

# INTERNATIONAL TROPICAL TIMBER ORGANIZATION

## ITTO

### PROJECT PROPOSAL

TITLE	SUSTAINABLE FOREST MANAGEMENT THROUGH REDD+ MECHANISMS IN KAMPONG THOM PROVINCE
SERIAL NUMBER	PD 740/14 Rev.2 (F)
COMMITTEE	REFORESTATION AND FOREST MANAGEMENT
SUBMITTED BY	GOVERNMENT OF CAMBODIA
ORIGINAL LANGUAGE	ENGLISH

#### SUMMARY

Reducing Emissions from Deforestation and Forest Degradation (REDD+) has great potential for reducing emissions and achieving sustainable development, but it is a relatively new concept in Cambodia. The Forestry Administration (FA) in the Ministry of Agriculture, Forestry and Fisheries (MAFF) is the lead government agency responsible for the management of state-owned forests and, increasingly, it is assigning forest management responsibilities to local communities with the capability to receive approval to manage Community Forests (CF). The Forestry Administration plans to expand the outreach of its REDD+ program to the management of both state-owned forests and Community Forests.

REDD+ project development activities in Cambodia were initiated in 2008 and these initiatives continue to inform, as well as influence, the development of the national framework for sustainable forestry. The collective experiences of these REDD+ initiatives at the project level underscore the importance of standardizing the procedures to meet the technical specifications associated with carbon standards to ensure that current and future REDD+ projects are developed and implemented in an efficient and effective manner. Cambodia is also in the early stages of developing a jurisdictional REDD+ program consistent with the development of current REDD pilot projects and it will be imperative to determine the manner in which that jurisdictional program will be established to accommodate each of those projects. Standardizing the procedures and developing a jurisdictional REDD+ program will present significant challenges.

The Forestry Administration seeks the support of the International Tropical Timber Organization (ITTO) to implement a project that will respond to these challenges to advance the REDD+ program in Cambodia by building on the experiences of these REDD+ activities to standardize the procedures to meet, in an efficient and effective manner, the technical specifications of REDD+ jurisdictional standards capable of reducing the drivers of deforestation and forest degradation in the Tomring Forest in Kampong Thom province.

EXECUTING AGENCY FORESTRY ADMINISTRATION, MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES, CAMBODIA

DURATION 36 MONTHS

APPROXIMATE STARTING DATE TO BE DETERMINED

BUDGET AND PROPOSED SOURCES OF FINANCE	Source	Contribution in US\$	Local Currency Equivalent
	<b>ITTO</b>	<b>484,792</b>	
	Gov't of Cambodia	76,230	
	<b>TOTAL</b>	<b>561,022</b>	

## ABBREVIATIONS AND ACRONYMS

ALOS	Advanced Land Observation Satellite
A/R CDM	Afforestation/Reforestation Clean Development Mechanism
CCB	Climate, Community and Biodiversity Standards
CCBA	Climate, Community and Biodiversity Alliance
CF	Community Forests
CLUP	Community Land Use Planning
COP	Conference of Parties
DFMCF	Department of Forest Management and Community Forestry
DWB	Department of Wildlife and Biodiversity
ESIA	Environmental and Social Impact Assessment
FA	Forestry Administration
FAKT	Forestry Administration Cantonment in Kampong Thom
GDP	Gross Domestic Product
IFWRD	Institute for Forest and Wildlife Research and Development
IPCC	Inter-governmental Panel on Climate Change
ITTA	International Tropical Timber Agreement
ITTO	International Tropical Timber Organization
JNR	Jurisdictional and Nested REDD+
LEAF	Lowering Emissions in Asian Forests
	Ministry of Agriculture, Forestry and Fisheries
MRV	Monitoring, Reporting and Verification
NFP	National Forest Programme
NTFP	Non Timber Forest Products
PSC	Project Steering Committee
PTC	Project Technical Committee
RAPIDEYE	German Geospatial Information Provider renamed Black Bridge
REDD+	Reducing Emissions from Deforestation and Forest Degradation
REDDES	Reducing Emissions from Deforestation and Forest Degradation and Enhancing Environmental Services in Tropical Forests
REL	Reference Emissions Level
SPOT	Satellite Pour Observation de la Terre (Satellite for the Observation of Earth)
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
VCS	Voluntary Carbon Standards
VCU	Voluntary Carbon Unit

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## **PROJECT SUMMARY**

REDD+ has great potential for reducing carbon emissions while contributing to sustainable development, but the concept is still a relatively recent consideration in Cambodia. The collective experiences of on-going REDD+ initiatives at the project level underscore the importance of standardizing the procedures to meet the technical specifications associated with carbon standards and deliver payments for environmental services through the voluntary market in these, as well as other planned REDD+, projects in an efficient and effective manner. Cambodia is also in the early stages of developing a jurisdictional REDD+ program in an environment with these pre-existing REDD projects and it will be imperative to determine the manner in which that jurisdictional program will be developed to accommodate each of those projects.

The proposed project plans to advance the REDD+ program in Cambodia by building on the experiences of those on-going REDD+ activities to standardize the procedures to meet, in an efficient and effective manner, the technical specifications of REDD+ jurisdictional standards to reduce the drivers of deforestation and forest degradation in the Tomring Forest in Kampong Thom province; provide appropriate incentives to reduce dependence on the unsustainable use of forest resources to local communities, especially those participating in community forestry management activities in the Tomring Forest; and provide REDD+ implementation training to strengthen the capacity of government officials and community members who are expected to assume increasingly important roles in efforts to reduce the drivers of deforestation and forest degradation. The project site in the Tomring Forest is expected to be considered for validation and verification under the Climate, Community, and Biodiversity Alliance (CCBA) and Verified Carbon Standards (VCS) using the innovative jurisdictional and nested REDD+ (JNR) approach.

The Development Objective of the project is ‘To contribute to the sustainable management of forest resources in Kampong Thom province through the reduction of deforestation and forest degradation.’ Its Specific Objective is ‘To establish the institutionalization of REDD+ activities to reduce deforestation and forest degradation in the Tomring Forest in Kampong Thom province.’

The project will address the Key Problem of the ‘limited institutional capacity for promoting REDD+ activities to support sustainable forest management in Kampong Thom province.’ It will have three Outputs, each of which has been developed to address one of the three primary causes of that Key Problem. Output 1, ‘Stakeholder understanding and knowledge of REDD+ improved’ will increase the technical understanding of REDD+ implementation requirements, especially social and environmental safeguards, as well as principles of sustainable forest management and REDD+ principles and practices. Output 2, ‘Research program on REDD+ in the Tomring Forest in Kampong Thom province developed and implemented’ will result in the standardization of procedures to meet voluntary carbon standards and the development of provisional jurisdictional REDD+ guidelines and procedures at the provincial level for review and possible adoption by the national program. Output 3, ‘REDD+ guidelines and training programs strengthened for effective design and implementation of REDD+ activities’ will result in the development and refinement of technical guidelines on REDD+ programs, especially Social and Environmental Guidelines, and the organization of training courses for government officials and Community Forestry members incorporating various elements of those guidelines, as well as other principles associated with the design and implementation of REDD+ programs and activities and sustainable forest and land use management.

Outcomes at the close of the project will include the following: (1) awareness of carbon emissions and mitigation and adaptation measures will have been enhanced; (2) control of the drivers of deforestation and forest degradation in Kampong Thom province will have been strengthened; and (3) institutional capabilities to implement REDD+ initiatives will have been increased.

## PART I: CONTEXT

### 1.1 Origin

REDD+ has great potential for reducing carbon emissions while contributing to sustainable development, but the concept is still a relatively recent consideration in Cambodia. The Forestry Administration in the Ministry of Agriculture, Forestry and Fisheries is the lead government agency accountable for the management of state-owned forests and, increasingly, it is assigning forest management responsibilities to local communities with the capability to receive legal approval to manage Community Forests. The Forestry Administration plans to expand the outreach of its REDD+ program to the management of both state-owned forests and Community Forests.

REDD+ project development activities in Cambodia were initiated in 2008 and these initiatives continue to inform and influence the development of the national framework. Until recently, there were five active REDD+ projects in Cambodia at various stages of development. These include the Oddar Meanchey Community Forestry REDD+ project; the Seima Protection Forest REDD+ project; the Prey Lang REDD+ project; the Kulen Promtep REDD+ project; and the Southern Cardamom REDD+ project. Substantial information on those projects in Oddar Meanchey, Seima, and Prey Lang is accessible online.

The Oddar Meanchey Community Forestry REDD Project was the first REDD+ project in Cambodia, as well as the first that received dual-Gold validation from the Climate, Community and Biodiversity Alliance (CCBA) and Verified Carbon Standard. Under a “bundled approach,” thirteen Community Forestry groups agreed to protect 64,318 hectares of forests in their communities, accounting for about 31% of total forest cover in Oddar Meanchey province. The aim of the project is to reduce deforestation and degradation in the project area and its leakage belt through a range of project activities designed to reduce or eliminate the drivers of deforestation and forest degradation, including forest protection, fire prevention, reinforcing land tenure, distribution of fuel efficient stoves, and agricultural intensification. There have been offers to purchase carbon credits generated through the project in the voluntary market, but uncertainties regarding the establishment of an appropriate administrative mechanism for equitably distributing revenues from those credits have heretofore deterred the signing of a contract.

The experience in Oddar Meanchey reveals some of the matters associated with the implementation of REDD+ activities at the project level that require further consideration. Those include:

- Increased attention to the participation and engagement of women and other vulnerable groups;
- Basic education and awareness-raising on climate change and the REDD+ concept prior to consultations;
- Clarity on benefit sharing, revenue flows and increased support for skills and transparent systems to properly manage finances;
- Support for community forest governance during project preparation;
- Expansion of community forestry as a foundation for REDD+; and
- Enhancing long-term tenure security and ensuring carbon rights.

The Seima Protected Forest REDD+ project was initiated in July 2008 by the Forestry Administration in collaboration with the Wildlife Conservation Society. This REDD+ initiative aims to support protection of old growth forest within a core area of 180,515

hectares located in the Seima Protected Forest in the eastern province of Mondulkiri. The area is renowned for an abundance of globally important species such as the endangered douc langur (*Pygathrix spp.*) and the banteng (*Bos javanicus*). The project area is also home to a population of approximately 10,000 Bunong indigenous people living in 20 villages who rely on forest resources and practice traditional swidden agriculture to support their daily subsistence. The project was designed in consultation with stakeholders to provide assistance to local communities to secure communal land tenure and has received their prior consent for project development and implementation. The project's initial activities have demonstrated that improved tenure could become a central outcome of REDD+ in some settings and that tenure itself may serve as a more dependable type of community benefit than direct financial payments. The development of the project is at an advanced stage and its Project Design Document is currently under assessment by the Climate, Community and Biodiversity (CCB) standards and VCS for obtaining validation and verification. In common with other REDD+ projects in the country at the project level, this project has encountered intermittent delays in obtaining validation and verification, which has led to some delays in distributing benefits to local communities and other stakeholders. These delays have led to various degrees of disappointment and fatigue with the REDD+ process in the country.

The Prey Lang REDD+ project is potentially the largest REDD+ project in Cambodia, covering a forest area of approximately 400,000 hectares and spanning four provinces: Kompong Thom, Kratie, Stung Treng, and Preah Vihear. The project is still in its early stage of development, however, as the Project Document is currently under preparation and initial interactions with stakeholders have been limited. The Forestry Administration is collaborating with Conservation International to develop a strategy to reduce deforestation and forest degradation in the area through awareness raising, strengthening of law enforcement, incentive schemes, and pursuit of official protection status.

The collective experiences of these REDD+ initiatives at the project level underscore the importance of standardizing the procedures to meet the technical specifications associated with carbon standards and deliver payments for environmental services through the voluntary market in these, as well as other planned REDD+, projects in an efficient and effective manner. Cambodia is also in the early stages of developing a jurisdictional REDD+ program in an environment with these pre-existing REDD projects and it will be imperative to determine the manner in which that jurisdictional program will be developed to accommodate each of those projects.

The proposed project will respond to these challenges to advance the REDD+ program in Cambodia by building on the experiences of these REDD+ activities to standardize the procedures to meet, in an efficient and effective manner, the technical specifications of REDD+ jurisdictional standards to reduce the drivers of deforestation and forest degradation in the Tomring Forest in Kampong Thom province.

## **1.2 Relevance**

In Cambodia, deforestation and forest degradation seriously affect local livelihoods, biodiversity conservation and forest ecosystem functions and, especially, the rural poor. In order to improve the situation, the National Forestry Program of Cambodia has mandated that forest resources should contribute to equitable macro-economic growth and poverty alleviation, particularly in rural areas through conservation and sustainable forest management with active participation among stakeholders.



The proposed project contributes to the achievement of this overall objective. Specifically, the project is highly responsive to forest management, forest restoration, the rehabilitation of degraded and secondary forests and the strengthening of technical capacity in the forestry sector. Moreover, the project will provide a standardization of the procedures to meet the technical specification of voluntary carbon standards that will contribute to the long-term protection and management of forests for multiple benefits using a REDD+ approach.

The proposed project responds to recommendations by the ITTO, World Bank, United Nations REDD Programme (UN-REDD) and ADB to build capacity at all levels to fully implement REDD+.

#### 1.2.1 Conformity with ITTO Objectives and Priorities

The project complies with the International Tropical Timber Agreement (ITTA) 2006 by meeting the following objectives of its Article I:

- (c) Contributing to sustainable development and to poverty alleviation because the project will support interventions to improve the livelihoods and increase the incomes of community forestry families living in and around the Tomring Forest in Kampong Thom province.
- (g) Developing and contributing towards mechanisms for the provision of new and additional financial resources with a view to promoting the adequacy and predictability of funding and expertise needed to enhance the capacity of producer members to attain the objectives of this Agreement because the project will develop a sustainable financing strategy to generate ongoing revenues following the end of the project that will emphasize the formalization of payments for carbon credits in the voluntary market and the equitable sharing of those payments.
- (j) Encouraging members to support and develop tropical timber reforestation, as well as rehabilitation and restoration of degraded forest land, with due regard for the interests of local communities dependent on forest resources because the project will support the replanting and enhancing of degraded forest areas in the Tomring Forest in Kompong Thom province as a means of introducing activities that will reduce carbon emissions and conserve forests.
- (n) Strengthening the capacity of members to improve forest law enforcement and governance and address illegal logging and related trade in tropical timber because the project will strengthen the capacity of Forestry Administration Cantonment officers and Community Forestry Management Committees participating in the project to patrol, capture and legally process those involved in illegal land-use practices, including illegal logging and the illegal conversion of forestland, in the Tomring Forest.
- (q) Promoting better understanding of the contribution of non-timber forest products and environmental services to the sustainable management of tropical forests with the aim of enhancing the capacity of members to develop strategies to strengthen such contributions in the context of sustainable forest management, and cooperating with relevant institutions and processes to this end because the project will introduce activities to enhance community livelihood opportunities by improving market access for non-timber forest products (NTFPs) and linking communities' understanding of the relationships with the expansion of those markets with the necessity to ensure the

supplies of NTFPs through sustainable management practices in the Tomring Forest.

- (r) Encouraging members to recognize the role of forest-dependent indigenous and local communities in achieving sustainable forest management and develop strategies to enhance the capacity of these communities to sustainably manage tropical timber producing forests because the project will support various activities associated with livelihood development to ensure that the reliance on forest resources of communities living in and around the Tomring Forest becomes sustainable and contributes to improved forest conservation.
- (s) Identifying and addressing relevant new and emerging issues because the project will incorporate jurisdictional REDD+ guidelines developed through project activities in Kampong Thom province into the development of the framework of the recently established REDD+ national program in Cambodia.

The proposed project is also relevant to Strategic Priority 4 to ‘Reduce Tropical Deforestation and Forest Degradation and Enhance the Provision of Environmental Services’ in “ITTO Strategic Action Plan 2013-2018.” It will determine actions to reduce drivers of deforestation and forest degradation and provide an effective platform for strengthening capacities in sustainable forest management and climate change mitigation and adaptation, particularly in the development of capacities for monitoring, reporting and verification of REDD+ through training of Forestry Administration staff and local communities. The project will also be consistent with expected outcomes of Strategic Priority 4, especially with regard to the implementation of mechanisms represented by REDD+ for payment of environmental services in support of sustainable forest management; increases in the area of forests under sustainable forest management; and enhancements of incomes derived from the delivery of forest-related environmental services and other forest outputs.

The proposed project will also support achievement of several of the expected outcomes associated with Strategic Priority 6 of the “ITTO Strategic Action Plan 2013-2018” to ‘Build and Develop Human Resource Capacity to Implement Sustainable Forest Management and Increase Trade in Forest Goods and Services from Sustainably Managed Forests.’ Those include support to members to conduct research activities, in regard to this project associated with the current lack of research on REDD+ in the Tomring Forest in Kampong Thom province; expand sustainable forest management practices; and promote the participation of local communities in sustainable forest management activities.

The proposed project is fully consistent with the principles of the ITTO program on Reducing Emissions from Deforestation and Forest Degradation and Enhancing Environmental Services (REDD+ES) in tropical forests by reducing carbon emissions from deforestation and forest degradation, improving ecosystem functions, conserving biodiversity, and strengthening the capacity of Forestry Administration staff. In particular, the project will

1. reduce forest degradation;
2. maintain and enhance climate change mitigation and other environmental services of tropical forests;
3. contribute to the social and economic sustainability and well-being of forest-dependent communities by increasing forest values through forest restoration and rehabilitation, as well as payments for forest-based environmental services; and
4. enhance adaptation and resilience of tropical forests to negative effects of climate change and human-induced impacts.

### **1.2.2 Relevance to Country Policies**

Cambodia ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1995 and acceded to the Kyoto Protocol in 2002. It submitted its Initial National Communication to the Conference of Parties (COP) 8 in 2002, followed by the 1994 National Greenhouse Gas Inventory that was finalized in 2001.

Cambodia actively supported the introduction of the REDD+ scheme and officially became a member of UN-REDD in 2010. The country has committed to adopting methodologies and measures under the REDD+ scheme in order to achieve its multiple objectives of forest management, biodiversity conservation, improving forest ecosystem functions, and maximizing co-benefits to local communities.

Cambodia has organized a roadmap to implement REDD+ concepts. The proposed project conforms to the roadmap and is a key step in implementing REDD+ approaches in Cambodia.

The National Strategic Development Plan (2006-2010) and Rectangular Strategy for Growth, Employment, Equity and Efficiency, Phase II, of the Royal Government of Cambodia clearly recognize the increasingly important roles of managing forests for sustainable development in Cambodia. Considering the large number of forest-dependent rural communities in the country, improving forest management, governance, and enforcing forestry regulations will address poverty, biodiversity degradation, and carbon emissions. This will eventually provide new incentives for managing forests for full ecosystem services, such as water regulation, improving agricultural lands, watershed protection, ecotourism, and climate change mitigation.

In Cambodia, 12 National Protected Forests covering 1.6 million hectares of natural forests have been established. These have management objectives of biodiversity conservation, watershed protection, climate change regulation, improvement of ecosystem functions, and sustainable uses by forest-dependent communities.

Cambodia's National Forest Program prioritizes six programs:

1. Forest Demarcation and Registration;
2. Forest Resource Management and Conservation;
3. Forest Law Enforcement and Governance;
4. Community Forestry;
5. Capacity and Research Development; and
6. Forest Financing and Climate Change.

The proposed project conforms to programs 2, 3, 4, 5, and 6.

Cambodia's National Forestry Program has established these nine strategic objectives:

1. maximize sustainable forest contribution to poverty alleviation, enhanced livelihoods and equitable economic growth;
2. adapt to climate change and mitigate its effects on forest-based livelihoods;
3. establish macro land-use planning that allows for holistic planning across sectors, jurisdictions and local government borders;
4. ensure forest governance, law and enforcement at all levels;
5. develop a conflict management system;
6. raise awareness, capacity of institutions and quality of education to enable sustainable implementation of the National Forest Program;
7. ensure environmental protection and conservation of forest resources;
8. apply modern sustainable management models adaptive to changing context; and

9. develop sustainable financing systems for sustainable forest management.

The proposed project conforms to objectives 1, 2, 4, 7, 8, and 9.

### 1.3 Target Area

#### 1.3.1. Geographic Location

A map of Cambodia and the Greater Mekong Region is provided in Figure 1. Figure 2 displays the locations of the forest area, including state-owned and Community Forests, as well as types of forests, in the area. The total land area in the study site is 106,750 hectares. The forests are evergreen, semi-evergreen, and deciduous dipterocarp forests.



Figure 1. Map of Cambodia and the Greater Mekong Region.

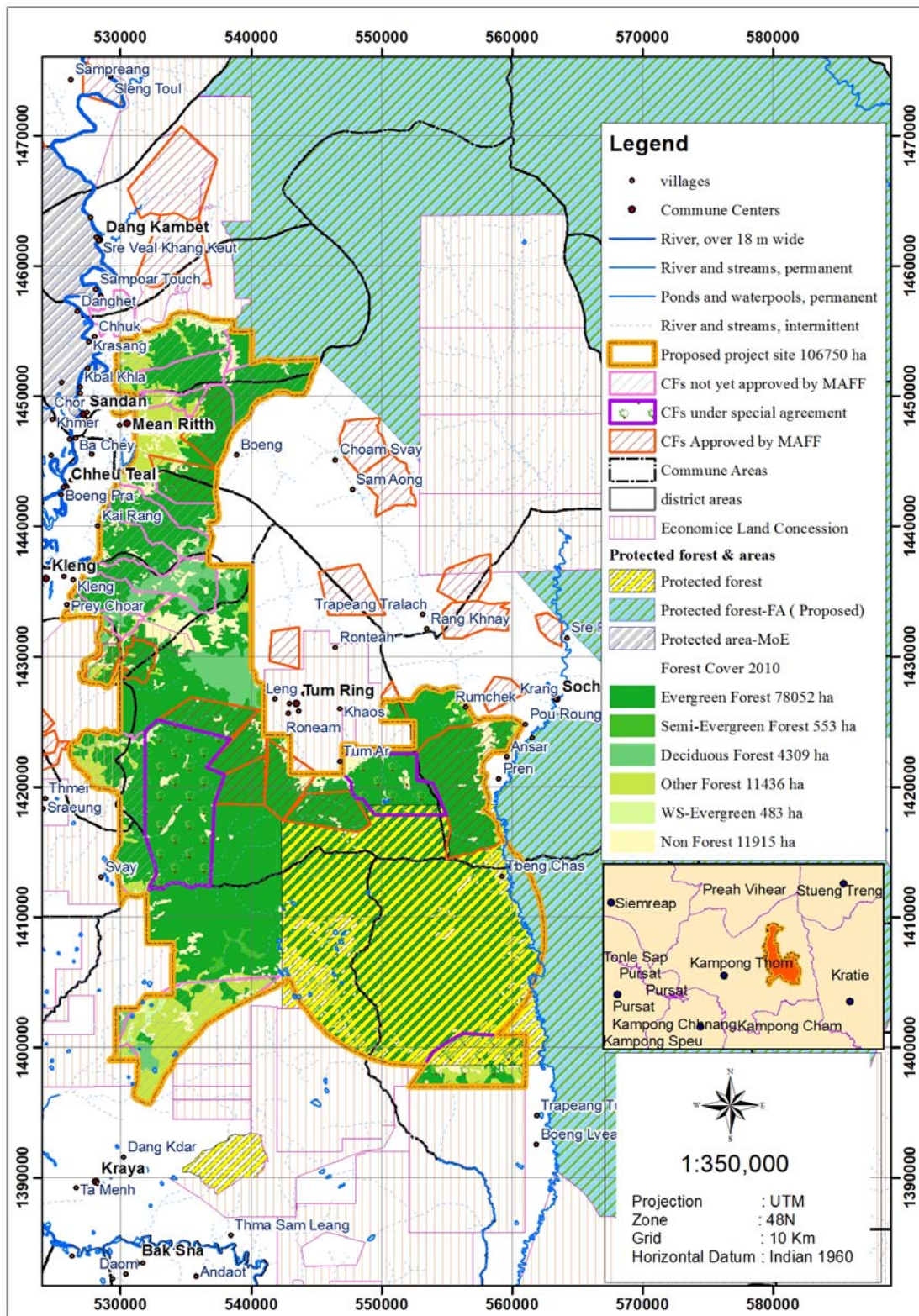


Figure 2. Proposed study site in Kampong Thom province.

### 1.3.2. Social, Cultural, Economic and Environmental Aspects

The proposed study has the following characteristics:

**Social Aspects.** Cambodia currently ranks 138<sup>th</sup> of 187 countries in terms of the United Nations Development Programme's (UNDP's) Human Development Index. In rural areas such as those that characterize much of Kampong Thom province, there are various social conditions, including malnutrition, illiteracy, gender discrimination, limited access to social services and weak social capital that exacerbate those conditions. The province of Kampong Thom has a land area of 15,061 km<sup>2</sup>, making it the second largest province in the country. It is divided into 8 districts and 81 communes with 737 villages. There are about 130,000 households established in the province with a population of some 700,000 people. The average population density is 45 people per square kilometer and the average annual growth rate throughout the province is about 2.5 percent. Some 88 percent of the population lives in rural areas. Ethnic groups in the province include Chinese, Muslim, Vietnamese and a Kuoy minority. The Chinese generally experience higher income levels because of their more extensive involvement in business activities. The Vietnamese are primarily engaged in fishing and small business, while the Kuoy are primarily concerned with farming and hunting. It is within this setting that the proposed project plans to provide increased employment opportunities for local people living in and around the Tomring Forest. It must be recognized, however, that tenure rights over land, forest and carbon are an important issue to consider in the implementation of REDD+ projects. The primary means of securing those rights for local communities living in and around the Tomring Forest is through community forestry. The tenure rights of the communities that will participate in the project are embedded in the legal rights associated with the community forests that have been **and will continue to be** established in and around the project site. Those will provide those communities with secure legal tenure rights over the community forests, as well to receiving an equitable share of the proceeds from the carbon from those forests that is sold in the voluntary market.

**Local communities have traditional resource use rights, but no secure tenure associated with those rights. The rights that secure access and use and allow community management of those resources, including the development of livelihood enhancement activities using those resources, are embedded in community forests in Cambodia for an initial period of 15 years. They are then periodically renewable for subsequent periods of 15 years on demonstration of compliance with sustainable community forest management plans. The application for the establishment of a community forest must be approved by MAFF and, on its approval, entails a series of eight steps that must be completed prior to the signing of a Community Forest Agreement with the appropriate Forestry Administration Cantonment. There are eight more steps that are then required after the signing of the Community Forest Agreement, the last of which is the most substantive and involves the preparation of a sustainable community forest management plan that must be approved by the Forestry Administration Cantonment. The development and approval of the sustainable community forest management plan is intended to extend the traditional use rights of local communities by providing them with long-term security of tenure to community forest members with regard to the management and use of community forest resources.**

**Community forests to provide such security of tenure have been previously established in and around the project site in three districts in Kampong Thom province - Prasat Sobor, Sandan and Sontuk. The most recent reliable estimates**

indicate that there are 41 community forests accounting for almost 40,000 ha that have been established in 54 villages in those three districts involving almost 6,000 community forest families (see Table 1). Of those 41 community forests, there are 15 that are currently in stage 8 of the process, which involves the preparation of sustainable community forest management plans. Those numbers will grow over the life of the project since there are also several other communities that are now applying for initial approval from MAFF of the establishment of community forests.

The project will actively support the development of sustainable community forest management plans in Kampong Thom province. One essential component of that support will result in the provision of technical assistance to Community Forest Management Committees to conduct community-based carbon assessments. The information that is collected in those assessments will be instrumental in developing those communities' forest management plans and incorporating those community forests into the project's area of REDD+ coverage. Such incorporation, in association with the securing of tenure through the establishment of those community forests, will not only contribute to the conservation of the Tomring Forest, but also to the enhancement of livelihood activities and the sharing of benefits accruing from the sale of carbon credits throughout those communities that participate in the project.

**Table 1. Estimates associated with community forests in and around the project site.**

<u>District</u>	<u>Community Forests (Number)</u>	<u>Villages (Number)</u>	<u>Community Forest Families (Number)</u>	<u>Community Forests Area (ha)</u>	<u>Community Forests Stage 8 (Number)</u>
<u>Prasat Sobor</u>	<u>11</u>	<u>12</u>	<u>1,036</u>	<u>4,964</u>	<u>7</u>
<u>Sandan</u>	<u>19</u>	<u>26</u>	<u>2,766</u>	<u>26,559</u>	<u>3</u>
<u>Sontuk</u>	<u>11</u>	<u>16</u>	<u>2,115</u>	<u>6,962</u>	<u>5</u>
<u>Totals</u>	<u>41</u>	<u>54</u>	<u>5,917</u>	<u>38,485</u>	<u>15</u>

**Cultural Aspects.** Forests have a special significance among indigenous ethnic groups because of their relationship to traditional religious and cultural beliefs and practices, including those involving the healing of stress and disease and the provision of community safety and wealth. Since the management of Community Forests requires some amount of cultural cohesion among community members, the activities of the project are expected to strengthen some of those relationships among community members. Throughout the province, there are several remaining expressions of ancient Khmer culture represented in various temples, one of the most renowned of which is the 11<sup>th</sup> century temple of Vat Nokor. There is a pagoda that has recently been constructed inside using the old sculptures of the temple that is surrounded by a multitude of small sanctuaries.

**Economic Aspects.** The extent of deforestation and forest degradation in the Tomring Forest has affected the availability of food, fuelwood, and water in several local communities. Those that live in Kampong Thom province are generally poor, with about half of the communes in the province below the national consumption poverty line. Most of the communes, moreover, have a higher percentage of households than the national average that have an agricultural livelihood, and about half of the communes have at least 10% of their population with food security concerns. There are three sets of economic benefits that are expected to accrue to local communities, as well as to the government, as

the result of project interventions. The first of these are the increases in community incomes resulting from enhanced livelihood opportunities available to local communities through planned project activities. The second is the benefit sharing resulting from the sales of carbon credits on entry into the voluntary market. The third are the incomes resulting from the sales of ecosystem goods and services such as non-timber forest products and ecotourism services.

**Environmental and Biological Aspects.** Peat swamp forest is a particularly important forest type that characterizes the Tomring Forest, most noticeably because peat swamp forests are an important source of greenhouse gases responsible for emitting about 959 tCO<sub>2</sub>eq for every hectare deforested. Evergreen, semi-evergreen and deciduous forests are the other forest types defining the Tomring Forest. The primary species growing in the evergreen forest include *Dipterocarpus alatus*, *D. costatus*, *D. dyeri*, *Eugenia spp.*, *Hopea odorata*, and *Shorea vulgaris*; the primary species growing in the semi-evergreen forest include *Anisoptera cochichinensis*, *Hopea cochichinensis*, *H. pierrei*, *Irvingia malayana*, *Lagerstroemia angustifolia*, and *Sindora cochichinensis*; and the primary species growing in the deciduous forest include *Dipterocarpus intricatus*, *D. obtusifolius*, *D. tuberculatus*, *Pentacme siamensis*, *Shorea obtusa*, and *Terminalia tomentosa* (FAO and DFW 1998; Kim Phat *et al.* 2000, 2002a, 2002b). Some of these species, especially several of the luxury species, are threatened or endangered.

The Tomring Forest provides food and fuelwood and is the source of several ecosystem goods and services, as well as the source of seeds of Dipterocarp and other premium tree species. The populations of several valuable timber and resin trees have declined significantly as the result of illegal harvesting (Sasaki and Putz 2009) and there are many threatened wildlife species in the Tomring Forest and its surrounding areas.

#### **1.4 Expected Outcomes at Project Completion**

The project plans to achieve the following outcomes:

Awareness of carbon emissions and mitigation and adaptation measures will have been enhanced; Control of the drivers of deforestation and forest degradation in Kampong Thom province will have been strengthened; Institutional capabilities to implement REDD+ initiatives will have been increased.

The proposed project will first benefit Kompong Thom communities who reside in or near the Tomring Forests and, in particular, Community Forest Management Committees. Those communities will benefit from application of REDD+ approaches to improve forest management and reduce deforestation and forest degradation. The project will also benefit government officers stationed at the central office of the Forestry Administration and in the Forestry Administration Cantonment in Kampong Thom province. Their skills and experience in managing forests using REDD+ principles and practices will be strengthened. IFWRD plans to replicate the REDD+ project development and implementation processes and, as a result, more provinces will benefit from REDD+ practices, as well.



## **PART II: PROJECT RATIONALE AND OBJECTIVES**

### **2.1 Rationale**

#### **2.1.1 Institutional Set-Up**

The Forestry Administration will be the Executing Agency of the proposed project. It will be implemented by the IFWRD with the participation of the Department of Forest Management and Community Forestry (DFMCF) and the Department of Wildlife and Biodiversity (DWB) in the Forestry Administration.

The Kampong Thom field activities will be implemented by the provincial Forestry Administration Cantonment in collaboration with the IFWRD, DFMCF and DWB, as well the Community Forest Management Committees living in and around the Tomring Forest.

Governance for the project will be provided by a Project Steering Committee (PSC) with representation from the Forestry Administration and participating departments and the Kampong Thom Cantonment, Cambodia's REDD+ Taskforce and the international donor community. A Project Technical Committee (PTC) will also be formed to provide technical guidance and oversight to the project.

The Forestry Administration has experienced several challenges associated with the sustainable development and management of forests since peace and stability was restored in the country in the 1990s. Since that time, the Forestry Administration has developed some skills in selective logging, forest botany, silviculture, forest inventories, forest nurseries, entomology, forest ecology, forest statistics, genetics, wood science and technology, wood products chemistry, socioeconomics, marketing, and information science. It has extended its research on biodiversity and climate change mitigation and forest industries and trade. It has conducted research and development activities with international partners in fields relating to forest rehabilitation, sustainable forest management, forestry and climate change mitigation, and community forestry. It has considerable experience associated with the development and implementation of the pilot REDD+ projects, as well, which will provide the basis to successfully implement this proposed project.

The IFWRD is mandated to conduct research that will generate scientific knowledge and appropriate technologies to facilitate decision-making. It is also responsible for disseminating information on the results of its research. This will lead to sustainable utilization and management of forest resources in Cambodia.

#### **2.1.2 Stakeholder Analysis**

Deforestation and forest degradation occur at different scales and are committed by different agents. Analyzing the drivers of deforestation and forest degradation is an important step in introducing appropriate intervention policies that address deforestation and forest degradation effectively.

At the national, provincial, and local levels, there are various stakeholders who may assume important roles and who might be affected by the project. The specific roles and possible involvement of those stakeholders in the project are summarized in Table 2.

**Table 2. Stakeholder Analysis.**

<b>Institutions</b>	<b>Characteristics</b>	<b>Problems/ requirements</b>	<b>Potential</b>	<b>Involvement in the project</b>
<b>Primary Stakeholders</b>				
Local communities in Tomring Forest and surrounding areas, Kampong Thom province	Heavily dependent on state-owned natural resources	Lack of knowledge and skills, a low level of awareness about REDD+, limited alternative income options, few opportunities to communicate with government officials	Key players to implement project and conserve forest sustainably	Involved in the activities of Output 1 in Kampong Thom that will restore degraded forests, demonstrate MRV, participatory carbon monitoring, and carry out extension activities
CF management committees in and around Tomring Forest	Charged to manage CFs	Lack of knowledge and skills, a low level of awareness about REDD+, limited financial resources	Key player to manage CFs	Involved in the activities in Kampong Thom that will restore degraded forests, demonstrate MRV, participatory carbon monitoring, and carry out extension activities
Kampong Thom FA cantonment	Charged to enforce law and regulation, to provide guidance on forest management	Limited human resources, limited infrastructure, limited financial resources	Mandated to deliver Forestry Administration activities in Kampong Thom province	Will implement activities in the Kampong Thom field activities
<b>Secondary Stakeholders</b>				
Institute for Forest and Wildlife Research and Development	Key institution in delivery of the project	Limited human resources, limited infrastructure, limited financial resources	Mandated to conduct forestry-related research and disseminate results; able to pilot research results through implementation of development projects	Facilitate discussion, preparation and formulation of project proposal. Will lead all project activities.
Department of Forest Management and Community Forestry	Key element in management planning, socio-economic and cultural safeguards in the Kampong Thom field activities	Limited human resources, limited infrastructure, limited financial resources	Key role in nationwide cooperation in forest inventory, community forestry, and management planning	Will assist in developing MRV system, forest inventory and data analysis

<b>Institutions</b>	<b>Characteristics</b>	<b>Problems/ requirements</b>	<b>Potential</b>	<b>Involvement in the project</b>
Department of Wildlife and Biodiversity (DWB)	Key element in biodiversity safeguards in the Kampong Thom field activities	Limited human resources, limited infrastructure, limited financial resources	Key national role in wildlife management	Will assist in developing biodiversity safeguard guidelines
<b>Tertiary Stakeholders</b>				
Ministry of Environment, Ministry of Land Management	Try to fulfill roles as regulatory agencies and land managers	Weak coordination and cooperation with other ministries and agencies	Key national regulatory agencies in environment and land uses	None
Commune Councils	Authorized bodies to manage local communities	Limited knowledge, low level of awareness about REDD+ and ecosystem services, limited facilities, limited education	Key element to deliver services and infrastructure to local communities	None
International NGOs	Implement development projects and advocate for policies	Sometimes have limited access to local communities	Able to assist with implementing key parts of Cambodia's development	None
National and local NGOs	Implement development projects and advocate for policies	Limited funding, some limitations on human resources, limited facilities	Able to assist with implementing local component of Cambodia's economic development plans	None

### 2.1.3 Problem Analysis

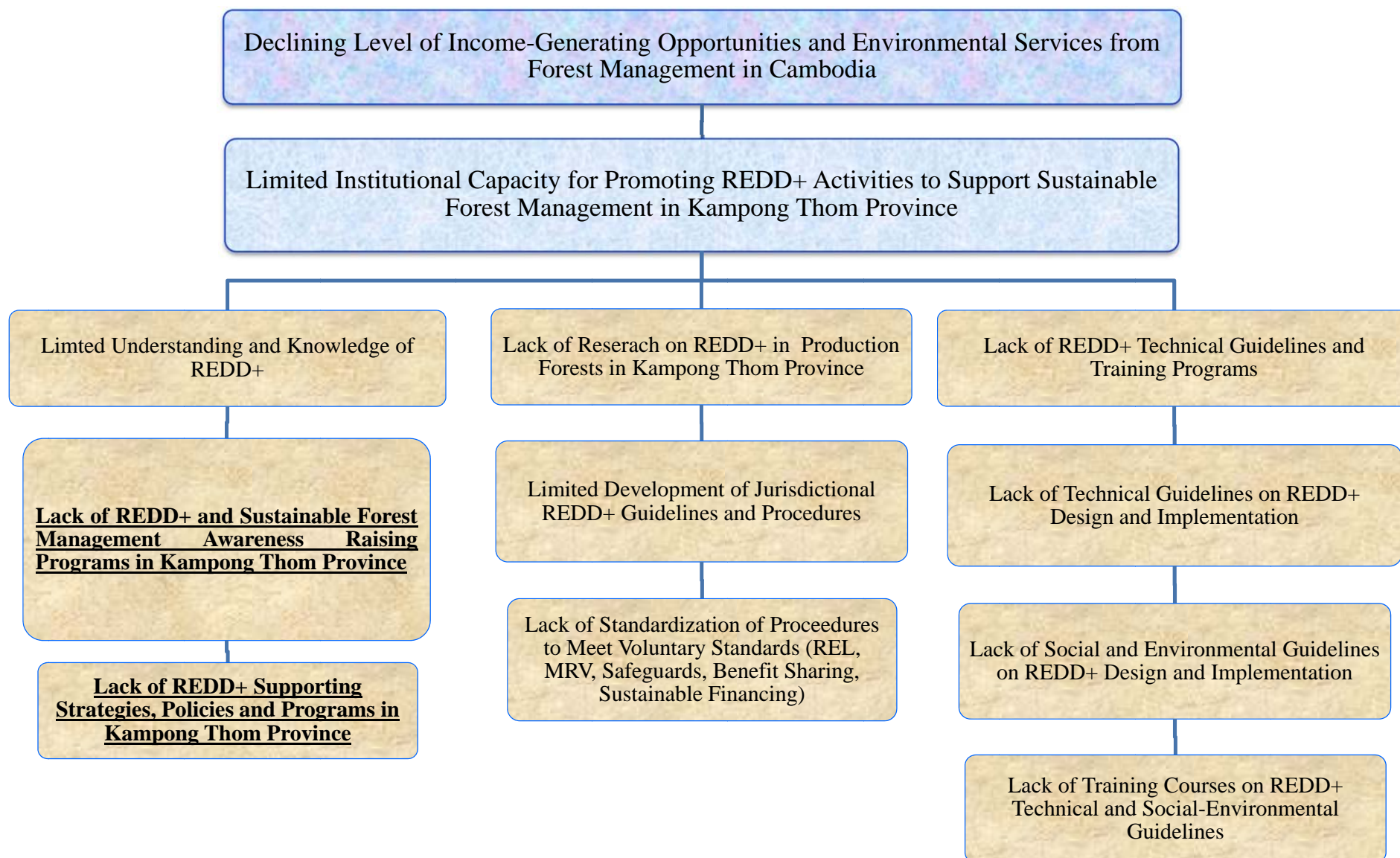
The Problem Tree illustrated in Figure 3 indicates that the Key Problem associated with the proposed project is the ‘limited institutional capacity for promoting REDD+ activities to support sustainable forest management in Kampong Thom province.’

There are three interrelated causes of that Key Problem. The first of these is the ‘limited understanding and knowledge of REDD+,’ which indirectly allows the conversion of forestlands to agricultural lands and the reliance of local communities on the resources of the Tomring Forest to continue relatively unimpeded; the second is the ‘lack of research on REDD+ in production forests in Kampong Thom province,’ which constrains government efforts to apply REDD+ procedures and practices effectively to conserve the Tomring Forest; and the third is the ‘lack of REDD+ technical guidelines and training programs,’ which hinder the planned expansion of REDD+ programs and activities.

Project initiatives to mitigate these causes of ‘limited institutional capacity for promoting

REDD+ activities to support sustainable forest management in Kampong Thom province' correspond to the three Outputs that have been proposed in the project. The first of those, Output 1, 'Stakeholder understanding and knowledge of REDD+ improved' addresses the planned resolution of the limited understanding and knowledge of REDD+; The second, Output 2, 'Research program on REDD+ in the Tomring Forest in Kampong Thom province developed and implemented' responds to the current paucity of research on REDD+ in production forests in Kampong Thom province; and the third, Output 3, 'REDD+ guidelines and training programs strengthened for effective design and implementation of REDD+ activities' is directed to reversing 'the absence of REDD+ technical guidelines and training programs.'

There are several sub-causes that are addressed, as well, through planned activities under each of the project's three Outputs. Under Output 1, 'Stakeholder understanding and knowledge of REDD+ improved,' those relevant sub-causes include the **'lack of REDD+ and Sustainable Forest Management Awareness Raising Programs in Kampong Thom Province' and the 'lack of REDD+ Supporting Strategies, Policies and Programs in Kampong Thom Province.'** Under Output 2, 'Research program on REDD+ in the Tomring Forest in Kampong Thom province developed and implemented,' the relevant sub-causes include the 'limited development of jurisdictional REDD+ guidelines and procedures' and the 'lack of standardization of procedures to meet voluntary standards.' Under Output 3, 'REDD+ guidelines and training programs strengthened for effective design and implementation of REDD+ activities,' the relevant sub-causes include the 'lack of technical guidelines on REDD+ design and implementation,' 'the 'lack of social and environmental guidelines on REDD+ design and implementation' and the 'lack of training courses on REDD+ technical and social-environmental guidelines.'



**Figure 3. Problem Tree for ‘Sustainable Forest Management through REDD+ Mechanisms in Kampong Thom Province.’**

## 2.1.4 Logical Framework Matrix

**Table 3. The logical framework matrix for the project.**

<u>Project Components</u>	<u>Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
<p>Development objective: To contribute to the sustainable management of forest resources in Kampong Thom province in Cambodia through the reduction of deforestation and forest degradation.</p>	<ul style="list-style-type: none"> <li data-bbox="644 420 1073 915"> <input type="checkbox"/> <b><u>The annual rate of reduction of deforestation and forest degradation in Kompong Thom province as the result of project activities. (The baseline is the adjusted jurisdictional Reference Emissions Level (REL) for Kampong Thom province with the indicator expected to decline by an additional 5%-10% below the adjusted jurisdictional REL annually as deforestation and forest degradation are reduced across the province over the course of the project).</u></b> </li> <li data-bbox="644 956 1073 1362"> <input type="checkbox"/> The number of hectares in the Tomring Forest in Kampong Thom province protected as a result of the mitigation of deforestation and forest degradation attributable to REDD+ interventions. (The baseline is 0 ha with the indicator expected to increase to 100,000 ha or more as deforestation and forest degradation are reduced over the course of the project).         </li> </ul>	<ul style="list-style-type: none"> <li data-bbox="1094 420 1522 634"> <input type="checkbox"/> Offers in the voluntary market to pay for verified carbon credits resulting from project interventions in the REDD+ project site established in the Tomring Forest in Kampong Thom province.         </li> <li data-bbox="1094 675 1522 699"> <input type="checkbox"/> Project reports.         </li> <li data-bbox="1094 740 1522 792"> <input type="checkbox"/> Community Forest Management Committee reports.         </li> </ul>	<ul style="list-style-type: none"> <li data-bbox="1543 420 1971 634"> <input type="checkbox"/> Carbon prices offered through the voluntary market remain above the current minimum acceptance level established by the government of \$7.00 per metric ton of CO<sub>2</sub>eq for verified carbon credits.         </li> <li data-bbox="1543 675 1971 857"> <input type="checkbox"/> The establishment of Economic Land Concessions is not imposed in a non-transparent manner by means of arbitrary political decisions in the Tomring Forest in Kampong Thom province.         </li> </ul>

<u>Project Components</u>	<u>Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
<p><b><u>Specific objective: To establish REDD+ research and development, and training, programs in the Tomring Forest to facilitate the achievement of Sustainable Forest Management in Kampong Thom province.</u></b></p>	<ul style="list-style-type: none"> <li data-bbox="646 282 1071 657">❑ <b><u>The number of carbon assessments completed in and around the Tomring Forest that are incorporated into community forest management plans. (The baseline is 0 with the number of carbon assessments incorporated into community forest management plans expected to increase to 50 or more over the course of the project).</u></b></li> <li data-bbox="646 695 1071 1128">❑ <b><u>The number of community forest families living in and around the Tomring Forest with real incomes rising 25%-50% or more over the course of the project as the result of project interventions to enhance livelihood development. (The baseline is 0 with the number of families with real incomes rising 25%-50% or more over the course of the project expected to increase to more than 1,000.</u></b></li> <li data-bbox="646 1166 1071 1377">❑ The number of reports of illegal logging or unauthorized forest encroachment reported in the Tomring Forest in Kampong Thom province. (The baseline number of reports will be expected to rise in the early</li> </ul>	<ul style="list-style-type: none"> <li data-bbox="1096 282 1318 310">❑ Project reports.</li> <li data-bbox="1096 347 1520 407">❑ Community Forest Management Committee reports.</li> </ul>	<ul style="list-style-type: none"> <li data-bbox="1545 282 1969 407">❑ There is sufficient government commitment to the project at the national, provincial, district and commune levels of government.</li> <li data-bbox="1545 444 1974 1284">❑ Community Forest Management Committees in the Tomring Forest in Kampong Thom province actively participate in the project. <b><u>(The enabling conditions to encourage such active participation include the increased security of access and user rights associated with support provided through the project to develop community forest management plans; the expanded income opportunities available as the result of project livelihood enhancement activities and the actualization of periodic payments for carbon credits through the initiation of the project's benefit sharing initiative; and the extended opportunities made available through the project to facilitate participation in decision-making processes involving local land use and development).</u></b></li> </ul>

<u>Project Components</u>	<u>Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
	<p>stages of the institutionalization of REDD+ activities in the Tomring Forest as the numbers of patrols organized by Community Forest Management Committees in collaboration with the Forestry Administration Cantonment increase, but are expected to subsequently decline as the deterrence effects of the expanding numbers of patrols become increasingly effective).</p>		
<p>Output 1: Stakeholder understanding and knowledge of REDD+ improved.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> The number of community members in Kampong Thom province exposed through various forums, consultative meetings and workshops to REDD+ awareness raising activities, including initiatives that reduce greenhouse gas emissions or increase carbon sequestration. (The baseline is 0 rising to 200 or more over the course of the project).</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Project reports.</li> <li><input type="checkbox"/> Signed records of the attendance of local communities living in and around the Tomring Forest in Kampong Thom province in awareness raising activities delivered through various forums, consultative meetings and workshops.</li> <li><input type="checkbox"/> Individual results of pre- and post-training tests linked to awareness raising activities organized through the project.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Community Forest Management Committees in the Tomring Forest in Kampong Thom province actively participate in the project.</li> </ul>
<p>Output 2: Research program on REDD+ in the Tomring Forest in Kampong Thom province developed and implemented.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> The extent of integration of REDD+ guidelines and procedures proposed as the result of using an approach to meet technical specifications of jurisdictional standards in Kampong Thom province into the framework of the national</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> National REDD+ program documentation and minutes of meetings discussing the integration of REDD+ guidelines and procedures proposed as the result of using an approach to meet technical specifications of jurisdictional standards in</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Cambodia National REDD program supports project efforts to develop a REDD+ project level jurisdictional approach in Kampong Thom province.</li> </ul>



<u>Project Components</u>	<u>Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
	REDD+ program. (The baseline is 0% expected to increase to 75% or more by the end of the project).	Kampong Thom province into the framework of the national REDD+ program.	
Output 3: REDD+ guidelines and training programs strengthened for effective design and implementation of REDD+ activities.	<input type="checkbox"/> The number of national and provincial, as well as lower level, Forestry Administration and other government officers trained in technical components of REDD+, from the use of remote sensing information and GIS data interpretation to the establishment of equitable benefit-sharing mechanisms and social and economic environmental safeguards. (The baseline is 0 rising to 150 or more over the course of the project, disaggregated by administrative level of government).	<input type="checkbox"/> Signed records of the attendance of Forestry Administration and other government officers at training sessions organized through the project to provide participants with an enhanced understanding of the technical components of REDD+.  <input type="checkbox"/> Individual results of pre- and post-training tests linked to REDD+ training organized through the project.	<input type="checkbox"/> There is sufficient government commitment to the project at the national and provincial, as well as lower, administrative levels of government.

## **2.2. Project Objectives**

### **2.2.1 Development Objective**

The Development Objective of the project will be:

To contribute to the sustainable management of forest resources in Kampong Thom province in Cambodia through the reduction of deforestation and forest degradation.

The long-term impact indicators of the Development Objective will be:

**The annual rate of reduction of deforestation and degradation in Kampong Thom province as the result of project activities.**

The number of hectares in the Tomring Forest in Kampong Thom province protected as a result of the mitigation of deforestation and forest degradation attributable to REDD+ interventions.

### **2.2.2 Specific Objective**

The Specific Objective of the project will be:

**To establish REDD+ research and development, and training, programs in the Tomring Forest to facilitate the achievement of Sustainable Forest Management in Kampong Thom province.**

The long-term impact indicators of the Specific Objective will be:

**The number of carbon assessments completed in and around the Tomring Forest that are incorporated into community forest management plans. (The baseline is 0 with the number of carbon assessments incorporated into community forest management plans expected to increase to more than 50 over the course of the project).**

**The number of community forest families living in and around the Tomring Forest with real incomes rising 25%-50% or more over the course of the project as the result of project interventions to enhance livelihood opportunities. (The baseline is 0 with the number of families with real incomes rising 25%-50% or more over the course of the project expected to exceed 1,000.**

The number of reports of illegal logging or unauthorized forest encroachment reported in the Tomring Forest in Kampong Thom province.

## **PART III: DESCRIPTION OF PROJECT INTERVENTIONS**

### **3.1. Outputs and Activities**

#### **3.1.1 Outputs**

The project will have the following three Outputs, each of which has been developed to address one of the three primary causes of the Key Problem that was defined in the design of the project, that is ‘the limited institutional capacity for promoting REDD+ activities to support sustainable forest management in Kampong Thom province.’

#### **Output 1: Stakeholder understanding and knowledge of REDD+ improved.**

The long-term impact indicator associated with the achievement of Output 1 will be:

The number of community members in Kampong Thom province exposed through various forums, consultative meetings and workshops to REDD+ awareness raising activities, including initiatives that reduce greenhouse gas emissions or increase carbon sequestration.

#### **Output 2: Research program on REDD+ in the Tomring Forest in Kampong Thom province developed and implemented.**

The long-term impact indicator associated with the achievement of Output 2 will be:

The extent of integration of REDD+ guidelines and procedures proposed as the result of using an approach to meet technical specifications of jurisdictional standards in Kampong Thom province into the framework of the national REDD+ program.

#### **Output 3: REDD+ guidelines and training programs strengthened for effective design and implementation of REDD+ activities.**

The long-term impact indicator associated with the achievement of Output 3 will be:

The number of national and provincial, as well as lower level, Forestry Administration and other government officers trained in technical components of REDD+, from the use of remote sensing information and GIS data interpretation to the establishment of equitable benefit-sharing mechanisms and social and economic environmental safeguards.

#### **3.1.2 Activities**

The proposed activities under each of the project’s Outputs are provided in Table 4.

**Table 4. List of proposed activities under each of the project’s three Outputs.**

<b>Outputs Activities</b>	<b>Description</b>
<b>Output 1</b>	<b>Stakeholder understanding and knowledge of REDD+ improved</b>
A 1.1	Establish the Project Steering Committee, Project Technical Committee, and Project Management Team for coordinating project activities in accordance with ITTO rules and regulations ( <i>required administrative action</i> )
A 1.2	Organize the Project Launching and Project Steering Committee and Project Technical Committee meetings in accordance with ITTO rules and regulations ( <i>required administrative action</i> )
A 1.3	Review lessons learned from on-going REDD+ interventions in Cambodia
A 1.4	Conduct awareness-raising activities
A 1.5	Propose a benefit sharing mechanism
A 1.6	Develop a commercialization and sustainable financing strategy
<b>Output 2</b>	<b>Research program on REDD+ in the Tomring Forest in Kampong Thom province developed and implemented</b>
A 2.1	Develop a default provincial REL for Kampong Thom
A 2.2	Establish an adjusted provincial REL for Kampong Thom
A 2.3	Identify activities to reduce carbon emissions and enhance community livelihoods
A 2.4	Initiate activities to reduce carbon emissions and enhance community livelihoods, especially in deforestation and degradation hotspots
A 2.5	Monitor and report provincial performance against the jurisdictional REL for Kampong Thom province and the current status of other project activities and state of project indicators
A 2.6	Publish results and research findings
<b>Output 3</b>	<b>REDD+ guidelines and training programs strengthened for effective design and implementation of REDD+ activities.</b>
A 3.1	Build Monitoring, Reporting and Verification (MRV) capacity at the Forestry Administration Cantonment and Community Forest levels
A 3.2	Design, implement and monitor safeguards
A 3.3	Propose jurisdictional guidelines and procedures
A 3.4	Organize and deliver targeted training programs at the national level
A 3.5	Organize and deliver targeted training programs at the provincial, as well as lower, administrative levels

The implementation of project activities will reflect the importance of reviewing and applying lessons learned in other REDD+ pilot projects to develop standardized procedures to prepare in an efficient and effective manner the Tomring Forest in Kampong Thom province for entry into a voluntary carbon market under voluntary carbon standards, including the Climate, Community, and Biodiversity standard and the innovative jurisdictional and nested REDD+ standard. The project will assist the institutions in Kampong Thom, especially the Forestry Administration Cantonment and Community Forest Management Committees, to meet the guidelines and technical specifications of these standards in order to sell credits to buyers in the voluntary carbon markets or to other entities interested in buying REDD+ assets, such as bi-lateral, multilateral or specific REDD+ funds.

The following description provides an overview of the sequence of steps that will be developed in the Tomring Forest to achieve the standardization of procedures to meet the technical specifications of voluntary carbon standards.

The standardization process will be initiated with a review of the lessons learned from on-going REDD+ interventions in Cambodia, especially with regard to delineating the means of overcoming restrictions that may have hindered or slowed the pace of implementation of efforts to meet voluntary carbon standards in the projects in Oddar Meanchey, Seima, and Prey Lang. Those lessons will be enumerated and applied in the implementation of project activities throughout the life of the project.

The second step in the standardization process will be to organize awareness-raising activities on REDD+ approaches across those institutions that impact the management of forest resources, including the Forestry Administration Cantonment, Community Forest Management Committees, other provincial departments, non-governmental organizations (NGOs), and other civil society groups. The IFWRD will lead efforts to conduct awareness-raising activities, which will include participatory workshops, community meetings, and the presentation of special-made videos on specific topics featuring local people speaking in local dialects.

The third step in the standardization process will be to develop a provincial default and, subsequently, a development adjusted jurisdictional baseline, which is also referred to as a reference emission level, against which performance of the province in reducing carbon emissions will be assessed. The IFWRD and the Forestry Administration Cantonment will lead the effort to assess historical deforestation and degradation rates and factor into the assessments probable investments, such as infrastructure developments, as well as population trends and development trajectories, that may lead to increased deforestation and degradation rates.

The fourth step in the standardization process will be to identify specific on-the-ground activities that will assist Kampong Thom province to achieve an overall net reduction in carbon emissions and enhance community livelihoods. The net reduction in carbon emissions may originate from activities that increase carbon sequestration (e.g., forest replanting), as well as those that decrease carbon emissions (e.g., a reduction in illegal logging). Expected categories of on-the-ground activities include forest and landscape management; law enforcement and patrolling; legal registration of Community Forests and indigenous people's land titles; agricultural and forestry extension; and livelihood improvements.

The IFWRD and the Forestry Administration Cantonment will direct the effort to identify potential activities in those categories by using a participatory approach involving relevant stakeholders. The activities will be screened to establish which might be particularly effective in reducing carbon emissions, increasing carbon sequestration or enhancing community livelihoods.

In the fifth step of the standardization process, the IFWRD and the Forestry Administration Cantonment will oversee the process to scrutinize each of the measures for its climate relevance and introduce a rigorous MRV system that allows the quantification of the carbon emission reductions from the on-the-ground activities. The MRV system will focus on those activities that - during the life of the project - prove to best reduce the impacts of the drivers of deforestation and degradation and, thus, contribute most effectively to an overall net reduction in carbon emissions.

In order to measure performance, robust and technologically-appropriate MRV protocols and capacity will be established. This will encompass remote sensing and GIS analysis and establishing and monitoring biomass plots in the study site, as well as reference areas that do not have project-established activities. This process will provide comparative data for assessing changes from a business-as-usual scenario.

As a consequence of the pilot nature of the project, new approaches and activities will be tested. Not all of these may be cost-efficient or effective in reducing carbon emissions. The

MRV system will allow intensive and continuous monitoring, particularly of changes in carbon.

In the sixth step of the standardization process, once the MRV system has been used to highlight the most effective carbon-reducing activities, the IFWRD and the Forestry Administration Cantonment will lead in efforts to evaluate the suitability of these activities to be introduced in other forests in other provinces in Cambodia.

This process will assist in building provincial MRV capacities that will be necessary to assess Cambodia's REDD+ performance. Trained staff from the project may assist other provinces and districts in establishing MRV systems for REDD+. Coordination and frequent information exchange with the national level and other provinces in developing provincial RELs will be encouraged.

In the seventh step of the standardization process, the IFWRD will direct the effort to design, implement, and monitor social and environmental safeguard approaches for the on-the-ground activities.

In the eighth step of the standardization process, the project will propose a pilot benefit-sharing mechanism to reward forest management teams in the Forestry Administration Cantonment and Community Forest Management Committees that have contributed to reductions in carbon emissions. In particular, payments will be proposed to Forestry Administration Cantonment teams and Community Forest Management Committees that have implemented activities that have successfully changed land use practices away from deforestation and degradation. Performance payments might initially originate through the project, but such payments are expected to later become available from the sale of carbon credits through voluntary carbon markets or to other REDD+ funders.

The specific actions that will be undertaken to achieve the project's three Outputs will encompass the following activities:

**Output 1: Stakeholder understanding and knowledge of REDD+ improved.**

The implementation of project activities under Output 1 will increase the technical understanding of REDD+ implementation requirements, especially social and environmental safeguards, as well as principles of sustainable forest management and REDD+ principles and practices.

***Activity 1.1 Establish the Project Steering Committee, Project Technical Committee, and Project Management Team for coordinating project activities in accordance with ITTO rules and regulations***

This is a required administrative action that has been incorporated into project activities to account for planned budget expenditures to establish these coordinating committees and the Project Management Team.

***Activity 1.2 Organize the Project Launching and Project Steering Committee and Project Technical Committee meetings in accordance with ITTO rules and regulations***

This is a required administrative action that has been incorporated into project activities to account for planned budget expenditures to organize the Project Launching and Steering Committee and Technical Committee meetings over the course of the project.

***Activity 1.3 Review lessons learned from on-going REDD+ interventions in Cambodia***

The review of the lessons learned from on-going REDD+ interventions in Cambodia, especially with regard to delineating the means of overcoming restrictions that may have hindered or slowed the pace of implementation of efforts to meet voluntary carbon standards,

will be enumerated and applied in the implementation of project activities throughout the life of the project.

***Activity 1.4 Conduct awareness-raising activities***

The IFWRD will initiate communications and undertake awareness-raising on REDD+ approaches with each of the institutions involved with managing forest resources in Kampong Thom province, including the Forestry Administration Cantonment, Community Forest Management Committees and stakeholders in forest management, including NGOs and other civil society groups. This outreach program will use participatory workshops, community meetings, and the presentation of special-made videos on specific topics, featuring local people speaking in local dialects to raise awareness. Its purpose will be to ensure that forest managers, community members, and stakeholders are aware of REDD+, in general, and REDD+ project activities in the Tomring Forest in Kampong Thom, in particular.

***Activity 1.5 Propose a benefit-sharing mechanism***

A particularly important component of a REDD+ project is the benefit sharing of carbon revenues among stakeholders on a manually agreed system. This is to ensure that local communities actually benefit from their participation in project development and implementation that results in the reduction of deforestation and forest degradation and related emissions. Under a national REDD+ mechanism, clear guidelines and regulations would rule on the manner in which REDD+ revenues that accumulate should be transferred to different national, provincial, district and community stakeholders who are responsible for actually decreasing carbon emissions and deforestation. Since Cambodia does not yet have a fully operational national REDD+ mechanism, however, the IFWRD will lead the effort to develop draft guidelines and regulations that will be used to govern the manner in which REDD+ revenues might be distributed to provinces, districts, and communities.

Since the province is the jurisdictional unit that will generate carbon credits in this project, REDD+ revenues may also accrue directly to the province. The initial focus, therefore, will be on how the province might establish and operate a benefit-sharing mechanism within the province. As a secondary focus, the IFWRD will draft national regulations for review and possible adoption by the Cambodian government to effectively and equitably distribute REDD+ revenues.

***Activity 1.6 Develop a commercialization and sustainable financing strategy***

In order to generate on-going revenues from REDD+ activities at the close of the project, it is imperative that credit sale agreements of those Voluntary Carbon Units (VCUs) that have been generated be formalized. Potential sales avenues include agreements through bilateral sales, voluntary market over-the-counter sales or fund-based credit purchasing agreements. Potential sales might also be made to REDD+ funds. The IFWRD will support the Forestry Administration and the national REDD+ office to prepare a commercialization and sustainable financing strategy. This will ensure that the efforts in Kampong Thom do not stop at the end of the project. This strategy will provide a model to apply in other provinces, as well.

***Output 2: Research program on REDD+ in the Tomring Forest in Kampong Thom province developed and implemented.***

The implementation of project activities under Output 2 will result in the standardization of procedures to meet voluntary carbon standards and the development of provisional jurisdictional REDD+ guidelines and procedures at the provincial level for review and possible adoption by the national program.

### ***Activity 2.1 Develop a default provincial REL for Kampong Thom***

This activity will involve classifying satellite images of Kampong Thom and collecting data from biomass plots across the province to assist in improving the interpretation of satellite imagery. The IFWRD and Forestry Administration Cantonment will produce a provincial land cover map. These data will be used to establish a default provincial REL for the province. Historical change rates in carbon emissions will be combined with emission factors to understand past trends in emissions from land-use changes. These will be projected forward to obtain the default REL.

Producing the default REL will support a standardized method of establishing a REL for application in other forests in other provinces that will support the development of a national standardized method of REL establishment.

### ***Activity 2.2 Establish an adjusted provincial REL for Kampong Thom***

Once the default provincial REL for Kampong Thom has been established, it will be important to refine this measure to meet the requirements of the selected voluntary carbon standard. Initially, this might entail revising or improving satellite interpretation analysis in order to achieve accuracy levels required by the jurisdictional VCS. It may also be necessary to establish additional biomass plots to achieve the required accuracies of the VCS jurisdictional standard for emission factors.

Development adjustment factors will have to be considered when revising the REL to accommodate probable changes in the intensity of certain drivers of deforestation and degradation. For example, areas subject to planned deforestation will have to be included in the REL, as well as other factors that might affect deforestation rates, such as population growth or economic factors that include Gross Domestic Product (GDP) or commodity prices.

The IFWRD and Forestry Administration Cantonment, with assistance from the Community Forest Management Committees, will collect and analyze the relevant data required to produce Kampong Thom's provincial development-adjusted REL. This might be achieved in conjunction with partners working on these issues, as well, such as the USAID-funded Lowering Emissions in Asian Forests (LEAF) project. The project will validate the development-adjusted REL by contracting an external auditor accredited to the VCS to which Kampong Thom will seek registration.

### ***Activity 2.3 Identify activities to reduce carbon emissions and enhance community livelihoods***

The IFWRD and Forestry Administration Cantonment will lead the effort to identify appropriate activities in target areas that will demonstrate methods and techniques to reduce deforestation and degradation and enhance community livelihoods. These activities will, in turn, reduce net carbon emissions in the province. The target areas will be located in areas in which deforestation and degradation has been, or is expected to be, high, as well as near communities that manage Community Forests.

Categories of on-the-ground activities to reduce carbon emissions will include the following:

- **Conduct climate-smart Community Land Use Planning (CLUP).** This will ensure that land is distributed more equitably, zone demarcations are clear, and monitoring of land-use plans is practiced. The carbon implications of proposed land uses will be assessed and possible carbon-reducing activities linked to land use will be identified. Elements of low-carbon village development will be integrated into these land management plans. Climate-smart CLUP will encourage villagers to use land more rationally with a view towards higher productivity and sustainable production. On-going support will be provided to



both communities and relevant provincial departments responsible for monitoring the implementation of CLUP plans.

- **Improve law enforcement.** Efforts will be made to improve the ability of the Forestry Administration Cantonment and Community Forestry Management Committees to patrol, capture and legally process people or entities that are involved in illegal land-use practices, such as illegal logging or illegal conversion of land use away from forests. This might occur through a variety of means, including foot patrols, mobile units or road checks. The primary focus of this initiative will probably be on illegal logging activities, although hunters causing fires and illegal land use conversion might also be targeted through these law enforcement initiatives.
- **Provide agricultural and forestry extension activities.** A variety of agricultural and forestry extension activities will be implemented to assist villagers improve the productivity of their agricultural systems and make their reliance on forests sustainable. Extension activities might include livestock production and health-related support; no-till agriculture; biochar production; crop diversification; limiting soil erosion; and crop rotation.
- **Forest management and rehabilitation.** The Forestry Administration Cantonment and Community Forest Management Committees will receive training in improved forest management practices, such as limiting damage caused by fires, improving regeneration rates in forest areas, and replanting and enhancing degraded forests.
- **Livelihood development.** Support activities, including, but not restricted to, small livestock extension services and improved market access for agricultural or NTFP products, are some of the means that will be used to improve livelihoods and shift communities' reliance on forest resources to activities that are more sustainable.
- **Community Forestry.** Assist Community Forest Management Committees to conduct community-based carbon assessments in order to be prepared and acquire the required knowledge for participation in REDD+ approaches. The information collected will be instrumental in developing basic forest management plans for the Community Forests that will not only assist in the conservation and management of the forests, but also in the marketing of timber, NTFPs and environmental services.

The project will highlight potential activities in these categories by using a participatory approach involving relevant stakeholders. The potential activities will be screened to establish which might be particularly effective in reducing carbon emissions, increasing carbon sequestration or enhancing community livelihoods.

***Activity 2.4 Initiate activities to reduce carbon emissions and enhance community livelihoods, especially in deforestation and degradation hotspots***

Subsequent to prioritizing activities, the Forestry Administration Cantonment and Community Forest Management Committees will implement the activities to reduce carbon emissions and enhance community livelihoods. The project will provide technical and financial support throughout the life of the project for those activities that are implemented. The IFWRD will organize the training of the Forestry Administration Cantonment, other provincial departments, and Community Forest Management Committees in the required technical support. The IFWRD will develop a plan for the activities to acquire funding to sustain them after the close of the project.

***Activity 2.5 Monitor and report provincial performance against the jurisdictional REL for Kampong Thom province and the current status of other project activities and state of project indicators***

It will be important to assess and quantify the effect of the REDD+ activities. Provincial carbon emissions below the REL will have to be monitored, reported and ultimately verified before credits may be issued to Kampong Thom province. This will require periodic satellite imagery analysis and ground truthing to confirm whether rates of carbon emissions, including deforestation and degradation, have, in fact, decreased below the REL.

The IFWRD and Forestry Administration Cantonment will establish procedures to conduct this exercise bi-annually once the REL has been completed and agreed. Assuming that the REL is finalized in the first year of the project, bi-annual monitoring will start in the second year.

The project will consider using freely available medium resolution Landsat images for the satellite imagery analysis. In order to effectively monitor forest degradation, however, may require the purchase of higher resolution images, such as those from the Satellite Pour l'Observation de la Terre (Satellite for the Observation of Earth), or SPOT V, Advanced Land Observation Satellite (ALOS) or RAPIDEYE. Apart from the activity data (e.g., area affected by deforestation/reforestation and degradation/restoration) that will be produced as a result of the digital change analysis, information about emission factors (i.e., carbon density of vegetation types) will be required, preferably on a tier 2 or tier 3 level. In order to facilitate this task, (permanent) sample plots will be established in representative vegetation types and a database on local emission factors developed.

Remote sensing capabilities are currently (and for some time to come) not available at the provincial and local levels in Cambodia. Therefore, monitoring at the provincial or local level will have to be based on field-based measurements. Moreover, remote sensing analyses alone are error-prone, so it will be necessary to complement remote sensing data with field measurements on the ground to achieve reliable results. It is international best practice in forest monitoring to combine digital imagery analysis with terrestrial measurements.

Local forest users and managers, such as the Community Forest Management Committees, frequently make decisions about land use, but may not understand the implications of their decisions in terms of climate change. By involving these local resource users in the monitoring of forest carbon stocks and increments, they will increase their understanding of the climate change impacts of their daily natural resource management practices and, in turn, be able to contribute their indigenous knowledge about flora and non-timber forest products.

Terrestrial carbon measurements in the demonstration site and neighboring reference areas are, therefore, foreseen that will involve the local Community Forest Management Committees and will be initially guided and supervised by the IFWRD and Forestry Administration Cantonment staff. The measurements will be conducted in (permanent) sample plots using proven approaches and internationally accepted methodologies (e.g., Intergovernmental Panel on Climate Change (IPCC) best practice guidance and approved Afforestation/Reforestation Clean Development Mechanism (A/R CDM) or VCS methodologies). Some applied research will also be conducted to derive allometric equations for dominant local tree species or groups of species, local biomass expansion factors, and root-shoot ratios for dominant vegetation types, which will improve the accuracy and reliability of the terrestrial carbon measurements.

***Activity 2.6 Publish results and research findings***

The results of the REDD+ research conducted in the Tomring Forest in Kampong Thom province under Output 2 that involves the standardization of procedures to meet voluntary

carbon standards and the development of provisional jurisdictional REDD+ guidelines and procedures will be disseminated both through a series of technical reports prepared to inform and influence the national REDD+ program, as well as through the submission of articles to appropriate peer-reviewed publications. These publications will also be posted on the project website that will be established within the first three months of the start of the project.

**Output 3: REDD+ guidelines and training programs strengthened for effective design and implementation of REDD+ activities.**

The implementation of project activities under Output 3 will result in the development and refinement of technical guidelines on REDD+ programs, especially Social and Environmental Guidelines, and the organization of training courses for government officials and Community Forestry members incorporating various elements of those guidelines, as well as other principles associated with the design and implementation of REDD+ programs and activities and sustainable forest and land use management.

***Activity 3.1 Build MRV capacity at the Forestry Administration Cantonment and Community Forest levels***

The IFWRD will lead in efforts to build MRV capacity in the Forestry Administration Cantonment and in Community Forest Management Committees through training supported under the project. One important prerequisite for this activity is that more educated staff are recruited and/or transferred to the Forestry Administration Cantonment and/or Community Forest Management Committees. The IFWRD will recruit graduates from the Royal University of Agriculture or technical colleges and assign them to the Forestry Administration Cantonment and Community Forest Management Committees. This will allow the project to build up the capacities at the Forestry Administration Cantonment and Community Forest levels, which is obligatory if REDD+ is to be effective.

Members of Community Forest Management Committees will receive intensive training, particularly with respect to climate-smart CLUP, participatory boundary demarcation using GPS, monitoring of illegal logging, community-based carbon monitoring, preparation of basic forest management plans, and implementation of REDD+ pilot activities. Considering the steep learning curve of REDD+ MRV, continuous participation in training is deemed necessary. The training will be on-the-job and very practice-orientated. Capable staff will be also exposed to advanced technologies, such as remote sensing and GIS and have the opportunity to participate in provincial level training. Exposure visits and information exchanges within the province, but also to other provinces, will be supported.

Initially, the RELs for the district will be developed by provincial staff, but commune level staff will contribute and, increasingly, assume responsibility for monitoring performance.

***Activity 3.2 Design, implement and monitor safeguards***

Annex 1 to the Cancun REDD+ agreements outlines the principal safeguards that REDD+ activities must consider. Following guidance from the national level, Kampong Thom province will have to demonstrate the manner in which it satisfies a range of safeguard criteria, including biodiversity priorities, social issues, stakeholder consultations, gender equity, and environmental standards. The IFWRD will provide technical support to design, implement and report on those safeguards, guided by the requirements of the REDD+ social and environmental standards.

It is probable that an overall process of safeguarding the REDD+ process itself may be considered by undertaking some form of community "free, prior and informed consent." One lesson learned thus far in Cambodia has been the propensity for government institutions to welcome investment and technical assistance by agreeing to programs and projects without

complete understanding of the responsibilities and requirements the actors must fulfill to make those programs and projects effective and successful.

### ***Activity 3.3 Propose jurisdictional guidelines and procedures***

The jurisdictional guidelines and procedures that are developed as the result of the implementation of a planned approach to meet technical specifications of jurisdictional standards in Kampong Thom province will provide the basis for proposals to integrate those guidelines and procedures into the national framework for REDD+. The extent of that integration will be determined by an understanding of the appropriateness of those guidelines and proposals expressed through planned discussions, as well as technical reports prepared to inform and influence the national program.

### ***Activity 3.4 Organize and deliver targeted training programs at the national level***

### ***Activity 3.5 Organize and deliver targeted training programs at the provincial, as well as lower, administrative levels***

There will be considerable training provided to Forestry Administration officers, particularly at the provincial level and at the Forestry Administration Cantonment in Kampong Thom, as well as to Community Forest Management Committees under Activities 3.4 and 3.5, but while training events and workshops involving external experts are planned, especially at the provincial level, particular attention will be directed to in-service and practical training to ensure that the knowledge and understanding acquired through the program is effectively applied and training topics are relevant. A modular training approach will be used that focuses on a limited number of participants who will be required to conduct case studies as part of specific field assignments and report back to the group of trainees.

The capacity building measures will cover a broad array of topics, including remote sensing and GIS analysis, forest cover and benchmark mapping, setting RELs, modeling of development pathways and future deforestation, community-based carbon monitoring, reporting requirements, quality assurance and control, data storage and exchange, benefit-sharing mechanisms, and social and environmental safeguards.

IFWRD will organize training and develop curricula for training programs, produce training materials, contract and train lead trainers, and schedule and monitor the delivery of training sessions.

## **3.2 Implementation Approach and Method**

Project implementation of field activities will be conducted in Kampong Thom province with training provided in both Kampong Thom and Phnom Penh. The Project Manager will provide direction in implementing project activities. IFWRD, the two collaborating Forestry Administration departments, the Forestry Administration Cantonment in Kampong Thom and national and international consultants will be responsible for implementing those field activities. The project will ensure collaboration with the national REDD+ program and international organizations, including NGOs, particularly those that have been involved in the planning and/or implementation of REDD+ programs and activities in the country, such as PACT, the Wildlife Conservation Society and Conservation International, as well as other organizations with which the Forestry Administration has previously established effective working relationships.

### 3.3 Work Plan

Outputs/activities	Description	Responsible parties	Year 1				Year 2				Year 3			
			Quarter				Quarter				Quarter			
			1	2	3	4	1	2	3	4	1	2	3	4
<b>Output 1: Stakeholders understanding and knowledge of REDD+ improved</b>														
A 1.1	Establish Project Steering Committee (PSC), Project Technical Committee (PTC), and Project Management Team for coordinating project activities in accordance with ITTO rules and regulations													
A 1.2	Organize the Project Launching and PSC and PTC meetings in accordance with ITTO rules and regulations													
A 1.3	Review lessons learned from on-going REDD+ interventions in Cambodia													
A 1.4	Conduct awareness-raising activities													
A 1.5	Propose a benefit sharing distribution mechanism													
A 1.6	Develop a commercialization and sustainable financing strategy													
<b>Output 2: Research program on REDD+ in the Tomring Forest in Kampong Thom province developed and implemented</b>														
A 2.1	Develop a default provincial REL for Kampong Thom													
A 2.2	Establish an adjusted provincial REL for Kampong Thom													
A 2.3	Identify activities to reduce carbon emissions and enhance community livelihoods													
A 2.4	Initiate activities to reduce carbon emissions and enhance community livelihoods, especially in deforestation and degradation hotspots													
A 2.5	Monitor and report provincial performance against the jurisdictional REL for Kampong Thom province and the current status of other project activities and state of project indicators													
A 2.6	Publish results and research findings													
<b>Output 3: REDD+ guidelines and training programs strengthened for effective design and implementation of REDD+ activities</b>														
A 3.1	Build MRV capacity at the Forestry Administration Cantonment and Community Forest levels													
A 3.2	Design, implement and monitor safeguards													
A 3.3	Propose jurisdictional guidelines and procedures													
A 3.4	Organize and deliver targeted training programs at the national level													
A 3.5	Organize and deliver targeted training programs at the provincial, as well as lower, administrative levels													

### 3.4 Budget

#### 3.4.1 ITTO Master Budget

Outputs/activity	Description	Budget Component	Quantity			Units	Unit cost US\$	Total cost US\$	ITTO		
			Year 1	Year 2	Year 3				Year 1	Year 2	Year 3
<b>Output 1: Stakeholder understanding and knowledge of REDD+ improved.</b>											
A 1.1	Establish the Project Steering Committee (PSC), Project Technical Committee (PTC) and Project Management Team for coordinating project activities in accordance with ITTO rules and regulations.										
	Project Manager	112	12	12	12	Months	1,300	46,800	15,600	15,600	15,600
	Project Accountant	113	12	12	12	Months	600	21,600	7,200	7,200	7,200
	Field subsistence allowance and accommodation	321	12	12	12	Months	450	16,200	5,400	5,400	5,400
	Project travel and transportation rental	311	1	1	1	Years	4,500	13,500	4,500	4,500	4,500
	Auditor	621	1	1	1	Years	2,000	6,000	2,000	2,000	2,000
	1-Project Vehicles (4 Doors Pickup)	411	1			Unit	26,500	26,500	26,500	0	0
	3-Motorbikes	412	3			Units	1,950	5,850	5,850	0	0
	3-Notebook	413	3			Unit	850	2,550	2,550	0	0
	3-GPS	414	3			Unit	650	1,950	1,950	0	0
	2-Camara	415	2			Unit	650	1,300	1,300	0	0
	1-LCD Projector	416	1			Unit	2,000	2,000	2,000	0	0
	2-Printer Laser color	417	2			Unit	500	1,000	1,000	0	0
	3-Computer	418	3			Unit	850	2,550	2,550	0	0
	5- Office Table	419	5			Unit	175	875	875	0	0
	30-Chairs for meeting rooms	420	30			Unit	25	750	750	0	0
	1-Photocopy Machine	421	1			Unit	2,500	2,500	2,500	0	0
	Petrol and maintenance (1 x US\$ 4,000/year)	611	1	1	1	Years	3,000	9,000	3,000	3,000	3,000
	<b>Sub-total</b>							<b>160,925</b>	<b>85,525</b>	<b>37,700</b>	<b>37,700</b>
A 1.2	Organize the Project Launching and PSC and PTC meetings in accordance with ITTO rules and regulations.										
	Organize Project Launching	612	1			Meeting	2500	2500	2500	0	0
	PSC meetings (6 x US\$ 750)	613	2	2	2	Meeting	1000	4500	1500	1500	1500
	PTC and stakeholder meeting (7 x US\$ 500)	614	2	3	2	Meeting	500	3500	1000	1500	1000
	Office supplies	521	12	12	12	Month	125	4,500	1,500	1,500	1,500
	<b>Sub-total</b>							<b>15,000</b>	<b>6,500</b>	<b>4,500</b>	<b>4,000</b>
A 1.3	Review lessons learned from on-going REDD+ interventions in Cambodia										

Outputs/activity	Description	Budget Component	Quantity			Units	Unit cost US\$	Total cost US\$	ITTO		
			Year 1	Year 2	Year 3				Year 1	Year 2	Year 3
	Sub-contract for review lessons learned on REDD+	21	2			Month	2,000	4,000	4,000	0	0
	Others (2 Staff) 10days/m, US\$35/day; 2m	312	40			person/day	35	1,400	1,400	0	0
	<b>Sub-total</b>							<b>5,400</b>	<b>5,400</b>	<b>0</b>	<b>0</b>
A 1.4	Conduct awareness-raising activities										
	Others (3 Staff) 5 days/m, US\$35/day, 3m/year*3year	312	45	45	45	person/day	35	4,725	1,575	1,575	1,575
	Meetings, training, workshops for 1,370 participants at US\$30/participant/day	615	80	100	80	Meeting	30	7800	2400	3000	2400
	<b>Sub-total</b>							<b>12,525</b>	<b>3,975</b>	<b>4,575</b>	<b>3,975</b>
A 1.5	Propose a benefit sharing mechanism										
	Sub-contract for developing a benefit sharing mechanism	25			1.5	Month	2,000	3,000	0	0	3,000
	Others (2 Staff) 15days/m, US\$35/day; 2m	312			40	person/day	35	1,400	0	0	1,400
	<b>Sub-total</b>							<b>4,400</b>	<b>0</b>	<b>0</b>	<b>4,400</b>
A 1.6	Develop a commercialization and sustainable financing strategy										
	Sub-contract for developing a commercialization and sustainable financing strategy	26			1.5	Month	2,000	3,000	0	0	3,000
	Others (2 Staff) 10days/m, US\$35/day; 2m	312			40	person/day	35	1,400	0	0	1,400
	<b>Sub-total</b>							<b>4,400</b>	<b>0</b>	<b>0</b>	<b>4,400</b>
<b>Output 2: Research program on REDD+ in the Tomring Forest in Kampong Thom province developed and implemented</b>											
A 2.1	Develop a default provincial REL for Kampong Thom										
	Sub-contract for developing default provincial REL	22	1.5			Month	2,000	3,000	3,000	0	0
	Others (2 Staff) 10days/m, US\$35/day; 2m	312	40			person/day	35	1,400	1,400	0	0
	<b>Sub-total</b>							<b>4,400</b>	<b>4,400</b>	<b>0</b>	<b>0</b>
A 2.2	Establish an adjusted provincial REL for Kampong Thom										
	Sub-contract for establish and adjust provincial REL	22	1.5			Month	2,000	3,000	3,000	0	0
	Others (2 Staff) 10days/m, US\$35/day; 2m	312	40			person/day	35	1,400	1,400	0	0
	<b>Sub-total</b>							<b>4,400</b>	<b>4,400</b>	<b>0</b>	<b>0</b>
A 2.3	Identify activities to reduce carbon emissions and enhance community livelihoods										
	Sub-contract for community livelihoods enhancement and reduce carbon emissions	23	1.5			Month	2,000	3,000	3,000	0	0
	Others (2 Staff) 10days/m, US\$35/day; 2m	312	40			person/day	35	1,400	1,400	0	0
	<b>Sub-total</b>							<b>4,400</b>	<b>4,400</b>	<b>0</b>	<b>0</b>
A 2.4	Initiate activities to reduce carbon emissions and enhance community livelihoods, especially in deforestation and degradation hotspots										
	6 community livelihood and reduce carbon emission pilot activities	616	1	3	2	Activity	4,750	28,500	4,750	14,250	9500

Outputs/activity	Description	Budget Component	Quantity			Units	Unit cost US\$	Total cost US\$	ITTO		
			Year 1	Year 2	Year 3				Year 1	Year 2	Year 3
	Seedling Production (fast growing trees & fruit trees) 45,000 seedlings/year*3years	511	1	1	1	Years	5,500	16,500	5,500	5,500	5,500
	Others (2 Staff) 10days/m, US\$35/day; 2m	312	40	40	40	person/day	35	4,200	1,400	1,400	1400
	<b>Sub-total</b>							<b>49,200</b>	<b>11,650</b>	<b>21,150</b>	<b>16400</b>
A 2.5	Monitor and report provincial performance against the jurisdictional REL for Kampong Thom province and the current status of other project activities and state of project indicators										
	Forest Management and Planning Specialist	114	9	6	6	Months	550	11,550	4,950	3,300	3,300
	Forest and Biodiversity Conservation Specialist	115	9	6	6	Months	550	11,550	4,950	3,300	3,300
	Community Outreach and Livelihood Development Officer	116	6	9	6	Months	550	11,550	3,300	4,950	3,300
	M&E Specialist	117	3	9	9	Months	550	11,550	1,650	4,950	4,950
	Field Assistance (3), at US\$ 350 per m	118	3	3	3	Person-Years	350	31,500	10,500	10,500	10,500
	<b>Sub-total</b>							<b>77,700</b>	<b>25,350</b>	<b>27,000</b>	<b>25,350</b>
A 2.6	Publish results and research findings										
	Information, research finding publications	617	1	1	1	Years	4,000	12,000	4,000	4,000	4,000
	<b>Sub-total</b>							<b>12,000</b>	<b>4,000</b>	<b>4,000</b>	<b>4,000</b>
<b>Output 3: REDD+ guidelines and training programs strengthened for effective design and implementation of REDD+ activities</b>											
A 3.1	Build MRV capacity at the Forestry Administration Cantonment and Community Forest levels										
	Others (resource persons)	614	15	15	15	Person-day	100	4,500	1,500	1,500	1,500
	Meetings, training, workshops for 1,370 participants at US\$30/participant/day	615	60	60	60	Participant-day	35	6,300	2,100	2,100	2,100
	<b>Sub-total</b>							<b>10,800</b>	<b>3,600</b>	<b>3,600</b>	<b>3,600</b>
A 3.2	Design, implement and monitor safeguards										
	Sub-contract for designing, implement and monitor safeguards	24		1.5		Month	2,000	3,000	0	3,000	0
	Others (2 Staff) 15days/m, US\$35/day; 2m	312		40		person/day	35	1,400	0	1,400	0
	<b>Sub-total</b>							<b>4,400</b>	<b>0</b>	<b>4,400</b>	<b>0</b>
A 3.3	Propose jurisdictional guidelines and procedures										
	Sub-contract for jurisdictional guidelines and procedures	27			1.5	Month	2,000	3,000		0	3000
	Others (2 Staff) 10days/m, US\$35/day; 2m	312			40	person/day	35	1,400		0	1400
	<b>Sub-total</b>							<b>4,400</b>	<b>0</b>	<b>0</b>	<b>4400</b>
A 3.4	Organize and deliver targeted training programs at the national level										
	Others (resource persons)	331	20	20	20	Person-day	100	6,000	2,000	2,000	2,000
	Meetings, training, workshops for 1,370 participants at US\$30/participant/day	615	120	150	130	Participant-day	30	12,000	3,600	4,500	3,900
	<b>Sub-total</b>							<b>18,000</b>	<b>5,600</b>	<b>6,500</b>	<b>5,900</b>



Outputs/activity	Description	Budget Component	Quantity			Units	Unit cost US\$	Total cost US\$	ITTO		
			Year 1	Year 2	Year 3				Year 1	Year 2	Year 3
A 3.5	Organize and deliver targeted training programs at the provincial, as well as lower, administrative levels										
	Others (resource persons)	331	30	30	30	Person-day	100	9,000	3,000	3,000	3,000
	Meetings, training, workshops for 1,370 participants at US\$30/participant/day	615	140	195	165	Participant-day	30	15,000	4,200	5,850	4,950
	<i>Sub-total</i>							<b>24,000</b>	<b>7,200</b>	<b>8,850</b>	<b>7,950</b>
	<b>Sub-total Outputs 1-3</b>							<b>416,350</b>	<b>172,000</b>	<b>122,275</b>	<b>122,075</b>
80	<b>Project monitoring &amp; administration</b>										
81	ITTO monitoring and review							9,000			
82	ITTO midterm evaluation							7,500			
	<b>Sub-total (Outputs 1-3 + ITTO M&amp;E)</b>							<b>432,850</b>			
83	ITTO program support costs (12% on items 10-82 above)							51,942			
	<b>GRAND TOTAL</b>							<b>484,792</b>			

### 3.4.2 Consolidated budget by component

Category	Description	Total	Year 1	Year 2	Year 3
<b>10</b>	<b>Personnel</b>				
111	Project Director	15,000.00	5,000.00	5,000.00	5,000.00
112	Project Manager	46,800.00	15,600.00	15,600.00	15,600.00
113	Project Accountant	21,600.00	7,200.00	7,200.00	7,200.00
114	Forest Management and Planning Specialist	11,550.00	4,950.00	3,300.00	3,300.00
115	Forest and Biodiversity Conservation Specialist	11,550.00	4,950.00	3,300.00	3,300.00
116	Community Outreach and Livelihood Development Officer	11,550.00	3,300.00	4,950.00	3,300.00
117	M&E Specialist	11,550.00	1,650.00	4,950.00	4,950.00
118	Field Assistance (3), at US\$ 350 per m	31,500.00	10,500.00	10,500.00	10,500.00
119	Technical Staffs	10,800.00	3,600.00	3,600.00	3,600.00
<b>19</b>	<b>Subtotal</b>	<b>146,100.00</b>	<b>48,150.00</b>	<b>49,800.00</b>	<b>48,150.00</b>
<b>20</b>	<b>Sub-contract</b>				
21	Sub-contract for review lessons learned on REDD+	4,000.00	4,000	0	0
22	Sub-contract for developing default provincial REL and for establishing and adjusting provincial REL	6,000.00	6,000	0	0
23	Sub-contract for community livelihoods enhancement and reduce carbon emissions	3,000.00	3,000	0	0
24	Sub-contract for designing, implement and monitor safeguards	3,000.00	0	3,000	0
25	Sub-contract for developing a benefit sharing mechanism	3,000.00	0	0	3,000
26	Sub-contract for developing a commercialization and sustainable financing strategy	3,000.00	0	0	3,000
27	Sub-contract for jurisdictional guidelines and procedures	3,000.00	0	0	3,000
<b>29</b>	<b>Subtotal</b>	<b>25,000.00</b>	<b>13,000.00</b>	<b>3,000.00</b>	<b>9,000.00</b>
<b>30</b>	<b>Travel</b>				
311	Project travel and transportation rental	13,500.00	4,500	4,500	4,500
312	Others (3 Staff)	20,125.00	8,575	4,375	7,175
313	Travel cost	<b>3,600.00</b>	1,200.00	1,200.00	1,200.00
322	Field subsistence allowance and accommodation	16,200.00	5,400	5,400	5,400
331	Others (resource persons)	19,500.00	6,500	6,500	6,500
<b>39</b>	<b>Subtotal</b>	<b>72,925.00</b>	<b>26,175.00</b>	<b>21,975.00</b>	<b>24,775.00</b>
<b>40</b>	<b>Capital Items</b>				
411	1-Project Vehicles (4 Doors Pickup)	26,500.00	26,500.00	-	-
412	3- Motorbikes	5,850.00	5,850.00	-	-
413	3-Notebook	2,550.00	2,550.00	-	-
414	3-GPS	1,950.00	1,950.00	-	-
415	2-Camara	1,300.00	1,300.00	-	-
416	1-LCD Projector	2,000.00	2,000.00	-	-
417	2-Printer Laser color	1,000.00	1,000.00	-	-
418	3-Computer	2,550.00	2,550.00	-	-
419	5- Office Tables	875.00	875.00	-	-

<b>Category</b>	<b>Description</b>	<b>Total</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
420	30-Chairs for meeting rooms	750.00	750.00	-	-
421	1-Photocopy Machine	2,500.00	2,500.00	-	-
422	Project offices	18,000.00	6,000.00	6,000.00	6,000.00
423	Capital equipment	7,500.00	2,500.00	2,500.00	2,500.00
<b>49</b>	<b>Subtotal</b>	<b>47,825.00</b>	<b>47,825.00</b>	<b>-</b>	<b>-</b>
<b>50</b>	<b>Consumable items</b>				
511	Seedling Production (fast growing trees & fruit trees) 45,000 seedlings/year*3years	16,500.00	5,500.00	5,500.00	5,500.00
521	Office supplies	4,500.00	1,500.00	1,500.00	1,500.00
531	Utilities	10,800.00	3,600.00	3,600.00	3,600.00
<b>59</b>	<b>Subtotal</b>	<b>21,000.00</b>	<b>7,000.00</b>	<b>7,000.00</b>	<b>7,000.00</b>
<b>60</b>	<b>Miscellaneous</b>				
611	Petrol and maintenance (2 x US\$ 3,000/year)	9,000.00	3,000.00	3,000.00	3,000.00
612	Organize Project launching,	2,500.00	2,500.00	-	-
613	PSC meetings (6 x US\$ 750)	4,500.00	1,500.00	1,500.00	1,500.00
614	PTC and stakeholder meeting (6 x US\$ 500)	3,500.00	1,000.00	1,500.00	1,000.00
615	Meetings, training, workshops for 1,370 participants at US\$30/participant/day	41,100.00	12,300.00	15,450.00	13,350.00
616	6 community livelihood and reduce carbon emission pilot activities	28,500.00	4,750.00	14,250.00	9,500.00
617	Information, research finding publications	12,000.00	4,000.00	4,000.00	4,000.00
618	Phone, fax, email and Internet	3,600.00	1,200.00	1,200.00	1,200.00
621	Audit cost	6,000.00	2,000.00	2,000.00	2,000.00
<b>69</b>	<b>Subtotal</b>	<b>110,700.00</b>	<b>32,250.00</b>	<b>42,900.00</b>	<b>35,550.00</b>
<b>70</b>	<b>National Management Cost</b>	<b>6,930.00</b>			
<b>80</b>	<b>Project monitoring &amp; administration</b>				
81	ITTO monitoring and review	9,000.00			
82	ITTO midterm evaluation	7,500.00			
	<b>Sub-total (11-82, Excluded EA Contribution)</b>	<b>432,850.00</b>			
83	ITTO program support costs (12% on items 10-82 above)	51,942.00			
	<b>Sub-total ITTO (Excluded EA Contribution)</b>	<b>484,792.00</b>			
<b>100</b>	<b>GRAND TOTAL (Included EA Contribution)</b>	<b>561,022.00</b>			

### 3.4.3 ITTO Yearly Budget

Category	Description	Total	Year 1	Year 2	Year 3
<b>10</b>	<b>Personnel</b>				
112	Project Manager	46,800.00	15,600.00	15,600.00	15,600.00
113	Project Accountant	21,600.00	7,200.00	7,200.00	7,200.00
114	Forest Management and Planning Specialist	11,550.00	4,950.00	3,300.00	3,300.00
115	Forest and Biodiversity Conservation Specialist	11,550.00	4,950.00	3,300.00	3,300.00
116	Community Outreach and Livelihood Development Officer	11,550.00	3,300.00	4,950.00	3,300.00
117	M&E Specialist	11,550.00	1,650.00	4,950.00	4,950.00
118	Field Assistance (3), at US\$ 350 per m	31,500.00	10,500.00	10,500.00	10,500.00
<b>19</b>	<b>Subtotal</b>	<b>146,100.00</b>	<b>48,150.00</b>	<b>49,800.00</b>	<b>48,150.00</b>
<b>20</b>	<b>Sub-contract</b>				
21	Sub-contract for review lessons learned on REDD+	4,000.00	4,000	0	0
22	Sub-contract for developing default provincial REL and for establishing and adjusting provincial REL	6,000.00	6,000	0	0
23	Sub-contract for community livelihoods enhancement and reduce carbon emissions	3,000.00	3,000	0	0
24	Sub-contract for designing, implement and monitor safeguards	3,000.00	0	3,000	0
25	Sub-contract for developing a benefit sharing mechanism	3,000.00	0	0	3,000
26	Sub-contract for developing a commercialization and sustainable financing strategy	3,000.00	0	0	3,000
27	Sub-contract for jurisdictional guidelines and procedures	3,000.00	0	0	3,000
<b>29</b>	<b>Subtotal</b>	<b>25,000.00</b>	<b>13,000.00</b>	<b>3,000.00</b>	<b>9,000.00</b>
<b>30</b>	<b>Travel</b>				
311	Project travel and transportation rental	13,500.00	4,500	4,500	4,500
312	Others (3 Staff)	20,125.00	8,575	4,375	7,175
322	Field subsistence allowance and accommodation	16,200.00	5,400	5,400	5,400
331	Others (resource persons)	19,500.00	6,500	6,500	6,500
<b>39</b>	<b>Subtotal</b>	<b>69,325.00</b>	<b>24,975.00</b>	<b>20,775.00</b>	<b>23,575.00</b>
<b>40</b>	<b>Capital Items</b>				
411	1-Project Vehicles (4 Doors Pickup)	26,500.00	26,500.00	-	-
412	3- Motorbikes	5,850.00	5,850.00	-	-
413	3-Notebook	2,550.00	2,550.00	-	-
414	3-GPS	1,950.00	1,950.00	-	-
415	2-Camara	1,300.00	1,300.00	-	-
416	1-LCD Projector	2,000.00	2,000.00	-	-
417	2-Printer Laser color	1,000.00	1,000.00	-	-
418	3-Computer	2,550.00	2,550.00	-	-
419	5- Office Tables	875.00	875.00	-	-
420	30-Chairs for meeting rooms	750.00	750.00	-	-
421	1-Photocopy Machine	2,500.00	2,500.00	-	-
<b>49</b>	<b>Subtotal</b>	<b>47,825.00</b>	<b>47,825.00</b>	<b>-</b>	<b>-</b>
<b>50</b>	<b>Consumable items</b>				

<b>Category</b>	<b>Description</b>	<b>Total</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
511	Seedling Production (fast growing trees & fruit trees) 45,000 seedlings/year*3years	16,500.00	5,500.00	5,500.00	5,500.00
521	Office supplies	4,500.00	1,500.00	1,500.00	1,500.00
<b>59</b>	<b>Subtotal</b>	<b>21,000.00</b>	<b>7,000.00</b>	<b>7,000.00</b>	<b>7,000.00</b>
<b>60</b>	<b>Miscellaneous</b>				
611	Petrol and maintenance (1 x US\$ 3,000/year)	9,000.00	3,000.00	3,000.00	3,000.00
612	Organize Project launching,	2,500.00	2,500.00	-	-
613	PSC meetings (6 x US\$ 750)	4,500.00	1,500.00	1,500.00	1,500.00
614	PTC and stakeholder meeting (6 x US\$ 500)	3,500.00	1,000.00	1,500.00	1,000.00
615	Meetings, training, workshops for 1,370 participants at US\$30/participant/day	41,100.00	12,300.00	15,450.00	13,350.00
616	6 community livelihood and reduce carbon emission pilot activities	28,500.00	4,750.00	14,250.00	9,500.00
617	Information, research finding publications	12,000.00	4,000.00	4,000.00	4,000.00
621	Audit cost	6,000.00	2,000.00	2,000.00	2,000.00
<b>69</b>	<b>Subtotal</b>	<b>107,100.00</b>	<b>31,050.00</b>	<b>41,700.00</b>	<b>34,350.00</b>
<b>80</b>	<b>Project monitoring &amp; administration</b>				
81	ITTO monitoring and review	9,000.00			
82	ITTO midterm evaluation	7,500.00			
	<b>Sub-total (11-82)</b>	<b>432,850.00</b>			
83	ITTO program support costs (12% on items 10-82 above)	51,942.00			
	<b>Sub-total</b>	<b>432,850.00</b>			
<b>100</b>	<b>GRAND TOTAL</b>	<b>484,792.00</b>			

### 3.4.4 Executing agency budget by component

Category	Description	Total	Year 1	Year 2	Year 3
<b>10</b>	<b><i>Personnel</i></b>				
111	Project Director	<b>15,000.00</b>	5,000.00	5,000.00	5,000.00
119	Technical Staffs	<b>10,800.00</b>	3,600.00	3,600.00	3,600.00
<b>19</b>	<b>Subtotal</b>	<b>25,800.00</b>	<b>8,600.00</b>	<b>8,600.00</b>	<b>8,600.00</b>
<b>30</b>	<b><i>Duty travel</i></b>				
313	Travel cost	<b>3,600.00</b>	1,200.00	1,200.00	1,200.00
<b>39</b>	<b>Subtotal</b>	<b>3,600.00</b>	<b>1,200.00</b>	<b>1,200.00</b>	<b>1,200.00</b>
<b>40</b>	<b><i>Capital items</i></b>				
422	Project offices	<b>18,000.00</b>	6,000.00	6,000.00	6,000.00
423	Capital equipment	<b>7,500.00</b>	2,500.00	2,500.00	2,500.00
<b>49</b>	<b>Subtotal</b>	<b>25,500.00</b>	<b>8,500.00</b>	<b>8,500.00</b>	<b>8,500.00</b>
<b>50</b>	<b><i>Consumable Items</i></b>				
531	Utilities	<b>10,800.00</b>	3,600.00	3,600.00	3,600.00
<b>59</b>	<b>Subtotal</b>	<b>10,800.00</b>	<b>3,600.00</b>	<b>3,600.00</b>	<b>3,600.00</b>
<b>60</b>	<b><i>Miscellaneous</i></b>				
618	Phone, fax, email and Internet	<b>3,600.00</b>	1,200.00	1,200.00	1,200.00
<b>69</b>	<b>Subtotal</b>	<b>3,600.00</b>	<b>1,200.00</b>	<b>1,200.00</b>	<b>1,200.00</b>
	<b>SUBTOTAL all categories</b>	<b>69,300.00</b>	<b>23,100.00</b>	<b>23,100.00</b>	<b>23,100.00</b>
	<b>Management cost (10%)</b>	6,930.00			
	<b>Grand Total</b>	<b>76,230.00</b>			

### 3.4.5 ITTO Budget Table-Output Based

Outputs/activities	Description	Total
<b>Output 1: Stakeholder understanding and knowledge of REDD+ improved</b>		
A 1.1	Establish the Project Steering Committee (PSC), Project Technical Committee (PTC) and Project Management Team for coordinating project activities in accordance with ITTO rules and regulations.	163,925
A 1.2	Organize the Project Launching and PSC and PTC meetings in accordance with ITTO rules and regulations.	15,000
A 1.3	Review lessons learned from on-going REDD+ interventions in Cambodia	5,400
A 1.4	Conduct awareness-raising activities	12,525
A 1.5	Propose a benefit sharing distribution mechanism	4,400
A 1.6	Develop a commercialization and sustainable financing strategy	4,400
<i>Sub total</i>		<b>205,650</b>
<b>Output 2: Research program on REDD+ in the Tomring Forest in Kampong Thom province developed and implemented</b>		
A 2.1	Develop a default provincial REL for Kampong Thom	4,400
A 2.2	Establish an adjusted provincial REL for Kampong Thom	4,400
A 2.3	Identify activities to reduce carbon emissions and enhance community livelihoods	4,400
A 2.4	Initiate activities to reduce carbon emissions and enhance community livelihoods, especially in deforestation and degradation hotspots	47,700
A 2.5	Monitor and report provincial performance against the jurisdictional REL for Kampong Thom province and the current status of other project activities and state of project indicators	77,700
A 2.6	Publish results and research findings	12,000
<i>Sub total</i>		<b>150,600</b>
<b>Output 3: REDD+ guidelines and training programs strengthened for effective design and implementation of REDD+ activities</b>		
A 3.1	Build MRV capacity at the Forestry Administration Cantonment and Community Forest levels	10,800
A 3.2	Design, implement and monitor safeguards	4,400
A 3.3	Propose jurisdictional guidelines and procedures	4,400
A 3.4	Organize and deliver targeted training programs at the national level	18,000
A 3.5	Organize and deliver targeted training programs at the provincial, as well as lower, administrative levels	22,500
<i>Sub total</i>		<b>60,100</b>
<i>Component sub total</i>		<b>416,350</b>
<b>Other and ITTO costs</b>		
ITTO monitoring and review		9,000
ITTO midterm evaluation		7,500
ITTO program support cost		51,942
<b>Sub-total ITTO costs</b>		<b>68,442</b>
<b>Grand-total</b>		<b>484,792</b>

### 3.5 Assumptions, Risks, Sustainability

#### 3.5.1 Assumptions and Risks

The most significant risks that might affect effective project implementation and proposed mitigating actions to counteract those risks include the following:

- Carbon prices offered through the voluntary market remain above the current minimum price established by the Cambodian government of \$7.00 per metric ton of CO<sub>2</sub>eq for verified carbon credits. These risks will be mitigated by recognizing that carbon prices will fluctuate over time depending on prevailing conditions of relative supply and demand. The project will ensure that the technical specifications of voluntary carbon standards are met and relevant stakeholders understand, and are prepared, to participate in carbon markets notwithstanding that initial entry into that market may have to be deferred to some extent to await more conducive market conditions. The understanding and preparation achieved through the project will not dissipate during that period of waiting.
- The establishment of Economic Land Concessions is not imposed in a non-transparent manner by means of arbitrary political decisions in the Tomring Forest in Kampong Thom province. This risk will be mitigated by seeking government approval for use of the Tomring Forest as a project site. It will also be mitigated in those instances in which Economic Land Concessions might have already been established, by attempting to negotiate with concessionaires, as well as with appropriate government representatives. The primary purpose of the those negotiations will be to reallocate the areas of the concession that might be in Community Forests inside the project site back to the Community Forests, or readjust the boundaries of the concessions to recognize the contiguous nature of the area in the Tomring Forest that has been allocated to Community Forests. If those negotiations are unsuccessful, the boundaries of the project site will be adjusted and discussions will be initiated with appropriate government representatives to allocate compensating areas in the Tomring Forest.
- Community Forestry Management Committees in the Tomring Forest in Kampong Thom province participate in the project and Community Forestry members living in and around the Tomring Forest actively participate in the project's planned livelihood enhancement initiatives. **The enabling conditions to encourage such active participation and mitigate risk include the increased security of access and user rights associated with support provided through the project to develop community forest management plans; the expanded income opportunities available as the result of project livelihood enhancement activities and the actualization of periodic payments for carbon credits through the initiation of the project's benefit sharing initiative; and the extended opportunities made available through the project to facilitate participation in decision-making processes involving local land use and development.** The risk will be especially mitigated by initiating project activities with those Community Forest Management Committees and Community Forestry members who are the most receptive to participating in project initiatives, while continuing awareness raising activities among those who might initially be less enthusiastic about supporting such participation. It is expected, though, that as increased incomes from enhanced livelihood opportunities that are introduced under the project expand, those Community Forest Management Committees and Community Forestry members will become increasingly supportive of the project.



- There is sufficient government commitment to the project at the national, provincial, district and commune levels of government. This risk will be mitigated in the early stages of the project by attempting to involve the most industrious, responsible and committed government officers available in project-related activities. Coincidentally, it is anticipated that government commitment at every level will steadily expand over the life of the project as the various benefits contingent on active entry into the voluntary market for carbon are recognized.
- Cambodia National REDD program supports project efforts to develop a REDD+ project level jurisdictional approach in Kampong Thom province. The impacts of this risk will be mitigated by initially meeting with the managers of the Cambodia National REDD program to discuss the approach and subsequently ensure that each project activity associated with meeting the technical specifications of REDD+ jurisdictional standards is available for review. The actual level of risk associated with a lack of support for the project level jurisdictional approach from the Cambodia National REDD program is expected to be relatively low.
- Livelihood enhancement interventions are viable, as well as financially sustainable. The impacts of this risk will be mitigated by ensuring that the project considers a wide variety of potential interventions and encourages sufficient flexibility to facilitate shifting from those interventions that do not demonstrate adequate viability or sustainability to others that might result in more successful livelihood interventions.

### **3.5.2 Sustainability**

The extension of post-project activities will be reinforced through various means. These are discussed in the following overview of some of the more important elements of sustainability that will result in increased institutional capabilities to implement REDD+:

The financing of post-project activities will be one of the most critical issues affecting sustainability at the close of the project. It is expected that sales of the Voluntary Carbon Units generated through the course of the project will have been formalized in a voluntary market, or through some other form of agreement, by the close of the project, although initial entry may have to be deferred to some extent in anticipation of more acceptable unit prices. The IFWRD will assume responsibility for ensuring that broad-based stakeholder interest in selling the Voluntary Carbon Units does not dissipate during that period of deferment. The IFWRD will also seize the opportunity to prepare a commercialization and sustainable financing strategy, in collaboration with the Forestry Administration and the national REDD+ program, that will recognize the allocation of those revenues and provide a prototype financial model to apply as the activities are extended to other provinces in the post-project period. Subsequently, as the revenues from the sales are initiated and the benefit sharing mechanism proposed through the project, or some other modified form of allocation of the benefits, is endorsed by the government and agreed by relevant stakeholders, revenues will become available on a recurring basis to allocate to activities that support sustainable forest management in the Tomring Forest, including those introduced through the project. These recurrent revenue streams will provide an important initial source of required funding to support the continuation of those project activities that have had the greatest effects on sustainable forest management after the close of the project.

A second source of post-project funding that will support the continuation of an important sub-set of project activities will be derived from the rational decisions of villagers to reinvest in the implementation of agricultural and forestry extension initiatives, as well as livelihood

development activities, introduced through the project. These villagers would have learned during the course of the project that the implementation of those activities will have assisted individuals and small groups to increase the productivity and, by extension, the incomes, of their agricultural systems and improve market access for agricultural and NTFP products supported under the project. Those increased incomes will provide sufficient motivation for villagers to renew their personal support for the continuation of the implementation of those activities indefinitely in efforts to further enlarge their household incomes.

It will also be of considerable significance to ensure sufficient support for expanding and imparting the technical skills associated with the REDD+ training of government officials and local communities introduced through the project in Kampong Thom to other provinces. Some of the funding required to support that expansion will originate from the recurring revenues attributable to the sale of Voluntary Carbon Units, but to ensure the availability of sufficient funds to support a broad-based outreach program, additional funding will be required. That will originate in the annual budget of the Forestry Administration using recurrent funds received from annual allocations from the government, as well as revenues received from other training programs organized and implemented under the National REDD+ program with support from the international donor community and fees received from competitive grants and consultancies undertaken under the auspices of the National REDD+ program and the Forestry Administration. Since there will be a substantive body of training materials and training modules developed over the life of the project, as well as an expanding number of trainers trained who will have the capabilities to expand the training to other provinces, the incremental costs of preparing those materials for use in those other provinces will be significantly reduced. Those costs will also be lowered considering the recent construction and equipping of IFWRD research facilities with support from the Korea Rural Community Corporation. This will allow the funds that will be available to be used to continue to contract and train lead trainers, or trainers with specialized expertise.

The application of the provisional Jurisdictional Guidelines and Procedures introduced through the project to advance the national REDD+ program and expand REDD+ activities into other provinces of the country will provide an appropriate foundation for maintaining project sustainability after the close of the project. The incorporation of the most essential elements of those guidelines and procedures into the national program will have considerable influence on the international donor community, the private sector and development NGOs interested in planning and implementing REDD+ projects in collaboration with the government to support the expansion of REDD+ activities into other provinces after the close of the project.

The spillover effects of the enhanced support of local communities and other stakeholders for REDD+ activities as a result of their increased awareness of the various advantages of participating in REDD+ programs that will be developed through the project will also provide an important impetus affecting government decisions on whether to sustain project activities or expand them into other provinces after the close of the project.

## **PART IV: IMPLEMENTATION ARRANGEMENTS**

### **4.1. Organizational Structure and Stakeholder Involvement**

#### **4.1.1 Executing Agency and Partners**

##### **Forestry Administration**

The Executing Agency of the proposed project is the Forestry Administration, which will have overall responsibility for project implementation, as depicted in the organizational structure of the project that is provided in Figure 4. The organizational structure of the Forestry Administration is provided for reference in Figure 5.

##### **Institute of Forest and Wildlife Research and Development**

The IFWRD will manage project implementation. It will provide the Project Manager, coordinate the scheduling of Forestry Administration staff that will be involved with the project, contract and schedule consultants, manage procurement and disbursement, produce financial reports, provide communications and information dissemination, and lead monitoring and evaluation. IFWRD will also organize training and develop curricula for training programs, produce training materials, contract and train lead trainers and schedule and monitor the delivery of training sessions.

The IFWRD's project partners will include the Department of Forest Management and Community Forestry and the Department of Wildlife and Biodiversity in the Forestry Administration, and the Forestry Administration Cantonment in Kampong Thom province.

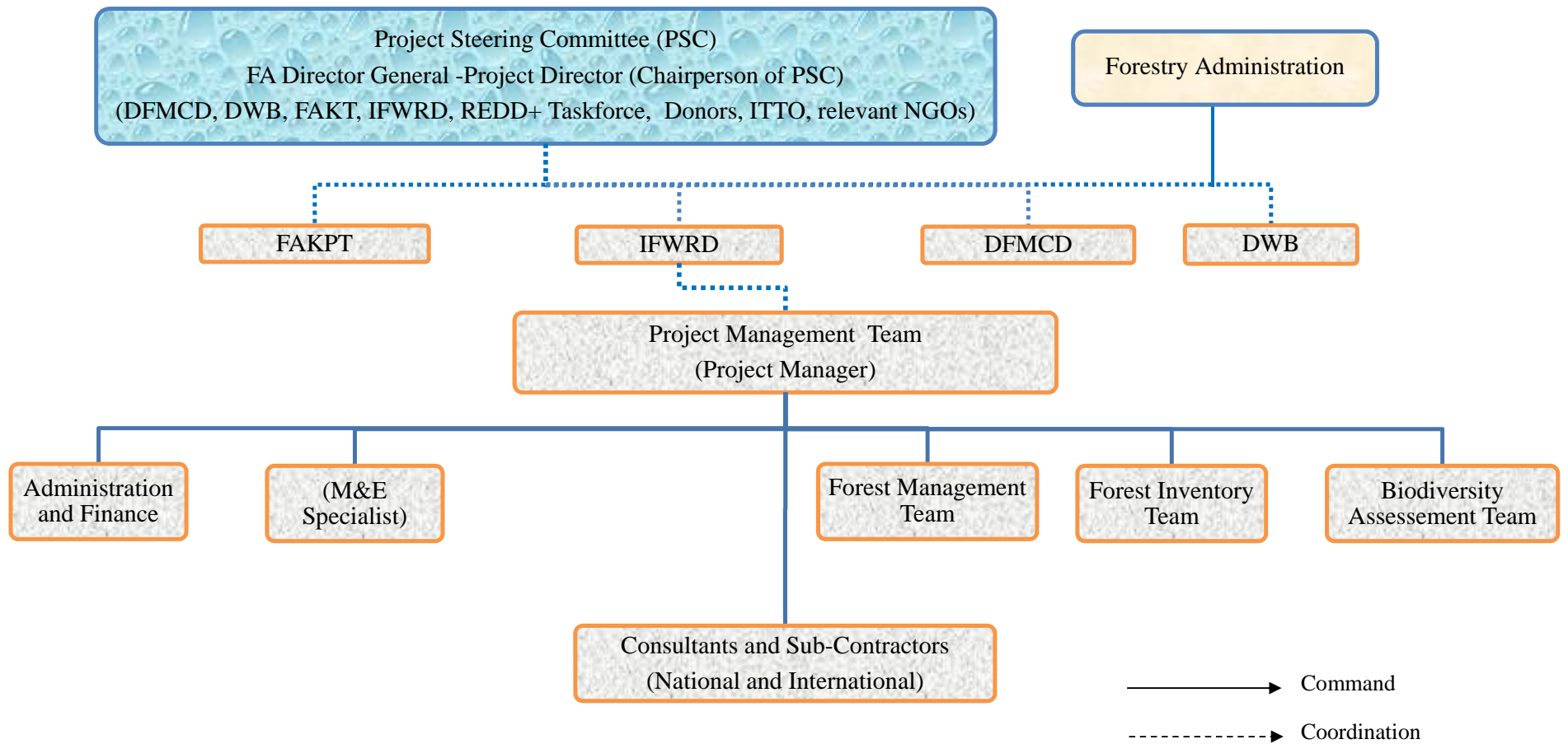
The DFMCF and DWB will provide technical staff to assist the Forestry Administration Cantonment in Kampong Thom to standardize the procedures to meet the technical specifications of voluntary carbon standards and provide trainers for strengthening capacities.

The Forestry Administration in Kampong Thom will provide technical staff to collaborate with local communities to standardize the procedures to meet the technical specifications of voluntary carbon standards and to act as trainers for strengthening capacities of local communities.

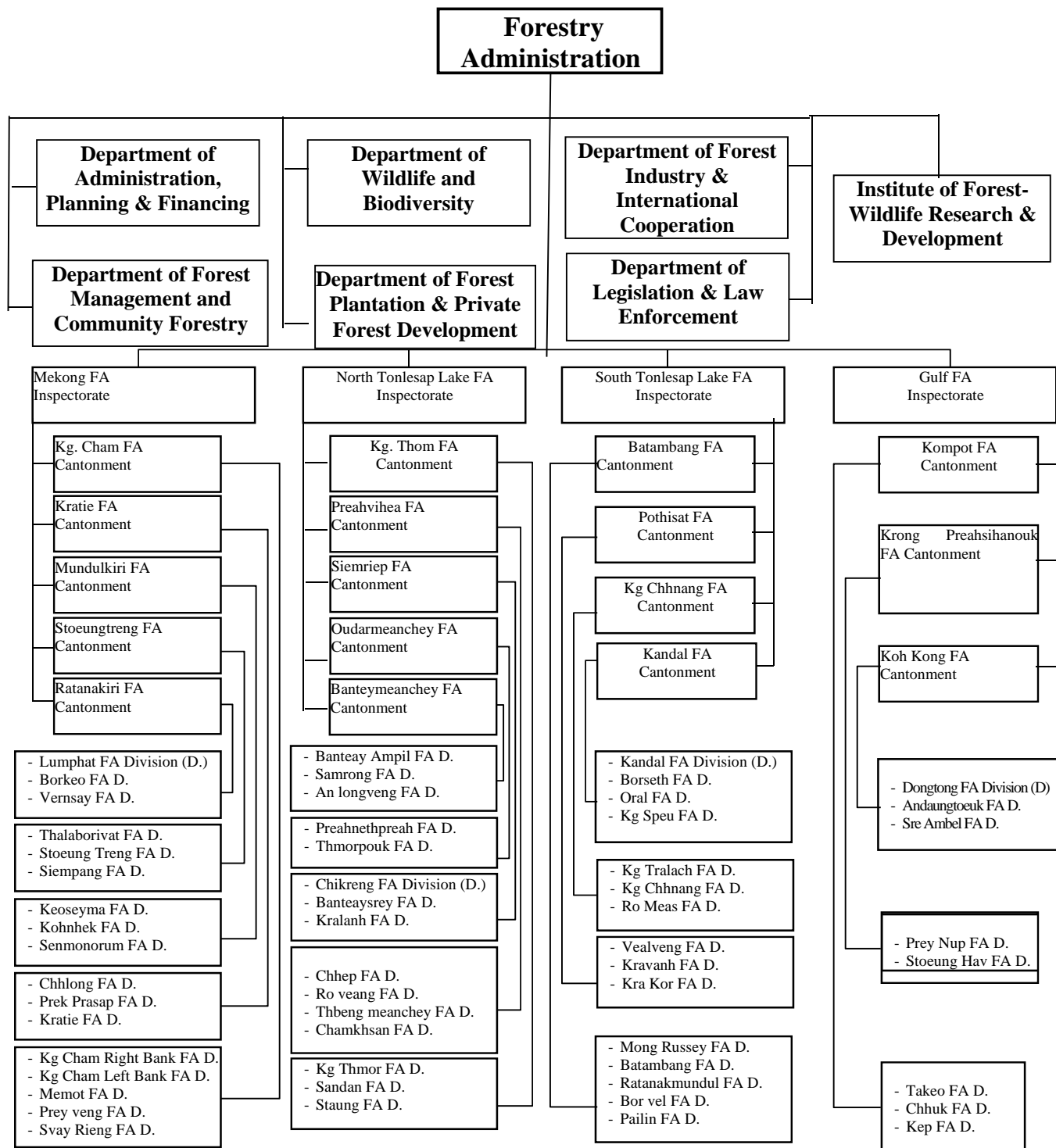
#### **4.1.2 Project Management Team**

The Project Management Team will consist of a Project Manager, a Forest Management Team, a Forest Inventory Team, a Biodiversity Assessment Team, an Administration Officer and a Finance Specialist.

The Project Manager will be responsible for leading the project, including scheduling project activities and ensuring the technical staff and consultants deliver the project outputs; overseeing project finances, including procurement and the disbursement of funds; monitoring project progress; preparing project reports; overseeing development of training curricula, production of training materials, contracting and training of trainers, and scheduling of training sessions and maintaining communications with ITTO.



**Figure 4. Organizational Structure for ‘Sustainable Forest Management through REDD+ Mechanisms in Kampong Thom Province.’**



**Figure 5. The Organizational Structure of the Forestry Administration.**

### **4.1.3 Project Steering Committee**

The Executing Agency of the project (IFWFA) will be guided and assisted by the Project Steering Committee. The members of the Project Steering Committee will consist of the Head of the Forestry Administration, who will be the Chair of the PSC, the Project Manager, and representatives from the IFWRD, the Cambodia REDD+ Taskforce, the Department of Forest Management and Community Development, the Department of Wildlife and Biodiversity, the Forestry Administration Cantonment of Kampong Thom, the international donor community, represented by project donors, ITTO, and relevant NGOs. The PSC will meet twice a year to oversee project implementation and approve work plans and budgets, review project progress and provide guidance to improve project execution and management.

### **4.1.4 Stakeholder Involvement Mechanisms**

The Executing Agency will establish a Consultative Committee comprised of representatives of provincial government, commune councils, universities, civil society groups, and national and international organizations. Its purposes will be to ensure that stakeholders are regularly informed about, and involved in, project implementation and provide a platform for stakeholders to provide input to the project. The Consultative Committee may request and receive information and provide advice, but it will have no formal responsibility associated with the project. Recommendations of the Consultative Committee will be forwarded to the Project Director and the Chair of the Project Steering Committee.

## **4.2 Reporting, Review, Monitoring and Evaluation**

The Project Manager will prepare an Inception Report during the initial eight weeks of project implementation to present at the first meeting of the PSC. He/she will submit bi-annual Project Progress Reports no later than 10 weeks prior to ITTO Council Sessions of each calendar year for the duration of the project implementation period. Such progress reports shall contain information relevant to the financing and implementation of the project as set out in the ITTO Manual for Project Monitoring, Review and Evaluation. Technical reports on project activities and outputs will be prepared as might be appropriate during the project implementation period.

Monitoring and evaluation will be conducted in accordance with the Second Edition of the ITTO Manual for Project Monitoring, Review, and Evaluation. The Project Manager will be responsible for overall monitoring, which will be conducted by an M&E Specialist assigned to the project. The M&E Specialist will monitor the current status of project activities and assess the appropriateness and effectiveness of the procedures used in collecting, measuring and reporting on project indicators and the reliability of data collected during regular bi-monthly visits to the project site. Those assessments will be conducted in collaboration with the Forest Management, Forest Inventory and Biodiversity Assessment Teams under the direction of the Project Manager. The Project Manager will provide regular M&E reports to the Project Steering Committee and ITTO. The M&E Specialist will also organize bi-annual internal participatory evaluations to assess representative stakeholder perceptions of project progress. The Project Manager will produce a mid-term evaluation report and project completion evaluation report to ITTO and the Project Steering Committee and will cooperate with the ITTO Secretariat with respect to each of the monitoring and evaluation reports.

There will be an ITTO monitoring mission organized six-eight months after the start of the project to provide an assessment of initial project progress.

## **4.3 Dissemination and Mainstreaming of Project Learning**

### **4.3.1 Dissemination of Project Results**

IFWRD will develop a project website, where summary communications on project activities and results will be posted. These will be aimed at professional and technical staff of government agencies and NGOs who have an interest in REDD+ approaches. IFWRD will produce brochures and short videos on certain aspects of project results - aimed at local communities - and organize and host workshops on various aspects of project results throughout the duration of project implementation.

### **4.3.2 Mainstreaming Project Learning**

The project will develop lessons learned that will become the basis for the continuation of project activities. IFWRD will seek some additional funding to supplement the sustainability plan to expand REDD+ approaches and training programs to other provinces after the completion of the project.

## ANNEX A

### PROFILES OF THE EXECUTING AND COLLABORATING AGENCIES

#### 1. Forestry Administration, Ministry of Agriculture, Forestry, and Fisheries

The Forestry Administration is a government authority under the Ministry of Agriculture, Forestry and Fisheries with a Vision to be viewed by the world community as a national agency of excellence for sustainable forest management, making a maximum contribution to Cambodia's socio-economic development.

The Forestry Administration's Mission is to manage the forest and forest resources of the Kingdom of Cambodia according to the National Forestry Sector Policy and the Forestry Law. Its primary objective is to ensure the sustainable management of forests in the country. To this end, the Forestry Administration is responsible for performing the following duties based on the Cambodian Forestry Law:

- To manage and develop government officials of the Forestry Administration from Central, Inspectorate, Cantonment, and Division administrative levels to the Triage level.
- To ensure sustainable permanent forest estate management by regulating all forestry activities.
- To study and collect data on all forests regarding scientific, economic, social, and environmental factors in order to set a sustainable production rate.
- To assess forest boundaries and classify and demarcate forestlands in order to develop a land use map of the permanent forest estate in coordination with the Ministry of Land & Urban Management and Construction, local authorities and communities.
- To manage, develop and implement the National Forest Programme (NFP) and National Forest Management Plan at each administrative level of the Forestry Administration.
- To promote reforestation of degraded forestland and idle land.
- To promote the development of community forestry agreements and programs by providing financial and technical assistance to communities, where feasible.
- To develop and implement programs for the research, protection and conservation of forest resources and wildlife.
- To take appropriate measures to investigate, prevent and suppress all forest destruction, forest fires and forest clearing by effectively ensuring law enforcement.
- To promote public education programs which demonstrate the importance of the management, protection and conservation of forest resources, as well as take measures to rehabilitate natural ecosystems and conserve national forests.
- To promote international cooperation in order to strengthen the capacity of forest protection and development.
- To ensure the timely and complete assessment of all forest-related activities which may have significant social and environmental impacts prior to approval of such activities.



## **2. Institute of Forest and Wildlife Research and Development**

IFWRD has the mandate to conduct research that will generate scientific knowledge and appropriate technologies to facilitate decision-making on forestry matters in Cambodia. It disseminates information on its research and development activities. The research and development conducted by IFWRD contributes to the sustainable utilization and management of forest resources in the country. In more specific terms, the IFWRD has the following responsibilities:

- To develop and implement the IFWRD's research plan and monitor and evaluate its implementation.
- To research the ecology of Cambodia's forests and factors affecting the abundance of species, and investigate the impacts of changes in land use and wildlife habitats.
- To study the biology and bio-environments of wildlife and biodiversity, conduct inventories of wildlife and assess the biodiversity of forest areas throughout the country.
- To review and assess social impacts on the natural environment and propose appropriate investments to contribute to the development of the forest sector.
- To promote REDD+ development and awareness raising and demonstrate the implementation of the REDD+ approach in Cambodia's forests.
- To research the identification and the utilization of timber and non-timber forest products and processing technologies and analyze the socio-economic effects of job exchanges on efforts to reduce pressures on the country's forests.
- To improve cooperation with development partners and international networks of research on forests, wildlife and biodiversity, as well as collect data and publish scientific documents resulting from research and plan for the extension of the IFWRD's research program.
- To establish training stations for forest and biodiversity research in the country and in important forest types.
- To develop programs and plans to strengthen the capacity and human resource development of the Forestry Administration.

The IFWRD has four research and training centers and one administrative office. The research centers include the Forest and Wildlife Training Center, the Forest Resource Assessment and Environmental and Social Impact Assessment (ESIA) Research Center, the Forest Conservation and Botanical Research Center and the Soil and Wildlife Research Center.

## **3. Department of Forest Management and Community Forestry**

DFMCF has the mandate to oversee forest management and the establishment of Community Forests throughout Cambodia. It has a number of technical forestry staff that are responsible for designing and implementing forest management plans on state-owned forests in the country. The primary responsibilities of the DFMCF include the following:

- To classify and assess watershed areas and develop management plans to conserve watersheds in order to protect water resources and prevent soil erosion and develop the legislation and codes of practice to support sustainable watershed management.
- To assess and demarcate the boundaries of the permanent forest estate and register and classify the permanent forest estate consistent with forest functions and forest land uses.
- To manage forest geographical information systems, develop maps of forest land uses and watershed areas, produce maps to serve the requirements of the forest sector, manage and control their printing and provide forest mapping services.

- To manage community forestry information, provide technical services and coordinate community forestry development and implement, monitor and evaluate projects on forest management and community forestry.
- To monitor, control, evaluate and report on sustainable forest management at the national and unit levels and manage forests according to forest management indicators and criteria consistent with international standards.
- To coordinate cooperation, forest support and community forestry development with other institutes, related authorities and international and national organizations that support forest development and contribute to poverty reduction of local communities.

#### **4. Department of Wildlife and Biodiversity**

DWB has the mandate to develop and implement plans to manage wildlife and biodiversity and Protected Forests and Biodiversity Conservation Areas in Permanent Forest Reserves throughout Cambodia. DWB bases its plans on scientific information and approaches. It oversees enforcement of wildlife and biodiversity laws in Cambodia and represents Cambodia in international fora and meetings on wildlife and biodiversity.

The primary responsibilities of the DWB include the following:

- To develop plans to support wildlife management, conservation and biodiversity, develop legislation on wildlife management, conservation and biodiversity, wildlife harvesting, the wildlife trade, and transportation and hunting, and monitor and evaluate the implementation of planning and technical norms.
- To research ecological characteristics, the distribution of wildlife, wildlife habitats, wildlife diseases and wildlife biology and initiate measures to resolve disputes between wildlife and humans.
- To demarcate nature-based tourism and sport game hunting areas and prepare development plans for those areas.
- To manage Protected Forests and Biodiversity Conservation Areas, nature-based tourism and sport game hunting areas, conserve wildlife, biodiversity and wildlife habitats and provide services for raising wildlife and maintaining wildlife rescue centers and zoological gardens to cure and rescue wildlife and support the extension of captive breeding.

#### **5. Forestry Administration of Kampong Thom province (FAKT)**

The FAKT is responsible for the management and protection of forests in Kampong Thom province. It has three sub-offices, including the Staung FA divisional office, the Sandan FA divisional office and the Kampong Thor FA divisional office. The FAKT reports to the Head of the Forestry Administration.

## **ANNEX B**

### **TASKS AND RESPONSIBILITIES OF KEY EXPERTS ASSIGNED BY THE EXECUTING AGENCY**

#### **Project Manager**

Reports to the Forestry Administration and the Project Steering Committee and ensures that there will be a smooth flow of communication regarding the implementation of the project. Responsible for the overall management and supervision of the project and reporting, including monitoring project progress, scheduling project activities and technical staff and consultants. Oversees project finances, including procurement and disbursement of funds. Prepares project reports and coordinates with the Project Steering Committee. Communicates with ITTO, project staff, and relevant authorities. He/she will be responsible for ensuring that the work plan and budget will be implemented on schedule and deliverables will be achieved according to plan.

#### **Finance Specialist**

The Finance Specialist will be responsible for managing the financial matters of the project. He/she will assist in day-to-day accounting matters to ensure the smooth implementation of the project.

#### **Project Administrator**

The Project Administrator will assist the Project Manager in day-to-day management and coordination of project activities. He/she will assist with administrative work and organizing and participating in scheduled meetings and maintaining communications between project staff.

#### **Forest Management Team Leader and Crew**

The Forest Management Team Leader will be responsible for the protection and development of the forest resources in Tomring Forest and ensuring their effective protection.

#### **Forest Inventory Team Leader and Crew**

The Forest Inventory Team Leader will lead the tasks of project boundary alignment and forest measurements assisted by inventory crews. The Forest Inventory Team Leader will be responsible for forest inventory design, leading forest inventories, project boundary identification and alignment, data collection, socializing project objectives and encouraging community participation and identifying local community expectations. He/she will also conduct training activities for local communities in specialized technical matters, as guided by national experts. He/she will collaborate closely with staff involved in the project, particularly with the Project Manager. He/she will be responsible for establishing close relationships between project personnel and their activities and targeted communities. He/she will report to the Project Manager and share the responsibilities of preparing training reports.

### **Biodiversity Assessment Team Leader and Crew**

The Biodiversity Assessment Team Leader will lead the biodiversity assessment conducted at the study site. He/she will be responsible for the design of the biodiversity assessment, including the method of analysis and will prepare a report on the results of the assessment.

### **Trainers**

REDD+ lecturers, or trainers, will be hired to teach and apply the most recent developments in forestry and international climate policy, climate change and forestry, REDD+ development, setting reference emission levels, forest inventories, carbon measurements and modeling carbon stock changes with or without project activities.

## ANNEX C

### TERMS OF REFERENCE OF PERSONNEL AND CONSULTANTS FUNDED BY ITTO

#### **Position: Project Manager**

**Duties:** Reports to the Head of the Forestry Administration and the Project Steering Committee and ensures that there will be a smooth flow of communication regarding the implementation of the project. Responsible for the overall management and supervision of the project and reporting, including monitoring project progress, scheduling project activities and technical staff and consultants. Oversees project finances, including procurement and disbursement of funds. Prepares project reports and coordinates with the Project Steering Committee. Communicates with ITTO, project staff, and relevant authorities. He/she will be responsible for ensuring that the work plan and budget will be implemented on schedule and deliverables will be achieved according to plan.

#### **Qualifications, Experience and Payment:**

- Post graduate degree in Forestry.
- Good understanding of the overall objectives, project outputs and activities to be implemented through the project.
- Experience, including research, with international organizations.
- Ability to coordinate and communicate in Khmer and English;
- He/she will receive a Daily Subsistence Allowance during duty travel.

#### **Position: Finance Specialist**

**Duties:** Responsible for managing the financial matters of the project. He/she will assist in day-to-day accounting matters to ensure the smooth implementation of the project.

#### **Qualifications, Experience and Payment:**

B.A. degree in Accounting and several years experience managing financial matters for forestry projects.

#### **Position: Project Administrator**

**Duties:** The Project Administrator will assist the Project Manager in day-to-day management and coordination of project activities. He/she will assist with administrative work and organizing and participating in scheduled meetings and maintaining communications between project personnel.

#### **Qualifications, Experience and Payment:**

B.A. degree in Economics or a related field (desirable) with administrative experience required.

#### **Position: Forestry Management Team Leader and Crew**

**Duties:** The Forest Management Team Leader will be responsible for the protection and development of the forest resources in Tomring Forest and ensuring their effective protection.

**Qualifications, Experience and Payment:**

B.S. degree in Forestry with five years minimum experience in forest inventories, coupe/concession boundary alignment and demarcation in Cambodia. He/she must be able to communicate in Khmer, but the ability to speak English well is desirable. The Forest Management Team leader will have experience in leading forest inventory crews.

**Position: Forest Inventory Team Leader and Crew**

**Duties:** The Forest Inventory Team Leader will lead the tasks of project boundary alignment and forest measurements assisted by inventory crews. The Forest Inventory Team Leader will be responsible for forest inventory design, leading forest inventories, project boundary identification and alignment, data collection, socializing project objectives and encouraging community participation and identifying local community expectations. He or she will also conduct training activities for local communities in specialized technical matters, as guided by the national experts. He/she will collaborate closely with staff involved in the project, particularly with the Project Manager. He/she will be responsible for establishing close relationships between project personnel and their activities and targeted communities. He/she will report to the Project Manager and share the responsibilities of preparing training reports.

**Qualifications, Experience and Payment:**

B.S. degree in Forestry with five years minimum experience in forest inventories, coupe/concession boundary alignment and demarcation in Cambodia. He/she must be able to communicate in Khmer, but the ability to speak English well is desirable. The Forest Inventory Team leader will have experience in leading forest inventory crews.

**Position: Biodiversity Assessment Team Leader and Crew**

**Duties:** The Biodiversity Assessment Team Leader will lead the biodiversity assessment conducted at the study site. He/she will be responsible for the design of the biodiversity assessment, including the method of analysis and will prepare a report on the results of the assessment.

**Qualifications, Experience and Payment:**

B.S. degree in Forestry with five years minimum experience in forest inventories, coupe/concession boundary alignment and demarcation in Cambodia. He/she must be able to communicate in Khmer, but the ability to speak English well is desirable. The Biodiversity Assessment Team leader will have experience in leading research and biodiversity assessments.

**Position: Trainers**

**Duties:** REDD+ lecturers, or trainers, will be hired to teach and apply the most recent developments in forestry and international climate policy, climate change and forestry, REDD+ development, setting reference emission levels, forest inventories, carbon measurements and modeling carbon stock changes with or without project activities.

**Qualifications, Experience and Payment:**

M.S. degree in Forestry or a related field with five or more years of research and teaching experience in tropical forestry and international climate policy, especially regarding REDD+.

**Position: Consultant on REDD+ MRV**

**Duties:** Conduct literature review on forest carbon accounting systems, reference emission levels, project emission levels, and carbon credits for trading. He/she will assist in identifying project boundaries and alignment, forest inventory design, socio-economic survey design, forest measurements, and development of allometric equations for stand volume and carbon stock estimates. The consultant will provide guidance on the development of REDD+ training modules, organizing workshops and research design of field activities. He/she will also be tasked to develop a carbon accounting system for estimating carbon stock changes in each forest type and contribute to the determination of the drivers of deforestation and forest degradation in the Tomring Forest. He/she will advise on the development of training manuals, data collection and analysis, as well.

**Qualifications, Experience and Payment:**

M.S. degree or higher in Forestry with qualifications in REDD+ with a good understanding of tropical forest management, REDD+ development and climate policy, carbon accounting systems for tropical forests, carbon flux modeling, logging operations, and forest inventory and data analysis. He/she should have at least five years of research and teaching experience at a foreign university and successfully supervised graduate students in Forestry and carbon accounting systems. He/she should have the ability to coordinate and communicate in English, Khmer and/or other languages.

**Position: Consultant on Voluntary Carbon Markets**

**Duties:** Responsible for providing advice on carbon markets and international carbon trading. The consultant will be responsible for the procedures, mechanics, and supporting documentation that will be required to support carbon trading in voluntary markets.

**Qualifications, Experience and Payment:**

M.S. degree or higher in Forestry, especially in Forest Economics. He/she should be familiar with carbon markets and trading and have experience with REDD+ development and climate policy and carbon accounting systems for tropical forests.

**Position: Consultant on Community Forestry and Livelihoods**

**Duties:** Responsible for developing programs and project development concepts on forest-based livelihoods. The consultant will develop programs that will benefit Community Forestry members. He/she will be responsible for designing a benefit sharing mechanism for the revenues received through the voluntary carbon market.

**Qualifications, Experience and Payment:**

B.S. degree in Forestry or Natural Resources Management with a M.S. degree in Business and Economics also preferred. He/she should have the ability to coordinate and communicate in English, Khmer and/or other languages.

**Position: Consultant on Carbon Measurement and Monitoring**

**Duties:** Responsible for the measurement and estimation of carbon stocks based on forest inventory data. He/she will be responsible for processing and interpreting satellite images and making estimates of carbon stocks. He/she will also closely coordinate with the consultant on REDD+ MRV and conduct a literature review on forest carbon accounting systems, reference emissions levels, project emission levels and carbon credits for trading. He/she will provide

inputs to survey design, forest measurement, development of allometric equations for stand volume and carbon stock estimates.

**Qualifications, Experience and Payment:**

B.S. degree in Forestry with a minimum of five years of experience in, and good understanding of, forest inventories, boundary alignment and socio-economic analyses. He/she should have the ability to coordinate and communicate in Khmer and English.

**Position: Consultant on Training Development**

**Duties:** The consultant will collaborate with trainers and lecturers and be responsible for developing training modules on REDD+ and carbon measurements.

**Qualifications, Experience and Payment:**

M.S. degree or higher in Forestry with qualifications in REDD+ with a good understanding of tropical forest management and forest inventory and data analysis. He/she should have at least five years of research and teaching experience at a foreign university and successfully supervised graduate students in Forestry and carbon accounting systems. He/she should have the ability to coordinate and communicate in English, Khmer and/or other languages.

**Position: Consultant on Monitoring and Evaluation**

**Duties:** Responsible for monitoring and evaluation of the project. The consultant should have a good understanding of impact assessments, as well as experience in conducting project evaluations.

**Qualifications, Experience and Payment:**

M.S. degree or higher in Forestry with qualifications in REDD+ with a good understanding of tropical forest management, REDD+ development and climate policy, carbon accounting systems for tropical forests, carbon flux modeling, logging operations, and forest inventory and data analysis. He/she should have at least five years of research and teaching experience at a foreign university and successfully supervised graduate students in Forestry and carbon accounting systems. He/she should have the ability to coordinate and communicate in English, Khmer and/or other languages.



## ANNEX D

### SUMMARY RESPONSES TO THE RECOMMENDATIONS OF THE 48TH EXPERT PANEL

No.	Recommendations	Modifications	Pages
1.	Provide more information on the tenure rights of the local communities participating in the project to support their community-based forest management programs.	The information provided on the tenure rights of the local communities participating in the project to support their community-based forest management programs has been expanded to explain traditional use rights and the extension of those rights to secure tenure over access and use and allow community management of forest resources through the establishment of community forests. The process of establishing and obtaining approval of community forests has been summarized, as well, and a table of community forests that have been established in and around the Tomring Forest has been provided.	10-11
2.	Further improve the problem analysis by refining the sub-causes under the cause of 'limited understanding and knowledge of REDD+.' Since 'limited technical understanding of REDD+ implementation requirements and SFM' is not necessary to single out as a sub-cause, it could be merged into another sub-cause in a comprehensive way. In addition, improve the consistency between the sub-causes of Cause 1 and their relevant project activities to achieve Output 1.	The sub-causes under 'limited understanding and knowledge of REDD' were refined by consolidating them into more concise and comprehensive statements of those sub-causes that also ensures greater internal consistency between the sub-causes of Cause 1 and the associated project activities that are planned to achieve Output 1.	16; Figure 3 Problem Tree
3.	Further improve the statement of the specific objective so as to fully reflect the effects to be achieved as a result of producing and using project outputs. Since the project aims at initiating REDD+ programmes, the specific objective could be refined as "To establish REDD+ research and development, and training, programs in the Tomring Forest to facilitate the achievement of SFM in Kampong Thom province." In addition, the outcome indicators of the specific objective should be refined. Some outcome indicators should be originated from specific targets for the establishment of REDD+ programmes in the Tomring Forest.	The statement of the specific objective was further improved. It now reads "To establish REDD+ research and development, and training, programs in the Tomring Forest to facilitate the achievement of Sustainable Forest Management in Kampong Thom province" to fully reflect the effects to be achieved as a result of producing and using project outputs. The outcome indicators of the specific objective were refined, as well, by including two additional outcome indicators linked to specific targets for REDD+ planned program initiatives originating from carbon assessments to support community forest management plans and livelihood development.	18; 21
4.	Further improve the impact indicators of the development objective so that they can fully reflect the long-term effects of the project and the ultimate signs of the project's success. For instance, a reduction rate of deforestation and forest degradation in Kampong Thom province would be an indicator to measure the long-term impact of the project.	The impact indicators of the development objective were further improved to fully reflect the long-term effects of the project and the ultimate signs of the project's success by including an indicator to measure 'the annual rate of reduction of deforestation and degradation <i>relative to the adjusted jurisdictional REL</i> in	17; 21

No.	Recommendations	Modifications	Pages
		Kompong Thom province as the result of project activities.	
5.	Further improve the assumptions in the logical framework matrix by specifying some conditions to enable the active participation of concerned community forest management committees in the Tomring forest in order to achieve the specific objective.	The assumptions in the logical framework matrix were further improved by specifying several conditions to enable the active participation of concerned community forest management committees in the Tomring forest in order to achieve the specific objective.	18; 43
6.	Include an annex that shows the recommendations of the 48 <sup>th</sup> Expert Panel and the respective modifications in tabular form. Modifications should also be highlighted ( <b><u>bold and underline</u></b> ) in the text.	Annex D provides a summary in tabular form of the responses to the recommendations of the ITTO 48 <sup>th</sup> Expert Panel and modifications to the text have been highlighted in bold and underlined.	61