





United Nations Environment Programme **UNEP/GEF South China Sea Project**

Global Environment Facility

Reversing Environmental Degradation Trends South China Sea and Gulf of Thailand

REPORT

Eighth Meeting of the Regional Working Group for the Coral Reefs Sub-component

Phu Quoc Island, Viet Nam, 4th – 7th June 2007

UNEP/GEF







First published in Thailand in 2007 by the United Nations Environment Programme.

Copyright © 2007, United Nations Environment Programme

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder provided acknowledgement of the source is made. UNEP would appreciate receiving a copy of any publication that uses this publication as a source.

No use of this publication may be made for resale or for any other commercial purpose without prior permission in writing from the United Nations Environment Programme.

UNEP/GEF

Project Co-ordinating unit, United Nations Environment Programme, UN Building, 2nd Floor Block B, Rajdamnern Avenue, Bangkok 10200, Thailand

Tel. +66 2 288 1886 Fax. +66 2 288 1094 http://www.unepscs.org

DISCLAIMER:

The contents of this report do not necessarily reflect the views and policies of UNEP or the GEF. The designations employed and the presentations do not imply the expression of any opinion whatsoever on the part of UNEP, of the GEF, or of any cooperating organisation concerning the legal status of any country, territory, city or area, of its authorities, or of the delineation of its territories or boundaries.

Cover Photo:

For citation purposes this document may be cited as:

UNEP, 2007. Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand. Report of the Eighth Meeting of the Regional Working Group on Coral Reefs. UNEP/GEF/SCS/RWG-CR.8/3.

Table of Contents

1.	OPE	NING OF THE MEETING	1
	1.1 1.2 1.3	WELCOME ADDRESS ON BEHALF OF UNEP	1
2.	ORG	ANISATION OF THE MEETING	2
	2.1 2.2	ELECTION OF OFFICERS	
3.	ADO	PTION OF THE MEETING AGENDA	2
4.	STA	TUS OF THE ADMINISTRATIVE REPORTS FOR 2006: PROGRESS REPORTS; ENDITURE REPORTS; AND AUDIT REPORTS	2
5.	STA	TUS OF THE SUBSTANTIVE OUTPUTS	4
	5.1 5.2 5.3	PUBLICATION OF NATIONAL REPORTS IN NATIONAL LANGUAGES AND ENGLISH	4
6.	REV	IEW OF THE TRAINING COURSE ON CORAL REEF AND SEAGRASS MANAGEMEN	Т.6
	6.1 6.2	STATUS OF PREPARATION OF AND MATERIALS FOR THE TRAINING COURSE	
7.		GRESS IN THE IMPLEMENTATION AND MID-TERM EVALUATION OF THE ONSTRATION SITE ACTIVITIES	7
	7.1 7.2 7.3 7.4 7.5	BELITUNG, INDONESIA – DR. SUHARSONO	8 8
8.	FINA	LISATION OF THE REGIONAL STRATEGIC ACTION PROGRAMME (SAP)	10
	8.1 8.2	FINALISATION OF INPUTS FROM THE REGIONAL WORKING GROUP ON CORAL REEFS TO THE REVISED SAP	
9.	DET	SIDERATION OF THE TOTAL ECONOMIC VALUES FOR CORAL REEFS ERMINED BY THE REGIONAL TASK FORCE ON ECONOMIC VALUATION AND THE COMES OF THE COST BENEFIT ANALYSIS OF ACTIONS DETAILED IN THE SAP	
10.		PARATION FOR THE THIRD REGIONAL SCIENTIFIC CONFERENCE AND ORS' ROUNDTABLE	12
11.	_	RK PLAN AND ACTIVITIES OF THE REGIONAL WORKING GROUP ON AL REEFS	13
		Work Plan for 2007 – 2008	
12.		E AND PLACE OF THE NINTH MEETING OF THE REGIONAL WORKING GROUP CORAL REEFS	14
13.	ANY	OTHER BUSINESS	14
14.	ADO	PTION OF THE REPORT OF THE MEETING	14
15	CLO	SLIRE OF THE MEETING	14

List of Annexes

ANNEX 1	List of Participants.
ANNEX 2	List of Documents.
ANNEX 3	Agenda.
ANNEX 4	Revised Parameters for inclusion in the Coral Reef Sub-component of the Regional GIS Database.
ANNEX 5	Revised Programme for the "UNEP-GEF-SCS Regional Training Course or Management Models and Strategies for Coral Reefs and Seagrass" and Details of the Proposed National Echo-seminars.
ANNEX 6	The Revised Coral Reefs Component of the SAP as Amended by the RWG-CR-8.
ANNEX 7	Revised Format for the Collection of Data and Information on Economic Value of Coral Reefs in the South China Sea.
ANNEX 8	Framework Work Plan and Time Table for Coral Reef Sub-component to 31 st December 2008.

Report of the Meeting

1. OPENING OF THE MEETING

1.1 Welcome Address on behalf of UNEP

- 1.1.1 Dr. Vo Si Tuan, Senior Expert opened the meeting, at 0830 on 4th June 2007, and welcomed participants on behalf of the UN Under-Secretary General and Executive Director of UNEP, Dr. Achim Steiner; the Deputy Executive Director of UNEP, and Officer-in-Charge of the UNEP Division of Global Environment Facility Co-ordination, Mr. Shafqat Kakakhel; and the Project Director, Dr. John C. Pernetta.
- 1.1.2 Dr. Tuan noted that there were a number of important items of business before the group, including the need to review the Total Economic Values for coral reefs calculated by the Regional Task Force on Economic Valuation (RTF-E) and to consider the cost benefit analysis that would be included in the next draft of the regional Strategic Action Programme. In addition the meeting would need to consider plans at the national level to adopt the National Action Plans and to review the Strategic Action Programme.
- 1.1.3 A further important item on the agenda was the consideration of plans for the conduct of the regional training course and national echo-seminars on coral reefs and seagrass. Dr. Tuan noted that since it was likely that some costs would be associated with support by the Specialised Executing Agencies to the conduct of these national echo seminars it would be necessary to revise the budgets and extend the Memoranda of Understanding (MoU) between the Specialised Executing Agencies and UNEP.
- 1.1.4 Dr. Tuan noted that this meeting was originally scheduled as the last during this phase of the project but the Project Steering Committee had allocated funds for a further meeting during 2008 should the need arise. He noted further that the Working Group would need to decide whether or not there was sufficient business to warrant convening a ninth meeting in the first half of 2008.
- 1.1.5 Dr. Tuan noted with pleasure that the Chairman of the Phu Quoc District People's Committee, Dr. Thai Thanh Luom had taken time from his busy schedule to attend the opening session of the meeting and to say a few words on behalf of Phu Quoc's People's Committee. He invited Dr. Luom to address the meeting.

1.2 Opening Statement by the Representative of the Phu Quoc District Government

- 1.2.1 Dr. Luom, Chairman of the Phu Quoc District People's Committee formally welcomed participants to Phu Quoc Island and to the meeting. He noted that Phu Quoc District had been identified by the Government of Viet Nam as an important tourism destination. He expressed thanks to UNEP, the GEF and the South China Sea Project for their support, both technical and financial, to the activities of the Phu Quoc Habitat Demonstration Site.
- 1.2.2 He noted that important outcomes from the implementation of demonstration activities at Phu Quoc had been: procedures for the monitoring of water quality and the ecological health of the island's coral reef and seagrass communities; a management framework for the implementation of activities; and increased community awareness of the importance of coral reefs and seagrass. He expressed his view that that these outcomes would play an important role in the long-term sustainability of tourism and fisheries in the area.
- 1.2.3 In conclusion Dr. Luom wished the meeting all success and on behalf of the Phu Quoc District Government, and expressed the hope that participants would be able to visit the Phu Quoc Demonstration Site and would enjoy their stay on Phu Quoc Island.

1.3 Introduction of Participants

1.3.1 Members noted that the Regional Expert, Dr. Ridzwan Bin Abdul Rahman and the Focal Point from Malaysia, Mr. Abdul Rahim Bin Gor Yaman were unable to attend the meeting. Dr. Tuan invited participants to introduce themselves to the meeting and the List of Participants is attached as Annex 1 to this report.

2. ORGANISATION OF THE MEETING

2.1 Election of Officers

- 2.1.1 Members recalled that during the sixth meeting in Masinloc, Philippines, $22^{nd} 25^{th}$ August 2005; Dr. Thamasak Yeemin, Dr. Porfirio Aliño and Mr. Rahim were elected as Chairperson, Vice-Chairperson and Rapporteur respectively. Dr. Suharsono, Mr. Nguyen Van Long, and Mr. Ouk Vibol were elected as Chairperson, Vice-Chairperson, and Rapporteur respectively at the seventh meeting in Kudat, Sabah, Malaysia, $10^{th} 13^{th}$ July 2006.
- 2.1.2 Dr. Tuan reminded members that the Rules of Procedure state that, the Regional Working Group shall elect, from amongst the members, a Chairperson, Vice-Chairperson, and Rapporteur to serve for one year, and that the rules state further that, officers shall be eligible for re-election no more than once.
- 2.1.3 The Senior Expert called for nominations of individuals as officers of the Regional Working Group on Coral Reefs. Mr. Vibol proposed and Dr. Suharsono seconded the election of Mr. Long as Chairperson. Dr. Aliño nominated Dr. Suharsono as Vice-Chairperson and this nomination was seconded by Mr. Vibol. Dr. Thamasak nominated Mr. Vibol as Rapportuer. There being no further nominations, the officers were elected by acclamation.

2.2 Documentation and Administrative Arrangements

- 2.2.1 The Chairperson invited the Secretary, Mr. Christopher Paterson, to introduce the documentation available to the meeting and listed in document UNEP/GEF/SCS/RWG-CR.8/Inf.2. Mr. Paterson introduced each document in detail and highlighted the main substantive items for consideration and decision by the working group, including the latest draft of the Strategic Action Programme, and documents relating to the Total Economic Values of coral reefs as calculated by the RTF-E. Members were invited to table any additional materials and the list of documents is contained in Annex 2 of this report.
- 2.2.2 Mr. Paterson introduced the draft programme for the conduct of business contained in document UNEP/GEF/SCS/RWG-CR.8/Inf.3. Members noted that as usual the meeting would be conducted in English and in plenary.

3. ADOPTION OF THE MEETING AGENDA

- 3.1 Mr. Long, the Chairperson introduced the Provisional Agenda prepared by the Project Co-ordinating Unit (PCU) as document UNEP/GEF/SCS/RWG-CR.8/1, and the Annotated Provisional Agenda, document UNEP/GEF/SCS/RWG-CR.8/2, and invited members to consider the agenda, and propose any amendments or additional items for consideration.
- 3.2 There being no proposals for amendment or additions to the agenda it was adopted as it appears in Annex 3 of this report.

4. STATUS OF THE ADMINISTRATIVE REPORTS FOR 2006: PROGRESS REPORTS; EXPENDITURE REPORTS; AND AUDIT REPORTS

- 4.1 The Chairperson invited the Senior Expert to introduce document UNEP/GEF/SCS/RWG-CR.8/4, "Current status of budgets and reports from the Specialised Executing Agencies in the participating countries" and to draw to the attention of the meeting any outstanding issues or matters requiring the attention of the working group.
- 4.2 Dr. Tuan noted that all members are fully aware of the progress and financial reporting requirements of the project. He reminded members that these reports are critical for the review of expenditures in relation to project activities and outputs and to evaluate the extent, to which, agreed government co-financing has been provided in cash and in kind by the SEA concerned. Members recalled that the Project Director approves cash advances to the Specialised Executing Agencies of the project on the basis of the receipt of: a six monthly progress report; an expenditure report for the preceding six month period; a cash advance request for the next period; and the substantive outputs received from the agency concerned. He reminded members further that the required contents of six monthly progress and expenditure reports had been discussed at length during the seventh meeting and that a summary of their deliberations was included in Annex 4 of the report of that meeting.

- 4.3 Dr. Tuan noted that all six-monthly administrative reports for the 2nd half-year of 2006 should have been sent to the PCU by 31st January 2007. He informed the meeting that only Cambodia had met this deadline, and that final reports have subsequently been received from Philippines, Thailand, and Viet Nam. He noted that no reports have been received from Malaysia for the operational phase of the project and it had now reached the stage where action must be taken for funds to be returned to UNEP. He advised the member from Indonesia that the PCU had commented on draft progress reports and that minimal work was required to finalise these.
- 4.4 In relation to the status of reporting for the demonstration sites it was noted that final reports had only been received for the Masinloc and Koh Chang Demonstration Sites. Dr. Tuan informed members that the total cash on hand held by the demonstration sites was 258,134 US dollars and that there was an urgent need for the members from Indonesia and Viet Nam to finalise their reporting requirements.
- 4.5 Mr. Long noted that the demonstration site manager for the Phu Quoc site had sent first drafts of the reports to him that morning and that it should be possible to finalise these by the end of June 2007. Dr. Tuan suggested that Mr. Long sit with the site manager during the course of the meeting to finalise the reports by Thursday 7th June 2007. Dr. Suharsono agreed that final reports relating to the Belitung demonstration site would be sent to the PCU by Friday 15th June 2007.
- 4.6 Dr. Tuan reminded participants that in addition to the routine six monthly progress and expenditure reports, UNEP requires an annual audit of expenditures by a recognised firm of public accountants. He noted that these reports should be dispatched to UNEP by 31st March for the previous year. He noted that audit reports were required from Cambodia, Malaysia, and the Philippines.
- 4.7 Mr. Vibol noted that the auditors had previously expressed reservations regarding the absence of individual project accounts in the Fisheries Administration of Cambodia making it difficult to track individual project related income and expenditure. He explained that the establishment of individual project accounts was a lengthy and difficult process, and to avoid this, the Fisheries Administration had recently engaged a new auditing firm that could audit their single current account according to individual sources of income and projects. He stated that an audit report would be sent to the PCU by the end of June 2007. Dr. Aliño noted that an audit report for the Philippines was sent to the PCU in the week prior to the meeting. Dr. Tuan reminded Dr. Aliño that an audit report was also required for the Masinloc habitat demonstration site.
- 4.8 In relation to the co-financing of project activities, Dr. Tuan reminded members that at the time of project approval by the Project Steering Committee an estimate of the in-kind co-financing provided by the Specialised Executing Agencies during the preparatory phase of the project (January 2002 to June 2004) was made based on an agreed cost coefficient (70 US dollars per person per day). He reminded members further that during the fourth meeting of the Project Steering Committee, estimates of in-kind co-financing for the operational phase of the project were discussed and agreed and subsequently presented to and considered by the 6th meeting of the RWG-Coral Reefs.
- 4.9 Dr. Tuan noted that the in-kind government co-financing of the coral reefs sub-component had exceeded the estimated total by 55,073 US dollars during the period January 2002 December 2006. He explained however, that government co-financing of activities associated with national co-ordination had not increased as anticipated and the group should consider this in relation to the longer-term sustainability of national coral reef committees or working groups.
- 4.10 In terms of the sustainability of national co-ordination activities, Mr. Vibol noted that following the adoption of Cambodia's National Action Plan on Coral Reefs and Seagrass he had secured funding of 70,000 US dollars from DFID/DANIDA for the implementation of activities. He noted that he hoped to receive some funds from the Royal Government of Cambodia for maintaining co-ordination structures established under the South China Sea Project. Dr. Thamasak noted that he is working to convince Thailand's Department of Marine and Coastal Resources (DMCR) to provide funds for regular meetings of the National Committee on Coral Reefs.
- 4.11 Dr. Suharsono informed the meeting that his Institute has many coral reef projects and programmes in Indonesia. He noted that funds from these projects could be used to convene regular meetings of the Indonesian coral reef working group. Mr. Long noted that the situation is similar in Viet Nam in that funds could be sourced from a variety of donors for the establishment of a national

system of Marine Protected Areas. He explained that these funds could be used to sustain national co-ordination beyond the life of the project.

- 4.12 Dr. Aliño noted that the sustainability of the Philippines' national coral reef and seagrass working groups had been discussed at the national level. He explained that securing funds for national co-ordination activities was difficult in the Philippines, largely due to the high turn over of senior officials in the Department of Environment and Natural Resources.
- 4.13 Professor Chou Loke Ming noted that each country would likely rely on different sources of funds to maintain the sustainability of national committees and working groups. He suggested that it is important to note that, regardless of the availability of funding the networks of experts established under the South China Sea Project will continue to exist following the completion of the project and can be revitalised at any stage as soon as funds are available.
- 4.14 With regard to the Memoranda of Understanding, Dr. Tuan reminded members that the original MoUs ran until December 2003, and were extended till 30th June 2004 (first amendment), to allow time to complete the preparatory phase tasks, that had been delayed. He explained that a second amendment to extend the life of the MoUs to 30th June 2007 was drafted following approval by the Project Steering Committee of budgets for the remaining period of the project. He noted that all 2nd MoU amendments have been signed by UNEP and the SEAs for the coral reefs component, except for Malaysia, since the final signed expenditure reports have not been received and consequently no budget revision can be processed.
- 4.15 Dr. Tuan explained further that in order that the SEAs may continue to spend funds allocated to them to date, and in accordance with the decisions of the Project Steering Committee to extend the project activities to 30th June 2008 it is proposed that a third amendment to the MoUs be executed with the sole purpose of extending the life of the Memoranda to 31st December 2008. He noted that the draft amendments had been prepared by the PCU, and that these should be finalised during the course of the meeting.

5. STATUS OF THE SUBSTANTIVE OUTPUTS

5.1 Publication of National Reports in National Languages and English

- 5.1.1 The Chairperson invited Dr. Tuan to present the document UNEP/GEF/SCS/RWG-CR.8/5 "Status of the Substantive Outputs from the Specialised Executing Agencies for the Coral Reef Sub-component of the UNEP/GEF South China Sea Project" and to highlight the situation with respect to national publications received by the PCU.
- 5.1.2 Dr. Tuan reminded participants that National reports on coral reefs were supposed to have been published in National languages by the Focal Points for distribution in each country during 2004. He noted that a number of national language reports have been published and submitted to the PCU from all countries, except Malaysia. Dr. Thamasak noted that the Thai national report had been recently finalised and tabled a published copy of this report for consideration of the meeting. Dr. Suharsono noted that the National Action Plan for Indonesia had been sent to the PCU during the week prior to the meeting.
- 5.1.3 Dr. Tuan informed the meeting that the National reports in English had been compiled into a single regional publication. He noted that this compilation would hopefully be published by September 2007. Dr. Tuan reminded members that images were required for inclusion in this publication, and it was agreed that members would send images with captions to the PCU by the end of June 2007.

5.2 Status of Finalisation, Adoption and Implementation of the National Action Plans

5.2.1 Dr. Tuan reminded member that the deadlines for the completion of final draft National Action Plans (NAPs) for Coral Reefs in each participating country are contained in the work plan approved by the seventh meeting of the working group. He noted that draft NAPs had been received from all countries, except Malaysia, and informed the meeting that the National Action Plan for Coral Reef and Seagrass Management in Cambodia, (2005 – 2015) was finalised and adopted by the Ministry of Agriculture, Forestry and Fisheries on 5th December 2006. Members were invited to present any further revisions completed to date and to report in detail the situation with regard to the timetable for the finalisation, publication, and formal approval of these plans.

- 5.2.2 Dr. Suharsono noted that the "National Policy, Strategies, Programmes, Action Plans and Activities of Coral Reef Management in Indonesia" had been adopted. This plan will be extended from 2009 to 2015. He explained that this plan focuses on 12 districts, 3 of which are in the South China Sea geographic region. He noted that this plan has 3 phases: implementation; internalisation of costs of actions into the recurrent budgets of local governments; and ensuring the long-term sustainability of actions. The plan is now in the second phase of internalisation. The Senior Expert noted that the document regarding the adoption of the National Action Plan and approval of implementation plan at 3 districts bordering the South China Sea should be submitted to the PCU immediately following the meeting.
- 5.2.3 Dr. Aliño noted that he had submitted to the PCU in 2006 an extract from the Philippine National Coral Reef Strategy (NCRS) that includes the Vision, Mission, Goals and Objectives for a National Action Plan for Coral Reefs in the South China Sea. He noted further that he had also submitted a matrix of actions under the NAP and their associated costs. He informed the meeting that the Philippines' National Technical Working Group (NTWG) had discussed the integration of NAPs for all habitat components into a single NAP for the Philippines. He noted that the NTWG had scheduled a meeting for October to 2007 to discuss this matter further.
- 5.2.4 Dr. Thamasak informed the meeting that the adoption of Thailand's NAP for coral reefs had been delayed due to an unanticipated change of Government in September 2006. He noted that the NAP had since been submitted the Deputy Director of the Department of Marine and Coastal Resources and expressed the hope that the plan would be adopted this year. He informed the meeting that Thailand had also considered the integration of all habitat NAPs into a single plan, but due to delays with the completion of NAPs for other components it was likely that the coral reef NAP would adopted by cabinet first. Mr. Long expressed his hope that Viet Nam's coral reef NAP would be approved by the Minister in combination with NAPs for other components before the end of 2007.
- 5.2.5 Mr. Vibol expressed his appreciation of the efforts of the group in assisting in the initial design of Cambodia's coral reef NAP. He noted that the Fisheries Administration of Cambodia had planned a range of public awareness building activities aimed at increasing community support for coral reef and seagrass management. These activities include *inter alia* the installation of permanent billboards, posters, and new fisheries law dissemination at strategic locations along Cambodia's coast.
- 5.2.6 There followed a lengthy discussion regarding the problems most members faced in achieving Ministerial approval of their NAPs. It was noted that the Regional Scientific and Technical Committee and Project Steering Committee may wish to discuss how the formal adoption of NAPs can be expedited. Professor Chou suggested that information regarding the economic values of coral reef goods and services could be used to raise awareness amongst senior government officials of the importance of effective coral reef management.

5.3 Update of the Regional Meta-database and GIS Database, and Use of the Project Website

- 5.3.1 Dr. Tuan reminded members that it is their responsibility to ensure that new coral reef related GIS and metadata sets are submitted to the Project Co-ordinating Unit as soon as they become available at the national level. He also reviewed the agreements made during the seventh meeting regarding the revision and up-dating of national data for inclusion in the regional databases on-line.
- 5.3.2 Dr. Tuan drew the attention of members to Table 2 of document UNEP/GEF/SCS/RWG-CR.8/5, which presented information regarding the submission and uploading of meta-data and GIS data to the regional databases. He noted that all countries except Malaysia had taken action to revise and update their respective components of the regional meta-database, and that only Thailand and Viet Nam had submitted new or additional GIS data following the seventh meeting of the RWG-CR. Dr. Suharsono tabled a CD containing GIS data for coral reefs in Indonesian waters of the South China Sea. It was agreed that Mr. Paterson would work with Mr. Vibol to ensure that the coral reef, seagrass, and fisheries meta-data for Cambodia are split into their respective components of the regional meta-database.
- 5.3.3 Dr. Tuan noted that he had reviewed the coral reef component of the South China Sea GIS and identified that limited data appeared to be available for numerous fields in the database. He suggested and the meeting agreed that the group should collectively review the database in order to

identify data fields for which data will not likely become available for in the foreseeable future. There followed a lengthy discussion regarding data availability in the participating countries and the working group agreed that the parameters shown in Annex 4 of this report should be included in the coral reef component of the regional GIS database. Each member of the working group agreed to contribute new or additional data to the regional meta-database and GIS by the end of September 2007.

- 5.3.4 Regarding the use of the project website to improve intersessional communication between members of the RWG-CR, Dr. Tuan noted that it was agreed during the seventh meeting that the group would utilise the South China Sea E-forum to discuss the issue of Napolean wrasse which had recently been added to the CITES appendix. He informed the meeting that following the establishment of this e-forum topic in July 2006, no member of the working group provided any message or response.
- 5.3.5 There followed a lengthy discussion regarding the non-use of the e-forum by members of the working group. The Chairperson suggested, and the meeting agreed, that members had simply not paid sufficient attention to this tool and their commitments made during the seventh meeting. It was agreed that all members would endeavour to improve their use of the e-forum during 2007. The 2 topics proposed for discussion on the e-forum were "Threats to Coral Reef Species Nominated for Inclusion in Annex 1 of CITES" and "Availability of Statistics for Use in Managing High Value Coral Reef Species". It was agreed that Mr. Paterson would establish these topics and ensure that all members were registered to receive e-mail notifications each time a new message is posted in either of the above discussions.
- 5.3.6 Members were reminded that each coral reef demonstration site has its own page on the project website, and it was noted by Dr. Tuan that a relatively high percentage of the approximate 20,000 visitors to the project website each month visit these pages. Members agreed that the website is an effective tool for the promotion of activities at the site level. Dr. Tuan noted further that staff of the Mu Koh Chang Coral Reef Demonstration had recently posted information on the project website regarding activities to establish a local guide centre and investigation of alternative livelihoods, including eco-tourism. Members agreed that they would work with the managers of their respective demonstration sites to update information regarding the implementation of their sites online.
- 5.3.7 With regard to ensuring the sustainability of the project databases following the conclusion of the project, Mr. Paterson noted that the project website, meta-database, GIS, and projects database had been designed to enable the remote updating of content and data by focal points via a secure online login. He suggested that that the sustainability of these tools would ultimately depend on contributions from individuals involved in the generation of information and data.
- 5.3.8 Dr. Aliño and Professor Chou suggested that there will be a need for individuals to co-ordinate the contributions of new and additional data to the databases at both the national and regional levels. In this connection, Dr. Tuan informed the meeting that the RSTC had recommended during their seventh meeting that an IT workshop be convened during 2007 regarding the further development and sustainability of the project website and associated databases.
- 5.3.9 In terms of the sustainability of the coral reef databases, Dr. Aliño noted for example that the "Reefs at Risk" workshop convened in the Philippines was not expensive and suggested a similar forum could be developed to guide the compilation of information and data regarding coral reefs in the South China Sea. Dr. Aliño noted that an annual 1 page summary of priority information and data needs for each of the databases may help focus the efforts of focal points and individuals at the demonstration site level.
- 5.3.10 Professor Chou suggested and the meeting agreed that it may be useful to prepare a regular synthesis of data contained in the coral reefs component of the regional GIS. He noted that this could be used to evaluate the effectiveness of management interventions, and if possible could be linked to the regional Strategic Action Programme.

6. REVIEW OF THE TRAINING COURSE ON CORAL REEF AND SEAGRASS MANAGEMENT

6.1 Status of Preparation of and Materials for the Training Course

6.1.1 Members were reminded that the RSTC had decided to offer a combined course covering the management of both coral reef and seagrass habitats and that the Marine Science Institute of the University of the Philippines (MSI) had agreed to conduct a training course entitled "UNEP-GEF-SCS"

Training Course on Management Models and Strategies for Coral Reef and Seagrass Ecosystems". It was noted that originally this had been planned to be conducted from 9th – 21st April 2007, but the dates have been changed to 29th October – 10th November 2007.

6.1.2 The Chairperson invited Dr. Aliño to introduce the syllabus and programme for the regional training workshop. Dr. Aliño outlined plans for the conduct of the course and informed members that it was scheduled to last for 12 days and that MSI had attempted to involve a wide range of individuals from the South China Sea Project network as resource persons, and expressed the hope that some members of the RWG-CR might be available to contribute to the operation of the course. Dr. Thamasak was identified as a possible resource person given that Professor Chou will not be available during the training course. The working group then proceeded to review and comment on the syllabus and programme and the final programme is included in Annex 5 of this report.

6.2 Organisation of, and support to the National Echo-seminars

- 6.2.1 Members were reminded that trainees attending the regional training course are expected to conduct "National Echo-Seminars" over a 1 to 3 days period following the completion of the regional training course, and that the Specialised Executing Agencies and the Focal Points for the corresponding sub-component of the project are expected to provide logistic support.
- 6.2.2 There followed a discussion of the purpose, timing, numbers of participants, and location of the national echo-seminars. Members proceeded to develop proposals for the national echo-seminars and the information presented was compiled in tabular form and is included in Annex 5 of this report. It was agreed that members would work on the preparation of the necessary budgets in order that these could be included in the amended budget for the third amendment to the Memoranda of Understanding. It was agreed that members would finalise these amendments for signature prior to the completion of the meeting.

7. PROGRESS IN THE IMPLEMENTATION AND MID-TERM EVALUATION OF THE DEMONSTRATION SITE ACTIVITIES

7.1 Belitung, Indonesia – Dr. Suharsono

- 7.1.1 The Chairperson invited the Senior Expert to introduce this agenda item. Dr. Tuan reminded members that, not only do the Focal Points have responsibility for periodically reporting on the status of coral reef habitat demonstration sites to the RWG-CR, but also, the RWG-CR has a collective responsibility to ensure successful implementation of demonstration site activities through the provision of oversight and guidance. Dr. Tuan noted that the PCU had requested focal points to prepare written reports of the progress in the implementation and achievements to date of the demonstration sites in advance of the meeting. It was noted that reports had been received for the Phu Quoc (UNEP/GEF/SCS/RWG-CR.8/6-PQ), Ninh Hai (UNEP/GEF/SCS/RWG-CR.8/6-NH), and Belitung (UNEP/GEF/SCS/RWG-CR.8/6-Mas) demonstration sites. Dr. Thamasak tabled the report for the Mu Koh Chang demonstration site (UNEP/GEF/SCS/RWG-CR.8/6-KC).
- 7.1.2 Dr. Tuan informed the meeting that following the plan for the mid-term evaluation of the demonstration sites approved by the RSTC, the self-assessment reports, PCU reviews, and site visits had been completed for the Koh Chang, Phu Quoc, and Belitung demonstration sites. He noted that in the case of Masinloc, the self-assessment report and PCU review have been finalised and the site visit will take place in late June 2007.
- 7.1.3 The Chairperson invited the relevant focal points to make presentations regarding the status of activities in the coral reef demonstration sites. Dr. Tuan noted that these presentations will be lodged on the project website, once received by the PCU, and focal points are requested to highlight any lessons learned to date.
- 7.1.4 Dr. Suharsono noted that in terms of enhancing community awareness of the need for improved management of coral reef resources, the Belitung Coral Reef site had recently produced a range of awareness raising materials including: 4 billboards; 400 calendars; 1000 t-shirts; and 7 series of mulok books (including training of 47 teachers on how to use the books). A meeting to officially launch the project at the community level was convened on 7th February and was participated

in by approximately 30 persons from Tanjung Pandan and 170 persons from Selat Nasik Sub District. An important outcome of this meeting was an instruction from the local Bupati to the people of Selat Nasik Sub District to participate in activities aimed at protecting coral reefs in the area.

- 7.1.5 In terms of strengthening the legal basis for coral reef management in Belitung, Dr. Suharsono reported that the demonstration site management board comprised of representatives of the Education, Tourism, Marine Affairs, and Environment Departments of Belitung Regency had been established and met on a quarterly basis. He also noted that 20 reef watch personnel had been trained and 2 vessels had been constructed in order to begin reef watch cruises in June 2007. With regard to improving information for decision making and planning, as well as management plan development, Dr. Suharsono noted that a socio-economic survey had been conducted and that community representatives of Selat Nasik Sub District had participated in a training course from 26th 31st March 2007 on the assessment and calculation of coral cover on reefs.
- 7.1.6 Dr. Tuan noted that the implementation of project activities at Belitung were extremely delayed and as a consequence only 18.4 percent of the budget for the demonstration site had been spent to date. He noted that the mid-term evaluation identified several important outcomes and examples of good practice, including the effectiveness of the Management Board in improving coordination and communication between stakeholders, and the use of the traditional wisdom in the management of coral reef resources. Professor Chou noted that there is an urgent need for the Belitung site to revise its budget and work plan in order to ensure the timely implementation of activities.

7.2 Masinloc, Philippines – Dr. Porfirio Aliño

- 7.2.1 Dr. Aliño's report on the progress and achievements in the implementation of the Masinloc Coral Reef Demonstration Site focused on the milestones, and activities under each of the four project objectives. Highlights included: the establishment of 3 new marine sanctuaries through Barangay Ordinances adopted through Sangguniang Bayan Resolutions; installation of 49 mooring buoys to delineate the boundaries of the marine sanctuaries and the buffer zones and reservation areas; formulation of 3 Marine Protected Area Management Plans and 1 Coastal Resources Management and Zonation Plan; establishment of 1 livelihood centre to provide incentives to reef stewards; and stocking of a total of 6,700 sea cucumber (*Stichopus horrens* and *Holothuria scabra*) in three pens.
- 7.2.2 Dr. Aliño reported that the key process related outcomes at the site include: establishment of a Coastal Resource Management Board; formulation and adoption of Marine Protected Area Management Plans by the Protected Area Management Board; management of 199 hectares of marine sanctuaries; 80 hectares of reserve and buffer zones of Marine Protected Area managed for regulated and traditional fishing; and an approximate 20 percent reduction of illegal fishing at the site. In terms of expenditures, Dr. Aliño noted that the site has only been able to spend 62.54 percent of the total cash advances received. Dr. Tuan noted that his evaluation of activities at the Masinloc demonstration site suggested that there was a need to consider the effectiveness of the small-scale sanctuaries.

7.3 Koh Chang, Thailand – Dr. Thamasak Yeemin

- 7.3.1 Dr. Thamasak's presentation focused on the outcomes and impacts of activities at the Mu Koh Chang Habitat Demonstration Site. In relation to improving public awareness of the need for improved coral reef management at the site, Dr. Thamasak noted that notice boards, brochures, and posters were erected and distributed at strategic sites on the island. A training course on the sustainable use of marine ecosystems was also conducted for local students, tour guides, and tourism operators. This has led to improved operating practices by tour operators and the dissemination of information via local radio.
- 7.3.2 In terms of improving networking between agencies, Dr. Thamasak noted that a network for the co-ordination of activities between Mu Koh Chang National Park and local communities had been established. A mooring buoy committee for the management of all mooring buoys in the Mu Koh Chang area had also been established. Dr. Thamasak noted that this committee is responsible for the setting and maintenance of mooring buoys at the island, and fosters close cooperation with local fishers and government agencies. Anecdotal information suggests that illegal fishing in the area has decreased as a result of this action.

- 7.3.3 In relation to the sustainable tourism development at Mu Koh Chang, Dr. Thamasak noted that a range of studies on the carrying capacity and impacts of tourism activities have been conducted within the framework of the demonstration site. He noted further that snorkel trails and underwater notes have been installed in the Koh Yak area and that this has resulted in a reduction of the risk of damage to coral reefs from tourists. Ten new mooring buoys were installed at popular dive sites within Mu Koh Chang National Park with an aim of reducing the damage to sensitive coral reef areas from anchors. Other important outputs include the completion of a study on tourism fees and establishment of a local guide centre.
- 7.3.4 A range of capacity building activities at the demonstration site have also been completed, including the provision of a training course for coral reef protection volunteers. Seven individuals from local communities were trained as trainers on coral reef ecology and management. With regard to coral reef rehabilitation at the island, Dr. Thamasak noted that demonstration sites for coral reef restoration had been established in the Koh Wai and Koh Rang areas.
- 7.3.5 Dr. Tuan noted that the Mu Koh Chang demonstration site has several examples of good practices to be documented, including the operation of the mooring buoy committee, the local guide centre, and operation of the management board. He noted that the management board recently decided to develop a coral reef management plan for Mu Koh Chang.

7.4 Phu Quoc, Viet Nam – Mr. Nguyen Van Long

- 7.4.1 Mr. Long's presentation focused on the outcomes and impacts associated with the implementation of activities at the Phu Quoc Island Demonstration Site to date. He noted that a key outcome was the effective operation of the various management bodies for the site, including the Steering Committee, Management Board, and Advisory Group in co-ordinating project activities. He noted that these bodies had played a significant role in the development of provincial policy for marine ecotourism, the Kien Giang Biosphere Reserve, and the Phu Quoc Marine Protected Area. He noted that the project has also driven enhanced co-operation with Cambodian partners in the exchange of expertise, the sharing of information, and environmental and natural resource management in the transboundary water areas.
- 7.4.2 Mr. Long noted that the data collected from the demonstration sites had been used by the Ministry of Fisheries as a basis for the establishment of the Phu Quoc MPA. He noted that both the seagrass and coral reef sub-sites of the Phu Quoc Demonstration Site had been included in this MPA which extends along the eastern coast of the island. He noted that the Phu Quoc MPA is a multiple use area, and that the demonstration site management team was working with the fisheries component of the UNEP/GEF Project in Viet Nam, and the Department of Science and Technology of Kien Giang Province to improve the management of fisheries issues in the site via the establishment of managed fisheries *refugia*.
- 7.4.3 Dr. Tuan noted that progress in the implementation of activities at the site appeared to have lagged following the PCU evaluation of the site in February 2007. He urged the focal point for Viet Nam to ensure that activities are implemented in accordance with the work plan agreed with the PCU.

7.5 Ninh Hai MSP, Viet Nam – Mr. Nguyen Van Long

- 7.5.1 Mr. Long informed the meeting that the Ninh Hai site had been selected as the location for a Medium-Sized Coral Reef Project within the framework of the South China Sea Project. He noted that to date the proposal for this site had not yet been approved and as such no funds had been made available to the site from the GEF.
- 7.5.2 Mr. Long noted that although the project document has not been signed yet, some activities have been implemented by local government departments, including the Department of Science and Technology and the Sub-Department of Fishery Protection. These activities have mainly focused on improving public awareness, building local community capacity for coral reef conservation, use of community volunteers for coral reef monitoring, and the establishment of a GIS database for management purposes.

- 7.5.3 Dr. Tuan noted that he was pleased to be able to inform the meeting that following discussions between UNEP and the GEF Secretariat regarding the stalled pipeline of projects, the seven MSPs developed under the project have now been re-pipelined for funding in GEF Phase IV (i.e. after July 1st 2006). He noted that for two sites, namely the East Bintan (seagrass) and Shantou (wetlands) sites, funds would hopefully be released during 2007.
- 7.5.4 Mr. Long suggested that the PCU support a study tour for representatives of the Ninh Hai MSP and Cu Lao Cham self-funded project. Dr. Tuan recommended that Mr. Long prepare a proposal for consideration by the PCU.

FINALISATION OF THE REGIONAL STRATEGIC ACTION PROGRAMME (SAP)

8.1 Finalisation of Inputs from the Regional Working Group on Coral Reefs to the Revised SAP

- 8.1.1 The Chairperson invited Dr. Tuan to introduce this agenda item and the draft revision of the Strategic Action Programme presented in document UNEP/GEF/SCS/RWG-CR.8/7 "Revised Draft Strategic Action Programme (Draft 2)". Dr. Tuan advised members that this document had been modified on the basis of inputs from the seventh RSTC and sixth PSC meetings. He suggested that the working group should review the contents of this draft in the light of the inputs from other working groups in particular to consider whether or not the proposed actions and associated costs, are in conformity with those proposed by the remaining habitat working groups.
- 8.1.2 Professor Chou noted that approximately 30 percent of the target area to be added for management by 2015 is located in Malaysian waters. He expressed his concern that the non-participation of the Malaysian focal point in the meetings of the RWG-CR may present a risk to the achievement of the targets for the coral reef component of the SAP. Dr. Tuan informed the meeting that Mr. Rahim had advised him that all coral reef Marine Parks in Malaysia had been identified as priority management areas by the Government of Malaysia, and that several International donors have provided financial support for the management of these sites.
- 8.1.3 Dr. Tuan noted that there were several anomalies with the area of coral reef under existing management and the target area to be added for management in Cambodia by 2015. It was noted that the two Cambodian sites "Koh Sdach" and "Koh Rong" had been included as currently managed sites when in fact they were tentative MPAs. It was agreed that these two sites would be included in the target area to be added for management by 2015. Mr. Vibol suggested that Koh Tang (439ha), Koh Pouh (53ha), and 50 percent of the Prek Ampil site (476.5ha) should also be added to the total area to be brought under management by 2015. It was noted that this would result in an increase in the total area to be added for management by 2015 to 1,965.5ha, and the total area to be brought under management to 2,258.5ha.
- 8.1.4 Dr. Aliño suggested that the Balabac coral reef site (2,500ha) be added to the list of sites to be brought under management. He stated that the Balabac site will be developed as an Environmental Critical Protection Zone under the Palawan Strategic Environmental Plan. The addition of this site and changes to the Cambodian plan necessitated revision of Target 1 of the coral reef component the Strategic Action Programme as follows:
 - **Target 1.** By 2015, at least 70% of the existing area of coral reefs in the 83 target coral reef sites (153,000ha) to be put under an appropriate form of sustainable management.
- 8.1.5 It was agreed that the text of paragraph 7 of the coral reef sub-component of the Strategic Action Programme should be revised as follows:

Table 2 presents general status of coral reef management in the South China Sea geographic region of the six countries based on information assembled for 83 individual coral reef areas. The area of coral reefs in the 83 target coral reef sites is 217,407ha (29% of the total area in the South China Sea), of which 100,243ha (13% of the total area) is under management at the present time. In term of management effectiveness only around 5% of this area is considered as being under successful management. For 29% of the sites management effectiveness is considered low, whilst around 13% is not under any form of management. The area to be added to the total area managed sustainably by the year 2015 is 53,577ha, thereby increasing the total area under sustainable management to 153,820ha which represents 20% of the total reef area of the South China Sea or 71% of the area of the target sites.

8.1.6 The group then proceeded to review regional actions and proposed costs for the coral reef component of the SAP. The coral reefs component of the SAP as amended by the RWG-CR is included in Annex 6 of this report.

8.2 National Workshop to Consider the Revised SAP

- 8.2.1 Members were reminded by the Senior Expert that National Workshops to consider the regional Strategic Action Programme (SAP) were planned to be convened by the Focal Ministries during 2007 under the responsibility of the National Technical Focal Points. Dr. Tuan noted that coral reef focal points should ensure that discussions of the NAPs were completed and the outcome of these discussions, were incorporated into national discussions of the SAP.
- 8.2.2 Members were requested to brief the working group on plans for any workshops covering the Strategic Action Programme of which they were aware. No member was aware of plans to convene national workshops to consider the Strategic Action Programme. Mr. Vibol noted that he had been advised that the National Technical Focal Point for Cambodia had sent a proposal to the PCU for the conduct of a national SAP workshop.
- 8.2.3 Dr. Thamasak informed the meeting that responsibility for the day-to-day co-ordination of South China Sea Project activities in Thailand had recently been transferred to the Biodiversity Unit of the Office of Natural Resources and Environmental Policy and Planning and that this may be a cause of delay in the development of plans for the SAP workshop. In the case of Viet Nam, Mr. Long noted that he would follow this up with the National Technical Focal Point immediately after the meeting.
- 9. CONSIDERATION OF THE TOTAL ECONOMIC VALUES FOR CORAL REEFS DETERMINED BY THE REGIONAL TASK FORCE ON ECONOMIC VALUATION AND THE OUTCOMES OF THE COST BENEFIT ANALYSIS OF ACTIONS DETAILED IN THE SAP
- 9.1 The Chairperson invited the Senior Expert, Dr. Tuan, to introduce document UNEP/GEF/SCS/RWG-CR.8/8 "Total Economic Values of Coral Reef Habitats and Cost-effectiveness of the Actions Proposed in the Strategic Action Programme". Dr. Tuan noted that this document contained the outcome of extensive work by the Regional Task Force on Economic Valuation during the last two meetings in January and March 2007. It was noted that in the January meeting considerable time had been spent on cleaning the empirical dataset.
- 9.2 Dr. Tuan proceeded to outline the procedure for the calculation of national and regional weighted values. He noted that the RTF-E had faced problems in determining how data sets from different locations bordering the South China Sea and from different periods in time could be compiled into a single data set and that the first major challenge was developing a procedure for standardising national values.
- 9.3 It was noted that document UNEP/GEF/SCS/RWG-CR.8/8 provided a clear explanation of how the task force addressed the problem of wide variation in prices within one country by weighting the data from each location and determining a "Weighted Mean National Value" that reflected both the prices for the same resource at each location and the "stock" of that resource at the same location. Dr. Tuan advised the group that full details of this method are contained in the various reports of the regional task force.
- 9.4 Dr. Tuan informed the meeting that the document highlights that determination of regionally weighted mean values was undertaken in a similar manner using data and information concerning the total stock (or area) in each country and the Weighted Mean National Values. Thus the weighted mean national value was multiplied by the stock for each country and the resultant values summed; then divided by the total stock (or area) of the habitat bordering the South China Sea.
- 9.5 Dr. Tuan informed the meeting that following the determination of standard mean national and regional values for coral reef goods and services, the total economic value of coral reef ecosystems, had been calculated and a cost benefit analysis of the actions proposed in the regional SAP conducted. It was noted that in broad terms the total costs over five years were quite modest when compared with the value of annual production from each habitat:

- Mangroves 2.99 million US dollars compared with 5.1 billion US dollars of annual production;
- Coral reefs 3.96 million US dollars compared with 1.1 billion US dollars of annual production;
- Seagrass 1.58 million US dollars compared with 87.2 million US dollars of annual production;
- Wetlands 5.99 million US dollars (14 million dollars of national costs excluded) compared with 1.2 billion dollars of annual production.
- 9.6 Members were requested to: review the values for the goods and services used by the RTF-E in determining national and regional standard values and the resultant national and regional Total Economic Values and advise on any obvious anomalies; and to consider and discuss the outcome of the cost-benefit analysis and in particular review the estimated costs to ensure that they were both realistic and reasonable in light of the calculated economic benefits.
- 9.7 Members noted that values for various coral reef goods and services were lacking for many countries resulting in low national and regional Total Economic Values. Dr. Tuan reminded members of their deliberations during the sixth meeting of the RWG-CR regarding the table format for the collection of economic valuation data, and their commitments during the seventh meeting to provide data on economic values from the demonstration sites to the PCU by 7th August 2006.
- 9.8 Dr. Aliño noted that several studies have been conducted in the Philippines and was unsure why they had not been included in the empirical dataset. It was noted that in cleaning the empirical dataset the RTF-E had excluded datasets for which incomplete data was available or for which production or value data could not be related to a specific area. This was followed by a lengthy discussion of why such limited data had been made available for the coral reef component, and it was concluded that generally there is a need for improved collaboration between habitat component focal points and members of the RTF-E.
- 9.9 In relation to the valuation of capture fisheries production, Dr. Aliño noted that it is often difficult to link fisheries landings to a known area of coral reef. He noted that this is made more complex by the fact that fisheries departments often group landings into categories such as "demersal fish" when collecting production data making it impossible to determine what proportion of the landings are coral reef dependent species.
- 9.10 It was noted that one of the potential benefits of collecting information and data at the demonstration site level was that such problems may be more easily avoided. It was agreed that more complete economic value data would be collected from the demonstration sites and that the members would submit this to the PCU by 10th September 2007. The meeting developed a table for the collection of economic value data which is included in Annex 7 of this report.
- 9.11 Professor Chou suggested that the RSTC may wish to consider that the value of coral reef ecosystem services may be much higher than those for direct uses, but due to the fact that there have been very few studies conducted on the value of coral reef ecosystem services the Total Economic Values for coral reefs may be gross under-estimates.

10. PREPARATION FOR THE THIRD REGIONAL SCIENTIFIC CONFERENCE AND MAYORS' ROUNDTABLE

- 10.1 The Chairperson invited Dr. Tuan to introduce this agenda item. Dr. Tuan informed members that the sixth meeting of the PSC had agreed that the third Regional Scientific Conference (RSC) should be convened in Bangkok from 14th to 16th November 2007, and that the third Mayors' Round Table (MRT) should be convened in conjunction with it.
- 10.2 He noted that the group might wish to consider topics related to the coral reef demonstration sites that are worthy of presentation during the MRT, and topics related to coral reefs in the South China Sea representing outcomes of the project that could be presented during the RSC. The members preceded to discus ideas regarding the relationship between the MRT and RSC. It was agreed that if possible an opportunity should be made available to the group to meet during the RSC.

- 10.3 There followed an extensive discussion during which the following topics were identified for possible presentation during the MRT:
 - Information for the management of tourism at Mu Koh Chang, Thailand (Dr. Thamasak/Mr. Nipat Somkleeb);
 - Linkages between fisheries and habitats in the development of fisheries refugia in the Phu Quoc demonstration site (Dr. Tuan); and
 - Traditional wisdom and its integration into management planning at Belitung (Dr. Suharsono).
- 10.4 The following coral reef related topics were proposed for presentation during the third RSC:
 - Coral reef based tourism in the Mu Koh Chang Demonstration Site (Dr. Thamasak);
 - Network of Marine Sanctuaries in Masinloc demonstration site (Dr. Aliño/Melen);
 - Transboundary ecosystem management in the Kampot and Phu Quoc Demonstration Sites (Mr. Vibol/Mr. Ponna/Mr. Niem);
 - Sound science inputs for coral reef management decision in the South China Sea (Dr. Aliño);
 - Data and information at coral reef sites bordering the South China Sea (Mr. Long); and
 - Process for the development of the National Action Plan for Coral Reefs and Seagrass in the Kingdom of Cambodia (Mr. Vibol).
- 10.5 Members agreed that additional topics would be sent to the PCU by 15th June 2007.

11. WORK PLAN AND ACTIVITIES OF THE REGIONAL WORKING GROUP ON CORAL REEFS

11.1 Work Plan for 2007 – 2008

11.1.1 Based on the discussion and agreements reached under previous agenda items, the work plan presented in document UNEP/GEF/SCS/RWG-CR.8/9 "Draft Work Plan and Timetable for the Regional Working Group on Coral Reefs, 2007 to 2008" was discussed, amended and approved as it appears in Annex 8 of this report.

11.2 Maintenance of the Network and Project Benefits after June 2008

- 11.2.1 The Chairperson invited members to raise for discussion any plans that might be in hand to continue the work of the project beyond June 2008 at both national and regional levels in order to sustain any tangible benefits arising from participation in the project.
- 11.2.2 Dr. Aliño noted that there were many other existing projects that the work of the RWG-CR could complement or be built into. He noted that PEMSEA had a range of ongoing initiatives in the region that the RWG-CR could potentially become involved with in order to maintain the network of coral reef specialists established through this project. He noted that in his view the transaction costs associated with maintaining the coral reef network under the project were minimal and the group could explore ways to fund this during the third Regional Scientific Conference in November 2007.
- 11.2.3 Dr. Chou noted that as suggested at agenda item 4 that it is important to note that, regardless of the availability of funding the networks of experts established under the South China Sea Project will continue to exist following the completion of the project and can be revitalised at any stage as soon as funds are available. He also noted that the group may wish to consider the development of a collaborative mechanism in the framework of the Asia-Pacific Coral Reef Society.
- 11.2.4 It was suggested by Dr. Tuan that in the absence of funding the group may wish to consider developing a voluntary scheme in which individual members assume responsibility for stimulating collaboration on an annual basis. He noted that this could be effective in ensuring the continued development of the regional databases and the sharing of information about site specific management interventions. Members noted that a voluntary model had been successful in the framework of the Global Coral Reef Monitoring Network. It was agreed that Professor Chou will be the facilitator for the first year, and representatives from the participating countries will continue this task in alphabetical order from Cambodia to Viet Nam on an annual basis.

12. DATE AND PLACE OF THE NINTH MEETING OF THE REGIONAL WORKING GROUP ON CORAL REEFS

- 12.1 The Chairperson invited members to consider whether or not a ninth meeting should be convened during the first half of 2008, or whether the present meeting should be taken as the final meeting for this phase of the project. It was noted by Dr. Tuan that in order to justify the convening of another meeting in 2008 it would be necessary to discuss and agree upon the substantive items to be considered during such a meeting.
- 12.2 Members discussed possible items for inclusion on the agenda of a ninth meeting and agreed that the following topics, *inter alia* should be included on the agenda:
 - Economic valuation data from the habitat demonstration sites;
 - Progress in relation to the implementation of coral reef demonstration site activities;
 - Implementation of the National Action Plans; and
 - Status of the coral reef components of the regional databases.
- 12.3 Members recalled that meetings of the RWG-CR have been held successively in: Bangkok, Thailand and Sihanoukville, Cambodia in 2002; Kota Kinabalu, Malaysia and Guangzhou, China in 2003; Koh Chang, Thailand in 2004; Masinloc, Philippines in 2005; Kudat, Sabah, Malaysia in 2006, and Phu Quoc, Viet Nam in 2007. Members noted further that the ninth meeting will likely be the last of the group under the current project, and that the PSC has directed that meetings of the regional working groups be convened at the demonstration sites.
- 12.4 Dr. Suharsono offered to host the next meeting of the group in Indonesia and the working group accepted this kind offer with appreciation. Due to the difficulties associated with travel to the Belitung coral reef demonstration site, it was agreed that the PCU would liaise with Dr. Suharsono regarding the most suitable location in Indonesia for the ninth meeting. There followed a discussion of potential dates and it was agreed that the meeting would be convened from $22^{nd} 25^{th}$ April 2008.

13. ANY OTHER BUSINESS

- 13.1 The Chairperson invited members to raise any other matters that required discussion by the regional working group under this agenda item.
- 13.2 Professor Chou suggested that the working group give some consideration to the procedures to set-up the exchange of personnel and the conduct of study tours at the demonstration sites. Dr. Tuan reviewed previous deliberations of the working group in this regard and indicated that focal points should work with demonstration site managers to develop proposals for these activities. He noted that focal points should discuss these proposals with their National Technical Focal Points and PCU staff.

14. ADOPTION OF THE REPORT OF THE MEETING

14.1 The Rapporteur, Mr. Vibol presented the draft report of the meeting, which was considered, amended and adopted as it appears in this document.

15. CLOSURE OF THE MEETING

- 15.1 Dr. Tuan noted that the group had worked hard to successively conclude all business and were able to enjoy a visit to the Phu Quoc demonstration site. Thanked the Chairman of the People's Committee for his support, as well as representatives of the Department of Natural Resources and Environment of Kien Giang Province, and other relevant agencies. On behalf of the Project Director he thanked members for their hard work and continued support to the project. He wished everyone a safe trip to their home countries and thanked the Programme Assistant, Khun Unchalee for her support to the meeting.
- 15.2 Mr. Vibol thanked Mr. Long for his support in organising the meeting. Mr. Long thanked Mr. Niem and the representatives of Hon Thom Commune for their assistance in organising the field trip and members for their hard work during the course of the meeting. Expressed a special thank you to the regional expert, Professor Chou for his guidance and advice. Thanked UNEP, in particular Khun Unchalee.

List of Participants

Focal Points

Cambodia

Mr. Ouk Vibol
Deputy Chief of Fishery Conservation
Fisheries Administration
Ministry of Agriculture, Forestry, and Fisheries
186 Norodom Boulevard
PO Box 582, Phnom Penh, Cambodia

Tel: (855 23) 216 244 Mobile: (855) 12 836 376 Fax: (855 23) 221 485 E-mail: aims1@online.com.kh

Philippines

Dr. Porfirio M. Aliño Marine Science Institute University of the Philippines Diliman, Quezon City 1101 Philippines

Tel: (632) 922 3949; 922 3921 Mobile: (63) 917 838 7042 Fax: (632) 924 7678

E-mail: pmalino@upmsi.ph; pmalino2002@yahoo.com

Viet Nam

Mr. Nguyen Van Long Master of Marine Biology and Deputy Head Department of Marine Living Resources Institute of Oceanography 01 Cau Da Street Nha Trang City, Viet Nam

Tel: (84 58) 590 205 Fax: (84 58) 590 034 E-mail: nvanlong@dng.vnn.vn

Indonesia

Dr. Suharsono
Puslit OSEANOGRAFI–LIPI
Head of Research Center for Oceanography - LIPI
Pasir Putih 1 Ancol Timur
Jakarta UTARA, Indonesia

Tel: (62 21) 64712287; 3143080 ext. 102

Mobile: (62) 0811 904806

Fax: (62 21) 6471 1948; (681 948); 327958 E-mail: shar@indo.net.id; director-co@indo.net.id

yos103@yahoo.com

Thailand

Dr. Thamasak Yeemin Marine Biodiversity Research Group Department of Biology, Faculty of Science Ramkhamhaeng University Huamark, Bangkapi Bangkok 10240, Thailand

Tel: (66 2) 3108415

Fax: (66 2) 310 8415; 319 4358 E-mail: thamsakyeemin@yahoo.com

Expert Members

Prof. Dr. Chou Loke Ming Department of Biological Sciences National University of Singapore Faulty of Science 14 Science Drive 4 Singapore 117543

Tel: (65) 6516 2696 Mobile: (65) 9734 9863 Fax: (65) 6779 2486 E-mail: dbsclm@nus.edu.sg UNEP/GEF/SCS/RWG-CR.8/3 Annex 1 Page 2

Observers

Ms. Makamas Sutthacheep, Researcher Marine Biodiversity Research Group Department of Biology, Faculty of Science Ramkhamkaeng University Huamark, Bangkapi Bangkok 10240, Thailand

Tel: (66 2) 310 8415

Fax: (66 2) 310 8415; 319 4358 E-mail: msutthacheep@yahoo.com

Project Co-ordinating Unit Member

Dr. Vo Si Tuan, Senior Expert UNEP/GEF Project Co-ordinating Unit United Nations Environment Programme United Nations Building, 2nd Floor, Block B Rajdamnern Nok Avenue Bangkok 10200, Thailand

Tel: (66 2) 288 2084 (66 2) 288 1094 Fax: E-mail: vo@un.org

Project Co-ordinating Unit

Mr. Christopher Paterson, Expert-Fisheries **UNEP/GEF Project Co-ordinating Unit** United Nations Environment Programme United Nations Building, 2nd Floor, Block B Rajdamnern Nok Avenue Bangkok 10200, Thailand

Tel: (66 2) 288 1116 (66 2) 288 1094 Fax: E-mail: patersonc@un.org

Ms. Unchalee Pernetta, Programme Assistant **UNEP/GEF Project Co-ordinating Unit** United Nations Environment Programme United Nations Building, 2nd Floor, Block B Rajdamnern Nok Avenue Bangkok 10200, Thailand

Tel: (66 2) 288 1670 (66 2) 288 1094 Fax:

E-mail: kattachan.unescap@un.org

List of Documents

Disc	ussion	document	s

UNEP/GEF/SCS/RWG-CR.8/1 Agenda.

UNEP/GEF/SCS/RWG-CR.8/2 Annotated Agenda.
UNEP/GEF/SCS/RWG-CR.8/3 Report of the Meeting.

UNEP/GEF/SCS/RWG-CR.8/4 Current Status of Budgets and Administration Reports from

the Specialised Executing Agencies in the Participating

Countries.

UNEP/GEF/SCS/RWG-CR.8/5 Status of the Substantive Outputs from the Specialised

Executing Agencies for the Coral Reef Sub-component of

the UNEP/GEF South China Sea Project.

UNEP/GEF/SCS/RWG-CR.8/6-Bel Report of the Progress in the Implementation and

Achievements to Date of the Belitung Demonstration Site.

UNEP/GEF/SCS/RWG-CR.8/6-Mas Report of the Progress in the Implementation and

Achievements to Date of the Masinloc Demonstration Site.

UNEP/GEF/SCS/RWG-CR.8/6-KC Report of the Progress in the Implementation and

Achievements to Date of the Koh Chang Demonstration Site.

UNEP/GEF/SCS/RWG-CR.8/6-PQ Report of the Progress in the Implementation and

Achievements to Date of the Phu Quoc Demonstration Site.

UNEP/GEF/SCS/RWG-CR.8/6-NH Report of the Progress in the Approval and Implementation

of the Ninh Hai Demonstration Site.

UNEP/GEF/SCS/RWG-CR.8/7 Revised Draft Strategic Action Programme (draft 1).

UNEP/GEF/SCS/RWG-CR.8/8 Total Economic Values of Coral Reef Habitats and Cost-

effectiveness of the Actions Proposed in the Strategic Action

Programme.

UNEP/GEF/SCS/RWG-CR.8/9 Draft Work Plan and Timetable for the Regional Working

Group on Coral Reefs, 2007 to 2008.

Information documents

UNEP/GEF/SCS/RWG-M.8/Inf.1 List of Participants.
UNEP/GEF/SCS/RWG-M.8/Inf.2 List of Documents.
UNEP/GEF/SCS/RWG-M.8/Inf.3 Programme.

The following documents are supplied in published form.

UNEP/GEF/SCS/RTF-E.7/3 Reversing Environmental Degradation Trends in the South

China Sea and Gulf of Thailand. Report of the Seventh Meeting of the Regional Task Force on Economic Valuation.

UNEP/GEF/SCS/RTF-E.7/3.

UNEP/GEF/SCS/RTF-E.6/3 Reversing Environmental Degradation Trends in the South

China Sea and Gulf of Thailand. Report of the Sixth Meeting of the Regional Task Force on Economic Valuation.

UNEP/GEF/SCS/RTF-E.6/3.

UNEP/GEF/SCS/PSC.6/3 Reversing Environmental Degradation Trends in the South

China Sea and Gulf of Thailand. Report of the Sixth Meeting of the Project Steering Committee. UNEP/GEF/SCS/

PSC.6/3.

Page 2 UNEP/GEF/SCS/RSTC.7/3 Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand. Report of the Seventh Meeting of the Regional Scientific and Technical Committee. UNEP/GEF/SCS/RSTC.7/3. UNEP/GEF/SCS/RWG-F.8/3 Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand. Report of the Eighth Meeting of the Regional Working Group on the Fisheries Component. UNEP/GEF/SCS/RWG-F.8/3. UNEP/GEF/SCS/RTF-L.5/3 Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand. Report of the Fifth Meeting of the Regional Task Force on Legal Matters. UNEP/GEF/ SCS/RTF-L.5/3. UNEP/GEF/SCS/RWG-M.7/3 Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand. Report of the Seventh Meeting of the Regional Working Group on the Mangroves Sub-component. UNEP/GEF/SCS/RWG-M.7/3. UNEP/GEF/SCS/RTF-E.5/3 Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand. Report of the Fifth Meeting of the Regional Task Force on Economic Valuation. UNEP/GEF/SCS/RTF-E.5/3. UNEP/GEF/SCS/RWG-LbP.7/3 Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand. Report of the Seventh Meeting of the Regional Working Group on the Land-based Pollution Component. UNEP/GEF/SCS/RWG-LbP.7/3. Reversing Environmental Degradation Trends in the South UNEP/GEF/SCS/RWG-SG.7/3 China Sea and Gulf of Thailand. Report of the Seventh Meeting of the Regional Working Group on the Seagrass Sub-component. UNEP/GEF/SCS/RWG-SG.7/3. UNEP/GEF/SCS/RWG-CR.7/3 Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand. Report of the Seventh Meeting of the Regional Working Group on the Coral Reefs Sub-component. UNEP/GEF/SCS/RWG-CR.7/3. UNEP/GEF/SCS/RWG-W.7/3 Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand. Report of the Seventh Meeting of the Regional Working Group on the Wetland Subcomponent, UNEP/GEF/SCS/RWG-W.7/3. UNEP/GEF/SCS/RWG-F.7/3 Reversing Environmental Degradation Trends in the South

> China Sea and Gulf of Thailand. Report of the Seventh Meeting of the Regional Working Group on the Fisheries

Component. UNEP/GEF/SCS/RWG-F.7/3.

UNEP/GEF/SCS/RWG-CR.8/3

Annex 2

Agenda

- 1. OPENING OF THE MEETING
 - 1.1 Welcome Address on behalf of UNEP
 - 1.2 Opening Statement by the Representative of the Phu Quoc District Government
 - 1.3 Introduction of Participants
- 2. ORGANISATION OF THE MEETING
 - 2.1 Election of Officers
 - 2.2 Documentation and Administrative Arrangements
- 3. ADOPTION OF THE MEETING AGENDA
- 4. STATUS OF THE ADMINISTRATIVE REPORTS FOR 2006: PROGRESS REPORTS; EXPENDITURE REPORTS; AND AUDIT REPORTS
- 5. STATUS OF THE SUBSTANTIVE OUTPUTS
 - 5.1 Publication of National Reports in National Languages and English
 - 5.2 Status of Finalisation, Adoption and Implementation of the National Action Plans
 - 5.3 Update of the Regional Meta-database and GIS Database, and Use of the Project Website
- REVIEW OF THE TRAINING COURSE ON CORAL REEF AND SEAGRASS MANAGEMENT
 - 6.1 Status of Preparation of and Materials for the Training Course
 - 6.2 Organisation of, and support to the National Echo-seminars
- 7. PROGRESS IN THE IMPLEMENTATION AND MID-TERM EVALUATION OF THE DEMONSTRATION SITE ACTIVITIES
 - 7.1 Belitung, Indonesia
 - 7.2 Masinloc, Philippines
 - 7.3 Koh Chang, Thailand
 - 7.4 Phu Quoc, Viet Nam
 - 7.5 Ninh Hai MSP, Viet Nam
- 8. FINALISATION OF THE REGIONAL STRATEGIC ACTION PROGRAMME (SAP)
 - 8.1 Finalisation of Inputs from the Regional Working Group on Coral Reefs to the Revised SAP
 - 8.2 National Workshop to Consider the Revised SAP
- 9. CONSIDERATION OF THE TOTAL ECONOMIC VALUES FOR CORAL REEFS DETERMINED BY THE REGIONAL TASK FORCE ON ECONOMIC VALUATION AND THE OUTCOMES OF THE COST BENEFIT ANALYSIS OF ACTIONS DETAILED IN THE SAP
- 10. PREPARATION FOR THE THIRD REGIONAL SCIENTIFIC CONFERENCE AND MAYOR'S ROUND TABLE
- 11. WORK PLAN AND ACTIVITIES OF THE REGIONAL WORKING GROUP ON CORAL REEFS
 - 11.1 Work Plan for 2007 2008
 - 11.2 Maintenance of the Network and Project Benefits after June 2008
- 12. DATE AND PLACE OF THE NINTH MEETING OF THE REGIONAL WORKING GROUP ON CORAL REEFS
- 13. ANY OTHER BUSINESS
- 14. ADOPTION OF THE REPORT OF THE MEETING
- 15. CLOSURE OF THE MEETING

Revised Parameters for inclusion in the Coral Reef Sub-component of the Regional GIS Database

BACKGROUND

Based on provision of GIS data from the participating countries during the preparatory phase of the South China Sea Project the regional GIS database was developed. Review of the coral reef component of the GIS database indicated that limited data appeared to be available for numerous fields in the database. It was agreed that the group should collectively review the database in order to identify data fields for which data will not likely become available for in the foreseeable future. There followed a lengthy discussion regarding data availability in the participating countries the Regional Working Group on Coral Reefs agreed that the parameters should be revised and Focal Points would contribute new or/and update GIS data for improvement of quality of the regional GIS database following revised parameters.

REVISED PARAMETERS OF THE CORAL REEF COMPONENT OF THE GIS DATABASE

No.	Parameter	No.	Parameter
1	Reef Type	26	Number of rare species
2	Mean Depth	27	Number of critically Endangered species (CR)
3	Maximum Depth	28	Number of endangered species (EN)
4	Average cross sectional slope	29	Number of vulnerable species
5	Present (Year 2000) Area	30	Existing international recognition
6	Number of coral zone (by dominant species)/ or coral communities	31	Long-term management plans
7	Number of hard coral genera	32	Medium-term management plans
8	Number of hard coral species	33	Short-term management plans
9	Number of soft coral genera	34	Existing MPA status (National Category)
10	Hard coral diversity index	35	Existing MPA status (IUCN Category)
11	Live coral cover (all species)	36	Management or preservation activities on site
12	Change in live coral cover over last decade (all species)	37	Existing level and quality of site management
13	Percent algae cover	38	Existing support to institutional management
14	Change in algae cover area over time	39	Long-term sustainability including prospects for revenue generation
15	Benthic molluscs density (RC indicators)	40	Potential aspects that can be developed wisely in the site
16	Crustacean density (RC indicators)	41	Average level of direct stakeholder involvement in management
17	Echinoderm density / Sea Cucumber	42	Destructive harvesting Bombing
18	Echinoderm density / Sea Urchin	43	Destructive harvesting Poisoning
19	Number of coral reef fish genera	44	Destructive harvesting Bottom trawl
20	Number of coral reef fish species	45	Destructive harvesting Other
21	Coral reef fish density	46	Pollution Sedimentation
22	Number of sea turtle species	47	Pollution Organic pollutants
23	Major exploited species group & level of exploitation	48	Pollution Eutrophication
24	Number of other ecosystems interact with this coral reef	49	Pollution Salinity range change
25	Number of endemic species	50	Pollution Thermal range change

No.	Parameter	No.	Parameter
51	Pollution Other	71	Current use Commercial Fisheries
52	Coastal development - Dredging	72	Current use Subsistence
53	Coastal development - Tourism	73	Current use Fishing ground
54	Natural disaster Storm	74	Current use Tourism
55	Natural disaster Volcano	75	Current use MPA
56	Natural disaster Bleaching of coral	76	Current use Other
57	Starfish Crown of Thorn	77	Traditional use
58	Bleaching event	78	Potential use Tourism
59	Development Plan	79	Potential use MPA
60	Social and economic drivers of change in environmental state - Population growth	80	Potential use Other
61	Social and economic drivers of change in environmental state - Resident human population	81	Extractive use Reef related fish landing value
61	Ownership	82	Extractive use Subsistence fishery value
63	Management regime Land-use planning	83	Non-extractive use - Tourism Number of visitors
64	Management regime Coastal zoning	84	Non-extractive use - Tourism Number of people involved in Tourism industry
65	Management regime Institutional framework	85	Non-extractive use - Tourism Number of chalets/hotels operators
66	Management regime Stakeholder co- ordination	86	Non-extractive use - Tourism Number of ferry/boats operators
67	Management regime Restoration	87	Non-extractive use - Tourism Number of guide/agents
68	Management regime Stakeholder investment	88	Non-extractive use - Tourism Other
69	Management regime Fishery practices	89	Environmental services Coastal protection value
70	Management regime Other	90	Environmental services Reduction of wave energy & erosion value
		91	Environmental services Other

Revised Programme for the "UNEP-GEF-SCS Regional Training Course on Management Models and Strategies for Coral Reefs and Seagrass" and Details of the Proposed National Echo-seminars

BACKGROUND

The Regional Scientific and Technical Committee recommended and the Project Steering Committee agreed to offer a combined course covering the management of both coral reef and seagrass habitats. The Marine Science Institute of the University of the Philippines (MSI) proposal has been accepted by the RSTC with the suggestion that a greater number of regional experts be involved as resource persons for the delivery of the course.

The training course is entitled "UNEP-GEF-SCS Training Course on Management Models and Strategies for Coral Reef and Seagrass Ecosystems". Originally this had been planned to be conducted from 9th – 21st April 2007, but the dates have been changed to 29th October – 10th November 2007.

Trainees attending the regional training courses are expected to conduct "National Echo-seminars" over a 1 to 3 days period following the completion of the regional training course, and the Specialised Executing Agencies and the Focal Points for the corresponding sub-component of the project are expected to provide logistic support to those seminars.

REVISED PROGRAMME FOR THE REGIONAL TRAINING WORKSHOP

Table 1 Revised Programme for the Regional Training Workshop on Management Models and Strategies for Coral Reefs and Seagrass.

DAY & MODULE NO.	ACTIVITY/ SUBTOPIC	PERSON(S) RESPONSIBLE	TASK/RESPON- SIBILITY	LOGISTICS, MATERIALS NEEDED
DAY 1 Module 1: Overview of Coral Reef & Seagrass Ecosystems (4.5 hrs)	 Biology, ecology and distribution Coastal profiling Regional scenarios and issues Overview of the South China Sea Project and Coral Reef/ Seagrass Demonstration Sites 	M.D. Fortes, P.M. Aliňo, Dr. Vo Si Tuan (tentative)	Lectures, workshop	LCD projector
DAY 2 Module 2: Habitat & Resource Assessment & Monitoring (8 hrs)	Community ecology Techniques for coral reefs and seagrass assessment & monitoring Remote sensing	P.M. Aliňo, E.G. Fortes, M.D. Fortes, H. Nacorda, P.R. Rigby	Lecture, practicum, workshop	LCD projector, specimen collection and herbarium materials, assessment tools
DAY 3 Module 2 (con't)	Analysis and interpretation for management Herbarium preparation	P.M. Aliňo E.G. Fortes E.C. Paringit	Lecture, practicum Lecture	LCD projector LCD projector
(AM, 4 hrs)	Data management (conceptual diagrams)	C. Patterson		
(PM, 5 hrs)	(Field Trip)	Res Persons, Staff	Boat, vehicle arrangements	boat travel, snorkeling gear
DAY 4 Module3: Participatory Coastal Resources Assessment (6 hrs)	Concept & practice of PCRA; Case presentations on PCRA	P.M. Aliňo, R.N. Rollon	Lecture, Case Study Presentation	LCD projector, basic office equipment and materials

Table 1*cont.* Revised Programme for the Regional Training Workshop on Management Models and Strategies for Coral Reefs and Seagrass.

DAY & MODULE NO.	ACTIVITY/ SUBTOPIC	PERSON(S) RESPONSIBLE	TASK/RESPON- SIBILITY	LOGISTICS, MATERIALS NEEDED
Module 4: Coastal Resources Management Plan Preparation and Adoption (8 hrs)	 The CBCRM: 2.CRM Planning: Goals & objectives Regional issues CBCRM aims to address Regional & national CBCRM models: case studies Coastal zoning and harmonization of resource uses Special requirements of developing countries 	A.J.Menez	Lecture, case study presentation	LCD projector, basic office equipment and materials
Module 5: Corals &	Coral transplantation Seagrass transplantation Restoration in Marine Protected Areas	M.D. Fortes, A.J. Menez, R.N. Rollon, Dr. Thamasak Yeemin	Lecture, case study presentation, workshop	LCD projector, basic office equipment & materials
Module 6: Legal & Institutional Arrangements	 Institutional & policy analyses; Co-management arrangements & relations; Alternative dispute resolution Transparency, accountability & participatory decision-making 	G. Mayo-Anda	Lectures, case study presentation, workshop, RTF-L materials	LCD projector, basic office equipment & materials
Module 7: Enforcement, Compliance & Performance Monitoring (8 hrs)	 Definition of management units Registry of municipal fishers & boats; licensing of gears Patrolling system including arrest, filing of cases, etc Status & progress of coastal law enforcement activities Inter-LGU & Municipal Monitoring, Control & Surveillance Committee 	G. Mayo-Anda	Lectures, case study presentation	LCD projector, basic office equipment & materials
DAY 9 Module 8: Exposure Trip (1-1.5 days)	Actual site visit & sharing sessions (visit to Batangas and Masinloc Demo Sites)	S.G. Salmo III	Field visit, sharing and interaction sessions with host LGUs	Bus hire, LCD projector, basic office equipment & materials
	Developing criteria for identifying viable livelihood options Resource-linked livelihood Sea ranching and seaweed farming	A.J. Menez, E.G. Fortes	Lecture	LCD projector, basic office equipment & materials
Module 10: Sustainable	Cost-benefit analysis Cost-revenue analysis Sustainable financing	D. McGlone, Noel Padila	Lecture, workshop	LCD projector, basic office equipment & materials
Module 11: Monitoring &	Monitoring & evaluation methodologies, Performance monitoring	P.M. Aliňo, M.D. Fortes, Dr. Vo Si Tuan (tentative)	Lecture, case study presentation, workshop	LCD projector, basic office equipment & materials
Module 12: Social Marketing, IEC & Capacity	Dynamics of participation Social marketing; IEC; Capability building	S. Vergara, M.D. Fortes	Lecture, case study presentation, workshop	LCD projector, basic office equipment & materials

PLANS FOR THE DELIVERY OF NATIONAL ECHO-SEMINARS

The regional working group discussed the timing, numbers of participants and location of the national echo seminars and the information is presented below as Table 1. The necessary budgets will be included in the amended budget for the third amendment to the Memoranda of Understanding.

Table 2 Details of planned national echo-seminars in each participating country.

Country	Date	Venue	NO DAYS	No. Participants	Focus	Proposed budget(US\$)
Cambodia	End Nov	Kampot (SG) Sihanoukville (CR)	3 days 3 days	15 15	Assessment, Monitoring & Community Based Management, Remote sensing, sustainable financing	2,543+2,543 = 5,086
Indonesia	Jan 2008	Belitung (CR)	2 days	25	Sustainable use and development of coral reefs. Focus on modules 4, 6, 7, 10, and 12 of regional training programme	7.500
Philippines	End Nov	Masinloc	3 days	54	Coral reef management, tourism and governance	4,108
Thailand	End Nov	Mu Koh Chang, Trat Province	2 days	38	Overview of coral reef ecosystem Techniques for coral reef assessment and monitoring Analysis and interpretation of data for management Coastal resources management plan Coral reef restoration Law enforcement, compliance and monitoring Sustainable financing: cost-revenue analyses Capacity building, education and public awareness	5,000
Viet Nam	End Dec	Nha Trang City	3 days	29	Sustainable use and development of coral reefs. Summary of regional training workshop to suit local conditions	4,850

The Revised Coral Reefs Component of the SAP as Amended by the RWG-CR-8

OVERVEW OF CORAL REEFS IN THE SOUTH CHINA SEA

Southeast Asia is recognised as the global centre of coral reefs, both in terms of extent and species diversity. An estimated 1/3 of the earth's coral reefs (91,700 per 284,300sq. km) are located in the seas of Southeast Asia (Burke *et al.*, in UNEP, 2004). Fringing reefs are well developed away from the major river estuaries, particularly in the Philippines and the central - southern areas of the South China Sea. All major reef types fringing, patch or platform reefs, and atolls occur in the South China Sea, with a total estimated reef area of the order of 10,000 km² (based on aggregation of national statistics - Spalding *et al.* 2001). Offshore, a series of large platform reefs and atolls are developed; the most famous being the Spratly Islands, the Tung-Sha Reefs and the Paracel Islands. These oceanic reefs are highly diverse and are thought to play a key role in the maintenance and replenishment of regional biodiversity, and may be particularly important in the replenishment of populations of some harvested species, such as the giant groupers.

If coral reefs are the most diverse tropical marine ecosystem on earth, then the Indo-Pacific in general and the South China Sea in particular are home to the most diverse coral reef ecosystems. The South China Sea is considered as the area with the highest diversity of hermatypic corals in the world (Veron, 1995). More than 70 hermatypic coral genera are recorded from the reefs of the South China Sea and hotspots of coral species diversity occur at Nha Trang (Viet Nam) with 351 species and El Nido (Palawan, Philippines) with 305 species. Records of more than 200 species occur in a number of sites in Viet Nam, Indonesia, and the Philippines (UNEP, 2004).

Coral reefs are an important marine ecosystem and habitat that provide nurseries and breeding grounds for coral reef associated species and some pelagic and migratory species. Like an oasis in the ocean, coral reefs serve as aggregation points for schools of migratory pelagic fish and as much as a quarter of the diet of pelagic and migratory species such as the yellow fin tuna (*Thunnus albacares*) is from reef-associated organism (Grandperin, 1978). The high species richness of corals and reef-associated fauna and flora in the South China Sea makes this area a valuable source of genetic and biochemical materials.

THREATS TO CORAL REEFS BORDERING THE SOUTH CHINA SEA

Not only are the coral reefs in South East Asia the most biologically diverse and productive reef ecosystems in the world but, they are also the most threatened and damaged reefs, with unprecedented rates of coral reef destruction from anthropogenic pressures that have accelerated over recent decades (Tun et al., 2004). The Regional Working Group on Coral Reefs, identified regionally significant threats to coral reefs in the South China Sea, as being overfishing, use of destructive fishing techniques, pollution (mainly eutrophication) and sedimentation. Indirect causes of these threats are unsustainable practices in the fisheries sector, coastal development, deforestation and unsustainable tourism. Coral bleaching is considered as a serious natural threat to coral reefs in the region.

Table 1 presents the threats ranked for each country from 1 to 9, with 1 the most, and 9 the least serious. The ratio of the coral reef area in each country compared to the total area was used to weight the individual country ranks resulting in a regional weighted score suggesting that on a regional scale the most serious is overfishing; followed by destructive fishing; sedimentation; pollution; unsustainable fisheries practices; coastal development; coral bleaching; unsustainable tourism; and finally deforestation on upland areas.

THE MANAGEMENT STATUS OF CORAL REEFS BORDERING THE SOUTH CHINA SEA

Based on the provision of data by the Focal Points of the participating countries a total area of 749,505ha of coral reefs were identified in six countries as follows: Cambodia, 2,807ha; Indonesia, 39,287ha; Malaysia, 43.411ha; Philippines, 464,000ha; Thailand, 90,000ha; and Viet Nam, 110,000ha.

Table 1 Prioritisation of the threats to coral reefs bordering the South China Sea. [Weighted score based on country ranking and the ratio between coral reef area of the country and the total coral reef area of the South China Sea]

	Cam	Cambodia		Indonesia		Malaysia		Philippines		Thailand		Nam	Region
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Weighted Score
Direct threats													
Overfishing	1	0.4	1	5.2	5	29.0	1	61.9	7	84.07	1	14.69	195.2
Destructive fishing	2	0.7	2	10.5	2	11.6	2	123.8	5	60.05	2	29.38	236.1
Sedimentation	5	1.9	4	21.0	1	5.8	3	185.7	4	48.04	3	44.04	306.4
Pollution (Eutrophication)	4	1.5	5	26.2	4	23.2	5	309.6	6	72.06	4	58.72	491.2
Coral bleaching	8	3.0	3	15.7	7	40.5	9	557.2	1	12.01	5	73.4	701.8
Indirect threats													
Unsustainable fisheries and aquaculture	3	1.1	8	41.9	9	52.1	4	247.6	8	96.08	8	117.4	556.3
Coastal development	6	2.2	7	36.7	6	34.7	6	371.5	3	36.03	6	88.08	569.2
Unsustainable tourism	9	3.3	9	47.2	3	17.4	8	495.3	2	24.02	9	132.1	719.3
Deforestation on upland areas	7	2.6	6	31.4	8	46.3	7	433.4	9	108.09	7	102.8	724.6
Total area of coral reefs in the SCS geographic region	2,8	307	39,	287	43	,411	464	,000	90	,000	110	,000	749,505
Ratio in comparison with total coral reef area of the SCS	0.	.37	5.:	24	5	.79	61	.91	1:	2.01	14	.68	

Table 2 provides in details management status of target sites of coral reefs bordering the South China Sea, including *inter alia* management legal status and effectiveness. Table 3 presents general status of coral reef management in the South China Sea geographic region of the six countries based on information assembled for 83 individual coral reef areas. In the case of Cambodia, Indonesia, Malaysia and Thailand, the total coral reef area is estimated as being the same as these areas of targeted sites.

The area of coral reefs in the 83 target coral reef sites is 217,407ha (29% of the total area in the South China Sea), of which 100,243ha (13% of the total area) is under management at the present time. In term of management effectiveness only around 5% of this area is considered as being under successful management. For 29% of the sites management effectiveness is considered low, whilst around 13% is not under any form of management. The area to be added to the total area managed sustainably by the year 2015 is 53,577ha, thereby increasing the total area under sustainable management to 153,820ha which represents 20% of the total reef area of the South China Sea or 71% of the area of the target sites.

Coral reef monitoring has expanded over more than last ten years in most countries bordering the South China Sea and provided technical baselines for long-term coral reef management (Tun et al., 2004). The data obtained in the framework of the Global Coral Reef Monitoring Network (GCRMN) indicated that the percentage of reefs in Southeast Asia countries had declined in state from one quartile category to a lower one, equivalent around 16%, during the period of 1994 – 2004.

It was noted that setting a target for the total area under management did not represent a target for the state of the reef although it could be assumed that those under management would, depending on the management regime, be more likely to sustain their biological diversity than those that were not under management. Therefore, the Regional Working Group on Coral Reefs considered an additional target related to the reduction of degradation rate. The focal points of participating countries agreed that improvement of coral reef management in next ten year could support to reduce decadal degradation rate of coral reefs in their countries, resulting in a regional estimation as around 5%. The regional assessment of coral reef status for the next period to 2014 following the GCRMN plan will enable to follow up this expectation and evaluate management effectiveness during implementing the revised SAP.

Table 2 Management Status of Coral Reef Sites in the South China Sea.

Country & Site Name	Area (ha)	Live Coral Cover (%)	Management legal status	Area under Management (ha)	Management Effectiveness ¹	
Cambodia	2,807			293		
Koh Kong	73	47	Fisheries Management Area (FMA)		Low	
Koh Sdach	529	29	Proposed MPA		Low	
Koh Rong	468	23	Proposed MPA		Low	
Koh Takiev	293	58	National Park	293	Medium	
Koh Tang	439	38	FMA		Low	
Prek Ampil	953	53	FMA		Low	
Koh Pouh	53	41	FMA		Low	
Indonesia	39,287			12,511		
Anambas	6,255	52	Marine Management Area (MMA)	6,255	Low	
Bangka	2,934	37	MMA	2,934	Medium	
Belitung	2,271	52	MMA	2,271	Low	
Karimata	1,041	53	Marine Reserve	1,041	Medium	
Senayang Lingga	4,735	37				
Barelang dan Bintan	6,145	44				
Natuna	15,905	31				
Malaysia	44,276			28,779		
Pulau Redang	2,550		Marine Park	1,658	High	
Pulau Lima	878		Marine Park	571	High	
Pulau Ekor Tebu	812		Marine Park	528	High	
Pulau Pinang	978		Marine Park	636	High	
Pulau Perhentian Kecil	1,621		Marine Park	1,054	Medium	
Pulau Perhentian Besar	1,824		Marine Park	1,186	Medium	
Pulau Lang Tengah	1,230		Marine Park	800	Medium	
Pulau Susu Dara	286		Marine Park	186	Medium	
Palau Tenggol	480		Marine Park	312	Low	
Palau Nyireh	288		Marine Park	187	Low	
Pulau Kapas	427		Marine Park	277	Medium	
Pulau Tioman	5,023		Marine Park	3,265	Medium	
Pulau Labas	896		Marine Park	582	Medium	
Pulau Sepoi	891		Marine Park	579	Medium	
Pulau Gut	904		Marine Park	588	Medium	
Pulau Tokong Bahara	903		Marine Park	587	Medium	
Pulau Chebeh	898		Marine Park	584	Medium	
Pulau Tulai	1,272		Marine Park	827	Medium	
Pulau Sembilang	1,212		Marine Park	788	Medium	
Pulau Seri Buat	1,544		Marine Park	1,004	Medium	
Pulau Rawa	1,016		Marine Park	660	Medium	

¹ Categories of Management Effectiveness: Low: Area declared or proposed to be declared for management; Management Plan developed and approved. Medium: Existing Management Framework is implemented with inadequacy of manpower, finance and/or equipment: High: Existing Management Framework is implemented with enough trained manpower, equipment, facilities and sustainable finance.

Table 2 cont. Management Status of Coral Reef Sites in the South China Sea.

Country & Site Name	Area (ha)	Live Coral Cover (%)	Management type	Area under Management (ha)	Management Effectiveness
Pulau Hujung	1,047		Marine Park	681	Medium
Pulau Tengah	1,030		Marine Park	669	Medium
Pulau Besar	1,683		Marine Park	1,094	Medium
Pulau Tinggi	2,036		Marine Park	1,323	Medium
Pulau Aur	1,949		Marine Park	1,267	Low
Pulau Pemanggil	1,758		Marine Park	1,143	Low
Pulau Harimau	980		Marine Park	637	Medium
Pulau Gual	914		Marine Park	594	Medium
Pulau Mensirip	932		Marine Park	606	Medium
Pulau Sibu	852		Marine Park	554	Medium
Pulau Sibu Hujung	237		Marine Park	154	Medium
Pulau Mentinggi	880		Marine Park	572	Medium
Pulau Segantang	884		Marine Park	574	Medium
Pulau Kuraman	1,339		Marine Park	870	Low
Pulau Rusukan Besar	894		Marine Park	581	Low
Pulau Rusukan Kecil	930		Marine Park	605	Low
Philippines	464,000			2,390	
Batanes	2,050	55	Protected Land/Seascape	40	Medium
Bolinao/Lingayen Gulf	9,560	40	Municipal Coastal Development Plans & National Park	750	Medium
Masinloc, Zambales	2,000	31	Protected Land/Seascape & Fish Sanctuary	120	Medium
Batangas Bay, Maricaban Strait	100	52	Marine Tourism Reserve	80	Medium
Puerto Galera, Mindoro	48	22	Man & Biosphere Reserve	20	Medium
Calamianes Group of Islands	18,200	29		300	
El Nido, Palawan	4,250	21	Marine Park	1,000	Medium
Port Barton	454	38.2		80	
Balabac	2,500		Environmental Critical Protection Zone		low
Thailand	90,000			54,000	
Mu Koh Chumporn	7,790	55	National Park	7,360	Medium
Mu Koh Chang	18,670	40.0	Marine National Park	11,780	Medium
Mu Koh Ang Thong	5,110	55.0	Marine National Park	5,110	Medium
Mu Koh Samui	38,990	40.0	Marine National Park	22,770	Low
Mu Koh Samet	4,200	35.0	Marine National Park	3,240	Medium
Sichang Group	760	20.0	None	0	
Sattaheep Group	1,670	33.0	Navy Control Area	1,320	Low
Lan and Phai Group	3,910	18.0	Navy Control Area	1,200	Low
Chao Lao	860	30.0	None	0	
Prachuab	2,450	40.0	Marine National Park	270	Low
Koh Tao Group	2,300	45.0	None	0	
Song Khla	1,200	20.0	None	0	
Koh Kra	670	40.0	None	0	
Losin	950	40.0	Navy Control Area	950	Low

Table 2 cont.	Management Status of Coral Reef Sites in the South China Sea.
i abie z cont.	ivialiayement Status of Coral Neel Sites in the South China Sea.

Country & Site Name	Area (ha)	Live Coral Cover (%)	Management type	Area under Management (ha)	Management Effectiveness
Viet Nam	110,000			2,270	
Cu Lao Cham	200.0	34	MPA	100	Medium
Nha Trang bay	570.0	26	MPA	100	Medium
Con Dao	1,000.0	23	National Park	1,000	Medium
Phu Quoc	600.0	42	Proposed MPA	0	Low
Ninh Hai	1,070.0	37	Proposed MPA & Community -based Management	1,070	Medium
Ca Na bay	2,270.0	41	Proposed MPA	0	Low
Ha Long - Cat Ba	N/A	43	World Heritage & National Park	No Available	Medium
Hai Van - Son Tra	N/A	51	Proposed MPA	0	Low
Bach Long Vi	N/A	22	Proposed MPA	0	Low

Table 3 Status of Coral Reef Management in the South China Sea biographic region of the participating countries.

	Cambodia	Indonesia	Malaysia	Philippines	Thailand	Viet Nam	Total
Total coral reef area in the South China Sea (ha)	2,807	39,287	43,411	464,000	90,000	110,000	749,505
Total coral reef area of the 83 target sites	2,807	39,287	43,411	36,662	89,530	5,710	217,407
Coral reef area under existing management at the 83 sites	293	12,511	28,779	2,390	54,000	2,270	100,243
Number of target sites with management information	7	7	37	9	14	9	83
No. of sites with low management effectiveness	6	2	7	1	4	4	24
No. of sites with medium management effectiveness	1	2	26	6	4	5	44
No. of sites with high management effectiveness	0	0	4	0	0	0	4
Existing management types ²	FMA, MPA, NP	MMA, MR	MP	PLS, MCDP, MTS, MBR, ECPZ	NP, MNP, NCA,	MPA, NP, CBM, WH	
Target area to be added for management by 2015 (ha)	1965	5,580	14,632	10,100	18,000	3,300	53,577
Total area to be under management by 2015 (ha)	2,258	18,091	43,411	12,490	72,000	5,570	153,820

TARGETS

The specific targets for Coral Reef management are:

- By 2015, at least 70% of the existing area of coral reefs in the 83 target coral reef sites (153,000ha) to be put under an appropriate form of sustainable management
- By 2015, reduce the regional decadal rate of degradation in live coral cover from the present rate of 16% to 5%.

² Cambodia - FMA: Fisheries Management Area, MPA; Marine Protected Area, NP: National Park; Indonesia - MMA: Marine Management Area, MR: Marine Reserve; Malaysia - MP: Marine Park; Philippines - PLS: Protected Land/Seascape, MCDP: Municipal Coastal Development Plan, MTS: Marine Tourism Reserve, MBR: Man & Biosphere Reserve, ECPZ: Environmental Critical Protection Zone, Thailand - NP: National Park, MNP: Marine National Park, NCA: Navy Control Area; Viet Nam - MPA: Marine Protected Area, NP: National Park, CBM: Community-based Management, WH: World Heritage)

OBJECTIVES AND ACTIONS³

During the sixth meeting of the Regional Working Group on Coral Reefs (RWG-CR), a comparative analysis of the content of the National Action Plans was undertaken to identify common threats to the habitats and actions needed at the regional level. The seventh meeting of the RWG-CR reviewed and expanded the text, which is presented in Annex 6 of the meeting report (UNEP/GEF/SCS/RWG-CR.7/3). The RSTC, reviewed the proposed regional actions and suggested a re-arrangement of the order of components and actions, to ensure that the regional actions address the identified threats to coral reefs and improve the effectiveness of management. The eight meeting of the RWG-CR in Phu Quoc, Viet Nam, $4^{th} - 7^{th}$ June 2007 considered and revised proposed regional actions and estimated costs required for these actions as presented in Table 4.

A total of 37 regional actions are proposed under the coral reef sub-component of the revised SAP. The actions are allocated in four components as below.

1. Enhancement of Resource and Habitat Management

This component is divided into two sub-components. The first aims to promote good environmental governance and sustainable management of coral reef ecosystems. Regional actions focus on the review, synthesis, assessment and dissemination of good experiences and lesson learnt in the management of coral reefs. The second sub-component is to maintain a regional management framework to ensure the use of sound science in the sustainable management of coral reefs in the South China Sea. Regional actions include: maintenance of the regional expert group and coordinating mechanism, involvement and empowerment of stakeholders and communities and sharing experiences between countries on coral reef research and management.

2. Public Awareness, Communication and Education

The objective is to increase awareness of stakeholders regarding the ecological roles, economic values, and need for sustainable management of coral reefs. This component will facilitate the mainstreaming of information into educational programmes, develop information campaigns and sharing of training materials through the regional website.

3. Research and Monitoring

The component aims to provide relevant scientific data and information for sustainable management of coral reefs. A number regional actions are proposed to support the scientific community in: assessing status of coral reefs; monitoring biological and socio-economic factors; maintaining, updating GIS and meta-databases and disseminating information for management purpose; and developing mechanism in environment impact assessment in transboundary areas.

4. Sustainability and Capacity Building

The component is developed with the aim to improve regional capacity in management of transboundary issues regarding coral reefs. Some proposed actions are related to human resource development by exchanging experts, training trainers, sharing experiences in enforcement and developing capacity in fund raising and financial sustainability. Other actions focus on maintenance and improvement of the networks of demonstration sites, research centres and reef management agencies; and provision guideline for sustainable use of coral reefs and information on value added benefit derived from transboundary management of reefs.

³ The activities proposed in the coral reef sub-component focus on non-oceanic reef systems outside disputed areas in the coastal waters of the countries bordering the South China Sea.

Table 4 Regional actions and proposed cost of the coral reef sub-component in the revised SAP.

Regional Actions	Description	No.	Unit cost (USD)	Total (USD)
Component 1. Enhancement of Resource and Habitat Management Dijective 1. To promote good environmental governance and sustainable management of coral reef ecosystem 1.1.1 Review, synthesis and formulation of good practices in coral reef sustainable management 1.2. Assessment and advice of technique on enhancement and rehabilitation of coral reefs. 1.3. Review and formulation of good practices in community - based management activities at the region 1.4. Introduction of cost effective waste management and environment friendly systems 1.5. Synthesis of successes on alternative livelihood programmes, including funding mobilisation, technical supports 1.6. Review of existing transboundary management practices and identification of priorities in transboundary management zones Dijective 2. To Maintain of regional management framework to ensure the sue of sound science in the sustainal information used for coral reefs in the South China Sea 1.2.1 Regional coral reef expert group maintained to integrate research programmes and data and information used for coral reefs management practices in sustainable management processes on alternative livelihood programmes and data and information used for coral reefs in the South China Sea 1.2.1 Regional coral reef expert group maintained to integrate research programmes and data and information used for coral reef management practices and information used for coral reefs in the South China Sea 1.2.2 Monitor achievement of SAP targets and NAP objectives every 5 year period. 1.2.3 Synthesis of laws that contribute effectively to sustainable coral reef management practices 1.2.4 Regional coordinating mechanism to facilitate convergence of national and regional action plans. 1.2.5 Information exchange for promotion of stakeholder involvement in sustaining management. 1.2.6 Review of traditional value and knowledge, and application in coral reef management in the region				
Objective 1. To promote good environmental gove	rnance and sustainable ma	anagement of c	oral reef ecos	system
1.1.1 Review synthesis and formulation of good		20 parts.	310	62,000
	Consultancy	3pers/months	8,000	24,000
	Printing and distribution	200 copies	15	3,000
	Workshop, 3 days	20 parts.	310	18,600
	Consultancy	2pers/months	8,000	16,000
chilancement and renabilitation of coral recis.	Printing and distribution	200 copies	15	3,000
1.1.3 Review and formulation of good practices in				18,600
		•	8,000	16,000
region		200 copies	15	3,000
	Workshop, 3 days	20 parts.	310	18,600
and environment friendly systems	,	2 pers/month	8,000	16,000
		20 parts.	310	37,200
	Consultancy	2 pers/month	8,000	32,000
technical supports	Printing and distribution	200 copies	15	6,000
1 1 6 Review of existing transhoundary management	Workshop, 3 days	20 parts.	310	18,600
	Consultancy	2 pers./month	8,000	16,000
transboundary management zones	Printing and distribution	200 copies	15	3,000
management of coral reefs in the Sout	ramework to ensure the su h China Sea	e of sound scie	nce in the su	stainable
integrate research programmes and data and	Workshop, 3 days, 6 times	15 parts.	310	83700
objectives every 5 year period.	Consultancy	2 pers/month	9,000	36,000
	Workshop, 3 days	15 parts.	310	13,950
on rule and regulation for good management		3pers/months	8,000	24,000
	Workshop, 3 days, 2 times	15 parts.	310	27,900
plans.	Consultancy, 2 times	3pers/months	8,000	48,000
	Printing and distribution	400 copies	15	,
omponent 1. Enhancement of Resource and Habitat Molective 1. To promote good environmental governations of practices in coral reef sustainable management of practices in coral reef sustainable management of coral reefs. 1.2 Assessment and advice of technique on enhancement and rehabilitation of coral reefs. 1.3 Review and formulation of good practices in community - based management activities at the region of the re	Consultancy	1 per/month	8,000	8,000
	Consultancy	3pers/months	8,000	24,000
	Printing and distribution	200 copies	15	3,000
1.2.7 Establishment of recognition and award system	Workshop, 2 days	15 parts.	310	9,300
ior good management of coral reels.	Awards	6 units	6,000	36,000
1.2.8 Review of level of compliance to various int'l obligations and conventions pertaining coral reefs	Consultancy	1per/month	8,000	8,000
1.2.9 Exchange and sharing experience between nations on coral reef research and management.	Workshop, 3 days, 2 times	15 parts.	310	27,900

Table 4cont. Regional actions and proposed cost of the coral reef sub-component in the revised SAP.

	Regional Actions	Description	No.	Unit cost (USD)	Total (USD)				
	mponent 2. Public Awareness, Communication a iective: Increase awareness of stakeholders on the sustainable management		mic values of c	oral reefs, and	d need for				
		Development of materials	2 pers./month	7,000	28,000				
2.1	Facilitation of mainstreaming of regional coral reef information and education programme	Printing and distribution	400 copies	15	12,000				
	mormation and education programme	National workshop, 2 times	6 countries	2,000	24,000				
		Consultancy for material preparation for media launching, 2 times	1 per/month	8,000	16,000				
2.2	Development and launching of regional information campaigns for sustainable use of coral reefs.	Printing and dissemination of booklet, video		lump sum	10,000				
		Seminar, 2days*2 times	18 media practitioners	310	22,320				
2.3	Sharing training materials among the countries by dissemination through regional website.	No cost							
Coi Ob	mponent 3. Research and Monitoring jective: To provide relevant scientific data and in	formation for sustainable i	management of	coral reefs					
		Data collection, 2 times	6 countries	10,000					
3.1	Facilitation of and support to assess baseline information and status of coral reefs	Workshop, 3 days, 3 times	15	310	27,900				
	information and status of coral reets	Printing and distribution, 3 times	400 copies	15	18,000				
32	Facilitation of and support to regular biological and	Workshop 3 times 15 parts							
0.2	socio-economic monitoring	Financial support for target sites: 2 times	6 sites	5,000	60,000				
3.3	Analysis of regional socio-economic status and culture significance of coral reefs, to provide vital information for sustainable management and use of coral reefs	Workshop, 3days, 2 times	15 parts.	310	27900				
3.4	Management and update of coral reef GIS and other databases by SEA START RC.	Technical staff one month/year	10 years	1,000	10,000				
3.5	Prepare a base map of coral reefs in SCS and overlays to reflect indicators of sustainable management	Consultancy, 2 times	2 pers/month	7,000	28,000				
3.6	Regular analysis, synthesis and update of	Workshop, 3 days, 2 times	15 parts.	310	27,900				
	databases, and dissemination of information to general public, decision makers, governments, potential partners	Printing and distribution, 200copies		15	6,000				
3.7	Develop mechanism for analysis of impacts of different development scenarios on coral reef environment.	Consultancy, 2 times	2 pers/month	8,000	32,000				
3.8	Develop a research project regarding economic	Regional workshop, 2 times, 2 days	14 parts.	310	17,360				
	valuation of coral reefs in the South China Sea, focusing on indirect values	In-country field works, 6 countries, 5 sites	30 sites	2,000	60,000				
Col Obj	mponent 4. Sustainability and Capacity Building iective: To improve regional capacity in managen	nent of transboundary issu	ues regarding c	oral reefs					
		Experts, 10 days, 6	20pers/days	300	36,000				
4.1	Exchange of experts for human resource development in coral reef management.	Training course, 7 days, 10 pers.	70 pers/day * 6 countries		,				
	development in oordi reer management.	Travel of experts	2 experts	600	7,200				
		Administrative cost			4,410				
		Training, 6 days* 2 times	26 parts	310	96,720				
4.2	Conduct of training of trainers for coral reef management at regional level	Payment for trainers, 3 pers. 10 day	30 pers/days	300	,				
		Administrative cost			14,508				

Table 4cont. Regional actions and proposed cost of the coral reef sub-component in the revised SAP.

	Regional Actions	Description	No.	Unit cost (USD)	Total (USD)
4.3	Exchange of experiences regarding skill of law enforcement and exchange of information, compliance and effectiveness of enforcement	Workshop, 2 days	30 parts.	310	18,600
4.4	Review and formulation of mechanism for financial	Workshop, 2 days	30	310	18,600
	sustainability for application in the region.	Consultancy	2pers/month		16,000
4.5	Development of annualty in fundamining and	Workshop, 3 days	30 parts.	310	27,900
4.5	Development of capacity in fund raising and implementation of financial scheme for coordination of coral reef management	Payment for trainers, 1 pers. 4day	1 per/days	300	1,200
4.6	Strengthening network of marine research stations. Provision of directory of marine research station to the website	No cost			
4.7	Maintenance and enhancement of SCS facility for coordinating unit.	(To be added)			
4.8	Maintenance of demonstration site network through forum of local government officials, project management personnel from demonstration sites	2 fora, 3 days	30 parts.	310	55,800
4.9	Strengthening of network of research centres and reef management agencies in the region.; Provision of directory of research centres and reef management agencies to the website; Forum of research centres and reef management agencies	2 fora, 3 days	5 utilities * 6 countries	310	55,800
4.1	0 Development of guideline for sustainable use of	Consultancy	2 pers/month	8,000	16,000
	coral reefs	Printing & distribution	300 copies	15	4,500
4.1	1 Provision of information on value added benefit of	Workshop, 3 days	20 parts.	310	18,600
	enhancement of sustainable use derived from transboundary management of reefs	Consultancy	2 pers/month	8,000	16,000
Tot	al				1,711,818

ANNEX 7 Revised Format for the Collection of Data and Information on Economic Value of Coral Reefs in the South China Sea

	Date of Valuation	Location	Total CR Area (ha)	Volume (per ha)	Unit Net Price⁴	Currency⁵	Value (per ha)	Valuation Method ⁶	Remarks
Coral (building materials, curio trade)									
Reference A									
Reference B									
Reference C									
Echinoderm									
Reference A									
Reference B									
EXTRACTIVE USE									
Corals, building materials									
Echinoderm, sea urchin									
Echinoderm, sea cucumber									
Crustacean, lobster									
Algae									
Mollusks, pearl oyster									
Mollusks, cutterfish									
Mollusks, for food									
Aquarium invertebrate									
Curio trade (specify)									
Fish, for food									
Fish, for aquarium				-					
Sponge									
Bioactive substance									
Others (specify)				-					
Non-extractive Use									
Tourism/ recreation							_		

Unit net price is the market price minus harvesting and production cost.
 Currency used in original studies, references or publications.
 The valuation methods should include details of prices used.

	Date of Valuation	Location	Total CR Area (ha)	Volume (per ha)	Unit Net Price ⁷	Currency	Value (per ha)	Valuation Method ⁹	Remarks
Research & Education									
Mariculture (only on coral reefs, specify)									
Environmental Services									
Nursery ground									
Beach protection									
Carbon sequestration									
Climate change record									
Biological Diversity Services									
Biodiversity Storage									
Coral reef ecosystem									
Food storage for other biota									
Secondary producers									
Social/Cultural Significance									
Aesthetic									
Other uses (specify)									

Unit net price is the market price minus harvesting and production cost.
 Currency used in original studies, references or publications.
 The valuation methods should include details of prices used.

Framework Work Plan and Time Table for Coral Reef Sub-component to 31st December 2008

BACKGROUND

A review of the Project Document and the second MoU amendment indicates the main activities to be undertaken in the operational phase of the project including:

- 1. Completing any outstanding activities included in the original MoU;
- 2. Development, adoption, and implementation of national action plans for coral reefs;
- 3. Elaboration of Regional Strategic Action Programme;
- 4. Implementation of approved demonstration sites;
- 5. Implementation of the regional training programme.

Given that the project Steering Committee has decided to extend the project activities till June 2008, a third Amendment to the MOU will be prepared for extension of activities under the sub-component in each participating country.

The eighth meeting of the Regional Working Group on Coral Reefs developed a schedule for updating the regional GIS and Meta databases, the adoption of the NAPs, the elaboration of the SAP, the implementation of the approved demonstration sites, the implementation of the training programme, including the timing of the national echo-seminars, and publication of outstanding national reports of coral reefs for national dissemination.

The Tables 1 below represents the work plan and timetable indicating task required for 2007 – 2008. Table 2 represents the schedule of meeting for 2008.

Table 1 Work plan and timetable of the coral reef sub-component for 2007 – 2008.

		20	07			20	08	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
National Coral Reef Committee meetings								
National Technical Working Group meetings								
Meetings of RWG-CR		Х						
Complete outstanding tasks of the original MoU								
Publication of report on coral reef monitoring of Viet Nam			X					
Maintain and update GIS data and information with revised format			Х					
Maintain and update national and regional meta- databases			Х					
Publication and dissemination of national report in English by UNEP				×				
Finalisation and implementation of demonstration site proposals								
Implementation of coral reef demonstration site activities								
Focal Point (Site Manager and Focal Points of Phu Quoc) to provide written report of outputs of demonstration sites						х		
Upload reports/outputs of demo site to the website			Х			X		
Adoption and implementation of national action plans								
Public and stakeholder meetings for the publicity of the national action plans		Vie, Tha	(Cam	Phi				
Adoption of national action plans, except Cam.			FPs to	urge NT		ange ado MoU	ption as	required
Implementation of national action plans								

Table 1*cont.* Work plan and timetable of the coral reef sub-component for 2007 – 2008.

		20	07	·	2008							
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
Finalise Strategic Action Programme												
Provision of data and information on economic value of coastal coral reefs			х	Sept.,10								
Additional Input from members to the PCU for the 2 nd draft SAP		Х										
The PCU edit and format the final draft for the consideration of the RSTC-8				х								
Implementation of the regional training programme												
Signing MoU with MSI - UP			Х									
Finalisation of the syllabus and training materials by the training institution			Х									
Conduct the regional training course				Х								
Conduct the national echo seminars				Х	X							
Presentations in 3 rd Mayor's Round Table and RSC-3												
PCU to inform the topics and time to Focal Points and Site Managers			Х									
Presenters send the PowerPoint presentations to the PCU for Mayor's Round Table & RSC-3				x								

Table 2 Schedule of Meetings for 2008. (RWG = Regional Working Group; -M = Mangroves; -CR = Coral Reefs; -SG = Seagrass; -W = Wetlands; -F = Fisheries; LbP = Land-based Pollution; RTF-E = Regional Task Force on Economic Valuation; RTF-L = Regional Task Force on Legal Matters; PSC = Project Steering Committee; RSTC = Regional Scientific and Technical Committee) (H = United Nations Holidays)

	s	S	м	т	w	т	F	s	s	М	т	w	т	F	s	s	М	т	w	т	F	s	s	М	т	w	т	F	s	s	М	т	w	т	F	s	s
	3	3	IVI																																Г	3	3
January				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
February							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		
March	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1					
				RW	G-SG																				RT	F-E-8						1					
April				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
				R	WG-N	1-9				н							н																				
May						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
											RWG	-CR-9																									
June		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						
July				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
August							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
																		Н																			
September			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30					
October					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
November	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30							
December			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
							н																				н										