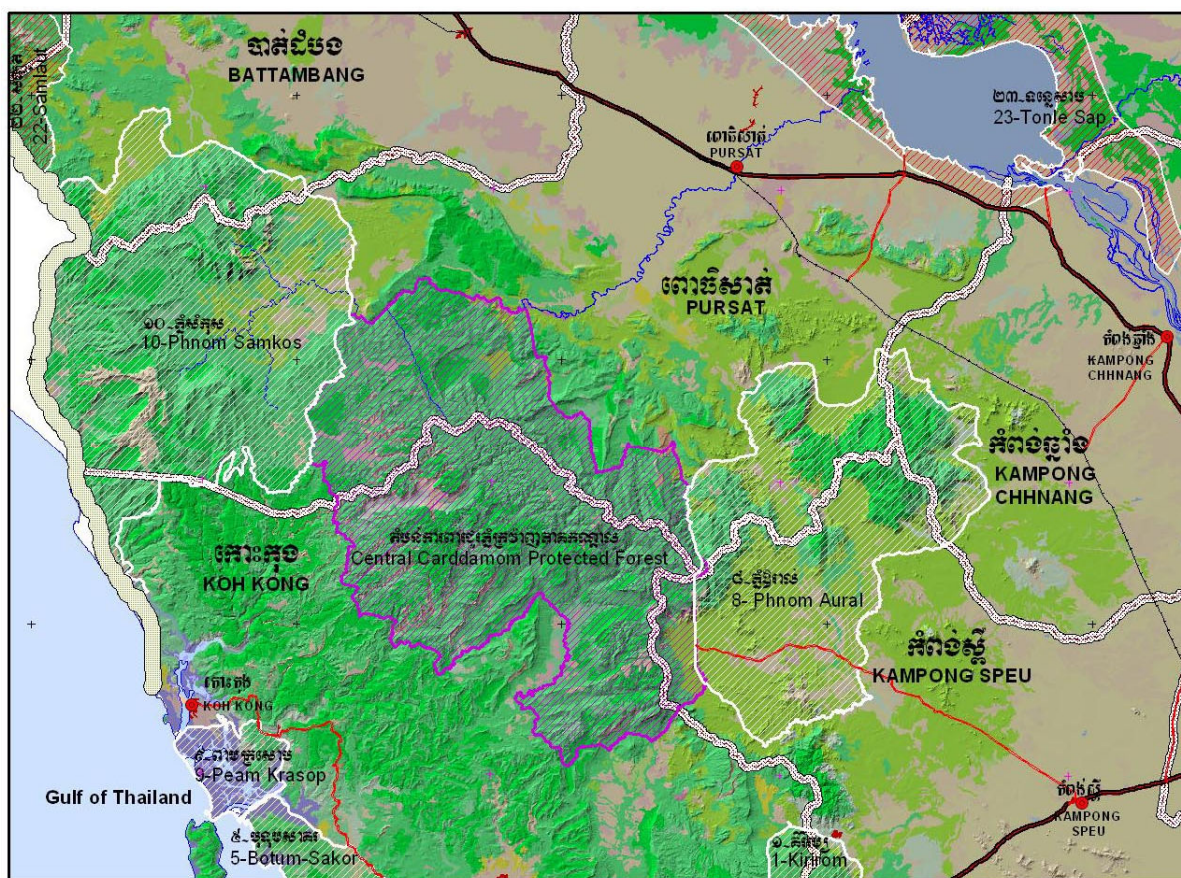


# *Final Evaluation of the Cardamom Mountains Protected Forest and Wildlife Sanctuaries Project*



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## EXECUTIVE SUMMARY

The **Cardamom Mountains Protected Forest and Wildlife Sanctuaries Project** in southwest Cambodia comprises two sub-projects:

- **Central Cardamom Protected Forest (CCPF) project**, funded by United Nations Foundation (UNF) and Conservation International (CI) and implemented by CI and the Forestry Administration from July 2001 to September 2004; and
- **Cardamom Mountain Wildlife Sanctuaries (CMWS) project** in Phnom Aural and Phnom Samkos sanctuaries, funded by UNF, GEF and Flora and Fauna International (FFI) and implemented by FFI and Ministry of Environment from April 2003 to April 2007.

The CMWS Project had five major planned Outcomes for the wildlife sanctuaries:

- Improved planning, management and regulatory frameworks
- Improved governmental operational capacity
- Communities engaged in the protection, management and sustainable use of natural resources
- Secured international recognition and increased national and local awareness
- Established a long-term financing mechanism

The Final Evaluation was undertaken from February 19 – March 16, 2007. It focused on the CMWS, with only general review of the CCPF. The evaluation involved individual and group interviews, an initial workshop to discuss project design issues, and a larger wrap-up meeting to discuss preliminary findings. In total, 95 people were consulted. The study method was guided by the evaluation Terms of Reference and included identifying **Indicators**, preparing **Evaluation Questions** to guide interviews and meetings, and undertaking **participatory discussions**.

The challenging startup conditions for this project should be duly noted: the project area is a former stronghold of the *Khmer Rouge*, settlements of indigenous people and ex-*Khmer Rouge* families, the wildlife sanctuary designation was unknown, traditional use of forest resources was commonplace, the area is large and difficult to monitor, and both corruption and lack of respect for the law were widespread in government and the military due to the poor salaries and lack of institutional modernization. These baseline conditions presented major impediments to introducing conservation.

The two-project concept of the **CCPF** and **CMWS** has involved separate sub-projects that have different clients, approaches, methods and databases. The project was structured in accordance with the mandate and boundaries of the wildlife sanctuaries under DNCP-MoE jurisdiction, and those of the Central Cardamom Protected Forest under FA jurisdiction. The original idea of synchronizing the DNCP/MoE - FFI and FA-CI projects was constrained due to differences in start-up dates, and the limited overall coordination of the projects. The different time frames adversely affected results and potential synergies.

A brief review of follow-up to the CMWS Mid Term Review concluded that the project has undertaken reasonable action to address most of the MTR recommendations. The lack of action on a project Steering Committee and institutional coordination are the major outstanding issues.

Several issues related to the **project strategy** of CMWS were identified:

**Government Involvement** - The CMWS project evolved toward more of an NGO-based project due to the limited capacity within government to oversee the project, the poor MAFF-MOE relations and coordinating mechanisms, the reluctance of the participating agencies to establish a Steering Committee, and insufficient project management discussions during the inception phase.

**Capacity Building** - The project design primarily focused on protection and conservation activities and did not sufficiently emphasize the long-term institutional capacity of MOE to manage the wildlife sanctuaries. The principal approach for training professional staff has been to mentor local counterparts alongside the foreign advisors, but there was no formal training plan or monitoring process.

**Law Enforcement Effectiveness** - The project has established law enforcement under difficult circumstances, but there remain structural problems in a lack of coordination and occasional rivalry between MoE and FA in adjacent patrol and enforcement activities, and weaknesses in the approach to illegal activities and corruption.

**District and Provincial Coordination** - The MoE-FFI CMWS project has established a significant public awareness and law enforcement function at the community level and developed draft management and zoning plans for the sanctuaries. Further follow-up consultation remains to be completed in preparation for zoning implementation.

**Policy Influence** - The project results have focused largely on operational level impacts. The absence of a clear mechanism to affect recommendations at higher levels in the government, the initial limited role of the National Project Coordinator and the very uncertain government commitment to protected areas have constrained the ability to advance conservation.

**Livelihood and Food Security Programming** - The project reports note that the extent of illegal activities is directly linked to the state of household food security and the availability of alternative livelihoods. But there is no overall programmatic framework for development within the sanctuaries.

The **project results** of CMWS were reviewed relative to the five planned outcomes of the project::

**Improved Planning and Management** - The project has succeeded in establishing, under very difficult circumstances, the initial framework for planning, management and regulation for the two large wildlife sanctuaries. The viability and sustainability of this framework under DNCP-MoE management is tenuous however, and will require ongoing support and increased commitment by the Government of Cambodia.

**Improved Government Operational Capacity** - The project has had partial success in developing and delivering DNCP-MoE conservation and protection services on the ground. Sanctuary management units have been established within DNCP-MoE. Ranger patrol units have been created and are functioning effectively with project support in Samkos sanctuary but not in Aural sanctuary where illegal activities, security and staff morale concerns prevail. Sustainability is a key issue.

**Communities Engaged in Protection, Conservation and Sustainable Use** - The project has had a significant, modest-scale impact on community involvement by establishing community protected

areas, promoting public awareness and education, and facilitating livelihoods development. The impact is limited by the scope of the project in a selected number of communities within the sanctuaries.

**Financing Mechanisms** – The review and development of financing options is still under preparation with both FFI and CI actively working on attracting further donor contributions and establishing long term endowment trust funds to support conservation and protection of the wildlife sanctuaries and protected forest.

Project implementation modalities were also considered in the Final Evaluation. It was concluded that *overall, the internal project structure has not been particularly effective* due to lack of a Steering Committee, inability to overcome inter-agency coordination problems and poor linkages to the policy level in Cambodia, and the limited MoE ownership of the management functions of the project. This is partly offset by decentralized project management in the strong community-based outreach of the project organization at the local level.

The project organization has been constrained in its ability to influence the external environment: firstly, in coordinating government ministries that have not traditionally worked together and secondly, in generating policy results at national level as to the use of protected areas for conservation, development and military purposes.

With regard to administrative management, the project has been generally effective given the resources available and the requirement of managing a large number of staff and contracts within a widespread project and set of activities. The dominate factors that affected project administration include:

- excessive workload on the project manager and the high level of turnover of FFI project managers;
- the relatively extensive administrative and reporting duties associated with the complex funding;
- the lack of available time of the Project Co-manager, a senior official in MoE , which was overestimated in the project inception;
- the lack of capable mid-level managers within DNCP-MoE and the related absence of a budget and programme to develop this needed managerial capacity within the ministry; and
- absence of clear standards with regard to expected capacity development results within DNCP-MOE.

With regard to UNDP contribution, it was concluded that UNDP has effectively administered their project responsibilities in overseeing the project operations and reporting requirements to GEF and other donors, under considerable workload pressure, but the lack of a Steering Committee has constrained its influence over the project. The project has presented difficulties because of the limited MOE capacity and the uncertainty over government protected areas policy.

Overall, the project has demonstrated effective and efficient implementation of the project, notwithstanding the limitations in achieving the project goals of reducing threats to the sanctuaries and securing protection and conservation. The main operational factors that were identified during the evaluation interviews and field visits are discussed in relation to:

- (a) Project timing
- (b) Inception phase analysis
- (c) Mid-level MoE managerial capacity
- (d) Inter-personal relations
- (e) Jurisdictional rivalries
- (f) Internal rivalries within DNCP
- (g) Recruitment practices
- (h) Environmental advocacy in the project
- (i) Inconsistencies in salaries/incentives
- (j) Time constraints
- (k) Consultation strategy
- (l) Adaptive management review functions

All of the UNF/GEF funding was administered by UNDP through contracts to FFI (\$ 1,984,740) and CI (\$843,750). The balance of the UNF/GEF funding (\$110,126) was allocated for monitoring and reporting, training and miscellaneous expenses. Although various financial management procedural review comments were presented in the draft Final Audit, no major concerns were identified with regard to financial management.

The Final Evaluation was also directed to consider the impacts of the earlier CCPF project, the prospects for sustainability of project results, and the overall contributions to various development goals in Cambodia. The report briefly summarizes post-project activity in the protected forest. Despite the CCPF and CMWS project efforts, *the prospects for sustaining project achievements in Cardamoms conservation and protection are poor*. The priorities for sustainability are summarized: Firstly, the government, at high levels, needs to stabilize the security and law enforcement environment. Secondly, the government and communities need to come to terms with an appropriate conservation and development policy for the Cardamom Mountains so that the zoning plans and other measures can be reliability implemented. Thirdly, MoE needs to better define its strategy and requirements for protected area conservation based on conservation project experiences in recent years, and donors should coordinate their efforts in a comprehensive or ‘sector-wide approach’ that facilitates the implementation of this strategy.

The governance arrangements in the Cardamom Mountains were also briefly reviewed. A **Technical Planning Board** is proposed for the Cardamom Mountains Protected Area Complex on a two-year demonstration basis with the aim to contribute toward better communications, improved decision-making and increased public awareness of the Cardamom Mountains protected areas. The Board would serve an advisory function to 1) Improve Law Enforcement, 2) Balance Environment & Development, 3) Guide Land Use Decisions, 4) Protect Ecosystems & Species at Risk, and 5) Promote Public Awareness.

The Final Evaluation suggests some specific **Next Steps** following the project:

- Finalize the boundary demarcation and zoning plans of the two wildlife sanctuaries.
- Convene a meeting between MoE/FFI, FA/CI, UNDP, and EU to develop a work programme on the items of mutual interest.
- Assess the potential for a Cardamom Mtns Technical Planning Board or similar body.

- Obtain direction from senior government levels on initiating Coordinated Law Enforcement for the Cardamom Mountains.
- Plan for an organized review of Cambodia's PA system experiences and preparation of a Strategic Capacity Development Plan using a Sector-wide Approach with MoE and donors.
- Drawing on the above, develop a UNDP internal strategy or approach to assisting coordinated planning of biodiversity and PA-related projects in Cambodia so that the synergies and ramping up of capacity development through UNDP/GEF funded activities are potentially feasible and effective.

In the **Conclusions and Recommendations**, the report provides a series of Key Observations that summarize the major themes arising from the discussions and review. It presents twenty-one conclusions and twelve recommendations (see Section 10 for detail) that focus on:

1. A revised Cardamoms development cooperation programme.
2. A coordinated Law Enforcement Strategy for the Cardamom Mountains.
3. Options for addressing conservation and law enforcement concerns along Road 42 corridor.
4. Wildlife Sanctuaries boundary demarcation on the ground and promoting local awareness.
5. Local consultation on the zoning plans and measures to begin implementation of the plans.
6. A Cardamom Mountains Technical Planning Board
7. A national strategic capacity development plan for protected areas conservation and management.
8. Training needs assessments of MOE operational managers and ranger patrol/law enforcement staff.
9. A biophysical inventory and information systems strategy for the Wildlife Sanctuaries.
10. FFI and CI collaboration on a programme that addresses the Cardamom Mountains as a whole.
11. Targeting development opportunities that compliment the conservation and protection objectives
12. Design of future projects that draw upon the experiences and lessons from this project.

The report concludes with a discussion of **Lessons Learned**. These lessons include more simplicity in the project structure and capacity and institutional assessment during the project inception phase, regular steering committee meetings, establishing a formal monitoring plan and process, efforts at team-building skills, a wider range of participant remuneration, the need for measures to reduce organizational barriers between and among government agencies and NGOs, and to provide the necessary security support in order to undertake effective protection and conservation services.

## Acknowledgements

The evaluation team is grateful for the support provided by UNDP staff – Mr Lay Khim and Mr. Christopher Miller and for the full cooperation from FFI and MoE staff in Phnom Penh and in the field. We also wish to thank those who kindly provided answers to our questions – current and former project staff, government and commune officials, and community leaders in the sanctuaries. The cover map is from an FFI report.

## List of Acronyms

ADB	Asian Development Bank
AFD	Agence Française de Développement
BPAMP	Biodiversity and Protected Areas Management Planning
CBNRM	Community-Based Natural Resource Management
CCPF	Central Cardamoms Protected Forest
CDC	Cambodia Development Council
CEDAC	Centre d'Etude et de Développement Agricole Cambodgien
CI	Conservation International
CMDG	Cambodia Millennium Development Goals
CMPAC	Cardamom Mountains Protected Area Complex
CMPWS Project	Cardamom Mountains Protected Forest and Wildlife Sanctuaries – Cambodia Project
CMWS	Cardamom Mountains Wildlife Sanctuaries, comprising PAWS and PSWS
CMWSP	Cardamom Mountains Wildlife Sanctuaries Project
CPA	Community Protected Area
CPADO	CPA Development Office
DFW	Department of Forestry and Wildlife (MAFF)
DNCP	Department of Nature Conservation and Protection (MoE)
DoE	Department of Environment
FA	Forestry Administration (MAFF)
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
FFI	Fauna and Flora International
GEF	Global Environment Facility
LWF	Lutheran World Federation
MAFF	Ministry of Agriculture, Forestry and Fishery
MoE	Ministry of Environment
MoU	Memorandum of Understanding
MTR	Mid-Term Review
NCSA	National Capacity Self Assessment
NGO	Non-Governmental Organization
NPD	National Project Director
NTFP	Non-Timber Forest Product
PA	Protected Area
PAWS	Phnom Aural Wildlife Sanctuary
PLUP	Participatory Land Use Planning
PSC	Project Steering Committee
PSWS	Phnom Samkos Wildlife Sanctuary
RGC	Royal Government of Cambodia
SEILA	Khmer word for "Stone", name of UNDP Governance Decentralisation Program
TPR	Tripartite Review
UN	United Nations
UNDP	United Nations Development Programme
UNF	United Nations Foundation
WHS	World Heritage Site

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## 1.0 Introduction

The long term objective of the **Cardamom Mountains Protected Forest and Wildlife Sanctuaries Project** is to develop national capacity to conserve, protect and ensure sustainable use of key components of biodiversity across Cambodia's Cardamom Mountain Range. The project's immediate objective is to develop a long-term conservation framework for the Cardamom Mountains Protected Area Complex (CMPAC) and its associated buffer zones, to be secured in part through World Heritage designation for the area. CMPAC comprises the Central Cardamoms Protected Forest (CCPF) (4,020 km<sup>2</sup>) the Phnom Aural Wildlife Sanctuary (2,536 km<sup>2</sup>) (PAWS) and the Phnom Samkos Wildlife Sanctuary (PSWS) (3,338 km<sup>2</sup>).

The Project has two major components (sub-projects):

1. **Central Cardamom Protected Forest (CCPF) project**, funded by United Nations Foundation (UNF) and Conservation International (CI) and implemented by FA-CI – this component started on 1 July 2001 and finished in September 2004; and
2. **Cardamom Mountain Wildlife Sanctuaries (CMWS) project** in Aural and Samkos sanctuaries, funded by UNF, GEF and Flora and Fauna International (FFI) and implemented by MOE-FFI - this component started in April 2003 and is will finish in April 2007.

The CMWS Project has five major planned Outcomes for the wildlife sanctuaries (**Annex 1**, Logical Framework):

- Improved planning, management and regulatory frameworks
- Improved governmental operational capacity
- Communities engaged in the protection, management and sustainable use of natural resources
- Secured international recognition and increased national and local awareness
- Established a long-term financing mechanism

The Final Evaluation focuses on the CMWS component of the Project, with some assessment the CCPF component, in terms of its contribution to post-project CCPF management. The evaluation is a requirement of the project approval and donor reporting requirements. It is an independent assessment that aims to review the relevance, performance and success of the Project. It looks at impact and sustainability of results, including the contribution to capacity development and the achievement of global and national environmental goals and rural livelihood improvement. It also documents lessons learned and proposes recommendations to maximize the impact of the Project and to improve design and implementation of future similar projects.

The evaluation team considered the issues and recommendations of the Mid-term Review Final Report (Lindsay & Mayalang, Dec. 2004) and the UNF Terminal Report (UNDP and UNF, 12 Feb 2007) in undertaking the Final Evaluation.

The Final Evaluation comments on outcome and output results of the project are presented on **Table 1** (located on page 62), alongside the Terminal Report conclusions.

The evaluation was undertaken in February – March 2007 in the final months of the project. Guided by the Final Evaluation Terms of Reference, it involved extensive discussions with project staff, government official, local communities and other project stakeholders. Consistent with these terms of reference, the Final Evaluation was structured so as to generate and share experiences and practical knowledge in a collaborative manner. The emphasis was on a consultative review of experience and issues rather than on measuring individual or institutional performance.

***Status of the MOE-FFI Wildlife Sanctuaries (CMWS) Project***

The project was planned to commence in July, 2001 alongside the CCPF Conservation International programme, but because of delays in contracting and in securing GEF co-financing the MOE-FFI activities started on 28th April 2003 with a scheduled end on 28th April 2006. An extension was granted for six months to enable the project to run through to October 31, 2006. A second extension provided for final completion of the project to April 30, 2007, giving the following reasons for extensions<sup>1</sup>:

- Several security-related incidents prompted the project to suspend activities and temporarily remove staff from Phnom Aural Wildlife Sanctuary, causing serious disruptions to project implementation.
- A chronic increase of illegal resource extraction by organised groups primarily in Aural, requiring a revision to the approach to law enforcement.
- Because of social disunity and continuing influx of poor migrants into the focal protected areas, the crucial participatory zoning process had an inordinately slow start up. More time was needed to complete complimentary work, e.g. sanctuaries' management planning, CPA formation, and PLUP.
- The protracted deadlock over formation of a government in Cambodia has delayed the approval of the new Protected Area Law. Its continuing delay has hampered the emergence of a clear framework for introducing structured management of the wildlife sanctuaries and in clarifying management rights and responsibilities. This has held back the progress of the participatory zoning process.
- The limited starting capacity of national project staff (understandable as protected area management is a new profession in Cambodia) has led to delays in identifying and mobilizing the project implementation team in MoE and in the replacement of one national protected area director.

A major focus of the project in that past few months has been to prepare sanctuary management plans and land use zoning. But progress has been stymied by delay in passing the Protected Areas Law. The project has improved local support through Community Protected Areas and active public awareness campaigns by *Save Cambodia's Wildlife*. The outputs generated as of the end of 2006 are listed in **Annex 3**.

The most notable CMWS project achievements are summarized as follows:

- Established protection and law enforcement in the wildlife sanctuaries by assembling, outfitting, and training locally-recruited rangers.

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<sup>1</sup> Extracts from FFI *Workplan and Budget for Proposed No Cost GEF Extension, November 2006 to April 2007*.

- Established management operating procedures and protocols, and assisted the MoE in the formation of legal policy and international-standard management and zoning plans.
- Conducted extensive ecological surveys including analysis of the impact of specific human activities.
- Raised local awareness of the wildlife sanctuaries by developing and disseminating many educational materials, including a Cardamoms-wide newsletter and documentary in Khmer language.
- Raised global awareness of the Cardamom Mountains through coverage in Time, National Geographic and other international outlets.
- Completed baseline socioeconomic assessments of every village, initiated Participatory Land Use Planning, and supported the creation of new Community-Based Organizations
- Worked with every household, local government, the Department of Nature Conservation and Protection (DNCP), and with other government departments to complete the allocation of community land and forest land to residents, totaling 8% of the sanctuaries.
- Delineated Community Zones (for residences and agriculture) covering >21,240ha in the sanctuaries through a participatory process, and more than 40 new Community Protected Areas (CPAs), totaling 30,350ha.
- Initiated a range of innovative community-based solutions to integrate conservation with sustainable livelihoods.
- Provided supporting evidence for the successful creation of a new 402,000-ha protected area to link the wildlife sanctuaries.

## 2.0 Scope and Methodology

The evaluation has five main objectives, as per the Terms of Reference:

1. to monitor and evaluate results and impacts, including an assessment of sustainability;
2. to provide a basis for decision making on actions to be taken post-project;
3. to assess the effectiveness and efficiency of resource use;
4. to document, provide feedback on, and disseminate lessons learned; and
5. to assess the project's response to, and the validity of, recommendations made by the mid-term review (MTR) undertaken in December 2004.

The study method was designed to address the specific components of the evaluation Terms of Reference, and has been guided by the project's Logical Framework (**Annex 1**). The methodology was essentially based on:

- Identifying **Indicators** for measuring project performance relative to the Terms of Reference (**Annex 2**).
- Preparing **Evaluation Questions** to guide interviews and meetings that will assist data collection associated with the Indicators (**Annex 6**).
- Undertaking **participatory discussions** with project staff, government officials, local communities and other project stakeholders. (**Annex 4 – Appointment List of Contacts and Itinerary**)

The evaluation accords with GEF Monitoring and Evaluation Policy and uses an evidence-based approach to assessing project results. It examines the broad relationship between capacity building outputs at the policy, institutional and individual levels and their effects on conservation and livelihood outcomes. Field visits aimed for representative sampling of project interventions.

The evaluation progressed through a series of steps, including:

- (a) compiling data from progress reports and other documents and updating the outputs/deliverables tables from the Mid Term Review;
- (b) review and summary of project budgets, financial reports and expenditures to the end of 2006;
- (c) review of progress reports and the Terminal Report and verification of their conclusions in subsequent discussions and field visits (see Terminal Report, Section 4.5, Qualitative assessment of project results, pp.25).
- (d) interviews with project staff and government officials, focused on the Evaluation Questions;

- (e) interviews with groups of forest patrol rangers and community groups with open-ended questions;
- (f) interviews with a representative sample of project participants to assess capacity development outcomes and effects on conservation and livelihood outcomes;
- (g) use of structured workshop techniques in meetings with project stakeholder groups to obtain the widest possible input to the evaluation;
- (h) general rating of achievement of project outcomes based on a qualitative Highly Satisfactory – Satisfactory – Marginally Satisfactory – Unsatisfactory - Uncertain scale associated with the indicators data;
- (i) discussion of preliminary results of the evaluation and assessment of sustainability opportunities in a workshop format; and
- (j) discussion of a proposed exit strategy for the project.

The list of the Evaluation Indicators is presented in **Annex 2**. The Interview Guide is presented in **Annex 5**. **Annex 6** summarizes the status of the Management Information System.

The formal review meetings during the mission included:

- Design review workshop, February 22, 2007
- Preliminary findings presentation and discussion, March 14, 2007
- Final briefing on the preliminary findings of the evaluation, March 15, 2007

### 3.0 Project Design Review

#### 3.1 Project Characteristics

The **CMWS** project has established a presence and enforcement role for MoE in the sanctuaries through the new sanctuary ranger service, developed participatory land use plans in conjunction with commune councils and others, and involved NGOs and communities in sustainable livelihoods development and environmental awareness.

The **CCPF** project has assisted in establishing the Central Cardamoms protected forest, collaborated with FA in development of a ranger patrol service and formulated conservation agreements with communities. Both projects have contributed to policy development.

The division of Cardamom Mountains Protected Area Complex project into two distinct sub-projects has allowed for variations in the timing, design and approach in the wildlife sanctuaries and protected forest:

##### CMWS (MOE-FFI) Characteristics

- The project commenced in April 2003, although FFI had undertaken preliminary surveys
- The sanctuaries contain extensive and growing settlement and road access pressures
- MoE is a small and relatively weak organization within government
- The project focused on public awareness and community-based law enforcement through MoE forest rangers, technical surveys and community livelihoods development
- The project has very occasionally worked with the Police and Military Police but has no routine relations with these organizations
- There are 47 rangers; the MoE ranger supplementary pay scale is:
  - \$ 80/mth (then \$45/mth; and lastly \$40/mth) + \$ 40/mth food allowance
  - \$ 80/every 3 mths if 75% targets met; \$40 if 50% targets met (applied every quarter since Q1 2006 in PSWS, Q1 2006 only in PAWS.)
- The sanctuary ranger service is lightly armed and has limited transport and communication resources
- The project has not completed sanctuary boundary demarcation on the ground (except some signage) but it is reportedly underway
- The project focused on establishing Community Protected Areas (18 to date; 45 proposed;) in the early stages of the project
- The project undertook Participatory Land Use Planning and management/zoning plans based on BPAMP Virachey National Park project

##### CCPF (FA-CI) Characteristics

- The project commenced in July 2001, just after KR reconciliation with the government
- The Central Cardamoms protected forest is more remote and with former forest concessions
- The FA is a large and relatively strong revenue-generation organization within government
- The project focused on law enforcement and establishing the working relations with the military during the early stages of the project
- The project has directly involved the Military Police within the ranger patrol services and law enforcement functions
- There are 51 rangers (including MPs); the FA ranger supplementary pay scale is:
  - \$ 105 (new) - \$ 250/mth (senior) + \$2.5-3/day food allowance
  - \$ 50/mth for patrols
  - Other performance incentive
- The protected forest ranger service has collaboration with military police and good logistical resources
- The project has undertaken protected forest boundary demarcation on the ground under authority of the Forest Law
- The project has focused on establishing community conservation agreements (2 to date, 3 more proposed)
- The format and process for the formulation of the draft management plan was derived from the Virachey National Park project

Some general observations related to the project concept have been compiled from discussions with participants in the project, reflecting upon the above dual-project characteristics:

1. Institutional development of MoE was considered mostly as it related to improving the capacity of sanctuary management units staff, not from a broader organizational development context or resolving institutional arrangements between federal DNCP-MoE and Provincial Departments of Environment. (An apparent exception was the link established between CPADO and CPA teams.)
2. Despite occasional cooperation, the operational linkages between the enforcement units of DNCP-MoE, FA and the other law enforcement agencies and rivalries for control of illegal logging activities were not sufficiently addressed, creating the potential for conflict and overlap between MoE and FA enforcement units.
3. The long term role in developing DNCP-MoE capacity and intra and inter-ministerial working relationships needs to be considered if technical capacity improvements are expected to have an impact on balancing conservation and development objectives.
4. Two different jurisdictions (DNCP-MoE and FA) overseeing adjoining protected areas with similar objectives, using diverse implementing strategies/legal authority and assisted by different international NGOs creates a complex organizational setting that requires a level of inter-agency coordination that is difficult to achieve in Cambodia.
5. Credibility and power of an established authority such as FA (despite being new to protected area enforcement) can be contrasted with the newly established and emerging role of DNCP-MoE in wildlife sanctuaries management and law enforcement.

### **3.2 Summary of Initial Discussions**

A review of the project design was undertaken early in the mission with the key project, government and UNDP staff. The predominant themes/lessons from these discussions related to project design are summarized as follows:

#### Project Strategy:

- Greater involvement of government in capacity building for sanctuary management, particularly institutional development of DNCP-MoE;
- Increase the focus on community engagement, incentives and livelihoods development;
- Earlier involvement of and training activities with communities;
- Provide inter-agency coordination mechanisms and participation of other agencies and key sectoral decision makers in the project;
- Greater range of tools for compliance and enforcement and controls on encroachment and land development;
- Provide means to resolve project staff-government disagreements and issues.



Project Organization:

- Steering committee or other executive group should have been established for coordination with higher level bodies;
- Targeted training of mid-level DNCP-MoE management staff, including project management skills;
- Wider partnerships with NGOs and community outreach;
- Unsynchronized MAFF/FA protected forest – DNCP-MoE sanctuaries protection and management activities;
- MoE mandate, responsibilities and credibility have not been sufficiently established.
- Greater time is required to develop sustainable financing models.

These themes reflect many of the project design weaknesses highlighted in the project **Terminal Report**:

1. Conservation goals not sufficiently integrated with development agenda – too isolated from the national and sub-national government processes which define economic policies, development plans and budgets for the Cardamoms and its surrounding areas.
2. Centrality of protected areas legislation – the project assumed protected areas legislation would be in place and this is critical to the expected results from the project.
3. Timing issues – short project period (4 years), staggered commencement of the two project components reduced collaboration opportunities between FFI/DNCP-MoE and FA-CI, and two periods of extended government deadlock that coincided with project caused delays in progress.
4. Importance of establishing linkages with community development programmes – insufficient weight given to promoting alternative and conservation-compatible livelihoods.
5. Failure to properly resource institutional coordination – very low level of collaboration between DNCP-MoE, MAFF and other relevant agencies, that created a large institutional gap.
6. Failure to appreciate challenges posed by changing community demographics - complex mixture of long term residents, re-settled peoples and economic migrants that are not equally amenable to community-based natural resources management (CBNRM) activities.<sup>2</sup>

The Terminal Report also notes the difficulties of both the FFI/DNCP-MoE and FA-CI subprojects at ensuring legitimacy and integrity of the ranger patrol staff and controlling internal corruption issues. It suggests that some of the issues could have been better addressed by:

- Giving NGO partners (FFI and CI) greater power to oversee transparent selection procedures for staff;
- Advocating for legislation to give clearer jurisdiction to suppress illegal activities, and providing MoE rangers with additional law enforcement strength on the ground (e.g. deployment of military police).<sup>3</sup>

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<sup>2</sup> Summarized from UNDP, UN Foundation, UNF Terminal Report, 12 February 2007, pp. xvi-xvii

<sup>3</sup> UNDP, UN Foundation, UNF Terminal Report, 12 February 2007, pp. viii.

### 3.3 PA Objectives, Boundaries and the Dual-project Concept

The design of the protected areas programme for the Cardamom Mountains complex was structured in accordance with the mandate and boundaries of the wildlife sanctuaries under DNCP-MoE jurisdiction, and those of the Central Cardamom Protected Forest under FA jurisdiction. Donor support was aligned along this division but the original idea of synchronizing the DNCP/MoE - FFI and FA-CI projects was constrained due to differences in start-up dates, and the limited overall coordination of the projects. The division of DNCP-MoE and FA mandates is a central issue for development cooperation programming and governance in the Cardamoms (see Section 9).

It should be noted that there are distinct differences in the projects. There can be strengths and weaknesses to such variation. But the design of the project and timing did not allow for testing and learning from the different strategies, or serve to reduce the inter-agency barriers. Previous reviews concluded that the different time frames adversely affected results (see MTR and Terminal Report).

**Table 2** outlines some key characteristics of the two projects.<sup>4</sup>

**Table 2: Comparison of Cardamom Protected Areas Characteristics**

	<i>Cardamom Wildlife Sanctuaries</i>	<i>Central Cardamom Protected Forest</i>
<b>Social</b>	<ul style="list-style-type: none"> <li>- Aural Wildlife Sanctuary 15, 867 peoples living in and Samkos 13,295 peoples.</li> <li>- Communities in Samkos are a complex mix of former residents, retired soldiers and their families, active military servicemen and newcomers looking for opportunities. Por indigenous peoples and Khmer.</li> </ul>	<ul style="list-style-type: none"> <li>- More than 4,565 peoples living in the CCPF</li> <li>- Indigenous population proportion being 80% of the area's total.</li> </ul>
<b>Physical</b>	<ul style="list-style-type: none"> <li>- Aural Sanctuary: 255,036 Ha; Samkos Wildlife Sanctuary: 332,556 Ha</li> <li>- Elevation ranges from 60m asl (near Kantourt) to 1,771m asl (1,813m according to some) at Phnom Aural, Cambodia's highest mountain.</li> </ul>	<ul style="list-style-type: none"> <li>- 402,000 hectares</li> <li>- Elevation ranges 200m -1300 asl</li> </ul>
<b>Vegetation</b>	<ul style="list-style-type: none"> <li>- Open dipterocarp woodland with intermixed grassland. This is widespread on poor soils in the lowland plains from below 100m to 300m (up to 600m in parts).</li> <li>- Semi-deciduous or semi-evergreen forest. These 'mixed' forests require more moisture than dipterocarp woodland.</li> <li>- Bamboo groves. Bambusa bamboo groves form in areas with richer soils that have been disturbed by humans (e.g., deforestation) or naturally (e.g., erosion and land slides).</li> <li>- Evergreen hill forest. This moist forest type covers most of the Wildlife Sanctuary, &gt;100 tree species/Ha</li> <li>- Montane evergreen forest. Above 1,500m on Phnom Aural.</li> <li>- High elevation grassland and pine woodland, - and other aquatic habitat,</li> </ul>	<ul style="list-style-type: none"> <li>- Sub-montane evergreen forests are associated on deeper soils in areas above elevations 700m asl, while lowland evergreen forests are associated with deeper soils below 400m asl. Forest areas between 400 and 700m asl are thought to comprise a transition zone in which species diversity may be higher, however this remains to be confirmed.</li> <li>- Swamp forests are associated with waterlogged soils but vary in their structure and floristic composition from site to site.</li> <li>- Sub-montane and lowland tropical forests of the CCL contain at least 1100 plant species, or more than 45 percent of the nation's known flora, including between 250 and 300 tree species and over 100 endemic plant species.</li> </ul>

<sup>4</sup> Information sources: draft management plans for PAWS, PSWS and CCPF and other project documents.

	<i>Cardamom Wildlife Sanctuaries</i>	<i>Central Cardamom Protected Forest</i>
<b>Vision</b>	<ul style="list-style-type: none"> <li>- To protect and conserve the landscapes, ecosystems, biodiversity, cultural and spiritual values of Phnom Aural Wildlife Sanctuary for all Cambodians, while enhancing local community livelihoods through sustainable management and use of natural resources.</li> </ul>	<ul style="list-style-type: none"> <li>- Conserve natural ecosystems, with diverse and abundant populations of all native species, including many which are rare or endangered worldwide.</li> <li>- Carry out ecosystem functions which are vital to maintaining a healthy earth.</li> <li>- Preserve a keystone representation of Cambodia's biodiversity.</li> <li>- Preserve and highlight the ecological, cultural, and spiritual values of the area for the people of Cambodia and visitors from all over the world.</li> <li>- Be used as a model for resource management and for creating social and economic value.</li> </ul>
<b>Goal / Purpose</b>	<p>To protect and conserve:</p> <ul style="list-style-type: none"> <li>- representative examples of Cambodia's biodiversity</li> <li>- distinctive natural habitats and the landscape in which they occur</li> <li>- species of conservation value and species at risk</li> <li>- ecological and water catchment functions</li> <li>- areas of outstanding natural beauty</li> <li>- the cultural and spiritual values of the area</li> <li>- educational and scientific research resources</li> <li>- the natural resources that support local community livelihoods.</li> </ul>	<p>Guide decision-making of the CCPF to ensure that its biological and ecological integrity is either maintained, or restored to natural levels.</p>
<b>Mandate</b>	<ul style="list-style-type: none"> <li>- Royal Decree 1993 on the 'The Royal Decree on the Creation and Defining of Natural Protected Areas' (issued on 1 November 1993)</li> <li>- Overall jurisdiction of the Ministry of Environment (MoE), through the Department of Nature Conservation and Protection (DNCP).</li> <li>- Day to day management of the Wildlife Sanctuaries is the responsibility of the individual Wildlife Sanctuary Director. They act in co-operation with the Provincial Departments of Environment (DoE) in the administrative office of the others provinces within sanctuary. The largest part of the PAWS is in Kampong Speu province where the Headquarter of PAWS is established. The largest part of the PSWS is situated in Pursat, where the headquarter of PSWS is established. Sanctuary is one of Protected Area Category, under direct supervision of DNCP/MoE</li> </ul>	<ul style="list-style-type: none"> <li>- 2001 sign MoU between CI and FA</li> <li>- July 28 2002, sub-decree " The Establishment of the Central Cardamom Protected Forest for Watershed Protection and Biodiversity"</li> <li>- Developing the Management Plan for making long-term decisions about how the CCPF will be managed, involving (i) stakeholder consultation and input, (ii) approval by the Director of the Forestry Administration (FA), and (iii) finally approval by the Minister of MAFF.</li> <li>- The CCP is an FA program and is administered from Phnom Penh by the FA's CCP Manager, who is supported by Conservation International</li> <li>- The CCP-FA is responsible for the overall and day-to-day management of the CCPF and is therefore the authority, whereas CI partners are a technical advisor and financial supporter.</li> </ul>
<b>Objectives</b>	<p>To protect and conserve:</p> <ul style="list-style-type: none"> <li>- representative examples of Cambodia's biodiversity</li> <li>- distinctive natural habitats and the landscape in which they occur</li> <li>- species of conservation value and species at risk</li> <li>- ecological and water catchments functions</li> <li>- areas of outstanding natural beauty</li> <li>- the cultural and spiritual values of the area</li> <li>- educational and scientific research resources</li> <li>- the natural resources that support local community livelihoods</li> </ul>	<ul style="list-style-type: none"> <li>- Promote the preservation and protection of the ecological integrity of the CCPF through the integration of ecological, social, and economic values.</li> <li>- Give direction to day-to-day management of the CCPF.</li> <li>- Provide for the ongoing conservation of the CCPF's significant natural and cultural resources, for public use and for the economic prosperity of local people.</li> <li>- Set management indicators by which the program can measure progress.</li> </ul>

	<i>Cardamom Wildlife Sanctuaries</i>	<i>Central Cardamom Protected Forest</i>
<b>Strategies</b>	<ul style="list-style-type: none"> <li>- The boundary was surveyed, mapped at 1:100,000 scale and officially recognized (with agreement from Kampong Speu, Pursat and Kampong Chhnang Provincial governors, the Minister for Land Planning, and the Minister for Environment) in 2005. Demarcation is planned for early 2007.</li> <li>- Zoning will be issued by sub-decree<sup>5</sup>,</li> <li>- An 18-month-long participatory process during 2005-2006 identified four main zones for the protected area</li> <li>- Protected areas management and administration,</li> <li>- Conservation and protection species, habitats ecosystems and landscapes,</li> <li>- Communities and livelihood,</li> <li>- Communication, information, awareness and education,</li> <li>- Research and monitoring,</li> <li>- 3 Funding scenarios have been prepared for option: level of funds available.</li> </ul>	<ul style="list-style-type: none"> <li>- Zoning and demarcation; zoning required for 12 months duration, not sure yet for sub-decree or declaration/decision of MAFF.</li> <li>- Zoning aims to protect core values, reduce ad hoc decision-making, and minimize conflict between different activities. It will also provide a framework for future planning and development. Zoning defines as 4 as core, conservation, sustainable use, and community.</li> <li>- General management and administration: finance, management structure, staffing, training, and infrastructure and facilities.</li> <li>- Research and monitoring programme,</li> <li>- Community engagement programme,</li> <li>- Enforcement programme,</li> <li>- Further programme development: extension &amp; outreach, regional planning, environmental management, and cultural heritage management.</li> <li>- Funding will be supported by CI and FA.</li> </ul>
<b>Duration</b>	<ul style="list-style-type: none"> <li>- Management plan is for 5 years (2007-2011)</li> <li>- Annual work plan and budgeting</li> </ul>	<ul style="list-style-type: none"> <li>- Proposed management plan is for 10 years duration with full review in 5 years</li> <li>- Objectives are to be reviewed annually</li> </ul>

There are historical reasons for the administrative and management divisions within the Cardamom Mountains protected areas complex. The Sanctuaries were established by Royal Decree along with other PAs for biological and ecosystem conservation, while the Protected Forest is a former forest concession area that has been added to the PA system but, according to government staff, maintains an emphasis on long term timber production objectives.

Boundaries between the sanctuaries and the protected forest are mostly political rather than ecological. There is institutional reluctance to consider an integrated approach to protected areas management. The barriers to integrated management are associated with conventional sectoral approaches in Cambodia and perhaps with ministries and divisions competitive quest for donor financial support.

The two-project concept of the **Cardamom Mountains Protected Forest and Wildlife Sanctuaries Project** has evolved toward separate sub-projects that have different clients, approaches, methods and databases. The implications of this may include the following:

- Conservation programmes in adjoining protected areas should pro-actively coordinate law enforcement, management and buffer zone strategies.
- Opportunities for data collection and service delivery efficiencies, as well as joint learning, can be exploited through better coordination (including at a national level).
- Ecosystem approaches generally require perspectives that cross administrative boundaries and functions and a conscious effort is needed to integrate strategies in a manner that focuses on ecosystem processes and integrity.
- Despite ministerial territoriality, working relationships between agencies both within protected areas and between adjoining areas need to be continuously developed over time.

<sup>5</sup> Ref comment of DNCP director: during the transitional period for PA law, the declaration/decision of MoE could be used with the full consultation with stakeholders and agreement.

## 4.0 Response to Mid-Term Review

The Evaluation Terms of Reference requested an assessment of the project's response to the Mid Term Review Report recommendation. The evaluation team discussed the MTR response with project participants, resulting in the following commentary:

**Recommendation 1:** Governance - Reconstitute, activate and provide ample logistical support to the Project Steering Committee.

**Response to the Recommendation:** No Project Steering Committee was established because the early stages of the project had not sufficiently negotiated effective working relationships between the project 'executing level' and the 'implementing level', namely MAFF and MOE; and in the late stages of the project it did not seem to warrant the special efforts required to develop this coordination mechanism with the Government of Cambodia. In lieu of a steering committee, a National Project Coordinator was appointed to act as a liaison in government – NGO – UNDP consultation.

**Evaluation Comment:** The lack of an effective partnership between MOE as the agency responsible for the sanctuaries and MAFF the agency responsible for protected forest buffer areas and the overall project, remains a key issue affecting several of the project objectives (see Section 9 below). Project staff and key participants now recognize the difficulties imposed by a lack of involvement of senior government officials to higher levels. The project displayed adaptiveness in responding to these issues by appointing a National Project Facilitator.

**Recommendation 2:** Provide sufficient logistical support to the Office and project-related staff of the National Project Director.

**Response to the Recommendation:** A budget and National project Coordinator were provided in response to this concern.

**Evaluation Comment:** A travel and communication budget should have been provided earlier. The limited attention to executive government involvement during project inception may have reflected the poor working relations between MAFF (executing agency) and MoE (implementing agency).

**Recommendation 3:** Elevation of CMPAC administration to higher bodies.

**Response to the Recommendation:** There has been no response to this recommendation, due to the difficulties in changing governance arrangements over the CMPAC. The Terminal Report indicates that this recommendation is questionable because it has been rejected by the Prime Minister and the gesture of appointing the King as patron of CMPAC may not be sufficient to improve management arrangements.

**Evaluation Comment:** Transferring CMPAC responsibilities to a higher level within the government, such as an inter-ministerial body, may not be feasible; agencies are unlikely to cede management responsibilities and there is no strong policy commitment for such changes.

**Recommendation 4:** Improve RGC operational ownership of the project.

**Response to the Recommendation:** The project has facilitated greater involvement of the National Project Director and expanded communication with MAFF following the Mid Term Review, particularly with regard to World Heritage Site designation efforts.

**Evaluation Comment:** There still remain some concerns about RGC ownership of the project results and sustainability, and the role of the project in resolving the longer term governance issues of CMPAC where the management direction and authority need to be further clarified.

**Recommendation 5:** Undertake confidence-building measures among the RGC, its participating ministries, the NGO implementers of the project, and local authorities (various actions suggested).

**Response to the Recommendation:** No such measures have been undertaken, although project staff argue that meaningful opportunities for participation are being provided.

**Evaluation Comment:** Such measures may require a government willingness to reform the governance arrangements over CMPAC and to establish a systematic management framework, something which is still missing. The Terminal Report recognizes this recommendation as valid – “a lack of trust permeates many cross-institutional relationships, resulting in poor communication, which in turn lessens project effectiveness.”

**Recommendation 6:** Support efforts to strengthen the legislative framework.

**Response to the Recommendation:** The project has been lobbying the government to pass the draft protected areas legislation.

**Evaluation Comment:** This legislation is key to providing the authority to implement and hopefully enforce zoning and land use plans within the protected areas, and there is likely limited further action the project can do to encourage the government to adopt the legislation.

**Recommendation 7:** Project Design - Activities to be added: An extended valuation of the CMPAC.

**Response to the Recommendation:** Study is underway.

**Evaluation Comment:** The valuation of ecological services will provide advocacy information on the economic value of maintaining protected areas, but the policy framework and political will under which such valuation data are used is also an important, unresolved dimension.

**Recommendation 8:** Conduct participatory identification and design of appropriate sustainable funding mechanisms for the CMPAC.

**Response to the Recommendation:** Funding mechanisms are currently being assessed by FFI and CI.

**Evaluation Comment:** Sustainable financing is a key issue being actively pursued in these final stages of the project.

**Recommendation 9:** Conduct special studies to identify and design viable income-generating activities.

**Response to the Recommendation:** Community development NGOs have been contracted to assist livelihoods development. Study of eco-tourism development at Mt. Aural completed.

**Evaluation Comment:** The project does not have sufficient resources to further expand the income generating activities. Some notable success has occurred with CEDAC's agricultural development and community savings support activities.

**Recommendation 10:** Existing Activities for Refocusing and Intensification: Strengthening existing ministerial and operational collaboration among project partners

**Response to the Recommendation:** No new measures undertaken.

**Evaluation Comment:** Project management structures have not provided sufficient opportunities for such collaboration.

**Recommendation 11:** Institutionalizing a system of involvement of MoE and FA enforcement officers and of certain elements of all armed forces.

**Response to the Recommendation:** No action taken.

**Evaluation Comment:** The recommended enforcement system (as suggested in the CI-funded law enforcement study) needs to consider a comprehensive compliance approach (awareness, education, incentives, enforcement) including joint implementation, monitoring, reporting and auditing that is accepted by the agencies. Policy and institutional barriers have discouraged such a system. The project has not been designed to overcome this issue, which would require institutional innovation in Cambodia.

**Recommendation 12:** Intensify project efforts on the delivery of essential social services.

**Response to the Recommendation:** No action taken.

**Evaluation Comment:** This would require an expansion of the project strategy but might be worthwhile to consider within the overall CMPAC management plan and as part of measures to direct settlement outside of the protected areas.

**Recommendation 13:** Increase project visibility at the national level.

**Response to the Recommendation:** UNDP and the project sponsored several workshops to raise the project profile and to discuss larger management issues. Also, efforts to increase understanding within the government of World Heritage designation have been initiated.

**Evaluation Comment:** The limited results to date may generally reflect the low priority given to wildlife and protected areas by the government.

#### **Conclusion regarding MTR:**

The project has undertaken reasonable action to address most of the MTR recommendations. The lack of action on a project Steering Committee and institutional coordination are the major outstanding issues.

## 5.0 Achievement of Project Purpose

### 5.1 Project Impact to Date

The indicators for achievement of the project's purpose are presented in **Table 1**, alongside the Terminal Report conclusions and the Final Evaluation comparative observations and comments. A summary of this analysis is presented below:

#### **Indicator 1: Threats to populations of rare/endangered fauna and flora of the Cardamoms are reduced:**

There are significant monitoring data deficiencies in determining the progress to date in reducing these threats. However, the ranger patrol data and local discussions suggest effective suppression of illegal activity in Sankos Wildlife Sanctuary and probably no significant reduction in Aural Wildlife Sanctuary. The project has developed the process for land use/conservation zoning but it remains to be seen whether this will be firmly adopted and sustained, particularly given the weak national policies and the inability of MoE to enforce EIA and other legislation due to low capacity and weak political support.

- **Level of Achievement (sub-indicators from LFA):**

- *Reduced Human population: **Unsatisfactory***
- *Reduced Illegal hunting: **Uncertain, pending further data***
- *Reduced Legal and Illegal Timber Cutting: **Satisfactory***
- *Reduced Road building **Satisfactory**; tried to encourage EIA of road development- some success*
- *Reduced Depletion of endangered species through trade and other factors: **Uncertain, pending further data***
- *Reduced Military Presence: **Unsatisfactory***
- *Lack of capacity: **Satisfactory** at the operational field level; **Marginally satisfactory** at the managerial level.*

#### **Indicator 2: No new settlement occurs within CMPAC beyond the baseline:**

While improvements have been made in the technical basis for land use decisions, controlling future settlement growth and illegal or suspect land occupation within the Community Development zone may be very difficult given the governance and law enforcement circumstances. This will depend upon ability to generate full support for the land use plans.

- **Level of Achievement: *Satisfactory***, but the likelihood of controlling future settlement is very uncertain given the governance arrangements in the sanctuaries and the required approval of protected areas legislation to implement zoning plans.

#### **Indicator 3: Illegal resource extraction in CMPAC is reduced from the baseline level**

The data on ranger patrol interventions, seizures and prosecutions and discussions with local people suggest, as noted above, that overall illegal activity is declining in Samkos Wildlife Sanctuary. But



enforcement activity is not a reliable measure of illegal resource extraction and further monitoring is needed to confirm anecdotal observations.

- **Level of Achievement:** *Satisfactory* for illegal commercial activities and *Uncertain* for subsistence activities in PSWS (Samkos). Generally *Unsatisfactory* in PAWS (Aural) due to security difficulties and well-established illegal activities in this sanctuary.

It should be noted in the above assessment that the conditions associated with implementing the project area are extremely challenging: (i) the project area is a former stronghold of the Khmer Rouge and has only recently come under government influence; (ii) the wildlife sanctuary designation and laws are new to the culture and tradition of subsistence use of natural resources; (iii) the sanctuaries are large, extensively populated and difficult to monitor, and (iv) both corruption and insufficient respect for the law are commonplace in government and the military due to the poor salaries and lack of institutional modernization.

The above assessment considers the results associated with achieving the overall purpose of the project. Progress towards this purpose in terms of expected Outcomes of the project is assessed in Section 6 of this report.

## 5.2 Issues Related to Project Strategy

### Government Involvement

The project originated as a nationally executed project with MAFF as the Executing Agent, primarily responsible for the planning and overall management of the project activities, and FFI and CI assisting day to day implementation of the project.<sup>6</sup> In the absence of direction, the project evolved toward more of an NGO-based project. This was due to the limited capacity within government to oversee the project, the poor MAFF-MOE relations and coordinating mechanisms, the reluctance of the participating agencies to establish a joint Steering Committee, and insufficient project management discussions during the inception phase. FFI was thus left with the responsibility to take direct charge of project direction and implementation, a situation that in hindsight, adversely affected government support and capacity building.

### Capacity Building

The project design primarily focused on protection and conservation activities and did not sufficiently emphasize the long-term institutional capacity of MOE to manage the wildlife sanctuaries. The principal approach for training professional staff has been to mentor local counterparts alongside the foreign advisors, for example in workshops to prepare for the participatory land use planning. While mentoring may have been effective, there is no information to how successful it has been. Projects with capacity building objectives normally have a needs assessment, training plans, regular monitoring of whether the objectives are being achieved, and some analysis of the institutional setting in which the enhanced skills are expected to be applied.

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<sup>6</sup> See Annex II – Terms of Reference, Contract for FFI to implement the project on Management of the Cardamom Mountains Protected Forest and Wildlife Sanctuaries – Cambodia, Section III, 12 March 2003,

### **Law Enforcement Effectiveness**

The project has developed the forest ranger services in the sanctuaries under difficult circumstances, particularly in Aural Sanctuary where illegal activities and corruption are extensive. The effect of widespread corruption, including DNCP-MoE and FA employees, was not anticipated. There are structural problems in a lack of coordination and occasional rivalry between DNCP-MoE and FA in adjacent patrol and enforcement activities, and weaknesses in the overall approach to addressing illegal activities and corruption.<sup>7</sup> The rivalry between the DNCP-MoE and FA rangers, funded by FFI and CI respectively, is not only inefficient but has led to serious conflict at the field level in Aural Sanctuary. The harmonization of ranger services in the Cardamoms is an issue that needs to be urgently resolved.

### **District and Provincial Coordination**

The CMWS project has established a significant public awareness and law enforcement function at the community level and developed draft management and zoning plans for the sanctuaries. District and provincial authorities expressed support for the project objectives and initiative but some stated that they have little association with the project and were not fully and functionally involved in the design of the plans (despite having staff participate in them and Provincial Governor's endorsement). Differences have also occurred between national DNCP within MoE and Provincial Departments of Environment where there has been some objection about sharing project benefits. Based on the Final Evaluation interviews, further follow-up consultation remains to be completed in preparation for zoning implementation.

### **Policy Influence**

The project results have focused largely on operational level impacts in the management of the sanctuaries. The absence of an effective mechanism to promote recommendations at higher levels in the government, the initial limited role of the National Project Director and the very uncertain government commitment to protected areas have constrained the ability to advance conservation of the sanctuaries at the national level. Despite the substantive positive impacts in developing the technical foundation for conservation, and notwithstanding the contributions toward potential World Heritage Site designation, very little progress has been made in establishing the government policies needed to address the ongoing degradation of the sanctuaries. The ability to influence policy may have been beyond the capacity of the project.

### **Livelihood and Food Security Programming**

The project reports note that the extent of illegal activities (both subsistence and collaboration in commercial crime) is directly linked to the state of household food security and the availability of alternative livelihoods for residents. With the help of local NGOs (CEDAC and Anakhut Kumar), the project has had some positive impacts on community development and displacing inappropriate resource uses within a limited number of communes. But there is no overall programmatic framework for development within the sanctuaries and the inclusion of conservation messages and practices in the various development programmes of the government and international donors.

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<sup>7</sup> See Claridge, et. al., 2005 Study of the Effectiveness of Law Enforcement, and section 9 of this report.

## 6.0 Project Results

**Table 1** provides an overall assessment of project outcomes related to the Logical Framework (Annex 1). This assessment is summarized below.

### 6.1 Improved Planning and Management

**The project has succeeded in establishing, under very difficult circumstances, the initial framework for planning, management and regulation for the two large wildlife sanctuaries. The viability and sustainability of this framework under DNCP-MoE management is tenuous however, and will require ongoing support and increased commitment by the Government of Cambodia.**

#### Baseline Data

The project has generated substantial biological, land use and socio-economic information that will provide an important initial foundation for sound technical assessment and management decision making. It has assisted in preparing a list of endangered species, in undertaking various biological surveys<sup>8</sup> and vegetation mapping<sup>9</sup>. Socio-economic overview surveys have been completed for each sanctuary and field guides for rare and endangered species<sup>10</sup> have been produced.

A rapid botanical survey in 2001 found 91 families of higher plants in Aural Sanctuary. Hundreds of botanical specimens were collected in 2001 and 2005, but most still await positive identification. More than 10% of the identified trees are on the IUCN Red List, and at least 15% of the plants are believed to be endemic to the Cardamom Mountains. Rapid zoological surveys in 2001 and 2004 have confirmed the presence of 41 species of large mammals, 19 of which are on the IUCN Red List. The small mammals and bats are still unknown. Rapid surveys also identified 173 birds, 26 species of amphibian, 41 species of reptile and 42 species of fish.<sup>11</sup> Fish surveys later identified 57 species in Samkos and 42 species in Aural.<sup>12</sup>

Overview vegetation mapping (Figure 1) was prepared in 2004 to assist the management planning process. Landscape-level strategies can be usefully developed based on vegetation and ecosystem attributes. Ecosystem classification allows for a wider understanding of the bio-physical processes at various scales that affect biodiversity and conservation values.

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<sup>8</sup> See for example, Peter G. Cutter, 10 Day Large Mammal and Habitat Assessment in Western Pursat Province, January-February 2000, Cambodia University of Minnesota Graduate Program in Conservation Biology, 2000; Chay Kong Kruey, Oul Noty, Chea Mong, Pan Ra and Chhouk Borin, Fish Diversity and Fisheries in Phnom Samkos and Phnom Aural Wildlife Sanctuaries 2005 Faculty of Fisheries, Royal University of Agriculture; Jeremy Holden, Camera Trapping & Photography in the Phnom Samkos Wildlife Sanctuary, January – August 2006, August 2006; Mon Samuth and Sok Vutthin, The Ecological Impact of Illegal Activities, A rapid Assessment on the Ecological Impact of Illegal Activities in Phnom Samkos and Phnom Aural Wildlife Sanctuary, July - December 2006

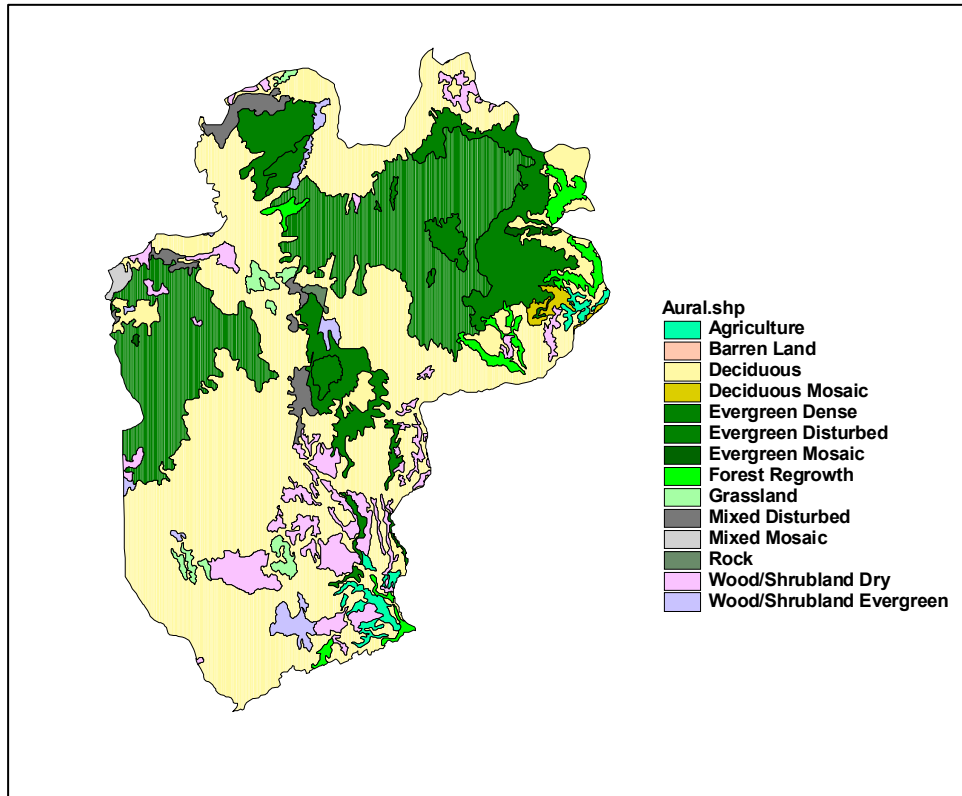
<sup>9</sup> Campbell O. Webb, Chuon Chanrithy, Nang Phirun, and Ek Menrith, Vegetation Mapping in Phnom Samkos and Phnom Aural Wildlife Sanctuaries, Cardamom Mountains, Cambodia, 2005

<sup>10</sup> Dr. Hul Sovannmoly, Field Guide for Rare and Endangered Species In Samkos and Aural Sanctuaries, Sept, 2005.

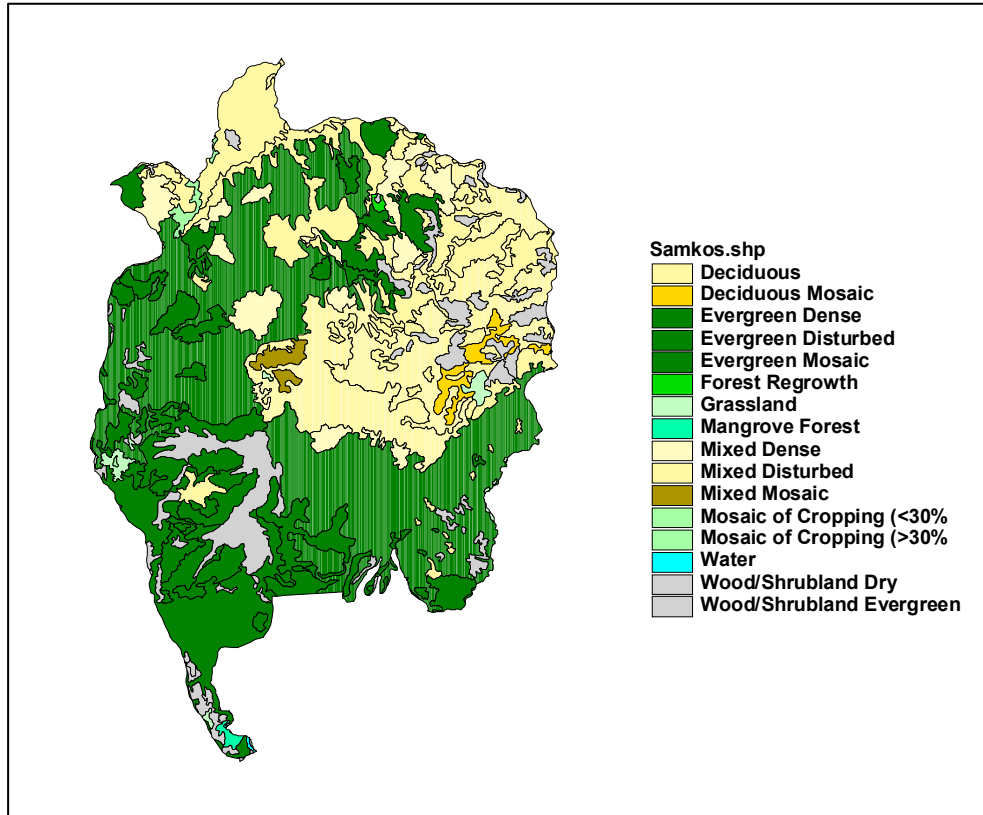
<sup>11</sup> Source: FFI, Mt. Aural Report, 2005.

<sup>12</sup> Chay Kong Kruey, Oul Noty, Chea Mong, Pan Ra and Chhouk Borin, Fish Diversity and Fisheries in Phnom Samkos and Phnom Aural Wildlife Sanctuaries, 2005

**Figure 1: Vegetation Mapping**



**Phnom Aural Sanctuary Vegetation**



**Phnom Samkos Sanctuary Vegetation**

Sanctuary management plans were prepared under the guidance of Provincial Zoning Committee, drawing upon results of the Biodiversity and Protected Areas Management Project and the project surveys. In both sanctuaries, the key issue is described as “the continued colonisation and clearance of land in the Wildlife Sanctuary by the existing population and by in-migrating settlers”.

These are significant advancements in the information and planning framework. The Inception Report set out an ambitious objective – “to provide a sound scientific basis for the assessment, monitoring, management and decision making for the biophysical assets of the Wildlife Sanctuaries and linked landscapes and ecosystems”.<sup>13</sup> It proposed landscape/ecosystem level, site/habitat level and species-focused work, including “the identification of biophysical indicators for species and ecosystem conditions that can be practicably monitored during and after the project”.

The overall strategy for biophysical inventory systems still needs to be developed based on a review of alternatives, and selecting the most cost-effective approaches that meet Cardamom management issues. The ecosystem, habitat and species inventory and monitoring (strategy, methodology, process, and format) should form part of the capacity building programme with DNCP-MoE. This should be linked with the implementation of the management plans.

Compilation, storage, accessibility and dissemination of the biophysical information also remain a major concern, since the management information component within DNCP-MoE is weak. The project has laid the initial groundwork for a Cardamoms inventory and monitoring system but much work remains to be done to ensure its functionality for Cambodian wildlife and protected area managers.

### **Management Information System**

The project produced an MIS Strategic Plan 2005-2006 to guide information systems development collect and generate the natural resources and environmental data utilized for the CMWSP planning, protection and conservation, development, particularly the PSWS & PAWS zoning and decision-making purposes. Due to limited capacity development however, little substantive progress has been achieved since the database structure, catalogue and operational testing have not been completed. The project provided some GIS training for the MoE and project staff based on "learning by doing" principle as part of the human resource development. Vegetation mapping has been integrated into the system with the assistance of a short-term international consultant. The main outputs have been digitizing, layout maps, plotting maps and participation with other activities of the project component.

Summary of outputs and gaps to date in relation to the planned project outputs:

Outputs:

- Production: PAWS & PSWS Vegetation Data, Spatial Data Plotting and Activity Reporting, PAWS & PSWS Zoning, CMWSP GIS Spatial Dataset; CD-Rom for distribution reported (but not available for the evaluation team).

Gaps:

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<sup>13</sup> FFI, Cardamom Mountains Wildlife Sanctuaries Project, Project Inception Report, April 2004, P. 18

- Data Handling: no database system structure and catalogue has been developed; not all data assembled from the project components.
- Management Information System: no operational MIS in place, particularly for monitoring, reporting and evaluation; no supporting system on biological and socio-economic data compilation aspect.
- Information system: no web site development, E-library, and MIS technical report.
- Data sharing mechanism: data/information sharing policy and mechanism with stakeholders has been unclear (No data/information sharing policy in place).

The MIS, if eventually developed, could serve an important role in monitoring illegal activities including land encroachment and habitat losses, and tracking law enforcement activities and violations. It could record and map ranger patrol data and other non-compliance indicators to assist strategic planning for patrols and for public awareness campaigns and to supplement law enforcement filing/court case materials, etc.

### Management and Zoning Plans

The project has produced plans for the sanctuaries that involved a wide range of stakeholders and that provide clear direction for guiding land use consistent with the objectives of the sanctuaries. The management plans lay out a series of activities organized in 5 management programmes and various sub-programmes. Cost estimates for programme operations are provided in three scenarios ranging from \$ 850,000 - \$2.3 M. Participatory Land Use Planning (PLUP) guidelines were used to assist the zoning.<sup>14</sup> The land use zoning process is described in an FFI report:

*The zoning process has taken more than a year to complete, with consultations held in each of the 100+ villages. Initial community sketch maps formed the basis for human-oriented management zones. Simple participatory village mapping techniques, remote sensing and aerial photography were used to convert local NR knowledge to a digital format. Once captured by GIS, PA managers are then able to formalize these traditional land use arrangements. Extensive biological survey has informed the delineation of conservation-oriented zones.*<sup>15</sup>

The plans have been endorsed by MOE executive and Provincial governors. But there are also indications that further communication is needed with local officials and staff to improve the partnerships and support for these plans and their ownership within government. Time pressure forced the project team to use rapid methods that have not fully satisfied some stakeholders.<sup>16</sup> The point in making reference to this is to simply highlight that sufficient level of local support is necessary for effective plan implementation and a small investment in follow-up consultation may be warranted.

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<sup>14</sup> See FFI, Guidance notes for integrating species and habitat conservation into community planning in protected areas, n.d.

<sup>15</sup> FFI, Land-Use Planning in the Cardamom Mountains Wildlife Sanctuaries: *Providing a Platform for Conservation and Sustainable Development*, n.d.

<sup>16</sup> See observations regarding rapid methods and participatory process in UNDP, CASE STUDIES – CAMBODIA, Participatory Land Use Planning, n.d.; this conclusion is based on interviews with provincial staff and some commune leaders in both sanctuaries.

Furthermore, there is a risk associated with awaiting plan implementation after passage of Protected Area Law since limited progress to date has been made to adopt the legislation. This should justify further discussions of various means to maintain momentum in the planning process. For official purposes, a Zoning Plan sub-decree is needed. However, MoE also has a mandate to take action on the current threats to the sanctuaries. An interim arrangement can take the form of a decision or declaration of the Ministry of Environment or agreement with the key agencies eg. Ministry of Land Management, Urbanization and Construction, and Provincial Authority etc. When the Protected Area Law is eventually in place, the interim MoE's "ministry decision/declaration or join agreement" will be directly upgraded to sub-decree.

### **Environmental Impact Assessment**

The project has assisted proposed road re-location to outside of Aural Sanctuary through advocacy by the project, and interacted with mining exploration interests (Southern Mining exploration permit area within PSWS) to request environmental assessment. A significant accomplishment has been to establish Development Projects Review Groups at the provincial level where the main departments and other stakeholders review various development proposals, although these are still in formulation.

### **Policy and Legislation**

The project has also actively assisted the development and promotion of draft PA policy and legislation. But government commitment to PAs is unclear at the moment. The ability of MoE to influence government policy is limited and this potential depends upon support from other ministries. Unfortunately, the project was not designed to establish the necessary collaboration with other ministries and higher levels within the government to garner this support. Furthermore, there appears to be little strategic cooperation between protected area projects in advancing the policy agenda.

### **DNCP-MoE Capacity Building**

The project has marginally enhanced the institutional and individual capacities within the department and ministry, including establishing management units for each sanctuary and an emphasis on training in PLUP.<sup>17</sup> Two trainings have been provided to ranger staff. About 10 MoE professional staff have directly benefited from training/mentoring but the results of this are difficult to assess due to lack of a training plan. Sanctuary managers have received extensive mentoring but only a few formal trainings. At least two FFI project staff (from MOE and Pursat DoE) have become proficient naturalists, able to identify species, collect specimens and assess human impact on the environment.

A review was done of the full-time technical staff working on the project (based on a spreadsheet provided) who were the primary beneficiaries for capacity building. There were 115 rangers who received training and mentoring. There were also 21 government staff (excluding support staff), 16 of whom were from MoE/DoE, and 11 FFI project staff who received various forms of training/mentoring.<sup>18</sup> About one-half of the total 32 trainees were from MoE/DoE.

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<sup>17</sup> Samkos had 4 FFI project staff/3MoE staff, suggesting a focus on individual skills development.

<sup>18</sup> Data from project payroll spreadsheet, FFI Cambodia.

**Table 3** below summarizes the capacity development to date. The capacity building for law enforcement was well focused. Conservation and management efforts mostly concentrated on individual skills development, with very general objectives. For example, 9 staff received various levels of GIS training but without measurable effect on MIS development. Capacity building results have also been constrained by (a) the short period within which this project capacity building has taken place, (b) the lack of a larger institutional review and strengthening of the ministry structure management and operations (including EIA implementation within sanctuaries) to take advantage of individual capacity improvements, and (c) the inability to retain staff that have been trained by the project. Sustainability of the enhanced capacities may be questionable without institutional development.

The capacity building performance factors included: unclear training objectives, no on-the-job evaluations; sudden dismissal of trained rangers in PAWS by MoE, uncertainty whether FFI project staff from MoE are likely to return to the organization, high dependence of MoE staff on FFI project advisors; poor self-initiative: e.g. - no follow-up post-zoning consultation by sanctuary staff; e.g. - no attempt to intervene to ensure that an effective MIS was in place.

The general rating of achievements in relation to Planning and Management outcomes are as follows:

<b>Indicator:</b>	<b>Level of Achievement:</b>
1. Continuation of current baseline established by biological, land use, and socioeconomic assessments	<b>Satisfactory;</b> - significant information improvement to assist zoning and management plans, but there is as yet no consistent strategy for ongoing inventory and monitoring activities by MoE and others.
2. Completion of regional stakeholder consultations and outreach activities as per work plans	<b>Satisfactory;</b> lack of full support at the Provincial level; communication issue
3. National level management units within DNCP/MoE and DFW/MAFF established and operational	<b>Marginally satisfactory;</b> established but operational aspect without ongoing supervision is questionable
4. Monthly joint reporting by the project management units within DNCP/MoE and DFW/MAFF on conservation conditions and trends institutionalized	<b>Satisfactory</b> – good regular reporting on activities and MoE-FFI meetings, but no overall results monitoring
5. Draft management plans completed	<b>Satisfactory</b> – comprehensive medium term plans with budgeting scenarios



**Table 3: Summary of Capacity Building of MoE from CWMSP**

<b>Capacity Targets</b>	<b>Organizational</b>	<b>Individual</b>
<b>Field level</b>  Sanctuary Rangers law enforcement and operational staff	<ul style="list-style-type: none"> <li>Samkos and Aural Ranger HQs and accommodation expanded and equipped for rangers.</li> <li>PA wide radio communications established.</li> <li>PA management units established in Kampong Speu and Pursat.</li> <li>Management plan, zoning and partial boundary demarcation (?).</li> </ul>	<ul style="list-style-type: none"> <li>48 Field Rangers trained to international standard</li> <li>In May 2004, CI and FFI supported a WildAid-run ranger training course for 40 FA, MOE, and Military Police.</li> </ul>
<b>Sanctuary level</b>  Sanctuary Managers CPA staff Zoning and mgnt planning staff	<ul style="list-style-type: none"> <li>Formation of Wildlife Sanctuary Management Units at each sanctuary with CPA team (currently 2 at Samkos).</li> <li>These units have produced 5-year Management Plans, Wildlife Sanctuary Zoning Plans, WS Protection Policies, Monthly and Quarterly WS Protection Plans, Standard Operating Procedures and Internal Regulations for law enforcement, and Orders for Gun Use by Rangers in Protected Areas.</li> <li>Facilitated the meeting of the Sub-National Committee for Conflict Resolution in Protected Areas (Kg. Speu) and the formation of a Development Project Review Group (Pursat-Veal Veng district).</li> <li>Regular meetings and occasional workshops have been held at provincial and district levels on various issues.</li> <li>Establishing a process to generate wildlife sanctuary income from fines.</li> </ul>	<ul style="list-style-type: none"> <li>10 staff/partners trained in site level GIS</li> <li>2 staff trained in advanced GIS</li> <li>12 staff/partners working as PLUP facilitators</li> <li>2 Protected Area Directors competent to regional standard (?)</li> <li>Wildlife sanctuary directors received training in GIS, in court case preparation, and participated in a cross-visit to protected areas in the Philippines.</li> <li>Six members of the C+E unit have variously received training in GIS, facilitation of CPA formation, PLUP facilitation, community networking, CPA formation process, and managing conflicts in CPAs.</li> </ul>
<b>Headquarters level</b>  MoE division managers  Technical staff  MIS staff	<ul style="list-style-type: none"> <li>Established Species, Habitats and Ecosystem (SHE) Unit in MoE-FFI; current staff: 2</li> <li>CMWSP has facilitated dialogue and co-operation on various issues between project operational units and: MoE Legal Department, DNCP Community Protected Areas Development Office, the director of DNCP, and the Minister for Environment.</li> </ul>	<ul style="list-style-type: none"> <li>Four MoE and five FFI staff received exposure to community based projects in Philippine protected areas and the role of Protected Area Management Boards.</li> <li>Four members of the C+E unit have variously received training in GIS, facilitation of CPA formation, PLUP facilitation, community networking, CPA formation process, and managing conflicts in CPAs.</li> <li>Two members of the SHE unit received training in GIS, plant taxonomy, sample collection, preservation and storage, various animal survey techniques, camera trapping, EIA training, and participated in visit to Malaysia for herpetology training.</li> <li>One member of MIS unit attended training in advanced GIS, AIT, Bangkok.</li> </ul>

## 6.2 Improved Government Operational Capacity

The project has had partial success in developing and delivering DNCP-MoE conservation and protection services on the ground. Sanctuary management units have been established within DNCP-MoE. Ranger patrol units have been created and are functioning effectively with project support in Samkos sanctuary but not in Aural sanctuary where illegal activities, security and staff morale concerns prevail. Sustainability is a key issue.

### Provincial and Local Operations

FFI advisors have worked diligently alongside seconded MoE staff to implement the project objectives. Particularly noteworthy are the project's use of the *Protected Areas Conflict Resolution Committee* at the provincial level, and the formation of *Development Projects Review Groups* (DPRG) at the district level to improve coordination of development activities.

The DNCP division of MoE has expanded their role and experience in addressing conservation and protection issues in the sanctuaries. One key concern is the incomplete boundary demarcation. There have also been some internal problems of coordination between DNCP and other sections of the ministry, some corruption allegations (that characterize many government operations) and of course, questions about the sustainability of the capacity that has been developed to date. A stronger sense of MOE/DNCP ownership of the project would be desirable.

### Law Enforcement Capacity

The ranger patrol services have established a visible deterrent to illegal activities where none existed previously. They have had a measurable impact on reducing illegal commercial operations (e.g., yellow vine, *mreah proh* factories and luxury timber processing) and a less measurable impact on reducing subsistence hunting. **Table 4** presents the ranger patrol data for 2005. Deterrence and law enforcement have been more successful at Samkos than at Aural where the project support for the ranger patrols has been withdrawn due to the security concerns and the scale of illegal activity and government complicity.

At times, the DNCP-MoE rangers have had to balance criticisms of weak enforcement actions alongside security concerns of intervening in powerful interests that are sometimes backed by the military. The major concern that was mentioned in interviews was the danger associated with enforcement interventions in remote forest areas.

The assessment of the Terminal Report is endorsed: that on balance, the FA-CI model of seconding military police to work alongside FA staff has been more effective than the MoE-FFI model of recruiting locally trained rangers. The reasons for this, noted in the Terminal Report, are also supported in our observations:

- higher population density in PAWS relative to the rest of CMPAC - this increases the intensity and frequency of threats to biodiversity, and consequently the difficulty of enforcement/protection activities;
- delay in commencement of full-scale operations in PAWS/PSWS – this only compounded the difficulty of enforcement activities – in the period between 2001 and 2003, illegal activities “took root” in the sanctuaries and escalated in scope;
- recruitment of inexperienced and poorly-educated rangers from local communities, most times without transparent selection processes, may have resulted in rangers with insufficient capacity, professionalism, and standing within the community to perform their function in opposing organised and powerful illegal operators;
- MoE rangers and the MoE itself lack the status and reputation of the FA or military police as implementers of the law. Current MoE law used for managing protected areas is not detailed, difficult to implement and open to wide interpretation by prosecutors and judges. Further, the MoE support mechanism for prosecuting legal cases is poorly developed compared to the FA and prone to political interference, limiting its effectiveness. All of these points weaken the power of MoE rangers to enforce the law.<sup>19</sup>

The general observation that collaboration with other law enforcement agencies and the military would have enhanced the MoE law enforcement is countered by the argument that this would have drawn the rangers into greater association with illegal activities. It should not be assumed that increased collaboration with FA and military police would in itself address enforcement deficiencies. One FFI staff noted, for example: “CMSP experience of joint operations with the military to dismantle mreah brew factories indicated that their willingness to participate was contingent upon their own mreah brew activities not being targeted”. The Final Evaluation discussions suggested that these problems are widespread and systemic and will not likely be resolved through modest capacity development.

Recognizing the very difficult starting conditions and the unfortunate events in Aural sanctuary which disrupted progress, the project has made a significant contribution: ranger services have been effectively established at Sankos sanctuary and less effectively but nevertheless in place at Aural sanctuary. (Even after funding ended in October 2006, the ranger team is still operating at full staff but on a limited basis in Aural). The FFI initiative at introducing an output-based remuneration scheme for enforcement officers and rangers is an important learning from the project.

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<sup>19</sup> UNDP, UN Foundation, UNF Terminal Report, 12 February 2007, pp. 28.

Table 4: Law Enforcement Statistics

PHNOM AURAL WS 2005	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Total patrol man days conducted	64	222	229	120	132	150	353	219	310	240	171	150
Number of training/person/days received by staff	544	99	66	66	66	0	112	269	0	0	0	0
Number of chainsaws seized/destroyed	2	8	11	12	6	19	5	0	6	0	5	1
Number of sawmills seized/destroyed	0	1	0	4	4	2	2	0	1	0	1	0
illegal NTFP factories closed/destroyed	0	0	0	0	0	0	0	0	0	0	0	0
Number of illegal transport trucks/cars seized	0	1	1	3	0	1	2	0	2	0	0	1
Number of illegal transport motorcycles seized	0	1	2	2	2	1	0	0	0	0	0	0
Number of illegal transport oxcarts intercepted	15	74	130	79	60	78	112	8	22	0	129	42
Number of illegal weapons seized	0	1	1	1	0	0	0	0	0	0	0	0
Number of Traps seized	0	0	1	8	0	0	0	0	28	0	50	50
Number of Animals Seized (Dead)	0	1		5	0	2	0	0	0	0	0	0
Number of Animals Seized (Live)	0	1	1	1	0	0	0	0	0	0	0	0
Other illegal machinery seized/destroyed	0	0	6		2	0	1	0	1	0	1	0
Quantity of fuel seized, destroyed (litres)	0	0	70	80	500	100	270	0	0	0	0	0
Charcoal kilns destroyed	0	16	0	0	0	0	0	0	37	0	0	0
Timber seized/destroyed <i>Luxury(m<sup>3</sup>)</i>	0	1.2	15.9	0	16	47.7	0	0	0	0	1	6
<i>Other sawn timber (m<sup>3</sup>)</i>	15.5	100.5	72.5	86	28	508.7	48	2.5	23.2	0	40.8	4.2
<i>Unsawn timber (-logs)</i>	3	11	10	65	293	324	181	0	8	0	87	88
Number of illegal camps destroyed	0	2	13	9	1	5	14	0	0	0	0	0
Number of illegal buildings removed/destroyed	0	7	2	1	12	0	0	0	0	0	0	2
Number of information signs posted	0	0	0	0	0	0	0	0	0	0	0	0
Number of non reoffence contracts signed	48	100	86	30	45	45	102	9	7	0	38	8
Number of cases filed with courts	0	0	2	15	0	2	0	0	0	0	0	0
Number of successful prosecutions	0	0	0	0	0	0	0	0	0	0	0	0
Number of reports on illegal land occupation filed	0	0	0	0	2	0	0	0	0	0	0	0
Amount of fines levied (in million Riels)	3	0	4	3	8.4	23.9	2	0	1	0	0	0
Informants reports successfully acted upon	1	1		1	0	3	0	0	0	0	0	0

<b>SAMKOS WS 2005</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>April</b>	<b>May</b>	<b>Jun</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	
Total Patrol man days conducted	153	304	325	320	186	256	225	250	276	206	207	183	2891
Number of training/person/days received by staff	0	125	58	0	28	0	92	280	42	0	10	36	671
Number of chainsaws seized/destroyed	2	3	7	10	1	4	3	3	3	3	0	1	40
Number of sawmills seized/destroyed	0	0	0	0	0	0	0	0	0	0	0	00	0
Number of illegal NTFP factories closed/destroyed	0	0	6	6	3	10	1	0	8	0	0	0	34
Number of illegal transport trucks/cars seized	0	0	3	2	0	1	3	0	1	0	0	1	11
Number of illegal transport motorcycles seized	4	0	2	0	0	1	0	0	0	0	0	0	7
Number of illegal transport oxcarts intercepted	0	6	6	6	0	0	0	15	8	0	0	2	43
Number of illegal weapons seized	0	2	2	2	0	0	0	0	0	0	0	0	6
Number of illegal radios seized	0	0	2	0	0	0	0	0	0	0	0	0	2
Number of animal traps seized/removed	0	15	1	0	32	0	2	0	0	0	26	8	84
Number of trapped/hunted animals seized (dead)	1	1	3	0	2	0	0	0	0	0	0	0	7
Number of trapped/hunted animals seized (Live)	0	1	4	0	1	0	3	0	1	0	2	1	13
Other illegal machinery seized/destroyed	0	0	19	10	2	2	5	0	0	0	0	0	38
Fuel from illegal operations seized, destroyed (l)	0	35	1155	1850	0	30	0	0	210	0	0	0	3280
Charcoal Kilns Destroyed	0	0	0	0	0	0	0	0	0	0	0	0	0
Timber seized/destroyed <i>Luxury Timber (m3)</i>	4.5	8.5	61.6	67.3	4.77	3.79	5.77	10.1	25.02	9.16	4.8	.43	205.74
<i>Luxury Timber (slabs)</i>	0	6	22	0	0	0	0	0	0	0	0	0	28
<i>Luxury Timber (Round Logs)</i>	0	0	3	2	0	0	0	0	0	0	0	0	5
Number of illegal camps destroyed	0	2	1	1	0	0	0	0	0	0	3	2	9
Number of illegal buildings removed	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of information signs posted	0	0	6	8	0	0	0	0	0	0	0	0	14
Number of non reoffence contracts signed	0	4	23	15	0	34	3	0	20	2	20	2	123
Number of cases filed with courts	0	0	0	2	0	0	0	0	2	0	0	2	6
Number of successful prosecutions	2	0	0	0	0	0	0	0	0	0	1	0	3
Number of reports on illegal land occupation filed	0	1	0	0	0	2	0	0	0	0	21	12	36
Amount of fines levied (million Riel)	0	0	0	0	1.7	12	1.0	0	0	390	0	0	404.7
Informant reports received and successfully acted on	3	2	2	1	0	0	0	2	1	0	0	0	9

Source: MoE-FFI Cambodia

<b>Indicator:</b>	<b>Level of Achievement:</b>
1. Field based protection units, ranger stations and substations established and operational in protected areas and buffer zones	<i>Satisfactory</i> , although sustainability is dependent upon donor funding
2. Permanently manned protection posts established at main entry points to the PAs	<i>Marginally satisfactory</i> for CMWS; <i>Satisfactory</i> for CCPF
3. Training and support center(s) established in the protected areas	<i>No centre established</i> ; contribution uncertain.

### 6.3 Communities Engaged in Protection, Conservation and Sustainable Use

The project has had a significant, modest-scale impact on community involvement by establishing community protected areas, promoting public awareness and education, and facilitating livelihoods development. The impact is limited by the scope of the project in a selected number of communities within the sanctuaries.

#### Community Protected Areas

There have been 18 CPAs established (10 in Samkos and 8 in Aural) under the guidance of locally elected committees to engage people in the protection and sustainable use of designated CPAs (and 22 further CPAs identified). Community rangers also assist in liaison between the communities and MoE. This appears to have been a generally successful strategy, although the sustainability of these groups and their capacity to further implement local regulations may be questionable without ongoing support to rangers and CPAs.

#### Awareness and Education

*Save Cambodia's Wildlife* and other NGOs have assisted in promoting community understanding of conservation values in the sanctuaries. Modest gains have been made to begin the process of changing local attitudes toward wildlife and forest resources. Raising awareness of the sanctuary boundaries and purposes is an important activity that justifies the investment. It has been recognized that this is a long term process that is also linked to law enforcement efforts. Some financial incentives have been offered on a small scale, experimental basis but no data were available.

#### Sustainable Livelihoods Development

Some obvious success has occurred in O'Sam commune where the NGO, *CEDAC* has assisted households in increasing agricultural production and incomes. There is substantial potential to expand rural development and livelihoods in support of conservation objectives in the Cardamoms but MoE will need to become a more active partner with other agencies and donors in this endeavor.

<b>Indicator:</b>	<b>Level of Achievement:</b>
1. Networks of community based forest and wildlife crime monitors established and operational	<i>Satisfactory</i>
2. Formal agreements with local communities on wildlife monitoring and conservation	<i>Satisfactory</i>

established	
3. Community incentive systems for detecting and reporting wildlife and forest crime in place	<i>Marginally unsatisfactory /Uncertain</i>
4. Code for conservation and good practice for land management with local communities established	<i>Very satisfactory</i>
5. Sustainable use zones defined and sustainable use projects in place	<i>Satisfactory</i>

#### 6.4 International Recognition of CMPAC

Both FFI and CI have effectively established an international profile for conservation and sustainable use of the Cardamom Mountains complex. Donor funding to date has been in the order of \$ 6 Million, primarily because of the advocacy work of these two organizations. But prospects for World Heritage designation remain uncertain.

##### International Profile of the Cardamoms

The project has generated extensive international awareness and media coverage of the Cardamoms, including national TV coverage and distribution of a film documentary. The global outreach programmes of FFI and CI have facilitated international recognition. Efforts to obtain World Heritage designation have also contributed toward this objective.

##### Progress Towards World Heritage Designation

As outline on Table 5, the process of nominating Cardamom Mountains for World Heritage status has made little progress. Two attempts to gain the approval of the Council of Ministers have not succeeded. The lack of support from the development sectors and ministers is the primary barrier.

<b>Indicator:</b>	<b>Level of Achievement:</b>
1. Official nomination of Aural and Samkos and CCPF as natural World Heritage sites	<i>Unsatisfactory/Uncertain</i> whether there is sufficient political will (lack of political will and priority).
2. Number of independent articles on the Cardamoms initiative written in international and national publications	<i>Very satisfactory</i>
3. Demonstrated attitudinal changes in communities towards the sites and the threats facing them	<i>Marginally satisfactory</i> , given the scope of the activities

#### 6.5 Financing Mechanisms

The review and development of financing options is still under preparation with both FFI and CI actively working on attracting further donor contributions and establishing long term endowment trust funds to support conservation and protection of the wildlife sanctuaries and protected forest.

### Revenue Generation

The gap between government funds and base scenario management funding requirements is in the order of \$ 200,000 annually for the two sanctuaries. Various potential fees and revenue sources are under review, particularly related to future tourism development.

### Financing Strategy and Mechanisms

Progress has been made in securing financial commitments from CI and FFI toward the establishment of endowment funds such as the Global Conservation Fund and use of private sector strategies. Further development and consolidation of the mechanisms and government endorsement are needed.

<b>Indicator:</b>	<b>Level of Achievement:</b>
1. Fee-based entry system for the Aural and Samkos sanctuaries established and operational	<i>Unsatisfactory</i>
2. Assessment of annual operating costs for the protected areas and financing options completed	<i>Very satisfactory</i>
3. Financial mechanism instituted, and sufficient capital raised for commencement	<i>To be determined</i>
4. Financial and performance agreement negotiated and signed with the government	<i>To be determined</i>



**Table 5: Chronology of CMPAC World Heritage Nomination Process**

<b>Date</b>	<b>Event</b>
August 2004	UNESCO provides technical support to the RGC to identify potential World Heritage sites. A technical working group is set up to review the sites based on the eligibility criteria. A series of technical meetings takes place to build technical consensus on site selection.
5-6 October, 2004	National Workshop adopts the technical proposals to include three sites, including the two Cardamom Wildlife Sanctuaries, in the National Tentative List.
December 2004	MoE submits a proposal for Government consideration and approval.
28 March 2005	UNDP writes to the Prime Minister requesting his support for inclusion of CMPAC in the National Tentative List. There has been no response to date.
15 June 2005	Inter-ministerial technical meeting at the Council of Ministers, leading to a positive recommendation for the inclusion of all three sites: (1) the Wildlife Sanctuaries of Phnom Aural and Phnom Samkos; (2) Kulen Promtep Wildlife Sanctuary; and (3) the three core areas of the Tonle Sap Biosphere Reserve, in the National World Heritage Tentative List.
June 2005	Council of Ministers remit list for consideration by the Inter-agency Technical Meeting, chaired by UNESCO Cambodia's General Director, list is approved.
22 June 2005	UNDP (Lay Khim) coordinates a visit to sites within the Cardamoms by a high level delegation of National Assembly Members and Senators of the Third Commission in charge of Economics, Environment, Agriculture, Water Resources and Rural Development.
22 July 2005	Council of Ministers meeting to review and endorse proposal, decision on proposal is formally "postponed" until exhaustive studies on the natural resources of all these areas had been completed.
6-7 December 2005	UNDP makes another attempt at lobbying and advocacy in a conference on Natural Resource Management for Poverty Reduction, scheduled 6-7 December, 2005. During that conference, Prime Minister Hun Sen makes public announcements that he was not ready to approve the proposal for the inclusion of the sites in National Tentative List, stating his concerns that: <ul style="list-style-type: none"> <li>• there was a lack of scientific information about the sites; and</li> <li>• the area covered by the sites is too large.</li> </ul>
Nov 2006- Mar 2007	CMWSP worked with UNDP and FFI China to arrange a field trip of relevant government ministers (12 peoples including HE. Sok An, Deputy Prime Minister) to a WH site in China, As of 20/03/2007, the trip has not yet been undertaken.
April 2007	As at 20 April, His Excellency Sok An, Deputy Prime Minister, has indicated in principle his support for the proposed China trip. FFI and UNDP are now in the process of arranging the trip for His Excellency and around 12 other senior government officials. The trip will hopefully take place before project closure.

Source: updated from the UNF Terminal Report, March 2007

## 7.0 Project Implementation

### 7.1 Management Structure

#### 7.1.1 Project Organization

**Figure 2** outlines the internal project structure. There are essentially three levels of project organization: (a) Project management, (b) Technical support at Headquarters and Sanctuary Offices (PSWS Mgt at Pursat and PAWS Mgt at Kampong Speu) and (c) Protection services at the field level. This structure was expected to report to a Project Steering Committee and a Tripartite Review by UNDP (representing donors), executing agency (MAFF) and the implementing agencies (FFI, and MOE) as required under UNDP contracts.

**Overall, the internal project structure has not been particularly effective due to lack of a Steering Committee, inability to overcome inter-agency coordination problems and poor linkages to the policy level in Cambodia, and the limited MoE ownership of the management functions of the project. This is partly offset by decentralized project management in the strong community-based outreach of the project organization at the local level.**

The project organization has been constrained in its ability to influence the external environment: firstly, in coordinating government ministries that have not traditionally worked together and secondly, in generating policy results at national level as to the use of protected areas for conservation, development and military purposes. The Terminal Report refers to problems related to “lack of coordination and ownership at the national level” and “proxy governance” (NGOs undertaking government duties). There is certainly evidence of these weaknesses but there have been some successful elements as well, such as the mechanisms at the local level to assist community-based sanctuary decision making.

#### Executive Direction

No steering committee was established because of the general inter-agency cooperation difficulties between MAFF-MoE, the reluctance or inability of MAFF to undertake action due to a lack of financial support given the National Project Director, and the inability of UNDP to insist upon conformance with a steering committee requirement. Attempts by UNDP to initiate a steering committee appear to have been ignored. It should also be noted that the project design did not sufficiently emphasize the key functional role of this steering committee in overcoming institutional barriers and providing linkages to higher level decision making. The turnover of project managers and the focus with progress on the ground, may have also discouraged attention toward setting up the steering committee. A senior-level steering committee with a direct mandate to respond to issues and the necessary staff support could have been able to reduce some of the difficulties getting full cooperation from other ministries.

### **Tri-partite Review**

The TPR has met four times (in 2003, September 2004, March 2005, November 2006) since the project document was signed in June 2003. According to UNDP evaluation policy, the TPR meeting was not mandatory during 2002-January 2006. It is now mandatory as a 'project board meeting'.

The TPR meetings involved extensive presentations and discussions of the issues during the last meeting in November 2006. Minutes of earlier meetings were not available.

### **FFI – National Managers/Coordinators**

Communication and reporting between the project manager, national project manager, and Minister of Environment has improved over the course of the project. Formal reporting is on a quarterly basis but internal meetings occur weekly between project co-managers and project management teams meetings occur monthly. The project manager meets with the Minister of Environment as the need arises. Some communication issues apparently existed in the early stages as to who 'owned' the project. But overall, the organizational arrangement has ensured good senior level communication.

Given the joint project structure of MAFF-MoE management of CMWS, the project has had to facilitate liaison between the ministries although this was not particularly effective until such time as a National Project Facilitator was employed in September 2006 when it became clear that there were government coordination issues. While useful, this arrangement – of employing senior liaison staff to assist the project has also not been able to anticipate or address the operational difficulties of implementing the law enforcement activities on the ground and the resolving DNCP-MoE and FA patrol ranger relationships, or for that matter, advancing the policy agenda.

### **FFI – DNCP Partnership**

The project delivery strategy employed project advisors attached to the DNCP in the field, and DNCP staff seconded to FFI at headquarters. FFI advisors have been very dedicated in mentoring DNCP staff and fully committed to implementing the project objectives under difficult circumstances. But there have also been organizational and personal conflicts, with few mechanisms for conflict resolution.

Although the FFI staff have done a good job in encouraging DNCP leadership, the transfer of responsibilities from FFI staff to DNCP staff remains a key issue since the project is generally perceived as an FFI activity programme. Sustainability will depend upon the extent to which capacity is formally established within DNCP and a clear exit strategy is underway. The withdrawal of advisors from Aural sanctuary in 2006 provides one indication of results: ranger patrols are continuing albeit at a much lower rate, operations are dependent on improving revenue from enforcement fines/confiscation, and there appears to be little backstopping support from the Ministry.

The project operational partnership has been with DNCP as a division of MoE. The relationship between DNCP staff who receive the project salary supplement, working alongside regional staff of the ministry (Departments of Environment) at the provincial level who do not receive project salary supplement, is an issue for some participants. Some DoE staff complain that they have had no benefit from the project.

The arrangement reflects some of the limitations of the standard development cooperation model in Cambodia:

- projects are highly dependent on distribution of government salary supplements which are apparently needed to attract motivated staff in order to achieve the planned outputs;
- in-kind contributions by communities and governments are often low in projects;
- capacity building and related institutional reform are difficult, long term challenges; and
- sustainability and retention of agency staff after the project is questionable.

### **Local Outreach**

Organizational arrangements at the local level – CPA committees, community development groups, Provincial-level Development Project Review Groups, activating the Conflict Resolution Committees, etc. have been one of the major contributions of the project.

### **7.1.2 Project Administration**

**The administrative management of the project has been generally effective given the resources available and the requirement of managing a large number of staff and contracts within a widespread project and set of activities. The fact that the project has had three project managers and one interim manager in four years has not assisted the development of consistent working relationships with the government and FFI's capacity development within Cambodia.**

Some increased burden was placed upon the project manager due to the absence of a Steering Committee, the many institutional coordination issues associated with the project, and the extensive reporting for multiple donors. In addition, the workload on UNDP staff probably also required increased input from FFI in order to satisfy the various GEF and donor reporting demands. The number of Project Managers over four years may have also reduced administrative efficiencies.

There have been a few areas of under-performance in contracts, such as the Management Information System, where intervention was and is needed to ensure meaningful results.

The dominate factors that affected constraints on project administration include:

- excessive workload on the project manager and the high level of turnover of FFI project managers;
- the relatively extensive administrative and reporting duties associated with a complex funding structure;
- the lack of available time of the Project Co-manager, a senior official in MoE (even though contractually 80% of his time was to be dedicated toward the project), which was overestimated in the project inception;
- the lack of capable mid-level managers within DNCP-MoE who could have been dedicated to assisting project management, and the related absence of a budget and programme to develop this needed managerial capacity within the ministry; and
- absence of clear standards with regard to expected capacity development results within DNCP-MOE.

### 7.1.3 UNDP Contribution

**UNDP has effectively administered their project responsibilities in overseeing the project operations and reporting requirements to GEF and other donors, under considerable workload pressure, but the lack of a Steering Committee has constrained its influence over the project. The project has presented difficulties because of the limited MOE capacity and the uncertainty over government protected areas policy.**

The central issue for UNDP is the extent to which adaptive management was applied in addressing project implementation difficulties with law enforcement and inter-agency conflict, particularly given the events in Aural sanctuary (see discussion in Section 7.2.5). Adaptive management was displayed in appointment of a National Project Facilitator to assist liaison with government. However, earlier and more active monitoring of the many project implementation issues would, in hindsight, have been beneficial.

If it is recognized that “the real threat to project effectiveness has been the lack of project ownership, institutional leadership, coordination and collaboration at a national level”<sup>20</sup>, some role for UNDP in addressing this issue would have been beneficial. The absence of a Steering Committee or use of similar mechanisms (e.g., inter-ministerial committees) to influence government may have affected adaptive management of the project. This was offset to some degree by the TPR meetings which provided some executive overview of progress (although apparently insufficient to address many issues).

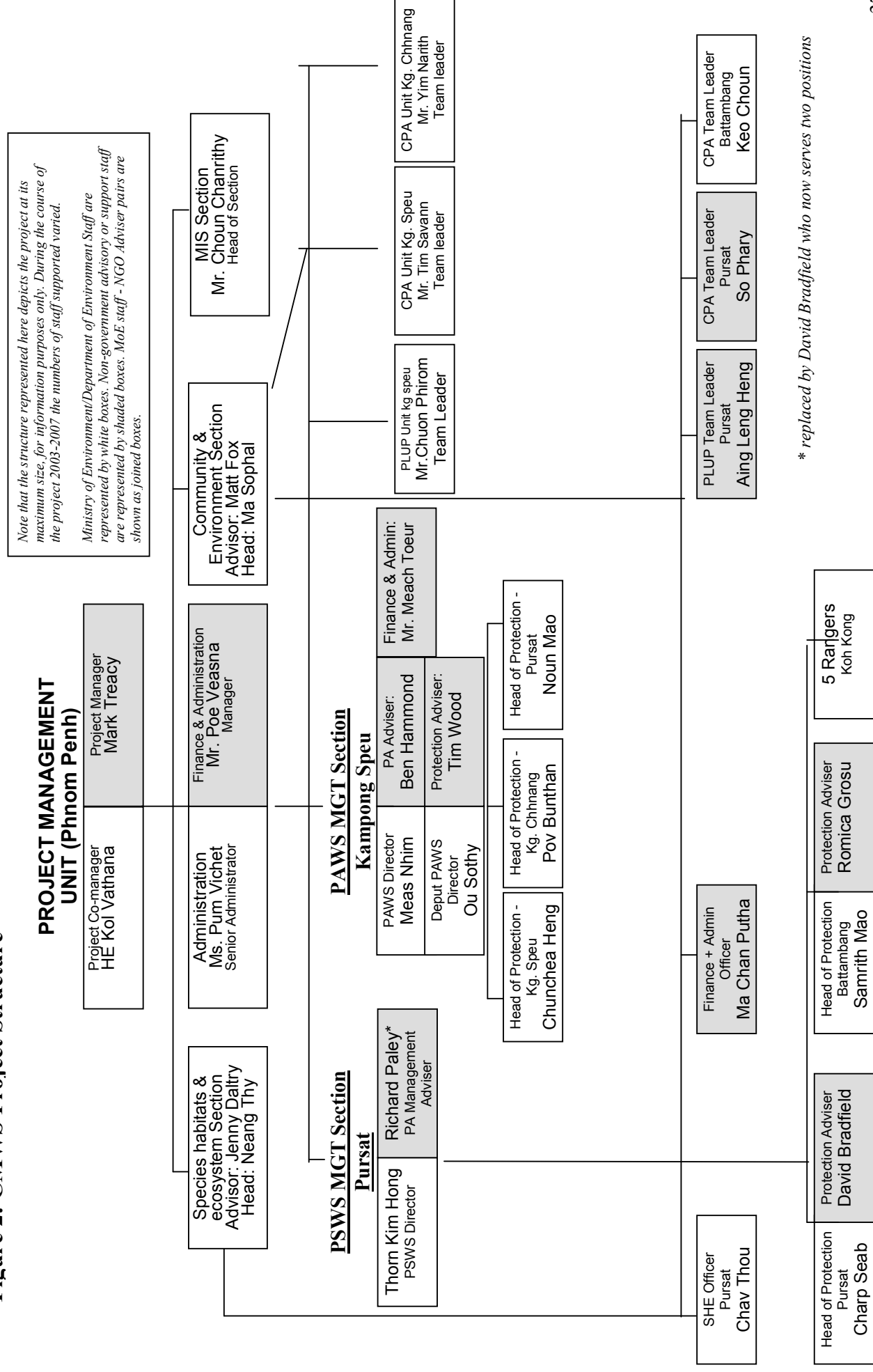
There were criticisms by some that UNDP did not provide the needed support to influence the government on key issues (unilateral appointment/dismissal of sanctuary protection staff, evidence of complicity in illegal activities, etc.). It is apparent that project design and management structure should have offered a stronger executive level partnership in addressing the many sensitive issues that FFI was required to deal with during implementation. The experience suggests that more active project management by UNDP is needed where there are significant institutional, policy and governance concerns.

It was noted at the evaluation workshop that project steering committees do not have a good track record in Cambodia. This is an area that UNDP may want to review in promoting more effective project management and participatory learning processes alongside the standard annual and quarterly reporting.

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<sup>20</sup> UNDP, UN Foundation, UNF Terminal Report, 12 February 2007, p. 60.

**Figure 2: CMWS Project Structure**



\* replaced by David Bradfield who now serves two positions

## **7.2 Project Operations**

### **7.2.1 Project Effectiveness and Efficiency**

**Overall, the project has demonstrated effective and efficient implementation of the project, notwithstanding the limitations in achieving the project goals of reducing threats to the sanctuaries and securing protection and conservation.**

**Table 1** assesses the general level of achievement of the project outcomes. **Annex 3** summarizes the outputs and activities. Only a few of the 91 planned activities remain to be completed in February 2007, but some such as boundary demarcation are critical. Some of the incomplete activities await passage of the Protected Area Law.

Stakeholder interviews indicate general support of the view that the project has been effectively and efficiently implemented. The Terminal Report also noted positive scores in applying the World Bank-WWF tracking tool assessment of PA management, indicating a 40% increase in rated management effectiveness status over the course of the project.

FFI's administrative management of the project was generally endorsed by the participants and donors. The efficiency of the project was considered acceptable, but may have been reduced due to the number of project managers and the unanticipated issues that arose without a strong adaptive management process. The complex financial partnership was also suggested as an efficiency constraint in extra reporting but this was likely very marginal.

The dual-project arrangements in the Cardamoms and the differences in project strategies between MoE and FA suggest the potential for improved efficacies and mutual learning through greater cooperation.

### **7.2.2 Logical Framework Relevance**

The Logical Framework, as a tool, has been effectively used to guide activity planning and progress reporting. It remains a relevant tool to guide long term goals for strengthening sanctuary management, but the project experience also indicates that the expected results may have been too ambitious given the project complexity and time frame.

### **7.2.3 Factors Affecting Performance**

Previous sections of this report identify various external and internal factors that have affected the project (see Section 5.2). The main operational factors identified during the evaluation interviews and field visits are as follows:

- (a) Project timing** – The delay in commencing the project during a period when there was rapid in-migration of population, intrusion of illegal logging, and land grabbing made the project start

up more difficult. In the view of some reviewers, it was a critical factor that put the MoE-FFI project out of step with the FA-CI project which had managed to minimize these threats.

**(b) Inception phase analysis** – The Inception Report was prepared in February 2004. Many of the key assumptions and risks were not fully recognized during this initial phase, nor the many institutional and MoE operational issues that were later encountered, including the means by which MoE could become more involved in managing the project, roles and responsibilities of provincial DoEs in project implementation, and ranger security risks.

**(c) Mid-level MoE managerial capacity** – the limited availability of mid-level managers within MoE to serve as coordinators alongside FFI placed undue dependence on the National Project Co-Director who had limited time to devote to the project; FFI was therefore required to take a strong managerial role in the project. (This institutional constraint relates to project design weaknesses)

**(d) Inter-personal relations** – the manner in which foreign advisors interacted with their counterparts at MoE and with the rangers may have been a factor affecting the level of teamwork. Some staff complaints presented to the final evaluation may be related to FFI interventions with individuals implicated in corruption or non-performance. It is difficult to validate such complaints but they are extensive in Aural Sanctuary.

**(e) Jurisdictional rivalries** – the legal and organizations divisions between MoE and MAFF, created some confusion over authority of FA within sanctuaries, and the general lack of inter-agency coordination mechanisms, including issues of communication and cooperation with FA, Military Police and Police, posed operational problems for the rangers.

**(f) Internal rivalries within DNCP** – some bottlenecks have reportedly occurred because of a lack of full cooperation within the division and perceived inequities between the beneficiaries of the funding.

**(g) Recruitment practices** – quality control in appointing government staff to the project was an issue, especially in hiring the wildlife sanctuary protection staff in the early stages, and under objections from FFI; appointments are not generally made on a competitive basis.

**(h) Environmental advocacy in the project** – there has been an element of tension within the project's dual role as an NGO-focused advocate for environmental protection and the MoE function within the government system and national economic development directives. This is an inevitable balancing act for most environmental agencies, but it can be facilitated by more effective policies for protected areas that guide land use and management decisions.

**(i) Inconsistencies in salaries/incentives** – changes in rangers' salary pay scales over time, and variations between the sanctuaries and between MoE and FA salaries and incentives created some confusion about fairness in remuneration.



**(j) Time constraints** – some participants in the management and zoning plans who were interviewed for the final evaluation felt that there were compromises in expediting stakeholder participation in 2006 and that some issues remain to be addressed.

**(k) Consultation strategy** – The communication arrangements with stakeholders on project progress and zoning decisions, and the manner in which withdrawal from Aural took place apparently without discussion, created some complaints about not being informed.

**(l) Adaptive management review functions** – the missing steering committee oversight and perceived late engagement of MAFF and MoE senior staff limited the opportunities to review project direction especially at critical points where activities were halted due to safety concerns.

#### 7.2.4 Risk Management and Assumptions

Project risks identified in the 2005-06 Annual Project Review include:

- Loss of project institutional memory due to turnover of project advisors at the end of 2006.
- Exploitation by different levels of uncertainty of jurisdictions over the protected areas.
- Limited illegal activities settlement due to the Cardamom Mountains Range areas open to outsiders. It was the post war complicit area 5 years ago.
- Sustainable financing could be jeopardized by the failure to receive government endorsement on the proposal to include the Phnom Samkos and Phnom Aural Wildlife Sanctuary in Nation Tentative List for World Heritage Status.

All of these risks remain valid. The most significant is the rate of illegal harvesting and land encroachment/road access, and the current uncertainty whether this can be effectively reduced by MoE enforcement measures. The listed response: ‘promoting participatory land use zoning to define settlement areas and control access to forest’ was not sufficient to manage the threats, most of which require government intervention at the highest level. The risk management process was also not able to anticipate and has not fully addressed the serious security situation in Aural sanctuary.

The Assumptions identified in the project design are listed below along with an indication (shading) of those that presented issues affecting project implementation:

a) The national and provincial political climate for conservation remains stable	
b) The Royal Government of Cambodia continues a high level of commitment to biodiversity conservation	
c) Other protected areas in Cambodia require similar management interventions	
d) Baseline data for indicator and rare/threatened species is attainable	
e) Local communities have sufficient incentive to engage in management and sustainable use activities	
f) Impact of resource extraction and development in the region remains controllable	
g) Exogenous and endogenous population growth in the region remains manageable	
h) The military adheres to its commitments to remove destabilized troops from the	

Cardamoms	
i) Multi-stakeholder willingness to collaborate in planning and management	
j) Technical assistance available to ensure high quality planning inputs	
k) MOE and DFW field-level officers are willing to collaborate and exchange data	
l) Technical assistance available to establish site specifications and infrastructure quality	
m) Village and commune leaders are effectively communicating conservation and management principles and arrangements to their respective communities	
n) Communities have established judicial and/or punishment/reward systems	
o) Local media operators will support broadcasting and publications related to the Cardamoms	
p) Local communities have established communication channels by which to disseminate information regarding conservation and management objectives	
q) Technical assistance available to perform required analyses, structure design and pre-operations planning	
r) Government supports the establishment of an independent financial structure for long-term support of protected areas	

Source: Project Document, 2004

The main assumptions encountered during the project implementation mostly relate to an assumed capacity and interest on the part of government and communities to reduce the level of illegal activities that threaten sanctuary resources. The assumptions that communities have incentives and established judicial and/or punishment/reward systems are obviously questionable, since the project encountered extensive resistance to traditional wildlife and forest uses that occurred prior to establishing the sanctuaries. One of the other critical assumptions was that corruption associated with illegal activities could be controlled or minimized within government and commune councils, a factor that has limited law enforcement results.

### 7.2.5 Project Monitoring, Reporting and Information Dissemination

The project monitoring system has provided detailed reporting to the various donors consistent with the LFA format. Khmer translation has been a standard part of the reporting process. However, as reflected in Table 1, the monitoring has been largely activity-based. In some cases, there was insufficient monitoring detail; e.g., the evaluation heard about boundary issues at field sites, but no data were available on the actual extent of boundary demarcation that has been completed.

The project does not have a dedicated monitoring plan or component that tracks the changes in project indicators such as levels of illegal activities and changes in community livelihoods; ranger patrol data is apparently collected but has little meaningful function in monitoring, and was not available during the mission.

At the operational level, the reporting have been very good, but as noted earlier, strategic issues at the executive level – law enforcement crises, inter-agency cooperation, uncertain government commitment, in hindsight might have been appropriately addressed by a Steering Committee. In the absence of this committee, the project management team showed adaptive skills by adjusting operations in response to events. The adjustments following the murder of two rangers in Aural were based on transferring the

responsibility and accountability of sanctuary protection away from FFI and to the MoE.<sup>21</sup> Similarly, when it became apparent that MoE was not satisfied with FFI's approach to involvement in the project, suitable adjustments to the overall strategy were made to accommodate these complaints.

Information dissemination was, according to our stakeholder discussions, less effective. No communication strategy was adopted for the project and some of the participants spoke about inadequate information on project activities and plans. For example, follow-up consultation on the zoning plan has not been completed and there is some level of uncertainty amongst stakeholders about the status and next steps for these plans.

### 7.3 Financial Management

#### 7.3.1 Budgets and Disbursements

As outlined on **Table 6**, the project funding that was managed through UNDP totals \$ 3.248 M, 38% of which was committed by the UN Foundation and 31% by GEF. In addition, EU has contributed \$1 M to the MoE-FFI wildlife sanctuaries project, providing for a total project funding of \$ 4.248 M. (Note expenditures were made on a cost-sharing basis between UNDP and EU funds and it has not been possible based on data provided, to readily distinguish between activities funded by each donor).

The GEF/UNF budget for the MoE-FFI wildlife sanctuaries component was \$ 2.123 M, while the CI – FA protected forest component was \$ 1.125 M. After deducting the CI grant for pre-project payments and UNDP fees and adding the EU grant, the maximum project funding available was almost \$ 3.94 M for the UN/GEF combined activities in Cardamom Mountains.

All of the UNF/GEF funding was administered by UNDP through contracts to FFI (\$ 1,984,740) and CI (\$843,750). The balance of the UNF/GEF funding (\$110,126) was allocated for monitoring and reporting, training and miscellaneous expenses.

The planned project termination date was 31 October 2006, but FFI applied for and was granted extension of GEF funding to 30 April 2007.<sup>22</sup> An extension was not sought for UNF funding. Therefore, to avoid losing the remaining UNF funding, UNF funds were used as a priority before the planned termination date in order to meet the UNF requirements. All remaining project activities during the project extension period will be funded by GEF.

**Table 7** summarizes expenditures to the end of 2006. Approximately 97 % of the \$ 2.873 M available funding (excluding EU project funds) has been expended. Funds of approximately \$ 145,000 remained as of 31 December 2006.

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<sup>21</sup> UNF correspondence, Lay Khim, Management of Cardamom Mountain Range, UDP-KHM-01-194; review of 2005 progress report..

<sup>22</sup> See FFI, *Workplan and Budget for Proposed No Cost GEF Extension, November 2006 to April 2007*.

**Table 6: Project Funding**

<i>Donors</i>	<i>Funding (\$ '000)</i>		
	<i>FFI – MoE</i>	<i>CI – FA</i>	<i>Total</i>
UNF Grant	250	250	500
UNF 1:1 Matching Grant	250	250	500
UNF 0.5 Matching Grant	125	125	250
<b>UNF Sub-total</b>	<b>625</b>	<b>625</b>	<b>1250</b>
FFI Matching Grant	500		500
CI Matching Grant		500	500
GEF Grant	998*		998
<b>UNDP managed Sub-Total</b>	<b>2,123</b>	<b>1,125</b>	<b>3,248</b>
EU Grant	1,000		1,000
<b>UN and EU Total Project Funding</b>	<b>3,123</b>	<b>1,125</b>	<b>4,248</b>
CI pre-project expenditures		(250)	(250)
UNDP Management Fee	(59.5)		(59.5)
<b>Total Project Funding Available</b>	<b>3,063.5</b>	<b>875</b>	<b>3,938.5</b>

\* This includes \$ 904,923 to FFI Sub-contract and \$ 93,220 to common project expenses (monitoring, reporting, etc.)

**Table 7: MoE-FFI and FA-CI Project Expenditures, 2003-06**

	<b>Funds available*</b> (excluding EU project)	<b>Expenditures to 31 December 2006</b>	<b>% Spent</b>
UNF project	1,815,476	1,764,077	97%
UNDP Fee	59,524	59,524	100%
GEF project	998,143	904,549	91 %
<b>Total</b>	<b>2,873,143</b>	<b>2,728,150</b>	<b>95 %</b>

\* Excludes \$ 250,000 for CI's pre-project expenditure; \$125,000 not reimbursed to CI as planned due to disagreement over eligibility under the UNF matching grant. Source: UNDP Cambodia

**Table 8: MoE-FFI Project Expenditures to December 2006**

<i>Activity</i>	<i>UNDP Contract</i>	<i>EU Contract</i>	<i>Total Expenditure</i>	<i>% Total</i>
Personnel				
National staff	459,964	227,150	687,114	25.1
Intl staff	648,753	377,915	1,026,668	37.5
Subtotal	1,108,753	605,065	1,713,783	62.6
Work & Equipment	205,442	126,342	331,783	12.1
Operational Costs				
Field Operat. Subsidence	107,077	52,089	159,166	5.8
Meetings, etc	57,541	7,637	65,178	2.4
Awareness & Education	34,675	31,397	66,073	2.4
Capacity Development	76,213	30,116	106,329	3.9
Consumables	19,719	1,578	21,297	0.8
Special Projects	1,175	23,809	24,984	0.9
Reports & Dissemination	3,330	8,806	12,135	0.4
Subtotal	299,730	155,433	455,163	16.6
Management Overheads	140,835	94,116	234,680	8.6
<b>Total Expenditures</b>	<b>1,754,724</b>	<b>980,956</b>	<b>2,735,680</b>	<b>100%</b>

Source: FFI Quarterly Report Q4 2006, Table 3.2 Project Expenditure Summary; Note: numbers rounded for summary purposes.

FFI have been able to leverage some additional funding besides UNF, GEF and EU funds:

- *Wildaid* has a 'sub-grant' with FFI for FFI to manage a bit of the PSWS in Samlaut District.
- *Asian Development Bank* has a contract with two consortia of NGOs in Cambodia. One consortium is FFI-Wildaid- and CI. Wildaid is the principal signatory on the grant and FFI is subcontracted.
- Private sector donors

**Table 8** summarizes the MoE-FFI wildlife sanctuary project funding to December 2006. Approximately 63% of the costs have been for personnel, 20% for equipment and overheads and 17% for operational expenses. This appears to be similar to other projects in Cambodia where a large proportion of funding is directed to international advisors, salary supplements to government staff and secondment of government staff to the project implementing organization. Capacity development at 4% of project costs is low, although capacity development is also provided by the international personnel budget lines.

It was not possible to review expenditures by major outputs/activities, but UNDP/UNF/GEF project data show that the major costs to date are for international advisors (\$580,000), national advisors (\$204,000) and field station infrastructure/equipment (\$327,000). External training costs have been small (\$39,000) as have NGO-contracted livelihoods development (\$44,000) and awareness/education (\$35,000).

### 7.3.2 Financial Reporting and Auditing

The ProDoc states that an Annual Financial Report is required and this report must be certified or audited and is due by 15<sup>th</sup> of May of each year.

Financial reports are submitted quarterly and on an annual basis. Audited statements were reviewed to April 2005, including:

- KPMG, Management of the Cardamom Mountains Protected Forest and Wildlife Sanctuaries Project, Statement of Cash Receipts and Disbursements Year ended 30 April 2005
- Angkor Certified Accountant, Cardamom Mountains Wildlife Sanctuaries project, Audited Financial Statements for the period covering from 28<sup>th</sup> April 2003 to 30<sup>th</sup> April 2004.
- Angkor Certified Accountant, Cardamom Mountains Wildlife Sanctuaries project, Audited Financial Statements for the period covering from 28<sup>th</sup> April 2003 to 31st December 2003.

The ProDoc requires UNDP to undertake at least one financial audit. UNDP advised FFI not to conduct an "internal" audit for the period 1 May 2005 to 30 April 2006. The intention was to avoid duplication with the final UNDP audit, which is underway now for the period 1 January 2006 to 31 December 2006.

No specific observations are provided in the available annual audits. Audits done for the EU project included minor observations regarding withholding tax for expatriates, allocation of costs between donors, etc. The draft Final Audit Report (April 11, 2007) Management Letter identified ten specific

financial management procedural issues, including timeliness of quarterly financial reports and improving control over procurement process for NGOs sub-contracting. It offered several recommendations, three of which were deemed medium risk: (a) apply a consistent cost sharing among projects, (b) review the budget process to ensure estimates/experience to set a realistic budget based on workplans and expected payments, and (c) maintain separate accounts for each donor.<sup>23</sup>

### 7.3.3 Project Financial Models

Both FFI and CI are actively drafting financial models for sustainability of the Cardamoms protected area program. FFI are considering three strategies: an endowment fund, attracting more donors, and exploring internal (to Cambodia) options to generate sources of recurring costs of sanctuary management.

FFI are completing an economic assessment of financing options which will be completed in May. Ecological services valuation will assist in structuring the financing plan. A major endowment fund is being proposed by FFI, working with a private capital bank in Hong Kong. CI are in discussions with AFD (France) regarding a \$ 5 million contribution (subject to gaining World heritage designation) to match CI's \$ 2.5 M contribution. FFI are expected to collaborate in this.

Timing for finalizing this element of the Wildlife Sanctuaries project will likely extend beyond the project closure. Governance arrangements for these financing plans are under negotiation with the government.

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<sup>23</sup> UNITED NATIONS DEVELOPMENT PROGRAMME, Project ID: 00011839 & 00011840 Management of the Cardamom Mountains Protected Forest and Wildlife Sanctuaries Project, Fauna and Flora International, DRAFT Management Letter, Year ended 31 December 2006, April 11, 2007.

## 8.0 Cardamom Complex Status and Impacts

In addition to the evaluation of CMWS project, the Final Evaluation was also directed to consider the impacts of the earlier FA/CI Central Cardamom Protected Forest, the prospects for sustainability of overall project results, and the contributions to various development goals in Cambodia.

### 8.1 Post-Project Activities and Impacts of Central Cardamom Protected Forest Project

Since the CCPF project completion in 2004, CI has been active in expanding the technical analysis and community involvement through conservation agreements. A new agreement with FA was signed in October 2006. CI have been providing support for a dedicated Cardamom Mountains Management unit within FA.

Through a contract with the Flora Family Foundation, the project developed a cost-effective operational monitoring system involving three components: (a) forest cover change analysis, (b) protected area management and species monitoring, and (c) community-based wildlife protection. The system allows CI to better assess program performance and engage a broad set of stakeholders: government rangers, local community members, students, etc. Over the next two years, they plan to fine tune this system.<sup>24</sup>

The data generated through LANDSAT imagery analysis provides an interesting picture of forest conversion processes. The scale of forest conversion is small but the rate is increasing rapidly. The average annual rate of deforestation from 1989 to 2005 was approximately 0.2% (**Table 9**). However, rates of forest loss increased during the study period, doubling from the 1989-1994 to the 1994-2002 periods and then increasing again by nearly 60% between 1994-2002 and 2002-2005.

**Table 9: Rates of Forest Loss per Year per Time Period, CC Protected Forest**

Period	Deforestation rate/year (%)
1989-1994	0.082
1994-2002	0.213
2002-2005	0.342
1989-2005	0.194

Source: Flora Family Foundation/Conservation International – Cambodia, 2006

The report states:

Most of the forest clearing over these time periods has taken place far away from the CCPF around the towns of Chi Phat and Koh Kong (see map). Of more direct relevance to the conservation of the CCPF is forest clearing in Thma Bang and the Arang Valley. This has been driven by to separate process. Forest clearing around Thma Bang is due to the expansion of cash crops (mangoes, chilies, pepper, etc.) for export to Phnom Penh or Thailand. Thma Bang is relatively well connected by road to these markets and is also home to a Thai-Cambodian businessman who has had the political influence to buy land and the capital to develop it.

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24 Flora Family Foundation, Final Report, Conservation International - Cambodia, Draft of August 15, 2006

The situation in the Arang Valley is quite different. Forest clearing is due to shifting cultivation by indigenous people who have returned to the valley after being relocated during the Vietnamese occupation. Traditionally wet rice (paddy) growers, they have been forced to clear forest to grow dry rice because their old paddy fields have become overgrown and compacted. We have negotiated with the target communes incentive agreements that link the supply of capital (tractor, buffaloes) needed to redevelop the old paddies with a commitment to stop forest clearing.<sup>25</sup>

CI funded program has also developed a set of indicators for monitoring at two levels in the CCPF:

- Monitoring the state of habitats and threat levels in a protected area (information on general abundance of biodiversity, threat type and levels, use of resources, development of local communities, involvement of local communities in conservation, etc.); and
- Monitoring key species to assess temporal and spatial trends in populations—this kind of monitoring will include methods that provide data for population distribution and abundance, either as presence/absence, relative abundance, density, or actual numbers.

The patrol data for the FA-CI program for January 2005 - April 2006, indicated 54 patrols were carried out, totaling 346 patrol-days, and 3,529 snares and turtle hooks were removed from Russei Chrum, Tatai Leu, and Chumnoab.

Due to time constraints, the Final Evaluation team did not undertake field visits to the Central Cardamoms or assess the functioning of the FA and CI in protected forest management. The Mid Term Review which was intended to provide the final evaluation of the project. In general, it found high levels of relevance and effectiveness in the execution of the project. Impacts of the project appear to be positive, but it will require several years of ongoing monitoring to give a more accurate picture.

## 8.2 Sustainability of Project Results

“Sustainability” here means the ability of MoE to effectively and efficiently enforce laws, implement land use zoning and management plans, and promote conservation and appropriate sustainable use of the sanctuaries. **Despite the project efforts, the prospects for sustaining project achievements in Cardamoms conservation and protection are poor.** This is due to:

- A lack of clear policy and legislation supporting protected areas;
- Difficulties in addressing the corruption and disregard for the law that is associated with the resource extraction and land encroachment threatening protected areas; and
- Weak political commitment toward protected areas because they are not perceived as productive and profitable investments by government;

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<sup>25</sup> Flora Family Foundation, Final Report, Conservation International - Cambodia, Draft of August 15, 2006, p. 4.



- Low authority of MoE within the government and related institutional barriers to mainstreaming protected area conservation within the development and military sectors;
- Difficulties for the government agencies (MoE/MAFF, etc.) and NGOs to adopt integrated approaches to protected area management with shared responsibilities and funding;
- Limited capacity of MoE staff and resources to manage the protection and conservation services.

There are three major challenges that stand out as priorities for enhancing the potential for sustainability:

Firstly, the government, at high levels, needs to stabilize the security and law enforcement environment. Coordinated, joint law enforcement by FA, MoE and Military Police in the Sanctuaries is needed to improve the effectiveness and efficiency of law enforcement, along with targeted measures to limit corruption related to enforcing the law.

Secondly, the government and communities need to come to terms with an appropriate conservation and development policy for the Cardamom Mountains so that the zoning plans and other measures can be reliability implemented. Respect for EIA and EMP requirements must be part of this policy and be fully applied to major development and infrastructure in the sanctuaries and the capacities strengthened to deliver on these provisions.<sup>26</sup>

Thirdly, MoE needs to better define its strategy and requirements for protected area conservation based on conservation project experiences in recent years, and donors should coordinate their efforts in a comprehensive or ‘sector-wide approach’ that facilitates the implementation of this strategy. The ministry needs to focus strategically on critical management concerns and the partners required to deliver effective protection and management.

## **8.2 Project Contributions to Development Goals**

**Annex 7** provides a summary of the contributions to various program development goals in Cambodia.

The major themes from these goals that the project has assisted are:

- Strengthening governance capacity
- Public involvement in sustainable resource use
- Increased awareness of biodiversity and conservation values

Most significantly, the project has introduced PLUP to MoE and partners and thereby provided a model of participatory planning that has engaged communities in natural resource management. But as noted in this report, there have also been institutional constraints to and implications for training of individuals – a broader range of institutional reform and modernization are need to ensure effective capacity development, one which also addresses the problems imposed by corruption.

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<sup>26</sup> An inter-agency development review process, serving as a one-window approach to development opportunities in the Cardamom Mountains and actively guiding appropriate development proposals and activities in meeting regulatory and public expectations, could form part of the necessary policy and process development.

## 9.0 Governance and Capacity Building

### 9.1 Contribution to Governance and Capacity Building

The Terminal Report describes the project's success in national capacity building as being threatened by the inability of central government agencies to collaborate. It identifies the most pressing threats as:

- the military (i.e., the "military development zone" in PAWS);
- other Ministries, who have lobbied the Government (sometimes bypassing MoE) to grant mining and tourism concessions within the wildlife sanctuaries; and
- local authorities tasked to alleviate poverty and promote wilderness-converting development.

The project has advanced governance by assisting the development and advocacy for Protected Area Law, introducing new rules for land use planning and zoning, and raising awareness of existing rules on environmental assessment and promoting local institutions and processes. The three significant contributions to decision making, in addition to giving sanctuary management a greater profile within the ministry, are: (a) bringing wildlife sanctuary issues to the Conflict Resolution Committees and thereby activating them, (b) promoting Local Development Review Groups to discuss proposed development activities, (c) establishing CPAs with local communities, and (d) promoting accountability through the use of conservation agreements with local communities to protect targeted species.

The management, planning and operational capacities have also been developed from almost zero to an established, operational system. There are no baseline level measurements or employee performance assessments to determine specific changes but some general results are apparent. The main achievements are discussed in Section 6.1 and the capacity improvement highlights are:

- basic law enforcement patrol training and judicial processing skills and procedures established;
- basic administrative and operational practices codified and strengthened within DNCP;
- increased understanding and hands-on experience of the sanctuary management staff in law enforcement, PLUP and CPAs;
- general knowledge of computer-generated mapping by many of the staff and more advanced GIS training for a few GIS specialists;
- increased skills of biologists involved in species identification, and collection and conservation requirements.

Many of the MoE and FFI staff have worked hard to implement the project. But there has apparently been a lack of capable mid-level managers within the Ministry and some internal divisions which have hampered the project. Without the mandate and resources to change job descriptions, recruitment practices, reporting and accountability processes, remuneration standards, and other aspects of institutional development, there are limits to capacity improvement through individual mentoring and training. The project's main contribution to governance has been to introduce a regulatory, compliance and enforcement regime where none had existed previously in the Cardamom Mountains complex.

## 9.2 Context for Protected Areas Management

There are currently two agencies responsible for the planning and management of Cardamom Mountain Complex for conservation: the Department for Nature Conservation and Protection (DNCP) of the Ministry of Environment, and the Forestry Administration (FA) within the Ministry of Agriculture, Forestry and Fisheries. The Sanctuaries are under direct management and leadership of the Department of Nature Conservation and Protection, with their supporting offices such as community protected areas office, and wildlife sanctuaries and national parks office. The wildlife sanctuaries offices are located at and closely affiliated with provincial DOE offices. The CCFP is directly responsible to the wildlife protection office of the Forestry Administration, with the support of the Central, Regional Inspectorate, Cantonment, Division, and Triage of the FA system.<sup>27</sup>

At the national level, other bodies that affect Cardamom Mountain Complex management are:

- National Authority for land dispute resolution, chaired by the Deputy Prime Minister and Minister of Cabinet of Prime Minister,
- National Cadastral Commission chaired by the Senior Minister and Minister of Land management, also established at the provincial and district level,
- National committee for Protected Areas Conflict Resolution, chaired by Senior Minister and Minister of Environment,
- National Biodiversity Management Committee, chaired by Senior Minister and Minister of Environment,
- National Coastal Zone coordination committee, chaired by Senior Minister and Minister of Environment,
- Technical working group on forestry and environment, chaired by FA and DANIDA
- Technical working group on fishery, chaired by DFID and FiA.

At the provincial level:

- Provincial sub-committee for Protected Areas Conflict Resolution, chaired by the provincial governor (did not exist at Battambang or Pursat during the project), and
- Provincial cadastral commission chaired by the Provincial Governor.

At the community level:

- 18 CPA committees established for both wildlife sanctuaries (PAWS and PSWS)
- For the Central Cardamom, a large community exists in Thmar Bang district which consists of more than 500 households. This community has a comprehensive programme from the livelihood development to the conservation works such as cow bank, health care, conservation and patrolling works etc.

The **National Report on Protected Areas and Development in Cambodia** (2003) highlighted the importance of governance reform and decentralization for local participation in the management of protected areas. It notes that “Protected Areas and their surrounding regions lie at the centre of complex

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<sup>27</sup> Forestry Administration structures from the central to site level as Inspectorate, Division, Triallage and Cantonnement.

land use and land tenure issues, and they need to play a critical role in piloting and demonstrating the government's reform measures.”<sup>28</sup>

Governance issues, land tenure and community development challenges have overshadowed all aspects of the implementation of CMWSP, although this may not have been sufficiently recognized in the project design. The National Report concludes that protected areas need to be managed as productive parts of wider development landscapes so that local resource users can appreciate the benefits of conserving their natural assets. Recommendations for action were grouped into: (1) a national strategy and sector plans for protected areas; (2) protected area trust funds and financing based on a user pays policy, (3) a pilot demonstration project for the south-west cluster of protected areas, (4) economic analysis of protected areas, and (5) a national protected area training program. The system of protected areas of Cambodia is apparently still missing the necessary technical staff and support resources.<sup>29</sup>

The **Biodiversity and Protected Areas Management Project (BPAMP)** was undertaken in 2001-06 with the aim of improving the capacity of the Ministry of Environment to plan, implement and monitor an effective system of national protected areas. It had four components: (a) National Policy and Capacity Building; (b) Park Protection and Management; (c) Community Development; and (d) Project Management. BPAMP was specifically designed to test a number of ‘Learning and Development’ hypotheses linked to the future of the national protected area system. An independent evaluation of the project was conducted in 2006 by two international consultants.<sup>30</sup> Some lessons learned are relevant:

- Both the national and provincial decision-making processes remain highly centralized and dependent on a small number of people located in senior positions in the overall political and administrative structure.
- The project has spent three years trying unsuccessfully to obtain the basic financial data required for the preparation of a sustainable financing strategy for Cambodia's national protected area system.
- Project community development activities are insufficiently far advanced to provide an incentive to reduce the pressure of ongoing agricultural and illegal hunting practices.
- GoC's administrative system remains highly centralized. Most key decisions related to PA administration and management are made by senior MoE officers in Phnom Penh, and the decision-making process is often labored and slow.<sup>31</sup>

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<sup>28</sup> Ministry of Economic and Finance and Ministry of Environment, *National Report on Protected Areas and Development*, 2003, p. 12.

<sup>29</sup> BPAM 2005 Management Effectiveness Assessment of the System of Protected Areas in Cambodia, using WWF's RAPPAM Methodology.

<sup>30</sup> Roger Cox and Dr. Karen Lawrence, *Biodiversity and Protected Areas Management Project – Independent Evaluation Report*, Royal Ministry of Environment, Government of Cambodia, June 2006

<sup>31</sup> Ministry of Economic and Finance and Ministry of Environment, *National Report on Protected Areas and Development*, 2003.

Governance and institutional constraints have been apparent throughout the various studies into management of natural resources in the Cardamoms. For example, CMWS's efforts at strengthening the functions of forest rangers need to be considered in context with the larger judicial system and legal compliance issues within and outside of the sanctuaries.

The **Effectiveness of Law Enforcement** study (2005) has been recently highlighted some major weaknesses in Forest Law compliance and enforcement and the working arrangements between FA and MoE. An enforcement economics model was applied to 557 event records including 231 case files in the Central Cardamoms area between 2001-05.<sup>32</sup> Four enforcement paths were identified (in addition to warnings): transactional fines, processing through the courts, seizure of evidence without arrest, and no action against significant crime. The study found:

- as the profit from crime increases, the level of Enforcement Disincentive decreases, the opposite to what should occur;
- the majority of law enforcement actions taken by the FA are seizures without arrest, giving the impression of a revenue raising scheme more than law enforcement;
- 56% of all law enforcement cases, amounting to 77% of the cases sent to the Courts, had no effect in terms of punishing crimes or deterring future crime.
- using strong law enforcement as almost the sole strategy to deter potential offenders is inefficient and marginally effective; taking a multi-strand approach which incorporates law enforcement with activities promoting respect for the law and appreciation of the economic, ecosystem services and cultural values of the forests is ultimately likely to be more sustainable and less expensive.

The division of monitoring and reporting functions between the FA – Forest Crime and Monitoring Reporting Unit in Central Cardamoms, and the MOE – Department of Inspection in the Sanctuaries and the differences in procedures, legislation case tracking systems made it difficult to review law enforcement within the overall CMPAC.

The study also noted the jurisdictional confusion over law enforcement within the protected areas. The management of protected areas is under authority of MOE, but Article 3.1 of the Forestry Law states that MAFF has the authorization to cooperate with the MoE on enforcement activities for all forest offences that occur within protected areas. This provision has created some confusion over the ability of FA officers to pursue offenders into protected areas, or to carry out investigations in relation to known offenders who use protected areas as a refuge. The study further recommends a full review of the

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<sup>32</sup> Claridge Gordon, Veasna Chea-Leth, and In Van Chhoan, *The Effectiveness of Law Enforcement against Forest and Wildlife Crime: A Study of Enforcement Disincentives and Other Relevant Factors in Southwestern Cambodia*, Conservation International, Sept. 2005.

coordinated management of forest and wildlife crime at a national level. It includes two significant recommendations related to institutional review<sup>33</sup>:

- Recommendation 50: Law enforcement against forest and wildlife crimes should be combined into a separate national-level structure which is more integrated, focused and responsive than the current dispersal of law enforcement staff throughout the FA structure.
- Recommendation 51: There should be a study of the comparative advantages of transferring responsibility for enforcement against forest and wildlife crime from FA and MOE to the civil Police versus maintaining the current allocation of responsibility within FA and MOE. Factors which should be considered include whether increases in effectiveness and efficiency would result from group within one organisation which also deal with similar crimes in the fields of drug trade and human trafficking.

Capacity development needs have been identified in the **National Capacity Self Assessment (NCSA, 2005)** for implementation of multilateral environmental agreements on climate change, biodiversity and land degradation. The NCSA concluded that:

*Environmental matters like biodiversity conservation, climate change, and land degradation become, effectively, residual concerns of the political leadership. This de facto low importance given by the political leadership on environment – notwithstanding its having established the Ministry of Environment, its having enacted laws and regulations on natural resources and environmental protection, and its having accepted a number of ODAs on environmental concerns – is not lost to the general Cambodian public. Consequently, national attention on environmental concerns is likewise low, at best sporadic (page34).*

The NCSA report indicates that coordination among ministries and departments is the biggest challenge. It is aggravated by (a) constant bickering for political space and ascendancy, (b) upstaging mandates, and (c) overlapping functions. MOE and MAFF are at odds as to which ministry will prevail over certain convention-relevant functions (in particular biodiversity conservation, mitigating climate change vulnerabilities in different ecosystems, and on controlling land degradation). The delineation of their functions are not harmonized. E.g., MAFF has ascendant control of biodiversity conservation in forest areas and MOE over forests in declared Protected Areas. These foster confusion and, because they often extend to having their actions supported by higher political leaders, also avoidance and aversion to coordinating actions among them, their departments, or with other agencies and organizations.

The legal and institutional structures in Cambodia are in transition. The main point that may be drawn from this background information is that weaknesses in legal and institutional structures need to be addressed as a part of overall governance reform, and various NCSA capacity needs (related to biodiversity conservation) have been identified as a basis for productive investment in the protected area system. There are incremental actions that can be taken within the context of projects such as CMWS and

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<sup>33</sup> Ibid., 2005, pp. 59-60.

CCPF projects, to assist this change. These actions appear to have some common themes - making Cambodian organizations directly accountable for project activities and results, and designing capacity development interventions recognizing the institutional barriers and linkages to the responsible institutions.

### 9.3 Cardamom Mountains Management Framework

There are three particular challenges that impose inefficiencies and conflicts for the current institutional arrangements for managing the Cardamom Mountains: (a) Law enforcement coordination, (b) NGO-funded conservation programme coordination with MoE and FA, and (c) balancing development and conservation. Some Cambodian innovations in the management framework are needed to address these problems.

Ecological and physiographic boundaries would appear to be natural choices for a proposed new management authority to oversee conservation and development in the Cardamom Mountains. But there are problems with such a concept. Another body would not necessarily improve management unless it can add clear benefits over the existing institutional arrangements governing the Cardamoms.

For discussion purposes, a **Technical Planning Board** is proposed for the Cardamom Mountains Protected Area Complex on a two-year demonstration basis. The terms of reference could include:

**Purpose** – contribute toward better communications, improved decision-making and increased public awareness of the Cardamom Mountains protected areas.

#### **Role and Responsibility:**

The management would include 10 members (maximum) from various government agencies (site managers both from MoE and FA), local authority (district and/or commune), police, military and military police and NGOs (both development and conservation) organizations who are working within the Cardamom Mountain Range. It would:

- share data and information of the cardamom mountain range,
- facilitate and harmonizes the conservation activities between various actors.
- provide feedback and sharing of experiences and lessons learned,
- each member must report and communicate the output/insight with the respective agencies,
- give technical suggestion and/or advise to the decision makers and politician in related matters,
- discuss the issues happening at the site, and propose mutually beneficial solutions/actions to address the issues.
- review and advise the government on any development project/programme and/or conservation happening within range.
- provide and support strategic direction for Cardamom Mountain Range conservation,
- mobilize resources and support for the conservation activities in Cardamom Mountain.

**Assumptions** –

- Board will be chaired on a rotational basis among the participating agencies
- Board will be supported by the Secretariat, with staff from DNCP, FA, CI, and FFI.
- no changes in jurisdictional or administrative responsibilities,
- no decision-making authority, serves as an advisory body only;
- technical body aimed at enhancing information, awareness and project planning
- primary aim: to find innovative, mutually beneficial solutions to land and resource use issues.
- provide input and advice to higher committees.

### Objectives and Tasks –

<u><i>Suggested Objectives</i></u>	<u><i>Primary Tasks</i></u>
1. Improve Law Enforcement	- oversee the preparation of a coordinated law enforcement strategy and process
2. Balance Environment & Development	- develop Cardamom Mtns environmental policy related to review of development projects and programmes in conjunction with develop. sectors
3. Guide Land Use Decisions	- monitor the implementation of zoning plans and provide assistance in specific boundary and other issues that arise
4. Protect Ecosystems & Species at Risk	- Promote scientific inquiry and coordinate biophysical inventories and assessment
5. Promote Public Awareness	- Improve communications and information dissemination among stakeholders and the public

### 9.4 Suggested Next Steps

- Finalize the boundary demarcation and zoning plans of the two sanctuaries.
- Convene a meeting between MoE/FFI, FA/CI, UNDP, and EU to develop a work programme on the items of mutual interest.
- Assess the potential for a Cardamom Mtns Technical Planning Board or similar body.
- Obtain direction from senior government levels on initiating Coordinated Law Enforcement for the Cardamom Mountains.
- Plan for an organized review of Cambodia's PA system experiences and preparation of a Strategic Capacity Development Plan using a Sector-wide Approach with MoE and donors.
- Drawing on the above, develop a UNDP internal strategy or approach to assisting coordinated planning of biodiversity and PA-related projects in Cambodia so that the synergies and ramping up of capacity development through UNDP/GEF funded activities are potentially feasible and effective.



## 10.0 Conclusions and Recommendations

### 10.1 Key Observations

The following statements briefly summarize the major themes from our discussions, field visits and review of the outputs.

#### **Appreciation**

*There is extensive support and admiration for the MoE-FFI project and its staff. The project has laid the initial framework for protection and conservation under very difficult conditions, an achievement that is recognized by many Cambodians.*

- Many of those interviewed expressed appreciation for FFI and the project staff's personal commitment to establishing the infrastructure and capacity and in mobilizing community involvement.
- Almost all stakeholders support the project and urged FFI to continue the program, including those who have been critical of the project implementation.
- The project challenges have been duly recognized: public awareness and security issues are significant long-term obstacles to nature protection and conservation in the Cardamom Mountains and they underscore difficulties that have faced the project in producing the results it has to date.

#### **Enforcement**

*Inability to control illegal timber extraction and land encroachment and involving widespread corruption within government, the military, district authorities and commune councils is the biggest single threat to the conservation values of the Sanctuaries.*

- The scale and growth of illegal activities in the sanctuaries far exceeds the capacity of MoE alone to enforce the law.
- Rapid, unauthorized tree cutting and land clearing are underway driven by land speculation and planned road improvements. Social unrest is growing in Aural Sanctuary because of everyday conflicts over land clearing and land sales/transfers.
- An estimated 200-300 moto-carts and over 100 vehicles per day transport mostly illegal wood on the road through Aural Sanctuary, virtually with impunity and with the alleged complicity of FA and local authorities.
- Allegations of corruption were expressed against many parties, including some of the MoE rangers. Concerted efforts have been made to identify and dismiss corrupt rangers, and to provide sufficient incentives for a culture of professionalism in the ranger service.

## Partnerships

*Enhanced collaboration between MoE, FA and the Military is urgently needed but the enabling environment and reliable mechanisms for such collaboration are generally missing. Functional partnerships between stakeholder organizations are central to Cardamoms management.*

- Rivalry and distrust between law enforcement agencies in the Cardamom Mountains is a detriment to effective protection and conservation. Joint operations are rare. Rangers view their counterparts with suspicion. With some exceptions, these agencies generally try to avoid each other and, in Aural Sanctuary goodwill appears to be totally absent.
- Inter-personal relationships between government staff, FFI staff and MoE were also critical factors that affected project cooperation and results.
- The NGO-based programs of MoE-FFI in the Sanctuaries and FA-CI in the Central Cardamoms Protected Forest have limited exchange in protection and conservation approaches and experiences.

## Capacity-building

*The technical and managerial capacity of MoE is not sufficiently developed to provide for effective management of the Sanctuaries.*

- MoE staff, despite training/mentoring by FFI, have not yet acquired the practical skills to ensure effective management of the sanctuaries. Formal training has been very limited.
- MoE have not sufficiently ‘institutionalized’ the capacity development that has been provided. Capacity building has focused on strengthening enforcement, establishing infrastructure and improving data.
- Mentoring of individual MoE staff may have limited sustainability without institutional review and strengthening of the organization as a whole, including relations between MoE and provincial DoEs.

## Information

*The baseline biophysical data and the management information system are not yet sufficiently developed to guide Sanctuary decision making.*

- The inventory data from the project has greatly contributed to an enhanced database and understanding of conservation values.
- The classification, inventory and assessment process and manuals required for improved MoE habitat and ecosystem management decision making still need to be developed within an overall strategy that can be applied in a practical manner by Cambodian organizations.
- Very little technical information is readily accessible and useable for management purposes within the MoE; the MIS has not been established and tested as planned.

## **Zoning**

*The zoning plans provide an important guide for land use decisions but they require follow-up consultation with stakeholders to share the results of the planning process and to confirm broad-based support for commencing the plan implementation phase.*

- The importance and need for zoning is widely supported by stakeholders but, according to some interviewees, the communication process had some weaknesses.
- Not all parties fully support the draft zoning plans despite the endorsement by district and provincial governors, with some complaining of no information or insufficient consultation within the government ranks. Further communication would probably help to address some of this.
- The dependency of zoning implementation on adoption of Protected Area Law imposes a risk to the project momentum and results. MoE have authority under their legislation and royal decree which gives them functional responsibility for the sanctuaries to begin to implement the zoning in the short term (through ministry decision), along with boundary demarcation.

## **Policy**

*Uncertainty as to government policy on protected areas and the means to align development potential with conservation values are key issues that impede effective management of the sanctuaries.*

- The absence of protected areas legislation was mentioned by many as a barrier to proceeding with effective regulation and enforcement, and management such the zoning plans.
- The project has helped to promote environmental impact assessment in the sanctuaries, but the policy commitment to environmental screening and assessment is lacking.
- Governance arrangements are needed to provide for inter-agency cooperation and coordination in the Cardamom Mountains complex, along with clear direction for donor assistance in capacity building.

## **Livelihoods**

*Support for alternative livelihoods enhances household food security and in turn reduces the need to depend upon forest resources and involvement in illegal activities, and therefore is a critical factor in the management strategy for the sanctuaries.*

- The livelihoods component has had success in improving agricultural production and incomes, and additionally creates a platform for local awareness and cooperation with MoE enforcement staff.
- Many stakeholders have recommended increasing the focus on livelihoods development in the Cardamoms.

## 10.2 Conclusions

### General

1. The project has made a significant contribution to the management of Samkos and Aural Sanctuaries. It has substantially achieved the planned project outcomes. However, the overall purpose of the project – to reduce conservation threats, settlement expansion and illegal resource extraction has achieved marginal progress given the scale, distribution and entrenchment of these pressures.
2. Conservation law enforcement has been initiated where none existed previously in the sanctuaries. The ranger patrols have provided a visible deterrent to illegal activities which are widespread in the sanctuaries. They have been effective with project support in Samkos sanctuary but much less so in Aural sanctuary where illegal activities and security concerns prevail. There is a need for complete review of the law enforcement framework, including the matrix of responsibilities and functions – road checkpoints, forest patrolling, major operations, CPA wardens, snare incentives, etc., and the opportunities for more innovative and efficient arrangements between the responsible agencies.
3. The dual-project concept (FA-CI and MoE-FFI) has reinforced the traditional divisions between agencies that exist in Cambodia and constrained the potential for coordination, efficiencies and synergies in addressing conservation in the Cardamom Mountains. As noted in the Terminal Report and Mid Term Review, the unsynchronized project timing reduced the overall impact of the project.
4. International NGOs can facilitate institutional coordination by initiating activities and task force teams at various levels (policy, management, operations) that get agencies routinely working together on common interests and tasks, and by building the relations for more integrated land and resource management processes without threat to established administrative jurisdictions or budgets.

### Project Design

5. The project design did not sufficiently address the institutional capacity and inter and intra agency coordination challenges in developing a management framework for wildlife sanctuaries in Cambodia.
6. The project design did not sufficiently define and target the mechanisms (including EIA, SEA, codes of practice, etc.) for pursuing conservation goals with national and regional development interests.
7. The project design did not sufficiently consider options for directly engaging the military and military communities in the process of integrated rural development alongside sanctuary conservation.
8. The largely independent approaches of MoE and FA in establishing ranger patrol services and the absence of a coordinated law enforcement strategy for the Cardamom Mountains complex may be a critical weakness in the project design.

## **Project Results**

9. The project has succeeded in establishing, under very difficult circumstances, the initial framework for planning, management and regulation for the two large wildlife sanctuaries, but the sustainability will require ongoing support within a revised development cooperation strategy for the Cardamoms.
10. The project has had partial success in developing and delivering MoE conservation and protection services on the ground. Capacity building has focused on law enforcement, infrastructure and technical studies, with modest enhancement of professional staff and organizational capacity.
11. The project has had a significant, small-scale impact on community involvement by establishing community protected areas, promoting public awareness and education, and facilitating livelihoods development. The impact is limited by the scope of the project in a selected number of communities within the sanctuaries.
12. FFI and CI have effectively established an international profile for conservation and sustainable use of the Cardamom Mountains complex, although prospects for World Heritage designation remain uncertain, as does enactment of proposed Protected Area Law.
13. The planned development of financing options is still under preparation with both FFI and CI actively working on attracting further donor contributions and establishing long term endowment trust funds to support conservation and protection of the wildlife sanctuaries and protected forest.

## **Project Implementation**

14. Overall, the internal project structure has not been particularly effective due to lack of a Steering Committee, inability to overcome inter/intra-agency coordination problems and weak linkages to the policy level in Cambodia. Direct government involvement in management has been relatively minor. This was partly offset by decentralized, community-based outreach of the project organization at the local level, and the TPR meetings.
15. The administrative management of the project by FFI has been generally effective given the resources available and the requirement of managing a large number of staff and contracts within a widespread project and set of activities.
16. UNDP has effectively administered their project responsibilities in overseeing the project operations and reporting requirements to GEF and other donors, sometimes under considerable workload pressure. But the lack of a Steering Committee and/or other means to engage the government in addressing key project issues has constrained its influence over the project.

17. Overall, the project has demonstrated effective and efficient implementation, notwithstanding certain communication and coordination issues with government.
18. Project monitoring has provided detailed reporting consistent with the Logical Framework. However, the monitoring has been largely activity-based, with no dedicated monitoring component that tracks outcome-level effects such as levels of illegal activities and changes in community livelihoods.
19. The main operational factors affecting project performance were: (a) project timing, (b) inception phase analysis, (c) mid-level MoE managerial capacity, (d) inter-personal relations, (e) jurisdictional rivalries, (f) internal rivalries within DNCP (g) environmental advocacy role, (h) inconsistencies in salaries/incentives, (i) time constraints, (j) consultation strategy, and (k) adaptive management review functions (see Section 7.2.3).
20. Financial management and reporting have met the general requirements of UNDP and donors, with no extraordinary observations. The draft audit report recommends various procedural improvements.
21. Governance arrangements in the Cardamom Mountains Protected Area Complex have significant implications for project sustainability and for the potential to re-commence a programme in Aural Sanctuary. Improvements in MoE-FA coordination and Cardamom law enforcement strategy would provide greater stability and clarity regarding authority. The policy uncertainty over balancing of conservation and development objectives, the mechanisms for coordinating MoE, FA and the Military, and the potential strategies for capacity development all remain to be resolved through some new governance arrangement.

### 10.3 Recommendations

1. Protection and conservation programmes in the Cardamom Mountains should, as a priority, address the institutional challenges involved in developing coordinating mechanisms, programme delivery partnerships and division of responsibilities between the relevant agencies for protection and conservation services. A **revised Cardamoms development cooperation programme** should be formulated that draws upon the experiences of the Cardamom Mountains Protected Forest and Wildlife Sanctuaries Project and the conclusions and recommendations of this evaluation.
2. The Government of Cambodia should establish a **coordinated Law Enforcement Strategy** for the Cardamom Mountains that strengthens roles and responsibilities, command and communication structures, operational protocols for ranger patrols and enforcement activities, and other measures to improve working relationships between the MoE, FA, Police and Military Police.
3. The Government of Cambodia should consider options for addressing conservation and law enforcement concerns along Road 42 corridor in consultation with MoE, FA, local authorities and the NGOs working in Aural Sanctuary area.

4. MoE and FFI should immediately complete the Wildlife Sanctuaries boundary demarcation on the ground, and further promote awareness of these boundaries with local people.
5. MoE and FFI should undertake follow-up local consultation on the zoning plans, refining zoning boundaries if necessary, and consider measures to begin implementation of the plans while awaiting passage of a proposed Protected Area Law.
6. The Government of Cambodia should establish a **Cardamom Mountains Technical Planning Board**, with rotating chairmanship and a dedicated, independent secretariat to facilitate discussion of the key issues facing conservation and development in the sanctuaries and protected forest.
7. MoE should initiate a forum for participatory review of protected area conservation and management projects in Cambodia, with the aim of formulating a **national level Strategic Capacity Development Plan** to guide donor assistance. The forum should draw upon the experiences to date, including those from the Cardamom Mountains Protected Area Complex projects.
8. Training needs assessments should be undertaken of operational managers and ranger patrol/law enforcement staff within MOE, including assessment of the institutional context for such training. A priority is to further develop the capacity of technical managers within DNCP.
9. MoE and FFI should develop a biophysical inventory and information systems strategy that outlines objectives, approaches and protocols for data collection, compilation, storage and retrieval. This should serve as a guide for investment in physical and biological inventory and assessment.
10. FFI and CI should continue to collaborate and report on an integrated and joint technical and financial support programme that addresses the Cardamom Mountains management needs as a whole.
11. MoE and FI should assist donors in targeting community and rural development opportunities that compliment the conservation and protection objectives through consultation and workshops with development programmes, NGOs and stakeholders.
12. Future projects in the Cardamom Mountains should be designed to draw upon the experiences and lessons from this project. Project need to be ‘owned’ by Cambodian organizations. A results-based monitoring plan and dedicated project monitoring officer should be included in project operations.

#### 10.4 Lessons Learned

In addition to the issues noted in section 5.2 and the factors listed in Section 7.2.3, the following lessons have been drawn from the evaluation.

- Designating different ministries at the national executing level (e.g., MAFF) and at the implementation level (e.g., MoE) in the project organization should be avoided. Project organization and distribution of project benefits are major elements that affected cooperation in the early phase of the project.

- Capacity and institutional assessment should be undertaken during the project inception phase in order to understand the specific challenges and needs related to capacity development. If MoE is the focus of further assistance, mentoring/training should be done in relation to targeted, permanent job descriptions that are part of a long-term organizational plan for the ministry. Some form of training contract could be considered to enhance the potential to retain staff.
- Six-monthly steering committee meetings should be held to a) review progress and b) provide direction on the project implementation issues identified by the project staff. Steering committees can be effective when the members have commitment and authority, when the terms of reference provide a clear set of duties to set direction for the project, and when project issues and options are effectively presented to them by project staff fully engaged in project management.
- A results-based monitoring plan and process should be prepared during the inception phase. Results-based monitoring is intended to provide an adaptive management and performance assessment tool to track the chain of results from inputs/activities to outputs, outcomes and impacts, with staff participation. The clear articulation of expected results helps to develop the monitoring process.<sup>34</sup>
- Communication and inter-personal relationships and team-building skills should be recognized as an important element in effective project implementation and appropriate resources provided. Many of the project performance issues in CWSP began with ‘trust and teamwork’: being able to establish an effective rapport and mutual understanding of roles and responsibilities between NGO and government, and amongst the project staff.
- Output-based salary supplements and a wider set of incentives/benefits for meeting performance targets should form part of the project participants’ remuneration system. The expectation of significant salary supplements and sitting fees is high in Cambodia and the accountability measures appear to be low. This creates an unsustainable system and disincentives for organizational restructuring and government reform. Both Cardamom projects have experimented with incentive-based methods on ranger patrols with some success. This could be further expanded to incorporate output or milestone payments and other incentives in lieu of salaries for involvement of some government participants.
- Efforts should be made wherever possible to reduce organizational barriers between and among government agencies and NGOs, and to promote working partnerships and activities between stakeholder organizations in the interests of effective sanctuary management. These barriers are a key issue that external support from International NGOs can help to address, particularly given the need for a small ministry like MoE to find allies and working partners within government in order to advance conservation and sustainable development objectives.

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<sup>34</sup> E.g., CIDA, RBM Handbook on Developing Results Chains, The Basics of RBM as Applied to 100 Project Examples, Dec 2000.



- The experiences of CMWS and CCPF projects suggest that:
  - Sufficient government support for security is needed in order to undertake effective protection and conservation services.
  - Conservation programmes in adjoining protected areas should pro-actively coordinate law enforcement, management and buffer zone strategies.
  - Opportunities for data collection and service delivery efficiencies, as well as joint learning, can be exploited through better coordination (including at a national level).
  - Ecosystem approaches generally require perspectives that cross administrative boundaries and functions and a conscious effort is needed to integrate strategies in a manner that focuses on maintaining ecosystem processes and integrity.
  - Despite ministerial territoriality, working relationships between agencies both within protected areas and between adjoining areas need to be continuously developed over time.

Table 1 – Review of Cardamom Mountains Wildlife Sanctuaries and Protected Forest Project Results

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
<b>OBJECTIVE:</b> TO PROMOTE SUSTAINABLE MANAGEMENT AND USE OF BIOLOGICAL RESOURCES AND ENVIRONMENT SUSTAINABILITY		
<b>Purpose:</b> The long-term conservation of the Cardamom Mountains protected area complex (PSWS, PAWS, CCPF) and its associated buffer zones		
<b>Indicator 1: Threats to populations of rare/endangered fauna and flora of the Cardamoms are reduced.</b> <i>Reduced Human population</i>	<p><b>CMWS</b> A 'guesstimate' is made of 35,000+ persons now living within both Sanctuaries (PAWS 20,000, PSWS 15,000). The population growth rate in both Sanctuaries since project inception has surpassed the national growth rate due to a continuing influx of IDPs, economic migrants and returnees</p> <p><b>CCPF:</b> [CI to insert]</p>	<ul style="list-style-type: none"> <li>• The project has been unable to limit the growing population and settlement in the sanctuaries.</li> <li>• The project has been able to develop some level of consensus on the designated areas for community and settlement development.</li> <li>• No record and mapping by the project, or submission to local authority and DNCP/MoE about the settlements within the wildlife sanctuary.</li> </ul> <p><b>Level of Achievement: <i>Unsatisfactory</i></b></p>
<b>Reduced Illegal hunting</b>	<p>Statistically valid estimates cannot be produced because accurate measures of hunting for subsistence, nuisance, or commercial purposes are impractical to establish. Surveys of <i>relative</i> densities and distributions have been undertaken for some targeted species e.g. FFI's Cambodian Elephant Conservation Group is undertaking 'MIKE' (Monitoring of Illegal Killing of Elephants) through DNA sampling. <i>Qualitative</i> measurements indicate that: a) subsistence hunting per capita has decreased due to increased food security in PSWS, it has remained the same in PAWS due to continued drought; b) the Zoning system is in place but rules for allowed and disallowed activities (e.g. hunting, fishing) in the various zones are not yet followed by all c) Ranger activities in PSWS display high effectiveness in suppressing snaring, and commercial hunting. Ranger activities in PAWS are less successful.</p> <p><b>CCPF:</b> According to independent monthly reports, the number of confirmed tiger and elephant killings in Koh Kong Province declined from nine and seven in 2001 to one and zero in 2003, respectively. This represents a significant decline in the off-take of globally threatened species. With USAID funding, CI has supported the creation of the Cambodia CITES office and the preparation of CITES legislation</p>	<ul style="list-style-type: none"> <li>• The 2003 baseline survey of subsistence hunting has not been replicated.</li> <li>• Systematic monitoring of project effects has been limited, even though reduction in illegal hunting is a central objective of the project.</li> <li>• Patrol data and anecdotal observations suggest some overall reduction in hunting, linked to increased food security as well as enforcement activity.</li> <li>• Monitoring illegal activities has been less effective in Aural sanctuary because ranger patrols have been constrained by the government and the security concerns for ranger's observing illegal activities.</li> </ul> <p><b>Level of Achievement: <i>Uncertain, pending further data</i></b></p>

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPPF)	Final Evaluation Comments and Rating of Project Achievements
<p><b>Reduced Legal and Illegal Timber Cutting</b></p>	<p><b>CMWS</b> C+E teams have worked to establish CPAs to regulate local subsistence use, but forest inventories and controls on fuelwood/ timber harvesting within CPAs are planned for a later stage of CPA development. Ranger patrols have deliberately targeted the prevalent commercial illegal activity, and have not targeted local subsistence use. Ranger activities in PSWS approach 100% effectiveness in suppressing illegal NTFP processing (yellow vine, <i>mreah proh</i>) and luxury timber processing. These illegal activities return seasonally, however. Ranger activities in PAWS have achieved 100% reduction in sawmills in the Kg. Speu section, less successful in the Pursat section. Small workshops producing furniture for local use continue to operate in district centres in both PAWS and PSWS.</p> <p><b>CCPPF</b> As a result of strong law enforcement, there is now minimal timber cutting inside the CCPPF. Of special significance was the success in closing down &gt;30 yellow vine and marek preu (a precious oil) factories in the O'Som area in 2003. If these had been allowed to get established, they would have attracted immigrants and started to eat out the forest from the inside.</p>	<ul style="list-style-type: none"> <li>• No systematic monitoring data but the patrol records information suggest success in closing <i>mreah proh</i> factories and in prosecuting illegal timber cutting activities (no data provided).</li> <li>• Quantity and quality of monitoring data on illegal activities are poor in the Sanctuaries.</li> <li>• Timber cutting is happening outside of the CPAs, seemingly increase more in Aural (chain saw data increasing) than in Samkos.</li> <li>• Joint patrolling and willingness to work together between DNCP/MoE-FA/MAFF to address the timber cutting are necessary.</li> <li>• Limited data for CCPPF to substantiate conclusions of reduced timber cutting, from Forest Cover Change Analysis:</li> </ul>
<p><b>Reduced Road building</b></p>	<p><b>CMWS</b> A potentially damaging road upgrade through the core zone in PAWS for commercial purposes was disallowed after recommendations from CMWSP to decision makers in MoE. The road from Kau Daun Tei to Samraong in PAWS was upgraded for access to the proposed Phnom Prak mine site, with some consideration of environmental impacts: CMWSP facilitated the agreement of local authorities to prevent new settlement along this road. A new NGO-funded 'Type B' road in PSWS from Pramaoy to Krapeu Pi has been approved without EIA and is under construction despite CMWSP recommendation that EIA be done. A road has been constructed in the Phnom Ta Kry area to access a mineral exploration site without notification of MoE or consideration of environmental impacts.</p> <p><b>CCPPF</b> In the absence of maintenance, the You Rysaco Road connecting O'Som and Koh Kong has deteriorated sharply. It is now only passable by motorbike. However, the</p>	<p><b>Level of Achievement: Satisfactory</b></p> <ul style="list-style-type: none"> <li>• Agreement of local authorities to prevent new settlement along Kau Daun Tei - Samraong road.</li> <li>• Initiated establishment the review panels on any development project for the Samkoh Sanctuary, particularly on the social, economic and environmental impacts. This needs to work closely with DNCP and EIA department.</li> <li>• A plan to upgrade the road across Samkos to Thailand, will be critical for conservation due to the land clearing and grabbing.</li> <li>• Experience indicates that MoE has been unable to fully enforce EIA legislation and process in the sanctuaries, also important for follow-up of EIA.</li> </ul>

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
	<p>government has allegedly asked the You Rysaco logging company to repair the road. Given the relatively few beneficiaries, our understanding is that this road is not a national priority.</p>	<ul style="list-style-type: none"> <li>No apparent process for integrating environmental considerations with road network development in conjunction with the sanctuaries management plans.</li> </ul> <p><b>Level of Achievement: <i>Satisfactory</i>; project has tried to encourage EIA of road development</b></p>
<p><b><i>Reduced Depletion of endangered species through trade and other factors</i></b></p>	<p><b>CMWS</b>            Due to remaining large areas of habitat, absolute extirpation of SCCs is not likely in the short term. Large cat numbers are low but are thought to have stabilized in PSWS; recent (Jan 2007) evidence of tigers has been found. Some recognition of the importance of the remnant elephant population in PSWS has been achieved with the local authorities and community, contributing to a reduction in hunting. Levels of Siamese Crocodiles at O Som (border of PSWS and CCPF) have stabilised (Jan 2007) and may be on the rise. Rangers in PSWS and PAWS have encountered bear, pangolin, turtle (etc.) trapping and parts smuggling and have <b>prosecuted offenders as strongly as possible</b>. Hunting for bush meat and animal parts continues to put many of these species under pressure.</p> <p><b>CCPF</b>            Reduction in the killing of global threatened wildlife such as elephants and tigers documented by the Community Wildlife Rangers Project. Violations were properly documented, a large quantity of materials destroyed, illegal activities suppressed, evidence of illegal activities compiled, and reports submitted to relevant authorities.            Forest crime database shows that by December 2003, the CCPF component had submitted 144 cases of which 39 resulted in the payment of a transitional fine, another 38 were heard but not result in appropriate sanction, and the remaining 67 were not event heard. Overall, after 3 years of implementation, the CCPF rate is satisfactory for this particular indicator.</p>	<ul style="list-style-type: none"> <li>No systematic process established within MoE for monitoring and/or conservation of endangered species status and recovery of species under severe threat; process and capacity primarily within FFI.</li> <li>Are there sufficient data to be assured about no eminent extirpation of species of concern, particularly given the large number within this category?</li> <li>A few species have increased and encroached the farm lands, eg. wild pig, and pangolin. Generally the non-commercial species have gradually increased, but the commercial species are still problem, except the crocodile.</li> <li>No data on changes in habitats of species of concern, or strategic level approach to habitat monitoring given the Cambodian context.</li> <li>Habitat and species population data and research results local accessibility and dissemination has been weak.</li> <li>CCPF information relates to illegal activities indicator</li> </ul> <p><b>Level of Achievement: <i>Uncertain</i>, pending further data</b></p>

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
<b>Reduced Military Presence</b>	<p><b>CMWS</b> Levels of military presence remain the same. A determined attempt was made to induce Btm 313 to re-locate outside of PAWS and into a new base, but was unsuccessful. CMWSP (through MoE) does not have the political leverage to effect removal of military units at the present time.</p> <p><b>CCPF</b> Has assisted CMWSP in working to secure removal of military unit.</p>	<ul style="list-style-type: none"> <li>• Project tried to affect this outcome but there is lack of influence of MoE and lack of legislation to control land use within the sanctuaries.</li> <li>• CMWS – no effect on military; CCPF more cooperation in some removal of military units.</li> </ul>
<b>Lack of capacity</b>	<p><b>CMWS</b> <b>Individual:</b> All seconded MoE staff have received formal and informal training and mentoring from project advisory staff. In addition, the following MoE staff have received formal, external training:</p> <ul style="list-style-type: none"> <li>• All protection staff (rangers and supervisors) in PAWS and PSWS attended the basic Law Enforcement Ranger Training Course at the National Training centre at Bokor.</li> <li>• Wildlife sanctuary directors received training in GIS, in court case preparation, and participated in a cross-visit to protected areas in the Philippines.</li> <li>• One member of MIS unit attended training in advanced GIS software at AIT, Bangkok.</li> <li>• Two members of the SHE unit received training in GIS, plant taxonomy, sample collection, preservation and storage, various animal survey techniques, camera trapping, EIA training, and participated in a cross-visit to Malaysia for herpetology training.</li> <li>• Ten members of the C+E unit have variously received training in GIS, facilitation of CPA formation, PLUP facilitation, community networking, CPA formation process, and managing conflicts in CPAs.</li> </ul> <p><b>Physical:</b> Equipment and infrastructure provided as follows:</p> <ul style="list-style-type: none"> <li>• 1 WS headquarters in PAWS and 1 in PSWS</li> <li>• 2 WS substations in PAWS and 1 in PSWS</li> <li>• 50m Radio masts at PAWS headquarters, DoE Kg. Speu, PSWS headquarters and DoE Pursat</li> <li>• Communications radios for headquarters, substations, provincial DoEs, vehicles and mobile patrols</li> <li>• Computers for WS management, law enforcement, and community work at WS headquarters, substations and provincial DoEs. (Total 8 in PAWS and 7 in PSWS)</li> </ul>	<p><b>Level of Achievement: <i>Unsatisfactory</i></b></p> <p><b>Individual:</b></p> <ul style="list-style-type: none"> <li>• Professional training has been given to the rangers and to selected technical staff with apparently good results although no performance data to measure this.</li> <li>• On-the-job mentoring has been appreciated and is important to developing the competence and confidence over time.</li> <li>• Training needs assessment not available; needs to be prepared in order to response for sanctuary management at individual, institutional and systematic level. The follow-up of training is very necessary to strengthen the capacity/performance.</li> <li>• Effectiveness and sustainability of training depends on institutional capacity of MoE to use newly trained staff.</li> </ul> <p><b>Physical:</b></p> <ul style="list-style-type: none"> <li>• Significant logistical resources provided by the project, observed during field visits.</li> <li>• Transportation is still a limitation according to staff. Some of the field equipment are in bad condition, including the transportation. Field kits may need upgrading, according to staff.</li> </ul>

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
	<ul style="list-style-type: none"> <li>• 1 car in PSWS and 1 in PAWS for WS management activities</li> <li>• 11 motorcycles in PAWS and 9 in PSWS for law enforcement activities</li> <li>• Multiple issues of uniforms, boots, field kit for all rangers</li> <li>• Issue of field kit to other field staff (C+E, SHE units) as required</li> </ul> <p><b>Institutional:</b> The management of the wildlife sanctuaries has been strengthened by CMWSP formation of operational project units, including the Wildlife Sanctuary Management Unit at each sanctuary. These units have produced 5-year Management Plans, Wildlife Sanctuary Zoning Plans, WS Protection Policies, Monthly and Quarterly WS Protection Plans, Standard Operating Procedures and Internal Regulations for law enforcement, and Orders for Gun Use by Rangers in Protected Areas. CMWSP has also strengthened management of WS income from fines. CMWSP has facilitated dialogue and co-operation on various issues between project operational units and: MoE Legal Department, DNCP Community Protected Areas Development Office, the director of DNCP, and the Minister for Environment. At the provincial and local level, CMWSP has facilitated the meeting of the Sub-National Committee for Conflict Resolution in Protected Areas (Kg. Speu) and the formation of a Development Project Review Group (Pursat-Veal Veng district). Regular meetings and occasional workshops have been held at provincial and district levels on various issues.</p> <p><b>CCPF</b> The problem we face is that the rangers, most of who are recruited from Phnom Penh, do not have the local connections or knowledge to effectively prevent killing. We only hear about kills after the event. We are therefore exploring the possibility of hiring locally recruited district police to control hunting. District police would complement the rangers, who have successfully removed “point source” threats such as sawmills but are struggling to stop more dispersed threats such as hunting. Localizing wildlife protection should also increase local support and buy-in.</p> <p><b>CCPF/CMWSP:</b> In May 2004, CI and FFI supported a WildAid-run ranger training course for 40 FA, MOE, and Military Police.</p>	<ul style="list-style-type: none"> <li>• Project resources have not facilitated DoE provincial level operations related to the wildlife sanctuaries (dedicated to project activities only).</li> </ul> <p><b>Institutional:</b></p> <ul style="list-style-type: none"> <li>• Wildlife Sanctuary ‘Management Units’ are mostly viewed as FFI project operations are not MoE.</li> <li>• Planning &amp; operational systems have been established &amp; supervised.</li> <li>• Development Review Group provided a useful local means of environmental review.</li> <li>• Weak linkages to rest of MoE’s corporate structure.</li> <li>• Sanctuary managers depend upon project advisors and interventions for action.</li> <li>• Seconded MoE staff to FFI are unlikely to return to MoE service due to poor salaries, incentives/encouragement from the government and low capacity of the organization.</li> <li>• Issue in PAWS and PSWS not presented to the national committee on protected areas conflict resolution, nor the national land committee on land grabbing/clearing.</li> <li>• Income generation from fines may compromise integrity of law enforcement; not best alternative for strengthen the sanctuary management.</li> <li>• FA – no information collected on institutional strengthening</li> </ul> <p><b>Level of Achievement: <i>Satisfactory at the operational field level; Marginally satisfactory at the managerial level.</i></b></p>
<b>Indicator 2: No new settlement occurs within CMPAC beyond the baseline</b>	<p><b>CMWS</b> No new villages in PAWS, and only one in PSWS have arisen in the time of the project. However, there has been considerable expansion of village areas and an increase in population within villages. Various <i>ad hoc</i> agreements have been made with commune and district governments restricting settlement in some sensitive</p>	<ul style="list-style-type: none"> <li>• There is settlement growth but the project has assisted in identifying the zones suitable for community development.</li> <li>• Land speculation increased in both sanctuaries, however the pressure on PAWS has high tension.</li> </ul>

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
	<p>areas, with some success. The legal and physical framework for effectively limiting areas for settlement is the Zoning Plans, completed late 2006. The Zoning Plans were produced with the co-operation and support of local authorities, and should be effective and enforceable immediately, but activities are hampered by the delay in the passing of enabling legislation and delays in approval at the national level. Some signage and some enforcement activities have been implemented based on the plans where there is already agreement from the local authorities, but widespread acceptance and implementation of zone-based regulations limiting settlement will come some time in the future.</p> <p><b>CCPF</b>  <b>NO NEW SETTLEMENT IN CCPF. HOWEVER, FAMILIES ARE RETURNING TO THE ARANG VALLEY, WHICH LIES OUTSIDE THE CCPF BUT IS AN IMPORTANT WILDLIFE CORRIDOR</b></p>	<ul style="list-style-type: none"> <li>Establishment of the Community Protected Areas and/or community forestry both the sanctuaries and protected forest.</li> <li>Some District and Provincial authorities have not expressed full support and participation/ understanding of the Draft Zoning Plans.</li> <li>Government support for Draft Plans may be tenuous, despite the Provincial Governor's endorsement.</li> <li>Expanded consultation and communication is the key issue.</li> </ul> <p><b>Level of Achievement: <i>Satisfactory</i>, but the likelihood of controlling future settlement is very uncertain</b></p>
<p><b>Indicator 3: Illegal resource extraction in CMPAC is reduced from the baseline level</b></p>	<p><b>CMWS</b>  Ranger patrols have deliberately targeted the prevalent commercial illegal activity, and have not targeted local subsistence use. Ranger activities in PSWS approach 100% effectiveness in suppressing illegal NTFP processing (yellow vine, <i>mreah proh</i>) and luxury timber processing. These illegal activities return seasonally, however. Ranger activities in PAWS have achieved 100% reduction in sawmills in the Kg. Speu section, less successful in the Pursat section. Small workshops producing furniture for local use continue to operate in district centres in both PAWS and PSWS.</p> <p><b>CCPF</b>  Sawmills and NTFP factories almost eliminated in the CCPF. Hunting of tigers and elephants has declined markedly in CCPF but the trade in bears, turtles, tortoises and other commercially valuable species continues. No major logging occurs. No significant problems in NTFP collections in the CCPF</p>	<ul style="list-style-type: none"> <li>There are no baseline or monitoring data for the resources uses and extraction for both sanctuaries.</li> <li>Ranger activities in PSWS approach 100% effectiveness in suppressing illegal commercial NTFP processing (yellow vine, <i>mreah proh</i>) and luxury timber processing.</li> </ul> <p><b>Level of Achievement: <i>Satisfactory</i> for illegal commercial activities and <i>Uncertain</i> for subsistence activities in PSWS. Generally <i>Unsatisfactory</i> in PAWS due to instability and corruption.</b></p>
<p><b>Outcome 1: improved planning, management and regulatory frameworks for the central cardamom protected forest, Phnom Samkos and Phnom Aural wildlife sanctuaries</b></p>		
<p><b>1. Continuation of current baseline established by biological, land use, and</b></p>	<p><b>CMWS</b>  Data collected in baseline studies used in formulating the Zoning Plans and Management Plans. Updated demographic and land-use statistics collected. PAWS Socio-economic report published. PSWS report to be published in Jan 2007  Sufficient data has now been obtained to monitor land use changes and some</p>	<ul style="list-style-type: none"> <li>Improvements in database, but it is not apparent that there are 'sufficient data to monitor land use changes and some keystone species'; what system is in place for ongoing inventory and monitoring in MoE? Species i.d. focus to the work so far.</li> </ul>

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
<p><b>socioeconomic assessments</b></p>	<p>keystone species. Activities have included:  - fixed point photography to measure habitat loss;  - establishment of remote-sensing tree canopy density baseline.</p> <p>While surveys of fauna have been performed, this exercise has not been comprehensive enough to identify population trends.</p> <p><b>CCPF</b>  Participatory rural appraisals have been carried out in all four communes as part of the PLUP exercises. Baseline socioeconomic surveys in Areng completed. CI-led surveys have confirmed the presence of 35 globally threatened species. These include: 18 mammals, 6 birds, 8 reptiles, 8 amphibians, and 1 fish. We are continuing to expand our biological research through the engagement of local students. Backed up by the proper supervision and quality control, this has proved very cost-effective.</p>	<ul style="list-style-type: none"> <li>• Ecosystem classification remains very generalized</li> <li>• Various methods demonstrated but have they been formally adopted by MoE?</li> <li>• Monitoring indicators for biological, land use and socioeconomic status for both sanctuaries are not yet in a tracking database. Trends in the biological, land use pattern and socioeconomic need to be established.</li> </ul> <p><b>Level of Achievement: <i>Satisfactory</i>;</b>  - significant information improvement to assist zoning and management plans, but there is as yet no consistent strategy for ongoing inventory and monitoring activities by MoE and others.</p>
<p><b>2. Completion of regional stakeholder consultations and outreach activities as per work plans</b></p>	<p><b>CMWS</b>  Intensive stakeholder consultations concerning zoning and management plans at national, provincial, district commune and village levels. The consultations have involved local authorities, community representatives, government line departments, NGOs, police, military and gendarmerie</p> <p><b>CCPF</b>  Good progress made in setting up management offices at central and field levels. Relations with the Koh Kong provincial authorities remain good. Still unable to meet or reach agreement with the Governor of Pursat Province who is reportedly hostile to conservation. (Most forest crimes in 2003-2004 were committed in this province.)</p>	<ul style="list-style-type: none"> <li>• Completion of activities is not a valid Outcome indicator.</li> <li>• Despite involvement, some Provincial line agencies feel that they have not been fully informed and engaged; planning/zoning was viewed as rushed.</li> <li>• The management plans for sanctuaries and protected forest are still in draft form, and it is uncertain how further consultation with stakeholders will occur and implementation of the plans.</li> <li>• For various reasons, there has been a lack of effective relations with district and provincial governors and staff in Pursat Province.</li> </ul> <p><b>Level of Achievement: <i>Satisfactory</i>; communication issues remain</b></p>
<p><b>3. National level management units within DNCP/MoE and DFW/MAFF established and</b></p>	<p><b>CMWS</b>  Management units continue to operate at provincial DoE level. Rather than establishing brand new management units at the central level, the project has focused on strengthening and building closer integration with national technical offices in DNCP/MoE, such as CPA Development Office, the Legal Department and the Management Information Systems office.</p>	<ul style="list-style-type: none"> <li>• The management units were established at the site level, at the DNCP/MoE, but their functions and capacity are questionable. Project strengthened individual skills mostly through casual mentoring; no data on results.</li> </ul>



Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
<p><b>operational</b></p>	<p><b>CCPF</b> Effective personnel and asset management and accounting procedures are in place and processes. The Management Units are still with FFI and CI Central Offices to ensure smooth implementation. (The FA program manger requested that the program office be co-located in the CI office.)</p>	<ul style="list-style-type: none"> <li>• One training course provided; staff requesting more training and management skills development.</li> <li>• Institutional and management system for sanctuaries are not owned by MoE.</li> <li>• FA/MAFF is well established at the site level, but at the central level it is still unclear.</li> </ul>
<p><b>4. Monthly joint reporting by the project management units within DNC/MoE and DFW/MAFF on conservation conditions and trends institutionalized</b></p>	<p>FA-CI and MOE-FFI have communicated regularly on enforcement and on community and biological projects and will continue to coordinate in this area as closely as possible. Joint progress reporting is not possible as there is no effective coordination or cooperation between MAFF and MoE.</p> <p><b>CMWS.</b> Holds monthly project management team meetings where each technical unit presents its monthly report. Monthly reports are collated into a combined monthly report to MoE. CMWS/SP also reports quarterly to the Ministry of Foreign Affairs. FFI and MoE project co managers hold a weekly management meeting FFI project manager meets quarterly with the Minister for the Environment FFI ad CI meet regularly to discuss project related issues.</p>	<p><b>Level of Achievement: Marginally satisfactory;</b> established but operational is questionable</p> <ul style="list-style-type: none"> <li>• CMWS – MoE monthly operational meetings but no monthly report was produced both from the project and/or from DNC/MoE side.</li> <li>• Reporting is mostly on activities, not conditions or milestones.</li> <li>• CCPF – MAFF monthly operational reports: no information</li> </ul>
<p><b>5. Draft management plans completed</b></p>	<p><b>CMWS</b> Final draft management plans for both wildlife sanctuaries have been completed in both Khmer and English. Consultation has occurred at both the provincial and MoE levels, and the plans have been endorsed by the Senior Minister of Environment.</p> <p><b>CCPF</b> A working draft has been completed. Agreed to adopt the format and process for the formulation of management plan for Virachey National Park supported under World Bank/GEF BPAMP</p>	<p><b>Level of Achievement: Satisfactory – good regular mtgs on activities and issues, but no overall results monitoring</b></p> <p><b>CMWS:</b> - the development of these plans has been a significant contribution toward establishing management objectives and land use rules - the content and quality of plans have been endorsed by MOE, but some provincial and district officials complain about not being partners in the process. - the plans' implementation depends upon approval of Protected Area Law, which may present some risks.</p> <p><b>CCPF:</b> no information on stakeholder participation and approval process for plan <b>Level of Achievement: Satisfactory</b></p>

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
<b>Outcome 2:</b> Improved the government's operational capacity to manage and protect the Central Cardamom Protected Forest, Phnom Samkos and Phnom Aural Wildlife Sanctuaries.		
<b>1. Field based protection units, ranger stations and substations established and operational in protected areas and buffer zones</b>	<p><b>CMWS</b> Total number of rangers for PSWS increased to 55, PAWS increased to 60. This includes fully trained patrol rangers and some community based rangers. Rangers operate from fully equipped HQs in Pramaoy (PSWS) and Kantourt HQ (PAWS). A substation is currently being established in Samlaut District (PSWS). Another two substations - Teuk Pos District (PAWS) and Phnom Kravanh Districts (PAWS) – have been established.</p> <p><b>CCPF</b> Field stations established and operational. But we continue to reassess the optimal deployment of rangers, which means a willingness to close and open stations depending on need.</p>	<p><b>CMWS</b> – ranger services have been withdrawn from Aural Sanctuary; Samkos operations appear to have established an effective deterrence to illegal activities. (no data provided)</p> <p><b>CCPF</b> – no information available on FA's operational capacity</p> <p><b>Level of Achievement: <i>Satisfactory</i></b>, although sustainability is dependent upon donor funding</p>
<b>2. Permanently manned protection posts established at main entry points to the PAs</b>	<p><b>CMWS</b> Although there is one ranger station (Kantourt) located near an entry point, strictly speaking there are no road-based checkpoints established at the main entry points to the PA. This is due largely to two factors beyond the control of project staff: 1) the introduction of government policy restricting checkpoints (PSWS); and 2) security concerns following ranger murders at Tropeang Cho checkpoint (PAWS)</p> <p><b>CCPF</b> Has 3 main entry posts plus 3 substations</p>	<ul style="list-style-type: none"> <li>The ranger station in Kantourt, and Pramaoy are located on the road 47, one of the main entrance to the sanctuaries. However there is no check post established due to the restricting of the government policy on the checkpoint.</li> <li>Lack of government support constrains ability to meet this objective in Aural and Samkos</li> <li>Protection posts in CCPF area have been easier to establish probably due to lower level of human pressures and involvement of military police???</li> <li>No agreement between MoE-FA on checkpoints.</li> </ul> <p><b>Level of Achievement: <i>Marginally satisfactory</i></b> for CMWS; <b><i>Satisfactory</i></b> for CCPF</p>
<b>3. Training and support center(s) established in the protected areas</b>	<p><b>CMWS</b> No training centre required as the MoE has a training centre already at Bokor. CMWSP has used this facility in 2004 and 2006 to train rangers for PAWS and PSWS and the CCPF Centre Thma Bang for ranger training in 2005. Community Officers from DoE in 4 provinces have been trained on CPA facilitation.</p> <p><b>CCPF</b> The Thma Bang training center extended to include research facilities (lab, computers, library, and student accommodation).</p>	<ul style="list-style-type: none"> <li>Existing training centres were used at Bokor, and Thma Bang, but the infrastructure is reportedly in poor condition; unclear what contribution was made by the project.</li> </ul> <p><b>Level of Achievement: <i>No centre established; contribution uncertain.</i></b></p>
<b>Outcome 3:</b> Engaged communities in the protection, management and sustainable use of natural resources in the Cardamom Mountains protected area complex		

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
<p><b>1. Networks of community based forest and wildlife crime monitors established and operational</b></p>	<p><b>CMWS</b> The project aims to establish over 40 CPAs by April 2007, with 29 of these established by December 2006. CPAs range from 200 to 5000 hectares, and are intended to allow for the sustainable use of important natural resources, such as medicines, foods and construction materials. Community rangers employed by MoE (cf the more highly-qualified ranger protection teams) in both sanctuaries liaise between communities and WS management.</p> <p><b>CCPF</b> CCPF is seeking to engage the 5,000 people who live in and around the CCPF in ways that reduce long-term pressure on the CCPF. Specifically, we have drafted agreements that link changes in community natural resources management practices with program support for food security and other basic needs. This form of conservation incentive, which explicitly links changes in behaviour and practice with livelihood support, has advantages over classic ICDP approaches. Recognizing the fact that the program rangers are better suited to closing down saw mills than stopping wildlife hunting and trading, we are also experimenting with semi-independent stringers who report on hunters and trading routes.</p>	<p>2. Based on the interviews with the local peoples there are in total 18 CPAs with some uncompleted process and approval. There is limited ongoing support for the CPAs.</p> <p><b>CMWS</b></p> <ul style="list-style-type: none"> <li>- 29 CPAs recorded in the Terminal Report but no data on status.</li> <li>- some of the community development activities have substantially enhanced agricultural production and household incomes in the few areas where they have been initiated</li> <li>- CPA activities include mobilizing local people to protect forest areas.</li> </ul> <p><b>CCPF</b></p> <ul style="list-style-type: none"> <li>- 5 conservation agreements in place; 5 under development.</li> </ul> <p><b>Level of Achievement: <i>Satisfactory</i></b></p>
<p><b>2. Formal agreements with local communities on wildlife monitoring and conservation established</b></p>	<p><b>CMWS</b> Rather than negotiating formal agreements with local communities, the project has contributed to the process for enshrining wildlife protection in law, through the zoning plans. As discussed above, zoning plans have been completed for PAWS and PSWS and endorsed at the Provincial and MoE levels. Zoning plans include Community Protected Areas (community forest user groups) with regulations protecting wildlife and habitats.</p> <p><b>CCPF</b> See discussion under Outcome 3, Indicator 1, above.</p>	<ul style="list-style-type: none"> <li>• Informal (CMWS) and formal (CCPF) community agreements appear to be supported by the participants.</li> <li>• The role and responsibility of the communities for wildlife monitoring and conservation are still very limited both from the CPA establishment and outside of the CPA; and also the CCPF site.</li> <li>• Agreements through zoning plans remain to be enshrined in law.</li> </ul> <p><b>Level of Achievement: <i>Satisfactory</i></b></p>
<p><b>3. Community incentive systems for detecting and reporting wildlife and forest crime in place</b></p>	<p><b>CMWS</b> Reward for information continues. Community Protected Areas (forest user groups) continue to receive support (eg. equipment, meeting facilitation, training, cross-visits), and provide information to WS management. However, there is a question regarding sustainability of these measures/systems post-project.</p> <p><b>CCPF</b></p>	<ul style="list-style-type: none"> <li>• Concept is in place. Extent of incentives/rewards distributed by MoE-FFI? – no data from project</li> <li>• Violation information provided by the community groups – no data</li> </ul> <p><b>Level of Achievement: <i>Marginally unsatisfactory /Uncertain</i></b></p>

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
4. Code for conservation and good practice for land management with local communities established	<p>See discussion under Outcome 3, Indicator 1, above.</p> <p><b>CMWS</b> The “code for conservation” will take two forms: 1. NR management guidelines; and 2. management regulations within the CPA framework.</p> <p>The NR Management guidelines have been completed and are published. The guidelines are a non-legal package designed for a range of practitioners in sustainable natural resource management at the local level. A distribution and use plan has been prepared.</p> <p>Secondly, CPAs are creating local management regulations for use of natural resources, predominantly forests. This is an organic process, and regulations will take stronger hold as the CPA institutions mature.</p> <p><b>CCPF</b> Natural resource management guidelines will be generated by the PLUP exercises.</p>	<ul style="list-style-type: none"> <li>• <b>CMWS</b> – NRM guidelines are an integral part of CPA rules and activities</li> <li>• The zoning consultations, CPAs establishment and guidelines are still in the initial application phase so effects are not yet known.</li> <li>• <b>CCPF</b> – focus is on conservation agreements that encourage good practice; no data on effects and performance of these (under study by CI)</li> </ul> <p><b>Level of Achievement: <i>Very satisfactory</i></b></p>
5. Sustainable use zones defined and sustainable use projects in place	<p><b>CMWS</b> Zoning plans for PAWS and PSWS have been drafted and endorsed at the provincial level and approved by the Senior Minister of Environment. They have achieved a high level of consensus at provincial, district and commune levels. Awaiting passes of PA legislation to confirm process for endorsement at national level. Zoning is expected to curtail and control further inward migration of people into the CMPAC, directly addressing one of the key threats to biodiversity in the CMPAC.</p> <p><b>CCPF</b> Natural resource management guidelines will be generated by the PLUP exercises.</p>	<ul style="list-style-type: none"> <li>• Zones have been accepted by many communes and several local authorities but there are others that are not fully supportive due to lack of full buy-in and understanding of the process.</li> <li>• Boundary delineation remains a concern in some areas, as noted by government officials.</li> <li>• Linkages between sustainable use zone and project and other development activities are unclear. There are some projects interventions for sustainable uses at Samkos and Aural for livelihood enhancement.</li> <li>• It remains to be seen whether zoning will be effectively implemented, despite approval.</li> </ul> <p><b>CCPF – no substantive data</b></p> <p><b>Level of Achievement: <i>Satisfactory</i></b></p>
<b>Outcome 4:</b> Secured international recognition and increase national and local awareness of the Cardamom Mountains, covering Phnom Samkos and Aural Wildlife		

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
Sanctuaries, Central Cardamoms Protected Forest  <b>1. Official nomination of Aural and Samkos and CCPF as natural World Heritage sites</b>	For the second attempt, through a series of consultation process, both Cardamom Wildlife Sanctuaries were proposed among other sites by the Ministry of Environment to the Council of Ministers in mid 2005 for the World Heritage Tentative List. In July 2005, the Council of Ministers reviewed the proposal and set it aside on the basis that further detailed research about the economic value of the site was required. Plans are underway to bring senior government officials to China in early 2007 to view natural World Heritage sites.	<ul style="list-style-type: none"> <li>MoE and MAFF are fully supportive of cardamom range as the Natural World Heritage site. But there is a lack of the cohesive support from RCG. Still uncertainty from various government partners and from Prime Minister Office.</li> <li>The project has assisted in mobilizing support for designation but the outcome may depend upon the ability to accommodate other ministries and some development pressures</li> </ul> <p><b>Level of Achievement: <i>Unsatisfactory/Uncertain</i></b> whether there is sufficient political will and priority.</p>
<b>2. Number of independent articles on the Cardamoms initiative written in international and national publications</b>	Continued articles in local media concerning issues. Provincial TV coverage of World Environment Day in June 2006. Film Documentary on the importance of Cardamom landscape for local communities produced by FFI/WildAid/CI. Already the film has been shown in Veal Veng District and was broadcast on national TV in December 2006. The Cardamom Mountains is featured on the UNDP Cambodia website and will be profiled in UNDP's 2006 annual report. An article on land-use planning was contributed to FFI's Oryx journal. FFI's web page on the CMWSP updated August, 2006. FFI has also begun discussions with ADB-BCCI about shooting a new Cardamoms documentary in early 2007.	<ul style="list-style-type: none"> <li>The Cardamoms have an international profile due to the efforts of FFI and CI in attracting international support.</li> <li>The partnership arrangement with local NGOs for environmental awareness and development are in places.</li> </ul> <p><b>Level of Achievement: <i>Very satisfactory</i></b></p>
<b>3. Demonstrated attitudinal changes in communities towards the sites and the threats facing them</b>	<p><b>CMWS</b> Subcontract to Save Cambodia's Wildlife to deliver awareness programme in PSWS now completed. SCW produced an evaluation report appraising their own work. FFI entered into a 2 year follow-up subcontract with SCW in November 2006 (again in PSWS and covering post-project period) The project has also collaborated with WildAid's Mobile Awareness Campaign in PAWS for the second year running. Extension on the zoning plans had been planned in both sanctuaries, but was suspended due to concerns about the legal status of the zoning plans- see discussion at Outcome 1, Indicator 6 above. However, community involvement in the zoning process has demonstrated attitudinal changes and commitment to conservation of the area.</p> <p><b>CCPF</b> Have continued to conduct awareness raising and legal extension programs linked to commune-based PLUP exercises. The PLUP links have made a big difference on</p>	<ul style="list-style-type: none"> <li>Dedicated efforts are being made to involve and educate local people on the wildlife and biodiversity values of the Cardamom.</li> <li>This has very strong impact and changes to the local peoples or Khmer Daeum and minority because of their view of the depletion of their resources from anarchic activities from outsiders and their dependency with limited funding.</li> <li>The efforts are modest given the extent of settlement within the Cardamoms</li> </ul> <p><b>Level of Achievement: <i>Marginally satisfactory</i></b>, given ongoing illegal activity</p>

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
	changing attitudes in favour of conservation.	
<b>Outcome 5:</b> Established a financing mechanism for the long-term management of the Cardamom Mountains, covering Phnom Samkos and Aural Wildlife Reserves, Central Cardamoms Protected Forest, and their associated buffer zones, with the potential for expansion to other priority protected areas in Cambodia.		
<b>1. Fee-based entry system for the Aural and Samkos sanctuaries established and operational</b>	<p><b>CMWS</b> The project continues to examine and promulgate a small number of “eco-tourism products”, as a basis for imposing an entry fee (eg recreation area in Thma Da, Phnom Aural walking trail.) Feasibility of entrance fees to be examined amongst other options in external consultancy in early 2007.</p> <p><b>CCPF</b> Given the very low local human resources capacity, the draft ecotourism report recommends a step by step approach to visitation with an initial focus on inviting low impact students and researchers</p>	<ul style="list-style-type: none"> <li>• Fee for climbing Mt Aral is under consideration; awaiting financing studies</li> <li>• The indicator may be premature given the state of tourism and the management systems</li> </ul> <p><b>Level of Achievement: <i>Unsatisfactory</i></b></p>
<b>2. Assessment of annual operating costs for the protected areas and financing options completed</b>	<p><b>CMWS</b> A final summary of detailed operating costs has been prepared as part of the financial plan, which forms part of the draft sanctuary management plans - see discussion above at Outcome 1, Indicator 5. The costs summary covers three scenarios: best case, medium and bare minimum.</p> <p><b>CCPF</b> CCPF has conducted annual operating and financial assessments. Past assessments suggest a per unit area cost of \$1 per hectare per year. This is much less than the regional standard (e.g., internationally supported Cat Tien and Pu Mat National Parks in Vietnam have received &gt;\$5 per hectare per year) and reflects in part the wilderness nature of the CCPF.</p>	<ul style="list-style-type: none"> <li>• Under further preparation and analysis</li> <li>• Operational cost scenarios are presented within the financial components of the sanctuary management plans. MoE budgets are not available and therefore contribution of the government is uncertain.</li> </ul> <p><b>CCPF – no further information</b></p> <p><b>Level of Achievement: <i>Very satisfactory</i></b></p>
<b>3. Financial mechanism instituted, and sufficient capital raised for commencement</b>	<p>A Call for Proposals in 2005 did not yield satisfactory results. After a re-tender in May 2006, consultants have been engaged to provide two principal services: 1) valuation of ecological services of the Sanctuaries, and 2) development of options for sustainable financing.</p> <p>In parallel with this, FFI raised funds from ADB to continue the erection of <i>working models</i> of sustainable financing (continue beyond UNF and GEF financing), i.e. models from the array of most feasible options proposed (from above).</p> <p>FFI/CI have identified a private Hong-Kong financial services firm, and has enjoined them with negotiations on the creation of the (CI-initiated) endowment fund for the Cardamoms Landscape (i.e. together with funds from the CI's Global Conservation Fund and French AFD).</p> <p>FFI and CI have both successfully raised monies for continuing activities post-CMWSP from a number of bilateral/multilateral donors and private organizations;</p>	<ul style="list-style-type: none"> <li>• Study currently underway</li> <li>• There is still a question/uncertainty for the commitment from various funding sources. No specific communication and commitment from funding sources, except the positive verbal communication with AFD.</li> <li>• <b>Prospects for raising funding appear to be good</b></li> </ul> <p><b>Level of Achievement: <i>To be determined</i></b></p>

Project Objective and Outcome Indicators	Terminal Report Statement of Completion to 31 December 2006 (CMWS and CCPF)	Final Evaluation Comments and Rating of Project Achievements
<p><b>4. Financial and performance agreement negotiated and signed with the government</b></p>	<p><b>CMWSP</b> FFI is registered in Cambodia with Ministry of Foreign Affairs, has a project MoU with MoE and is in the process of registering with CDC. FFI provides quarterly financial reports to MoE and MFA. All MoE project supported staff have contracts and terms of reference with agreed outputs. Negotiation of this agreement will follow the establishment of a financing mechanism, under Indicator 3 above.</p> <p><b>CCPF</b> CI signed a new MOU with MAFF in October 2006.</p>	<ul style="list-style-type: none"> <li>• Discussions on financial mechanisms and agreements regarding management arrangements may take some time to finalize.</li> <li>• Financial mechanism from the government is not defined yet, and no financial commitment from the government.</li> <li>• Assessment of the government capacity is not available.</li> </ul> <p><b>Level of Achievement: <i>To be determined</i></b></p>

## Annex 1: Project Logical Framework

Project Objective/Outcomes	Description of Indicator	Baseline Level	Target Level
Objective: To promote sustainable management and use of biological resources and environment sustainability	Indicator 1 Threats to populations of rare/endangered fauna and flora of the Cardamoms are reduced:		
Outcome 1: Improved planning, management and regulatory frameworks for the Central Cardamom Protected Forest, Phnom Samkos and Phnom Aural Wildlife Sanctuaries	Continuation of current baseline established by biological, land use, and socioeconomic assessments	Baseline data for presence of key species documented	Social economic and ecological information is analyzed and used for the development of management plan and land use planning. Land use changes and change of key stones species can be monitored
	Completion of regional stakeholder consultations and outreach activities as per work plans	Prior to start of the project there was no protected areas and no stakeholder consultations or outreach activities.	Implementation of outreach plan and regional consultations.
	National level management units within DNCP/MoE and DFW/MAFF established and operational	No units	Units operational At both central and field levels
	Monthly joint reporting by the project management units within DNCP/MoE and FA/MAFF on conservation conditions and trends institutionalized	No reporting	Regular reporting
	Draft management plans completed	No plans	Plans developed and agreed
Outcome 2: Improved the government's operational capacity to manage and protect the Central Cardamom Protected Forest, Phnom Samkos and Phnom Aural Wildlife Sanctuaries.	Field based protection units, ranger stations and substations established and operational in protected areas and buffer zones	No project rangers or infrastructure	Protection units and infrastructure adequate for protection of entire area (within limits of financial sustainability)
	Permanently manned protection posts established at main entry points to the PAs	No posts in place	Additional network of substations established
	Training and support center(s) established in the protected areas	No centres	One project center at Thma Bang (additional centers not required as MoE already has a center at Bokor NP)
Outcome 3: Engaged communities in the protection, management and sustainable	Networks of community based forest and wildlife crime monitors established and operational	No networks in place	Formal networks in place in key communities
	Formal agreements with local communities on	No agreements	Wildlife monitoring and conservation



	wildlife monitoring and conservation established			is included in local regulations agreed with at least 3 communes in each Sanctuary.
	Community incentive systems for detecting and reporting wildlife and forest crime in place	No system		Appropriate systems included in community regulations and agreements
	Code for conservation and good practice for land management with local communities established	No code		Detailed Regulations included in community natural resource management plans and agreements
	Sustainable use zones defined and sustainable use projects in place	No zones		Zones and associated regulations in place
Outcome 4: Secured international recognition and increase national and local awareness of the Cardamom Mountains, covering Phnom Samkos and Aural Wildlife Sanctuaries, Central Cardamoms Protected Forest.	Official nomination of Aural and Samkos and CCPPF as natural World Heritage sites	Proposed for national tentative List but failed to receive Government approval for the first attempt		Nomination in preparation or completed.
	Number of independent articles on the Cardamoms initiative written in international and national publications	Zero		Regular (monthly) local and some (quarterly) international coverage
	Demonstrated attitudinal changes in communities towards the sites and the threats facing them	Minimal awareness and appreciation of purpose, function and value of PA and biodiversity		CMWSP/CCPPF: Awareness programme complete and impact evaluated in terms of - Participation - Attitude change - Active involvement in PA management
Outcome 5: Established a financing mechanism for the long-term management of the Cardamom Mountains, covering Phnom Samkos and Aural Wildlife Reserves, Central Cardamoms Protected Forest, and their associated buffer zones, with the potential for expansion to other priority protected areas in Cambodia.	Fee-based entry system for the Aural and Samkos sanctuaries established and operational	No fee entry system		CMWSP: Options paper for fee based entry produced for MoE
	Assessment of annual operating costs for the protected areas and financing options completed	Figures not known		Detailed assessments of recurrent costs in place
	Financial mechanism instituted, and sufficient capital raised for commencement	No mechanism		Mechanism in place and funded
	Financial and performance agreement negotiated and signed with the government	No MOU in place		MOU signed.

## Annex 2: Project Evaluation Indicators

<i>Evaluation Components</i>		<i>Indicators</i>
<b>1</b>	<b>Project Design Assessment</b>	<b>Review of the project document in hindsight</b>
	Understanding and effectiveness of the project concept and design	<ul style="list-style-type: none"> <li>• Project management and staff assessment of the strengths and weaknesses in the Project Design</li> <li>• Government and community participants perceptions of the effectiveness of the overall project strategy</li> <li>• Assumptions in the ProDoc are still valid and no new critical assumptions have emerged.</li> <li>• Recognition of opportunities for replication and scaling-up of outputs as identified by project staff.</li> </ul>
<b>2</b>	<b>MTR Response Assessment</b>	<b>Follow-up implementation of MTR recommendations</b>
	<p><b>Governance</b></p> <p>1. Reconstitute, activate and provide ample logistical support to the Project Steering Committee.</p> <p>2. Provide sufficient logistical support to the Office and project-related staff of the National Project Director</p> <p>3. Elevation of CMPAC administration to higher bodies</p> <p>4. Improve RGC operational ownership of the project</p> <p>5. Undertake confidence-building measures among the RGC, its participating ministries, the NGO implementers of the project, and local authorities</p> <p>6. Support efforts to strengthen the legislative framework</p> <p><b>Project Design - Activities to be added</b></p> <p>7. An extended valuation of the CMPAC</p> <p>8. Conduct participatory identification and design of appropriate sustainable funding mechanisms for the CMPAC</p> <p>9. Conduct special studies to identify and design viable income-generating activities</p> <p><b>Existing Activities for Refocusing and Intensification</b></p> <p>10. Strengthening existing ministerial and operational collaboration among project partners</p>	<ul style="list-style-type: none"> <li>• Reasons for not establishing a Steering Committee</li> <li>• Changes in project management structure to improve coordination in lieu of Steering Committee</li> <li>• Type and scale of logistical support provided</li> <li>• Staff satisfaction with support</li> <li>• Occurrence of institutional changes for CMPAC administration</li> <li>• RGC extent of participation in project and level of priority in day to day operations and budgetary support</li> <li>• Activities undertaken in support of confidence building</li> <li>• Actions undertaken in response to threats to CMPAC</li> <li>• Participants views of success of such activities</li> <li>• Activities in support of proposed legislation</li> <li>• Economic studies completed</li> <li>• Workshops or meetings to develop funding mechanisms</li> <li>• Studies completed</li> <li>• Activities supporting conservation-friendly industries</li> <li>• Incentives established for industries in adjacent areas</li> <li>• Training programmes for present CMPAC settlers</li> <li>• Changes in institutional arrangements and administrative agreements for CMPAC</li> </ul>

<i>Evaluation Components</i>		<i>Indicators</i>
	<p>11. Institutionalizing a system of involvement of MoE and FA enforcement officers and of certain elements of all armed forces</p> <p>12. Intensify project efforts on the delivery of essential social services</p> <p>13. Increase project visibility at the national level</p>	<ul style="list-style-type: none"> <li>• Mechanisms established for enforcement officers involvement in the project</li> <li>• Increased level of social services in the project area</li> <li>• Activities undertaken to raise the profile of the project</li> </ul>
<b>3</b>	<b>Achievement of Project Purpose</b>	<b>Extent of achievement of the overall objectives</b>
	The long-term conservation of the Cardamom Mountains protected area complex (PSWS, PAWS, CCPF) and its associated buffer zones	<p><b>See Annex E (TORs) – Monitoring framework indicators:</b></p> <ul style="list-style-type: none"> <li>• Indicator 1: Threats are reduced</li> <li>• Indicator 2: No new settlement</li> <li>• Indicator 3: Illegal extraction is reduced</li> </ul>
<b>4</b>	<b>Project Implementation</b>	<b>Effectiveness, efficiency and responsiveness of project operations</b>
	<p><b>4.1 Management Structure</b></p> <p>4.1.1 Project Organization</p> <p>4.1.2 Roles and Responsibilities</p> <p>4.1.3 Stakeholder Relationships</p>	<ul style="list-style-type: none"> <li>• Consistency and clarity of overall project direction</li> <li>• Coordination and communication effectiveness between components, as perceived by key agencies</li> <li>• Duties of government counterparts and project coordinators are well defined and understood</li> <li>• Particular weaknesses in the capacity to deliver key functions that affect project results</li> <li>• Shared management objectives and strategies of project partners</li> <li>• Type and extent of joint activities by implementing agencies (MAFF/MOE) and ‘cooperating agencies’ (NGOs)</li> </ul>
	<p><b>4.2 Project Operations</b></p> <p>4.2.1 Risk Management</p> <p>4.2.2 Project Monitoring</p> <p>4.2.3 Project Reporting and Information Dissemination</p> <p>4.2.4 Logical Framework Usefulness</p> <p>4.2.5 UNDP Contribution</p>	<ul style="list-style-type: none"> <li>• Risk factors (ProDoc) encountered in project implementation</li> <li>• Measures undertaken to address specific risk factors</li> <li>• Baseline conditions reliably established in monitoring plans</li> <li>• Effective tracking of changes that are attributable to the project</li> <li>• Quality and timeliness of progress reports</li> <li>• Participants satisfaction with project communications</li> <li>• Relevance of the logical framework for project staff</li> <li>• Use of the framework in project operations</li> <li>• Participants’ assessment of quality of support provided by UNDP</li> <li>• Key factors affecting support functions by UNDP</li> </ul>
	<p><b>4.3 Financial Management</b></p> <p>4.3.1 Budgets and Disbursements</p>	<ul style="list-style-type: none"> <li>• Expenditures in relation to budget categories/activities</li> <li>• Efficiency of disbursement process as viewed by participants</li> </ul>

<i>Evaluation Components</i>		<i>Indicators</i>
	4.3.2 Financial Reporting and Auditing	<ul style="list-style-type: none"> <li>Quality and timeliness of financial reports</li> <li>Auditors observations/recommendations</li> </ul>
	4.3.3 Project Financing	<ul style="list-style-type: none"> <li>Financing model implementation effectiveness</li> <li>Prospects/opportunities for leveraging additional support</li> </ul>
<b>5</b>	<b>Project Results</b>	<b>Achievement of Outputs and their contributions to Outcomes</b>
	5.1 Improved planning, management and regulatory functions	See MTR Annex 6 - logical framework indicators
	5.2 Improved government operational capacity	See MTR Annex 6 - logical framework indicators
	5.3 Communities engaged in protection, conservation and sustainable use	See MTR Annex 6 - logical framework indicators
	5.4 International recognition and national and local awareness of CMPAC	See MTR Annex 6 - logical framework indicators
	5.5 Financing mechanism established for long term management	See MTR Annex 6 - logical framework indicators
<b>6</b>	<b>Sustainability of Project Results</b>	<b>Governance and capacity building to sustain the results</b>
	6.1 Government and donor commitment to CMPAC Conservation	<ul style="list-style-type: none"> <li>Scope and level of support for Cardamom conservation objectives and strategies within government</li> <li>Government/donor financial support for maintaining management and operational staff and infrastructure after the project</li> </ul>
	6.2 Institutional changes in community - based land and natural resource management	<ul style="list-style-type: none"> <li>Acceptance of community-based approach within government</li> <li>Enhanced partnerships between government, NGOs and communities</li> <li>Sanctuary management plans adopted and under implementation</li> <li>Commune development plans with conservation and community-based natural resource management</li> </ul>
	6.3 Community ownership of the project	<ul style="list-style-type: none"> <li>Number of Community Protected Areas established and functional</li> <li>Alternative livelihoods available and adopted by local residents</li> </ul>
	6.4 Human resources development	<ul style="list-style-type: none"> <li>Training and mentoring outputs (quantity and quality)</li> <li>Data from post training evaluations</li> <li>Use of new skills in job functions of targeted trainees</li> <li>Financial commitment to maintaining current level of forest rangers (approx. 95)</li> </ul>
	6.5 Logistical resources capacity development	<ul style="list-style-type: none"> <li>Improvements in physical capacity to implement conservation and livelihood objectives</li> <li>Financial commitment to maintaining budgets of sanctuary operations</li> </ul>
<b>7</b>	<b>CCPF Impacts</b>	<b>Status and post-project achievements of CI/FI activities</b>
	7.1 Post project activities	<ul style="list-style-type: none"> <li>Actions undertaken to implement recommendations from terminal assessment within MTR report</li> </ul>
	7.2 Post project Outcomes achieved	<ul style="list-style-type: none"> <li>CCPF Management Plan adopted and under implementation</li> </ul> <b>See Annex E (TORs) – Monitoring framework indicators as</b>

<i>Evaluation Components</i>		<i>Indicators</i>
		<b>applied to the larger Cardamom complex</b> <ul style="list-style-type: none"> <li>Indicator 1: Threats are reduced</li> <li>Indicator 2: No new settlement</li> <li>Indicator 3: Illegal extraction is reduced</li> </ul>
<b>8</b>	<b>Developmental Goals</b>	<b>Contributions of the project toward higher level goals</b>
	<ul style="list-style-type: none"> <li>- Cambodia MDGs</li> <li>- NSDP 2006-2010</li> <li>- UN Dev Assist. Framework 2006-10</li> <li>- GEF Biodiversity Objectives</li> <li>- UNF Objectives</li> </ul>	See Annex B and C of TORs, and other documents

### Annex 3: Project Outputs and Activities Completed to December 2006

Project Activities (Project Implementing Organization listed in parentheses) Rating: (1 = not yet or just started; 2 = underway; 3 = complete)

OUTPUT/ACTIVITIES		CURRENT STATUS OF ACHIEVEMENT	Rating
<b>Output 1: Improved planning management and regulatory framework</b>			
<b>Activity Area 1: Legal declaration of the CCPP (CI):</b>			
1. Draft and sign an MOU with the MAFF.	MoU available		3
2. Assist Government to issue a ministerial declaration delineating the boundaries of CCPP and outlawing commercial harvesting of timber and wildlife.	Prakas available		3
3. Assist Government to issue a sub-decree declaring the CCPP a permanently protected forest.	Sub-decree with CCPP boundaries available		3
<b>Activity Area 2: Management Plan Development for the CCPP (CI):</b>			
Conduct ongoing biological, land use, and socioeconomic assessments in conjunction with FFI	Jointly funded survey reports for Aural and O'Som available.		3
2. Based on these assessments, derive indicators of conservation conditions and trends	N/A		2
3. Carry out stakeholder consultations and outreach activities	SCW has carried out environmental education and awareness raising courses in selected communes. Extensive international media attention. Initiated PLUP in four communes (including FFI-supported PLUP in O'Som).		3
4. Establish functioning CCPP management unit within DFW.	Fully equipped and functioning DFW office established within CI office (at the request of DFW).		3
5. Preparation of monthly reporting on conservation conditions and trends	Monthly forest crimes reports submitted to DFW. In Khmer. Reports available		3
6. Draft CCPP management plan	Need to enhance conservation conditions reporting and trends rather than the crime report		2
7. Promote CCPP monitoring and enforcement model at the national level.	Draft available for more than 1 year without having any further action or endorsement.		3
<b>Activity Area 3: Create agreed operational plans for Aural and Samkos with supporting implementation structures at provincial, district and community levels (FFI)</b>			
1. Conduct ecological, socio economic and land use surveys	CI has funded WildAid to develop and implement a national ranger training program based in Bokor. Progress report available		
2. Establish a single inter-provincial land use, management and zoning plan for each sanctuary	Completions of surveys of socioeconomic of PAWS in 2003-04, and of PSWS in 2004-06, vegetation mapping and biodiversity surveys both PAWS and PSWS. Land use survey and zoning of both sanctuaries are completed		3
3. Mark boundaries and access points of wildlife sanctuaries	Technical zoning for both PAWS and PSWS are completed, and the inter-provincial management of the Sanctuary is established		3
4. Establish a single inter-provincial management committee for each wildlife sanctuary and multi stakeholder committees for sanctuary management at provincial level	Formal boundary approval is completed for both sanctuaries, but the physical boundary demarcation is not yet completed		2
	Established the committee for zoning and sub-committee for the conflict resolution on protected areas from each bordering province, but management unit of sanctuary established without multi-stakeholder participation on a committee.		2

5. Support development of community plans integrating conservation through Village Development Councils	Participatory Land Use planning underway in priority communes in Aural and Samkos with trained local staff. Participatory land use planning was applied in both sanctuaries, supported partly by partner (CEDAC) for the livelihood improvement with conservation integration.	3
<b>Activity Area 4: Enhance the legal and regulatory framework for protection, land use and land tenure of Aural and Samkos Wildlife Sanctuaries (FFI):</b>		
1. Secure legal endorsement of land use and zoning plans by district	Legal endorsement of the land and zoning plans by district are completed, but it needs somehow to refine and give feedback to community and local peoples.	3
2. Assist established communities in land tenure and resource access rights	This will be an outcome of the PLUP process. Land use and zoning plans are completed and pending for final approval because of PA law is not yet in place yet	2
3. Establish policy dialogue with Government for accelerated updating of land tenure, forest and wildlife laws.	Policy dialogue has focused on passage of Protected Areas Law. Not clear that there has been measurable progress on policy development.	2
4. Prevent further immigration into wildlife sanctuaries and inform relevant authorities of encroachment activities.	More difficult to control in PAWS, and situation of PSWS is more manageable. Some communications have occurred with the local authority and MoE.	2
5. Define regulations and punishments for encroachment violations.	Led by project legal adviser. The regulations and punishments for encroachment violations have been technically drafted and circulated within the project team.	3
6. Conduct Environmental Impact Assessments for road proposals	Project opposing all road proposals. MoE has assured CMWSP of involvement in ESIA for Development Proposal in PAWS. The comments and advice on the impacts of the road proposal have been communicated with MoE but no EIA.	1
<b>Activity Area 5: Establish management coordination channels between CCPF and Samkos and Aural Wildlife Sanctuaries (CI&amp;FFI):</b>		
1. Jointly review proposed protection and management activities and identify/design collaborative interventions.	Some communications have been occurred for management, law enforcement and information exchange. Not yet established the full working environment for such collaborative interventions	2
2. Hold regular coordination meetings between CI/DFW and FFI/MOE	CI and FFI communicate regularly but not DFW and MOE unless organized by NGOs No regular coordination meetings have been organized for coordination purposes for CI/FA and FFI/MOE	2
3. Identify joint training and patrolling opportunities.	Joint patrols in Aural led to the military backlash in March 2004. Some joint training and patrols have been undertaken.	3
4. Initiate joint briefings for senior RGC officials and donor agencies.	NGOs have held joint briefings of senior government officials not donors (largely due to the delay in the start of the FFI component) Some presentations have been made to the senior governmental official and donors during process for nomination of tentative list of World Heritage, and funds raisings.	3
5. Exchange project data on threats and response strategies.	Strategy and action for addressing the threats are not well communicated and exchanged.	2
<b>Output 2: Establish/Increase Government's Management Capacity</b>		
<b>Activity Area 1: Recruit, Train, and Equip DFW Staff to effectively protect the CCPF (CI):</b>		
1. Mark boundaries and access points for the CCPF	Access points well defined. The boundaries drawn by DFW to align with physical boundaries.	3



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2. Recruit, train, and equip staff for DFW protection HQ in Thma Bang District, and Logistic Support base in Koh Kong.	The support base moved to Thma Bang and Pursat to reduce the supply line.	3
3. Recruit, train, and equip staff for DFW protection groups in the CCPF.	Over 45 rangers trained.	3
4. Recruit, train, and equip staff for DFW protection groups in the buffer zone.	Over 45 rangers trained.	3
<b>Activity Area 2: Implement Cardamom Mountains Protection Plan (CI)</b>		
1. Upon MAFF declaration of the Central Cardamoms Forest as an area for further research, assist DFW to establish an interim protection group.	Done	3
2. Design and adapt procedures for testing and recruiting/assignment of Forestry and Wildlife Protection officers.	Done	3
3. Plan basic training course and assess training staff and support needs.	Done. See training curricula.	3
4. Lease and occupy base locations and procure equipment.	Done.	3
5. Establish training and support center in CCPF.	Done. Training center built at Thma Bang.	3
<b>Activity Area 3: Increase capacity for management and protection of Aural and Samkos Wildlife Sanctuaries (FFI):</b>		
1. Conduct training and ongoing updating programs management committees at provincial and district level in conservation and protected areas management	Management committees were be defined in 2005. Provincial sub-committee for the conflict resolution on the protected areas management not fully established.	2
2. Conduct training and development and ongoing updating programs for rangers, field staff and members of Department B, MOE	Ongoing training for staff defined through technical teams. Systematic TNA and programme still required. . Some trainings are provides to the rangers for patrolling, to member of zoning committee, and professional staffs for technical matters. Some reports have been submitted to the MoE, DNP, provincial DoE, and other partners	2 2
3. Facilitate cross visits to other projects	Learning visit to the Philippines.	3
4. Conduct community level training in sustainable use and conservation	Built into PLUP process. Special local guidelines in production for use by community teams Some trainings have been provided through the CEDAC supports and SCW	2 2
5. Define roles, responsibilities and powers of rangers	Ranger job descriptions and SOPs in final draft	2
<b>Activity Area 4: Improve infrastructure for management and protection of Aural and Samkos Wildlife Sanctuaries (FFI):</b>		
1. Establish and equip ranger stations and substations	Basic stations established in both sanctuaries. Designs and contract approved for upgraded station in Pramaoy. Done for both sanctuaries	3
2. Set up project and information centers at provincial MOE office	Established in Kg Speu and Pursat	3
3. Provide field equipment for rangers, monitoring and surveying	Basic equipment purchased and updated/upgraded each year.	3
<b>Activity Area 5: Assist Government to improve law enforcement capacity in Aural and Samkos Wildlife Sanctuaries (FFI):</b>		
1. Conduct a campaign against wildlife traders and outlets.	Wildlife trade study commissioned. Some campaigns against wildlife traders and outlets are provided from SCW and project.	2



2. Reduce possession of weapons, munitions and traps and enforce regulations for carrying of weapons	Ongoing through enforcement programme. Numbers of weapons, meditations and traps have been confiscated for both sanctuaries.	3 3
3. Close down illegal sawmills	Ongoing activities in both sanctuaries. More than 30 mills closed in PAWS. Illegal sawmills are completed close down.	3
4. Lobby for adjacent logging concessions to adhere to regulations and enforce protection )	Extent of lobbying to suspend adjacent logging concessions is not known.	2
4. Establish communication and cooperation with forest crime monitoring units	Some work with CI/FA CCPF ranger units	2
5. Control access routes in and through protected areas	Ongoing through patrols, working with local authorities and encouraging MoE intervention. Limited controls exist at Aural.	2
6. Prioritize species of conservation concern for protection and enforcement activities	Established through SHE strategy	3
7. Work with military authorities to relocate non-essential military units and stop illegal activities by military personnel	Concerted attempts to do this continue, but with limited success.	2
<b>Output 3: Community Engagement in Management, Protection and Sustainable Use:</b>		
<b>Activity Area 1: Influence Regional Planning Processes (CI):</b>		
1. Hold workshop to inventory current and proposed development projects in Southwest Cambodia	Information collected on roads, dams, etc. but not synthesized or disseminated.	2
2. Coordinate with development agencies and organizations on regional development plans	Support lobbying WildAid against large land concessions. The initiative for establishment of the review team for the regional development plan was consulted with relevant partners, but lack of attention and cooperation with the private sectors	2
3. Draft common conservation and development vision statement	This is enshrined in the WHS justification for the CCPF. The actual conservation and development vision for the sanctuaries is included in zoning and management plans but these remain to be fully adopted	2
<b>Activity Area 2: Provide a Support Package to CCPF Buffer Zone Communities (CI):</b>		
1. Recruit and organize community Monitors and Guides in CCPF and buffer zone.	Done but since redesigned.	3
2. Establish formal agreements with local communities on wildlife monitoring and conservation.	Done	3
3. Assess the opportunity for community-based forestry and wildlife conservation.	Done	3
4. Assess the economic feasibility and conservation benefits of ecotourism activities in the CCPF.	Ecotourism assessment completed.	3
5. Assess the viability and long-term implications of providing targeted health and education support.	Maternal and reproductive health projects started.	3
<b>Activity Area 3: Engage communities in Aural and Samkos in monitoring and enforcement activities (FFI):</b>		
1. Conduct community level training in sustainable use and conservation	Has commenced as follow-up to PLUP	2
2. Develop an incentive and reward system for monitoring and detecting wildlife and forest crime	With support of CEDAC, and NTFP and its market studies Ongoing. MoE has approved redistribution of fines	2
3. Prioritize recruitment of rangers from local communities	Done All rangers are from local communities.	3

<b>Activity Area 4: Engage communities in Aural and Samkos in sustainable resource use and alternative livelihoods (FFI):</b>			
1. Create and disseminate a code for conservation and good practice for land management with local communities		Guidelines in final draft stage.	2
2. Promote alternative and conservation compatible livelihoods and enterprises		With support of CEDAC, and other partners, and studies of NTFP markets	2
3. Define sustainable use/buffer zones		Done	3
4. Develop ecotourism where appropriate using local guides and support services		Some initiatives are in place with support and involvement of NGOs at the site such as SCW and LWF	2
5. Promote intensification of sustainable agriculture within suitable zones		Great works with direct support of CEDAC	3
6. Promote systems of sustainable NTFP usage and marketing		Ongoing, applying recommendations of the studies of NTFP and its market	3
7. Promote local savings groups and credit schemes		Great works in PSWS with support of CEDAC	3
<b>Activity Area 5: Promote activities that improve the health, safety and security of local people residing in Aural and Samkos (FFI):</b>			
1. Promote de-mining of agricultural land and disposal of mines and ordinance		Working with CMAC for De-mining in PSWS. Mines in PAWS in remote, non agricultural areas Done	3
2. Promote malaria control		LWF takes the lead in PAWS. Not yet started in PSWS. Mosquito net distribution planned for 2005. Supported by LWF and others	3
<b>Output 4: Secure international recognition and increase national and local awareness</b>			
Activity Area 1: Support World Heritage Listing Process for Phnom Aural and Phnom Samkos Wildlife Sanctuaries (FFI):		Much efforts were made for this process, including the plan of the visit of the senior governmental official of Cambodia visit China's World Heritage site.	3
1. Provide scientific data to support nomination of the Aural and Samkos as a World Heritage Site		Official justification prepared and submitted for tentative listing. Detailed appraisal produced in advance of nomination process.	3
2. Assist government in drafting and submission of nomination and supporting documents to the World Heritage Center		Project actively involved in organizing the national tentative listing process	3
<b>Activity Area 2: Support World Heritage Listing Process for the Central Cardamoms Protected Forest (CI):</b>			
1. Sign MOU with the MAFF committing them to including CCPPF on the National Tentative List		Justification submitted.	3
2. Provide scientific data to support nomination of the CCPPF as a World Heritage Site		Summarized in the justification.	3
3. Assist government in drafting and submission of nomination and supporting documents to the World Heritage Center		Justification submitted.	3
<b>Activity Area 3: Conduct international, national and local awareness raising activities (FFI, CI):</b>			
1. Carry out an international media campaign to promote global awareness of the CCPPF.		Done Numerous articles and programs in the international media.	3
2. Conduct a public media campaign designed to increase national awareness of the global importance of the Cardamoms.		Limited efforts to promote CCPPF nationally.	2
3. Develop a presentation package for use as the basis of meetings/workshops with national and local authorities and donors.		Numerous presentations given.	3
4. Provide training to protected area officers in community		Rangers have received training but not senior DFW staff (CI). All community staff have	3

engagement and facilitation techniques.	received PLUP facilitation training (FFI)	
5. Develop small teams of well-trained educators to travel to villages and explain wildlife protection laws and outline punishment for breaches.	Subcontracted to SCW by both CI and FFI.	2
6. Incorporate conservation into local school curricula.	Initial environmental education provided by SCW. Additional efforts linked to health project.	2
7. Train teachers and extension workers in environmental education methods and materials	Initial environmental education provided by SCW. Additional efforts linked to health project.	2
8. Conduct formal and informal environmental education programs for adults and children.	Initial environmental education provided by SCW. Additional efforts linked to health project.	2
<b>Output 5: Financing mechanism for long-term management support (CI, FFI):</b>		
<b>Activity Area 1: Design of financial mechanisms for the Cardamom Mountain Range</b>		
1. Develop entry fee systems for Aural and Samkos that support park management	The ecotourism development and fee collection have been discussed and agreed in principle by the MoF	1
2. Determine capital and operating costs of CCPF protection and management.	Detailed cost analysis complete.	3
3. Identify appropriate financing mechanism (e.g., trust fund, endowment, foundation) and determine potential scope and range of funds.	CI committed \$2.5M to a trust fund. Must be matched. Several potential donors cultivated.	3
<b>Activity Area 2: Institute Financial Mechanism</b>		
1. Identify field-level conservation performance indicators to guide investment strategy.	Biological inventories completed but not the development of reliable indicators.	2
2. Negotiate and sign agreement(s) with stakeholders on financial mechanism and performance indicators.	Pending completion of other activities.	1
3. Raise sufficient funds to initiate funding.	Some discussions and follow-up carried out	2

**ANNEX 4**  
**CARDAMOM MOUNTAIN PROTECTED FOREST AND WILDLIFE SANCTUARIES PROJECT**  
**APPOINTMENT LIST AND ITINERARY FOR FINAL EVALUATION TEAM**

**Wednesday, February 20**

Y. Narun, Project Officer, CEDAC, Phnom Penh

Keng Seng, National Project Facilitator, UNDP

**Thursday, February 22 - Project Design review workshop**

**Attending:**

No	Name	Position	Organization
1	Christopher Miller	Energy and Environment Analyst	UNDP
2	Lay Khim	Assistant Resident Representative, Environmental and Energy Team Leader	UNDP
3	Mark Treacy	Project Manager	FFI
4	Ben Hammond	Staff - FFI	FFI
5	Chuon Chanrithy	CMWSP-MIS Head and Director of Department of natural resources assessment	MoE
6	Alan Ferguson	Evaluation Consultant	RCL
7	Sok Vong	Evaluation Consultant	Individual
8	Seng Bunra	Deputy Country Director	CI
9	Keang Seng	CMWS Project facilitator	UNDP/MAFF
10	Kol Vathana	Co-manager	MoE

**Friday, February 23**

Christopher Miller, UNDP- Phnom Penh

Mark Treacy, FFI

Benn Hammond, FFI

Pum Vicheth, FFI

**Monday 26 February 2007 – Phnom Penh**

Time	Item	Attendees	Position	Location	Confirmed
9:00 to 10:30	Meeting with NPD	HE Uk Sokhonn, Mr Keang Seng	National Project Director, MAFF National Project Facilitator, UNDP/MAFF	MAFF offices	Done Done

14:00 to 17:00	Meeting with FA	Mr. Chheng Kim Sun Mr Men Phimean Mr Ouk Kim San	Deputy Director, Forestry Administration Chief of Wildlife Protection Office, Forestry Administration Central Cardamom Protected Forest Programme Manager, FA	FA offices	Done
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**Tuesday 27 February 2007 –Phnom Penh**

<b>Time</b>	<b>Item</b>	<b>Attendees</b>	<b>Position</b>	<b>Location</b>	<b>Confirmed</b>
9:00 to 10:00	Meeting with CI law enforcement officer	Mr Lapeng Ly	Logistic and finance field operation officer	At the small meeting room within UNDP	Done
14:00 to 16:00	Meeting with CI	Mr Jake Brunner Mr Seng Bunra	Senior Director, Conservation International Deputy Country Director, Conservation International	CI offices	
16:00 -	Travel to Pursat	N/A	N/A	N/A	N/A

**Wed 28 Feb 2007 - Pursat**

<b>Time</b>	<b>Item</b>	<b>Attendees</b>	<b>Position</b>	<b>Location</b>	<b>Confirmed</b>
09:00-10:00	Meeting with Pursat Deputy Provincial Governor	HE Chun Song	Deputy Provincial Governor, Pursat Province	Pursat Provincial Government offices	Done
10:30 to 12:00	Meeting	Mr David Bradfield	Phnom Samkos Wildlife Sanctuary Technical Adviser	Pursat Environmental Provincial Department	Done
14:00 to 15:15	Meeting	Mr Thay Chantha	Director, Provincial Department of Environment	Pursat Provincial Environmental Dept	Done
15:15 to 16:30	Meeting with Community Officer	Mr. Leang Heng Ms. Phary	FFI's project team for the community component	Pursat Provincial office	Done
16:50-17:50	Meeting with the UNDP/PSDD PRDC/ExCom	Mr. Sar Kosal Mr. Chea Rithy	Senior Provincial Program Advisor, UNDP/PSDD Partnership for Local Governance	Pursat Provincial Government offices	Done
16:30 -	Overnight in Pursat	N/A	N/A	N/A	

**Thu 1 March 2007 – Pursat – Phnom Samkos Wildlife Sanctuary – Pursat**

<b>Time</b>	<b>Item</b>	<b>Attendees</b>	<b>Position</b>	<b>Location</b>	<b>Confirmed</b>
6:30 to 9:30	Travel from Pursat town to Phnom Samkos Wildlife Sanctuary	Mr. Thay Chantha Mr. David Bradfield Mr. Leang Heng Ms. Phary	Director DoE Pursat Technical Advisor (FFI) Community & Environment (FFI) Community & Environment (FFI)	Pursat Pursat Pursat Pursat	Done
9:00 to 10:00	Meeting with Park Rangers	Protection Staff	All team leaders of patrol team were presented.	MoE Ranger HQ	Done
10:00-10:45	Meeting with CEDAC field team	Mr. Vin Sokhal Mr. Nem Neth	Farmer Community Facilitator Field Officer	CEDAC Veal Veng Office	Done
10:45-11:15	Meeting with SCW field team (9 persons)	Mr. Leng Huch Ms. .... Mr. Hor Long Mr. Sreng Chamroeun	Field Officer, Librarian Student evaluation group (4 pers)	SCW Veal Veng Office	Done
11:30 - 12:40	Meeting with community members	Local community members (12 persons)	N/A	CPA Krang Rongrieng	Done
12:40 - 13:30	Lunch at Samkos				
14:00 - 15:30	Meeting with District Governor	Mr. Oun Yornng,	Veal Veng District Governor	District Office	Done
15:30 to 18:30	Travel to Pursat	N/A	N/A	N/A	
18:30 -	Overnight in Pursat	N/A	N/A	N/A	

**Friday 2 March 2007 – Pursat – Phnom Samkos Wildlife Sanctuary – Pursat**

<b>Time</b>	<b>Item</b>	<b>Attendees</b>	<b>Position</b>	<b>Location</b>	<b>Confirmed</b>
7:30 to 9:00	Meeting with the Land management, urbanization and construction department	Mr Phay Seng Huot  Mr. Chay Sath Mr. Sar Kosal	Director of the Pursat Provincial Department Deputy director of the Pursat Provincial Department	Pursat Provincial Land Department	Done
10:00 - 12:00	Travel back to PP				

**Sunday 4 March -Phnom Penh**

<b>Time</b>	<b>Item</b>	<b>Attendees</b>	<b>Position</b>	<b>Location</b>	<b>Confirmed</b>
15:00-16:30	Meeting with the Kampong Chhnang Provincial Environmental Department	Mr. Pov Bunthan	Deputy Director of Kampong Chhnang Provincial Environmental Department, and also deputy director of Phnom Aural Wildlife Sanctuary.	At the small meeting room within UNDP	Done

**Monday 5 March -Phnom Penh**

<b>Time</b>	<b>Item</b>	<b>Attendees</b>	<b>Position</b>	<b>Location</b>	<b>Confirmed</b>
8.30-10.00	Meeting with CEDAC	Mr. Sim Samoeun	Project advisor	CEDAC Office	Done
2.00-3.30	Meeting with WCS	Mr. Joe Walston	Country Program Director	WCS Office	Done
10:00-11:30	Meeting with Head of MIS section	Mr. Chuon Chanrithy  Mr. Phyrum Mr. ....	Head of MIS section of the project, also the director of the department of data assessment  GIS officer Database officer	MIS Office	Done

**Tuesday 6 March -Phnom Penh**

<b>Time</b>	<b>Item</b>	<b>Attendees</b>	<b>Position</b>	<b>Location</b>	<b>Confirmed</b>
10.30-12.00	Meeting EC	Mr. Daniel Costa	First Secretary, EC	EC Office	Done
2.00-3.00	Meeting with Save Cambodia's Wildlife	Ms. Ursula Baron Mr. Lav Bunrithy Mr. Seang Sothea	SCW advisor Programme Officer Project Officer (in charge cardamom)	SCW Office	Done

**Wednesday 7 March – Phnom Penh – Kampong Speu- PAWS**

<b>Time</b>	<b>Item</b>	<b>Attendees</b>	<b>Position</b>	<b>Location</b>	<b>Confirmed</b>
6:30 – 07:50	Travel from Phnom Penh to Kampong Speu				

**Cardamom Mtns Project Final Evaluation, April 2007**

07:50 – 09:00	Meeting with UNDP/PSDD	Mr Chin Tephurum and his team (5 peoples)	Senior Provincial Programme Advisor, UNDP/ PSDD	Kampong Speu Provincial government offices	Confirmed
09:00-09:40	Meeting with Kg. Speu Land Department	Mr. Ouk Tith	Deputy Director of the Department of Land management, urbanization and construction, in charge of cadastre	Land Department office	Done
09:40 – 11:50	Travel to Phnom Aural Wildlife Sanctuary	N/A	N/A	N/A	
15:50 – 13:40	Lunch at Aural				
13:50 –14:30	Meeting with PAWS	Mr. Ou Sothy (012 928 801)	Deputy Director	PAWS Station	Done
14:30 – 15:30	Meeting with Rangers	Mr. Khorn Sokhonn Mr. Lach Rom Mr. Nhonh Nhean Mr. Nuon Chork Mr. Sun Seam	Chief of the Ranger Group	PAWS Station	Done
15:40 – 17:50	Meeting with District and commune authority	Mr. Chem Sarim (092 897 174) Mr. Hem Sophy Mr. Buth Sim Mr. Nhem Ran Mr. Duong Mout Mr. Heng Sophal Mr. Touch Mem	District Governor  Deputy District Governor Inspector Police district, District agricultural office chief Tasal commune head Sangke Satop commune head Traapaing Chor Commune head	Aural District Hall	Done
17:30	Overnight at Aural district				

**Thu 8 March –Kampong Speu – Phnom Aural Wildlife Sanctuary – Phnom Penh**

08:30 - 09:10	Meeting with LWS	Mr Seng Sintha (012 571 362) Mr. Nat Chantola	Project Manager, Community Empower Officer	LWF offices, Aural District	Done
09:10 - 09:30	Travel for Koh Dountei				
09:30 – 11:40	Meeting with Community	Mr. Eum Yun Mr. Phal Noeun Mr. Nay Chea Mr. Som Mr. Yeum Yeun	Community Committee, its members, and local people	Koh Dountei village	Done



		Mr. Young Chhom Mr. Thmat Thoeun Mr. Pel Kheoun Mr. Thang Lim Mr. Sous Ken Mr. Hen Sen			
11:30 - 13:40	Travel to Kg Speu				
13:40 - 14:15	Lunch at Kg Speu				
14:15 - 15:20	Meeting with DoE	Mr Sin Bunthoeun (016 869 489)	Director, Provincial Department of Environment	Kampong Speu Provincial government offices	Done

**Friday 9 March –Phnom Penh**

Time	Item	Attendees	Position	Location	Confirmed
9:00 – 11:00	Meeting with Kol Vathana	Kol Vathana	Project Co-manager, Ministry of Environment	MoE offices	Done

**Monday 12 March –Phnom Penh**

Time	Item	Attendees	Position	Location	Confirmed
11:00-12:00	Meeting with the manager of Samkos Wildlife Sanctuary	Mr. Than Kim Hong	Manager of Phnom Samkos Wildlife Sanctuary	At the small meeting room within UNDP	Done

**Tuesday 13 March –Phnom Penh**

Time	Item	Attendees	Position	Location	Confirmed
15:00-16:00	Meeting with the Manager of Aural Wildlife Sanctuary	Mr. Meas Nhim	Manager of Phnom Aural Wildlife Sanctuary	At the small meeting room within UNDP	Done

**Wednesday 14 March –Phnom Penh**

Time	Item	Attendees	Position	Location	Confirmed
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9:00-12:00		Presentation of findings/debriefing workshop	See below		UNDP offices	
No	Name	Position	Organization			
1	Soung Bun Thourm	Director	DOE Kg Cheung			
2	Meay Nhim	Director, PAWS	MoE			
3	Ou Sathy	Deputy Director	MoE			
4	Peou Bun Than	Deputy Director	DOE			
5	Thorn Kim Hong	Director, PAWS	MoE			
6	Ny Sanday	Ad	BV Pursat			
7	Chheng Kim Sun	Deputy Director	FA			
8	Chuong Chanrithy	CMWSP-MIS Head and Director of Department of natural resources assessment	MoE			
9	Keang Seng	CMWS Project facilitator	UNDP/MAFF			
10	Kol Vathana	Co-manager	MoE			
11	Mark Treacy	Project Manager	FFI			
11	Pum Vicheth	FFI Officer	FFI			
12	David Bradfield	FFI Officer	FFI			
13	Neang Thy	SHE - FFI	FFI			
14	Ben Hammond	FFI	FFI			
15	Jake Brunner	Director	CI			
16	Lay Khim	Assistant Res. Rep. Environmental and Energy Team Leader	UNDP			
17	Christopher Miller	Energy and Environment Analyst	UNDP			
18	Thuch Phalla	Staff WPO	FA			
19	Ok Kim Sau	Staff WPO	FA			
20	Chheany Dany	Deputy Director, WPO	FA			
21	Alan Ferguson	Evaluation Consultant	RCL			
22	Sok Vong	Evaluation Consultant	Individual			

Other Contacts:

- Mr. Mike Atherton, former Project Manager
- Ms Jenny Daltry, former Species, Habitats, Ecosystems Manager
- Mr. Joseph D'Cruz, UNDP Regional Technical Advisor, Biodiversity

## **Annex 5: Interview Guide**

### **Interview Guide - Project NGOs and Staff**

1. What have been the main issues or challenges in building capacity of the Government organizations involved in conservation of the sanctuaries?
2. What have been the main issues or challenges in mobilizing Community involvement in conservation?
3. Do you feel the overall Project Strategy remains relevant and effective? How would you change the Strategy to make it more effective?
4. To what extent do governance arrangements over the Sanctuaries and in the buffer areas need to be resolved before significant progress can be made on conservation objectives?
5. How effective has the Project organization or structure been in delivering the planned activities and outputs? What specific strengths or weaknesses in the Project organization that have been apparent to you?
6. What are the reasons for not establishing a Project Steering Committee as recommended in the Mid Term Review?
7. Have roles and responsibilities been clearly understood and effectively implemented?
8. Has the Logical Framework for the project been useful in guiding project decisions? Would you change it in any way to improve its effectiveness?
9. Have there been any particular difficulties in implementing the monitoring and reporting requirements?
10. Have there been any particular issues or constraints in financial management or developing co-financing arrangements?
11. Are you satisfied with the project results to date? Why or why not?
12. What can be done to improve sustainability of the project results after the project closes? Is there a proposed 'exit strategy'?

(Feb 21/07)

### **Interview Guide - Senior Government Officials**

1. In your view, what are the main priorities for improving the management of the Aural and Samkos wildlife sanctuaries?
2. What particular issues or challenges have affected the implementation of the project from the perspective of the RGC?
3. How can these issues or concerns be overcome in the future?
4. Are you satisfied with the project results to date? Why or why not?
5. What can be done to improve sustainability of the project results after the project closes?
6. Is the government likely to increase budgetary support to maintain conservation activities in Aural and Samkos wildlife sanctuaries after the project closes?

### **Interview Guide - MOE-DNCP and Operations Staff**

1. What particular issues or challenges have affected the implementation of the project from the perspective of the Ministry of Environment?
2. How can these issues or concerns be overcome in the future?
3. Has the project had an impact on illegal activities in the sanctuaries? How significant has this been?
4. What specific factors related to community cooperation and government enforcement actions have affected the ability to reduce illegal activities?
5. Has the training and capacity support from the project been effective? Why or why not?
6. To what extent do governance arrangements over the Sanctuaries and in the buffer areas need to be resolved before significant progress can be made on conservation objectives?
7. Can commune development plans effectively address conservation objectives?
8. What can be done to improve sustainability of the project results after the project closes?

### **Interview Guide - Forest Rangers**

1. How useful has the ranger training programme been? How could it be improved?

2. Has the project had an impact on illegal activities in the sanctuaries? How significant has this been?
3. Has the project been more successful in certain villages or communes? Where and why?
4. What specific community cooperation factors have affected your ability to reduce illegal activities?
5. What other constraints have affected your ability to do your job? (legal, logistical, etc.)
6. What can be done to improve sustainability of the project results after the project closes?

### **Interview Guide – Alternative Livelihood NGOs/Community Groups**

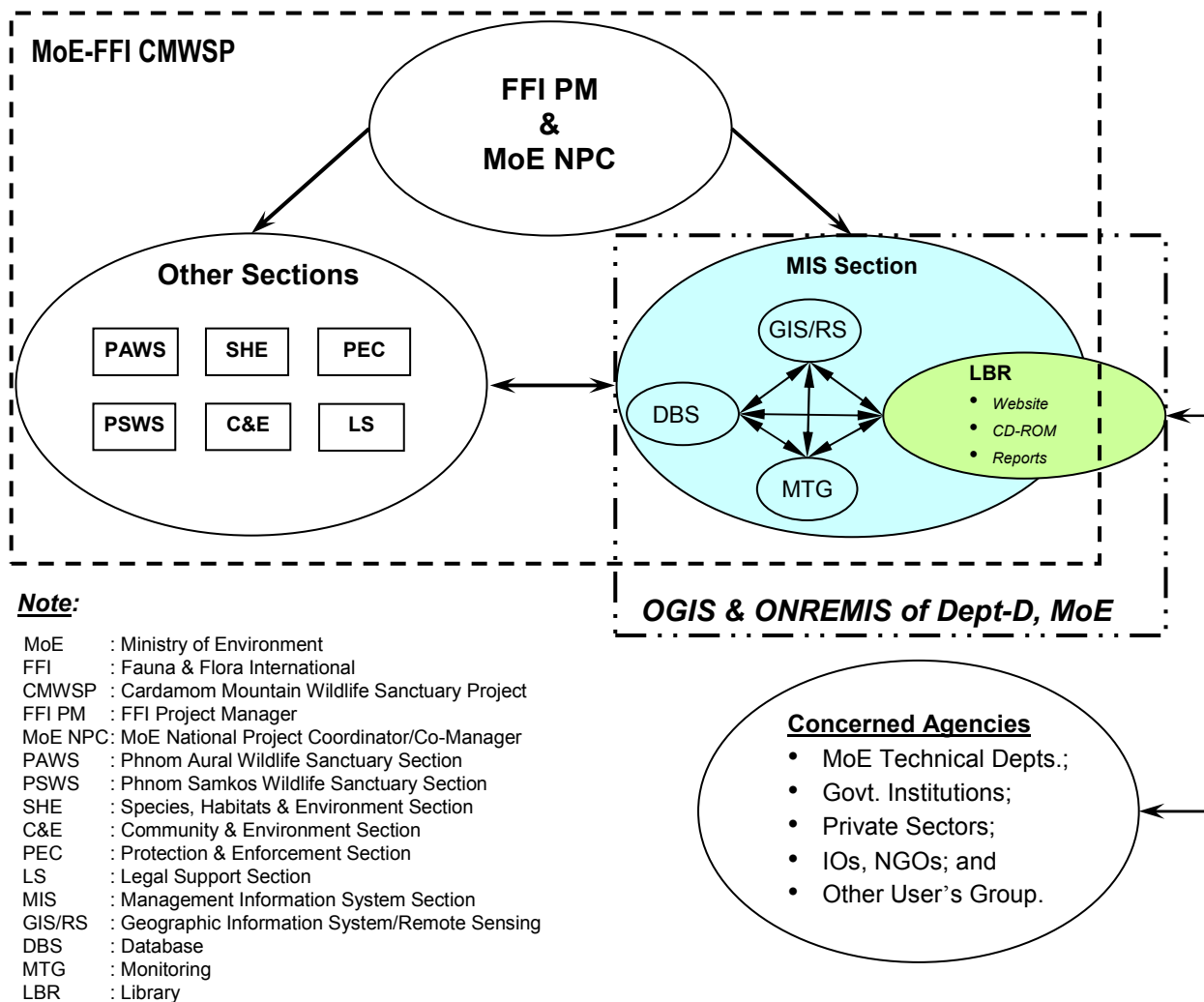
1. What results have been achieved to date in introducing alternative livelihoods?
2. Are there data or impressions on the extent of household dependence on wildlife hunting for food before and after your project activities?
3. Are there data or impressions on the extent of illegal forest harvesting for subsistence use before and after your project activities?
4. To what extent do commercial forest harvesting activities still exist in your area? What effect has the forest ranger programme had on commercial harvest of forests?
5. What evidence is there that the introduction of new livelihoods and agricultural activities has resulted in less hunting? Has any change in wildlife populations been observed?
6. What is the largest threat or concern affecting the protection of wildlife and the sanctuary?
7. What can be done to improve sustainability of the project results after the project closes?

## Annex 6: MIS Status

FOLDER/FILE NAME	OUTPUT/ACTIVITY
<b>1. CMWSP-MIS and GIS Spatial Dataset and Holdings</b>	Mondul vibasana, Phnom Prak, Newcosos, PAWS GPS Point, Rangers stations Samkos and Aural, Sourth_mining, CPAs in Aural and Samkos, PSWS GPS Point, Keopong, Dam in Aural & Samkos. Generally 1:100k map scale.
<b>Monthly Report</b>	
<p><b>a. 2004</b></p> <ul style="list-style-type: none"> <li>▪ CMWSP-MIS Monthly Report-Apr2004</li> <li>▪ CMWSP-MIS Monthly Report-May2004</li> <li>▪ CMWSP-MIS Monthly Report-Jun2004</li> <li>▪ CMWSP-MIS Monthly Report-Jul2004</li> <li>▪ CMWSP-MIS Monthly Report-Aug2004</li> <li>▪ CMWSP-MIS Monthly Report-Sep2004</li> <li>▪ CMWSP-MIS Monthly Report-Oct2004</li> <li>▪ CMWSP-MIS Monthly Report-Nov2004</li> <li>▪ CMWSP-MIS Monthly Report-Dec2004</li> </ul>	<ul style="list-style-type: none"> <li>- data/information collection, aggregation, update, mapping and dbase update (progress): No outputs</li> <li>- Prepare 3D for admin and vegetation, participate PLUP training, &amp; meeting with BPAM: No outputs</li> <li>- Reclassify the forest cover: No outputs</li> <li>- Assist in pre-workshop on zoning: plotting</li> <li>- Georeferencing for some aerial photos: no results</li> <li>- Collection of aerial photos, map preparation, georeference aerial photos: no results</li> <li>- Follow-up and prepare for a training of Dbase: no result</li> <li>- Attended training in SQL Server, Dbase Design, Webpage Design, Microsoft Access XP, Active Server Page, HTML, E-library,</li> <li>- Plotting, map layers composition, attended trainings/meetings: No results</li> </ul>
<p><b>b. 2005</b></p> <ul style="list-style-type: none"> <li>▪ CMWSP-MIS Monthly Report-Jan2005</li> <li>▪ CMWSP-MIS Monthly Report-Feb2005</li> <li>▪ CMWSP-MIS Monthly Report-Mar2005</li> <li>▪ CMWSP-MIS Monthly Report-Apr2005</li> <li>▪ CMWSP-MIS Monthly Report-May2005</li> <li>▪ CMWSP-MIS Monthly Report-Jun2005</li> <li>▪ CMWSP-MIS Monthly Report-Jul2005</li> <li>▪ CMWSP-MIS Monthly Report-Aug2005</li> <li>▪ CMWSP-MIS Monthly Report-Sept2005</li> <li>▪ CMWSP-MIS Monthly Report-Oct2005</li> <li>▪ CMWSP-MIS Monthly Report-Nov2005</li> <li>▪ CMWSP-MIS Monthly Report-Dec005</li> </ul>	<ul style="list-style-type: none"> <li>- boundary field check, and retreat of project staffs: No result</li> <li>- Nothing from the follow-up</li> <li>- Started the special training in Webpage Design for MIS team and staffs of the Department-D: no result</li> <li>- Follow-up web design: No results</li> <li>- Follow-up and meetings...: No results</li> <li>- Participated in land use process and printing maps: No results</li> <li>- Attended trainings, and approval boundaries</li> <li>- Plotting and attended trainings/meetings</li> <li>- Cambodia topographic map in Khmer version, 2002 at scale of 1:100K. Collected the hard copy</li> <li>- Follow-up: no results</li> <li>- Follow-up: no results.</li> <li>- Plotting and meetings: no result</li> </ul>
<p><b>c. 2006</b></p> <ul style="list-style-type: none"> <li>▪ CMWSP-MIS Monthly Report-Jan2006</li> <li>▪ CMWSP-MIS Monthly Report-Feb2006</li> <li>▪ CMWSP-MIS Monthly Report-Mar2006</li> <li>▪ CMWSP-MIS Monthly Report-Apr2006</li> </ul>	<ul style="list-style-type: none"> <li>- Core GIS spatial dataset of Cardamom Mount Range: don't see any result</li> <li>- Plotting topomaps: no results,</li> <li>- Meetings and discussion: No results</li> </ul>

	<ul style="list-style-type: none"> <li>CMWSP-MIS Monthly Report-May2006</li> <li>CMWSP-MIS Monthly Report-Jun2006</li> <li>CMWSP-MIS Monthly Report-Jul2006</li> <li>CMWSP-MIS Monthly Report-Aug2006</li> <li>CMWSP-MIS Monthly Report-Sept2006</li> <li>CMWSP-MIS Monthly Report-Oct2006</li> <li>CMWSP-MIS Monthly Report-Nov2006</li> <li>CMWSP-MIS Monthly Report-Dec2006</li> </ul>	<ul style="list-style-type: none"> <li>- Plotting, attending training GIS, and zoning,</li> <li>- Digitising of CPAs, plotting, : no</li> <li>- Plotting, meeting and discussion: No</li> <li>- Plotting, meeting, trainings: no</li> <li>- collection data, plotting, digitising: no</li> <li>- collection data, plotting, digitising: no</li> <li>- Plotting and digitising: No</li> <li>- Plotting, and GIS data catalogue: No</li> </ul>
	<p><b>d. 2007</b></p> <ul style="list-style-type: none"> <li>CMWSP-MIS Monthly Report-Jan2007</li> <li>CMWSP-MIS Monthly Report-Feb2007</li> </ul>	<ul style="list-style-type: none"> <li>- CPAs mapping, zoning, and GIS spatial database: No clear result</li> <li>- Looking for new satellite images</li> </ul>
<b>2. MIS Yearly</b>	<ul style="list-style-type: none"> <li>CMWSP_MIS_YearlyAchievedResult</li> <li>Data Availability-PA-PS</li> <li>MIS Prod_hold Data from Phirun 220405</li> <li>MIS_Mid05-Mid06</li> <li><i>MIS-PresntnAural-05-060106-01.ppt</i></li> <li><i>MIS-PresntnAural-05-060106-02.ppt</i></li> <li><i>MIS-PresntnSamkos-09-100106-01.ppt</i></li> <li><i>MIS-PresntnSamkos-09-100106-02.ppt</i></li> </ul>	<p>Capacity Building: the advanced training in GIS/RS, GPS &amp; MIST System; produce maps for zoning, Plotted: Aural 234, Samkos 427, Central Cardamom 4, Cambodia 13.</p> <ul style="list-style-type: none"> <li>- Same like the data holding above.</li> <li>- Same like the data holding above.</li> <li>- Same CMWSP_MIS_Yearly Achieved Result</li> </ul>
<b>3. PA_PS_L C (Land Cover/Veg etation)</b>	<ul style="list-style-type: none"> <li>Webb 2005 App A Flight-photos 18dec04</li> <li>Webb 2005 App A Plant Directory</li> </ul>	<p>15 Feb 2005 Flight: photos 335, and</p> <ul style="list-style-type: none"> <li>- Webb photos Jun, Nov, Dec 2004</li> </ul>
<b>4. Strategy _AP</b>	<ul style="list-style-type: none"> <li>CMWSP-MIS-Strategic Plan 2005-06</li> </ul>	<p><b>Planned to do:</b></p> <ul style="list-style-type: none"> <li>- Aiming for Geographic Information System and Remote Sensing, Database, and E-library,</li> <li>- Coordinate and support to other components and partners: No mechanism/progress</li> <li>- Capacity Building: yes</li> </ul> <p>Outputs should be: CDs, Reports, and Web site.</p>

## MoE-FFI CMWSP DATA/INFORMATION FLOW





## Annex 7: Contribution to Development Goals

### Cambodia Millenium Development Goals and National Strategic Development Plan 2006-2010

Goals	Status	Comment
People with consumption less than the national poverty line (%)	The project contributed by increasing the food security of the population living in sanctuaries through the livelihood intervention activities, right to access and use of natural resources through the CPA establishments and supports, and conservation incentive.	Some parts of the sanctuaries increase the food security from 4 month per year to some survive for 12 months a year or at least 10 months per year for individual households. The rice yield of production is also increased from 0.8ton /Ha/year to 2 tons/Ha/year with the support of SRI.
Forest cover (% of total areas)	The project aims to reduce forest cutting and land clearing.	No data provided from CMWS although forest cover analysis has been completed; studies from CI indicate an average annual rate of deforestation from 1989 to 2005 was approximately 0.2% in the protected forest.
Surface of 23 protected areas (million has)	The Phnom Aural Wildlife Sanctuary is 2,536 km <sup>2</sup> (PAWS) and the Phnom Samkos Wildlife Sanctuary (PSWS) is 3,338 km <sup>2</sup> .	This goal indicator also addressed indirectly via the zoning plan, community guideline/regulation and alternative livelihoods.
Surface of 6 new protected forest (million has)	Central Cardamoms Protected Forest (CCPF) is 4,020 km <sup>2</sup>	This goal indictor also addressed indirectly via the management plan, and conservation agreements.
Number of rangers in protected areas	There are 110 rangers for both sanctuaries and with management and infrastructure in place. The ranger force in CCPF is 15 forest officers + 39 military police + 24 local rangers = 78	This goal indicator is a key part of the project. Originally there was no ranger, management structure and infrastructure in place.
Goal 9: De-mining, UXO, Victim assist - contaminated areas cleared (%)	No data on de-mining activities, but this is a significant issue in the sanctuaries. Significant areas are de-mined, and destroyed of UXO with the support of CMAC group.	The Cardamom range was the last area for integration of the Khmer Rouge to the Royal Government of Cambodia. The mines and UXO were wisely spread across the cardamom range. Now there are still in process of mine clearing on some part of the sanctuaries and central cardamom protected forest.

### Contribution to GEF Strategic Targets in Biodiversity

Criterion	Answer	Comment
<i>Protected Areas Management</i>		
Have any new protected areas been established as a result of this project? (if any)	No	The pre-project activities by FFI and CI led to designation of the Central Cardamoms Protected Forest
Has the project resulted in any changes to the policy, legislative, or regulatory environment of protected areas?	No	Not yet, but it has produced zoning and management plans that are awaiting legislation
Has the project raised awareness or knowledge about protected areas in people beyond the project team?	Yes	Increased awareness in the local communities, Cambodian society and the international community
Has the project resulted in any changes in institutional arrangements and mandates concerning protected areas	Yes	The project has expanded the role of MoE and FA in biodiversity protection including enforcement of conservation laws
How many protected areas already have improved management capacity as a result of this project?	3	The two wildlife sanctuaries and the Central Cardamoms Protected Forest
Have any new financial mechanisms for protected areas (such as user fees, tourist taxes, payments for environmental services, etc) been created, or existing mechanisms strengthened as a result of this project?	No, not yet	These are actively under development by the project and should be in place later in 2007
Has the project improved relationships between protected areas and local communities?	Yes	This is a key project objective. The project has used Community Protected Areas (CPAs) and conservation agreements
Has the project worked with Indigenous communities?	Yes	
Does the project have a budget for activities related to dissemination?	Yes	Some funding for public and international awareness; documentary produced by FFI
<i>Spatial Mainstreaming:</i>		
Has the project resulted in any changes in the policy, legislative, or regulatory environment so that biodiversity is better addressed in the political and spatial planning for an area such as a whole country, province, district or community?	No, but proposed	Protected Area Law has been drafted with assistance of the project and is awaiting passage. Sanctuary and protected forest management and zoning plans were created.
Has the project resulted in any changes in institutional arrangements and mandates so that biodiversity is better addressed in the political and spatial planning for an area such as a whole country, province, district or	Yes	The project has established sanctuary management units within Dept of Nature Conservation and Parks of MoE.

Criterion	Answer	Comment
community?		
Has the project resulted in any changes in practices such that biodiversity is better addressed in the political and spatial planning for an area such as a whole country, province, district or community?	Yes	The project has prepared zoning plans which are intended to influence land use practices, and it has created environmental rules for Community Protected Areas
Does the project have a budget for activities related to dissemination?	Yes	The project draft plans are being disseminated.
<i>Sectoral Mainstreaming:</i>		
Has the project resulted in any changes in the policy, legislative, or regulatory environment so that biodiversity is better addressed in a particular government sector such as forestry, fisheries, mining, tourism, agriculture, etc.?	No	Proposed Protected Area Law is expected to assist biodiversity conservation within the sectoral activities in the sanctuaries and protected forest
Has the project resulted in any changes in institutional arrangements and mandates so that biodiversity is better addressed in a particular government sector such as forestry, fisheries, mining, tourism, agriculture, etc.?	Yes	The project has activated the PA Conflict Resolution Committees and created local Development Review Groups to review development projects
Has the project resulted in any changes in practices so that biodiversity is better addressed in a particular government sector such as forestry, fisheries, mining, tourism, agriculture, etc.?	Yes	The project has encouraged sustainable forest use, promoting NTFP-related livelihoods
Has the project taken any measures associated with adaptation to climate change?	No	
Does the project have a budget for activities related to dissemination?	Yes	The project has promoted biodiversity protection in public awareness campaigns
<i>Market Mainstreaming:</i>		
Has the project resulted in any market changes such that they encourage more biodiversity friendly (conservation or sustainable use) practice?	No	
Has the project improved the markets or profitability for any biodiversity or biodiversity based products?	No	
Has the project resulted in certification or certification systems for any products?	No	
Has the project increased the level of sustainable use of any species, races or groups of species or races?	Yes	The project has reduced the extent of overexploitation of wildlife
Has the project resulted in an improvement in the level of sustainable use of particular areas?	Yes	The project is assisted sustainable use of Community Protected Areas and areas under local conservation

Criterion	Answer	Comment
		agreement in particular
Has the projects increased the fair and equitable sharing of the benefits of BD?	No	
Has the project involved Indigenous communities?	Yes	
<i>Lessons learning, dissemination, uptake:</i>		
Has the project compiled any lessons or good practices?	No	
Does the project have any demonstrations of good practice in place?	No	
Have any of the lessons or demonstrations from the project been adopted elsewhere?	No	

### Contribution to UN Development Assistance Framework, 2006 – 2010

Relevant Priorities/ Strategies	Project Linkage	Contribution
<b>Good Governance and the Promotion and Protection of Human Rights</b> Increased participation of civil society and citizens in decision-making for the development, implementation and monitoring of public policies	Participatory Land Use Planning	Development of a new local model of public and government input into land use zoning within the wildlife sanctuaries
<b>Agriculture and Rural Poverty</b> (iv) forestry reform.	FA Central Cardamoms Protected Forest Unit	Development of FA experience and capacity in conservation related activities
2. Increased and equitable access to and utilization of land, natural resources, markets, and related services to enhance livelihoods,  Planned Output: Enhanced management capacity of government and empowerment of local communities in sustainable use of natural resources and in environmental protection	Capacity building of MoE staff and local communities	Training and mentoring of wildlife sanctuary management staff and DNCP staff in conservation activities, and development of sanctuary and protected forest management plans to guide conservation and sustainable use; and creation of Community Protected Areas.