BAY OF BENGAL LME

Bay of Bengal Large Marine Ecosystem Project

Report of the
SocMon capacity development workshop for the
Bay of Bengal Large Marine Ecosystem countries in South Asia
2-11 January 2015 • St. Martin's Island, Bangladesh

BOBLME-2015-Socioec-05

SocMon capacity development workshop
for the Bay of Bengal Large Marine Ecosystem Countries in South Asia

St. Martin's Island, Bangladesh

At Hotel Shaibal, Cox Bazar/St. Martin's Island
Marinelife Alliance, Bangladesh
2-11 Jan, 2015

This report may be cited as:

Executive summary

Rationale/context

This Socioeconomic Monitoring (SocMon) training workshop, coordinated by the Marinelife Alliance (MLA), was conducted at the Hotel Shaibal, Cox's Bazar from 2-11 January, 2015. A total of 14 participants coming from various state-level government agencies and civil society groups/non-governmental organizations participated.

SocMon is an approach and set of tools for conducting socio-economic monitoring of changes in coastal communities which has been adopted, and adapted, worldwide through the Global SocMon network and, specifically in South Asia, through the SocMon South Asia node. It has gained increasing acceptance and use over the past two decades. The SocMon South Asia node has been active in promoting the approach over the last 14 years in several locations throughout the region and has contributed to creating a significant body of experience and expertise in India, the Maldives and Sri Lanka.

BOBLME has already played a role in supporting SocMon activities in South-East Asia and, with the current programme of capacity-building activities, aims to extend knowledge and skills in SocMon approaches to new areas in South Asia. The workshop organised in Cox's Bazar and St. Martin's Island with support from the BOBLME represent the first time that SocMon activities have been introduced to Bangladesh.

St. Martin's Island represents the only area of Bangladesh where coral reefs are present and has been notified as an Ecologically Critical Area (ECA) by the Government of Bangladesh. It is a nesting site for endangered olive ridley and green turtles but key ecosystem functions around the island are subject to a range of threats including coral extraction, destructive fishing practices and tourism development.

Training objectives

The **Global objective** of the training activities on SocMon carried out with BOBLME support was in line with the BOBLME global objective:

> To improve the lives of the coastal populations through better regional management of the Bay of Bengal environment and its fisheries.

The **Development objective** was:

> To ensure that socioeconomic monitoring contributes to improved decision-making processes for coastal management in Bangladesh and, specifically, for St. Martin's Island.

The planned outputs of the training programme were:

1. A cadre of staff from local organisation's working in St. Martin's Island trained in SocMon methodologies and capable of implementing SocMon programmes.

2. A draft SocMon report for St. Martin's Island.

3. A workplan for implementing SocMon in St. Martin's Island developed and agreed upon.

4. A communication strategy for St. Martin's island developed aiming to raise the profile of SocMon and monitoring activities in coastal communities, and at informing and influencing key decision-makers regarding the outputs of the SocMon process.

5. Key inputs to a regional SocMon strategy identified and agreed upon by participants.

Methodology

The methodology adopted for the workshop emphasised a participatory approach encouraging workshop participants to develop their understanding of SocMon and the various methods that can be used for SocMon by analysing the context of St. Martin's Island and the communities in the Island. Participants were asked to draw on their own experience from working in the area to develop

a SocMon approach that would be specifically tailored to the demands of their work and the characteristics of the St. Martin's Island.

Reflections on workshop process and outcomes

The **workshop process** focused on ensuring that participants developed a good overall understanding of **what** SocMon deals with and **why** they should be doing it, as well as providing them with familiarity with the key tools and methods that can be employed and techniques to be used in the field.

Participants were introduced to the livelihood framework to help them develop an understanding of the complexity of **how livelihood choices are made**. Participants reflected on their own livelihood choices and related all the enabling and disabling factors that helped them reach where they are now.

They were then introduced to the terms **ecosystem goods and services** and were asked to reflect on the linkages between livelihoods and ecosystem goods and services. A presentation on the economic valuation of ecosystem goods and services in the Maldives was given to emphasize its importance.

Participants developed a livelihood matrix for St. Martin's Island showing linkages to **goods and services** from the various habitats found on the island.

A clear **goal**, **purpose** and **outputs** for SocMon on St. Martin's Island, which reflect the priorities of Marinelife Alliance and their partner agencies in the area was also discussed and defined.

Participants were also asked to reflect on the audience for SocMon outputs paying particular attention to the stakeholders and institutions they wanted to inform and influence, and reflecting on what behavioural change they might wish to see among these different stakeholders. Based on this reflection, a strategy was developed considering what media might be used to inform and influence key stakeholders and concerned institutions to achieve these behavioural changes.

The participants placed considerable emphasis on using SocMon as a process by which the St. Martin's Islanders, and in particular fisher women and men, can be **engaged in a wider process of consultation and discussion on management issues** on St. Martin's Island. This provided useful guidance for how to approach the SocMon process and the relative emphasis to give to the data collection aspects compared to the participatory engagement of communities and joint learning opportunities which SocMon can create.

Once participants had developed a clear understanding of **why** they might consider undertaking SocMon activities, the discussion of **how to approach SocMon** and what **specific parameters to focus their data collection activities** on became considerably easier. They made a list of parameters for data collection, methods they would use for data collection and the source (secondary, key informant, focus group) they would target to get the information.

St. Martin's Island is notified as an Ecologically Critical Area (ECA) and governance issues relating to the enforcement of and compliance with existing regulations were discussed. Participants agreed that it would be useful to get an understanding of the islanders perceptions on Marine Protected Areas and ECA and that this could best be done by conducting a short opinion survey as part of the SocMon activities. A perceptions survey questionnaire, which had previously been used in the Maldives, Lakshadweep and the Gulf of Mannar in 2011, was adapted to the requirements in St. Martins Island.

Four days of field work were conducted in St. Martin's Island. While the principle objective of this field work was to provide the training participants with an opportunity to put new learning into practice, the field work exercise also generated a significant body of data which has provided the basis for a **SocMon report on St. Martin's Island**.

Attention was paid during the workshop to discuss how SocMon could **build on what has already been done and contribute to on-going work** including existing data generated from studies carried

out in 2002 and 2010 under the Wetland Biodiversity Management Projects for the Ministry of Environment and Forests.

The **participants' evaluation of the workshop** was generally positive. For some participants, problems with understanding discussions and presentations in English were clearly an issue and the need for more materials in local languages was highlighted. However, among those with a better grasp of English, the responses ranged from positive to enthusiastic, with considerable appreciation of the approach adopted and the level of engagement by participants that was encouraged by the facilitation team.

Conclusions and recommendations

The SocMon workshop in Bangladesh achieved all of its intended outputs. A **cadre of trained staff** can now be regarded as being able to support future SocMon activities around St. Martin's Island and the Cox's Bazar coastal areas. A **draft SocMon report** for St. Martin's Island has been prepared and the basis for future work to complete this has been laid down.

The **outline and key components of a future work plan** for SocMon at St. Martin's Island has been prepared including a programme for the completion of the SocMon process on St. Martin's Island, validation of the information collected, and preparation of an outline proposal for on-going SocMon work on St. Martin's Island.

The **governance issues** affecting St. Martin's Island were highlighted during the field work conducted as part of the workshop and these indicate that greater attention to the management of development on St. Martin's Island is required in the future. This is likely to entail efforts at all levels, from the local up to the national, to engage key actors in a process of clarifying key issues and developing more appropriate mechanisms for addressing them. The need for a consultation process that involves all stakeholders - local people, fishers and fish processors and tourist interests - to set clear priorities and ensure that effective management is put in place, along with mechanisms for implementation, monitoring and surveillance, seems paramount.

This was the first time that a SocMon workshop has been conducted in Bangladesh and presented an opportunity to build a greater level of awareness of social and economic issues associated with coastal area management in the country. The workshop has contributed to the wider Global SocMon Strategy to promote the use of SocMon approaches in more countries and show how socio-economic monitoring can complement biophysical monitoring and provide a basis for better management of coastal ecosystem resources and its fisheries.

The involvement of **key governmental organisations** in the workshop was extremely positive but there will be a need in the future for this to be built upon and the engagement of higher decision-making levels of government will be key to ensuring that learning from SocMon is fed into policy-making.

The **excellent collaboration with Marinelife Alliance** and the participants representing different institutions achieved during the workshop suggests that they would be in a good position to provide further inputs to the development of this strategy in the future.

The participants at the workshop have demonstrated a clear understanding of what can and cannot be achieved through SocMon and how they can use it to further their own work on St. Martin's Island. There is considerable potential for developing a more complete SocMon programme for St. Martin's Island and it is clear that the participatory approaches recommended for implementing SocMon are appropriate for the work that the participating institutions are proposing in the future. SocMon can make an important contribution to setting up a network of communication and consultation between concerned agencies and local stakeholders, in addition to providing key data to facilitate monitoring of changes in resource use in the area.

Marinelife Alliance (MLA) has a long-term commitment towards the sustainable development of St. Martin's Island. They have an on-going turtle conservation and environment awareness

programme on the Island. This work is currently being supported by the Department of Environment and Forests under the Strengthening Regional Cooperation for Wildlife Protection project. In the process they have a good relationship with the Island community and the Department of Environment and Forests. M. Zahirul Islam, the chief executive officer of MLA had carried out a detailed study of the biological resource and community profile at St. Martin's Island in 2002 for the Ministry of Environment and Forests and it would be useful to use this as a baseline for comparing the results of the current SocMon activities being carried out on St. Martin's Island.

MLA is in an excellent position to make best use of SocMon approaches in the future. There is every indication that, should this work receive additional support, they would be able to achieve the development objective of the SocMon training programme, which is to ensure that "socioeconomic monitoring contributes to improved decision-making processes for coastal management in Bangladesh and, specifically, for St. Martin's Island."

Acknowledgements

The Facilitation Team would like to thank the Marinelife Alliance for their collaboration and support provided during the implementation of the SocMon workshop in Bangladesh. Particular thanks go to the Chief Executive of Marinelife Alliance, Mr M. Zahirul Islam and his team, for making us feel welcome and overseeing the logistics and completion of the programme.

Special thanks you go to Mr Abdul Wahab Akonda, who was constantly on-hand as instant interpreter throughout the entire workshop. He ensured that participants grasped the concepts by translating everything into Bengali. His profound knowledge of both St. Martin's Island and the work of the Department of Forests and Environment also proved invaluable for conducting the workshop and for the participants.

Appreciation is also due to the BOBLME team who supported this training program, including Dr Chris O'Brien (Regional Coordinator), C.M. Muralidharan (Project Manager), Sucharat Tong On (Secretary, FAORAP) and to Mr Arne C.I. Andreasson Senior Consultant BOBLME, for joining the workshop on the last day of the workshop and distributing the certificates to the participants.

Table of contents

List of tables

List of figures

Acronyms used

ANET	Andaman and Nicobar Environment Team
BBS	Bangladesh Bureau of Statistics
BCVD	Bangladesh Centre for Village Development
BFRI	Bangladesh Fisheries Research Institute
BOBLME	Bay of Bengal Large Marine Ecosystem
BOBP	Bay of Bengal Programme
BPC	Bangladesh Parjatan Corporation
BSCIC	Bangladesh Small and Cottage Industry Corporation
BDT	Bangladesh Taka
CARESS	Centre for Action Research on Environment Science and Society
CORALI	Coral Reef Livelihoods Project
CORDIO	Coral Reef Degradation in the Indian Ocean
DAE	Department of Agricultural Extension
DFID	Department for International Development
DH	District Headquarters (Cox Bazar)
DoE	Departments of Environment
DoF	Department of Fisheries
ECA	Ecologically Critical Area
FAO	Food and Agriculture Organisation
FAORAP	FAO (Regional office for Asia Pacific)
FGD	Focus Group Discussion
GCRMN	Global Coral Reef Monitoring Network
GEF	Global Environmental Facility
HH	Household
HHI	Household Interview
ICRAN	International Coral Reef Action Network
IMM Ltd.	Integrated Marine Management Limited (of UK)
IOC/UNESCO	Intergovernmental Oceanographic Commission/ United Nations Educational, Social and Cultural Organisation
IUCN	International Union for Conservation of Nature
KII	Key Informant Interview

LGI	Local Government Institutions
LMMA	Locally Managed Marine Area
LMRCC	Lakshadweep Marine Research Conservation Centre
MCRCF	Marine and Coastal Resources Conservation Foundation
MLA	Marinelife Alliance
MOEF	Ministry of Environment and Forests
MoL	Ministry of Lands
MPA	Marine Protected Area
MRC	Marine Research Centre
NGO	Non-Governmental Organisation
NOAA	National Oceanic and Atmospheric Administration
PAD	People's Action in Development (Gulf of Mannar)
PRA	Participatory Rural Appraisal
SA	South Asia
SAARC	South Asian Association for Regional Cooperation
SACEP	The South Asia Cooperative Environment Programme
SAP	Strategic Action Programme
SEA	South-East Asia
SEAMARC	Systems Engineering & Marine Consulting
SLED	Sustainable Livelihoods Enhancement and Diversification
SMI	St. Martin's Island
SocMon	Global Socio-economic Monitoring Initiative for Coastal Management
TOAC	Tour Operators' Association of Cox's Bazar
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UP	Union Parishad
UZ	Upazilla (Sub district headquarters Teknaf)
VCG	Village Conservation Group
WCRC	World Conservation

1. Introduction

1.1. Rationale and background

The world's tropical coasts are home to over two billion people, many of whom live in poverty and depend on coastal resources and ecosystems, such as fish, beaches, and mangrove forests, for their livelihood, sustenance and cultural traditions. In these coastal areas, development and poverty are often encountered side-by-side, and this combination places severe pressure on coastal ecosystems which frequently suffer from overexploitation, resource degradation and reduction in the services provided by ecosystems to people who depend on them.

Efforts to ensure that coastal development is sustainable and that the functions of coastal ecosystems are maintained have increasingly realised that understanding the people and communities that make use of coastal resources is as important as understanding the ecological processes that underpin coastal livelihoods. This situation is typified by the Bay of Bengal Region, where coastal areas are often particularly subject to multiple pressures from rising population density, high levels of poverty among coastal dwellers and increasing levels of industrial development. The complexity of social and economic conditions in coastal communities throughout the region makes socio-economic monitoring particularly important to allow communities, managers and decision-makers to understand how issues affecting coastal resources are evolving and to identify priority areas for intervention and management. Where conservation of critical habitats is being undertaken, socio-economic monitoring can serve to involve local communities in resource management decisions, provide adaptive management strategies to reflect local needs, and facilitate understanding of the importance of marine and coastal resources.

SocMon is an approach and set of tools that has evolved over the last decades to facilitate coastal planning, management and sustainable use. SocMon, which stands for the Global Socio-economic Monitoring Initiative for Coastal Management, has been working since 2001 through regional and local partners to facilitate community-based socioeconomic monitoring in communities living in coastal regions of the world. Household and community level data are collected to inform planners and decision-makers about levels of dependence on coral reef resources, perceptions of resource conditions, threats to marine and coastal resources, and support for marine management strategies such as marine protected areas. To date, over 60 assessments have been completed in 30 countries. There are currently seven regions throughout the world that are successfully conducting socioeconomic monitoring through the SocMon Initiative: Caribbean, Central America, Southeast Asia, Western Indian Ocean, Pacific Islands, South Asia and Brazil. SocMon fills a critical need by advancing a global and regional understanding of human interactions with and dependence on coastal resources. The United States (US) National Oceanic and Atmospheric Administration (NOAA) serves as the coordinating body for this global initiative. Within Asia, the Socioeconomic Monitoring for Southeast Asia (SocMon SEA) and South Asia (SocMon SA) centres have been established with coordinating centres in the Philippines and India, respectively.

SocMon South Asia

In 1997, a conference held in Chennai, India, was organized by the M.S. Swaminathan Research Foundation and the Bay of Bengal Program of the FAO (BOBP) involving participants from all countries in the SAARC region. This played an important role in starting the process of building awareness of the need for monitoring of communities and their environment in coastal areas of the region. Shortly afterwards, the process of developing a SocMon network in South Asia was continued with the establishment of Global Coral Reef Monitoring Network (GCRMN) South Asia Office at the IUCN office in Colombo, Sri Lanka in 1997 with support from DFID and IOC/UNESCO. Awareness of the importance of monitoring of both the bio-physical and socio-economic status of coral reef areas of the region was built through a series of capacity building activities and the

development of networks between concerned institutions. A first training event specifically dedicated to social and economic monitoring was held in Lakshadweep, India in 1998 and this was followed by a series of training activities involving staff from government agencies and NGOs working in coastal areas in India (Gulf of Mannar, Lakshadweep Islands, Andaman and Nicobar Islands), the Maldives (Vaavu Atoll) and Sri Lanka (Puttalam Lagoon and Bar Reef). These initiatives created the basis for a SocMon network in the region and GCRMN provided funding for periodic monitoring activities in areas where capacity had been developed for implementation.

Support for the GCRMN South Asia Node ended in 2002, but the Coral Reef Degradation in the Indian Ocean (CORDIO) project, which also set up a regional office at SACEP in Colombo from 1998 to 2006, continued many of the activities initiated by GCRMN and played an important role in maintaining these networks and supporting on-going monitoring activities.

With the support of the European Union, UNEP, IUCN , ICRAN (International Coral Reef Action Network) and IMM Ltd., the CORALI initiative, implemented between 2007 and 2008, worked with a group of government and non-government organisations from India, Sri Lanka, the Maldives and Indonesia (Aceh Province) to develop a Sustainable Livelihoods Enhancement and Diversification Approach (SLED)[1] which, building on the methodologies already being used for SocMon in the region, aimed at improving work on livelihood diversification in coastal communities. Staff from organisations in Bangladesh and Pakistan was also involved in some of these training activities.

In 2010, the National Oceanic and Atmospheric Administration (NOAA) from the U.S.A. provided support to the documentation of SocMon approaches used in South Asia and their development into a set of SocMon South Asia Guidelines, which were subsequently tested in 5 sites in India (Gulf of Mannar, the Lakshadweep Islands and the Andaman Islands), Sri Lanka (Bar Reef) and the Maldives (Baa Atoll). This activity was implemented by CARESS, a Chennai, India-based NGO, and IUCN. The SocMon Network in South Asia currently consists of:

- CARESS
- the Andaman and Nicobar Environment Team (ANET), an NGO based in the Andaman Islands, India
- People's Action for Development (PAD), an NGO based in Vembar in southern Tamil Nadu, India
- LMRCC
- SEAMARC
- MRC, Maldives
- MCRCF, Srilanka

SocMon and the BOBLME

The Bay of Bengal Large Marine Ecosystem Project (BOBLME) is an initiative funded primarily by the Global Environment Facility (GEF), with co-financing from Norway, the Swedish International Development Agency, FAO, participating Governments and the National Oceanic and Atmosphere Administration (NOAA). The project's first phase runs from 2009-2015 with the global objective of ensuring a healthy ecosystem and sustainability of living resources for the benefit of the coastal populations of the Bay of Bengal Large Marine Ecosystem (BOBLME). The development objectives of the project were to support a series of strategic interventions that would result in and provide critical inputs into the Strategic Action Programme (SAP), whose implementation will lead to enhanced food security and reduced poverty for coastal communities.

The BOBLME has been working with the South Asia SocMon network since 2011, with support to activities of the network contributing to BOBLME Component 2: Coastal/Marine Natural Resources

---

[1] IMM, 2008. Sustainable Livelihoods Enhancement and Diversification (SLED): A Manual for Practitioners. IUCN, Gland, Switzerland and Colombo, Sri Lanka; CORDIO, Kalmar, Sweden; and ICRAN, Cambridge, U.K.

Management and Sustainable Use. For BOBLME, SocMon provides an opportunity to build on a strong existing network of practitioners and experience in social and economic monitoring to enhance regional capacity in generating important information on the communities and resource-users living in coastal areas of the Bay of Bengal Region. In particular, the SocMon methods adopted in South Asia has adapted approaches used more widely across the globe to a coastal environment where poverty remains a key issue which has an important influence on the dynamics of resource use in coastal areas. The agencies and individuals involved in SocMon in South Asia have extensive experience in working with the wide range of different communities found in coastal areas and accommodating the different approaches required in order to effectively interact with them and link monitoring activities to concrete initiatives to improve local social and economic conditions.

Particularly important had been the consistent involvement of both government agencies and NGOs in SocMon activities. This creates an opportunity for BOBLME to make use of the SocMon network to engage with key decision-makers involved in the management of coastal areas and so contribute to its global objective of improving the lives of the coastal populations through better regional management of the BOBLME.

A workshop where both the SocMon SEA and SocMon SA Regional Coordinators collaborated was held in Myanmar in January 2014 and at Chilika Lake in Odisha, India in November 2014. The SocMon concept was refined to include BOBLME priorities. The Bangladesh training programme also provided an opportunity to take forward some of the strategic priorities of the SocMon network in the South Asia region to lay the foundation for possible future collaboration between the network and BOBLME during the second phase of the BOBLME Project which is currently in formulation.

The training workshop reported on here has been a collaborative endeavour among various institutions within Bangladesh and the SocMon SA network. The host institution was the Marinelife alliance, headed by M. Zahirul Islam (Chief Executive). The Bay of Bengal Large Marine Ecosystem (BOBLME) Project provided the training funds. SocMon experts from India and Maldives served as trainers and facilitators.

The training workshop was held at the Hotel Shaibal, Cox Bazar and on St. Martin's Island, Bangladesh from 2-11 January 2015. A total of 14 participants coming from various state-level government agencies and civil society groups/non-governmental organizations participated.

1.2.   Training objectives

The objectives of the training in Bangladesh were as follows:

Global objective

The Global objective of the BOBLME Project, to which this training activity will contribute, is:

> To improve the lives of the coastal populations through better regional management of the Bay of Bengal environment and its fisheries.

Development objective

The more immediate objective for this training programme is as follows:

> Socioeconomic monitoring to contribute to improved decision-making processes for coastal management in Bangladesh and more specifically for St. Martin's Island.

This reflects the importance for both SocMon and the BOBLME that monitoring activities not only generate improved knowledge, but that knowledge is then put to use to improve the decision-making regarding coastal areas in the region.

Outputs

The above development objective was to be achieved by the production of the following key outputs from the training programme:

1. A cadre of staff from local organisations working in St. Martin's Island trained in SocMon methodologies and capable of implementing SocMon programmes.
2. Draft SocMon reports for St. Martin's Island.
3. A workplan for implementing SocMon in St. Martin's Island developed and agreed upon.
4. A communication strategy for St. Martin's island developed aiming to raise the profile of SocMon and monitoring activities in coastal communities, and at informing and influencing key decision-makers regarding the outputs of the SocMon process.
5. Key inputs to a regional SocMon strategy identified and agreed upon by participants.

These key outputs were all achieved and are discussed below.

- The level of preparation of different participants in the workshop is variable but a core of 9 persons with good understanding of SocMon and the key tools which can be deployed for its implementation are now available among a set of key organisations working in St. Martin's Island.
- The details of the work plan for continuing with SocMon activities around St. Martin's Island will be prepared based on funding availability and decisions by MLA on how to integrate SocMon into their on-going work in the area, but the key components of this work plan were identified and discussed.
- Some of the key targets for communication of outputs from SocMon were identified and approaches for informing and influencing key stakeholders and decision-makers discussed, creating the basis for a communication strategy to be developed as the SocMon work programme on St. Martin's Island takes shape.
- In addition, some of the key messages from team SocMon Bangladesh which they would like to see incorporated into a regional SocMon strategy were identified and participants indicated their readiness to provide inputs to this once they have undertaken further SocMon work and are in a position to reflect on what linkages they would like to see with the wider regional and global SocMon networks.

2. Methodology

The methodology adopted for the workshop emphasised a participatory approach encouraging workshop participants to develop their understanding of SocMon and the various methods that can be used for SocMon by analysing the context of St. Martin's Island and the communities living there. The majority of the sessions were conducted in an interactive mode, encouraging participants to draw on their experience of working in St. Martin's Island and to identify the key components of the SocMon approach that would be most appropriate for them and their work. The participants appreciated this approach as against a more formal training approach. Formal presentations of SocMon methods and experience from the Maldives and India were used to consolidate understanding that participants had already developed through their plenary and group discussions and the various exercises conducted by the facilitation team.

Figure 1 Participants during the workshop

Prior to the workshop, possible problems with language had been identified and participants were given time periodically throughout the workshop to reflect on what was being discussed in Bangla language. MLA consultant Mr Wahab Akonda would translate key concepts in Bangla and encouraged questions about points that were not clear from the plenary discussions held in English. Language difficulties were highlighted by several participants in their evaluation and this emphasizes how important it will be in future workshops to create space for participants to discuss in their own terms the new learning they are acquiring.

Considerable emphasis was placed on developing a goal, purpose, and outputs for SocMon activities on St. Martin's which reflected the priorities and objectives of the agencies involved in the workshop. A series of field work exercises with the St. Martin's islanders were then used to encourage "learning-by-doing" and to give the participants an opportunity to put their new learning into practice. These field exercises also provided initial inputs for a SocMon report on St. Martin's which can subsequently be developed further by Marinelife Alliance and cooperating agencies in the area as they continue their work on SocMon in the future.

The plenary and valedictory sessions and group work for the workshop were held at the Hotel Shaibal, Cox's Bazar, Bangladesh. The field exercises were held in St. Martin's Island. An overview of the training programme over 10 days is attached as **Appendix I**.

3. Workshop participants

The participants identified by the MLA to take part in the workshop represented a cross section of governmental and non-governmental agencies, active on St. Martin's Island. The level of cooperation between the representatives of these agencies during the workshop was impressive and there was a particularly effective blend of experience and youth. The gender balance was not ideal, with only two female participants involved, but the need to have a better gender balance for future SocMon work was discussed at some length during the course of the workshop and fully appreciated by the participants. A full list of participants is attached as **Appendix II**.

Figure 2 Workshop participants at the closing ceremony

The different agencies working in St. Martin's Island who were represented in the workshop included:

- Bangladesh Fisheries Research Institute (BFRI)
- Forest Department, Cox's Bazar, South Forest Division
- Environment Department

- Bangladesh Centre for Village Development (BCVD), Cox's Bazar
- Marinelife Alliance (NGO)
- Local people from St. Martin's Island

4. Reflections on the workshop process and outcomes

This section identifies some of the key characteristics of the workshop and discusses some of the issues that were raised during the workshop which might be considered of particular importance, both for participants, for the conduct of future workshops and for BOBLME. Some of the reflections presented below are also the result of discussions held both during the course of the workshop and outside the workshop with participants and colleagues at the MLA.

4.1. Plenary, SocMon and BOBLME

The Plenary began with a recitation from the Quran, followed by a presentation to explain the relationship between BOBLME and the SocMon training. It was explained that the Bay of Bengal Large Marine Ecosystem Project covers eight countries that share the marine resources of the Bay of Bengal's and that the global objective of the BOBLME Project, to which this training activity will contribute is to improve the lives of the coastal populations through better regional management of the Bay of Bengal environment and its fisheries. This was followed by an activity where the participants introduced themselves.
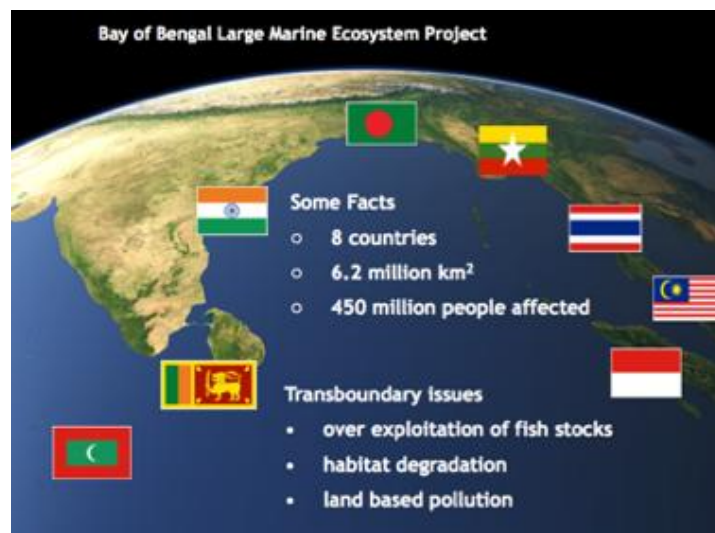

Figure 3 BOBLME participating countries

4.2. Understanding the livelihood framework

The workshop began by introducing the livelihoods framework based on participants' own experience. This encouraged the trainees to reflect on the different elements that affect people's "livelihoods opportunities" and the complexity of the social and economic aspects of people's lives. In particular, this aimed to broaden participants' understanding of what we mean by "socio-economic" aspects of people's lives, incorporating not just the different assets that people use to make a living, but also the key characteristics of people that result in different levels of access to livelihood assets, and also the various external factors that can influence the livelihood outcome a person ends up with. The livelihoods framework developed by participants was subsequently referred to in order to help participants' understanding of livelihood opportunities on St. Martin's Island during the field visit.

Figure 4 The sustainable livelihoods framework

4.3.   Understanding ecological goods and services

We next introduced the terms ecological goods and services as used in the SocMon guidelines and manual. The emphasis given to this was relevant in the case of St. Martin's Island given the protected status of the area. A presentation was made on the ecological value of goods and services in the Maldives and how this information was used to influence policy makers to create MPAs and protect threatened species.

The participants were then asked to develop a list of all the ecological goods and services found in St. Martin's Island as shown in Table 1.

Table 1 Ecological resources and related goods and services on St. Martin's Island

Resource	Related goods & services	Resource status
Coral	• Fisheries • Tourism • Coastal protection	• Declining • Degraded
Mangrove	• Fisheries • Firewood • Bird habitat • Coastal protection	• Degraded severely
Deep sea/open water	• Fisheries	• Fish size and catch is declining
Land	• Agriculture • Aquaculture • Shelter • Coconut • Dry fish processing • Tourism dev/construction	• Loss of agricultural land • Deforestation

Sand dune/sea beach	• Protection • Turtle nest • Recreation • Tourism • Shore vegetation/firewood	• Sand dune degradation (due to shoreline vegetation removal leading to erosion)

They were also encouraged to reflect on the difference between extractive and non-extractive use of these resources.

4.4.   Clarifying goals, purpose, outputs and audience for SocMon in St Martin's Island

Once the participants were clear on the key concepts of livelihoods and ecological goods and services, time was spent discussing the goal, purpose and outputs of SocMon for St. Martin's Island. The results of these discussions are laid out below.

Goal

Management and conservation of the ecological resources of St Martin's Island for a better life for the people of St Martin's Island.

Purpose

- **Manage:** help determine how to manage the Island resources to achieve our goal.

- **Assess:** establish baseline data to use for monitoring changes in social and economic conditions, people's perceptions and involvement in decision making.

- **Inform:** Island community, managers and decision makers with the expectation of adaptive management and behavioral change.

Outputs

- A livelihood and resource profile of the people (primary stakeholders) who live on St. Martin's Island developed.

- St. Martin's Islanders, managers and decision makers who are aware of and understand how livelihoods, resources and resource-use are changing in St. Martin's Island.

- St. Martin's Islanders who are able to contribute to and engage in decision-making about resource management.

- A communication plan for informing an influencing stakeholders.

4.5.   SocMon as a strategy to engage communities in management decisions

A presentation was made to show how SocMon has been used as a community participatory approach for collecting data in Lakshadweep, India. This approach had helped in creating joint learning opportunities involving researchers, communities and decision-makers, and in empowering the island community at the same time. The workshop participants felt that a similar SocMon approach could be used for St. Martin's Island. By doing this the stakeholders of St. Martin's Island - resort owners, fishermen and fisherwomen - could be engaged in a wider process of consultation and discussion on management issues on St. Martin's Island. This emphasis was

important as it provided useful guidance for how to approach the SocMon process and on the relative emphasis to give to data collection aspects of the process compared to the participatory engagement of communities and joint learning opportunities which SocMon can create.

It was agreed that, while it is important to ensure that good data on local conditions is collected during SocMon activities on St. Martin's Island, it would be particularly important to ensure that the approach adopted encourages engagement by a wide range of local stakeholders. Discussions with communities, specific interest groups and key informants within communities, held as part of SocMon, can be used to develop platforms or forums for on-going discussion and participation by local stakeholders in wider decision-making.

4.6.   Identification of key parameters for data collection and appropriate methods to employ in the field.

Once these broad objectives and approaches for SocMon had been discussed, attention was focussed on the key parameters which should become a focus for SocMon information collection. Participants' attention was called to the key parameters listed in the SocMon guidelines. The participants were divided into two groups to make a list of the variables they would choose to collect data and the appropriate methods that they would employ in the field.

The parameters identified by participants, along with potential sources of information and appropriate methods for collecting it are shown in Table 2.

Table 2 Variables, information source and data collection method

Variables	Information source	Method
Community level demographics K1-K12	published reports by MLA, Dept of Environment, UP and Zilla parishad offices, school, Bangladesh Bureau of Statistics, internet	Secondary sources, study area map
Community infrastructure , business development and ownership K 13	UZ and UP	Observation, KII
Coastal and marine activities K14-K27	UP, field stakeholder survey, boat association, resorts, UP	Observation, KII and FGD visualisation
Government institutions and decision-making bodies K28-K37	DOE, defence, MOEF, UNDP, law enforcement agencies, UP	Secondary sources, opinion Survey on perceptions of MPAs
Material style of life	UP members	Observation, FGD, KII questionnaire

The questionnaire developed for the perceptions survey on MPAs is given in **Appendix V**.

4.7.   Field work on St. Martin's Island

The above discussions provided the basis for more detailed planning of the field work exercise to be carried out as part of the training. A range of methods for information collection and consultations with key informants on St. Martin's Island were discussed and these were then implemented during the subsequent 4 days spent on the island.

Detailed planning of the fieldwork was carried out both in Cox's Bazar and after the participants arrived on the island and regular meetings were held during the course to review methodology, discuss findings emerging from the field work and adjust the focus of questioning and discussions with local stakeholders.

After the return of the team to Cox's Bazar on day 7 of the workshop, the data collected during the course of the visit to the island were analysed by the participants with guidance from the facilitation team.

Detailed findings from these four days of field work are presented in a separate report.

4.8.   Developing an informing and influencing strategy for SocMon on St. Martin's Island

After the participants had completed the field work and analysed their findings, they were asked to reflect on those key stakeholders and institutions whose knowledge, behaviour and attitudes might be influenced by the findings generated by the field work. This process was highlighted to participants as a key part of the SocMon process which aims to ensure that findings from the field are translated into appropriate action and decision-making among key actors.

The participants developed a list of internal and external stakeholders and/or audiences who might be interested in the key learning from SocMon, their roles with respect to St. Martin's Island, expectations of behavioural change from these different stakeholders, and appropriate media to be used for conveying information to them. The detailed communication plan developed based on this is attached as **Appendix IV**.

The institutions and stakeholders identified by the participants are shown in Table 3.

Table 3 Institutions and stakeholders identified by the participants

Island stakeholders		External stakeholders	
• Fishers • Shell collectors • Van pullers • Women	• Dive operators • Local associations • UP members • Village conservation associations	• Dept. of Environment & Forests • Upazilla/district officials • Media/ journalists	• Researchers/ scientists • Coast guard/Navy • NGOs • Land owners from Dhaka

Participants discussed the value and effects of St. Martin's Island being declared as an Ecologically Critical Area (ECA) by the Department of Environment and Forests.

The learning from the island visit had shown that little importance is apparently given on the ground to the fact that the island has received ECA notification. It was also seen that the needs and priorities of the natives of the island and their aspirations receive little attention from the local authorities. With land speculation for building resorts on the rise, outside players have become increasingly influential stakeholders.

Participants felt that a two-pronged informing and influencing approach will be needed targeting both the islander stakeholders, informing them on their rights and responsibilities, and the governing institutions, influencing them to carry out better governance on the islands and protect the ECA status of St. Martin's Island.

5. Evaluation of SocMon training by participants

The participants' evaluation of the workshop was generally positive. For some participants, problems with understanding discussion and presentations in English were clearly an issue and the need for more materials in local languages was highlighted. However, among those with a better grasp of English, the responses ranged from positive to enthusiastic, with considerable appreciation of the approach adopted and the level of engagement by participants that was encouraged by the facilitation team.

Among the suggestions provided on how the SocMon training could be further improved, the key point seems to regard the use of local language. Clearly this represents a challenge for the facilitation team, but it does highlight how, in future workshops, special efforts will be required to create space and time for participants to discuss what they have learnt during the workshop in their own language, using those with better English to report back on these discussions to the facilitation team.

The full results of the participants' evaluation of the workshop are shown in **Appendix III**.

6. Conclusions and recommendations

The SocMon workshop in Bangladesh achieved all of its intended outputs. A cadre of trained staff can now be regarded as being able to support future SocMon activities around St. Martin's Island and the Cox's Bazar coastal areas. A draft SocMon report for St. Martin's Island has been prepared and the basis for future work to complete this has been laid down.

6.1. Future work plan for SocMon on St. Martin's Island

The outline and key components of a future work plan for SocMon at St. Martin's Island has been prepared. The main features of this work plan are as follows:

- **Completion of the St. Martin's Island SocMon process**
  A core team of participants in the workshop have indicated their readiness to continue the work initiated during the training workshop in St. Martin's Island in order to produce a finalised SocMon report for the community. It is estimated that a further two weeks field work will be required to carry out this work and the team from MLA and its partner agencies will identify a team to carry this work out in the near future, paying particular attention to achieving a better gender balance in the team to ensure an appropriate level of coverage of concerns of both women and men in the community. This may require some prior training for new team members but the capacity has been created during the workshop to carry this out.

  As participants carried out initial analysis during the SocMon workshop, they are prepared to analyse further findings generated by this field work and incorporate it into the final St. Martin's Island SocMon report.

- **Validation of information collected**

The next step in this work will be to conduct a validation meeting for the data collected and analysed, with members of the community of St Martin's Island and local authorities. Particular emphasis was laid on the importance of this step in ensuring that the SocMon team's interpretation of findings is correct and to ensure that the local community takes full ownership of the findings of the process. Participation by local agencies, including government departments such as those concerned with tourism, who may not have been directly involved in the SocMon process, will also be an important feature of these validation meetings. This is an essential step in ensuring appropriate follow-up action.

- **Preparation of a proposal for SocMon on St Martin's Island for submission to BOBLME**

The participants have field tested the SocMon approach (PRA and survey questionnaire) on a trial basis during the workshop. They learned many lessons through these activities including how to carry out interviews. They also learned about potential obstacles to the process such as language barriers and the lack of awareness of the respondents, and gained experience in seeking ways to overcome them. The respondents on the island, in turn, acquired more knowledge about the natural resources and environment around them and participation in SocMon activities started them thinking about these issues. Many of the participants said they themselves learned a lot of new things from the process.

6.2. Governance issues on St. Martin's Island

From the field work conducted during the course of the workshop, and reported on separately in the draft SocMon report for St. Martin's Island, it was evident that there are many problems associated with the governance of natural resources on the island. Centres of decision-making relating to the natural resources on the island are distant and this makes it difficult for the islanders to effectively implement laws and regulations affecting resource use on the island. The declaration of St. Martin's Island as an ECA has not apparently made a significant difference to the level of attention being paid to development activities on the island and their potential impacts on the local environment.

Tourism on the island is currently effectively unmanaged and seems destined to grow in the future. Decisions on tourism development appear to be largely made in the capital and involve significant sets of interests. These decisions are reported to often have limited relevance to local priorities or the concerns of the islanders. The impacts of these decisions on tourism developments on the local environment are significant and infrastructure on the island is poorly developed and unable to cope with the current influx of tourists during the tourist season. The lack of sewerage facilities and effective waste disposal is a particular cause of concern.

All of these points indicate that greater attention to the management of development on St. Martin's Island is required in the future. This is likely to entail efforts at all levels, from the local up to the national, to engage key actors in a process of clarifying key issues and developing more appropriate mechanisms for addressing them. The need for a consultation process that involves all stakeholders - local people, fishers and fish processors and tourist interests - to set clear priorities and ensure that effective management is put in place, along with mechanisms for implementation, monitoring and surveillance, seems paramount.

6.3. Wider regional SocMon strategy

This was the first time that a SocMon workshop has been conducted in Bangladesh and presents an opportunity to build a greater level of awareness of social and economic issues associated with coastal area management in the country. The workshop has contributed to the wider global SocMon strategy to promote the use of SocMon approaches in more countries and show how socio-economic monitoring can complement biophysical monitoring and provide a basis for better management of coastal ecosystem resources and its fisheries.

The involvement of key governmental organisations in the workshop was extremely positive but there will be a need in the future for this to be built upon and the engagement of higher decision-making levels of government will be key to ensuring that learning from SocMon informs policy-making.

With the Bangladesh SocMon team established, there are now 4 country teams and 7 site teams in South Asia. Engagement with the wider SocMon network, both regionally and globally, can ensure that key lessons generated from this experience are more widely recognised and possible applications in other settings made possible.

BOBLME's support and the involvement of the SocMon SA regional coordinator in the workshop will ensure that an appropriate level of visibility is given to the workshop and to future SocMon work on St. Martin's Island. Active engagement of Marinelife Alliance in the network will also be encouraged in the future. As the trainers were from India and Maldives it provided an opportunity to strengthen the SocMon SA network and share experiences.

Particular elements in the St Martin's Island experience which may be provide important lessons for other SocMon partners globally would include:

1. The involvement of Government and Non-Governmental agencies in work on St. Martin's Island was particularly important. This mode of operation is crucial in order to ensure proper cooperation between them in the future;
2. The training on SocMon in Bangladesh emphasised the role of the SocMon approach as a means of engaging communities in management decisions and taking a more proactive role in managing their coastal resources. This element is particularly relevant and highlights the potential of SocMon as a strategy for empowering coastal communities to take greater responsibility for and stewardship of the resources they depend on;
3. The importance of engaging all levels of decision-making in the SocMon process to ensure that key local issues are recognised and acted upon at the highest levels. The governance issues observed on St. Martin's Island will often require action at higher levels than those directly involved in SocMon and effective strategies for informing and influencing these higher levels will be key in the future.

The recent meeting (early 2014) of the Global SocMon Network proposed the development of regional SocMon strategies to complement the strategy of the global network. In the development of such a strategy for the South Asia region, it would be extremely important to ensure that partners, such as the Marinelife Alliance, are actively involved, as they will be able to provide invaluable learning and experience to feed into that strategy and ensure that it fully reflects the specific characteristics of coastal areas in the region.

6.4.   The role of Marinelife Alliance

The excellent collaboration with MLA and the participants representing different institutions achieved during the workshop suggests that they would be in a good position to provide further inputs to the development of this strategy in the future.

The participants at the workshop have demonstrated a clear understanding of what can and cannot be achieved through SocMon and how they can use it further their own work on St. Martin's Island. There is considerable potential for developing a more complete SocMon programme for St. Martin's Island and it is clear that the participatory approaches recommended for implementing SocMon are appropriate for the work that the participating institutions are proposing in the future. SocMon can make an important contribution to setting up a network of communication and consultation between concerned agencies and local stakeholders, in addition to providing key data to facilitate monitoring of changes in resource use in the area.

MLA has a long-term commitment towards the sustainable development of St. Martins Island. They have an on-going turtle conservation and environment awareness programme on the Island. This

work is currently being supported by the Department of Environment and Forests under the Strengthening Regional Cooperation for Wildlife Protection project. In the process they have a good relationship with the island community and the Department of Environment and Forests. M. Zahirul Islam, the Chief Executive Officer of MLA, had carried out a detailed study of the biological resource and community profile at St. Martin's Island in 2002 for the Ministry of Environment and Forests and it would be useful to use this as a baseline for comparing the results of the current SocMon activities being carried out on St. Martin's Island.

MLA is in an excellent position to make best use of SocMon approaches in the future. There is every indication that, should this work receive additional support, they would be able to achieve the development objective of the SocMon training programme, which is to ensure that "socioeconomic monitoring contributes to improved decision-making processes for coastal management in Bangladesh and, specifically, for St. Martin's Island".

It is therefore recommended that a partnership with MLA, for continued SocMon work in St. Martin's Island, should be developed and supported.

Appendix I   Program schedule

Day	Activity
Day 1	• Introductions & background to the SocMon training • Introduction to livelihood framework • Livelihoods of St. Martin's Island
Day 2	• Introduction the terms ecological goods and services • Economic valuation of ecological services - Maldives • Linking island livelihoods to ecosystem goods and services • Goals and objectives for St. Martin's Island SocMon • Audience for St. Martin's Island SocMon results
Day 3	• Identifying key elements for SocMon and approaches for engaging with local communities and stakeholders • Field work preparation -developing detailed parameters for SocMon • Focus on governance , enforcement and compliance
Day 4	• Travel to St. Martin's Island - planning field sessions
Day 5	• 1° fieldwork session on St. Martin's Island
Day 6	• 2° fieldwork session on St. Martin's Island
Day 7	• 3° fieldwork session on St. Martin's Island • Return travel to Cox's Bazar
Day 8	• Data analysis and reporting of field work output
Day 9	• Communication strategies for making use of SocMon results • Planning of future SocMon strategies and activities
Day 10	• Workshop close

Appendix II   Workshop participants

	Name	Designation	Affiliation	Cell phone #	Email
1	Dr Shafiqur Rahman	Senior Scientific Officer	BFRI/MFTS	01820576067/ 01730302661	shafiqbfri@yahoo.com
2	Md. Shahzad Kuli Khan	Scientific Officer	BFRI/MFTS	01712970979	khanbfri@gmail.com
3	Jakia Hasan	Scientific Officer	BFRI/MFTS	01723 057525	jakiabfri@gmail.com
4	Md. Rezaul Karim Chowdhury	Assistant Conservator of Forests	Cox's Bazar South Forest Division	01711388222	rezaulkarim91@hotmail.com
5	Fakar Uddin Mojumder	Beat Officer, Himchari Beat	Cox's Bazar South Forest Division	01712180894	
6	Saiful Tareq Fuad	Climate Change Mitigation officer	Dept of Environment Cox's Bazar	01726206823	
7	Puspak Barua	Research Assistant Outreach Officer	Marinelife Alliance	01818226255	puspaknacom@gmail.com
8	Tahamina Akther jaly	Research Assistant Data Entry	Marinelife Alliance	01831524002	Tahaminaakter423@gmail.com
9	Mobarak Hosen	Research Assistant Field Intervention	Marinelife Alliance	01758883399	Mobarakhosen380@gmail.com
10	Md. Ayaz	Community Volunteer	Marinelife Alliance St. Martin's Island	01823810977	ayaztazz@gmail.com
11	MD. Ahosamul Azim Shafi	Program Co-ordinator	BCVD, Cox Bazar	01190744962	sofibcvd@gmail.com
12	M. Abdul Malek	School teacher	Marinelife Alliance	01830573667	
13	Abdul Wahab Akonda	Wildlife Consultant		01728873324	
14	Chenmoung	Research Assistant	Marinelife Alliance	01820020603	

Appendix III   Participants evaluation of the workshop

Overall average evaluation mark over 5 categories: 4.41/5

1 – insufficient   2 – could be better   3 – OK   4 – good   5 – very good

Category	Rating average
1. Workshop planning and organisation	4.3
Venue	4.07
Accommodation	4.15
Transportation	4.53
Food	4.53
2. Workshop facilitation	4.6
3. Workshop materials	4.15
4. Your understanding of SocMon	4.5
5. Your understanding of SocMon to inform and influence	4.6

Overall comments	
What went well?	**What could have been better?**
• The discussions on St. Martins Island • Boulders surround SMI • Liked all the information of SMI • Group discussion is more effective than lecturing • Everything went well • Group discussions were very good • Group discussions is better than lecturing • Group discussion and presentation • St. Martin's Island visit • Workshop	• The community should be motivated about conservation of St. Martin's Island • Boulders should be higher and stronger • Everything was good in his workshop • Questionnaires should have been translated into Bengali • Time maintenance and discipline • Better residence at St. Martin's Island • Launching the same/similar program • Nothing
2. Workshop facilitation	**Average: 4.6**
What went well?	**What could have been better?**
• Enjoyed snorkelling • Trainers were very nice and their discussions was good • Facilitation was good for all • Trainers were very friendly and had empathy for all islanders and natural resources • Resource mapping and activity mapping	• Fishers should be managed • Fishers should be trained to follow rules • Would have been better if resources were in Bangla • Keep it up • Nothing • Nothing
3. Workshop material and hand-outs	**Average: 4.15**
What went well?	**What could have been better?**
• Discussion with the community • All the materials were very good • Everything is of quality • Delivering lectures from Vineeta and Marie • Delivering lectures of Vineeta	• We should talk to stakeholders of SMI • Should spend more time with the community • A sharpener and eraser should be included in the materials • A thumb drive with all presentations to be included • A pen drive

4. Your understanding of SocMon	Average: 4.5
What went well?	**What could have been better?**
• Everything • I like SocMon and the activities related to SocMon • Refining the goal and outputs in a new manner • Although SocMon is new to me , I learnt a lot and gained a lot of experience from the training • SocMon was carried out well in Bangladesh to collect data • It was good we were informed through appropriate presentations • Learning about SocMon activities • SocMon activities	• Nothing • If resources were in Bangla we could understand better • Exposure by visiting abroad • Exposure to another island abroad
5. Understanding of using SocMon to inform and influence	Average: 4.6
What went well?	**What could have been better?**
• SocMon methodology • Implementation of SocMon methods • Implementation of SocMon	• Nothing • If resources were in Bangla we could understand better

List something new that you learnt
1. From this workshop we learnt about the location, livelihood and socioeconomic condition of the community of St. Martin's Island 2. SocMon activities, St. Martin's Island livelihoods 3. Saw St. Martin's Island in a new perspective with SocMon, learnt more from FGD, learnt about ECA and the ECA Act, learnt about SocMon in Maldives and India 4. Planning, communication plan, FGD, goals for St. Martin's Island, communication and infrastructure 5. To love nature and to take individual responsibility informing and influencing 6. Team work, presentation about St. Martin's Island, SocMon, coral fish and agriculture 7. Planning, group work and communication, presentation, FGD, PRA, HH survey, resource mapping 8. SocMon process and methods 9. New experience and learning about coastal livelihoods and St. Martin's Island people 10. Socioeconomic monitoring in Marine Protected Areas and working with native people 11. Thank you Marie and Vineeta

Appendix IV   Variables for St. Martin's Island

Community level demographics

No	Parameter	Source of information
K1	Study area	Available
K2	Population	UZ, Union Parishad (UP)
K3	No. of households	UZ, Union Parishad (UP)
K4	Migration rate	Bangladesh Bureau of Statistics (BBS)
K5	Age	UZ, UP, BBS
K6	Gender	UZ, UP, BBS
K7	Education	UZ, UP, BBS, field survey
K8	Literacy	UZ, UP, BBS
K9	Ethnicity/caste/tribe	Field survey
K10	Religion	UP
K11	Language	Field survey
K12	Occupation	UP, Field survey

Community infrastructure, business development & ownership

No	Parameter	Source of information
K13	Community infrastructure, business development and ownership	UZ, field survey

Coastal and marine activities

No	Activity name	Source of information
K14	Activities • Fisheries • Tourism • Agriculture	DoF (UFO Teknaf) – Partial data DoE (Cox's Bazar) DoF (UFO, Teknaf)

K15	Goods and services
	• Turtle
	• Fish
	   o Grouper, Snapper, Pomfret
	   o Flying fish, Hilsa
	   o Shrimp, Lobster
	   o Ribbon fish, Siri Siri
	• Seaweed
	• Shell
	
	• Tourism
	   o Hotel & restaurant
	   o Ship
	   o Speed boat & trawler
	   o Diving
		MLA, DoE/UNDP
		DoF, Fishermen (local), Marine Science Institute, Scientists of NORI etc.
		
		BFRI, Coast Trust, Mrs Jahanara Rongdhohu
		Primary info – DoE, Marine Academy Shell Collectors
		
		BPC (Bangladesh Parjatan Corporation), DoE, TOAC, Union Office
		Coast Guard, Upazila Administration
		Local Boat Association, Upazila Admin
		Save our Seas, Oceanic Scuba Diving, Dhaka Divers Club, Rescue Scuba Diving

K16	Types of use • Seine net • Trawler (tourist & fishing)	DoF, Boat Association, UP Office, Primary information
K17	Value of goods & services • Fish • Shell • Hotel/restaurant • Ship • Coral	Market survey/agent Agent/BSCIC TOAC, resort owners TOAC (Tour Operators Assoc of Cox's Bazar)/UZ SOS, MoEF, WCRC, MLA
K18	Target markets of goods & services	TOAC, BPTC, MoEF DoE, UZ Agents
K19	Traditional knowledge	Primary information
K20	Use patterns, activity location, seasonality	Primary information
K23	Level & types of impact	DoE, DoF, MoEF, NGOs, University
K24	Level of use by outsiders	DoE, DoF, MoEF, NGOs, University, TOAC, KI
K25	Household use	Primary information, UZ, DAE (Dept Agri Ext)
K26	Stakeholders	UZ
K27	Tourist profile	TOAC, Primary info

Governance, institutions & decision-making bodies

No	Parameter	Source of information

K28	Management body
	   • Concerning bodies
	      o Defence
	      o LGI
	      o ECA committee, VCGs
		DoE

K29	Management plan	DoE
K30	Enabling legislation	MoEF, MoL, DoF
K31	Management resources	MoEF, MoL, DoF
K32	Formal tenure and rules	MoL, DAE
K33	Informal tenure & rules, customs and traditions	UP St. Martin, Local influential people (KI)
K34	Community incentives	UNDP – DoE, DoF, DAE
K35	Stakeholder participation and satisfaction	
K36	Community and stakeholder organisations	UP, UZ
K37	Power and influence	Law enforcement agencies

Details of community infrastructure, business development and ownership

1. Hotel and resort

No. of resort	Name of owner	Owner's residence (St. Martin's or other)	Credit source (own/friend's bank)

2. Restaurants

No. of restaurant	Name of owner	Owner's residence (St. Martin's or other)	Credit source (own/friend's bank)

3. Shops

Category of shop	No. of shops	Name of owner	Owner's residence (St. Martin's or other)	Credit source (own/friend's bank)
Grocery Stationery Souvenir Mechanics Fuel shop Fax/phone/reload studio Hair salon Laundry Dry fish shop Petty business vendors				

Appendix V   Questionnaire on protected area/ECA management

1. What in your opinion is a protected area/ECA?
   a. An area that has open access to its resources
   b. An area that has limited access
   c. An area that cannot be accessed
   d. All of the above

2. What are the benefits of protecting a natural area for you as an individual?
   a. Safeguarding the sources of income
   b. Preserving the biodiversity for future generations
   c. Increase in natural resources
   d. Protection of island
   e. Increase in aesthetic value
   f. All of the above
   g. Other_____

3. Indicate degree of agreement with the following statements using the scale of agree strongly (5), agree (4), neither agree nor disagree (3), disagree (2) and disagree strongly (1).

_____ (a) Coral habitats are important for protecting land from storm waves

_____ (b) The seagrass beds provide food to turtles

_____ (c) Coral habitat provide us with beautiful fish and shells

_____ (d) Mangroves are important as nursery grounds for sea animals

_____ (e) Living corals are more beautiful than the curio shop corals

_____ (f) I want the future generations to enjoy the mangroves

_____ (g) I want the future generations to enjoy the screwpine (Keya)

_____ (h) I want the future generations to enjoy the sea beach

_____ (i) Fishing should be restricted in certain areas to allow the fish and corals to grow

_____ (j) We should close some areas so that future generations will be able to have natural environments

4. Do you think protected areas can be effectively implemented in St. Martin's Island? Yes/No

5. Are you aware that St. Martin's Island was declared an Ecologically Critical Area and is protected under the law? Yes/No

6. Are you aware that corals are protected under the Wildlife Act? Yes/No

7. Do you think that the resource use or collection of natural resource (corals, sand, fish, shells, mangrove wood etc.) should be allowed within a protected area? Yes/No

8. What in your opinion are the barriers to effective implementation of management?
   a. Lack of will from local authorities
   b. Lack of will from the Government
   c. Lack of capacity of the local authorities
   d. Lack of awareness about benefits of MPAs
   e. Lack of awareness about management of MPAs

     f.   Financial constraints

     g.   All of the above

     h.   Other. Please specify _____

9. What do you think can be done to facilitate management of this protected area/ECAs?

     _____

Background questions

10. Sex: (please tick)   Male ☐   Female ☐

11. In which of the following age group do you fall? (please tick)

Below 15 ☐   15-25 ☐   26-35 ☐   36-45 ☐   46-55 ☐   Over 55 ☐

12. What is your level of Education? (please tick)

☐   Madrasa/Moktob

☐   Primary school certificate (class 1-5)

☐   Junior school certificate (class 6-8)

☐   Secondary school certificate (9-10)

☐   Higher secondary certificate (class 11-12)

☐   Some university or college/technical school

☐   Completed university

13. What is your profession? _____

14. We would like to know your approximate annual income? (please tick)

☐   Below BDT 100,000

☐   BDT 100,000-200,000

☐   BDT 200,000-300,000

☐   BDT 300,000-400,000

☐   Above BDT 500,000

Appendix VI   Informing and influencing plan

Audience	Media	What to do	Expectations of change in behaviour
Fishermen	Campaigning, audio-visual documentation, direct contact/counselling, signboards, billboards	• Awareness for conservation • Existing laws, information • Informing the rate of destruction • Government incentives	Fishermen • will not catch fish in breeding time • will be aware of existing laws • will not use illegal mesh net • will not catch every fish and everywhere • will protect/save by-catch e.g.: turtle • will not destroy coral with nets • will not discard nets in the ocean • will use water as a sustainably
Tourist and resort owners	Campaigning, audio-visual documentation, direct contact/counselling, signboards, billboards, brochures	• Awareness for conservation • Existing laws, information • Informing the rate of destruction • Government incentives	• Construction of environmentally friendly buildings (solar, rain water harvesting and waste management) • Their guests will not undertake harmful activities • Resort owners will not put on lights on the beachside to distract turtles
Farmers	Radio/TV broadcasting, direct communication, campaigning, field meeting, fairs, leaflets	• Awareness for conservation • Existing laws, information • Informing of the rate of destruction • Government incentives	• They will limit use of chemicals and other inorganic substances • They will be able to harvest maximum output from minimum space • Coconut production will be increased • Salt/climate resilient crop/species will be promoted
Land owners	Campaigning, radio/TV broadcasting, leaflets	• Awareness • Land-use change rate	• All space will not be used for resort or any one extensive purpose • Land use zoning will be mapped • Land transfers will be limited
Coral collectors & others	Campaigning, radio/TV broadcasting, leaflets	• Information about the rate of destruction • Informing existing laws	• Coral colonies will be safe • St. Martin's Island will be protected • Fish breeding for lobster, shell, aquatic weed will be more

Teachers & students, Imam of mosque	Meetings, workshops, leaflets, newspaper	• Awareness • Capacity building regarding leadership and conservation	• They will be able to deliver message and take part in conservation
Local leaders (UP members, chairman, social leaders, Association leaders)	Meetings, workshops, leaflets, newspaper, souvenirs	• Awareness • Capacity building regarding leadership and conservation	• They will be able to deliver message and take part in conservation • Laws are implemented effectively • St. Martin's Island conservation and management will be done properly
Journalists	Radio/TV/newspaper /souvenirs	• Awareness • Capacity building regarding leadership and conservation	• They will be able to deliver message and take part in conservation • They will be able to deliver message in proper time
Rickshaw puller	Radio/TV/newspaper /souvenirs	• Awareness	• They will be able to take part in conservation awareness and give message to tourists
Ship owners, tourist guide/tour operator	Meeting, training workshop	• Awareness	• They will be able to take part in conservation awareness and give message to tourists
Navy/coastguard/police/public admin	Meeting, training workshop	• Awareness	• Laws will be implemented • SMI conservation and management will be done properly

Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka and Thailand are working together through the Bay of Bengal Large Marine Ecosystem (BOBLME) Project to lay the foundations for a coordinated programme of action designed to better the lives of the coastal populations through improved regional management of the Bay of Bengal environment and its fisheries.

The Food and Agriculture Organization (FAO) is the implementing agency for the BOBLME Project.

The Project is funded principally by the Global Environment Facility (GEF), Norway, the Swedish International Development Cooperation Agency, the FAO, and the National Oceanic and Atmospheric Administration of the USA.

For more information, please visit www.boblme.org