadines

Each draft proposal was presented by the authors to the other participants and course coordinators for peer review. The process of presentation and the feedback of constructive criticism was also part

of the learning experience, being similar to what may obtain as the authors seek approval for the study designs from their various agencies that are already committed to UNEP to undertake follow-up.

5 Workshop evaluation and close

All participants were asked to fill out a workshop evaluation form (Appendix 7). Seventeen out of eighteen did this and the responses were later analysed by the course coordinator. In summary, the overall assessment of the workshop varied between “okay” (4 participants) and “very good” (5 participants). Most (8 participants) rated it as “good”. Suggestions for improvement mainly concerned the logistics of catering and transportation, but more working room and time were also mentioned. A detailed evaluation report was provided to UNEP.

In closing, participants were reminded to submit revised draft proposals for SocMon Caribbean socio-economic monitoring in their country. They were also reminded that their results could be presented at the 2005 meeting of the Gulf and Caribbean Fisheries Institute (GCFI). Certificates of participation were presented to all participants. The course coordinator thanked participants for their lively enthusiasm to learn, and thanked the host (SMMA) for valuable support in workshop implementation.

6 Appendices

Appendix 1: List of participants

ANN SNOOK
Amigos del Manati, AC
Calle Guerrero #410, Entre Tabasco y Tlaxcala
Calderitas, Quintana Roo
Mexico, CP 77900
Tel: +52 (983) 834 – 2336
asnook06@msn.com

ASHRAM SANKAR
Wildlife Section, Forestry Division, Ministry of Public Utilities and the Environment
29 Farm Road, St. Joseph Trinidad, W.I.
Tel: 1-868-662-5114
Fax: 1-868-645-4288
wildlife@trinidad.net

BERNARD BLUE
National Environment and Planning Agency
10-11 Caledonia Avenue
Kingston 5, Jamaica
Tel: (876) 754 – 7540
Fax: (876) 754 – 7595
bblue@nepa.gov.jm
bluebonyb15@yahoo.com

BRIAN ZANE
Montego Bay Marine Park Trust
Pier 1 Complex, Howard Cooke Boulevard
Montego Bay, St. James
Jamaica
Tel: (976) 952-5619, (876) 494 – 7489
Fax: (876) 940-0659
director@mbmp.org

DAVID T. POPO
Organization of Eastern Caribbean States (OECS) Secretariat
P.O. Box 1383
The Morne
Castries, St. Lucia
Tel: (758) 453-6208
Fax: (758) 452-2194
dpopo@oecs.org

ELIJAH JNBAPTISTE
Soufriere Marine Management Area
P.O. Box 305
Soufriere
Saint Lucia
West Indies
Tel: (758) 459-5500
Fax: (758) 459-7799
smma@candw.lc
elioops@hotmail.com

FARAH MUKHIDA
Anguilla National Trust
P.O. Box 1234
The Valley
Anguilla
Tel: (264) 497-5297
Fax: (264) 497-5571
antpam@anguillanet.com

HARDIN Jn.PIERRE
Department of Fisheries
Point Seraphine, Castries
Saint Lucia
Tel: (758) 468-4144, 454 7439
hottyute@hotmail.com (personal)
deptfish@slumaffe.org (work)

HEIDI SAVELLI SODERBERG
Junior Professional Officer, SPAW
UNEP-CAR/RCU
14-20 Port Royal Street
Kingston, Jamaica
Tel: (876) 922-9267 to 9
Fax: (876) 922-9292
hss.uneprcuja@cwjamaica.com

JAMES GUMBS
Department of Fisheries and Marine Resources
P.O. Box 60
Crocus Hill
Anguilla B.W.I
Tel: (264) 497-2871
Fax: (264) 497-8567
james.gumbs@gov.ai

MARK ARCHIBALD
Fisheries Division
Ministry of Agriculture, Lands, Marine Resources & Agro-industries
Perry Bay
St. John's
Antigua W.I.
Tel./Fax: 1-268-462-1372
fisheries@antigua.gov.ag
aquatic@candw.ag

MERCEDES SÁNCHEZ SANDOVAL
CONANP – Banco Chinchorro Biosphere Reserve
Blvd. Kukulcán Km. 4.5
Zona Hotelera, Cancún, Quintana Roo

México 77500
Tel: (998) 849-4852
Fax: (998) 849-4852
chinchorro@conanp.gob.mx
flordeduna@hotmail.com

NORLAND COX
CREP/Carriacou Environmental Committee
2nd Avenue, Hillsborough
Carriacou,
Grenada West-Indies
Tel: (473) 443-8977
Fax: (473) 443-8977
carriacouenvironmentalcommittee@yahoo.com
cox26@chemist.com

OLANDO HARVEY
Sustainable Grenadines Project
Clifton Union Island
Southern Grenadines
St. Vincent and the Grenadines
Tel: 01-784-4858-779 / 01-784-458-769
susgrenpm@vincysurf.com
landokeri@yahoo.com

PATRICK McCONNEY
Centre for Resource Management and Environmental Studies
University of the West Indies, Cave Hill Campus,
Barbados
Tel: (246) 417-4725
Fax: (246) 424-4204
pmcconney@uwichill.edu.bb
nrmouthreach@caribsurf.com

PETER BUTCHER
Soufriere Marine Management Area
P.O. Box 305
Soufriere
Saint Lucia
West Indies
Tel: (758) 459-5500
Fax: (758) 459-7799
smma@candw.lc

PHILMORE JAMES
Fisheries Division
Ministry of Agriculture, Lands, Marine Resources and Agro-industries
Perry Bay
St. John's
Antigua
Tel/Fax: (268) 462-1372
fisheries@antigua.gov.ag (work)
firstabiola@gmail.com (personal)

RHONDA LEE
Centre for Resource Management and Environmental Studies
University of the West Indies, Cave Hill Campus
Barbados
Tel: (246) 417-4725
Fax: (246) 424-4204
rlee@uwichill.edu.bb
rmlee2002@yahoo.com

SEON FERRARI
Department of Fisheries
Ministry of Agriculture, Forestry and Fisheries
Pointe Seraphine Castries
St.Lucia
Tel: (758) 468-4141, 468-4135/4143
Fax: (758) 452-3853
deptfish@slumaffe.org
seondferrari@hotmail.com

THOMAS NELSON
Resource Management Unit
Department of Fisheries
Ministry of Agriculture
Pointe Seraphine, Castries
St. Lucia
Tel: (758) 468-4145, 468-4135
deptfish@slumaffe.org
tomfinch@hotmail.com

VIRGINIA FLEARY-NOEL
Carriacou Environmental Committee
2nd Avenue Hillsborough
Carriacou
Grenada
Tel: (473) 443-8977
Fax: (473) 443-6747
carriacouenvironmentalcommittee@yahoo.com
virgnoel2000@yahoo.com
virgnoel@hotmail.com

Appendix 2: Workshop programme

Sun 8 May

All day	Arrivals

Mon 9 May

0830	Introductions of organizers and participants, objectives, arrangements
0900	Overview of SocMon Caribbean (slide presentation, discussion, handouts)
1200	Lunch
1300	SocMon case study presentations and further discussion of methods
1530	Two teams form and receive study site secondary data for group work
1800	Monday movie night: Slide show and discussion of St. Lucia study sites

Tue 10 May

0830	Review study site objectives and secondary data in plenary
0900	Develop team work plans and assign responsibility for tasks
1000	Formulate semi-structured interview guides for key informants
1200	Lunch
1300	First field trip to study sites for each team to implement work plan
1330	Key informant interviews, observation data, photos, transects etc.
1700	Team meetings on return to analyze data, do homework (gap analysis, etc.)

Wed 11 May

0830	Review results and experiences of first field trip in plenary
0900	Teams develop household interview survey, coding sheet, data table
1200	Lunch
1300	Second field trip to study sites for each team to implement work plan
1330	Administer household survey, fill in any gaps from previous site visit
1700	Team meetings on return to analyze data, do homework (data entry, etc.)

Thu 12 May

0830	Review results and experiences of second field trip in plenary
0900	Data analysis, interpretation, conclusions, key lessons learned
1100	Prepare team presentations of studies
1200	Lunch
1300	Team presentations (study site representatives invited to participate, validate)
1500	General discussion, key lessons learnt by participants about SocMon

Fri 13 May

0830	Participants prepare proposals for their MPA follow-up studies
1100	Presentations of country proposals for MPA follow-up studies
1200	Lunch
1330	Presentations of country proposals for MPA follow-up studies
1500	Final discussions, evaluation of workshop and wrap up
1900 or later	Friday fish-fry final field trip/social (to be confirmed)

Sat 14 May

All day	Departures

Appendix 3: "Overview of SocMon" slide presentation

Socioeconomic Monitoring for Coastal Management in the Caribbean

Patrick McConney and Rhonda Lee
CERMES, UWI Cave Hill Campus

UNEP Regional Training Workshop
Soufriere, St. Lucia, 9-13 May 2005

Overall training objective

UNEP says:

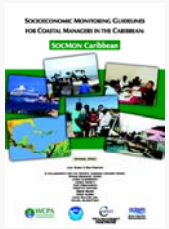
- The overall objective of the training workshop is to build capacity of managers, local government authorities, and local community leaders to establish a socioeconomic monitoring program [for an MPA]

UNEP SocMon timeline

Mid-May	**Participate in training workshop**
Mid-June	**Finalise your monitoring proposal**
Jun – Aug	**Implement your SocMon study**
Sep - Oct	**Prepare outputs and publication**
Early Nov	**Present paper at GCFI meeting?**

Purpose of this workshop

1. To introduce the concepts of socioeconomic monitoring based on SocMon Caribbean
2. To prepare participants to use SocMon Caribbean as an immediate follow-up



What is SocMon?

SocMon: guidelines on how to do socioeconomic monitoring useful for coastal management at the site level

SocMon is used with the "*Socioeconomic Manual for Coral Reef Management*" that contains field methods

Benefits of SocMon

SocMon can help us to understand the socio-economic contexts of coastal resource use by various stakeholders.

This is essential for assessing, predicting and managing coastal resource use over time.

Where are nearby SocMon studies?

- **Barbados**
  - Graeme Hall Swamp
- **Belize**
  - Glovers Reef Marine Reserve
  - Laughing Bird Caye National Park
  - Gladden Spit & Silk Cayes Marine Reserve
- **Grenadines Islands**
  - Several locations across two countries
- **Nicaragua**
  - Corn Island lobster fishery
- **Trinidad and Tobago**
  - Speyside proposed MPA in Tobago

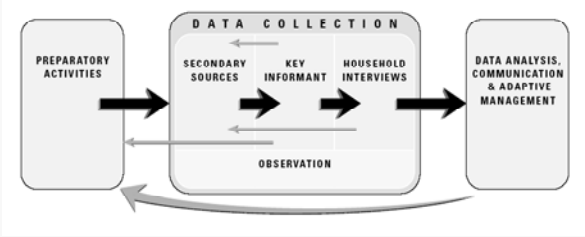
7

Who is SocMon for?

- Coastal managers (Govt. and NGOs)
- Resource user groups
- Community organisations
- Donors / technical assistance
- Academic and research institutions
- Environmental news media / public

8

How does SocMon work?



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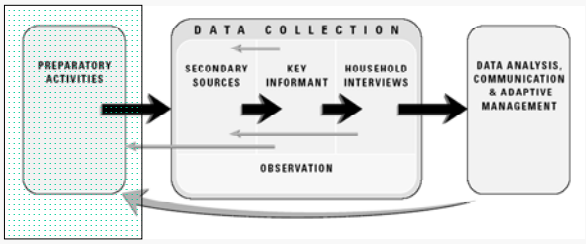
Preparatory Activities



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Preparatory Activities

1) define goals and objectives
2) identify the process for conducting monitoring
3) identify the coastal management stakeholders
4) identify the study area
5) consult with the stakeholders
6) assemble a SocMon team
7) identify variables
8) develop a workplan
9) obtain government and stakeholder approvals

11

Plans with socio-economic aspects provide rationale for using SocMon

- MPA management plans
- Fisheries management plans
- Coastal zone management plans
- Tourism development plans
- Physical development plans
- Poverty alleviation plans

12

Stakeholders ⇔ Study area(s)

- Stakeholder analysis
  - Primary
  - Secondary
  - Interests
  - Organisations
- SMMA and CAMMA management plans
- Core coastal area
- Watershed area
- Satellite study areas

13

Consult with stakeholders

- Explain purpose, process and outcomes to that stakeholders can participate if they wish
- Ensure the concerns and priorities of as many stakeholders as is feasible are included in the planning of SocMon
- Ensure the cooperation of stakeholders, and particularly their organizations, in SocMon

The SocMon team

- ✓Coastal manager
- ✓Social scientist
- ✓Local advisors
- ✓Field researchers
- Interdisciplinary
- About 5 people
- Meets regularly

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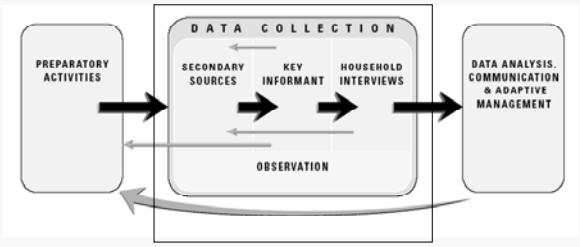
Work-plan

The work-plan defines the:

- SocMon activities;
- methods to be used;
- resources required;
- timing and target dates;
- team responsibilities;
- data processing, reporting

Data collection



17

What Data Do I Collect ?

So many socioeconomic variables to choose from!

See SocMon Caribbean Guidelines

Sources of data

- **Secondary sources**
  - Existing documents, maps, data, etc.
  - Compiling a bibliography, keep it updated
- **Key informants**
  - People knowledgeable on particular topics
  - Use to fill in gaps, profile places, activities
- **Household interviews**
  - Survey questions for specific standard info
  - Interview households in selected settlements
- **Observations**
  - Notes and records, often now done by photos
  - Develop a digital image library, link to GIS

Secondary data and data from key informants is used to:

- refine the lists of objectives, stakeholder groups, study sites and parameters [planning]
- identify gaps in existing knowledge in preparation for field data collection [questions]
- ensure the field data collection does not collect information that has already been collected [efficiency]
- provide a basis for cross-checking information collected during the field data collection [validation]

What Data Do I Collect? Community Level Demographics

K1. Study area
K2. Population
K3. Number of households
K4. Migration rate
K5. Age
K6. Gender
K7. Education
K8. Literacy
K9. Ethnicity
K10. Religion
K11. Language
K12. Occupation
K 13. Community infrastructure and business development

What Data Do I Collect? Coastal and Marine Activities

K14. Activities
K15. Goods and services
K16. Types of use
K17. Value of goods and services
K18. Goods and services market
- K19. Use patterns
- K20. Levels and types of impact
- K21. Level of use by outsiders
- K 22. Household use
- K23. Stakeholders
- K24. Tourist profile

What Data Do I Collect? Governance

K25. Management body
K26. Management plan
K27. Enabling legislation
K28. Management resources
K29. Formal tenure and rules
K30. Informal tenure and rules, customs and traditions
K31. Stakeholder participation
K32. Community and stakeholder groups

What (Survey) Data Do I Collect ? Household demographics

S1. Age
S2. Gender
S3. Ethnicity
S4. Education
S5. Religion
S6. Language
S7. Occupation
S8. Household size
S9. Household income
S10. Household activities
S11. Household goods and services
S12. Types of household uses
S13. Household market orientation
S14. Household uses

What (Survey) Data Do I Collect ? Attitudes and Perceptions

S15. Non-market and non-use values
S16. Perceptions of resource conditions
S17. Perceived threats
S18. Awareness of rules and regulations
S19. Compliance
S20. Enforcement
S21. Participation in decision-making
S22. Membership in stakeholder groups

What (Survey) Data Do I Collect ? Attitudes and Perceptions

S23. Perceived coastal management problems
S24. Perceived coastal management solutions
S25. Perceived community problems
S26. Successes in coastal management
S27. Challenges in coastal management
S28. Material style of life

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Mapping, photos, (maybe GIS)

Resource features
Resource uses
Infrastructure
Areas of conflict
Demographics
Reference sites
Boundaries, zones
Etc., etc., etc.

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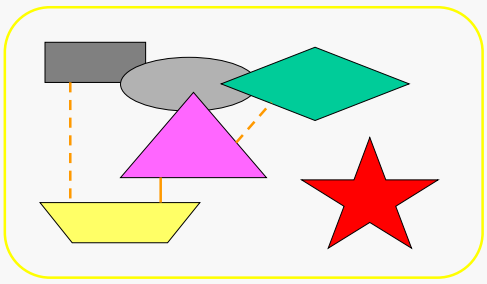
Organisational relationships



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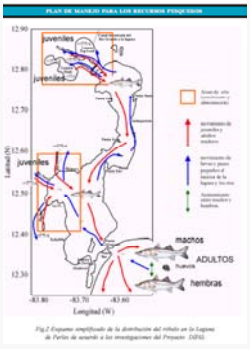

Combine local knowledge with science information

- Climatic conditions
- Life histories, cycles
- Species harvested
- Fishing vessels used
- Fishing methods used
- Processing of catch
- Trade and income
- Fish consumption
- Alternative livelihoods
- Culture and religion

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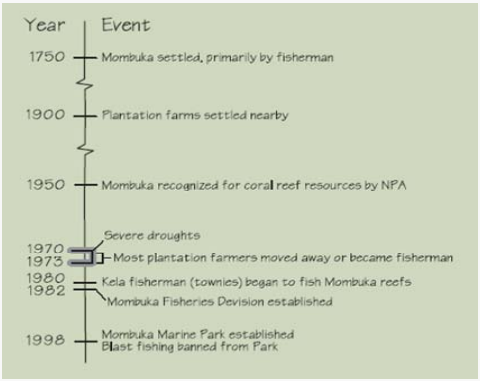
Local knowledge and classification

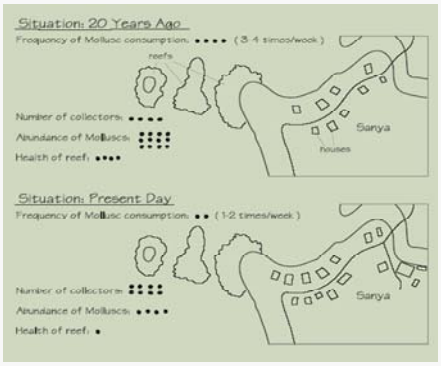
Description/ English name	Species	Relative abundance	Changes in conditions	Habitat	Name in local language
Clam (very large, almost smooth)	unknown		+	mud / mangrove	kai
Big spider shell	*Lambis lambis*		0	reef	spider
Clam (large, white, vertical ridges)	unknown		0	reef	kai
Clam (large, brown, cross ridges)	*Anadara spp*		+	mud	kai nalepa
Pearl oyster	*Pinctada margaritifer*		0	sand / mud	vilavila kiki
Limpet	*Collisella striata*		+	coral islands	kai rai
Sunset shell	*Asaphis violascens?*		+	beach / mud	kai wi
Small top shell	*Trochus maculatus*		0	reef edge	pere
Clam (tiny, gray, smooth)	unknown		0	sand beach, near rocks	sisa
Cone shell	unknown		0	reef	baukasua
Fan shell	*Pinna incolour*		0	sand / mud	mangali
Clam	unknown		0	sand	vilavila
Small green snail	unknown		0	reef	ali mata parea

Timelines of key events



31

Historical mapping of changes



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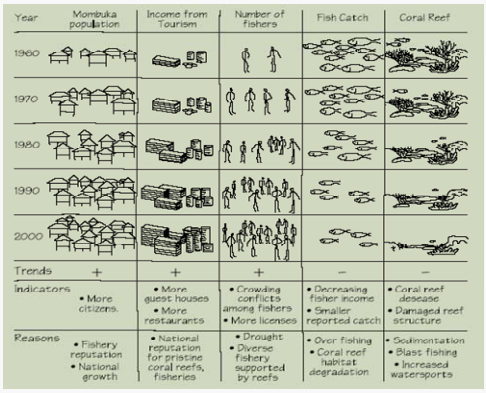
Historical transect matrix



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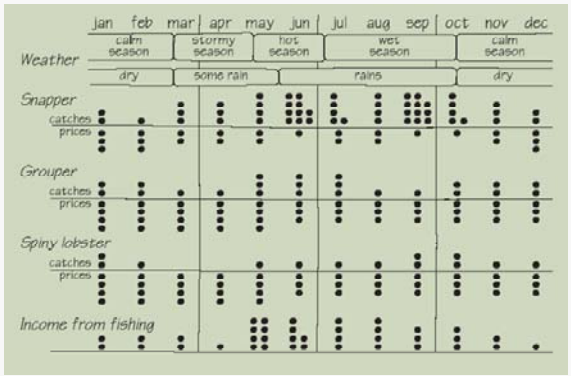
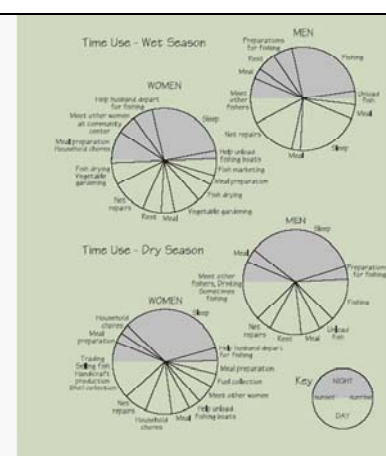
Ranking e.g. of impact factors

Reef Stakeholders	Number of people	% Men	% Women	% Children	Damage caused to reef
Traditional Fishers	75	95 %	0 %	5 %	Least
Ex-Plantation Fishers	40	80 %	0 %	10 %	Medium
Townie Fishers	65	75 %	0 %	25 %	Highest
Women Gleaners	30	0 %	60 %	40 %	Medium highest

Seasonal calendar





Daily and seasonal time use patterns

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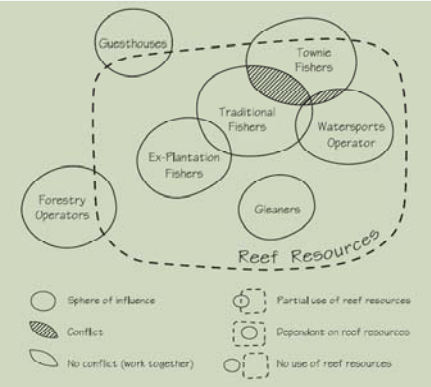

Venn diagram of resource uses and resource users

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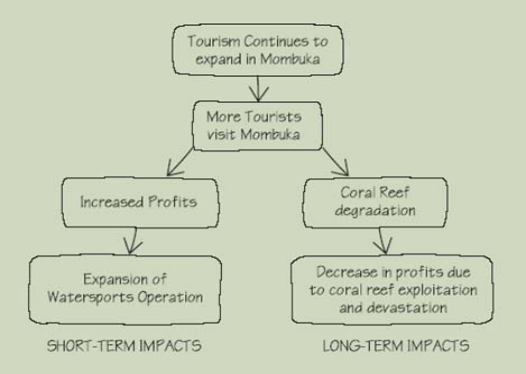
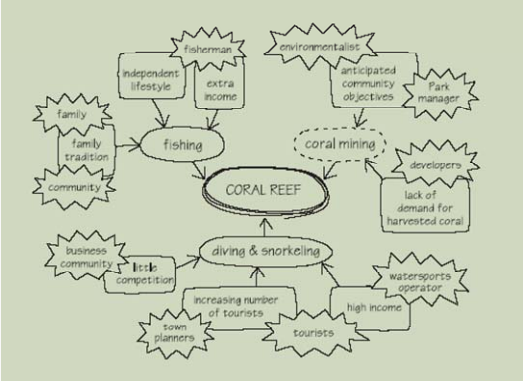
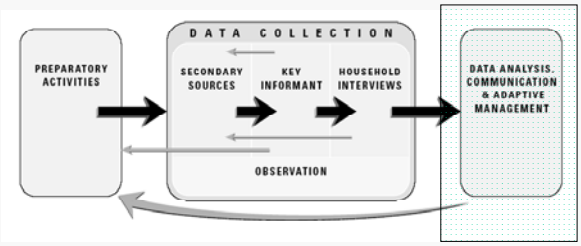
Flow charts of various types



Decision diagramming



Data analysis, communication and adaptive management



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SocMon results /analysis tables

Occupation	PRIMARY		SECONDARY		Total percent of community members dependent on this occupation (primary and secondary)
	Number of household members listed as primary occupation	Percent household members that listed as primary occupation	Number listed as secondary occupation	Percent household members that listed each occupation as secondary	
Fishing	66	32.5%	50	25%	57.5%
Hotel development	50	25%	20	10%	35%
Aquaculture	30	15%	60	30%	45%
Misc. (coral mining, farming)*	5	2.5%	30	15%	17.5%
*No occupation***	50	25%	0	0%	25%
TOTAL	200	100%	100	80%	180%

* record together all occupations that were noted for <5% of the household members
** for example, unemployed, students, retired

SocMon results /analysis tables

Major occupations in community	Percent of working population conducting this occupation as primary occupation	Number of people conducting this occupation as primary occupation	Percent of working population conducting this occupation as secondary occupation	Percent of working population conducting this occupation as tertiary occupation
1. *Fishers*	60%	600	20%	30%
2. *Watersports operators*	30%	300	0%	0%
3. *Aquaculture workers*	20%	200	5%	3%
4. *Hotel workers*	5%	50	0%	0%
5. *Farmers*	6%	60	10%	4%

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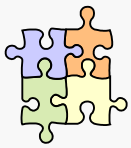
SocMon results /analysis tables

Coastal and Marine Activities	Coastal and Marine Goods and Services	Types of Use (primary)
Fisheries	Lobster	Trap
	Grouper	Handline
Tourism	Hotel	Guest houses (1–7 rooms)
	Diving	SCUBA
Aqua-culture	Oyster	Line

Coastal and Marine Activities	Coastal and Marine Goods and Services	Value of Goods and Services
Fisheries	Lobster	High
	Grouper	High
Tourism	Hotel	Medium
	Diving	Low
Aqua-culture	Oyster	Medium

How to Analyze:
Secondary Data, Key Informant info, Household Interviews, Observations

Basic principles for analysis:



- involve all team members
- prioritize quality, not quantity
- prioritize key learning, rather than just getting information

- **Key learning** refers to issues identified or lessons learned that are essential to the objectives of the monitoring, or are needed to understand the socioeconomic context of the stakeholders

How to Analyze:
Secondary Data, Key Informant info, Household Interviews, Observations

Final data analysis involves:

1) refining the key learning
2) using data to illustrate key learning
3) presenting the key learning in an accessible form for interpretation
4) validating the key learning with stakeholders
5) incorporating the key learning into a useful report and other communications

Validation workshop

- Verification of data analysis
- Feedback to participants
- Encourage decision-making
- Foster trust and respect
- Accountability, transparency
- Pave way for follow-up
- Community empowerment

Communication choices

- written material *(report, GCFI paper)*
- visual material *(posters, pictures)*
- oral presentations *(area meetings)*
- one-on-one discussion *(animators)*
- mass media *(newspaper, radio, TV)*
- internet group discussion *(CAMPAM)*
- electronic bulletin boards *(NCRPS?)*

Using SocMon outputs

- MPA management decision-making
- Stakeholder strategies (fishers, hotels)
- Designing sustainable monitoring
- Prioritising future research
- Preparing project proposals
- Area development planning
- Social improvement plans
- External agency guidance

Acknowledgements: Graphics on several slides are taken from the publications

Bunce, L. and R. Pomeroy. 2003. *Socioeconomic monitoring guidelines for coastal managers in the Caribbean (SocMon Caribbean)*. GCRMN.

Bunce, L., P. Townsley, R. Pomeroy and R. Polnac. 2000. *Socioeconomic manual for coral reef management*. Australian Institute of Marine Science.

Appendix 4: Preparatory activities worksheets

These worksheets are *guides* to organizing the preparatory activities. They can be modified in any way you find useful. Other worksheets are in the socio-economic manual. Spreadsheets are often more convenient than word processing applications for working with tables of all types.

– *Define goals and objectives*

Goal (category)	Objective	Specific objective (if applicable)

– *Identify stakeholders*

Activity or issue	Primary stakeholder [and organization]	Secondary stakeholder [and organization]

– *Stakeholder locations and key informants*

Stakeholders (1° and 2°)	Location of stakeholder	Key informant for stakeholders

– *Identify study area*

Study area selection criteria	Study area description (attach map of area)

– *Assemble the SocMon team*

Skill requirement / role on team	Proposed team member

– *Methods and visual presentation*

Objective / Specific objective	Method of data collection	Means of visual presentation

– *SocMon team member responsibility matrix*

Member		Member		Member	
Task	Duration	Task	Duration	Task	Duration

Member		**Member**		**Member**	
Task	**Duration**	**Task**	**Duration**	**Task**	**Duration**
Member		**Member**		**Member**	
Task	**Duration**	**Task**	**Duration**	**Task**	**Duration**

– *Work plan schedule*

Activity / task Time unit →											

– *Research resources required*

Resource description	**Use of resource**	**Comments on availability**

– *Budget*

Item of expense	**No. of units**	**Unit cost***	**Total cost***
		Sum total of SocMon costs	

* = currency used [ ]

Tracking Worksheet

Stakeholder Groups	Parameters	Study Sites	Data Collected By	Secondary Data	Field Data Collection Methods				Visualisation Techniques								Type of Informant			
					Obs	Sti	Foc	Ora	Sur	Map	Tra	Tim	Sd	HisDec	Ven	Flo	Ran	Key informant	Individual	Household	Group

Key:

Field Data Collection Methods	Visualisation Techniques	Types of Informants
Obs- observation	Map – maps, including social, wealth and historical maps	M - male
Sti – Semi-structured interviews	Tra – transects	F – female
Foc – Focus group interviews	Tm – Timelines	R - resident
Ora – Oral histories	Sd – Seasonal calendars	N - non-resident
Sur – Surveys	Hir – Historical transects	
	Dec – Decision trees, including decision webs	
	Ven – Venn diagrams	
	Flo – Flow charts, including impact diagrams	
	Ran – Ranking, including local classification, preference, wellbeing	

Source: Bunce, L., P. Townsley, R. Pomeroy and R. Polnac. 2000. *Socioeconomic manual for coral reef management*. Australian Institute of Marine Science.

Appendix 5: Survey examples of questions, coding and data table

Questionnaire

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.
   1s._____, 2nd._____, 3rd._____
4. What is the household's primary, secondary and tertiary most important sources of income?
   1st._____, 2nd._____, 3rd._____
5. Is any member of this household a member of a formal and/or informal organizations?
   Yes _____ Who? _____ What organization? _____
   No _____ Who? _____ What organization? _____
6. How would you describe the condition of marine resources five years ago?
   very good___ good ___ not good not bad ___ bad ____ very bad___.
7. How would you describe the conditions of marine resources today?
   very good___ good ___ not good not bad ___ bad ____ very bad___.

Codng sheet

Respondent #___

Village___	1=Plancencia 2=Hopkins 3=Monkey River
HHsize ___	#
HHcomm___	#
HHocc1___	1=Fishing 2=diveoper 3=tourgd 4=fishgd 5=
HHocc2___	1=Fishing 2=diveoper 3=tourgd 4=fishgd 5=
HHocc3___	1=Fishing 2=diveoper 3=tourgd 4=fishgd 5=
HHinc1___	1=Fishing 2=diveoper 3=tourgd 4=fishgd 5=
HHinc2___	1=Fishing 2=diveoper 3=tourgd 4=fishgd 5=
HHinc3___	1=Fishing 2=diveoper 3=tourgd 4=fishgd 5=
HHfish___	#
HHrec____	1=Fishing 2=snor 3=diving 4=boating 5=
Feinc___	1=yes 0=no
Feincact____	1=rest 2= 3= 4=
HHorg___	1=yes 0=no
Orgwho1____	1=mother 2=father 3=son 4=daughter
Orgwhat1___	1=Plac Co-op 2= 3= 4=
Orgwho2____	1=mother 2=father 3=son 4=daughter
Orgwhat2___	1=Plac Co-op 2= 3= 4=
Orgwho3____	10=mother 2=father 3=son 4=daughter
Orgwhat3___	1=Plac Co-op 2= 3= 4=
Orgwho4____	1=mother 2=father 3=son 4=daughter
Orgwhat4___	1=Plac Co-op 2= 3= 4=
Rescond5___	1=VG 2=G 3=NGNB 4=B 5=VG
Rescond___	1=VG 2=G 3=NGNB 4=B 5=VG

Data table

Ref.	Resp #	Village	HHsize	HHcomm	HHocc1	HHocc2	HHocc3
001							
002							
003							
Ref.	HHinc1	HHinc2	HHinc3	HHfish	HHrec	Feinc	Feincact
001							
002							
003							
Ref.	HHorg	Orgwho1	Orgwhat1	Orgwho2	Orgwhat2	Orgwho3	Orgwhat3
001							
002							
003							

Appendix 6: Project preparation worksheet

Project prepared by (1) (2)

Country / Territory

Name of study area

MPA status or other

Background to study

Study goals and objectives, or questions

Goal (general objective)	Purposes (specific objectives)

Study area

Study area selection criteria	Study area description (also show on map)

Main stakeholders and locations

Study area activity or issue	Main stakeholders [and organizations]	Locations of stakeholders

Key variables in this study

(a) Key informant interviews and secondary sources

Var. No.	Description of variable/name	Background sources of information & comments on factors to be taken into account in monitoring	Relative importance
K1	Study area		
K2	Population		
K3	Number of households		
K4	Migration rate		
K5	Age		
K6	Gender		
K7	Education		
K8	Literacy		
K9	Ethnicity		
K10	Religion		

Var. No.	Description of variable/name	Background sources of information & comments on factors to be taken into account in monitoring	Relative importance
K11	Language		
K12	Occupation		
K13	Community infrastructure		
K14	Coastal and marine activities		
K15	Goods/services from activities		
K16	Types of use of good/service		
K17	Value of goods and services		
K18	Goods / services market orientation		
K19	Use patterns		
K20	Levels and types of impact		
K21	Level of use by outsiders		
K22	Household use		
K23	Stakeholders		
K24	Tourist profile		
K25	Management body		
K26	Management plan		
K27	Enabling legislation		
K28	Management resources		

Var. No.	Description of variable/name	Background sources of information & comments on factors to be taken into account in monitoring	Relative importance
K29	Formal tenure and rules		
K30	Informal tenure, rules, customs and traditions		
K31	Stakeholder participation		
K32	Community and stakeholder organizations		

(b) Surveys

Var. No.	Description of variable/name	Background sources of information & comments on factors to be taken into account in monitoring	Relative importance
S1.	Age		
S2.	Gender		
S3.	Ethnicity		
S4.	Education		
S5.	Religion		
S6.	Language		
S7.	Occupation		
S8.	Household size		
S9.	Household income		

Var. No.	Description of variable/name	Background sources of information & comments on factors to be taken into account in monitoring	Relative importance
S10.	Household activities		
S11.	Household goods and services		
S12.	Types of household uses		
S13.	Household market orientation		
S14.	Household uses		
S15.	Non-market and non-use values		
S16.	Perceptions of resource conditions		
S17.	Perceived threats		
S18.	Awareness of rules and regulations		
S19.	Compliance		
S20.	Enforcement		
S21.	Participation in decision-making		
S22.	Membership in stakeholder organizations		
S23.	Perceived coastal management problems		
S24.	Perceived coastal management community solutions		

Var. No.	Description of variable/name	Background sources of information & comments on factors to be taken into account in monitoring	Relative importance
S25.	Perceived community problems		
S26.	Successes in coastal management		
S27.	Challenges in coastal management		
S28.	Material style of life		

SocMon team

Skill requirement or role on team	Name or agency of proposed team member / leader

Research resources required

Resource description	Use of resource	Comments on availability

Resource description	Use of resource	Comments on availability

Work plan schedule

Activity / task Month →	M	J	J	A	S	O	N	D	J	F	M

Budget

Item of expense	No. of units	Unit cost*	Total cost*

Item of expense	No. of units	Unit cost*	Total cost*
		Sum total SocMon costs	

*currency used = _____
Use US dollars if possible or give conversion rate to USD

References, including web sites and e-document locations

Appendix 7: Workshop evaluation form

Please fill out this evaluation form to assist UNEP in meeting the needs of future workshop participants. The form is to be completed and handed in at the end of the training workshop.

Kindly **circle the number** next to response that is closest to your opinion. We welcome your suggestions for improvement. These can be written on the lines below or on the back of the page

This is the key for all responses ……1 = poor; 2 = fair; 3 = okay; 4 = good; 5 = very good

1. UNEP workshop announcement (how you heard of the workshop)……. 1 2 3 4 5

Suggested improvement:

2. Pre-workshop information (hotel, travel, preparation, documents etc.) ……. 1 2 3 4 5

Suggested improvement:

3. Workshop logistics (hotel, meals, transportation, equipment etc.) ……. 1 2 3 4 5

Suggested improvement:

4. Quality of training in the sessions with all participants (plenary) …….. 1 2 3 4 5

Suggested improvement:

5. Quality of training in the small group sessions (study site teamwork) …….. 1 2 3 4 5

Suggested improvement:

6. Quality of training during the field research at study sites in groups ……..	1	2	3	4	5
Suggested improvement:					
7. Quality of assistance in preparing the follow-up project proposals …….	1	2	3	4	5
Suggested improvement:					
8. Overall quality of the UNEP SocMon Caribbean training workshop …….	1	2	3	4	5
Suggested improvement:					

Use the back of the form for providing additional information if you wish. Thank you.