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Project



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Facility

***Reversing Environmental Degradation Trends
in the
South China Sea and Gulf of Thailand***

REPORT

Sixth Meeting of the Regional Scientific and Technical Committee

Batam, Indonesia, 8th – 10th December 2005



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Caption: Conceptual diagram for the modelling system and material transfer processes in the South China Sea marine basin.

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Table of Contents

1. OPENING OF THE MEETING.....	1
1.1 WELCOME ON BEHALF OF UNEP	1
1.2 WELCOME ADDRESS FROM A REPRESENTATIVE OF THE LOCAL GOVERNMENT	1
1.3 INTRODUCTION OF MEMBERS	1
2. ORGANISATION OF THE MEETING	1
2.1 ELECTION OF OFFICERS.....	1
2.2 DOCUMENTATION AVAILABLE TO THE MEETING	2
2.3 PROGRAMME OF WORK AND ADMINISTRATIVE ARRANGEMENTS FOR THE CONDUCT OF THE MEETING	2
3. ADOPTION OF THE MEETING AGENDA.....	2
4. ADMINISTRATIVE AND FINANCIAL MATTERS.....	3
4.1 STATUS OF THE PROJECT WEBSITE AND REGIONAL GIS AND META-DATABASES	3
4.2 STATUS OF ADMINISTRATIVE REPORTS FOR THE YEAR 2004 AND FIRST HALF OF 2005	4
4.3 CALCULATION OF ACTUAL CO-FINANCING	5
5. NATIONAL CO-ORDINATION OF PROJECT RELATED ACTIVITIES.....	5
6. REPORTS FROM THE REGIONAL WORKING GROUPS AND REGIONAL TASK FORCES ON PROGRESS TO DATE.....	6
6.1 REGIONAL WORKING GROUP ON MANGROVES	6
6.2 REGIONAL WORKING GROUP ON CORAL REEFS	7
6.3 REGIONAL WORKING GROUP ON SEAGRASS	7
6.4 REGIONAL WORKING GROUP ON WETLANDS.....	7
6.5 REGIONAL WORKING GROUP ON FISHERIES.....	8
6.6 REGIONAL WORKING GROUP ON LAND-BASED POLLUTION.....	9
6.7 REGIONAL TASK FORCE ON LEGAL MATTERS.....	9
6.8 REGIONAL TASK FORCE ON ECONOMIC VALUATION.....	9
7. STATUS OF THE DEMONSTRATION SITE AND PILOT ACTIVITY PROPOSALS.....	10
7.1 STATUS OF THE DEMONSTRATION SITE PROPOSALS FOR THE HABITAT SUB-COMPONENTS AND LAND-BASED POLLUTION ACTIVITIES FUNDED THROUGH THE GEF PROJECT GRANT	10
7.2 STATUS OF THE DEMONSTRATION SITE PROPOSALS FOR THE HABITAT SUB-COMPONENTS FUNDED VIA THE MEDIUM SIZED PROJECT MECHANISM.....	10
7.3 STATUS OF SELF-FUNDED DEMONSTRATION SITES	11
7.4 CONSIDERATION OF THE PROPOSAL REGARDING THE TESTING OF A BLASTING FISHING DETECTION DEVICE	11
8. CARRYING CAPACITY OF THE SOUTH CHINA SEA MARINE BASIN, WITH RESPECT TO NUTRIENTS.....	12
9. TRAINING NEEDS AND CAPACITY BUILDING ASSESSMENT AND PROGRAMME OF FUTURE ACTIONS	14
10. FURTHER ELABORATION OF THE REGIONAL STRATEGIC ACTION PROGRAMME.....	14
10.1 STATUS OF THE NATIONAL ACTION PLANS	14
10.2 CONSIDERATION OF THE SECOND DRAFT STRATEGIC ACTION PROGRAMME AND RECOMMENDATIONS TO THE PROJECT STEERING COMMITTEE REGARDING ITS FURTHER ELABORATION AND APPROVAL.....	15

11. WORK PLAN AND TIMETABLE FOR THE REGIONAL SCIENTIFIC AND TECHNICAL COMMITTEE.....	17
12. ANY OTHER BUSINESS	18
13. ADOPTION OF THE REPORT OF THE MEETING.....	18
14. CLOSURE OF THE MEETING.....	19

List of Annexes

ANNEX 1	List of Participants
ANNEX 2	List of Documents
ANNEX 3	Agenda
ANNEX 4	Welcoming Speech
ANNEX 5	Investigation of the Carrying Capacity of the South China Sea Marine Basin with Respect to Land-Based Nutrients Loading
ANNEX 6	Work Plan and Timetable for the Period from 2005 to 2008

Report of the Meeting

1. OPENING OF THE MEETING

1.1 Welcome on behalf of UNEP

1.1.1 The Project Director welcomed participants and officially opened the meeting on behalf of Dr. Klaus Töpfer, the Executive Director of the United Nations Environment Programme (UNEP), and Dr. Ahmed Djoghlaif, Assistant Executive Director of UNEP and Director, Division of Global Environment Facility Co-ordination (UNEP/DGEF). Dr. Pernetta noted that both Dr. Töpfer and Dr. Djoghlaif will leave UNEP in the new year and that Dr. Djoghlaif had been appointed to the post of Executive Secretary for the UN Convention on Biological Diversity. He noted that Dr. Töpfer and Dr. Djoghlaif had been strong supporters of the South China Sea Project both during its' development and subsequent implementation.

1.1.2 Dr. Pernetta noted that the RSTC had a substantial amount of work in front of it, and that, this would demand a considerable amount of work from the members both individually and collectively. In particular the committee would need to consider the development and content of the training and capacity building programme, which would necessitate some small group discussions during the evening in preparation for the plenary discussion. He noted that the initial steps in revising the regional Strategic Action Programme would require some deliberation and elaboration, whilst the status of the demonstration sites needed to be reviewed in relation to the project duration since any extension of project duration would have financial implications that would need to be reviewed by the Project Steering Committee.

1.1.3 Dr. Pernetta, noted that he was pleased to announce that the project document for the pilot activities on Land-based Pollution to be conducted in Batam would be signed during the course of the meeting. He expressed the hope that despite the work load the meeting would be both enjoyable and productive and wished the members well in their deliberations.

1.2 Welcome address from a representative of the local Government

1.2.1 Dr. Pernetta invited Dr. Mawardi Badar, Chief of the Batam Environmental Impact Management Agency, as representative of the Mayor of Batam City to address the Committee on behalf of the Batam local Government.

1.2.2 Dr. Badar expressed appreciation on behalf of the local Government for the opportunity of addressing the meeting and for the decision of the group to select Batam as the site for the sixth meeting of the Regional Scientific and Technical Committee. On behalf of the Mayor, who was unfortunately overseas, he welcomed all participants and hoped that they would enjoy their stay in Batam.

1.2.3 Dr. Badar noted that Batam was undergoing rapid economic development including extensive construction and industrialisation that were resulting in environmental degradation and pollution, and there was therefore, an urgent need to harmonise economic development and the maintenance of environmental quality. Dr. Badar's speech is appended as Annex 4 to this report.

1.3 Introduction of members

1.3.1 Dr. Pernetta welcomed the new members and alternates and invited participants to introduce themselves to the meeting. Members proceeded to introduce themselves indicating their Institutional affiliations and role in the project. The List of Participants is provided in Annex 1 of this report.

2. ORGANISATION OF THE MEETING

2.1 Election of Officers

2.1.1 Members recalled that Dr. Gil Jacinto, National Technical Focal Point from the Philippines, had served as Chairperson of the Committee for two years and therefore under the Rules of Procedure he was no longer eligible for re-election as the Chairperson.

2.1.2 Dr. Pernetta noted that Mr. Heru Waluyo Koesworo, National Technical Focal Point from Indonesia, had been elected Vice-Chairperson and that Dr. Vo Si Tuan had been elected as Rapporteur during the fifth meeting of the committee convened in Fanchenggang, China in December 2004. Subsequently Dr. Tuan had been appointed as Senior Expert in the Project Co-ordinating Unit and had been replaced as National Technical Focal Point for Viet Nam by, Professor Mai Trong Nhuan. He noted further that, Mrs. Wahyu Indraningsih had replaced Mr. Heru Waluyo as National Technical Focal Point for Indonesia. The posts of Vice-Chairperson and Rapporteur were therefore vacant, since neither Dr. Tuan nor Mr. Heru Waluyo remained members of the committee.

2.1.3 Members were invited to nominate individuals as Chairperson, Vice-Chairperson and Rapporteur. Dr. Gil Jacinto nominated Mr. Koch Savath as Chairperson, and the nomination was seconded by Dr. Ong Jin-Eong and Professor Zhengguang Huang, Mr. Savath was elected by acclamation. Dr. Pernetta nominated Professor Huang as Vice-Chairperson and Dr. Jacinto, seconded the nomination. In the absence of further nominations Professor Huang was elected by acclamation. Professor Huang nominated Mrs. Wahyu as Rapporteur and Mrs. Wahyu was elected by acclamation.

2.1.4 Mr. Savath assumed responsibility as Chairperson and expressed his appreciation to the members for the confidence they had displayed in electing him as Chairperson of RSTC. He indicated that he looked forward to working with the committee and co-ordinating the work of the committee. Professor Huang & Mrs. Wahyu also expressed their thanks to the committee for their appointment as Vice Chairperson respectively and Rapporteur respectively and indicated their commitment to facilitating the work of the Committee.

2.2 Documentation available to the meeting

2.2.1 The Chairperson invited the Project Director to introduce the discussion and information documents available to the meeting and listed in document (UNEP/GEF/SCS/RSTC.6/Inf.2). Dr. Pernetta noted that there were 14 discussion documents, some of which required detailed consideration and discussion during the meeting. He noted the need to prepare recommendations for the Project Steering Committee covering a number of matters that had financial implications. The list of documents is attached as Annex 2 to this report.

2.3 Programme of Work and administrative arrangements for the conduct of the meeting

2.3.1 Dr. Pernetta briefed participants on the administrative arrangements for the conduct of the meeting, and the proposed organisation of work (UNEP/GEF/SCS/RSTC.6/Inf.3). He proposed a minor change to the programme suggesting that the Friday morning session would close at 1130 to allow the Indonesian and Malaysian participants to attend Friday prayers. He noted further that the Batam Pilot activity project document would be formally signed on Saturday morning with the attendance of the representatives of the local government, stakeholders and media.

2.3.2 Dr. Pernetta noted that, formal sessions of the meeting would be conducted in English, and in plenary as far as possible. Small inter-sessional working groups could be formed as appropriate, to review in detail, substantive matters that were before the Committee including, *inter alia* the training and capacity building programme.

3. ADOPTION OF THE MEETING AGENDA

3.1 The Chairperson introduced the provisional agenda prepared by the Project Co-ordinating Unit (PCU) as document UNEP/GEF/SCS/RSTC.6/1 and the annotated provisional agenda, document UNEP/GEF/SCS/RSTC.6/2 and invited members of the RSTC to propose any amendments or additional items for consideration, prior to the adoption of the agenda.

3.2 Dr. Pernetta noted that under "Any Other Business" he would like to add an additional item regarding possible participation of the South China Sea Project in the PEMSEA organised East Asian Seas Congress in 2006. This item arose from discussions during the second meeting of the Executive Committee of the RSTC and members' attention was drawn to the report of the meeting included in the meeting documents. The Committee agreed to include this item, and requested that the Secretariat prepare a briefing note on the conference as background to the item.

3.3 There being no further proposed amendments or additions, the agenda was adopted as amended and is attached as Annex 3 of this report.

4. ADMINISTRATIVE AND FINANCIAL MATTERS

4.1 Status of the Project Website and regional GIS and Meta-databases

4.1.1 The Chairperson invited Mr. Paterson to report briefly on the current status of the project Website and developments with regard to the regional GIS and meta-databases, in particular their accessibility with respect to remote up-dating of content.

4.1.2 Mr. Paterson noted that the PCU in close consultation with the SEA START had completed a review of the GIS and metadata questionnaires, and other data, submitted to the PCU and SEA START RC by project focal points. This had enabled identification of primary data sets for each project component and detailed lists of these were presented to and reviewed during the sixth round of regional working group meetings. In the case of the regional meta-database, simple and advanced search capabilities were being installed and the updating function and feedback form were being developed. The work on the GIS database involved creation of GIS shapefiles and their integration into the GIS system and the development of advanced query and updating functions, which were ongoing.

4.1.3 Regarding the development of the new South China Sea Project website, Mr. Paterson noted that the need for this arose from the fact that: the project involved a large and expanding partner network; the need to highlight the demonstration site activities; share experiences more widely; disseminate project outputs including the SCS-GIS and meta-database; and the need for greater speed of downloading. The new site now contained a searchable section for the SCS project network by partner type and country; Individual pages for each of the habitat demonstration sites, that can be edited and updated by project staff, focal points, and demonstration site managers via a secure login; E-forums for all aspects of the project that can be used by regional working groups, task forces and demonstration sites; a searchable document repository, which enables effective online storage, searching, and downloading of project documents; and a platform for accessing the GIS and meta-database.

4.1.4 Questions were raised regarding the revision and updating of information and the need for registration of users. It was noted that individuals such as Focal Points, Site Managers, officers of the regional working groups, National Technical Focal Points and PCU members could be provided with a password and assigned user rights. It was suggested that the PCU provide guidelines regarding the assignment of rights and that these be circulated to members of the RSTC for their consideration and comment. It was suggested during discussion that the site could perhaps be up-dated via national websites but it was recognised that such a mode of up-dating would be very restricted in terms of the overall coverage of the materials contained on the website.

4.1.5 Dr. Hoang Van Thang wondered whether it was the intention to load aerial photographs, satellite images and maps to the site for national use. It was noted that the GIS database did not currently include satellite imagery but Dr. Anond responded that it was possible to access such images from Google and other websites and that if individuals had specific needs for images some might be available through SEA-START-RC.

4.1.6 Dr. Jacinto noted that he had registered as a user during the scientific conference but had subsequently forgotten his password and had never been supplied with an e-mail confirming his login name and password. In this regard it was indicated that the PCU intended to register and advise members of the network of their passwords and user rights before the end of January 2006.

4.1.7 Mrs. Wahyu raised the matter of the continued maintenance of the website beyond the life of the project. In this connection it was noted that if the assignment of user rights led to a greater sense of ownership by the network then the basis for continued development of the website would be established during the project life. It was noted however that there still remained the need to support a regional body in physically maintaining the website and providing oversight to updating and management. Dr. Jacinto noted in this regard that the distribution of user rights was the right approach since he had experience of websites in the past, which were contracted to agencies to develop, without direct user involvement and which remained static once the contracted agencies involvement ceased.

4.2 Status of administrative reports for the year 2004 and first half of 2005

4.2.1 The Chairperson invited Dr. Pernetta, the Project Director to introduce document UNEP/GEF/SCS/RSTC.6/4 "*Current Status of the Administrative Reports from the Focal Points of the Participating Countries and co-financing of the operational phase activities*". Dr. Pernetta apologised for any minor errors in the details and highlighted some significant points including the continuing delays in submission of the semi-annual progress and expenditure reports. He noted that although 20 SEAs had shorter delays in submission of the half-year reports due in July 2005 compared to the submission of reports for the second half of 2004 due in January 2005, 10 SEAs had longer delays and overall there was little change in the average length of delays. At the time of convening the meeting outstanding reports for the first half of 2005 were as follows: Philippines 8 (of 21); Malaysia 6 (of 15); China 3 (of 15); and Thailand 3 (of 21). No Cambodian, Indonesian or Vietnamese reports were outstanding.

4.2.2 Dr. Pernetta noted that of the total 43 audit reports due on 31st March 2005 relating to expenditures during 2004, only 1 had been received by the due date. At the time of convening the meeting 33 audit reports of 2004 expenditures had been received and 10 remained outstanding. Audit reports have not been received in respect of the following MoUs: China, 2 (Focal Ministry and Land-based Pollution); Thailand, 1 (Fisheries); Malaysia, 5 (Focal Ministry; Coral Reef; Sea grass; Wetlands; Land-based Pollution); Viet Nam 2 (Coral Reef and Seagrass).

4.2.3 Dr. Pernetta noted that serious problems resulted from the delays in submission of routine reports that impacted not only the SEA concerned but project management and delivery of outputs required as inputs to subsequent project activities. Ultimately such delays would compromise the completion of all project activities and the timeliness of project closure.

4.2.4 Dr. Pernetta drew to the attention of the meeting Table 3 of the document that detailed the status of the cash advances and expenditures of the IMCs and SEAs in the participating countries, during the period January 2002 to June 2005. The total amount of cash advanced to June 2005 was US\$3,601,951 of which US\$676,629 (19%) remains unaccounted for, being held by the Focal Ministries and SEAs. US\$284,688 (42%) of this unaccounted cash balance is held by 7 SEAs in respect of activities at the demonstration sites for which reports are not due until January 2006. Other than these seven, one Specialised Executing Agency holds in excess of US\$40,000; one in excess of US\$30,000; two in excess of US\$20,000; and four between 10 and 20 thousand US\$, unaccounted for. That is a total of US\$181,492 is unaccounted for, being held by 8 SEA's.

4.2.5 It was noted that in the case of the Malaysian SEA's funds were transferred in October 2002, and a total of US\$132,518 remains unaccounted for.

4.2.6 Professor Huang apologised for the delay in submitting the Chinese reports and indicated that these were being translated and that all documents relating to the national technical working group meetings (13) site visits and IMC meetings would be submitted to the PCU by the end of the year.

4.2.7 Dr. Jacinto noted that following this meeting he would contact the DENR to encourage report submission of the outstanding Philippines IMC and LbP reports and that the issue of Philippines participation in the Land-based Pollution component was under review. Most of the unaccounted funds held by Philippines SEAs was in respect of the demonstration sites for which accounting was due in January 2006.

4.2.8 Dr. Nawarat noted that whilst most SEAs from Thailand had completed the reports he would immediately follow-up with the mangrove and fisheries focal points regarding outstanding reports.

4.2.9 Mr. Hashim apologized for the limited compliance of the Malaysian focal points with respect to reporting and indicated that draft audits were being prepared by the Government Audit Department. He assured the committee that he would follow-up these matters upon his return to Malaysia.

4.2.10 Mr. Savath noted that the unaccounted funds would be fully accounted for in the second half-year expenditure reports. He noted that some problems relating to the Coral Reef and Seagrass expenditures had now been resolved with the PCU.

4.2.11 Mrs. Wahyu noted that the outstanding problems in Indonesia largely concerned the wetlands component and that her office was committed to resolving these problems and improving reporting timeliness in the future.

4.2.12 Dr. Hoang indicated that all Vietnamese reports had been submitted and noted that Viet Nam's fiscal year ended at the end of December and hence most Government Departments were already in the process of finalising their annual accounts and arranging for end year audits.

4.2.13 Noting the continuing delays in submission of routine administrative reports, the Committee urged National Technical Focal points to do all in their power to improve the timeliness of reporting.

4.3 Calculation of actual co-financing

4.3.1 Dr. Pernetta reviewed the situation with regard to cash and in-kind co-financing during the operational phase of the project as summarised in document UNEP/GEF/SCS/RSTC.6/4. He reminded members of the procedures used to determine the actual co-financing in terms of the calculation of in-kind co-financing based on meeting participation and the outcome of the previous RSTC meeting which had recommended modification of the progress reports to better reflect additional cash and in-kind co-financing.

4.3.2 Dr. Pernetta noted that despite the absence of reports from the focal ministries of China, Philippines and Malaysia, which meant that no details of actual co-financing were available for the first half of 2005 the total realised in-kind co-financing during the second half of 2004 exceeded the estimate by 75% and in the first half of 2005 by 35%. In addition, cash co-financing of 12,835 US dollars was expended by, two governments in support of national co-ordination activities.

4.3.3 The Project Director drew members' attention to Table 1 of Annex 3 of document UNEP/GEF/SCS/RSTC.6/4 containing detailed information regarding the realised in-kind co-financing compared with the estimates by country and component. He noted that from these data, summarised in Table 6, it could be concluded that in-kind co-financing during the periods July to December 2004 and January to June 2005 exceeds the estimates by 71% and by 72.5% respectively. He noted further that cash co-financing for project activities totalling US\$116,592 and additional in-kind co-financing equivalent to US\$2,292 had been raised at the national level in support of project activities.

4.3.4 Dr. Pernetta concluded that overall therefore the level of co-financing raised during the first year of the operational phase greatly exceeded the original estimates.

4.3.5 Several queries were raised regarding the contents of these tables and it was noted that low values reflected failures to report activities rather than the absence of co-financing. There was general agreement of the need to improve reporting in order to adequately reflect the extent of national co-financing of project activities.

5. NATIONAL CO-ORDINATION OF PROJECT RELATED ACTIVITIES

5.1 Mr. Savath noted that following the 4th meeting of the Project Steering Committee national co-ordination activities in Cambodia had focussed on the development of the Peam Krasop and Kampot demonstration sites and the further elaboration and approval of the National Action Plans. Meetings had been convened with local experts such that the four NAPs now had wide acceptance at the national level.

5.2 Professor Huang noted that like Cambodia, national co-ordination in China had focussed on the demonstration sites and NAPs. He noted that three meetings had been convened with the local authorities responsible for the demonstration sites; that two meetings of the National Technical Working Group had been convened, and that a fourth press release had been made during the year. The 4th IMC meeting held at Guangzhou had included central government and provincial government participation during which the commitment of the local Governments to cash co-financing of the demonstration sites had been confirmed.

5.3 Mrs. Wahyu indicated that, during the year various meetings with stakeholders in the demonstration sites had been held to secure commitment of local authorities and communities to the work of the sites. She noted further that the development of the NAPs had involved stakeholders at various levels and that in the case of the mangrove NAP a meeting would be held soon to finalise approval of the plan. She noted with pleasure that the MoU covering the pilot activities on Land-based Pollution in Batam would be signed during the meeting and looked forward to the finalisation of the remaining agreements for the Indonesian demonstration sites.

5.4 Mr. Hashim, apologised for the fact that his report on behalf of Malaysia would be brief since Malaysia only has one potential demonstration site that was not yet finalised. He noted that for the four components in which Malaysia was involved some had submitted their reports and some had not. He noted that a number of workshops and technical meetings had been organised in these components related to NAP development.

5.5 Dr. Jacinto noted that 4 national level co-ordination meetings had been convened during the year and that numerous meetings of the National Technical Working Group had been convened to further develop the NAPs and discuss the demonstration site plans and activities. He noted that the MoUs for the Bolinao and Masinloc sites were now operational and that discussion of linkage between the NAPs was on-going. Finally he noted that the Philippines contributions to the Land-based Pollution component were under review and that some changes in this were likely in the near future.

5.6 Dr. Nawarat noted that in Thailand the focus of national level co-ordination had been on the demonstration sites of Koh Chang, and Trat Province with the development and establishment of management boards involving the national and provincial governments, developing draft work plans prioritising local community involvement. Two National Technical Working Group meetings had been convened and discussions held regarding the GIS database; maintenance of SEA databases and the development and elaboration of the NAPs. It was planned that all NAPs would be completed during 2006 and that their contents would be harmonised with the process of SAP development. The IMC would meet next month and Dr. Nawarat noted that the CHARM project a self-funded demonstration site was being integrated into the regional activities.

5.7 Dr. Hoang apologised on behalf of the National Technical Focal Point that he could not report fully on all activities but noted that there had been a number of expert meetings concerned with the Phu Quoc demonstration site and that the documents for the Ninh Hai and Balat Estuary sites were under finalisation. He noted that the Wetland Working group had prepared the first comprehensive report on Wetlands in Viet Nam for 15 years.

5.8 During the ensuing discussion Dr. Pernetta urged national focal points to provide copies of any newspaper or journal articles to the PCU so that these could be scanned and loaded to the project website to provide evidence of the widespread acceptance of the project at the national level. He noted in this regard that the China News Agency article on the GEF Secretariat visit to Fangchenggang had been particularly effective in enhancing the project's profile with the GEF Secretariat. Professor Huang noted that he had copies of several articles in Chinese that he would make available to the PCU on his return to China.

6. REPORTS FROM THE REGIONAL WORKING GROUPS AND REGIONAL TASK FORCES ON PROGRESS TO DATE

6.1 Regional Working Group on Mangroves

6.1.1 Mr. Nyoto noted that the sixth meeting of the RWG-M had reviewed the status of the demonstration sites, revised the goals and targets of the SAP on the basis of the advice of the previous meeting of the RSTC and deliberated at length on the possible activities that could be included in the activities of the SAP. These activities had been derived from an analysis of the contents of the NAPs. He noted that there had been some delays in submission of some inputs but that in general the group was working well and was on target according to their work plan. He noted that the working group planned to produce a mangrove recipe book highlighting the use of mangroves for food.

6.1.2 A question was raised regarding the RWG-M redefinition of the regional targets for the mangrove component of the Strategic Action Programme. Mr. Nyoto explained that at the last meeting a lengthy discussion was held on the different meanings of the word "protection" as applied to mangroves in the region and the meeting had agreed, to rearrange the table of present areas and targets for the SAP by including two additional types of management regime: non-use of mangrove timber but extractive use of other mangrove resources; and "sustainable management area" in which the uses were considered to be conducted in a sustainable manner. Dr. Pernetta reminded the RSTC that modifications to the SAP targets would be important considerations under Agenda item 10 of the meeting.

6.2 Regional Working Group on Coral Reefs

6.2.1 Dr. Thamasak Yeemin noted that there had been minor changes to the membership of the group during the year and that during the sixth meeting the working group had focussed on the revisions of the NAPs and the development of activities for inclusion in the regional SAP. He noted that the goals and targets remained unchanged from those proposed during the fifth meeting. He informed the meeting that the national reports had now been finalised for publication in English and that three coral reef demonstration sites were now operational.

6.2.2 Dr. M. Daud Silalahi, raised a question regarding the meaning of “management through community enforcement via traditional means” in relation to the Belitung Demonstration Site. Dr. Tuan responded by saying that this related to local regulations developed at the community level, on the basis of traditional practices.

6.2.3 Mr. Somsak Chullasorn, raised a question regarding the use of catch per unit of effort as a socio-economic indicator in Table 1 of the Chairperson’s report. Dr. Tuan responded by saying that the selection of the indicators would depend on the objectives of the particular site, and that the framework had been developed for the purpose of guidance rather than providing a set of indicators that must be applied to all sites.

6.3 Regional Working Group on Seagrass

6.3.1 Dr. Suvaluck Satumanatpan noted that the sixth meeting of the RWG-SG was held in Bolinao, Philippines, 27th-30th September 2005. She noted further that all National reports, except the Cambodian and Malaysian reports, have been published in local languages, and that all reports will be published in English by the PCU in early 2006. She highlighted the fact that all National Action Plans were revised according to the agreed minimum content, and that three seagrass demonstration sites were now operational. The RWG-SG planned to develop regional guidelines for seagrass assessment and monitoring, sustainable resource use, and techniques of seagrass rehabilitation.

6.3.2 Dr. Silalahi, asked if it was only the Philippines which had proposed training activities relating to policy formulation for seagrass management and conservation. Dr. Suvaluck explained that this related to one site in the Philippines where local ordinances had been used specifically for seagrass management and that it represented a good example that could be shared in the region. Dr. Pernetta explained that detailed consideration of such matters would take place under Agenda Item 10.

6.3.3 Mr. Somsak, Fisheries Expert, expressed concern about the concept of “MPA” as used by the RWG-SG given that most small-scale fishers use seagrass areas and that no-take zones would potentially alienate fishers from their traditional fishing grounds. There was a lengthy discussion of the roles and definitions of MPAs during which Dr. Pernetta indicated that the term Marine Protected Area (MPA) was an overarching one which encompassed all forms of protection from National Parks and fish sanctuaries (no take areas) through to designated areas subject to various forms of management for sustainable use. It was concluded that the RWG-SG should look more closely at the use of the term “MPA” in describing management areas for seagrass.

6.4 Regional Working Group on Wetlands

6.4.1 Mr. Narong informed the meeting that the publication of the National Reports in English is currently in process and should be completed in the first quarter of 2006. During the sixth meeting, the RWG-W had agreed upon the desired contents of the NAPs, and discussed the goals and targets for inclusion in the SAP. Mr. Narong reviewed the table regarding SAP targets developed during the 5th and 6th meetings, and highlighted that the time frame of the SAP targets had been extended to 2012, and that all focal points had agreed to provide additional information for further development of the SAP. He noted that all demonstration sites of the wetland component were being established under the MSP mechanism, and that the proposals are currently being reviewed and finalised.

6.4.2 It was noted that the new cluster analysis that followed from the comments of the RSTC in the fourth meeting had been completed with the different wetland types separated and subject to separate analysis, however a number of significant anomalies remained. Dr. Anond noted that the figures for areas of inter-tidal, mudflats remained large and queried whether these included mangrove and estuarine areas in addition to the mudflats. Data regarding the numbers of endemic species were considered too large and perhaps were based on national lists rather than the IUCN global listings.

Mr. Narong stated that: there was problem in defining "wetlands" at the commencement of the work; many data came from secondary sources; and the stated areas for each wetland were often different in different sources published by different agencies.

6.4.3 Dr. Jacinto noted that the initial purpose of the cluster analysis had been in connection with the selection of demonstration sites and that the cluster analysis of the wetland sites had been subject to numerous discussions in the RWG-W and the RSTC, he felt that little could be gained by trying to refine the data further. Dr. Anond suggested that Dr. Pernetta should highlight the difficulties encountered by the wetlands group in the final report regarding this work and that suitable text should be included indicating the weaknesses of the outcomes in comparison with those of other working groups.

6.4.4 Dr. Jacinto raised a concern regarding the travel costs for next meeting of the RWG-W in Malampaya, Philippines. Dr. Pernetta drew member's attention on the average cost of the meetings convened in the framework of the project noting that, despite the increased travel costs overall costs per participant, per day, tended to be lower for isolated locations since the UN DSA rates were substantially lower than for capital and other big cities.

6.5 Regional Working Group on Fisheries

6.5.1 Mr. Pirochana Saikliang noted that the RWG-F had convened its' Sixth Meeting in Kudat, Sabah, Malaysia, from 5th - 8th September. He noted that English editing and final formatting has now been completed for the National Reports on Fish Stocks of Transboundary Significance in the South China Sea, and it is planned that these reports will be published during the first quarter of 2006. He noted that the RWG-F had made significant progress with regards to the development of the system of fisheries *refugia*, and that an important outcome of this activity was a recent invitation from the Southeast Asian Fisheries Development Center for the RWG-F to prepare guidelines on the use of fisheries *refugia* for inclusion in the ASEAN-SEAFDEC Regional Guidelines on Responsible Fisheries in Southeast Asia. He also briefed the meeting on the actions being taken by the RWG-F to improve the integration of fisheries and habitat management in the context of the habitat demonstration sites.

6.5.2 Mr. Pirochana directed the attention of the meeting to documents UNEP/GEF/SCS/RSTC.6/6 entitled "*Regional Guidelines on the Use of Fisheries Refugia for Capture Fisheries Management in the ASEAN Region*", UNEP/GEF/SCS/RSTC.6/7 entitled "*Identification of Fisheries Refugia in the Gulf of Thailand*", and UNEP/GEF/SCS/RSTC.6/8 entitled "*Integrating Fisheries and Habitat Management in the Habitat Demonstration Sites.*"

6.5.3 He went on to state that in relation to matters regarding the activities of integrating fisheries and habitat management and Malaysia's participation in the fisheries component, the RWG-F sought guidance from the RSTC regarding the following issues:

- How the Malaysian Department of Fisheries could be formally invited to participate in the future work of the Regional Working Group;
- The approaches to be adopted by the RWG-F with respect to the integration of fisheries issues, in the habitat activities at the demonstration sites.

6.5.4 In relation to the fisheries *refugia* activity, he stated that the RWG-F would appreciate if the RSTC could:

- Review, comment upon, and endorse, the work of the RWG-F to date regarding the regional system of fisheries *refugia*;
- Provide guidance regarding the future development of the regional system of *refugia*; and,
- Advise on the optimum manner in which the South China Sea Project can promote the further development and adoption of a system of fisheries *refugia* in the region.

6.5.5 Dr. Pernetta reviewed the situation leading to the non-participation of the Malaysian Department of Fisheries in the fisheries component of the project. In this connection, Mr. Paterson noted that he had recently participated in SEAFDEC meetings that were attended by representatives from the Department of Fisheries, Malaysia and that there had been a general feeling of goodwill between the representatives from Malaysia and the project. He mentioned that he had recently received an e-mail from the Chief of the Data and Information Unit of the Department of Fisheries indicating that, the DoF would be pleased to contribute information for use in the regional GIS and meta-database.

6.5.6 Following a lengthy discussion it was agreed that the Project Director would send a formal letter to the Director-General of the Department of Fisheries, Malaysia inviting them to nominate a representative of that department to join the Regional Working Group on Fisheries.

6.5.7 There was a general discussion clarifying the concepts of fisheries *refugia* and the fisheries component activity of improving integration of fisheries and habitat considerations in the habitat demonstration sites. There were no objections from the RSTC relating to the actions being taken by the RWG-F to promote the concept of fisheries *refugia*.

6.6 Regional Working Group on Land-based Pollution

6.6.1 Mr. Henk summarised the activities of the working group over the last year and reviewed the status of report submission. National reports had been completed by some focal points but not by others. The SAP goals and targets had been revised following the comments from the 5th meeting of the RSTC. During the working group meeting held in the Regional Scientific Conference a serious discussion had been held regarding the delay in submitting reports. He noted that the document for the Batam pilot activity was finalised and would be signed during this meeting, whilst that for the Lingdingyang pilot activity was being finalised.

6.6.2 The meeting raised concerns regarding whether or not the first target would result in reduction of land-based pollution in the South China Sea since it appeared possible that even if, a large number of monitoring stations met the water quality criteria it was possible for the total loading to increase if the level of contaminants was increasing at the remaining sites. It was noted that overall this regional working group had numerous chemists and engineers with experience in reducing pollution discharges amongst its' membership, but lacked individuals with a broader perspective of the impacts of land-based pollution on the marine environment and resources, or on basin scale processes. In addition delays in submission of administrative and substantive reports by members of this group were generally longer than for others and the Regional Overview of Land-based Pollution in the South China Sea had not yet been completed.

6.6.3 The RSTC considered these issues at some length and agreed that the membership of this group should be strengthened through addition of expert members having different experience from the national focal points. A number of names were proposed and it was agreed that members of the RSTC would submit names of possible candidates to the PCU by the middle of January. The PCU would then contact these individuals to ascertain their availability and willingness to serve then circulate the CVs to all members for their advice regarding preferred candidates.

6.7 Regional Task Force on Legal Matters

6.7.1 Dr. Silalahi presented the Report of the Chairperson of the Regional Task Force on Legal Matters. He reviewed the work of the Third Meeting of the RTF-L in Olongapo City, Philippines, 28 February – 3 March 2005, and outlined the contents of the Memoranda of Understanding that have been signed by six countries. Malaysia, is currently reviewing the Memorandum for final signature. He noted that these Memoranda of Understanding were negotiated between UNEP and national agencies of the expert members and detail the responsibilities of national agencies in ascertaining national views regarding environmental cooperation in the South China Sea.

6.7.2 It was agreed by the RSTC that the RTF-L has made significant progress relating to efforts to informally seek government perspectives on regional environmental cooperation in the South China Sea, and in reviewing alternative modes and mechanisms for such co-operation. The RSTC recalled that the draft of a report on alternative mechanisms and instruments for regional cooperation had been presented to the Regional Scientific Conference and that this would be revised and considered by the RTF-L, together with the outcome of the national level consultations, during the next meeting of the group.

6.8 Regional Task Force on Economic Valuation

6.8.1 Dr. Noel Padilla presented his report as the Chairperson of the Regional Task Force on Economic Valuation. He reviewed the organisation of the Third Meeting of the RTF-E in Fangchenggang, China, 18th -21st April 2005, and highlighted that Memoranda of Understanding had been negotiated between UNEP and the national agencies of the expert members. He noted that despite the fact that the MoU with the Philippines, is still being reviewed internally for final signature, work had already commenced in the Philippines such that no delays were anticipated in the delivery

of required outputs. It was noted that the final draft regional guidelines for economic valuation will be submitted to the PCU by 31st January, 2006 and would be finally reviewed during the next meeting of the Task Force.

6.8.2 Dr. Padilla noted that members of the RTF-E were still in the process of collecting data and information on the value of coastal habitats and resources, and that initial results had been presented by Dr. Tridoyo during the second Regional Scientific Conference, in Bangkok, Thailand, 14-16 November 2005. Drs. Jacinto and Ong expressed their concern regarding the values as presented since the variation covered several orders of magnitude and it was felt that if such values were shown to decision makers, their reaction would be that they were of no practical use.

6.8.3 Dr. Pernetta reminded members that the RTF-E was tasked with responsibility for developing a regionally agreed set of "standard" values for habitats bordering the South China Sea that could be used in the framework of the SAP to conduct an analysis of the costs and benefits of taking action compared with not taking action to address environmental degradation. He went on to point out that the original ecosystem values in the draft SAP in 1999 had made use of the values of Costanza that were derived from a global review and which were subject to extensive criticism by both economists and ecologists. At the time however they were the only values available and it had been decided to develop a set of regionally applicable values for use in the next version of the SAP.

6.8.4 Dr. Padilla responded to the points raised by Drs. Jacinto and Ong saying that the values as presented by Dr. Tridoyo were "raw" data from different countries that included for example, different numbers of the 23 goods and services identified for mangroves. Thus one of the cited values for mangrove might encompass only three types of good or service whereas another might encompass 20 out of twenty three. In addition no attempt had been made to normalise the data from different countries. These issues had been discussed during the meeting in the RSC and various techniques had been proposed for normalising the data and for ensuring that the Total Economic Values from different locations were standardised in terms of their components. These matters would be the subject of discussion during the next meeting, which would have before it a greater range of empirical data.

7. STATUS OF THE DEMONSTRATION SITE AND PILOT ACTIVITY PROPOSALS

7.1 Status of the demonstration site proposals for the habitat sub-components and Land-based Pollution Activities funded through the GEF project grant

7.1.1 The Chairperson invited the Senior Expert to introduce document UNEP/GEF/SCS/RSTC.6/9 "*Status of the demonstration site proposals and consideration of the work plan for their finalisation*" and the problems relating to the completion of the demonstration site and pilot activities in relation to the overall timetable for the UNEP/GEF project.

7.1.2 The Senior Expert reviewed the present status of the demonstration sites and pilot activities noting that seven of these were operational and that seven were not yet signed. He pointed out that at least two demonstration sites were scheduled to continue beyond December 2007 and that if all the remaining activities were signed in January 2006 there would only be two years to complete all activities.

7.1.3 Mr. Hashim sought clarification regarding the proposed Tun Mustapha Park site asking whether the Memorandum of Understanding for this activity would be signed between UNEP or the Federal Government or State Government of Sabah. Dr. Pernetta responded by saying that it was the intention that the MoU would be signed between UNEP and the State Government of Sabah since it would be the Park authorities in Sabah that would be responsible for expenditure of the GEF grant funds.

7.2 Status of the Demonstration site proposals for the habitat sub-components funded via the medium sized project mechanism

7.2.1 Dr. Tuan noted that the situation was even more difficult in the case of the Medium Sized projects, which were scheduled to run for three years yet none of these were currently operational and at the earliest the first two would only come on line during the first quarter of 2006. He invited the committee to review the situation and consider an appropriate period for extension of the project.

7.2.2 Dr. Jacinto raised a question in relation to the mechanism for the oversight of the Medium Sized Projects if they were to run beyond the time when the Project Co-ordinating Unit ceased to exist. In response, Dr. Pernetta indicated that the advice he has received from UNEP/DGEF in Nairobi was that if this were the case then UNEP/DGEF Nairobi would accept administrative responsibility for the co-ordination of the projects for the remainder of their operational life.

7.2.3 There followed an extensive discussion regarding the possibility of extending the life of the Project beyond 2007 since there are a number of outstanding project tasks that would likely run beyond the end of 2007. The Project Director indicated that it would be necessary that the PCU maintain some minimum staffing levels following completion of all activities to collate and co-ordinate final reporting and closure of the financial and administrative books of the project. Dr. Nawarat indicated that if the life of the project were to be extended then a full compliment of staff would not be required in the PCU hence the costs of the PCU would not be comparable to those at present.

7.2.4 Recognising that the extension of the project duration was necessitated by the delays in demonstration site finalisation and recognising further that such a decision had financial implications the RSTC recommended to the Project Steering Committee that the project activities be extended to June 30th 2008 and that the PCU be maintained to December 2008 at a reduced staffing level to ensure timely receipt of final reports from the SEAs and prompt closure of the project accounts.

7.3 Status of self-funded demonstration sites

7.3.1 The committee noted that during the previous meeting it had been agreed (Para 6.4.3 of document UNEP/GEF/SCS/RSTC.5/3) that by the end of January 2005, each country would nominate at least one site requiring no additional funding to be included in the network of demonstration sites under the framework of the UNEP/GEF South China Sea project. The nomination, should have included a brief description and indication of what the proposed projects could do and what the benefits would be from including them in the network.

7.3.2 To date nominations of three additional demonstrations sites one each from Cambodia, Thailand and Viet Nam have been received by the PCU. Focal points from China, Indonesia, Malaysia, and Philippines were invited by the Chairperson to advise the Committee regarding the status of nominations from their countries.

7.3.3 Professor Huang indicated that China had selected the following self-funded sites:

- Qinglangang (Mangroves)
- Lian (Seagrass)
- Wenchang (Wetlands) and that, he would contact the component focal points to submit profiles of the sites by the end of January 2006.

7.3.4 Mrs. Wahyu indicated that she would communicate with the focal points following the meeting with the aim of identifying suitable sites by the first quarter of 2006. Mr. Hashim indicated that he would discuss the matter with the National Technical Focal Point upon his return to Malaysia and advise the PCU of the outcome.

7.3.5 Dr. Jacinto indicated that this matter had been discussed in the Philippines and that the idea of nominating an activity in the area of Bolinao that is being funded by the Danish Government had been proposed. He queried what the view of the committee was regarding nomination of a project that overlapped in geographic extent with an existing demonstration site. There were no objections to the idea of using of this site from the committee, and it was agreed that the Philippines should make a decision on this matter and advise the PCU.

7.4 Consideration of the proposal regarding the testing of a blasting fishing detection device

7.4.1 The Chairperson invited Mr. Paterson, to introduce document UNEP/GEF/SCS/ RSTC.6/10 entitled "*Proposal for the testing of a blast fishing detection device in the Tun Mustapha Park.*" Mr. Paterson proceeded to review the goals, objectives, anticipated outcomes, the key project activities and related outputs, proposed budget and implementation plan for the activity as defined in the project proposal. He stressed the important role of the Regional Scientific and Technical Committee in evaluating the proposal, and in providing recommendations to the Project Steering Committee on the technical and scientific merits of the activity.

7.4.2 Several members expressed concerns regarding the fact that upon completion of the activity, the device would not in fact be operational in real-time mode and may be of little practical use to enforcement agencies. One member suggested that, if the device had little applicability to the task of apprehending blast fishers, it might not be well embraced by enforcement agencies, especially given the likely high costs of maintaining and operating the system. The National Technical Focal Point from the Philippines suggested that the high costs associated with the blast detection device construction (based on the figures in the budget) would likely deter the Philippine government from embracing the use of such technology as a fisheries management tool.

7.4.3 This led to discussion of the costs of the equipment and the fact that these seemed rather high, particularly given the fact that the costs of electronic equipment were declining at the present time. Dr. Pernetta suggested that this reflected the fact that what was being built was a prototype and that the water-tight housing would need to be designed to hold all the components.

7.4.4 Dr. Ong queried the relevance of the training aspects of the project if the device could not be used in real-time mode upon project completion. Dr. Pernetta explained that it was his understanding that the individuals involved in training would contribute to the actual development of the device and the software system over time.

7.4.5 The committee generally felt that there was a need for the proposal to be evaluated by three marine acoustics experts, since such expertise was not available amongst the membership of the committee. It was agreed that several RSTC members would approach their colleagues about conducting the reviews no later than 31st January 2006, and that those members would advise the PCU within one week of meeting closure of the names of suitable experts to conduct such an evaluation.

7.4.6 It was further agreed that the evaluations once received would be circulated to all committee members following which members would respond, supporting or otherwise the proposal within one week. It was noted that the Project Steering Committee would be advised of the decision and that they should evaluate the budget during their meeting. Thus a final decision could be taken within a short space of time from the closure of the meeting.

8. CARRYING CAPACITY OF THE SOUTH CHINA SEA MARINE BASIN, WITH RESPECT TO NUTRIENTS

8.1 The Chairperson reminded the committee that during the fifth meeting of the RSTC it was agreed that Dr. Anond would prepare a detailed proposal, and circulate it electronically to the members of the RSTC by the end of January 2005. Dr. Nawarat offered to take responsibility for acting as the focal point for this activity and his offer was gratefully accepted by the meeting.

8.2 It was also agreed that, the preliminary outputs would be provided to the sixth meeting of the RWG-LbP to be convened 18th - 21st July 2005, and that preliminary outputs produced by Dr. Anond prior to the meeting dates could be sent to the RWG-LbP for their consideration of the next steps to be taken.

8.3 The Regional Expert, Dr. Anond, presented document UNEP/GEF/SCS/RSTC.6/11 "*Report of the Investigation of the Carrying Capacity of the South China Sea Marine Basin with respect to Nutrients*". He discussed numerous land-based nutrient-loading scenarios and their effects on marine eutrophication in the South China Sea, drawing on a 2-D quantitative model developed as part of the activity. His report is attached as Annex 5 to this report.

8.4 Dr. Anond highlighted low and high carrying capacity areas and affected rivers in Cambodia, China, Indonesia, Malaysia, Thailand, and Viet Nam, and indicated that the model demonstrated an apparent lack of a general correlation between surface chlorophyll biomass and deep water concentration of dissolved oxygen, but that the model:

- Can provide proactive and preventive information to manage and control land-based source of pollution;
- Represents a quantitative approach to integrate monitoring data in a holistic way;
- Is a tool to generate future scenarios but not for predicting the future.

- 8.5 Dr. Anond noted further that the key outputs of the activity were that the SCS project had:
- Developed a gridded (raster) based chlorophyll modelling system as a functional response to land-based nutrient loading that runs entirely on Microsoft Excel (including data management, numerical solving and geospatial visualization),
 - Compiled regional datasets necessary to start running the model for any location in the SCS,
 - Conducted a modelling capacity building workshop attended by 23 participants from most SCS countries.

8.6 Dr. Anond stated that quantitative modelling is now possible in the SCS region (though the model needs improvement) but that there is a need to:

- Incorporate and replace regional data with more accurate national data, especially total nutrient loading and biomass concentration in coastal waters;
- Develop a more realistic catchment development and pollution generation scenario;
- Improve the model by adding non-advective terms and better kinetics for non-conservative processes.

8.7 Dr. Anond presented possible recommendations for the consideration of the committee as follows:

- Encourage LbP SEA's to use the quantitative modelling approach to re-assess existing hotspots and to identify new hotspots of nutrient loading in the SCS by also incorporating carrying capacity of the coastal system, and future scenarios for nutrient generation/treatment in the catchments into consideration;
- A 'no-cost' annex of the MoU between PCU and SEA START RC to continue technical support for countries to continue modelling;
- LbP SEA's are encouraged to participate in the COBSEA/GPA-LBA project "Determination of Pollution Loading from Land-Based Sources by Using Modelling and GIS" by involvement in their catchment modelling exercise and linking catchment loading scenarios to determine future sensitivity of the coastal areas to future land-based pollution loading;
- Allow SEA START RC to put data and GIS model results, modelling scripts, etc. developed by the project on to the SCS project website;
- RWG LbP and expert members in the group identify an institution in SCS region and draft a technical element of ToR to develop the carrying capacity with respect to heavy metal (based on level in sediment and biological sample data, e.g. from mussel watch project, and relation with nearby land-based heavy metal sources).

8.8 The meeting agreed to accept these recommendations as detailed above, following minor amendment to the original wording.

8.9 Mr. Nyoto requested clarification regarding the "no-cost" annex of the MoU between PCU and SEA START RC, he indicated that it was very important to replicate the model in every country and demonstration site. He felt that the model could be very useful in terms of monitoring at his demonstration site.

8.10 Professor Ong recalled that Dr. Anond had presented this model at the 2nd Regional Scientific Conference and noted there were many useful comments during this meeting that he hoped would be taken into account by Dr. Anond. Dr Ong highlighted the use of a steady-state time step of one month, which he noted was perhaps too long given that phytoplankton lifecycles were only of a few days length. He suggested that the steady state step be reduced to one-week. Dr. Anond indicated that the main constraints in reducing the length of the time step related to the time required to process the data, although he noted that this is certainly possible as the POM output and chlorophyll data are produced daily and was perhaps more possible when dealing with smaller geographic subsets.

8.11 Dr. Jacinto noted that the scale might not be useful at the local level since Manila Bay for example would appear as only one or two pixels in the model. Dr. Tuan asked if Dr. Anond had any recommendations for the RSTC and PSC in relation to the use of the carrying capacity model at the national level. Dr. Anond stated that all countries certainly have information that could be used in the model and that SEA START RC would be pleased to assist countries in this respect, but would need co-operation from the agencies.

8.12 Dr. Anond stated that SEA START RC will be conducting a project with COBSEA in the near future, COBSEA have identified 10 or more river catchments to be modelled and that this information could be shared for further development of the model. He noted that there was a need to develop a model for carrying capacity with respect to heavy metals and a need to develop ToR for the heavy metal work.

8.13 Professor Huang noted that he had been involved in land-based pollution issues for many years and thought that this work was very good and could perhaps be applied to the Pearl River estuary and associated coastal marine waters.

9. TRAINING NEEDS AND CAPACITY BUILDING ASSESSMENT AND PROGRAMME OF FUTURE ACTIONS

9.1 On the evening of 8th December 2005, a small working group comprised of the National Technical Focal Points from Vietnam and the Philippines, and the two expert members Dr. Ong and Dr. Anond, was formed to discuss an approach to developing the proposal for a training programme in the context of the South China Sea Project.

9.2 During the evening session on 9th December, the Chairperson invited the Project Director to present document UNEP/GEF/SCS/RSTC.6/12 entitled "*Training Needs and Capacity Building Assessment and Programme of Future Actions.*" Dr. Pernetta explained that training needs and opportunities at the demonstration sites were commented upon only in a few of the demonstration site proposal documents. He noted that this limited information was deemed insufficient for use in the development of an actual training programme for the project, and in this connection, the Sixth Meetings of the Regional Working Groups had each discussed training needs and opportunities specific to the demonstration sites. He noted that in addition a detailed questionnaire regarding training and capacity building needs had been provided to the RWGs. He noted that what was in the document was therefore a compilation of the needs and opportunities expressed through these modes of assessment and not a programme that could be implemented at the present time. He highlighted the role of the Regional Scientific and Technical Committee in formulating appropriate recommendations to the Project Steering Committee.

9.3 The view of the small working group was that there was such a diverse range of requests and identified needs for training that it would be not be practical for the project to develop a training programme that attempted to meet all needs and that certainly such a programme could not be developed during this meeting.

9.4 There was a lengthy discussion of the need for a clear definition of the objectives of the training, expected outcomes, the trainers and trainees, modes of training, existing training courses and materials, the benefits and disadvantages of the project components participating in joint training activities, and the role of the demonstration sites in the programme. In recognition of the complexity of the task of preparing a training programme for the project, it was recommended, and the meeting agreed, that a small sub-committee of the RSTC be formed to prepare a proposal.

9.5 The Chairperson asked for volunteers for this sub-committee, and Mrs. Wahyu, Dr. Jacinto, Dr. Suvaluck, and Dr. Ong indicated that they would be willing to contribute to the work of this group. It was agreed that the group will meet for one week, in February in Bangkok with the aim of finalising a preliminary programme that can be circulated to the members by the end of February. It was agreed that members would have one month within which to comment on the proposal before it was distributed to the regional working groups and other network members.

10. FURTHER ELABORATION OF THE REGIONAL STRATEGIC ACTION PROGRAMME

10.1 Status of the National Action Plans

10.1.1 In introducing this agenda item the Chairperson noted that the current status of the National Action Plans was outlined in the reports of the Regional Working Groups and also highlighted in the reports of the Chairpersons of the Regional Working Groups. The National Technical Focal Points were invited by the Chairperson to brief the Committee on their plans for high-level approval or endorsement of these plans.

10.1.2 The National Technical Focal Point for Thailand indicated that final draft NAPs had been received for seagrass, coral reefs, and land-based pollution. He noted that both wetlands and mangroves required an additional workshop to finalise their NAPs. He noted that all NAPs will be submitted to the IMC in final draft form by early 2007 and then adopted by government.

10.1.3 The first drafts of the NAPs have been finalised for seagrass, mangroves, and wetlands in the Philippines, and the first draft of the land-based pollution NAP will be completed soon. The Fisheries Action Plan for the next 10 years has been drafted. The National Technical Focal Point will raise the issue of the formal process of approval for discussion at the next IMC meeting that, will be convened this month. The challenge is to integrate the National Action Plans of the various components into a comprehensive action plan that is consistent with or part of the country's medium-term and long-term action plans.

10.1.4 Professor Huang noted that China's last IMC meeting convened during November 2005 had approved the NAPs in principle with some requirement for revision. It is expected that the land-based pollution NAP will be completed before 31st January 2006. The seagrass NAP is currently being evaluated by SEPA and it is planned that it will be completed by the end of this year. The wetland NAP is still under discussion. It is expected that all habitat NAPs will be finalised by the end February, 2006.

10.1.5 Mrs Wahyu noted that Indonesia's NAP for mangroves is currently in the administrative process for signature by the President as a legally binding document. The NAPs for seagrass and wetlands have been through the process of stakeholder consultation. Stakeholder consultation meetings will be convened for the land-based pollution NAP next year. The Government has considered budgetary requirements for NAP implementation.

10.1.6 Mr. Hashim informed the meeting that Malaysia's NAPs have been prepared for the coral reefs, wetlands, seagrass, and land-based pollution components. Stakeholder consultation workshops will be convened in the first quarter of 2006, for the first three components, with the aim of improving and completing the draft NAPs. A seminar will be convened for the land-based pollution NAP in order to introduce all stakeholders to their roles in the SCS project.

10.1.7 Mr. Savath noted that in Cambodia, second drafts of the NAPs were revised following comments from experts and the Project Co-ordinating Unit, and English and Khmer language versions of the NAPs have now been completed for the mangrove, wetlands, coral reefs, seagrass, land-based pollution, and fisheries components. It is anticipated that Government approval of the NAPs will occur early in 2006.

10.1.8 Dr. Hoang noted that Vietnam's National Action Plans have been finalised for the mangrove, wetlands, coral reefs, seagrass, land-based pollution, and fisheries components through stakeholder consultation workshops and scientific committee meetings.

10.2 Consideration of the second draft Strategic Action Programme and recommendations to the Project Steering Committee regarding its further elaboration and approval

10.2.1 The Project Director was invited by the Chairperson to introduce document UNEP/GEF/SCS/RSTC.6/13 "*Initial draft revision of the regional Strategic Action Programme*" which provides a summary of discussions concluded at the level of the Regional Working Groups to date. Dr. Pernetta stated that the contents of the document included elements for inclusion in the draft Strategic Action Programme following the review of goals and targets by the Regional Working Groups in their fifth meetings; consideration by the RSTC and further revision by the RWGs during their sixth meetings.

10.2.2 The Project Director then introduced the revised goals and targets for discussion by the Committee. These were reviewed individually by the Committee which accepted all the current drafts with the following suggestions, that:

- The Coral Reef Working Group re-consider the wording of the second target to ensure that it actually reflects the measure of rates of degradation adopted by the committee and that the time scale be included;
- The Regional Working Group on Land-based Pollution reconsider the draft goals and targets since the wording of the first suggested that it might be possible to achieve the target and at the same time have an increased loading of pollutant reaching the South China Sea.

10.2.3 It was noted that during the sixth round of meetings, the Regional Working Groups had discussed and prepared elements for inclusion in the regional Strategic Action Programme including challenges and proposed activities based on common elements from among the National Action Plans. Dr. Pernetta noted that the Regional Task Force on Economic Valuation had developed Guidelines on economic valuation that would be used in the cost benefit analysis of the SAP and that the RTF-L would provide elements for inclusion in the regional co-ordination component of the SAP. These outputs would be important elements for inclusion in the draft SAP in 2006.

10.2.4 The Chair of the RWG-M outlined the proposals for activities following which Dr. Nawarat raised a comment regarding Eco-labelling-accreditation. In clarification it was noted that this proposal had been made in respect of shrimps in particular, and the idea was to accredit producers who produced their shrimp with no impacts on mangrove habitat.

10.2.5 It was noted that the concept of ecological security related not only to mangroves but also other coastal habitats in term of aspects such as food security and protection of coastal populations. Dr. Thang raised comparison between cost for dyke construction and mangrove reforestation in Vietnam, and reminded members of the unfortunate lessons learned from the Tsunami event of last year. This issue could be used to enhance public awareness of the significance of coastal ecosystems.

10.2.6 Mrs. Wahyu supported the proposed activities regarding research on alternative livelihood and economic valuation at demonstration site level. The meeting considered issues related to networking and development of cooperative mechanisms. It noted that funding for maintaining networks is a challenge and had not been considered by the regional working groups. The members were asked to pay more attention to this issue during the next steps in SAP development.

10.2.7 Dr. Silalahi raised his concern regarding coordination among components in the implementation of the Strategic Action Programme. It was noted that regional coordination required not only co-ordination between countries but also between the components with many cross linkages between activities in different components.

10.2.8 The Chairperson of the RWG-SG outlined the proposed regional activities, noting that there were three main group of activities for research and monitoring including scientific and socio-economic surveys; regional mapping and database development and maintenance; and regional synthesis of demonstration site experiences. The working group needed feedback from the Regional Task Force on Legal Matters on proposed activities of training in law enforcement and networking.

10.2.9 The relationship between the targets and activities, and the feasibility of the proposed activities meeting the targets was queried. Some activities related to all components and should be combined or linked and objective 1 of the component "Research and Monitoring" should be adjusted to include socio-economic importance; and objective 1 of the component "Resource and Habitat Management" needed to reflect discussion of the working group on the area of seagrass under integrated management.

10.2.10 Mr. Henk queried what was intended by the recommendation to establish a regional body for joint management and whether this involved establishment of an entirely new body. In response it was noted that this was related to the need for management of transboundary seagrass beds and agreement on use zones of such areas. It was further noted that, the RTF-L was exploring options for using either existing or new or a mix of both mechanisms for strengthening regional co-ordination of the management of the South China Sea and that such recommendations from the regional working groups would need to be considered and incorporated into the components to be included in the regional co-ordination component of the SAP.

10.2.11 The meeting further discussed the proposed activity regarding training on law enforcement. It was noted that there were differences between countries in culture, legislation and limitation of responsibility of local people in law enforcement. Regarding small scale fisheries management, there was experience from the Philippines of involving local people in enforcement. It was recommended that the group consider combining training in law enforcement with the general heading "Training on monitoring, control, surveillance".

10.2.12 The Chairperson of the Regional Working Group on Coral Reefs, outlined the proposed activities and Dr. Silalahi stated that community empowerment and ownership was a rather new concept and that perhaps there was a need to develop guidelines and establish one or more models to disseminate such experiences.

10.2.13 Mr. Narong outlined the wetlands activities and informed the meeting that Component 2 on National Policy, Legal and Institutional Arrangements and Coordination was identified as the first priority, secondly – Public Awareness, Communication and Education. He noted that the activities under component 5 were not well elaborated and that, further work was needed by the group. In response to a query Mr. Narong indicated that discussions regarding a wetland monitoring system were already being undertaken in the working group.

10.2.14 It was recognized that the activity relating to the development of an incentive mechanism to recognize outstanding accomplishment in sustainable wetland use could be developed for other components. Dr. Silalahi supported the incorporation of such mechanisms in all project components, especially for legal and economic activities, and to develop common elements regarding incentive mechanisms for activities on economic instruments, and enforcement skills.

10.2.15 Mr. Pirochana, Chairperson of the Regional Working Group on Fisheries, outlined the fisheries activities but noted various difficulties with the wording of some of these, including the use of the terms “common resources” and in collaboration with other relevant institutions promote the “standardisation of fisheries related statistics” and information exchange which was unclear.

10.2.16 Dr. Pernetta explained that the actions had in fact been identified in the fourth meeting of the RWG-F and the standardisation of fisheries related statistics had been the topic of a number of recent SEAFDEC meetings. It was agreed that the RWG-F should evaluate the wording of all activities in relation to the revised targets and target dates since it had been some time since these were initially discussed by the RWG-F.

10.2.17 Regarding the land-based pollution activities it was noted that these were drafted on the basis of an incomplete set of national action plans and that consequently they would require more extensive work by the RWG-LbP. The meeting recommended that the RWG-LbP needs to go through this issue again based on NAP inputs to reflect national perspectives.

11. WORK PLAN AND TIMETABLE FOR THE REGIONAL SCIENTIFIC AND TECHNICAL COMMITTEE

11.1 The Chairperson invited the Senior Expert to introduce the document UNEP/GEF/SCS/RSTC.6/14 *“Proposed Work Plan and Timetable for the Regional Scientific and Technical Committee”* and any amendments thereto resulting from the discussions and agreements reached under preceding agenda items.

11.2 The Chairperson invited the Regional Scientific and Technical Committee to consider and approve the proposed work plan and timetable and make appropriate recommendations to the Project Steering Committee regarding changes to the duration of the project if required.

11.3 In terms of mechanisms to avoid further delay, all National Technical Focal Points identified a need for improved performance at the national level in relation to progress and financial reporting. Mrs. Wahyu Indraningsih from Indonesia stated that special attention would be paid to the delay of project activities, and that they would convene an IMC meeting in order to clarify the responsibilities of SEAs and to revitalise an e-group for communication amongst project participants.

11.4 In the case of Thailand, Dr. Nawarat Krairapanond identified that verbal communication was often ineffective in urging SEAs to deliver project outputs, and that formal letters to the SEAs from the National Focal Point requesting action would be more effective. Both Vietnam and Cambodia, identified the need for improved communication between the National Focal Points, National Technical Focal Points, and Focal Points for the project components and that actions would be taken to achieve this. Mr. Huang indicated that it was his view that delays without appropriate reason should not be accepted and that he intended to discuss appropriate future actions with the National Focal Point. The meeting generally agreed that the National Technical Focal Points should play a more proactive role in national level co-ordination.

11.5 The Committee noted that they would recommend to the Project Steering Committee that the project activities be extended till June 2008 in order to provide sufficient time for the completion of demonstration site activities and the completion of administrative procedures, including the receipt of final financial reports from the Specialised Executing Agencies.

11.6 There were no objections to the Project Co-ordinating Unit proposal that, additional meetings be convened during 2006 for the RWG-F, RTF-E, and RTF-L, and that, a second Roundtable Meeting for the Mayors and Managers of the Demonstration Sites be convened in 2006.

11.7 The meeting proposed that the RSTC convene its' next meeting in Cambodia during 2006. Mr. Savath indicated that he would need to consult with the Ministry of Environment, Cambodia regarding an appropriate date and place for the meeting, and agreed to communicate this information to the Project Co-ordinating Unit as soon as possible. The period from 12-16 December was deemed unsuitable, as the PEMSEA East Asian Seas Congress will be convened at this time. The work plan and schedule of meetings is attached as Annex 6 to this report.

12. ANY OTHER BUSINESS

12.1 The Project Director informed the meeting that the PEMSEA organised East Asian Seas Congress will be held on 12 – 16 December 2006 and that the South China Sea Project had been requested to support the Congress. He noted that the Executive Committee of the RSTC had considered this matter but that the queries raised had not been fully responded to, hence it was difficult to advise the committee on this matter given the diversity of the South China Sea activities covering six components and sub-components.

12.2 The meeting discussed the possible participation of the South China Sea Project in the PEMSEA organised East Asian Seas Congress in 2006. The group agreed that participation in the Congress would be of benefit as it would: a) expose participants to other programs, initiatives, and stakeholders in the South China Sea; b) provide an opportunity for the project participants to share with and learn from other participants, renowned panelists, and experts in specific fields; and, c) expose the South China Sea Project to other participants and stakeholders in the South China Sea.

12.3 Each Regional Working Group (RWG) and each Regional Task Force (RTF) may decide to present a paper at the EAS Congress and choose from among its members the person who would attend the conference and present the paper. This will mean a maximum of eight participants from all the RWGs and the RTFs. Site managers of operational demonstration sites will also be provided the opportunity to attend the conference if they prepare an acceptable technical paper for the EAS Congress.

12.4 Papers for consideration will need to be submitted for vetting to the RWG and RTF members by May 2006. Those found acceptable will be endorsed to the PCU and the abstracts submitted to the Congress organizers by June 2006. No more than 15 people will be supported by the project to attend the conference, at an estimated total cost of US20,000. This cost may be charged against the training component of the project.

13. ADOPTION OF THE REPORT OF THE MEETING

13.1 Mrs. Wahyu apologised for the fact that she had been urgently recalled to Jakarta at the request of the Minister and was therefore unable to present the report of the meeting. Professor. Huang, Vice Chair presented the report of the meeting, which was considered and adopted by the meeting.

13.2 Unfortunately the Secretariat was unable to finalise the text of agenda item 6 for consideration by the meeting in plenary. The Chairperson requested and the meeting agreed that the members of the RSTC who would be participating in the Project Steering Committee meeting be authorised to approve this section of the report on their behalf.

13.3 With the exception of the text for Agenda item 6 (the text of which was adopted as outlined in paragraph 13.2 above) the report was adopted as it appears in this document. Professor Huang thanked the Secretariat for their support to the preparation of the meeting report and to Ms. Unchalee for her support to all aspects of the organisation of the meeting.

14. CLOSURE OF THE MEETING

14.1 The Chairperson invited the Project Director to make a few remarks prior to the closure of the meeting. Dr. Pernetta thanked the members for their hard work and contributions to the business of the meeting, the Government of Indonesia for their support to the organisation of the meeting and the Officers of the Committee for handling a very full agenda in such a competent manner. Finally he reminded all participants that UNEP would be pleased to host a dinner to celebrate the successful completion of the meeting.

14.2 The Chairperson, Mr. Savath, noted that before closing the meeting, he would like to express his deepest thanks to all the friends here for working so hard during our three day meeting, not only during the day, but also in the evenings which generated a lot of inputs to making the meeting both successful and fruitful. On behalf of our group, he expressed appreciation to the government of Indonesia for hosting the meeting in the excellent location of Batam; Dr. Pernetta, Director of SCS project and all experts, for the excellent arrangements; and special thanks to Ms. Unchalee, who worked so hard not only during the meeting, but for many days before hand with documents, travel and accommodation arrangements, and financial matters. Without her support the meeting could not have been as successful or as enjoyable as it has been.

14.3 Finally on behalf of Dr. Mok Mareth, Senior Minister, Ministry of Environment, and National Focal Point of the South China Sea Project, in Cambodia, I would like to express my appreciation to all members for selecting Cambodia as the host country for the RSTC and 6th Project Steering Committee Meeting to be held in 2006. I should now like to declare the 6th meeting of RSTC closed at 18.15.

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ANNEX 2

List of Documents

Discussion documents

UNEP/GEF/SCS/RSTC.6/1	Agenda.
UNEP/GEF/SCS/RSTC.6/2	Annotated Agenda.
UNEP/GEF/SCS/RSTC.6/3	Report of the Meeting.
UNEP/GEF/SCS/RSTC.6/4	Current Status of the Administrative Reports from the Focal Points of the Participating Countries and co-financing of the operational phase activities.
UNEP/GEF/SCS/RSTC.6/5-M	Report of the Chairperson for the Regional Working Group on Mangroves.
UNEP/GEF/SCS/RSTC.6/5-CR	Report of the Chairperson for the Regional Working Group on Coral Reefs.
UNEP/GEF/SCS/RSTC.6/5-SG	Report of the Chairperson for the Regional Working Group on Seagrass.
UNEP/GEF/SCS/RSTC.6/5-W	Report of the Chairperson for the Regional Working Group on Wetlands.
UNEP/GEF/SCS/RSTC.6/5-F	Report of the Chairperson for the Regional Working Group on Fisheries.
UNEP/GEF/SCS/RSTC.6/5-LbP	Report of the Chairperson for the Regional Working Group on Land-based Pollution.
UNEP/GEF/SCS/RSTC.6/5-RTF-E	Report of the Chairperson of the Regional Task Force on Economic Valuation.
UNEP/GEF/SCS/RSTC.6/5-RTF-L	Report of the Chairperson of the Regional Task Force on Legal Matters.
UNEP/GEF/SCS/RSTC.6/6	Regional Guidelines on the Use of Fisheries <i>Refugia</i> for Capture Fisheries Management in the ASEAN Region.
UNEP/GEF/SCS/RSTC.6/7	Identification of Fisheries <i>Refugia</i> in the Gulf of Thailand.
UNEP/GEF/SCS/RSTC.6/8	Integrating Fisheries and Habitat Management in the Habitat Demonstration Sites.
UNEP/GEF/SCS/RSTC.6/9	Status of the Demonstration Site Proposals and Consideration of the Work Plan for their Finalisation.
UNEP/GEF/SCS/RSTC.6/10	Proposal for the Testing of a Blast Fishing Detection Device in the Tun Mustapha Park.
UNEP/GEF/SCS/RSTC.6/11	Report of the Investigation of the Carrying Capacity of the South China Sea Marine Basin with respect to Nutrients.
UNEP/GEF/SCS/RSTC.6/12	Training Needs and Capacity Building Assessment and Programme of Future Actions.
UNEP/GEF/SCS/RSTC.6/13	Initial Draft Revision of the Regional Strategic Action Programme.
UNEP/GEF/SCS/RSTC.6/14	Proposed Work Plan and Timetable for the Regional Scientific and Technical Committee.

Information documents

UNEP/GEF/SCS/RSTC.6/Inf.1	List of Participants.
UNEP/GEF/SCS/RSTC.6/Inf.2	List of Documents.
UNEP/GEF/SCS/RSTC.6/Inf.3	Programme.
UNEP/GEF/SCS/RSTC/ExComm.2/3	Second Executive Committee of the Regional Scientific and Technical Committee. <i>Bangkok, Thailand 21st – 22nd February 2005</i> . Report of the meeting UNEP/GEF/SCS/RSTC/ExComm. 2 /3, 6pp+III Annexes

- UNEP/GEF/SCS/RWG-LbP.6/3 Sixth Meeting of the Regional Working Group for the Land-based Pollution Component of the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Ninh Hai, Ninh Thuan, Viet Nam, 18th – 21st July 2005 UNEP/GEF/SCS/RWG-LbP.6/3.
- UNEP/GEF/SCS/RWG-M.6/3 Sixth Meeting of the Regional Working Group for the Mangroves Sub-component of the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Busuanga, Philippines, 1st – 5th August 2005 UNEP/GEF/SCS/RWG-M.6/3.
- UNEP/GEF/SCS/RWG-CR.6/3 Sixth Meeting of the Regional Working Group for the Coral Reefs Sub-component of the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Masinloc, Philippines, 22nd – 25th August 2005 UNEP/GEF/SCS/RWG-CR.6/3.
- UNEP/GEF/SCS/RWG-F.6/3 Sixth Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Sabah, Malaysia, 5th – 8th September 2005 UNEP/GEF/SCS/RWG-F.6/3.
- UNEP/GEF/SCS/RWG-W.6/3 Sixth Meeting of the Regional Working Group for the Wetlands Sub-component of the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Sihanoukville, Cambodia, 12th – 15th September 2005 UNEP/GEF/SCS/RWG-W.6/3.
- UNEP/GEF/SCS/RWG-SG.6/3 Sixth Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Bolinao, Philippines, 27th – 30th September 2005 UNEP/GEF/SCS/RWG-SG.6/3.

The following documents are supplied in published form.

- UNEP/GEF/SCS/RWG-SG.5/3 Fifth Meeting of the Regional Working Group on the Seagrass Sub-component for the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Bintan, Indonesia, 24th – 27th August 2004 UNEP/GEF/SCS/RWG-SG.5/3.
- UNEP/GEF/SCS/RWG-CR.5/3 Fifth Meeting of the Regional Working Group on the Coral Reefs Sub-component for the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Koh Chang, Thailand, 13th – 16th September 2004 UNEP/GEF/SCS/RWG-CR.5/3.
- UNEP/GEF/SCS/RWG-M.5/3 Fifth Meeting of the Regional Working Group on the Mangroves Sub-component for the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Trat Province, Thailand, 27th – 30th September 2004 UNEP/GEF/SCS/RWG-M.5/3.
- UNEP/GEF/SCS/RWG-W.5/3 Fifth Meeting of the Regional Working Group on the Wetlands Sub-component for the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Ha Long City, Viet Nam, 5th – 8th October 2004 UNEP/GEF/SCS/RWG-W.5/3.

- UNEP/GEF/SCS/RWG-F.5/3 Fifth Meeting of the Regional Working Group on the Fisheries Component for the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Phu Quoc Island, Viet Nam, 11th – 14th October 2004 UNEP/GEF/SCS/RWG-F.5/3.
- UNEP/GEF/SCS/RWG-LbP.5/3 Fifth Meeting of the Regional Working Group on the Land-based Pollution Component for the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Shenzhen, China, 24th – 27th November 2004 UNEP/GEF/SCS/RWG-LbP.5/3.
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- UNEP/GEF/SCS/PSC.4/3 Fourth Meeting of the Project Steering Committee for the UNEP/GEF Project *“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”*. Report of the Meeting, Guilin, China, 13th – 15th December 2004 UNEP/GEF/SCS/PSC.4/3.
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ANNEX 3

Agenda

- 1. OPENING OF THE MEETING**
 - 1.1 Welcome on behalf of UNEP
 - 1.2 Welcome address from a representative of the local Government
 - 1.3 Introduction of members
- 2. ORGANISATION OF THE MEETING**
 - 2.1 Election of Officers
 - 2.2 Documentation available to the meeting
 - 2.3 Programme of Work and administrative arrangements for the conduct of the meeting
- 3. ADOPTION OF THE MEETING AGENDA**
- 4. ADMINISTRATIVE AND FINANCIAL MATTERS**
 - 4.1 Status of the Project Website and regional GIS and Meta-databases
 - 4.2 Status of administrative reports for the year 2004 and first half of 2005
 - 4.3 Calculation of actual co-financing
- 5. NATIONAL CO-ORDINATION OF PROJECT RELATED ACTIVITIES**
- 6. REPORTS FROM THE REGIONAL WORKING GROUPS AND REGIONAL TASK FORCES ON PROGRESS TO DATE**
 - 6.1 Regional Working Group on Mangroves
 - 6.2 Regional Working Group on Coral Reefs
 - 6.3 Regional Working Group on Seagrass
 - 6.4 Regional Working Group on Wetlands
 - 6.5 Regional Working Group on Fisheries
 - 6.6 Regional Working Group on Land-based Pollution
 - 6.7 Regional Task Force on Legal Matters
 - 6.8 Regional Task Force on Economic Valuation
- 7. STATUS OF THE DEMONSTRATION SITE AND PILOT ACTIVITY PROPOSALS**
 - 7.1 Status of the demonstration site proposals for the habitat sub-components and Land-based Pollution Activities funded through the GEF project grant
 - 7.2 Status of the demonstration site proposals for the habitat sub-components funded via the Medium Sized Project mechanism
 - 7.3 Status of self-funded demonstration sites
 - 7.4 Consideration of the proposal regarding the testing of a blasting fishing detection device
- 8. CARRYING CAPACITY OF THE SOUTH CHINA SEA MARINE BASIN, WITH RESPECT TO NUTRIENTS**
- 9. TRAINING NEEDS AND CAPACITY BUILDING ASSESSMENT AND PROGRAMME OF FUTURE ACTIONS**
- 10. FURTHER ELABORATION OF THE REGIONAL STRATEGIC ACTION PROGRAMME**
 - 10.1 Status of the National Action Plans
 - 10.2 Consideration of the second draft Strategic Action Programme and recommendations to the Project Steering Committee regarding its further elaboration and approval
- 11. WORK PLAN AND TIMETABLE FOR THE REGIONAL SCIENTIFIC AND TECHNICAL COMMITTEE**
- 12. ANY OTHER BUSINESS**
- 13. ADOPTION OF THE REPORT OF THE MEETING**
- 14. CLOSURE OF THE MEETING**

ANNEX 4

Welcoming Speech

Mayor of Batam City on the Meeting of Regional Cooperation Regarding with the Trends of Reversing Environmental Degradation in the South China Sea and Gulf of Thailand
Thursday, 8 December 2005, Planet Holiday Batam

Assalamu'Alaikum Wr. Wb. Peace be upon on you and may god bless us.

The Honourable Deputy of Natural Resource Conservation and Management of Environmental Damage the Ministry of Environment the Republic of Indonesia;
The Honourable Mayor of Tanjung Pinang;
The Honourable Regent of Kepri;
The Honourable Head of Batam City's Parliament;
The Honourable Civil and Military Top Government Officials (Muspida) of Batam City;
The Honourable Chairman of Batam Industrial Development Authority;
The Honourable Director of UNEP/GEF Project, Dr. John Pernetta;
The All Participants and Distinguished Guests;

Ladies and Gentlemen:

First of all, let us praise to the god for giving us his blessing, happiness and opportunities, especially during this moment, therefore we could come together on meeting of regional cooperation regarding with the Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand.

I also wish to submit my appreciation to the State Ministry of Environment and all parties coordinating the project of UNEP/GEF. We do appreciate the decision to choose Batam as the host at this important meeting.

As we known, meeting of this regional cooperation is to study some activities/efforts the degradation of environment in estuary as the result of activities of human beings and the effect of natural process, which influenced by human being activities themselves. The target of this meeting is how through some activities can increase ecological quality in general and also give an effective mechanism for the transfer of information and experience from environmental activity, especially the contamination in each state. The meeting also to minimise sea degradation and contamination effects of environmental activities, which need a total guidance of operational rules. Emphasis on sources of environmental contamination is Indonesia generally and Batam especial. All perpetrator of development (stakeholder) who care with the environment will give their contribution.

Ladies and Gentlemen:

The election of Batam city on this regional cooperation meeting is not only consider of Batam which is geographically strategic location in trilateral area of business cooperations, Singapore-Johor/Malaysia - which is recognized Indonesia with "Sijori" Batam is also as a bonded treated zone has been developing as a center of trade, industry, tourism, logistic base, and transshipment.

I wish with this meeting will keep striving environmental management, especially in contamination issue reduced by land activity.

Finally, I sincerely wish that this regional meeting be both beneficial to all participants and the state. That is all, thank you for your kind attention. Wassalamu' Alikum Wr. Wb.

Penjabat Walikota Batam

Manan Sasmita

ANNEX 5

Investigation of the Carrying Capacity of the South China Sea Marine Basin with Respect to Land-Based Nutrients Loading

Part 1: Nutrient Loading and Deep Water Anoxicity

Reported by
Southeast Asia START Regional Center/Chulalongkorn University

On behalf of
Thailand National Technical Working Group (TH-NTWG)

Introduction

Coastal blooms of phytoplankton induced by land-based nutrient loading was cited in the TDA Report as one of the top priority impacts of land-based activities in the South China Sea. However, it was recognized that different marine areas could have different capacity to assimilate nutrient and therefore not all nutrient delivered from nearby land masses will end up in planktonic biomass in the area. Dispersion as well as particle settling were generally accepted as important processes that net remove nutrient from the system which could also induce anoxia in deep bottom water mass. These removal processes in the surface photic layer of the sea can be estimated and assimilation potential that lead to carrying capacity of each area in the South China Sea be understood.

Carrying capacity can be estimated by several approaches, some are qualitative while others can be very quantitative. In the SCS project, a quantitative modeling approach was proposed by Thailand and accepted by the 5th RSTC Meeting. The aim of the project was to quantitatively link surface phytoplankton biomass as indicated by chlorophyll and bottom concentration of dissolved oxygen with nutrient loading by rivers. Once the model was satisfactorily calibrated, assimilation capacity can be estimated by perturbing the system with some imaginary loading scenarios.

Modeling Principles, Domain and Constraints

The modeling system was based on a biogeochemical mass balance, such as the box model used in LOICZ Project, but multi boxes were connected into a horizontal 2-dimensional array that covers the whole South China Sea basin (Fig. 1). Organic particles that left the surface layer were originally assumed to be respired and consume oxygen in the lower layer. However, this assumption was proven to be unrealistic as no correlation was found between observed surface chlorophyll biomass and oxygen concentration in water layer immediately underneath the surface mixed layer in the South China Sea (Fig. 2) and therefore modeling of bottom oxygen was discontinued until a better modeling concept could be applied (Snidvongs 2005).

The modeling domain was between 10°S – 30°N and 99°E – 124°E and segmented into 100,000 of 0.1° x 0.1° each. Among these 58,618 grids were 'sea' grids. Bottom topography from U.S. National Geophysical Data Center ETOPO5 (<http://www.ngdc.noaa.gov/mgg/global/etopo5.html>) was used and the surface layer was defined as the upper 50-m layer of the sea.

Surface Circulation

Circulation of water in the surface layer was estimated using the Princeton Ocean Model (POM) driven by reanalysis daily wind for 2004 from U.S. Navy Operational Global Atmospheric Prediction System (NOGAPS—<https://www.fnmoc.navy.mil>). The modeled outputs were verified with observed ship-drift data Japan Oceanographic Data Center (JODC) archive (<http://jdoss1.jodc.go.jp>) (Fig. 3).

Mass Balance Equation and Numerical Solving

Mass balance equation at a quasi steady state for phytoplankton biomass (as indicated by chlorophyll concentration) in any grid i, j (C_{ij}) can be described as a function of transport in x and y directions (u_{ij} and v_{ij}), intrinsic removal (k_{ij}), and river input (R_{ij}) as:

$$u_{i-1,j} \cdot C_{i-1,j} - u_{i,j} \cdot C_{i,j} + v_{i,j-1} \cdot C_{i,j-1} - v_{i,j} \cdot C_{i,j} - k_{i,j} \cdot C_{i,j} + R_{i,j} = 0$$

The total sum of square of errors (SSE) between calculated and MODIS chlorophyll concentration (http://oceancolor.gsfc.nasa.gov/PRODUCTS/L3_chlo.html) for each grid was:

$$SSE = \sum_{i=0}^{250} \sum_{j=0}^{400} (u_{i-1,j} \cdot C_{i-1,j} - u_{i,j} \cdot C_{i,j} + v_{i,j-1} \cdot C_{i,j-1} - v_{i,j} \cdot C_{i,j} - k_{i,j} \cdot C_{i,j} + R_{i,j})^2$$

Monthly input of nutrient by each river (R_{ij}) was obtained by optimizing the above inverse problem optimizing such that SSE is minimum (Fig. 4).

Monthly loading of nutrients estimated by the modeling system, developed by this project could be verified for only 19 of the total of 200 rivers around the South China Sea (Fig. 5). Nutrient budgets for these 19 rivers were calculated during the LOICZ Project (<http://data.ecology.su.se/mnode/>).

Sensitivity Assessment and Assimilating Capacity

The model that was calibrated was analyzed for its sensitivity to an increase in nutrient loading by rivers. River loadings were increased by 10x and 100x times and the new distribution patterns of surface chlorophyll were calculated (Fig. 6). Since there have been no standard criteria for marine chlorophyll concentration in SCS countries, this study assumed that marine waters that have concentrations above 2 mg m⁻³ will be considered 'Eutrophic'. This arbitrary criteria is well within the range used elsewhere, e.g., from 1 mg m⁻³ for Great Barrier Reef lagoon (Steven et al. 1998) to 10 mg m⁻³ for the North Sea region (Allen et al. 2002).

An area was said to be sensitive to land-based nutrient loading and had a higher risk of becoming eutrophic, that is it potentially has low carrying capacity when the chlorophyll concentration increased in a proportionally higher rate.

High-Risk Marine Areas and Hotspot Rivers/Catchments

Increase in nutrient loading even as much as 100 times from present could only cause eutrophication in nearshore waters of the SCS, mostly in shallow areas within 150 km from coast. Marine water along the Philippines coast from Luzon to Palawan Islands had the highest carrying capacity and this part of the South China Sea will never become eutrophic. However this does not include potential eutrophication in bays and estuaries, which were not the foci of the modeling system. Another area that has relatively high carrying capacity is the Gulf of Thailand where response of the chlorophyll biomass in marine water was proportionally less sensitive to loading from nearby rivers.

Examples of areas with low and high carrying capacity as well as rivers that are potential hotspots for nutrient loading into coastal waters are shown in Figs. 8-11.

Modeling Workshop

A modeling workshop was held at Chulalongkorn University in Bangkok, 2-5 July 2005, and attended by 23 participants from SCS Project countries. Participants were trained to use the modeling system that was developed by this project to be executed on Microsoft Excel platform. The modeling systems were distributed to all participants to continue their modeling tasks at their home institutions.

Overall Summary and Recommendations

1. A modeling system was developed and enabled the estimation of land-based nutrient and loading via rivers despite the lack of chemical and hydrological data for those rivers;
2. The region now has a tool and human resource in each country to perform such modeling;
3. The regional modeling effort should be continued and linked with other regional programs in the region such as COBSEA and GPA/LBA;
4. A regional criteria for chlorophyll concentration in marine waters for South China Sea;
5. Model improvements including the linkage between loading and social/economic development in catchment to better estimate loading scenarios for each river, better treatments of mixing and internal removal kinetics, and fully use the ambient chlorophyll data or scenario to directly calculate required inputs by individual rivers;
6. Carrying capacity of an area in the SCS should be and will be expressed as maximum loading by each individual that should be allowed.

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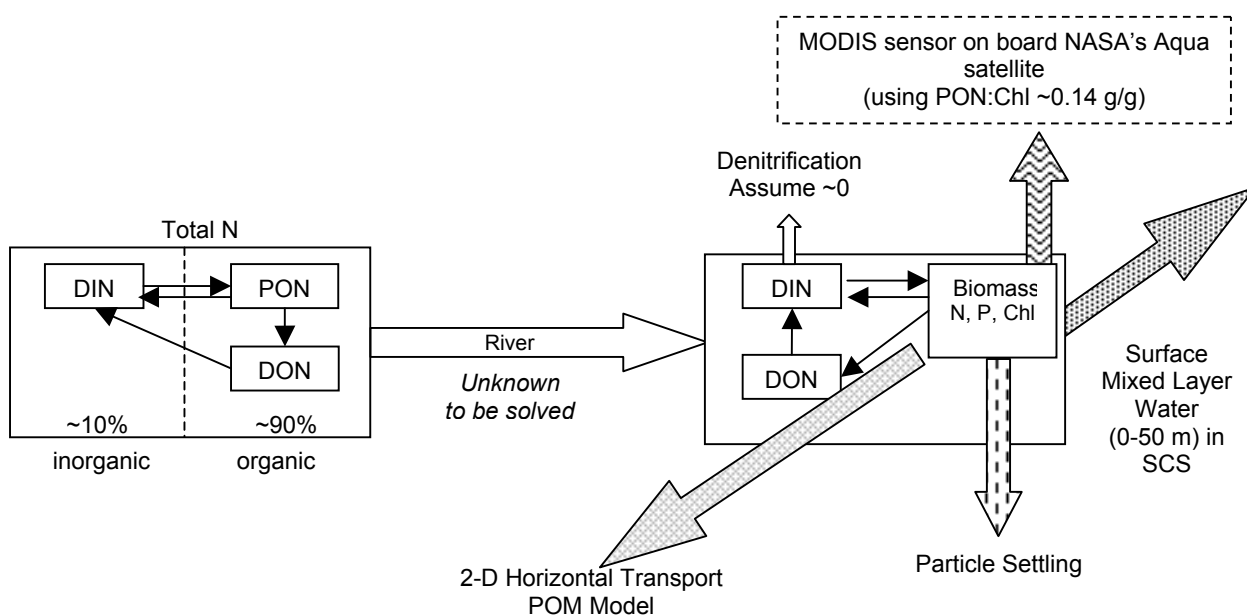
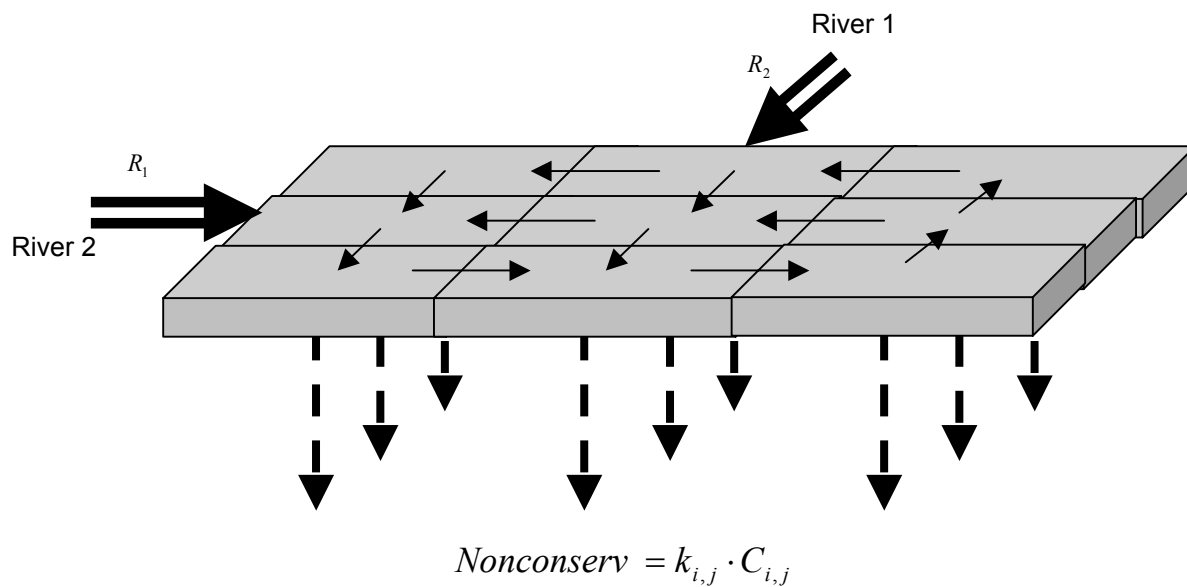


Figure 1 **Conceptual diagram for the modeling system and material transfer processes with in the system.**

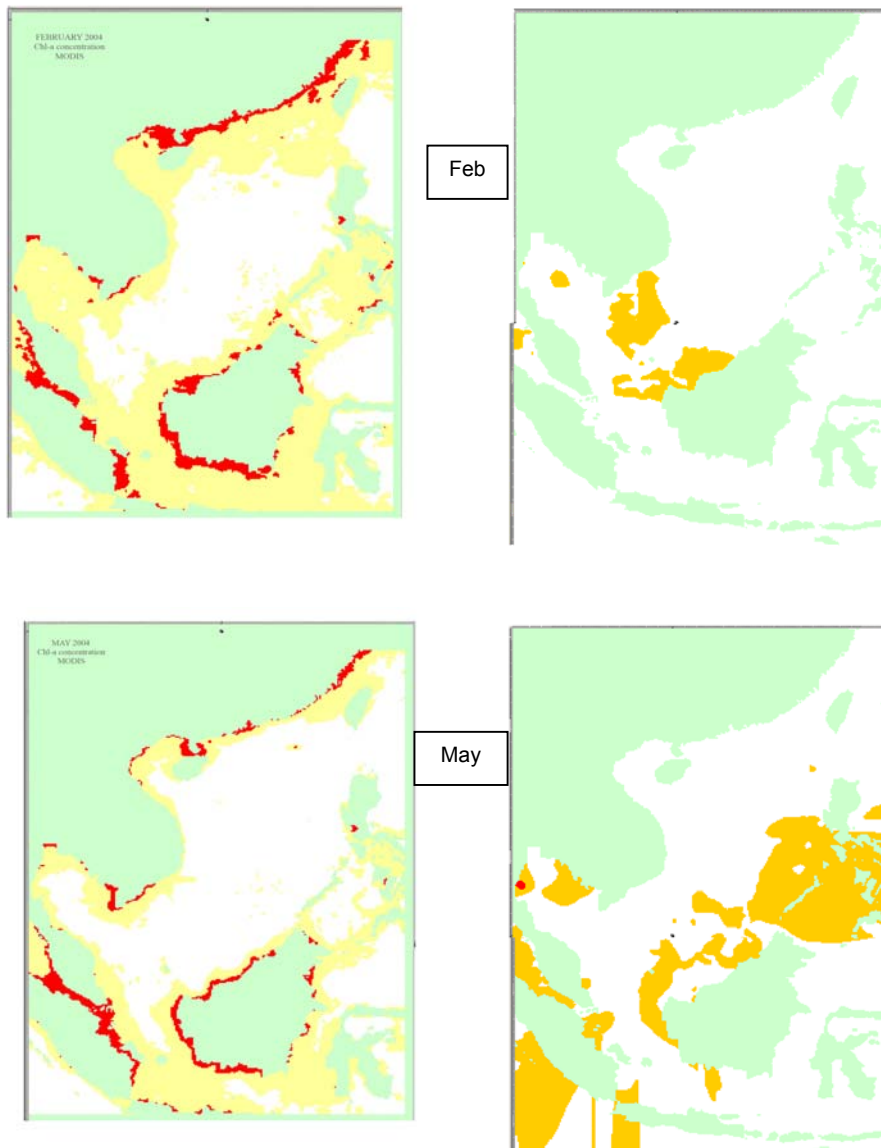


Figure 2 Distribution of surface chlorophyll from MODIS and observed oxygen concentration in the deep layer beneath the surface mixed layer for the months of February and May.

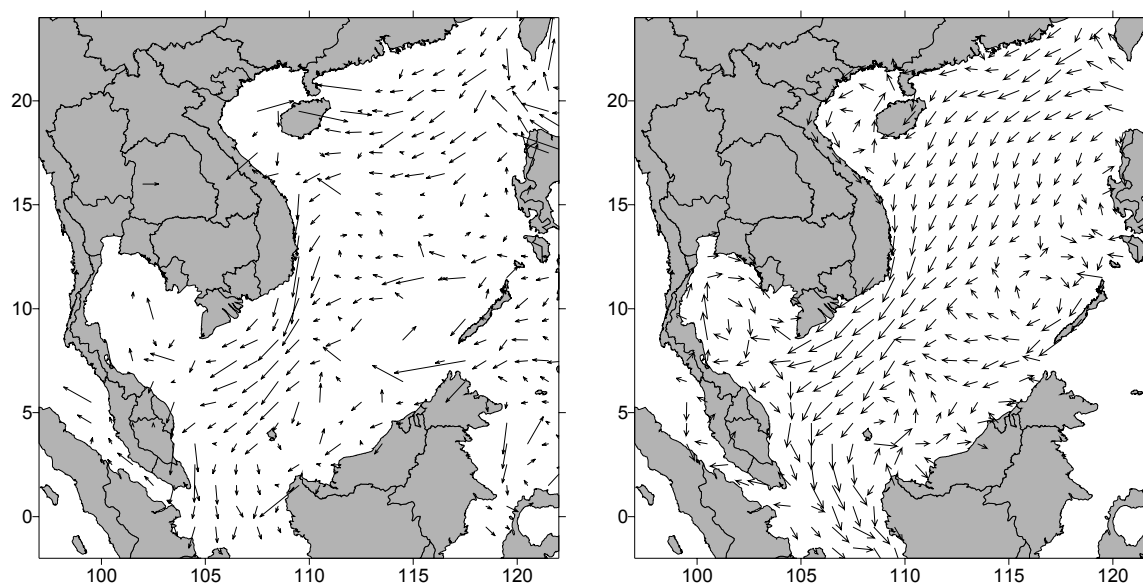


Figure 3 A comparison between JODC current implied from ship drift data (left) and POM output in this study. Data were aggregated to 1-degree.

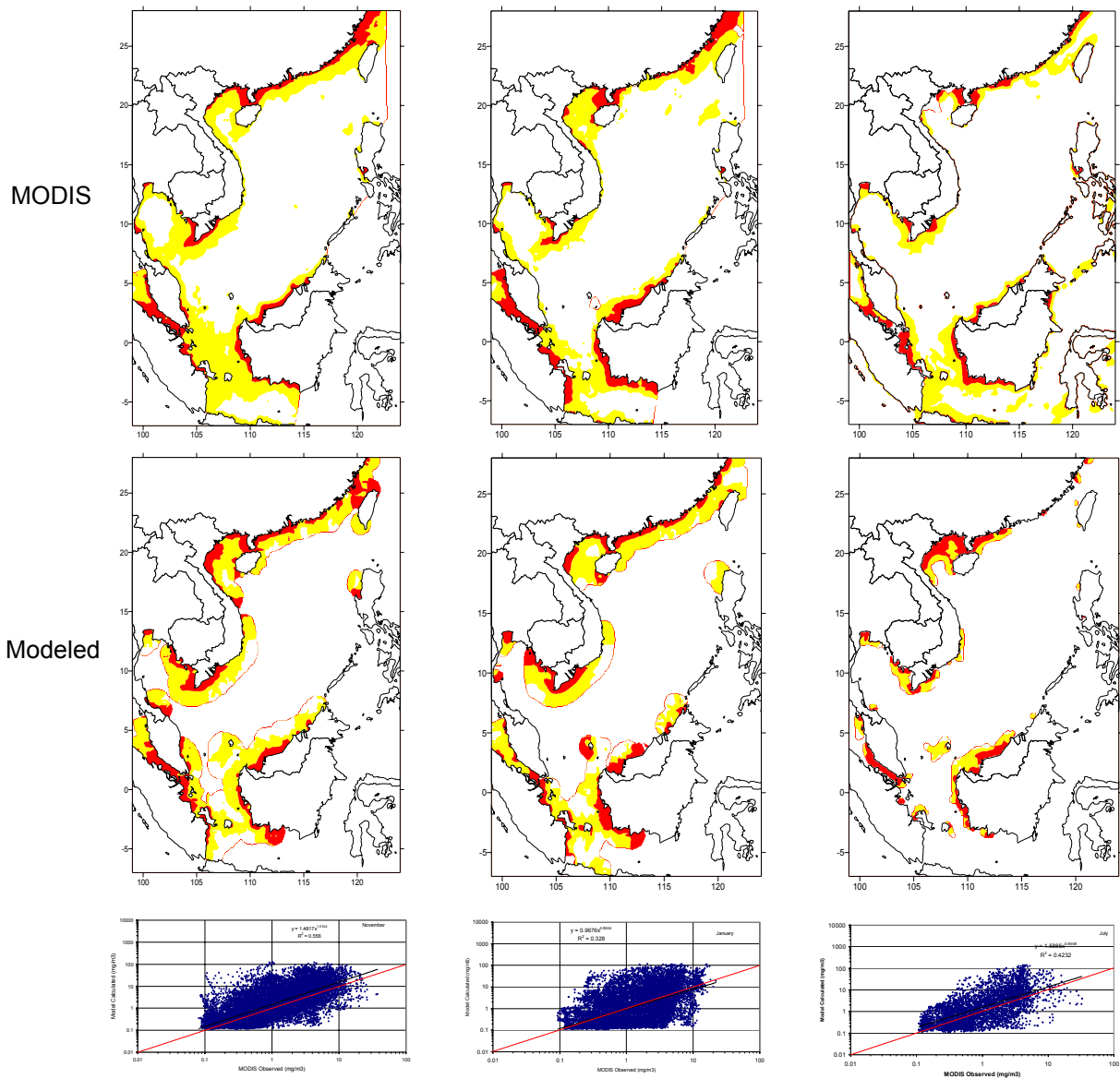
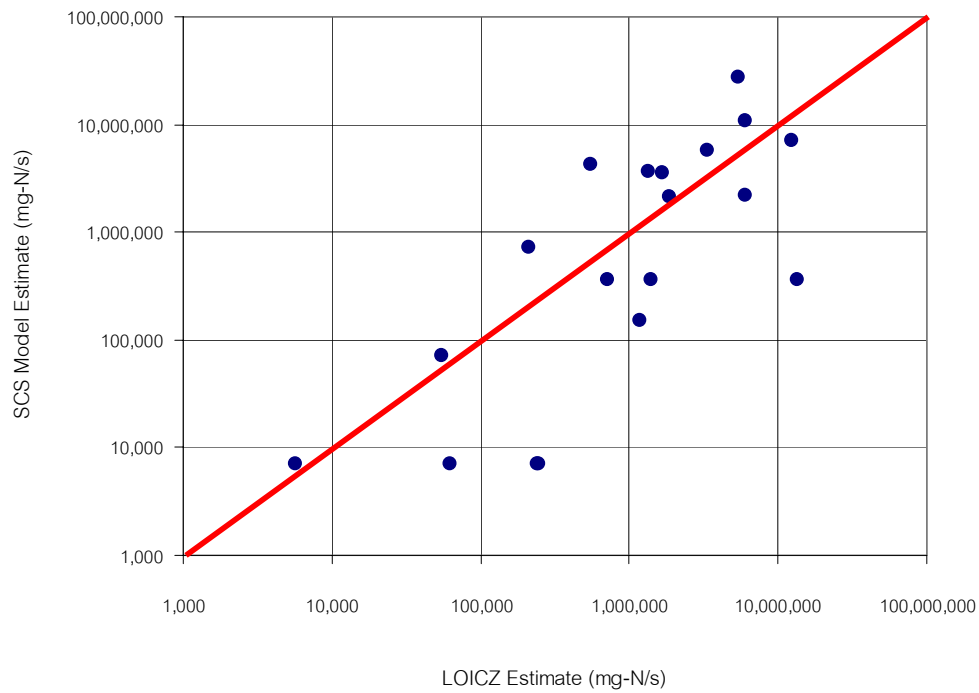
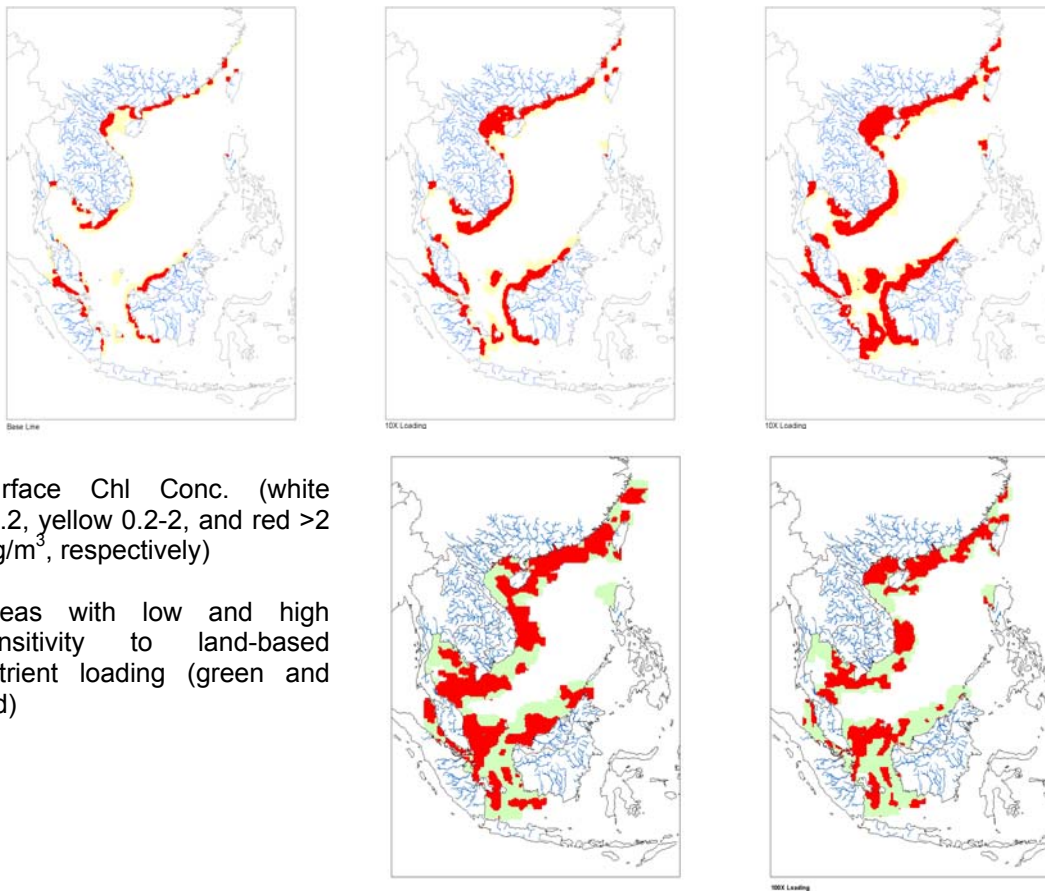


Figure 4 A comparison between MODIS and modeled chlorophyll concentration and regression plot between to two variables.



- | | |
|----------------|--------------------------------------|
| 1. China | Daya Bay |
| 2. China | Qing River-Qinzhou Bay |
| 3. China | Pearl Estuary |
| 4. China | Modao outlet-Pearl River Estuary |
| 5. China | Jidi outlet-Pearl River Estuary |
| 6. China | Jiulong |
| 7. Malaysia | Terengganu |
| 8. Philippines | Agno |
| 9. Philippines | Pampanga |
| 10. Thailand | Pak Phanang |
| 11. Thailand | Bangpakong |
| 12. Thailand | Tapi |
| 13. Thailand | Mae Klong |
| 14. Thailand | Prasae |
| 15. Thailand | Tha Chin |
| 16. Thailand | Chao Phraya |
| 17. Viet Nam | Thu Bon |
| 18. Viet Nam | Hua Giang (Bassac) |
| 19. Viet Nam | Phan Thiet Bay (Cai and CaTy Rivers) |

Figure 5 A comparison between modeled loading of total nitrogen and values estimated by LOICZ for 19 rivers in the South China Sea.



Upper: Surface Chl Conc. (white <math>< 0.2</math>, yellow 0.2-2, and red >2 mg/m^3 , respectively)

Lower: Areas with low and high sensitivity to land-based nutrient loading (green and red)

Figure 6 Sensitivity analysis of the responses of chlorophyll concentration to increases in nutrient loading. (10x and 100x)

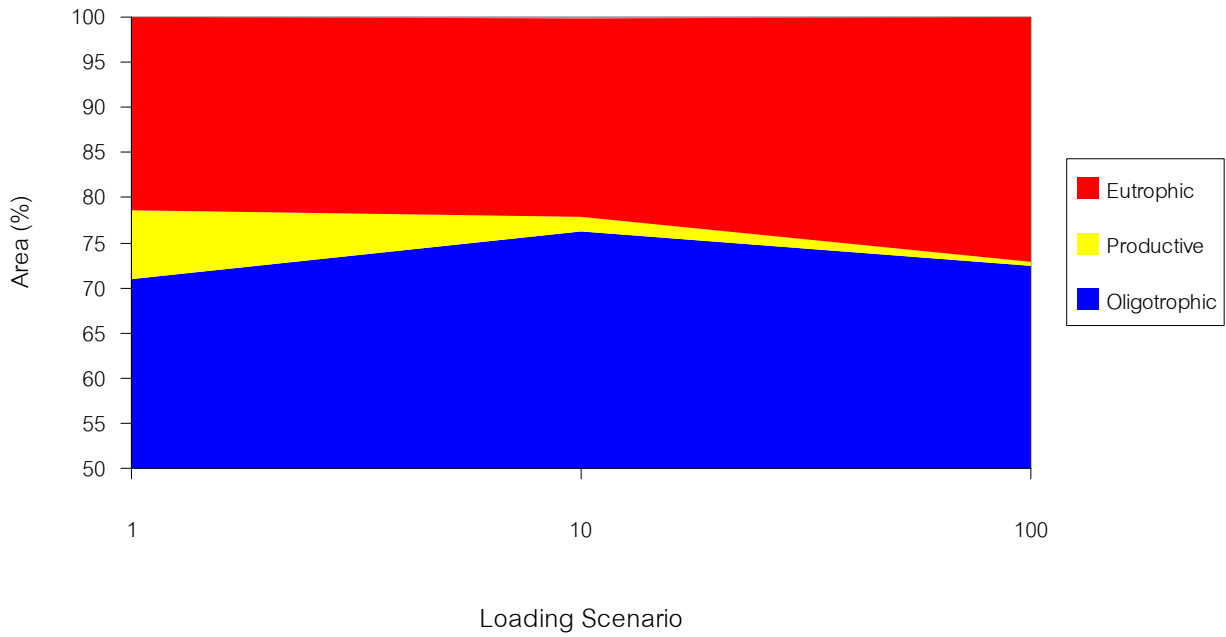
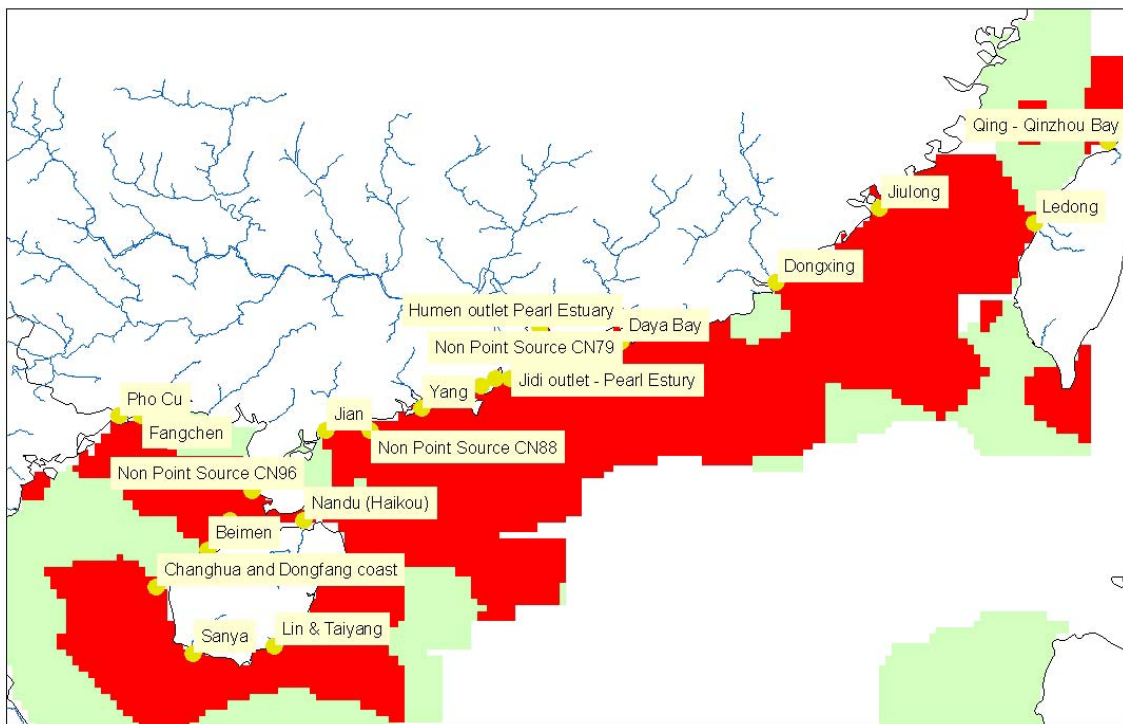


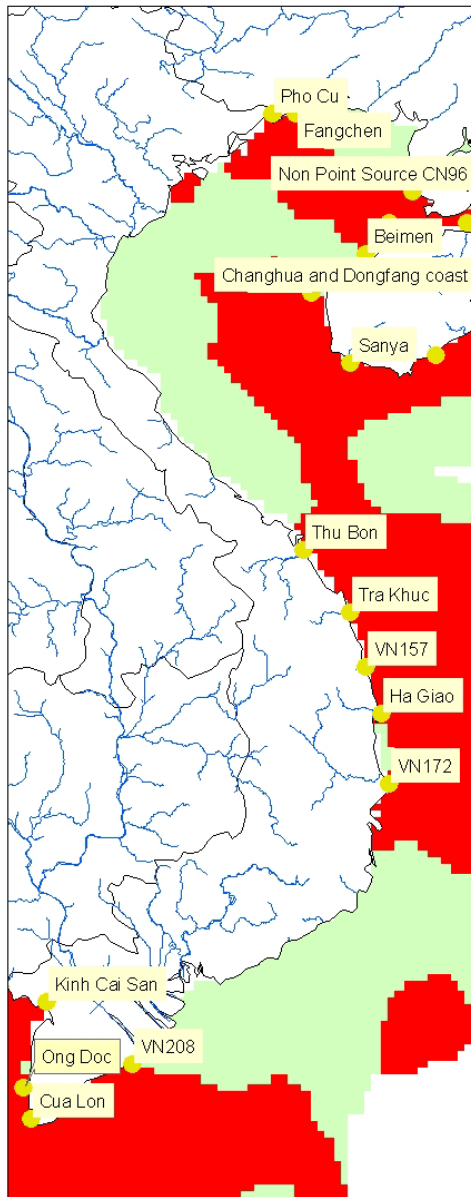
Figure 7 Relative areas that were classified as eutrophic, mesotrophic and oligotrophic for 3 nutrient loading scenarios. (1x, 10x and 100x)



10X Loading

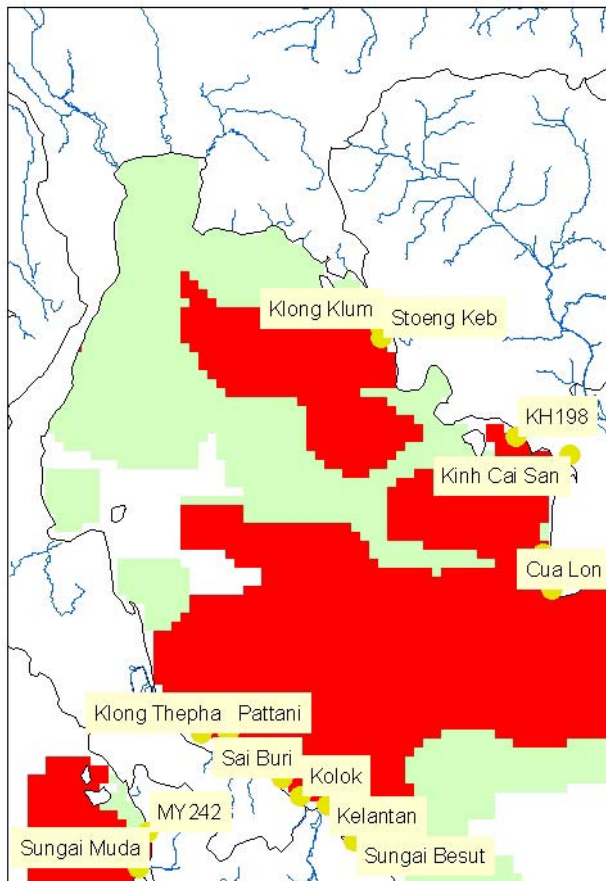
- | | |
|------------------------------|----------------------------------|
| Beimen | Jidi outlet - Pearl Estuary |
| Changhua and Dongfang coast | Ledong |
| Daya Bay | Leizhou Bay - Zhanjiang City |
| Dongxing | Lin & Taiyang |
| Eastern Guangdong | Modao outlet - Pearl Estuary |
| Fangchen | Nandu (Haikou) |
| Guanghai Bay - Taishan coast | Qing - Qinzhou Bay |
| Heng & Hongqili outlet | Sanya |
| Huanggang | Wenchang |
| Humen outlet Pearl Estuary | Ya & Hutiao outlet Pearl Estuary |
| Jian | Yang |

Figure 8 SCS along the Chinese coast showing areas that were more sensitive (red) and less sensitive (green) to nutrient input from land. List of hotspot rivers are given.



- Cua Lon
- Ha Giao
- Kinh Cai San
- Ong Doc
- Pho Cu
- Thu Bon
- Tra Khuc
- VN157
- VN172
- VN208

Figure 9 SCS along the Vietnamese coast showing areas that were more sensitive (red) and less sensitive (green) to nutrient input from land. List of hotspot rivers are given.

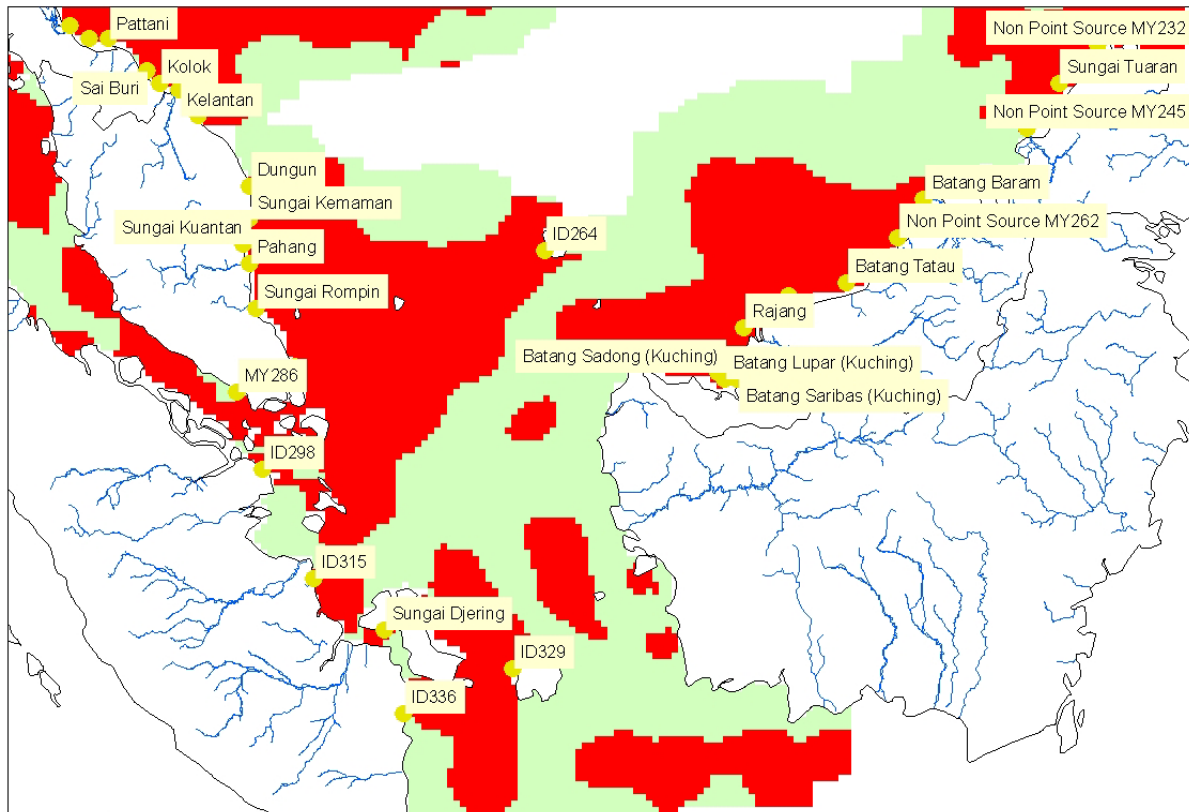


10X Loading

- KH198
- Klong Klum
- Stoeng Keb

- Klong Thepha
- Kolok
- Pattani
- Sai Buri
- Songkhla Lake

Figure 10 SCS along the Cambodia and Thailand coasts showing areas that were more sensitive (red) and less sensitive (green) to nutrient input from land. List of hotspot rivers are given.



Batang Baram	Sungai Kemaman
Batang Igan	Sungai Kuantan
Batang Lupar (Kuching)	Sungai Rompin
Batang Sadong (Kuching)	Sungai Tuaran
Batang Saribas (Kuching)	
Batang Tatau	<u>INDONESIA</u>
Dungun	ID264
Kelantan	ID298
MY286	ID315
Pahang	ID329
Rajang	ID336
Sedili	Sungai Djering

Figure 11 SCS along the Malaysia and Indonesia coasts showing areas that were more sensitive (red) and less sensitive (green) to nutrient input from land. List of hotspot rivers are given.

ANNEX 6

Work Plan and Timetable for the Period from 2005 to 2008

BACKGROUND

The UNEP/GEF South China Sea project became operational with the signature of the project document on 21st January 2002. The implementation of the project was divided into a preparatory and an operational phase. Originally, it was envisaged in the Project Document that the regional working group and task force meetings should start early 2001, and that all demonstration sites should become operational early 2004, and be concluded at the end of 2006. In reality, the working group meetings were started only in 2002 following signature of the Project Document, and task force meetings in 2003. Automatically, therefore the project had to be extended to the end of 2007 to carry out the planned activities.

Activities in the preparatory phase included, *inter alia*, the collection of available national data and information to identify priority sites and interventions. Activities in the operational phase build on the results from the first phase, and focus on national and regional actions to reverse environmental degradation trends the South China Sea. At the national level, activities include the implementation of demonstration sites, and the development and implementation of national action plans. At the regional level, the Regional Strategic Action Programme will be updated based on the inputs and elements of national action plans.

As reported to the third and fourth meetings of the Regional Scientific and Technical Committee (RSTC), some delays were encountered that required adjustment of the schedule of meetings, and extension of the preparatory phase for six months. During the fourth meeting of the RSTC, Pattaya, Thailand 15th – 17th February 2004, it was envisaged that all preparatory activities would be completed by 30th June 2004 and demonstration site activities for habitat components and pilot activities for land-based pollution component should be launched in July 2004. The fourth and fifth meetings of the RSTC, in Pattaya, Thailand, 15-17 February 2004 and Fangchenggang, China, 9-11 December 2005, rescheduled the work plans to accommodate the delay in the approval and implementation of the demonstration sites without further extending the overall duration of the project.

None of the demonstration sites became operational in 2004 as planned by the RSTC, mainly because the substantive content of the demonstration site proposals prepared by the focal points did not follow the guidelines agreed by the Regional Working Groups, and the financial budgeting did not meet the requirements of UN financial reporting. The first demonstration project document signed by the PCU and the SEA was for Hepu seagrass demonstration site on 16 April 2005. At present, seven demonstration sites funded through the GEF project grant are operational and a further seven demonstration sites and pilot activities are under final review for signature. The situation has been further complicated by the addition of the seven medium-sized projects (MSPs) placing further demands upon the short-staffed PCU, although the DGEF has provided additional substantive support in this regard. As of today, none of the MSPs has been formally approved by, the GEF Secretariat.

Recognising that the extension of the project duration was necessitated by the delays in demonstration site finalisation and recognising further that such a decision had financial implications the RSTC recommended to the Project Steering Committee that the project activities be extended to June 30th 2008 and that the PCU be maintained to December 2008 at a reduced staffing level to ensure timely receipt of final reports from the SEAs and prompt closure of the project accounts.

REVISED WORK PLANS BY THE LAST ROUND OF REGIONAL WORKING GROUPS/TASK FORCES MEETINGS

During the operational phase of the project, national activities include:

- *National committee meetings;*
- *National Technical Working Group meetings;*
- *Maintain and update national meta database;*

- *Act as information source regarding specific components and sub-components to the Inter-ministerial Committees, the Regional Working Group and the RSTC;*
- *Publication of national reports completed in the first phase of the project;*
- *Implementation of demonstration sites' and pilot projects' activities;*
- *The development and implementation of national action plans.*

Regional activities include:

- *Regional Working Groups, Task Forces, and PCU meetings.*
- *Roundtable Meetings for the Mayors and Managers of the Demonstration Sites*
- *The updating and elaboration of the Regional Strategic Action Programme.*
- *Regional synthesis of data and information.*
- *Promotion of regional coordination, dissemination of experiences and personnel exchange.*

Considering the fact that some SEAs have not completed their first phase activities while others have already launched the demonstration sites' activities, the Regional Working Groups and Task Forces rescheduled their individual work plans, based on the current status of work and realistic estimates on the time needed for relevant activities.

Particular consideration should also be given to any outstanding activities that any SEA may have from the original MoUs, such as the publication and distribution of national reports, and maintaining and updating of GIS data and information. It is also expected that counties will update their national meta-database, and their GIS questionnaire data, and submit these to SEA-START RC for inclusion in the regional databases.

Habitat Component

Activities to be undertaken under the habitat component include:

- *Completing outstanding tasks of the original MoU;*
- *Development and adoption of national action plans habitat sub-components;*
- *Elaboration of Regional Strategic Action Programme;*
- *Implementation of demonstration site activities;*
- *Promotion of regional coordination, dissemination of experiences and personnel exchange;*
- *Regional synthesis of data and information.*

Tables 1.1-1.4 include work plans and timetables for each of the four sub-components, as agreed respectively by the sixth regional working groups' meetings.

Fisheries Component

Activities to be undertaken under the fisheries component include:

- *Develop national & regional action plans for a regional system of *refugia*;*
- *Prepare and submit proposal(s) to the competent national authorities for the establishment of these *refugia* for fish stocks of transboundary and regional significance, to be adopted by the governments;*
- *Participate, through the Regional Working Group in oversight of the blast fishing trials and where appropriate advise national and local authorities on the practicality of its wider adoption in the participating countries; and*
- *Assist, through the Regional Working Group on Fisheries in the preparation of a comprehensive regional synthesis of data and information regarding fisheries in the South China Sea.*

Table 2 outlines the work plan and timetable till the end of 2007, as agreed during the sixth meeting of the Regional Working Group on Fisheries (RWG-F).

Land-based Pollution Component

The main activities to be undertaken under the Land-based Pollution component include:

- Develop national & regional action plans for addressing the impacts of land-based pollution;
- Prepare and submit to the competent national authorities a National Action Plan to be adopted by the governments;
- Participate, through the Regional Working Group in revision and finalisation of the regional Strategic Action Programme and where appropriate advise national and local authorities on the costs and benefits of action in the participating countries;
- Assist, through the Regional Working Group on Land-based Pollution in the preparation of a comprehensive regional synthesis of data and information regarding pollution in the South China Sea.

Table 3 summarises main activities for the period July 2005 to December 2007, as agreed during the sixth meeting of the Regional Working Group on Land-based Pollution.

Regional Task Force on Economic Valuation

Future activities of the Regional Task Force on Economic Valuation (RTF-E) should include:

- Finalisation of a manual to provide guidelines for the region in valuing coastal habitats bordering the South China Sea.
- Establish a regional database of empirical economic values for coastal goods and services.
- Provide inputs to the updating of the regional Strategic Action Programme.

The third meeting of the RTF-E agreed on a preliminary timetable for the initiation and completion of the above activities, as shown in Table 4.

Regional Task Force on Legal Matters

The third meeting of the Task Force on Legal Matters (RTF-L) decided to complete the following activities during the period of 2005-2006:

- Publish a regional review on legal matters, which will build upon the previous outputs and outcomes of the Task Force during the period 2003 to 2004.
- Conduct a regional study to explore alternative regional cooperative mechanisms.
- Undertake national activities concerning regional cooperation in environmental management in the South China Sea.
- Undertake a review on the implementation, enforcement and effectiveness of national legislation, prior to the fourth meeting of the Regional Task Force on Legal Matters.

Table 5 includes the work plan of the Task Force during the period of 2005-2006, as agreed by the third meeting of the Task Force.

SCHEDULE OF REGIONAL MEETINGS FOR 2006

Table 6 includes the schedule for regional meetings during 2006 as agreed by the regional working groups and task forces, and considered and agreed by RSTC.

Table 1.2 Work Plan and Time Table for Coral Reef Sub-component to 2007¹.as agreed during the 6th Regional Working Group meeting.

Quarter Month	2004					2005					2006					2007																															
	3		4			1		2			3		4			1		2			3		4																								
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D					
National Committee meetings	X		X			X		X			X		X			X		X			X		X			X		X			X		X														
National Technical Working Group			X					X					X					X					X					X					X					X									
RWG-CR meetings		X											X		X													X																			
Provide information to RWG-CR and RSTC																																															
Maintain national metadata base																																															
Regional Databases																																															
National revisions & up-dates of meta-data and GIS data submitted													VN Tha 10 th Sept		Ind 15 th Oct																																
Up-loading to data-bases and presentation on Line in interactive mode															X																																
Publication of National Reports in local language													VN Mal ² Thai																																		
Regional Publication of Nat. Rpts. in English																																															
PCU draft for focal pt review (10 days)															Draft																																
Printing and distribution																																															
Regional synthesis of data and information regarding the distribution and status of coral reefs (see UNEP/GEF/SCS/RSTC/ExComm.2/3)													X														X																				
National Action Plans and SAP																																															
Complete second draft of NAP																																															
Final draft of NAP ³									Vie				Cam Tha		Phi																																
Submission for adoption of Nap (contributing to SAP targets)														Cam Tha Phi																																	
National public meetings and workshops for NAP														Mal	Tha	Cam Mal Phi	Ind	Cam Mal		Phi		Ind																									
Provide guidance to NTWG & IMC on the Coral Reef component input to SAP														X																																	
Preparation by PCU of 1st draft of SAP for RSTC and PCU review														1 st																																	
National Review of SAP components - NCC																																															
National review of entire SAP – NTWG																																															
Second draft prepared by PCU																																															

¹ Acronyms used in this table: D-Draft, P-Printing, Cam-Cambodia, Ind-Indonesia, Mal-Malaysia, Phi-Philippines, Tha-Thailand, Vie-Viet Nam.

² Malaysia will print in English.

³ Indonesia and Malaysia will advise the PCU of the delivery date by 2nd September.

Table 1.2 cont. Work Plan and Time Table for Coral Reef Sub-component to 2007⁴.as agreed during the 6th Regional Working Group meeting.

Quarter	2004				2005				2006				2007																	
	3		4		1		2		3		4		1		2		3		4											
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Prepare concrete proposals to IMC concerning actions at national level, to meet SAP targets amendments to NAPs																														
Demonstration sites																														
Finalise Proposals																														
Economic valuation data to RTF-E																														

⁴ Acronyms used in this table: D-Draft, P-Printing, Cam-Cambodia, Ind-Indonesia, Mal-Malaysia, Phi-Philippines, Tha-Thailand, Vie-Viet Nam.

Table 4 Work Plan for the Regional Task Force on Economic Valuation for 2005-2006.

Year	2005												2006											
	Month	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12		
Second Regional Scientific Conference																								
Fourth RTF-E Meeting																								
1. Development of a framework and procedures to value the impacts of land-based pollution																								
1.1 Drafts to be completed during the 3 rd RTF-E meeting																								
1.2 Comments or other inputs to be provided to the PCU prior to finalisation of the framework and procedures																								
2. Development of an economic valuation manual for use in the demonstration sites and pilot activities																								
2.1 Agree on the format and individual responsibilities																								
2.2 Draft sections circulated by members																								
2.3 Comments from RTF-E members																								
2.4 Revision of drafts based on comments received																								
2.5 Manual compiled into first draft for distribution during the second Regional Scientific Conference																								
2.6 Final editing and clearance of the manual based on feedback from the Regional Working Groups																								
3. Development of a regional database of empirical economic values for coastal goods and services																								
3.1 Agree on activities and budgets																								
3.2 Prepare and sign Memoranda of Understanding																								
3.3 Members undertake the agreed activities																								
3.4 First compilation of data submitted to the PCU and other members of the RTF-E																								
3.5 Comments/discussion by Members on the first draft																								
3.6 Development of procedures for deriving "national" and regional values																								
3.7 Further amplification of data and procedures and compilation of second draft																								
3.8 Discussion and agreement of procedures for deriving "national" and "regional" values																								
4. Inputs to the updating of the Strategic Action Programme																								

Table 5 Work Plan and Timetable for the Regional Task Force on Legal Matters during the Period March 2005 to December 2006.

Month	2005												2006											
	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12		
Fourth Meeting of the RTF-L														X										
Second Regional Scientific Conference									X															
1. Publish a regional review on legal matters																								
1.1 Provide inputs to the RTF-L and PCU																								
1.2 Compile the review by the Editor & PCU																								
1.3 Format, copy-edit and print the review									X															
2. Study of alternative instruments and mechanisms to strengthen regional cooperation in the environmental management of the south china sea																								
2.1 Agree TOR	X																							
2.2 Engage Consultant																								
2.3 1 st draft of review of Instruments & mechanisms to RTF-L				1 st																				
2.4 Review, revision, amendment									2 nd															
2.5 Finalisation & distribution to RTF-L																								
3. Undertake national activities concerning regional cooperation in environmental management in the South China Sea																								
3.1 Submit draft budget & work plan to PCU	15 th																							
3.2 PCU to approve/finalise	31 st																							
3.3 Convene workshop and distribute questionnaire																								
3.4 Stimulate responses																								
3.5 Analyse survey responses																								
3.6 Translate analysis and workshop report and transmit to PCU									31 st															
3.7 PCU compile national outputs and distribute to RTF-L									14 th															
3.8 National consultation on consultants report, and survey results (7 countries)																								
3.9 Presentation of report of the consultations to the 4 th meeting of the RTF-L																								
4. Review of the implementation, enforcement and effectiveness of national legislation															15 th									

