



Terminal Evaluation of Tonle Sap Conservation Project



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**Implemented by
Cambodia National Mekong Committee
and Ministry of Environment,
Royal Government of Cambodia**

*Regional Consulting Ltd.
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While there are many factors that affected the performance and results from TSCP, the significant achievements that have been produced are a tribute to the dedication and commitment of the individuals who have been involved in implementing the project over the past seven years. The lessons that can be drawn from the TSCP experiences provide valuable advice for the future conservation of biodiversity in Tonle Sap.

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Executive Summary

Tonle Sap Conservation Project Terminal Evaluation

TSCP has achieved some significant results in terms of establishing the management systems for the Core Areas of the Tonle Sap Biodiversity Reserve and reducing the level of illegal fishing and hunting. The project provided equipment, management and human resources which has created a site level conservation authority in the Core Areas where none existed previously. The boundary demarcation, ranger patrols, monitoring and enforcement have served to raise awareness of the conservation areas and to deter illegal activities. There is a new appreciation within communities of the effects of overexploitation and destructive practices and the consequences of violating conservation laws.

The biodiversity monitoring component produced an effective and accepted set of protocols and procedures for monitoring, patrolling, recording and reporting on biodiversity and the local hunting, fishing and other activities affecting conservation. The success is largely due to the relationship between GDANCP, TSCP and WCS and the concerted effort in developing and refining the MIST system, undertaking wildlife population surveys and training in patrolling and law enforcement. This has resulted in both a significant improvement in the data and knowledge on biodiversity and in strengthening the compliance and enforcement of conservation laws.

TSCP established 25 self help groups with the assistance of UN Volunteers that led to generally successful microfinance savings and investment in alternative livelihoods and income generation involving over 500 people from the local communities around the Core Areas. Some of the groups have increased their initial investment funds by four times. The project also undertook an environmental education and awareness raising program that involved curriculum development, teaching materials, training of teachers (255), initiation of eco-clubs in nine schools and various events to promote environmental awareness. The education component has made an important contribution to environmental education in Cambodia.

TSCP has provided Core Area management infrastructure and tools, and recruited and trained staff but despite the dedicated efforts of the project team, there are too many gaps in the current level of management capacity to declare the project as having fully achieved its objective. The conflict with fishing lots remains largely unresolved, the Core Area management plans are mostly ignored and the organization and commitment within government to sustain the achievements to date are not evident. For these reasons, TSCP is considered to have been only moderately satisfactory in achieving the objective of strengthened management capacity for biodiversity conservation.

The extent to which GDANCP and Provincial DoE have integrated the conservation responsibilities, plans and management systems into government operations is very limited with the notable exception perhaps of the patrolling and reporting processes which may be sustained with the ongoing help of WCS. The national commitment to and ownership of the project is also not fully evident, with some views that the project has been excessively donor-driven and UNDP managed.

TSCP implementation was adversely affected by the complex organization and geographic spread of the project, the heavy involvement of external staff, the weak CNMC-MoE-FiA working relationships, the lack of sustained results from PIUs inherited from TSEMP, and the inadequate emphasis on long term institutional strengthening of GDANCP (MoE) and PNRCOs (DoE). There were distinct limitations and inefficiencies in the particular design of the TSCP project organization.

The project has generally had effective managers and technical advisors at the strategic level that have recognized the importance of the project for Cambodia and UNDP and have sought to improve the performance of the project. However, there have also been significant internal operational weaknesses that have constrained project partnerships, performance and quality assurance, including communication and coordination issues between CNMC, MoE and UNDP.

The TSCP experience provides some important lessons learned for protected areas management in Cambodia. These focus on the need for an overall capacity development strategy and greater sustainability in the project design, and the importance of inter-ministerial and inter-sectoral relationships in PA management in the Tonle Sap Biosphere Reserve. Development assistance for protected areas needs to be more fully integrated with government responsibilities and institutional capacity building rather than technical assistance and training alone, building upon the success of site-based projects to strengthen institutions at the community, provincial and national levels. A new form of partnership and incentives needs to be considered that moves beyond training of staff toward facilitating more effective organizations responsible for biodiversity conservation within government and communities.

Six recommendations are presented related to:

- (1) continuing discussions and finalizing agreements between MoE and FiA on coordinated patrolling and enforcement within the Fishing Lots;
- (2) developing and implementing a Core Areas financing plan and Tonle Sap Conservation Fund;
- (3) fully integrating MIST into the Ministry of Environment organization, operations and budgeting systems;
- (4) re-assessing the development assistance model for protected areas in Cambodia to enhance institutional impact and sustainability;
- (5) developing a mechanism to maintain the Central Committee responsible for overseeing and supporting the SHGs at the Core Areas; and
- (6) re-assessing the microfinance-livelihoods approach for future projects with the aim of establishing explicit links and conditions between livelihoods development and conservation.

July 2011

List of Abbreviations

ADB	Asian Development Bank
CNMC	Cambodia National Mekong Committee
CPAP	Country Programme Action Plan
DNCP	Department of Nature Conservation and Protection (Superseded by PNRCO)
DoE	Department of Environment
EAEOP	Environmental Awareness, Education and Outreach Programme
FAO	Food and Agriculture Organization of the United Nations
FiA	Fisheries Administration
GECKO	Greater Environment Chong Kneas Office
GEF	Global Environment Facility
GDANCP	General Department of Administration of Nature Conservation and Protection
ILO	International Labour Organization
JTF	Japan Trust Fund
MAFF	Ministry of Agriculture, Forestry and Fisheries
MCO	Mobile Community Outreach
MIST	Management Information System
MoE	Ministry of Environment
MOEYS	Ministry of Education, Youth and Sports
NGO	Non-Government Organization
NRM	Natural Resources Management
PES	Payment for Ecological Services
PIO	Project Implementation Office
PIR	Project Implementation Review (GEF)
PIU	Project Implementation Unit
PMCO	Project Management and Coordination Office
PMO	Project Management Office
PNRCO	Provincial Natural Resources Conservation Office
ProDoc	Project Document
RGC	Royal Government of Cambodia
SHG	Self help group
ToR	Terms of Reference
TRAC	Target for Resource Assignments from the Core
TSBR	Tonle Sap Biosphere Reserve
TSBRS	Tonle Sap Biosphere Reserve Secretariat
TSCP	Tonle Sap Conservation Project
TSEMP	Tonle Sap Environmental Management Project
TSSLP	Tonle Sap Sustainable Livelihoods Project
UNDP	United Nations Development Programme
UNV	United Nations Volunteers
WCS	Wildlife Conservation Society

1. Introduction

1.1 Purpose of the Evaluation

Tonle Sap Lake in Cambodia is the largest freshwater lake in Southeast Asia, covering an area between 250,000 hectares in the dry season and more than 1 million hectares at the annual full flood. The extensive wetlands resulting from this cycle are characterised by unique and abundant biodiversity. The Tonle Sap also produces half of the country's total fish catch and provides a livelihood for 2 million people, or one sixth of the total population.

The size of the Tonle Sap's floodplain swamp forest - almost 400,000 hectares - is of national and basin-wide importance as a feeding and spawning area for both migratory and non-migratory fish. Some 225 bird species have been recorded in the Tonle Sap area since the 1960s. The Tonle Sap floodplain is the predominant dry season breeding and feeding area for many water birds, including ducks, jacanas, cranes, bustards, rails, herons, egrets, cormorants, darters, ibises, pelicans and storks.

In 1997 the Tonle Sap Lake was nominated a biosphere reserve under the "Man and the Biosphere Programme" of UNESCO. Subsequently the Tonle Sap Biosphere Reserve (TSBR) was established by Royal Decree in 2001, covering the whole lake plus a significant part of the flood plain. The reserve is managed by the Cambodia National Mekong Committee (CNMC).

The Tonle Sap Conservation Project (TSCP) is a seven-year UNDP-GEF project aimed at developing the management capacity for biodiversity conservation in the TSBR. The TSCP was a component of the larger and now completed, Tonle Sap Environmental Management Project (TSEMP) primarily funded by Asian Development Bank for sustainable management and conservation of natural resources and biodiversity in the Tonle Sap Basin. The TSEMP implementation was completed in December 2008, and it is now followed by Tonle Sap Sustainable Livelihoods Project (TSSLP) and Tonle Sap Lowland Rural Development (TSLRD).

TSCP commenced in 2004 with a budget USD 5.47 million (4.97 cash); 3.6 million from GEF, 0.83 million from UNDP Cambodia, 0.20 from Wildlife Conservation Society (WCS), 0.24 from UNV/Japan Trust Fund and the remaining 0.5 million coming as in-kind contribution from the Royal Government of Cambodia (RGC). TSCP was scheduled for operational closure at the end of 2011. However, due to logistical, financial, and operational considerations, the TSCP Board voted in September 2010 to conclude implementation of all TSCP activities at the end of 2010; this was later extended to June 2011.

This Terminal Evaluation is an independent review, as required by GEF and the Project Document that aims to determine progress made towards the achievement of outcomes; to identify the relevance, effectiveness, efficiency and timeliness of project implementation; to highlight issues requiring decisions and actions; and to present lessons learned about project design, implementation and management. Terminal evaluations are intended to review overall project

design, assess progress towards the achievement of objectives, identify and document lessons learned (including lessons that might improve design and implementation of other UNDP/GEF projects), and review the extent to which the project addressed the recommendations in the Mid-Term Evaluation. It is expected to serve as a means of validating or filling the gaps in the initial assessment of relevance, effectiveness and efficiency obtained from project monitoring. The Terminal evaluation provides the opportunity to evaluate overall project success or failure and to make recommendations for consideration in future projects.

1.2 Methodology of the Evaluation

The *GEF Terminal Evaluation Guidelines* specify three criteria to be used in assessing level of achievement of project outcomes and objectives:

- **Relevance.** Were the project's outcomes consistent with the focal areas/operational program strategies and country priorities?
- **Effectiveness.** Are the actual project outcomes commensurate with the original or modified project objectives? If the original or modified expected results are merely outputs/inputs, the evaluators should assess if there were any real outcomes of the project and, if there were, determine whether these are commensurate with realistic expectations from such projects.
- **Efficiency.** Was the project cost effective? Was the project the least cost option? Was project implementation delayed, and, if it was, did that affect cost effectiveness? Wherever possible, the evaluator should also compare the costs incurred and the time taken to achieve outcomes with that for similar projects.¹

GEF terminal evaluations strive to be evidence-based, transparent and participatory. They are to comply with the *GEF Monitoring and Evaluation Policy*, the *UNDP Evaluation Policy*, and the *Guidelines for GEF Agencies in Conducting Terminal Evaluations*. The evaluation was also guided by Terms of Reference (ToRs) that were provided by UNDP Cambodia. The new *Evaluation Policy of UNDP* (2011) also states that project evaluations are to assess the efficiency and effectiveness of a project in achieving its intended results, as well as the relevance and sustainability of outputs as contributions to medium-term and longer-term outcomes.

The evaluation commenced on April 5, 2011 and will be completed by the end of June 2011. Data collection and discussions in Cambodia occurred in the evaluation field mission from April 11 – May 9, 2011 (**Annex 1**). Preliminary observations from the mission were presented within a debriefing note during the final day of the mission.

The four components of the evaluation – 1) Project Design, 2) Project Implementation, 3) Project Results (including sustainability and capacity building) and 4) Lessons Learned address the list of sub-components indicated in the ToRs (**Annex 2**). “Evaluation Criteria” were proposed to further define the basis for the data collection and the general indicators for evaluating the sub-components (**Annex 3**).

¹ GEF, Guidelines for GEF Agencies in Conducting Terminal Evaluations, n.d.

The approach to the evaluation was based on (a) review of documents and reports that describe progress on project outputs, outcomes and objectives as per indicators in the project designs, (b) interviews with project participants and stakeholders to verify achievements and to identify issues related to project design and implementation, (c) guided stakeholder group workshop discussions that reviewed project results and lessons learned, and (d) selective site visits to compile evidence of local achievements and to consult with beneficiaries and participants.

The interviews were assisted by an Interview Guide (**Annex 4**) which provided lead questions that facilitate consistency and triangulation of responses from those interviewed (**Annex 1**). The evaluation involved an objective and independent review of the *weight of evidence* compiled from reports, interviews/group discussions and site visits. The documents reviewed are listed in **Annex 5**. The evaluation methodology sought to compare the pre-project baseline conditions to current conditions. A summary of the status of project outcomes and outputs was prepared for this comparison (**Annex 6**). The TSCP results framework was revised in 2009. The terminal evaluation is based on both the original as well as the revised framework.

In accordance with UNDP/GEF evaluation requirements, the project results, implementation, sustainability and M&E systems are to be rated according to the following criteria: *Highly satisfactory* - no shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency; *Satisfactory* - minor shortcomings; *Moderately satisfactory* - moderate shortcomings; *Moderately unsatisfactory* - significant shortcomings; *Unsatisfactory* - major shortcomings; and *Highly unsatisfactory* - severe shortcomings.

1.3 Key Issues Addressed

The following key issues were identified in the initial review of project documents:

- Effectiveness of capacity building and sustainability of PA rangers patrolling functions, quality of reporting
- Application of the 'law enforcement strategy' developed in the early stages of the project and effects on decline in illegal activities
- Status of populations of key species before and after the project; and reliability of survey data
- Institutionalization and upkeep of MIST reporting and biodiversity monitoring
- Extent of implementation of core area management plans (CAMPs)
- Status of PA boundary demarcation
- Extent of institutional strengthening in PA management reflected in METT scores and other measures of institutional change
- Working relationships developed between MOE (GDANCP) and Fisheries Administration (FIA) and progress in resolving overlapping jurisdictions in Core Areas
- Participation rates in savings groups and sustainability potential of groups
- Effectiveness of alternative livelihoods training and uptake by communities
- Status of savings groups created by the project
- Market viability of small businesses promoted by the project
- Use of environmental education curriculum developed by the project

- Sustainability of eco-clubs promoted by the project
- Project management arrangements between TSEMP and TSCP lessons learned
- Impact of planned withdrawal of international technical advisor
- Implementation of MTE recommendations
- Impact of staff turnover and salary supplements on implementation progress
- Changes on community attitudes/behaviours around the three Core Areas
- Contributions of the project to government policies and initiatives for Tonle Sap

2. The Project and its Development Context

2.1 Project Background

The TSCP was an integral part of the third component of the TSEMP. It has been implemented by the Cambodia National Mekong Committee (CNMC) in collaboration with the Ministry of Environment (MoE). TSCP was approved under the national execution (NEX) modality, UNDP being the executing agency and Cambodia National Mekong Committee (CNMC) being the implementing agency on behalf of the Royal Government of Cambodia (RGC).

The purpose of TSCP was to further the aims of the Tonle Sap Biosphere Reserve (TSBR). On 10 April 2001, the TSBR was established by Royal Decree with three complementary functions:

- a conservation function to contribute to the conservation of biological diversity, landscapes, ecosystem, including genetic resources, plant, fishery and animal species, and to the restoration of the essential character of the environment and habitat of biodiversity;
- a development function to foster sustainable development of ecology, environment, economy, society, and culture;
- a logistic function to provide support for demonstration projects, environmental education and training, research and monitoring of environment related to the local, national and global issues of conservation and sustainable development.

The TSBR decree established *Core Zones*, *Buffer Zones* and *Transition Zones*. The core zone contains protected sites for conserving biodiversity, monitoring minimally disturbed ecosystems and undertaking non-destructive research and related activities. The three Core Areas are: Prek Toal (21,342 ha), Boeng Chhmar (14,560 ha) and Stung Sen (6,355 ha).

A TSBR Secretariat under the Cambodia National Mekong Committee (CNMC) is responsible for overall management of the reserve in coordination with line ministries. The original ProDoc stated: "The permanent establishment of the TSBR Secretariat within the existing CNMC will secure inter-sectoral cooperation in planning and resource use in the Tonle Sap, as ten line ministries are members of the CNMC, and responsibilities are shared. The inter-sectoral cooperation will facilitate the creation of new protected areas under the project and will secure long-term conservation of globally significant biodiversity."² Article 4 of the Sub-Decree states that the Secretariat is:

² Royal Government of Cambodia/UNDP, Tonle Sap Conservation Project, 2003, P.35

- a) To develop strategy and mechanism for the achievement of the functions of the Tonle Sap Biosphere reserve;
- b) To coordinate for the establishment of integrated database management system for the Tonle Sap Biosphere Reserve and data exchange mechanism among agencies;
- c) To monitor, evaluate and review the status of the Tonle Sap Biosphere reserve within 4 to 10 years period as required;
- d) To coordinate and cooperate for the review of the existing law, regulations, in order to furnish recommendations for sustainable management of the Tonle Sap Biosphere Reserve;
- e) To establish network with local authorities, civil society, relevant agencies, international organizations, non-governmental organizations in order to facilitate data collection, planning, and to request for approval of conservation and management plan for the Tonle Sap Biosphere Reserve;
- f) To organize meeting and forum to discuss issues related to the management of Tonle Sap Lake region and prepare proceedings to be submitted to the government leaders;
- g) To coordinate with relevant ministries, agencies and organizations for the preparation of project plans for financial assistance from the government and international donors;
- h) To prepare and submit quarter and annual report on its activities to the CNMC;
- i) Carry out other task assigned by Cambodia National Mekong Committee.

The TSCP ProDoc stated:

“The geographical scope of the TSEMP consists of the Tonle Sap Biosphere Reserve (TSBR). GEF interventions will mainly focus on the three core areas of the TSBR (Prek Toal, Boeung Chhmar and Stung Sen), areas in the buffer zone immediately around these, as well as in the fish sanctuaries of the Tonle Sap. Interventions to be co-financed by the ADB Loan and Capacity 21 will focus on other parts of the TSBR.”³

The Inception Report indicated that the technical activities would involve four work packages:

Area-Based Management. Outputs will be: 1) comprehensive management plans covering an operational period of five years for each of the TSBR Core Areas (Prek Toal, Boeung Chhmar and Stung Sen); 2) biophysical profiles of the eight currently declared fish sanctuaries, and identification of actions required for their sustainable management; 3) a management framework for biodiversity conservation in the Buffer Zone, focusing on biodiversity conservation issues and threats and how these can be resolved, and on management initiatives that can be implemented across a broad geographic base; 4) demarcation and marking of the boundaries of the three Core Areas; and, 5) identification of subsistence activities that currently threaten biodiversity in and around the Core Areas, and development of alternative sustainable livelihoods.

Biodiversity Monitoring. Outputs will be: 1) design and implementation of a system for biodiversity monitoring and management in the Core Areas and other representative or key

³ Royal Government of Cambodia/UNDP, Tonle Sap Conservation Project, 2003, P.34

sites, focusing on globally significant species and/or populations (e.g., colonial waterbirds), but including other indicator species; 2) establishment of a rapid response mechanism for seasonal protection of biodiversity; and, 3) development of a strategy for the control of exotic species and implementation of management trials.

Environmental Education and Awareness. The Project will develop and implement an Environmental Awareness, Education and Outreach Programme that builds on previous, ongoing and planned activities of Government agencies and NGOs in the TSBR, with a focus on biodiversity conservation. Delivery will be through the existing school system, and also via environmental education centres (Core Area Management Centres, floating centres in Kampong Chhnang and Pursat, the GECKO Centre in Siem Reap), which will provide bases for regular outreach to villages around the Tonle Sap.

Staff Training. Training activities will focus on protected areas management and biodiversity conservation, and will be aimed primarily at provincial government staff. The extent to which the capacity of NGOs and other stakeholders also requires development will be determined by means of an initial needs assessment.⁴

Much of the initial infrastructure for protected areas management – buildings, boats and equipment were provided by TSEMP, allowing TSCP to focus mostly on recruitment and capacity building of MoE staff to implement a management system for the TSBR, particularly the three Core Areas. Following the Mid Term Evaluation (MTE), the project narrowed the project focus on to the three Core Areas from the initial wide range of conservation activities in the TSBR.

A Project Implementation Office (PIO) was established at MoE/GDANCP level and five Project Implementation Units (PIUs) at Provincial level were established for the implementation of project activities. Technical assistance to the project was funneled through a project office located in the TSBR Secretariat where a team of national and international professionals provided support to implement project activities under the coordination of a National Project Manager (NPM). The NPM worked closely in coordination with the National Project Director (NPD – a RCG senior employee from the MoE) and the UNDP Cambodia Energy and Environment Team Leader.

2.2 Expected Results

The expected results are summarized in **Annex 6** based on the original and amended (2008) logical framework. Unfortunately, as noted in the MTE, the original project design did not have a monitoring plan or distinct set of indicators to measure project results (“indicative activities” were intended to serve as measures of output achievement). The main outcomes and outputs were:

Outcome 1: Capacity for management of biodiversity in the Core Areas is enhanced.

1. Core Area management plans
2. Boundary demarcation

⁴ TSCP, Inception Report, 2005, p. iii

3. Enforcement of laws and regulations
4. Number of alternative livelihood activities identified and practiced.
5. Number of relevant staff members trained on biodiversity and protected areas management
6. Criteria for designation of additional protected areas developed; additional areas for conservation identified

Outcome 2: Systems for monitoring and management of biodiversity are developed.

1. Biodiversity monitoring system
2. Rapid response mechanism for biodiversity protection
3. Control of exotic species

Outcome 3: Awareness, education and outreach on biodiversity conservation in the TSBR are promoted.

1. Environmental Awareness, Education and Outreach Programme (EAEOP)
2. Environmental Education Centres
3. Integration of EAEOP into the school curricula

3. Evaluation Findings

3.1 Project Formulation

3.1.1 Relevance of the project design

Given the development and climate change pressures, TSCP was an important project for implementation of the Tonle Sap Biodiversity Reserve. The project was completely aligned with the government's national priorities for Tonle Sap which include the designation of specified conservation areas. It was expected to fulfill an important role within TSEMP to strengthen the biodiversity conservation aspects of natural resources and fisheries management in Tonle Sap.

The Project Document stated that the implementation approach was “developed to function within a framework of highly dynamic changes in governance and the management regime for the TSBR and the existence of substantial past studies and ongoing or planned projects within the TSBR” and “an attempt to integrate biodiversity conservation strategies within the reform process for inland fisheries, in particular the fishing lots encompassing the three core areas of the TSBR”.⁵ The particular relationship to TSEMP however, was never well-defined and synergies were never realized. Distinct differences emerged between the ADB and UNDP projects and their respective strategies that in fact negated full coordination. The TSCP design focused on strengthening MoE site functions in managing the Core Areas rather than resolving inter-sectoral issues. Since some of these issues such as fishing lots in the Core Areas were central to the conservation functions there appeared to have been inadequate consideration in the project design on how to integrate the interests of two different ministries and sets of development partners in strengthening the TSBR within a project that was executed by CNMC, implemented by TSBR Secretariat in cooperation with

⁵ UNDP, TSCP Project Document, 2004, p. 24.

MoE (GDANCP) and guided by a steering committee chaired by MAFF, the lead agency responsible for TSEMP. The complexity of the project design imposed exceptional challenges.

3.1.2 Effectiveness of the project strategy

The project strategy centered on equipping, training and providing salaries and operating funds for Core Area staff, preparing management plans, developing an environmental education curriculum and training teachers in its application, raising environmental awareness and promoting sustainable livelihoods for communities around the Core Areas. The original strategy of broadly developing the capacity of GDANCP, provincial departments and site management staff in protected areas management may have been too ambitious and without adequate understanding of the institutional development challenges. The comment made in the MTE that the project was not sufficiently embedded within government was reinforced in the terminal evaluation discussions: “The arrangement to establish special project implementation offices assisted in delivering activities but it had the disadvantage of not sufficiently mainstreaming the project within government operations, particularly when many project staff are not themselves engaged in regular, ongoing conservation duties for protected areas.”⁶

The focus on achieving short term outputs superseded interest in the bigger challenge of systemic capacity building of the government institutions. The TSCP project strategy especially focused on establishing the Core Areas patrolling, monitoring, reporting and enforcement measures, with the assistance of WCS. The emphasis on results at the site level has produced an effective management system where none existed previously, albeit highly dependent on an international NGO and donor funding. There have been genuine efforts to engage GDANCP through secondment of government staff and other involvement but with limited success given the lack of a concerted institutional development strategy and the current barriers to improving government capacity and accountability for protected areas.

3.1.3 Country ownership of the project

The evidence of MoE ownership of the project was weak. This is tied to the project design and strategy that focused on field outputs rather than headquarters support and capacity building, the high level of quality assurance that GEF projects impose on UNDP to take an active role despite NEX implementation, and the role that financial incentives (salary supplement and per diems) play in generating country commitment to projects in Cambodia.⁷ The project organization, with much of the decision making authority outside of MoE, contributed to these criticisms of a donor-driven approach. “Within GDANCP, there was essentially one staff that was dedicated to working with/on the TSCP which distanced the project from the government agencies. Similarly, the relationship between the project and the Fisheries Administration was never fully explored by the project which

⁶ A. Ferguson and Kong V., Mid-term Evaluation of Tonle Sap Conservation Project, UNDP, Sept 2008, p. 11.

⁷ The government has now cancelled all salary supplements. During the project, supplements ranged from \$40-80/mth for field staff, \$120-160/mth for provincial staff and \$180/mth for national level staff, plus per diems for local travel. Most of the rangers are currently paid on a per diem basis.

ultimately limited project potential.”⁸ The lack of strong country ownership was also aggravated by UNDP’s initiative for early closure of the project.

3.1.4 Validity of risks and assumptions

The Project Document stated that TSCP will be implemented in an integrated fashion with the TSEMP, with common management, monitoring and evaluation mechanisms, which has obviously not been the case. The Document also stated: *There are strong indications that RGC is willing and able to provide long-term financial sustainability to the program.... One of the three main objectives of the TSBR Secretariat is the development of long-term revenue sources for conservation and research activities of the TSBR Secretariat, as well as for the provision of appropriate incomes for enforcement and monitoring officials from the Fisheries Department, MoE and relevant government bodies.*⁹

The Logical Framework produced at the inception phase listed a few general assumptions, mostly missing the key issue of sustainable institutional change. Most noteworthy was the assumption that of “multi-stakeholder agreement on boundaries forthcoming”, and “alternative livelihoods can be identified and supported, and do not end up forming supplementary (instead of alternative) sources of income”.

It is apparent that the project design did not sufficiently identify the critical assumptions affecting capacity building and sustainability. Also the need for salary supplements was not recognized in the original project design.

The physical risks to biodiversity have been identified as: illegal collection of eggs and birds; birds dying while trapped in covered fishing gear; and widespread, destructive, illegal fishing practices near the bird colonies.¹⁰

3.2 Project Implementation

3.2.1 Project organization and management

The project organization was complex due to the original integration with TSEMP and the arrangement whereby TSBR Secretariat under CNMC hosted the project management while most of the implementation occurred through MoE site staff and to a less extent, Provincial departments. While in theory a neutral body such as TSBR Secretariat is viewed as an appropriate coordinating mechanism within government, they did not have the staff, resources and established systems for coordination. The TSCP project organization included a Project Management Coordination Office in TSBRs, a Project Coordination Unit in MoE and Project Implementation Units at five provincial offices (later reduced to two), all of which were to be linked under an overall TSEMP framework. These

⁸ S. Austin, Draft TSCP Final Project Report, UNDP Cambodia, December 2010, p. 12

⁹ Royal Government of Cambodia/UNDP, Tonle Sap Conservation Project, 2003, P. 24.

¹⁰ UNDP, Annual Project Report, 2009.

coordination burdens were extensive and the competition between different agencies was too intense to ensure effective project organization.

It is apparent in hindsight that the association with TSEMP and the TSBR Secretariat was not the most effective means of achieving the project outputs, particularly when the key issues associated with management plans implementation and fishing lots remain largely unresolved. The use of staff from outside of government and the dependence on salary supplements further distorted the focus on project results and the incentives for effective management. Significant communication issues arose between the various stakeholders because of this organizational complexity. The TSEMP completion report also found a lack of coordination due to disparate personal and political agendas and the existence of two separate ministries and one government agency (TSBRS) with quite different mandates and agendas.¹¹

It has been suggested that the “Project office should be located in the implementing agency premises to encourage staff involved in the day-to-day implementation and monitoring of the project, but also for better communication and faster decision making.”¹²

The project strategy was to employ an international technical advisor for the first 30 months of the project, after which it was assumed that government counterparts would assume these duties. This may not have been the most effective strategy since subsequent external advisors were required to assist the project.

Despite the large management structure and the complicated reporting arrangements, the Project Board and staff were committed and active in overseeing the project implementation, if at times inefficient in resolving delays. The Board held regular meetings to review issues, workplans and budgets (8 meetings were held between July 2008 and February 2011) and there were significant annual reviews and other operational meetings to assess progress.

3.2.2 Implementation modalities and efficiencies

The modalities for implementing the project involved a combination of government staff, consultants, salaried and contracted ranger staff, and local self-help groups, functioning within an elaborate organizational framework under the TSEMP organization, and subject to both government and UNDP administrative systems. These operational processes generated a lot of complaints about delays – in staff recruitment, approvals and disbursement of funds, and about inadequacies or discrepancies in the salary supplements and per diems. Low project DSA rates were said to have discouraged participation and commitment. Some financial management modalities were also changed at the field level to address accountability concerns noted during the mid-term review, and the scramble for salary supplements to replace those created by TSEMP closure and the eventual cancellation of supplements may have also disrupted implementation progress.

¹¹ ADB, Tonle Sap Environmental Management Project Completion Report, July 2010, Page 9

¹² TSCP, 2008 Annual Project Report, p.18.

TSCP has had an inordinate set of relatively minor but continual operational difficulties due to the complexity and distribution of project activities and a general lack of timelines, milestones and other performance measures that are often missing from government programs. Some of these were listed in the *Risk and Issues Log* of ATLAS. The uncertainty in financial flows and the dual payments from WCS and UNDP to the Core Area centers reflect poor administrative coordination. There was no project operations manual to guide implementation nor sufficient incentives or directives within the government systems to encourage efficient and accountable management processes. Also, the MoE-related activities, unlike the livelihoods and education activities did not have a dedicated project officer which may have affected delivery efficiency.

There are various weaknesses in the Core Areas management systems that do not provide a high level of confidence for the future. The financial flows are erratic and decision making is ad hoc and without clear accountability for performance, suggesting institutional limitations. For example, the project infrastructure (e.g., solar power system, visitor centres) has been a major investment that lacked adequate management to ensure effective use and maintenance. Similarly, the collection and management of revenues from visitor fees is managed very informally and greater accountability and transparency are warranted. MoE staff have continual problems in coordination with field rangers data collection and the lack of resources while the rangers report that they never know what becomes of the data collected.

3.2.3 Budgeting and disbursements

Due to the lack of available data it was not possible to assess the extent to which actual disbursements each year conformed to annual budgets. The total expenditures from 2004-2010 are presented in **Table 1**. (The 2011 budget is \$228,000.) Component 1 - Enhancing Capacity made up 38% of total costs, mostly for core area staff training and operational costs. Project management costs at 21% are high, perhaps due to the addition of salary supplements. Sustainability limitations in the project design undermine the cost-effectiveness of the project outputs.

By all accounts, budgeting and annual work planning was participatory and thorough if at times slow in the approval process. The administration of separate TSC and WCS funds to the Core Areas may have also created undue complexity.

3.2.4 Responses to mid-term evaluation

UNDP and the project team undertook a full discussion of and response to the MTE report. Most of the recommendations were effectively implemented, including reducing the geographic scope, developing a more results-oriented strategy, increasing the involvement of MoE staff and initiating efforts to improve communications, monitoring and sustainability.

3.2.5 Adaptive management and UNDP role

The responsiveness of the Project Board and UNDP to key issues that arose was apparent in many cases. For example, at their January 2009 meeting, the Board recognized the need to “develop the capacity of Directorate General of Natural Resource Protection of MoE for new approaches toward the achievement of the core area management plans through: strengthening their coordination role in the project, involving them in monitoring, and providing training and reporting responsibility, and

Table 1: Cumulative Expenditure by Activities: 02 July 2004 – 31 December 2010

Activities - Description	Total Budget [2004-2011]	Cumulative Expenditure			Balance	Delivery (%)
		Govt/TSCP (Disbursed)	UNDP (Disbursed)	Total		
Activity 1: Enhancing Capacity for Management of Biodiversity in the Core Areas	1,277,218.88	454,443.63	822,775.25	1,277,218.88	-	100%
Activity 2: Developing Systems for Monitoring and Management of Biodiversity	403,936.60	77,623.16	326,313.44	403,936.60	-	100%
Activity 3: Promoting Awareness, Education, and Outreach on Biodiversity Conservation in the TSBR	450,738.13	235,343.12	215,395.01	450,738.13	-	100%
Activity 4: Project Management	819,622.52	370,379.88	347,129.26	717,509.14	102,113.38	88%
Activity 5: Scale up Sustainable Livelihood in the Three Core Areas of TSBRs.	165,549.23	145,039.16	20,510.07	165,549.23	-	100%
Activity 6: Women have an Active role in Participating in the Tonle Sap Conservation Project and are Equitable Beneficiaries of its Outcome, Outputs and Activities	10,793.35	10,793.35	-	10,793.35	-	100%
Activity 7: Institutionalize Effective Management and Monitoring of Core area for Biodiversity Conservation	246,009.41	144,819.43	28,198.98	173,018.41	72,991.00	70%
Activity 8: Core area Communities Aware of and Contributing to Biodiversity Conservation	198,894.46	102,810.70	66,083.76	168,894.46	30,000.00	85%
Total	3,572,762.58	1,541,252.43	1,826,405.77	3,367,658.20	205,104.38	94%

Remarks: TRAC =	326,342.58	187,201.33	139,141.25	326,342.58	-	100%
GEF =	3,246,420.00	1,354,051.10	1,687,264.52	3,041,315.62	205,104.38	94%
TOTAL =	3,572,762.58	1,541,252.43	1,826,405.77	3,367,658.20	205,104.38	94%

... to promote good working relationship between the central and local levels, which will enhance ownership of the programme.” There were genuine efforts made to address such key issues. UNDP also endeavored to address the financial sustainability issue through a special study, a workshop and discussions with other donors.

3.2.6 Monitoring and reporting

Quarterly and annual reports were detailed and submitted on time. However, despite the diligent reporting, the indicators of outcome achievement were weak. The project attempted in the late stages to improve results monitoring and reporting although MoE staff were unable to use the new format. This was never resolved due to early closure of the project.

It was also noted in the TSEMP report that the project did not establish a recognized baseline with pre- and post-project comparisons to demonstrate to ADB, the government, and key stakeholders the natural resource management, environmental, community, and economic benefits.¹³

3.3 Project Results

The status of project achievements in comparison to baseline conditions is summarized in **Annex 6**. The outputs generated by WCS are also summarized in the **Annex 7**.

3.3.1 Output 1 - Capacity for management of biodiversity in the Core Areas

The infrastructure that was provided by TSEMP and the recruitment and training of rangers by TSCP has established a conservation authority at each of the Core Areas. This has created a new awareness of the protected areas through the demarcation of boundaries and the routine patrolling by rangers. Illegal activities have invariably been reduced although baseline data are not available to verify the scale of this reduction. The Management Effectiveness Tracking Tool (METT) scores indicate a major improvement in the establishment and operation of the protected Core Areas:

Table 2: METT Scores for Core Areas

Core Areas	2005	2008	2009	2010
Prek Toal	62/96	75/96	77/96	77.4/96
Boeng Chhamar	22/96	55/96	57/96	56.2/96
Stung Sen	22/96	54/96	56/96	56.2/96

Note: consistency between 2005 survey and other years not certain¹⁴

The primary challenge will be to maintain these facilities and operations.¹⁵ The buildings and floating centers that have been constructed are generally not in good condition and many of the boats are in

¹³ ADB, Tonle Sap Environmental Management Project Completion Report, July 2010, Page 13.

¹⁴ METT scores need to be considered cautiously since they are not reliable measures of capacity development; see discussion in Ferguson A., UNDP/GEF, Review of UNDP/GEF 2010 Annual Project Implementation Reviews (PIRs), January 2011.

¹⁵ See similar concerns in: ADB, Tonle Sap Environmental Management Project Completion Report, July 2010.

disrepair. The operation of these remote facilities requires substantial maintenance which is not likely to be provided after the project is completed. Some investments such as the solar power system at Prek Toal have failed completely and seem to be abandoned.

TSCP prepared Core Area Management Plans (CAMPs) through a detailed, participatory planning process. The plans were endorsed by MoE but seem to have had little support from other ministries. The uncertainty regarding their status was noted in the MTE. It is unclear if the CAMPs will be implemented.

The law enforcement training and strategy have been effective except to some extent in the fishing lots, where permission of the lot owners is required for patrolling, and at locations where seasonal migrants place pressures on biodiversity (Stung Sen). Some working arrangements have been developed with owners in Prek Toal but not in the other areas. WCS collaborated with FiA and MoE on a Fishing Lot Study to improve the management of Prek Toal and limit fishing activities in areas of high biodiversity.

Major achievements are apparent in the activities of the 25 self-help groups (SHGs) that have been created. The total group savings have increased to over 400 M Rial (50,000+ USD). At least 15 of these groups are considered self-sustaining on their own (**Annex 8**). The microfinance component along with UNV and other training has provided the support for a variety of household livelihoods and developed the leadership capacities of SHG members. It has established a platform for other donors to expand the success to other areas of Tonle Sap. The UNV evaluation report (based on assessment of 15 SHGs in 2009) noted:

*The regular loans of the members have helped increase the revolving fund and the extent of their membership showed strong ownership which is considered vital to the sustainability of the activities. The purpose of some members in availing themselves of the loan was to start with alternative livelihood, while in the previous years, their loan was mostly used for buying fishing equipment. The previous purpose of members in getting the loan for fishing equipments has decreased by about 30%. The SHG also assisted the members to accumulate their assets. About 40% of the stakeholders interviewed disclosed that their assets have increased. The habit of saving has also been enhanced and motivated the members to be more active in their groups. ... Fifty six percent of the SHG members who used their loan for alternative livelihoods are now engaged in livestock raising such as pig and chicken raising and fish culture. About 44% of the SHG respondents have additional earnings of 40 USD – 75 USD per month while 25% of the respondents have added more than 150 USD to their family incomes. Technical support from UNV/TSCP was provided to almost all of the members taking on alternative livelihoods.*¹⁶

The livelihoods development program may have had a positive effect on incomes in several hundred households.¹⁷ This has not been without some hard lessons: the failure of the water filters program, the debate about 'environmentally friendly' livelihoods, the link to conservation behaviour, etc. The community hyacinth handicraft program had some difficulty in meeting the standards for marketing.

¹⁶ NIRAS International A/S (Cambodia) Evaluation of UN Volunteer Intervention TSCP 2007-2009, 11 Dec 2009, p. iv/v.

¹⁷ Many SHG members highlighted the significance of the reduction in the cost of loans from 30%/mth with private lenders to 2%/mth with the saving group.

There are also reported problems with the saving groups' statute and the legal recognition of the SHGs.¹⁸ A particular concern is how to maintain the operation of the 'Central Committee' after the project which provides oversight and guidance to the SHGs. Although the SHG members are now more aware of the fisheries and conservation issues, based on the field interviews the actual connection to supporting conservation objectives of the project has been limited particularly in the last few years.

Over 250 government staff received environmental training/orientation from TSCP, as did a similar number of local teachers (**Annex 6**). The project has also provided technical support for the potential designation of other conservation areas in Tonle Sap.

3.3.2 Output 2 - Systems for monitoring and management of biodiversity

One of the most significant achievements of the project has been to establish the Management Information System (MIST) for biodiversity monitoring along with a rapid response mechanism on illegal activities. The introduction and refinement of this system is an important contribution to MoE protected area management programs in Cambodia. Substantial training and mentoring have been provided, although some further effort to institutionalize the system may be needed.¹⁹ There may have also been some gaps in monitoring of endangered aquatic species.²⁰

Monitoring protocols have been developed for colonial waterbirds, watersnakes and other wildlife as well as for fire outbreaks. In the past few years ranger teams have recorded over 240 patrol days per year in Prek Toal and Boeung Chhmar and 140-290 days at Stung Sen. TSCP and WSC also initiated efforts to improve the ability of MoE rangers to enforce fishing and conservation laws in the fishing lots, and to enhance the tourism revenue from the Core Areas.

The monitoring activities have provided information on the status of key species. Some of the data are presented below.²¹ There are many potential factors that could influence the increased numbers including the increased effort at patrolling, monitoring and reporting by TSCP.

Table 3: Monitoring data for selected species

Selected species monitored	Baseline (month/year)	Current status (month/year)
Greater Adjutant breeding population (number of nests)	56 (2004)	123 (2008/09)
Lesser Adjutant breeding population (number of nests)	158 (2004)	348 (2008/09)
Milky Stork breeding population (number of nests)	2 (2004)	8 (2008/09)
Asian Openbill breeding population (number of nests)	688 (2004)	11364 (2008/09)
Painted Stork breeding population (number of nests)	1089 (2004)	1910 (2008/09)
Spot-billed Pelican breeding population (number of nests)	1024 (2004)	1480 (2008/09)
Oriental Darter breeding population (number of nests)	241 (2002)	7308 (2008/09)
Grey-headed Fish Eagle breeding population (no. pairs)	58 (2008/09)

¹⁸ UNDP, 2010 Annual Performance Review, p. 19.

¹⁹ S. Austin, TSCP Final Project Report (Draft), December 2010.

²⁰ FIA have identified 58 endangered fish species in Tonle Sap and suggested TSCP conduct investigation on the status of these species. Project Board meeting, Feb. 18, 2010.

²¹ UNDP TSCP Annual Project Report 2009, p. 5.

Several logistical issues were identified by TSCP that affect MIST implementation:

- **Equipment maintenance** – Increased coordination between Core Areas and GDANCP and the TSCP is needed to respond to equipment needs, i.e., repair/replace equipment as needed.
- **Fund disbursement from UNDP** – Significant gaps in fund disbursement from the UNDP to the TSCP has created gaps in Core Area staff implementation of MIST. Fund disbursement needs to be streamlined to avoid funding and implementation gaps.
- **GPS units in English** – Rangers have limited English language skills and would therefore benefit greatly from translated GPS pages. These could be small and laminated so rangers could use them in the field.
- **MIST computer input in English** – At present Core Area Managers at BTC & SS send raw data to GDANCP because of limited English skills and MIST input is in English. Translating the data input components of MIST to Khmer would greatly improve the process.
- **MIST Training Manuals in English** – Training manuals in Khmer would allow staff to periodically review MIST information at the Core Areas and not wait for training to strengthen skills and understanding.²²

The TSCP final report noted: “The trainings of the TSCP were extremely successful in building a foundation and capacity for improved natural resources management. However, it was often recognized that the trainings were too infrequent and/or too short a duration to establish long-term sustainable capacity of skills and knowledge. In addition, issues such as staff-turnover and local literacy levels necessitated a more comprehensive training program. A comprehensive Training of Trainers program would have ensured more sustainable capacity within the partner government institutions.”²³

3.3.3 Output 3 - Awareness, education and outreach

The Ministry of Education, Youth and Sport (MoEYS) and the project team have developed an environmental education curriculum and teaching aids that will have a lasting benefit for Tonle Sap and beyond. This appears to have been the first of its kind in Cambodia. The *Tonle Sap Environmental Education Book* provides supplementary materials to fill the gap in formal education curriculum. (Further support for distribution to schools has been requested). Support for teacher training and for EcoClubs in nine schools have also been appreciated by the participants.

TSCP also completed awareness-raising and training activities with monks from pagodas adjacent to Core Areas on Buddhism and the environment, community sessions with several hundred participants, and SHG-led World Environment Day celebrations in the Core Areas. With the help of NGOs *Live and Learn* and *Osmose* and the SHGs, the project has created greater awareness of the importance of the biodiversity and the Core Areas protection. The program has nevertheless been very event-oriented and the scale of outreach has been limited. Some of the SHGs recently interviewed had not been involved in educational or awareness raising activities.

²² S. Austin, TSCP Capacity Building – Assessment and Recommendations, UNDP Cambodia, Mar., 2010, p. 12.

²³ S. Austin, TSCP Final Project Report, December 2010, p. 10

The outreach program has been less successful due to the lack of direct involvement of MoE rangers. The 'education centres' have not been fully developed as planned. Almost no public outreach is currently being delivered by the project, although the GECKO centre still exists if hardly used. The central awareness-raising activity has been the eco-tourists (700 last year) that visit Prek Toal, and the events related to Environment Day by the schools.

3.3.4 Revised Outputs – achievements 2010-2011

Annex 7 also summarizes achievements as per the revised strategic results framework. The project results are similar to those described above although the new framework added some outputs. CAMPS were reviewed to incorporate certain activities in project work plans and to identify priorities and costs for implementation of the plans. Core Area staff were given an orientation to the CAMPS.

Efforts were made to better integrate MIST within MoE operations but based on interviews during the evaluation mission, the improvements are not very apparent. The project undertook a review and discussion on sustainable financing mechanisms, with limited results so far. A gender component was also added and various training activities were completed. A monitoring plan was prepared to enhance project reporting but early closure prevented implementation of the plan. An exit strategy was also developed with the intent to start shifting more and more of project implementation responsibility to MoE from year 2010.

Communication initiatives to document and disseminate project outputs are currently underway. Some important progress has also been made to improve collaboration between MoE and FiA in the enforcement of fishing and conservation laws.

3.3.5 Progress toward the development objective

TSCP has had a significant impact on "strengthening management capacity for biodiversity conservation in TSBR", from a state of almost zero presence to an established site authority in the three Core Areas. However, the scope, depth, national ownership and sustainability of this enhanced capacity are not as substantive as envisioned in the project design. There are too many gaps in the current state of management to declare the project as having fully achieved its objective.

The introduction of new management systems for the TSBR core areas – planning, monitoring, community participation, staff recruitment, enforcement, etc., are significant but they have not fully addressed the institutional change that is necessary for sustained improvement in the effectiveness of the protected areas. This may be mostly due to the lack of a clear 'theory of change' in the projects' logic model, or the presumption that somehow institutional capacity development was the responsibility of the other components of TSEMP, or that training and mentoring alone are sufficient to develop improved management capacity. The substantive but incomplete progress toward improved management capacity is apparent in (i) the limited organizational change for PA management and supervision, (ii) the high dependence on external advisors and funding, and (iii) the negative response of some government staff toward the project who question the extent of national ownership.

The Project Final Report (UNDP 2010) and this evaluation have highlighted the sustainability issue as a major concern in project formulation and implementation. Several other assessments have noted

the central concern about sustainability.²⁴ The ADB TSEMP completion report also describes a key deficiency in the project design: “the assumptions and therefore the risks associated with continuing government support for major project outcomes were not adequately assessed.”²⁵ It was observed in the report that the TSBR secretariat was effectively nonoperational 12 months after the TSEMP project, and the investment in staff and other resources had not been sustained. This observation reflects the challenges that lie ahead for the protected areas in Tonle Sap.

3.3.6 GEF and UNDP Programme objectives achievement

The GEF BD-1 focal area Objective 1 is to “improve the sustainability of protected area systems”. This includes: Increase Financing of Protected Area Systems, Expand Ecosystem and Threatened Species Representation within Protected Area Systems, and Improve Management Effectiveness of Existing Protected Areas. As noted elsewhere in this report, TSCP has established the foundation for improved management of core protected areas in Tonle Sap with limitations on the sustainability of the investments that have been made. The project design and implementation have been generally consistent with GEF biodiversity conservation focal area objectives.

The UNDP Cambodia Country Programme (2006-2010) Outcome 4: “Improved capacity of national/sectoral authorities to plan and implement integrated approaches to environmental management and energy”; Output 1 - “Capacities of government and local communities enhanced for biodiversity conservation and livelihoods improvement” has been central to TSCP. This has been interpreted to primarily mean enhanced capacity of national authorities, local authorities and communities.²⁶ TSCP has contributed toward the CPAP programme Output by establishing and increasing the PA management and monitoring processes at the site level within GDANCP in the Ministry of Environment, and by increasing the capacity of local communities to engage in livelihoods that are compatible with conservation objectives.

²⁴ E.g., Sagendra Tiwari, A Brief Report on the Strategic Result Framework and Three-Year Work Planning, Tonle Sap Conservation Project (TSCP), April 3, 2009, p.7 noted: *Key elements of unsustainability: a) generally no government staff involvement without salary topping up except for some exception, b) conflicting tenure and management jurisdiction in Tonle Sap core areas, c) absence of enabling policy environment to mainstream the project efforts into government systems and d) absence of effective coordination between related stakeholder ministries and departments (e.g. MoAFF, FiA and MoE).*

²⁵ ADB, Cambodia: Tonle Sap Environmental Management Project Completion Report, July 2010, p.2

²⁶ UNDP Cambodia, Capacities to Conserve Biodiversity and to Respond to Climate Change – Outcome Evaluation 2006-2010.

Tonle Sap Conservation Project Key Results

- Boundary marking has been completed in the three core areas: Prek Toal, Boeung Tonle Chhmar and Stung Sen.
- Management plans for the three core areas have been completed and three management centres for the core areas have been established.
- 52 rangers and custodians have received technical and financial support and training for law enforcement and regulations in the core areas.
- 162 rangers, managers and staff have been trained in protected area management, focusing on mapping, GPS, English, and database and management skills.
- Regular wildlife monitoring includes assessments of water bird colonies and water snake harvesting, and the annual census of the vulnerable sarus crane.
- Three environmental education centres are operating. Signboards have been erected on entry roads to make visitors aware they are entering the biosphere reserve.
- 502 poor families in the core areas have benefited from support for alternative livelihoods. Fish raised in cages are supplementing fish caught in the lake, but ecotourism, floating vegetable gardens and mushroom farming have proved more difficult to sustain.
- 12 committees for sustainable livelihoods and two community committees for natural resource management were functioning in 2009.
- 15 Community Savings Groups comprising 407 families were functioning in 2009 with guidance from a Steering Committee. In all, 395 families borrowed 135 million riel (US\$33,750) to buy fishing gear or start small businesses, such as processing fish, selling sugar cane juice or groceries, or raising fish, pigs or chickens.
- 88 teachers, rangers, Commune Councillors, Savings Group Steering Committee members and project staff learned First Aid with the Cambodian Red Cross in 2009.
- 41 rangers and staff learned about management, law enforcement and ecotourism from communities in Bakom Sakor and Peam Krasab Protected Areas in Koh Kong Province in 2009.
- Seven monks attended a six-day training of trainers course on basic environmental awareness facilitated by the Association of Buddhists for the Environment.
- 21 women participated in a three-day workshop on financial administration, planning and reporting, and roles and responsibilities of the Steering Committee.
- 35 people including core area rangers, local authorities, and staff of the Cambodia National Mekong Committee and the Provincial Department of Environment were trained in Gender Equality Mainstreaming Strategies.
- 108 people including core area rangers, members of savings group committees, local authorities and national UNV volunteers attended the Get Ahead for Women in Enterprise course facilitated by ILO.
- 51 people, including Savings Group Committee members, local authorities and core area rangers, made an exchange visit in 2009 to the ecotourism project in Chi Path village, Cardamom Mountains.
- 26 members of the Savings Group Steering Committee visited Chamcar Bei village in Kep Municipality to learn about community development from Bridges Across Borders South East Asia.
- More than 10,000 people living in the reserve have been reached by a community mobilization programme on the topics of water, energy and biodiversity.
- 255 teachers from 75 schools, including 60 from the core areas, have been trained on the Environmental Education Manual and Teaching Materials.
- World and National Environment Day was celebrated in all core areas in 2009.

source: Project Fact Sheet, UNDP, October 2010

Project staff added to the outputs listed in above UNDP project fact sheet:

- 25 Community Savings Groups comprising 511 families were functioning in 2011 with guidance from a Steering Committee. In all, 500 (98%) families borrowed 211 million riel (US\$ 5275) to buy fishing gear or start small businesses, such as processing fish, selling sugar cane juice or groceries, selling vegetable, selling clothes, buying traditional fishing gear, vegetable growing, culture ell, culture striped catfish, and raising pigs or chickens.
- 159 persons (59 females) attended the dissemination courses with 5 courses in Beoung Tonle Chhmar and Steung Sen core area on statute and regulation of community's natural protection which facilitated and coordinated by MoE in 2010
- 38 saving group committees, rangers, and commune council jointed the training on saving group's administration and financial management in 2010
- 25 rangers, commune council, and saving group members received the training fattening pig production which provided technical assistant by CelAgrid Organization for 4 days in 2010
- 20 saving group members received training on striped catfish and eel culture in cage for 4 days which facilitated by FiA in 2010
- 16 people (6females) included rangers, commune councils, saving group committees, and community's natural resource protection attended a 4 days TOT training on Entrepreneurship Together Ahead for women in enterprise and family financial education which facilitated by ILO in 2010
- 28 persons (9 females) from 3 CAs took part in community's livelihoods reflection workshop in 2010.
- 25 trainees (9 females) includes GDANCP-MoE, rangers, PED, MoEYS, FiA received 2 days training on Gender Policy, Gender Mainstreaming,, and Gender Equality Project Cycle in 2010.
- 29 rangers, commune councils, saving group committees, community fisheries, received 4 days training on Role of Gender Focal Point Person, and livelihoods of the community natural resource protection and conservation in 2010.
- 24 secondary and primary school teachers from 3CAs were attended orientation workshop on Eco-club dissemination which facilitated by TSCP-EE for a day.
- 36 teachers in target school joint the training on eco-club concept, eco-club formation, and eco-club proposal.
- 9 eco-clubs in target schools have been established. The main eco-club's activities were to provide opportunity to contribute the social activities as well as waste management, sanitation and hygiene, and water tree re-planting and natural resource management in 2010

4. Conclusions, Recommendations and Lessons Learned

4.1 Conclusions

4.1.1 Substantial results for conservation

TSCP has achieved some significant results in terms of establishing the management systems for the Core Areas of the Tonle Sap Biodiversity Reserve and reducing the level of illegal fishing and hunting. The project provided equipment, management and human resources which has created a site level conservation authority in the Core Areas where none existed previously. The boundary demarcation, ranger patrols, monitoring and enforcement have served to raise awareness of the conservation areas and to deter illegal activities. There is a new appreciation within communities of the effects of overexploitation and destructive practices and the consequences of violating conservation laws. The result is an increased level of conservation within the Core Areas as reflected in general survey data on bird populations and anecdotal patrol information on illegal activities.

4.1.2 Limited institutional change

Despite the observable improvement in the management of the Core Areas and the enhanced skills of project staff and contractors, the extent to which GDANCP and Provincial DoE have integrated the conservation responsibilities, plans and management systems into government operations is very limited with the notable exception perhaps of the patrolling and reporting processes which may be sustained with the ongoing help of WCS. TSCP has clearly established the management infrastructure and tools and recruited and trained staff but it has not fundamentally developed the long term institutional capacity necessary for conservation of the Core Areas or the overall TSBR conservation areas. The conflict with fishing lots remains largely unresolved, the Core Area management plans are mostly ignored and the organization and commitment within government to sustain the achievements to date are not evident. For these reasons, TSCP may be considered to have been *moderately satisfactory* in achieving the objective of strengthened management capacity for biodiversity conservation.

4.1.3 Implications for development assistance

The lessons from TSCP (and TSEMP) are important for future assistance in protected areas management in Cambodia. The various difficulties in previous projects with policy reform have led to a site-based support model that assumes long term donor funding for local monitoring, enforcement and awareness-building that will provide a bottom-up means of strengthening of national capacity to manage protected areas. The primary implementation modality has been for international NGOs to lead and oversee site management and training in cooperation with a project management unit that, although efforts are made to involve government staff, is not fully integrated with government responsibilities. This approach has produced a high level of outputs and accountability during the course of the project but it largely avoids the structural barriers to effective institutional capacity development. Project non-sustainability has become the norm in Cambodia. Accordingly, TSCP viewed institutional change as a government concern outside of the site-focused scope of the project. The emphasis on technical and financial support rather than systemic capacity development is understandable given the challenges in Cambodia but it inevitably reinforces a parallel system that

is increasingly resented by government staff. A new form of partnership and incentives needs to be considered that moves beyond training of staff toward facilitating more effective organizations responsible for biodiversity conservation.

4.1.4 Biodiversity monitoring and reporting

The Biodiversity Monitoring component is considered to be the most successful aspect of TSCP because it has established an effective and accepted set of protocols and procedures for monitoring, patrolling, recording and reporting on biodiversity and the local hunting, fishing and other activities affecting conservation. The success is largely due to the relationship between TSCP, GDANCP and WCS and the concerted effort in developing and refining the MIST system, undertaking wildlife population surveys and training in patrolling and law enforcement. The monitoring component has resulted in both a significant improvement in the data and knowledge on biodiversity and in strengthening the compliance and enforcement of conservation laws. There are still gaps in the enforcement practices and obvious questions of sustainability but the ranger patrolling is a major improvement over the pre-project situation. Weaknesses remain in internalizing and fully establishing the MIST system within MoE. As much as WCS has endeavored to involve MoE in compiling and using MIST data, the prospects of national ownership of the monitoring and reporting are very uncertain.

4.1.5 Livelihoods and savings groups

The livelihoods program and related development of self-help and savings groups took some time to gain momentum in the project but it have resulted in some significant local improvements in savings and income generating activities. The contribution of UNV staff through the *Japan Trust Fund* was important in mobilizing communities. Project staff have worked hard to establish the 25 self help groups. Some of the livelihoods related to handicrafts have not been successful but others associated with traditional activities such as household fish farming have been profitable for the members of the groups. By avoiding commercial money lenders and managing the loans themselves, the costs of loans for small enterprises and other expenses are greatly reduced, resulting in substantial profits or savings and reinvestment back into the group funds. Many of the groups have increased their initial investment funds by four times. This component has been greatly appreciated by communities. Two aspects of the program have not been effective however: the subsidization and sale of household water filters (few still in use) that provided start-up capital for the initial groups, and the lack of a direct linkage to conservation objectives and behaviours from the promotion of alternative livelihoods. The 'conservation dividend' from successful microfinance and livelihoods has not been clearly demonstrated.

4.1.6 Environmental education and eco-clubs

The education program was slow in starting but it has resulted in important environmental education teaching materials, training of teachers and initiation of eco-clubs in schools. The project team and Ministry of Education, Youth and Sports have introduced the first environmental education curriculum, training program and eco-clubs in Cambodia's schools – a significant achievement for the project. Curriculum and teaching materials will have a lasting benefit, but sustaining and expanding

of the program is doubtful given the lack of available funding, although individual teachers expressed a commitment to continuing to utilize the teaching aids and skills acquired.

4.1.7 Project organization

The TSCP organization involved the creation of a central Project Management Unit within MoE under the direction of Cambodia National Mekong Committee (CNMC)/TSBR Secretariat and Project Implementation Units (PIUs) in five provinces (originally). The CNMC management and MoE implementation relationship was cumbersome and led to requests to relocate the office closer to MoE. Also, many of the contracted/seconded project staff were not regularly engaged in conservation duties for protected areas, and the project structure was not fully integrated with government operations in terms of building targeted capacities and responsibilities of the key government authorities. This is a particular issue for government staff who feel that the project has been driven by UNDP and contractors without sufficient communication and partnership with government especially MoE (e.g., forced early closure of the project). The complex structure and geographic spread of the project, the heavy involvement of external staff, the weak CNMC-MoE-FiA working relationships, the lack of sustained results from PIUs inherited from TSEMP, and the inadequate emphasis on long term institutional strengthening of GDANCP (MoE) and PNRCOs (DoE) suggest distinct limitations and inefficiencies in the particular design of the TSCP project organization.

4.1.8 Adaptive management

TSCP project management has demonstrated a relatively high level of responsiveness and initiative in adjusting project activities during implementation, in responding to the mid-term evaluation recommendations and in adapting to the various issues, staff changes and other demands that arose. The involvement of project interns during the early years of the project, the linkages with the UNV/JTF program, ILO business training and the recent efforts made by project management to align activities with management plans, to coordinate MoE-FiA enforcement activities and explore financing options are examples of the active management style that was adopted by TSCP management. The project has generally had effective managers and technical advisors at the strategic level that have recognized the importance of the project for Cambodia and UNDP and have sought to improve the performance of the project. However, there have also been significant internal operational weaknesses that have constrained project partnerships, performance and quality assurance, including aforementioned communication and coordination issues between CNMC, MoE and UNDP.

4.1.9 Project implementation efficiency

TSCP implementation, like many other projects in Cambodia, has been dominated by issues of inadequate individual incentives and travel allowances, slow and cumbersome decision making processes, continuous delays in approvals and payments, and weak internal communications. Many of the reasons for these project implementation difficulties lie outside of the project control and relate to civil service reform, institutional capacities and staff salaries. But the operational problems also stemmed from unclear administrative procedures, lack of timelines for key activities (such as per diem payments), lack of decentralized responsibility and budget to resolve operational problems

at the field level and the general absence of performance measures for project implementation. Added to these constraints were complicated administrative processes and the withdrawal of government salary supplements. As a result, there have been reported regular delays in work plan approvals, work completion and payments that have hindered project implementation. Poor communications between headquarters and the field have also occurred. Insufficient attention may have been given to the role of project management in monitoring such operational issues and resolving problems in project delivery. One factor may have been the lack of a designated project team officer responsible for the Biodiversity Monitoring component. A more rigorous, transparent performance-based approach to supervision of project implementation is needed in future nationally executed projects.

4.1.10 Sustainability potential

From the outset, institutional and financial sustainability has never been effectively designed into TSCP, which admittedly is a major challenge anywhere. The primary concern is that sustaining project results is almost totally dependent on the uncertain prospects of further donor funding. Future programs need to learn from TSCP in the design of an appropriate package of incentives and capacity development support measures that lead to institutional change and innovative financing for improved Core Area site management models. Successful site-based management can serve to influence policy and institutional development for protected areas in Cambodia. The need for budget advocacy, revenue generation and partnerships has not been a priority for the government or international assistance.

4.2 Rating of Project Performance

Rating Indicators	Level of Achievement	Reasons for the Rating
Project Results <ul style="list-style-type: none"> ▪ Progress toward Objective – strengthened management capacity for biodiversity conservation in TSBR ▪ Achievement of project output targets <ul style="list-style-type: none"> 1 - Increased institutional management capacity development 2 – GDANCP/PDE staff core area management capacity 3-Biodiversity monitoring effective core area management 4- Environmental education ... 5- Communities environmental friendly livelihoods 6- Gender support in core areas 	<i>Satisfactory (S)- Moderately satisfactory (MS)</i>	<p>Significant progress observed toward the project objective especially under Component 2 and 3, but much of it is non-sustainable. Most of the planned outputs were effectively achieved in terms of boundary demarcation, management plans, trained staff, monitoring systems, livelihoods development, education curriculum and teacher training, and community awareness.</p> <p>But these outputs have only partially led to the expected outcome of institutional capacity and national ownership/</p>

		commitment necessary for systemic improvement in Core Areas management.
Project Implementation <ul style="list-style-type: none"> ▪ AWP preparation and implementation ▪ Budgeting and expenditure rates ▪ Project organization effectiveness ▪ Adaptive management by UNDP ▪ Project communications ▪ Coordination and operational efficiency 	<i>Moderately satisfactory (MS)</i>	Overall, the project implementation was on-track, responsive and generally effective at completing workplans but there were also many operational, efficiency/cost-effectiveness and communication issues and complaints.
Monitoring and Evaluation <ul style="list-style-type: none"> ▪ M&E plans and process ▪ Monitoring indicators data collection ▪ Quality and timeliness of reporting 	<i>Satisfactory (S)</i>	Quarterly and annual reporting was consistent with UNDP and GEF standards. Adequate adaptive management.
Project Sustainability <ul style="list-style-type: none"> ▪ Institutional sustainability of capacity development ▪ Financial sustainability of achievements and progress 	<i>Unsatisfactory (U)</i>	Sustainability was not considered in the project design and although efforts were made to address some of this in the late stages, many of the project outputs self-sustainability remain unlikely.

4.3 A New Approach

A new model of development assistance for protected areas needs to be formulated, one which contributes more directly to the organizational development and capacity of GDANCP (MoE) and PNRCOs (DoE), the engagement of local authorities and communities in conservation, and the financial sustainability of protected areas management. Institutional reform and capacity development should be central to this model. It is not just a matter of channeling resources to government for more conservation activities but of fundamentally changing and institutionalizing the standards and quality of PA management and the mechanisms for financing. The governance arrangements with communities also need to be part of a co-management strategy that modernizes PA management in Cambodia. This process of rethinking the development assistance model should be guided by a results-based 'conservation agreement' between donors and government with appropriate targets and performance measures that clearly define the long term vision for PA management and the modalities and reforms necessary to achieve it.

The revised approach to PA development assistance should draw directly upon the lessons learned from TSCP and previous projects. It should have particular regard for:

- Standard operating procedures embedded in the organizational structures to address PA management effectiveness objectives;
- Delegation and accountability for roles and responsibilities in GDANCP and administrative support to undertake these responsibilities;

- Greater attention to efficiency in the planning and administration of resources;
- Ongoing monitoring and reporting on management performance at the field and headquarters level; and
- Increased inter-agency coordination and working relationships between ministries

4.4 Recommendations

4.4.1 CNMC and Tonle Sap Authority should support and where necessary facilitate MoE and FiA in establishing an effective system of coordinated and joint patrolling and enforcement of fishing and hunting regulation with the Fishing Lots that overlap with the Core Areas. Continued discussions are needed to finalize such agreements, building upon the progress at Prek Toal.

4.4.2 GDANCP should further develop and implement a Core Areas financing plan that extends the funding partnerships with donors and the private sector, improves eco-tourism potential and revenues (and related financial management), secures cost recovery for fisheries enforcement, accesses UNREDD and other climate change funding, promotes PES opportunities and establishes a Tonle Sap Conservation Fund.

4.4.3 GDANCP and WCS should review progress to date under the UNDP biodiversity monitoring contract to be completed at the end of 2011 and develop a program and budget to fully integrate MIST into the ministry organization, operations and budgeting systems, including the functional operation of the TSBR biodiversity database.

4.4.4 UNDP and conservation stakeholders should re-assess the development assistance model for protected areas in Cambodia and propose an institutional capacity development process that enhances long term results within a multi-donor, government-supported programmatic framework. This should include targeted organizational development within GDANCP to improve responsibilities, performance standards, management capacities, accountability incentives, and financing mechanisms. With the necessary commitment from senior level of government, the lessons from site-based PA support projects can be used to develop a new approach to development assistance for protected areas that has an impact on institutional capacity and therefore sustainability.

4.4.5 The survival and effectiveness of the SHGs need the continual oversight and support of the Central Committee. During the closing stages of TSCP, a mechanism should be developed to provide the modest support necessary to sustain the committee functions, including contributions from the savings of the SHGs.

4.4.6 The approach to promoting microfinance and sustainable livelihoods in support of protected areas and conservation for future projects should also be re-assessed in light of TSCP and other experiences, with the aim of establishing explicit links and conditions between livelihoods development and conservation including the potential use of community conservation agreements.

4.5 Lessons Learned

The objective of TSCP was to strengthen management capacity for biodiversity conservation in Tonle Sap Biodiversity Reserve. Some of the stakeholders suggested that the project was never intended to address capacity at the ministry level. Technical assistance and training were considered the means to strengthening capacity without having to address institutional change. The lack of an overall capacity development strategy and the use of project staff from outside of government imposed severe constraints in a site-based, activity-oriented conservation project that had little sustainability in its design. This is not consistent with the evolving UNDP approach where the enabling environment, organizational and human resource dimensions are to form a structured, results-oriented approach to capacity development.²⁷ Within the constraints on policy and civil service modernization in Cambodia, there are opportunities to improve program commitment/ownership, institutional capacity and performance of MoE in a more effective manner. This begins with recognition that capacity development is a complex process well beyond the scope of the technical assistance and training that are normally provided in conservation projects in the country.

The view of some MoE staff that the project was mostly owned by UNDP, CNMC and WCS is a particular concern that reflects weaknesses in both capacity development strategy and project organization. The split project management-implementation responsibilities between CNMC and MoE imposed a further barrier to effective implementation.

A second key lesson that can be drawn from TSCP is that inter-ministerial and inter-sectoral relationships are important in Cambodia where protected area laws and management duties are generally not harmonized with overlapping authority of other ministries responsible for economic development. The working arrangements between MoE rangers and FiA enforcement staff should have been more directly addressed at the outset. The functions of CNMC in facilitating protected areas implementation, enacting Core Area Management Plans and balancing fisheries-wildlife conservation objectives in conjunction with MoE implementation of the project were also never well defined or executed.

The *TSCP Lessons Learned Report* (December 2010) documented thirty lessons and key issues/suggestions related to Project Coordination and Management, Biodiversity Conservation and Monitoring, Environmental Education and Awareness and Sustainable Livelihoods and Community Development. This terminal evaluation mission confirmed many of the lessons identified by the TSCP team. With regard to the key project formulation lessons, the following issues were noted for future programmes:

- Overly ambitious objectives and unrecognized critical assumptions in the project design regarding the barriers to protected area management capacity development;

²⁷ The policy, organizational and institutional context within which new skills are applied is critical to capacity development programs. See advice in: UNDP, 2011, *Capacity Development Practitioner's Guide: Capacity Development for Environmental Sustainability* and UNDP, 2008, *Capacity Development: Practice Note*. New York.

- The importance of high level commitment and effective incentives for government participation;
- Weaknesses in project organization, communications and the management capacity of government and partners;
- Absence of project strategies that addressed the complexities of institutional capacity development;
- The importance of inter-ministerial and inter-sectoral coordination mechanisms for effective protected areas management; and
- The need to link project assistance for sustainable livelihoods development with conservation objectives.

Annex 1: Itinerary and Interviews for SLM and TSCP Terminal Evaluations

<i>Date</i>	<i>Group/Individual</i>	<i>Project</i>	<i>Location</i>
Tue. 19 Apr 2011			
5.00-6.30 PM	SLM Team Mr. Hou Serey Vathana, National Project Manager Mr. Ear Chong, Project Technical Coordinator Ms. Nuon Chenda, Project Assistant	SLM	LSM Office
Thu. 21 Apr 2011			
8.30-10.00	TSCP Team Mr. Chin Samouth, National Project Manager Mr. Khy An, Environmental Education Specialist Mr. Mok Ora, NUNV Sustainable Livelihood Coordinator	TSCP	TSCP Office
10.30-11.30	SLM Team H.E. Uk Sokhonn, National Project Director Dr. Meas Pyseth, Deputy National Project Director	SLM	MAFF Office
Fri. 22 Apr 2011			
9.00-12.00	Core Learning Team (TSCP & SLM) Mr. Lay Khim, Team Leader, Environment and Energy Unit Ms. Keo Kalyan, Programme Analyst Ms. Ngin Navirak, National Coordinator at UNOP, Mr. Hou Sereyvathana, National Project Manager SLM Mr. Chin Samouth, National Project Manager TSCP Mr. Khy An, Environmental Education Specialist Mr. Mok Ora, NUNV Sustainable Livelihood Coordinator Mr. Sophat Chun, UNDP Programme Officer, M&E Mr. Alan Ferguson, International Evaluation Consultant Mr. Chun Nimul, National Evaluation Consultant	TSCP, SLM, & UNDP	UNDP Office
16.30-18.00	UNV Team Ms. Tep Sovannaroth, Country assistant Miss. Hy Tanhorn, National UNV Specialist	TSCP	UNV Office
Sun. 24 Apr 2011			
10.00-11.30	Mr. Vann Piseth, NAP Coordinator	SLM	Baitong Restaurant
Mon. 25 Apr 2011			
9.00-12.00	Participated in the SLM Project Board meeting	SLM	Sofitel Puketra Hotel
14.00-18.30	Demonstration Site CEDAC	SLM	Takeo Province
Tue. 26 Apr 2011			
9.0-10.30	Discussion with SLM Project Technical team: 1. Mr. Pheng Sophada 2. Mr. Ly Sovannara 3. Ms Phen Sothea	SLM	MAFF
10.30-12.00	Mr. Mak Soeun, Director, Department of Agricultural Extension, MAFF	SLM	MAFF
15.30-17.00	Mr. Pheav Sovuthy Acting Director, Department of Agriculture Land	SLM	MAFF

	Resources Management		
Wed. 27 Apr 2011			
9.00-10.30	TSCP Briefing meeting: <ol style="list-style-type: none"> 1. Mr. Sun Bunnna, Deputy Director, Department of Curriculum Development and Research, MoEYS 2. Mr. Chin Samuth, National Project Manager 3. Mr. Eng Cheasan, Deputy Director, MAFF/FiA 4. Mr. Sun Kolvira, MIST Officer, MoE 5. Mr. Mok Ora, Sustainable Livelihood Coordinator 6. Ms Theng Sopheak, Project Assistant 7. Ms Ngin Navirak, National Coordinator, SGP 8. Mr. Seng Bunra, Country Director, CI 9. Mr. Meng Monyrak, National Project Director, GDANCP/MoE 10. Ms Sophie Allebonne Webb, Technical Advisor, WCS 11. Mr. Chhum Sovanny, Programme Analyst, UNDP 12. Mr. Lay Khim, Team Leader, UNDP 13. Mr. Khy An, National EE Specialist, TSCP 14. Mr. Sun Chanthorn, Programme Associate, UNDP 15. Ms Giri, MSU Head, 16. Ms Rany Pen, Programme Analyst (Gender), 17. Mr. Sophat Chun, Programme Officer, M&E 18. Mr. Chun Nimul, National Evaluation Consultant 19. Mr. Alan Fergusion, International Evaluation Consultant 	TSCP	UNDP Office
11.30-12.00	Telephone talk with Mr. Doley Tshering , Regional Ecosystems and Biodiversity Specialist, UNDP Asia-Pacific Regional Centre	TSCP	UNDP Office
12.00-12.30	Telephone talk with Mr. Sameer Karki , Regional Technical Adviser for Biodiversity UNDP Asia-Pacific Regional Centre	TSCP	UNDP Office
14.30-16.00	SLM Briefing meeting: <ol style="list-style-type: none"> 1. Dr. Meas Pyseth, Deputy National Project Director, MAFF 2. Mr. Chhay Chetha, Deputy Director, IRD/MAFF 3. Dr. Ouk Makara, Director, CARDI 4. Mr. Lay Khim, Team Leader, UNDP 5. Mr. Sun Chanthorn, Programme Associate, UNDP 6. Mr. Chhum Sovanny, Programme Analyst, UNDP 7. Mr. Hou Serey Vathanna, National Project Manager, SLM 8. Ms Nuon Chenda, Project Assistant, SLM 9. Mr. Pheav Savuth, Acting Director, DALRM, MAFF 10. Ms Ngin Navirak, National Coordinator, SGP, 	SLM	UNDP Office

	UNDP 20. Mr. Chun Nimul, National Evaluation Consultant 11. Mr. Alan Fergusion , International Evaluation Consultant		
16.00-18.00	Trip to Kg. Chhnang		
Thu. 28 Apr 2011			
6.30-7.30	Trip to Kompong Loung (Kroko District, Pursat) by TSCP/UNDP Vehicle	TSCP	Kg. Chhnang
7.30-9.30	Trip from Kompong Loung to Beoung Tonle Chhmar by Speed Boat	TSCP	Peam Bang Primary School
9.30-10.30	Group Discussion with Saving Groups and Commune Councils: 1. 15 saving group members 2. 1 commune clerk 3. 2 rangers who in charge of Livelihood Component	TSCP	BTC Core Area Environmental Management Center
11.00-12.00	Group discussion with 9 Rangers	TSCP	BTC Core Area Environmental Management Center
12.00-14.00	Lunch and discuss with Mr Ben Thearat , Vice-Director of BTC core area	TSCP	
14.00-17.00	Trip from BTC to Kompong Chhnang by Speed Boat and TSCP/UNDP Vehicle and stay overnight at Kompong Chhnang town	TSCP	
Fri. 29 Apr 2011			
6.30-07.30	Trip to Steung Sen by TSCP/UNDP Vehicle and Speed Boat		
7.30-9.00	Group discussion with 13 Rangers	TSCP	S.S Core Area E.M.Center
9.00-10.00	Group Discussion with 12 saving group members	TSCP	S.S Core Area E.M.Center
10.00-11.00	Group discussion with: 1. 7 teachers 2. 6 Eco-Club students	TSCP	Phatsanday Primary School
11.00-12.00	Discussion with Mr. Sorn Pipath , Vice-Director of Steung Sen Core Area	TSCP	S.S Core Area E.M.Center
12.00-16.30	Trip from Steung Sen to Kompong Thom Province by Speed Boat and TSCP Vehicle	TSCP	
16.30-17.30	Meet with H.E Heng Hourt , Director of S.S & BTC core area and Kompong Thom PED	TSCP	Kg. Thom Provincial Dept of Environ.
17.30-19.30	Trip from Kompong Thom to Siem Reap Town and Stay	TSCP	

	Overnight		
Sat. 30 Apr 2011			
6.00-8.30	Trip from Siem Reap to Prek Toal by TSCP/UNDP Vehicle and Speed Boat		
8.30-10.00	Group Discussion with Saving Group and Commune Council 1. 16 saving group members 2. 2 commune council members	TSCP	Koh Chiveang Commune Office
10.00-10.45	Group Discussion with 3 teachers: 1. Mr. Korng Vet 2. Mr. Muy Chanthou 3. Mr. Phat Suphorn	TSCP	Koh Chiveang Primary School
11.00-11.30	Lunch at Prek Toal Core Area Environmental Management Center		Prek Toal Core Area E.M. Center
11.30-13.00	Group Discussion with 13 rangers		Prek Toal Core Area E.M. Center
13.00-14.00	Meet with Mr. Soung Piseth , Vice-Director of Prek Toal Core Area		Prek Toal Core Area E.M. Center
14.00-17.30	Trip from P.T to Siem Reap by Speed Boat and TSCP/UNDP Vehicle and stay overnight		
Sun. 01 May 2011			
7.00-12.00	Trip from Siem Reap to Phnom Penh by TSCP/UNDP Vehicle	TSCP	
Mon. 02 May 2011			
8.30-9.30	Ms. Sophie Allebone Webb , T.A, WCS, Cambodia	TSCP Biodiversity Monitoring	WSC
Tue. 03 May 2011			PP
9.00-10.00	Meet with Mr. Sun Bunna , Deputy Director of Department of curriculum Development of Ministry of Education Youth and Sport (Tel: 012 868 656)	TSCP	MoEYS
10.30-11.30	Meet with Ms Heng Seltik , ILO Programme Coordinator (Tel: 012 455 578)	TSCP	ILO
13.00-14.00	Meet with Ms Kirsten Ewers Anderson , Social and Environmental Governance	SLM	UNDP Office
16.00-17.00	Meet with Mr. Long Kheng , Director, Prek Toal Core Area (012 82 83 66)	TSCP	DoE
20.30-21.30	Meet with Mr. Eduardo Queblatin , ITA/SLM Project	SLM	Restaurant
Wed. 04 May 2011			
8.00-9.00	Meet with Mr. Sun Kolvira , MIST Officer (Tel: 012 615 715/ 085 682 005)	TSCP	MoE
9.30-10.00	Background and process of NAP preparation Presentation of key components of the NAP	H.E Koum	Le Royal

	<ol style="list-style-type: none"> 1. Agriculture component 2. Forestry component 3. Policy & Regulatory component 4. Research & Development component 5. Resource Mobilization component: the IFS 	Saron, NAP Mr. Ed Queblatin, ITA/SLM Project	
11.00-12.00	Meet with Dr. Sean C. Austin , ITA	TSCP	Fintrac Office
15.25-15.35	Presentation of key recommendations (NAP)	Dr. Pheav Sovuthy	Le Royal
Thu. 05 May 2011			
8.30-9.45	Recap from day 1	Dr. Pheav Sovuthy	Le Royal
9.45-10.15	Next steps in NAP implementation	H.E Koum Saron	Le Royal
11.30-12.30	Talk with Mr. Walter Sven Martin , Program Coordinator, West and Central Africa Programme Officer, Market Access and Trade Programme, Global Mechanism of UNCCD/ IFAD	SLM	Le Royal
12.30-1.30	Lunch with Dr. Sean C. Austin , ITA	TSCP	De la maison
Fri. 06 May 2011			
9.30-10.15	Meet with H.E Kol Vathanna , CNMC Deputy Director	TSCP	CNMC Office
2.30-3.30	Meet with Mr. Long Rithirak , GEF representative, Cambodia	TSCP	MoE
Mon. 09 May 2011			
9.00-11.00	Debriefing on the Terminal Evaluation with UNDP & Project Team <ol style="list-style-type: none"> 1. H.E Mr. Kol Vathanna, CNMC Deputy Director, 2. Dr. Pheav Sovuthy, Acting Director, Department of Agriculture Land Resources Management, General Directorate of Agriculture, MAFF 3. Mr. Lay Khim, E&E Cluster Team Leader 4. Ms Ngin Navirak, National Coordinator, SGP, UNDP 5. Mr. Hou Sereyvathanna, National Project Manager SLM 6. Mr. Chin Samouth, National Project Manager TSCP 7. Mr. Mok Ora, Sustainable Livelihood Coordinator 8. Mr. Oum Pisey, Integrated Financial Strategy Consultant 9. Mr. Chay Chetha, Representative H.E Chheng Kimsun 10. Mr. Prum Sitha, Fishery Administration 	TSCP & SLM	UNDP Office

	11. Ms. Sophie Allebone Webb , T.A, WCS, Cambodia 12. Mr. Chun Nimul , National Evaluation Consultant 13. Mr. Alan Ferguson , International Evaluation Consultant		
12.00-1.30	Debriefing the preliminary findings with: 1. Ms Elena Tischenko UNDP Country Director 2. Ms Sophie Baranes , Deputy Country Director 3. Mr. Lay Khim , E&E Cluster Team Leader, 4. Mr. Suos Pinreak , National Community Learning Coordinator 5. Mr. Chun Nimul , National Evaluation Consultant 6. Mr. Alan Ferguson , International Evaluation Consultant		
1.30-2.00	Travel of Mr. Alan Ferguson , International Evaluation Consultant to Phnom Penh International Airport and BKK		

Annex 2: Terminal Evaluation Terms of Reference

SPECIAL SERVICE AGREEMENT

1) Position Information

Post Title:	<i>Project Evaluation Specialist</i>
Practice Area:	<i>Environment</i>
Post Level:	<i>International</i>
Duration of the Assignment:	<i>Maximum 36 working days</i>
Duty Station:	<i>E&E, TSCP and SLM</i>
Cluster/Project:	<i>E&E Cluster</i>
Supervisor:	<i>Mr. Lay Khim, Assistant Country Director and Team Leader of E&E Cluster</i>

2) Projects Background

a. Tonle Sap Conservation Project (TSCP)

The Tonle Sap Conservation Project (TSCP) is a seven year (2004-2011) UNDP/Global Environment Facility (GEF)-supported project aiming at developing the management capacity for biodiversity conservation in the Tonle Sap Biosphere Reserve (TSBR) in Cambodia through (i) enhancing the capacity for management of biodiversity; (ii) developing systems for monitoring and management of biodiversity; and (iii) promoting awareness, education, and outreach on biodiversity conservation in the TSBR.

The project is a component of a broader program, the "Tonle Sap Environmental Management Project," co-financed by the Asian Development Bank, GEF, Capacity 21, Wildlife Conservation Society (WCS), and the Royal Government of Cambodia (RGC). The program has three components: (i) strengthening natural resource management in the TSBR; (ii) organizing communities for natural resource management; and (iii) building management capacity for biodiversity conservation. The TSCP is an integral part of the third component and is managed in coordination with the other two components, with common management, monitoring and evaluation mechanisms.

The Project is nationally executed by the Cambodia National Mekong Committee. Project assurance is provided by the UNDP Cambodia Country Office.

The Project design includes a provision for a Final Project Evaluation to be completed at Project end. The TSCP was scheduled for operational closure at the end of 2011 however, due to logistical, financial, and operational considerations, the TSCP Board voted in September 2010 to conclude implementation of all TSCP activities at the end of 2010.

b. Building Capacity and Mainstreaming Sustainable Land Management Project (SLM)

Building Capacity and Mainstreaming Sustainable Land Management Project (SLM) is a 3 year (2008-2011) UNDP/Global Environment Facility (GEF) and Global Mechanism (GM)-supported project aiming at strengthening the enabling environment for sustainable land management, while ensuring broad-based political and participatory support for the process in Cambodia through (i) completing National Action Program to Combat Land Degradation;

- (ii) enhancing Institutional and human resources capacity to plan and implement SLM; and
- (iii) integrating SLM into national and sectoral policies and regional planning.

The project contribute towards the achievement of the following long-term goal: The agricultural, forest and other terrestrial land uses of Cambodia are sustainable, productive systems that maintain ecosystem productivity and ecological functions while contributing directly to the environmental, economic and social well-being of the country. The project contributes to Cambodia's efforts to deliver the Millennium Development Goals (MDGs). The project has relevance for several MDGs, but most directly to MDG 7 - Ensure environmental sustainability.

The project has three outcomes: (i) National Action Program (NAP) is completed; (ii) Institutional and human resources capacity to plan and implement SLM is enhanced; and (iii) SLM is integrated into national and sectoral policies and regional planning.

The Project is nationally executed by the Ministry of Agriculture, Forestry, and Fisheries. Project assurance is provided by the UNDP Cambodia Country Office.

3) General Context

In line with UNDP-GEF Monitoring and Evaluation (M&E) policies and procedures, all full-sized and medium-sized projects supported by the GEF should undergo a terminal evaluation upon completion of implementation.

The terminal evaluation must provide a comprehensive and systematic account of the performance of a completed project by assessing its project design, process of implementation, achievements vis-à-vis project objectives endorsed by the GEF including any agreed changes in the objectives during project implementation and any other results.

Terminal evaluations have four complementary purposes:

- To promote accountability and transparency, and to assess and disclose levels of project accomplishments;
- To synthesize lessons that may help improve the selection, design and implementation of future GEF activities;
- To provide feedback on issues that are recurrent across the portfolio and need attention, and on improvements regarding previously identified issues; and,
- To contribute to the GEF Evaluation Office databases for aggregation, analysis and reporting on effectiveness of GEF operations in achieving global environmental benefits and on the quality of monitoring and evaluation across the GEF system.

4) Objectives of the Assignment

The Monitoring and Evaluation policy in UNDP/GEF at the project level has four objectives:

- to monitor and evaluate results and impacts – particularly on global biodiversity values for TSCP and on addressing land degradation for SLM project;
- to provide a basis for decision-making on necessary amendments and improvements of future projects;
- to promote accountability for resource use, including efficiency and effectiveness of implementation; and
- to provide feedback on lessons learned.

A Terminal evaluation is a monitoring and evaluation process that occurs at the project level at the end of project implementation. Terminal evaluations are intended to review overall project design, assess progress towards the achievement of objectives, identify and document lessons learned (including lessons that might improve design and implementation of other UNDP/GEF projects), and review the extent to which the project addressed the recommendations in the Mid-Term Evaluation (for TSCP). It is expected to serve as a means of validating or filling the gaps in the initial assessment of relevance, effectiveness and efficiency obtained from monitoring. The Terminal evaluation provides the opportunity to evaluate overall project success or failure and to make recommendations for consideration in future projects. Terminal evaluations also assist transparency and improve access to information for future reference.

The Terminal Evaluation is being initiated by UNDP pursuant to the evaluation plan in the Project Document and donor reporting requirements. The Terminal Evaluation aims to focus on determining progress being made towards the achievement of outcomes will identify the relevance, effectiveness, efficiency and timeliness of project implementation; highlight issues requiring decisions and actions; and present initial lessons learned about project design, implementation and management. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and rural livelihood improvement, and the achievement of global environmental goals. It will also identify and document lessons learned and make recommendations that will maximize the impact of the TSCP and SLM going forward, and/or that might improve design and implementation of similar projects.

The Terminal Evaluation is intended to be a systematic learning exercise for project partners. The exercise is therefore structured so as to generate and share experience and practical knowledge. To achieve this, the evaluation will take place in a consultative and participatory rather than advisory manner.

5) Scope of Work

The Terminal Evaluation will be conducted in such a way to ensure that key principles of evaluation are closely respected. The Terminal Evaluation will be independent, impartial, transparent, ethical and credible.

The following broad areas will be covered by the Evaluation:

- relevance of the project concept, design and implementation arrangements in today's context. This includes overall relevance of the Project in the broader global and national context, e.g.. whether the Project outcomes were consistent with the GEF Biodiversity Focal Area Strategy, GEF Operational Program on SLM (OP 15) and country priorities;
- project ownership at the national and local levels;
- stakeholder participation, including gender balances in participation and influence;
- project effectiveness, i.e., progress achieved against planned outputs and sub-outputs;
- partnership and complementarity with other relevant on-going or past activities (the synergy with the two other broader programme components of Tonle Sap Environmental Management Project for TSCP) ;
- sustainability of Project achievements and impacts, including financial, sociopolitical, institutional framework and governance, and environmental sustainability, as well as an assessment of the feasibility of replication and exit strategies;
- any catalytic role played by the project;

- financial aspect: planning, execution and sustainability, including the timely delivery and use of co-financing;
- project efficiency: cost effectiveness including impacts of delays in Project start up and implementation;
- effectiveness of the application of adaptive management principles through monitoring and evaluation (including effective use of log frame, UNDP risk management system, the Annual Project Implementation Reviews, and other monitoring tools and mechanisms as appropriate); and
- extent to which the Project effectively addressed the Mid-Term Evaluation recommendations through UNDP/TSCP management responses.

It is proposed that the assessment be grouped into four components, 1) Project design assessment, 2) Project implementation assessment, 3) Results assessment, and 4) Capacity building assessment. The Evaluation will highlight lessons learned and best (and worst, if applicable) practices in addressing issues relating to relevance, performance and success. Finally, the evaluation will recommend activities, including possible donor-funded interventions, to consolidate and build on Project achievements going forward after Project conclusion.

6) Final Products or Deliverables/Outputs

The Terminal Evaluation will produce the following outputs:

- two detailed Terminal Evaluation Reports in concise English, including Lessons Learned and evaluation conclusions, using the specified UNDP/GEF format (no more than 50 pages/report, excluding Executive Summary and Annexes);
- record of key outputs from the evaluation process, including workshop outputs, and minutes of meetings with stakeholders; and
- summary presentation of Terminal Evaluation Report findings to be presented at the Project Terminal Workshop.

Although the Evaluation Team will have certain flexibility in structuring the report, a suggested format is provided in Annex A.

7) Monitoring and Progress Controls

The evaluation consultant shall work in close collaboration with the TSCP and SLM project team and UNDP CO, E&E Cluster. The following reports shall be submitted to respective TSCP and SLM project and E&E Cluster for review and comment:

- Inception report (including workplan and approach) – after 1 week of the initiation of work
- Progress report against deliverables/outputs and milestones indicating in the inception report

Day-to-day supervision and monitoring performance of the consultants shall be done by E&E Team Leader. The E&E Programme Analyst shall provide overall quality assurance on the draft reports.

Annex 3: Evaluation Criteria

<i>Evaluation Components (ToRs)</i>	<i>Evaluation Criteria</i>
Project Formulation	<i>Was the project design relevant, effective and efficient given the project objectives and expected results?</i>
1) Implementation approach relevance and effectiveness	<ul style="list-style-type: none"> ▪ Consistency and contribution to GEF focal area objectives and to national development strategies ▪ Stakeholder views of project significance and potential impact related to the project objective ▪ Extent to which the linkages between activities, outputs and outcomes (objectives) were clearly established and understood ▪ Changes in project circumstances that may have affected the project relevance and effectiveness
2) Country ownership at national and local levels	<ul style="list-style-type: none"> ▪ Government involvement in the project management and completion of project outputs ▪ Community willingness to engage in project activities and to contribute in-kind toward the project
3) Stakeholder participation in the project concept	<ul style="list-style-type: none"> ▪ Extent to which relevant stakeholders were involved in project implementation, and any that in hindsight were overlooked ▪ Gender equity strategy or measures adopted in the project
4) Replication approach viability in the project concept	<ul style="list-style-type: none"> ▪ Consideration given to expanding and disseminating the approach in other parts of Cambodia ▪ Evidence of replication of project interventions/catalytic role
5) Cost-effectiveness of the project concept and modalities	<ul style="list-style-type: none"> ▪ Reasonableness of the costs relative to scale of outputs generated ▪ Efficiencies or inefficiencies in project delivery modalities
6) UNDP comparative advantage	<ul style="list-style-type: none"> ▪ Efforts to utilize the strategic role of UNDP in supporting project implementation
7) Linkages between project and other interventions within the sector	<ul style="list-style-type: none"> ▪ Efforts to coordinate or harmonize similar or complementary projects or programs that enhance project results
8) Project indicators quality and utilization	<ul style="list-style-type: none"> ▪ Usability and usefulness of the project indicators ▪ Accuracy of the indicators in measuring project results
Project Implementation	<i>Has the project been implemented in an effective, efficient and sustainable manner, consistent with the project design?</i>
9) Financial planning and co-financing	<ul style="list-style-type: none"> ▪ Extent to which project disbursements occurred as planned ▪ Extent of fulfillment of the agreed co-financing commitments ▪ Financial reporting in accordance with UNDP and GEF norms
10) Execution and implementation modalities	<ul style="list-style-type: none"> ▪ Stakeholder views of the effectiveness of the project organization and implementation approach ▪ Timeliness of completion of annual work plans as scheduled

11) Monitoring and reporting process	<ul style="list-style-type: none"> ▪ Implementation of an effective, operational monitoring system ▪ Quality, objectivity, frequency and relevance of Project reporting
12) Project management arrangements	<ul style="list-style-type: none"> ▪ Participants' understanding of roles and responsibilities ▪ Effective management process that is able to respond to issues and needs during implementation (adaptive management) ▪ Effective working relationships between members involved in the project management decision making
13) Management by the UNDP Country Office	<ul style="list-style-type: none"> ▪ Timely and effective implementation of UNDP's role ▪ Guidance and direction provided by UNDP staff on key issues ▪ Identification of risks and management efforts to mitigate or manage risks
14) Coordination and operational issues	<ul style="list-style-type: none"> ▪ Extent and quality of communication and information dissemination between project partners ▪ Level of coordination and collaboration between relevant ministries and programs ▪ Problems or inefficiencies related to coordination functions and integration of activities
Project Results	<i>Has the project achieved its objectives and contributed toward global and national biodiversity conservation and sustainable land management goals?</i>
15) Progress toward Objectives and Outcomes	<ul style="list-style-type: none"> ▪ Level of achievement of expected outcomes or objectives to date ▪ Long term changes in management processes, practices and awareness that can be attributable to the project
16) Achievement of Outputs	<ul style="list-style-type: none"> ▪ Level of completion of planned outputs ▪ Quality and use of outputs completed
17) Sustainability project results	<ul style="list-style-type: none"> ▪ Degree to which outputs and outcomes are embedded within the institutional framework (policy, laws, organizations, procedures) ▪ Implementation of measures to assist financial sustainability of project results ▪ Observable changes in attitudes, beliefs and behaviors as a result of the project
18) Capacity building contribution to upgrading skills of the national staff	<ul style="list-style-type: none"> ▪ Measurable improvements from baseline levels in knowledge and skills of targeted staff/beneficiaries: rangers, technical staff, senior officials, community participants
19) Capacity improvements of the targeted management institutions	<ul style="list-style-type: none"> ▪ Measurable improvements from baseline levels in the planning and management functions of the responsible organizations that were targeted by the project

Annex 4: Interview Guide

This is a general guide to be used in context with the evaluation key issues that are listed above for each project.

Project Formulation

1. Were there any particular aspects of the project design that were either not relevant or not realistic?
2. If the project was to be implemented again, are there any changes in project design and results framework that you would suggest?
3. Were there any project risks that were not identified or adequately considered, and how could they have been better anticipated and managed?
4. How relevant or useful has the project been to the national development priorities of the government?
5. How effective and efficient was the project structure and organization in facilitating implementation? Would you have changed anything in hindsight?

Project Implementation

6. What have been the major challenges or issues in implementing the project? What are the main reasons for delays?
7. Has annual work planning and budgeting been effective, and have disbursements been in line with annual budgets?
8. What changes in project strategy were required during project implementation and what adaptive management measures undertaken? (basis for revised logframes and responses to MTR)
9. Have the project modalities for delivery of activities through government agencies, NGOs and consultants been effective and efficient? What are the key factors that affected project delivery?
10. How effective has project coordination and communication been within the project and with relevant stakeholders?
11. Have the project monitoring indicators been effective and feasible for reporting on progress?

Project Results

12. What are the most important or significant achievements of the project to date in relation to the original or amended project results framework?
13. What expected results have not been achieved or are not fully satisfactory?

14. What follow-up assessment of training program results has been undertaken? What gaps remain in staff capacity development?
15. What changes in institutional capacity could be attributed to the project?
16. Has the project had any unanticipated positive or negative results?
17. How likely is it that the main results – capacity building, etc., can be sustained? What will be the effects of project closure? What preparations are being made for closure?
18. What are the key lessons for future projects that have been learned during the implementation of the project?

Annex 5: List of Documents Reviewed

1. ADB Cambodia: Tonle Sap Environmental Management Project Completion Report, July 2010
2. TSCP. Mid Term Evaluation of the Tonle Sap Conservation Project, Cambodia
3. TSCP. UNDP Management Response, UNDP/GER Tonle Sap Conservation project (TSCP) Mid-Term Evaluation
4. UNV. Evaluation of the United Nations Volunteers Intervention (2007-2009) Tonle Sap Conservation Project
5. TSCP. Minute of Annual Internal Review Meeting in 2008 (Dec), 2009 (Aug)
6. TSCP. Minute of Counterpart Incentive List Meeting in 2009 (Dec)
7. TSCP. Minute of Tonle Sap Project Team Review Meeting in 2010 (Aug, Oct)
8. TSCP. Minute of UNDP/GEF BOARD MEETING in 2008 (Jul, Oct), 2009 (Jan, Apr, Jul), 2010 (Feb, Sep), 2011 (Feb).
9. UNDP/RGC. Project Document: CMB/02/G31/A/1G/99-Tonle Sap Conservation Project. November 2004, Phnom Penh.
10. TSCP. Annual Project Review Report, January – December 2008
11. TSCP. Annual Project Review Report, January – December 2009
12. TSCP. Annual Project Review Report, January – December 2010
13. TSCP. S. Austin, Project Completion Report, January 2005 – December 2010
14. TSCP. Mainstreaming Gender in Natural Resources Management and Conservation – Tonle Sap, Cambodia, Apr 2010
15. TSCP. S. Austin, Capacity Building: Assessment and Recommendations Report, Mar 2010
16. TSCP. EXIT STRATEGY, Nov 2010
17. TSCP. S. Austin, Core Area Management: Financing Assessment, Jun, 2010
18. TSCP. S. Austin Monitoring Framework, May 2010
19. TSCP. Field Visit Report in 2008 (Sep, Nov), in 2009 (Apr, May, Jul, Sep); 2010 (Jun, Jul, Nov, Dec)
20. TSCP. Report of Workshop on Financial Education, Dec 2009
21. TSCP. UNDP GEF APR/PIR 2007. July 2007; APR/PIR 2008. July 2008; APR/PIR 2009. July 2009; APR/PIR 2010. July 2010.
22. TSCP-UNV. Strategy, Work plan & Budget, 2009
23. TSCP-WCS. Monitoring Of Large Waterbirds At Prek Toal, Tonle Sap Great Lake 2010
24. TSCP-WCS. Monitoring of Large Waterbirds at Prek Toal, Tonle Sap Great Lake 2001 – 2007, 2007
25. TSCP-WCS. A review of the status and distribution of large waterbirds in the Tonle Sap Biosphere Reserve, Oct 2008
26. UNDP/GEF. Tracking Tool For Gef Biodiversity Focal Area Strategic Priority One: “Catalyzing Sustainability Of Protected Areas”, 2008, 2009, 2010
27. TSCP. Annual Workplan for 2008, 2009, 2010, 2011
28. NIRAS International, Evaluation of UN Volunteer Intervention TSCP 2007-2009, 11 Dec 2000

ANNEX 6: Summary of Baseline and Current Status of Project Outputs

<i>Project Output Targets</i>	<i>Baseline Conditions 2004</i>	<i>Current Status 2011</i>
Output 3.1: Capacity for management of biodiversity in the Core Areas is enhanced		
3.1.1: Establishment and equipment of Protected Area-Core Area Management Centres Centres established or under development in all three Core Areas by end of 2005; floating centres established in Kampong Chhnang and Pursat by end of 2006; PIUs in all five provinces bordering the lake involved in protected area management activities by end of 2006.	In 1997, a floating center was created in Prek Toal core area by UNESCO. In 2001, WCS/MoE started conservation activities in Prek Toal. No facilities existed for management functions.	The three core area management centers are equipped and functioning with TSMP/TSCP support. Buildings in need to repair and solar system at Prek Toal not functional. 52 Rangers and custodians trained and equipped participate in routine core areas patrolling, reporting, law enforcement, and regulations with salary support from the project. Three environmental education centers established. Signboards have been erected on entry roads to make visitors aware they are entering the Tonle Sap Biosphere Reserve.
3.1.2: Development of Core Area management plans Core Area management plans drafted by end of 2006; boundaries mapped and demarcated by end of 2006; management plans finalized by end of 2007.	No management plans for the core areas. Boundaries existed on the map only.	The management plans of the three core areas were developed in English and Khmer. Poles (steel towers) required for the boundary of the three core areas installed. The final pole in Boeung Tonle Chhmar core area to be installed in 2011.
3.1.3: Development and implementation of a strategy to enforce laws and regulations Strategy in place by end of 2006, and enforcement operational from beginning of 2007 and on a continuing basis thereafter.	DoF of MAFF managed the core area fisheries and forestry resources. WPO/DFW/MAFF had jurisdiction over wildlife and enforcement in the core areas. PAO/PNRCO/MoE was responsible to manage the national system of the core areas. TSBRS coordinate all stakeholder activities in the TSBR. No enforcement strategy.	FiA of MAFF manages the core area fisheries. PIU/PIO/PNRCO/ MoE are responsible to manage biodiversity and the use of natural resources in the core areas. Difficulties in ranger's ability to inspect and enforce in fishing lots. Law enforcement strategy for TSBR has been drafted and is still under review. Some progress in agreement over patrolling in Prek Toal but not other areas. WCS research on balancing commercial fisheries and conservation.
3.1.4: Identification of income-generation activities and development of alternative livelihoods	No SHGs in the core areas. Some livelihoods development had occurred through various income generating	25 SHGs were created in community located nearby the three core areas. Some new skills and training were introduced to the SHG members, some rangers, local authorities, members of community natural resource

Project Output Targets	Baseline Conditions 2004	Current Status 2011
Target focus groups identified and demonstration trials underway in Core Areas by beginning of 2007, and expanding/replicated thereafter.	schemes and previous FAO projects.	protection and conservation, and facilitators –UNVs. These include 1) fish cage culture; 2) mushroom growing; 3) ecotourism in PT; 4) use of cook stove use in 3 core areas; 5) use of water filter in 3 core areas; 6) book keeping and team work; 7) village based holistic community development; 8) improved floating garden; 9) fish culture; 10) pig raising; 11) first aid training; 12) family financial management; 13) small business, 14) Exchange visit , Most of the 25 SHGs are strong; 15 are considered self dependent. Significant increases in savings in some of the SHGs.
3.1.5: Development and implementation of staff training in p.a. management Comprehensive training programme prepared by end of 2005, and training programme implemented as planned from 2006 onward.	Few Protected Area staff in Prek Toal with some support from WCS although MoE was essentially responsible for the areas. WCS had been working with MoE staff on various monitoring studies	- 162 participants (include 52 rangers from the three core areas and from province of Pursat, Siem Reap and Kampong Chhnang) were trained on basic knowledge of environmental and conservation, law enforcement, mapping, GPS, English, database, and management skill. - 74 officers of MoE (60) and FiA were trained on environment, Tonle Sap and PA Management. - 6 provincial officers of DoE and 3 national officers attended study tour in Bangladesh. - 6 national senior officers learned and shared experience through study tour in Kenya. - 10 rangers and senior field staff participated in study tour Thailand. - Some short courses on administration for PIU staff.
3.1.6: Development and implementation of standardized procedures for the Protected Sites designation Criteria for the designation of protected sites reviewed, and needs for additional sites within the TSBR identified by mid-2006.	8 fisheries sanctuaries were established in the TSBR and managed by DoF/MAFF. No procedures for PA selection and designation.	PA selection process developed in early stages of TSCP. 5 new biodiversity conservation areas were created in RSP (2), Pursat (2) and Kampong Chhnang (1). Siem Reap.
Output 3.2: Systems for monitoring and management of biodiversity are developed		
3.2.1: Design and implementation of a biodiversity monitoring programme for TSBR Indicator species for monitoring programme	WCS were working in Prek Toal but no systematic monitoring process in place.	Protocols established to survey large waterbirds, water snakes, Sares crane, Bengal floricon and crocodiles. MIST System is being applied in the three core areas to monitor waterbirds and other biodiversity under the support

Project Output Targets	Baseline Conditions 2004	Current Status 2011
identified by end of 2005, and monitoring programme started from 2006 and on a continuing basis thereafter.		of MIST Officer in GDANCP.
3.2.2: Establishment of a rapid response mechanism for seasonal protection of biodiversity Fully resourced rapid response team in operation by beginning of 2006.	This mechanism is intended to respond to significant violation of protected Area Law. No response arrangements were in place.	Rapid response mechanisms for reporting illegal activities established in all core areas through the patrol functions.
3.2.3: Development of a strategy for the control of exotic species, and implementation of management trials Strategy in place by end of 2006, and management trials and monitoring protocols operational from beginning of 2007 and on a continuing basis.	No reported strategy in place.	WCS report on “An assessment of Exotic Species in the TSBR and the Threat to Biodiversity”. Although some management measures are available, an initial review concluded that they are largely unfeasible and unlikely to be effective at the scale of the Biosphere Reserve.
Output 3.3: Awareness, education and outreach on biodiversity conservation in the TSBR are promoted		
3.3.1: Development and implementation of an environmental awareness, education and outreach programme Strategy for Environmental Awareness, Education and Outreach Programme (EAEOP) and education tools developed by end of 2006. EAEOP operational in all five provinces bordering the lake from beginning of 2007.	<p>There were some activities of MoEYS and NGOs on EEA in floating village and local schools around Tonle Sap.</p> <p>GECKO center (originally FAO funded) and Osmose are two key players in Chong Kneas, Siem Reap and Prek Toal, Battambang who were active in awareness raising.</p>	<p>EE programme: TSCP reports that more than 10,000 people living in 5 provinces have been reached by a community mobilization program on the topics of water, energy and biodiversity.</p> <p>World and National Environmental Day were celebrated in all core areas in 2009 and 2010</p>
3.3.2: Provision of environmental education centres Core Area Management Centres established or under development in all three Core Areas by end of 2005, floating centres established in Kampong Chhnang and Pursat by end of 2006,	GECKO center-FAO funded. The centre fell into disrepair when funding ended.	<p>GECKO center in Siem Reap was repaired and is used to provide information on Tonle Sap and floating villages. The center is still in operation but, relocated away from the lake shore, is barely functional.</p> <p>A new floating center has established in Prek Toal core area.</p> <p>Rangers were expected to provide environmental education to students and teachers in their target villages with the collaboration of Osmose, Eco-Clubs</p>

<i>Project Output Targets</i>	<i>Baseline Conditions 2004</i>	<i>Current Status 2011</i>
and all in use for delivering environmental education programming by beginning of 2007.		and Schools campaigns, but there is little evidence of this having occurred.
3.3.3: Integration of EAEOP into selected schools around the TSBR EAEOP integrated into “cluster schools” programme of Ministry of Education, Youth and Sports by mid-2009.	No known environmental education in the school system	<p>The curricula on Tonle Sap environmental educations for students and teachers grade 4-9 were developed and being used in the area for EE mainstreaming activities.</p> <p>255 teachers from 75 schools around the lake, including 60 teachers from core areas, have been trained on the environmental manual and teaching materials</p> <p>36 secondary and primary schools from 3CAs were attended orientation workshop on Eco-club dissemination, eco-club concept, and eco-club formation.</p> <p>9 eco-clubs in target schools have been established. The main eco-club’s activities was to provide student’s opportunity to contribute the social activities as well waste management, sanitation and hygiene, and water tree planting and natural management</p>

TSCP 2009 Strategic Results Framework – Status of Achievements

Objective and Anticipated Results:	Indicator	Baseline (2008/09)	Target (2011)	Means of Verification	Level of Achievement - April 2011
Objective: Strengthened management capacity for biodiversity conservation in TSBR	1. Capacity Score Card	?	By the end of the project the score is at least...	Scorecard assessment	No data
	2. Average METT Scores	?	By the end of the project the score is at least...	Scorecard assessment	<p>Preak Toal Core Area: increased its management effective from 62 in 2005 to 77 in 2011.</p> <p>(2) Stung Sen Core and Beung Tonle Chhmar Core Areas increased their management effectiveness from 22 in 2005 to 51 in 2011.</p>

Outcome 1: Institutionalised effective management and monitoring of Core Areas for biodiversity conservation					
Output 1.1: GDANCP/PDE staff demonstrating Core Area management capacity	Annual Core Area Management Plan implementation plan	Annual and quarterly workplans and reports (2009)	Annual and quarterly Core Area Management Plan implementation plan developed and actioned by GDANCP	Annual and quarterly workplans and reports	Key activities of core area's management plan were prioritized and incorporated in TSCP annual work plan for implementation in the project period.
	Core Area Management Plan priority actions and costs	3 x Core Area Management Plans (2007-08)	Priority actions and costs identified and actioned	Annual and quarterly workplans and reports	Priority activities for actions and cost for implementation were identified in Quarter 1, 2010.
	Staff capacity to implement Core Area Management Plan	Previous training sessions delivered (2005-2008) & informal capacity assessment (n/a)	Staff fully capable of implementing Core Area Management Plan	Annual and quarterly workplans and reports	Staff and site management's capacity were enhanced through series of training and TSCP Capacity Building report prepared, March 2010
Output 1.2 : Biodiversity monitoring enables effective Core Area management	Institutional utility of MIST in Core Area management	Current MIST information flow system between Core Areas and Head Office (2009) & informal utility assessment (n/a)	Utility of MIST in Core Area management increased according to GDANCP	Informal assessment, annual and quarterly workplans and reports	MIST data collection from core areas is routinely compiled by MIST officer from GDANCP. Field MIST officers trained regularly (currently MIST implemented by GDANCP) with support from WCS.
	Giant Mimosa monitoring	Currently not integrated into MIST & GDANCP/PDE, community members not trained to identify or remove as per best practice (2009)	MIST system being used to monitor Giant Mimosa and GDANCP/PDE, community members can identify and remove as per best practice	MIST, capacity assessment from training	MIST update to include Mimosa Pigra
	Biodiversity monitoring	Annual biodiversity monitoring reports (2005-2008)	GDANCP entirely responsible for continued biodiversity monitoring	Biodiversity reports	Site monitoring, operation and implementation continue to use MIST system, data and reports are prepared by MIST officer at GDANCP/WCS.

Output 1.3: Sustainable Financing mechanisms for Core Area management are identified	Realistic options for sustainable and alternative financing of Core Area Management Plan implementation	Preliminary information indicates informal use of eco-tourism revenue to cover some operational costs (Prek Toal - 2009)	Report identifying realistic options for sustainable and alternative financing developed and presented for consideration.	Report, Government comments	Financing Assessment has been conducted and workshop on financing mechanism for the core areas was completed.
	Visitor Centers' financial sustainability	Current visitor center costs covered through TSCP (2005-2009) - currently no business plan exists for revenue generation	Business plans developed for visitor centers	Report, Government comments	There is fee collection for Prek Toal to generate additional income for the management of the Core area. No business plans or formal financial management system for visitor fees.
Outcome 2: Core Area communities aware of and contributing to biodiversity conservation					
Output 2.1: Environmental Education integrated into formal and informal education systems around Core Areas	Use of Environmental Education (EE) curriculum in schools	Current use of EE curriculum in schools (n/a)	Target schools include EE curriculum in weekly life-skills sessions	Annual and quarterly workplans and reports	EE and Eco-Club are integrated with weekly life-skills curriculum, friendly school program, geography, and biology subject or free time class.
	Environmental awareness/understanding change among participating teachers and students	Current awareness levels (n/a)	50% increase in environmental awareness/understanding among participating teachers and students	Awareness assessment	Environmental education in class is linked to eco-club activities. Estimated 70% of teachers and students are aware and understand environment and conservation perspective such as waste management, clean water, sanitation and threat of natural resources
	Number of target students actively participating in school Eco-clubs	There are currently no operational eco-clubs in target schools (2009)	At least 200 students actively participating in eco-clubs in target schools	Annual and quarterly workplans and reports	Eco-club in 9 schools has been formed and eco-club activities in school have created with participated by 19 volunteer teachers and 562 students.
Output 2.2 : Core Area communities practicing "green" livelihoods	Number of Core Area families participating in TSCP-supported self-help groups	318 CA families participating in TSCP-supported self-help groups (2009)	20% increase in number of CA families participating in a self-help group	Annual and quarterly reports	25 saving groups are formed by end of 2010. Most of groups are strong and can be self dependent.

	Number of self helps group members with diversified/increased income from "green" livelihoods.	Current sources and levels of income (2009)	30% increase in number of self help group members with diversified/increased income from "green" livelihoods	Annual and quarterly reports	98% of Self help group members used saving money for their diversified livelihoods and income generation. Livelihoods are not always "green".
Output 2.3: Gender-biodiversity conservation links in Core Areas identified and strengthened if possible	Gender-biodiversity conservation links	Current understanding (n/a)	Gender-biodiversity conservation links identified in report and presented for consideration	Report	Strategic Implementation Matrix Mainstreaming for Gender and Environment was developed and series of training on gender has been provided to counterpart staff, saving group, local authority, commune council, rangers and stakeholders concerned.
Outcome 3: Strengthened results-based project management					
Output 3.1: Increased management capacity to monitor and promote project achievements	Results-based monitoring plan and templates	Current activity reports (2009)	Monitoring plan allows identification and promotion of results and achievements	Monitoring plan, annual and quarterly workplan and reports	Monitoring Framework is developed by Technical Management Specialist. This framework was discussed but not implemented due to early closure.
	Communication plan	There is currently no TSCP-wide communication plan (2009). Current levels of TSCP visibility (n/a)	Communication plan leads to increased project visibility	Communication plan, TSCP-related articles and media coverage	No communication plan so far. Database and website under development. Dissemination workshop is organized for Quarter 2, 2011.
	Synergies and collaboration with related projects	Current collaboration with related projects (n/a)	Increased collaboration and synergies with related projects	Annual and quarterly workplans and reports	Consultation of collaboration between GDANCP/MoE & FiA/MAFF has been conducted. Four meetings were organized.

Annex 7: GEF funded UNDP Tonle Sap Conservation Project

Summary of work by Wildlife Conservation Society, Cambodia Program

April 2011, WCS Cambodia

Contractual deliverables (2005 – 2011)

Deliverables²⁸ <i>Delivery date as per contract</i>	Expected activities²⁹	Description of activities	References and documents (see end for full reference)
¹ Report on the biodiversity of the Tonle Sap Great Lake (based on compilation of existing data) <i>January 2006</i>	Consolidation of existing knowledge on the biodiversity of the Tonle Sap and its management, including a review of the quality of and gaps in biodiversity knowledge and management systems	Review and compilation of available information on the biodiversity of Tonle Sap Lake completed November 2005-January 2006. Report "The Biodiversity of the Tonle Sap Biosphere Reserve 2005 Status Review" [1] printed March 2006 and 500 copies distributed.	[1] The biodiversity of the Tonle Sap Biosphere Reserve 2005 Status Review
Biodiversity monitoring report for the Prek Toal Core Area <i>March 2006</i>		Annual monitoring of Prek Toal Core Area has been conducted since 2001, including: <ul style="list-style-type: none"> • Ground-based platform counts (2004 – 2011) and aerial surveys (in 2005, 2006 and 2007) of large water bird colonies, and comprehensive reporting completed [2-7]. • Water snake harvest monitoring since 2009 (<i>report in preparation</i>) • Siamese crocodile movements (2007) [8] 	[2] Water bird conservation activities in Prek Toal, 2001-2004 [3] Prek Toal aerial surveys 2005 [4] Water bird monitoring at Prek Toal 2001-2007 [5] Water bird monitoring at Prek Toal 2008 [6] Water bird monitoring at Prek Toal 2009 [7] Water bird monitoring at Prek Toal 2010 [8] Siamese crocodile monitoring
Survey reports from	• Survey and monitoring of	Several field surveys and visits have been conducted,	[3] Prek Toal aerial surveys 2005

²⁸ per UNDP Contract No. 2005/10/025 dated October 21, 2005 (Section 2.5, page 3), unless otherwise stated.

²⁹ from WCS proposal dated 25 June 2005.

<p>Boeung Chhmar and Stung Sen Core Areas, as part of the adaptation of the biodiversity monitoring protocol for all Core Areas</p> <p><i>At least two field visit reports during first 12 months of contract</i></p>	<p>breeding colonies and feeding aggregations of large water birds</p> <ul style="list-style-type: none"> • Survey and monitoring of post-breeding dispersal of large waterbirds in adjacent grasslands 	<p>including:</p> <ul style="list-style-type: none"> • Overflights of Stung Sen, Boeung Chhmar and Dei Roneat conducted 24 March and 13 April 2005 [3] • Field and interview survey focussing on globally significant waterbirds, mammals, reptiles and invasive species in Boeung Chhmar Core Area conducted 13-17 September 2006. Report "A Survey of Boeung Tonle Chhmar Core Area of the Tonle Sap Biosphere Reserve" [9] • Field and interview survey focussing on globally significant waterbirds, mammals, reptiles and invasive species in Stung Sen Core Area conducted 15-20 November 2006. Report "Biodiversity Surveys of Stung Sen Core Area and the Proposed Prey Kos Conservation Area, Tonle Sap Biosphere Reserve" [10] • Annual survey of sarus cranes every dry season since 2007 as part of the annual census [11-14]. • A report on the distribution of large waterbirds around the Tonle Sap produced every year since 2008. This includes data from MIST, ranger observations, and other observations and surveys [12, 15, 16]. • Baseline surveys of the Bengal Florican in the Tonle Sap floodplain grasslands conducted in 2005/06 and 2006/07 [17], followed by annual monitoring [18, 19]. • Asian Waterfowl Census completed every winter (December – January) since 2006/07. Each year, AWC data has been forward to Wetlands International (which coordinates and maintains the regional database) with copies sent to TSCP and MoE. 	<p>[10] Sung Sen biodiversity surveys</p> <p>[9] Boeung Tonle Chhmar biodiversity survey</p> <p>[11] Sarus crane survey 2007</p> <p>[20] Sarus crane survey 2008</p> <p>[13] Sarus crane survey 2009</p> <p>[14] Sarus crane survey 2010</p> <p>[21] TSBP large water bird distribution 2008</p> <p>[15] TSBP large water bird distribution 2009</p> <p>[16] TSBP large water bird distribution 2010</p> <p>[17] Bengal florican baseline surveys</p> <p>[18] Bengal florican survey 2009</p> <p>[19] Bengal florican survey 2010</p>
<p>Biodiversity monitoring protocol</p>	<p>Comprising simple, replicable, site-based monitoring of:</p>	<p>The completed protocols have been assembled into a report (Tonle Sap Biodiversity Monitoring Protocols 2007</p>	<p>[22] Tonle Sap Biodiversity Monitoring Protocols</p>

<p><i>Series starting March 2006</i></p>	<ul style="list-style-type: none"> • Breeding colonies of large waterbirds in flooded forest in the Prek Toal Core Area • Breeding colonies of large waterbirds in the Boeung Tonle Chhmar and Stung Sen Core Areas • feeding aggregations of large waterbirds in the Boeung Tonle Chhmar and Stung Sen Core Areas • watersnake harvests in and around the Prek Toal and Boeung Tonle Chhmar Core Area flooded forests • breeding Bengal florican populations and post-breeding dispersal of large waterbirds in grassland and agricultural habitats in the outer floodplain (adjacent to Boeung Tonle Chhmar and Stung Sen Core Areas (WCS 2005, p. 2) <p>Consideration is also to be given to including other indicator species and species groups that are sensitive to environmental change, but relatively common and easily monitored, and linking fish datasets to monitored fish predators (<i>e.g.</i>, large waterbirds) (WCS 2005, p. 2)</p>	<p>[22], 200 copies of which were printed prior to end of Q4 2007 and distributed according to an agreed list compiled by MoE, WCS and TSCP. This included protocols for:</p> <ul style="list-style-type: none"> • Breeding colonies of large waterbirds, “Chapter 1: Large Waterbirds”. • Watersnake harvests “Chapter 2: Watersnake monitoring”. • Breeding Bengal florican populations (protocol includes capture of information on post-breeding dispersal of large waterbirds in grasslands), “Chapter 4: Bengal Florican Monitoring”. • Crocodiles (not formally part of BMS contract, but methodology and monitoring information is being shared), “Chapter 3: Crocodile Monitoring”. <p>In addition, the following protocol has also been prepared:</p> <ul style="list-style-type: none"> • Monitoring the distribution of large water birds in the TSBR, including waterbird feeding aggregations in the Boeung Tonle Chhmar and Stung Sen Areas. Appendix 1 in [21], “A protocol for recording wildlife observations in the TSBR”. <p>To date, no breeding colonies have been discovered at Boeung Tonle Chhmar or Stung Sen Core Areas. Consequently, waterbird breeding colonies are monitored only in the Prek Toal Core Area, the primary (and possibly only) breeding site in the Biosphere Reserve.</p>	<p>[21] Includes protocols for monitoring large waterbird distributions</p>
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<p>Biodiversity protection protocol</p> <p><i>Series starting March 2006</i></p>	<p>Including:</p> <ul style="list-style-type: none"> • Training and management support to Government staff • Dedicated nest protection by teams of Rangers • Regular patrols and law enforcement along key waterways • Rapid reporting of illegal incidents through a local informer network • Engaging with and enlisting the cooperation of fishing lot owners <p>And establishment of a rapid response mechanism to deal with:</p> <ul style="list-style-type: none"> • Seasonal fires and encroachment from upland areas into the Core Areas • Seasonal settlements within and adjacent to the Core Areas • Illegal damming and pumping of key watercourses • Uncontrolled ecotourism development 	<p>Water bird colony and other biodiversity protection and rapid response mechanisms have been well established at Prek Toal since 2004 (e.g., [2]), including nest protection and patrols along key waterways. Procedures for rapid reporting of illegal incidents are clear and well executed when necessary (see quarterly and annual reports).</p> <p>Key protection activities also are integrated in MIST implementation protocols and in the Core Area Management Plans [23-25] for all three core areas. Initial MIST training of Prek Toal, Stung Sen and Boeung Tonle Chhmar Rangers was conducted 2007 [26-28], with regular training by WCS since then in MIST [29-33], general ranger skills (see quarterly and annual reports), and law enforcement (e.g. [34]). Law enforcement and patrols have been effective at Boeung Tonle Chhmar and Stung Sen since 2008.</p> <p>Rapid response mechanisms to deal with fires are established whereby ranger teams alert the environmental station if they see fire, and then village and ranger teams work to quickly halt the spread of fire.</p> <p>Through a DFID/Danida funded project, a one-year research study was done investigating the conservation, commercial, and socio-economic benefits of the current Prek Toal and Fishing Lot 2 areas, with recommendations for change. Through this work, team members engaged with fishing lot owners, sub-lessees, fishing labourers, and local fishermen [35]. This study also investigated the issue</p>	<p>[2] Prek Toal waterbird monitoring 2001-2005</p> <p>[23] Prek Toal Management Plan</p> <p>[24] Boeung Tonle Chhmar Management Plan</p> <p>[25] Stung Sen Management Plan</p> <p>[26] Prek Toal MIST training report 2007</p> <p>[27] Stung Sen MIST training report 2007</p> <p>[28] Boeng Tonle Chhmar MIST training report 2007</p> <p>[29] Wildlife monitoring and MIST training, rangers from all three core areas July 2008</p> <p>[30] Training in basic MIST-GIS database management for MIST-GIS officer from all three core areas August 2008</p> <p>[31] MIST-GIS training SS December 2008</p> <p>[32] MIST-GIS training BTC April 2009</p> <p>[33] MIST-GIS training PT May 2009</p> <p>[34] Wildlife leaders training workshop, March 2011</p> <p>[35] Fishing Lot Study 2010</p>
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		of seasonal migrants to the Prek Toal core area and adjacent fisheries, issues of illegal fishing (including pumping and damming, community fisheries management vs management of commercial fishing lots and ecotourism.	
Fire monitoring protocol <i>January 2006</i>	<ul style="list-style-type: none"> • Development of a fire monitoring protocol for Prek Toal based on the MODIS Rapid Response satellite system • Inclusion of the monitoring system in the proposed protocols for the other Core Areas 	A fire monitoring protocol, including rapid response mechanisms was detailed in "Chapter 5: Fire monitoring for the Tonle Sap Great Lake Flooded Forest using MODIS" in [22].	[22] Tonle Sap Biodiversity Monitoring Protocols (including fire response protocols)
Biodiversity database with all records updated <i>On-going, final to be delivered at project termination</i>		<p>Data entry complete to end 2010. Total >150,000 records. This is available to the TSBRS database on request.</p> <p>Hard copies of all reporting products produced to date have been provided to the TSBR Secretariat for entry in the metadatabase being prepared with TSEMP support.</p>	
Preliminary report on invasive species of the Tonle Sap (see Workplan) <i>December 2006</i>		Report "An Assessment of Exotic Species in the Tonle Sap Biosphere Reserve and the Threat to Biodiversity. A Resource Document for the Management of Exotic Species" [36] printed. 500 copies distributed to TSCP and others.	[36] Exotic species assessment
Proposals for further work towards completion of the overall 6-year workplan <i>Prepared on an annual basis (fiscal year)</i>		Annual reports have included new proposed activities each year, beyond the initial work plan. This has included monitoring of water snake harvests, Sarus crane, Bengal florican, monitoring crocodile movements, the WCS/FiA Fishing Lot Study, and the introduction and development of MIST, including annual analysis of MIST data.	
Regular progress and	Progress reports by end of each	All quarterly and annual reports have been completed. All	

technical reports (quarterly and by activity) <i>Progress reports by end of each quarter; technical reports as major activities are completed</i>	quarter; technical reports as major activities are completed	technical reports completed and distributed (as detailed above).	
Financial reporting <i>End of each quarter</i>		Full financial reporting has been prepared at the end of each quarter.	
Mutually agreed inputs into meetings and other documentation produced by the TSCP <i>To be specified</i>		WCS has participated in all relevant meetings and other documentation where appropriate, including attendance at quarterly and annual meetings, attendance and presenting at mid-term and end-of-term review meetings, attendance at workshops.	

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ANNEX 8: Summary of Saving groups in all core areas of TSB, April 2011

ANNEX 8: Summary of Saving groups in all core areas of TSBR, April 2011									
N	Commune	Village	Group's name	Figure member		Capital	Status	Future predict	
				Total	Female			ownership	need outside assist
Steung Sen Core Area									
1	Phat Sanday	Toul Neang Sav	Toul Neang Sav	43	26	18,870,300.00	old	√	
2		Phat Sanday	Phat Sanday	21	20	23,294,600.00	old	√	
3		Neang Sav	Neang Sav	18	5	1,864,000.00	old		√
4		Koh Tapov	Koh Tapov	15	12	10,972,300.00	old	√	
5		Kompong Chamlong	Kompong Chamlong	23	21	15,359,600.00	new	√	
	Total= 5 groups	5 villages		120	84	70,360,800.00			
Boeung Tonle Chhmar Core Area									
6	Peam Bang	Peam Bang	Group#1	21	20	11,625,200.00	old	√	
7		Peam Bang	Group#2	24	21	14,486,400.00	old	√	
8		Peam Bang	Group#3	26	23	17,766,600.00	old	√	
9		Peam Bang	Group#4	11	9	4,066,200.00	new	√	
10		Doun Sdeang	Group#1	30	22	10,242,400.00	old	√	
11		Doun Sdeang	Group#2	25	20	4,501,000.00	new	√	
12		Doun Sdeang	Group#3	20	17	2,942,800.00	new		√
13		Poveuy	Group#1	24	20	10,658,000.00	old	√	
14		Poveuy	Group#2	20	17	2,832,000.00	new		√
15		Poveuy	Group#3	18	15	2,072,000.00	new		√

16		Kropeng Trolach	Kropeng Trolach	20	16	2,122,000.00	new		√
17		O'Sortorl	O'Sortorl	17	15	2,552,000.00	new		√
18		Balort	Balort	12	10	2,532,000.00	new		√
	Total= 13 groups			268.00	225.00	88,398,600.00			
Prek Toal Core Area									
19	Koh Chiveang	Kompong Prohuk	Group#1	32	31	14,250,000.00	old	√	
20		Kompong Prohuk	Group#2	15	15	1,902,000.00	new	√	
21		Kompong Prohuk	Group#3	17	17	1,916,000.00	new		√
22		Anglong Ta Or	Group#1	16	15	11,420,000.00	old	√	
23		Anglong Ta Or	Group#2	14	14	2,596,000.00	new	√	
24		Prek Toal	Group#1	13	13	7,405,000.00	old		√
25		Prek Toal	Group#2	16	16	2,051,000.00	new		√
	Total=7 groups			123	121	41,540,000.00			
	Grand total			511.00	430.00	200,299,400.00		15.00	10.00