



## **United Nations Environment Programme**

### **Terminal Evaluation of the UNEP GEF project “Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland” (GF/3309)**

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## Acronyms and Abbreviations

<b>CBPAP</b>	<b>China Biodiversity Protection Action Plan</b>
<b>CDB</b>	<b>Convention on Biological Diversity</b>
<b>EA</b>	<b>Executing Agency</b>
<b>GEB</b>	<b>Global Environmental Benefit</b>
<b>GDP</b>	<b>Gross Domestic Product</b>
<b>GEF</b>	<b>Global Environmental Facility</b>
<b>CNWCAP</b>	<b>China National Wetland Conservation Plan</b>
<b>IA</b>	<b>Implementing Agency</b>
<b>IWP</b>	<b>International Waters Programme</b>
<b>OP</b>	<b>Operational Programme</b>
<b>UNEP</b>	<b>United Nations Environmental Programme</b>
<b>UN</b>	<b>United Nations</b>
<b>LFM</b>	<b>Log Frame Matrix</b>
<b>MMC</b>	<b>Municipal Management Committee</b>
<b>MNR</b>	<b>Municipal Nature Reserve</b>
<b>MTR</b>	<b>Mid Term Review</b>
<b>NNR</b>	<b>National Nature reserve</b>
<b>PMC</b>	<b>Project Management Committee</b>
<b>PMU</b>	<b>Project Management Unit</b>
<b>PM</b>	<b>Project Manager</b>
<b>PNR</b>	<b>Provincial Nature reserve</b>
<b>PRC</b>	<b>People’s Republic of China</b>
<b>PIR</b>	<b>Project Implementation Report</b>
<b>POW</b>	<b>Programme of Works</b>
<b>NGO</b>	<b>Non-governmental Organization</b>
<b>SEPA</b>	<b>State Environmental Protection Agency</b>
<b>SEZ</b>	<b>Special Economic Zone</b>
<b>SCS</b>	<b>South China Seas (Project)</b>
<b>SIW</b>	<b>Shantou Intertidal Wetlands</b>
<b>STC</b>	<b>Scientific Technical Committee</b>
<b>TA</b>	<b>Technical Assistance</b>
<b>ToC</b>	<b>Theory of Change</b>
<b>TE</b>	<b>Terminal Evaluation</b>
<b>TM</b>	<b>Task Manager</b>

## Executive Summary

### Description of the Project

1. The United Nations Environmental Programme-Global Environmental Facility (UNEP-GEF) project “*Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland*” (SIW Project) was developed in the framework of an earlier and larger UNEP-GEF project, “*Reversing Environmental Degradation Trends in the South China Sea and the Gulf of Thailand*” also referred to as the South China Seas Project (SCS project).
2. *The overall goals of the SCS project were “to create an environment at the regional level, in which collaboration and partnership in addressing environmental problems of the SCS, between all stakeholders, and at all levels is fostered and encouraged, and to enhance the capacity of the participating governments to integrate environmental consideration into national development planning.”*
3. The SCS Project was to address, as one of its project components, habitat degradation and loss, in particular mangrove, coral reef, seagrass, and wetland habitats through a number of demonstration projects. The wetland habitat in the coast of Shantou City, Guangdong Province, China was proposed by the Regional Scientific and Technical Committee and endorsed as one of the priority wetland sites which require immediate intervention during the 3rd intergovernmental Steering Committee Meeting of the SCS Project convened in Manila, Feb. 2004.
4. Having identified the importance of the Shantou Intertidal Wetlands (SIW) the justification for the intervention was based upon the rationale that The Shantou intertidal wetland is facing three major threats, which are:
  - Conversion of wetland into aquaculture ponds and real estate land,
  - Over-exploitation of biological resources, and
  - Water pollution
5. The components of the Project, which comprise the strategy to address these threats are:

To improve the management of the wetlands by:

- Addressing the institutional management arrangements for the cross-sectoral and inter-agency management
- Developing an integrated management plan for the wetlands
- Developing the regulatory framework for the wetlands and improving law enforcement

To reduce the pressure on the wetlands by:

- Improving the protective management of the wetlands by upgrading the status of the municipal nature reserve to a national nature reserve
- Improving the capacity of the protected areas staff
- Introducing alternative livelihoods (e.g. ecotourism)

- Introducing management techniques that reduced the damaging practices of economic activities (e.g. silvo-aquaculture)

To repair some of the damage already caused to the wetlands by:

- Rehabilitating damaged areas

To change people’s attitudes towards the wetlands by:

- Promoting conservation education and awareness of the importance of the wetlands and natural values of the SIW

6. These components were developed in the Project’s log frame matrix which had the development objective of:

*“Reversing the environmental degradation trend of the South China Sea and the Gulf of Thailand”.*

2. The Project’s objective was given as:

*“To demonstrate a set of stress reduction measures effective at the Shantou Intertidal Wetland ecosystem, i.e. an intertidal wetland nearby a rapidly developing urban area”.*

3. To achieve this there were four outcomes envisaged:

- *“Area management improved through the establishment of cross-sectoral management body and the development and implementation of an integrated management plan”*
- *“Conservation and rehabilitation of some wetland areas achieved”*
- *“Environmentally friendly economic activities promoted”*
- *“Education and public awareness raising on wetland conservation promoted”*

7. The project duration scheduled was three years (36 months) from November 2007 – November 2010, but finally completed in May 2011 having a project extension for a period of six months. The Project is funded by GEF and co-financed by the participating Chinese governments at national and local levels (particularly the Shantou City Government and the Shantou Nature Reserve Office), as well as local communities of the demonstration sites. The GEF Executing Agency of this project is the Zhongshan University, with the key partners: Office of the Shantou City Nature Reserve and the local communities of Hexi, Sanyuwei, Suaiwan, and Waisha. The GEF Implementing Agency of the project is UNEP.

8. There is a multiplicity of different agencies involved in the management of the intertidal wetlands or that have a significant impact upon them although not directly mandated to manage the area. The Shantou City Government, three District Governments (Longhu, Haojiang and Chaoyang) and nine Bureaus (the Bureau of transport is not included but is arguably also a stakeholder) are included in the Management Committee with an additional mix of different land ownership and holding including land owned by the People’s Liberation Army. Prior to the SIW Project there was little if any coordination between these different interests as they related to the sustainable management of the intertidal wetlands.

9. At the start of the Project (the baseline) the institutional arrangements surrounding the management of the inter-tidal wetlands was extremely complicated consisting of overlying

authorities often with contradictory mandates and overlapping authorities and responsibilities. By way of example the Management Committee established by the Project had fifteen different institutions or Committees and the present Committee which is the overall authority for the inter-tidal wetlands has seventeen different institutions or agencies as members.

10. Zhongshan University was the Executing Agency and UNEP was the Implementing Agency principally through the UNEP-GEF International Waters Programme based in Bangkok.
11. A Project Management Unit (PMU) was established in Shantou within the Office of the Shantou City Nature Reserve with a substantive seconded Project Manager from Zhongshan University.
12. The diversity of interests in the SIW resulted in a large number of Project partners and stakeholders including the State Environmental Protection Administration (SEPA)<sup>1</sup>, Shantou City Government, Bureau of Planning and Land Resources, Forestry Bureau, Bureau of Ocean and Fishery, Environment Protection Bureau, and the district governments of the four sub demonstration sites (Longhu, Haojiang, and Chaoyang Districts), but it is worth noting that the bureaucratic compartmentalization of government resulted in certain aspects of wetland management (e.g. natural fisheries management) being largely excluded from the Project’s design and implementation (or at least not being integrated into the Project’s design).
13. Apart from the wider community of Shantou, the communities of four towns Hexi, Sanyuwei, Suaiwan, and Waisha with a total recorded population of 367,388 can be considered as non-state stakeholders. The Project Document did not identify any vulnerable groups or attempt to disaggregate stakeholders by gender.
14. During the Project’s implementation a cross-sectoral Project Management Committee (PMC) chaired by the Vice-Mayor of Shantou Municipality was established that was to be advised by a Scientific and Technical Committee (STC) and to provide guidance for the Executing Agency.
15. There was a well-established framework for communication and transfer of experience between the other demonstration projects already in place, which was set up under the SCS project, at the start of the Project. However, the effectiveness of this appears to have diminished with the end of that (SCS) project.

#### **UNEP-GEF Terminal Evaluation**

16. The Terminal Evaluation (TE) is initiated and commissioned by United Nations Environmental Programme Evaluation (UNEP) Office, Nairobi. In line with the UNEP Evaluation Policy, the UNEP Evaluation Manual and the Guidelines for GEF Agencies in Conducting Terminal Evaluations, the terminal evaluation of the Project “*Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland*” is undertaken at the end of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes:

#### **Findings of the Terminal Evaluation**

17. The SIW Project has largely achieved what it set out to do having demonstrated that institutions can collaborate or participate in the project implementation and that it is necessary to bring an integrated approach to managing complex systems such as the SIW. Furthermore, it has demonstrated a number of technologies (e.g. silvo-aquaculture) to local

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<sup>1</sup> Currently referred to as Ministry of Environmental Protection

resource users. However, it has not developed a broad participation in the planning and management of the SIW, what we might loosely term the resource governance aspects of the system, at anything other than an institutional scale.

18. The Project has, by the measures set out in the Log Frame Matrix (LFM), achieved its objective in:
  - Establishing an integrated management structure for more efficient management of the SIW (the Municipal Management Committee which is an existing planning structure)
  - Increasing protection to the MNR and rehabilitating a number of degraded areas and developing a management plan for the nature reserve
  - Introducing a number of “technologies” or methodologies to reduce the impact of economic activity on the SIW and to provide alternative livelihoods
  - Raising public awareness and improving understanding at a number of levels (institutional, civic and educational) of the importance of the SIW
19. There were weaknesses in the Project’s design, in particular in the Project’s log frame matrix and the indicators selected for monitoring and evaluation. Essentially these were just re-stating the outputs or targets and not necessarily indicators that inform about the quality of the outputs or outcomes. More useful indicators might have provided some insight into the performance of the Cross-sectoral Management Committee *vis a vis* a range of wetland issues, particularly where these related to trade-offs between economic development and the continued provision of wetland ecosystem goods and services. Therefore the indicator might have been *wetland resource governance* and the sources of verification might have been the number of decisions made by the Committee in favor of conservation or protection of wetland resources over management, Municipal budget allocation to wetland conservation management, number of environmental impact assessments, etc. However, the use of what are effectively “one-off events” as indicators provides no real insight into the direction of the process of change.
20. The SIW Project was to a large extent breaking new ground for China. While it is clear that environmental concerns are becoming increasingly important in the planning process in China, it is also clear that until recently planning has largely been focused on economic and social development, very often at the expense of the environment. Therefore there was little in the way of precedents that the Project could draw upon, particularly when it came to resource governance and participation. Certainly it seems strange, given that environmental planning is a relatively new approach in China, there was not a greater effort by the SCS Project or the GEF Secretariat to ensure that there was a component of external (preferably international) technical assistance to this project. Perhaps this was because it was designed within the framework of the SCS project and it was assumed that there would be a greater cross-fertilization of ideas between participating countries, that there was not a larger external TA component and the efforts of the Project should not be undervalued because of this. But as an observation that this Project would have benefitted from the exchange of ideas and experience that can be provided by external TA.
21. The TE believes that the effects of the SCS Project closing and the technical support this had provided were not anticipated as a risk to the Project. Furthermore, there appears to have been very little support from the UNEP-GEF International Waters Programme (IWP) during the first half of the Project. However, support appears to have picked up in 2009 with the



appointment of a new Task Manager (TM) and for the remaining part of the Project there has been good project assurance and support.

22. Budget planning and execution has been good and the work plans have been executed in a timely and efficient manner. Project co-financing has been poorly reported but there is every indication that the co-financing commitments were met and even exceeded.
23. The TE considers that the following ratings (Table 1) fairly and adequately reflect the Projects achievements.

**Table 1 Project ratings**

<b>Criterion</b>	<b>Summary Assessment</b>	<b>Rating</b>
<b>A. Attainment of project objectives and results</b>	<ul style="list-style-type: none"> <li>- The Project has achieved its objectives;</li> <li>- The activities were efficiently implemented.</li> <li>- However:</li> <li>- It is assumed that the Municipal Management Committee will continue to increase the scope of participation in the planning and management process beyond the institutional and agency level to include a broader public participation.</li> </ul>	S
1. Effectiveness	<ul style="list-style-type: none"> <li>- The Project’s strategy provided a reasonable means to achieve the objective</li> </ul>	S
2. Relevance	<ul style="list-style-type: none"> <li>- The Project’s objectives were relevant at a regional, national and local scale</li> </ul>	S
3. Efficiency	<ul style="list-style-type: none"> <li>- There was a certain efficiency in developing demonstration projects within the SCS Project and with the relatively small financing available there has been a relatively large effect</li> </ul>	S
<b>B. Sustainability of project outcomes</b>	<ul style="list-style-type: none"> <li>- The Project has put in place a number of mechanism that have increased the likelihood of the outcomes being sustained after the Project ends (e.g. the representation on the Municipal Management Committee, raised public awareness, involvement of Universities in the planning and management of the SIW, silvo-aquaculture, mangrove replanting and protection and improved status of protected areas).</li> <li>- However:</li> <li>- There are a number of external drivers such as continued water flows into the wetlands which have not been adequately addressed but could impact negatively on the ecosystem;</li> <li>- Cross-sectoral management approaches are still not effectively implemented in the reality. The legal basis to guarantee the importance status of this approach was not there.</li> </ul>	ML
1. Financial	<ul style="list-style-type: none"> <li>- There is likely to be continued support from the Municipality</li> </ul>	L
2. Socio-political	<ul style="list-style-type: none"> <li>- There is a larger political “buy-in” to conservation of the SIW but it is not clear if the mechanism will stimulate a broader local community support unless their participation in the decision-making is possible</li> </ul>	L
3. Institutional framework	<ul style="list-style-type: none"> <li>- The Projects outcomes have been embedded in the Forest Bureau and there is now representation of SIW conservation management issues on the Municipal Management Committee. There is also the added advantage of the University of Zhongshan as a scientific and academic institution which can support the scientific basis of decision-making in the future</li> </ul>	L

Criterion	Summary Assessment	Rating
4. Environmental	<ul style="list-style-type: none"> <li>- Wetland protection and conservation should be included in the urban planning in the future and have a legal basis to guarantee its implementation. In such cases, what is required, permitted and prohibited in wetland area would be defined by a clear and legal basis, then wetland protection would be given higher priority. The SIW is vulnerable to external factors such as river flows, etc.</li> </ul>	ML
<b>C. Catalytic role</b>	<ul style="list-style-type: none"> <li>- The Project has instigated a number of behavioral changes amongst stakeholders, developed incentives by linking ecosystem processes to economic activities, developed a number of regulatory instruments, improved the financial position of SIW protected areas and provided a significant champion for wetland conservation in Zhongshan University</li> </ul>	S
<b>D. Stakeholders involvement</b>	<ul style="list-style-type: none"> <li>- The Project has successfully encouraged stakeholder participation in the planning and management of the SIW which includes the scientific, agency and local government participation.</li> <li>- However:</li> <li>- Broader public participation in the decision-making process has not been as satisfactory and this process needs to be continuously developed and strengthened.</li> </ul>	S
<b>E. Country ownership / driven-ness</b>	<ul style="list-style-type: none"> <li>- There is clear ownership of the objectives and outcomes of the Project;</li> <li>- These are supported by a number of national and regional policies and programmes.</li> </ul>	S
<b>F. Achievement of outputs and activities</b>	<ul style="list-style-type: none"> <li>- All the Project activities were implemented and the outputs achieved.</li> <li>- However:</li> <li>- The Wetlands Training, Education and Information Centre was delayed due to the stringent vetting procedures imposed on all government contracts but this has largely been addressed and work is progressing, and will continue to progress well.</li> </ul>	S
<b>G. Preparation and readiness</b>	<ul style="list-style-type: none"> <li>- The Project Document clearly defined roles and responsibilities</li> <li>- However:</li> <li>- There were initial shortcomings in getting the Project going largely due to weak support to the Executing Agency and PMU. However, this appears to have been addressed by the midterm of the Project</li> </ul>	S
<b>H. Implementation approach</b>	<ul style="list-style-type: none"> <li>- The Executing Agency (Zhongshan University) has performed well;</li> <li>- The International Waters Programme following a poor start has managed to recover well and worked closely with the Executing agency to bring the Project to a satisfactory conclusion;</li> <li>- The Executing Agency has managed successfully to bring other stakeholders into the process;</li> <li>- The PMU has performed well;</li> </ul>	S

Criterion	Summary Assessment	Rating
	<ul style="list-style-type: none"> <li>- In all the Project has recovered well from what appears to have been a poor start.</li> <li>- However,</li> <li>- At the start of the Project there were serious shortcomings in the support from the IWP.</li> </ul>	
<b>I. Financial planning and management</b>	<ul style="list-style-type: none"> <li>- All the financial transactions during the project period have been duly audited by a certified public accountant;</li> <li>- The Executing Agency has diligently reported on Project expenditures;</li> <li>- The activities appear to have been reasonably costed;</li> <li>- Co-financing has been achieved.</li> <li>- However:</li> <li>- There has been poor reporting of the co-financing until the Terminal Report.</li> </ul>	S
<b>J. Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>- The Inception Workshop, Inception Report, APR/PIR, PSC meetings, a MTR and a Terminal Report have all been carried out;</li> <li>- The Project has recovered well from the earlier difficulties resulting in the weak support from the IWP.</li> <li>- However:</li> <li>- There are weaknesses in the LFM which make it extremely hard to measure the quality of changes;</li> <li>- Monitoring was weak during the first half of the Project.</li> </ul>	S
1. M&E Design	<ul style="list-style-type: none"> <li>- The provisions for monitoring and evaluation (M&amp;E) in the Project Document are based on the standard UNDP/GEF M&amp;E template and are relevant and appropriate for a project of this magnitude and nature except for the weaknesses in the LFM</li> </ul>	S
2. M&E Plan Implementation	<ul style="list-style-type: none"> <li>- Despite the poor start and the weak Inception Report the M&amp;E implementation has recovered.</li> </ul>	S
3. Budgeting and funding for M&E activities	<ul style="list-style-type: none"> <li>- There was adequate budget provision for the M&amp;E activities</li> </ul>	S
<b>K. UNEP Supervision and backstopping</b>	<ul style="list-style-type: none"> <li>- For approximately the first half of the Project there was an absence of UNEP supervision and backstopping by the International Waters Programme which had a detrimental effect on the Projects implementation and progress.</li> <li>- However:</li> <li>- There has been a marked improvement in the quality and quantity of supervision and backstopping since the mid-point of the Project, which has responded well and recovered much of the “lost ground”.</li> </ul>	S

24. Notwithstanding these ratings and the Project successes the TE has a number of concerns, these are:

- Cross-sectoral management approaches are still not effectively implemented in reality and the integrated coastal management of marine and coastal resources, not only wetland resources, needs to be included in a larger coastal zone management planning process, especially in relation to longer term climate change risks and other externalities. This will require the development of a set of policies and planning guidelines to direct development in the future.
- There is still an overemphasis on economic development over sustainable development in general (i.e. there is still some way to go). Interestingly the SCS fisheries *Refugia Initiative*<sup>2</sup> was highly acclaimed in the Terminal Evaluation<sup>3</sup>. However, there seems to have been no cross-over from this experience into the SIW Project. The TE suspects that this might have been due to inter-sectoral differences in that this was a Forest Bureau project and the fisheries falls under the Ocean and Fisheries Bureau and not necessarily a failing of the SCS Project.
- There is a low priority given to tidal flats and salt marsh compared to mangroves. Wetland rehabilitation and conservation in Shantou were partly concentrated on mangrove re-plantation or reforestation and therefore there is a lack of a systematic view and approach
- There is a need to strengthen the adaptive or experimental approach towards implementing pilot or demonstration projects (e.g. the need to include financial analysis of demonstration/pilot activities if they are to be replicated and up-scaled, the “scientific rigor” of the demonstration activities is making analysis, comparison and selection of most cost-effective treatments for future management options difficult). This criticism can be directed at GEF projects *per se* and is not just a feature of the SIW Project.
- Key indicators to measure the status/improvement of environmental quality are lacking or they are not widely available. There needs to be a greater openness in monitoring the environment.
- The fall in regional support following the end of the South China Seas project did affect the Project, although it did manage to get through this period. Whether this was due to a hiatus following the end of the SCS Project or there were some other reasons involved is not clear because the International Waters Programme appears to have been able to provide this support around 2009.
- There were weaknesses in the Project’s overall design (e.g. the institutional context should have had greater analysis, the timeframe for the Project was therefore too short, the ending of regional technical support when the SCS project ended, etc.). The Project Document underestimated the complexity of the challenge of establishing integrated participatory management structures, although the Project has done remarkably well, the process of participatory planning is far more time-consuming than that described in the Project document

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<sup>2</sup> UNEP, 2008. *Strategic Action Programme for the South China Sea*. UNEP/GEF/SCS Technical Publication No. 16.

<sup>3</sup> TERMINAL REPORT February 2002 to December 2008 of the Project Director to THE UNITED NATIONS ENVIRONMENT PROGRAMME THE GLOBAL ENVIRONMENT FACILITY AND THE PROJECT STEERING COMMITTEE FOR THE UNEP/GEF PROJECT ENTITLED: REVERSING ENVIRONMENTAL DEGRADATION TRENDS IN THE SOUTH CHINA SEA AND GULF OF THAILAND [Project No GF/2730-02-4340]

and greater analysis should have been given to existing planning approaches and capacities.

## Lessons Learned

25. The TE draws two lessons from the SIW Project.
26. **Lesson 1:** The TE repeatedly raises the issue of resource governance which is synonymous with the Project Document’s “participatory planning and implementation” and “integrated” and “participatory” management in order to manage the SIW in a way that the ecosystem goods and services that they provide are sustainable. To achieve this it is necessary to make the wetland system (including the social, economic and ecological components) resilient to any future change. This means making sure that the system is capable of adapting. Adaptation at this scale requires a broad participation of all stakeholders. The approach to developing a framework for participation at this scale should be made more explicit in a project’s design.
27. Strengthening this aspect of the Project, and indeed other GEF projects, could be achieved through more investment during the planning phase in understanding the institutional arrangements and dynamics that surround a specific site or issue. Therefore, when developing these complex projects it would be useful to use tools or methodologies such as institutional mapping<sup>4</sup> that can provide a dynamic map of the relationships which can be tracked over time and used to develop specific strategies to influence the course of these relationships.
28. This could be further strengthened through external facilitation (e.g. facilitated workshops) to provide a mechanism to bring about change. Admittedly the scope for this is limited where institutions are more introverted and such an approach might not always be acceptable to a national government but at least it should be considered during a project’s design phase.
29. **Lesson 2:** GEF demonstration projects should have, in addition to the Project Manager, a Monitoring Officer. Adaptive management is a phrase that is used in almost every GEF project but with little attention to what it actually means. Adaptive management or experimental management requires a level of scientific rigor in designing the intervention, identifying the assumptions, defining what success might look like (the objectives) and a statistically robust monitoring system (that might include comparisons and a control). Adaptive management is essentially a means to allow management to proceed without the need for extensive research. Within any GEF project there are two levels of adaptive management: that of monitoring the performance and impact of the project (essentially the role of the EA, PMU and Project Manager which is already covered in the project cycle management) and also to ensure that specific interventions are achieving what was expected of them, the latter being the role of a monitoring officer.
30. It would be unreasonable to expect the PM of any project to be handling monitoring on this scale. Furthermore, it is important that monitoring of interventions is carried out independently of project monitoring because there might be effectively a conflict of interests between project expedience and reporting success or failure. Therefore it would be useful for GEF projects, particularly those which are designed specifically as demonstration projects to include amongst the project staff compliment a dedicated monitoring officer to design and implement monitoring programmes for specific interventions.

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<sup>4</sup> See: Paul Dragos Aligica, Institutional and Stakeholder Mapping: Frameworks for Policy Analysis and Institutional Change Public Organiz Rev (2006) 6: 79–90, 2006 Springer Science & Business Media, LLC

## Recommendations

31. The TE makes only one recommendation that UNEP, through the Regional Office of the International Waters Programme, should communicate with the Shantou Municipal Management Committee congratulating them on the satisfactory outcome of the SIW Project (copied to the Zhongshan University in their capacity *post* Executing Agency) and stresses the importance of the Municipal Management Committee following up the SIW Project by:

- a. Expanding the Committees function to other marine and coastal resources and not only focus on wetland resource.

The Project Management Committee was established ad hoc for this project on wetland protection and the purpose of this approach was to harmonize any overlapping responsibilities of line agencies and stakeholder interest. Although the functions of the PMC have been integrated into the permanent and larger Shantou Municipality Management Committee the TE has noted on a number of occasions that the SIW are particularly vulnerable to external drivers and events therefore they cannot be isolated from the larger coastal planning and management issues. Sustainability of the SIW and indeed the Shantou Municipality (not to be too alarmist) depends upon expanding the responsibilities of this committee and increasing the participation of other institutions (e.g. Universities, etc.).

- b. Creating a legal basis to ensure that wetland conservation management is legally included within urban planning in the future. In such cases, what is required, permitted and prohibited in a wetland area would be defined by a clear and legal basis. Therefore, wetland protection would be given higher priority, which would also promote public awareness and understanding of wetland resources. Underpinning this would be a definition of what constitutes a wetland which could be drawn from the Ramsar definition. Under the Convention on Wetlands (Ramsar, Iran, 1971) "wetlands" are defined by Articles 1.1 and 2.1 as shown below:

### Article 1.1:

*"For the purpose of this Convention wetlands are areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters."*

### Article 2.1 provides that wetlands:

*"may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six meters at low tide lying within the wetlands".*

- c. Expressing the need regular monitoring of environmental variables within the SIW and for clear and transparent sharing of this data, possibly through a clearing house mechanism.

Certainly data obtained through project should be shared between agencies and institutions. At the Municipal level there is an urgent need to develop a comprehensive and transparent monitoring plan with standards for data collection, indicators and a means to interpret change and put in place the appropriate responses. UNEP should stress the plausible environmental, economic and public

health risks of not ensuring that there is reasonable freedom by individual concerned institutions to collect environmental data and share data.



## I Evaluation Background

### 1 Context

1. In this report the context within which the “Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland” Project<sup>5</sup> is set is relegated to the section dealing with the background to the project. However, as is so often the case, the context has had a profound effect upon the outcomes and will continue to influence the likely impacts of the intervention in the future.
2. The context in this instance is to some extent, detailed in the Project Document and presented in the following three sections. However, it also exposes the limitations of the bureaucratic process in communicating or describing the *context*. The remarkable context of the SIW is the pace of changes taking place in the project area and the scale of these changes, the energy within the system, the socio-political aspects of a centralized and largely target-driven and time-bound planning system and the contradictions that are thrown up by a country, economy and society that is in rapid transition.
3. An important facet of this *context* is the multiplicity of different agencies that are involved in the management of the intertidal wetlands or that have a significant impact upon them although not directly mandated to manage the area.

#### 1.1 Environmental Context

4. The Shantou intertidal wetland (SIW) is characterized as a relatively small intertidal wetland habitat, with a total of 3,186.87 ha, with some mangrove forests.
5. The SIW is located on the northeast coast near Shantou City, Guangdong Province, China. Its central geographical location is 23°20’N, 116 °42’E is at the estuary area constituting a delta of three rivers, the Hanjiang, Rongjiang and Lianjiang Rivers. It is the northern most site in all of the demonstration sites selected under the earlier South China Seas (SCS) project.
6. The SIW is located in the transitional area between tropical and subtropical zones. Its climate has mixed tropical and subtropical characteristics. In relation to the complex climate, temperate, subtropical and tropical biological resources can be found as well as the diverse types of habitats, such as estuaries, lagoons, intertidal mudflats, and non-peat swamps. The SIW is at the midway of a number of important migratory species, such as migratory fishes, dolphins, and migratory water birds. Its environment is an indispensable component of the South China Sea<sup>6</sup>.

#### 1.2 Policy and Institutional Context

7. The UNEP GEF project “*Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland*” was developed in the framework of an earlier and larger UNEP-GEF project, “*Reversing Environmental Degradation Trends in the South China Sea and the Gulf of Thailand*” also referred to as the South China Seas Project (SCS project).
8. The overall goals of the SCS project were “*to create an environment at the regional level, in which collaboration and partnership in addressing environmental problems of the SCS, between all stakeholders, and at all levels is fostered and encouraged, and to enhance the capacity of the participating governments to integrate environmental consideration into national development planning.*”

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<sup>5</sup> Hereinafter referred to as *the SIW Project* or *the Project*

<sup>6</sup> Source Project Document

9. The SCS Project was to address, one of its project components, habitat degradation and loss, in particular mangrove, coral reef, seagrass, and wetland habitats through a number of demonstration projects. The wetland habitat in the coast of Shantou City, Guangdong Province, China was proposed by the Regional Scientific and Technical Committee and endorsed as one of the priority wetland sites which require immediate intervention during the 3<sup>rd</sup> intergovernmental Steering Committee Meeting of the SCS Project convened in Manila, Feb. 2004<sup>7</sup>.
10. At the start of the Project the institutional arrangements surrounding the management of the inter-tidal wetlands was extremely complicated consisting of overlying authorities often with contradictory mandates and overlapping authorities and responsibilities. By way of example the Management Committee established by the Project had fifteen different institutions or Committees and the present Committee which is the overall authority for the inter-tidal wetlands has seventeen different institutions or agencies as members. The Shantou City Government, three District Governments (Longhu, Haojiang and Chaoyang) and nine Bureaus (the Bureau of transport is not included but is arguably also a stakeholder) are now included in this Management Committee. There is also an additional mix of different land ownership and holding including land owned by the People’s Liberation Army. Prior to the SIW Project there was little if any coordination between these different interests as they related to the sustainable management of the intertidal wetlands.

### 1.3 Development Context

11. Shantou intertidal wetland is located in one of the more developed areas of China with very a high population density and its environmental quality is affected by the rapid economic development of Shantou City. Shantou City is an important Special Economic Zone (SEZ) in China with a total area<sup>8</sup> of 2,064.4 km<sup>2</sup>. In 2003, it had a population of 4,846,400 and the annual Gross Domestic Product (GDP) *per capita* was \$1,550, by 2010 the population had increased to 5,391,028. This has imposed a considerable pressure on the proposed wetland site. Due to the continuously increasing population density, anthropogenic activities have become increasingly intensive. The current use of the Shantou intertidal wetland includes briny and limnetic aquaculture, reclamation for farmland and municipal estate, conversion of wetland to salt fields, tourism parks<sup>9</sup>.

## 2 The Project

12. The objective of the project is to demonstrate a set of stress reduction measures effective at the Shantou intertidal wetland ecosystem including: (i) establishment of institutional arrangements for cross-sectoral and participatory management (cross-sectoral management body and integrated management plan); (ii) rehabilitation and physical enclosure of some hotspots; (iii) promotion of environmentally friendly economic activities (silvo-fishery and eco-tourism); and (iv) development and implementation of awareness raising and capacity building programmes. The project duration scheduled is three years (36 months) from November 2007 – November 2010, but finally completed in May 2011 having a project extension for a period of six months. The Project is funded by GEF and co-financed by the participating Chinese governments at national and local levels (particularly the Shantou City Government and the Shantou Nature Reserve Office), as well as local communities of the demonstration sites. The GEF Executing Agency of this project is the Zhongshan University, with the key partners: Office of the Shantou City Nature Reserve and the local communities of Hexi, Sanyuwei, Suaiwan, and Waisha. The GEF Implementing Agency of the project is UNEP.

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<sup>7</sup> Source Project Document

<sup>8</sup> Water area is not included.

<sup>9</sup> Source Project Document

13. As discussed in section 1.2, the SIW Project has its origins in the earlier South China Seas or to give it its grand title, “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand” , the SCS project. The SCS project has its origins within the earlier Bali Strategic Plan for Technology Support and Capacity-building or Bali Strategy which was agreed in 2005.
14. The decision to select Shantou inter-tidal wetlands was made based on the result of the prioritization of forty-three potential wetland demonstration sites nominated by seven countries participating to the SCS Project. During this rigorous and objective selection process the forty-three potential wetland demonstration sites were ranked on the basis of criteria reflecting combined and weighted scores for environmental and socio-economic indicators reflecting the regional and global significance. Shantou intertidal wetland in Guangdong Province, China, ranked as one of the most important wetland sites overall<sup>10</sup>.
15. Having identified the importance of SIW the justification for the intervention was based upon the rationale that The Shantou intertidal wetland is facing three major threats, which are:
  - Conversion of wetland into aquaculture ponds and real estate land,
  - Over-exploitation of biological resources, and
  - Water pollution
16. The components of the Project, which comprise the strategy to address these threats, comprised a fairly reasonable and logical response, that is:

To improve the management of the wetlands by:

- Addressing the institutional management arrangements for the cross-sectoral and inter-agency management
- Developing an integrated management plan for the wetlands
- Developing the regulatory framework for the wetlands and improving law enforcement

To reduce the pressure on the wetlands by:

- Improving the protective management of the wetlands by upgrading the status of the municipal nature reserve to a national nature reserve
- Improving the capacity of the protected areas staff
- Introducing alternative livelihoods (*e.g.* ecotourism)
- Introducing management techniques that reduced the damaging practices of economic activities (*e.g.* silvo-aquaculture)

To repair some of the damage already caused to the wetlands by:

- Rehabilitating damaged areas

To change people’s attitudes towards the wetlands by:

- Promoting conservation education and awareness of the importance of the wetlands and natural values of the SIW

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<sup>10</sup> *Ibid*

17. These components were developed in the Project’s log frame matrix which had the development objective of:

*“Reversing the environmental degradation trend of the South China Sea and the Gulf of Thailand”.*

18. The Project’s objective was given as:

*“To demonstrate a set of stress reduction measures effective at the Shantou Intertidal Wetland ecosystem, i.e. an intertidal wetland nearby a rapidly developing urban area”.*

19. To achieve this there were four outcomes envisaged:

- *“Area management improved through the establishment of cross-sectoral management body and the development and implementation of an integrated management plan”*
- *“Conservation and rehabilitation of some wetland areas achieved”*
- *“Environmentally friendly economic activities promoted”*
- *“Education and public awareness raising on wetland conservation promoted”*

20. The Project was executed by Zhongshan University and UNEP being the Project Implementing Agency principally through the UNEP International Waters Programme based in Bangkok.

21. A Project Management Unit (PMU) was established in Shantou within the Office of the Shantou City Nature Reserve with a substantive<sup>11</sup> seconded Project Manager (PM) from Zhongshan University.

22. The diversity of interests in the SIW resulted in a large number of Project partners and stakeholders including the Ministry of Environmental Protection<sup>12</sup> (MEP) Shantou City Government, Bureau of Planning and Land Resources, Forestry Bureau, Bureau of Ocean and Fishery, Environment Protection Bureau, and the district governments of the four sub demonstration sites (Longhu, Haojiang, and Chaoyang Districts), but it is worth noting that the bureaucratic compartmentalization of government resulted in certain aspects of wetland management (e.g. natural fisheries management) being largely excluded (or at least not being integrated into the Project’s design) from the Project’s design and implementation.

23. Apart from the wider community of Shantou, the communities of four towns Hexi, Sanyuwei, Suaiwan, and Waisha with a total recorded population of 367,388 can be considered as non-state stakeholders. The Project Document did not identify any vulnerable groups or attempt to disaggregate stakeholders by gender.

24. During the Project’s implementation a cross-sectoral Project Management Committee<sup>13</sup> (PMC) chaired by the Vice-Mayor of Shantou Municipality was established that was to be advised by a Scientific and Technical Committee (STC) and to provide guidance for the Executing Agency.

25. There was a well-established framework for communication and transfer of experience between projects already in place, which was set up under the SCS project, at the start of the Project. However, the effectiveness of this appears to have diminished with the end of that project.

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<sup>11</sup> *Post graduate level*

<sup>12</sup> Formerly the State Environmental Protection Administration (SEPA) and referred to in the Project Document.

<sup>13</sup> *Consisting of 15 different members*

26. The SIW Project was financed through a GEF Medium-sized Project (MSP) Government of the People’s Republic of China (PRC) and the Guangdong Provincial Department of Finance and Shantou City Local Government and Zongshan University, the latter being mostly in-kind contributions but nonetheless considerable.
27. The total budget was US\$ 915,200 with the GEF grant comprising approximately 44% and the co-financing 56%.

**Table 1 Project Financing.**

Financing plan <sup>14</sup>	Amount(US \$)	%
GEF Total	400,000	43.71
National government	200,000	
Local government	200,000	
In-kind	115,200	
Co-financing Total	515,200	56.29
TOTAL	915,200	

28. The Project Terminal Report states that realized co-financing was US\$ 400,000 (cash) and US\$ 115,200 in-kind. However, co-financing has not been well-reported and there is a possibility that more funds were leveraged during the Project’s lifetime but have not been reported. Annex 6 provides a table of co-financing proposed and achieved.

### 3. Evaluation Objectives, Scope and Methodology

29. The Terminal Evaluation (TE) is initiated and commissioned by United Nations Environmental Programme Evaluation (UNEP) Office, Nairobi. In line with the UNEP Evaluation Policy, the UNEP Evaluation Manual and the Guidelines for GEF Agencies in Conducting Terminal Evaluations, the terminal evaluation of the Project “*Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland*” is undertaken at the end of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes:
  - (i) To provide evidence of results to meet accountability requirements, and;
  - (ii) To promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, the GEF and their partners. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation. It will focus on the following sets of key questions, based on the project’s intended outcomes, which may be expanded by the consultants as deemed appropriate:
    - a. To what extent did the project contribute towards reversing environmental degradation trends of the South China Sea and Gulf of Thailand, and the Shantou wetland in particular?
    - b. Was the selected “set of stress reduction measures” effective and purposeful at working towards restoring and conserving the Shantou intertidal wetland ecosystem?
    - c. Were the established institutional arrangements for cross-sectoral and

<sup>14</sup> Source: Project Document

- participatory management (cross-sectoral management body and integrated management plan) effective and purposeful? Has further ecosystem degradation been prevented in Shantou wetland through the cross-sectoral participation scheme?
- d. Was the project successful in promoting environmentally friendly economic activities (silvo-aquaculture and eco-tourism) and are there indications that these activities would be adopted by the communities? What are the incentives for the communities to change their practices?
  - e. Was the project successful in raising awareness and building capacity over the importance of sustainable management of the Shantou wetland? Are local communities familiar with the project and its benefits and are they now – as a consequence of the project – more dedicated in conserving the wetland?
30. The evaluation will assess the project with respect to a minimum set of evaluation criteria grouped in four categories:
- 1) Attainment of objectives and planned results, which comprises the assessment of outputs achieved, relevance, effectiveness and efficiency and the review of outcomes towards impacts;
  - 2) Sustainability and catalytic role, which focuses on financial, socio-political, institutional and ecological factors conditioning sustainability of project outcomes, and also assesses efforts and achievements in terms of replication and up-scaling of project lessons and good practices;
  - 3) Processes affecting attainment of project results, which covers project preparation and readiness, implementation approach and management, stakeholder participation and public awareness, country ownership/driven-ness, project finance, UNEP supervision and backstopping, and project monitoring and evaluation systems; and,
  - 4) Complementarities with the UNEP Strategies and programmes, which describe linkages to UNEP’s Expected Accomplishments, project contributions in line with the Bali Strategic Plan, mainstreaming of gender and South-South Cooperation. The lead consultant can add other evaluation criteria as deemed appropriate.
31. A total of 40 person days were available for the TE. The TE comprised of an international Consultant and a national Consultant and expert on sustainable coastal development, and in this instance, the additional benefit of PhD student as a member of the evaluation team. The Desk Review component of the TE was carried prior to the field visit. The international Consultant visited the International Waters Programme at UNEP’s Regional Office in Bangkok prior to carrying out the field visit. The field visit occurred between 6<sup>th</sup> October and the 11<sup>th</sup> October 2011. An itinerary for the field visit is provided in Annex 2.
32. The TE is required to provide ratings for various aspects of the Project and an explanation of the UNEP-GEF rating criteria is provided in the ToR (Annex 1).
33. Lastly *“as this is a terminal evaluation, particular attention should be given to learning from the experience. Therefore, the “why?” question should be at front of the consultant’s mind all through the evaluation exercise. This means that the consultant needs to go beyond the assessment of “what” the project performance was, and make a serious effort to provide a*

*deeper understanding of “why” the performance was as it was, i.e. of processes affecting attainment of project results (criteria under category 3). This should provide the basis for the lessons that can be drawn from the project. In fact, the usefulness of the evaluation will be determined to a large extent by the capacity of the consultant to explain “why things happened” as they happened and are likely to evolve in this or that direction, which goes well beyond the mere assessment of “where things stand” today.”*

### **3.1 Theory of Change**

34. Part of the UNEP-GEF project evaluation methodology requires the TE to carry out a *Theory of Change* (ToC) exercise in order to reasonably determine what the long term impacts might be. Because final evaluations are carried out very soon after a project ends it is not always possible to identify the longer term impacts, the Global Environmental Benefits (GEBs) that might result from the project’s interventions. A ToC exercise uses a methodology to try to overcome the often subjective nature of the evaluator’s opinion on whether a project has achieved or not and in particular to identify what are termed “intermediate states”, in other words is the project following a trajectory likely to result in an impact that equates to the global objectives (GEBs) of GEF funding. The ToC recognizes that the project and social, ecological and economic processes are operating at different timeframes and invariably there will be an intermediate state between completion of a project and the appearance of the impact(s) of the intervention.
35. It is not necessary to reiterate the ToC methodology<sup>15</sup> other than to note that it attempts to recreate the logical hierarchy of the project’s logical frame work, that is, how activities led to outputs, outputs contributed to outcomes and these outcomes will eventually result in an impact bringing about desirable change as measured by the GEF Global Environmental Benefits, which themselves can be determined from the relevant Operational Programme (in this instance OP#8 International Waters, Water Bodies).
36. From this it is then theoretically possible to determine the Impact Drivers (the significant factors that if present are expected to contribute to the realization of the intended impacts and can be influenced by the project) and the Assumptions (the significant factors that if present are expected to contribute to the realization of the intended impacts but are largely beyond the control of the project). Based upon this analysis it should be possible to recognize if a project has produced sufficient changes and to identify the *intermediate states*, that is, whether what the project has put in place will bring about the long term changes and have a lasting impact.

### **3.2 Limitations of the Terminal Evaluation**

37. Much of the limitations of the TE have already been discussed within the previous section dealing with the ToC and are, arguably, common to most GEF projects. However, it is insufficient to wrap these up as simply “time bound” limitations and recognize that a project such as the SIW Project is operating in a highly complex socio-political, ecological and economic setting, more so in China which is undergoing a remarkable transition from a highly centralized system towards a model which will be determined largely by China herself and free-market reforms. Understanding the direction of this process is critical and the time available for an evaluation can only scratch the surface. Therefore the TE tries as much as possible to recognize “success” or “failure” within these constraints rather than comparing the project with other projects that might have different socio-political, economic and other situations.

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<sup>15</sup> A detailed guidance on the ToC is attached to the TE Terms of Reference



38. The SIW Project was designed as a demonstration project, contributing to implementation of the inter-governmentally approved Strategic Action Programme (SAP) for the South China Sea. As such it was intended to demonstrate a set of “stress reduction measures” to reduce the anthropogenic pressures upon the SIW. The TE has neither the time nor the experience to reasonably assess the effectiveness of each type of intervention (e.g. to what extent water quality is affected by silvo-aquaculture, or the effectiveness of mangrove planting, etc., other than to comment on what is reported by the project itself). The evaluations of these specific interventions are available from the Executing Agency and in any case they are, to a large extent, already proven methodologies for environmental management. The most important aspect of the SIW Project was in brining all of these approaches together and bringing them into the existing planning framework. Therefore the TE will largely focus on this aspect of the Project.

## II Project Performance and Impact

### 4. Attainment of Objectives and Planned Results

The rating for “Attainment of Objectives and Planned Results”: this issue is considered to be “**Satisfactory**” for the following reasons:

- The Project has achieved its objectives;
- The activities were efficiently implemented.
- However:
- It is assumed that the Municipal Management Committee will continue to increase the scope of participation in the planning and management process beyond the institutional and agency level to include a broader public participation.
- **Effectiveness – Satisfactory** – *the Project’s strategy provided a reasonable means to achieve the objective*
- **Relevance – Satisfactory** – *the Project’s objectives were relevant at a regional, national and local scale*
- **Efficiency – Satisfactory** – *there was a certain efficiency in developing demonstration projects within the SCS Project and with the relatively small financing available there has been a relatively large effect*

39. Before considering the achievements of the SIW Project it is important to first briefly discuss a few aspects of the Project. Firstly, this was a “demonstration” project set in the framework of the SCS Project. Therefore it was expected to demonstrate that through a participatory approach conservation of the SIW could be achieved. However, defining what was meant by *participation* is important. Participation can have many meanings and it is arguable that in the field of conservation *participation* normally means a broad scale of participation that includes all of the “players”. The scale at which participation takes place is important because as the scale increases, so does the complexity and uncertainty.

40. In this case, set as it was within the SCS Project which was essentially a technocratic<sup>16</sup> project

<sup>16</sup> In this sense technocracy is used to describe a form of governance where technical experts are in control of decision making in their respective fields.



and drawing from the *Bali Strategic Plan for Technology Support and Capacity-building* and implemented within highly centralized and target oriented planning system, participation is taken to mean that there would be participation mostly between institutions, government, academic and scientific, and, that the demonstration aspect would be projected in two directions; towards the other institutions and government agencies involved in the SCS Project (including within China) and the local communities using the SIW.

41. By these measures, the SIW Project has largely achieved what it set out to do having demonstrated that institutions can collaborate or participate in the project implementation and that it is necessary to bring an integrated approach to managing complex systems such as the SIW. Furthermore, it has demonstrated a number of technologies (e.g. silvo-aquaculture) to local resource users. However, it has not developed a broad participation in the planning and management of the SIW, what we might loosely term the resource governance aspects of the system, at anything other than an institutional or agency scale. Although there is participation of Universities and local government, there is still an absence of any formal way for non-state actor to participate in decision-making.

#### 4.1 Achievement of Outputs and Activities

**The rating for “Achievement of Outputs and Activities”: this issue is considered to be “Moderately Satisfactory”** for the following reasons:

- All the Project activities were implemented and the outputs achieved.
- However:
- The Wetlands Training, Education and Information Centre was delayed due to the stringent vetting procedures imposed on all government contracts but this has largely been addressed and work is progressing, and will continue to progress well.

42. There is no escaping that this project was very good at producing outputs and ensuring that the activities resulted in the described outputs, both in quantity and quality. The four main components of the Project have been delivered with considerable efficiency and the TE recognizes this. For instance a cross-sectoral management body has been put in place and there is a management plan for the Nature Reserve, a large area of the SIW has been set aside for protection and rehabilitation or reforestation has taken place of mangrove habitats (and possibly some areas have been afforested as well), the benefits of silvo-aquaculture has been demonstrated and by all accounts by planting 15% of a pond area with mangrove can result in a 30% improvement in water quality<sup>17</sup>. Considerable efforts have been made towards developing tourism that is geared towards appreciation of the wetlands (eco-tourism) and education and awareness particularly at an institutional level has been considerable.
43. The achievements of the SIW Project as a national demonstration are considerable. Given the level of investment (for instance, in 2007, Shantou utilized USD 170 million in Foreign Direct Investment [FDI], and generated a Gross Domestic Product (GDP) of USD 11.3 billion. By 2010 its FDI increased to USD just 204 million and its GDP to USD 19.25 billion, toy manufacturing exports alone are estimated to be US\$ 400 million per annum<sup>18</sup> and the GEF investment was US\$ 400,000) within the Shantou SEZ the Project has made considerable inroads into including ecological concerns into local and national planning. It is important to recognize that the

<sup>17</sup> The TE has not seen the study or data supporting this

<sup>18</sup> Source: <http://understand-china.com/?province=shantou>

Project has intervened in a process that was almost wholly driven by economic concerns and albeit on a small scale implanted the understanding that economic development is extremely risky without ecological sustainability. This is particularly important given that the Project was starting from a very low baseline of knowledge and awareness about wetland importance and management outside of the academic institutions. A more detailed account of the outputs is provided in Annex 3.

44. To what extent the Project has achieved this should not be judged in terms of “*mission accomplished*” but rather by how it has changed the direction of the process. The SIW Project has undoubtedly made an impact. The TE has some minor concerns that in taking a very utilitarian approach there is an over-emphasis on the immediate economic benefits of wetland protection. As a result each activity (e.g. mangrove planting) is associated with a single aspect of utilitarian benefit (e.g. coastal protection) therefore there is a risk that management becomes compartmentalized rather than taking a holistic approach and conservation action is only taken when there is a direct economic benefit or threat to an economic activity. However, the TE accepts that as a means to introduce the concept of integrated and participatory wetland management to the SIW system emphasizing economic benefits has worked well in focusing attention and as such has moved the process forwards in a positive sense. To what extent the establishment of the Management Committee has incorporated wetland conservation into the overall planning framework (the *quality*) is more difficult to judge. Certainly on the basis of enthusiasm and awareness of the Project it would indicate that there is firm commitment for conservation planning. A more detailed discussion is provided in section III of this report.

#### 4.2 Relevance

45. The Project is framed with the earlier and much larger SCS project and was selected following a thorough and systematic approach to select sites for demonstration projects placing it firmly within the remit of the GEF Operational Programme Number 8, Water-based Operational Programme (OP) in particular as an important component of a Large Marine Ecosystem (LME) and in meeting the characteristics of interventions under this OP, in particular; supporting the incremental costs of technical assistance, capacity building and encouraging the use of sound science and technological innovations for management. Furthermore, the habitats, flora and fauna, their protection and sustainable use are supported by the Convention on Biological Diversity (CBD). The importance of the site for migratory species is supported by a number of international agreements, including the China-Australia Migrant Bird Agreement and the China-Japan Migrant Bird Agreement, the China Agenda 21, 1994 China Biodiversity Protection Action Plan (CBPAP), and much wider, within the Ramsar Convention, amongst others.
46. In addition to these justifications the Project can also be framed within the wider social, economic and political changes that have been taking place within China in recent times. The importance of renewable natural resource governance and water management issues are increasingly emerging as challenges that need to be addressed, and addressed quickly as demonstrated by the 2000 China National Wetland Conservation Action Plan (CNWCAP). In 2010 the Chinese Academy for Environmental Planning estimated the cost of pollution, deteriorating soil, vanishing wetlands and other impacts of environmental degradation to be around 3.9% of GDP<sup>19</sup>. Projects, *per se*, often provide governments with a test bed, a convenient laboratory, to attempt new and perhaps radical approaches in the safe knowledge that they are “ring-fenced” within the project and time-bound. However, this experimental aspect of projects can sometimes give them a value far beyond the modestly predicted outcomes and impacts.

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<sup>19</sup> Watts, J. 2010: *China counts £130bn cost of economic growth*. *The Guardian*, 28th December 2010.

47. The Project Document, essentially a project’s design phase, traces the origins of the SIW Project to the *Bali Strategic Plan for Technology Support and Capacity-building* or Bali Strategy which was agreed in 2005. As has been mentioned earlier this was essentially a highly technocratic document to, quite reasonably, provide a platform for participation at an institutional and agency level. However, by the time the SIW Project was designed there was an implicit recognition that integrated management of the wetlands will require a diversity of participation and that governance will have to be more inclusive. However, the committee that was set up was still essentially only involving institutional participation and does not, for instance, include local community participation at the decision-making level. However, it is not clear how far the project design would have been able to go in opening up this broader participation in management given the socio-political framework. Having said this, the TE is satisfied that the SIW Project has relevance now, and at the time of its design and implementation, in that it was pushing for greater participation of all sectors of the administration to become involved in, and to consider issues of, the management of the intertidal wetlands. If this results in a more open and transparent sharing of data between these management agencies in the future; then this will be a considerable achievement.

#### 4.3 Effectiveness

48. The Project has, by the measures set out in the project LFM, achieved its objective in:
- Establishing an integrated management structure for more efficient management of the SIW
  - Increasing protection to the MNR and rehabilitating a number of degraded areas and developing a management plan for the nature reserve
  - Introducing a number of “technologies” or methodologies to reduce the impact of economic activity on the SIW and to provide alternative livelihoods
  - Raising public awareness and improving understanding at a number of levels (institutional, civic and educational) of the importance of the SIW<sup>20</sup>
49. These are essentially the elements of the Project that were set out in the Project Document in order to reduce the stresses caused by the rapid economic growth and urbanization in and around the SIW. They have been carried out effectively and efficiently within a management culture that is clearly used to meeting targets so that, for instance when UNEP-GEF supervision was poor at the beginning of the Project, activities were not delayed in any way as the Forest Bureau simply got on with the work using co-financing so that when there was increased supervision by the Implementing Agency later on in the project cycle, there were few delays. An important facet of this has been the partnership between the Executing Agency (a University) and the PMU (essentially made up of the Forest Bureau). The former providing technical expertise and latter providing management (in implementing activities) expertise. An additional driving force behind this has been the prestige of being awarded a GEF project that has imparted a level of pride and responsibility in ensuring that the Project is implemented.
50. The TE has some reservations relating to the Project’s LFM which makes it unwieldy (but not necessarily impossible) to use the LFM to assess the effectiveness of the Project. The TE summarizes that the description of the “objective verifiable indicators” in the Project’s LFM may be a reflection of a different and very target oriented approach to project planning and management. The TE’s reservations are that in the strictest sense of the GEF terminology the indicators used are in many instances targets and therefore provide little indication of the effectiveness of the project *per se* in assessing the overall impact in the short term. For

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<sup>20</sup> See Annex 3 Achievement of outputs

instance, outcome 1: *area management improved through the establishment of cross-sectoral management body and the development and implementation of an integrated management plan* has as indicators:

- Cross-sectoral management body (Management Committee) established (within 3 months) and maintained beyond the life of the Project
- An Integrated Management Plan prepared and approved/adopted by local governments (within 30 months)
- Current Shantou Municipal Nature reserve is updated to a National Nature Reserve (within 36 months)

51. Essentially these are just re-stating the outputs or targets and not necessarily indicators that tell us much about the quality of the outputs or outcomes. More useful indicators might have provided some insight into the performance of the Cross-sectoral Management Committee *vis a vis* a range of wetland issues, particularly where these related to trade-offs between economic development and the continued provision of wetland ecosystem goods and services. Therefore the indicator might have been *wetland resource governance* and the sources of verification might have been the number of decisions made by the Committee in favour of conservation or protection of wetland resources over management, Municipal budget allocation to wetland conservation management, number of environmental impact assessments, etc. However, the use of what are effectively “one-off events” as indicators provides no real insight into the direction of the process of change.

#### 4.4 Efficiency

52. The SIW Project has been developed to be implemented as part of a total of 24 habitat demonstration projects under the umbrella of the SCS Project. The inclusion of proposed seven demonstration sites through MSP funding (of which only three sites were materialized or supported through GEF funds) was meant to have a synergistic effect on all demonstration project activities under the umbrella of the SCS Project, and provide very good returns for a modest investment (US\$ 2.8 million) when compared to the costs of seven independent projects, each with its own start up, development, and monitoring costs<sup>21</sup>. The TE broadly agrees with this statement in terms of cost-effectiveness but cannot help feeling that perhaps some compromises were made in terms of the quantity of projects versus the quality of projects, particularly when one compares the size of the GEF fund against the GDP of the Special Economic Zone (SEZ), that is the scale of the financing that would very likely be driving the damaging human activities within the SIW.
53. It is hard to judge the cost-effectiveness of the SIW Project for a number of reasons. Firstly, the LFM indicators were essentially a number of discrete “deliverables”, that is, they are outputs of the project and the TE has commented at large on the Executing Agency and PMU’s ability to get things done very efficiently. The half yearly reports do not provide a narrative to measure, or indication of, whether the Project was encountering difficulties unless these are related to forces quite clearly beyond the Project’s control, as is the case in the die-off of mangroves due to flooding in 2008. In which case the PMU moved quickly to replant and artificially stabilize the hydrology. Similarly, the TE was not able to get to the bottom of the delay at the beginning of the Project in releasing the GEF funding which necessitated a budget-neutral six-month extension to complete activities; it appears that the Project just worked harder to catch up. Therefore, it is very hard to judge the cost-effectiveness and the TE must give the SIW Project the benefit of the doubt on this matter, but comments that the GEF puts equal importance on understanding why some things don’t work as well as why some things have worked.

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<sup>21</sup> Source: Project Document

54. However, notwithstanding the statements made in the preceding section 4.3 and opening paragraph of this section, the SIW Project has been implemented with a high level of efficiency. Where problems have arisen, the Executing Agency, PMU and partners have moved swiftly to find a solution to ensure that activities have been carried out and targets have been met. While there have been some delays (e.g. in the construction of a visitors centre has been delayed due to the strict regulatory requirements on building contracts but it is now progressing well) in implementation but generally these have been dealt effectively with or have been as a result of unusually harsh weather conditions and resulted in a six-month (budget-neutral) extension to the Project.
55. Much of the progress achieved by the Project in implementation can be ascribed to an institutional culture of “getting things done” and meeting targets. This approach is very effective in meeting the targets set out in the Project’s design and the pace at which activities are carried out is very impressive. While this has been very useful in bringing different agencies and institutions together the TE has some reservations that such an approach might sometimes sacrifice process for expedience. While the TE would not want to undermine the achievements of the Project it is important to keep in mind that the management of the SIW is a continuous and dynamic process and this will be discussed further in section III of this report.
56. The SIW Project was to a large extent breaking new ground for China. While it is clear that environmental concerns are becoming increasingly important in the planning process in China, it is also clear that until recently planning has largely been focused on economic and social development, sometimes at the expense of the environment. Therefore there was little in the way of precedents that the Project could draw upon, particularly when it came to resource governance and participation. Certainly it seems strange, given that environmental planning is a relatively new approach in China, there was not a greater effort by the SCS full-sized Project or the GEF Secretariat to ensure that there was a component of external (preferably international) technical assistance (TA) to this project. Perhaps this was because it was designed within the framework of the SCS project, and it was assumed that there would be a greater cross-fertilization of ideas between participating countries, that there was not a larger external TA component and the efforts of the Project should not be undervalued because of this. But it is an observation that this Project would have benefited from the exchange of ideas and experience that can be provided by external TA.
57. While the Project has experienced a number of delays some of which have resulted in the need for a six-month (GEF budget neutral) extension the TE is confident that these were not of the Project’s making and furthermore, the Project has addressed these in an effective manner.

#### 4.5 Review of Outcomes to Impacts

58. When reviewing the outcomes<sup>22</sup> to impacts it is important to re-state the context within which the SIW Project was operating. This is necessary for a number of reasons. Firstly, the original project design did not capture the socio-political and planning framework sufficiently well in as much as this was a relatively conventional project design but it overlooked various aspects of the socio-political context such as the availability of data (and importantly, the transparent sharing of data between agencies) and the opportunity to develop civil society organizations such as non-governmental organizations (NGOs). Secondly the *pace* and *scale* of change should have been “flagged” because hidden within this are a number of assumptions that, although hard to identify are likely to be there and in the event that they materialize could have a significant impact upon the long term outcomes of the Project and the SIW.

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<sup>22</sup> The wording of the outcomes have been revised in the Theory of Change exercise in order to better reflect the intentions of the Project

59. It is important to mention one of the limitations of the Theory of Change approach, particularly when dealing with situations where there is a high level of ambiguity and uncertainty and any predicted changes are effectively only one view of the future, whereas there might be multiple futures depending on the relative strengths of the different drivers and the likely response to events that are within the power of the principle actors to act upon them. Therefore the ToC predictions, despite the identification of the most visible assumptions, are still limited by *ceteris paribus*<sup>23</sup>. Given the scale and pace of change in China today, coupled with the global uncertainties in the economy, climate, etc., quite clearly all things will not remain the same.
60. Therefore the TE places considerable emphasis on the Municipal Management Committee to adapt to change and to bring the different sector agencies together in order to make the necessary tradeoffs between short term economic development and the ability of the SIW to continue to provide a fairly complete range of ecosystem goods and services. Frustratingly, assessing this capacity was not possible in the time available for the TE and therefore it remains a critical assumption underpinning this ToC exercise.

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<sup>23</sup> *Ceteris paribus* is a Latin phrase commonly translated into English as “all other things being equal” or “all other things remain the same”

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**Table 2 Theory of Change**

Outputs	Outcomes	Impact Drivers	Assumptions	Intermediate State 1 (at time of TE)	Intermediate State 2 (post Project)	Impact
<p>1.1 Institutional arrangements for cross-sectoral and participatory management established (<i>i.e. Management Committee and Scientific &amp; Technical Committee</i>)</p> <p>1.2 An integrated Management Plan developed and approved</p> <p>1.3 Local regulations developed and law enforcement approved</p> <p>1.4 Participatory patrolling/monitoring system to prevent illegal activity established</p>	<p>1. Area management improved through the establishment of cross-sectoral management body and the development of an integrated management plan</p>	<p>ID: Monitoring and evaluation informs policy and management</p> <p>ID: Management Committee continues to meet to resolve conflicts of interest between economic development and ecosystem sustainability</p> <p>ID: Planners include the costs of environmental degradation in their auditing process</p> <p>ID: Institutional stakeholders and agencies continue to develop policy and legal framework based upon integrated environmental management</p>	<p><b>A: Authority and responsibility are held at the same level within the system</b></p> <p><b>A: Equitable resource governance is a priority</b></p> <p><b>A: There is a transparent exchange of data between institutions and civil society</b></p> <p><b>A: Management Committee is inclusive of local community and civil society organizations</b></p> <p><b>A: Civil society organizations are encouraged</b></p> <p><b>A: Willingness to pay for ecosystem goods and services</b></p> <p><b>A: Macro-policy environment has environmental issues as the basis for sustainable economic and social development</b></p> <p><b>A: Larger national reforms encourage civil society participation in management of the SIW</b></p>	<p>Management Committee gains experience in integrated management</p> <p>Policies and management adapted</p> <p>Greater awareness of the importance of environmental aspects of planning are developed through the Public Awareness and Civil Society pressure</p> <p>Management moves from short-term target-based planning to longer term planning based upon the SIW ability to continue to provide ecosystem goods and services</p>	<p>Provincial and Municipal government introduces payments for ecosystem goods and services</p> <p>Planning process relies less on technology to “fix” environmental problems and becomes more proactive in avoiding environmental damage</p> <p>Effective natural resource governance capable of addressing and adapting to future “shocks and surprises”</p> <p>Fiscal measure to pay for ecosystem management</p> <p>Enabling environment provides a logical basis to make the trade-offs between ecosystem</p> <p>Municipal management planning and five-year plans include wetland ecological stress reduction measures</p> <p>Integrated Management Plan reduces development stresses on SIW</p>	<p>Reduced anthropogenic stresses on the globally important Shantou intertidal wetlands</p>



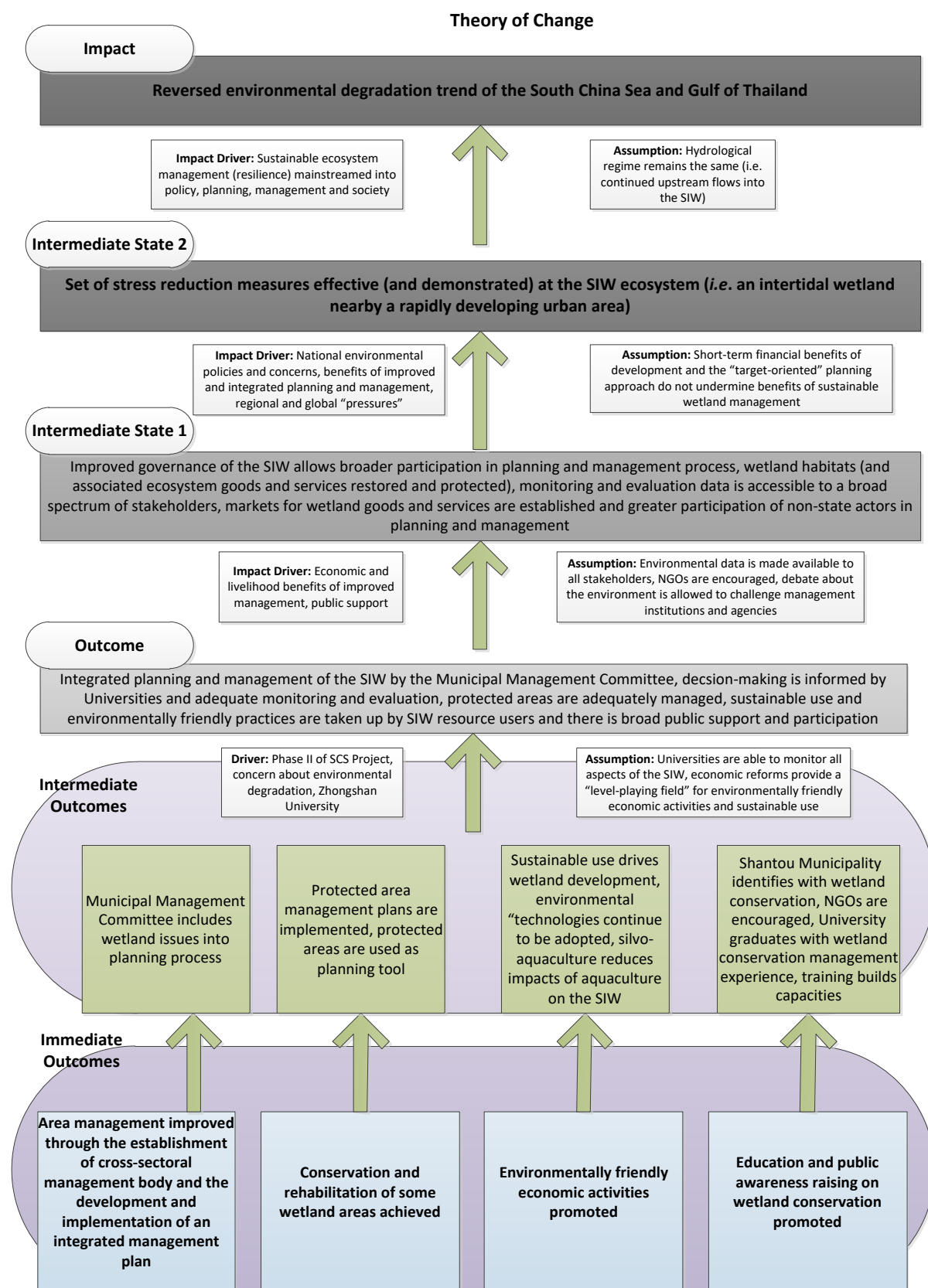
Outputs	Outcomes	Impact Drivers	Assumptions	Intermediate State 1 (at time of TE)	Intermediate State 2 (post Project)	Impact
<p>2.1 Physical enclosure of protected zone in Hexi and Suaiwan sub-demonstration site completed and rehabilitated</p> <p>2.2 Activities to clean up Haojiang River and improve water quality implemented</p> <p>2.3 Environment Monitoring scheme established and implemented annually</p>	2. Conservation and rehabilitation of some wetland areas achieved	<p>ID: Forestry Bureau capacity building</p> <p>ID: Exchange of experience between protected areas (nationally and internationally)</p> <p>ID: Management is adaptive and learns from mistakes</p> <p>ID: Managers request data from monitoring programmes</p> <p>ID: Regulations are broadly accepted and implemented</p> <p>ID: The costs (including the opportunity costs) and benefits of conservation management are equitably distributed</p>	<p>A: Hydrological regime remains the same</p> <p>A: Ecosystem (habitats) are able to adapt to the effects of climate change</p> <p>A: The Management Committee is prepared, in some instances, to set aside areas of the SIW and alienate them from economic activity</p> <p>A: There is continued (and increased) funding for the management of protected areas</p>	<p>Implementation of Management Plan provides experience and is critically reviewed and regularly adapted</p> <p>Rehabilitated areas of wetland continue to recover</p> <p>A culture of reducing waste is developed</p> <p>Regulations on solid and liquid waste disposal are developed and enforced</p> <p>Protected areas are used as a means to reduce stresses on SIW ecosystem</p>	<p>Increased and improved (rehabilitated) habitat available for key species of conservation concern</p> <p>Management decisions are based upon monitoring data</p> <p>Municipality Management Committee adapts plans according to monitoring data</p> <p>Waste reduction, re-use and recycling measures adopted by Municipalities</p> <p>Environmental monitoring data is publically available and published regularly</p> <p>Ecological stresses and the cause of threats are better understood and more effective measures are used to reduce them</p> <p>Pollution threats to SIW are reduced</p>	Protected areas reduce anthropogenic threats to the SIW and buffer the effects of climate change



Outputs	Outcomes	Impact Drivers	Assumptions	Intermediate State 1 (at time of TE)	Intermediate State 2 (post Project)	Impact
<p>3.1 Pilot activities for environmentally friendly aquaculture (silvo-fishery) implemented</p> <p>3.2 Eco-tourism plan developed and pilot activities implemented</p> <p>3.3 Financial sustainability analysis and planning completed</p>	<p>3. Environmentally friendly economic activities promoted</p>	<p>ID: Incentives for environmentally friendly economic activities are provided including support to marketing and compliance with standards</p> <p>ID: “Technologies” introduced by the Project demonstrate economic benefits</p> <p>ID: Economic benefits from wetland uses</p> <p>ID: Cost of wetland degradation are factored in to long-term economic planning</p>	<p>A: Benefits of pilot projects exceed the opportunity costs</p> <p>A: Enabling environment provides a “level playing field” for “environmentally friendly” economic activities</p> <p>A: Decisions on resource use are made on the basis of sustainability and not on value judgments (e.g. hunting, reed collecting and other “wild” products from the wetlands with economic value)</p> <p>A: Enabling environment provides the security of tenure and removes perverse incentives to individuals and local communities investing in sustainable resource use</p> <p>A: Legal and well regulated markets developed for ecosystem goods</p>	<p>Sustainable use drives the conservation management of the SIW</p> <p>“Technologies” used in the pilot projects are adopted by all/most wetland users and reduce stresses on the SIW</p> <p>Aquaculture is less damaging to the SIW and consequently there is less risk of disease and catastrophic failure</p> <p>Ecotourism plan for SIW reduces threats of inappropriate and unsustainable development</p>	<p>Economic and livelihood security benefits continue to flow from pilot projects</p> <p>Degradation of SIW by aquaculture reduced</p> <p>Ecological stresses caused by activities giving short-term financial gains are reduced</p> <p>Damaged to the SIW caused by tourism is reduced</p>	<p>Changes in behavior and social norms reduce stresses on SIW</p>

Outputs	Outcomes	Impact Drivers	Assumptions	Intermediate State 1 (at time of TE)	Intermediate State 2 (post Project)	Impact
<p>4.1 Training and education plan developed</p> <p>4.2 Training, education and information centre established and functional</p> <p>4.3 Training and capacity building programme developed and implemented</p> <p>4.4 Primary and middle school education programme developed and implemented</p> <p>4.5 Public awareness raising materials developed and disseminated</p> <p>4.6 NGO activities on wetland conservation by university students strengthened</p> <p>4.7 Local website established and maintained</p> <p>4.8 National wetland conference convened</p>	<p>4. Education and public awareness raising on wetland conservation promoted</p>	<p>ID: Public interest stimulated greater demand for information on SIW</p> <p>ID: training builds management capacities</p> <p>ID: NGOs and clubs developed</p> <p>ID: University students graduating with experience in wetland management and conservation</p> <p>ID: Shantou Municipality identifies with wetland conservation and promotes greater sharing of knowledge and organizing conferences</p>	<p>A: Public debate is actively encouraged on wetland issues</p> <p>A: Public awareness remains a priority for funding</p> <p>A: NGOs and academic institutions are allowed to challenge data on the environment</p>	<p>Increased interest in SIW and conservation</p> <p>Municipality identifies itself with wetland conservation issues</p> <p>Increased understanding of linkages between wetland "health" and social and economic security</p>	<p>Society demands greater accountability from management agencies regarding the status of the environment</p> <p>Reporting on the status of the SIW</p>	<p>Changes in perceptions about SIW reduces threat through changes in behavior</p> <p>Greater institutional and public participation in wetland conservation makes planning and management more proactive and reduces ecological stresses on the SIW</p>

Figure 1: Theory of Change schematic



**Table 2 Outcome Ratings**

<i>Results rating of project entitled:</i>	<i>Terminal Evaluation of the UNEP GEF project “Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland” (GF/3309)</i>						
		Rating (D – A)		Rating (D – A)		Rating (+)	Overall
Outputs	Outcomes		Intermediary		Impact (GEBs)		
1. A	1. B	B	1. B	B	1.		BB
2. A	2. B		2. B		2.		
3. A	3. B		3. B		3.		
4. A	4. B		4. B		4.		
	<b>Rating justification:</b>		<b>Rating justification:</b>		<b>Rating justification:</b>		
	Outcomes achieved and have implicit forward linkages to intermediary stages and impacts. Collaboration as evidenced by meetings and decisions made among a loose network is documented that should lead to better planning. Improved capacity is in place and should lead to desired intermediate outcomes.		Barriers and assumptions are successfully addressed. Intermediary stages planned or conceived have feasible direct and explicit forward linkages to impact achievement; barriers and assumptions are, or are being, successfully addressed. The project has achieved measurable intermediate impacts, and works to scale up and out, but falls well short of scaling up to global levels such that achievement of GEBs still lies in doubt.		Measurable impacts at a globally significant level were not achieved within the project life-span		

#### 4.6 Sustainability

**The rating for “Sustainability”:** this issue is considered to be “**Moderately Likely**” for the following reasons:

- The Project has put in place a number of mechanism that have increased the likelihood of the outcomes being sustained after the Project ends (e.g. the representation on the Municipal Management Committee, raised public awareness, involvement of Universities in the planning and management of the SIW, silvo-aquaculture, mangrove replanting and protection and improved status of protected areas).
- However:
- There are a number of external drivers such as continued water flows into the wetlands which have not been adequately addressed but could impact negatively on the ecosystem;
- Cross-sectoral management approaches are still not effectively implemented in the reality. The legal basis to guarantee the importance status of this approach was not there.
- **Financial sustainability – Likely** – *there is likely to be continued support from the Municipality*
- **Socio-political sustainability – Likely** – *there is a larger political “buy-in” to conservation of the SIW but it is not clear if the mechanism will stimulate a broader local community support unless their participation in the decision-making is possible*
- **Institutional sustainability – Likely** – *the Projects outcomes have been embedded in the Forest Bureau and there is now representation of SIW conservation management issues on the Municipal Management Committee. There is also the added advantage of the University of Zhongshan as a scientific and academic institution which can support the scientific basis of decision-making in the future*
- **Environmental sustainability – Moderately Likely** – *wetland protection and conservation should be included in the urban planning in the future and have a legal basis to guarantee its implementation. In such cases, what is required, permitted and prohibited in wetland areas would be defined by a clear and legal basis, then wetland protection would be given higher priority. The SIW system is vulnerable to external factors such as river flows, etc.*

62. The TE ToR describes four aspects of sustainability, socio-political, financial, institutional and environmental, that necessarily have to be met by the Project.

##### 4.6.1 Socio-political Sustainability

63. Certainly there appears to be a high degree of national, and importantly *provincial* and *municipal* ownership of the both the Project and outcomes. Clearly there is an element of pride in being selected as an international demonstration project and this has translated into a genuine desire at various levels of government to see that the job is done. A measure of this, and linked to the aspects of financial sustainability, is demonstrated at the start of the Project. When the GEF funds were delayed at the planned start of the Project<sup>24</sup>, the Executing Agency and the Forest Bureau simply started the work regardless. The management aspects of the SIW have been “migrated” from the 15 member Project Management Committee to the permanent

<sup>24</sup> This appears to have been caused by a delay in transferring the funds which had to be channeled through the State Environmental Protection Agency (SEPA). However, the TE does not draw any conclusions from this and considers the issue to have been resolved.

Municipal Management Committee (Annex 5). As stated before, “*mission accomplished*” would, as so often is the case, be a premature statement, however, an important, if subjective indicator of the Project’s socio-political sustainability is that on a number of occasions it was stated that the Project had “*changed people’s minds*”.

64. The Project has developed a management plan for the nature reserve. However, the plans to upgrade the Municipal Nature Reserve (MNR) to a National Nature Reserve (NNR) were unsuccessful and the nature reserve will now be upgraded to a Provincial Nature Reserve (PNR). The TE is satisfied with this and considers that the original plan to upgrade the MNR to a NNR were in all probability, unrealistic because the SIW wetlands prior to the Project did not fit the criteria for a NNR, which is a larger national issue to be addressed in regard to China’s protected areas system and not an issue for this Project to resolve.
65. Concerns remain, however, that there is insufficient transparency in the sharing of data even between state institutions and agencies and then further with the academic institutions. An aspect of this can be seen in the need to foster a broad public concern for the health of the SIW. This participation of civil society is critical in driving the sustainable management of the SIW. However, if the broader public is unable to access information on water quality, pollution incidents, etc., then it is unlikely that they will show the sort of concern that will produce popular support for conservation measures.
66. It would appear that the awareness programme has had an impact upon the public’s perceptions of the SIW although given the pace and scale of economic development in and around the SIW raising public awareness needs to be a continuous process. Perhaps the Project could have done more in raising the profile of the SIW through marketing. For instance the adoption by the Municipality of a charismatic species such as the black faced spoonbill (*Platalea minor*) might have increased popular support by tapping into other forms of media and avenues for spreading information. Once again, the TE argues that the Project could have benefited from external technical assistance and going beyond a highly technical and “scientific” approach towards conservation.

#### **4.6.2 Financial Resources**

67. The management of the nature reserve will continue to receive a budget from the Municipality and the TE has been assured by the Forestry Bureau that any subsequent upgrading will not affect this budget allocation. Furthermore, the integration of wetland conservation for sustainable agriculture and ecotourism development in the Shantou Municipal Development Programme (2010-2030) will ensure financial support to planning and sustainable management of the wetland demonstration sites beyond the project life-span.
68. Whether this is enough to meet the development needs of the PNR remains to be seen. Ordinarily one might expect to see the introduction of a number of revenue raising measures, fiscal instruments, which would continue to finance the management of the wetlands. However, these were never envisaged in the original project design and it is not clear to what extent Provincial government can influence fiscal measures. It is important to consider whether these measures will likely develop as a natural progression through the Municipal Management Committee. The TE notes that this is a long term objective that will require a considerable shift in behavior of the users of the SIW. For instance taxing aqua-culture is likely to be extremely unpopular and it would be very difficult to make the case for environmental taxes (what is termed *a willingness to pay*) when the environmental monitoring data is not widely available to the public who would naturally want to justify the taxes.
69. It seems likely that there will be a continued funding towards most achievements of the Project because they have practical and utilitarian benefits (e.g. the silvo-aquaculture and the use of

mangroves to protect shorelines). Considerable donor funding has been utilized for mangrove planting. Whether this financial support can be utilized to address unpopular issues or conserve areas such as salt marsh, which do not readily attract funding, remains to be seen.

70. There are still macro-economic issues such as the ability of the nature reserve to raise revenue and retain this revenue for management purposes that will need to be addressed in the future. While this might be cause for concern the TE argues that nesting the nature reserve within the Municipal Management Committee will provide avenues for revenue raising, retention and re-investment in the nature reserve that would not have occurred without the Project intervention. However, these remain to be capitalized on and practical options for financing were poorly supported by the SCS which focused more on the financial evaluation of wetlands and not on practical measures for financing their conservation management.

#### **4.6.3 Institutional Framework**

71. There is considerable crossover between the socio-political and institutional framework in terms of trying to assess how sustainable the impacts of the SIW Project might be. Arguably this was the very essence of the SIW Project, to ensure that there was broad participation in the management of the SIW. In 2010 the GDP of Shantou was US\$ 19.25 billion<sup>25</sup> and the total project funds available were US\$ 915,200 or 0.00475% of GDP, less when one considers that this was a three-year project. Therefore any intervention to address the issues of sustainable wetland management would need to be firmly embedded in the existing governance structures of Shantou Municipality.
72. The socio-political or institutional aspects of this project are critical and it is possible to package these up into issues of governance. The emphasis is currently upon economic development and expansion and it is important to view the Project’s achievements based on an assessment of where it is in this curve. Certainly it has not resolved the conflicts between economic development and ecosystem resilience, by even the most basic measures but it has made some crucial first steps in as much as it has established the management of the wetlands within the Municipal Management Committee (Annex 5), there is a Scientific Committee to provide advice, supported by an academic institution and the first steps have been made towards non-governmental support to conservation management through the University and its students. The involvement of Zohngshan University is an important factor in assessing the sustainability of the outcomes of this Project. There appears to be a body of support within the University which is likely to be a powerful driver for change in the future.
73. The TE’s assessment of the Project is measured against these figures – US\$19.25 billion versus US\$ 0.000915 billion – assuming that most of the economic activity would be damaging to the SIW ecosystem this provides some perspective and the Project, ably supported by the Executing Agency, has managed to put the SIW into the planning and development agenda. This achievement alone should not be underestimated, even though there is still a long way to go.
74. The effectiveness of the new regulations instigated by the SIW Project will, to a large extent, depend upon the effectiveness of the Municipal Management Committee. The area of the wetlands is too large to be effectively policed by the MNR alone and will need the collaboration of other agencies. It would be too easy to say that there have been a number of arrests made using the “hotline” set up by the Project and that signs are in place and boundaries have been marked when assessing the impact upon law enforcement and the enforcement agencies and courts are there to prosecute the laws, but all of these will require a broad acceptance of the importance of the SIW and the TE judges that the Project has made progress with this.

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<sup>25</sup> Source: <http://understand-china.com/?province=shantou>

#### 4.6.4 Environmental Sustainability

75. The Project Document has a number of assumptions, some of them stated and some are unstated. These assumptions, upon which the Project’s overall strategy hinges were not fully addressed in the Project Document, given the issues surrounding water resources globally, and in China, the issue of external impacts on the hydrology and the impact of predicted climate change on these systems is not sufficiently addressed by the Project. However, having said that, it is important to remember that this was a relatively modest GEF investment and might not reasonably have been expected to cross every “t” and dot every “i”.
76. The Project has made the first steps in order to put in place the various stages of governance that will enable these larger environmental issues to be taken into account. On this basis the TE is satisfied that the Project has moved the process forwards and the SIW system (that is the Municipal Government, Government Agencies, Academic Institutions, and non-governmental stakeholders) have a better platform to address these issues in the future.
77. In addition to this the Project has also introduced a number of “technologies” such as silvo-aquaculture and the use of mangrove for coastal protection that provide a degree of environmental sustainability as well as increasing institutional and public awareness of the need to conserve the SIW. However, as has been argued throughout this report, the technological “fixes” will have less impact on the long term conservation management than the process of management that the Project has begun.

#### 4.7 Catalytic Role and Replication

**The rating for “Catalytic Role and Replication”: this issue is considered to be “Satisfactory” for the following reasons:**

- The Project has instigated a number of behavioral changes amongst stakeholders, developed incentives by linking ecosystem processes to economic activities, developed a number of regulatory instruments, improved the financial position SIW protected areas and provided a significant champion for wetland conservation in Zhongshan University

78. The catalytic role of UNEP and the GEF is embodied in their approach of supporting the creation of an enabling environment and of investing in pilot activities which are innovative and showing how new approaches can work<sup>26</sup>. Certainly the SIW Project has met these criteria although the TE raises a number of issues that are common to most GEF projects.
79. The term *enabling environment* has numerous interpretations and can be extremely broad; or focused very closely on the legal, bureaucratic, fiscal, informational, political and cultural factors that might impact on the stakeholders to engage in the process (Brinkerhoff 2004) of developing a functionally efficient protected areas system. Furthermore it is necessary to set this within the socio-political framework of China in order to avoid imposing value judgments that have little validity outside of their original cultural setting. “Getting more specific about the enabling environment requires, first, elaborating a comprehensive set of influential environmental factors; and second, clarifying the nature of their impacts on various development actors” (Brinkerhoff 2004). “Unpacking” the complexity of factors is beyond the scope of most three-year projects, not least because of the timescales involved and the cross-cutting nature of collective action that is needed. Add to this a number of other “deliverables” that are necessary for demonstration purposes and the task is clearly beyond the average project. In reality, if a project is to meaningfully address the enabling environment then this

<sup>26</sup> TE ToR p. 9



needs to be explicit from the outset.

80. Unsurprisingly, few projects are designed this way largely, one imagines, because the initial critical analysis would be unacceptable to most project partners. Moreover, it takes time for institutions and the individuals within those institutions to fully comprehend the role that ecosystems *can* and *will* play in the larger transitional and development process, that is taking place in this instance, in China. Until there is this broad comprehension of the critical importance of ecosystem goods and functions in the social and economic development process, there is a risk that ecosystems such as the SIW will be regarded as a “luxury” or the “preserve” of scientists and not a necessity vital for the future wellbeing and socio-economic development of Shantou and indeed, of China.
81. Unfortunately this broad comprehension generally begins to occur around about the time that the project is ending. Therefore, GEF projects tend to indirectly affect the enabling environment as it relates to natural resource management; perhaps this is what is meant by a “*catalytic role*”.

#### **4.8 The SIW Project Catalytic Role**

82. *Catalyzed behaviour changes:* The Project has introduced a number of new “technologies” perhaps the most important of these being the silvo-aquaculture. The success of this is hard to gauge given that the Project has had only three years to demonstrate this. However, the initial signs are promising with a 15% reduction of pond area providing a 30% improvement in water quality. However, data on effect of silvo-aquaculture on pond production levels has not been measured. There is anecdotal evidence to suggest that yields have increased. Certainly the fish-farmers seemed genuinely pleased with the results and provided yield figures that showed an increase in production<sup>27</sup>. However, a weakness in the trials means that other variables were not measured and so it is not possible to attribute the increased production to silvo-aquaculture. This issue will be addressed in more detail later in this report.
83. Furthermore, there does not appear to be a large scale farmer uptake of silvo-aquaculture yet. Admittedly, silvo-aquaculture piloted in Sanyuwei has also been practiced in a non-demonstration site (e.g. Niutianyang, at the opposite side of Sanyuwei) and one might also expect that there will be a reasonable delay between the demonstrations and farmers implementing this themselves.
84. The development of a management plan for the MNR, which will presumably also provide for the management once it has become a PNR has been a positive development and the representation by, *inter alia*, the Forestry Bureau and the Scientific and technical Committee on the Municipal Management Committee certainly provides an opportunity to include the ecosystem management of the SIW into the larger structural and development plans for Shantou Municipality.
85. The TE has already expressed concerns about the availability of data and the transparency in the sharing of data. Arguably we will only learn what does work by understanding what hasn’t worked. In terms of ecosystem management the availability of environmental monitoring data is critical to ensure that there is a broad participation in the management. Unless environmental data is freely available (including the ability of a wide spectrum of institutions to gather data, analyze data and publish the findings) it is hard to see how there can be the sort of critical participation of expert institutions (such as the Universities) in the management of the SIW. It is not difficult to conceptualize the risks of not making this data freely available.

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<sup>27</sup> These figures are not reported here because once cited in a report they may take on a spurious accuracy

86. *Incentives:* The Project has concentrated on the economic incentives to change behavior and, in particular, aquaculture practices. The use of mangrove to protect sea walls (and provide nursery conditions for the collection of fry for the aquaculture industry) also has its basis in economic reckonings rather than any great desire for sustainable conservation management. As mentioned earlier, this is part of the context within which the Project has been operating where so much is addressed in terms of economic incentives. There are obvious dangers in this approach, such as the use of exotic mangrove species because they are faster growing or the apparent disregard for salt marsh, but these have to be weighed against a pragmatic approach and raising wetland conservation on the development agenda.
87. It should follow that the nature-based tourism component will provide incentives for conservation management. The complex issues of land tenure and access to resources make it unclear as to how benefits from tourism might flow without developing sites in a manner that might be detrimental to their biodiversity values. Furthermore, how these benefits might be equitably shared between state management agencies and local communities in a way that reflects the opportunity costs was not made clear to the TE. However, it is reasonable at this point to surmise that nature-based tourism will provide a useful financing mechanism and motivation for conservation management.
88. *Institutional changes:* The Project has carried out a number of initiatives such as a regional seminar involving China, Japan, Taiwan and Korea. The Project Document places considerable emphasis on the demonstration aspects of the Project. As it was developed within the framework of the earlier SCS project there was already in place an established framework for coordination, dissemination of experiences and personnel exchange between sites. By all accounts this appears to have worked well until the end of the SCS Project. Despite this the Project continued exchanges, seminars were carried out and the Project was extremely active in publishing. However, it would appear that the extensive and regular regional participation (and information sharing) established by the SCS has not continued after the end of that project.
89. The technologies that were being introduced by the Project have to a large extent been tested in other areas already. Perhaps of greater interest to wetland managers would have been some comparative analysis of the different approaches and the cost-effectiveness of different regimes (e.g. comparing the cost-effectiveness of saplings, seedlings, seed dispersal and natural regeneration), etc. However, this issue will be dealt with in greater detail in subsequent sections. Certainly the Project has had a positive effect upon the institutions and there is clearly a level of interest in other sectors for “non-technical” approaches, particularly in the aquaculture and coastal erosion protection sectors, but by far the most important institutional change is the inclusion of wetland conservation management issues on the Municipal Management Committee.
90. *Policy changes:* The Project has ushered in a number of regulatory instruments mostly related to the use of the SIW and giving greater protection to the MNR. The TE did not find any evidence of more sweeping policy measures related to municipal planning and industry and the Project might be criticized for not doing more on policy as it relates to aquaculture and other uses of the wetland. However, this must be balanced against the time and resources available to the Project and the TE does not consider this a major criticism.
91. *Catalytic financing:* The Project has raised the profile of the SIW and the TE is confident that there will be a continued financing of the SIW management from the Provincial and Municipal government because it “serves [the] specific interest of the Shantou City Government to upgrade the status of the nature reserve from a municipal level to a provincial level, which will provide the project demonstration areas with further opportunities for sustainable management

*and financial supports after the project life<sup>28</sup>*". Whether or not this will be sufficient given the level of investment in potentially damaging economic activities remains to be seen. Furthermore, as was previously discussed there has been no attempt to introduce fiscal measures (*e.g. environmental taxes, user fees, etc.*) as yet. However, the TE notes that this is something that takes time and judges that what has been started by the Project will naturally move in this direction.

92. *Catalyzing champions*: The efforts of the Executing Agency, Zhongshan University, have been remarkable. There have been a small number of individuals within the University who have tirelessly worked to raise the awareness and profile of the Municipality, agencies and non-state actors in and around the SIW. The awarding of the Project as a demonstration project within the SCS Project framework has been seen as both a source of pride and a great responsibility which to a large extent has been shared with other stakeholders in the Project. It is hard for the TE to provide objective indicators to support this, but the TE believes that this has had an important catalytic effect bringing together the academic and research discipline in the planning process. Part of this is due to the prestige of a GEF project but, largely it has been down to the efforts of the individual "champions" within Zhongshan University who have succeeded in spreading this enthusiasm.

#### **4.9 Replication**

93. There is little doubt that mangrove planting will be replicated. It has a number of qualities that lend itself to replication. Firstly it can be easily planned and budgeted for providing a very visible and measurable activity for implementers. Secondly, there are very clear and immediate economic benefits in protecting coastal defenses with mangrove. However, there are also some reservations about the type of mangrove used and the selection of sites for planting. Furthermore, all planting appeared to have been successful which either means that there was a very thorough site selection process and preparation or that the conditions at the sites had not been dramatically altered in any way. Nonetheless, there is a very high likelihood that mangrove planting will be replicated in other areas.
94. Although the silvo-aquaculture appears to have been successful and given the benefits of this approach it would seem likely that this will be taken up by other areas. However, the TE raises some doubts about attempting to demonstrate an approach such as silvo-aquaculture in just three years. Given that sites must be selected, prepared in terms of water regimes, etc., and in this case mangrove saplings grown on for planting and then planted it is likely to be some years before it is possible to demonstrate any real benefits. Section III will provide a more thorough comment on some of the aspects of demonstration projects.
95. Perhaps the most important aspect that needs to be replicated is the process that the Project has followed to integrate wetland conservation management issues into the overall planning process and the inclusion of the Technical and Scientific Committee into this larger Municipal planning committee. In reality the Project had very little "bargaining power" when one considers the scale and pace of economic development in the Shantou SEZ. In many instances it is the offer of project funding that provides stakeholders with "a seat at the table". However, in this case the GEF fund was of little consequence when one considers the economic activity going on in the area. But, the Project still appears to have managed to elbow its way onto the planning committee and attracted the attention of the larger players.

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<sup>28</sup> TERMINAL REPORT February 2002 to December 2008 of the Project Director to THE UNITED NATIONS ENVIRONMENT PROGRAMME THE GLOBAL ENVIRONMENT FACILITY AND THE PROJECT STEERING COMMITTEE FOR THE UNEP/GEF PROJECT ENTITLED: REVERSING ENVIRONMENTAL DEGRADATION TRENDS IN THE SOUTH CHINA SEA AND GULF OF THAILAND [Project No GF/2730-02-4340]

96. The TE formed the impression that there was a dynamic within the Project between the Executing Agency (which importantly in this case was not just fulfilling a bureaucratic role but also providing considerable technical and scientific advice) and the Forestry Bureau. Both organizations played a pivotal role in implementing the Project. However, there were undoubtedly different motivating factors. The Forestry Bureau was largely motivated to “get things done”. So, for instance, when it came to mangrove planting this was carried out efficiently and effectively, especially as the Bureau was on familiar ground. The Zhongshan University however, appears to have been more cautious in its approach and was prepared to ask more questions. So, for instance, while the Forestry Bureau placed little emphasis on salt marsh, the Executing Agency was ensuring that this aspect of the Project was kept firmly on the agenda. This dynamic, and for the avoidance of doubt the TE does not feel this was a “bad thing”, has been on the whole quite healthy for the Project and it is on this basis that the TE feels that the Project would have been able to benefit from having an international TA to provide a third “strand” to this process.

## 5. Process Affecting Attainments of Project Results

### 5.1 Preparation and Readiness

**The rating for “Preparation and Readiness”:** this issue is considered to be **“Satisfactory”** for the following reasons:

- The Project Document clearly defined roles and responsibilities
- However,
- There were initial shortcomings in getting the Project going largely due to weak support to the Executing Agency and PMU. However, this appears to have been addressed by the midterm of the Project

97. The Project Document provided a reasonably clear approach, although there were a number of weaknesses in the Project’s overall design. The Project Document underestimated the complexity of establishing integrated participatory management structures, although the Project has done remarkably well, the process of participatory planning is far more time-consuming than that described in the Project document and greater analysis should have been given to existing planning approaches and capacities. The TE feels that, had there been a fuller analysis of the governance issues during the Project’s design phase, then there might have been a provision of international technical advice to facilitate this component. Certainly the project’s objective and outcomes would have been better served if there had been more time.
98. Perhaps it helps if we dispense with the term participation and substitute it with *wetland resource governance*. Understanding the dynamics and then interacting with the forces that are driving not only the process but also the communities and agencies that they are interacting with takes time. The wetland use process is being driven by ecological, socio-administrative and economic *drivers*. These driving forces are operating in different time scales for example; driving forces that effect change in institutional or community perceptions and values operate over a much longer time frame than the time frames expected by project cycles. This inconsistency sets up a tension between “*project*” versus “*process*”. Clearly this is a continuous process and three years is, in reality, *governance in a hurry* when one considers that the startup, adaptation and closing down has to be crammed into this short period.
99. There are comments in the Project Document that should have been challenged either by the

SCS Project or the GEF CEO review. The baseline<sup>29</sup> makes a number of sweeping statements about local community resource use when there is ample evidence that experiences from a number of countries have demonstrated that pricing and tenure exert the greatest effects on biodiversity. Furthermore, it is the weaknesses in the management institutions that most often result in overexploitation and consequent loss of biodiversity<sup>30</sup> and not necessarily the use *per se*.

100. Having said this, it is also important to remember that many GEF projects are designed to fit a budget rather than the budget being developed to fit the challenge. While it is not clear whether this was in fact the case in this instance it seems likely that there was a set amount of funding allocated for each demonstration project.
101. Therefore, initially the arrangements for the implementation of the Project appear to have fallen short of what would be expected. According to the Terminal Evaluation of the SCS project the Demonstration Projects, although carefully selected, were ill-prepared for the process of developing and implementing a GEF project and consequently there were a number of informal workshops, arranged by UNEP-GEF, to try to develop the Project Documents (for all the Demonstration Projects) to an acceptable standard (at least in English) that met the UN standards<sup>31</sup>.
102. While this appears to have produced a reasonable, albeit generic, Project Document there are indications that the Executing Agency did not really understand the *process* of GEF project implementation<sup>32</sup> and this seems to have carried through until the Mid-term Review when the Task Manager from the International Waters Programme seems to have taken some ownership of the process and reporting, as well as the project *process*, becomes markedly improved in 2009. Perhaps this can be seen as a shortcoming of the Project *per se*, but the TE considers it to be more a failing of the UNEP/GEF/International Waters Programme at an early stage in as much as the GEF project cycle has become very complex and it is unrealistic to expect a - nationally executed project to simply “get up and go”. Although roles and responsibilities were clearly defined in the Project Document one has to remember that the Executing Agency was doing this for the very first time and although they had experienced the SCS Project, a site-based project has its own characteristics and complexities to deal with. For instance in the half-yearly reporting is very accurate on the financial accounting and the outputs delivered but there is an absence of the narrative that is so important in understanding the process. Once again, the TE stresses that external TA would have been able to facilitate this process and notes that post 2009 there was a marked improvement in the support to the Project.
103. There were also delays in releasing project funds. The TE has to admit that it has been unable to get to the bottom of this but notes that rather than delaying the Project’s overall implementation, it would appear that the project partners simply forged ahead with implementation of the components that were being co-financed. While this issue was not raised to any degree during the field visit the Project’s Terminal Report states:

*“There was also an issue of project financial management including delayed disbursements of fund from UNEP, as well as GEF fund and co-financing transfer from concerned agencies, that*

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<sup>29</sup> P 15 Project Document

<sup>30</sup> Child, B. in African Wildlife Policy Consultation: Final Report of the Consultation. Overseas Development Administration 18-19 April 1996

<sup>31</sup> Terminal Report, February 2002 to December 2008 of the Project Director to The United Nations Environment Programme the Global Environment Facility and the Project Steering Committee for the UNEP/GEF project entitled: Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand

<sup>32</sup> The TE has some sympathy with the Executing Agency in this aspect

*was considered a major reason for delays of project implementation. In such cases, it is recommended that the UNEP/FMO should work more closely with the EA to seek acceptable solutions, and that EA/PMU should prepare financial and co-financing plans in advance, which sufficiently covers the remaining period of project implementation"*<sup>33</sup>.

104. Although the early implementation stages of the Project do not necessarily meet the requirements of UNEP-GEF project implementation in terms of reporting and monitoring, it would seem that adequate project management were in place after an initial slow start, indeed the Project has been well-managed in terms of completing the various activities in a timely and cost-effective fashion. How much of this can be attributed to the PMU learning and resolving the bottlenecks and how much is due to the improved oversight from the TM in Bangkok is not clear and it is likely that both have contributed resulting in the completion of almost all the activities by the end of the six-month extension (the remaining activity is the construction of the visitors centre which is underway).

## 5.2 Implementation Approach and Adaptive Management

**The rating for "Implementation Approach and Adaptive Management": this issue is considered to be "Satisfactory" for the following reasons:**

- The Executing Agency (Zhongshan University) has performed well;
- The International Waters Programme following a poor start has managed to recover well and worked closely with the Executing agency to bring the Project to a satisfactory conclusion;
- The Executing Agency has managed successfully to bring other stakeholders into the process;
- The PMU has performed well;
- In all the Project has recovered well from what appears to have been a poor start.
- However,
- At the start of the Project there were serious shortcomings in the support from the IWP.

105. The Project was executed by Zhongshan University (which had already had a relationship with the SCS Project) and UNEP being the Project Implementing Agency principally through the UNEP International Waters Programme based in Bangkok. The Project Management Unit was comprised of the Office of the Shantou Nature Reserve and a substantive (Post-Doctoral-level) Project manager was engaged from Zhongshan University. A Project Management Committee was established as the decision-making body on behalf of Shantou City Government, for review of the project progress and evaluation of the outputs of the project based on the project reports and recommendations of the advisory (national) Scientific and Technical Committee. It appears that the Project management Committee had considerable interest and executive powers particularly related to co-financing and was chaired by the Vice Mayor of Shantou Municipality. This 15-member committee was established as an *ad hoc* committee for the duration of the Project and the duties and responsibilities have been incorporated into the Municipal Management Committee which is a permanent structure of Shantou Municipality. It appears that this arrangement has worked well and decisions have been made in a timely and

<sup>33</sup> TERMINAL REPORT February 2002 to December 2008 of the Project Director to THE UNITED NATIONS ENVIRONMENT PROGRAMME THE GLOBAL ENVIRONMENT FACILITY AND THE PROJECT STEERING COMMITTEE FOR THE UNEP/GEF PROJECT ENTITLED: REVERSING ENVIRONMENTAL DEGRADATION TRENDS IN THE SOUTH CHINA SEA AND GULF OF THAILAND [Project No GF/2730-02-4340]



effective manner and, as stated earlier, the EA and IA have performed well.

106. It is hard for the TE to comment on whether the project execution arrangements have worked well except to judge by the final result, which leaves a good impression. There are two main reasons for this, firstly there does not appear to be a “project narrative” during the first half of the Project which gives the TE little insight into what was going on and whether the Project was encountering difficulties (other than external *casus fortuitus*<sup>34</sup>). Secondly, it would appear that the various stakeholders might have preferred to sort out any problems encountered internally and present a united face to the outside observer. While this is admirable in many ways it gives little opportunity for the TE to learn what was going on and whether there are any lessons to be learned from the process followed by the Project. For instance, during the earlier stages of the Project when there appears to have been weak support from the Implementing Agency the EA and PMU simply got on with the job and reported on those components of the UNEP-GEF reporting procedure that they could understand (*e.g.* the financial reporting and the activities and outputs).
107. The project has been effective in delivering the project outputs; there has been a certain efficiency that is commendable in doing this. Whether this efficiency in delivering outputs has affected the process (for instance how effective the Municipal Committee will be in making the big decisions that are essentially political in nature and will involve significant tradeoffs between short term economic development and ecosystem resilience) cannot be judged at this point in time. Indeed, it is a shortcoming with many GEF projects that the project cycle is much shorter than is necessary to determine whether an intervention has been successful or not, let alone to apply adaptive management that necessarily requires a degree of failure to determine what is successful. However, the TE will state that the Project has placed the SIW management within the Municipal Management Committee and has raised the issue of ecosystem resilience on both a public and political level that is moving the process of managing the SIW forwards.
108. There has been a level of efficiency in the execution of the Project and once again the TE refers to the management culture of “getting things done”. This is commendable on one level and yet it throws up a number of challenges on another level. The target-oriented execution of any project leaves little time for the sort of introspective analysis necessary to understand what does work and what doesn’t. While a theory of change approach does allow us to make reasoned predictions about the future impact of a project it is questionable whether we can confidently make predictions about the effectiveness of technical interventions such as rehabilitation, silvo-aquaculture and mangrove re-planting in just three years except to report that they appear to be working well.
109. As has already been noted there was support from the Implementing Agency (IA) during the design phase of the Project, but this appears to have been reduced once the SCS project ended and it was not until 2009 that support and guidance was once again provided by the IA. This resulted in a poor inception phase however, the Project appears to have recovered from this but for the first half of the project there was poor reporting except on financial matters (which were transparently and diligently reported by the Executing Agency).

### 5.3 Stakeholder Participation and Public Awareness

**The rating for “Stakeholder Participation”: this issue is considered to be “Satisfactory” for the following reasons:**

- The Project has successfully encouraged stakeholder participation in the planning and management of

<sup>34</sup>Latin term meaning a chance occurrence or unavoidable accident generally beyond the control of the parties

the SIW which includes the scientific, agency and local government participation.

- However:
- Broader public participation in the decision-making process has not been as satisfactory and this process needs to be continuously developed and strengthened.

110. The SIW Project has largely been a technocratic project. It has its roots in the *Bali Strategic Plan for Technology Support and Capacity-building* and the earlier SCS Project. The *Bali Strategy* is essentially an agreement to collaborate on scientific and technical issues and the SCS Project had a very strong scientific basis. UNEP also has a strong scientific agenda, this is not a criticism, other GEF Implementing Agencies such as the World Bank/Asian Development Bank have a more economic perspective and UNDP has a stronger development agenda when implementing GEF projects.

111. The Project’s design never made any allusions to this being anything other than the participation of institutional players, scientists, state agencies, etc., and local community or civil society participation was never going to be very prominent component of the Project. Certainly the local community and civil society are beneficiaries of the Project but their participation in the decision-making process is severely restricted.

112. However, the TE still finds that this has been a satisfactory approach and adds that given the socio-political setting the Project has made significant progress in fostering collaboration between the various agencies and institutions involved in the management of the SIW and in raising public awareness. But broad community participation in planning and decision-making was never going to be possible because there are inherent limitations on how civil society and local communities can participate in governance.

That said; the TE recognizes that a strategy of getting cross-sectoral participation in the SIW was a correct and necessary one and the Project has gone a long way to ensure this. In conjunction with the public awareness campaign this has moved the process forward. A necessary next step would be to ensure that data from environmental monitoring is widely broadcast to ensure that institutional and agency participation is informed by good data and local civil society organizations are formed not just to support the SIW but also to hold management accountable.

#### 5.4 Country Ownership and “Driven-ness”

**The rating for “Country Ownership and Driven-ness”: this issue is considered to be “Satisfactory” for the following reasons:**

- There is clear ownership of the objectives and outcomes of the Project;
- These are supported by a number of national and regional policies and programmes.

113. There has been and continues to be a considerable degree of country ownership of the Project and its likely outcomes. As mentioned earlier the initial support for the Project appears to have come from the Zhongshan University (the Executing Agency) and this appears to have been taken up by other government agencies and institutions.

114. It would appear to the TE as outside observers that the prestige of being awarded a GEF project under the regional SCS project has created a strong institutional sense of responsibility and pride and that this has spread to other parts of government such as the Shantou City



Municipality, which has taken a particularly keen interest in the Project’s implementation and progress, by supporting the implementation of the project in providing co-financing equal to that of the central government, hosting the PMC and PMU; and coordinating relevant local government agencies, and establishing local institutional arrangements for integrated area management. Indeed when the GEF funding was delayed this did not prevent the Shantou City Municipality from starting to implement activities on the ground.

115. The Ministry of Environmental Protection<sup>35</sup> has been the designated focal institution of the SCS project with a responsibility to coordinate activities at the national level and appears to have taken a keen interest in the Project.

## 5.6 Financial Planning and Management

**The rating for “Financial Planning and Management”: this issue is considered to be “Satisfactory” for the following reasons:**

- All the financial transactions during the project period have been duly audited by a certified public accountant;
- The Executing Agency has diligently reported on Project expenditures;
- The activities appear to have been reasonably costed;
- Co-financing has been achieved.
- However:
- There has been poor reporting of the co-financing until the Terminal Report.

116. The GEF fund was supervised by the Financial Bureau and the Executing Agency showed considerable diligence in ensuring that funds were disbursed in accordance with the agreed work plan and budget plan once the GEF funds were released.

117. There has been weak reporting on the co-financing component of the SIW Project. There is evidence that co-financing funds were spent however and the TE does not question their accounting, but the reporting to the Implementing Agency on the disbursement of the co-financing has been, for all intents and purposes, none existent, until the Terminal Report. According to GEF logic, co-financing should constitute an integral part of the ‘GEF project’, complementing GEF funds in the attainment of the project objective; increased attention should be paid to monitoring its realization and impacts on a continuous basis, rather than regarding it as solely a formality to be checked at the time of external evaluations. The MTE notes that this information was probably available so the PMU has not been remiss in collecting it but was not (at the time of the TE) immediately available in a “processed” format. This is regrettable because it is a measure of the commitment of the national government to the Project and in this case it would appear that co-financing has been in excess of that which was promised at the beginning of the Project. Unfortunately the TE has no way of verifying this. The co-financing is presented in Annex 6 but as stated above this does not reflect the leveraged resources mobilized during the Project.

118. The EA has diligently reported on the GEF fund through the Half-yearly Reports providing a breakdown of expenditures as required.

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<sup>35</sup> Formerly “State Environment Protection Administration” (SEPA)

## 5.7 UNEP Supervision and Backstopping

**The rating for “Supervision and Backstopping”:** this issue is considered to be **“Satisfactory”** for the following reasons:

- For approximately the first half of the Project there was an absence of UNEP supervision and backstopping by the International Waters Programme which had a detrimental effect on the Projects implementation and progress.
- However:
- There has been a marked improvement in the quality and quantity of supervision and backstopping since the mid-point of the Project, which has responded well and recovered much of the “lost ground”.

119. There are effectively two phases to the SIW Project. Following its inception in November 2007 it appears to have had little if any support from UNEP resulting in a poor inception phase and weak reporting in everything except financial matters which as stated earlier, were diligently reported.
120. The inception phase is a critical stage in a GEF project cycle which allows any changes in conditions, incorrect assumptions, etc., to be addressed. While in this case it does not seem to have affected the overall performance and outcomes of the Project, the TE nonetheless feels that this was an extremely vulnerable phase for the Project.
121. However, in 2009 there is a marked improvement in the Projects supervision and the process of project cycle management. The TE surmises that this was due to a change in the TM at the IWP in the UNEP regional Office in Bangkok. There is no doubt that the Project participants both benefited and enjoyed the support and attention from the IWP TM. The TE uses the term “enjoyed” because it is important to realize that this was the first time that the Executing Agency and the state agencies had been involved in implementing a project on the ground. It is not an understatement to say that GEF procedures can be mystifying for the uninitiated and furthermore, the process of implementing a GEF project is an important part of capacity building at the national and local level. Thus the intervention of the TM was timely and benefited the Project considerably.
122. The quality of the Project “paper trail” was greatly improved from 2009 onwards including a Mid-term Review (MTR). The TE broadly agrees with the findings and conclusions of the 2009 MTR. However, the TE does raise the issue of GEF project cycle management as it relates to project monitoring and evaluation and questions why there is generally greater investment in the final or terminal evaluation rather than the mid-term evaluation.
123. Perhaps it is the concept of learning lessons, perhaps even a culture of “lessons learned” and “best practices” that places greater emphasis on the lesson rather than the learning process and therefore there is an assumption that all GEF projects will work and new lessons will be generated. In reality most of the lessons are already out there and the benefit of GEF projects is the internal learning process that takes place, the adaptive changes that occur within the project partners rather than any great technological breakthroughs. Therefore, the midterm evaluation or review is a far better opportunity to have external TA come in to critically assess a project and work closely with the Executing Agency and Project Management Unit to internalize the lessons and build on them while there is still the “safety net” of the project in place. This is not a criticism of the SIW Project MTR, which was professionally executed and greatly benefited

the project, but rather a criticism of the GEF project cycle *per se*.

### 5.8 Monitoring and Evaluation

**The rating for “Monitoring and Evaluation”:** this issue is considered to be **“Satisfactory”** for the following reasons:

- The Inception Workshop, Inception Report, APR/PIR, PSC meetings, a MTR and a Terminal Report have all been carried out;
- The Project has recovered well from the earlier difficulties resulting in the weak support from the IWP.
- However:
- There are weaknesses in the LFM which make it extremely hard to measure the quality of changes;
- Monitoring was weak during the first half of the Project.
- **M&E Design -Satisfactory** - *The provisions for monitoring and evaluation (M&E) in the Project Document are based on the standard UNDP/GEF M&E template and are relevant and appropriate for a project of this magnitude and nature except for the weaknesses in the LFM;*
- **M&E Plan Implementation -Satisfactory** – *Despite the poor start and the weak Inception Report the M&E implementation has recovered.*
- **Budgeting and funding for M&E activities – Satisfactory** – *There was adequate budget provision for the M&E activities*

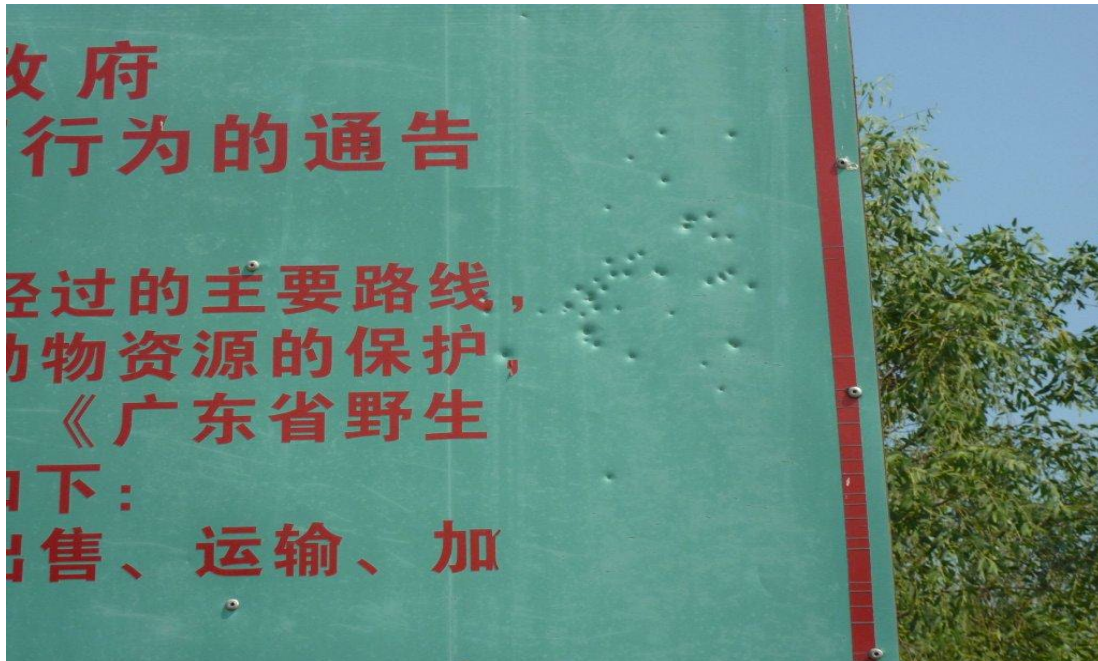
124. The LFM is weak and the TE has had insufficient time to really investigate the circumstances surrounding the design of this and other demonstration projects under the SCS Project. However, the Terminal Evaluation provides some insight as to what might have been going on at this time: *“During the process of developing the operational documents that showed clear linkages between costs and activities and the work plan it became apparent that the capacity of national institutions to prepare such documents in English was limited and the PCU organized and ran a series of informal consultative workshops to assist the proponents in completing project documents that met the standards of the United Nations. This process took much longer than envisaged such that the first demonstration sites became operational only during the first half of 2005 and subsequently the Project Steering Committee decided to lengthen the operational phase to accommodate the delays in commencement of demonstration site activities.”*<sup>36</sup>

125. The TE suspects that the SCS Project, having been through a grueling selection process of demonstration sites, was then faced with the daunting task of producing a large number of workable projects and acceptable Project Documents. Certainly the SIW Project Document has the feel of being developed with project *expedience* rather than *process* in mind.

126. By way of illustration, the “indicators” as described in the LFM are achievable and have been

<sup>36</sup> UNEP, 2005. 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, UNEP/GEF/SCS/PSC.4/3. 92pps. UNEP, Bangkok, Thailand. Cited in Terminal Report, February 2002 to December 2008 of the Project Director to The United Nations Environment Programme the Global Environment Facility and the Project Steering Committee for the UNEP/GEF project entitled: Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand

carried out. One such output indicator is “Draft local regulations prepared (within 30 months) and stakeholder consultation meetings convened (within 30 months, 2 workshops)”. When shown a signboard announcing the new regulations it was impossible not to notice that there was one shotgun pattern and two rifle rounds marking it. In more ways than one the indicator was in fact a target and the damage to the signboard perhaps more of an indicator.



**Figure 1 Sign announcing new regulations SIW**

## **5.9 Monitoring and Evaluation Design**

127. A detailed plan for reporting is set out in the Project Document, Annex A 7.3. The Inception Report was particularly weak and the TE feels this is probably due to the weak support from the IWP at that time. Half-yearly reports, a Mid-term Review Report, three PIR and a Terminal Report have been produced. However, these last substantial reports were produced following the appointment of a new International Waters Programme Task Manager in the regional office of UNEP in Bangkok, although it appears that the EA was diligently producing the Half-Yearly Reports albeit with very little narrative. The TE has no other information relating to the situation on the first half of the Project and therefore surmises that there was an absence of supervision or leadership from the UNEP IWP that was resolved with the appointment of a new TM, but by this time there was a great deal of catching up to do.
128. There is little evidence available to the TE to support this but it is easy to feel that, given what appears to have been a grueling selection process that probably resulted in compromises on many different aspects of the demonstration projects including the baseline information, overall project budgets and budgets for monitoring and evaluation there was inevitably an element of fatigue.
129. As stated earlier the first half of the Project was poorly reported and monitored. The LFM, which is the principal tool for monitoring GEF projects, had a number of weaknesses particularly in the identification of indicators. Essentially the problem lies in what is an indicator. In the LFM the indicators are at best targets and at worst means of verification or merely restating an output. The Project Document states that: “an independent terminal evaluation of the Project will be commissioned by one of EOU of UNEP, which will use the

*indicators set in the Project logframe*”. On this basis the answer would simply be that “yes” these things have been done and they have been done with an efficiency and speed that is commendable. However, this tells us little of where the process is going because they are simply targets.

130. The design of the SIW Project was oriented towards meeting targets. How much of this is due to the national planning approach and management culture and how much is a weakness in the design is hard to say.
131. Reporting, like monitoring, was weak in the first half of the Project but there is a significant change around the mid-way period (2009) when reporting picks up and a PIR is produced, the Project undergoes mid-term review and a MTR report is produced that provide a meaningful insight into the performance of the Project.

#### **5.10 Monitoring and Evaluation Plan Implementation**

132. It is questionable just how much adaptive management can take place given the frenetic pace of a three-year project. Certainly monitoring and evaluation can provide vital information on a project’s performance. However, in terms of environmental management, given that the first year is invariably spent setting the project up, the second year preparing for the midterm review and recovering or responding to it, the last year is spent winding down, preparing for the final evaluation and exiting from the project, monitoring and evaluation is essentially about project expedience.
133. The TE has already commented that the first half of the Project was poorly reported on. However, the PMU and Executing Agency continued to diligently implement the activities. In 2009 there was a dramatic improvement in the monitoring by the IWP and (while there is nothing prior to this period to compare against) the PIR, and the MTR, provide an accurate and thoughtful analysis of the progress of the Project based upon the indicators provided in the LFM.
134. The roles and responsibilities for monitoring were clearly set out in Annex A7.3 of the Project document. But it is important to understand that monitoring and evaluation is not just about collecting information and reporting. It requires an institutional culture that allows itself to be challenged, that is, it is prepared to question itself. Essentially the Project has done what it set out to do by producing the outputs, which is measurably a satisfactory outcome. However, this might not necessarily meet the challenging monitoring and evaluation requirements of GEF projects and adaptive management. Quite how this fits with a results based management approach is not always entirely clear.

#### **5.11 Complementarities with UNEP Medium Term Strategy and Programme of Work**

##### **5.11.1 Linkages to UNEP’s Expected Accomplishments and POW 2010 – 2011**

135. The TE considers that the Project is aligned with five of the six thematic focal areas, namely:
- Climate change – based on the assumption that anything at sea level is related to climate change.
  - Disasters and conflicts – in as much as integrated management of a coastal area wetland is likely to provide for the resilience against disasters of one form or another in the SCS.
  - Ecosystem management – the Project sets out to manage an ecosystem and bring this within the larger planning framework.
  - Environmental governance – the Project is addressing issues of resource governance as discussed earlier.



- Resource efficiency and sustainable consumption and production – this is implicit in the Project’s objectives
136. The TE also comments that there is implied within the Project’s design an element of governance in as much as the Project was intending to drive the institutional and agency participation in the conservation of the SIW. UNEP has had a largely scientific approach towards project implementation in the past. However, the UNEP PoW 2010 -2011 shows a budget allocation of 27.7% for environmental governance, by far the largest component of UNEP’s budget. However, this was not the case when the SIW Project was designed.
137. To this extent the SIW Project has converged with the UNEP PoW 2010 – 2011. In many ways it is demonstrating the challenges of engaging with environmental governance through a project. Arguably, the management of the SIW is a governance issue, the decision-making process, balancing local and national development agendas with the ecosystems ability to continue to provide natural goods and services is essentially what the Management Committee will need to address. Science can help, technology is important, but at the end of the day it will be the decisions of institutions, the attitudes of the individuals within these organisations and the collaboration between agencies which will determine the long term future of the SIW.
138. These issues are invariably wrapped up in the larger national process of change that China is undergoing. Once again the three-year “business model” approach to project implementation creates contradictions between *project* and *process*. While it is possible to meet all of the targets (in this case indicators) in the Project’s LFM the process of change may take much longer than is available in the standard project timeframe.

#### **5.11.2 Alignment to the Bali Strategy**

139. The Project was clearly aligned with the Bali Strategy but a criticism of the Bali Strategy is that it is a highly technocratic agreement. However, the SIW is not facing a technical challenge but rather an adaptive challenge. That is; no one technology or the introduction of a technology (e.g. mangrove replanting or silvo-aquaculture) will reverse any current damaging effects of unsustainable or illegal activity. Neither is the enforcement of prohibitive measures, practicable from a financial, social and in some cases ecological perspective. What is required is a broad behavioural change within the stakeholders towards a common objective (*i.e.* the conservation or sustainable management of the ecosystem).
140. Science plays a role in this but it also requires the alignment of science, social, economic and political agendas. There is no “quick fix” and time is an important factor in this process. The TE believes that the Project has been successful in placing the “health” of the ecosystem on the political agenda and would also argue that the first step in doing this should reasonably be scientific arguments and the ideals of the Bali Strategy.

#### **5.11.3 Gender**

141. The TE notes that gender issues are not explicitly addressed in the Project. While women play an important role in the management of biodiversity and in rural circumstances women often have a high dependency on biodiversity and other natural resources for their livelihood security and its sustainable management is of real and practical concern to them. Furthermore, they are critical stakeholders in the sustainable management of these resources. However, it would be unreasonable to expect the SIW project to address gender inequalities except where they might have a specific role in the management of the SIW, or as a result of Project interventions or existing inequalities in the access to the resources of the Project and the SIW *per se*. As far as the TE is aware this has not been an issue so far.

#### **5.11.4 South-South Cooperation**

142. There was a well-established framework for communication and transfer of experience

between projects that was set up under the SCS project. The half-yearly Progress Reports show that this has been active at least at a national level with numerous seminars and academic papers being produced from the demonstration projects as well as one regional seminar being arranged. However, the regional sharing of information on a regular and formal basis (*i.e.* as a data sharing platform) largely died out with the ending of the SCS project. It is understood that this facility (to share information) is a major component of the planned second phase of the SCS Project and this would be very timely and commendable, particularly if there was an facility for translation of key documents and studies into a several different languages.

### III Conclusions and Recommendations

#### 6. Conclusions

##### Overall observations

143. The SIW Project was a good project, as is often the case; the sum of the human resources and efforts provided a much better result from a project that, while not poorly designed, certainly had a number of weaknesses within it. It is very clear that the Executing Agency was very much behind the initiation and the implementation of this project providing an effective “champion” and that their enthusiasm has been infective amongst the other project partners. The Shantou Forest Bureau, the PMU, has been very active and efficient in implementing the various activities which has played a considerable part in ensuring that the Project has progressed well. In the terminology of projects, a “champion” is very often misused to imply a vague political support, but in this case the SIW Project has indeed been championed by the Zhongshan University and this has been reflected in the way that the Project has worked with other partners.
144. In short there has been an element of responsibility on the part of the Executing Agency and the other Project partners in having the Project and this has played a significant part in allowing the Executing Agency to influence the process as well as ensuring that the Project, with its very small GEF grant equivalent to just a fraction (0.00475%) of the Shantou SEZ GDP, has been able to “punch above its weight<sup>37</sup>”.

##### Attainment of Project objective and outcomes

145. The TE can conclude that the SIW Project has attained a satisfactory rating and has been successful by a number of measures, it is necessary, however, to be cautious about these in order to avoid them coming to be considered ‘best practice’ simply because there has been insufficient time for them to work through. These include:

***Contributing towards reversing environmental degradation trends of the South China Sea and Gulf of Thailand, and the Shantou wetland:*** the Project has contributed to reversing the environmental degradation trends based on the simple assumption that the management structures that have been put in place were not there, or were less well-developed, prior to the Project’s start. Wetland issues will be taken into account by the Municipal Management Committee during planning (this has been demonstrated by the relocation of certain transport infrastructure developments) and the use of ecological processes as a means of managing the wetlands has been adopted wherever there are clear economic benefits. The status of protected areas within the wetlands has been improved from a Municipal Nature Park to a Provincial Nature

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<sup>37</sup> An English phrase derived from boxing taken to mean that a smaller fighter can take on and beat a much larger and stronger opponent

*Park which is likely to have greater budgetary support and prominence in planning decisions. A number of “technologies” have been introduced that will improve the quality of waste water from aquaculture operations within the SIW. There are still concerns that environmental data is not widely available and there are restrictions on the type of data that can be collected and the transparency of any findings from environmental monitoring. The awareness raising carried out by the Project has contributed to changing attitudes, although this is a long-term strategy and should not be considered as a “one-off” event.*

*The magnitude of development in the SEZ makes it highly improbable that the SIW Project has reversed the trend of environmental degradation. However, section 4.1 remarked that the Project should be judged by how it has changed the direction of the process. While the specific “technologies” introduced by the Project will contribute to reducing the degradation of the environment, arguably at the scale they have been introduced this is insufficient, but for a three-year project it is still satisfactory and because of the utilitarian benefits (e.g. improved coastal protection, improved aquaculture, etc.) their impact will expand without further project assistance. However, the most important factor, and the one that it is least possible to assess, given the stage of the Project and the political constraints, will be the Municipal Management Committee. Much depends on this Committee; long-term environmental planning is a relatively new approach in China in as much as the focus of most policy has, until recently, been on economic growth. The transparency of decision-making, the accessibility of institutions such as Zhongshan University to this Committee and the availability of environmental monitoring data coupled with the ability to make decisions based on this data will determine how effective this.*

***Establishing a “set of stress reduction measures” that are effective and purposeful at working towards restoring and conserving the SIW ecosystem:*** *The introduction of aqua-silvoculture appears to have reduced the impact of aquaculture on the wetlands, in those places where it has been adopted, and to some extent it is restoring ecosystem function to the areas impacted by aquaculture by improving the habitat around the fishponds and improving the quality of the discharged water. Mangrove planting is taking place and has been broadly accepted as means to defend coastlines from erosion. The protected areas have been strengthened will reduce the stresses on the ecosystem.*

***The effectiveness and purposefulness of the institutional arrangements established for cross-sectoral and participatory management (cross-sectoral management body and integrated management plan):*** *The indicators provided for this in the LFM were:*

- *Cross-sectoral management body (Management Committee) established (within 3 months) and maintained beyond the life of the Project.*
- *An integrated Management Plan prepared and approved/adopted by local governments (within 30 months).*
- *Current Shantou Municipal Nature Reserve is updated to the National Nature Reserve (within 36 months).*

*These indicators reflect the weaknesses in the Project’s design, in particular in the Project’s LFM and the indicators selected for monitoring and evaluation. Essentially these were just re-stating the outputs or targets and not necessarily indicators that inform about the quality of the outputs or outcomes. More useful indicators might have provided some insight into the performance of the Cross-sectoral Management Committee vis a vis a range of wetland issues, particularly where these related to trade-offs between economic development and the continued provision of wetland ecosystem goods and services. Therefore the indicator might have been wetland resource governance and the sources of verification might have been the number of decisions made by the Committee in favour of conservation or protection of wetland resources over management, Municipal budget allocation to wetland conservation management, number of environmental*



*impact assessments, etc., However, the use of what are effectively "one-off events" as indicators provides no real insight into the direction of the process of change.*

*Therefore the TE can only conclude that the first two indicators have been achieved and the second has not, but the Municipal Nature Reserve has been upgraded to a Regional Nature Reserve. The weaknesses were built in to the indicators and the LFM which makes it, for all intents and purposes, impossible to gauge the effectiveness (if indeed effectiveness can be judged in such a short space of time) or even the purposefulness. The Project Management Committee has been integrated into the Municipal Management Committee at the end of the Project. Therefore one must conclude that this having an effect and there is a purpose to the Municipal Management Committee.*

***The project was successful in promoting environmentally friendly economic activities (silvo-aquaculture and eco-tourism):*** *There are indications that these activities are being adopted by the communities although there is little to define what a local community is, however, the individuals interviewed by the TE appeared to be pleased with the interventions and were able to discuss some of the finer technical aspects of the interventions. Of those interviewed there were mostly economic incentives to adopt silvo-aquaculture and eco-tourism.*

***The project was successful in raising awareness and building capacity over the importance of sustainable management of the Shantou wetland:*** *Local communities are more familiar with SIW conservation. Whether they are more dedicated in conserving the wetland is largely up to the policies and practices of the Management Committee. Local communities are most likely to respond to the policy and planning constraints that are implemented by the Management Committee. As long as these have at their basis ecosystem resilience and they are equitable and transparent then local communities can reasonably be expected to be more dedicated to conserving the SIW.*

Despite these successes the TE expresses a number of concerns and section 8 provides recommendations made in order to address these concerns following the end of the GEF financing of the Project.

Undoubtedly the Project has improved the integration of wetland management into the overall planning process and it has also improved the integration of science into the decision-making process. This is important because prior to the Project (and probably this began with the SCS Project and the participation of Zhongshan University) the main driving force has been economic development. However, although not fully integrated, there is a better understanding that sustainable social and economic development must have at its basis the ecosystems ability to continue to provide essential life-supporting goods and services. This places a responsibility upon planners to make the tough decisions, the trade-offs, between short term (and often popular) economic development and protection of the ecosystem.

However, this is only the beginning of the process and it will take time and experience to put in place the long term policies and plans necessary to ensure that the entire system is able to firstly repair much of the damage that has taken place already and secondly to cope with the sorts of "shocks and surprises" that are an integral part of any socio-ecosystem.

146. Therefore, notwithstanding these Project successes the TE has a number of concerns, these are:

- Cross-sectoral management approaches are still not effectively implemented in reality and the integrated coastal management of marine and coastal resources, not only wetland resources, needs to be included in a larger coastal zone management planning process, especially in relation to longer term climate change

risks and other externalities. This will require the development of a set of policies and planning guidelines to direct development in the future.

- There is still an overemphasis on economic development over sustainable development in general (*i.e. there is still some way to go*). The TE was struck by the emphasis on justifying interventions in terms of their contribution to pecuniary benefits. While economic benefits are likely to provide a considerable motivating factor in instances where private individuals are required to absorb the immediate costs of conservation management it is important to remember the words of Dr Ian Bateman, an economist from the University of East Anglia who played a principal role in the analysis of the recent United Kingdom’s National Ecosystem Assessment (*National Ecosystem Assessment (NEA)*<sup>38</sup>) who commented that, putting a single price on nature overall was not sensible.

*"Without the environment, we're all dead - so the total value is infinite. What is important is the value of changes - of feasible, policy-relevant changes - and those you can put numbers on."*<sup>39</sup> Going forward there will be a need to factor in areas of the SIW that might need to be alienated from economic activity.

Interestingly the SCS fisheries *Refugia Initiative*<sup>40</sup> was highly acclaimed in the Terminal Evaluation<sup>41</sup>. However, there seems to have been no cross-over from this experience into the SIW Project. The TE suspects that this might have been due to inter-sectoral differences in that this was a Forest Bureau project and the fisheries falls under the Ocean and Fisheries Bureau and not necessarily a failing of the SCS Project.

- There is a low priority given to tidal flats and salt marsh compared to mangroves. Wetland rehabilitation and conservation in Shantou were partly concentrated on mangrove re-plantation or reforestation and therefore there is a lack of a systematic view and approach. In some ways this is linked to the previous concern where the obvious (and immediate) economic benefits, as well as the visual impact, of mangrove are obvious. However, because of its low aesthetic appeal and perhaps some misunderstanding of the role of salt marsh in the ecosystems means that it is given very low priority. This might not have been the case with the Executing agency and certainly the Project Manager appeared to be aware of this but the TE suspects that the Forest Bureau had a greater interest in mangrove (as it is closer to their core activities) and the Executing Agency and the Project manager were trying to raise the profile of this important habitat.
- There is a need to strengthen the adaptive or experimental approach towards implementing pilot or demonstration projects (*e.g.* the need to include financial analysis of demonstration/pilot activities if they are to be replicated and up-scaled, the “scientific rigor” of the demonstration activities is low making analysis, comparison and selection of most cost-effective treatments for future

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<sup>38</sup> <http://uknea.unep-wcmc.org/>

<sup>39</sup> <http://www.bbc.co.uk/news/science-environment-13616543>

<sup>40</sup> UNEP, 2008. *Strategic Action Programme for the South China Sea*. UNEP/GEF/SCS Technical Publication No. 16.

<sup>41</sup> *TERMINAL REPORT February 2002 to December 2008 of the Project Director to THE UNITED NATIONS ENVIRONMENT PROGRAMME THE GLOBAL ENVIRONMENT FACILITY AND THE PROJECT STEERING COMMITTEE FOR THE UNEP/GEF PROJECT ENTITLED: REVERSING ENVIRONMENTAL DEGRADATION TRENDS IN THE SOUTH CHINA SEA AND GULF OF THAILAND [Project No GF/2730-02-4340]*

management options difficult). This criticism can be directed at GEF projects *per se* and is not just a feature of the SIW Project. It is remarkable how a Project Manager is expected to take on the work load of managing a project, which they generally do with admirable enthusiasm and diligence as well as carrying out what are in effect management experiments. The TE is not aware of a single GEF project that has a dedicated monitoring officer despite the CBD and GEF emphasis on adaptive management. In the end monitoring and evaluation is essentially directed at project performance *per se* and the, often innovative, interventions are poorly monitored resulting in inconclusive results.

- Key indicators to measure the status/improvement of environmental quality are lacking or they are not widely available. There needs to be a greater openness in monitoring the environment. There are excellent academic institutions that can use the data collected for the purpose of monitoring and early intervention. However, key variables are not monitored or if they are the data is not made available. Even within this Project it becomes impossible to determine whether changes are attributable to the project or management intervention or are as a result of wider changes taking place within the environment.
- The fall in regional support following the end of the South China Seas project did affect the Project, although it did manage to get through this period. Whether this was due to a hiatus following the end of the SCS Project or there were some other reasons involved is not clear because the International Waters Programme appears to have been able to provide this support around 2009.
- There were weaknesses in the Project’s overall design (*e.g.* the institutional context should have had greater analysis, the timeframe for the Project was therefore too short, the ending of regional technical support when the SCS project ended, etc.). The Project Document underestimated the complexity of the challenge of establishing integrated participatory management structures, although the Project has done remarkably well, the process of participatory planning is far more time-consuming than that described in the Project document and greater analysis should have been given to existing planning approaches and capacities. The TE feels that had there been a fuller analysis of the governance issues during the Project’s design phase then there might have been a provision of international technical advice to facilitate this component. However, having said that it is important to remember that GEF projects, much like other projects are more a result of opportunity, enthusiasm, under-financing and a good measure of luck. Therefore, the TE considers that this issue and the other concerns are important to note but should not distract unduly from the achievements made by the SIW Project.

An example of this presents itself in the issue of tenure. There are different tenure systems operating within the SIW. While the TE does not have the time or the knowledge to go into these in any detail, there will very likely be a correlation between the level of individual farmer investment in environmental measures and their length of tenure. Clearly a farmer with perpetual tenure will view investments differently to a farmer with a ten-year lease.

## 7 Lessons Learned

147. **Lesson 1:** The TE has repeatedly raised the issue of resource governance which is synonymous

with the Project Document’s “participatory planning and implementation” and “integrated” and “participatory” management in order to manage the SIW in a way that the ecosystem goods and services that they provide are sustainable. To achieve this it is necessary to make the wetland system (including the social, economic and ecological components) resilient to any future change. This means making sure that the system is capable of adapting. Ecosystem *“resilience can be defined as the capacity of a system to undergo disturbance while maintaining both its existing functions and controls and its capacity for future change”* (Gunderson 2000).

148. In complex socio-ecological systems, of which Shantou inter-tidal wetlands undoubtedly is, we might further define resilience as *“determined not only by a systems ability to buffer or absorb shocks, but also by its capacity for learning and self-organization to adapt to change”* (Gunderson and Holling 2002). The SIW Project has made it possible to integrate wetland management issues into the larger planning process. What is not clear is whether the Project has affected the ability of the planning process (the participants) to plan for the level of unpredictability and uncertainty that are inherent in these highly complex and dynamic socio-ecosystems. Considering the context of the SIW, a social, economic and political system in rapid transition and framed within a heavily centralized and time-bound planning framework this becomes all the more important.
149. In this instance the mechanism for planning was critical because this is where the decisions will be made. However, the Project’s design, or at least the technical aspects of it, were mostly directed at the specific “deliverables” from the Project. (e.g. mangrove planting, aqua-silviculture, conservation education, the visitor’s centre, etc.). It could be argued that the issues of governance were “packaged” within a “cross-sectoral management body” and an “integrated management plan”. While this has worked well and it provides an important demonstration of how technical institutions and local government can work together. However, it does not open the decision-making process up to a broader public participation which will be a necessary prerequisite because, as was stated in the Project’s Terminal Report:

*“To secure financial sustainability, the project will need to consider moving toward encouraging the public sector to establish a sustainable financial support scheme through the provision of annual or regular budgetary support from national, provincial or local governments. Bearing in mind local, national and regional benefits from sustainable aquaculture and ecotourism development in the areas of wetlands in the Shantou coastal area where the Shantou Municipal Development Programme has been adopted, the project should work more closely with the local stakeholders. The goal is to assess the possibility for reaching an agreement on the use of the revenue derived from the aquaculture and ecotourism activities for partly supporting the sustainable management of the project site beyond the life of the project, as well as to prepare a local spatial plan for environment friendly aquaculture and ecotourism to resolve conflicts among stakeholders and to ensure effective uses of the coastal environment.”<sup>42</sup>*

150. Strengthening this aspect of the Project, and indeed other GEF projects, could be achieved through more investment during the planning phase in understanding the institutional arrangements and dynamics that surround a specific site or issue. Therefore, when developing these complex projects it would be useful to use tools or methodologies such as institutional mapping<sup>43</sup> that can provide a dynamic map of the relationships which can be tracked over time

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<sup>42</sup> Project Terminal Report UNEP/GEF Project on “Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland” GEF Project ID: 3309 IMIS Number: GFL/2328-2730-4985, December 2011

<sup>43</sup> See: Paul Dragos Aligica, Institutional and Stakeholder Mapping: Frameworks for Policy Analysis and Institutional Change Public Organiz Rev (2006) 6: 79–90, 2006 Springer Science & Business Media, LLC

and used to develop specific strategies to influence the course of these relationships.

151. This could be further strengthened through external facilitation (*e.g.* facilitated workshops) to provide a mechanism to bring about change. Admittedly the scope for this is limited where institutions are more introverted and such an approach might not always be acceptable to a national government but at least it should be considered during a project's design phase.
152. **Lesson 2:** GEF demonstration projects should have, in addition to the Project Manager, a Monitoring Officer. Adaptive management is a phrase that is used in almost every GEF project but with little attention to what it actually means. *Adaptive management* or *experimental management* requires a level of scientific rigor in designing the intervention, identifying the assumptions, defining what success might look like (the objectives) and a statistically robust monitoring system (that might include comparisons and a control). Adaptive management is essentially a means to allow management to proceed without the need for extensive research. Within any GEF project there are two levels of adaptive management: that of monitoring the performance and impact of the project (essentially the role of the EA, PMU and Project Manager which is already covered in the project cycle management) and also to ensure that specific interventions are achieving what was expected of them, the latter being the role of a monitoring officer.
153. The TE discriminates between the Project adapting to circumstances and adaptive management. Every project should react to events as they happen. But adaptive management as described by the Convention on Biological Diversity (CBD) is more than simply reacting to events. Adaptive management requires a reasoned and detailed understanding (a *hypothesis*) of how a system is working, clearly articulated objectives of management interventions, a detailed monitoring system and critically a transparent and coherent description of what assumptions are lurking within the hypothesis. Furthermore, adaptive management, as described by the CBD requires an institutional culture that will accept failure or mistakes and learn from them. Lastly adaptive management distinguished between mistakes *and* incompetence by monitoring:
- Implementation – did the project do what it planned to do (*i.e.* is the plan still untested because the implementation is poor);
  - Effectiveness – is the plan meeting the predicted outcomes and objectives (*i.e.* has the plan been tested and found to have flaws), and;
  - Validation of the model's parameters and relationships (*i.e.* which assumptions, variables and interactions were correct).
154. The point of this is that in a project such as the SIW Project there are two levels of adaptive management taking place. Firstly the project *per se* needs to be constantly challenging its own *hypothesis* of how the system is working; this is the standard GEF-UNEP monitoring and evaluation process. However, because it is also a demonstration project it should also be applying adaptive management internally to each component of demonstration because GEF projects are not about research. For instance in the case of silvo-aquiculture one might expect to see a range of treatments and a credible monitoring programme in place. Thus the efficacy of the different treatments (*e.g.* natural regeneration, seed dispersal, seedlings and saplings, including a null treatment or control and even different means of implementation such as grants to farmers, direct project employment, etc.) could be compared along with other variables such as cost efficiency, time scales *etc.*
155. For instance in the SIW Project there were opportunities to try a range of different approaches under experimental conditions with silvo-aquiculture. Natural regeneration, planting of seedlings, saplings, seed dispersal and a control might well have provided a wealth of

information not just on the efficacy of each treatment but also on the cost-effectiveness of achieving the desired objectives. Combining the scientific data with economic data and other variables such as the type of land tenure (e.g. the period of tenure) could then inform planning and management responses.

156. However, it would be unreasonable to expect the PM of any project to be handling monitoring on this scale. Furthermore, it is important that monitoring of interventions is carried out independently of project monitoring because there might be effectively a conflict of interests between project expedience and reporting success or failure. Therefore it would be useful for GEF projects, particularly those which are designed specifically as demonstration projects to include amongst the project staff complement a dedicated monitoring officer to design and implement monitoring programmes for specific interventions.
157. It is important to note that organizations that have been using adaptive management often refer to it as *experimental management* and plan the “experiment”, including clearly articulated objectives and assumptions, statistically robust monitoring criteria and a means to compare between experiments on the basis of management criteria such as time and investment and a stopping point. Lastly it is worth mentioning that the evaluator has never seen a GEF project that has actually incorporated adaptive management, as a “science<sup>44</sup>”, into its design and therefore does not see that this is a justification to penalize this particular project.

## 8. Recommendations

158. The TE considers that this has been a satisfactory project and makes only one recommendation which is essentially a means to build upon the successes of the SIW Project. UNEP, in the capacity of a GEF Implementation Agency, through the Regional Office of the International Waters Programme, should communicate with the Shantou Municipal Management Committee congratulating them on the satisfactory outcome of the SIW Project (copied to the Zhongshan University in their capacity *post* Executing Agency) and stresses the importance of the Municipal Management Committee following up the SIW Project by:

- a. Expanding the Committees function to other marine and coastal resources and not only focus on wetland resource.

The Project Management Committee was established ad hoc for this project on wetland protection and the purpose of this approach was to harmonize any overlapping responsibilities of line agencies and stakeholder interest. Although the functions of the PMC have been integrated into the permanent and larger Shantou Municipality Management Committee the TE has noted on a number of occasions that the SIW are particularly vulnerable to external drivers and events therefore they cannot be isolated from the larger coastal planning and management issues. Sustainability of the SIW and indeed the Shantou Municipality (not to be too alarmist) depends upon expanding the responsibilities of this committee and increasing the participation of other institutions (e.g. Universities, etc.).

- b. Creating a legal basis to ensure that wetland conservation management is legally included within urban planning in the future. In such cases, what is required, permitted and prohibited in a wetland area would be defined by a clear and legal basis. Therefore, wetland protection would be given higher priority, which would also promote public awareness and understanding of wetland resources. Underpinning this would be a definition of what constitutes a wetland which could

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<sup>44</sup> Monitoring is sometimes described as “quick and dirty science”



be drawn from the Ramsar definition. Under the Convention on Wetlands (Ramsar, Iran, 1971) "wetlands" are defined by Articles 1.1 and 2.1 as shown below:

**Article 1.1:**

*"For the purpose of this Convention wetlands are areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters."*

**Article 2.1 provides that wetlands:**

*"may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six meters at low tide lying within the wetlands".*

- c. Expressing the need regular monitoring of environmental variables within the SIW and for clear and transparent sharing of this data, possibly through a clearing house mechanism.

Certainly data obtained through project should be shared between agencies and institutions. At the Municipal level there is an urgent need to develop a comprehensive and transparent monitoring plan with standards for data collection, indicators and a means to interpret change and put in place the appropriate responses. UNEP should stress the plausible environmental, economic and public health risks of not ensuring that there is reasonable freedom by individual concerned institutions to collect environmental data and share data.

## Annex 1 Terms of Reference

### Terminal Evaluation of the UNEP GEF project “Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland”

#### PROJECT BACKGROUND AND OVERVIEW

##### Project General Information<sup>45</sup>

**AGENCY’S PROJECT ID:** GF/3309

**COUNTRY:** China

**PROJECT TITLE:** Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland

**GEF IMPLEMENTING AGENCY:** United Nations Environmental Programme

**EXECUTING AGENCY(IES):** Zhongshan University

**PROJECT PARTNERS:** Office of the Shantou City Nature Reserve; local communities of Hexi, Sanyuwei, Suaiwan, and Waisha Towns

**DURATION:** 3 Years

**GEF FOCAL AREA:** International Water

**GEF OPERATIONAL PROGRAM:** OP8: Water bodies

**GEF STRATEGIC PRIORITY:** IW-1, SP-1 (Restoring and Sustaining Coastal and Marine Fish Stocks and Associated Biological Diversity)

**ESTIMATED STARTING DATE:** November 2007

**ESTIMATED COMPLETION DATE:** May 2011

**IA FEE:** US \$ 36,000

#### Project Rationale

1. The Shantou intertidal wetland is a 3,186.87 ha habitat, with mangrove forests, estuaries, lagoons, intertidal mudflats and non-peat swamps. The area lies at a delta of three rivers; Hanjiang, Rongjiang and Lianjiang. It is at a transitional area between tropical and subtropical zones which contributes to its mixed – temperate, subtropical and tropical biodiversity. The wetland offers habitats for migratory fishes, dolphins and waterfowls and its environment is an indispensable component of the South China Sea. The area has a high regional and transboundary significance in maintaining local

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<sup>45</sup> Source: Project Executive Summary; Request for medium-sized project approval under the GEF trust fund



and regional fishery resources, most of which are of high economic value such as Japanese Eel (*Anguilla japonica*), Fourfinger Threadfin (*Eleutheronema tetradactylum*) and Blowfish (*Fugu oblongus*). The wetland also supports a large number of migratory waterfowls, such as Black-faced Spoonbill (*Platalea minor*) and Dalmatian Pelican (*Pelecanus crispus*) migrating from Siberian, Korean and Japanese wetlands to Shantou either to replenish or to winter.

2. The Shantou intertidal wetland is also located in one of the more developed areas of China with very high population density. The increasing population combined with increased human activities and rapid economic development has imposed a tremendous pressure on the wetland site. The major threats include conversion of wetland into aquaculture ponds and real estate land, over-exploitation of biological resources and water pollution. The root causes of the direct threats are weak management of the area, i.e. lack of an institutional arrangement for cross sectoral and participatory management, lack of integrated management plan, and weak law enforcement; over reliance of local people on wetland natural resources; and lack of awareness among local people and government. However, the Shantou City Government has an increasing awareness of environmental problems caused by rapid economic development and population growth and was therefore committed to actively participating to the proposed project and to continuing the actions and activities after the project termination.
3. This medium-sized project was a demonstration project derived from the UNEP/GEF project entitled “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand” implemented from January 2002 to March 2007.

Project objectives, outcomes and activities

4. The development objective of the project as stated in the logical framework matrix was “*reversing environmental degradation trend of the South China Sea and Gulf of Thailand*”
5. **The project objective** as stated in the logical framework was to “*demonstrate a set of stress reduction measures effective at the Shantou intertidal wetland ecosystem*”. The project aimed at restoring and conserving the intertidal wetland habitat of Shantou by establishing an integrated cross-sectoral management system, promoting environmentally friendly economic activities, and improving public awareness and education on wetland conservation.
6. The overall outcome of this project will be a demonstration of how a cross-sector participation scheme in the integrated management of a regionally significant wetland habitat can prevent further wetland ecosystem degradation and rehabilitate important habitats for migratory water fowls.
7. The expected **project outcomes** as stated in the Logical framework matrix were:
  - a. *Area management improved through the establishment of cross-sectoral management body and the development and implementation of an integrated management plan*
  - b. *Conservation and rehabilitation of some wetland areas achieved*
  - c. *Environmentally friendly economic activities promoted*
  - d. *Education and public awareness raising on wetland conservation promoted*
8. The project logical framework listed the following project **outputs**
  - a. Enhanced management

- i. *1.1: Institutional arrangement for the cross-sectoral and participatory management established; i.e. Management Committee and Scientific and Technical Committee*
  - ii. *1.2: An Integrated Management Plan developed and approved*
  - iii. *1.3: Local regulations developed and law enforcement improved*
  - iv. *1.4: Participatory patrolling/ monitoring system to prevent illegal activity established*
- b. Conservation and Rehabilitation of Wetland Areas
  - i. *2.1: Physical enclosure of protected zone in Hexi and Suaiwan sub-demonstration site completed and rehabilitated*
  - ii. *2.2: Activities to clean up Haojiang River and improve the water quality implemented*
  - iii. *2.3: Environment Monitoring Scheme established and implemented annually*
- c. Promotion of Environmentally Friendly Economic Activities
  - i. *3.1: Pilot activities for environmentally friendly aquaculture (silvo-fishery) implemented*
  - ii. *3.2: Eco-tourism plan developed and pilot activities implemented*
  - iii. *3.3: Financial sustainability analysis and planning completed*
- d. Education and public awareness
  - i. *4.1: Training and education plan developed*
  - ii. *4.2: Training, education and Information centre established and functional*
  - iii. *4.3: Training and capacity building program developed and implemented*
  - iv. *4.4: Primary and middle school education programme developed and implemented*
  - v. *4.5: Public awareness raising materials developed and disseminated*
  - vi. *4.6: NGO activities on wetland conservation by university students strengthened*
  - vii. *4.7: Local website established and maintained*
  - viii. *4.8: National wetland conference convened*

#### Executing Arrangements

9. The project will be implemented by *UNEP* and executed by the *Zhongshan University* of China who will provide scientific and technical guidance to the execution of the project and ensure the project’s operation and management. A Project Management Unit will be established in Shantou to take care of daily management and coordination.
10. In addition, all stakeholders will be included in project execution, them including;
  - a. *Government agencies* related to wetland management, including State Environmental Protection Administration (SEPA), Shantou City Government, Bureau of Planning and Land Resources, Forestry Bureau, Bureau of Ocean and Fishery, Environment Protection Bureau, and the district governments of the four sub demonstration sites, i.e. Longhu, Haojiang, and Chaoyang Districts (municipal).
  - b. *Office of the Shantou City Nature Reserve*; the Shantou intertidal wetland demonstration site is within the Shantou Nature Reserve, which has been the responsibility of the Office to manage and protect the wetland.
  - c. *Local communities of Hexi, Sanyuwei, Suaiwan, and Waisha*; a total population of 367,388 resides in the four towns. A large number of local people derive direct or

indirect economic benefits from the wetland area. They will use and manage the wetland and need to benefit from wetland.

#### Project Cost and Financing

11. The proposed project has been developed to be implemented as part of a total of 24 habitat demonstration projects under the umbrella of the South China Sea Project. The inclusion of seven demonstration sites through MSP funding will have a synergistic effect on all demonstration project activities under the umbrella of the SCS Project, and provide very good returns for a modest investment (US\$ 2.8 million) when compared to the costs of seven independent projects, each with its own start up, development, and monitoring costs.
12. The table below presents a summary of expected financing sources for the project as presented in the Project Executive Summary.

<b>Financing plan (\$)</b>		
	PPG	Project
GEF Total	0	<b>400,000</b>
Co-Financing		
GEF IA/EXA	0	0
Government	0	<b>200,000</b>
Others	0	<b>315,200</b>
Co-Financing Total	0	<b>515,200</b>
Total	0	<b>915,200</b>

#### TERMS OF REFERENCE FOR THE EVALUATION

## Objective and Scope of the Evaluation

13. In line with the UNEP Evaluation Policy<sup>46</sup>, the UNEP Evaluation Manual<sup>47</sup> and the Guidelines for GEF Agencies in Conducting Terminal Evaluations<sup>48</sup>, the terminal evaluation of the Project “Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland” is undertaken at the end of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, the GEF and their partners. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation. It will focus on the following sets of **key questions**, based on the project’s intended outcomes, which may be expanded by the consultants as deemed appropriate:
- To what extent did the project contribute towards reversing environmental degradation trends of the South China Sea and Gulf of Thailand, and the Shantou wetland in particular?
  - Was the selected “set of stress reduction measures” effective and purposeful at working towards restoring and conserving the Shantou intertidal wetland ecosystem?
  - Were the established institutional arrangements for cross-sectoral and participatory management (cross-sectoral management body and integrated management plan) effective and purposeful? Has further ecosystem degradation been prevented in Shantou wetland through the cross-sectoral participation scheme?
  - Was the project successful in promoting environmentally friendly economic activities (silvo-fishery and eco-tourism) and are there indications that these activities would be adopted by the communities? What are the incentives for the communities to change their practices?
  - Was the project successful in raising awareness and building capacity over the importance of sustainable management of the Shantou wetland? Are local communities familiar with the project and its benefits and are they now – as a consequence of the project – more dedicated in conserving the wetland?

### b. Overall Approach and Methods

14. The terminal evaluation of the Project “Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland” will be conducted by independent consultants under the overall responsibility and management of the UNEP Evaluation Office (Nairobi), in consultation with the UNEP Office for Asia and the Pacific Region (Bangkok).
15. It will be an in-depth evaluation using a participatory approach whereby key stakeholders are kept informed and consulted throughout the evaluation process. Both quantitative and qualitative

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<sup>46</sup><http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx>

<sup>47</sup><http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationManual/tabid/2314/language/en-US/Default.aspx>

<sup>48</sup> [http://www.thegef.org/gef/sites/thegef.org/files/documents/TE\\_guidelines7-31.pdf](http://www.thegef.org/gef/sites/thegef.org/files/documents/TE_guidelines7-31.pdf)

evaluation methods will be used to determine project achievements against the expected outputs, outcomes and impacts.

16. The findings of the evaluation will be based on the following:

A **desk review** of project documents<sup>49</sup> including, but not limited to:

- Relevant background documentation, inter alia UNEP and GEF policies, strategies and programmes pertaining to the project focus area.
- Project design documents; Annual Work Plans and Budgets or equivalent, revisions to the logical framework and project financing;
- Project reports such as progress and financial reports; Steering Committee meeting minutes; annual Project Implementation Reviews and relevant correspondence;
- Documentation related to project outputs including Half Yearly Progress Reports, Project Implementation Review Reports (annual), and financial reports;
- Mid-Term Review Report;
- Project final report.

**Interviews**<sup>50</sup> with:

- UNEP Task Manager (*Bangkok*) and Fund Management Officer (*Nairobi*);
- Site Manager and staff of the project management unit;
- Zhongshan University and the other relevant academic institutes involved;
- Government Agencies, such as the Ministry of Environmental Protection (MEP) of the Government of China, Shantou City Government, Bureau of Planning and Land Resources, Forestry Bureau, Bureau of Ocean and Fishery, Environment Protection Bureau, and the district governments of the four sub demonstration sites, i.e. Longhu, Haojiang, and Chaoyang Districts (municipal), and other relevant agencies as necessary;
- Office of the Shantou City Nature Reserve;
- Local communities of Hexi, Sanyuwei, Suaiwan, and Waisha Townships; and other relevant stakeholders as necessary;
- Other relevant partners as necessary;
- Relevant staff of UNEP and GEF Secretariat.

**Field visits to selected demonstration project sites;**

- The evaluation team will visit the Project task manager in Bangkok, Beijing and Project Management Unit in Shantou. Visits to the demonstration sites in Shantou; Longhu, Haojiang, and Chaoyang, will be included.

c. Key Evaluation principles

17. Evaluation findings and judgements should be based on **sound evidence and analysis**, clearly documented in the evaluation report. Information will be triangulated (i.e. verified from different sources) to the extent possible, and when verification was not possible, the single source will be mentioned<sup>51</sup>. Analysis leading to evaluative judgements should always be clearly spelled out.

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<sup>49</sup> Documents to be provided by the UNEP Task Manager are listed in Annex 5.

<sup>50</sup> Face-to-face or through any other appropriate means of communication

<sup>51</sup> Individuals should not be mentioned by name if anonymity needs to be preserved.

18. The evaluation will assess the project with respect to a **minimum set of evaluation criteria** grouped in four categories: (1) Attainment of objectives and planned results, which comprises the assessment of outputs achieved, relevance, effectiveness and efficiency and the review of outcomes towards impacts; (2) Sustainability and catalytic role, which focuses on financial, socio-political, institutional and ecological factors conditioning sustainability of project outcomes, and also assesses efforts and achievements in terms of replication and up-scaling of project lessons and good practices; (3) Processes affecting attainment of project results, which covers project preparation and readiness, implementation approach and management, stakeholder participation and public awareness, country ownership/driven-ness, project finance, UNEP supervision and backstopping, and project monitoring and evaluation systems; and (4) Complementarity with the UNEP Strategies and programmes, which describes linkages to UNEP’s Expected Accomplishments, project contributions in line with the Bali Strategic Plan, mainstreaming of gender and South-South Cooperation. The lead consultant can add other evaluation criteria as deemed appropriate.
19. **Ratings.** All evaluation criteria will be rated, either on a six-point or a four-point scale depending on the criterion. However, complementarity of the project with the UNEP Medium Term Strategy and Programme of Work is not rated. Annex 2 provides detailed guidance on how the different criteria should be rated and how ratings should be aggregated for the different evaluation criterion categories.
20. In attempting to attribute any outcomes and impacts to the project, the evaluator should consider the difference between **what has happened with** and **what would have happened without** the project. This implies that there should be consideration of the baseline conditions and trends in relation to the intended project outcomes and impacts. This also means that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project. Sometimes, adequate information on baseline conditions and trends is lacking. In such cases this should be clearly highlighted by the evaluator, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance.
21. As this is a terminal evaluation, particular attention should be given to learning from the experience. Therefore, **the “why?” question** should be at front of the consultant’s mind all through the evaluation exercise. This means that the consultant needs to go beyond the assessment of “what” the project performance was, and make a serious effort to provide a deeper understanding of “why” the performance was as it was, i.e. of processes affecting attainment of project results (criteria under category 3). This should provide the basis for the lessons that can be drawn from the project. In fact, the usefulness of the evaluation will be determined to a large extent by the capacity of the consultant to explain “why things happened” as they happened and are likely to evolve in this or that direction, which goes well beyond the mere assessment of “where things stand” today.

#### d. Evaluation criteria

##### Attainment of Objectives and Planned Results

22. The evaluation should assess the relevance of the project’s objectives and the extent to which these were effectively and efficiently achieved or are expected to be achieved.
  - a. *Achievement of Outputs and Activities:* Assess, for each component, the project’s success in producing the programmed outputs, both in quantity and quality, as well as their usefulness and timeliness. Briefly explain the degree of success of the project in achieving its different outputs, cross-referencing as needed to more detailed explanations provided under Section 3 (which covers the processes affecting attainment of project objectives). The achievements under the regional and national demonstration projects will receive particular attention.

b.*Relevance*: Assess, in retrospect, whether the project’s objectives and implementation strategies were consistent with: i) National, Regional and Global environmental issues and needs; ii) the UNEP mandate, policies and strategies at the time of design and implementation; and iii) the GEF focal area, strategic priorities and the relevant operational program(s).

c.*Effectiveness*: Appreciate to what extent the project has achieved its main objective and its outcomes. To measure achievement, use as much as appropriate the indicators for achievement of the objective and outcomes as stated in the project Logical Framework Matrix (Logframe). Briefly explain what factors affected the project’s success in achieving its objectives, cross-referencing as needed to more detailed explanations provided under Section 3.

d.*Efficiency*: Assess the cost-effectiveness and timeliness of project execution. Describe any possible cost- or time-saving measures put in place in attempting to bring the project to a successful conclusion within its programmed budget and time. In case the project has experienced delays, analyse how they have affected project execution, costs and effectiveness. Wherever possible, compare the cost and time over results ratios of the project with that of other similar projects. Give special attention to efforts by the project teams to make use of / build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency.

e.*Review of Outcomes to Impacts (ROtI)*: Reconstruct the logical pathways from project outputs over achieved objectives towards impacts, taking into account performance and impact drivers, assumptions and the roles and capacities of key actors and stakeholders, using the methodology presented in the GEF Evaluation Office’s ROtI Practitioner’s Handbook<sup>52</sup> (summarized in Annex 6 of the TORs). Appreciate to what extent the project has to date contributed, and is likely in the future to further contribute to changes in stakeholder behaviour.

#### Sustainability and catalytic role

23. **Sustainability** is understood as the probability of continued long-term project-derived results and impacts after the external project funding and assistance ends. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of benefits. Some of these factors might be direct results of the project while others will include contextual circumstances or developments that are not under control of the project but that may condition sustainability of benefits. The evaluation should ascertain to what extent follow-up work has been initiated and how project results will be sustained and enhanced over time.

24. Four aspects of sustainability will be addressed:

a. *Socio-political sustainability*. Are there any social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts? Is the level of ownership by the main national stakeholders sufficient to allow for the project results to be sustained? Are there sufficient government and stakeholder awareness, interests, commitment and incentives to execute, enforce and pursue the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project?

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[http://www.thegef.org/gef/sites/thegef.org/files/documents/Impact\\_Eval-Review\\_of\\_Outcomes\\_to\\_Impacts-RotI\\_handbook.pdf](http://www.thegef.org/gef/sites/thegef.org/files/documents/Impact_Eval-Review_of_Outcomes_to_Impacts-RotI_handbook.pdf)



b. *Financial resources.* To what extent are the continuation of project results and the eventual impact of the project dependent on continued financial support? What is the likelihood that adequate financial resources<sup>53</sup> will be or will become available to implement the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project? Are there any financial risks that may jeopardize sustenance of project results and onward progress towards impact?

c. *Institutional framework.* To what extent is the sustenance of the results and onward progress towards impact dependent on issues relating to institutional frameworks and governance? How robust are the institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustaining project results and to lead those to impact on human behaviour and environment\l resources?

d. *Environmental sustainability.* Are there any environmental factors, positive or negative, that can influence the future flow of project benefits? Are project there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits?

25. **Catalytic Role and Replication.** The *catalytic role* of UNEP and the GEF is embodied in their approach of supporting the creation of an enabling environment and of investing in pilot activities which are innovative and showing how new approaches can work. UNEP and the GEF also aim to support activities that upscale new approaches to a national, regional or global level, with a view to achieve sustainable global environmental benefits. The evaluation will assess the catalytic role played by this project, namely to what extent the project has:

a. *catalyzed behavioural changes* in terms of use and application by the relevant stakeholders of: i) technologies and approaches show-cased by the demonstration projects; ii) strategic programmes and plans developed; and iii) assessment, monitoring and management systems established at a national and sub-regional level;

b. provided *incentives* (social, economic, market based, competencies etc.) to contribute to catalyzing changes in stakeholder behaviour;

c. contributed to *institutional changes*. An important aspect of the catalytic role of the project is its contribution to institutional uptake or mainstreaming of project-piloted approaches in the regional and national demonstration projects;

d. contributed to *policy changes* (on paper and in implementation of policy);

e. contributed to sustained follow-on financing (*catalytic financing*) from Governments, the GEF or other donors;

f. created opportunities for particular individuals or institutions ("*champions*") to catalyze change (without which the project would not have achieved all of its results).

26. *Replication*, in the context of GEF projects, is defined as lessons and experiences coming out of the project that are replicated (experiences are repeated and lessons applied in different geographic areas) or scaled up (experiences are repeated and lessons applied in the same geographic area but on a much larger scale and funded by other sources). The evaluation will assess the approach

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<sup>53</sup> Those resources can be from multiple sources, such as the public and private sectors, income generating activities, other development projects etc.



adopted by the project to promote replication effects and appreciate to what extent actual replication has already occurred or is likely to occur in the near future, with special attention to the demonstration projects conducted. What are the factors that may influence replication and scaling up of project experiences and lessons?

iii. Processes affecting attainment of project results

27. **Preparation and Readiness.** Were the project’s objectives and components clear, practicable and feasible within its timeframe? Were the capacities of executing agencies properly considered when the project was designed? Was the project document clear and realistic to enable effective and efficient implementation? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation? Were counterpart resources (funding, staff, and facilities) and enabling legislation assured? Were adequate project management arrangements in place? Were lessons from other relevant projects properly incorporated in the project design? Were lessons learned and recommendations from Steering Committee meetings adequately integrated in the project approach? What factors influenced the quality-at-entry of the project design, choice of partners, allocation of financial resources etc.?
28. **Implementation Approach and Adaptive Management.** This includes an analysis of approaches used by the project, its management framework, the project’s adaptation to changing conditions (adaptive management), the performance of the implementation arrangements and partnerships, relevance of changes in project design, and overall performance of project management. The evaluation will:
- a. Ascertain to what extent the project implementation mechanisms outlined in the project document have been followed and were effective in delivering project outputs and outcomes. Were pertinent adaptations made to the approaches originally proposed?
  - b. Assess the role and performance of the units and committees established and the project execution arrangements at all levels;
  - c. Evaluate the effectiveness and efficiency of project management and how well the management was able to adapt to changes during the life of the project;
  - d. Assess the extent to which project management responded to direction and guidance provided by the Project Management Committee and IA supervision recommendations;
  - e. Identify administrative, operational and/or technical problems and constraints that influenced the effective implementation of the project, and how the project partners tried to overcome these problems.
29. **Stakeholder<sup>54</sup> Participation and Public Awareness.** The term stakeholder should be considered in the broadest sense, encompassing project partners, government institutions, private interest groups, local communities etc. The assessment will look at three related and often overlapping processes: (1) information dissemination between stakeholders, (2) consultation between stakeholders, and (3) active engagement of stakeholders in project decision making and activities. The evaluation will specifically assess:

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<sup>54</sup> Stakeholders are the individuals, groups, institutions, or other bodies that have an interest or stake in the outcome of the project. The term also applies to those potentially adversely affected by the project.

a.the approach(es) used to identify and engage stakeholders in project design and implementation. What were the strengths and weaknesses of these approaches with respect to the project's objectives and the stakeholders' motivations and capacities? What was the achieved degree and effectiveness of collaboration and interactions between the various project partners and stakeholders during the course of implementation of the project?

b.the degree and effectiveness of any public awareness activities that were undertaken during the course of implementation of the project; or that are built into the assessment methods so that public awareness can be raised at the time the assessments will be conducted;

c.how the results of the project (strategic programmes and plans, monitoring and management systems, sub-regional agreements etc.) engage the Shantou wetland communities and their institutions in improved management and sustainable use of the natural resource base of the area.

30. The ROTI analysis should assist the consultants in identifying the key stakeholders and their respective roles, capabilities and motivations in each step of the causal pathway from activities to achievement of outputs and objectives to impact.

31. **Country Ownership and Driven-ness.** The evaluation will assess the performance of the Government of China:

a.in how the Government has assumed responsibility for the project and provided adequate support to project execution, including the degree of cooperation received from the various contact institutions in the countries involved in the project and the timeliness of provision of counter-part funding to project activities;

b.to what extent the political and institutional framework of the participating country has been conducive to project performance. Look, in particular, at the extent of the political commitment to enforce (sub-) regional agreements promoted under the project;

c.to what extent the Government has promoted the participation of communities and their non-governmental organisations in the project; and

d.how responsive the Government was to UNEP coordination and guidance and supervision.

e. **Financial Planning and Management.** Evaluation of financial planning requires assessment of the quality and effectiveness of financial planning and control of financial resources throughout the project's lifetime. The assessment will look at actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing. The evaluation will: Verify the application of proper standards (clarity, transparency, audit etc.) and timeliness of financial planning, management and reporting to ensure that sufficient and timely financial resources were available to the project and its partners;

f. Appreciate other administrative processes such as recruitment of staff, procurement of goods and services (including consultants), preparation and negotiation of cooperation agreements etc. to the extent that these might have influenced project performance;

g. Present to what extent co-financing has materialized as expected at project approval (see Table 1). Report country co-financing to the project overall, and to support project activities at the national level in particular. The evaluation will provide a breakdown of final actual costs and co-financing for the different project components (see tables in Annex 3).

h. Describe the resources the project has leveraged since inception and indicate how these resources are contributing to the project’s ultimate objective. Leveraged resources are additional resources—beyond those committed to the project itself at the time of approval—that are mobilized later as a direct result of the project. Leveraged resources can be financial or in-kind and they may be from other donors, NGO’s, foundations, governments, communities or the private sector.

32. **UNEP and UNDP Supervision and Backstopping.** The purpose of supervision is to verify the quality and timeliness of project execution in terms of finances, administration and achievement of outputs and outcomes, in order to identify and recommend ways to deal with problems which arise during project execution. Such problems may be related to project management but may also involve technical/institutional substantive issues in which UNEP has a major contribution to make. The evaluators should assess the effectiveness of supervision and administrative and financial support provided by UNEP including:

- a. The adequacy of project supervision plans, inputs and processes;
- b. The emphasis given to outcome monitoring (results-based project management);
- c. The realism and candour of project reporting and ratings (i.e. are PIR ratings an accurate reflection of the project realities and risks);
- d. The quality of documentation of project supervision activities; and
- e. Financial, administrative and other fiduciary aspects of project implementation supervision.

33. **Monitoring and Evaluation.** The evaluation will include an assessment of the quality, application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The evaluation will assess how information generated by the M&E system during project implementation was used to adapt and improve project execution, achievement of outcomes and ensuring sustainability. M&E is assessed on three levels:

a. *M&E Design.* Projects should have sound M&E plan to monitor results and track progress towards achieving project objectives. An M&E plan should include a baseline (including data, methodology, etc.), SMART indicators and data analysis systems, and evaluation studies at specific times to assess results. The time frame for various M&E activities and standards for outputs should have been specified. The evaluators should use the following questions to help assess the M&E design aspects:

- i. Quality of the project logframe as a planning and monitoring instrument; analyse logframe in Project Document to report progress towards achieving project objectives;
- ii. SMART-ness of indicators: Are there specific indicators in the logframe for each of the project objectives? Are the indicators measurable, attainable (realistic) and relevant to the objectives? Are the indicators time-bound?
- iii. Adequacy of baseline information: To what extent has baseline information on performance indicators been collected and presented in a clear manner? Was the methodology for the baseline data collection explicit and reliable?
- iv. Arrangements for monitoring: Have the responsibilities for M&E activities been clearly defined? Were the data sources and data collection instruments appropriate? Was the

frequency of various monitoring activities specified and adequate? In how far were project users involved in monitoring?

- v. Arrangements for evaluation: Have specific targets been specified for project outputs? Has the desired level of achievement been specified for all indicators of objectives and outcomes? Were there adequate provisions in the legal instruments binding project partners to fully collaborate in evaluations?
  - vi. Budgeting and funding for M&E activities: Determine whether support for M&E was adequately budgeted and was funded in a timely fashion during implementation.
- b. *M&E Plan Implementation.* The evaluation will verify that:
- i. the M&E system was operational and facilitated timely tracking of results and progress towards projects objectives throughout the project implementation period;
  - ii. annual project reports and Progress Implementation Review (PIR) reports were complete, accurate and with well justified ratings;
  - iii. the information provided by the M&E system was used during the project to improve project performance and to adapt to changing needs;
  - iv. projects had an M&E system in place with proper training, instruments and resources for parties responsible for M&E.

iv. Complementarities with UNEP strategies and programmes

34. UNEP aims to undertake GEF funded projects that are aligned with its own strategies and programming frameworks. The evaluation should present a brief narrative on the following issues:

- a. *Linkage to UNEP’s Expected Accomplishments and POW 2010-2011.* The UNEP MTS specifies desired results in six thematic focal areas. The desired results are termed Expected Accomplishments. Using the completed ROTI analysis, the evaluation should comment on whether the project makes a tangible contribution to any of the Expected Accomplishments specified in the UNEP MTS. The magnitude and extent of any contributions and the causal linkages should be fully described. Whilst it is recognised that UNEP GEF projects designed prior to the production of the UNEP Medium Term Strategy (MTS)<sup>55</sup>/ Programme of Work (POW) 2010/11 would not necessarily be aligned with the Expected Accomplishments articulated in those documents, complementarities may still exist.
- b. *Alignment with the Bali Strategic Plan (BSP)*<sup>56</sup>. The outcomes and achievements of the project should be briefly discussed in relation to the objectives of the UNEP BSP.
- c. *Gender.* Ascertain to what extent project design, implementation and monitoring have taken into consideration: (i) possible gender inequalities in access to and the control over natural resources; (ii) specific vulnerabilities of women and children to environmental degradation or disasters; and (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation. Appreciate whether the intervention is likely to have any lasting differential impacts on gender equality and the relationship between women and the environment. To what extent do unresolved gender inequalities affect sustainability of project benefits?

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<sup>55</sup> <http://www.unep.org/PDF/FinalMTSGCSS-X-8.pdf>

<sup>56</sup> <http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf>

- d. *South-South Cooperation.* This is regarded as the exchange of resources, technology, and knowledge between developing countries. Briefly describe any aspects of the project that could be considered as examples of South-South Cooperation.

## E. Resources and Schedule of the Evaluation

### The Evaluation Team

35. A team of two independent consultants will be contracted for this evaluation. The consultants should have the following expertise and experience:
36. **The Lead Evaluator** should not have been associated with the design and implementation of the project in a paid capacity. The evaluator will work under the overall supervision of the Chief, Evaluation Office, UNEP. The evaluator should have a Master’s degree or higher in ecology, natural resource management or related field with at least 5 years of international experience in rehabilitation and conservation of natural ecosystem and their ecosystem functions. The consultant should have the following minimum qualifications: (i) knowledge and experience in conservation and natural resource management (ii) experience in developing conservation management approaches; (iii) experience in management and implementation of research projects and in particular with research targeted at policy-influence and decision-making; (iv) experience in project evaluation. Knowledge of UNEP programmes and GEF activities is desirable. Fluency in oral and written English is a must.
37. **The Lead Evaluator** will be responsible for delivering the inception report, coordinating the data collection and analysis phase of the evaluation, and delivering the final evaluation report. (S)He will ensure that all evaluation criteria are adequately covered.
38. **The Associate Evaluator** should not have been associated with the design and implementation of the project in a paid capacity. The evaluator will work under the overall supervision of the Chief, Evaluation Office, UNEP. The evaluator should have a Bachelor’s degree or higher in ecology, natural resource management or related field with at least 3 years of experience in rehabilitation and conservation of natural ecosystem and their ecosystem functions. The consultant should have the following minimum qualifications: (i) knowledge and experience in participatory wetland management and wetland habitat restoration (ii) knowledge and experience in marine aquaculture and sustainable management of marine resources; (iii) expertise in protection of marine ecosystems; (iv) experience in project evaluations is an asset. Knowledge of UNEP programs and GEF activities is desirable. Fluency in oral and written English and Chinese is a must.
39. **The Associate Evaluator** will be responsible for assisting in the collation of the inception report, the data collection and analysis phase of the evaluation, by providing subject and country specific knowledge. The associate evaluator will be responsible for providing a technical working paper entailing her/his findings from the evaluation mission and assisting the lead evaluator in preparing the final evaluation report.
40. *By undersigning the service contract with UNEP/UNON, the consultants certify that they have not been associated with the design and implementation of the project in any way which may jeopardize their independence and impartiality towards project achievements and project partner performance.*

## F. Evaluation Deliverables and Review Procedures

41. The Team Leader will prepare an **inception report** containing a thorough review of the project design quality and the evaluation framework. The review of design quality will cover the following aspects:
- Project relevance (see paragraph 22 (b));
  - A desk-based Theory of Change of the project (see Annex 6 - ROtI analysis);
  - Sustainability consideration (see paragraphs 23-24) and measures planned to promote replication and up scaling (see paragraphs 25-26);
  - Preparation and readiness (see paragraph 27);
  - Financial planning (see paragraph 32);
  - M&E design (see paragraph 34(a));
  - Complementarities with UNEP strategies and programmes (see paragraph 35);
42. The evaluation framework will present in further detail the evaluation questions under each criterion with their respective indicators and data sources. The inception report will be submitted for review by the Evaluation Office before the evaluation team conducts any field visits.
43. **The main evaluation report** should be brief (no longer than 35 pages – excluding the executive summary and annexes), to the point and written in plain English. The report will follow the annotated Table of Contents outlined in Annex 1. It must explain the purpose of the evaluation, exactly what was evaluated and the methods used (with their limitations). The report will present evidence-based and balanced findings, consequent conclusions, lessons and recommendations, which will be cross-referenced to each other. The report should be presented in a way that makes the information accessible and comprehensible. Any dissident views in response to evaluation findings will be appended in footnote or annex as appropriate.
44. **Technical working paper.** The format and contents of the working paper prepared by the Supporting Consultants should be agreed upon with the Team Leader and approved by the UNEP Evaluation Office before any data collection and analysis work is undertaken. It is recommended that the working papers follow the same structure as the main evaluation report, for easy reference by the Team Leader (Annex 1). The Team Leader will carry out a first review of the working papers and provide comments to the Supporting Consultants for improvement. Only a version acceptable to the Team Leader will be submitted to the EO as an appendix to the draft main report.
45. **Review of the draft evaluation report.** The Team Leader will submit the zero draft report latest by ... November 2011 to the UNEP EO and revise the draft following the comments and suggestions made by the EO. The EO will then share the first draft report with the UNEP GEF Coordination Office (Nairobi) and the project Task Manager. The UNEP Task Manager will forward the first draft report to the other project stakeholders for review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. Comments would be expected within two weeks after the draft report has been shared. Any comments or responses to the draft report will be sent to the UNEP EO for collation. The EO will provide the comments to the Team Leader for consideration in preparing the final draft report. The Team Leader will submit the final draft report no later than two weeks after reception of stakeholder comments. The Team Leader will prepare a **response to comments** that contradict the findings of the evaluation team and could therefore not be accommodated in the final report. This response will be shared by the EO with the interested stakeholders to ensure full transparency.

46. Consultations will be held between the consultants, EO staff, the UNEP/GEF, UNEP/DEPI, and key members of the project execution team. These consultations will seek feedback on the proposed recommendations and lessons.

47. **Submission of the final Terminal Evaluation report.** The final report shall be submitted by Email to:

Segbedzi Norgbey, Head  
UNEP Evaluation Office  
P.O. Box 30552-00100  
Nairobi, Kenya  
Tel.: (+254-20) 762 3387  
Email: [segbedzi.norgbey@unep.org](mailto:segbedzi.norgbey@unep.org)

48. The Head of Evaluation will share the report with the following persons:

Ampai Harakunarak, GEF Task Manager  
UNEP/Regional Office for Asia and the Pacific  
2<sup>nd</sup> Floor, Block B, UN Building  
Rajdamnern Nok Avenue, Bangkok 10200 Thailand  
Tel: +662 288 1977  
Email: [ampai.harakunarak@unep.org](mailto:ampai.harakunarak@unep.org)  
Takehiro Nakamura  
Head, Marine Ecosystem Branch  
Division of Environmental Policy Implementation  
UNEP, Nairobi  
Tel: (+254-20) 762 3886  
Email: [takehiro.nakamura@unep.org](mailto:takehiro.nakamura@unep.org)

49. The final evaluation report will be published on the UNEP Evaluation Office web-site [www.unep.org/eou](http://www.unep.org/eou) and may be printed in hard copy. Subsequently, the report will be sent to the GEF Office of Evaluation for their review, appraisal and inclusion on the GEF website.

50. As per usual practice, the UNEP EO will prepare a **quality assessment** of the draft and final report, which is a tool for providing structured feedback to the Evaluator. The quality of the report will be assessed and rated against both GEF and UNEP criteria as presented in Annex 4.

51. The UNEP Evaluation Office will also prepare a **commentary** on the final evaluation report, which presents the EO ratings of the project based on a careful review of the evidence collated by the evaluator and the internal consistency of the report. These ratings are the final ratings that the UNEP Evaluation Office will submit to the GEF Office of Evaluation.

#### Resources and Schedule of the Evaluation

52. This Terminal Evaluation will be undertaken by an independent evaluation consultant contracted by the UNEP Evaluation Office. The consultant will work under the overall supervision of the UNEP Evaluation Office and will consult with the EO on any procedural and methodological matters related to the evaluation. It is, however, the consultant’s individual responsibility to arrange for, obtaining documentary evidence, meetings with stakeholders, field visits, and any other logistical matters related to the assignment. The UNEP Task Manager, and national project staff will provide logistical support (introductions, meetings, transport, lodging etc.) for the country visits where



necessary, allowing the consultant to conduct the evaluation as efficiently and independently as possible.

53. The contract for the **Team Leader** will extend from ... September 2011 to ... December 2011. He will travel to Bangkok, Beijing and Shantou and visit the project sites in Longhu, Haojiang and Chaoyang Districts.
54. The contract for the **Supporting Consultant** will extend from ... September 2011 to ... December 2011. He will participate in the meetings held in Beijing, and later travel to Shantou and visit the project sites in Longhu, Haojiang and Chaoyang Districts.

#### Schedule of Payment

55. The consultant shall select one of the following two contract options:

##### Lump-Sum Option

The evaluator will receive an initial payment covering the travel costs upon signature of the contract. A further 40% will be paid upon acceptance of the draft report. A final payment of 60% will be made upon satisfactory completion of work. The fee is payable under the individual Special Service Agreement (SSA) of the evaluator and is **inclusive** of all expenses such as travel, accommodation and incidental expenses.

##### 56. Fee-only Option

The evaluator will receive an initial payment of 40% of the total amount due upon acceptance of the draft report. Final payment of 60% will be made upon acceptance and satisfactory completion of work. The fee is payable under the individual SSAs of the evaluator and is **NOT** inclusive of all expenses such as travel, accommodation and incidental expenses. Ticket and DSA will be paid separately.

57. In case, the evaluator cannot provide the products in accordance with the ToR, the timeframe agreed, or his products are substandard, the payment to the evaluator could be withheld, until such a time the products are modified to meet UNEP's standard. In case the evaluator fails to submit a satisfactory final product to UNEP, the product prepared by the evaluator may not constitute the evaluation report.
58. If the consultants fail to submit a satisfactory final product to UNEP in a timely manner, i.e. within one month after the end date of their contract, the Evaluation Office reserves the right to employ additional human resources to finalize the report, and to reduce the consultants' fees by an amount equal to the additional costs borne by the Evaluation Office to bring the report up to standard.

## Annex 1. Annotated Table of Contents of the Main Report

<b>Project Identification Table</b>	An updated version of the table in I.A. of these TORs
<b>Executive Summary</b>	Overview of the main findings, conclusions and recommendations of the evaluation. It should encapsulate the essence of the information contained in the report to facilitate dissemination and distillation of lessons. The main points for each evaluation parameter should be presented here (with a summary ratings table), as well as the most important lessons and recommendations. Maximum 4 pages.
<b>I. Evaluation Background</b>	
A. Context	A. Overview of the broader institutional and country context, in relation to the project’s objectives.
B. The Project	B. Presentation of the project: rationale, objectives, components, intervention areas and target groups, milestones in design, implementation and completion, implementation arrangements and main partners, financing (amounts and sources), modifications to design before or during implementation.
C. Evaluation objectives, scope and methodology	C. Presentation of the evaluation’s purpose, evaluation criteria and key questions, evaluation timeframe, data collection and analysis instruments used, places visited, types of stakeholders interviewed, and limitations of the evaluation.
<b>II. Project Performance and Impact</b>	
A. Attainment of objectives and planned results B. Sustainability and catalytic role C. Processes affecting attainment of project results D. Complementarity with the UNEP Medium Term Strategy and Programme of Work	This section is organized according to the 4 categories of evaluation criteria (see section D of these TORs) and provides factual evidence relevant to the questions asked and sound analysis and interpretations of such evidence. This is the main substantive section of the report. Ratings are provided at the end of the assessment of each evaluation criterion.
<b>III. Conclusions and Recommendations</b>	
A. Conclusions	This section should summarize the main findings of the evaluation, told in a logical sequence from cause to effect. It is suggested to start with the positive achievements and a short explanation why these could be achieved, and, then, to present the less successful aspects of the project with a short explanation why. The conclusions section should end with the overall assessment of the project. Findings should be cross-referenced to the main text of the report (using the paragraph numbering). The overall ratings table should be inserted here (see Annex 2).

B. Lessons Learned	Lessons learned should be anchored in the main findings of the evaluation. In fact, no lessons should appear which are not based upon a conclusion of the evaluation. The number of lessons learned should be limited. Lessons learned are rooted in real project experiences, i.e. based on good practices and successes which could be replicated or derived from problems encountered and mistakes made which should be avoided in the future. Lessons learned must have the potential for wider application and use. Lessons should briefly describe the context from which they are derived and specify the contexts in which they may be useful.
C. Recommendations	As for the lessons learned, all recommendations should be anchored in the conclusions of the report, with proper cross-referencing, and their number should be limited to 3 or 4. Recommendations are actionable proposals on how to resolve concrete problems affecting the project or the sustainability of its results. They should be feasible to implement within the timeframe and resources available (including local capacities), specific in terms of who would do what and when, and set a measurable performance target. In some cases, it might be useful to propose options, and briefly analyze the pros and cons of each option.
<b>Annexes</b>	<p>These may include additional material deemed relevant by the evaluator but must include:</p> <ol style="list-style-type: none"> <li>1. Evaluation TORs</li> <li>2. The evaluation framework (second part of the inception report)</li> <li>3. Evaluation program, containing the names of locations visited and the names (or functions) of people met</li> <li>4. Bibliography</li> <li>5. Summary co-finance information and a statement of project expenditure by activity (See annex of these TORs)</li> <li>6. The review of project design (first part of the inception report)</li> <li>7. Technical working paper</li> <li>8. Brief CVs of the consultants</li> </ol> <p>TE reports will also include any formal response/ comments from the project management team and/ or the country focal point regarding the evaluation findings or conclusions as an annex to the report, however, such will be appended to the report by UNEP Evaluation Office.</p>

Examples of UNEP GEF Terminal Evaluation Reports are available at [www.unep.org/eou](http://www.unep.org/eou).

## Annex 2. Evaluation ratings

The evaluation will provide individual ratings for the evaluation criteria described in section II.D. of these TORs. Some criteria contain sub-criteria which require separate ratings (i.e. sustainability and M&E). Furthermore, an aggregated rating will be provided for Relevance, effectiveness and efficiency under the category “Attainment of project objectives and results”.

In the conclusions section of the report, ratings will be presented together in a table, with a brief justification cross-referenced to the findings in the main body of the report. Please note that the order of the evaluation criteria in the table will be slightly different from the order these are treated in the main report; this is to facilitate comparison and aggregation of ratings across GEF project evaluation reports.

Criterion	Summary Assessment	Rating
<b>A. Attainment of project objectives and results</b>		HS → HU (6-point)
1. Effectiveness		HS → HU (6-point)
2. Relevance		HS → HU (6-point)
3. Efficiency		HS → HU (6-point)
<b>B. Sustainability of project outcomes</b>		HL → HU (6-point)
1. Financial		HL → HU (6-point)
2. Socio-political		HL → HU (6-point)
3. Institutional framework		HL → HU (6-point)
4. Environmental		HL → HU (6-point)
<b>C. Catalytic role</b>		HS → HU (6-point)
<b>D. Stakeholders involvement</b>		HS → HU (6-point)
<b>E. Country ownership / driven-ness</b>		HS → HU (6-point)
<b>F. Achievement of outputs and activities</b>		HS → HU (6-point)
<b>G. Preparation and readiness</b>		HS → HU (6-point)
<b>H. Implementation approach</b>		HS → HU (6-point)
<b>I. Financial planning and management</b>		HS → HU (6-point)
<b>J. Monitoring and Evaluation</b>		HS → HU (6-point)
1. M&E Design		HS → HU (6-point)
2. M&E Plan Implementation		HS → HU (6-point)
3. Budgeting and funding for M&E activities		HS → HU (6-point)
<b>K. UNEP Supervision and backstopping</b>		HS → HU (6-point)

**Most evaluation parameters** - will be rated on a six-point scale as follows: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). Sustainability is rated on a four-point scale (see below).

**Rating of Attainment of project objectives and results** - A compound rating is given to the category based on the assessment of relevance, effectiveness and efficiency. This aggregated rating is not a simple average of the separate ratings given to the evaluation criteria, but an overall judgement by the consultants. Relevance and effectiveness, however, will be considered as critical criteria. This means that the aggregated rating for Attainment of objectives and results may not be higher than the lowest rating on either of these two criteria.

**Ratings on sustainability** - Each of the sub-criteria for sustainability of project outcomes will be rated as follows:

- Highly Likely (HL): There are no risks affecting this dimension of sustainability.
- Likely (L): There are minor risks that affect this dimension of sustainability.
- Moderately Likely (ML): There are moderate risks that affect this dimension of sustainability.
- Moderately Unlikely (MU): There are moderate risks that affect this dimension of sustainability.
- Unlikely (U): There are significant risks that affect this dimension of sustainability
- Highly Unlikely (HU): There are severe risks that affect this dimension of sustainability.

According to the GEF Office of Evaluation, all the dimensions of sustainability are deemed critical. Therefore, the overall rating for sustainability will not be higher than the lowest rating on the separate dimensions.

**Ratings of monitoring and evaluation** - The M&E system will be rated on M&E design, M&E plan implementation, and budgeting and funding for M&E activities (the latter sub-criterion is covered in the main report under M&E design) as follows:

- Highly Satisfactory (HS): There were no shortcomings in the project M&E system.
- Satisfactory(S): There were minor shortcomings in the project M&E system.
- Moderately Satisfactory (MS): There were moderate shortcomings in the project M&E system.
- Moderately Unsatisfactory (MU): There were significant shortcomings in the project M&E system.
- Unsatisfactory (U): There were major shortcomings in the project M&E system.
- Highly Unsatisfactory (HU): The Project had no M&E system.

M&E plan implementation will be considered critical for the overall assessment of the M&E system. Thus, the overall rating for M&E will not be higher than the rating on M&E plan implementation.

### Annex 3. Project costs and co-financing tables

#### Project Costs

Component/sub-component	Estimated cost at design	Actual Cost	Expenditure (actual/planned)	ratio

#### Co-financing

Co financing (Type/Source)	IA own Financing (mill US\$)		Government  (mill US\$)		Other*  (mill US\$)		Total  (mill US\$)		Total Disbursed (mill US\$)
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	
– Grants									
– Loans									
– Credits									
– Equity investments									
– In-kind support									
– Other (*)									
Totals									

\* This refers to contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries.



#### Annex 4. Quality Assessment of the Evaluation Report

All UNEP evaluation reports are subject to a quality assessment by the Evaluation Office. The quality assessment is used as a tool for providing structured feedback to the evaluation consultants. The quality of the draft evaluation report is assessed and rated against the following criteria:

GEF Report Quality Criteria	UNEP EO Assessment	Rating
A. Did the report present an assessment of relevant outcomes and achievement of project objectives in the context of the focal area program indicators if applicable?		
B. Was the report consistent and the evidence complete and convincing and were the ratings substantiated when used?		
C. Did the report present a sound assessment of sustainability of outcomes?		
D. Were the lessons and recommendations supported by the evidence presented?		
E. Did the report include the actual project costs (total and per activity) and actual co-financing used?		
F. Did the report include an assessment of the quality of the project M&E system and its use for project management?		
<b>UNEP additional Report Quality Criteria</b>		
G. Quality of the lessons: Were lessons readily applicable in other contexts? Did they suggest prescriptive action?		
H. Quality of the recommendations: Did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?'). Can they be implemented? Did the recommendations specify a goal and an associated performance indicator?		
I. Was the report well written? (clear English language and grammar)		
J. Did the report structure follow EO guidelines, were all requested Annexes included?		
K. Were all evaluation aspects specified in the TORs adequately addressed?		
L. Was the report delivered in a timely manner		

$$\text{Quality} = (2 * (0.3 * (A + B) + 0.1 * (C + D + E + F)) + 0.3 * (G + H) + 0.1 * (I + J + K + L)) / 3$$

The Totals are rounded and converted to the scale of HS to HU

Rating system for quality of Terminal Evaluation reports: A number rating between 1 and 6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1.

#### **Annex 5. Documentation list for the evaluation to be provided by the UNEP Task Manager**

- Project design documents
- Project supervision plan, with associated budget
- Correspondence related to project
- Supervision mission reports
- Steering Committee meeting documents, including agendas, meeting minutes, and any summary reports
- Project progress reports, including financial reports submitted
- Cash advance requests documenting disbursements
- Annual Project Implementation Reports (PIRs)
- Management memos related to project
- Other documentation of supervision feedback on project outputs and processes (e.g. comments on draft progress reports, etc.).
- Extension documentation. Has a project extension occurred?
- Project revision documentation.
- Budget revision documentation.
- Project Terminal Report (draft if final version not available)

## Annex 6. Introduction to Theory of Change / Impact pathways, the ROTI Method and the ROTI Results Score sheet

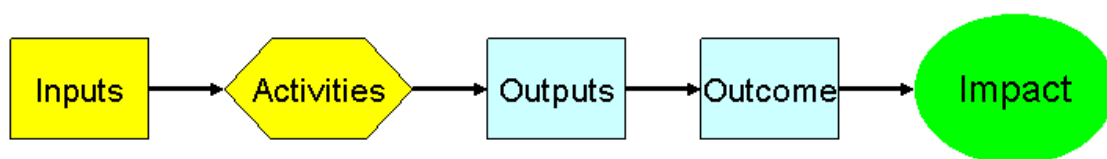
Terminal evaluations of projects are conducted at, or shortly after, project completion. At this stage it is normally possible to assess the achievement of the project's outputs. However, the possibilities for evaluation of the project's outcomes are often more limited and the feasibility of assessing project **impacts** at this time is usually severely constrained. Full impacts often accrue only after considerable time-lags, and it is common for there to be a lack of long-term baseline and monitoring information to aid their evaluation. Consequently, substantial resources are often needed to support the extensive primary field data collection required for assessing impact and there are concomitant practical difficulties because project resources are seldom available to support the assessment of such impacts when they have accrued – often several years after completion of activities and closure of the project.

Despite these difficulties, it is possible to enhance the scope and depth of information available from Terminal Evaluations on the achievement of results **through rigorous review of project progress along the pathways from outcome to impact**. Such reviews identify the sequence of conditions and factors deemed necessary for project outcomes to yield impact and assess the current status of and future prospects for results. In evaluation literature these relationships can be variously described as 'Theories of Change', Impact 'Pathways', 'Results Chains', 'Intervention logic', and 'Causal Pathways' (to name only some!).

### Theory of Change (ToC) / impact pathways

Figure 1 shows a generic impact pathway which links the standard elements of project logical frameworks in a graphical representation of causal linkages. When specified with more detail, for example including the key users of outputs, the processes (the arrows) that lead to outcomes and with details of performance indicators, analysis of impact pathways can be invaluable as a tool for both project planning and evaluation.

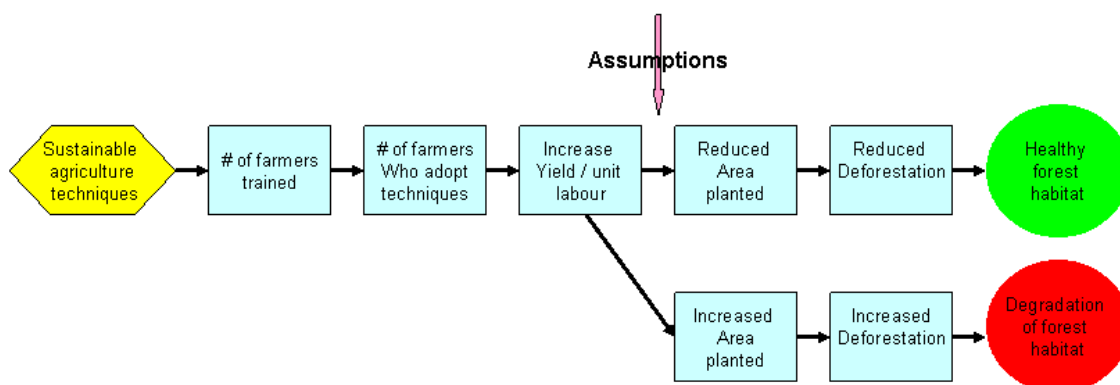
Figure 1. A generic results chain, which can also be termed an 'Impact Pathway' or Theory of Change.



The pathways summarise casual relationships and help identify or clarify the assumptions in the intervention logic of the project. For example, in the Figure 2 below the eventual impact depends upon the behaviour of the farmers in using the new agricultural techniques they have learnt from the training. The project design for the intervention might be based on the upper pathway assuming that the farmers can now meet their needs from more efficient management of a given area therefore reducing the need for an expansion of cultivated area and ultimately reducing pressure on nearby forest habitat, whereas the evidence gathered in the evaluation may in some locations follow the lower of the two pathways; the improved faming methods offer the possibility for increased

profits and create an incentive for farmers to cultivate more land resulting in clearance or degradation of the nearby forest habitat.

Figure 2. An impact pathway / TOC for a training intervention intended to aid forest conservation.



The GEF Evaluation Office has recently developed an approach that builds on the concepts of theory of change / causal chains / impact pathways. The method is known as Review of Outcomes to Impacts (ROtI)<sup>57</sup> and has three distinct stages:

- a. Identifying the project's intended impacts
- b. Review of the project's logical framework
- c. Analysis and modelling of the project's outcomes-impact pathways

The **identification of the projects intended impacts** should be possible from the 'objectives' statements specified in the official project document. The next stage is to **review the project's logical framework** to assess whether the design of the project is consistent with, and appropriate for, the delivery of the intended impact. The method requires verification of the causal logic between the different hierarchical levels of the logical framework moving 'backwards' from impacts through outcomes to the outputs; the activities level is not formally considered in the ROtI method<sup>58</sup>. The aim of this stage is to develop an understanding of the causal logic of the project intervention and to identify the key 'impact pathways'. In reality such process are often complex; they often involve multiple actors and decision-processes and are subject to time-lags, meaning that project impact often accrue long after the completion of project activities.

The third stage involves analysis of the 'impact pathways' that link project outcomes to impacts. The pathways are analysed in terms of the '**assumptions**' and '**impact drivers**' that underpin the processes involved in the transformation of outcomes to impacts via **intermediate states** (see Figure 3). Project outcomes are the direct intended results stemming from the outputs, and they are likely to occur either towards the end of the project or in the short term following project completion. **Intermediate states** are the transitional conditions between the project's immediate outcomes and the intended impact. They are necessary conditions for the achievement of the intended impacts

<sup>57</sup> GEF Evaluation Office (2009). ROtI: Review of Outcomes to Impacts Practitioners Handbook. [http://www.gefweb.org/uploadedFiles/Evaluation\\_Office/OPS4/Roti%20Practitioners%20Handbook%2015%20June%202009.pdf](http://www.gefweb.org/uploadedFiles/Evaluation_Office/OPS4/Roti%20Practitioners%20Handbook%2015%20June%202009.pdf)

<sup>58</sup> Evaluation of the efficiency and effectiveness in the use of resources to generate outputs is already a major focus within UNEP Terminal Evaluations.

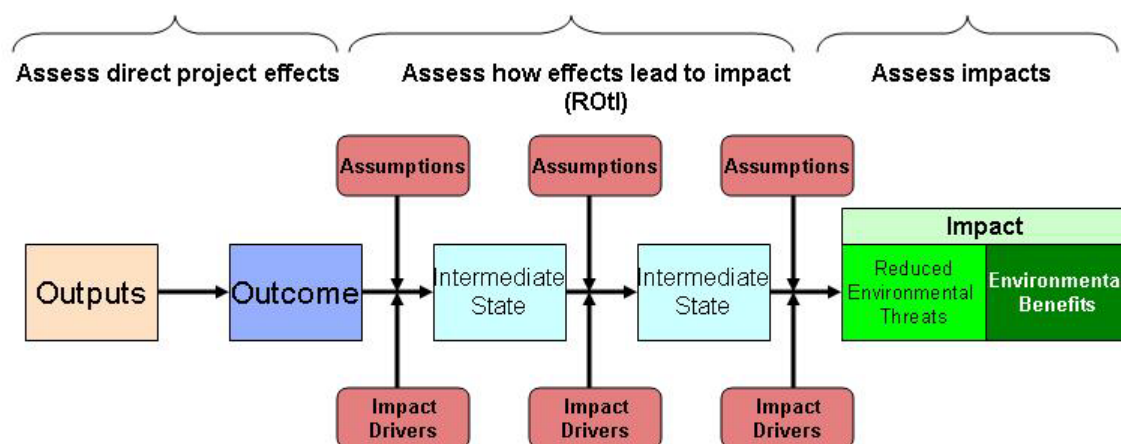
and there may be more than one intermediate state between the immediate project outcome and the eventual impact.

**Impact drivers** are defined as the significant factors that if present are expected to contribute to the realization of the intended impacts and **can be influenced** by the project / project partners & stakeholders. **Assumptions** are the significant factors that if present are expected to contribute to the realization of the intended impacts but are largely **beyond the control of the project** / project partners & stakeholders. The impact drivers and assumptions are ordinarily considered in Terminal Evaluations when assessing the sustainability of the project.

Since project logical frameworks do not often provide comprehensive information on the processes by which project outputs yield outcomes and eventually lead, via 'intermediate states' to impacts, the impact pathways need to be carefully examined and the following questions addressed:

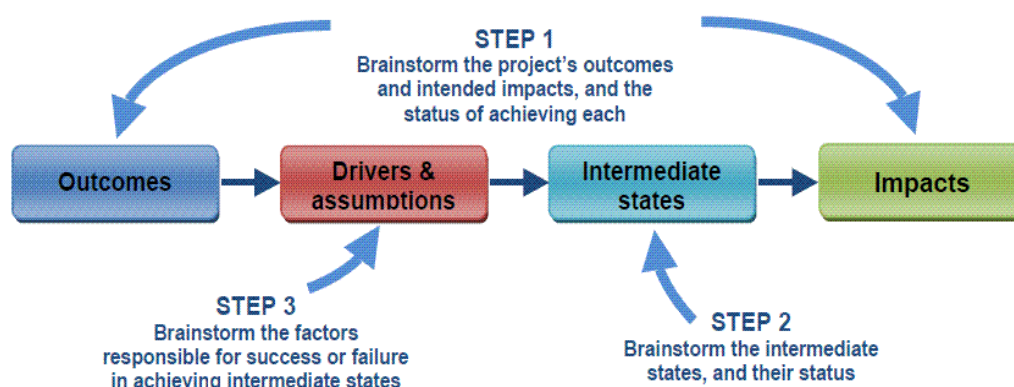
- Are there other causal pathways that would stem from the use of project outputs by other potential user groups?
- Is (each) impact pathway complete? Are there any missing intermediate states between project outcomes and impacts?
- Have the key impact drivers and assumptions been identified for each 'step' in the impact pathway.

Figure 3. A schematic 'impact pathway' showing intermediate states, assumptions and impact drivers (adapted from GEF EO 2009).



The process of identifying the impact pathways and specifying the impact drivers and assumptions can be done as a desk exercise by the evaluator or, preferably, as a group exercise, led by the evaluator with a cross-section of project stakeholders as part of an evaluation field mission or both. Ideally, the evaluator would have done a desk-based assessment of the project's theory of change and then use this understanding to facilitate a group exercise. The group exercise is best done through collective discussions to develop a visual model of the impact pathways using a card exercise. The component elements (outputs, outcomes, impact drivers, assumptions intended impacts etc.) of the impact pathways are written on individual cards and arranged and discussed as a group activity. Figure 4 below shows the suggested sequence of the group discussions needed to develop the ToC for the project.

Figure 4. Suggested sequencing of group discussions (from GEF EO 2009)



Once the theory of change model for the project is complete the evaluator can assess the design of the project intervention and collate evidence that will inform judgments on the extent and effectiveness of implementation, through the evaluation process. Performance judgments are made always noting that project contexts can change and that adaptive management is required during project implementation.

The ROTI method requires ratings for outcomes achieved by the project and the progress made towards the ‘intermediate states’ at the time of the evaluation. According the GEF guidance on the method; *“The rating system is intended to recognize project preparation and conceptualization that considers its own assumptions, and that seeks to remove barriers to future scaling up and out. Projects that are a part of a long-term process need not at all be “penalized” for not achieving impacts in the lifetime of the project: the system recognizes projects’ forward thinking to eventual impacts, even if those impacts are eventually achieved by other partners and stakeholders, albeit with achievements based on present day, present project building blocks.”* For example, a project receiving an “AA” rating appears likely to deliver impacts, while for a project receiving a “DD” this would seem unlikely, due to low achievement in outcomes and the limited likelihood of achieving the intermediate states needed for eventual impact (see Table 1).

Table 1. Rating scale for outcomes and progress towards ‘intermediate states’

Outcome Rating	Rating on progress toward Intermediate States
D: The project’s intended outcomes were not delivered	D: No measures taken to move towards intermediate states.
C: The project’s intended outcomes were delivered, but were not designed to feed into a continuing process after project funding	C: The measures designed to move towards intermediate states have started, but have not produced results.
B: The project’s intended outcomes were delivered, and were designed to feed into a continuing process, but with no prior allocation of responsibilities after project funding	B: The measures designed to move towards intermediate states have started and have produced results, which give no indication that they can progress towards the intended long term impact.
A: The project’s intended outcomes were delivered, and were designed to feed into a	A: The measures designed to move towards intermediate states have started and have produced results, which



continuing process, with specific allocation of responsibilities after project funding.	clearly indicate that they can progress towards the intended long term impact.
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Thus a project will end up with a two letter rating e.g. AB, CD, BB etc. In addition the rating is given a '+' notation if there is evidence of impacts accruing within the life of the project. The possible rating permutations are then translated onto the usual six point rating scale used in all UNEP project evaluations in the following way.

Table 2. Shows how the ratings for 'achievement of outcomes' and 'progress towards intermediate states translate to ratings for the 'Overall likelihood of impact achievement' on a six point scale.

Highly Likely	Likely	Moderately Likely	Moderately Unlikely	Unlikely	Highly Unlikely
AA AB BA CA BB+ CB+ DA+ DB+	BB CB DA DB AC+ BC+	AC BC CC+ DC+	CC DC AD+ BD+	AD BD CD+ DD+	CD DD

In addition, projects that achieve documented changes in environmental status during the project's lifetime receive a positive impact rating, indicated by a "+". The overall likelihood of achieving impacts is shown in Table 11 below (a + score above moves the double letter rating up one space in the 6-point scale).

The ROTI method provides a basis for comparisons across projects through application of a rating system that can indicate the expected impact. However it should be noted that whilst this will provide a relative scoring for all projects assessed, it does not imply that the results from projects can necessarily be aggregated. Nevertheless, since the approach yields greater clarity in the 'results metrics' for a project, opportunities where aggregation of project results might be possible can more readily be identified.

Results rating of project entitled:							
		Rating (D – A)		Rating (D – A)		Rating (+)	Overall
Outputs	Outcomes		Intermediary		Impact (GEBs)		
1.	1.		1.		1.		
2.	2.		2.		2.		
3.	3.		3.		3.		

	Rating justification:		Rating justification:		Rating justification:		

### Scoring Guidelines

The achievement of **Outputs** is largely assumed. Outputs are such concrete things as training courses held, numbers of persons trained, studies conducted, networks established, websites developed, and many others. Outputs reflect where and for what project funds were used. These were not rated: projects generally succeed in spending their funding.

**Outcomes**, on the other hand, are the first level of intended results stemming from the outputs. Not so much the number of persons trained; but how many persons who then demonstrated that they have gained the intended knowledge or skills. Not a study conducted; but one that could change the evolution or development of the project. Not so much a network of NGOs established; but that the network showed potential for functioning as intended. A sound outcome might be genuinely improved strategic planning in SLM stemming from workshops, training courses, and networking.

### Examples

***Funds were spent, outputs were produced, but nothing in terms of outcomes was achieved.***

People attended training courses but there is no evidence of increased capacity. A website was developed, but no one used it. (Score – D)

***Outcomes achieved but are dead ends; no forward linkages to intermediary stages in the future.*** People attended training courses, increased their capacities, but all left for other jobs shortly after; or were not given opportunities to apply their new skills. A website was developed and was used, but achieved little or nothing of what was intended because users had no resources or incentives to apply the tools and methods proposed on the website in their job. (Score – C)

***Outcomes plus implicit linkages forward.*** Outcomes achieved and have *implicit forward linkages* to intermediary stages and impacts. Collaboration as evidenced by meetings and decisions made among a loose network is documented that should lead to better planning. Improved capacity is in place and should lead to desired intermediate outcomes. Providing implicit linkages to intermediary stages is probably the most common case when outcomes have been achieved. (Score - B)

***Outcomes plus explicit linkages forward.*** Outcomes have *definite and explicit forward linkages* to intermediary stages and impacts. An alternative energy project may result in solar panels installed that reduced reliance on local wood fuels, with the outcome quantified in terms of reduced C emissions. Explicit forward linkages are easy to recognize in being concrete, but are relatively uncommon. (Score A)

### Intermediary stages:

The **intermediate stage** indicates achievements that lead to Global Environmental Benefits, especially if the potential for scaling up is established.

**“Outcomes” scored C or D.** If the outcomes above scored C or D, there is no need to continue forward to score intermediate stages given that achievement of such is then not possible.

***In spite of outcomes and implicit linkages, and follow-up actions, the project dead-ends.*** Although outcomes achieved have *implicit forward linkages* to intermediary stages and impacts, the project dead-ends. Outcomes turn out to be insufficient to move the project towards intermediate stages and to the eventual achievement of GEBs. Collaboration as evidenced by meetings and among participants in a network never progresses further. The implicit linkage based on follow-up never materializes. Although outcomes involve, for example, further participation and discussion, such actions do not take the project forward towards intended intermediate impacts. People have fun getting together and talking more, but nothing, based on the implicit forwards linkages, actually eventuates. **(Score = D)**

***The measures designed to move towards intermediate states have started, but have not produced result, barriers and/or unmet assumptions may still exist.*** In spite of sound outputs and in spite of explicit forward linkages, there is limited possibility of intermediary stage achievement due to barriers not removed or unmet assumptions. This may be the fate of several policy related, capacity building, and networking projects: people work together, but fail to develop a way forward towards concrete results, or fail to successfully address inherent barriers. The project may increase ground cover and or carbon stocks may reduce grazing or GHG emissions; and may have project level recommendations regarding scaling up; but barrier removal or the addressing of fatal assumptions means that scaling up remains limited and unlikely to be achieved at larger scales. Barriers can be policy and institutional limitations; (mis-) assumptions may have to do with markets or public – private sector relationships. **(Score = C)**

***Barriers and assumptions are successfully addressed.*** Intermediary stage(s) planned or conceived have feasible direct and explicit forward linkages to impact achievement; barriers and assumptions are successfully addressed. The project achieves measurable intermediate impacts, and works to scale up and out, but falls well short of scaling up to global levels such that achievement of GEBs still lies in doubt. **(Score = B)**

***Scaling up and out over time is possible.*** Measurable intermediary stage impacts achieved, scaling up to global levels and the achievement of GEBs appears to be well in reach over time. **(Score = A)**

**Impact:** Actual changes in environmental status

**“Intermediary stages” scored B to A.**

**Measurable impacts achieved at a globally significant level within the project life-span. . (Score = ‘+’)**

# ANNEX 7: LIST OF INTENDED ADDITIONAL RECIPIENTS OF THE TERMINAL EVALUATION

Name	Affiliation	Email
Neeraj Negi	GEF Evaluation Office	neeraj_negi@yahoo.com
<b>Government Officials</b>		
Ms. Jieqing ZHANG	Director, Division of International Organizations and Conventions  Department of International Cooperation  Ministry of Environmental Protection  115, Xizhimennei, Nanxiaojie  Beijing 100035  China	zhang.jieqing@mep.gov.cn
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Ms. Jiandi YE	Deputy Director, IFI Division III International Department  Ministry of Finance  San Li He St. Xichengqu  Beijing – 100820 China	jdye@mof.gov.cn
<b>Executing Agency</b>		
Professor Guizhu CHEN	School of Environmental Science and Engineering / Research Centre of Wetland Science, 1st Floor, Building 237, Southeast District, Sun Yat-Sen University  No. 135, Western Xin Gang Road, Guangzhou, China PR 510275	sonneratia@126.com
<b>Implementing Agency</b>		
Maryam Niamir-Fuller	UNEP DGEF Director	maryam.niamir-fuller@unep.org

## Annex 2 Itinerary and people met

Day	Place	Name	Position
3 <sup>rd</sup> , Oct	Bangkok	Dr. Ampai Harakunarak	UNEP-GEF Task Manager, International Waters Programme
7 <sup>th</sup> , Oct.	Sanyuwei	Zhuang Tianwu 庄添武	Villager
		Su Xiangsheng 苏祥生	Chaoyang Forestry Bureau
		Chen Huiqiu 陈惠秋	Vice-director of Chaoyang Forestry Bureau
	Niutianyang	Xu Zhihao 许志浩	Village secretaries
		Lin Wenpan 林文潘	Villager (director of cooperative )
8 <sup>th</sup> , Oct.	Waisha	Zhang Shaoming 张少铭	Vice-director of Chenghai Forestry Bureau
		Chen Qiaohong 陈乔宏	Chenghai Forestry Bureau
		Zhang Kunhuai 张坤槐	Chenghai Forestry Bureau
9 <sup>th</sup> , Oct.	Hotel	Chen Fafen 陈发奋	Student from Shantou University
		Huang Renqing 黄润庆	Student from Shantou University
		Chen Bin 陈斌	Vice-director of Forestry Bureau
		Xiao Fuxuan 肖傅轩	Villager from Da Miantian (including Miantian and Mianhua) village
		Zhuang Tianwu 庄添武	Villager from Da Miantian village
		Chen Guizhu 陈桂珠	Scientific committee member
		Wu Tianyou 吴天佑	Vice-director of Shantou Forestry society
10 <sup>th</sup> , Oct.	Call	Huang Zhengguang 黄正光	Advisor

<b>Annex 3 Achievement of Outputs</b>		
<b>Output</b>	<b>Status at end of Project</b>	<b>Comments</b>
1.1 Institutional arrangements for cross-sectoral & participatory management	Completed. A Management Committee with 15 members was established to implement the Project and the overall management of SIW has now been embedded in the existing Municipal Management Committee (see Annex 4) with 17 members	This is important because until this point the management of the SIW was fragmented between different agencies and institutions. The appointment of the Vice-mayor as the Chairperson lends the Committee significant weight
1.2 Integrated Management Plan	Completed. This has been achieved early on in the Project and there is apparently finance available for its implementation	The IMP is for the Nature Reserve only which was not made clear in the Project Document. Eventually it will be necessary to develop a plan for the entire wetlands but in the mean time the introduction of management planning in whatever form is a positive step. Experience generally shows that it is better to move to a management planning culture first and then improve the quality in subsequent revisions as capacity grows
1.3 Local regulations developed & law enforcement improved	Completed. Experts were contracted to compare the current local-level regulations with Provincial Laws and Shantou Municipality has accepted any amendments	The new regulations provide a higher level of protection to the SIW and the enforcement of these has been increased
1.4 Participatory patrolling /monitoring system established	Completed. Phone "hot- line" has been set up and has apparently resulted in a number of arrests	Monitoring in this case refers to surveillance and reporting of illegal activity. The TE has some reservations on this as it is important that increased protection of natural resources is broadly equitable and accepted by all stakeholders. These new regulations will need time to bed it and should be seen to be fair.
2.1 Physical enclosure of protected zone in Hexi & Suaiwan sub-demonstration sites and their rehabilitation	Completed. Areas of the MNR have been enclosed (378 Ha enclosed and 2,041 delineated with boundary marks) and rehabilitation has taken place. Importantly the tide channel was reconstructed to maintain the hydrology	There are some concerns that there is an overemphasis on mangrove plantation (and the use of exotic species) in the rehabilitation and this might in some instances be to the disadvantage of vulnerable habitats such as salt marsh (the difference between re-forestation and afforestation).
2.2 Activities to clean up the Haojing River & improve water quality	Completed. A campaign was carried out and rubbish collection areas were built. There was considerable support to this from local civic authorities	The campaign should have had a positive effect on public perceptions but it is not possible to gauge this at this time. Collection areas were built and local students were involved in the cleaning up. Such campaigns seem to be popular. The "clean-up"

		focused mainly on solid waste and it is not clear to what extent it impacted on other forms of pollution. It is important to monitor this in the future for both solid waste and other forms of pollution
2.3 Environmental monitoring scheme established and implemented annually	Completed and ongoing. Zhongshan University, the Executing Agency, will be responsible for this in the future	This is a good “home” for the monitoring. However, the TE has some concerns (as discussed in the main report) about the transparency of environmental monitoring and it is important that scientific institutions are able to collect data on all aspects of the SIW and this data should be (subject to the normal academic controls on data ownership) be easily available to anyone interested.
3.1 Pilot activities for environmentally friendly aquaculture (silvo-aquaculture) implemented	Completed and ongoing. Demonstration sites have been established as set out in the Project Document. Reportedly 27% of the waste water from demonstration site is being treated by silvo-aquaculture reportedly resulting in a 30% improvement in water quality meeting national standards	Silvo-aquaculture has obvious benefits for fish farmers. In the future it will be important to monitor the uptake of this “technology” by other fish farmers. Other variables such as the length of tenure should be analyzed to see if short term lease holders are prepared to invest in this as well as those with long term security of tenure (e.g. those farmers renting farms on the People’s Liberation Army land).
3.2 Eco-tourism plan developed and pilot activities implemented	Completed and ongoing. A plan has been developed and study tours carried out and there has been a rigorous promotion of eco-tourism	These are important first steps. The TE has some reservations about a participatory plan developed in just 6 months because experience has shown that this normally takes much longer if there is to be effective participation in the process. However, as already stated this is a good first step in the right direction.
3.3 Financial sustainability analysis and planning	Completed. An economic valuation of the SIW has been carried out. The analysis and the financial study and plan have been produced	The methodology for the economic valuation did not use the same methodology as that developed by the SCS Project. This will make comparisons between regional wetlands problematic in the future.
4.1 Training and education plan developed	Completed. Training has been carried out	The TE considers that the capacity of the Forest Bureau staff was very good and other stakeholders were knowledgeable about wetland issues
4.2 Training and education centre established and functional	Not completed, under construction. The training and education centre is being built and is not yet completed	The TE is not concerned that the centre is not finished. The delays were due to the stringent requirements imposed on vetting government contracts. The land has been given by the local community and building is well under way using counterpart funds
4.3 Training and capacity building developed and implements	Completed. See 4.1	See 4.1
4.4 Primary and middle school	Completed. Considerable educational activities	Project has introduced the Forest Bureau and others to the use of



programme developed and implemented	have been carried out	education and novel approaches ( <i>e.g.</i> drawing and painting competition) as a means to educate young people about conservation of the wetlands
4.5 Public awareness raising materials developed and disseminated	Completed. Considerable materials produced and disseminated.	Impressive and high quality materials have been distributed and clearly have made an impact. It is not clear whether there will be further budget allocation from the MNR in the future for these activities.
4.6 NGO activities on wetland conservation by university students strengthened	Partially completed. There are difficulties in establishing NGOs but Zhongshan University has established some very effective clubs	This was perhaps a misunderstanding on what an NGO should function as during the design phase. Eventually it will be important to have NGOs involved in the SIW
4.7 Local website established and maintained	Completed. This has been done and is hosted by Zhongshan University	The website is very difficult to access
4.8 National wetland conference convened	Completed	By all accounts this was very useful and successful

#### **Annex 4 Evaluation Framework (from the Inception report)**

The Inception Report sets out the understanding of the Project based upon the available information. It indicates the direction in which the evaluation will go, using reasonable arguments and a logical approach towards assessing the outcomes and impacts of the Project, based upon the criterion within the ToR.

The TE has not set out a detailed list of questions at this point in time, preferring to allow the process to flow and, determine the impacts of the Project following the detailed field work and consultations with stakeholders.

The TE reserves the right to ask any reasonable question, and respects the right of those being questioned not to answer.

However, in response to the first comments on the draft Inception Report the TE sets out a number of broad areas:

- Project monitoring and evaluations (adaptive management): The TE will challenge whether the reporting systems has provided the framework necessary for adaptive management. Has the Project challenged the assumptions and really tested whether the strategy holds together...in other words – “did the plan of battle survive first contact with the enemy”?
- Approach to demonstrations interventions (adaptive experimental management): As the Project was framed within the earlier SCS as one of the 21 demonstration sites (11 under the SCS Project Steering Committee and 7 funded by GEF MSP under UNEP) the Project represented an opportunity to test many of the interventions developed within the SCS at the site level. As such demonstration sites interventions should have been to some extent experimental (or adaptive). For instance in terms of habitat rehabilitation different regimes might have been applied to different areas as a means of determining the best (and most cost-effective) management interventions.
- Assuming that the Project’s strategy has worked – can the stakeholders identify the “intermediate states”? What recommendations can the TE make to ensure that these intermediate states are supported and don’t “fall down” at the first obstacle?
- The TE will argue that the sustainability of the Project’s outcomes and impacts hinge upon the effectiveness of the Management Committee. The TE will examine the MC closely. Is a Committee the only structure under the prevailing administrative and political framework? Management by committee may not be the best approach to these particular circumstances – are there other options available? What is the mandate of the MC? Does it have sufficient policies in place? To whom is it accountable? As a committee it will not have a constitution so what guides its decision-making process? How are conflicts resolved? What is the role of women within the MC? Etc...
- With the local community the TE will be challenging the claims within the Project Document to determine whether the Project is providing equitable solutions to the conflicts, not necessarily whether it has resolved the conflicts, but whether there is sufficient “architecture” in place to allow the process to resolve conflicts. There is a risk that community participation is in reality consultation and their participation is as *Informers* for illegal resource use. The MC structures and consultation of the “local community” will be challenged.
- The TE will challenge the Project on the issue of sustainability in as much as it will need to ensure that there are indications that the interventions are adaptive, they are resilient, equitable and sustainable when measured against a number of socio-political, ecological and economic measures.

- The TE will also be asking about the specific technologies employed by the Project, especially with regards to the pilot projects.

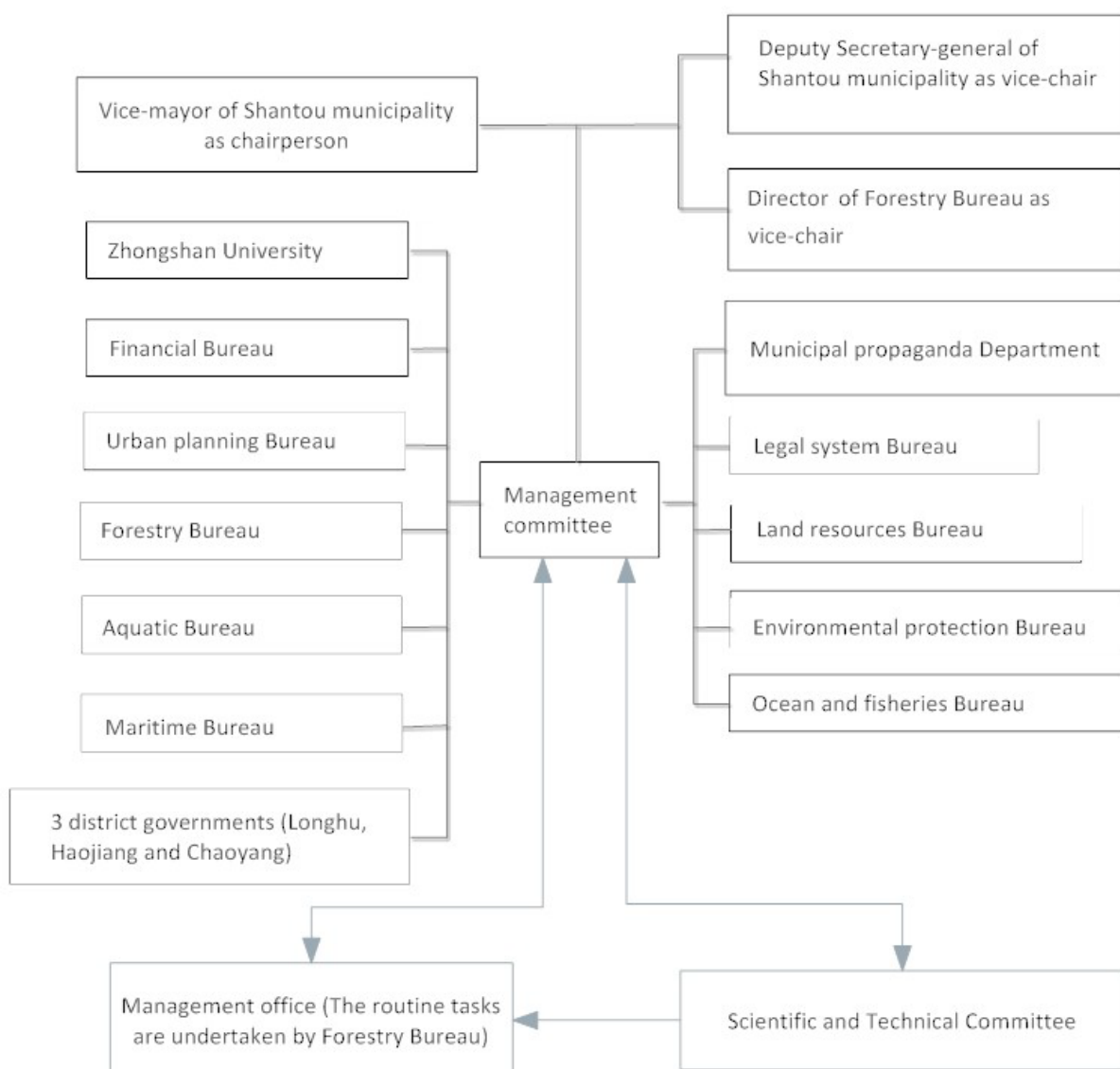
### Next Steps

Following on from this the evaluation team will meet in Shantou and carry out the field work and meet with the Project's participants and stakeholders and also visit the demonstration sites.

It is planned to provide a wrap-up workshop for the Project before leaving Shantou and an *aide memoire* detailing the main findings and conclusions of the TE prior to returning home and developing the first draft of the report.

The precise dates for the delivery of the draft and final report will be agreed (within the timeframe of the overall Contract).

### Annex 5 Municipal Management Committee



## Annex 6. Project costs and co-financing tables

### Project Costs

Component/sub-component	Estimated cost at design	Actual Cost	Expenditure ratio (actual/planned)

### Co-financing

Co financing (Type/Source)	IA own Financing (mill US\$)		Government (mill US\$)		Other* (mill US\$)		Total (mill US\$)		Total Disbursed (mill US\$)
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	
– Grants							400,000	400,000	400,000
– National Government			200,000	200,000					
– Local Government			200,000	200,000					
– Loans									
– Credits									
– Equity investments									
– In-kind support							115,200	115,200	115,200
– Local Government			115,200	115,200					
– Other (*)									
Totals								515,200	515,200

## **Annex 7 Documents Reviewed**

Project Document

Project supervision plan, with associated budget

Correspondence related to project

Supervision mission reports

Steering Committee meeting documents, including agendas, meeting minutes, and any summary reports

Project progress reports, including financial reports submitted

Annual Project Implementation Reports (PIRs) 2009, 2010, 2011

Extension documentation

Mid Term Review SIW Project

Mid Term Evaluation SCS Project

Terminal Evaluation SCS Project

Bali Strategic Plan for Technology Support and Capacity-building (Bali Strategy)

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

UNEP, 2008. Strategic Action Programme for the South China Sea. UNEP/GEF/SCS Technical Publication No. 16.

UNEP Programme of Works 2008-2009

UNEP Programme of Works 2010-2011

SCS Strategic Action Programme

UNEP Annual Monitoring Review FY 2009

SIW Project Half Yearly Progress Reports

Preliminary Theory of Change for South China Seas Cluster (Power Point Presentation)

Review of Outcomes to Impacts, Practitioners Handbook (draft)

GEF Operational Programme 8 Water-based Operational Programme

SIW Project Terminal Report

## **Annex 8 National Consultant's Technical Report**

### **Executive summary**

The UNEP/GEF Project on "Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland" was developed under the framework of the UNEP/GEF project entitled "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand (hereafter the SCS Project)." The wetland habitat in the coast of Shantou City, Guangdong Province, China was proposed by the Regional Scientific and Technical Committee and endorsed at the 3<sup>rd</sup> intergovernmental Steering Committee Meeting of the SCS Project in 2004 as one of the priority wetlands sites which require immediate intervention.

In August 2001, the Shantou wetland was designated as a nature reserve at the municipal level, and a total area of 7,174 ha was designated as the area to be managed by the Office of the Nature Reserve. In 2003, the total area for wetland management was increased to 20,091 ha. The Office of the Nature Reserve, reporting to Forestry Bureau of municipal government, was established and responsible for conservation and management of the wetlands. Since 2003, the Office of Nature Reserve has undertaken a series of activities to upgrade the nature reserve to the provincial level. Despite actions taken by Office of the Nature Reserve, due to the lack of enforcement authority and insufficient management resources, wetland ecosystems in the demonstration areas continue to

suffer from loss and serious degradation, resulting in the loss of the migratory bird habitat, and spawning and feeding grounds for fish and other marine migratory species.

The objective of the project is to demonstrate a set of stress reduction measures effective at the Shantou intertidal wetland ecosystem including: (i) establishment of institutional arrangements for cross-sectoral and participatory management (cross-sectoral management body and integrated management plan); (ii) rehabilitation and physical enclosure of some hotspots; (iii) promotion of environmentally friendly economic activities (silvo-fishery and eco-tourism); and (iv) development and implementation of awareness raising and capacity building programmes. The project duration scheduled is three years (36 months) from November 2007 – November 2010, but finally completed in May 2011 having a project extension for a period of six months. The Project is funded by GEF and co-financed by the participating Chinese governments at national and local levels (particularly the Shantou City Government and the Shantou Nature Reserve Office), as well as local communities of the demonstration sites. The GEF Executing Agency of this project is the Zhongshan University, with the key partners: Office of the Shantou City Nature Reserve and the local communities of Hexi, Sanyuwei, Suaiwan, and Waisha. The GEF Implementing Agency of the project is UNEP.

This technical report is one component of Terminal Evaluation (TE) of the UNEP GEF project “Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland” and it is required as reference to Team Leader by the Terms of Reference provided to the Consultant. The TE of this project is undertaken at the end of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability.

The main findings of this project evaluation are as follows:

1. The project has moving toward achieving agreed objectives – to restore and conserve the wetland habitats in the four demonstration sites by establishing an integrated cross-sectoral management system, promoting environmentally friendly economic activities, and improving the public awareness and education on wetland conservation.
2. Awareness among decision-makers, managers and other stakeholders on the importance of wetland resources are increasing dramatically through the implementation of this project.
3. The integration of science and management was shown successfully in this project. Zhongshan University (as well as other concerned national agencies/institutions) has provided consistent technical and management support to local governments and communities that helps successfully implementing the project activities.
4. Cross-sectoral management approaches are still not effectively implemented in the reality. The legal basis to guarantee the importance status of this approach was not there.
5. Wetland rehabilitation and conservation in Shantou were partly concentrated on mangrove replantation or reforestation, low priority given to tidal flats and salt marsh compared to mangroves. The importance of tidal flats and salt marsh was overlook.

**Key lessons** from the project implementation evaluation are identified as follows.

1. Strong political and administrative commitments at the national, provincial and local levels are a crucial factor for the effective implementation of a demonstration project. The success achieved to date in the implementation of the project has been due largely to commitments of the project partners at all levels, which have ensured the adequate level of project ownership and active community support.
2. The high quality of scientific and technical support provided by EA should be highlighted as a key

factor to contributing to achieving overall project outputs/outcomes. The EA (Zhongshan University) has been very active and continuously provided technical and coordination support to ensure that the project activities be executed in accordance with agreed objectives and activities as outlined in the project document. Meanwhile, the capacities of the institutions such as Zhongshan University and local government involved in wetland management were also increased.

3. A set of policies and statutory guidelines are needed to direct development and ensure the cross-sectoral approach effectively implemented. The existence and adequacy of statutory guidelines are important in order to determine if the goals and objectives of wetland protection is supported by a clear and enforceable legal basis. Moreover, awareness and understanding of wetland protection policies and statutory guidelines promotes compliance and therefore achievement of goals and objectives.
4. A systematic view and approach should be applied to the wetland rehabilitation and conservation. Overemphasis on mangroves over other wetland resources is not a clever way before full understanding the whole ecosystem.

#### **Recommendations:**

1. Municipal cross-sectoral management committee should enhance its function to other marine and coastal resources not only focus on wetland resource. The cross-sectoral management committee was established for this project on wetland protection. The purpose of this approach is to harmonize any overlapping responsibilities of line agencies and stakeholder interest. Therefore, functional expansion to other area itself can be a signal of institutional sustainability.
2. Wetland protection and conservation should be included in the urban planning in the future and have a legal basis to guarantee its implementation. In such cases, what is required, permitted and prohibited in wetland area would be defined by a clear and legal basis, then wetland protection would be given higher priority, which also promote public awareness and understanding of wetland resources.
3. Data and information developed through project should be shared between agencies and develop a comprehensive monitoring plan with standards for data collection, indicators and a means to interpret change and put in place the appropriate responses.

#### **Evaluation background**

##### **A. Context**

The UNEP GEF project “Participatory Planning and Implementation in the Management of Shantou Intertidal Wetland” was developed in the framework of an earlier and larger UNEP-GEF project, “Reversing Environmental Degradation Trends in the South China Sea and the Gulf of Thailand” also referred to as the South China Seas Project (SCS project) implemented from January 2002 to March 2007. The overall goals of the SCS project were “to create an environment at the regional level, in which collaboration and partnership in addressing environmental problems of the SCS, between all stakeholders, and at all levels is fostered and encouraged, and to enhance the capacity of the participating governments to integrate environmental consideration into national development planning.”

The SCS Project addresses, one of its project components, habitat degradation and loss, in particular mangrove, coral reef, seagrass, and wetland habitats. The wetland habitat in the coast of Shantou City, Guangdong Province, China was proposed by the Regional Scientific and Technical Committee and endorsed as one of the priority wetland sites which require immediate intervention during the



3<sup>rd</sup> intergovernmental Steering Committee Meeting of the SCS Project convened in Manila, Feb. 2004.

## B. The project

### Project Rationale

1. The Shantou intertidal wetland is a 3,186.87 ha habitat, with mangrove forests, estuaries, lagoons, intertidal mudflats and non-peat swamps. The area lies at a delta of three rivers; Hanjiang, Rongjiang and Lianjiang. It is at a transitional area between tropical and subtropical zones which contributes to its mixed – temperate, subtropical and tropical biodiversity. The wetland offers habitats for migratory fishes, dolphins and waterfowls and its environment is an indispensable component of the South China Sea. The area has a high regional and transboundary significance in maintaining local and regional fishery resources, most of which are of high economic value such as Japanese Eel (*Anguilla japonica*), Fourfinger Threadfin (*Eleutheronema tetradactylum*) and Blowfish (*Fugu oblongus*). The wetland also supports a large number of migratory waterfowls, such as Black-faced Spoonbill (*Platalea minor*) and Dalmatian Pelican (*Pelecanus crispus*) migrating from Siberian, Korean and Japanese wetlands to Shantou either to replenish or to winter.
2. The Shantou intertidal wetland is also located in one of the more developed areas of China with very high population density. The increasing population combined with increased human activities and rapid economic development has imposed a tremendous pressure on the wetland site. The major threats include conversion of wetland into aquaculture ponds and real estate land, over-exploitation of biological resources and water pollution. The root causes of the direct threats are weak management of the area, i.e. lack of an institutional arrangement for cross sectoral and participatory management, lack of integrated management plan, and weak law enforcement; over reliance of local people on wetland natural resources; and lack of awareness among local people and government. However, the Shantou City Government has an increasing awareness of environmental problems caused by rapid economic development and population growth and was therefore committed to actively participating to the proposed project and to continuing the actions and activities after the project termination.

The **objective** of this project is to demonstrate a set of stress reduction measures effective at the Shantou intertidal wetland ecosystem including:

- Establishment of institutional arrangements for cross-sectoral and participatory management (cross-sectoral management body and integrated management plan);
- Rehabilitation and physical enclosure of some hotspots;
- Promotion of environmentally friendly economic activities (silvo-fishery and eco-tourism); and
- Development and implementation of awareness raising and capacity building programmes.

Proposed project activities can be categorized into **five components**: 1) enhanced management, 2) conservation and rehabilitation of wetland areas, 3) promotion of environmentally friendly economic activities, 4) education and public awareness, and 5) project management and coordination. They were undertaken in four sub demonstration sites, i.e. Hexi, Sanyuwei, Suaiwan, and Waisha. Table 1 briefly summarises the highlights of the activities of each sub demonstration site.

**Table 1 Highlights of Sub Demonstration Sites**

Sub Demonstration Sites	Area (Ha)	Highlights
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Hexi	859.36	Habitat rehabilitation and conservation
Sanyuwei	1182.41	Sylvo fishery
Suaiwan	378.35	Environment education base
Waisha	766.75	Pilot activities for eco-tourism
Total	3186.87	

## Executing Arrangements

1. The project was implemented by UNEP and executed by the Zhongshan University of China who provided scientific and technical guidance to the execution of the project and ensure the project's operation and management. A Project Management Unit was also established in Shantou to take care of daily management and coordination.
2. In addition, the main partners involved in project execution include:
  - a. Government agencies related to wetland management, including State Environmental Protection Administration (SEPA), Shantou City Government, Bureau of Planning and Land Resources, Forestry Bureau, Bureau of Ocean and Fishery, Environment Protection Bureau, and the district governments of the four sub demonstration sites, i.e. Longhu, Haojiang, and Chaoyang Districts (municipal).
  - b. Office of the Shantou City Nature Reserve; the Shantou intertidal wetland demonstration site is within the Shantou Nature Reserve, which has been the responsibility of the Office to manage and protect the wetland.
  - c. Local communities of Hexi, Sanyuwei, Suaiwan, and Waisha; a total population of 367,388 resides in the four towns. A large number of local people derive direct or indirect economic benefits from the wetland area.

## Project Financing

The table below presents a summary of expected financing sources for the project.

Financing plan	Amount(US \$)	%
GEF Total	400,000	43.71
National government	200,000	43.71
Local government	200,000	
In-kind	115,200	
Co-financing Total	515,200	
TOTAL	915,200	

## C. Evaluation objectives, scope and methodology

The evaluation has two primary purposes:

- (i) To provide evidence of results to meet accountability requirements, and;
- (ii) To promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, the GEF and their partners. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation. It will focus on the following sets of **key questions**, based on the project's intended outcomes:
  - a) To what extent did the project contribute towards reversing environmental degradation trends of the South China Sea and Gulf of Thailand, and the Shantou wetland in particular?

- b) Was the selected “set of stress reduction measures” effective and purposeful at working towards restoring and conserving the Shantou intertidal wetland ecosystem?
- c) Were the established institutional arrangements for cross-sectoral and participatory management (cross-sectoral management body and integrated management plan) effective and purposeful? Has further ecosystem degradation been prevented in Shantou wetland through the cross-sectoral participation scheme?
- d) Was the project successful in promoting environmentally friendly economic activities (silvo-fishery and eco-tourism) and are there indications that these activities would be adopted by the communities? What are the incentives for the communities to change their practices?
- e) Was the project successful in raising awareness and building capacity over the importance of sustainable management of the Shantou wetland? Are local communities familiar with the project and its benefits and are they now – as a consequence of the project – more dedicated in conserving the wetland?

Based on the identified key questions, the methodologies used in the evaluation included:

- 1) A **desk review** of project documents including: Strategic Action Programme for the South China Sea; Half Yearly Progress Report; Annual Project Implementation Reports (PIRs); Extension documentation; Mid-Term Review Report;
- 2) **Field visit** to selected demonstration project sites including: Suaiwan Aotou Village; Sanyuwei; Hexi; Niutianyang; Waisha Estuary & Liuhewei at Chenghai District.
- 3) **Interviews with stakeholders** including: Site Manager and staff of the project management unit; Zhongshan University and Shantou University; Government Agencies, such as Shantou Forestry Bureau; Office of the Shantou City Nature Reserve; Local villagers from Sanyuwei, Niutianyang, Suaiwan, and Waisha.

## Evaluation criteria

The evaluation assesses the project with respect to a minimum set of evaluation criteria grouped in four categories: **(1) Attainment of objectives and planned results**, which comprises the assessment of outputs achieved, relevance, effectiveness and efficiency and the review of outcomes towards impacts; **(2) Sustainability and catalytic role**, which focuses on financial, socio-political, institutional and ecological factors conditioning sustainability of project outcomes, and also assesses efforts and achievements in terms of replication and up-scaling of project lessons and good practices; **(3) Processes affecting attainment of project results**, which covers project preparation and readiness, implementation approach and management, stakeholder participation and public awareness, country ownership/driven-ness, project finance, UNEP supervision and backstopping, and project monitoring and evaluation systems; and **(4) Complementarity with the UNEP Strategies and programmes**, which describes linkages to UNEP’s Expected Accomplishments, project contributions in line with the Bali Strategic Plan, mainstreaming of gender and South-South Cooperation.

## Project performance and impact

### A. Attainment of objectives and planned results

**The achievement of outputs and activities are satisfactory.** The GEF resources, with Government’s co-financing, have effectively contributed to restore and conserve the wetland habitats in the four

demonstration sites by establishing an integrated cross-sectoral management system, promoting environmental friendly economic activities, and improving the public awareness and education on wetland conservation. The Executing Agency for the project, the Zhongshan University, has actively provided technical and coordinating support to the PMU, ensuring the success of project implementation.

At the demonstration site, the Shantou Municipality has taken high consideration on wetland conservation in the demonstration areas. A cross-sectoral management committee of the Shantou Demonstration Site was established in June 2006, comprising more than 15 stakeholders. A Vice-mayor was designated as the chairman of the Project Management Committee.

However, some **points of concern** for achieving the project outcome/outputs are identified as follows:

- The fall in regional support following the end of the South China Seas project;
- Cross-sectoral management approaches are still not effectively implemented in reality.
- Low priority given to tidal flats and salt marsh compared to mangroves. Wetland rehabilitation and conservation in Shantou were partly concentrated on mangrove re-plantation or reforestation and lack of a systematic view and approach

The **project is relevant in meeting the objectives** of key national strategies and policy including China Agenda 21, 1994 China Biodiversity Protection Action Plan (CBPAP), and 2000 China National Wetland Conservation Action Plan (CNWCAP). It also framed within the wider social, economical and political changes that have been taking place within China in recent times. It responds well to country needs and serves specific interest of the Shantou City Government to upgrade the status of the nature reserve from a municipal level to a provincial level, which provides the project demonstration areas with further opportunities for sustainable management and financial supports after the project life.

**The project effectiveness is satisfactory.** The level of awareness of decision-makers, managers and other stakeholders on wetland conservation issues has risen dramatically. A number of degraded areas were rehabilitated and hotspots were protected. A number of ecological approaches to potentially damaging economic activities (e.g. silvo-aquaculture) were introduced. The key factors contributing to achieving the project objective are developed an integrated wetland management plan and collaboration between agencies and institutions, particularly between the Forestry Bureau and Zhongshan University.

**The project efficiency is satisfactory,** with GEF fund supervised by the Financial Bureau, a third-party financial administration entity in the EA, ensuring disbursements of GEF fund strictly implemented in accordance with the agreed work plan and budget plan. The project has experienced the time extension for a period of six months (until May 2011) without additional fund obtained from GEF apart from the approved amount of \$US 400,000. However, it has not affected the project execution and government co-financing is continually playing an important role in the project.

## **B. Sustainability and catalytic role**

### **Socio-political sustainability**

There appears to be considerable support from the local government agencies, indeed the Project was clearly initiated by local institutional interest. The Project is embedded in a local University with an obvious long-term interest and champion and the capacity to provide longer term monitoring of the plans and agreements that are forged under the Project. An important component of the Project is the participation of various stakeholders in the implementation of the Project and in particular the development of a Management Committee to ensure the cooperation and coordination among government agencies.

### **Financial resource**

Integration of wetland conservation for sustainable agriculture and ecotourism development in the Shantou Municipal Development Programme (2010-2030) will ensure effective planning and sustainable management of the wetland demonstration sites beyond the project life-span. So it is likely that it will continue to be supported through local budget allocation framework.

### **Institutional framework**

In terms of institutional sustainability, the Shantou Nature Reserve Office will continue beyond the project life with full support from the Shantou City Government and the Zhongshan University. It has been agreed that the Shantou wetland conservation efforts will be kept open to all stakeholders including relevant government agencies, local communities, private sectors, academia and NGOs to enable necessary follow-up activities of the project. However, cross-sectoral management approaches were not effectively implemented in reality. To strengthen the adaptive or experimental approach towards implementing pilot or demonstration projects (e.g. comparison and selection of most cost-effective treatments for future management options difficult) is needed.

### **Environmental sustainability**

Information collected/produced/shared during the project activity implementation has improved understanding of the biological and environmental significance of wetlands and related ecosystems, which will ensure the sustainability of the beneficial impacts resulting from the project activities beyond the life of the project. However, there is low priority given to tidal flats and salt marsh compared to mangroves. Wetland rehabilitation and conservation in Shantou were partly concentrated on mangrove re-plantation or reforestation and lack of a systematic view and approach. The issue of external impacts on the hydrology and the impacts of predicted climate change on wetland systems is not sufficiently addressed in this project.

### **Catalytic role and replication**

The Project Document places considerable emphasis on the demonstration aspects of the Project. Being developed within the context of the earlier SCS project there was an established framework for coordination, dissemination of experiences and personnel exchange between sites. Cross-referencing this with the half-yearly Progress Reports shows that such exchanges were arranged, seminars were carried out and the Project was extremely active in publishing.

The replication has occurred in Shantou. The successful utilization of the economic models (silvo-aquaculture) piloted in Sanyuwei has been practiced in non-demonstration site (e.g. Niutianyang, at the opposite side of Sanyuwei). Moreover, awareness among decision-makers, managers and other

stakeholders on the importance of wetland protection are increasing dramatically through the implementation of this project.

### **C. Processes affecting attainment of project results**

#### **Preparation and readiness**

The Project Document provided a reasonably clear approach. The project was carefully designed and prepared during the UNEP/GEF SCS Project, resulting in setting up realistic objectives and outputs based on well documented and comparable experience elsewhere, illustrating the readiness of the MSP implementation. The EA (Zhongshan University) through participation in the SCS Project implementation has carried over momentum of providing technical and management support to PMUs during the MSP implementation.

However, the Project Document underestimated the complexity of the challenge of establishing integrated participatory management structures, although the Project has done remarkably well, the process of participatory planning is far more time-consuming than that described in the Project document and greater analysis should have been given to existing planning approaches and capacities.

#### **Implementation approach and adaptive management**

The project implementation mechanisms outlined in the project document have been well followed and were effective in delivering project outputs and outcomes. The role and performance of the units and committees established and the project execution arrangements at all levels were reasonable.

The high quality and consistency of technical support provided by the Zhongshan University to the project management units at the local level is recognized and should be highlighted as a key factor contributing to achieving overall project outputs/outcomes. It has found that specific conditions are likely to cause major delay in implementation of wetlands rehabilitation activities, which is due mainly on uncontrollable weather and other natural occurrences (i.e., natural change and disaster). So adapting to changes during the life of project was observed.

However, there still need to strengthen the adaptive or experimental approach towards implementing pilot or demonstration projects (e.g. the “scientific rigour” of the demonstration activities is low making analysis, comparison and selection of most cost-effective treatments for future management options difficult).

#### **Stakeholder participation and public awareness**

Stakeholder involved in designing project activities and preparing the project proposal. The project proposal itself is the result of an intense effort to mobilize local stakeholders and enhance their active participation. The management committee has been formed with various government agencies and local district governments.

Training and capacity programmes were developed and training courses were offered to government officials, researchers, young scientists, and project management staff. Student activities were organized to increase awareness and participation of students, including excursions, tree

planting activities, courses and seminar. Awareness raising materials, and relevant wetland information for the project including conservation propaganda manual, posters, notice boards, DVD, CD, etc. were prepared and disseminated. A wetland education center is being built in Sanyuwei. This place will serve as a base for wetland education to the students and citizens.

However, more works are needed to mobilize support and commitment from other stakeholders including local NGOs and private sector.

### **Country ownership and driven-ness**

There are political and administrative commitments at the national, provincial and local levels. These commitments have ensured the adequate level of project ownership and active community support.

State Environment Protection Administration (SEPA) is the designated focal institution of the SCS project with a responsibility to coordinate activities at the national level. Zhongshan University serves as a specialized executing agency in charge of activities related to wetland component. At the local level, the Shantou City Government is committed to supporting the implementation of the project by providing co-financing equal to that of the central government, hosting the PMC and PMU; and coordinating relevant local government agencies, and establishing local institutional arrangements for integrated area management.

### **Financial planning and management**

There were delays caused in the disbursement of the GEF grant but this did not slow the pace of the Project in the early stages. Project financial management and reports were improved at the later stage. All the financial transactions during the project period have been duly audited by a certified public accountant.

It is obviously co-financing appears to have more than materialised in as much as it has been provided ahead of time and in excess of the original sums allocated. However, reporting on the co-financing appears to have been poor and it is not possible to assess the level of co-financing but it is likely to exceed that which was promised.

### **UNEP and UNDP supervision and backstopping**

In the early part of the Project support from UNEP and GEF was very low as a result monitoring and evaluation was poor. However, it is noted that this improved in the second half of the Project.

### **Monitoring and evaluation**

The logframe was clearly developed and integrated into the Project Document. The specific outputs indicated in the logframe were used as indicators of project performance. EA/PMU followed the logframe to track progress in meeting the project objectives. During the early stages of the Project's implementation monitoring appears to have been weak, particularly the reporting that is an essential part of the GEF project monitoring. For instance, the Inception Report is particularly weak. However, around the midterm of the Project it seems that the reporting has improved markedly.



There is lacking of long-term monitoring. In particular there is a need to share data between agencies and to develop a comprehensive monitoring plan with standards for data collection, indicators and a means to interpret change and put in place the appropriate responses.

#### **D. Complementarity with UNEP Medium Term Strategy and Programme of Work**

The Project is aligned with the following thematic focal areas, namely:

- Disasters and conflicts – mangrove replantation or reforestation provide for the resilience against disasters.
- Environmental governance – the Project is addressing issues of resource governance.
- Resource efficiency and sustainable consumption and production – this is implicit in the Project's objectives

The Project outcomes are largely in line with the BSP. There was a well-established framework for communication and transfer of experience between projects that was set up under the SCS project. The half-yearly Progress Reports suggest that this has been active at least at a national level but with numerous seminars and academic papers being produced from the demonstration projects. However, there are indications that the regional sharing of information has largely died out with the ending of the SCS project.

### **Conclusions and recommendations**

#### **A. Conclusions**

1. The project has moving toward achieving agreed objectives – to restore and conserve the wetland habitats in the four demonstration sites by establishing an integrated cross-sectoral management system, promoting environmentally friendly economic activities, and improving the public awareness and education on wetland conservation.
2. Awareness among decision-makers, managers and other stakeholders on the importance of wetland resources are increasing dramatically through the implementation of this project.
3. The integration of science and management was shown successfully in this project. Zhongshan University (as well as other concerned national agencies/institutions) has provided consistent technical and management support to local governments and communities that helps successfully implementing the project activities.
4. Cross-sectoral management approaches are still not effectively implemented in the reality. The legal basis to guarantee the importance status of this approach was not there.
5. Wetland rehabilitation and conservation in Shantou were partly concentrated on mangrove replantation or reforestation, low priority given to tidal flats and salt marsh compared to mangroves. The importance of tidal flats and salt marsh was overlook.

The overall ratings were presented in the table below.

<b>Criterion</b>	<b>Summary Assessment</b>	<b>Rating</b>
<b>A. Attainment of project objectives and results</b>	The project has moving toward achieving agreed objectives – to restore and conserve the wetland habitats in the four demonstration sites by establishing an integrated cross-sectoral management system, promoting environmentally friendly economic activities, and improving the public awareness and education on wetland conservation.	MS

Criterion	Summary Assessment	Rating
1. Effectiveness	The project has achieved its main objective and its outcomes within a reasonable time frame and of reasonable quality. However, there is the fall in regional support following the end of the South China Seas project and the lack of systematic view and approach in wetland rehabilitation and conservation.	MS
2. Relevance	The project is relevant in meeting the objectives of relating national and regional policies/strategic plans, including CNWCAP and SCS-SAP developed under the UNEP/GEF SCS Project	S
3. Efficiency	The utilization of project resources (technical and financial) is satisfactory, with moderate concerns about potential shortcomings due to time extension.	S
<b>B. Sustainability of project outcomes</b>	The Project has got full support from local government. It also received a large amount of co-financing from government. Cross-sectoral management approach was developed to ensure the cooperation and collaboration among different government agencies. These will ensure the sustainability of project outcomes, particularly at the local level.	ML
1. Financial	There is a large amount of co-financing availability during the project. Since the management of Shantou wetlands has included in the municipal development plan, it is likely that it will continue to be supported through local budget allocation framework.	HL
2. Socio-political	Strong support from local governments and Management Committee was established to ensure the cooperation and collaboration among different government agencies.	L
3. Institutional framework	The Shantou Nature Reserve Office will continue beyond the project life with full support from the Shantou City Government and the Zhongshan University. But cross-sectoral management approaches are still not effectively implemented in reality.	ML
4. Environmental	Information collected/produced/shared during the project activity implementation ensure the sustainability of the project benefits. However, there is low priority given to tidal flats and salt marsh compared to mangroves.	ML
<b>C. Catalytic role</b>	Environmental friendly economic activities and awareness raising on wetland conservation were promoted through this Project.	HS
<b>D. Stakeholders involvement</b>	The project has been actively involved by government agencies, Zhongshan University, office of the Shantou city nature reserve and local communities in supporting activity implementation and actively participating at meetings of different levels that served to monitor the progress.	MS
<b>E. Country ownership / driven-ness</b>	The continuous support and commitment of the Chinese Government, particularly at the provincial and local/municipal levels, including support of local communities and other stakeholders, was evident in ensuring the adequate extent of the project ownership.	S
<b>F. Achievement of outputs and activities</b>	Most of project activities have been carried out on time and the project outputs identified in the project logframe were delivered as planned.	S
<b>G. Preparation and readiness</b>	The project was carefully designed and prepared during the UNEP/GEF SCS Project, resulting in setting up realistic objectives and outputs based on well documented and comparable experience elsewhere, illustrating the readiness of the MSP implementation. However, greater analysis should have been given to existing planning approaches and capacities for the complexity of the challenge of establishing integrated participatory management structures.	S
<b>H. Implementation approach</b>	The project implementation mechanisms outlined in the project document have been well followed and were effective in delivering project outputs and outcomes.	S

Criterion	Summary Assessment	Rating
<b>I. Financial planning and management</b>	The project experienced delay in the disbursement of the GEF grant, but the Project financial management and reports were improved at the later stage. All the financial transactions during the project period have been duly audited by a certified public accountant. The level of co-financing is likely exceed that which was promised.	MS
<b>J. Monitoring and Evaluation</b>	The project M&E plan contains the baseline information for each outcome-level indicator, and project budget is allocated for M&E activities. The project has utilized the indicators identified in the M&E plan to track progress in meeting the project objectives, and partially fulfilled the specified reporting requirements.	MS
1. M&E Design	The logframe was clearly developed and integrated into the Project Document. The specific outputs indicated in the logframe were used as indicators of project performance.	S
2. M&E Plan Implementation	During project implementation, the EA/PMU and UNEP have utilized the indicators identified in the M&E plan to track progress in meeting the project objectives. The EA/PMU has partially fulfilled the specified reporting requirements. The project does not apply adaptive management in response to M&E activities.	MS
3. Budgeting and funding for M&E activities	Sufficient budget (GEF fund and co-financing) was allocated for the project M&E activities.	S
<b>K. UNEP Supervision and backstopping</b>	In the early part of the Project support from UNEP and GEF was very low as a result monitoring and evaluation was poor. But it is noted that this improved in the second half of the project.	MS

## B. Lessons learned

**Key lessons** from the project implementation evaluation are identified as follows.

1. Strong political and administrative commitments at the national, provincial and local levels are a crucial factor for the effective implementation of a demonstration project. The success achieved to date in the implementation of the project has been due largely to commitments of the project partners at all levels, which have ensured the adequate level of project ownership and active community support.
2. The high quality of scientific and technical support provided by EA should be highlighted as a key factor to contributing to achieving overall project outputs/outcomes. The EA (Zhongshan University) has been very active and continuously provided technical and coordination support to ensure that the project activities be executed in accordance with agreed objectives and activities as outlined in the project document. Meanwhile, the capacities of the institutions such as Zhongshan University and local government involved in wetland management were also increased.
3. A set of policies and statutory guidelines are needed to direct development and ensure the cross-sectoral approach effectively implemented. The existence and adequacy of statutory guidelines are important in order to determine if the goals and objectives of wetland protection is supported by a clear and enforceable legal basis. Moreover, awareness and understanding of wetland protection policies and statutory guidelines promotes compliance and therefore achievement of goals and objectives.
4. A systematic view and approach should be applied to the wetland rehabilitation and

conservation. Overemphasis on mangroves over other wetland resources is not a clever way before full understanding the whole ecosystem.

### **C. Recommendations**

Based on the evaluation, the following actions are recommended within the timeframe and resource available:

1. Municipal cross-sectoral management committee should enhance its function to other marine and coastal resources not only focus on wetland resource. The cross-sectoral management committee was established for this project on wetland protection. The purpose of this approach is to harmonize any overlapping responsibilities of line agencies and stakeholder interest. Therefore, functional expansion to other area itself can be a signal of institutional sustainability.
2. Wetland protection and conservation should be included in the urban planning in the future and have a legal basis to guarantee its implementation. In such cases, what is required, permitted and prohibited in wetland area would be defined by a clear and legal basis, then wetland protection would be given higher priority, which also promote public awareness and understanding of wetland resources.
3. Data and information developed through project should be shared between agencies and develop a comprehensive monitoring plan with standards for data collection, indicators and a means to interpret change and put in place the appropriate responses.

## **Annex 8 Review of the Project's design**

### **Review of the Project's Design**

As far as practicable based upon the Project Document and the twice-yearly Progress Reports, which the TE comments again, are essentially financial reporting and do not provide sufficient narrative to draw conclusions about the effectiveness of the interventions, the TE reviews the following aspects of the Project's design:

#### **Project relevance**

The Project is framed with the earlier and much larger SCS project and was selected following a thorough and systematic approach to select sites for demonstration projects placing it firmly within the remit of the GEF Operational Programme Number 8, Water-based Operational Programme in particular as an important component of a Large Marine Ecosystem (LME) and in meeting the characteristics of interventions under this OP, in particular; supporting the incremental costs of technical assistance, capacity building and encouraging the use of sound science and technological innovations for management. Furthermore, the habitats, flora and fauna, their protection and sustainable use are supported by the Convention on Biological Diversity (CBD). The importance of the site for migratory species is supported by a number of international agreements, including the China-Australia Migrant Bird Agreement and the China-Japan Migrant Bird Agreement and much wider, within the Ramsar Convention, amongst others.

In addition to these justifications the Project can also be framed within the wider social, economical and political changes that have been taking place within China in recent times. The importance of renewable natural resource governance and water management issues are increasingly emerging as

challenges that need to be addressed, and addressed quickly. Projects, *per se*, often provide governments with a test bed, a convenient laboratory, to attempt new and perhaps radical approaches in the safe knowledge that they are “ring-fenced” within the project and time-bound. However, this experimental aspect of projects can sometimes give them a value far beyond the modestly predicted outcomes and impacts, or not, depending upon the project itself.

It is this two-way flow of experience that is important, if the lessons from a project inform policy development then, even if the project has failed on every aspect, it can be argued that it is cost-effective in terms of GEF GEBs. To borrow from Roger Von Oech *“Remember the two benefits of failure. First, if you do fail, you learn what doesn't work; and second, the failure gives you the opportunity to try a new approach.”*

### **Sustainability Considerations**

The TE is cautious about drawing any conclusions on the sustainability of the project's outcomes and impacts at this point in time. However, the TE will discuss some aspects of sustainability based upon its understanding of the Project which in turn is drawn from the Project Document. The ToR describes four aspects of sustainability:

#### **Socio-political sustainability**

There is considerable crossover between this aspect of sustainability and the third aspect mentioned in the ToR, the *Institutional Framework*, because both are addressing issues of *governance*. However, the TE will disaggregate these issues here for the time being. There appears to be considerable support from the government institutions, indeed the Project was clearly initiated by local institutional interest. The Project is embedded in a local University with an obvious long-term interest and champion and the capacity to provide longer term monitoring of the plans and agreements that are forged under the Project. The local civic authorities appear to be behind the Project's objectives (for instance there seems to be support to raise the status of a local nature reserve to a National Nature Reserve (NNR), presumably alienating territory and influence) and outcomes and there seems to be support from the national agencies in the form of the State Environmental Protection Agency (SEPA). An important component of the Project is the participation of various stakeholders in the implementation of the Project and in particular the development of a Management Committee to ensure that there is significant “buy-in”, what might be referred to as a step towards *cooperative governance* (whereby all governmental institutions have the duty to work with each other for the good of the country). How effective this in overcoming short-term economic interests and agendas will need to be investigated during the field trip.

The TE will be placing considerable emphasis on this aspect of the Project during the field survey.

#### **Financial Resource Sustainability**

It is hard to draw any conclusions on the financial sustainability of the Project's outcomes and the continued financing through to achieving the intended impacts at this point in time. However, the Project Document demonstrates that there was considerable investment by local civic agencies and the Government of the PRC. For instance the establishment of the NNR will automatically trigger an assured budget for the future which will apparently be matched to an extent by local government funds. However, it is noted by the TE that state funding does not necessarily mean financial

sustainability and certainly does not imply ecological sustainability. Sustainability cannot be measured by the size of the state budget as Europe is finding out now to its cost.

Carrying out a financial sustainability analysis (activity 3.3) should provide a good basis for this and in particular in leveraging funds from other sectors of government for the maintenance of the wetlands.

The TE will try to determine, within reason, how much the costs and benefits are internalised within the system and where the benefits are externally felt, what fiscal and other mechanisms might have been put in place to recover the costs.

Linked to the issues of governance the TE will also be trying to ascertain to what extent the costs and benefits of conservation management are equitably distributed throughout the system and to what extent the Project has taken these considerations into account.

### **Institutional Sustainability**

The TE notes that in the 2010 – 2011 UNEP PoW budget governance has the largest budget allocation (27.7%), whereas the previous PoW (2008 -2009), while it may be nested in some of the other budget lines, it is not explicitly spelled out. However, the latest UNEP PoW is essentially addressing environmental governance on the world stage and was noted in the earlier section on the Project Background. As soon as we move to the project level, the demonstration or pilot level, it has to be stepped down to an appropriate scale where what we carelessly term “the local community” have some means to participate in the decision-making process. This is more so when we are looking at sustainable use at this level where the costs and benefits as well as the authority and responsibility need to be internalised within the system at an appropriate level. Furthermore, this brings into play issues of tenure and pricing of these resources and the sorts of value judgements that result in the prohibition of the use of biodiversity, whereas, what might be arguably far more destructive aquaculture (due to the conversion of habitat, altering of hydrology, etc.) is made sustainable.

The arguments for more inclusive approaches to managing natural resources or the ecosystem are also made stronger when we consider ecosystem resilience, which is essentially what GEF is driving at. Ecosystem *“resilience can be defined as the capacity of a system to undergo disturbance while maintaining both its existing functions and controls and its capacity for future change”* (Gunderson 2000).

However, in complex socio-ecological systems, of which Shantou inter-tidal wetlands undoubtedly is, it might also be argued that *“resilience is determined not only by a systems ability to buffer or absorb shocks, but also by its capacity for learning and self-organisation to adapt to change”* (Gunderson and Holling 2002). Therefore a governance system that allows for a broader participation in planning and management of the wetlands system might arguably be judged more resilient than one which has a narrow scientific or agency focus.

The importance of this is clear when we consider that the wetlands are not facing a technical challenge but rather an adaptive challenge. That is; no one technology or the introduction of a technology (e.g. alternative livelihoods, eco-tourism, silvo-aquaculture, etc.) will reverse all the current damaging effects of unsustainable or illegal activity. Neither is the enforcement of prohibitive measures, which might sometimes be ignored, practicable from a financial, social and in some cases ecological perspective. What is required is a broad behavioural change within the stakeholders

towards a common objective (*i.e.* the conservation or sustainable management of biodiversity resources and ecosystem goods and services within the wetlands).

The TE will therefore place considerable emphasis on how the Project has developed a system of governance for the wetlands and it notes that the Bali Strategy, within which the Project is framed, is a highly technocratic document, admittedly developed in 2004, and there have been considerable developments since then in the understanding of the importance of governance in the sustainable management of these systems.

### **Environmental Sustainability**

The Project Document has a number of assumptions, some of them stated and some are unstated. These assumptions, upon which the Project's overall strategy hinges, will be elaborated in the TE Report. However, the TE raises these issues briefly until it is able to make a substantive statement about this but considers that this is an area which was not fully addressed in the Project Document, given the issues surrounding water resources globally, and in China, the issue of external impacts on the hydrology and the impact of predicted climate change on these systems is not sufficiently addressed in the documentation available to the TE at this point in time.

Having said that, it is important to remember that this was a relatively modest GEF investment and might not reasonably have been expected to cross every "t" and dot every "i".

### **Measures Planned to Promote Replication and Up-scaling**

The Project Document places considerable emphasis on the demonstration aspects of the Project. Being developed within the context of the earlier SCS project there was an established framework for coordination, dissemination of experiences and personnel exchange between sites. Cross-referencing this with the half-yearly Progress Reports shows that such exchanges were arranged, seminars were carried out and the Project was extremely active in publishing.

However, it would appear that the extensive regional participation (and information sharing) established by the SCS has not continued after the end of that project and the TE will try to establish if this has been the case and making recommendations if necessary to re-establish the exchanges.

### **Preparation and Readiness**

The Project Document provided a reasonably clear approach. The arrangements for the implementation of the Project appear to have been there. But it is not possible to comment authoritatively without having a) more of the Project's documentation and b) meeting with the different partners to clarify the situation. According to the Terminal Evaluation of the SCS project the Demonstration Projects, although carefully selected, were ill-prepared for the process of developing and implementing a GEF project and consequently there were a number of informal workshops to try to develop the Project Documents (for all the Demonstration Projects) to an acceptable standard (at least in English) that met the UN standards.

While this appears to have produced a reasonable Project Document there are early indications (in the TE) that the Executing Agency did not really understand the *process* of GEF project implementation and this seems to have carried through until the Mid-term Review when the Task



Manager from the International Waters Programme seems to have taken control of the process and reporting, as well as the project *process*, becomes markedly improved.

The TE also needs to investigate the effect of the delays in releasing project funds (dates and details to be added in the Final Report, *e.g.* acquiring the letters of co-financing). Rather than delaying the Project, it would appear that the project partners simply forged ahead with implementation of the components that were being co-financed.

Although the early implementation stages of the Project do not necessarily meet the requirements of UNEP-GEF project implementation, it would seem that adequate project management were in place to get things started, indeed the Project has been well-managed in terms of completing the various activities in a timely and cost-effective fashion. The FE will pose the question, *inter alia*; did it work? How effective is a Steering Committee at the regional level when addressing issues that are essentially local in nature? What is the likelihood of a three-year project being adaptive, learning from experience and making the mistakes that are a necessary part of the experimental and learning process? How effective is a Management *Committee*, if the Project made no revisions to the LFM then was it a Highly Satisfactory project, did it all work according to plan?

### **Financial Planning**

As indicated in the last section, there were delays caused in the disbursement of the GEF grant but this does not seem to have slowed the pace of the Project in the early stages. However, there has been a “budget-neutral” extension granted (ref) and the TE will investigate the causes and the effect of this.

There are no immediate concerns about the financial management of the Project. Co-financing appears to have more than materialised in as much as it has been provided ahead of time and possibly in excess of the original sums allocated. However, reporting on the co-financing appears to have been poor and at this time it is not possible to assess the level of co-financing other than to say that it is likely to exceed that which was promised.

### **Monitoring and Evaluation Design**

Given the criterion in the TE ToR the TE will not make any substantive judgements at this point in the evaluation. Certainly there are considerable weakness in the Project’s monitoring and evaluation system. There are considerable gaps in the risks and assumptions. The Project Document as it relates to the Project’s Logical Framework Matrix is sometimes confusing and in some areas appears inadequate, while the indicators selected are for all intents and purposes SMART, experience has shown that SMART indicators are not always the best criteria to judge a process.

During the early stages of the Project’s implementation monitoring appears to have been weak, particularly the reporting that is an essential part of the GEF project monitoring. For instance the Inception Report is particularly weak. However, around the midterm of the Project it seems that the reporting has improved markedly

This is more so that, there appears to be a communication bottleneck (at the point of the TE and this is not unusual) and various documents were only available to the TE at a very late stage.

## **Complementarities with UNEP Strategies and Programmes**

The TE concurs with the Project Document's statements on meeting the objectives of the Operational Programme #8.

## **Linkage to the UNEP's Expected Accomplishments and PoW 2010 – 2011**

The TE considers that the Project is aligned with five of the six thematic focal areas, namely:

- Climate change – based on the assumption that anything at sea level is related to climate change.
- Disasters and conflicts – in as much as integrated management of a coastal area wetland is likely to provide for the resilience against disasters of one form or another in the SCS.
- Ecosystem management – the Project sets out to manage an ecosystem and bring this within the larger planning framework.
- Environmental governance – the Project is addressing issues of resource governance as discussed earlier.
- Resource efficiency and sustainable consumption and production – this is implicit in the Project's objectives

It would be unfair to make judgements as to what extent the project is addressing these issue based upon the information that is currently available to the TE.

## **Alignment with the Bali Strategic Plan (BSP)**

The Projects outcomes are largely in line with the BSP. The TE will examine to what extent this document reflects UNEP's largely scientific and technocratic approach to project implementation and how this equates to the need to address issues of resource governance. The management of complex socio-ecological systems cannot rely upon science alone; perhaps this is reflected in the PoW 2010 – 2011 and the allocation of 27.7% of the budget to environmental governance. However, the TE will question how this then translates to the local scale of management and the need to step down governance to the level of the local resource users and notes:

*“the delivery of the products of professional science and technology to rural communities has consistently been marked by asymmetrical relationships” and that “firstly, science and technology are associated with power – the entire power apparatus of government, international and national development agencies, private capital and bureaucracy – which determines in large part what rural communities can or cannot do. The second aspect is a pervasive assumption of the inherent superiority of professional science and technology over the abilities of rural people to understand and manage the resource base on which they depend for their livelihood” (Murphree, et al, 1998)*

## **Gender**

The TE is unable to comment on this with the available information. However, the TE notes that this is not explicitly addressed in the Project Document and considers that this is critical and comments that women play an important role in the management of biodiversity and in rural circumstances women often have a high dependency on biodiversity and other natural resources for their livelihood

security and its sustainable management is of real and practical concern to them. Furthermore, they are critical stakeholders in the sustainable management of these resources.

The TE will test the role of the Management Committee to ensure that not just the Project but the outcomes and impact of the Project are equitable.

### **South-South Cooperation**

The TE notes that there was a well-established framework for communication and transfer of experience between projects that was set up under the SCS project. The half-yearly Progress Reports suggest that this has been active at least at a national level but with numerous seminars and academic papers being produced from the demonstration projects. However, there are indications that the regional sharing of information has largely died out with the ending of the SCS project.

### **Annex 10 Terminal Evaluation Team Resume**

**Prof. Xiongzi Xue** got his Ph.D. in oceanography from Xiamen University, P. R. China in 1999, and finished his post doctorate research in coastal resources management in Saint Mary's University and Dalhousie University, Canada in 1999-2000. His research interests include marine affairs and coastal environmental management, with particular emphasis on the Integrated Coastal Management (ICM) and sustainable coastal development.

He is currently the Executive Director of Coastal and Ocean Management Institute (COMI), Xiamen University, and has undertaken numbers of research programs related to ICM practices funded by UNDP, UNEP, GEF, CIDA, PEMSEA and National Natural Science Foundation of China etc in recent years. Now he is also serving as the Consultant for United Nations Evaluation Group.

**Xiaoyin Zhang**, a PhD candidate studying at Xiamen University, Xiamen, China. She has majored in Environmental Management and her research field is evaluation methods for measuring the process and outcomes of coastal management.

**Francis Hurst** has a BSc. in Zoology and a MSc. in Conservation. He has worked in biodiversity conservation, protected areas management and natural resource management for over 20 years with practical experience of managing protected areas, policy, and planning, sustainable use and natural resource governance. For the past 15 years he has worked as an independent consultant in more than 20 countries including UNDP-GEF and EU midterm and final evaluations in Uzbekistan, Georgia, Turkey, Egypt, Russia, Jordan, Kazakhstan and Botswana.

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