

UNEP Caribbean Environment Programme

Training of Trainers in Marine Protected Areas Management

St. Lucia, October 27-November 10, 2002

COURSE REPORT

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Submitted to:

Regional Coordinating Unit

UNEP Caribbean Environment Programme

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Table of Contents

	<u>Page #</u>
Acknowledgements	2
List of Acronyms	3
Historical Overview	4
Course Design	4
Course Delivery	5
Course Evaluation	9
Related Matters	11
Course Coordinator's Remarks	11
Appendices	
Appendix 1: List of Participants	13
Appendix 2: Course Schedule	16
Appendix 3: List of Facilitators	22
Appendix 4: Remarks from Opening Ceremony	23
Appendix 5: Status of Sites Managed by Participants	27
Appendix 6: Training Plans Submitted by Participants	29
Appendix 7: Evaluation of Course Modules	98
Appendix 8: Course Evaluation	120
Appendix 9: Press Release	129
Appendix 10: Suggestions for Revision of Modules	131

Acknowledgements

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Thanks to the sponsors, the UN Foundation and the ICRAN project, for providing the financial support to make this 2002 course a reality.

As always, a number of institutional partners provided a range of support. Thanks to The Nature Conservancy, the Soufriere Marine Management Association, and the Fisheries Department, Government of St. Lucia.

Thanks also to the Facilitators for making the course the success it was. Special thanks to Ms Juliana Samuels, Officer in Charge of the Soufriere Marine Management Association, for her coordination of the local support network and activities, and for her guidance to the UNEP-CAR/RCU in this process.

Finally, we thank the staff of UNEP-CAR/RCU for the many hours of hard work preparing for this important event.

List of Acronyms

CaMPAM	Caribbean Marine Protected Areas Managers (Network of)
MPA	Marine Protected Area
SMMA	Soufriere Marine Management Association (or Area)
SPAW	Specially Protected Areas and Wildlife
UNEP-CEP	UNEP Caribbean Environment Programme

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HISTORICAL OVERVIEW

UNEP Caribbean Environment Programme (UNEP-CEP) implemented its regional training programme under the Protocol Concerning Specially Protected Areas and Wildlife (SPAW) in 1998. In 1999, with the financial support of the Coastal Zone Management Centre, UNEP-CEP developed the Training of Trainers Course in Marine Protected Areas Management.

The course included the preparation of a manual, developed by specialists from the Caribbean region, and the use of Facilitators (training and technical experts) in course delivery.

Two two-week courses were conducted in English in 1999 and Spanish in 2000, resulting in twenty four (24) persons from the English, Spanish, and Dutch speaking Caribbean being trained.

COURSE DESIGN

Twelve (12) Participants from eight (8) countries (Appendix 1) were selected for the 2002 course held in St. Lucia. The selection was made by the Regional Coordinating Unit of UNEP-CEP from the list of applicants that responded to the course announcements. The following criteria were used in the selection of the Participants:

- Position as Managers or senior personnel in their protected areas;
- Responsibility for training; and
- Geographic distribution throughout the English-speaking Caribbean.

The course schedule developed prior to the arrival in St. Lucia was refined through a process of interaction between Facilitators and Participants. The revised schedule is shown as Appendix 2.

The delivery of the course was guided by the Facilitators (Appendix 3), with logistics support by the Soufriere Marine Management Association (SMMA) and the Department of Fisheries.

The course also included opening and closing ceremonies, in which representatives of the Government of St. Lucia and the Soufriere Marine Management Association participated. Welcoming remarks from the opening ceremony are given as Appendix 4.

COURSE DELIVERY

The stated course objectives were:

- To improve the training skills of Participants by introducing them to the theory and practice of adult education, including a variety of tools and approaches used in adult education;
- To provide background information relevant to marine protected areas (MPAs) management;
- To provide guidance on theoretical or practical matters associated with MPAs;
- To provide a forum where MPA personnel can discuss common issues, and share experiences and successes; and
- To increase the involvement of Participants in the CaMPAM Network.

In reaction to the stated objectives, the Participants enunciated their expectations as:

- To acquire general training skills/teaching techniques.
- To learn how to organize information in a presentable manner.
- To learn how to use teaching aids.
- To learn how to conduct research and compile information to be used for training.
- To learn and understand good training ethics.
- To become as educated as possible about good communication skills.
- To build networks with other regional managers.
- To adopt good management techniques from other managers for Glover's Reef.
- To gain insights into some of the different styles of presentation for presenting to, and training, different stakeholders in their marine reserves.
- To share information about Caribbean MPAs and the way they are structured, and to learn about different reserves in the different countries and the way they are structured and managed.
- To achieve better management techniques that will be used in the day to day management of MPAs.
- To gain insight into different ways that information about marine reserves could be shared.
- To learn how to better manage the SMMA, by sharing and by learning from the experiences of other marine parks.
- To learn about the latest techniques and achievements on MPA management.
- Preparation for the follow-up courses.
- To learn more about MPA Planning and Management, Research, and Monitoring. This will contribute significantly to securing the future of Dominica's MPAs.
- To continue developing outreach strategies targeting stakeholders and the general public on the need for an MPA.

- To develop a wide range of knowledge, skills, and attributes that can be used as a “tool kit” in training colleges and for users of the resource.
- To build confidence in myself when I conduct training sessions.
- To help significantly in the improvement of the MPA by increasing awareness and education.
- To be able to have the capacity to expand some of the concepts of MPA (e.g. data collection, conservation, and marine resources management) to other parts of the island other than the SMMA.

The above expectations were then compared with the training duties of the Participants (Table 1), and the general status of their sites (Appendix 5). Based on these various considerations, the general approach used to deliver the course consisted of the following:

- Instruction, supplemented by handouts and presentations using overhead projectors and PowerPoint;
- Group exercises, including role playing; and
- Discussion sessions, focusing on the site experiences.

The classroom sessions were augmented by three (3) field exercises, focusing on:

- Use of the Reef Check method;
- Discussion of management issues with staff of the Soufriere Marine Management Association (SMMA), followed by a glass bottom boat tour of the marine management area; and
- Participation in collection of sediment traps within the Soufriere Marine Management Area.

The Facilitators that guided the various modules of the course were:

- Dr. Alida Ortiz - **Training and Communications Skills.**
- Mr. Lloyd Gardner - **Nature of the Marine Environment, Uses and Threats to the Marine Environment and its Resources, and Marine Protected Areas Overview.**
- Ms Gillian Cooper - **Participatory Planning.**
- Mr. Tom van't Hof - **Marine Protected Area Planning and Marine Protected Area Management.**
- Dr. Geogina Bustamante - **Research and Monitoring.**

Table 1: Training Duties of Participants

Name of Participant	Country	Organisation	Position	Current Training Duties
ALAMILLA, Miguel	Belize	Hol Chan Marine Reserve	Manager	<ul style="list-style-type: none"> • Tour Guides • Schools • Community outreach
ANTHONYSON, Donald	Antigua	Environmental Awareness Group (Cades Marine Park)	Community Liaison Officer	<ul style="list-style-type: none"> • Primary and secondary schools • Community outreach/public awareness • Linking management plan to communities
GARBUTT, Dennis	Belize	Port Honduras Marine Reserve	Manager	<ul style="list-style-type: none"> • General public awareness • Schools • MPA staff • Tour Guides • Fishermen
GUMBS, James	Anguilla	Department of Fisheries and Marine Resources	Marine Biologist	<ul style="list-style-type: none"> • Assistance to Anguilla National Trust with schools outreach and awareness activities
MUNNINGS, Albert	Belize	Glovers Reef Marine Reserve	Manager	<p>Training programme about to commence, to include:</p> <ul style="list-style-type: none"> • Reserve staff • Managers • Fishermen
NELSON, Thomas	St. Lucia	Department of Fisheries	Field Officer, CZM Project	<ul style="list-style-type: none"> • Schools • Fishermen • MPA staff • Communities

NORRIS, Norman	Dominica	Fisheries Development Division	Fisheries Liaison (Extension) Officer	<ul style="list-style-type: none"> • Fishermen • Extension services (fisheries and marine reserves) • Primary schools and college • Public awareness
ROSS, Andrew	Jamaica	Montego Bay Marine Park	Science Officer	<ul style="list-style-type: none"> • Schools (costly, to be discontinued) • Fishermen (changing practices) • Staff • Volunteers • Local Advisory Committee • Community training/presentations • Stakeholder sensitivity training
SAMUEL, Juliana	St. Lucia	SMMA	Officer in Charge	<ul style="list-style-type: none"> • Staff training • Public education
SIMAL, Fernando	Bonaire	Bonaire National Marine Park	Manager	<ul style="list-style-type: none"> • Staff training • Park ranger course
STAINED, Francis	Belize	Caye Caulker Marine Reserve	Manager	<ul style="list-style-type: none"> • Extension and outreach • Staff
WILLIAMS, Patrick	Barbados	Folkstone Marine Park	Senior Park Naturalist	<ul style="list-style-type: none"> • Schools • Staff • Public awareness

COURSE EVALUATION

The course delivery included assessment of the Participants, as well as evaluation of the modules and the overall course.

Assessment of Participants

The assessment of the Participants consisted of three basic components:

- a. Role playing;
- b. Preparation of Training Plans; and
- c. Presentation of Training Sessions.

The role playing utilized the materials from the course, the scenarios dictated by the exercise, and the experiences of the Participants. Each exercise was followed by a discussion session, which included identification of different outcomes and addressed how Participants would design and deliver similar exercises in their normal training programmes.

Participants were required to prepare Training Plans, one for each of the seven supporting modules in the manual, and based on one concept from each module. As such, each Participant was required to prepare seven plans. The Training Plan was based on a format contained in supporting materials Participants had received during the first module on Training and Communications Skills. A total of 76 training plans were submitted (Appendix 6).

A review of the training plans indicates that the Participants focused primarily on education and outreach for the first four modules (2, 3, 4, & 8). Following the assessment of the first set of presentations, the designs of the training plans improved. As such, the training plans for Modules 5, 6, and 7 were geared more towards actual training, and less towards outreach.

The presentations were based on the Training Plans. Each Participant was required to use one of the plans prepared, and train the other Participants using the selected concept. Two days were allocated in the course schedule for these presentations (Appendix 2), and as such, each Participant made two such presentations. After each presentation, the Course Participants were asked to comment using the following factors:

- Clarity of training objectives;
- Whether the objectives were achieved;
- Any other technique/element that could be used to enhance the delivery of the training; and
- Any additional supporting materials that would enhance course delivery.

Evaluation of Modules and Course

The Participants were asked to evaluate each module, using a pre-designed instrument (Appendix 7). The results are summarized in Appendix 7. All the modules were deemed to be useful, and the delivery of the modules ranging from good to very good. Additionally, the Participants stated that all the modules would be used in delivering courses on their return home.

The Participants were also asked to evaluate the overall course. The evaluation instrument and results are given as Appendix 8. In addition to the general perceptions provided, the responses concerning the weak and strong points of the course are shown below.

Strong points of the course were said to be the:

- Education module;
- Inclusion of role play exercises;
- Group discussions;
- Clear message from the course of the importance of setting goals and standards;
- Facilitators were excellent (knowledgeable and approachable);
- Mix of different backgrounds (of Participants). All the Participants brought a wealth of experiences to the sessions;
- Organisation by UNEP was very good;
- Venue, location;
- Networking/hearing examples of other MPAs/contacts; and
- Case studies of successes and failures of MPAs, as well as the personal experiences of the Managers.

Weak points of the course, and how they could be changed, were given as:

- Presentations that were essays on scientific content. There should be a way of simplifying their delivery;
- Facilitators should be asked to present lesson plans, so as to ensure that the goals of the workshop modules are met;
- The organization and development of field trips was really bad. Great fun, but no learning experience;
- The course was too intense, with no weekends off;
- The modules needed to be updated. There was overlap between some of the modules;
- Having to hand in draft proposals during the training course;
- The materials should be in the hands of the Participants at least two weeks in advance, as the Training of Trainers Course is very intensive; and
- Due to the volume of work requested, there should have been one or two computers available for better reporting and presentation of materials.

Issues for UNEP-CAR/RCU to consider:

- In a course of this length, there should be more days off to ward off burn out/boredom of participants;

- The workshop is very good, as it gives MPA Managers a chance to learn from each other's experiences and practices;
- The inclusion in the Human Resources Management section of a standard approach for a Ranger Training Course;
- More personal interactions in general. More structured social time to discuss MPA experiences in informal and formal setting;
- Participants should be informed ahead of time that they would have a number of presentations to give during the course;
- Participants should be informed at the beginning that they had to bring draft proposals with them;
- UNEP should have a follow-up programme to see if the Trainees have utilized the skills and valuable resources; and
- Overlapping of module information should be avoided.

RELATED MATTERS

The Soufriere Marine Management Association arranged for media coverage of the training course, which took the following formats:

- A Press Release (Appendix 9), which was prepared by the Course Coordinator and the ICRAN Caribbean Project Manager, and sent to the media houses by the SMMA.
- An interview with Mr. Percival McDonald, Chairman of the SMMA, was aired on Radio St. Lucia.
- A television crew from Helen Television Services covered the Opening Ceremony, and the clips were subsequently shown in the newscast.
- After the Opening Ceremony, Dr. Alida Ortiz and Mr. Lloyd Gardner were interviewed by Radio 100 Helen FM, and the material was subsequently used in their news broadcast.

REMARKS BY COURSE COORDINATOR

1. A number of factors impacted negatively on the productivity of the course, the main ones being:
 - All the information was not sent to the Participants in a timely manner. However, this may not have contributed to the problems to the extent exhibited, as the relevant information was provided on the first day of the course, and they were still unprepared during the second week, when most of the products were due;
 - The Participants were mostly unprepared for the course;

- While all Participants were very interested, the general perception was that they were asked to do too much work, even though the days were relatively short;
 - Future courses should provide some orientation on local customs. In this case, the level of interaction with staff of the facility and female members of the Soufriere community was very high. This provided a significant level of distraction from course preparation. However, it may also have had a positive impact in this case, as the distraction reduced the tensions of being away from their homes and work for two weeks;
 - For managers with inadequate resources, two weeks is too long to be away from their sites. As such, Participants became distracted during the second week of the course.
2. The venue had both positive and negative features, relative to the needs of the course. The negative features were the poor lighting and the noise (traffic, dogs, business activity), while the positive features were the openness/airy nature of the room and the arrangements for meals (which kept the group together during a critical time of the day).
 3. A number of steps need to be taken to improve the organization of the course. In addition to the comments offered by the Participants, the following steps are suggested:
 - The Facilitators should be put through a form of orientation. Even with the course objectives being emphasized by the Course Coordinator, some Facilitators still focused on providing technical skills to Participants, rather than demonstrating how the subject matter could be passed on to others;
 - The field trips need to have more structure and more relevance to the primary objectives of the course.
 4. The course itself needs to be revised (See Appendix 10 for comments by Facilitators). The following changes are suggested:
 - The manual needs to be updated. This would include both content and insertion of new modules (enforcement, interpretation, and presentation skills);
 - The course should be shortened to one week;
 - Refocus the course on training skills, not the technical skills and materials in the supporting modules;
 - Implement the course using a Team Training approach, with the Trainer being present throughout the entire course. This would allow for more effective guidance on training issues and techniques, as well as better evaluation of training plans and/or other relevant exercises;
 - Add pre-course preparatory exercises for Participants, post-course technical support, and evaluation of the national training activity.

Overall, the level of input of the Participants and the work of the Facilitators was good. The general perceptions from the Participants were positive, and they all agreed that the course will increase their effectiveness on their return to their sites.

APPENDIX 1: List of Participants

Name	Organization/Job Title	Contact Information
ALAMILLA, Miguel Belize	Park Manager	Hol Chan Marine Reserve P.O. Box 60, San Pedro Town Belize, Central America Tel.: (501) 226-2247 Fax.: (501) 226-2420 Email: hcmr@btl.net Personal: mikeobze@yahoo.com
ANTHONYSON, Donald Antigua	Community Liaison Officer	The Environmental Awareness Group P.O. Box 2103, St. John's Antigua Tel: 268-462-6236 Fax: 268-463-7740 Email: eag@candw.ag Personal: frontlineprt@candw.ag
GARBUTT, Dennis Belize	Manager	Port Honduras Marine Reserve Toledo Institute for Development and Environment (TIDE) 1 1/2 San Antonio Road, Punta Gorda, Belize C.A. Tel: 501-722-2274/2431 Fax: 501 722-2655 Email: lynettegomez@hotmail.com
GUMBS, James Anguilla	Marine Biologist	Department of Fisheries & Marine Resources P.O. Box 60, The Valley Anguilla, British West Indies. Tel:264-497-2871/5040 Fax: 264-497-8567 Email: dfmr@anguillanet.com Personal: jc_gumbs@yahoo.com

MUNNINGS, Albert Belize	Manager	Glovers Reef Marine Reserve Belize Fisheries Department Princess Margaret Drive P.O. Box 148 Belize City, Belize Tel: 501-224-4552; 501-223-2623 501-223-2187 Fax: 501-223-2983 Email: species@btl.net Personal: rassupe@hotmail.com
NELSON, Thomas Saint Lucia	Field Officer, CZM Project	Department of Fisheries Ministry of Agriculture, Forestry and Fisheries Pointe Seraphine, Castries SAINT LUCIA Tel: (758) 468-4135/ 468-4143/ 452- 2526 Fax: (758) 452-3853 Email. deptfish@slumaffe.org or chieffish@slumaffe.org Website. www.slumaffe.org
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ROSS, Andrew Jamaica	Science Officer	Montego Bay Marine Park Pier 1 Howard Cooke Boulevard Montego Bay, Jamaica Tel: 876-952-5619 Personal Mobile: 876-363-8850 Fax: Email: mbmp@n5.com.jm Personal: andyroo_of72@yahoo.com

<p>SAMUEL, Juliana Saint Lucia</p>	<p>Officer in Charge</p>	<p>Soufriere Marine Management Association P.O. Box 305 Bay Street, Soufriere Saint Lucia Ph: 758-459-5500 Fax: 758-459-7799 Email: smma@candw.lc</p>
<p>SIMAL, Fernando Bonaire</p>	<p>Manager</p>	<p>Bonaire National Marine Park P.O. Box 368, Kralendijk, Bonaire, Netherlands Antilles, Tel:599-717-8444 Fax: 599-717-7318 Email: manager@bmp.org Website: www.bmp.org</p>
<p>STAINE, Francis Belize</p>	<p>Manager</p>	<p>Caye Caulker Marine Reserve Belize Fisheries Department Princess Margaret Drive P.O. Box 148 Belize City, Belize Tel: 501-224-4552; 501-223-2623 501-223-2187 (Personal) 501-615-2573 Fax: 501-226-2420 Email: species@btl.net Personal: Francisstaine@hotmail.com</p>
<p>WILLIAMS, Patrick Leroy Barbados</p>	<p>Senior Park Naturalist</p>	<p>Folkestone Marine Park Holetown St. James Barbados, W.I. Tel: 246-422-2871 Fax:246-432-2793 Personal: 246-422-0149 Email: leel7990@hotmail.com</p>

APPENDIX 2: Course Schedule

Sunday October 27, 2002

PARTICIPANTS ARRIVE

6:30 p.m. REGISTRATION

Monday, October 28, 2002

9:00-9:30 a.m. OPENING CEREMONY

Opening Remarks:

- Saint Lucia Government - Mr. Christopher Cox, Chief Agricultural Planning Officer
- Soufriere Marine Management Association – Ms Juliana Samuels, Officer in Charge
- UNEP-CAR/RCU – Mr. Malden Miller, ICRAN Caribbean Project Manager

9:30-10:00 a.m. INTRODUCTION & ORIENTATION

Introduction of Participants and Facilitators - All
Housekeeping Matters - Course Coordinator
Overview of Course and its Objectives - Course Coordinator

10:00-10:15 a.m. COFFEE BREAK

10:15-12:30 p.m. MODULE 1: Training and Communication Skills

12:30-2:00 p.m. LUNCH

2:00-3:30 p.m. Training and Communication Skills cont'd.

3:30-3:45 p.m. COFFEE BREAK

3:45-5:00 p.m. Training and Communication Skills cont'd.

5:00-5:30 p.m. Wrap-up Discussion

Tuesday, October 29, 2002

8:30-10:30 a.m. Training and Communication Skills cont' d.
10:30-10:45 a.m. COFFEE BREAK
10:45-12:30 p.m. Training and Communication Skills cont' d.
12:30-2:00 p.m. LUNCH
2:00-3:30 p.m. Training and Communication Skills cont' d.
3:30-3:45 p.m. COFFEE BREAK
3:45-5:00 p.m. Training and Communication Skills cont' d.
5:00-5:30 p.m. Wrap-up Discussion

Wednesday, October 30, 2002

8:30-10:30 a.m. Training and Communication Skills cont' d.
10:30-10:45 a.m. COFFEE BREAK
10:45-12:30 p.m. Training and Communication Skills cont' d.
12:30-2:00 p.m. LUNCH
2:00-4:00 p.m. Training and Communication Skills cont' d.
4:00-4:15 p.m. COFFEE BREAK
4:15-5:00 p.m. Wrap up Discussion
5:00-5:30 p.m. Evaluation

Thursday, October 31, 2002

8:30-10:30 a.m. MODULE 2: Nature of the Marine Environment
10:30-10:45 a.m. COFFEE BREAK
10:45-12:30 p.m. MODULE 3: Uses and Threats to the Marine Environment

12:30-2:00 p.m. LUNCH
2:00-4:00 p.m. Uses and Threats to the Marine Environment cont'd
4:00-4:15 p.m. COFFEE BREAK
4:15-6:00 p.m. MODULE 4: Marine Protected Areas Overview

Friday, November 1, 2002

8:30-10:30 a.m. MODULE 8: Research and Monitoring
10:30-10:45 a.m. COFFEE BREAK
10:45-12:30 p.m. Research and Monitoring cont'd.
12:30-2:00 p.m. LUNCH
2:00-5:30 p.m. Research and Monitoring cont'd.

Saturday, November 2, 2002

8:00-9:30 a.m. Research and Monitoring cont'd.
9:30-10:00 a.m. Orientation for Field Exercise
10:00-10:15 a.m. COFFEE BREAK
10:15-1:30 p.m. FIELD EXERCISE (Reef Check Monitoring)
1:30-2:00 p.m. LUNCH
2:00-2:30 p.m. Evaluation

Evening off for shopping in Castries

Sunday, November 3, 2002

FREE

Monday, November 4, 2002

- | | |
|------------------|---|
| 8:30-10:30 a.m. | Submission of Training Plans – Participants conduct training based on Modules 2, 3, 4, and 8. |
| 10:30-10:45a.m. | COFFEE BREAK |
| 10:45-12:30 p.m. | Training by Participants cont'd |
| 12:30-2:00 p.m. | LUNCH |
| 2:00-3:00 p.m. | Training by Participants cont'd |
| 3:00-3:30 p.m. | Wrap-up Discussion |
| 3:30 p.m. | COFFEE BREAK |

Tuesday, November 5, 2002

- | | |
|------------------|----------------------------------|
| 8:30-10:30 a.m. | MODULE 5: Participatory Planning |
| 10:30-10:45a.m. | COFFEE BREAK |
| 10:45-12:30 p.m. | Participatory Planning cont'd |
| 12:30-2:00 p.m. | LUNCH |
| 2:00-5:00 p.m. | Participatory Planning cont'd. |
| 5:00-5:30 p.m. | Wrap up Discussion/Evaluation |

Wednesday, November 6, 2002

8:30-10:30 a.m. MODULE 6: Marine Protected Area Planning

10:30-10:45 a.m. COFFEE BREAK

10:45-12:40 p.m. Marine Protected Area Planning cont'd.

12:40-1:30 p.m. LUNCH

1:30-5:00 p.m. SMMA – Discussion with SMMA staff and glass bottom boat ride

Thursday, November 7, 2002

8:30-10:30 a.m. Marine Protected Areas Planning cont'd.

10:30-10:45 a.m. COFFEE BREAK

10:45-12:30 p.m. Marine Protected Areas Planning cont'd.

12:30-12:45 p.m. Wrap-up Discussion/Evaluation

12:45-2:20 p.m. LUNCH

2:20-5:00 p.m. MODULE 7: Marine Protected Areas Management

Friday, November 8, 2002

8:00-10:30 a.m. Marine Protected Areas Management cont'd.

10:30-10:45 a.m. COFFEE BREAK

10:45-12:00 p.m. Marine Protected Areas Management cont'd.

12:00-12:30 p.m. Wrap-up Discussion/Evaluation

12:30-2:00 p.m. LUNCH

2:00-4:30 p.m. Field Trip to SMMA – Collection of sediment traps

Saturday, November 9, 2002

- 8:00-10:30 a.m. Submission of Training Plans – Participants conduct training based on Modules 5, 6, and 7.
- 10:30-10:45a.m. COFFEE BREAK
- 10:45-11:30 p.m. Training by Participants cont'd
- 11:30-12:00 p.m. Wrap-up Discussion/ Course Evaluation
- 12:30:00-1:30 p.m. LUNCH
- 1:30-3:00 p.m. Participants finalise Training Plans
- 3:15-4:00 p.m. CLOSING CEREMONY
- Remarks - Class Representative – Mr. Norman Norris
- Course Coordinator
 - Presentation of Certificates – Mr. Percival McDonald, Chariman SMMA
 - Vote of Thanks – Ms Juliana Samuels, Officer in Charge, SMMA
 - Next Steps - Course Coordinator

Sunday, November 10, 2002

Participants Depart

APPENDIX 3: List of Facilitators

Georgina BUSTAMANTE, Ph.D.
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APPENDIX 4: Remarks From Opening Ceremony

Soufriere Marine Management Association (SMMA)

Juliana Samuels - Officer in Charge

I wish to begin by extending sincere apologies on behalf of our president for his absence at this opening ceremony here today. He had previous pressing engagements, but will meet you at some point during your stay here.

On behalf of the Board of Director and staff of the SMMA, I would like to welcome everyone present here to our lovely St. Lucia, and most of all, to the “ICRAN Demonstration Site” award winner, the SMMA.

The mission of the SMMA is ‘to contribute to national and local development, particularly in the fisheries and tourism sectors, through management of the Soufriere coastal zone based on the principles of sustainable use, cooperation among resource users, institutional collaboration, active and enlightened participation, and equitable sharing of benefits and responsibilities among stakeholders’.

The SMMA was formed in 1994, and was officially launched in 1995. Our small staff is made up of 4 rangers and 4 administrative staff. Presently we are in the process of appointing a new manager, but in the meantime, I am acting as officer in charge/Accountant. In addition, Mr. Butcher, who you will meet, is the Acting Chief Technical Officer or Head Ranger.

The uniqueness of the SMMA lies in it’s efforts to sustainable manage the use of Marine resources in the area, while providing equitable sharing of resources to Stakeholders. In order to do this, the coastal area has been divided into the following zones:

1. Marine Reserves
2. Fishing Priority Areas
3. Recreational Areas
4. Multiple Use Areas
5. Yachting Mooring Areas

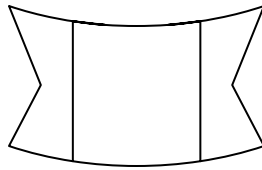
The SMMA in collaboration with other organizations does the following scientific monitoring:

8. Reef Check
9. Sedimentation
10. Salinity
11. Water Temperature
12. Fish Landings
13. Reef Fish Assessment

We at the SMMA recognize that there is much to be learnt and accomplished, by the various MPAs sharing their experience. Therefore it is with opened arms, tat we welcome this workshop here in Soufriere. You will get the opportunity to visit the site and engage in snorkeling and diving and also interact with members from the community/

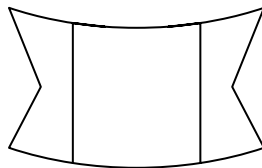
While this promises to be an intensive workshop, it is hoped that you will find the time to explore Soufriere and the other parts of St. Lucia.

Once to everyone I say WELCOME!!!!



UNEP Caribbean Environment Programme, Regional Coordinating Unit
Malden Miller – ICRAN Caribbean Project Manager

[Malden to supply]



Ministry of Agriculture, Forestry and Fisheries
Christopher Cox – Chief Agricultural Planning Officer

Representatives from the United Nations Environment Programme/Caribbean Environment Programme/Regional Coordinating Unit (UNEP/CEP/RCU); the International Coral Reef Action Network (ICRAN); the Soufriere Marine Management Association (SMMA); facilitators and participants; - good morning.

On behalf of the Ministry of Agriculture, Forestry and Fisheries and the Government of Saint Lucia, I wish to welcome you to Soufriere, Saint Lucia, and to this two-week Training of Trainers Workshop in Marine Protected Areas.

In Saint Lucia, as in many other countries, marine and coastal resources are important for fisheries, tourism, recreation, as well as intrinsic value. However, we stand to lose everything if we do not protect these very resources on which we depend. Indeed, the need to protect the biodiversity of the region has long been acknowledged and this recognition has manifested itself through the establishment of Marine Protected Areas.

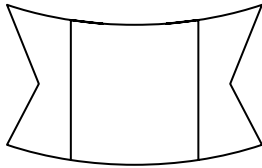
In 1986 and 1990, Saint Lucia declared nineteen and six marine reserves respectively around the island. A revised list of twenty-four marine reserves, containing a combination of these two listings, was further declared in the year 2000. These include mangroves, coral and artificial reefs. Active management exists in eleven out of twenty-four marine reserves, and enforcement, funding and personnel deficiency that I am sure many of the country representatives present, face as well. Eight of the eleven actively managed areas fall within marine management areas. Here in the Soufriere Marine Management Area (SMMA), we have four marine reserves within an approximately twelve-kilometre area. As you are aware, the SMMA was officially established in July 1995, a multi-stakeholder institution created for the purpose of integrating conservation and development objectives, involving all relevant sectors and organizations in marine and coastal processes.

The SMMA has had many successes and some of its biggest achievements include:

- Coexistence of users with minimal conflict;
- Increases in fish stocks in marine reserves and fishing areas and reflection of these increases in fishermen's catches;
- Self-sustainability with regards to operating costs (not including major projects);
- Positive comments made about it by the users themselves, especially fishermen, who initially lost the most, in terms of prime fishing grounds, when the SMMA was established;
- Increased awareness and sensitisation regarding the marine environment;
- International recognition (quoted as a model or success story in many publications; visited by MPA personnel in other countries wishing to adapt it to their countries; sought after by scientists for information and as a research area; receipt of the British Airways Tourism for Tomorrow IUCN Special Award for National Parks and Protected Areas in 1997; etc.). Indeed, the selection of the SMMA as an ICRAN Demonstration Site and your presence here bears testimony to this international recognition.

However, as you will learn and see first hand over the next two weeks, marine protected area management is not without its problems, with the SMMA being no exception. There needs to be ongoing participation of, and consultation with, stakeholders, from planning, through to implementation and operation and an open forum for conflict resolution. There is still much work to be done in the SMMA, in the region and in the world, with regards to conservation and sustainable use of our marine and coastal resources. This workshop is one of a series of positive steps towards reversing the decline of the world's coastal and marine resources.

Once again, on behalf of the Ministry of Agriculture, Forestry and Fisheries and the Government of Saint Lucia, I wish to thank the organizers and sponsors of this event and I also wish all of you a successful and productive workshop.



APPENDIX 5: Status of Sites Managed by Participants

Site	Status
Bonaire National Marine Park (Bonaire, NA)	<ul style="list-style-type: none"> • No management plan • No goals established • Goals unclear
Montego Bay Marine Park (Jamaica)	<ul style="list-style-type: none"> • Management plan in place • Goals established • Poor implementation of management plan
Soufriere Marine Management Area (St. Lucia)	<ul style="list-style-type: none"> • No formal/written management plan • Goals set by Mission Statement and Bylaws (zoning, restrictions, regulation, etc.) • Goals: <ol style="list-style-type: none"> 1. Protection of fishery 2. Manage marine resources 3. Restoring degraded sites and habitats
Anguilla	<ul style="list-style-type: none"> • Management plans submitted for government approval • Protection of marine biodiversity • Diving
Soufriere Scotts Head Marine Reserve (Dominica)	<ul style="list-style-type: none"> • Management plan drafted in 2002, submitted for government approval • Protection of fishery resources and associated habitats • Protection of marine biodiversity
Folkstone Marine Park (Barbados)	<ul style="list-style-type: none"> • Management plan being updated • Entire area a no-take reserve • Protection of fishery resources and associated habitats • Protection of marine biodiversity • Recreation (locals and tourists) • Education
Cades Bay Marine Reserve (Antigua)	<ul style="list-style-type: none"> • Draft management plan • Protection of fishery resources and associated habitats • Protection of marine biodiversity • No-take areas zoned • Diving and mooring
Port Honduras Marine Reserve (Belize)	<ul style="list-style-type: none"> • Management plan in place • Protection of fishery resources and associated habitats • Protection of marine biodiversity • Manatee conservation • Socio-economic goals –alternative livelihoods (fishermen to act as guides for fly-fish industry), education, research • A zoning scheme and no-take areas in place • Eco-tours promoted

Hol Chan Marine Park (Belize)	<ul style="list-style-type: none"> • Management plan in place, and is being used • Protection of fishery resources and associated habitats • Protection of marine biodiversity • Zoning for no-take areas in place • Financing plan & collection of fees in place • Enforcement in place • Socio-economic focus – alternative livelihoods for fishermen (dive operations), education
Caye Caulker Marine Reserve (Belize)	<ul style="list-style-type: none"> • Draft management plan, being updated • Protection of fishery resources and associated habitats • Protection of marine biodiversity • Socio-economic focus – alternative livelihood (eco-tour guides)
Glover Reef Marine Park (Belize)	<ul style="list-style-type: none"> • Outdated management plan (1988) being updated • Goals: <ol style="list-style-type: none"> 1. No take areas, spillover effect 2. Nursery area – snorkelers and divers regulations 3. Protection for Nassau Grouper – November to January

Source: Responses by Course Participants during discussion on Module 8: Research & Monitoring

APPENDIX 6: Training Plans Submitted by Participants

The Participants were required to identify the main concepts from each of Modules 2-8, select one concept, and to prepare a Training Plan for the selected concept. This exercise was used as a form of assessment, to determine if the Participants understood the material presented, and had identified the appropriate techniques that could be used to teach the identified concepts.

Training Plans were modeled on the sample of a Lesson Plan (Box below) obtained during the Module on Training and Communication Skills.

The exercise generated 76 Training Plans, 74 of which are shown below¹.

¹ Two of the training plans submitted in digital format were contaminated with a virus, as were thus not added to this report.

Sample of a Detailed Lesson Plan

Course Title: Conducting an Effective Performance Feedback Session

Lesson Title: Using the problem solving style in the feedback interview

Lesson Length: Full day

Learning Objectives:

1. Describe the eight key behaviors used in the problem solving style of giving appraisal feedback without error.
2. Demonstrate the eight key behaviors in an appraisal feedback role play without error.

Target Audience: Managers

Prerequisites:

- *Trainee:* None
- *Instructor:* Familiarity with the tell-and-sell, tell-and-listen, and problem solving approaches used in performance appraisal feedback interviews.

Room Arrangement: Fan-type

Materials and Equipment Needed: VCR, overhead projector, pens, transparencies, VCR tape “performance appraisal interviews”, role play exercises

Evaluation and Assignments: Role play; read article “Conducting Effective Appraisal Interviews”

Comments: Article needs to be distributed two weeks prior to session.

Lesson Outline	Instructor Activity	Trainee Activity	Time
Introduction	Presentation	Listening	8-8:50 a.m.
View videos of 3 styles		Watching	8:80-10 a.m.
Break			10-10:20 a.m.
Discussion of strengths and weaknesses of each style	Facilitator	Participation	10:20-11:30 a.m.
Lunch			11:30-1 p.m.
Presentation of eight key behaviors of problem solving style	Presentation	Listening	1-2 p.m.
Role plays	Watch exercise	Practice using key behaviors	2-3 p.m.
Wrap-up	Answer questions	Questions	3-3:15 p.m.

Training Plans for Module 2: Nature of the Marine Environment

§§--2:1--§§

Title: Variations in the Coastal Environment Effecting Corals.

Objective: Explain the basics of Oceanography within the Biology of reef-building corals. To build public awareness of the environment and of the Marine Park to promote feelings of pride, responsibility and stewardship towards the marine resource in the local community.

Audience: Stakeholders, Local Community, MBMP Volunteers - 30-50 people.

NB: To be a semi-public forum to form the beginning of an LAC involving bi-weekly meetings and lectures on environmental and local interest topics.

Venue: Pier One Restaurant, Montego Bay, Jamaica.

Time: 30-40 minutes.

Content: A brief description of the Biology of hard corals, followed by descriptions of the physical parameters of water effecting corals: light, depth, temperature, currents, wave action, nutrient/chemical composition and salinity.

Materials: Power Point presentation involving: photographs of above parameters, short digital video clips of above parameters, photographs of fish, algae, corals, coral bleaching events, boring sponges and worms.

Methods: Power Point presentation with multiple demonstrative photographs and short video clips.

Learning Process: Auditory, visual, memory and experience based.

Evaluation: Questionnaire to direct stakeholders only. Evaluation largely based on return patrons to following meetings and overall public interest.

§§--2:2--§§

Lesson Title: The Benefits of the Marine Environment

Audience: Students age 11 - 12 years

Prerequisite: None

Material Needed: Chalk, Chalkboard, Charts

Objectives:

1. Identify and list the benefits of the Marine Environment
2. Classify the benefits of the Marine Environment

Content:

The Marine environment can be defined as the sea and all that is found therein.

Classes of benefits from the Marine Environment:

1. Goods - Air, Water, Food (fish), jewelry (Shells)
2. Services - Transportation, Recreation (the beach), education (hands on training)
3. Raw Material - Sand, Minerals, Water
4. Medicine - Drugs from Corals, Vitamins (Cod Liver Oil)
5. Provision of life support system - production of Oxygen, Maintenance of atmospheric balance.

Evaluation:

Students will be asked to:

1. List/Name the five classes of benefits from the marine environment.
2. Give an example of each class of benefit.

§§--2:3--§§

Course Title: Management of Belize's Coastal/Marine Resources

Lesson Title: Our Coastal Ecosystems

Lesson Objective: The objective is to acquaint participants with the principle that all coastal ecosystems are interlinked and significant to the survival of each other.

Participants: Natural Resources Management intern students at the University of Belize planning to inter the work force.

Significance/Concept: The coastal environment is a highly valuable ecosystem containing diverse and productive zones.

Methods/Materials:

1. Lecture- Power Point Presentation
2. Group- Discussion

Time: 1 Hour

<i>Lesson Outline</i>	<i>Instructor Activity</i>	<i>Participant</i>	<i>Time</i>
Introduction	Presentation	Listening	10mins
Exercise-the Class knowledge Of the coast and It's components	Facilitator	Participation	20mins
PPT Presentation Components of the Coastal Marine Environments	Presentation	Listening Watching	25mins
Wrap up	Answer Questions	Questions	5mins

§§-2:4-§§

CONCEPT: The land and marine environments are interconnected in many different ways, therefore you need knowledge of both for a good understanding of processes occurring in different ecosystems.

AUDIENCE: Farmers association.

METHOD: Lecture 22 min. Discussion/Questions 10 min.

MATERIALS: Power point presentation

OBJECTIVE: To raise awareness about the connections between land and marine environments plus inform of possible damages by chemicals.

OUTLINE:

- Slide 1 (3 min) Forest, crop field, coral reef
(Remark differences and explain similarities)
- Slide 2 (3min) Aerial picture of river's delta and effect on sea
(Explanation of how "everything" ends up in the sea)
- Slide 3 (4 min) Tables of amount of chemicals used by them
(Explanation of how these chemicals affect the marine life)

- Slide 4 (4 min) Pictures of a healthy reef and a sick reef
(Explanation of pictures)
- Slide 5-10 (5 min) Examples of connections between land and sea.
(Explain each connection)
- Slide 11 (3 min) List of benefits we obtain from the sea
(Name each and explain if necessary)

Questions discussion

§§--2:5--§§

Concept: The marine environment provides a number of benefits

Objective: To demonstrate that the coastal ecosystems provide a range of goods and services, and that the ecosystems are linked.

Method of Presentation: Slides, overhead presentation, ice-breakers

Target Audience: MPA rangers

Evaluation: Large group discussions on lessons learned.

INTRODUCTION:

The marine environment/coastal ecosystem provides a range of goods and services. AS MPA rangers, you may be aware of some of these goods and services. Today, we need to teach ourselves the values of the coastal ecosystems, and we will see at the end that one component somehow links to another.

When you are out there performing your duties; e.g. resource monitoring, you need not look at any resource by itself, but as a sub-set of the entire ecosystem. Let us try to fill in the benefits or goods and services that the ecosystems produce.

Forests

- Supports tourism, e.g. nature trails, waterfalls;
- Habitats for wildlife, e.g. endangered and non-endangered species;
- Provides lumber, e.g. for construction;
- Used for charcoal making;
- Prevents soil erosion – trees anchor the soil;
- Ensures water supply, e.g. spring and streams;
- Provides medicine; and
- Flood protection, e.g. canopy prevents quick flow of water.

Wetlands/Mangrove

- For recreation and tourism – tours;
- Materials for construction and charcoal;
- Shoreline protection from high waves;
- Habitats for bird, fish, and other wildlife;
- Nursery for fish, shrimp, and lobster;
- Acts as sediment and other pollutant trap to maintain (improve) water quality to the sea; and
- Source for food for nearby communities, e.g fish and crabs.

Coral Reefs

- Habitat for fish and other marine organisms;
- Protects coastline from wave action;
- Provides food for birds and other marine organisms;
- Helps in beach re-nourishment, e.g. from dead corals;
- Tourism and other forms of recreation, e.g. diving; and
- Source of earning a livelihood for fishermen.

Seagrass Beds

- Prevent shoreline erosion by reducing wave energy;
- Helps in water clarity because it binds the sand on the sea bottom;
- Feeding ground for turtles, urchins, and rays;
- Export food materials to nearby coral reefs; and
- Nursery and habitat for many juvenile fish and shellfish.

For these systems to serve their purpose, they depend on one another, one way or another. Let us look at some of the linkages.

1. The root system of the mangroves acts as sedimentation traps. If they are cut down indiscriminately, much more sediment and other pollutants will enter the sea and destroy the coral reefs.
2. If our coral reefs die out, the beaches will experience severe battering from wave action, since the coral reefs acted as wave breakers.
3. If our forests are indiscriminately cut down, there will be more soil erosion and flooding, increasing the sedimentation levels onto the coral reefs, smothering them. At the end, no reef, no fish, no revenue for fishers.

Examples:

1. All rivers lead to the sea, and if someone throws garbage or chemicals into waterways, it will end up in the sea.
2. If one engages in deforestation, soil erosion will occur and sediments will be washed down to the marine environment and will smother coral reefs, which will in turn affect fish habitats and recreation, sources of food and revenue.

§§--2:6--§§

Lesson Title: The benefits of the marine environment to small islands like Anguilla, and why environmental conservation is important

Lesson Length: 1 hr.

Learning Objective:

1. To describe the major marine ecosystems and the benefits they provide (i.e. coral reefs, mangroves, sea grass beds, open ocean, etc.).
2. To demonstrate whether effective environmental conservation legislation should be top of the agenda.

Target Audience: Executive Council and senior government officials in the Ministry of Finance and the Environment.

Prerequisites:

1. Trainee – None
2. Instructor – strong background in marine ecosystem ecology and ecosystem management and conservation.

Materials and Equipment Needed: laptop, overhead projector, slides

Training Evaluation: By the nature and frequency of questions being asked at the question and answer section at the end of the session. The willingness of the politicians to follow through and support a number of conservation initiatives.

LESSON OUTLINE:

Introduction: Introduce the marine ecosystems in Anguilla, and highlight the various issues affecting them (10 mins.).

Body: Using a PowerPoint presentation and slides of the different marine ecosystems, the Instructor will describe these ecosystems and their benefits, show the extent of their exploitation in Anguilla, and then recommend some conservation measures that should be taken (40 mins.).

Conclusion: Question/Answer (10 mins.)

§§--2:7--§§

Lesson Title: Soufriere Scotts Head Marine Reserve (SSMR) MPA overview

Learning Objective: To provide visitors with a sense of how the SSMR was developed as an MPA, and the main factors that influenced that development.

Significance: Presently, there is no welcome centre at the SSMP. The tourists who visit get only a briefing on the underwater world and “Dos and Don’ts of Diving in the SSMR” by the dive operators. Attention is not being given to how the MPA came about, and who are the main stakeholders.

Presentation: Lecture, discussion, short video

Equipment/Materials: OHP, SSMR map, slides, VCR/TV

Venue: Hotel or guest house of dive operator

Time: 1.5 hrs.

Evaluation/Wrap-up: Outcome evaluation, verbal questions and answers

Facilitators: Dive operator/Staff.

LESSON OUTLINE:

- Background of the communities and traditional users
- Resource Description (physical and biological resources)
- Resource Users (fishing, scuba diving, recreation)
- Management Plan (mission and vision).

§§--2:8--§§

Course Title: Linkage Conservation

Lesson Title: Gullies and their impact on the marine environment

Lesson Length: 2 hrs.

Objectives: To provide an opportunity for participants to update their knowledge on illegal dumping, pesticides, and their effect on coral reefs.

Audience: Local people, fishermen, and rangers

Instructor: MPA manager/Environmentalist

Room Arrangement: Theatre style

Materials and Equipment Needed: Slide projector, slides, markers, flip charts, and leaflets.

LESSON OUTLINE:

- Introduction
- Presentation
- Discussion
- Refreshments/Interaction

§§--2:9--§§

Course Title: The marine environment provides a large number of benefits

Title: Fly fishing as an alternative in P.H.M.R.

Time: 3 hrs.

Objective: Participants will be able to:

1. Understand the economic benefits of fly fishing;
2. Understand the effect it has on the fish; and
3. Understand how to get involved in fly fishing.

Target Audience: Fishermen

Materials: Slides, fishing equipment, TV, VCR

Method: Presentation and discussion

<i>Lesson Outline</i>	<i>Instructor Activity</i>	<i>Participant</i>	<i>Time</i>
Introduction	Presentation	Listening	10 mins
Discussion	Facilitator	Participation Question & answer	5 mins

§§--2:10--§§

Session Title: The Caribbean Sea is one ecosystem

Duration: 2.5 hrs.

Objective: To show the links that connect the region biogeographically

Audience: New reserve wardens

Presenter: MPA's marine biologist

Number of Participants: 12

Venue: MPA's conference room

Equipment: Overhead projector

Materials: Charts, maps, handouts

Evaluation: Role play

Wrap-up: Question and answer

<i>Session Outline</i>	<i>Presenter Activity</i>	<i>Audience Activity</i>	<i>Time</i>
Introduction: Brief history of the Cades Bay Marine Reserve (CBMR)	Presentation	Listening	10 mins
Overhead Projector Presentation: Using maps and charts to show similarities, comparisons, and linkages	Presentation	Watching, Listening	45 mins
Break			20 mins.
Discussion on materials presented; relevance and practicality to Wardens' duties	Facilitator	Participation	25 mins.
Evaluation: Role play Participants compare similarities among themselves, and find linkages	Observes	Participation	40 mins.
Wrap-up	Answer questions	Questions	10 mins.

§§--2:11--§§

Name of Course: Benefits of Marine Protected in Belize

Objectives: Aim at showing the benefits Marine Protected Areas have on its surrounding areas.

Concept: The Marine environment provide a large number of benefits.

Method: Slides and Video shows, showing some of the benefits protected area have on it's surrounding area. Case study of Hol Chan Marine reserve comparing data from in an around the marine reserve on the spill over effect of fish stock.

Target Audience: Tour guide that are doing the local tour guide course in Belize.

Time: 3 hrs.

LESSON OUTLINE:

	<i>Instructor Activities</i>	<i>Trainee</i>	<i>Time</i>
Introduction; Outlining benefits	MPA Manager	Tour guide	5-5:10pm
Slide presentation on tourism.	MPA Manager	Tour guide	5:10-5:30
Slide Presentation: Economic increase and job creation.	MPA Manager	Tour guide	5:30-5:50
Slide presentation on protection of habitat.	MPA Manager	Tour guide	5:55-6:15
Video presentation on education and research benefits	MPA Manager	Tour guide	6:20-6:40
Protection from natural elements such as hurricane	MPA Manager	Tour guide	6:45-7:15
Break	Break		7:15-7:30
Case study on Hol Chan Marine Reserve.	Hol Chan Manager	Tour guide	7:30-8:00
Evaluation on Course	Tour Guides	Tour guides	

§§--2:12--§§

Course Title: Coastal communities are highly variable ecosystems, containing diverse and productive zones.

Lesson Title: Importance of Mangroves

Lesson Length: 30 min

Learning Objective: List 5 function of Mangroves. Describe all the ecological functions of mangroves

Target Audience: Students

Method of Presentation: Power Point

Materials Required: Computer, LCD projector, screen, Paper, Pencil

Evaluation: Question and answer

<i>Lesson Outline</i>	<i>Instructor Activity</i>	<i>Trainee Activity</i>	<i>Time</i>
Introduction	Brain Storming	Watch & listen	5 min
Functions of Mangrove	Presentation	Watch & listen	15 min
Question & answer	Summary	Q & A	5 min
Quiz		Quiz	5 min

Training Plans for Module 3: Uses and Threats to the Marine Environment

§§--3:1--§§

Objective:

1. To convey the socioeconomic complexities of a modern MPA in the Caribbean to aide in voluntary compliance with park regulations and MPA partnership building among stakeholders.
2. To alleviate feelings of marginalization and conflict amongst user groups to promote voluntary stewardship and responsibility for the marine resource.

Audience: Stakeholders: fishers, tourism operators, hoteliers.

Venue: Quiet, private and low key; non-threatening, and with space enough for 15-20 participants.

Time: 2 x ½ days, afternoons. Three hours per session.

Content:

Day 1:

1. Short Power Point lecture on Caribbean Sea as common property resource showing some of the problems arising from a lack of ownership; thus stewardship and responsibility. Discuss fishing, shipping, pollution and tourism. Photographs included. (20 minutes)
2. Brief Power Point lecture discussing multiple uses of Montego Bay Marine Park, including audience participation. Photographs and brief video clips. Flip chart for discussion notes. (40 minutes)
3. Role playing session: groups of three. One plays tourism operator, one a fisherman, one a MPA manager; nobody plays their normal roll. Issues in roll play- 1)mangrove cutting, 2)sewage and pollution, 3)turtle egg harvest. (1.5 hrs)

Homework- bring questions for MPA staff and other user groups to next session.

Day 2:

1. Continued lecture on multiple uses for sustainability, citing international examples: Belize, St. Lucia, etc. (40 minutes)
2. In-depth, round table discussion and question and answer session. (30-60 minutes)
3. Role play session. Issues: fishing/over-fishing versus tourism/tourism damage to corals.
4. Brief continuation of round table discussion to wrap up.

Materials: Power Point Projector and screen, flipchart, pens.

Method: Lecture, question and answer, roll-play, debate.

Learning Process: Auditory, visual, responsive, actuary. Experience based.

Evaluation Process: 5 question questionnaire to be read aloud to class by facilitator and collected afterwards.

§§--3:2--§§

Lesson Title: Threats to the Marine Environment

Audience: Students age 11 - 12 years

Prerequisite: None

Material Needed: Chalk, Chalk Board, Visual examples, and Video tape.

Objectives: Identify and explain the sources of threats to the marine environment.

Content:

There are a number of things we do, or that happens that threaten the marine environment. This is called marine pollution. Marine pollution can be caused by (a) natural events or (b) land based activities (man).

1. Natural Events:-

- a. High temperature- cause Bleaching
- b. Floods - cause Sedimentation
- c. Storms - cause Sedimentation and Bleaching and damage to beaches, seagrass beds & mangroves
- d. Sea Level Rise
- e. Disease affecting Coral

2. Man made Treats

- a. Sedimentation - from dredging or land cleaning
- b. Nutrient influx from sewage
- c. Agricultural run off (pesticide, swimming)
- d. Boat grounding & anchoring
- e. Physical damage from Scuba, snorkeling, & swimming)
- f. Shoreline development
- g. Industrial pollution
- h. Over Fishing
- i. Collection for Aquariums
- j. Oil spills
- k. Sand Mining
- l. Urban run off

Evaluation: What are the two main sources of Treats to the environment?

§§-3:3-§§

Course Title: Management of Belize's Coastal/Marine Resources

Lesson Title: Potential threats to the marine and coastal environments

Lesson Objective: To build participants' awareness of nature's susceptibility to outside influences

Participants: NRM interns at University of Belize

Significance/Concepts: The Marine and Coastal environments are under serious threat from both natural and manmade sources

Methods/Materials:

1. Lecture- PPT
2. Group Discussion

Time: 35mins

<i>Lesson Outline</i>	<i>Instructor Activity</i>	<i>Participant</i>	<i>Time</i>
Introduction	Presentation	Listening	10mins
Exercise-Have Class ID as many Natural/ Manmade threats to Coastal Environments Discussion	Facilitator	Participation	10mins
PPT Presentation on both Types of threats	Presentation	Listening/ Watching	10mins
Wrap up	Answer Questions	Questioning	5mins

§§--3:4--§§

CONCEPT: Managing MPA's requires different strategies.

AUDIENCE: Park managers at the TOT course.

METHOD: Lecture 20 min. Discussion/Questions 10 min.

MATERIALS: Flip chart

OBJECTIVE: To explain the steps of a strategy and give examples of some.

OUTLINE:

- Ask for problems/issues to be addressed in MPA's. Write them down.
- Select one (with manager's input).
- Ask for possible strategies/approaches.
- Select one (with manager's input).
- Go over steps of strategy: Objective, actions needed, budget, time frame, evaluation and new decision on problem/issue.
- Repeat exercise with other problem (if time allows).
- Discussion/ Questions.

§§--3:5--§§

Session Title: The Caribbean Sea as a resource at risk

Duration: One full day

Objective:

1. To highlight some of the factors that contribute to that risk.
2. To create an understanding of the value of the marine resources

Audience: MPA Outreach Officers

Presenter: MPA's manager

Number of Participants: 12

Venue: MPA's conference room

Equipment: Overhead projector

Materials: Charts, handouts

Field Trip: Cades Bay Marine Reserve

Evaluation: Questionnaire

<i>Session Outline</i>	<i>Presenter Activity</i>	<i>Audience Activity</i>	<i>Time</i>
Introduction: Brief overview of the threats to the marine environment	Presentation	Listening	10 mins
Overhead Projector Presentation: Present supporting data on the threats	Presentation	Watching, Listening	45 mins
Break			20 mins.
Discussion on materials presented	Facilitator	Participation	45 mins.
Presentation on beneficial factors of the marine environment	Presentation	Listening	30 mins.
Break			
Field Trip: The resource viewed in its real form: to enhance the previous sessions	Participation	Participation	3 hrs.

§§--3:6--§§

Lesson Title: Some stresses affecting coral reefs: Source/cause and effects

Length: Half day

Objectives: To provide information on stresses that affect coral reef ecosystems, their causes or sources, and the effects of such stresses

Methodology: Lecture and discussion through OHP, slide presentation comparing health and unhealthy reefs. Handouts will also be given to Participants.

Target Audience: College students

Evaluation Method: Questionnaire (written)

Facilitator: MPA manager

LESSON OUTLINE:

Introduction: Coral reefs at risk from:

- Natural events as a source of threat;
- Over-exploitation as a source of threat;
- Coastal development as a source of threat;
- Land-based pollution as a source of threat; and
- Maritime activity as a source of threat.

§§--3:7--§§

Course Title: Caribbean people and economies are dependent on the sea for a range of benefits

Lesson Title: Gill net demonstration to P.H.M.R.

Lesson Length: 20 mins.

Objective: Participant will be able to identify a gill net, and the effects it has on the corals and fishes

Target Audience: Primary school

Method of Presentation: Slides, presentation, and discussion

§§--3:8--§§

Course Title: Economics of protected areas

Lesson Title: Sustainable use of fisheries resources

Lesson Length: 1.5-2 hrs.

Objectives: To generate a common understanding of conserving natural resources that integrate the needs of local people, as well as highlight the many benefits of the marine environment

Audience: Staff/fishermen and family

Instructor: SPW

Room Arrangement: Theatre

Material and Equipment Needs: Video recorder, markers, flip charts, tapes, slides and projector, leaflet and books

LESSON OUTLINE:

- Introduction
- Presentation
- Discussion/Prices (for questions being asked on the environment).

§§--3:9--§§

Name of Session: Uses and Threats to the marine environment

Objective: To increase awareness of various uses of the marine environment and the impact of our activities on the resources.

Concept: Natural and manmade activities, a threat to the marine environment

Method of Presentation: Slide presentation, role-play exercise

Target Audience: An environmental group in a high school

Evaluation: Using the role-play exercise to put Participants in a position (e.g. chainsaw operator, etc.). If they cut a tree to plant back one. Does the participant understand why?

INTRODUCTION:

Our marine environment, which is made up of the sea water, seagrass beds, coral reef, beaches, and mangrove systems have proven to be very important to the sustenance of humankind. The components of the marine environment are used by many people for many reasons. Let us take a look at how these resources share their values to us.

The Mangrove System

- Habitat for fish and birds
- Breeding ground and nursery for some fish species
- Red mangrove sap is used for tanning
- Used in charcoal
- Source for food for nearby communities
- Roots serve as filters for high sediment water flowing into the sea

Coral Reefs

- Source of revenue for fishermen
- Act as wave breakers to protect shoreline

- Habitat for fish and other marine organisms
- Recreation site for divers
- Source of food, e.g. fish
- Contribute to sandy beaches

Beaches

- Recreation
- Construction and aggregate materials

Sea Grass Beds

- Habitat for fish and other marine organisms
- Source of food for marine organisms, e.g. sea urchins

Threats to the Marine Environment

- Indiscriminate disposal of solid waste and liquid waste into rivers and other waterways.
- Industrial pollution, such as carbon monoxide and waste from plants which do not have proper disposal means.
- Poor fishing practices, which lead to overfishing.
- Destruction of coral reefs by divers.
- Poor agricultural practices, e.g. leaving land bare, leading to erosion and sedimentation.
- Indiscriminate cutting down of mangrove systems.
- Improper disposal of pesticides and other toxic materials.
- Improper disposal of sewage, e.g. in marinas.

These points will be brought out and the slides will be depicting the above. It will also be brought to the attention of the Participants that since the Caribbean islands are small and mountainous, terrestrial activities will impact on the marine environment.

§§--3:10--§§

Lesson Title: The natural and man-made threats to the marine ecosystem

Lesson Length: 1 hr.

Learning Objectives:

1. To highlight the different uses of the marine environment, and show the impacts that these different uses have.
2. To show how natural events impact the marine environment.

Target Audience: Six-form students on an Environmental Science course

Materials & Equipment Needed: Laptop, PowerPoint projector, slides

Evaluation: Set an essay on the topic.

LESSON OUTLINE:

- Introduce the different uses of the marine environment. (10 mins.)
- Show how each of these uses impact the environment in a negative way. (25 mins.)
- Discuss the different natural events that affect the marine environment. (10 mins.)
- Slide show of the impacts of both natural and man-made sources. (10 mins.)
- Discussion – Questions/Answers.

§§--3:11--§§

Lesson Title: Importance of Marine Protected Areas in Belize

Lesson Objectives: Raise environmental awareness about the benefits of MPA's in Belize.

Target Audience: Tour guides

Concept: Caribbean Peoples are dependent on the sea for a range of benefits.

Methods/Materials:

1. Power point presentation on the effects of dredging in and around MPA's.
2. Presentation on the different commercially valuable marine resources.
3. Lecture on the importance of Marine Reserve and their benefits.

Time: 2 hr

<i>Lesson Outline</i>	<i>Instructor Activities</i>	<i>Trainees</i>	<i>Time</i>
Introduction	MPA Manager	Tour guides	4 pm-4:10 pm
Lecture on the importance of MPA's.	MPA Manager	Tour guides	4:10-5:00pm
Coffee Brake	Brake	Brake	5:00-5:10pm
Lecture of the benefits of MPA's	MPA Manager	Tour guides	5:10-5:50pm
Wrap up discussion	Question	Tour guides	5:50-6:00pm

§§--3:12--§§

Course Title: Caribbean people and economics are dependent on the sea for a range of benefits

Lesson Title: Fishing practices in the Hol Chan Marine Reserve

Lesson Length: 30 minutes

Learning Objective: Participants will be able to describe fishing practices in the MPA

Target Audience: Students

Method of Presentation: Power Point

Materials Required: Computer, LCD projector, screen, Paper, Pencil,

Evaluation: Question and answer

<i>Lesson Outline</i>	<i>Instructor Activity</i>	<i>Trainee Activity</i>	<i>Time</i>
Introduction	Presentation	Watch & listen	5 min
Description of fishing area	Presentation	Watch & listen	5 min
Fishing Practices	Presentation	Watch & Listen	5 min
Wrap up	Summary	Q & A	5 Min

Training Plans for Module 4: Marine Protected Areas Overview

§§--4:1--§§

Concept to be Taught: Marine Protected Areas are Established to Address a Range of Issues

Objective:

1. To display the success of “no fishing zones” in other areas of the Caribbean in multi-use MPAs.
2. To begin to design user zones and “no fishing” zones in the Montego Bay Marine Park.

Audience: Fishers, representing all fishers groups, beaches and Co-Ops in the Montego Bay area.

Venue: Private, out-doors and low-key.

Time: One afternoon, three hours. Follow-up session in one week to discuss zones.

Content: Power Point Presentation of Jamaican fishing:

1. History of diminishing catches;
2. Local extinctions;
3. Fish and coral interactions. No fish, no coral. No coral, no fish.
4. International examples of over-fishing, focusing on the Caribbean. Use charts, graphs and photographs of Guatanamo Bay, Cuba, Canadian Grand Banks, comparisons of Jamaica’s current fisheries to those of other Caribbean islands.
5. Successful multiuse MPAs, particularly in the Caribbean region. Belize, Bahamas, St. Lucia. Use charts, photographs, Sufriere (SSMA) park video of fishers’ testimony. Question and answer, round table discussion on acceptability of a zoning plan and possible zones within Montego Bay Marine Park. Flip chart to make group notes. Digital photograph of park area for penciling in zones.
6. Brief lecture/discussion on the impacts of intensive spear fishing.

Homework for follow-up session, to think about possible zone strategies to make suggestions in next workshop.

Materials: Power Point Presentation, projector, flip chart, video and player/projector, photocopies of park area and boundaries.

Method: Lecture, question and answer, video, homework.

Learning Process: Auditory, visual, interactive, group.

Evaluation: 5 question questionnaire to be read aloud by facilitator after follow-up session.

§§--4:2--§§

Lesson Title: Benefits of MPAs

Audience: Stakeholder Group

Prerequisite: None

Material Needed: Video tape, Charts, Power Point Presentation, statistical information for comparison.

Objectives: Identify the benefits of MPA

Content:

MPA - Marine Protected Area

Why the need for a MPA.

1. Protect Coral Reef and promote Coral Growth.
2. Increase/encourage the increase in Reef Fish Population. Thereby maintaining and increasing fishermen revenue.
3. Well protected and maintain Coral - encouraging tourist activities e.g. snorkeling, diving, thus maintaining and increasing revenue to that sector.
4. Protect against Sea Surge, the reef acts as a barrier.
5. Help maintain beautiful beaches for recreation, as dead coral end up as sand.
6. Education - An area with a marine park is more aware of it's importance and the things that should be done to maintain a healthy marine environment, therefore, as a result there may be an emphasis placed on proper disposal habits.

Evaluation: Ask participant are they in favor of a marine park and if so why.

§§--4:3--§§

Course Title: Management of Belize's Coastal/ Marine Environments

Lesson Title: Strategies for management of Marine Environments and Resources

Lesson Objective: To introduce participants to the concept of Marine Protected Areas Management

Participants: NRM interns at the University of Belize

Methods /Material:

1. Lecture- PPT
2. Group Discussion

Significance/Concepts: Marine Protect Areas are established based on a wide range of objectives

Time: 1 hour

<i>Lesson Outline</i>	<i>Instructor Activity</i>	<i>Participant</i>	<i>Time</i>
Introduction	Presentation	Listening	10mins
Lecture-PPT Reasons for Establishing MPA	Presentation	Listening	30mins
Discussion Areas already established	Facilitator	Participation	10mins
Wrap up	Answer Questions	Question	5mins

§§--4:4--§§

CONCEPT: Managing MPA’s requires different strategies.

AUDIENCE: Park managers at the TOT course.

METHOD: Lecture 20 min. Discussion/Questions 10 min.

MATERIALS: Flip chart

OBJECTIVE: To give ideas for the establishment of successful partnerships and show examples of some.

OUTLINE:

- Ask for examples of successful partnerships in MPA’s and mention some.
- Remark what makes them successful. (Both parties benefit, parties well organized, similarities of goals/interest between parties, good institutional and personal relationships between partners...)
- Ask for problems/issues to be addressed in MPA’s. Write them down.

- Select one (with manager's input).
- Ask for possible institutions/individuals to establish a partnership
- Select one (with manager's input).
- Check for good chance of success against conditions prior mentioned.
- Discussion/questions

§§--4:5--§§

Lesson Title: The benefits of having marine protected areas (MPAs)

Lesson Length: 2.5 hrs.

Learning Objectives:

1. To introduce the citizens of Anguilla, or a specific village, to a proposed MPA for a specific section of the coastline.
2. To show the importance of MPAs, the benefits derived from them, and how they have worked in other parts of the region.

Target Audience: Stakeholders that use the proposed park area and the general public; i.e., fishermen, boat operators, dive operators, hoteliers, tourism personnel, tourists, etc. Some key participants will be invited.

Materials and Equipment: Laptop, PowerPoint projector, pen, paper, markers, flip chart

Evaluation Technique: Questionnaire

LESSON OUTLINE:

- Introduction of main speaker, facilitators, and a call for guests to briefly introduce themselves. (10 mins.)
- State reason for meeting/workshop, and ask each group to write down their definition of a MPA. Discuss their definitions. (15 mins.)
- Facilitator's definition of a MPA
 - How they came about
 - How they are developed
 - Different zoning schemes
 - Benefits
 - Funding, etc.
- Question/Answer discussion on previous section. (10 mins.)
- Discussion on the Participants' views of an MPA in the proposed area. (15 mins.)
- Coffee Break. (10 mins.)
- Discussion on Participants' views and ideas on a zoning scheme for the proposed MPA. (10 mins.)
- Case studies of some successful MPAs in the region. (20 mins.)
- Discussion/wrap-up. (10 mins.)

§§-4:6-§§

Course Title: Marine Protected Areas Overview

Lesson Title: Present status of MPA programmers in the Caribbean

Duration: 2 hrs.

Objective: To summarise the current state of PA development in the Caribbean

Significance: The emerging trend in Caribbean Countries to use MPAs to support tourism strategies

Audience: Senior level personnel in the Ministry of the Environment & Tourism

Presenter: MPA manager

Number of Participants: 6

Venue: Conference room of Ministry

Materials: Charts; handouts

Equipment: Overhead projector

Feedback: Questions and answers; wrap-up

<i>Session Outline</i>	<i>Presenter Activity</i>	<i>Audience Activity</i>	<i>Time</i>
Introduction: Statistical data outlining the number of MPAs, the threats; i.e. capacity and experiences, and the impact of environmental agreements. Discussion of handouts	Presentation	Listening	45 mins
Break			10 mins.
Overhead projection presentation, using charts and lists	Presentation	Watching/Listening	10 mins.
Discussion on the relevance of Information to the Ministry's plans	Facilitator	Participation	45 mins.
Wrap-up	Questions/Answers	Questions	10 mins.

§§--4:7--§§

Course Lesson: Benefits of a Marine Reserve to fishermen

Objective:

1. To introduce to fishermen the multiple benefits of a marine reserve
2. To enable fishermen to better understand their role and function as stakeholders in a marine reserve
3. To build responsibility and support for the success of the marine reserve

Methods of Presentation: Classroom lectures; discussion

Materials/Equipment Required: OHP, flip chart, markers, screen

Evaluation: Question and answer feedback

Venue: The workshop will be held at the Community Centre, from 6-8 p.m. Wednesday

Trainers/Resource Persons: Staff of Fisheries Dept., MPA manager

LESSON OUTLINE:

Introduction: What is a Marine Reserve, and the benefits of that resource to fishers

- Protects ecosystem structure, function, and integrity;
- Improves system resilience;
- Improves fishery yields
- Improves knowledge and understanding of marine systems.

§§--4:8--§§

Course Title: MPA resources and management are threatened

Title: Gill net destruction

Lesson Length: 30 mins.

Objective: Participant will be able to identify a gill net and the effects it has on coral and fishes

Target Audience: Primary school students

Materials: Sample gill nets, slides and pitcher

Method: Slides and presentation

§§--4:9--§§

Course Title: Introduction to Marine parks

Lesson Title: Orientation and rationale for the establishment of Folkstone Marine park

Objectives: To provide information on the laws and boundaries, while at the same time highlighting management objectives and providing the framework for continued dialogue

Audience: Staff

Instructor: Senior Park naturalist

Room Assignment: Fan style

Materials: Acts, projector and leaflets (maps), flip charts, and markers

Lesson Time: 4 hrs, 2 per day

LESSON OUTLINE:

- Introduction
- Presentation
- Field Trip

§§--4:10--§§

Name of Session: Marine Protected Areas

Objective: To demonstrate the benefits of marine protected areas and how one can contribute to their betterment

Concept: Successful MPA management requires consistent support and resources

Method of Presentation: Overhead projector and video clips before and after. Map of SMMA

Target Audience: Yacht Association members

Evaluation: Questionnaire

Introduction:

A protected areas is defined as “an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated

cultural resources, and managed through legal or other effective means (IUCN, 1994. P.7).

As you are aware, the Soufriere Marine Management Area (SMMA) in Soufriere is one such example of an MPA. This area has been officially established since 1995, for the following purposes:

1. Preservation of biodiversity – coral reef, seagrass;
2. Tourism and recreation – diving;
3. Scientific research;
4. Maintenance of cultural and traditional attributes (pot fishing);
5. Sustainable use of resources; and
6. Equitable sharing of benefits being derived.

These are the main reasons for the establishment of the MPA. This move has brought about significant benefits, such as:

- Reduction of incidental damage, e.g. anchoring;
- Protection of physical nature of habitat;
- Maintenance of high quality feeding areas for fish;
- Enhances and diversifies economic activity;
- Creates public awareness of the environment;
- Protects spawning fish stocks (fish having babies);
- Provides spill over effects (no-take zones to fishing areas);
- Reduces conflict among users; and
- Facilitates stakeholder involvement in management.

These are just some of the benefits of the MPA (SMMA) so far. The last one on the list is a very critical one, and this is where you yachters should play your part as stakeholders and users of the MPA.

What can you do to play your part?

1. Do not anchor on the coral reef. Tie onto the moorings, or anchor carefully in the multiple use areas.
2. Respect the fishing priority areas.
3. If you are diving or taking persons to dive, dive with utmost care to protect coral reefs.
4. Pay mooring fees to the SMMA, for this will help in the day to day operations of the Association and improvement of programmes in the MPA.
5. Keep all solid waste or garbage in your vessel and dispose of them appropriately, not in the sea.
6. Make sure your holding tanks for sewage is operational, and do not empty them in the nearshore or MPA. This will increase nutrient levels and increase algae, which will kill corals.
7. Respect Marine Reserves, they are no-take zones. Do not fish in them.
8. IF you are diving, do not tamper with any fishing gear found in the water. Report it to the SMMA or the Department of Fisheries.

9. Be responsible for the SMMA. Play your part. Report any activity that contravenes the rules and regulations. Discourage them.

Leaflets about the SMMA will be distributed to the Participants, and the questionnaire will be passed for the evaluation. There will also be a question and answer time and discussion by the group to share sentiments.

§§--4:11--§§

Lesson Title: Comparing Management Techniques

Lesson Objectives: To compare the different methods of management and to see which is the most use full form of manager in your MPA's

Target Audience: MPA's manager from the different marine reserve in the Belize

Concept: Marine Protected Areas are establish to support a different range of objectives.

Methods/Material:

1. Lecture-PPT
2. Group Discussion- Comparison of Techniques being used presently

Time: 8 hrs

<i>Lesson Outline</i>	<i>Instructor Activities</i>	<i>Trainee</i>	<i>Time</i>
Introduction	Manager MPA	MPA Managers	8-8:10am
Presentation from 1 of the MPA managers in Belize on their management methods.	MPA Manager	MPA Manager	8:10-12:00am
Lunch Brake			12-1:00pm
Discussion: MPA managers will look at the different management concepts and compare.	MPA Manager	MPA Manager	1-5:00pm

§§--4:12--§§

Course Title: MPAs are established to support a range of objectives.

Lesson Title: The Hol Chan Marine Reserve Zoning scheme.

Lesson Length: 20 min

Learning Objective: Be able to describe the four zones of the Hol Chan Marine Reserve.

Target Audience: Students

Method of Presentation: Power Point

Materials Required: Computer, LCD projector, screen, Paper, Pencil

Evaluation: Question and answer

<i>Lesson Outline</i>	<i>Instructor Activity</i>	<i>Trainee Activity</i>	<i>Time</i>
Introduction	Presentation	Watch & listen	5 min
HCMR Zoning	Presentation	Watch & listen	10 min
Wrap up	Summary	Q & A	5 Min

Training Plans for Module 5: Participatory Planning

§§-5:1-§§

Training of School Children in Stakeholder Recognition and Responsibility for the Montego Bay Marine Park

Objective: teaching schoolchildren the concepts of stakeholdership in the Montego Bay Marine Park and providing them with materials to carry this information back to piers in in-class presentations.

Audience: school children from local middle and high schools, two representatives from a class. Total: 30-40 children.

Venue: a school classroom or auditorium

Time: 2 hrs.

Content:

1. Guide students through the concept of being a stakeholder, particularly in the MBMP and the complexities therein. (20 min)
2. Class involvement exercise where stakeholder groups are given by children. Emphasis is again to be placed on the complexity and interconnectivity of the system. (20 min)
3. A brief description of the Montego Bay Marine Park and its environmental stressors. (15 min)
4. A group exercise in linking themselves via their parents to the Montego Bay Marine Park as economic stakeholders. (30 min)
5. Presentation of most complex network of connection form each group. (15 min)
6. Brief instruction on teaching piers, public speaking and doing group presentations. (20 min)
7. Question and answer. (15 min)

Materials: overhead projector, screen, flipchart, markers. Handout sheets: "Teaching to Your Piers", "Concepts of Stakeholdership", "Connectivity of Ecosystems in the Caribbean Sea".

Methods: lecture, using flipcharts or overheads, depending on class size. Handouts.

Evaluation: Test, 20 multiple-choice questions to be marked in class.

§§--5:2--§§

Course Title: Management of Belize’s Coastal and Marine Resources

Lesson Title: Identifying and assessing stakeholder involvement.

Lesson Objectives: To introduce to participants techniques for identifying and assessing the importance of all user groups of an MPA.

Significances/Concept: According to the level of priority to each stakeholder management must place added attention to their necessities.

Participants: NRM interns from the UB planning to enter the work force in MPA management, volunteering at Glover’s Reef.

Methods/ Materials:

1. Lecture- PPT, Projector
2. Group Discussions
3. Role plays

Time: 45mins

<i>Lesson Objectives</i>	<i>Instructor</i>	<i>Participants</i>	<i>Time</i>
Introduction	Presentation	Listen	10mins
PPT-Identifying & Assessing Stakeholders	Presentation	Listen	20mins
Group Discussion Role Play	Facilitator	Participate	10mins
Wrap up	Answer Questions	Question	5mins

§§--5:3--§§

CONCEPT: If stakeholders did not participate in the MPA planning, the chances of the plan to fail are very high.

OBJECTIVE: To demonstrate different ways and approaches to identify stakeholders.

METHOD: Lecture (20 min)

MATERIALS: Power point, flipchart

OUTLINE:

- Socioeconomic approach (3 minutes)
- Time spent in MPA (3 minutes)
- Input given to MPA (3 minutes)
- Direct / Indirect benefit (3 minutes)
- Direct / Indirect impact (3 minutes)
- Discussion / Questions (5 minutes)

§§--5:4--§§

Course Title: Participatory Planning

Session Title: Community involvement in MPA's operation

Duration: 5 hrs.

Objective: To enhance Participants' capacity to implement MPA's outreach programme

Significance: Stakeholder involvement in MPA management can result in improved protection of the area, but it is complex and requires skill and experience.

Number of Participants: 7 MPA

Venue: MPA conference room

Equipment: Overhead projector; VCR

Materials: Transparencies, VCR tape of "SMMA" case study, handouts (participatory planning for SMMA)

Presenter: MPA manager

Style: Lecture, with visual presentations

<i>Session Outline</i>	<i>Presenter Activity</i>	<i>Audience Activity</i>	<i>Time</i>
Introduction: Expound on the objective, highlighting the benefits to the MPA of collaboration	Presentation	Listening	30 mins
Overhead projector presentation: Presentation of relevant data re target communities within the MPA, boundaries, issues, traditional uses, etc.	Presentation	Watching/Listening	40 mins.
Break			20 mins.
Discussion: Participants reaction/ impression to presentation. Discuss handouts	Facilitator	Participation	40 mins.
Break			30 mins.
Video presentation: SMMA case study of processes/results of participatory planning	Presentation	Watching	45 mins.
Discussion of video	Facilitation	Participation	45 mins.
Evaluation/Wrap-up	Questions	Questions	30 mins.

§§--5:5--§§

Course Title: Participatory planning for PHMR stakeholders

Lesson Title: Stakeholder involvement

Objective: To identify the importance of having stakeholder involvement in PHMR

Time: 4 hrs.

Target Audience: NGO and manager

Materials: Computer; slides

Methods: Presentation, role play, and discussion

§§--5:6--§§

Course Title: Participatory planning in MPA management

Lesson Title: Stakeholder identification and analysis as an important part of the participatory process in MPA management

Lesson Length: 1 hr.

Learning Objectives:

1. Highlight the importance of the participatory processes in MPA management;
2. Demonstrate the invaluable contribution of stakeholder identification and analysis in the participatory process

Target Audience: MPA managers, rangers, and other MPA staff

Materials/Equipment Needed: Flip cart, markers, pencil, paper, transparencies, overhead projector, PowerPoint projector

Evaluation and Assignments: Facilitated discussions; group analysis

LESSON OUTLINE:

- Introduction: What is participation? Group discussion on definition of stakeholders. (10 mins.)
- Ask group to identify primary, secondary, tertiary (after defining these) stakeholder groups in a given MPA, followed by discussion. (20 mins.)
- Introduce stakeholder analysis and ask group to come up with a system of ranking the different user groups, followed by a discussion. (20 mins.)
- Wrap-up/discussion. (10 mins.)

§§-5:7--§§

Name of Course: Conflict Resolution and Management

Course Title: Understanding Stakeholder importance in MPA management.

Lesson Objectives: To understand the benefits of stakeholders in Marine protected Areas and how it can affect management.

Target Audience: MPA Manager and Senior Rangers in Belize

Concept: How to identify stakeholders by looking at their significant value to the MPA

Method/Material:

1. Presentation on Participatory planning from Module 5 of the Training of Trainers course, using Hol Chan, Glovers Reef and Sapodilla Cayes Marine Reserve as case studies, looking at their management techniques and how stakeholders play and important role in their day-to-day management.
2. Flip charts, Markers

Time: 2days

<i>Lesson Outline</i>	<i>Instructor Activities</i>	<i>Trainee</i>	<i>Time</i>
Introduction to the group About Course	Francis Staine Senior Ranger	MPA Managers	8-8:10 am
Participatory Planning	Francis Staine Senior Ranger	MPA Managers	8:10-12 pm
Lunch	Lunch	Lunch	12-1:00 pm
Participatory Planning can't	Miguel Alamina HCMR Manager	MPA Managers Senior Ranger	1-5:00 pm
Day 2			
Participatory Planning can't Case Study on Group Work	Francis Staine	MPA Managers Group Work	8-10:00 am 10-12: 00 pm
Lunch			12-1:00 pm
Group Presentation	Listening	MPA Managers Senior Rangers	1:00-3:30 pm
Comments and Course evaluation	Group	Group	3:30-5:00 pm

§§--5:8--§§

Course Title: Stakeholder analysis

Lesson Title: Conducting stakeholder analysis for MPAs

Lesson Length: 70 min

Learning Objective: Student will be able to identify stakeholders and define their degree of interest in the area

Target Audience: Belize MPA managers

Method of Presentation: Power Point

Materials Required: Computer, LCD projector, screen, Paper, Pencil

Evaluation: Question and answer

<u>Lesson Outline</u>	<u>Instructor Activity</u>	<u>Trainee Activity</u>	<u>Time</u>
Introduction	Brain Storming	Watch & listen	10 min
Stakeholder Identification	Presentation	Watch & listen	30 min
Criteria of Stakeholder	Summary	Q & A	30 min
Question & Answer		Q & A	10 min
Stakeholder analysis	Supervise	Role Play	20 min

Training Plans for Module 6: Marine Protected Area Planning

§§-6:1--§§

Training in Demarcation of Use Zones: Part four of a ten-day workshop with stakeholders and Fisheries Div. to design a system of use zones in the Montego Bay Marine Park.

Objective: To design a system of use zones amicable to all stakeholders.

Audience: Fishers, including representatives from all effected fishers communities and Co-Ops, dive shop representatives and tourist operations. Direct stakeholders only.

Venue: A quiet, neutral area with ample space for small group work: tables and chairs.

Time: Two consecutive afternoons, three hours each.

Content:

Day 1

1. Lecture on the process used in demarcating zones in Sufriere and Glovers Reef MPAs. (30 min)
2. Brainstorming on issues effecting demarcation in Montego Bay. Notes will be taken on overhead projector. (15 min)
3. Discussion based on notes, including question and answer period. (20 min)
4. Continuation of discussion using large projected photograph of MBMP area projected on large white paper: facilitator to begin to draw lines on projection according to discussion. (20 min)

BREAK

5. Distribution of small Park line-maps and pens. Exercise: for each participant to mark out their desired zonation for the Park. Maps to be collected by facilitators, then redistributed around the workshop to different participants. The new map-holder will then discuss the pros and cons of demarcation with the help of the facilitator. Emphasis will be paced on fairness and the necessity of compromise to facilitate improvement. Use of previous presentations on zone use around the Caribbean in decision-making will also be encouraged. (1.5 hr)

Day 2

1. Groups of 5 will take larger line maps of Park area and zone them according to role-play: dive operator, hotelier, fisherman, Park manager, local sport fisherman. Each group will present proposed zones and entertain discussion. (1.5 hr)

BREAK

2. On a large photograph of Park area projected onto white paper, final demarcation of use zones will be done. Each participant will sign this final draft, as will representatives of Fisheries Div. and MBMP staff. (1hr)

Materials: Line map photocopies, overhead projector, digital projector, pens, large piece of paper, projection screen.

Methods: lecture, roll-play, group-work, discussion, question and answer, case study.

Learning Process: auditory, visual, roll-play, hands on.

Evaluation: questionnaire read aloud to class.

§§--6:2--§§

Course Title: Management of Belize's Coastal and Marine Environments

Lesson Title: Planning as a mechanism in MPA management

Lesson Objective: To have interns understand the importance of planning as an essential part of the MPA management process.

Significance/ Concept: Planning is a vital tool that must be carefully examined as a tool for management.

Participants: NRM interns at UB planning to get into MPA management, and volunteering at Glover's Reef.

Methods/ Materials: Lectures- PPT, Projector, Flip Chart, Markers

Time: 45mins

<i>Lesson Plan</i>	<i>Instructor</i>	<i>Participants</i>	<i>Time</i>
Introduction	Present	Listen	10mins
PPT- The Importance of Planning, discussing all aspects of the planning process	Present	Listen	30mins
Wrap up	Answer Question	Question	5mins

§§-6:3-§§

CONCEPT: Zoning MPA's is a great management strategy with many benefits

OBJECTIVE: To give examples of various benefits of zoning

METHODS: Lecture 10 minutes, Discussion 5 minutes

MATERIALS: Zoning map from MPA, flipchart

OUTLINE:

- Introduction to zoning and examples of successful zoning in the past (3 minutes)
- Ask for benefits, write them on flipchart and explain each one that shows up (5 minutes)
- Add benefits that may not have show up. (2 minutes)
- Discussion / Questions

§§-6:4-§§

Course Title: MPA planning

Session Title: Zonal planning

Objective: To bring awareness to the practicality of zoning in the MPA

Significance: Proper MPA management involves allocation of resource use and activities to well-defined areas.

Audience: New park rangers

Venue: MPA conference room

Equipment: Overhead projector; flip chart

Materials: Transparencies, maps, markers

Duration:

Presenter: MPA manager

Style: Lecture

<i>Session Outline</i>	<i>Presenter Activity</i>	<i>Audience Activity</i>	<i>Time</i>
Introduction: The concepts of zoning and its components, including consultations, mapping, conflicts, etc.	Presentation	Listening	
Overhead projector presentation: Presentation showing zoned areas in MPAs; proposed zones in MPA; reasons for zoning	Presentation	Listening	
Break			
Discussion: on presentation. Q/A	Facilitation	Participation	
Exercise: Present a draft plan of a zoned area, showing different areas and reasons behind zones	Facilitate/Critique	Presentation	
Discussion on presentations	Facilitate	Presentation	
Wrap-up	Answers Questions	Questions	

§§--6:5--§§

Course Title: Marine Protected Area Planning

Lesson Title: Zoning and the zoning plan development process

Lesson Length: 1 hr.

Learning Objectives:

1. To introduce the concept of allocating different areas of a resource for different uses.
2. Highlight the importance of zoning in a management plan context

Target Audience: Different stakeholders, in a participatory process

Materials & Equipment Needed: Overhead projector, transparencies, PowerPoint projector, slides, case studies, maps of an MPA

Evaluation and Assignments: Group participation and group input/output

LESSON OUTLINE:

- Introduction to different uses of the coastal zone, and conflicts that arise from uses – definition of zoning. (10 mins.)
- State the different functions that zoning can fulfill, and elaborate on them. (10 mins.)
- Give examples of effective or successful zoning schemes, e.g. case studies – SMMA and Great Barrier Reef. (10 mins.)
- Zoning exercise (20 mins.)
- Wrap-up discussion. (10 mins.)

§§--6:6--§§

Course Title: MPA Planning

Lesson Title: Developing a zoning plan for PHMR

Objective: Participant will be able to understand the reasoning for zoning, and the different zone uses in a MPA, and will help to determine zones.

Time: 1 day

Target Audience: Stakeholders (tour guides, fishermen, etc.)

Materials: Slides, maps, video, TV, VCR, overhead projector

Methods: Slide presentation and discussion.

§§--6:7--§§

Lesson Title: Zoning and the benefits of zoning

Lesson: SMMA zones & visible benefits to date

Objectives:

1. Show how zoning can accommodate all stakeholders.
2. Show the many benefits of zoning as proven in the SMMA.

Audience: MPA managers – knowledge on MPA and zoning

Materials: Maps, video tape

CONTENT:

In 1994, during the formation of the SMMA, the persons involved, which included stakeholders, realized that there was a need to zone the area in order for SMMA to achieve its main goals of:

1. Equitable sharing of marine resources.
2. Protecting and maintaining the marine resources/heritage.

As a result, the following zones were set:

Marine Reserve – Green

The primary purpose of these areas is to allow fishing stock to regenerate, in order to ensure health fish populations in the future. These areas of high ecological value have been set aside for the protection of all marine flora and fauna, scientific research, and the enjoyment of divers and snorkelers.

Please note that access to the reserves is subject to the acquisition and conditions of a permit, which can be obtained through the local dive operators, authorized dive leaders, or the SMMA office in Soufriere.

Fishing Priority Areas – Red

Fishermen have precedence over divers, snorkelers, yachters. Access by other users is allowed only to the extent that it does not interfere with any fishing activities.

Recreational Areas – Yellow

These areas are for sunbathing, surfing, or to simply feel the sand between the toes. Areas where local access must be maintained.

Multiple Use Areas – Rust Brown

In these zones, fishing, diving, snorkeling, and other legitimate users are allowed, as long as the general rules of the SMMA and other national regulations are observed.

Yacht Mooring Areas – Blue

Except for the northern part of Hummingbird Beach, where mooring is allowed only as long as commercial fishing activities are not disturbed, and a small area north of Anse Chastanet, anchoring is prohibited in the SMMA. Moorings have been provided for visiting yachts.

Dive Sites

To date, our benefits have been tremendous.

Benefits:

1. Since 1995, food fish have tripled in reserves and doubled in fishing grounds.
2. Large schools of big fish have returned to the SMMA.
3. Big fish in marine reserves produce enough eggs to support future catches outside reserves.
4. Marine reserves protected from fishing provides a refuge for marine life.

5. The number of different species of fish is increasing.
6. Increasing numbers of Parrotfish in the SMMA helps keep the reef healthy by eating underwater vegetation, which can otherwise overgrow and kill corals.

Evaluation: Do you think the SMMA zones can be applied to your MPA and be as beneficial to you as it is to the SMMA?

§§-6:8-§§

Name of Course: Marine Protected Area planning

Lesson Title: Zoning as a management tool for MPA

Lesson Objectives: Consult with different stakeholders to see if they agree on the different zones so as to reduce conflict between resources users.

Target Audience: Fishermen

Concept: Zoning as a strategy to fulfill the different need of MPA

Method/ Material: Presentation on the propose MPA zone, data showing why the area needs to be zone, Slides showing the different zones.

Time: 3 1/2 hrs

<i>Lesson Outline</i>	<i>Instructor Activities</i>	<i>Trainee</i>	<i>Time</i>
Introduction	MPA Manager	Fishers	6-6:05 pm
Presentation on MPA Propose zone.	Fisheries Admin.	Fishers	7:05-7:30 pm
Present maps that mark boundary	MPA Manager	Fishers	7:30-7:40 pm
Presentation of Statutory Instrument	MPA Manager	Fishers	7:40-8:15 pm
Presentation on benefits to be gain from MPA	Fisheries Admin.	Fishers	8:15-8:40 pm
Question	Fishers	Fishers	9:15-9:30 pm

§§--6:9--§§

Course Title: Management Plans

Lesson Title: Components of a Management Plan

Lesson Length: 1 hour

Learning Objective: Participants will have a clear understanding of the components of management plan using two models.

Target Audience: MPA managers

Method of Presentation: Power Point

Materials Required: Computer, LCD projector, screen, Paper, Pencil,

Evaluation: Question and answer

<i>Lesson Outline</i>	<i>Instructor Activity</i>	<i>Trainee Activity</i>	<i>Time</i>
Introduction	Presentation	Watch & listen	5 min
Description of two models	Presentation	Watch & listen	20 min
Exercise (Develop an Outline of MPA)	presentation	Watch & Listen	30 min
Wrap up	Summary	Q & A	5 Min

Training Plans for Module 7: Marine Protected Area Management

§§--7:1--§§

Teaching of Adults

Objective: To provide methods of teaching adults, with emphasis on how it differs from teaching children.

Audience: MPA outreach officer, rangers, other staff, volunteers.

Venue: Quiet and private.

Time: 2.5 hrs

Content:

1. Differences between adult and child learning, reasons for different teaching styles.
2. Methods for teaching adults.
3. Exercise: groups create training session and present- class discussion on presentation.
4. Exam

Materials: Power Point Presentation: projector, laptop, screen, flip-chart, pens.

Methods: Lecture, discussion, group exercises.

Learning Process: Auditory, visual, creative and discussion.

Evaluation: Exam.

§§--7:2--§§

Course Title: Management of Belize’s Coastal and Marine Environments

Lesson Plan: Learning the importance of Collecting Revenue at Marine Protected Areas.

Lesson Objective: To learn methods appropriate to revenue collection in MPA’s.

Significance/ Concept: Some MPAs have institutional funding some do not, it is very important to generate funds personally so as to maintain sustainability.

Participants: NRM interns from the UB volunteering at MPA s.

Methods/Materials: Lecture-PPT

Time: 1hour

<i>Lesson Plan</i>	<i>Instructor</i>	<i>Participants</i>	<i>Time</i>
Introduction	Presentation	Listen	10mins
PPT- Type of Revenue generating techniques	Presentation	Listen	30mins
Discussion	Facilitator	Participate	10mins
Wrap up	Answer ?	Question	5mins

§§--7:3--§§

CONCEPT: Training, career ladders and employee development must also be considered when developing a position.

OBJECTIVE: To show the structure of ranger prerequisites for hiring and the course structure.

METHODS: Lecture (9 minutes), Discussion (5 minutes)

MATERIALS: Overhead projector, Power point, slides or flipchart (optional)

OUTLINE:

- Prerequisites slide (3 minutes) explain the reason for each one
- Study guide (3 minutes) explain each component and why it was chosen
- Courses to take (3 minutes) explain each one and why
- Discussion and questions

§§--7:4--§§

Course Title: Interpretation and Outreach

Objective: Sensitize MPA Outreach Officers to the importance of outreach programmes to the MPA.

Significance: Outreach is one of the most important activities of an MPA. MPAs have a mandate to educate MPA users through public education and outreach.

Audience: MPA Outreach Officers

Number of Participants: 10

Venue: MPA conference room.

Duration:

Presenter: Outreach Consultant

Presentation: Lecture, Participant participation

<i>Session Outline</i>	<i>Presenter Activity</i>	<i>Audience Activity</i>	<i>Time</i>
Introduction: MPAs dependence on interpretation and outreach programmes to get its messages stakeholders is stressed.	Presentation	Listening	
Discussion on information gathering and delivery techniques.	Facilitator	Participation	
Break			
Exercise: Development of a outreach strategic plan. Done in 2 groups.	Facilitation	Participation	
Presentation of Participants/ Group efforts of an outreach strategic plan.	Facilitation	Presentation	
Evaluation: Practicality of plans critiqued	Analyse	Participation	
Wrap-up	Answers Questions	Questions	

§§--7:5--§§

Course Title: MPA management involving stakeholders

Lesson Title: PHMR Rules and Regulation

Objective: Fishermen will be able to identify the different zones and the regulation regarding zones and regulations of PHMR

Time: 1 day

Target Audience: Fishermen

Place: Fishing village community centre

Materials: PHMR maps, showing clearly the zones and boundary. Some pamphlets with easily-interpreted rules and regulations.

Methods: Presentation and discussion and fieldtrip.

§§--7:6--§§

Course Name: Estimate of revenue and expenditure

Lesson Title: Budgeting

Objective: To involve staff in the planning process, while allowing them to get an idea of what is involved in preparing a budget for the marine park

Audience: MPA staff

Materials/Resources Needed:

Location: This meeting is taking place at the monthly meeting of staff

Further Objective: Is to get staff to look ahead (future development).

§§--7:7--§§

Course Title: Managing a marine protected area

Lesson Title: Planning and management

Lesson Length: 1.5 hrs.

Learning Objectives:

1. To demonstrate the necessary skills needed for effective planning and management.
2. Developing goals to be achieved in managing an MPA.

Target Audience: MPA managers

Materials & Equipment Needed: Overhead projector, transparencies, Flip charts, and markers

Evaluation and Assignments: Facilitated discussions, extent of Participants' involvement.

LESSON OUTLINE:

- Introduction to basic skeletal elements of any management agency, and the five elements. (15 mins.)
- Reasons for establishing MPAs and legislative intent. (20 mins.)
- Group exercise on goal setting and organizational structure of MPAs. (45 mins.)
- Wrap-up discussion. (10 mins.)

§§--7:8--§§

Course Title: Marine Protected Area Planning

Lesson Objectives: To let reserve Ranger be aware of the new regulation of the CCMR

Target Audience: Marine Reserve Rangers

Concept: Regulation is an effective component of Protected Area Management

Method/ Material: Presentation on the MPA zone, Maps outlining the zones, and the Statutory Instrument that govern each zone.

Time: 1 ½ hrs

<i>Lesson Outline</i>	<i>Instructor Activities</i>	<i>Trainee</i>	<i>Time</i>
Introduction	MPA Manager	Rangers	8-8:05 am
Presentation on MPA zone	MPA Manager	Rangers	8:05-8:30 am
Present maps that mark boundary	MPA Manager	Rangers	8:30-8:40 am
Presentation of Statutory Instrument	MPA Manager	Rangers	8:40-9:15 am
Question	Rangers	Rangers	9:15-9:30 am

§§--7:9--§§

Course Title: Marine Protected Area Management

Lesson Title: Rules and Regulations of the HCMR Recreational Area

Lesson Length: 15 min

Learning Objective: Will be familiar with all the rules and regulations of the recreational Area of the HCMR.

Target Audience: Junior Ranger

Method of Presentation: Power Point

Materials Required: Computer, LCD projector, screen, Paper, Pencil

Evaluation: Question and answer

<i>Lesson Outline</i>	<i>Instructor Activity</i>	<i>Trainee Activity</i>	<i>Time</i>
Introduction	Presentation	Watch & listen	2 min
Rules and Regulations	Presentation	Watch & listen	10 min
Wrap up	Summary	Q & A	3 Min

Training Plans for Module 8: Research and Monitoring

§§--8:1--§§

Workshop in Training SCUBA Instructors to Teach Tourists to Count Fish

Objective:

1. To teach dive professionals use of fish-count trail method of visual census of fish populations.
2. To devise an effective method to teach dive tourists to count fish on these same trails as a dive activity.

Audience: Local dive staff and park volunteers

Venue: private room, field exercise underwater on pre-established fish-counting trail.

Time: 3-4 hours.

Content:

1. General description of fish-trail visual monitoring exercise, including the necessity of ongoing, frequent fish population monitoring data.
2. Description of physical water parameters to be taken by dive leader, including visibility, temperature, time of day, surface weather and current.
3. Description of fish-count trail itself and how to follow the trail. View video of pre-established trail and data collections.
4. Description of underwater counting sheets and how to fill them out. Included will be why counted fish types were chosen. View video of fish being counted by described method.

Questions and discussion (1 hour)

Field exercise at a pre-established fish-count trail, involving following trail and counting fish by pre-described method. Comparison of results. (1.5 hours)

5. Discussion of results and teaching methods for diver tourists, emphasizing the necessity of reliability and reproducibility in the data for it to be Scientifically valid. (.5 hrs)

Materials: Power Point projector, screen, video and player, established fish-count trail and underwater counting sheets, pencils.

Methods: Lecture, video, hands-on field-work, discussion.

Learning Process: auditory, visual, practical, discussion, experience based.

Evaluation: Test on methods and on fish ID. 30 questions.

§§-8:2-§§

Lesson Title: Monitoring Activities Carried Out Within the SMMA

Audience: MPA Managers

Prerequisite: Basic knowledge on the importance of Scientific Monitoring

Material Needed: Equipment needed for each test to demonstrate how it is done.

Objectives: Know the different monitoring test carried out within the SMMA and the purpose for each test.

Content:

There is a great need for more elaborate monitoring within the SMMA, as especially manmade threats are seem to be on the increase e.g. increased shoreline development, but because of financial constrains, our monitoring abilities are limited to just to the following:

1. Turbidity

This test is used to check the visibility/transparency of the water and the amount of light available for Photosynthesis. The instrument used for this test is the Secchi Disc

2. Salinity

This test is used to detect any influx of fresh water from natural sources. It is used to determine the level of salt in the water. The instrument used for this test is the Refractometer.

3. Temperature

This test is used to detect any temperature change in the sea.. The instrument used are temperature gauges which are placed in PVC pipes and tightly sealed.

4. Reef Checks

This test is used to check the health of the Coral Reef. Method -

5. Sedimentation

This test is used to determine the amount of sediment residue in the water. The method used is sediment traps.

Evaluation: Any questions on the monitoring test carried out within the SMMA.

§§--8:3--§§

Course Title: Management of Belize's Coastal /Marine Environments

Lesson Title: The importance of Research and Monitoring in Management of Marine Resources

Lesson Objectives: To introduce participants to the importance of research in management of resources

Significance/Concepts: Research gives managers useful and vital tools for the maintenance and development of their MPA

Participants: NRM interns at UB

Methods/Materials:

1. Lecture- PPT
2. Group Presentation

Time: 1 hour

<i>Lesson Outline</i>	<i>Instructor Activity</i>	<i>Participant</i>	<i>Time</i>
Introduction	Presentation	Listening	10mins
Lecture-PPT Methods of Research And their uses as tools For management	Presentation	Listening	20mins
Discussion of research Methods & possibilities	Facilitator	Participate	10mins
Role Play- Involving Scientists and reserve staff working together on a certain topic	Facilitator	Participate	15mins
Wrap up	Answer Questions	Question	5mins

§§--8:4--§§

CONCEPT: Research and monitoring are vital for proper management

AUDIENCE: Board of Directors NGO managing the MPA

METHOD: Lecture 10 min. Discussion/Questions 10 min.

MATERIALS: Power point presentation

OBJECTIVE: To get approval to raise the budgeted amount of money for monitoring.

OUTLINE:

Slide 1 Organization goal

Slide 2 What do we have?
(We need to know what we have if we are to preserve it. Need for base line research and inventories).

Slide 3 What do we need to know?
Nature patterns, nature cycles, population patterns, population changes, physical factors, adequate levels, diseases, impacts, etc.

Slide 4 Why do we need it?

- Experts can not help with problems if no data available.
- Proper decisions can not be taken if there is no information.
- Need data before can propose to change legislation.
- Awareness is easier to raise if data available to back up information.
- Impossible to measure effectiveness of management without data.
- Discussion/Questions

§§--8:5--§§

Course Title: Research and Monitoring

Session Title: Basic economic and social science research

Duration: 1.5 hrs.

Objective: To introduce the socio-economic perspectives into the planning process of the MPA.

Audience: MPA planning committee

Number of Participants: 6

Venue: MPA conference room

Materials: Handouts

Presenter: MPA manager

Delivery: Lecture

<i>Session Outline</i>	<i>Presenter Activity</i>	<i>Audience Activity</i>	<i>Time</i>
Introduction: Description of the types of research that are needed for the planning process; i.e. economic, sociological, political, cultural, and legal. Distribute handouts.	Presentation	Listening	45 mins.
Break			10 mins.
Discussion: Assessment of the content of presentation, and the relevance to MPAs management plans.	Facilitator	Participation	35 mins.

§§-8:6-§§

Lesson Title: Methodology for conducting morning turtle nesting beach surveys in the Bird Island Marine Sanctuary

Lesson Length: Will be conducted over 2 days:

- A 45-minute afternoon classroom session; and
- A 2-hour morning practice session beginning at 5:30 a.m.

Learning Objectives: To train personnel to conduct morning nesting beach surveys in a sea turtle conservation programme.

Target Audience: International volunteers, mostly university students

Prerequisites: Trainee: enthusiasm for wanting to work with marine turtles, dedication, and hard work.

Materials & Equipment: VCR & tape, slides, species ID card, turtle track ID cards, information package

Training Evaluation: Early morning practical session

LESSON OUTLINE:

- Introduction of Facilitator and volunteers. (5 mins.)
- Introduction to Bird Island Turtle Project – species identification, turtle species, track ID. (10 mins.)
- Procedure for conducting patrols, track ID, nest excavation, and inventory of nest. (20 mins.)
- Discussion/wrap-up of session. (10 mins.)
- Early morning field session and discussion. (2 hrs.)

§§--8:7--§§

Course/Lesson: The need for research and monitoring of user impact from shore-based visits to the SSMR.

Objective: To reinforce the importance and seek compliance on the need for recording of visitor/user levels and patterns in the SSMR.

Significance: The SSMR has been receiving an increased number of local and foreign visitors by land. These visits are arranged by taxi and tour operators, who travel from the city and other locations. This increased activity involves entry from shore for swimming, scuba, picnics, and hiking to the Scotts Head Point.

Target Audience: Taxi Association executives and key members/members who operate tours to the SSMR

Presentation: Lecture, discussion

Materials & Equipment Needed: OHP, flip chart, markers, sample of visitor questionnaire, transparencies.

Facilitators: MPA official, tourism official

Evaluation Method: 20-point questionnaire

Time: Two (2) hours

LESSON OUTLINE:

Introduction:

- What is research and monitoring and MPA plan?
- What is user impact and carrying capacity?
- The need for research and monitoring of user (all) impacts in the SSMR.
- Particular areas of concern to tour operators would be tourists/divers.
- Basic data requested would include:
 - # of persons and origin;
 - Specific dive sites;
 - Secondary activities; and
 - Amount spent on activity, and levels of satisfaction.

§§--8:8--§§

Name of Session: Reef Check, a monitoring tool

Objective: To convey why coral reef is monitored in the SMMA, and method used for monitoring substrate type, which can be applied in the participant's MPA.

Concept: Various methods for research and monitoring of resources in an MPA.

Presentation: Lecture, demonstration

Equipment: Underwater slate, measuring tape, substrate type data sheet, pencil

Exercise: Demonstration of monitoring method in class. Actual collection of data in the field.

Time: 2.5 hours.

§§--8:9--§§

Course Title: Coral monitoring in PHMR

Title: Coral identification

Time: 2 days

Objective: Participants will be able to identify 30 different corals.

Target Audience: 4 rangers, 2 school volunteers, 2 fishermen, and 2 tour guides (divers)

Prerequisite: Open water diver

Materials: Coral books, coral ID cards, computer and LCD projector, paper and pencils, diving equipment, slates, and data sheets.

Method of Presentation:

Day 1: 8:00 a.m. – 5:00 p.m.

- Introduction
- Test on coral knowledge
- PowerPoint presentation and discussion
- Lunch Break
- PowerPoint Presentation and Discussion

Day 2:

- Test on coral ID – 8:00 a.m.
- Go over test – 9:00 a.m.
- Data sheet presentation and discussion – 9:30 a.m.
- Field trip – 12:30 – 3:30 p.m.
- Discussion on data collected – 4:00 – 4:45 p.m.
- Evaluation – 4:15 – 5:00 p.m.

~~§§--8:10--§§~~

Course Title: Introduction to fish ecology

Lesson Title: Identifying flora and fauna

Lesson Length: 2.5 days

Objectives: To enable Participants to conduct and assist with research and monitoring

Audience: Rangers and tour guides

Prerequisites: Ability to scuba dive or snorkel

Room Arrangement: Fan type

Materials and Equipment Needed: VCR, VCR tape, flip chart, slide projector and slides, ID books of corals, fish and sponges. Boat and equipment for diving (markers).

Comment: There will be a follow-up course in 3 to 4 months.

Introduction:

Day	Topic	Time
1	Identifying flora and fauna - Land	8:30 a.m. – 5:00 p.m.
2	Identifying flora and fauna - Field	9:00 a.m. – 1:00 p.m.
3	Participant presentation	8:30 a.m. – 5:00 p.m.

There will be lunch and coffee breaks.

§§--8:11--§§

Target Audience: Marine protected area rangers

Name of Course: Fish Ecology and Fish Behavior

Course Title: Introduction to Fish Identification

Lesson Objective: Aim at letting rangers learn to ID fish within their Marine Reserve so they can help collect data on Fish.

Concept: Fish ID and Monitoring in Marine protected Areas.

Method and Material:

1. Power point presentation on fish ecology and fish ID. Paul Human Book on Fish ID and Fish Behavior, Slide presentation on the more common reef fish.
2. Under water slates, laminated fish Id cards for the under water practical.

Time: 1 Day

<i>Lesson Outline</i>	<i>Instructor Activities</i>	<i>Trainee</i>	<i>Time</i>
Introduction to group of rangers	MPA Manager	Rangers	8-8:10 am
PowerPoint presentation on Introduction Fish ID	Marine Biologist	Rangers	8:10-10 am
Brake	Brake	Brake	10-10:15
Use of Paul Human books to see up close pictures of fish and the species Group.	Marine Biologist	Rangers	10:15-12
Lunch	Lunch	Lunch	12-1:00
Field trip to ID fish on the Barrier Reef	Marine Biologist	Rangers	1-3:00 pm
Comparing data collected on field trip	Marine Biologist	Rangers	3-4:30 pm
Evaluation of Course material	Rangers	Rangers	4:30-5 pm

§§--8:12--§§

Course Title: Monitoring human impacts in the Hol Chan Marine Reserve

Lesson Title: Visitors Impact assessment in the Hol Chan Cut

Lesson Length: 50 minutes

Learning Objective: Volunteers will be familiar with the methodology used to conduct visitor impact assessments

Target Audience: Students

Method of Presentation: Power Point

Materials Required: Computer, LCD projector, screen, Paper, Pencil, slide, Slide projector, Handouts

Evaluation: Question and answer

<i>Lesson Outline</i>	<i>Instructor Activity</i>	<i>Trainee Activity</i>	<i>Time</i>
Introduction	Presentation	Watch & listen	5 min
Impact Categories	Slide Presentation	Watch & listen	15 min
Methodology	Presentation	Watch & Listen	20 min
Wrap up	Summary	Q & A	10 Min

If your answer is “b” or “c”, please make recommendations.

13. On a scale of 1-4, with 1 being excellent and 4 very poor, how would you rate your overall reaction to the Module?

1 2 3 4

14. Which part of the Module was of most value to you? Why?

15. Which part of the Module was of least value to you? Why?

16. Will this Module assist you in training others? _____

17. Please provide any other comments that may help improve this Module

Evaluation Results for Module 1

TRAINING AND COMMUNICATION SKILLS

1. The objectives of the Module were attained: Number of respondents = 12
 - Strongly Agree = 10 Agree = 2
2. The content and skills learned are relevant to my job: Number of respondents = 12
 - Strongly agree = 8 Agree = 4
3. The exercises presented were adequate for the content of the Module:
Number of respondents = 12
 - Strongly agree = 9 Agree = 3
4. The exercises emphasized necessary skills: Number of respondents = 12
 - Strongly agree = 11 Agree = 1
5. The Trainer was knowledgeable and well prepared: Number of respondents = 12
 - Strongly agree = 11 Agree = 1
6. The Trainer used the time well: Number of respondents = 12
 - Strongly agree = 9 Agree = 3
7. The Trainer gave space for Participant interaction: Number of respondents = 12
 - Strongly agree = 12
8. The Trainer promoted a productive learning environment:
Number of respondents = 12
 - Strongly agree = 10 Agree = 2
9. The Trainer used methods and instructional materials adequate to the topic:
Number of respondents = 12
 - Strongly agree = 9 Agree = 3
10. The Trainer's presentation was clear and understandable:
Number of respondents = 12
 - Strongly agree = 8 Agree = 4
11. Flow of the session: Number of respondents = 12
 - Well organized = 12 Too slow = 1
12. Written materials in the Manual for this Module are:
Number of respondents = 12
 - Adequate = 8 Requires additional content = 4

If your answer is “b” or “c”, please make recommendations.

- Written material often not well matched to lecture.
 - Missing areas of written materials/tool kit².
 - Have examples of training sessions/programmes applicable to MPA.
 - Have some video clips of MPA training activity.
13. On a scale of 1-4, with 1 being excellent and 4 very poor, how would you rate your overall reaction to the Module? Number of respondents = 12
- Excellent = 8 Good = 4³
14. Which part of the Module was of most value to you? Why?
Number of respondents = 12
- Need of assessment for training. I just think it is too obvious sometimes, and ignore that part.
 - Needs Assessment. The only way to find out your problem is to look for it. Many times MPA manager just assumes what are the training needs. Needs assessment provides us with a clear idea of where training is needed.
 - Needs Assessment. Simply because I probably take the opportunity to look ore closely at the need of my staff and some of the MPA stakeholders.
 - Sections 1.1.1-1.1.5. I found particularly valuable, as these topics are largely new to me.
 - The sections on needs assessment, techniques for doing needs assessment, and the designing of training sessions. These are 3 critical areas, and although I might have done them in the past, I was not aware of what I was doing and the importance and time and energy that need to be put in these processes.
 - Evaluation part was of most value because it emphasized the need to find out how much of the “message” got across.
 - The module was well organized, which made all of it valuable to me. One part linked into the others. It is a complete module, meaning that taking out any part leaves it void.
 - The sessions on training were the most valuable. It highlighted tools that I will use in setting up future training programmes.
 - Designing of Training Programmes. This will help me develop and design training sessions much better.
15. Which part of the Module was of least value to you? Why?
Number of respondents = 9
- Use of visual aids. I’m very familiar with them already.
 - The entire module will play some role in my daily tasks.

² A number of pages were missing from the hard copy of the module. These were made available to the Participants during the 3 days allotted for the Module. Also, the complete text is available on the CD-Rom that was given to the Participants.

³ The questionnaire qualifies “excellent” and “poor” for this question. The other two possible answers are here determined to be “good” for # 2 and “poor” for # 3 on the scale given.

- This entire module is extremely valuable to me. Collectively each component is important to make the module effective.
 - Maybe the part on presentation skills, as I'm sure as with most of the Participants these skills have been put forward to us at different stages throughout our development. Having said that, it was still good to have this section to further develop our skills and gain the necessary confidence needed for dealing with different audiences.
16. Will this Module assist you in training others? Number of respondents = 11
- Yes = 11
17. Please provide any other comments that may help improve this Module
Number of respondents = 8
- Have a round asking questions what kind of problems your MPA has due to lack of training and/or communication skills. I think this will "increase" the importance of these topics to the audience and its will be more attention.
 - If possible it would be suggest that the Module be split into two so as to have the Comm. Skills be given the attention it needs.
 - More practice presentations to fine tune comm. skills.
 - Eye contact.
 - Outline preparation.
 - Presentation preparation. 5-10-20-60 min. presentations to schools, fishermen, divers, politicians at different levels.
 - I personally think if this module could be in the format that the Presenter presented it, it will be much easier when we plan to use it for some form of training.
 - I like to read along with my Lecturer.
 - It helps me to make notes.
 - Maybe electronic copies of the module should have been sent to Participants much earlier than they were sent. Also, it might have been helpful to ask Participants to research different areas of training, probably over the internet of something before coming to the course.
 - We need to come well prepared with adequate information so that the module will be more fruitful.
 - This was generally a good module and training session.
 - Have some persons who have been trained in the MPA training to share their experiences.
 - I was particularly pleased with the tool kit being available in both hard and electronic copies.

Evaluation Results for Module 2
NATURE OF THE MARINE ENVIRONMENT

1. The objectives of the Module were attained: Number of respondents = 12
 - Strongly Agree = 8 Agree = 3 Disagree = 1
2. The content and skills learned are relevant to my job: Number of respondents = 12
 - Strongly agree = 8 Agree = 4 Strongly disagree = 1
3. The exercises presented were adequate for the content of the Module:
Number of respondents = 12
 - Strongly agree = 7 Agree = 4 Disagree = 1
4. The exercises emphasized necessary skills: Number of respondents = 11
 - Strongly agree = 5 Agree = 5 Disagree = 1
5. The Trainer was knowledgeable and well prepared: Number of respondents = 12
 - Strongly agree = 10 Agree = 1 Strongly disagree = 1
6. The Trainer used the time well: Number of respondents = 12
 - Strongly agree = 9 Agree = 2 Strongly disagree = 1
7. The Trainer gave space for Participant interaction: Number of respondents = 12
 - Strongly agree = 9 Agree = 2 Disagree = 1
8. The Trainer promoted a productive learning environment:
Number of respondents = 12
 - Strongly agree = 7 Agree = 4 Disagree = 1
9. The Trainer used methods and instructional materials adequate to the topic:
Number of respondents = 12
 - Strongly agree = 6 Agree = 6
10. The Trainer's presentation was clear and understandable:
Number of respondents = 12
 - Strongly agree = 9 Agree = 2 Disagree = 1
11. Flow of the session: Number of respondents = 12
 - Well organized = 10 Too fast = 2
12. Written materials in the Manual for this Module are:
Number of respondents = 12
 - Adequate = 11 Requires additional content = 1

If your answer is “b” or “c”, please make recommendations.

- Have literature explaining all the factors affecting Marine Benthic Communities, How they affect.
 - Literature explains how the physical factors influence variability of coastal ecosystems.
13. On a scale of 1-4, with 1 being excellent and 4 very poor, how would you rate your overall reaction to the Module? Number of respondents = 12
- Excellent = 4 Good = 7⁴ Poor = 1
14. Which part of the Module was of most value to you? Why?
Number of respondents = 11
- When the connectivity of the Caribbean Sea was highlighted. You don’t normally think about stuff for that.
 - Listening to issues, observations, work and opinions of other Trainees.
 - The scientific knowledge/terms that were contained in the module. My background is not scientific.
 - All components are valuable and useful.
 - Factors affecting the environment. I will be able to bring out the factors clearer.
 - The Benefits of the Marine Environment, because I got to recognize and learn benefits which had never been noted.
 - All will be put to some use. Our reserve is over 90% sea, so we very much appreciate the waters.
 - Different effects human activities have on marine ecosystem.
 - The Marine Environment: Source and Sink.
 - All the same.
15. Which part of the Module was of least value to you? Why?
Number of respondents = 7
- Coastal influences. Too repetitious.
 - A bit of a re-hash of BIO-201, but all a good exercise and good fun none-the-less.
 - All are valuable.
 - All the same.
16. Will this Module assist you in training others? Number of respondents = 11
- Yes = 11
17. Please provide any other comments that may help improve this Module
Number of respondents = 4
- Pictures: but then it would take more time.
 - Possibly a field trip.
 - Orange slices at break-time.

⁴ The questionnaire qualifies “excellent” and “poor” for this question. The other two possible answers are here determined to be “good” for # 2 and “poor” for # 3 on the scale given.

- Although it is taken for granted that we are knowledgeable of the module, to practice certain skills amongst peers keep them sharp, for exercises.
- This is a necessary training module.
- None that I can think of at this time.

Evaluation Results for Module 3
USES AND THREATS TO THE MARINE ENVIRONMENT

1. The objectives of the Module were attained: Number of respondents = 12
 - Strongly Agree = 9 Agree = 3
2. The content and skills learned are relevant to my job: Number of respondents = 12
 - Strongly agree = 9 Agree = 2 Strongly disagree = 1
3. The exercises presented were adequate for the content of the Module:
Number of respondents = 11
 - Strongly agree = 6 Agree = 5
4. The exercises emphasized necessary skills: Number of respondents = 12
 - Strongly agree = 5 Agree = 7
5. The Trainer was knowledgeable and well prepared: Number of respondents = 11
 - Strongly agree = 9 Agree = 1 Strongly disagree = 1
6. The Trainer used the time well: Number of respondents = 12
 - Strongly agree = 10 Agree = 2
7. The Trainer gave space for Participant interaction: Number of respondents = 12
 - Strongly agree = 11 Strongly disagree = 1
8. The Trainer promoted a productive learning environment:
Number of respondents = 12
 - Strongly agree = 10 Agree = 2
9. The Trainer used methods and instructional materials adequate to the topic:
Number of respondents = 12
 - Strongly agree = 8 Agree = 4
10. The Trainer's presentation was clear and understandable:
Number of respondents = 12
 - Strongly agree = 9 Agree = 2 Disagree = 1
11. Flow of the session: Number of respondents = 12
 - Well organized = 12
12. Written materials in the Manual for this Module are:
Number of respondents = 12
 - Adequate = 12

If your answer is “b” or “c”, please make recommendations.

13. On a scale of 1-4, with 1 being excellent and 4 very poor, how would you rate your overall reaction to the Module? Number of respondents = 12
- Excellent = 6 Good = 5⁵ Poor = 1
14. Which part of the Module was of most value to you? Why?
Number of respondents = 11
- Discussion on the threats to MPAs. It highlighted the importance of brainstorming.
 - Good to hear work and opinions of other Trainees.
 - Great for clarity of issues.
 - Great for context.
 - All the same.
 - The short exercises were of use.
 - The information and idea flow was practical training.
 - All, because of the educational link.
 - Uses and Threats to the Marine Environment. It was very enlightening.
 - Part 1: Strategies Mixtures.
 - Benefits of Marine Ecosystems. I got an insight into the different ways natural resources of the marine ecosystem are used.
 - The Sea as a resource base.
15. Which part of the Module was of least value to you? Why?
Number of respondents = 6
- I really don't know.
 - Possibly a bit more on international laws concerning the sea and such.
 - All the same.
 - All was of value.
16. Will this Module assist you in training others? Number of respondents = 11
- Yes = 11
17. Please provide any other comments that may help improve this Module
Number of respondents = 4
- More on fix-it methods, touch on fix-it methods.
 - Legal aspects of international fishing/sea use.
 - Poverty dramas on fishing alternatives.

⁵ The questionnaire qualifies “excellent” and “poor” for this question. The other two possible answers are here determined to be “good” for # 2 and “poor” for # 3 on the scale given.

- It will be good to mention that some (or all) of these threats do not have to be, if they are done properly, under certain guidelines and supervision. A little too negative.
- This module works as an effective reminder of management techniques available.
- The discussion of major issues was very informative.
- It was very interesting to hear comments on various initiatives used to mitigate bad situations.

Evaluation Results for Module 4

MARINE PROTECTED AREAS OVERVIEW

1. The objectives of the Module were attained: Number of respondents = 12
 - Strongly Agree = 7 Agree = 5
2. The content and skills learned are relevant to my job: Number of respondents = 12
 - Strongly agree = 6 Agree = 5 Disagree = 1
3. The exercises presented were adequate for the content of the Module:
Number of respondents = 10
 - Strongly agree = 4 Agree = 6
4. The exercises emphasized necessary skills: Number of respondents = 10
 - Strongly agree = 3 Agree = 7
5. The Trainer was knowledgeable and well prepared: Number of respondents = 12
 - Strongly agree = 8 Agree = 3 Strongly disagree = 1
6. The Trainer used the time well: Number of respondents = 12
 - Strongly agree = 9 Agree = 3
7. The Trainer gave space for Participant interaction: Number of respondents = 12
 - Strongly agree = 10 Agree = 1 Disagree = 1
8. The Trainer promoted a productive learning environment:
Number of respondents = 12
 - Strongly agree = 9 Agree = 3
9. The Trainer used methods and instructional materials adequate to the topic:
Number of respondents = 12
 - Strongly agree = 6 Agree = 6
10. The Trainer's presentation was clear and understandable:
Number of respondents = 12
 - Strongly agree = 9 Agree = 3
11. Flow of the session: Number of respondents = 12
 - Well organized = 10 Too fast = 1 Too slow = 1
12. Written materials in the Manual for this Module are:
Number of respondents = 12
 - Adequate = 11 Requires additional content = 1

If your answer is “b” or “c”, please make recommendations.

- Bigger handouts on funding agencies.
 - Tips on getting funding.
13. On a scale of 1-4, with 1 being excellent and 4 very poor, how would you rate your overall reaction to the Module? Number of respondents = 12
- Excellent = 4 Good = 5⁶ Poor = 2
14. Which part of the Module was of most value to you? Why?
Number of respondents = 11
- Clarification on the international idea/placement of an MPA.
 - Benefits of MPAs.
 - Explanation of some of the regional organizations.
 - All the knowledge will be of use.
 - Maintenance of environmental issues.
 - Definitions of protected areas.
 - All, because of the linkage.
 - The regional initiatives that are out there to assist Managers in obtaining funds and information for attaining goals.
 - Sources of funding.
 - Learning about the various conventions, networks, and initiatives. Very informative.
15. Which part of the Module was of least value to you? Why?
Number of respondents = 5
- Some of the organizations I already know.
 - This module is extremely valuable to me.
 - The parts on protected areas categories and threats to coastal areas/MPAs. As we are supposed to be MPA managers we should know these by now.
16. Will this Module assist you in training others? Number of respondents = 11
- Yes = 11
17. Please provide any other comments that may help improve this Module
Number of respondents = 3
- Bit more on funding/funding acquisition methods.
 - Some of the programmes and networks are not very familiar, and I don't know the background.
 - Please try to keep in touch, I would appreciate the Manager's network.

⁶ The questionnaire qualifies “excellent” and “poor” for this question. The other two possible answers are here determined to be “good” for # 2 and “poor” for # 3 on the scale given.

Evaluation Results for Module 5

PARTICIPATORY PLANNING

1. The objectives of the Module were attained: Number of respondents = 11
 - Strongly Agree = 9 Agree = 2
2. The content and skills learned are relevant to my job: Number of respondents = 11
 - Strongly agree = 9 Agree = 2
3. The exercises presented were adequate for the content of the Module:
Number of respondents = 11
 - Strongly agree = 7 Agree = 4
4. The exercises emphasized necessary skills: Number of respondents = 11
 - Strongly agree = 7 Agree = 4
5. The Trainer was knowledgeable and well prepared: Number of respondents = 11
 - Strongly agree = 10 Agree = 1
6. The Trainer used the time well: Number of respondents = 11
 - Strongly agree = 7 Agree = 4
7. The Trainer gave space for Participant interaction: Number of respondents = 11
 - Strongly agree = 10 Agree = 1
8. The Trainer promoted a productive learning environment:
Number of respondents = 11
 - Strongly agree = 9 Agree = 2
9. The Trainer used methods and instructional materials adequate to the topic:
Number of respondents = 11
 - Strongly agree = 8 Agree = 3
10. The Trainer's presentation was clear and understandable:
Number of respondents = 11
 - Strongly agree = 8 Agree = 3
11. Flow of the session: Number of respondents = 11
 - Well organized = 9 Too fast = 2
12. Written materials in the Manual for this Module are:
Number of respondents = 11
 - Adequate = 8 Requires additional content = 3

If your answer is “b” or “c”, please make recommendations.

- Co-management was missed.
 - Some of the themes could have been broken down instead of just light examples.
 - Have more case studies of conflict resolution.
13. On a scale of 1-4, with 1 being excellent and 4 very poor, how would you rate your overall reaction to the Module? Number of respondents = 11
- Excellent = 8 Good = 2⁷ Poor = 1
14. Which part of the Module was of most value to you? Why? Number of respondents = 10
- Themes 5.4 & 5.5. New methods learnt.
 - Conflict management and strategies and mechanisms for “involvement”.
 - How to go about ID stakeholder in MPA.
 - All parts of the module were valuable.
 - The part on stakeholder identification and stakeholder analysis. Before the module, I only thought of stakeholders as the main users of the resource, and those that have special interest. It showed the importance of involving everyone connected in the process.
15. Which part of the Module was of least value to you? Why? Number of respondents = 7
- Totally valuable to my MPA.
 - I find all parts of the module equally important to an extent, and it would be hard to choose a part that was of the least value to me.
16. Will this Module assist you in training others? Number of respondents = 11
- Yes = 11
17. Please provide any other comments that may help improve this Module Number of respondents = 7
- The last part was too fast, and if we had adequate light we would have been able to go over the slide a bit slower.
 - The presentation was well prepared, and the exercises helped in understanding the module.
 - I think that the module could have been longer than one day. It was too short for such “important” themes or lessons.
 - The module could be extended to two days.
 - It was well organized.
 - More case studies. More examples of solutions.
 - I think that it is important to give the message that for Caribbean islands in general EVERYBODY is a stakeholder when it comes to MPAs.

⁷ The questionnaire qualifies “excellent” and “poor” for this question. The other two possible answers are here determined to be “good” for # 2 and “poor” for # 3 on the scale given.

Evaluation Results for Module 6

MARINE PROTECTED AREA PLANNING

1. The objectives of the Module were attained: Number of respondents = 12
 - Strongly Agree = 7 Agree = 4 Strongly disagree = 1
2. The content and skills learned are relevant to my job: Number of respondents = 12
 - Strongly agree = 8 Agree = 3 Strongly disagree = 1
3. The exercises presented were adequate for the content of the Module:
Number of respondents = 12
 - Strongly agree = 7 Agree = 4 Strongly disagree = 1
4. The exercises emphasized necessary skills: Number of respondents = 12
 - Strongly agree = 7 Agree = 4 Strongly disagree = 1
5. The Trainer was knowledgeable and well prepared: Number of respondents = 12
 - Strongly agree = 9 Agree = 2 Strongly disagree = 1
6. The Trainer used the time well: Number of respondents = 12
 - Strongly agree = 8 Agree = 3 Strongly disagree = 1
7. The Trainer gave space for Participant interaction: Number of respondents = 12
 - Strongly agree = 10 Agree = 1 Strongly disagree = 1
8. The Trainer promoted a productive learning environment:
Number of respondents = 12
 - Strongly agree = 6 Agree = 5 Strongly disagree = 1
9. The Trainer used methods and instructional materials adequate to the topic:
Number of respondents = 12
 - Strongly agree = 6 Agree = 5 Disagree = 1
10. The Trainer's presentation was clear and understandable:
Number of respondents = 12
 - Strongly agree = 5 Agree = 6 Strongly disagree = 1
11. Flow of the session: Number of respondents = 12
 - Well organized = 12
12. Written materials in the Manual for this Module are:
Number of respondents = 12
 - Adequate = 12

If your answer is “b” or “c”, please make recommendations.

- More detail in case studies.
13. On a scale of 1-4, with 1 being excellent and 4 very poor, how would you rate your overall reaction to the Module? Number of respondents = 12
- Excellent = 5 Good = 5⁸ Poor = 1 Very poor = 1
14. Which part of the Module was of most value to you? Why?
Number of respondents = 11
- The exercises. They were hands on and fun.
 - All. Management plans and planning all fit into each other.
 - Zoning and Management. They were very informative.
 - Basis for establishment of MPA. It has made me more aware of why MPAs are established.
 - The outlining of the management plan was of value. Methods will be used in personal management plan.
 - The entire module was valuable. The exercises were important in understanding of the module.
 - Theme 6.1.
15. Which part of the Module was of least value to you? Why?
Number of respondents = 6
- Basis for establishment of MPA. No specific reason, just thought it was repetitive.
 - All were valuable.
16. Will this Module assist you in training others? Number of respondents = 11
- Yes = 11
17. Please provide any other comments that may help improve this Module
Number of respondents = 2
- The field trip could definitely have been better⁹.

⁸ The questionnaire qualifies “excellent” and “poor” for this question. The other two possible answers are here determined to be “good” for # 2 and “poor” for # 3 on the scale given.

⁹ This field trip was not organized nor led by the Facilitator, but by the SMMA.

Evaluation Results for Module 7
MARINE PROTECTED AREA MANAGEMENT

1. The objectives of the Module were attained: Number of respondents = 11
 - Strongly Agree = 8 Agree = 2 Strongly disagree = 1
 2. The content and skills learned are relevant to my job: Number of respondents = 11
 - Strongly agree = 8 Agree = 2 Strongly disagree = 1
 3. The exercises presented were adequate for the content of the Module:
Number of respondents = 10
 - Strongly agree = 6 Agree = 3 Strongly disagree = 1
 4. The exercises emphasized necessary skills: Number of respondents = 11
 - Strongly agree = 5 Agree = 5 Strongly disagree = 1
 5. The Trainer was knowledgeable and well prepared: Number of respondents = 11
 - Strongly agree = 8 Agree = 2 Strongly disagree = 1
 6. The Trainer used the time well: Number of respondents = 11
 - Strongly agree = 6 Agree = 4 Strongly disagree = 1
 7. The Trainer gave space for Participant interaction: Number of respondents = 11
 - Strongly agree = 10 Strongly disagree = 1
 8. The Trainer promoted a productive learning environment:
Number of respondents = 11
 - Strongly agree = 9 Agree = 1 Strongly disagree = 1
 9. The Trainer used methods and instructional materials adequate to the topic:
Number of respondents = 11
 - Strongly agree = 7 Agree = 3 Strongly disagree = 1
 10. The Trainer's presentation was clear and understandable:
Number of respondents = 11
 - Strongly agree = 10 Strongly disagree = 1
 11. Flow of the session: Number of respondents = 11
 - Well organized = 11
1. Written materials in the Manual for this Module are:
Number of respondents = 11
 - a. Adequate = 8 Requires additional content = 3

If your answer is “b” or “c”, please make recommendations.

- Some of the OHP should have been available.
 - Module 7 needs updating.
 - A few examples.
13. On a scale of 1-4, with 1 being excellent and 4 very poor, how would you rate your overall reaction to the Module? Number of respondents = 11
- Excellent = 7 Good = 3¹⁰ Very poor = 1
14. Which part of the Module was of most value to you? Why?
Number of respondents = 9
- Themes 8, 9, 10. These are relevant to my duties.
 - All the same.
 - Interpretation, Education, and Outreach.
 - Day to day planning.
 - The planning and management section. The exercises were very interesting and fun.
 - Role play.
 - Exercises were useful in explaining information of module.
 - Law enforcement.
15. Which part of the Module was of least value to you? Why?
Number of respondents = 6
- All the same.
 - All are of use.
 - Surveillance.
 - Totally valuable to me.
 - Finance.
16. Will this Module assist you in training others? Number of respondents = 10
- Yes = 10
17. Please provide any other comments that may help improve this Module
Number of respondents = 5
- The module was very well presented, and the Facilitator was very knowledgeable. Absolutely very well done.
 - Was well put together.
 - Teaching aids, examples, handouts, pictures.
 - Having an example of a funding proposal would help (discussion).

¹⁰ The questionnaire qualifies “excellent” and “poor” for this question. The other two possible answers are here determined to be “good” for # 2 and “poor” for # 3 on the scale given.

Evaluation Results for Module 8

RESEARCH AND MONITORING

1. The objectives of the Module were attained: Number of respondents = 11
 - Strongly Agree = 3 Agree = 6 Disagree = 2
2. The content and skills learned are relevant to my job: Number of respondents = 12
 - Strongly agree = 5 Agree = 6 Disagree = 1
3. The exercises presented were adequate for the content of the Module:
Number of respondents = 12
 - Strongly agree = 2 Agree = 6 Disagree = 4
4. The exercises emphasized necessary skills: Number of respondents = 12
 - Strongly agree = 3 Agree = 6 Disagree = 3
5. The Trainer was knowledgeable and well prepared: Number of respondents = 11
 - Strongly agree = 3 Agree = 7 Disagree = 1
6. The Trainer used the time well: Number of respondents = 12
 - Strongly agree = 2 Agree = 7 Disagree = 3
7. The Trainer gave space for Participant interaction: Number of respondents = 12
 - Strongly agree = 5 Agree = 7
8. The Trainer promoted a productive learning environment:
Number of respondents = 12
 - Strongly agree = 5 Agree = 5 Disagree = 1 Strongly disagree = 1
9. The Trainer used methods and instructional materials adequate to the topic:
Number of respondents = 12
 - Strongly agree = 3 Agree = 7 Disagree = 1 Strongly disagree = 1
10. The Trainer's presentation was clear and understandable:
Number of respondents = 11
 - Strongly agree = 3 Agree = 6 Disagree = 2
11. Flow of the session: Number of respondents = 9
 - Well organized = 4 Too fast = 3 Too slow = 2
12. Written materials in the Manual for this Module are:
Number of respondents = 12
 - Adequate = 10 Requires additional content = 1 Inadequate = 1

If your answer is “b” or “c”, please make recommendations.

- Further breakdown of some of the monitoring systems, e.g. GIS.
 - Workbook and lecture not together. Difficult to take notes, adding to workbook.
 - Examples used should have been relevant to regional MPAs, thereby helping us identify leading MPA examples relating to our needs, and thereby being of assistance in training.
13. On a scale of 1-4, with 1 being excellent and 4 very poor, how would you rate your overall reaction to the Module? Number of respondents = 11
- Excellent = 1 Good = 7¹¹ Poor = 3
14. Which part of the Module was of most value to you? Why?
Number of respondents = 10
- Importance of research and monitoring.
 - Maps and ways of survey. It helps to understand an area you (I) need to work on.
 - The explanation of all the initiatives out there, and the extra materials.
 - All very topical, very useful, but I’d rather just have gone snorkeling.
 - Monitoring visitor and user data.
 - Visitor data analysis.
 - Info. on the use of GIS.
 - Discussions were important to gather information on other MPA experiences.
 - The information on goals, objectives, and indicators will be of use re proposed management plan.
 - Overview of Research and Monitoring; i.e. what to research and monitor and why.
15. Which part of the Module was of least value to you? Why?
Number of respondents = 7
- Remote sensing, because I am not trained in this field.
 - Field trip.
 - The entire module is useful to me.
 - Satellite sensors, etc. Too much to take in.
16. Will this Module assist you in training others? Number of respondents = 12
- Yes = 11 No = 1
17. Please provide any other comments that may help improve this Module
Number of respondents = 4
- Some of the scientific terms were not familiar, and needed further explanation.

¹¹ The questionnaire qualifies “excellent” and “poor” for this question. The other two possible answers are here determined to be “good” for # 2 and “poor” for # 3 on the scale given.

- It will be nice to have a specific case when monitoring resulted in a decision by policymakers to change things to make new regulations.
- Good/great supplemental resources.
- Fun Presenter.
- Good Facilitator for inter-participant communication.
- The presentation strayed too much from the themes.

APPENDIX 8: Course Evaluation

**Training of Trainers in Marine Protected Areas Management
October 28 - November 9, 2002, Soufriere, Saint Lucia**

EVALUATION FORM

Section 1: Logistics

- A. The advanced mailing gave adequate information to the participants:
1. Strongly agreed 2. Agree 3. Disagree 4. Strongly Disagree 5. N/A
- B. The advance mailing gave adequate time to plan for attendance:
1. Strongly agreed 2. Agree 3. Disagree 4. Strongly Disagree 5. N/A

Section 2: Course Content

- A. The stated objectives were met:
1. Strongly agreed 2. Agree 3. Disagree 4. Strongly Disagree 5. N/A
- B. The stated objectives were appropriate:
1. Strongly agreed 2. Agree 3. Disagree 4. Strongly Disagree 5. N/A
- C. I came to the course with high expectations:
1. Strongly agreed 2. Agree 3. Disagree 4. Strongly Disagree 5. N/A
- D. I am highly satisfied with the overall course, considering my original expectations:
1. Strongly agreed 2. Agree 3. Disagree 4. Strong Disagree 5. N/A
- E. The course was well organized:
1. Strongly agreed 2. Agree 3. Disagree 4. Strongly Disagree 5. N/A

Some of the following questions have a rating scale. Please indicate your response by circling the appropriate number: 1=very poor (or very little) to 5=very good (or greatly)

Section 3: General Overview

- A. How valuable was the Course to You?
1 2 3 4 5
- B. The overall format of the Course was:
1 2 3 4 5
- C. The presentations were:
1 2 3 4 5
- D. Interaction with the Facilitators was:
1 2 3 4 5
- E. Interaction with the other participants:
1 2 3 4 5
- F. How appropriate was the Course material?
1 2 3 4 5
- G. Was the schedule of activities clear?
1 2 3 4 5

Section 4: Results

- A. Will things you learned help you with your job?
1. Strongly agreed 2. Agree 3. Disagree 4. Strongly Disagree 5. N/A
- B. Were you able to identify possible solutions to existing training problems?
1. Strongly agreed 2. Agree 3. Disagree 4. Strongly Disagree 5. N/A
- C. New contacts with colleagues were made:
1. Strongly agreed 2. Agree 3. Disagree 4. Strongly Disagree 5. N/A
- D. More collaboration with colleagues will probably occur in the future:
1. Strongly agreed 2. Agree 3. Disagree 4. Strongly Disagree 5. N/A

- E. New ways of doing things were learned from the Course:
1. Strongly agreed 2. Agree 3. Disagree 4. Strongly Disagree 5. N/A
- F. You can make improvements when you return to your country:
1. Strongly agreed 2. Agree 3. Disagree 4. Strongly Disagree 5. N/A

Section 5: Scheduling Facilities (same rating scale as Section 3)

- A. The time of year was:
1 2 3 4 5
- B. The daily schedule was:
1 2 3 4 5
- C. The accommodations were:
1 2 3 4 5
- D. The refreshments were:
1 2 3 4 5
- E. The audio-visual materials were appropriate:
1 2 3 4 5
- F. Quality of the Facilitators:
1 2 3 4 5
- G. The course length was appropriate:
1 2 3 4 5
- H. This course was worth the time spent away from work:
1 2 3 4 5

Section 6: Observations

Please provide comments which would make future courses more valuable.

1. What additional material would you require to ensure successful delivery of your own training course?
2. What were the strong points of the course?

3. What were the weak points of the course, and how would you change them?
4. Please add any other comments that you would like UNEP/CAR/RCU to consider:

Course Evaluation Results

Section 1: Logistics

- A. The advanced mailing gave adequate information to the participants:
Number of respondents = 10
- Strongly agree = 1 Agree = 4 Disagree = 4 Strongly Disagree = 1
- B. The advance mailing gave adequate time to plan for attendance:
Number of respondents = 10
- Strongly agree = 1 Agree = 2 Disagree = 6 Not applicable = 1

Section 2: Course Content

- A. The stated objectives were met: Number of respondents = 9
- Strongly agree = 4 Agree = 5
- B. The stated objectives were appropriate: Number of respondents = 10
- Strongly agree = 3 Agree = 7
- C. I came to the course with high expectations: Number of respondents = 10
- Strongly agree = 5 Agree = 4 Disagree = 1
- D. I am highly satisfied with the overall course, considering my original expectations:
Number of respondents = 10
- Strongly agree = 5 Agree = 5
- E. The course was well organized: Number of respondents = 10
- Strongly agree = 4 Agree = 6

Some of the following questions have a rating scale. Please indicate your response by circling the appropriate number: 1=very poor (or very little) to 5=very good (or greatly)

Section 3: General Overview

- A. How valuable was the Course to You?: Number of respondents = 9
- Very good = 7 Fair = 2¹²
- B. The overall format of the Course was: Number of respondents = 9
- Very good = 1 Good = 8

¹² The scale allowed for a range between very poor and very good. This reports adopts the scale: 5 = very good, 4 = good, 3 = fair, 2 = poor, 1 = very poor

- C. The presentations were: Number of respondents = 9
 - Very good = 3 Good = 5 Fair = 1
- D. Interaction with the Facilitators was: Number of respondents = 9
 - Very good = 6 Good = 3
- E. Interaction with the other participants: Number of respondents = 9
 - Very good = 7 Good = 2
- F. How appropriate was the Course material?: Number of respondents = 9
 - Very good = 7 Good = 1 Fair = 1
- G. Was the schedule of activities clear?: Number of respondents = 9
 - Very good = 4 Good = 5

Section 4: Results

- A. Will things you learned help you with your job?: Number of respondents = 9
 - Strongly agree = 8 Agree = 1
- B. Were you able to identify possible solutions to existing training problems?
Number of respondents = 9
 - Strongly agree = 4 Agree = 5
- C. New contacts with colleagues were made: Number of respondents = 10
 - Strongly agree = 10
- D. More collaboration with colleagues will probably occur in the future:
Number of respondents = 10
 - Strongly agree = 6 Agree = 4
- E. New ways of doing things were learned from the Course
Number of respondents = 10
 - Strongly agree = 8 Agree = 1 Disagree = 1
- F. You can make improvements when you return to your country:
Number of respondents = 10
 - Strongly agree = 6 Agree = 4

Section 5: Scheduling Facilities (same rating scale as Section 3)

- A. The time of year was: Number of respondents = 10
 - Very good = 1 Good = 8 Fair = 1

- B. The daily schedule was: Number of respondents = 10
- Good = 6 Fair = 4
- C. The accommodations were: Number of respondents = 10
- Very good = 2 Good = 4 Fair = 4
- D. The refreshments were: Number of respondents = 10
- Very good = 7 Good = 2 Fair = 1
- E. The audio-visual materials were appropriate: Number of respondents = 10
- Very good = 5 Good = 4 Fair = 1
- F. Quality of the Facilitators: Number of respondents = 10
- Very good = 4 Good = 6
- G. The course length was appropriate: Number of respondents = 10
- Very good = 2 Good = 5 Fair = 3
- H. This course was worth the time spent away from work: Number of respondents = 10
- Very good = 6 Good = 2 Fair = 2

Section 6: Observations

Please provide comments which would make future courses more valuable.

1. What additional material would you require to ensure successful delivery of your own training course?
 - Hardware (such as projector, etc.), staff.
 - More informational data, such as statistics, published reports, descriptive models.
 - Resourceful persons.
 - Necessary materials for field trip exercises.
 - I don't know exactly at this point since I'm still developing it.
 - Digital projector/laptop.
 - Maps/books.
 - Airline tickets for Trainer.
 - Scuba manuals/training kits.
 - CDs with information on MPA/books, etc.
 - Case studies of other MPAs (the successful ones).
 - Slides of other operations in MPA in other countries.
 - Training manuals and information (detailed) on the different training techniques out there.
 - Some of the slides the different Facilitators used. The format they used also.

- “What you present is important, how you present it is crucial”. Trainers need high impact equipment and materials. I would require for my own raining courses a PowerPoint Projector with a laptop please. I have everything else; i.e., TV/VCR, OH(2) screens, flip chart and easel, all other necessary training equipment.
2. What were the strong points of the course?
- The educational module was very helpful since I need more training in the aspect.
 - Role play.
 - Discussion
 - The emphasis on different training tools and techniques that would/could aid my training courses.
 - The course gave a clear message of the importance of setting goals and standards. It also highlighted shortcomings and emphasized the space needed for improvement.
 - Facilitators were excellent.
 - Food was great.
 - Mix of different backgrounds very nice.
 - Organisation was very good (UNEPside).
 - Per diem was very good).
 - Venue, location.
 - Knowledgeable and approachable Facilitators.
 - Networking/hearing examples of other MPAs/contacts.
 - The experience and knowledge of the Facilitators and the way they impart the information to the Participants.
 - The training exercises were also fun and informative.
 - All the Participants brought a wealth of experiences to the sessions, and the similarities and differences of problems facing MPAs in the region were highlighted.
 - Management Plan, Zoning, and looking at the different MPAs through the Caribbean and how they are managed.
 - Service, Training, Development, Proper Management Plans.
 - The case studies of successes and failures of MPAs, the personal experiences of the Managers and the situations they have encountered.
 - The bonding and networking of Participants.
 - The convenience of having twelve (12) MPA senior personnel at one place give training techniques for better delivery of training, outreach and education.
3. What were the weak points of the course, and how would you change them?
- Most of the course material was repetitive to me, but it serves as a refresher.
 - Some presentation.
 - One of the weak points of the course was the presentations that were essays on scientific content. If there is a way of simplifying their delivery, then that could be used.

- Facilitators should be asked to present lesson plans, so as to ensure that the goals of the workshop modules are met. The modules also need updating.
 - The organization and development of field trips was really bad. Great fun, but no learning experience. People very nice, but not well organized.
 - More time for informal interaction among Participants/Facilitators.
 - More effective use of fieldtrips/location (SMMA).
 - More use of (SMMA) as “successful” example with hands-on experiences. Viewing. If it is to be the ideal, then show it to us.
 - Too intense – no weekends off.
 - There was overlap in some of the modules.
 - Having to hand in a draft proposal during the training course.
 - There was no tour of the island as some type of orientation, etc.
 - The materials should be in the hands of the Participants at least two weeks in advance so we could observe these materials, as the Training of Trainers Course is very intensive.
 - The most apparent was the lack of preparation time prior to the course.
 - Because of the volume of work requested, there should have been one or two computers available for better reporting and presentation of materials.
 - For first timers to St. Lucia (e.g. Belize) a tour could have been arranged to the city or scenic area to learn something about the island.
4. Please add any other comments that you would like UNEP/CAR/RCU to consider:
- In a course of this length, there should be more days off to ward off burn out/boredom of participants.
 - The workshop is very good, as it gives MPAs a chance to learn from each other’s experiences and practices.
 - To include in the Human Resources Management section an approach for career in Ranger Training Course, and try to standardize it.
 - Very good course.
 - More personal interactions in general. More structured social time to discuss MPA experiences in informal and formal setting.
 - More time, in and discussing and experiencing, “show case” host MPA.
 - Inform Participants ahead of time that they would have a number of presentations to give during the course.
 - Inform Participants at the beginning that they had to bring draft proposals with them.
 - Consider to have a follow-up programme to see if the Trainees have utilized these valuable resources.
 - It was be possibly useful to try and avoid overlapping of module information.
 - The course was very beneficial and useful to me. I am happy to have been a part of this experience.

APPENDIX 9: Press Release

United Nations Environment Programme Caribbean Environment Programme

Training of Trainers Course in Marine Protected Areas Management October 28 – November 9, 2002. Soufriere, St. Lucia

FACT SHEET

BACKGROUND

It is recognised that training of trainers is the key to ensuring that a corps of skilled persons is available for the management of marine protected areas (MPAs). UNEP Caribbean Environment Programme (UNEP-CEP) implemented its regional training programme under the Protocol Concerning Specially Protected Areas and Wildlife (SPAW) in 1998. The focus for this first step was based on the objectives of the Caribbean Environment Network Project, which was implemented under the sub-programme for Conservation and Sustainable Use of Major Ecosystems in the Wider Caribbean Region. This training course builds on the previous ones by focusing on managers and other senior personnel associated with MPAs, and preparing those persons to conduct training sessions in marine ecosystem/protected areas management.

At the International Workshop on Framework for Future Training in Marine and Coastal Protected Area Management organised by the Coastal Zone Management Centre (CZMC) in 1997 and held in Manila, the need for training of trainers and development of training modules for MPA training was strongly endorsed by the participants. Motivated by these recommendations, the CZMC provided financial support to the Regional Coordinating Unit of UNEP-CEP (UNEP-CAR/RCU) for the preparation of a manual for training of trainers in MPA management. The eight modules in the manual were developed by specialists from the region, incorporating regional experiences, and are an important resource for establishing a core of trainers who can address the MPA training needs of the Caribbean region.

PROGRESS TO DATE

Two two-week courses were conducted in English in 1999 and Spanish in 2000. Twenty four (24) persons from the English, Spanish, and Dutch speaking Caribbean were trained. These 24 persons subsequently trained more than 100 persons in a series of national training courses.

CURRENT STATUS

This current training of trainers course in St. Lucia has as its objectives:

- To improve the training skills of Participants by introducing them to the theory and practice of adult education, including a variety of tools and approaches used in adult education;
- To provide background information relevant to marine protected areas (MPA) management;
- To provide guidance on theoretical or practical matters associated with MPAs;
- To provide a forum where MPA personnel can discuss common issues, and share experiences and successes; and
- To increase the involvement of Participants in the CaMPAM network.

The course involves twelve (12) persons from eight (8) countries in the Wider Caribbean Region, and is supported by the Caribbean component of the International Coral Reef Action Network (ICRAN). In addition to the focus on improving Training and Communication Skills, the Participants have received supporting technical materials relevant to MPA planning and management, monitoring, and co-management. The different modules of the course are presented by regional experts acting as Facilitators.

The Participants will organize training sessions on return to their respective countries, using funds to be provided by UNEP-CEP. In this manner, it is anticipated that the Training of Trainers programme will improve the capacity of protected areas personnel and partners to manage the natural resources in the Caribbean, for the benefit of all its peoples.

For more information on the Caribbean Environment Programme visit the website at: <http://www.cep.unep.org>.

APPENDIX 10: Suggestions for Revision of Modules

Module 5: Comments by Gillian Cooper

Having now used the module as a teaching tool and spent some time talking with the participants about some of the issues they are grappling with in their MPAs, both during my facilitation of the module and outside of the teaching time, my feeling is that this module could be made more relevant and current by changing the focus of the module to conflict management. The title could be renamed participatory planning and/or conflict management. This would mean, therefore, rather than continuing to have conflict management as one of the seven sections dealt with separately in the module, it would be used as the focus for delivering the material on participatory planning. Many of the approaches suggested and now used for dealing with conflict situations call for putting into practice participatory planning tools and methods presented in the module.

At the beginning of the module, I facilitated a brief discussion on Participant's expectations and needs, and the majority of the managers were keen for information on conflict management (more so than any other skill). At the time of writing this manual, many of the MPAs were probably in the very nascent stages of their development and the case studies suggested and focus of this module reflect that time. While we were able to use current case studies to illustrate the material, much of the content still comes from an earlier era of MPA development.

My feeling is that more up to date cases and situations should be reflected now in the module and conflict management situations provide a good vehicle and case studies for illustrating many of the participatory planning principles and methods. Most of the present topics - stakeholder analysis, effective communication and the strategies and approaches for stakeholder involvement, would remain, but these would be discussed as methods for handling conflict situations.

Modules 6 and 7: Revisions and recommendations by Tom van't Hof

Module 6: MPA Planning

1. Seven new overhead sheets were added and one (Limits of Acceptable Change) was revised. All are attached in hard copy and on diskette.
2. P. 6-5: replace Salm and Clark (1984) by Salm et al. (2000); Replace Kelleher and Kenchington (1992) by Kelleher (1999).
3. P. 6-18: replace Salm and Clark (1984) by Salm et al. (2000).
4. P. 6-19: replace last paragraph "A less well-known" by the following text:

“A less well-known management planning process is the Limits of Acceptable Change (LAC) process, originally developed for North American terrestrial wilderness settings. The process has been modified somewhat to suit the context of MPAs (Stankey and McCool, 1996) (Appendix 22) and has been applied for the first time to a marine park in 1996 (Schultz *et al.*, 1996). Cole and McCool (1998) subsequently developed a generic LAC process that can be applied to a variety of natural resource management issues.

LAC planning accepts that if access to and use of resources is going to be allowed, this will result in change. LAC aims to determine how much change is acceptable (the limit of acceptable change). It does so in a consultative process with concerned stakeholders, where decisions are based on consensus. The process includes the following steps:

- a. Define goals (of the MPA)
- b. Agree that two or more goals are in conflict. Goals are in conflict when it is impossible to optimize conditions for these goals simultaneously. Since it is likely that stakeholders will also define goals that are not in conflict, it is useful to determine *desired* conditions for these goals and decide how management can best address achieving such desired conditions.
- c. Establish that all conflicting goals must be compromised to some extent.
- d. Decide which conflicting goal will ultimately constrain the other goal (develop a hierarchy of goals). This goal is called the ultimate constraining goal. This is the goal that will be compromised first until the standard is reached (the minimally acceptable condition for that goal), at which point the other conflicting goal will be compromised. It is possible to have multiple constraining goals, but only if there is no conflict among them or if we can establish a hierarchy among them.
- e. Develop indicators and standards for the ultimate constraining goal(s). Indicators should refer to outputs rather than inputs. The inputs need to be managed, but it is the outputs (e.g. environmental and social conditions that are of concern and need to be monitored. At this point we need to decide whether we want to identify *prescriptive management zones*. These may be needed if the standards (minimally acceptable conditions) in a certain area should be higher than in another. This may be the case if we have relatively pristine areas as well as degraded areas.
- f. Agree on the appropriate management actions that need to be taken if standards would be violated.
- g. Develop a monitoring program to monitor the indicators. This is an essential step that is often not given sufficient attention in the process. It should be obvious that without monitoring we have no means to determine if conditions are within the standards and the entire LAC process becomes useless.

A key factor in the LAC planning process is the stakeholder participation and consensus building about all steps, including the management interventions.” [end of replacement]

5. P.6-22: Add: Cole, D.N and S.F. McCool (1998). Limits of Acceptable Change and Natural Resources Planning: When is LAC Useful, When is it Not? *In*: McCool, S.F., D.N. Cole, comps. 1998. Proceedings – Limits of Acceptable Change and Related Planning Processes: Progress and Future Directions; 1997 May 20-22; Missoula, MT. Gen. Tech. Rep. INT-GTR-371. Ogden, UT: US Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Change: Kelleher and Kenchington (1992) into: Kelleher, G. (1999). *Guidelines for Marine Protected Areas*. IUCN, Gland, Switzerland and Cambridge, U.K. xxiv+107 pp.

Add: Salm, R.V., J. Clark and E Siirila (2000). *Marine and Coastal Protected Areas. A Guide for Planners and Managers*. IUCN, Washinton, DC. xxi+371 pp.

6. Presentation time. The schedule was modified so that 7 hours were available for presentation of the module. This was adequate.

Module 7: MPA Management

1. The module is still far from satisfactory and it is recommended that the entire module be rewritten. The main shortcomings are:
 - There is considerable duplication with the module on MPA planning.
 - The text makes frequent reference to “the goals and objectives of the management agency”, which is confusing at best, as the emphasis should be – and *is* elsewhere in the course material – on the goals and objectives of the MPAs.
 - The module needs to be much more oriented towards the practical aspects of management.
2. Twelve new overheads were added and one (interpretation/education/outreach exercises) was revised. These are attached in hard copy and on diskette.
3. The personnel recruitment exercise (appendix 7.5) needs more background information, including a job description for the position and some information on the organization that is hiring.
4. Presentation time. The schedule was modified so that 6.5 hours were available for presentation of the module. This was adequate.