

## Mid-Term Evaluation Report

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## ANNEX I

**TERMS OF REFERENCE FOR THE MID TERM EVALUATION**

Conservation and Sustainable Use of Gulf of Mannar Biosphere Reserve's Coastal Biodiversity Project  
Project Number: 00013013

**1. PROJECT CONTEXT & BACKGROUND**

Surrounded by the Indian Ocean, Arabian Sea and the Bay of Bengal, India's 8,000 kilometre long coast line spans 13 maritime mainland states and Union Territories (UT) including island UTs, which are home to a diversity of coastal and marine ecosystems, including considerable nationally and globally significant biodiversity. A recent global classification of coastal and marine ecosystems has identified 6 distinct marine ecoregions in India. Coastal and marine ecosystems are also extremely important from an economic perspective, providing a wide range of ecosystem goods and services to the entire country. Approximately 20% of India's population lives in coastal areas, a large proportion of them in urban centres such as Mumbai, Chennai and Kolkata. Some of India's poorest people also live in the coastal belt and rely on coastal and marine resources for their immediate welfare and as a source of livelihood through fishing and other forms of economic activity. The December 2004 tsunami reaffirmed the importance of maintaining healthy coastal and marine ecosystems for natural disaster risk management and post-disaster recovery, as well as for general human well-being.

The Gulf of Mannar Biosphere Reserve (GOMBR) is located in the coastal zone of Tamil Nadu, which falls within the South India and Sri Lanka marine ecoregion<sup>1</sup>. That national and global significance of this ecoregion, as well as the threats to its numerous biological, economic, social and cultural values, have long been recognized. Declared in 1989, Gulf of Mannar was the first marine biosphere reserve to be established in south-east Asia. The GOMBR covers the entire area of the Gulf, which extends over 10,500 km<sup>2</sup>. The core area of the biosphere reserve (560 km<sup>2</sup>) has been gazetted as the Gulf of Mannar National Park<sup>2</sup> (GOMNP) and is made up of 21 uninhabited islands ranging from 0.25 ha to 130 ha in area, located in shallow waters between one and four km offshore with a buffer zone that is 10 km wide and 160 km long. The national park area is managed by the Wildlife Division of the Tamil Nadu Forest & Environment Department. The rest of the biosphere reserve falls variously under the jurisdictions of the District Collectorate, Forest Department, Fisheries Department, etc. A range of land and sea-based commercial and livelihood activities take place outside the national park area. In addition to the biosphere reserve area, the project is also working up to 10 km inland from the coast.

Approximately 224,000 people live in 252 villages in the Reserves' coastal area spread across a 160 km coastline. A participatory rural appraisal and socio-economic benchmark survey of 1,000 households in the GOMBR's buffer zone in Tuticorin and Ramanathapuram Districts revealed that the livelihood of people in villages up to 10 km away from the coastline is at least partly dependent upon coastal and marine resources. Villages over 10 km from the coast have little interaction with the coast and are largely dependent upon agriculture and allied activities. Over 35,000 of the 100,000 people living in the Reserve's buffer zone make their living from fishing, seaweed collecting, or other marine-based activity. Of the 35,000, approximately 20,000 live in villages directly abutting the coast who make their living from the sea. Ninety percent of these fisherfolk are artisanal (using wind or small engine powered craft) and 10% are mechanized trawler fishermen.<sup>3</sup>

The Conservation and Sustainable Use of Gulf of Mannar Biosphere Reserve's Coastal Biodiversity Project was approved by the GEF in January 2001 as a 7 year project. The project document was signed by the three main project partners, Government of Tamil Nadu, Government of India and UNDP India in March 2002. The overall objective of this project is to conserve the GoMBR's globally significant assemblage of coastal biodiversity and to demonstrate, in a large biosphere reserve with various multiple uses, how to integrate biodiversity conservation and sustainable coastal zone management and livelihood development. The focus of the project is on empowering local communities to manage the coastal ecosystem and wild resources in partnership with Government and other stakeholders and making all accountable for the quality of the resulting stewardship. Key elements of the project strategy include strengthening the capacities of government and village-level institutions, developing and promoting the uptake of alternative sustainable livelihoods, and establishing an independent, statutory Trust to ensure effective inter-sectoral co-operation for the conservation and sustainable use of the GoMBR's biodiversity resources.

The project's **Development Objective** is as follows:

*Globally significant coastal biodiversity in the multiple-use area of the Gulf of Mannar Biosphere Reserve will be conserved and sustainably utilized by stakeholders.*

The project's **Immediate Objective** is the: *establishment and effective participatory management of the Gulf of Mannar Biosphere Reserve through the application of strengthened conservation programmes in the Park core area and enabled sustainable livelihood development in the reserve as a whole.*

The project has 5 main outputs as follows:

- Output 1: Establish GOMBR Trust and Corresponding appropriate Long-term Funding Mechanism
- Output 2: Strengthen the Management of the Marine National park

<sup>1</sup> MEOW or Marine Ecoregions of the World 2006. WWF and The Nature Conservancy (TNC)

<sup>2</sup> The Park was gazetted in 1986 but is yet to receive its final notification.

<sup>3</sup> UNDP Project document

Output 3: Strengthen the Infrastructure of the Park  
 Output 4: Operationalize the Gulf of Mannar Biosphere Reserve Management  
 Output 5: Enable Stakeholders to apply sustainable alternative livelihoods.

The total approved budget for the project is USD 26,735,000, comprising:

- Global Environment Facility -- USD 7,650,000
- Government of Tamil Nadu -- USD 16,965,000
- UNDP-India -- USD 1,000,000
- Bank and Private financial institutions -- USD 1,120,000

The Project Team comprises a National Project Manager (NPM), Dr Melkani, who is on deputation from the Tamil Nadu Forest Department. The NPM is supported on administrative and financial matters by two staff. The present NPM has been there since October 2005. The project office is located in Ramanathapuram (also the district headquarters), which is approximately 400 km from Chennai, and north of the GoMBR. The National Project Director is from the Conservation and Survey Division of the Government of India's Ministry of Environment and Forests.

After the formation of the GOMBR Trust in 2000, the appointment of the Board of Trustees and the Project Steering Committee was considerably delayed due to various governmental procedures. A project inception workshop was held at Ramanathapuram in 2004. However, project implementation continued to be slow in 2004 and 2005, but had improved considerably by 2006 with a new team in place, as reported in the annual Project Implementation Reviews (PIRs). By December 2007, around USD 11.56 million of the total planned budget has been spent, including USD 3.5 million of GEF cofinancing. The last board meeting of the GOMBR Trust, which also serves as the PSC, was held in August 2006. PSC meetings were delayed in 2007 as a result of changes in personnel in the Ministry of Environment and Forests and the state government.

The Project M&E system includes annual project steering committee meetings, annual project implementation reviews, mid-term evaluation, terminal report and terminal evaluation. Furthermore, independent annual financial audits are also conducted.

## 2. OBJECTIVES OF THE EVALUATION

The mid-term project evaluation is a UNDP requirement for all GEF full size and medium size projects and is intended to provide an objective and independent assessment of project implementation and impact, including lessons learned to guide future conservation efforts. Three external evaluations were originally envisaged in the project document, one in Year 2, one in Year 4 and a final review towards the end of the project. An independent evaluation was conducted in 2004 and 2005 to assess the reasons for project implementation delays. The report recommended the modification of the management structure and also observed the inadequate capacity of the Trust to carry out certain activities. While the MTE should normally have taken place in 2006 (Year 4), given the delays in effective project start up, an MTE was planned for 2007/8.

The mid-term evaluation is intended to identify potential project design and implementation problems, assess progress towards the achievement of planned objectives and outputs, including the generation of global environmental benefits, identify and document lessons learned (including lessons that might improve design and implementation of other UNDP projects including GEF co-financed projects), and to make recommendations regarding specific actions that might be taken to improve project implementation and the sustainability of impacts, including recommendations about replication and exit strategies. The MTE is also expected to serve as a means of validating or filling the gaps in the initial assessment of relevance, effectiveness and efficiency obtained from regular project monitoring. The mid-term evaluation thus provides a valuable opportunity to assess signs of ultimate project success or failure and prompt necessary adjustments in project design and management. UNDP also views the mid term evaluation as an important opportunity to provide donors, government and project partners with an independent assessment of the status, relevance and performance of the project with reference to the Project Document.

## 3. SCOPE OF THE EVALUATION

The MTE should cover the following broad areas:

1. Project conceptualization, design and implementation approach, including execution modalities
2. Project relevance, i.e. are the project's outcomes consistent with the GEF Biodiversity Focal Area Strategy and country priorities?
3. Ownership of the project at the national and local levels
4. Stakeholder participation, including gender differences in participation and influence
5. Project effectiveness – progress achieved to date against planned outputs and sub-outputs and likelihood of achieving planned objectives
6. Sustainability of project achievements and impacts, including an assessment of planned replication and exit strategies
7. Financial planning and sustainability, including the timely delivery and use of co-financing (see Annex 3)
8. Cost-effectiveness, including impacts of delays in project start-up

9. Monitoring and evaluation and the application of adaptive management principles (including effective use of logframe, UNDP risk management system, the annual Project Implementation Reviews, and other monitoring tools and mechanisms as appropriate)
10. Lessons learnt and mid-course corrections needed, if any.

### **Special Issues to be Considered**

Additionally, the evaluation should address the following issues that are of particular relevance to this project:

1. The evaluators should particularly consider the structure, including composition, terms of reference, and effective functioning of the GOMBR Trust, which are critical to the success of the project.
2. The sustainability of the GOMBR Trust as envisaged in the original project design hinges on the establishment of the Long-term funding mechanism. The evaluators should a) assess progress towards the establishment of such a mechanism including the planned feasibility study; and b) assess whether this is still the best option for financial sustainability and/or whether there are now alternative options that might be more effective given the difficulties encountered with the operationalization of many conservation trust funds.
3. The present project was designed in GEF 2, before the development of the current Strategic Objectives (referred to as Strategic Priorities in GEF 3) and Strategic Programmes. The evaluators should assess whether the project fits best with current SO1 ("Catalyzing the Sustainability of PA Systems") or SO2 ("Mainstreaming biodiversity conservation into production land/seascapes and sectors) and within these which SPs are most relevant.
4. There have been many developments in coastal and marine environmental management policy and practice since this project was originally designed, both nationally and in Tamil Nadu, including in Gulf of Mannar, some as a result of the 2004 tsunami. Given this situation, the evaluators are requested to particularly consider whether and how the present project design and strategy (including logframe) need to be adapted. In doing so, the evaluators should consult the findings and recommendations of a stakeholder consultation workshop held in early 2006 to initiate this process of internal review. The evaluators must also ensure that any changes recommended to project design and strategies are in line with national, GEF and UNDP policy, priorities and requirements.
5. While the GEF Tracking Tools for SO1 and SO2 projects are not currently required for projects that pre-date GEF3, the evaluators should nonetheless determine their usefulness as a monitoring tool for the project.
6. The GEF, UNDP and other donors are paying particular attention to risk analysis and management. UNDP has developed a risk management system within ATLAS and guidance on using this system, which is also now incorporated in the annual PIR. The evaluators are requested to determine how effectively the risk management system is being used as an adaptive management tool. Risks may be of a financial, socio-political, institutional, operational, environmental (or other) type.
7. Considering that UNDP is concerned about poverty reduction, local governance and promotion of gender equity, the review will be required to look at these cross cutting issues.
  - a. Poverty reduction: How has the project contributed to poverty reduction of communities living in and around the park?
  - b. Governance: How has the project facilitated the participation of the local communities in natural resource management and decision making processes?
  - c. Promotion of gender equity: Has the project considered gender sensitivity or equal participation of man and women and boys and girls in decision making processes?
  - d. The impact of the activities undertaken in the project influencing state and national policy related to conservation and development of coastal and marine environment.
  - e. The impact of the project on the mainstreaming efforts towards conservation of marine and coastal ecosystems.

## **4. PRODUCTS EXPECTED FROM THE EVALUATION**

The main products expected from the evaluation are:

- presentation(s) to key stakeholders;
  - an interim draft report;
  - a final comprehensive mid-term evaluation report
1. At least one, and possibly two, verbal presentations will be made to all major stakeholders on conduct of the MTE and its preliminary findings either in Ramnathpuram and/or Chennai. Attendance at the presentations will include representatives of local communities, local and state government, project team, the PSC members, relevant NGOs, other local and national stakeholders as well as representatives from MoEF and UNDP.
  2. Reporting: The main final output of the evaluation will be an independent and comprehensive Mid-Term Evaluation report with annexes as needed. However, the main report should not exceed 50 pages. The minimum requirements for the content of the final MTE report are given below:

### Executive Summary

- a. Brief description of project
- b. Context and purpose of the evaluation
- c. Main conclusions, recommendations and lessons learned

### Introduction

- a. Purpose of evaluation
- b. Key issues addressed

- c. Methodology of the evaluation
  - d. Structure of the evaluation
- The project and its development context
  - a. Project start and its duration
  - b. Problems that the project seek to address
  - c. Immediate and development objectives of the project
  - d. Planned outputs and sub-outputs
  - e. Main stakeholders
  - f. Results expected
- Findings and Conclusions
  - 1. Project formulation
    - Implementation approach
    - Country ownership/Drivenness
    - Stakeholder participation
    - Replication approach
    - Cost-effectiveness
    - UNDP comparative advantage
    - Linkages between project and other interventions within the sector
    - Indicators
    - Management arrangements
  - 2. Implementation
    - Financial planning
    - Monitoring and evaluation
    - Execution and implementation modalities
    - Management by UNDP country office
    - Coordination and operational issues
  - 3. Results
    - Attainment of planned objectives & outcomes
    - Sustainability of impacts (including policy impact and evidence of mainstreaming wetlands conservation approaches into sustainable development strategies and programmes)
    - Contribution to national capacity development
- Recommendations
  - a. Corrective actions for the design, implementation, monitoring and evaluation of the project
  - b. Actions to follow up or reinforce initial benefits from the project
  - c. Proposals for future directions underlining main objectives
- Lessons learned
  - Best and worst practices in addressing issues relating to relevance, performance and success
- Annexes
  - TOR
  - Itinerary
  - List of persons interviewed
  - Summary of field visits
  - List of documents reviewed
  - Questionnaires used and summary of results
  - Co-financing and Leverages Resources (see Table 1 attached)

The basis i.e. evidence for the evaluators main conclusions must be clear and the methodology clearly documented. Recommendations will be based on clearly substantiated findings and stated in operational terms. They will address all issues identified by the evaluation Mission including changes in modalities, processes and ways of working and, in particular the purposes or the evaluation, i.e.:

- the future work plan;
- the need and potential for expanding project activities and a set of criteria for selecting the areas for future expansion; and
- additional support to the project, if any.

3. If considered useful, a tracking tool for GEF SO1 and/or SO2 as appropriate should be completed to the extent possible together with the Project Team.

## 5. EVALUATION TEAM COMPOSITION & RESPONSIBILITIES

The MTE mission for Gulf of Mannar project will include an international and a national consultant. The international consultant, who will have in depth understanding of UNDP and GEF projects including evaluation experience, will be the team leader and will have the overall responsibility for developing the evaluation methodology, leading the evaluation and delivering the key products expected from the evaluation, including coordinating the inputs from the

national consultant. The national consultant will provide both technical inputs as agreed with the team leader and assist with translation. The qualifications required for each position are given in Annex 4.

The Trust Director, Gulf of Mannar Biosphere Reserve Trust and his staff as well as UNDP India and the UNDP/GEF Regional Technical Advisor in Bangkok, will facilitate the work of the evaluation team.

The Evaluation Team will ensure that there is adequate consultation of all key stakeholders, including Ministry of Environment and Forest, New Delhi, Government of Tamil Nadu, officers of Gulf of Mannar Biosphere Trust, Ramanathapuram, Tamil Nadu, local communities and other relevant local stakeholders, relevant NGOs, UNDP India, UNDP-GEF Regional Coordination Unit Bangkok.

The consultants will sign an agreement with UNDP India and will be bound by its terms and conditions set in the agreement.

## 6. METHODOLOGY

The evaluation methodology will be determined by the evaluation team, guided by the requirements of GEF and UNDP as articulated in various guidelines, policies and manuals on the conduct of evaluations for GEF projects as well as key project documents such as the approved GEF project brief, the final UNDP project document, the inception workshop report, the project logframe and annual budgets and workplans, the annual Project Implementation Review, Project Steering Committee and TPR minutes as available, earlier PDF-B reports, and other technical reports and documents as relevant. A list of key documents is given in Annex 1. These will be shared with the evaluators by UNDP India.

The evaluation methodology should be clearly documented in the final evaluation report including comprehensive details of the following:

- Documents reviewed
- Interviews conducted
- Consultations held with all key stakeholders
- Project sites visited
- Techniques and approaches used for data gathering, verification and analysis

## 7. CONDUCT OF THE EVALUATION

Under the leadership of the Team Leader, the Evaluation Team will work independently but will liaise closely with UNDP and the NPM/GOMBR Trust Director. The evaluation mission will also liaise periodically with the UNDP-GEF Regional Technical Advisor (RTA) at the UNDP Regional Centre in Bangkok to ensure that UNDP-GEF and GEF requirements are being met including a telephone briefing with the Team Leader at the start of the evaluation. The UNDP-GEF RTA will also attend the presentations to stakeholders as well as the meetings with UNDP in Delhi.

The team will visit Chennai, the project site, and Delhi to ensure adequate consultation with all key stakeholders. Towards the end of the field evaluation period, at least one verbal presentation will be made to all key stakeholders either in Ramanathapuram and/or in Chennai depending on logistical considerations, ie whether it is more practical for local stakeholders including local community representatives to travel to Chennai and/or for key stakeholders in Chennai to travel to Ramanathapuram.

The evaluation team will make a verbal presentation to stakeholders towards the end of the evaluation. After the presentation the team will take note of verbal and/or written responses to its presentation and consider these in preparing an interim draft evaluation report that will be provided to UNDP-India before the team leaves India for distribution to stakeholders. UNDP will circulate the draft report to all stakeholders requesting written feedback which should be sent directly to the evaluators within 10 days of receipt of the draft. The MTE report including all annexes should be finalized within another 10 days of the deadline for receiving comments on the first draft.

While the evaluation team is free to determine the actual layout of the final evaluation report, this must include the minimum content requirements mentioned earlier. The Team Leader will forward the final report by e-mail to UNDP-India and the UNDP-GEF RTA in Bangkok for onward distribution to all stakeholders. The evaluators will be responsible for the contents, quality and veracity of the report.

### General Schedule for the MTE

The mid-term evaluation field mission is scheduled to begin on 1 April 2008 with the departure of the international consultant from home base. The tentative broad program is given below. A more detailed schedule is under development.

Dates	Item
2 April 2008	Arrival of evaluation team in Chennai. Meeting with Mr K.S.Murali and Mr. Anil Arora, UNDP India, Dr Melkani, National Project Manager & Director of GOMBR, Mr Ishwar, UNTR
3-5 April 2008	Meetings in Chennai with key project partners including the National Project Director of the project, Forest & Environment Department officials, selected UNTR staff, NGOs, CBOs (to be finalized)
6 April 2008	Arrival in Madurai and onward travel to Madurai/ Ramanathapuram

	Meeting with Trust director and other project officers at Ramanathapuram.
7–15 April 2008	Field work, meeting village people, islands and other work implemented by the project authorities, meeting district authorities and other allied departments, NGOs, CBOs etc. Meeting with District Collector at Ramanathapuram, officials of forest and environment, fisheries, agriculture and rural development, etc 15 <sup>th</sup> April 08: Sharing the initial findings of evaluation with the State Government Officers and other stakeholders in Ramanthapuram
16-17 April 2008	Return to Chennai – further meetings to fill any gaps/data verification. Presentation to Chennai stakeholders if needed (ie those who could not get to Ramnathapuram).
18 April	Presentation to external stakeholders of preliminary findings of the evaluation
19-20 April	Writing of draft interim report either in Chennai or Delhi. Arrival Delhi latest by 20 <sup>th</sup> evening.
21 April 2008	Internal meetings with UNDP India senior management, E&E team & UNDP Regional Technical Advisor Meetings with key MoEF officials including GEF Operational Focal Point, officials from Wildlife and Environment Divisions
22 April	External meeting with stakeholders to present preliminary findings. Wrap up meeting with UNDP. Presentation of draft report.
22-23 April	Evaluators leave. Draft report circulated for comments by UNDP India with one week deadline for receipt of comments.
1 May 2008	All comments shared with evaluators by UNDP India.
9 May 2008	Final report of the Mid Term Evaluation to be sent to UNDP.

A tentative list of people to be consulted is given in annex 2. This will also be further refined in consultation with the evaluation team and other key project partners.

#### Focal persons

MoEF: Mr. A K Goyal, Joint Secretary, Ministry of Environment and Forests, Government of India. Email: kr036@ifs.nic.in

GoM: Dr. V. K. Melkani, Director, Gulf of Mannar  
email: [gombtrnd@yahoo.co.in](mailto:gombtrnd@yahoo.co.in)

UNDP: Mr K. S. Murali, Programme Officer (Environment)  
email: [k.s.murali@undp.org](mailto:k.s.murali@undp.org)

UNTRS: Mr N.M. Ishwar, Project Officer (Energy & Environment, UN Tsunami Recovery Support, Chennai)  
e-mail: nm.ishwar@undp.org

UNDP Regional Centre in Bangkok: Ms Sultana Bashir, UNDP-GEF Regional Technical Advisor (Biodiversity)  
email: sultana.bashir@undp.org

*ToR annexes not included.*

**ANNEX I.b**

**MID TERM EVALUATION ~ ITINERARY ACHIEVED AND PEOPLE CONSULTED**



## ANNEX II

**PROJECT FINANCING & EXPENDITURE****Project Budget (GEF and Co-funding)**

taken from Project Document (2002)

Project Planned Outputs	Project Funding (\$)						
	Total	GEF funding	Co-funding	GoTN	Gol	Private	UNDP
1. Trust Fund and Project Coordination Unit	5,570,000	1,450,000	4,120,000				
PCU		350,000	120,000			120,000	
Feasibility study on LTFM		50,000	-				
Establishment of a LTFM		50,000	-				
Capitalisation		1,000,000	4,000,000	2,000,000	2,000,000		
2. Strengthened Park Operations	2,940,000	2,275,000	665,000				
Strengthened management/enforcement		450,000	500,000	200,000	300,000		
Park management plan		430,000	-				
Eco-tourism programme		30,000	75,000	75,000			
Species and habitat management plans		455,000	40,000		40,000		
Targeted research programme		185,000	-				
Awareness and environmental education		500,000	50,000		50,000		
Monitoring programme		225,000	-				
3. Expanded Park Infrastructure	975,000	975,000	-				
Demarcated boundaries		305,000	-				
Strengthened Park infrastructure		670,000	-				
4. Biodiversity Overlay	3,850,000	1,500,000	2,350,000				
Framework coastal management plan		100,000	200,000	100,000	100,000		
Strengthened state and district CZMAs		300,000	350,000	350,000			
Targeted research focused on Reserve		300,000	550,000	300,000	250,000		
			350,000		350,000		
Biodiversity hotspot management plans		500,000	500,000		500,000		
Monitoring programme (BD/ pollution)		300,000	400,000	400,000			
5. Sustainable Livelihoods	13,400,000	1,450,000	11,950,000				
Commercial species inventories			400,000	300,000	100,000		
Improved marine resource management			2,100,000	2,100,000			
Improved enforcement regimes			2,000,000	2,000,000			
Coops/ User rights agreements			450,000				450,000
Village marine conservation plans		300,000	-				
Micro-credit programme			900,000			550,000	350,000
Improved local infrastructure			2,500,000	2,500,000			
Develop coastal woodlands/ agroforests			1,000,000	1,000,000			
Modified social welfare programmes			1,000,000	1,000,000			
Demonstration Programme							
Comp.1: Sustainable use of marine resources		300,000	1,600,000	475,000	875,000	50,000	200,000
Comp.2: Mariculture/ cooperative marketing		850,000	-				
<b>Total</b>	<b>26,735,000</b>	<b>7,650,000</b>	<b>19,085,000</b>				
Project Support Services	222,816	250,000					

## Record of Annual Expenditure, 2002 to 2007 (GEF Funds only)

GEF Project Budget		UNDP Reported Mid-Term Expenditure							
Component Budget Items	Original Budget	Expenditure							Balance
	\$	2002	2003	2004	2005	2006	2007	Totals	
1. TOTAL "PCU, Trust, LTFM"	1,450,000	491	190,727	243,401	198,559	411,364	847,957	1,892,499	-442,499
Project office & Trust office	350,000	491	190,727	243,401	192,949	133,813	222,772	984,153	-634,153
Long-Term Funding Mechanism	1,100,000	0	0	0	5,610	277,551	625,185	908,346	191,654
2.3. TOTAL "NP Operations and Infrastructure"	3,250,000	0	0	0	58,272	37,263	607,373	702,908	2,547,092
Strengthened management/enforcement	450,000								
Park management plan	430,000								
Eco-tourism programme	30,000					19,430	7,621	27,051	
Species and habitat management plans	455,000				16,610	8,852	53,911	79,373	
Targeted research programme	185,000					7,420	180,000	187,420	
Awareness and environmental education	500,000				41,662	474		42,136	
Monitoring programme	225,000								
Demarcated boundaries	305,000								
Strengthened Park infrastructure	670,000					1,087	365,841	366,928	
4. TOTAL "Biodiversity Overlay"	1,500,000	0	0	0	46,766	66,299	234,542	347,607	1,152,393
Framework coastal management plan	100,000								
Strengthened state and district CZMAs	300,000								
Targeted research focused on Reserve	300,000				31,970	27,905	225,839	285,714	
Biodiversity hotspot management plans	500,000								
Monitoring programme (BD / pollution)	300,000				14,796	38,394	8,703	61,893	
5. TOTAL "Livelihoods Development"	1,450,000				14,228	30,408	233,646	278,282	1,171,718
Commercial species inventories									
Improved marine resource management									
Improved enforcement regimes									
Coops/ User rights agreements									
Village marine conservation plans	300,000				991	29,890	143,561	174,442	
Micro-credit programme									
Improved local infrastructure					3,160			3,160	
Develop coastal woodland/ agroforests									
Modified social welfare programmes									
Demo1: Sust. use of marine resources	300,000								
Demo2: Mariculture/ marketing	850,000				10,077	518	90,085	100,680	
		-699	-4,778	33	3,254	3,201	-40,310	-39,332	
	7,650,000	-208	185,949	243,434	321,079	548,535	1,883,208	3,181,964	4,428,704

## Summary Project Financial Report, 2002 to 2007 (GEF Funds only)

Project Components	Budget \$	Mid-Term Target	Expenditure	U/O'spent	Balance
Component 1. PCU, Trust, LTFM	1,450,000	1,225,000	1,892,499	54%	-442,499
Components 2.3. National Park Strengthening	3,250,000	2,000,000	702,908	-65%	2,547,092
Component 4. Biosphere Reserve	1,500,000	750,000	347,607	-54%	1,152,393
Component 5. Sustainable Livelihoods	1,450,000	725,000	278,282	-62%	1,171,718
"adjustments"			-39,332		
	7,650,000	4,700,000	3,181,964	-32%	4,428,704

**Proposed Project Extension and Revised Budget (GEF Funds only)****GEF Project Budget**

Component Budget Items	Original Budget	Balance at MTE	Proposed Extension and Revised Budget					Final Expenditure	
	\$		Totals	2008	2009	2010	2011	2012	2002-12
<b>1. TOTAL "PCU, Trust, LTFM"</b>	<b>1,450,000</b>	<b>-442,499</b>	<b>1,450,000</b>						<b>3,342,499</b>
Project office & Trust office	350,000		1,250,000	250,000	250,000	250,000	250,000	250,000	
Long-Term Funding Mechanism	1,100,000		200,000	200,000					
<b>2. 3. TOTAL "NP Operations and Infrastructure"</b>	<b>3,250,000</b>	<b>2,547,092</b>	<b>550,000</b>						<b>1,252,908</b>
Strengthened management/ enforcement	450,000								
Park management plan	430,000								
Eco-tourism programme	30,000		50,000	50,000					
Species and habitat management plans	455,000								
Targeted research programme	185,000								
Awareness and environmental education	500,000								
Monitoring programme	225,000								
Demarcated boundaries	305,000		100,000		100,000				
Strengthened Park infrastructure	670,000		400,000	50,000	50,000	200,000			
<b>4 TOTAL "Biodiversity Overlay"</b>	<b>1,500,000</b>	<b>1,152,398</b>	<b>1,250,000</b>						<b>1,597,607</b>
Framework coastal management plan	100,000		250,000	50,000	100,000	100,000			
Strengthened state and district CZMAs	300,000		200,000	100,000	50,000	50,000			
Targeted research focused on Reserve	300,000		350,000	50,000	50,000	100,000	100,000	50,000	
Biodiversity hotspot management plans	500,000		250,000	50,000	50,000	50,000	50,000	50,000	
Monitoring programme (BD/ pollution)	300,000		200,000	50,000	50,000	25,000	50,000	25,000	
<b>5 TOTAL "Livelihoods Development"</b>	<b>1,450,000</b>	<b>1,171,718</b>	<b>1,250,000</b>						<b>1,528,282</b>
Commercial species inventories									
Improved marine resource management			500,000	100,000	100,000	100,000	100,000	100,000	
Improved enforcement regimes			200,000	50,000	50,000	50,000	25,000	25,000	
Coops/ User rights agreements			250,000	50,000	100,000	100,000			
Village marine conservation plans	300,000		300,000	100,000	50,000	50,000	50,000	50,000	
Micro-credit programme									
Improved local infrastructure									
Develop coastal woodlands/ agroforests									
Modified social welfare programmes									
Demo1: Sust. use of marine resources	300,000								
Demo2: Mariculture/ marketing	850,000								
	<b>7,650,000</b>	<b>4,428,704</b>	<b>4,500,000</b>						<b>7,721,296</b>

## ANNEX III

**GOVERNING COMMITTEE STRUCTURES**

Committee and Responsibilities	Committee Membership
<p><b>BOARD OF TRUSTEES</b></p> <p>GO(Ms) No.263 FR.V. 19.12.2000 as reproduced in GO (Ms) No 72 FR V 01.06.2005</p> <ul style="list-style-type: none"> <li>• Review issues of coordination between departments with respect to the project implementation and suggest solutions.</li> <li>• Co-ordinate priority allocation of programmes, schemes or other interventions as required by the Trust</li> <li>• Review Legal, policy and procedural issues and suggest solutions</li> <li>• Review external monitoring reports and take decisions on their recommendations</li> <li>• Receive information regarding the work plan and progress</li> </ul> <p>To meet once in six months, for the two years; if required more frequently</p>	<ol style="list-style-type: none"> <li>1. Chief Secretary to GOTN, (Chairperson)</li> <li>2. Secretary, Environment and Forests (Vice chair)</li> <li>3. Principal Chief Conservator of Forests</li> <li>4. Chief Wildlife Warden</li> <li>5. Secretary to Government, Animal Husbandry</li> <li>6. Secretary, Rural Development</li> <li>7. Finance Secretary, Information and Tourism</li> <li>8. District Collector, Ramnathapuram</li> <li>9. District Collector, Thoothukudi</li> <li>10. Representative, MoEF, GOI</li> <li>11. Coast Guard</li> <li>12. Custom and Excise</li> <li>13. Chairperson, TNPCB</li> <li>14. Two NGOs from implementing partners</li> <li>15. Two VMCEDCs</li> <li>16. Two from the federation of institutes</li> <li>17. Representative from UNDP India</li> <li>18. Wildlife Warden, GoMNP</li> <li>19. Experts when required</li> <li>20. Director, GOMBRT</li> </ol>
<p><b>STATE LEVEL COORDINATION COMMITTEE</b></p> <p>GO (3D) FR V No.45 10.12.2003</p>	<ol style="list-style-type: none"> <li>1. Secretary to Government, E&amp;F (Chair)</li> <li>2. Chief Wildlife Warden</li> <li>3. Principal Chief Conservator of Forests</li> <li>4. Director, Rural Development</li> <li>5. Director of Fisheries</li> <li>6. Director of Agriculture</li> <li>7. Director of Environment</li> <li>8. MD, TN Tourism Development Corporation</li> <li>9. Director, Elementary Education</li> <li>10. Director, Public Health</li> <li>11. MSSRF / Dhan foundation</li> <li>12. CMFRI</li> <li>13. MD, TWAD</li> <li>14. Director, GOMBRT</li> </ol>
<p><b>DISTRICT LEVEL COORDINATION COMMITTEES</b></p> <ul style="list-style-type: none"> <li>- Thuthikodi</li> <li>- Ramnathapuram</li> </ul> <p>GO (3D) No.45 10.12.2003</p> <ul style="list-style-type: none"> <li>• Co-ordinate and facilitate access to development programmes and schemes to the Biosphere reserve villages and towns according to the micro-plans prepared by the villages.</li> <li>• Assist community and Trust to deal with offenders with reference to biodiversity resources and environment</li> <li>• Share information regarding operation of any NGO working within the biosphere reserve</li> <li>• Give feed back to empowered sub-committee to ensure adequate coordination and follow up.</li> </ul> <p>To meet at least once in two months</p>	<ol style="list-style-type: none"> <li>1. District Collector (Chair)</li> <li>2. Wildlife Warden</li> <li>3. Divisional Forest Officer, Social Forestry</li> <li>4. Project Officer, DRDA</li> <li>5. Assistant / Deputy Director, Fisheries</li> <li>6. Joint Director, Fisheries</li> <li>7. Assistant Director of Agriculture</li> <li>8. DEE, TNPCB</li> <li>9. Tourism Development Officer</li> <li>10. Education Officer</li> <li>11. Joint Director, Health Services</li> <li>12. MSSRF / Dhan foundation</li> <li>13. CMFRI</li> <li>14. SE/EE TWAD</li> <li>15. The Commandant, Coast Guard</li> <li>16. DSP, Coastal Security Force, Police</li> <li>17. Secretary, Mechanised Boat Owners Association</li> <li>18. Secretary, Country Craft Fishermenr Association</li> <li>19. Secretary, NGO in fisheries welfare measures</li> <li>20. The Dean, FCRI, Thoothukudi</li> <li>21. EDO, GoMBRT (Member Secretary)</li> </ol>

**EMPOWERED COMMITTEE**

GO (MS) 127 FR.V 24.05.2004

1. Secretary to Government, E&F (Chair)
2. MSSRF
3. Chief Wildlife Warden
4. Secretary to Government, Animal Husbandry
5. District Collector, Ramnathapuram
6. District Collector, Thoothukudi
7. Director, GOMBRT (Member Secretary)

**PROJECT STEERING COMMITTEE**

(Empowered Committee renamed)

GO (MS) 127 FR.V 24.05.2004

1. Chief Secretary, (Chairperson)
2. Secretary to Government, E&F (Vice-chairman)
3. Secretary to Government, Finance
4. Secretary to Government, Animal Husbandry
5. Principal Chief Conservator of Forests
6. Chief Wildlife Warden
7. Director of Fisheries
8. District Collector, Ramnathapuram
9. District Collector, Thoothukudi
10. UNDP representative
11. MSSRF representative
12. DHAN Foundation representative
13. Director, GOMBRT
14. Wildlife Warden (Ramnathapuram)

**EMPOWERED SUB-COMMITTEE**

GO (D) No 307, FR V. 26.10.2004

- Approve purchase of equipment over Rs 5 lakhs
- Assist in the process of choosing partner NGOs
- Examine staff requirements of Trust; recruitment of senior functionaries
- Participate in revision of Logical Framework
- Review work plan, progress report and approve it
- Approve any changes in the logical framework and in budget allocations
- Review agenda for board of trustees
- Approve training plan
- Review demarcation of the NP area
- Review legal issues and suggest mechanisms
- Undertake monitoring visits or appoint experts Participate in the presentation of research results
- Review financial audit reports
- Monitor functioning of the trust and resolve internal and external conflicts
- Review external monitoring reports and recommend
- Seek assistance of any expert or department
- Any other task assigned by board, chair / vice chair

1. Chief Wildlife Warden, (Chairperson)
2. Conservator of Forests, Virudhnagar
3. Wildlife Warden, Ramnathapuram
4. Divisional Forest Officer, Social Forestry, Ramnathapuram
5. Divisional Forest Officer, Social Forestry, Ramnathapuram, Thoothukudi
6. Joint Director of Fisheries, Thoothukudi
7. Assistant/ Deputy Director of Fisheries, Madurai
8. UNDP representative
9. 2 Representatives of the local communities
10. Director, GOMBRT, (Member Secretary)

To meet at least once in three months

## ANNEX IV

**GOM BIOSPHERE RESERVE TRUST/ PROJECT OFFICE – STAFFING (APRIL 2008)**

1.	Trust Director/ Project Manager	(CCF on deputation from FD)
2.	Eco-development Officer	(DCF on deputation from FD)
3.	Assistant Director (Tuticorin)	(on deputation from DRD)
4.	Biodiversity Program Officer	(contract)
5.	Monitoring & Evaluation Officer	(contract)
6.	Sustainable Development Officer	(changed to eco-development officer)
7.	Community-based Management and Education Officer	(vacant)
8.	Sociologist	(vacant - created recently)
9.	Office Assistant	(on deputation from FD)
10.	Assistant to Director	(contract)
11.	Computer Assistant	(contract)
12.	Account Assistant	(contract)
13.	Stenographer	(contract)
14.	Assistant to EDO	(contract)
	4 zonal officers	one filled - on deputation from FD. three vacant.
	12 sub-zonal officers	all currently on deputation from FD. four were on deputation from FSD until mid-2007.

## ANNEX V.a

**DEVELOPMENT OF COMMUNITY INSTITUTIONS AND MICRO-CREDIT**

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**Field project workers**

The project is currently paying for 66 Field Project Workers, who are village-based and serve as liaison staff between the Project/ Trust office, the Village Committees (VMCEDC) and the local community. Each FPW serves a cluster of 4-6 Committees. The project pays the FPWs' salaries via the VMCEDCs. The intention has been for the costs of the FPWs to be absorbed by the VMCEDCs on conclusion of the project, if the positions are still required and funds are available.

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**Village Marine Conservation and Eco-Development Committees**

Depending on the size and composition of the community, a Village Committee (VMCEDC) has been formed to service either the whole village, a group of 2-3 hamlets, one part of a large village (with other Committees serving other parts of the village) or, in large towns, specific streets or neighbourhoods inhabited by marine resource users. The VMCEDCs are registered under the Tamil Nadu Registration of Societies Act (1975). The VMCEDC has a membership of one male and one female member from each village household, paying an annual membership fee of Rs 5/-. Membership is voluntary.

At present, about 60% of the households in large villages or urban neighbourhoods, and nearly 100% in small villages have joined VMCEDCs. The members of the VMCEDC elect an executive committee of seven members from whom the president (*Thalaivar*) is nominated. A zonal or sub-zonal officer of the Trust/ Project is the member secretary of the VMCEDC. Four *Thalaivars*, one from each of the four zones, have been appointed to represent the VMCEDCs and the local community on the Trust/ Project Steering Committee.

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**Self Help Groups**

SHG formation has been encouraged over several years by various non-government and government initiatives. There may be numerous SHGs in each village, each with 6-20 individual members. Previous support for SHGs has been in the form of subsidies or grants, and none of the earlier initiatives appear to have linked resource-based livelihoods to resource conservation and sustainability. Irrespective of their origin or history, the SHGs have been encouraged to register with the VMCEDC initiated by the BR project/ Trust, and many have done so. There are in addition a number of SHGs who are supported by other NGOs and have not registered with the VMCEDC. Currently there are 2,145 SHGs registered with the 252 VMCEDCs in the GoM coastal zone. As elsewhere in India, the majority of SHGs are women's groups. Recently the project has promoted male SHGs as well as mixed SHGs in the BR area.

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**Village revolving loan funds**

Each of the 252 VMCEDCs has set up and manages a revolving loan fund with project capital and technical support, to provide micro-credit to the SHGs registered with it. The initial capital grant is on a sliding scale of Rs 1, 2, or 3 lakhs (\$2,500, 5,000 or 7,500) based on the assessed level of threat or dependency (low, medium or high) of the community on the marine resources of the area.

The savings account is operated jointly by the President of the VMCEDC and the member secretary (sub-zonal officer of the Trust office). Any SHG whose members are members of the VMCEDC can apply for a loan from the fund. Each SHG also has a bank account which is operated jointly by the President and Secretary of the SHG. All disbursements are by cheque, which helps in ensuring transparency.

Loans are made only to registered SHGs, not to individuals. To secure a loan, the SHG submits its business proposal for vetting by the VMCEDC's executive committee. If the loan amount is less than Rs 40,000/- (\$1,000), the executive committee itself makes the decision. For loans over Rs 40,000, the entire membership of the VMCEDC decides by simple majority whether or not and how much loan can be given. The loan period is for 10 months, and simple interest of 12% is charged, decreasing on repayment by monthly instalments. As the scheme has only been operating for 1-2 years in most villages, each loan approved by a VMCEDC is forwarded with background details to the project's Eco-Development Officer (for Ramnathapuram) or Assistant Director (for Tuticorin) for endorsement, before the loan is disbursed to the SHG by the VMCEDC. To date, 1268 SHGs have taken loans. The mechanism appears to be operating well, with all loans to date having been repaid on time. A number of SHGs have taken out and repaid several loans.

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## ANNEX V.b

**TYPES OF SMALL BUSINESS ENTERPRISES BEING TRIED BY SHGs (APRIL 2008)**

So far, 51 different types of small businesses or livelihood ventures have been undertaken by SHGs using the Trust's system of VMCEDC and revolving loans. Of these, palm mat making is the most common, taken up by 18% of the SHGs. Other popular options are fish marketing (14%), selling rice (13%), dry fish marketing (13%), goat rearing (9%), buying and selling textiles (8%), and making charcoal from *Prosopis juliflora* (5%). The remainder have opted for diverse enterprises including statue-making, rental of catering equipment, jasmine cultivation, manufacture of detergents, packaging condiments, and trading in clothing.

The great majority of SHG ventures to date have been simple home-based businesses with minimal infrastructural requirements. An exception is at Vellapatti village where 10 SHGs, with a combined membership of about 200 people, operate a pickle factory, making fish, vegetable and fruit pickles. This enterprise was started during the "pilot project" to the current project, when UNDP funded MSSRF to develop the village-based factory.

Sl.No.	Activities	Total No. SHGs	Funds released (Rs.)
1.	Palm mat making	209	58,32,000
2.	Mini door van for transporting Fish	2	1,00,000
3.	Dry fish Marketing	143	32,52,000
4.	Fish Marketing	156	22,27,000
5.	Soap Making	2	75,000
6.	Petty Shop	27	7,05,000
7.	Fish Pickles Making	6	1,80,000
8.	Textile business	87	20,19,000
9.	Masala powder Making	3	78,000
10.	Mike set shop	1	40,000
11.	Milk shop	13	3,36,000
12.	Crab Marketing	12	2,33,000
13.	Cycle Repairing shop	2	50,000
14.	Charcoal Making	58	21,00,000
15.	Table and chair Rental business	6	2,40,000
16.	Milk cow Rearing	1	40,000
17.	Lothal (Halva) Making	5	1,61,000
18.	Vessels rental business	2	65,000
19.	Rice Grinder	4	1,00,000
20.	Soap and Surf powder making	2	50,000
21.	Cool drinks Shop	16	3,16,000
22.	Fuel Sales	2	45,000
23.	Pain palm Making	1	25,000
24.	Palm Jaggery Making	7	1,41,000
25.	Shell Craft Making	4	80,000
26.	Coconut Sales	1	35,000
27.	Saree Sales	2	60,000
28.	Rice Sales	146	21,17,000
29.	Tailoring business	8	3,25,000
30.	Idli Making	14	3,62,000
31.	Iddiyappam Making	2	82,000
32.	Vattipetti Making	11	4,10,000
33.	RC Loft Erection business	1	30,000
34.	Petal Leaf Cultivation	4	1,60,000
35.	Ottu flour making	1	70,000
36.	Embroidery Saree sales	2	50,000
37.	Bakery (Sweet) business	1	20,000
38.	Flour business	1	
39.	Palm handicraft	1	30,000
40.	Ayurvethic Medicine business	1	20,000
41.	Murukku business	1	20,000
42.	Statue Making	1	20,000
43.	Panakalkandu Making	1	25,000
44.	Goat Rearing	105	25,69,000
45.	Show case flower preparing	1	20,000
46.	Jasmine cultivation	2	75,000
47.	Chakku marketing	1	25,000
48.	Thatched craft marketing	6	4,35,000
49.	Masi dry fish marketing	1	20,000
50.	Prawn fish marketing	3	75,000
<b>Total</b>		<b>1089</b>	<b>2,55,45,000</b>
Special enterprises – Sea weed cultivation		3	5,00,000
Special enterprises – Solar-dried fish		1	



### **SEAWEED CULTURE TRIALS**

The project document included a plan to trial and develop seaweed farming. The project started work in this area in 2007, with a contract to the Central Salt and Marine Chemicals Institute's (CSMCRI) Mandapam laboratory to trial and transfer seaweed culture techniques, with one SHG in each of the project's four coastal 'zones'.

The technique is to attach "seed" fragments of the alga to be cultured onto nylon cords strung on floating rafts made from bamboo poles. CSMCRI has provided the seed material and technical guidance, with the Mandapam laboratory scientists developing a useful "mariculture extension service" able to be delivered to SHGs in local village communities. To date, 3 SHGs from Erwadi and one from Kilakarai are engaged in the trial phase. 75% of the SHGs' costs on rafts and nylon ropes have been met by bank loans and 25% as loan from the project, via the VCDC. CSMCRI field scientists visit the raft trial sites once a week. The first seeding-harvest cycle has been completed, and the produce has been used to seed an expanded number of rafts.

An important aspect of the raft culture trials is that they are intended to replace collection of seaweed from the wild, as the methods used cause unreasonable damage to the benthic habitat and the harvest is unregulated. Local wild seaweed populations and harvest rates have apparently both declined considerably in recent years.

The species cultured to date is *Gracilaria edulis*, an indigenous red alga. The product extracted is agar, for which a market already exists in Madurai and Theni. *Gracilaria edulis* grows quickly on rafts and can be harvested in 90 days. The yield of agar is reported to be 9% by wet weight, compared to just 4% from wild collected seaweeds. CSMCRI considers that it is possible to produce agar that is of high enough quality for use in the pharmaceutical industry, and hence fetches a premium price.

## ANNEX VI

**GOMBR ~ CURRENT RESEARCH AND MONITORING STUDIES**

<b>Research Commission</b>	<b>Institution commissioned</b>
1. Critical assessment of the pearl oyster – their current status, prevailing threats and develop conservation strategies for priority habitats of pearl – oyster in GOMBR /GOMNP areas for management.	Department of Oceanography & Coastal Area Studies, Alagappa University
2. Detailed study on inventorization of soft corals and associated habitats in GOMBR / GOMNP and their current status, extent, prevailing threats and recommending management prescriptions and field methodologies for future implementation and monitoring.	Suganthi Devadason Marine Research Institute (SDMRI, Mandapam) Institute for Environmental Research Social Education (IERSE)
3. Detailed study on the current status of scheduled mollusc and associated fauna in GOMBR and to update the distribution, prevailing threat and demarcating zones of threat, evolving propagation, management, monitoring protocol for species recover, and developing identification key.	Department of Oceanography & Coastal Area Studies, Alagappa University Suganthi Devadason Marine Research Institute (SDMRI, Tuticorin)
4. Detailed study (micro level approach that include biomarkers of fatty acids and stable isotopes) (macro level) on the inter relationship between critical habitats and ecosystems found in Gulf of Mannar to understand the current inter dependent composition to evolve protocol for synergic improvement of various habitats simultaneously and to evolve management cum monitoring protocol for ensuring better inter ecosystem production.	Centre for Advance studies (CAS) Suganthi Devadason Marine Research Institute (SDMRI)
5. Detailed study on seagrass habitat, diversity, abundance and associated fauna in GOMBR/ GOMNP areas in order to develop inventories on their current status, extent, prevailing threats and recommending future action and monitoring protocols.	Suganthi Devadason Marine Research Institute (SDMRI) Centre for Advance studies (CAS)
6. Study on seaweeds diversity, abundance, productivity/ harvest and associated habitats, and their conservation & sustainable present use & harvest pattern in GOMBR/ GOMNP area.	Centre for Salt & Marine Chemicals Research Institute (CSMCRI)
7. Detailed study on monitoring of coral reef areas in the Gulf of Mannar National park covering information as are already available and to compare the data in order to understand the change in trend.	Suganthi Devadason Marine Research Institute (SDMRI)
8. Intensive study on the water/ sediment samples in critical location in order to determine the biological, chemical and physical parameter in Gulf of Mannar region so that the recommendation and protocols for curbing minor / major pollution in the area, to avoid its ecological, biological & future health of people in the coastal belt of Gulf of Mannar.	Manoimanium Sundaranar University
9. Critical study and analysis of the prevailing fishing practices in GOMBR/GOMNP area in order to assess the current resource use and its impact on bio-diversity conservation and fishing potential of the area and to suggest future options for sustainable fishing.	Fisheries College &Research Institute (FC&RI)
10. Detail study on fish resources of GOMBR/GOMNP their current status, distribution, diversity, abundance, prevailing threats and productivity potential and suggesting future management protocol for bio-diversity conservation and sustainable fishing practice for important commercial and non-commercial species.	Fisheries College &Research Institute (FC&RI)
11. Detail study on current status, diversity, abundance of coral reef associated ornamental fishes in GOMBR / GOMNP and future management option by critically examining the current level of threats.	Fisheries College &Research Institute (FC&RI)
12. Detailed study on mangrove habitats in GOMBR / GOMNP areas in order to develop update inventories on their current status, extent, prevailing threats and recommending management prescriptions for putting in place appropriate species /habitat recovery plans and field methodologies specially for endemic species for future monitoring and management.	Centre for Advance studies (CAS)

## ANNEX VII

IN-SERVICE CAPACITY DEVELOPMENT  
OUTLINE OF PROPOSED STUDY TOUR

<b>Purpose:</b>	<p>To provide intensive exposure, briefing and training in key areas of practical knowledge for the future management and development of the Gulf of Mannar Biosphere Reserve.</p> <p>The group learning format would require participants to apply each area of knowledge directly to the specific needs of the GoMBR.</p>
<b>Participants:</b>	<p>A group of selected individual professional staff appointed to work as senior management officers on the GoMBR Authority Executive (Trust).</p> <p>Optimum numbers (for cost-efficiency and logistics): 6 – 8</p>
<b>Possible countries:</b>	Australia and Malaysia
<b>Possible duration and timing:</b>	<p>3 to 4 weeks</p> <p>September – November 2008</p>
<b>Knowledge areas that could be covered:</b>	<ul style="list-style-type: none"> <li>• Community-based natural resource management.</li> <li>• Community employment schemes for conservation</li> <li>• Co-management of conservation areas by government and local communities.</li> <li>• Eco-tourism management – marine, island and coastal.</li> <li>• Fish habitat reserve management.</li> <li>• Indigenous marine hunting and fishing.</li> <li>• Integrated coastal zone management.</li> <li>• Integrated conservation and development planning.</li> <li>• Legislation, regulations and policy for integrated marine resource management.</li> <li>• Management information systems.</li> <li>• Management of island habitats, seabird nesting and roosting.</li> <li>• Management of multi-species fisheries in MPAs.</li> <li>• Managing research for marine conservation.</li> <li>• Pollution and waste management</li> <li>• Practical conservation management skills for sea turtles, dugong, mangroves, coral reefs.</li> <li>• Management of invasive species – weeds and pests.</li> <li>• Marine aquarium management.</li> <li>• Marine park management systems, physical and human resources.</li> <li>• Marine park operations – patrols, surveillance, enforcement.</li> <li>• Marine resource and biodiversity monitoring.</li> <li>• Oil spill contingency planning and management.</li> <li>• Public awareness and education programs.</li> <li>• Public participation in conservation.</li> </ul>
<b>Costs:</b>	<p>Salaries of participants.</p> <p>Study tour coordinator fees (preparation and guidance).</p> <p>Air fares.</p> <p>Local accommodation and transport.</p> <p>Daily allowances.</p> <p>Charges levied by agencies and facilities visited.</p>

## ANNEX VIII

**NOTE ON THE PROJECT DEVELOPMENT FACILITY BLOCK 'B'**

The project design was developed under a PDF Block B grant of \$ 194,000 in the period 1997-99.

"A steering committee comprised of representatives from 21 key stakeholder groups (national government, regional government, regional NGOs, local NGOs, and local communities) oversaw the entire process. Detailed information on current and existing activities relative to the project was gathered by government and NGO stakeholder institutions under the Block B process. Twenty-one NGOs from the Reserve area participated in a consultation workshop to initiate project development. Three local NGOs were subsequently contracted to gather germane baseline and alternative-related information: the Society for Social Forestry and Development, the Roche Society, and the Suchetakripalini Rural Development Center. Socio-economic surveys of 1,000 households were conducted including a participatory rural appraisal in 38 villages throughout the Reserve. Two community consultation workshops were held in the Reserve, with 32 local institutions participating. A stakeholder meeting was held for government and non-government institutions to finalize roles and responsibilities for project implementation. A two-day technical workshop was also held with biodiversity experts to clarify priority concerns and actions for conservation. The final design, in particular the strengthened role of the Trust/ Foundation for implementing the integrated biodiversity conservation and coastal zone management plan were unanimously agreed to at the conclusion of the PDF B process in February 1999."

taken from the Gulf of Mannar Biosphere Reserve Project Brief, 2002

## ANNEX IX

**MID TERM EVALUATION ~ DOCUMENTS CONSULTED**

- 
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- Bhardwaj, A.K. and S. Worah. 2006. Gulf of Mannar Biosphere Reserve (GoMBR). Project Planning Workshop Report. GoMBRT, Ramnathapuram.
- Central Marine Fisheries Research Institute. 2005. Summary ~ Marine Fisheries Census.
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- Chandrasekaran, F. 1992. National Park in Gulf of Mannar – Present Status and Suggested Management strategies.
- Chatterji, J. 2004. Report of the in-depth monitoring study. Conservation and sustainable use of the Gulf of Mannar Biosphere Reserve's coastal biodiversity. UNDP India
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