NATIONAL FOREST
PROGRAMME
2010-2029

Unofficial Translation

STATEMENT

The Royal Government of Cambodia has been implementing significant reforms in the forest sector since 1998 and has achieved remarkable results in establishing social order and foundation for enhancing sustainable forest management, contributing to socio-economic development, environmental protection, poverty alleviation and for future generation. In order to sustain effective forest reform, the Royal Government of Cambodia has been embarking on an intensive process of developing and implementing a National Forest Programme aimed to place good governance and effective partnerships at the centre of sustainable forest management. Cambodia's commitment to the development of the National Forest Programme has been expressed, among others, in the Statement of the Royal Government on National Forest Policy Statement, 2002, and the National Strategic Development Plan, 2009-13. The National Forest Programme is based on the vision outlined and well embedded in the Statement of the Royal Government on National Forest Sector Policy,: "The Royal Government of Cambodia considers the ecologically, socially and economically viable conservation and management of forest resources as a major pillar of public welfare directly contributing to environmental protection, poverty reduction and socio-economic development."

The National Forest Programme will be guided, among others, by the Cambodia Millennium Development Goals for poverty reduction, environmental sustainability and attainment of 60% forest cover by 2015.

The National Forest Programme would serve as an appropriate mechanism and provide a transparent and participatory process for planning, implementation, monitoring, evaluation and coordination of all forestry activities.

The National Forest Programme will closely follow the principles of:

- Sustainable forest development: observing social, economic, cultural and environmental aspects

- Good country leadership and forest good governance: conflict management, commitment and alignment with national policies

- Regular participation through multi-stakeholder consultations: technical working groups, technical assistance and partnerships to fit the Cambodian context

- Holistic and cross-sectoral approaches: using landscape planning approach through collaboration with relevant government agencies, local governments, and civil society

- Monitoring mechanism: its implementation for improved performance and for public information and awareness raising among all stakeholders including national and local government, civil society and the private sector.

The Royal Government of Cambodia declares the official launching of this National Forest Pogramme and recognises that its successful implementation depends upon the willingness, support and active participation of all stakeholders at local, national, and international levels with in the forest and related sectors as well as civil society, knowledge institutions and development partners. It will endeavour to ensure that this will be achieved through the National Forest Programme framework and implementation programmes supported by conflict resolution schemes and systems of monitoring and reporting with high responsibility of all stakeholders.

Phnom Penh, 18 October 2010

Prime Minister

Samdech Akka Moha Sena Padei Techo **Hun Sen**

PREFACE

The significant and strategic goals in the agricultural sector of the Royal Government of Cambodia under the ideal and strong leadership of Samdech Akka Moha Sena Padei Techo Hun Sen, Prime Minister of the Royal Government of Cambodia, are food security, increase in income generation, job creation and increase of nourishment for all people through improved productivity and agricultural diversification and trade while protecting and conserving the environment and securing food safety. In this connection, forestry and fisheries sectors are key sectors that need parallel reforms to support the agricultural sector.

The Royal Government firmly recognizes agricultural sector as the highest priority sector and strongly commits to the implementation of National Forest Programme (NFP) as embedded in the Statement of the Royal Government on National Forest Policy Statement in 2002. Subsequent development of the National Forest Programme was guided by the Forest Law 2002, the Independent Forest Sector Review (2004), the establishment of the Technical Working Group on Forest and Environment (2004) and the formulation of Action Plan for Forest and Environment 2007-2010. In 2007, a National Forest Programme Task Force was set up which serves as a platform for continued stakeholders dialogue and participation.

The National Forest Programme truly reflects the willingness of the Government in achieving sustainable forest management. It identifies objectives and goals in developing and managing forests to ensure the sustainable benefits for improving livelihoods, environmental services and overall economic development. More importantly, it provides an overall vision on sustainable management and continued flow of benefits from forest sector which cross-sectoral involving government entities, local communities, private sector, civil society, development partners and individuals. The NFP embodies valuable and sustainable approaches contributory to the reduction of carbon emissions from deforestation and forest degradation and to the improvement of local livelihoods.

The ultimate goal of the NFP is to establish a policy framework and strategy for sustainable management of the country's valuable forest resources. This document, with detailed action plans and means of implementation based on participatory approach, clearly identifies the forestry approaches and activities that need to be aggressively undertaken in the forest sector for the period 2010-2029. It is our firm belief that the implementation of National Forest Programme with active participation and cooperation of all stakeholders concerned, will significantly contribute tosustainable management of forest resources through forest resource conservation, good governance, socio-economic development and poverty reduction.

Phnom Penh, 29th September 2010
Minister

Ministry of Agriculture, Forestry and Fisheries

CONTENT

STRATEGIC FRAMEWORK OF NATIONAL FOREST PROGRAMME

A

Sustainable Forestry

Cambodia is among the world's most impoverished nations, with a significant young population (48% under the age of 20) entering into their working life and in need of employment. Escalating demand for, and pressures on, land and natural resources from increasing population growth (approximately 1.53%), rapidly rising unemployment, internal migration, and developments in infrastructure and other economic sectors, combined with legislation that is not fully formed and weakly enforced, exposes our forests to unsustainable exploitation and leads to conflicts over rights of access and use.

Nonetheless, Cambodia has succeeded in maintaining varied and extensive forests covering more than 10.8 million hectares, including plantations and bamboo. They contain biologically unique landscapes and areas of significant cultural heritage, and are potentially highly productive. Furthermore, Cambodian forests are intimately linked to agriculture and in-land fisheries, and to maintaining the sustainability and productivity of both these sectors. Services provided by forest ecosystems include regulation of local water-circulation, mitigation of droughts and floods, and reduction of waterway sedimentation. Forests are, therefore, a key factor in national development, and their sustainable use could provide considerable benefit to our country and her people. Opportunities are arising in international markets for processed and high-value forest products along side potential markets for carbon sequestration. Novel, innovative forms of financing are emerging through 'payment for environmental services' for conservation of forest resources and biodiversity.

The majority of our rural population are subsistence farmers, 75% of these, as well as landless families, depend on access to natural forest resources for essential products, energy and food, particularly in times of hardship. Forests also provide household opportunities for diversification, supplementary income, and employment created by forest product-based enterprises.

It is a challenging task to achieve a balance between economic development and broader community benefits from forests and environmental protection, but one which we cannot afford to ignore. Well managed, equitably developed renewable forest resources can form the basis for a profitable modern economic sector while still maintaining or even expanding their ecosystem functions, biodiversity and ecological variation.

While the forests have substantially provided the basis for rural livelihoods they have also been a source of conflict and exploitation. During the 1980s, the triple-party Government used the forests for cover, and its resources to finance their activities. After the survival from the Pol Pot regime the forest resources were used to finance restoration work. The 1990s gave rise to numerous large-scale concessions creating a system that, due to circumstances at the time, gave leeway to illegal and unsustainable logging. Over the past four decades forest cover has decreased by 14%.

Cambodia is rapidly changing. Long-term, viable and sustainable development through good governance is a key principle in our political platform, outlined in the Rectangular Strategy II and National Strategic Development Plan (2009-2013). The sustainable development through good governance is the key principle of Cambodia's policy. This first version of our National Forest Programme (2010-2029) considers changing conditions for our forests and society and our role in the global context. It provides strategic directions that place governance at the heart of sustainable forest management and increasing forest contributions to national development objectives.

B

Our Challenges

The challenges faced in managing the forests in a sustainable manner are inherently linked to opportunities in socio-economic development. These are outlined below initially focusing on macro-level country issues and then focusing on more specific forest related challenges.

B.1 Forest contribution to poverty alleviation, livelihoods and to the economy

The challenge is to optimise the forest contribution to poverty alleviation and to the economy through enhanced forest management and technology. The majority of the population is reliant on access to forest products, especially for food, fuel wood, small-scale timber, and pole harvesting, resin tapping, fodder, traditional medicines and spiritual purposes. Thus, local peoples' rights of access to sustainable and legal forest resource utilisation are fundamental.

The role of forest contributions to the national economy has not been realised and its share of GDP has continued to fall. The challenge is to capture revenues from extractive activities relating to forest and non-forest products, and that account fully the values of biodiversity conservation and environmental services.

B.2 Climate change will affect forest based livelihoods

The global challenge of climate change will impact Cambodia's sea levels, agricultural and fishery productivity and sustainability.

The uncertainties related to the effects of climate change on forests, agriculture, grasslands, and other land areas are major challenges. Prevention, mitigation and adaptation strategies are needed to sustain ecologically sound natural forests that maintain their production potential and environmental services and mitigate effects to areas surrounding agriculture that are also areas of high human pressure.

B.3 Sectoral land-use planning

Competitive sector planning has resulted in overlapping claims on forest land, emphasising the need for long-term macro-level planning in collaboration with other economic sectors that have an influence on, or are influenced by, forestry activities, such as agriculture, economic land concession, mining concession and infrastructure development. Optimal contributions to macro-economic development will require effective collaboration between ministries and institutions.

B.4　Illegal activities and weak collaboration

Challenges are overwhelming and the (publicly held resource to which access is open to all) is an overriding feature. The large areas of forest lands being without sufficient management leading to conflicts, illegal logging and encroachment/land grabbing. The majority of forest estate boundaries have never been clearly demarcated and combined with uncoordinated law enforcement and a high demand for land, has further escalated forest encroachment/land grabbing, unsustainable shifting cultivation and forest land conversion.

B.5　Forest conflicts

Forest conflicts are often characterised by power disparity, differing interests in forest lands and forest products, governance and human rights issues. Most conflicts are asymmetric (affected to both parties), rural and forest dependent people are often victims due to their limited political and economic powers.. If forest based conflicts are not managed they have striking tendencies to escalate into vicious cycles that seriously undermine sustainable forestry. Forest conflict has become a major development issue that challenges sustainable forestry.

B.6　Limited of capacity and knowledge

Low individual technical and institutional capacity combined with poor public awareness is a key weakness to implementation of the NFP. In particular the lack of applied knowledge in operations and the lack of knowledge transfer from new graduates impede sustainable forest management.

B.7　Forest degradation

Forest degradation has reduced forest quality and its regeneration capacity which in turn reduces its ability to provide socio-economic and environmental services. Degradation of habitats and biodiversity severely diminishes the richness of our forests and reduces their future use values. The challenge is to maintain healthy forest ecosystems and conserve endangered species.

B.8　Suitability of management models

Large tracts of former forest concessions are currently unmanaged. Also the application of existing management models can be much improved. It is a challenge to, in an organised and professional way test, evaluate and improve practice based on lessons learnt.

B.9　Financing

Currently forestry revenues are limited and not reinvested into the sector, thereby limiting opportunities for modernising and creating sustainable operations. The forests of Cambodia show a large potential to contribute to the national economy. It is a challenge to view the forest sector as a business that provides revenue and consequently needs ongoing investments and operational budgets.

C

National Forest Programme's Vision, Mission and Objectives

C.1 Vision and Mission

Our NFP's vision and mission were determined in multi-stakeholder workshops. During these discussions and the subsequent six public consultations, a shared value emerged - "Sustainable Forestry for our People".

The vision describes aspirations and direction for the future as a broad long-term goal. The mission is derived from the vision and is a short directive statement on how to meet the vision.

National Forest Programme Vision	National Forest Programme Mission
"It is the VISION of the Royal Government of Cambodia that ecologically, socio-economically, culturally and environmentally sound management and development of forestresources forms a major pillar for public welfare."	"Our overall MISSION is to advance the sustainable management and development of our forests for their contribution to poverty alleviation, enhanced livelihoods, economic growth and environmental protection, including conservation of biological diversity and our cultural heritage."

Overall governance structure is provided in the Constitution, further refined through a hierarchy of laws and regulations. Sectoral plans are guided by national development strategies and objectives, in consideration of international conventions and protocols, as well as agreements formed within regional groupings.

Good governance forms the core of the Rectangular Strategy for Growth, Employment, Equity and Efficiency. It identifies three pillars for the forest sector which are re-iterated in the National Strategic Development Plan (2009-2013). Natural resource protection and enhancement are identified as key to rural development and embrace Cambodia's Millennium Development Goals. Of particular relevance to the forestry sector is Goal 7: environmental stability, sustainable forest management, and maintenance of forest cover.

Overall NFP Objective

"The forest resources provide optimum contribution to equitable macro-economic growth and poverty alleviation particularly in rural areas through conservation and sustainable forest management, with active participation of all stakeholders."

C.2 Strategic objectives

Objective 1: Maximise sustainable forest contribution to poverty alleviation, enhanced livelihoods and equitable economic growth

Objective 2: Adapt to climate change and mitigate its effects on forest based livelihoods

Objective 3: Macro land-use planning that allows for holistic planning across sectors, jurisdictions and local government borders

Objective 4: Forest governance, law and enforcement at all levels

Objective 5: Develop a conflict management system

Objective 6: Raise awareness, capacity of institutions and quality of education to enable sustainable implementation of the National Forest Programme

Objective 7: Ensure environmental protection and conservation of forest resources

Objective 8: Apply modern sustainable management models adaptive to changing context

Objective 9: Develop sustainable financing systems

D

Strategic Direction for Sustainable Forest Management

D.1   Strategic direction for objective 1: Improved livelihoods, employment and economy

Forest access rights for indigenous peoples and local communities and equitable benefit distribution will be secured through awareness raising and implementation of legislation addressing rights

Employment is an overall national objective and will be increased through implementation of sustainable forest based activities, such as tending plantings, rehabilitation, silviculture techniques and Non-Timber Forest Products (NTFP) production, and support to the development of viable small and medium scale rural enterprises that add value to forest products in a competitive, cost efficient manner. There is great potential for adding value to timber and NTFPs currently used directly or sold in unprocessed forms.

Improved efficiency of extraction, technology and processing (increasing the value-chain) will lead to further down-stream employment which combined with access to high-value markets will increase in come for domestic forest-based enterprises and crafts. Certification schemes can assist in providing such an avenue. Private sector and NGOs are encouraged to "seed" capacity and technology development towards these opportunities.

Further development toward self-sustained community, private and state forest management models will be prioritised.

Productive and organised forest activities will provide direct state revenue from taxes on commercial trade and labour, royalties from companies and both private and community based enterprises, and contracts related to carbon storage and conservation concessions.

As an agricultural based economy, the sector and its associated industries are essential to growth, poverty alleviation and food security. Using agriculture as the basis for economic growth requires a productivity revolution in smallholder farming, in which growing trees can contribute to lifting smallholders out of poverty through diversification of farm practices and products.

D.2   Strategic direction for objective 2: Addressing climate change

Reducing the impacts of climate change will be targeted through the financial mechanisms of Reducing Emissions from Deforestation and forest Degradation (REDD), the Clean Development Mechanisms of the Kyoto Protocol (CDM), and other innovative schemes. Carbon markets have yet to fully develop, and long-term conditions are unknown but will continuously be assessed.

Forest is a renewable energy resource that presents a climate mitigation potential. Adaptation strategies, for example tree planting of native hardwoods in degraded natural forests, should contribute to overcoming the additional threats posed by a changing climate to attaining food security, enhancing livelihoods and improving environmental management. Such work will therefore be an integral part of devising future conservation and management systems.

D.3   Strategic direction for objective 3: Cross-sectoral landscape planning

The multi-sectoral nature of the NFP emphasises integration into national planning structures which allow harmonisation and consistency between forestry, other sectors and local governments. Improved landscape planning and collaboration between ministries is the basis for better land-use and resource planning, including reviewed and cautious allocation of Economic Land Concessions for the benefit of all sectors and society. This will be facilitated by the cross-ministerial TWGs. Demarcation of the forest estate will assist in clarification of overlapping claims.

D.4   Strategic direction for objective 4: Forest governance

Good forest governance is concerned with the distribution of power and authority in transparent and democratic ways that best serve the widest cross-section of society. Forest governance links to policies and legislation, enforcement and general institutional performance.

Improved governance will therefore focus on:

- **Credibility and transparency** of the forest sector through developing effective systems of checks and balances ensuring that legislative, executing and monitoring/judicial entities and powers are, in practice, separate and operationally independent
- **Participatory and consultative processes** that instil confidence in, and promote the participation of stakeholders through improving the NFP processes; and developing a communication strategy that provides access to, and transparency of, information on forest resources and their management
- **Strengthened forestry legislation and law enforcement** at all levels, all groups, all individuals and perpetrators regardless of their status and all types of illegal activities through prevention of and prompt response to forest crimes
- **Collaboration and dialogue** with stakeholders from all parts of society to pave the road towards sustainable forest management
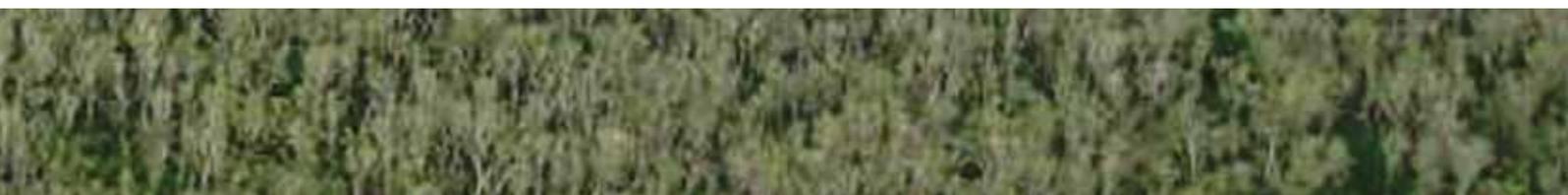
- **Equitable benefit sharing** will contribute to secure livelihoods of forest dependent people through adoption of pro-poor management systems.

D.5 Strategic direction for objective 5: Conflict management

Institutionalised conflict management is the most feasible methodology to address the need for collaboration in a tense context of widespread poverty and people seeking means of survival, high pressure on natural resources, weak law enforcement and a weak judicial system.

Forestry authorities must prevent forest based conflicts from spiralling out of control and becoming destructive by mastering conflict management techniques. The Forestry Administration will be able, through application of conflict management techniques to:

- **Analyse and prevent conflicts** through understanding and mitigation of the conflict enabling environment
- **Limit conflict escalation** through the mastering of conflict management tools and by doing so, keep options open for future collaboration.

A formal conflict management system incorporating competence and skills in trust building, knowledge of conflict characteristics and dimensions, and promotion of a cooperative approach, will be a prerequisite towards sustainable forest management. The Forestry Administration will actively engage in managing conflicts at their initial phases where they may generate positive outcomes for progress, and improvements towards sustainable management. Progress in managing conflicts will consequently attract more and stronger partnerships and invite for further needed financial support.

D.6 Strategic direction for objective 6: Capacity development

As a cross-cutting issue and one of our key weaknesses, current capacity levels pose the largest risk to successful NFP implementation.

Sustainable forest resource management requires institutional confidence and capacity in a wide range of topics and at many organisational levels to be responsive and adaptive to challenges and changing situations. To succeed, we must build technical capacity on genuine motivation and engagement. Capacity development is, therefore, also about changing people and recognising that increased application of technical capacity only materialises through a change of values and attitudes.

Application of gained knowledge and best practises is another challenge. Whilst hands-on, in-service training methods are still needed, emphasis on improving the quality of tertiary education is most cost-effective to ensure sustainability. By supporting the educational sector and conducting necessary in-service training we hope to develop excellent "home-grown" capacity. Investing in our youth and their capabilities as decision-makers is an investment in the future of our natural resources and thus in the lives of our children. Capacity building must focus on:

- **Development of educational institutions** delivering most recruits for natural resource management so that they are able to provide the necessary amount of suitably qualified and practical oriented recruits, entailing training not only in technical skills but also in personnel management and civil service delivery through experimental learning and practical based methods

- **Organisational and human efficiency** focusing institutional priorities on strategic issues and research outputs, that are undertaken by motivated staff with technical and programmatic capacity in appropriate collaboration with stakeholders

- **Values, attitudes and application of knowledge** and capacity though exposure to real-life situations, role-plays, hands-on, in-service training jointly with other groups, appropriate levels of knowledge, skills and capacity to perform assigned tasks.

D.7 Strategic direction for objective 7: Environmental protection and conservation of forest resources

Full economic assessment of forest products and services will be undertaken and available for land-use decisions. Such valuations will include ecosystem functions in relation to water supply, infrastructure protection, biological diversity and potential income from carbon sequestration. Conservation of healthy forests will attract state revenue through payments for environmental services.

Protected areas and protection forests will be reviewed to ensure conservation of high value/endangered species, ecosystems and areas of cultural heritage.

D.8 Strategic direction for objective 8: Forest management regimes

A mix of cost-effective sustainable forest management methods will build on existing regimes complimented by new and innovative models. Existing regimes are:

- **Community forestry** has gradually developed since the mid 1990s through small pilot projects that have demonstrated considerable potential to protect forests and support rural livelihoods. Recently community forestry has expanded from low value forest to also include more valuable forest

- **Annual bidding coupes** were introduced early in our forest history and re-emerged in 2004 as a response to the cessation of forest concessions, and most recently their Codes of Practice have been developed

- **Rehabilitation/afforestation** particularly focuses on restoration, enhancement and re-establishment of natural-like forest. We have some project-based experience of planting native trees in both open and degraded forest, combined with species-testing trials and provenance trials that provide a good base for future work

- **Plantations** by communities and government will typically be of multi-species, for multiple purposes for livelihood improvement and environmental services, such as protection of agriculture and fisheries. To date, the state has been an actor in plantation development though primarily of exotic monocultures.

Needs for new and innovative models are evident and could include:

- Conservation concession – a powerful new tool to finance sustainable forestry, used to manage and protect large tracts of forest, especially suitable for post-concession forests. It allows forest rich countries to gain more from preserving natural resources than from alternate land uses, thereby providing an innovative response to the tension between economic and conservation needs and objectives

- Privatisation of small forest lots will be given due consideration. Currently our government manages all forests (10.8 million hectares), apart from plantations in economic land concessions, which is a huge undertaking. At present, private forests do not exist, but elsewhere, they often fulfill a very productive role in supplying products at the right time and at attractive costs. A gradual transfer of some authority to the private sector, subject to the land remaining as forests in perpetuity, will promote sustainable development, and at the same time relieve government agencies to better focus on their policy and regulatory duties. This is a suitable option for particularly small, fragmented and isolated forests areas which are difficult to manage. However, appropriate legislation will be required. Income generated from the sale will be beneficial to implementation of sustainable forest management on our remaining forest estate

- Outsourcing of selected implementation activities will be tested in various fields, as a cost-efficient means in areas where capacity is lacking, but also as a means of allowing forest management agencies to concentrate on their governmental role, and to relieve them from routine implementation tasks

- Recreational urban forest is increasingly integrated into long-term urban planning, to ensure that growing cities maintain green, open spaces, known to improve physical and mental well-being by providing a healthy environment for exercise and recreation. It is expected that alongside increasing leisure time and aging population, the recreational value of forests will rise. However, experiences show that attention to recreational urban forests in fast growing cities is often too late. Although planning and establishing urban forests is a task for our municipalities it is considered within this NFP.

D.9 Strategic direction for objective 9: Sustainable financing

The NFP outlines methods of self-financing for the forestry sector, based initially on donor and government support whilst gradually introducing cautious low impact logging, certification and exports, and benefits from carbon markets.

Improved fiscal systems will ensure that the full value of forest resources is appreciated and captured; access to innovative payment mechanisms promoted; and incentives for investment and financing of the sector.

The National Forest Programme Framework

The framework is presented in three parts. Part 1: describes NFP document Part 2: Stakeholder Roles Part 3: Operational Framework

E.1 Structure

The Strategic Framework document contains a brief description of the context and status of sustainable forest management in Cambodia. It provides a vision of and a statement on the NFP. Policy priorities and strategic direction and steps towards achieving sustainable forest management are described; future management options outlined; the implementation programmes are identified; and financing estimates presented. The Strategic Framework Document sets forth overall policy driving the NFP.

The NFP Background Document provides factual information, presents and builds upon analyses. Essentially, it justifies the Strategic Framework and the implementation programmes. It provides information about Cambodian forests in the current governance and regulatory framework for forests and lands. Recommendations from previous forest sector and related reviews are summarised and the process of the NFP is described. The Background Document presents key information and supporting analyses behind the overall policy.

The Operational Framework consists of six integral implementation programmes each comprised of one broad theme of particular priority for 2010-2029. Each programme contains a general part covering the overall programme and specific parts covering between 2-9 sub-programmes. The Operational Framework is formulated in a logical framework style for logic strengthening and to ease subsequent operational programming. Further operational programmes are identified as essential parts of a well functioning NFP and will be produced in 2010:

1. **Conflict Management Scheme:** In order to efficiently move towards sustainable management through forest governance and better prevention and handling of conflicts to better outcomes

2. **A Monitoring and Reporting Scheme:** elaborating how to ensure transparency, responsibility and learning, through progress of the implementation programmes and achievements of the NFP process towards its strategic goals

3. **Short Term Action Plans :** Providing five-year rolling- and one-year-action plans are under preparation for each sub-programme. They take the point of departure for the identified

expected results and the means of implementation, in a tabulated form, outlining objectives, activities, output indicators, budget and time-schedule.

E.2 Stakeholder Roles

A wide and diverse range of stakeholders are found to have varying levels of interests in forests and forestry at national, regional and international levels. Active participation of all stakeholders is invited and encouraged throughout the NFP.

- Government institutions and agencies - responsible for policy, regulatory and planning tasks, related to establishment and maintenance of the enabling conditions for NFP implementation, such as enforcement of legislation and regulations, conflict resolution, service delivery, and ensuring that necessary human competences and technical assistance are available for development
- Civil society - sets the public arena of collective action around shared interests, purposes and values and ensures pluralism through advocacy, assistance in management, and monitoring and evaluation. NGOs will also assist implementation, advocacy and monitoring and evaluation
- Private sector - financing and investment; job creation, income generation, management and planning
- Knowledge institutions - capacity development, facilitation, technical knowledge; filling capacity gaps, monitoring and evaluation
- Development partners - policy dialogue and funding support.

E.3 Operational Framework

The Operational Framework reflects analyses in the NFP Background Document, task force and public consultation inputs, and consists initially of six implementation programmes which provide subject specific strategies and implementation avenues. They will each be complemented by shorter term (5 year) rolling plans, and quantified one-year action plans that link to the current TWG-F&E Action Plan (2007-2010). The implementation programmes are outlined below.

1. Forest Demarcation, Classification and Registration

In response to NFP objectives, this programme will implement a systematic and transparent forest demarcation and classification system, harmonised with other legal frameworks to contribute to the prevention of land conflicts in relation to ownership and user rights, through participatory processes that encourage involvement of all stakeholders. It contains two sub-programmes:

- Sub-programme 1.1 – Forest Demarcation, forest classification and Registration
- Sub-programme 1.2 – National Function-based Forest Classification

2. Conservation and Development of Forest Resource and Biodiversity

In line with NFP objectives, forest resource management and conservation focuses on the implementation of existing and emerging sustainable forest management models, and adding value to forest products, to increase forest contributions to poverty alleviation, enhanced livelihoods, and economic development, whilst safeguarding environmental services, through:

- Sub-programme 2.1 – Forest Management Plan
- Sub-programme 2.2 – Development and Management of Production Forests
- Sub-programme 2.3 – Monitoring, Assessment and Reporting for SFM
- Sub-programme 2.4 – Biodiversity and Wildlife Conservation
- Sub-programme 2.5 – Conservation and Development of Genetic Resources and Seed Sources
- Sub-programme 2.6 – Tree planting and Development of Forest Plantations
- Sub-programme 2.7 – Development of Forest Product and Market Promotion
- Sub-programme 2.8 –Wood Technology Development and Forest Product Processing
- Sub-programme 2.9 – Forest Certification.

3. Forest Law Enforcement and Governance

Forest governance and law enforcement are fundamental to NFP sustainability. This programme promotes participation of all stakeholders in sustainable forest management and law enforcement, through:

- Sub-programme 3.1 – Legal and Administrative Reform
- Sub-programme 3.2 – Law Enforcement and Forest Crime Monitoring and Reporting
- Sub-programme 3.3 – Rapid Response on Forest Crime Information
- Sub-programme 3.4 – Conflict Management System (to be developed and implemented from 2010). This programme will address conflict management capacity needs within forestry authorities, in order to prevent and respond to destructive forest based conflicts
- Sub-programme 3.5 – Monitoring, Reporting and Learning System (to be developed in 2010). A monitoring and reporting system will provide detailed programmatic implementation, checks and balances and learning, for efficient and sustainable performance.

4. Community Forestry Programme

The Community Forestry Programme directly contributes to NFP objectives. It enables sustainable forest management in a participatory manner for equitable benefit and livelihood improvement. It consists of three sub-programmes:

- Sub-programme 4.1 – Community Forest Identification and Formalisation
- Sub-programme 4.2 – Community, Institutional and Livelihoods Development
- Sub-programme 4.3 – Community Forestry Development Support.

5. Capacity and Research Development

This programme will identify strategic capacity needs and initiate relevant capacity development programmes to better place stakeholders to meet the NFP objectives. It will consist of:

- Sub-programme 5.1 – Institutional and Human Resource Development
- Sub-programme 5.2 – Extension and Public Awareness
- Sub-programme 5.3 – Research Capacity Building Development.

6. Sustainable Forest Financing

Sustainable Forest Financing provides an economically sustainable and transparent framework required in meeting all the NFP objectives. This will be achieved through:

- Sub-programme 6.1 – Government Financing
- Sub-Programme 6.2 – Income from Forest Sector
- Sub-programme 6.3 – Income from the Private Sector and Community Forestry
- Sub-programme 6.4 – Financing via Donors
- Sub-programme 6.5 – Innovative Financing from Payments of Environmental services and Carbon Credit

Implementation, Monitoring and Reporting

Development of our forests and their functions is seen as a collaborative effort among all stakeholders. The Forestry Administration and other implementing institutions will execute good forest governance and ensure that a good environment for development is predominant, in collaboration with stakeholders. When required competences are not available within local institutions, stakeholders will activate provisions for advisory assistance.

F.1   Financing and Costs

The financing analyses demonstrate that the sector is potentially self-financing and offers huge livelihood improvements, direct and indirect employment, and revenue generation. Increasing volumes of legal wood will also, over time, create a more stable domestic wood market. Equitable implementation of sustainable forest management will ensure revenue flows, from forest activities, for our state and society, in terms of royalties and taxes at levels which should not suffocate the enterprises.

However, such gains can only accumulate under the clear prerequisite that some initial investments combined with considerable efficient capacity development over the next 5-10 years are successfully achieved. Technical assistance will be needed to assist in processes to avoid unnecessary stalemates.

The costs for the first five years, including operational, capital costs and technical assistance, are based on financing analyses as part of the NFP development and calculated at 45.1 million USD. Capacity development, demarcation and community forestry will be the main areas of investment.

F.2   NFP Monitoring & Reporting System

Our NFP can only be operational within an effective system of monitoring and reporting.

We are well aware that increasingly the international community and international investors require transparent, prompt and accurate information. This is evident in the increased international demand for certification of wood and of other forest products, in addition to the certification of origins of diverse products. Monitoring aims to produce measurable indicators on both progress and status of forest production, biodiversity, carbon stocks, land use, logging, concessions, trade, law enforcement, conflicts and their resolution, social and environmental impacts, and benefit sharing.

The main objectives of our NFP monitoring and reporting system are learning, and a basis for programmatic implementation and control. An advanced and transparent system is needed to

guarantee the release of transparent information and reports simultaneously to stakeholders. Independent monitoring will form part of the monitoring system. Through feed-back loop procedures, lessons learned will be incorporated into future management routines. Such a system will have long-term and cross-sectoral perspectives.

The overall risks for our NFP implementation are primarily related to application of knowledge and insufficient attention to the dimension and number of conflicts. We are assuming that modalities will be developed for revenues to be reinvested into the sector for its development towards sustainability. Thematic risks and assumptions are identified within the individual implementation programmes.

F.3 Strategic indicators for NFP long-term monitoring are as follows – as per 2029

- Current level of forest cover will be increased to 60% of the total land area
- Sustainable forest management with prescribed silviculture implemented on 2.4 million hectares of production forest
- On average, 20 registered and vibrant small- and medium scale direct and indirect forest based enterprises or cooperatives operating in each forestry cantonment. minimum of 50% of processed wood for export will be certified
- Annual net revenue from the forest sector of 125 million USD
- Annual average net income (excluding establishment and maintenance costs) from carbon sequestration of 25 million USD
- Demarcation of a total 120,000 km of forest boarders(primarily completed during the last ten years)
- Strategic forest decisions taken by the forest authorities in dialogue with other ministries and a vibrant civil society through a minimum of two cross-sectoral and public meetings per year
- Forest monitoring and reporting system, showing the results and outcomes, updated monthly and available in the public domain
- Larger scale forest based conflicts spiralling to destructive levels or hostilities limited to a maximum of two of national attention per year, through the application of conflict management.
- Civil servants in the forest sector able to initiate and implement activities with partners external to the Forestry Administration as a natural part of their daily routines
- Protected Forest covers 3.0 million hectares
- 500,000 hectares of high value commercial plantation established and 10 million tree seedlings distributed per year
- Two million ha of forest land allocated for Community Forestry (approximately 1,000 CF) groups fully recognised with CF agreements
- The forest sector will be fully self-financed.

Updating National Forest Programme

The NFP Statement from the Prime Minister is courageous and forward-looking and is assumed to last throughout the 20 year period.

Our NFP is an ongoing process adaptable to changing conditions, and the integration of new areas or additional institutional mandates is desired and encouraged. Channels are available for strategic and operational adjustments and development of additional programmes.

Once the Monitoring and Reporting System, Conflict Management Scheme and effective financing modalities are in place, in 2010, the following tiered updating cycles will apply

1. An inception review of initial implementation early in 2011

2. The Strategic Framework and Background Document represent robust strategies and information that only require updates every 5 years, beginning in 2014

3. The Operational Framework:

   - Implementation programmes cover reasonable, robust priority areas and will also cover a five year period

   - Implementation sub-programmes will be updated on a five-year rotation, beginning in 2014. Specific updates can be made on a needs basis

   - Five Year Action Plan updates will begin in 2014. Specific updates can be made on a needs basis

   - One Year Action Plans are quantified in detail.

The TWG-F&E will establish a task force supported by external technical assistance, to undertake updates.

IMPLEMENTATION PROGRAMME

PROGRAMME I
Forest Demarcation, Classification and Registration

1.1   Main activities

- Demarcation of Permanent Forest Estate and registration
- Mapping of permanent forest reserve and registration
- Forest Classification according to function
- Conflict resolution
- Updating the forest cover map.

1.2   Programme duration

The project cycle is 20 years starting from 2010 to 2029

1.3   How this programme meets the NFP vision

The Forest Demarcation, Classification and Registration Programme (FDCRP) will respond to the vision of the National Forest Programme (NFP) by providing the basic data and legal foundation necessary for the ecological, social and economical conservation and management of the country's Permanent Forest Estate (PFE).

Clear forest boundary demarcation is clear identify forest ownership and forest resource user rights with relevant stakeholders.. Furthermore, demarcation of PFE has been recognised as essential for development management and sustainable forest management in order to dealing with social, economic efficiency and environmental including biodiversity conservation and cultural heritage.

Permanent of forest demarcation, classification and registration process will recognise and facilitate indigenous people's rights as well as the user rights of local communities. This process can be done in consultation with relevant stakeholders, local authorities, indigenous groups and local communities. Recognising the traditional using of local communities which dependent on forest product, non-timber forest product is fundamental to the NFP vision to promoting equitable and sustainable use of forests.

1.4 How this programme meets the NFP objectives

In order to meet the NFP's objective, the government defines the forest definition as follow: Forest is the unit of the natural ecosystem or plantation in the forms of wetland, low land and dry land which covers by natural stands or plantation trees with a height from 5 meters on an area last least 0.5 hectares with a canopy of more than 10 per cent. The plantations such as rubber, oil palm, teak, acacia and eucalyptus and other kinds of trees which fall under the above criteria will also be classified as forests.

The FDCR Programme will enable the Forestry Administration (FA) to solve conflicts over utilization of forest land and designate forest areas according to the different potentials of forest land and forest function. It will contribute to the formulation of long-term management plans for forest areas in order to increase the efficiency of conservation and sustainable forest resource development.

The demarcation, classification and registration of the PFE will be a participatory process where all forest stakeholders are encouraged to be involved to ensure tenure and user rights of local communities, as well as enable long-term planning of forest resources management. Clear forest boundaries and classification will also assist evaluation of programmes and ensure that PFE is managed in a transparent manner.

1.5 Background of programme

Cambodia's forest cover had decreased to about 59% (10.7 million hectares) in 2006. This degradation of forest resources is caused by forest clearance conversion of forest land to agricultural land and other purposes that effective to management plan.

Sustainable forest management has to be considers the socioeconomic utilisation of forest resources, the preservation of ecosystem functions over time and the ability of various stakeholders. The increasing demand of forest products and forest land combined with increasing poverty force rural people to further exploit forest resources to maintain a decent livelihood such as converting forests land to agricultural land, settlement land or selling. Collecting or selling NTFP and other forest products, as well as, in many cases, extracting the remaining rootstocks from forest lands.

The decline of forest resource and forest land has manifold impacts on the socio-economic life of communities. Deteriorated ecological functions affect the local agriculture and animal husbandry negatively. Rural people have begun to travel to distant forest areas to satisfy their needs for forest products, resulting in conflicts with other communities or law enforcement officer. In such circumstances, many communities gradually turn to their adjacent degraded forests to initiate protection measures, in order to restore forests and livelihoods. The lack of clear demarcation, classification, and registration disturbs the interpretation of land tenure and user rights, which are essential elements in management planning and conflict prevention.

RGC has laid out four main objectives in Rectangular Strategy Phase II, of which the fourth is to ensure environmental sustainability through sustainable management of natural resources. Permanent of forest demarcation efforts are considered an important part of measures taken by the RGC to prevent, reduce, and eradicate illegal forest land grabbing. Forest demarcation also relates directly to the RGC's statement on forest policy. Key objectives of this statement include the implementation of sustainable forest management and conservation of important forest according to their functions through reforestation, with local people's participation, both of which can eventually lead to increased food security and poverty reduction (RGC 2004c). A clearly demarcated of PFE is also an important first step in Government efforts to reach its forestry sector-related seven Millennium Development Goals which include maintaining a 60 per cent forest cover by 2015 (RGC 2003), as it will provide the foundation for sustainable forest management and environmental protection.

Demarcation and classification of the PFE have to take into account both the Forestry Law (2002) and the Land Law (2001), as well as a number of related Sub-decrees, Prakas, etc. The Forestry Law states that PFE has to be managed in a sustainable way in order to maximise the social, economic, environmental benefit and cultural values of the Kingdom of Cambodia (RGC 2002e). The Ministry of Agriculture, Forestry and Fisheries (MAFF) shall classify, register and defined boundaries for all forest within PFE. In this regard, MAFF is responsible for coordination with local communities, relevant local authorities, and the Ministry of Land Management, Urban Planning and Construction (MLMUPC) to facilitate the registration of ethnic land, conduct national land use mapping, and ensure proper registration of the PFE into the State Land property.

The PFE is classified into "Production Forest", "Protection Forest" or "Conversion Forest" has to be registered as "Forest Estate". Sub-decree 53 dated April 01, 2005 on Procedures for Establishment, Classification and Registration of the Permanent Forest Estate authorizes MAFF to conduct forest demarcation in collaboration with relevant local authorities, and that this should be based on data of 2002 forest cover map. It also states that in case of disputes or unsolvable complaints, a national committee for solving the conflict in permanent reserve forest estate should be formed by the RGC.

Many boundaries of the PFE are defined already by the existence of Logging Concessions, Protected Areas, Protection Forest, Conservation Areas, Community Areas and others designations, but these defined boundary have been changing gradually which is needed to be review.

1.6 Problem analysis

Cambodia's government is struggling to improve the development of its dwindling forest resources. Large areas of primary and secondary forest ecosystems are under intense threats from logging, agro-industry, developments and expanding agriculture land. Conflicts over rights and responsibilities in relation to management jurisdiction of the country's forests are often rooted in uncertainty about forest boundaries and forest classification. Unclear of forest tenure and user rights provide disincentives for stakeholders to manage forest areas sustainably. This scenario is likely to continue until the PFE completely classified and demarcated.

Insecurity of land tenure has negative economic implications, as it impedes incentives to improve forest resources. It hinders long-term agreements between the government and local communities as community forestry agreements and also decreases local likelihood activities of rural people.

For effective management of forest resource, there is a need to classify the PFE into Production Forest, Protection Forest or Conversion Forest. This is the first step towards defining specific management objectives for each unit. The classification is critically important in balancing between multiple forest land used with highly attention to critical watershed management, protection forest for water quality, protection forest for eco-tourism and special management zones, for example wildlife conservation zone and tree seed sources.

To demarcate clear PFE boundary, the disputed land use inside the forest or at the forest edge can be negotiate and resolved. Suitable procedure need to be taken place to illegal forest land grabbing should be reclaimed, while legally land tenure should be recognised. The appropriate methods for demarcation have been done that resulting in positive impacts and in the same time minimize the existing conflicts. The FA is currently developing criteria, procedures and technical means to identify and demarcate forest lands to be declared as part of the PFE.

Sub-decree 53 studies focused on function of environment and forest ecological but before using forestry land, now discussion with other government agencies before the PFE is legally classification.

Once a parcel of PFE has been registered by MAFF, it needs to be added to the national Land Register kept by the Ministry of Land Management, Urban Planning and Construction.

1.7 Objectives of programme

The overall purpose of the FDCRP is to contribute to development of SFM by generating secure tenure and user rights for local communities, as well as improve conflict resolution and demarcation of the PFE.

The main objective of the programme is to establish a transparency systematic for forest demarcation and classification process in which the forest cover map 2002 is used a basis for verification; when harmonised with relevant legal frameworks, it will contribute to the prevention of land conflicts in relation to land ownership and user rights of local communities.

Main activities of these objectives are:

- Mapped of demarcation of PFE boundaries as well as on the ground, to ensure that the tenure relating to PFE are clear to all stakeholders, and all conflicts have been resolved

- Classification of PFE according to forest functions and its potentials, to enable effective development plan and forest utilisation

- Register of PFE in the State Land property Registration.

1.8   Indicators

- Methodologies and guidelines for public participation and conflict resolution in forest demarcation process are being established and used in the forest demarcation process

- The forest demarcation process is harmonised with the State Land Identification Mapping process and the registration of Communal Lands of Indigenous People

- Local people are aware of the purpose of PFE demarcation

- A transparent and effective forest classification system is formed

- The relevant Communities and local authorities are actively involved in forest demarcation

- PFE boundaries are clearly demarcated on maps and at the site

- Local people recognised of PFE boundaries and forest functions

- PFE boundaries are registered at MAFF and MLMUPC

- Land tenure of local people and user rights are secured

- Permanent forest is classified according to forest functions and its potential for supporting to forest management and forest development activities

- Database is used for developing national forest management plans as well as other plans related to the future use of forests.

1.9   Verification

- Final forest demarcation mapped

- Permanent forest demarcation and forest classification data according to their potential and function

- Guidelines for forest demarcation and conflict resolution

- Conflict resolution mechanisms at local and national levels
- Collaboration between MAFF/FA and MLMUPC to harmonise on demarcation process
- Conflict resolution report
- Inter-agency collaboration meeting and report
- Forest demarcation boundary have been registered on national land registration documents
- Poles Demarcation has been installed on the ground
- To verify of local know ledged on forest boundaries demarcation
- Maps of forest demarcation boundaries and classification at local and national level are officially recognized
- Forest statistics has been updating
- Action plan has been developed
- Monitoring and evaluation processes.

1.10 Programme risks

- Lack of cooperation between government agencies, implementation agencies and related local authorities to implementing an efficient of forest demarcation process
- Huge budget is required for forest demarcation expenditure, but available funding is limited.

1.11 Programme implementation Strategies

1.11.1 Harmonise PFE Demarcation Process with State Land Mapping

Demarcation of PFE is in the process of being piloted. Therefore, it is necessary to get good experiences to ensure that proactive and viable activities and mechanisms are effectively applicable with involve all stakeholder and local people. In this process, FA will continue put more efforts to updated forest demarcation procedures in order to produce forest land use map and officially registered as State Land by collaboration with MLMUPC. Forest demarcation and registration is described in detail in sub-programme I.

1.11.2 Priority sites for PFE demarcation

Forest Administration is scaling up the forest demarcation and registration process to support and speed up SFM implementing activities and environmental protection forest in Cambodia. The prioritisation of identified area will be based on an open process and including relevant stakeholders. Special emphasis will be on:

- Forests of special protection value (biodiversity, mountains, watershed, up stream fresh water, islands, seed sources, wildlife habitat, spiritual forest and forest research pilots)
- Forest areas which is risky to illegal land grabbing

- Forest areas along roads for which construction have been planned or enlarged
- Forest areas along roads which have recently been upgraded or in development planned
- Sample plots for forest science research, soil, water and climate
- Community forestry, forest partnership and community protection forest.

1.11.3 Involvement of all forest stakeholders and conflict resolution

Demarcating PFE is recognised that not only for forest protection itself if not involvement of local stakeholders. In the demarcation process, an efficient conflict resolution mechanism at the local levels has been establishment and participatory implementation by all stakeholders.

Local communities need to be involved in forest mapping, forest demarcation maintenance of permanent demarcation pole and conflict resolution through local authorities which was the facilitator between communities at the local level and the Government. Local FA authorities should be accepted ideas raised by local communities. Furthermore, need to be cooperate with experienced officers who have capacity to facilitate demarcation processes and conflict resolutions.

1.11.4 Solving large scale conflicts through national committees

FA plays an important role to harmonise forest demarcation with state land mapping. Unresolved large-scale conflicts in PFE areas will therefore be solved by national committees established to solve land conflicts and ultimately by the Cabinet of Ministers. The FA will actively cooperate with juridical agencies to reinforce using law terminate forest land grabbing, as part of an ongoing process of resolving forestry land conflicts.

This process is critical for the future success of the NFP, and required joint commitment and mutual respect for national legislation, as well as community rights and "customary rights". The relevant authorities will conduct meaningful studies of the root courses of current land conflicts and, subsequently, develop possible solutions in collaboration with affected stakeholders. It is important that these conflicts are resolved before forest demarcation commences. Conflicts will be resolved by acknowledging fair land claims by local communities. Right now, some can provide historical evidence of tenure, or, for those who may not be able to provide any evidence of historical belonging, can provide a forest land tenure certificate. In this aspect, the local authorities must act responsibly and halt the issuance of certificates on forestry land until the demarcation exercise has been completed.

Ministry of Land Management Urban and Construction which have line department and Local Cadastral Office as well as Ministry of Interior and local authorities (district, province and city) and especially, chief of village and chief of commune must stop to issue land tenure certificate for buying or selling all land which is related with national public property such as forest land or inundated forest. Specially, where forest land not clearly demarcated these kinds of land are national public property that must not sale, buy and issue land tenure.

1.11.5 Forest classification

Sub-decree 53, law of created, classification and PFE registration states that FA responsibility to classification and registration of the country's permanent forest estate, to enable long-term landscape planning and implementation of SFM. FA responsible for developing clear and transparent methodologies for classifying of PFE, facilitate with relevant stakeholders to ensure that the forest classification is based on sustainable forest ecology and important forest function. The overall process is described in detail in sub-programme 2.

1.12 Sub-programme 1 Forest Demarcation and Registration

1.12.1 Description

Demarcation of PFE is fundamental for sound of management and sustainable use of natural resources. The serious effort of demarcate the permanent forest estate will help to achieve success management goals and sustainable use of public forest resources. It will enable efficient land use planning, land allocation, afforestation, as well as protection and development of forests in Cambodia.

The RGC is committed to demarcating the forest estate across the country using the provisions of the Sub-decree 53 dated April 01, 2005 on Procedures for Establishment, Classification and Registration of the Permanent Forest Estate since 2006 till now (2009). Now FA have been piloting forest demarcation processes in some provinces in order to received some feedback for updating and effective methodologies and principle guideline in a whole country by defining criteria, technical procedures to identify forest demarcation lands to be declared and effective implementation.

The permanent of forest boundary demarcation must be carried out by basing on the forest cover map in 2002 and on the real situation.

1.12.2 Means of Implementation

1.12.2.1 Harmonisation of PFE demarcation procedures with national guidelines for land mapping

It will be necessary to review current draft procedures to ensure that forest demarcation is efficient and harmonised with national land mapping programmes. As a starting point, the programme will be base on the methodologies which developed under Sub-decree 53 and come together with experiences from the piloting of forest demarcation in 2006-2009. The main conflicts will addressed through improving inter-agency collaboration and maximum involvement of local people to ensure that demarcation of PFE is linked to national land tenure programmes.

1.12.2.2 Coordination with relevant authorities

The sub-programme will especially work towards improving collaboration between the FA and relevant local authorities and other inter-agencies, in order to speed up the process and link to Participatory Land Use Planning (PLUP) and social land concession processes.
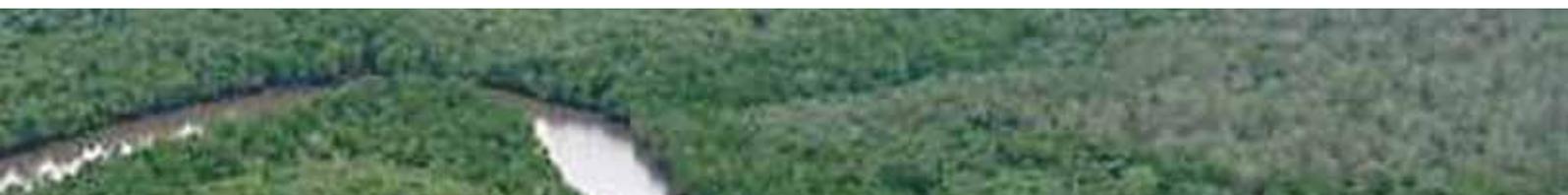
1.12.2.3 Participatory permanent forest demarcation at the local level

Forest Administration (FA) is currently piloting forest demarcation process by collaborated with local authorities and relevant stakeholders. In the process of demarcation, the FA will inform the purpose of forest demarcation and consult with all local authorities and relevant stakeholders, as well as secure user rights, maintained permanent demarcation pole that it's the public state properties. Consequently, consultation with local communities, senior villager is often the best source to verify customary land rights and/or historical belonging to an area.

1.12.2.4 Forest demarcation and registration

Forest demarcation will be based on developed first draft of guidelines of forest demarcation. The main steps of the preliminary process are:

1. Review and updating of PFE demarcation guideline base on forest cover map year 2002

2. Re-patrolling of all installed points

3. Complex land tenure areas are investigated and solved by following national guideline

4. MAFF should be produce Prakas on forest boundary demarcation process and announce in publicise to all communities level

5. Public announcement within 45 day written complaints period: if no complaints, the proposed boundary is accepted

6. Unsolved large scale conflict has to be sending to Provincial Sub-committee, National Committee or approval request from RGC

7. FA respond to facilitate and set up concrete pole on solved conflict area

8. Preparing Prakas on PFE register at MAFF and register as state property with Ministry of Land Management, Urbanization and construction.

1.12.2.5 Conflicts resolution over forest demarcation boundary

The government has recently established National Committees to resolve large-scale land conflicts in Permanent Forest Reserve and this committee can be formed provincial Sub-Committees if necessary. So, large-scale conflicts that can't be solved at province sub-committees will be raised up at national committee, and then has to be getting approval from RGC. However in many cases, the conflicts occurs by some illegal activities exist by those who has land titling certificated in side forest estate causing fallback to the PFE demarcation process and need to be solved by justice system.

1.12.2.6 Registration

After demarcated forest in one area land, FA will send PFE classification proposal with map attached and report procedure to MAFF in order to request Prakas. In each permanent forest classification, the registration code is required and kept by FA for identifying that Permanent Forest Reserves (PFR).

After registered PFR by MAFF, FA must photo copies those documents then sent to MLMUPC for register as state property.

1.12.2.7 Expected Results

- Methodologies and procedures for forest demarcation and conflict resolution are created with transparency implemented, where all relevant stakeholders are involved, and conflicts over illegal forest land grabbing are resolved effectively through inter-agency collaboration, and where large scale forest land grabbing has ceased. The forest demarcation process is harmonised with State Land Mapping

- The PFE is clearly demarcated on maps and with installing concrete pole on the ground to enable its classification according to forest functions and its potential. Boundaries of PFE are registered at MAFF and MLMUPC as state land. Forest land which is state public property has secured tenure by clear boundary to provide a solid legal foundation and enable implementation of long-term sustainable forest management and development

- Local communities are aware of forest demarcation objectives and understand the importance of their involvement in the forest demarcation process

- Illegal forest crime activities are minimised through clear demarcation of PFE

- Communities are aware of their rights and responsibilities in protection and sustainable forest use, conflicts over forest land are minimised and solved effectively due to a considerably upgraded conflict capacity.

1.13 Sub-programme 2 National Function-based Forest Classification

1.13.1 Description

A clear forest classification is based on ecological factors and, subsequently, a classification into functions, is vital for national efforts to balance between sustainable wood productions with protection of environmental services. The currently Cambodia classifies the PFE according to forest functions as following:

a. Production forests, is reservation for timber and non-timber forest products (NTFPs), where conservation is a second priority. Production forests include:
- Forest concessions
- Forest production other form of forest concessions
- Rehabilitated forest
- Forest reserved for reforestation and tree plantations
- Forest reserved for seed
- Degraded forest

- Community forest with legal agreement
- Forests extension and rehabilitate station.

b. Protection forests, managed for environmental services, biodiversity protection and natural resource conservation. Protection forests include:
- Forests reserved for special areas (Prevent climate change)
- Forests for research
- Forests protecting water supply
- Forests for watershed protection
- Forests for wildlife conservation
- Forests conservation for hunting game
- Forests for genetic conservation and seed
- Forest for biodiversity conservation
- Forests for resist desertification
- Forests for eco-tourism
- Botanical gardens
- Wildlife reserve centre
- Forests for wildlife biological rehabilitate
- Wildlife corridor forest
- Spiritual forests.

c. Conversion forests, for other development purposes. Conversion forest is non forest cover and have been classified as PFE, which RGC plans to use for other development purposes, especially for declare as social land concession.

PFE have been classified as forest concession, protected area, protection forest, seed production, community forestry, watershed protection and other protection area. All of those forests already classified but boundaries of that area have been changed gradually that need to review. However, large forest areas not have been properly classified and have not detailed classification procedure as well.

The objective of classify forest according to function and its potential is to ensure that the PFE can be managed in sustainable way. It will enable an efficient zoning of protection forest to mitigate negative effects of land use changes and help protect important environmental services.
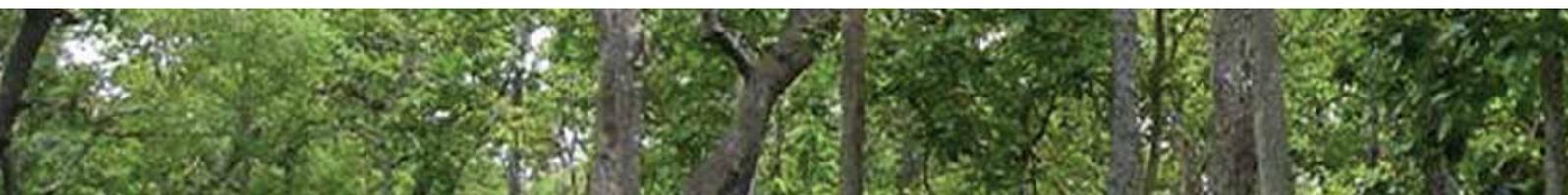
1.13.2 Means of Implementation

FA responsible for PFE classification and registration process as below:

- Survey, measure and identified UTM point and study on the specific forest situation which will be classified based on permanent forest reserve map by collecting data on forest ecological system, forest resources, and information on social and economic needed and other potentially of the permanent forest reserve in the areas or in each geographical forest area

- Analysis data and information in the areas or in each geographical forest area in order to identify permanent forest areas in accordance with its classification

- Mark on permanent forest reserve boundary classification on the map and on the ground by defining natural boundary such as road, canal, river, stream and mountain range

- Facilitate and consult with local authorities, local communities or concerned entities in order to expedite the process of classifying permanent forest reserve in each province and municipality

- Prepare documents for each permanent forest reserve classification project by setting geographical location, administration location, boundary, and clear coordinates as well as illustrating of importance and main purpose of each permanent forest reserve classification and future utilization and management of each permanent forest reserve classification

- Send permanent forest reserve classification proposal with the attachments of other documents such as map and report on the process of permanent forest reserve classification in order to request for Prakas from Ministry of Agriculture Forestry and Fisheries.

1.13.3 Expected Results

- Forest areas have classification and registration at MAFF

- A forest classification system functioning enable sustainable forest management, by environmental services consideration, protection of cultural values and benefit from eco-tourism, etc

- PFE has been classified into functions and real potential of forest where forest resources is developed and efficient for sustainable use

- Improved forest utilization and forest management planning.

1.14 Budget requirement

Budget (USD) for Forest Demarcation, Classification and Registration Programme for 2010-2020		
Sub-programmes	**Proposed budget 2010-2014**	**Estimated budget 2015-2020**
1.1 – Forest Demarcation and Registration	2,340,000	5,774,00
1.2 – National Forest Classification	443,000	443,000
Total cost	**2,783,000**	**6,217,000**
Donor sharing	1,000,000	

Assuming that income will be re-invested into this sector resulting in more secure implementation in accordance with the finance programme; however, budgeted from donor sharing will decrease significantly in the second phase within five year periods.

Programme II
Conservation and Development of Forest Resource and Biodiversity

2.1 Priority areas (keywords)

- Sustainable forest management
- Management systems
- Tree plantations
- Conservation
- Eco-tourism
- Supporting for wood processing technology development, and enhancing of quality forest products and market promotion
- Wood and non timber forest products processing techniques.

2.2 Programme duration

The program cycle is 20 years from 2010 to 2029

2.3 How the programme meets the NFP vision

Conservation and forest recourses development and biodiversity programme will contribute for ecologically, socially, and economically viable conservation and management of forest resources by enhancing environmental protection, poverty reduction and socio-economic development.

2.4 How this programme meets the NFP objectives

The purpose of this programme is to support national development by taking sustainable maximum benefits and environmental services from forests.

2.5 Background of programme

Forests are an intrinsic part of Cambodian life and culture. Most rural people are on forest products for their livelihood. The Royal Government of Cambodia considers the implementation of environmentally,

sociologically and financially sustainable management practices of forest resources an important public asset that, if properly managed, can contribute significantly to poverty reduction and socio-economic development. Currently, it encounters challenges in forest management due to some factors such as ambiguous land rights, lack of demarcationand proper management plans continue to contribute significantly to deforestation and habitat degradation. However, the RoyalGovernment of Cambodia had achievements in term of policies, strategies and measurement of forest resource prevention in sustainable way and also commits implementing the Cambodian Millennium Development Goals aim to maintain forest cover at 60% of the total land area by 2015 Thus, the NFP has been formulated by the RGC to carry out sustainable forest management in Cambodia in the conservation and forest resource development and biodiversity programme as follows:

To improve national land-use planning and national forest resource

- To support implementation of forest management systems

- To conservation of genetic diversity and biodiversity

- To enhance effetely and benefits from forest services

- To support wood processing technology development, and enhance quality forest products and market promotion.

2.6   Problem analysis

In spite of recent rapid development, a significant percentage of Cambodia's original forest cover is still relatively high, if compare to neighbouring country in the region. However, forests are being destructed due to habitat conversion through economic land concessions, encroachment and land grapping. In order to address these critical issues, it needs to be strengthened proper implementation in the ground for maintaining remained forests and applying reforestation. In context of sustainable forest management (SFM), it would be needed to identify systems, mechanisms and activities to contribute for sustainable forest management in including re-planning of forest management for invalid forest concession and cracking down effectively forest crime and provide appropriate option to forest management system to be applied in the future challenges.

Some of the future challenges concern the development of monitoring systems, assessment, and reporting on sustainable forest management. In order to make these processes meaningful, there is a need for each system to develop a high degree of transparency, encourage a practice of information sharing among all stakeholders, and

ensure local community participation. To ensure that genuine benefits are afforded to local people, there is also a need to clarify the extent of customary rights of indigenous communities on state land.

Cambodia has relatively extensive Protected Areas (PAs). Some PAs is excluded forest area contain of high value biodiversity while included high productive forests or low potential forest areas. It is not only above stated but also some PAs had been allowed improperly conversion so that these are almost deforest structure such as converted to economic land concession, and agriculture land purpose. These need to be reviewed the current protected areas and amend them according to environment, conservation and biodiversity function and take attention for how can be best conserved. This may require multi-sector review of Cambodia's remain natural forests to define appropriate each systems in order to identify clearly conservation priorities, especially, focus on protected areas systems in suffering a chronic lack of protection at all levels irrespective of their national, regional and international status. Therefore, some forest protections where out site PAs had been established by the Forestry Administration for conservative biodiversity contribution at the main ecological zone which should be protected diversity, forest genetic and wildlife. These also set up the forest seed sources to be traditionally utilized where rare species. In many of these areas, endangered species of wildlife and plants are found, of which several are listed as endangered on the IUCN Red List.

Despite the extent and richness of forests in Cambodia, forest resources have only contributed sporadically to the national economy. The variety and value of registered traded timber products and NTFPs have not been significant. New wood processing technologies and marketing of forest products have been slow to develop, if compare to neighboring country,

In order to ensure future sustainable forests, it is important to formulate conservation and forest resource development and biodiversity programme for proper applying as well as the issues listed above are addressed appropriately. This programme is focused on forest resource management and biodiversity to ensure a development steps for improvement of forest governance.

2.7 Objectives of programme

The overall purpose is to ensure sustainable conservation and forest resource development and biodiversity programme in Cambodia. Specific objectives obtain three priority areas in following:

First priority area: Forest development action plan formulation Develop and implement forest development action plan formulation and forest inventory

Pending on potential future prosperous viable systems of reduced emission from deforestation and forest degradation, develop a national carbon accounting.

Second priority area: Strengthening management system and conservation at Forest Management Unit level

- Develop and implement management system for productive forest outside forest concession

- Develop and implement protected forests management systems including biodiversity conservation and eco-tourism development)
- Conserve in-situ and ex-situ forest genetic resources and establish seed banks for reforestation programmes
- Develop multi-purpose forest plantations
- Supporting for wood processing technology development, and enhancing of quality forest products and market promotion
- Develop timber processing technology and activities for value added products
- Promote forest product processing and marketing.

2.8 Indicators

First priority area: Forest development action plan formulation

- Forest development action plan formulation will be developed base on a consultation
- Forest development action plan implementation accord to NFP objectives
- A relevant set of verifiable indicators for environmental, economic, political and social aspects of SFM will be developed
- Standardised methodology for forest inventory is developed for applying in data collection and report every 5 years period
- Compilation and update forest inventory data will be done
- Forests is managed for carbon credit
- Protected forest will be increased from app. 1.5 million hectares to 3 million hectares
- Forest plantations of high value species are promoted up to 500,000 hectares
- At less 50% of processed wood for exportation is certified.

Second priority Area: Strengthening management system and conservation at Forest Management Unit level

- Management according to silviculture techniques will be applied on 2.4 million ha forest land.
- Strengthen and improvement of forest management methods for productive forests, and these would be managed according to ecology, social and economic
- Integration of protected forest system and eco-tourism is developed for model and include to transparency sustainable management
- Biodiversity conservation and forest seed production areas will be developed for flora and all priority wildlife
- Multi-purpose forest plantation management system is enhanced for implementing model.

Third priority area: Supporting for wood processing technology development, and enhancing of quality forest products and market promotion

- Encourage and incentive for wood processing and add value to forest products and market promotion

- Support and encourage for increasing forest productions and wood processing for domestic and oversee market promotion
- Improvement of timber and non time forest products processing techniques, and wood technology development
- Implementation of chain of custody system.

2.9 Means of verification

First priority area: Forest development action plan formulation.
- Forest development action plan is formulated in consistent to integrated with local FA forest management action plan
- Consultative workshops and public hearing reports
- Forest inventory data is compiled for maintain and update
- Annual report on forest development action implementation.

Second priority area: Strengthening management system and conservation at Forest Management Unit level
- Management plan for production and conservation forests
- Guidelines on forest management for production forest
- Obtain forest data for productive and conservative forests
- Guidelines on protection forest management system is in place for applying
- Obtain data and progress report on biodiversity conservation and seed sources
- Obtain data and progress reports on multi-purpose forest plantations.

Third priority area: Supporting for wood processing technology development, and enhancing of quality forest products and market promotion.
- Statistics on wood processing industry
- Regulations in supporting for wood processing technology development, and enhancing of quality forest products and market
- Reports and statistics on updating forest products and wood processing technology improvement
- Increasing forest products for domestic and oversee market promotion
- Report on NTFP processing progress in the community forestry level
- Report on chain of custody.

2.10 Programme risks

- Lack of a appropriate approach and transparent process to define production forest conservation forest, and plantations respectively

- Positive effect of enlarging economic land concession in forest land, which undermining of forest management efforts.
- Lack of cross-sectoral collaboration, who receive benefits from forestry sector
- Lack of will in other sectors to create an enabling to enhance forest productions, wood processing, value add to forest products and market promotion
- Lack of information sharing, communication discussion among stakeholder.

2.11 Programme implementation strategies

Effectiveness of SFM accords to initiative for management actions in consistent to the conditions and social economic situation. Stakeholder consultation in the process of forest development action formulation is crucial important to seek for comments to be ensured SFM implementation.

Current, several forest management models have been tested in Cambodia. The method and model include the forest concession ; annual bidding coupe, partnership forest management experience forest plantation ; protected forest, protected area, wildlife and conservation areas community forestry forest management for carbon credit… etc. At the time being, it is undertaken these and also gain experience for pursuing implementation. Therefore, the implementation strategies of conservation and forest resource development and biodiversity programme are to:

- Develop criteria and indicators for sustainable forest management
- Establish mechanisms for monitoring forest development action plan implementation
- Establish sustainable forest management systems at Forest Management Unit level
- Develop strategies and measurement for supporting wood processing technology development, enhance quality forest products and market effectiveness
- Enhance capacity and strengthen silviculture management techniques for sustainable way
- Develop high value species in forest plantations with larger potential for economic, social and ecological sustainability.

2.12 Sub-programme 1: Forest Management Action Plan

2.12.1 Description

The development of Forest Management Action Plan (FMAP) is a key activitie to be undertaken by the Forestry Administration (FA) and development partners in consistent to NFP and the Royal Government of Cambodia policies on forestry sector. G.

2.12.2 Means of implementation

2.12.2.1 Development and maintenance of Forest Inventory Data

Forest inventory will be conducted in the fields for collection and update data and analysis carbon stock in the forests. The programme will formulate forest inventory methods to apply properly data

collection in the fields for reliable analysis and valid utilization in forest resource development preparation. The implementing process is in the following:

- Formulate forest inventory project proposal for all forest types
- Develop guideline on national forest inventory to assess quality and forest resource quantity (including inventory medical plant, sprouts, seedlings, saplings, tree non timber forest products, carbon stocks, environmental services, endangered species... etc).
- Identify capacity and experience in forest resource inventory (all species and ranging diameter of plant)
- Input and analysis national forest resource inventory for compilation and database management.

The national forest resource inventory is the FA's main tool to monitor Cambodia's millennium development goal in maintaining 60 percent forest cover of total land area as well as it will provide carbon stock database.

2.12.2.2 Forest Management Action Plan (FMAP) team

The formulation of FMAP is a part of the royal government reform is being implemented to ensure that the management of forest resource is transparent. This requires to form a working group, FMAP team to be responsible for preparation of FMAP.

The FMAP team locate in the FA will propose budget proposal for the preparation of FMAP. The team includes relevant stakeholders to support in the implementation for achievement of Cambodia' Millennium Development Goals.

The FMAP team will undertake the following activities:

- Collect, review and synthesize all relevant information to support FMAP (including local community traditional use rights and indigenous use rights)
- Prepare related documents for formulation of FMAP
- Follow up a progress of FMAP preparation, include the content and draft of this action plan
- Organise national workshops for FMAP consultation and share this action plan to related stakeholders, if needed.

It is addressed that undertaken feedback from various important stakeholders is essential during a FMAP process to ensure that it benefits to other stakeholder..

The structure of the action plan should be followed a standard format to fulfil clearly stated vision, goals and expected outcomes of the national forest programme period 20 years. The development

of the FMAP should be considered the existing legislative and regulations and would be also adjustable to possible future amendments, if needed. The FMAP is a technical plan to be necessary for NFP implementation, as well as support the national development plan.

2.12.2.3 Preparation of Forest Management Action Plan

The FMAP is an integration of local FA's FMAP in consistent with NFP, RGC's policy and the Forestry Law. The FMAP Team initiates a technical implementation for national forest resource management. The preparation of FMAP is undertaken as the following:

- Follow up the progress FMAP processes of the local FA
- Collect all FMAP of the local FA to review and synthesis all forest related information
- Consolidate a national FMAP.

The FMAP must be detailed activities in according to the development forestry sector vision for 5 years planning of sub-programme and NFP by emphasize on goals, activities, expected outcomes, indicators, means of verification, and clear time frame. Furthermore, the FMAP would be adjustable document or revise in complying with the national evolution and development status. However, this action plan is a detail technical plan for supporting to be achieved the development objectives of the NFP.

2.12.2.4 Expected result

The stand stock and forest types status are compiled for utilization. The forest inventory data is an important to make decision on forest management and fundamental techniques to be formulate forest resource development action plan.

The formulation of forest resource development action plan is in line with the NFP, which provide clear basis for SFM and to ensure the balance of economic requirements, social, traditional, sustainable forest products for trade, forest resource conservation, and environmental services.

2.13 Sub-programme 2: Development and technical implementation of production forest management

2.13.1 Description

Cambodia's forest estates are classified into the permanent forest reserves and private forest. The permanent forest reserve include three types, firstly production forest is a reserve forest for sustainable timber and NTFP's productivity and regarding protection function as second priority. Secondly, protection forest is reserved for ecosystems and natural resources protection and the third is the forest land for conversion. The main system has been implemented in production forest such as community forestry under agreement, forest concessions, annual bidding coupes, rehabilitation of logged forest and forest reserve for
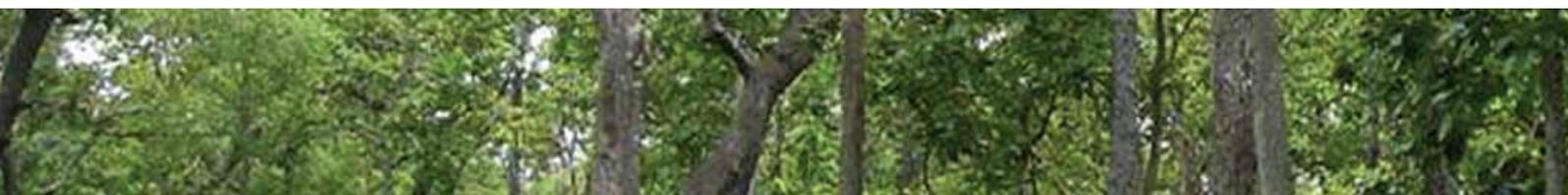
reforestation or forest plantation development. The forest managed by silvicultural methods is hardly done and it have just researched for test, is not fully implementation, however, apply silviculture techniques presents an enormous potential enhancing quality the natural forests. Forest concessions activities have been suspended since 2001 up to now in complying with the RGC decision to require all forest concessions preparing a strategy forest management plan for sustainable way in according to international standard. After suspended forest concession, the government decided establishing a small number of annual bidding coupes in order to supply timbers for domestic consumption. In line with the NFP vision and mission, there is a need to develop alternative production forest management systems, which contribute significantly to improving local livelihoods, the safeguarding of environmental services and watersheds, and carbon sequestration.

2.13.2 Means of implementation

2.13.2.1 Development of SFM around a landscape approach

A national review of production forest management systems will be initiated and, subsequently, replaced with new systems that are transparent, with a high degree of public accountability, and which are developed in a landscape context. The review and amendments will focus on ensuring as follows:

- Forest planning is developed around a landscape approach as a basis for ensuring public accountability through representation mechanisms for provinces, districts and communes, as well as other concerned ministries. This approach will act as the line of connection between (a) the planning of the landscape and (b) the approval and monitoring of the landscape plan and its implementation
- The current structure of the FA is split into separate planning and regulatory functions in reflection of (a) and (b) above
- Public accountability mechanisms are developed and implemented effectively.

2.13.2.2 Enable SFM through post-concession forest management

To enable expansion of the SFM in production forest, it is a priority to review and clarify the future of all remaining forest concessions. The FA will, in collaboration with all relevant stakeholders, develop a transparent review-system and clarify the future of remaining concessions. This, the FA may implement a wide range of alternative SFM systems in line with the NFP vision and mission, i.e. certified commercial forestry, community forestry, REDD, protected forests and conservation areas. The review will develop strategies and systems to make sure in the following:

- Production and protection forests inside concessions are defined based on a landscape approach to mitigate negative effects from non-sustainable activities on ecosystem services
- Forests of high biodiversity value inside concession areas are defined for conservation
- Any concessions that restart operations will fully comply with ecological, economic and social responsibilities through obligatory third-party certification
- Forests within cancelled or inactive concessions are protected until the national review process is concluded and implemented.

2.13.2.3 Development of silvicultural capacity and alternative sustainable forest management models

A first step will be to develop a silvicultural understanding and capacity among the foresters in charge of forest management on the ground, making them able to select and adapt well-known silvicultural techniques.

A wide range of alternative sustainable forest management systems will be developed which integrate benefit sharing with local communities, environmental protection, environmental services, watershed protection and carbon sequestration. New SFM systems will be piloted, monitored and linked to national efforts to implement certification in Cambodia. Good practices will be identified and scaled up based on forest resource development action plans.

2.13.2.4 Identification and management of annual bidding coupes

Effective, transparent management and monitoring of annual bidding coupes will be reviewed, developed and implemented to ensure compliance with ecological, economic and social standards. A mechanism for a transparent and consultative process will also be developed to identify areas for annual bidding coupes.

2.13.2.5 Identification and management of areas for rehabilitation (not plantations)

The method for identification of degraded forest areas designated for forest rehabilitation, through enrichment planting and silvicultural tending will be developed and implemented. Effective, rehabilitation require in plan preparation, planting activities, increase forest resource, silviculture application, and maintain planted tree to ensure compliance with ecological, economic, social and carbon sequestration.

2.13.3 Expected results

- An enabling environment for SFM in production forests is created through a national review clarifying the future of remaining forest concessions; and transparent SFM systems based on a landscape approach are implemented in ex-concession forest areas

- A wide range of alternative sustainable forest management systems for production forest in compliance with element factors including social, economic and environmental are developed. New SFM systems are piloted and scaled up, and effective certification systems to manage production forests in compliance with local and national management plans are also developed

- A sufficient budget should be allocated for rehabilitating of 2000-4000 ha of degraded natural forest areas every year.

2.14 Sub-programme 3: Strengthening Monitor Assessment and Reporting on Sustainable Forest Management

2.14.1 Description

It is recognised that without improved governance, an enforceable legal framework, and improved monitoring and assessment is not likely to overcome the obstacles tasks. Effective monitoring and evaluation is an essential part of any management system. During 2007-2008 FA has developed a national MAR-SFM format based on the framework approved by ASEAN and ITTO in 2005. It has proven an effective tool to assess, monitor and plan the use of forest resources. The present programme aims to achieve sustainable management of forest resources in Cambodia through improved monitoring, assessment and reporting.

2.14.2 Means of implementation

Define a national set of criteria and indicators to monitor SFM in Cambodia

Set up a national working group to develop a relevant set of indicator to assess environmental, social, political and economic aspects of SFM at local and national levels in Cambodia

Develop systems to effectively monitor, assess and report on SFM

Promote establishment of MAR through setting up and maintenance of a database to analyse National forest data (economic, social, environmental, an inventory data) This would include as follows:

- Input information/data into the MAR-SFM format at the both national and forest management unit level

- Annual report on MAR-SFM

- Develop forest management database for effectiveness of MAR at national and FMU level

- Collaborate with relevant institutions that can assist FA with monitoring and assessment of social, political and economic aspects of SFM at national and FMU levels and incorporate systems into MAR-SFM reporting systems.

The MAR-SFM format is crucial tool for developing forest action plan. Furthermore, the data/information of MAR-SFM can be included for national economic development plan formulation.

2.14.3 Expected result

- Data/information of monitor, assess and report on environmental, social, political and economic aspects aimed to SFM implementation and incorporated into national planning process of forest use;

- Sustainable use of forest resources is improved and forests' contribution to national goals on poverty reduction, environmental protection and socio-economic development are continuously enhanced.

2.15 Sub-programme 4: Conservation of Wildlife and Biodiversity

2.15.1 Description

Cambodia's forests, wetlands and grasslands support a rich biodiversity including birds, mammals, reptiles, amphibians, moths, butterflies, vertebrate, invertebrate and plants species. The Ministry of Agriculture, Forestry and Fisheries has classified all wildlife species in Cambodia into three categories: near extinct, rare and common. The near extinct includes 10 mammal species, six bird species. The rare includes 27 mammal species, 45 bird species, 5 reptile species, and many of endangered plant species. 23 species of wildlife in Cambodia are in the IUCN Red List as globally endangered species. Biodiversity and wildlife resources are significant in contribution to social-economic development, environmental protection and supporting local community livelihoods. Biodiversity and wildlife resources also provides genetic resources valuable to, for example, the agricultural development, medicinal sectors, scientific researches, educational, eco-tourism and contributes to the forest-climate regulation function, ecosystems and has considerable cultural value. Direct threats to biodiversity include loss and degradation of habitat (deforestation, conversion of wetlands etc), over-hunting and, to a lesser degree, pollution, emerging infectious diseases and invasive species. Major factors driving these threats include increasing economic growth, infrastructure development, extractive industries, population growth, poverty and climate change.

The second phase rectangular strategies of the Royal Government of Cambodia has been defined direction and policy objectives for forest, wildlife and biodiversity resources conservation in order to achieve sustainable forest and wildlife management and sustainable use of country's biodiversity. These targets and objectives also aim to fulfil Cambodia's international obligations as a signatory to the Convention on Biodiversity (CBD, Convention on International Trade of Endangered Species of Fauna and Flora (CITES), and the Ramsar Convention. Within the Permanent Forest Reserve (PFR) these objectives are reflected mainly in the Forestry Law and in the Prakas on Classification of Wildlife Species. Coordination is also required with conservation activities in the Fisheries domain and the Protected Areas under management of MoE.

Wildlife and Biodiversity conservation and its habitats protection would be achieved mainly through creation and management of Protected Forests. Action against illegal trade involves patrolling within and around protected forests and conservation areas and along trade routes nationwide. Phnom Tamao Animal Rescue Centre conducts a range of research and educational projects in support of conservation and rehabilitation of wildlife.

Effective management of protected forests and conservation areas are not direct benefit to survival and healthy of wildlife and biodiversity, but contribute to provide jobs opportunities, forestry services, increased income (sale of forest products, eco-tourism), income generation for local communities through collecting and selling NTFPs, support poverty alleviation efforts and improved infrastructure. It is acknowledged that concerted collective efforts must be put into increasing participation, public awareness, and extension programmes aimed at highlighting the benefits and opportunities that sustainable management and conservation of PFR creates.

2.15.2 Means of implementation

2.15.2.1 Identification and defining of national conservation priorities

The FA will coordinate with relevant ministries, local authorities, local communities and development partners to conduct a systematic review of the protection status of Cambodia's natural habitats. This review will define national conservation priorities within and beyond the PFR to ensure that sites with special biodiversity value are prioritised by all relevant stakeholders when allocating new conservation areas.

The FA will lead the development of national species action plans for high priority species, with participation from relevant stakeholders and agencies.

The FA will identify priorities for the inclusion of biodiversity protection in the management of other parts of the PFR, such as annual coupes, community forests and conversion forests. This will ensure the protection of key sites and maintaining connectivity of biodiversity corridors between conservation areas.

The FA will act to ensure that any new national policy, reducing emission from deforestation and forest degradation (REDD) and infrastructure initiatives affecting the PFR will take into account conservation and protection of biodiversity and wildlife.

The FA will therefore provide technical and legal advice to ensure that other Ministries identify necessary measures for the protection of biodiversity throughout the PFR during development of infrastructure, extractive industries etc.

2.15.2.2 Ensuring effective Management of Protected Forest and other Conservation Areas

The FA will develop a management framework for Protected Forests and other conservation areas inside the PFR that is based on sound ecological and conservation principles. Conservation framework will be adapted to match the IUCN principles for protected areas, including the forest-ecosystem climate change mitigation and adaptation.

The FA shall identifying potential areas and establishing more conservation areas as well as defined the sub-zone of protected forest and biodiversity conservation areas based on bio-physical, forest ecosystem, wildlife factors. Program activities in protected forests and biodiversity conservation areas

shall including component of integrated community livelihood and eco-tourism development as fit. Financial mechanism shall in place in order to ensure sustainability of effectively implementation of forest, wildlife and biodiversity protection and conservation and as well as for preparation of program activities.

Priority program activities for managing protected forests and biodiversity conservation areas includes ground boundary demarcation of protected forests and conservation areas, law-enforcement, researches and studies communities livelihood and eco-tourism development which including the local community participations for most of this program activities.

Wildlife management programmes will include both species management and habitat management components. Integrated community livelihood development, cooperation and participation activities will be directed at reducing dependency on natural resources and increasing incentives for active conservation, combined with an increasing local community capacity to resolve conflicts, raising awareness for help strengthening effective of protection and conservation of natural resources. Management of protected forest, other conservation areas and potential areas for conservation shall consider including a scheme for human and wildlife conflict mitigations. All plans shall inform to local authorities, local communities and relevant parties in order to ensure participations and implement those plans effectively

2.15.2.3 Establishment and Management of Recreation Areas and Eco-tourism

Recreation and eco-tourism development will focus on the management of ecotourism resources and activities, nature-based attraction, eco-tourism markets, as well as interpretative programmes, services, local culture and it lifestyle and integrated eco-tourism management. Rules and regulations will be developed to ensure that eco-tourism is sustainable and as well as transparency in benefit sharing.

Among other recreation and eco-tourism activities, managed game hunting will be developed, initially at a pilot scale. It will aim to integrate wildlife protection with sustainable harvesting of wildlife resources based on sound practices and results of scientific studies and researches. A set of rules and regulations, including population census, hunting season, harvest quotas, target species, trophy fees, royalties and hunting methods will be developed in accordance with recognized national or international game hunting practices standards as well as knowledge of target species' ecology.

2.15.2.4 Prevention of illegal wildlife trade and management of confiscated animals

- Strengthening law enforcement activities aimed at eradicating illegal wildlife species trade and continuously develops new approaches to wildlife trade prevention. The jurisdiction of law

enforcement officers to work in permanent forest reserve and other land use types will be clarified. Actions will be taken to address cross-border trade.

● Supporting wildlife rescue, rehabilitation, captive breeding and release programmes. These will focus on developing appropriate facilities (buildings and enclosures) for confiscated, orphaned, injured and displaced wildlife as well as building up populations of endangered species in captivity for future reintroduction programmes.

2.15.2.5 Research and Data Management

Research, monitoring and awareness activities will focus primarily on issues that will strengthen effective management. These include the development of a GIS spatial and database, biodiversity research, recreation and ecotourism sites management, conservation of key species of wildlife and plants, wildlife trade, human natural resource use in areas important for biodiversity, effects of climate change on species etc. The FA managing the Forest and Wildlife data and research results will be published widely. The Database system of each protected forests and conservation areas shall be standardized in order to promote efficiency of management, data collection and data sharing on Forest and Wildlife.

2.15.2.6 Public Awareness

Public awareness programmes on the values of forest, wildlife and biodiversity, and it legislations will be conducted, with the aim of increasing support for conservation, protection and encouraging public to adopt pro-conservation behaviours.

2.15.3 Expected results

● Long-term financing mechanism for management of protected forest and conservation areas in place

● Productively of Wildlife and Biodiversity Conservation

● Effectively managed protected forests and other conservation areas including defined responsibilities for the management of protected forests and the enforcement of wildlife crime

● Guidelines on ecotourism development in place

● Illegal wildlife trade reduced to an insignificant level over the whole country

● Knowledge upgraded to guide management of priority species and their habitats and capability in monitoring on effects of climate change to the survival of wildlife and biodiversity

● High public awareness of biodiversity protection laws and positive attitudes towards conservation

● Improved national conservation status of globally threatened species

● Comprehensive and standardized wildlife and biodiversity data management in place.
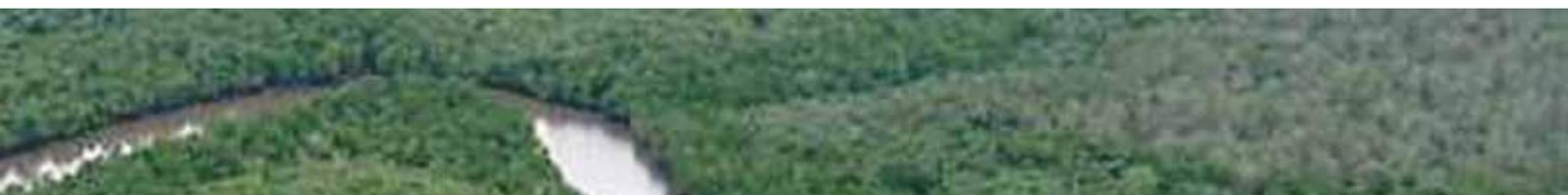
2.16   Sub-programme 5: Conservation and development of genetic resources and seed sources

2.16.1 Description

Many indigenous Cambodian tree species are listed as vulnerable or endangered by the IUCN Red List. Some are even threatened with extinction. This reduces the access to genetic resources and potential quality seeds for commercial (timber), livelihood (agro-forestry, home gardens, fuel wood, etc), environmental (watershed protection, erosion control, clean development mechanism) development activities. Furthermore, the forestry sector has an obligation, through the Government's ratification of the Convention on Biodiversity (CBD) in 1995, to comply with the National Biodiversity Strategy and Action Plan, which calls for the development and implementation of recovery programmes for all endangered plant species, both in-situ and ex-situ. Conservation of forest genetic resources will also contribute to Cambodia's obligations towards climate change mitigation, under the United Nations Framework Convention for Climate Change (UNFCCC), and the Kyoto Protocol.

Cambodia has developed a Forest Gene Conservation Strategy, which provides a framework for the management of identified target populations and species, in a network of designated gene conservation areas. The objective of the present sub-programme is to conserve genetic resources of forests through sustainable management and use.

2.16.2 Means of implementation

- Create an enabling governmental and private institutional seed networks for sustainable forest gene conservation
- Overall planning of tree species and provenances for climatic adaptation
- Study species and quality of planted tree species and undertake species trials
- Identify and establish ex-situ and in-situ forest gene conservation stands and integrate monitoring and management in local forest management plans
- Prepare for availability of seed sources and planting material matching climatic changes
- Establish field demonstrations of tree improvement through the use of quality planting material from forest gene conservation stands
- Initiate tree improvement and tree breeding of selected species
- Create awareness of the importance of using quality seeds

- Develop seed marketing to enhance and generate local income from established seed sources

- Provide training and build awareness to staff of the Forestry Administration, local communities and relevant stakeholders on forest genetic resources of indigenous tree species, site matching and climatic change

- Promote a conservation movement and tree seeds maintenance of important species

- Find supporting partners for financial support to local communities in genetic resource management

- Encourage local communities to identify locally-important seeds

- Develop appropriate seed collection guidelines and storage facilities

- Establish seed testing laboratory.

2.16.3 Expected results

- Commercialisation of native tree species through "conservation by use" principles and increased planting of and rehabilitation by native species

- Populations of rare or valuable tree species effectively conserved in a network of conservation stands

- Increased availability of high quality planting material for forest rehabilitation and aforestation activities

- Mechanisms for benefit sharing from management and seed sale with communities

- Appropriate tree species adaptable to climatic conditions identified

- Climate adapted planting material available

- Awareness of the relations between and species, provenances and climate

- Awareness of the economic and ecological attributes of the native species promoted

- Better genetic planting material in use

- Priority tree species were tested in laboratory and information on germination percentage and storage conditions were available.

2.17 Sub-programme 6: Tree planting and development of forest plantations

2.17.1 Description

National development programmes in Cambodia recognise the importance of forest resources to rural livelihoods, and peoples' access to those resources. The FA's efforts to create an enabling environment for multipurpose tree plantations and to develop plantation forestry will focus on multi-purpose tree plantations, which have a potential to supply domestic timber needs, increase incomes of local communities, and improve the environment through watershed protection and erosion control. It is important that such plantations are developed wisely and consider various species for multi-purpose planting for

long-term and short-term rotation; for example, species such as Dipterocarpus alatus Hopea adorata Azadirachta indica, rubber trees, Eucalyptus spp., Acacia spp., and Sesbania grandiflora. It is important that plantations are developed in line with market needs or possible future demands. In this case, it is also important to consider species that are known and already utilised by local communities. Familiarity with a topic will lessen the possible adverse attitude local villagers may have towards the programme, and encourage these to participate on a larger scale. This may even promote private initiatives, where communities plant trees on their own on open land. The programme, however, must include extensive training and awareness activities for local communities, which may include technical knowledge of planting procedures, nursery maintenance and sustainable management of the plantations.

2.17.2 Means of implementation

The FA will establish multi-purpose tree plantations in all appropriate areas in partnership with local communities, national and international NGOs and other interested stakeholders. The FA will:

- Continue ongoing efforts to improve the enabling environment and national policy for multi-purpose plantation development though ongoing reforms to demarcate forest boundaries and secure local people's rights to plant, harvest and market forest products and services

- Identify suitable tree species and tending principles for multi-purpose tree plantations

- Develop modern – scientific nurseries to ensure a stable supply of locally suitable quality seedlings for multi-purpose tree plantation activities

- Identify multi-purpose tree plantation sites to be supported by national management plans, and integrate and support multi-purpose tree plantations within decentralised forest management plans

- Field demonstrations of multi-purpose tree plantation sites established in cantonments and local communities

- Develop extension service and conduct awareness campaigns to support local plantation activities in relation to legal and technical issues

- Develop cooperation on plantation establishment between communities, private sector and the Forestry Administration, through the development of "model agreements" on management and benefit sharing. Such modality is justified in the Sub-decree on "Granting user rights to cultivate tree plantations within state forest lands"

- Experiment with the effects of growing trees in farmer's field as means of crop diversification and increased outcome

- Establish 50,000 ha of forest plantations annually in order to increase forest resource.
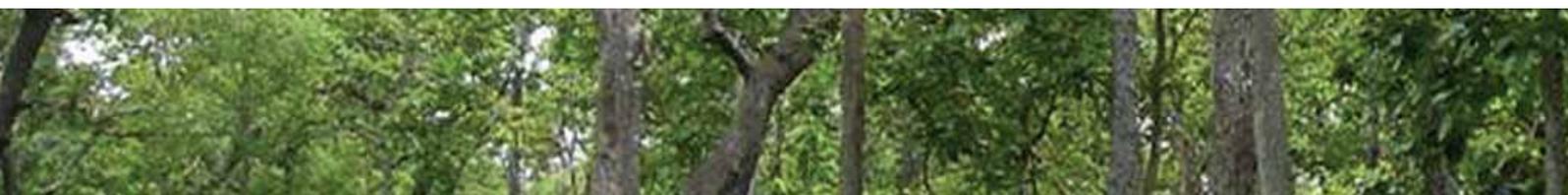
2.17.3 Expected result

- An enabling environment for local investments in multi-purpose tree plantations is established through ongoing reforms to secure local people's rights to benefit from all aspects of plantation activities
- Rural people's involvement in multi-purpose plantations increases steadily, and as a result local incomes and livelihoods in participating communities are improved
- Watershed protection and reduced soil erosion in participating areas
- Improved sustainable supply of timber and poles through production of wood products at local and national levels
- Increase forest cover to 60% as stipulated in the Millennium Development Goal.

2.18 Sub-programme 7: Forest Product Development and Market Promotion

2.18.1 Description

The forest policy statement (RCG 2002) promotes private sector and local community forest product development to meet the needs of local and international markets. The development of forest product and market promotion is important parts which link to livelihood of most local communities. Local forest product development and marketing, however, is still limited and there is a need to create an enabling environment to add value to forest products, create local jobs, and contribute to socio-economic development. This is linked with the introduction of a chain of custody of timber processing which lead to sustainable management of legal source of timber as well.

The aim of the sub-programme is to establish an enabling environment for local forest product development, and marketing to be linked to the NFP efforts to scale up local forest product management systems.

2.18.2 Means of implementation

2.18.2.1 Establishing a working group on development of forest product

Initially, the FA will set up a working group to coordinate activities and cooperate with development partners, NGOs, private sector, and local community involved in forest product development. This working group leads by Department of Forest Industry and International Cooperation.

The Roles and Responsibility of the group:

- Develop a strategic plan and guidelines for the management of development of local level value addition of forest products, and promote markets
- Lead a review of the legal framework and technical guidelines in accordance with the progress of the country and the development tendency of markets and participation of local people, private sector in timber product trade

- Liaise with relevant private partners and NGOs who can assist local communities with the development of new niche products with a demand in national or international markets

- Mainstream training of local timber processing entrepreneur especially local communities to effectively develop local processing enterprises for national and international markets

- Develop systems to ensure that locally processed forest products meet national and international quality standards.

2.18.2.2 Promote research and development

The FA will improve collaboration between Government, private sector and local communities to develop and implement joint research and development programmes aimed at improving local processing systems of selected products to meet quality standards for local and export markets. In order to achieve this, it is necessary to:

- Strengthen staff's capacity on research and development of forest products

- Research new and modern technology and develop quality products which could compete with other product and to conduct extension to local communities

- Search for timber or non-timber product that processed with traditional and cultural styles in order to upgrade its technology for higher value added products.

2.18.2.3 Strengthening of marketing

- Development of a quality assurance framework in order to ensure that product development results in quality products that are marketable and competitive locally, as well as internationally

- Strengthen existing markets and expand new markets to increase sales of timber product

- Conduct research on strength and weakness of competitors

- Prepare for timber certification

- Search, compile and publicise information on timber markets to local community, private sector and relevant enterprises

- Maintain sustainable production to meet demand of markets.

2.18.3 Expected result

- A working group on forest product development is established

- Strategic plan and guidelines for the management and development of timber and non-timber products and strengthening its markets are initiated and implemented

- Laws, regulations, and technical procedures were reviewed and updated regularly

- An enabling environment for sector and local community investments in post harvesting (downstream development), and processing of timber and non-timber forest products from sustainable sources are in place

- Existing and new markets are strengthened and expanded with sustainable supply of products
- Market information and new technology are identified and introduced to local communities, private sector, and relevant stakeholders
- Data based on timber and non-timber products are established
- Timber product certification system is developed and implemented.

2.19 Sub-programme 8: Timber Processing and Wood Technology Development

2.19.1 Description

The 2006 Sub-decree on "Timber and Non-timber Forest Products Allowed for Export and Import" stipulates that logs or rough sawn timber, square or rectangular timber with width and thickness bigger than 25cm, are prohibited from export in order to enhance incentives for local timber industry for producing high quality added-value and competitive products. Mean while the RGC supports the import of processed or non-processed timber and non-timber forest products to supplement raw material for local industry operation and re-export the products. The majority of forest products, however, are exported in the form of semi-finished products without significant value-adding. Compared to neighbouring countries, Cambodia still has considerable amounts of natural forests, which could contribute to the country's economy if the forest industry was properly developed and could also play a bigger role in rural livelihoods. Hence, in order to manage forest resources sustainably and effectively in consistence with the RGC's policy reduction policy, it is necessary to take into consideration the development of forest industry to make use and process all kinds of timber to the most economy way and high quality products to meet the demand of markets.

The objective of this sub-programme is to enhance the development of wood technology and processing of timber and non-timber forest products from local and over sea resources to meet quality standards for local and export markets.

2.19.2 Means of implementation

2.19.2.1 Analysis of potential supply sources of legally timber and non timber forest products under SFM

Before large investments in timber processing are promoted, the government will carefully analyse the potential sustainable supply of timber and identify systems to ensure that the capacity of the timber processing industry is in balance with this.

The necessary activities to carry out for this sub-programme as follow:

- Study and assessment for local demand of timber and non-timber forest products

- Study and assessment of potential supply sources of timber and non-timber forest products

- Data analysis and compilation.

2.19.2.2 Timber Processing Management System and Wood Technology

To ensure that processed wood from Cambodia can be sustainable export, the government encourages wood processing industries to use only timber from legal supply sources under SFM. Necessary activities to be carried out for this sub-programme are as follows:

- Study and Identify basic processing activities that demand timber and non-timber forest products for material as well as processing yield

- To enhance the development of timber processing management that ensures the capacity of timber processing industry is in balance with sustainable supply and to meet quality standard products for conditions of markets.

2.19.2.3 Promote research and wood technology development

The government will develop appropriate systems to strengthen research and development of efficient timberprocessing techniques, test new technologies in collaboration with private partners NGOs, to ensure that wood processing meets national and international standards. All these technologies will provide private sector and communities with the development of timber and non-timber forest products.

2.19.3 Expected results

- The development and processing of timber products from legal sources by private sector are provided with incentives

- Information, data and results from analysing of potential supply and demand of timber raw material have been compiled and published

- The basic processing that are using timber and non-timber forest products for raw material and processing yield are identified

- Timber and non-timber processing chain have been develops to meet quality standard for condition of markets their demand

- New technology of timber and non-timber processing will be developed and ready for implementation

- Timber and non-timber processing industries have been expanded to gain benefit from new technologies and markets opportunity for business

- Research and development of forest products and processing efficiency have been strengthens.

2.20 Sub-Program 9: Forest Certification System

2.20.1 Description

Currently forest certification has been implemented heavily in the developed countries but very little in the developing ones of which they are the producer. From 2002 to present forest area which is certified has been increased significantly.

Most of the world's certified tropical forests are in forest concessions, or are otherwise owned or managed by the private sector in large forest management units (FMUs). The total area of certified forests held by smallholders is limited. Community owned or managed forests account for just 14% of the certified tropical forest estate.

National certification schemes exist in 32 countries. At the global level, there are two competing certification schemes with different operating modalities, the Forest Stewardship Council (FSC) and the Pan Europe Forest Certification (PEFC).

In the Asean region some countries are developing their forest certification such as Malaysia has created Malaysian Timber Council and Indonesia has its own certification program which was called LEY. In the ASEAN framework the 10 member states are discussing Pan-ASEAN Certification. Furthermore, ITTO is encouraging to apply ITTO C&I of which similar to the implementation of forest certification.

Cambodia is one of several countries that have expressed interest in developing a national forest certification system and Forestry Administration has initiated the national forest certification system to ensure the sustainable forest management and obtain the benefit from the export of forest products to the international market.

The objective of this sub-program is to establish forest certification to ensure the trade of forest products in Cambodia in accordance with the requirement of national and international markets; expand the market and increase efficiency of harvesting management of timber and non-timber and sustainable processing.

What is Certification and Forest Certification?

- Certification is a process that provides evidence to another party that an organisation has met certain, predetermined standards – either in terms of quality, quantity or minimum levels of performance

- Forest certification is the process of assessing the way a forest is managed, together with the associated manufacturing processes, against a set of pre-determined standards.

2.20.2 Means of Implementation

Establish a forest certification working group within the FA. This working group has to implement the following activities:

- Study and prepare national forest certification scheme that is appropriate for Cambodian conditions, that can achieve recognition from international forest certification schemes

- Increase the export of processed timber and certified timber

- Identify national standards, criteria and indicators for forest management certification

- Conduct training courses and workshops for raising awareness on technical guidelines knowledge on national C&I to receive the recognition of the stakeholder on the national forest certification

- Provide incentive to the community forestry, forest management industry and enterprise to operate the C&I to receive the recognition of the national forest certification and participate in development of national forest certification system in Cambodia

- Test the implementation of national forest certification system.

2.20.3 Expected Results

- A working group on national forest certification was established

- A national standardized C&I for providing the forest certification was established

- A national standardized C&I for providing the forest certification was tested in a forest area

- Document on standardized national C&I and technical guidelines were approved and disseminate to the stakeholders

- Forest certification will be provided to community forestry, forest management industry and enterprise that sustainable forest management according to national C&I and technical guidelines

- The implementation of national C&I to receive the recognition of the national forest certification is financed.

2.21 Finance Demand

Budget (USD) for Forest Resource Management and Conservation Programme for 2010-2019		
Sub-programmes	Calculated budget 2010-2014	Estimated budget 2015-2019
2.1 – Forest Management Plan	1,500,000	500,000
2.2 – Development of Management Systems for Production Forests outside Community Forests	2,000,000	2,250,000
2.3 – Strengthening monitor assessment and reporting on sustainable forest management	2,000,000	2,250,000
2.4 – Development of Biodiversity Management for Protected Forests	2,000,000	2,000,000
2.5 – Conservation of Genetic Resources from forests and establishment of Seed Sources for Planting Programmes	2,000,000	1,000,000
2.6 – Development of Multi-Purpose Tree Plantations	2,000,000	3,000,000
2.7 – Local Forest Product Development and Market Promotion	200,000	550,000
2.8 – Timber Processing and Wood Technology Development	100,000	300,000
2.9 – Forest Certification	200,000	400,000
Total cost	12,000,000	~12,250,000
Donor share	9,200,000	

Assuming that income will be re-invested into the sector resulting in more self-sustained operations in accordance with the finance programme; and that the donor share will decrease significantly in the second five year period.

Programme 3
Forest Law Enforcement
and Governance Programme (FLEG)

3.1   Main priority areas (keywords)

- Forest Law Enforcement
- Forest Crime Prevention
- Awareness on Forestry Law and Relevant Regulations to Stakeholders
- Forest Governance.

3.2   Programme duration

- 20 years (2010 – 2029)

3.3   How this programme meets the NFP vision

Forest resources are one of the nation's most valuable natural assets, as the most vulnerable people of Cambodia are critically dependent on forests products to support their daily livelihoods. Forests are also considered a public asset that should be effectively managed for the benefit of present and future generations. Illegal logging, land grabbing and other forest crimes degrade the forests and undermine future opportunities for sustainable development. Deforestation lead to loss of biodiversity and environmental services, loss of national revenues and opportunities, and it contributes to global warming. The forest law enforcement and governance programme (FLEG) meets the NFP vision for sustainable forest management (SFM) in Cambodia.

3.4   How this programme meets the NFP objectives

The FLEG programme will contribute to better secure in SFM for people benefits by prevention and elimination of forest crimes. The FLEG programme will also help improve rural livelihoods and security for local communities and indigenous groups dependent on forests. Local communities' livelihoods are often compromised because of illegal forest activities carried out by external parties, or because they are doing by themselves. The elimination of illegal forest activities, and by investigating and prosecuting perpetrators, it would help the government to implement SFM systems with substantial benefits to the local communities. Through the elimination of illegal logging, land grabbing and encroachment activities, the FLEG programme will also bring the market for forest

products back to ordinary and sound demand-supply mechanisms, where companies complying with the law are at a competitive vantage point. This FLEG program will increase the awareness on rules of laws and forest governance to public, government officials, polices, gendarmeries and militaries to contribute in SFM.

3.5 Background of programme

Referring to IFSR 2004, extensive illegal logging, and forest land clearance activities have resulted in substantial degradation of Cambodia's valuable forests assets, which have caused significant negative economic, social and environmental impacts. The causes of deforestation and habitat degradation are multifaceted, involving a number of contributing factors, such as an extended civil war and subsequent poverty, which affect the participation of people to prevent illegal forest activities. The transition period from a country suffering civil unrest to a peaceful civil society the law enforcement has not been effective in prevention and suppression of illegal forest activities. The effects of rapid population growth and subsequent needs for farming land are also a cause of deforestation. The effect of this is magnified by the limited capacity of the FA in terms of staff's technical capacity, numbers and amount of equipment. With an inherent lack of cross-sectoral collaboration, there is effectively no proper forest management in many remote areas of Cambodia.

Cambodia has long experienced the devastating effects of uncontrolled logging, especially during the large-scale forest concession implementation period. As a direct response to the many problems linked to illegal logging, a logging moratorium was imposed in January 2002. Since then, the government has piloted alternative SFM systems, introducing annual logging coupe practices, and other systems will be tested in the near future. In this important process, it is fundamental that the government strengthens forest law enforcement and governance to prevent previous problems experienced in Cambodia from re-emerging (IFSR 2004; ITTO 2004a).

The importance of strengthening forest law enforcement has been on the national agenda since the first Rectangular Strategy of the Royal Government of Cambodia, in 2002, included a specific output aiming at "Strengthening enforcement of forestry law, especially in combating forest land clearing and encroachment" (RGC 2004c). The latest National Strategic Development Plan (NSDP) does not specifically address forest crimes or forest law enforcement, but its core concerns are good governance, including fighting corruption, legal and judicial reforms, and demobilisation of the armed forces (RGC 2006b). Strengthening the rule of

law and reforming governance is also a main priority in domestic policies of the RGC's political platform in RSPII (RGC 2008).

In 2004, a diagnostic mission by ITTO and an independent forest sector review (IFSR) analysed problems and opportunities for the Cambodian forest sector. The ITTO study produced a series of recommendations with regard to timber harvesting, forest law enforcement and governance, including:

- Enforce environmental measures to reduce logging damage
- Ensure that local peoples' rights are respected by logging operators
- Obtain more information on the impact of logging on biodiversity, and identify and protect high conservation value forests
- Recognise that complex regulations will not eliminate corruption
- Recognise that all forestry programmes in Cambodia will be to some extent experimental, and that it will be important to monitor them closely, learn from them and retain flexibility and adaptability.

IFSR, 2004, concluded that there are multiple triggers and incentives for illegal logging in Cambodia. These include an overcapacity of milling industries, insufficient detection and penalties to act as deterrent and insufficient incomes of whom are living in or near the forested areas (IFSR 2004 p.70). In relation to forest crime prevention, the IFSR recommends the forest sector to focus broadly on elimination of incentives for forest crimes and implementation of check and balance mechanisms, and forest law enforcement. More specific forest crime relevant recommendations include:

- No new roads are built into undisturbed forest
- New effective legal rights and prior claims are established in post-concession areas and non-concession areas
- Tracking system for legal logs is introduced when the logging moratorium is lifted
- Governance mechanisms, associated with multi-value forest management, are created to allow local people to play an active part in forest decision making and management
- A Private Forest Interest Register is established to create transparency of the private interests, and
- An intelligence and monitoring unit is established, also responsible for biodiversity change monitoring (IFSR 2004, Chapters 3 and 4).

To combat forest land clearance and encroachment, the RGC established a National Committee and Provincial Sub-Committees in 2004 to assist FA in combating forest land clearance and encroachment (RGC 2004a). The RGC also established the National Authority to resolve land conflict in 2006 (RGC 2006b & RGC 2008a).

3.6   Problem analysis

Illegal forest activities resulting in deforestation and degradation are major obstacles for long-term sustainable development in Cambodia, because it deprives the country from revenues that should provide economic and social benefits for present and future generations.

At the local level, poor people are often pushed into forest degrading activities due to a lack of alternative livelihood activities. Some people are temporarily employed by illegal operations due to enjoy short term gains. Unsustainable illegal logging activities often result in environmental degradation and long-term negative impacts on local community livelihoods, effectively undermining the RGC's poverty reduction and rural development strategies.

At the national level, illegal logging activities have distorted market mechanisms by undercutting prices through tax evasions, and thereby undermining fair competition with companies complying with the law (IFSR 2004).

The underlying causes of illegal logging and other forest crimes are complex, and often reflect fundamental problems in national forest policies, forest legislation and regulations, and institutional mandates and capacities to combat forest crimes (WB 2006). All this challenges need to consist of FLEG programme.

Forest Governance is regarded as the ability of the government to:
- Operationalise forest policies and implement plans based on transparent and accountable systems
- Enforce the law
- Respond to threats and impacts.

Illegal activities are usually a result of weak forest governance and inadequate law enforcement. Referring to the study of ITTO in 2007 emphasized that the forest illegal activities were rooted in a number of problems within and outside the forest sector, such as:
- Limited monitoring and reporting
- Inability to respond rapidly to forest crimes
- Insufficient facilities in forest crimes' prevention and suppression
- Insufficient qualified staff
- Insufficient international and trans-boundary cooperation
- Ineffective judicial procedures
- Insufficient public participation in forest management leading to a lack of trust between forest users and authorities.

All these issues have to be addressed strategically and simultaneously, in order to develop an effective and responsive law enforcement system for the forestry sector.

In order to address forest governance and forest crimes that originate from external influences appropriately, there is a need for stronger cross-sectoral cooperation, particularly between relevant ministries, the enforcement authorities and judicial system. On the implementation side, it is therefore fundamental that local people, or de facto forest managers and monitors, and the government share common goals for forest management and benefit distribution. Furthermore, it is critical that government institutions, like the FA and the police, command trust and respect for their fair and just execution of duties thereby building/strengthening an important bridge of trust between

the citizens and the authorities of the nation. A platform of awareness should be launched among the people to convince government authorities and faith in the governing system that is imperative to successful implementation of forestry laws. Deforestation often occurs at different scales, with different motives, and NFP aims at addressing specific challenges with specific responses.

3.7 Objectives of programme

The overall objective of FLEG programme is to contribute in management, protection and development of forests with transparent, fair and efficient manner. Specific objectives of the FLEG programme are to:

- Strengthen forest law with control, prevention, suppression and elimination of all illegal forest activities
- Ensure that appropriate laws and policies are developed and made operational
- Promote good governance through improved conflict management capacity
- Mainstream sustainable forest use, public rights and obligations
- Improve the capacity building of FA officials in forest law enforcement
- Adopt efficient methods to detect, monitor and suppress illegal forest activities
- Awareness raising to the public on the law and relevant regulations of the forest law enforcement.

3.8 Indicators

- Number of forest-dependent communities actually engaging in control and reporting of forest crimes to FA officials and local authorities
- Improved transparency and accountability in the forestry sector through good forest governance
- Increased awareness of peoples' rights and obligations
- Increased awareness of forest policies and legislation
- Conflicts of forest interests managed and solved by the law-regulations and at any circumstances
- Cases reported and action taken and recorded into Case Tracking System (CTS)
- Forest crime cases were filled and sent for prosecution
- Forest crime cases were proceeded through all levels of courts with justice
- Reduced illegal forest activities through forest law enforcement and good governance
- FA officials were improved the capacities in forest law enforcement and governance
- Information in accordance with forestry sector was managed.

3.9 Verification

- Legal documents
- Legal regulations

- Maps (Cambodian forest resource cover map 2002 and 2006)
- Preliminary investigation reports and forest crime cases in CTS
- Court verdicts with related to forest crimes
- Community Forestry Agreements
- Conflict management capacity established through training
- Conflict management unit established
- Reports on actions taken and their outcome
- Monitoring and evaluation of FLEG programme.

3.10 Programme risks

During the implementation the FLEG programme could be mat the risks as follows:

- Court proceeding on forest crime cases by court system
- Policy to be effective in facilitation with relevant institution and organizations
- Cooperation/participation from relevant local authorities, and other government agencies
- Cooperation/participation from local communities
- Government funds to support continued forest law enforcement and governance activities
- Cooperation and sharing forest crime information with neighbouring countries and other countries to strengthen trans-border cooperation
- Government support in measurement of big scales of forest crime cases.

3.11 Programme Implementation Strategies

The FLEG programme is by nature a cross-cutting entity because it involves multiple aspects of collaboration between government agencies and countries, to efficiently address and combat forest-related crimes. As with other programmes concerning governance reforms, it will be a long-term process that requires sustained commitment from involved government agencies. The programme will strategically focus on key areas needed to improve forest law enforcement and governance in Cambodia over the next 20 years.

Collaboration between relevant government agencies and NGOs

The FLEG programme approach will aim to ensure that illegal forest activities are measured based on laws. An important initial step is to identify the key drivers of forest crimes and develop viable strategies to address issues. The key drivers pointed out by the IFSR:

- Insufficient detection and penalties to act as deterrent
- Lack of alternative livelihood and income opportunities for poor forest-dependent people living near forest areas

- Lack of systems to regulate post-harvesting industry to a level where wood demand is in balance with sustainable wood supply.

Strategies to be developed will focus on ensuring that FLEG efforts are coordinated with other major national programmes, such as land registration programmes, decentralised forest management programmes, general livelihood programmes to reduce poverty, and programmes promoting alternative and/or efficient fuel supply (MIME).

Conflict management capacity within the Forest Sector

The FA will actively manage forest related conflicts at the micro-level (between individuals and within the community) and at the macro-level (between communities and outsiders, institutions and businesses).

In promoting transparency of forest conflict resolution, the FA will provide the several decision rights to local FA based on forestry law. The FA has its Public Unit to communicate with public in order to provide the information on forest management to main stakeholders in necessity.

Coordination with relevant institutions in implementation

To strengthen the effective law enforcement, the FA will coordinate with relevant institution in law enforcement and policies with accordance with forestry sector and improve the capacity of FA officers, relevant law enforcement officers and judicial officers.

Improve value chain governance to enhance market access to major markets

To improve management of the wood supply chain, the government will consider establishing voluntary partnership agreements (VPA) with important markets, such as the European Union (EU) in case of necessity. An important part of this would include developing a legality insurance system (LAS). The step-wise work towards implementation of LAS comprises:
- Developing a clear definition of legally-produced timber in Cambodia
- Developing a reliable system to verify FMU compliance with the definition
- Licensing of exports to attest to their legality.

Promote forest certification

In the longer term, LAS efforts should also help the Cambodian forest sector move towards forest certification to verify the forest products deriving from SFM. The FLEG programme will help link certification to ongoing government plans. The forest certification as an instrument to reduce forest crime activities and it will be considered to provide positive incentives to who sustainably manage the forests and are responsible for society and environment as well.

Improved international and cross-border cooperation

The RGC will strengthen its international and cross-border collaboration to support efforts to combat illegal timber and wildlife trade and try to address other trans-boundary activities related to forest crimes. This is outlined further in sub-programme 2.

Develop measures to balance industrial demand with sustainable supply of forest products

The FA will research and analyse the forest industry capacity in Cambodia to ensure the balance between wood demand and supply. The studies on the wood industry will assess the utilisation capacity of the industry, and compare this to potential sustainable wood supply. Links to incentives and prevention of forest crimes will be analysed. These studies should feed into forest crime prevention efforts and policy decisions regulating the size of Cambodia's wood industry.

Expected results

- Key drivers of forest crimes are clearly identified and continuously addressed in institutional and legislative reforms, as well as in implementation programmes to support forest law enforcement and forest crime prevention. A structured national forest crime prevention strategy is developed and implemented, and the FA collaborates closely with relevant government bodies in programmes aiming at reducing forest dependency

- The forest sector is a frontrunner in terms of transparency and accountability

- Forest crime prevention is fully integrated in judicial reforms

- Cooperation with neighbouring countries is deepened and strengthened in ways that enable a systematic regional response to prevention the cross-border forest related crimes

- The balance wood demand with the legal supply from plantations and natural forest to eliminate use of illegal wood in the wood industry

- Value chain governance is improved through integration of legality assurance systems to verify legality of exported timber; and exports of processed forest products to Europe and North America are increased

- Forest certification system will be established and developed in SFM.

3.12 Sub-programme 1 – Legal and Administrative Reform

3.12.1 Description

A Forestry Law was published in 2002 and the FA is still in the process of preparing the remaining supportive regulations. However, some older laws that overlap in terms of implementation need to be reviewed.

Good governance in the forest sector relies on a number of critical components that are not only related to legal issues. A work plan will be developed that outlines capacity-building activities within the forestry sector and other relevant stakeholders, and the necessary budget, equipment and FA staff will be available for the implementation of the legal and administrative reform.

3.12.2 Means of implementation

3.12.2.1 Working group on regulations

A working group consisting of key officers from central and local FA offices will be established to prepare the regulations and revise the provision of forestry law and relevant regulations, and support NFP visions. It will be assured that forestry law are perceived as legitimate, just and fair by other stakeholders, and provide clear provisions for local people to benefit from forests. This group has the roles and duties as follows:

- Prepare and implement the group's work plan and monitor the progress of regulations development at all levels until they are approved
- Review the provisions of existing forestry law and its regulations, and other laws under ministries of relevance to the forestry sector
- Co-operate with other agencies to include forest crimes in inter-agency efforts to fight corruption and address organised crime
- Prepare the necessary regulations under the Forestry Law in collaboration with departments and organisations under the FA
- Communicate with relevant institutions, ministries, agencies and organisations at all levels to push and improve the process for finalisation of regulations
- Liaise with development partners to create a trust fund for support of group implementation and good governance.

3.12.2.2 Working group on intelligence and inspection of forest crime

To strengthen forest law enforcement and good governance, the FA will establish a working group on intelligence and inspection in the Department of Legislation and Law Enforcement to investigate and inspect the forest crime activities throughout the country and FA officials' performance. The main activities to be undertaken by the group are:

- Conduct field visits and audit all levels of local FA in connection with forest law enforcement
- Coordinate with relevant partners to develop appropriate and effective law enforcement systems
- Monitor and investigate forest crimes throughout the country, including illegal forest land encroachment and land grabbing activities
- Collect and analyse forest crime information from other sources and incorporate into forest law enforcement systems
- Prepare intelligence and inspection reports for the FA with recommendations for inspections.

3.12.2.3 Committees to review and evaluate FA officials' work

The FA will establish a committee to review and evaluate the work of FA officials to compensate and discipline the FA officials. The main activities to be implemented include:

- Monitor the FA's implementation of forest law enforcement
- Conduct meetings to review, monitor and evaluate FA officials. Compensate FA staff who achieve their expected working goals and discipline FA staff who do not
- Prepare evaluation reports with recommendations to the FA.

3.12.2.4 Improve institutional structures at the FA

- Strengthen the administration to lower levels of FA management especially local FA, and thus optimise the FA as an efficient and effective organisation
- Improve management structure at local levels (FA Cantonments, Divisions and Triages) with appropriate jurisdiction in forest resource management
- Promote women's participation in management.

3.12.2.5 Improve the ability of the FA in conflict management and resolution

- Improve capacity of FA officials on conflict management and resolution in forestry sector through trainings, extensions, workshops and conflict resolution
- Establish the institutional links necessary for conflict management and resolution
- Provide means, equipment and budget to the FA in management, prevention and resolution of forest sector's conflict.

3.12.2.6 Improve communication in the FA

- Install internet linking computers in a local network to facilitate communication between the head and local FA offices
- Initiate a pilot project for some FA Divisions to be provided with the computers, in order to ensure an even development in this area
- Establish an Information Technology Unit at the central FA to manage computer maintenance in the central FA, or otherwise prepare a contract with a private servicing company.

3.12.2.7 Good Forest Governance

Forest governance is an important part of forest law enforcement to ensure sustainable forest management in Cambodia. The government will continue its work on:

- Promoting participation of all relevant stakeholders (other government ministries, development partners, NGOs and civil societies) in the process of implementing sustainable forest management and developing effective forest crime prevention and suppression systems:
  - Strengthen inter-agency cooperation, (if necessary initially through the Technical Working Group on Forestry and Environment/TWG-F&E) and cooperation with development partners, NGOs and civil societies
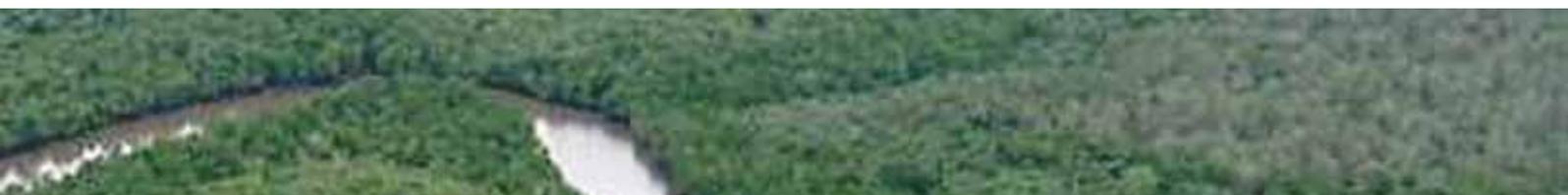
- Strengthen national and sub-national committees to develop effective systems to solve conflicts over forest land, and prevent and combat illegal forest land encroachment and land clearance, involving main stakeholders
- Cooperate with the National Authority of land conflict resolution to address land conflicts in which relevant ministries are involved
- Promote decentralised forestry in order to involve local people in local forest development and conservation.

- **Improve the rule of law:**
  - Ongoing government reforms will ensure that people of every status must follow the laws and regulations relating to the forestry sector
  - Incentives and financial support are provided for crackdowns on forest crime
  - Improving communication with court system in order to proceed the cases sent to the court

- **Improve transparency:**
  - Data and information related to forest crime, or statistics, will be made accessible to the public
  - The FA will continue to publicise its forestry magazines every six months, and forestry statistics books every two years, and will upgrade its website regularly
  - FA will continue the process and development of its Public Affairs Unit to provide information, documents and regulations within the forestry sector for those who request information
  - The FA will also continue to involve and share information and experiences in national, regional and international dialogues such as East Asia FLEG, EU FLEGT, ASEAN FLEG, ASEAN, ASEAN-WEN, ITTO, and WB.

- **Improve responsiveness:**
  - The FA will establish a rapid response mechanism for forest crime information at the FA to review, verify and address illegal forest activities, wildlife crime and forest land encroachment stated by the media, as described in sub-programme 3
  - The FA will continue its good communication and collaboration with the rapid response mechanism at the council of ministers and other relevant institutions.

3.12.2.8 Monitoring and Evaluation (M & E)

To strengthen good governance in forestry sector, the FA will establish the monitoring and evaluation of programmes, sub-programmes and forestry projects. These works are under the Department of Legislation and Law Enforcement. The main activities as follows:

- Prepare and Implement the technical guidelines to monitor and evaluate the outcomes of programmes, sub-programmes and forest projects' implementation, and other assignments
- Coordinate in priority notifications and preparation of programmes, sub-programmes and forest projects in cooperation with relevant departments of FA

- Review and identify the indicators, logical frameworks and progress reports, and seek financial and technical support for monitoring and evaluation of programmes, sub-programmes, forest projects and other assignments

- Set up the database of programmes, sub-programmes, forest development projects, and other assignments that are requesting and implementing by FA, national and international organizations, and private sector in accordance with forestry sector

- Monitor and evaluate the programmes, sub-programmes, forest development projects and other assignment in necessity.

Expected results

- Remaining regulations under the Forestry Law and other regulations concerning to forestry sector, prepared and approved by the government and relevant ministries

- Provisions of forest crimes are identified clearly to prevent and suppress

- A working group on intelligence and inspection, established by the FA, continuously investigates the forest crimes in the whole country and the implementation of FA officers

- Performance incentive systems implemented and FA staff continuously evaluated and they motivated in their work and performing expected duties and roles

- Administrative works strengthened to local FA to be efficient and effective in implementation

- Women's participation in management at FA promoted at the national and local levels, to ensure that women are involved more effectively in the forestry sector

- Communication between central and local FA improved to develop the effective works

- Sharing the knowledge and information on forestry sector to relevant stakeholders was improved through a FA Public Affair Unit

- Government considers additional funds for the FA to implement the public investment programme (PIP) and FLEG programme. Herewith, financial assistance from development partners may contribute to the government budgetary shortfall.

3.13   Sub-programme 2 – Law Enforcement and Forest Crime Monitoring and Reporting (Including forestland crimes and conflict)

3.13.1 Description

To address the causes of deforestation and forest degradation, the RGC has initiated policies to eliminate illegal operations in the forestry sector and to develop sustainable forest management to meet international standards, and requirements of the Cambodian people. The government has taken measures, across the spectrum of forest law enforcement, prevention, detection and suppression, with active participation and support of all national institutions and international agencies. The RGC has also approached heads of state of neighbouring countries, requesting co-operation to prevent cross-border movements of illegal Cambodian logs, and signed agreements

with neighbouring countries to cooperate in the prevention and elimination of deforestation, including illegal logging and illegal trade of timber and wildlife across common borders.

The government will continue to address pending issues, in particular the illegal forestland clearance and land grabbing. The sale/purchase of certified forest land will be terminated, and settlements in forest areas discouraged. The government will support provincial authorities, through providing forest law awareness and extension programmes, primarily targeting local communities and local authorities, and encourage these to contribute to law enforcement and crime monitoring.

The government acknowledges that law enforcement and crime monitoring cannot be accomplished by the FA in isolation. Therefore, the RGC will encourage all sectors and relevant stakeholders to contribute to the process with technical, financial, legal, capacity-building and educational as well as civil support.

3.13.2 Means of implementation

3.13.2.1 Set up appropriate means and facilities

The budget, means and facilities are very important instrument in prevention and suppression of forest crimes. The recently, the FA are difficult in forest crime prevention and suppression caused by without appropriate budget, means and facilities. Therefore, the FA will provide them to FA forest law enforcement officers through preparation of project proposals to government and development partners.

3.13.2.2 Develop effective monitoring and reporting mechanism for forest crimes

The FA will improve existing systems and mechanisms of Forest Crime Monitoring and Reporting that is implementing successfully since 1999 with involvement of the independent monitor on forest crime. The main activities to be improved the Forest Crime Monitoring and Reporting mechanism as follows:

- Develop patrolling procedures for FA law enforcement officers
- Develop joint community/FA controls or community patrol systems in areas of high economic development value
- Prepare pocket guides on monitoring, documentation and reporting of illegal forest practices for FA law enforcement officers to take to the field
- Improve the use of existing Computer Case Tracking System (CTS) and continuously update and backup data
- Request, on a needs basis, satellite imagery studies to detect forest resource cover change
- Encourage relevant stakeholders' participation in monitoring forest crimes.

3.13.2.3 Develop effective judicial communication system

A lack of effective judicial communication has been identified as a major limitation to forest law enforcement in Cambodia. Major activities to be implemented are:

- Improve coordination with judicial institutions for juridical processing of forest crimes
- Provide training on legal procedures to local FA law enforcement officers and develop simple hand books for them
- Develop legal aid institutions to support the FA and local stakeholders in prevention and suppression of large-scale forest crimes
- Cooperate with relevant authorities to take action effectively through juridical system for large-scale forest crimes.

3.13.2.4 Improve cross-border collaboration

Cross-border collaboration with neighbouring countries will be deepened and strengthened to effectively combat trans-boundary forest related crimes. The main activities to be implemented are as follows:

- Strengthen cooperation with Vietnam, Lao PDR and Thailand to prevent illegal logging and illegal trade of timber and wild animals across the borders
- Develop effective cross-border communication and information sharing systems on illegal timber and wildlife trade to improve forest and wildlife law enforcement
- Strengthen collaboration with EU FLEGT, EA FLEG, ASEAN FLEG and ASEAN-WEN in communication to strengthen forest and wildlife law enforcement.

3.13.2.5 Effective collaboration with other law enforcement agencies

The FA will continue to cooperate with other law enforcement institutions in order to effectively prevent and suppress the illegal timber and wildlife trade and trafficking:

- Develop effective cooperation systems between the FA and General Department of Customs and Excise, Anti-Crime Economic Police Department and Royal Gendarmeries Khmer to develop inter-agency strategies to effectively address forest crimes
- Prepare inter-agency training courses related to communication and investigation of forest and wildlife crimes between FA law enforcement officers and other law enforcement officers
- Develop joint cooperation systems to prevent and suppress the large-scale forest and wildlife crimes.

3.13.2.6 Effective implementation of systems to combat illegal land encroachment and land grabbing

In the present situation, illegal land encroachment and land grabbing for personal gain have occurred in the forest estate, including tree plantations and natural forests. Based on the existing laws, the RGC has established mechanisms and methodologies to prevent and suppress these illegal activities. Activities to be implemented are as follows:

- Upgrade the capacities and strengthen the mechanisms of provincial sub-committees in reclaiming forest land cleared or illegally encroached
- Establish local conflict resolution forums with the aim to solve forest related conflicts though dialogue

- Conduct effective extension of laws and regulations in connection with illegal land encroachment and land grabbing to relevant stakeholders
- Effectively prevent, eliminate and suppress the forest land encroachment and land grabbing including investigation of suspects and offenders to prosecutors based on the law and investigation of non-residences people come to encroach the forest land with anarchy
- Source and support funds for national committee, provincial subcommittees and FA (Department of Legislation and Law Enforcement) in the controlling, verification, identification and collection information on land clearance and encroachment, preparing map forest land reclamation, in prevention and suppression measurement, etc.
- Cooperate with relevant ministries, institutions and local authorities to prevent, eliminate and suppress the forest land encroachment and land grabbing; and to stop selling, buying and transferring forest land where located in forest cover map in 2002.

3.13.2.7 Law enforcement working group

To reduce and eliminate illegal forest crimes, the FA will establish the law enforcement working groups of Department of Legislation and Law Enforcement for controlling preventing and suppressing illegal forest crimes in the whole county in the aim of effective forest management, protection and development. Activities to be implemented are as follows:

- Control, monitor, search, investigate and suppress the illegal forest activities
- Field check to monitor and evaluate the law enforcement of local FA and strengthen and advise them
- Collaborate with relevant local authorities, arm forces and agencies in law enforcement
- Conduct extension of forestry law and relevant regulations to local stakeholders.

3.13.3 Expected results

- Improved facilities and means in forest law enforcement
- Effective forest crime monitoring, investigating, collecting, recording and reporting data and information
- Effective judicial processing to address the forest crimes and to ensure all people follow the law
- Effective extension of law and regulations to local people and stakeholders
- Strong emphasis on community involvement in community-based forest management
- Effective collaboration with other law enforcement agencies in order to reduce forest and wildlife crime and enable sustainable forest management, forest resource utilisation, and poverty reduction
- Effective combating of illegal land encroachment and land grabbing that contributes to maintaining forest cover 60% of total country land area in 2015 followed by government millennium goal
- Forest crimes will be reduced and eliminated
- Effective collaboration with neighbouring countries, regions and world to prevent and suppress cross-border timber and wildlife trade.

3.14 Sub-programme 3 – Rapid Response on Forest Crime Information

3.14.1 Description

In order to improve ministerial processes, the Rapid Response Mechanism on media information, under the Council of Ministers has been established by the RGC, which is responsible for data collection, analyses, recording and reporting to government.

The FA will also establish a working group on rapid response of forest crime information at central and local level. At central FA, the group will be responsible for information collection, analyses, recording and reporting to the FA for measurement as need. Also, the local FA will report to the FA the actions taken after receiving information on forest crimes from media. Collaboration with journalists and informants is very important in combating illegal forest and wildlife activities, including illegal logging, timber and wildlife crimes, illegal transportation and trade, as well as land encroachment and land grabbing.

3.14.2 Means of Implementation

3.14.2.1 Working group on forest crime information response at the central FA

This work is under the Department of Legislation and Law Enforcement and has the duties to review and respond to forest crime information in the media. Activities to be implemented are as follows:

- Monitor and record the information of forest and wildlife crime and forest land encroachment provided by the media
- Analyse and classify the information regarding to forest and wildlife crime and forest land encroachment; and send to local FA to review, verify and measure by law and prepare sufficient forest crime response reports as needed
- Review forest crime response reports gathered from local FA and prepare the forest crime response reports related forest issues to FA, Ministry of Agriculture, Forestry and Fisheries or other institutions in case of necessity
- Communicate with institutions and organisations, in connection with forest crime information highlighted in the media and cooperate with to check, verify and take action by law
- Conduct field checks, verify and take action to the forest crime information as needed or to ensure that forest crime information in the media or forest crime information response reports from local FA are true and transparent
- Give recommendations to the Head of FA to review and decide in case of finding evidence of FA officers or other institutions or local authorities that involved in forest crime activities

- Input forest crime information and its response to computer systems
- Share forest crime information and its responses at the FA websites as needed
- Improve the collaborations with development partners to strengthen the investigation and rapid response in the whole country.

3.14.2.2 Working group on forest crime information response at the local FA

The working group on forest crime information response at local FA (at FA Inspectorates or Cantonments) will be established to review and respond to forest crime information reported by media. This group has the duties are as follows:

- Review forest crime information in the media, conduct field checks, verify information and take action by law in collaboration with relevant local authorities and organizations
- Liaise and cooperate with all levels of local authorities and agencies to check and verify the forest crime information and take action by law in case of necessity
- Conduct the recommendations to FA to review and decide in case of finding evidence of FA officers or other institutions or local authorities that involved in the forest crime
- Prepare report of forest crime information response to the FA
- Input all forest crime information and its responses to computer systems.

3.14.2.3 Effective collaboration with journalists and other informants

The FA will deepen its cooperation with the media and other informants to develop efficient and effective reporting and response mechanisms to forest crimes and illegal land grabbing. Measures will be taken to develop systems to ensure that forest crime information cited by the media or provided by informants is professional and correct. The activities to be implemented are:

- Prepare the meetings between the FA and the media or informants to develop suitable collaboration systems
- Law and legislative extension to the media
- Prepare trainings in forest crime identification and investigation
- Prepare study tours for journalists to witness problems of forest crimes
- Joint verification of forest crimes as needed
- Share forest crime information
- Seek funding for distribution of key actions in forest crime prevention and suppression
- Develop free telephone hotline and SMS where the public can report forest crime cases and set up database to record these incoming reports
- Maintain and develop the utilization of radio communication that remain in FA organizations to speed up processing of information
- Establish information boxes at local FA to receive the forest crime information and other idea

3.14.3 Expected results

- Working groups on forest crime information response at the central and local FA respond quickly to check, verify and measure all information in the media in connection with forest and wildlife crimes
- Effective collaboration with media and informants
- Appropriate funds to support the processes of forest crime information responses.

3.15 Cross-cutting Implications

3.15.1 Policy & Legislation

FLEG programme related to the preparation and implementation of law and government policies are as follows:

- Prepare all regulations under the Forestry Law
- Review existing regulations and establish new ones that are needed to support implementation
- Contribute to maintaining forest cover at 60% by 2015, following the Cambodian Millennium Goals
- Contribute to sustainable forest resource management and poverty reduction following the National Forest Sector Policy Statement
- Strengthen law enforcement and extension to reduce forest and wildlife crime
- Ensure that all government institutions strictly implement the forest laws
- Ensure that the forestry law and its regulations are implemented by all levels of people in society
- Emphasise community involvement in community-based forest management
- Collaborate effectively with other law enforcement agencies in order to reduce forest and wildlife crime to ensure sustainable forest management, forest resource utilisation, and poverty reduction.

3.15.2 Institutional reform and links

To effectively manage, protect and develop the forests, the FLEG programme is in accorded with institutional reform and links as the following:

- Strengthen all levels of FA's administration to work in the efficiency and effectiveness
- FA officials will be able to work effectively and efficiently through capacity development and inspection
- Effective forest crime monitoring, investigating, collecting, recording and reporting forest crime data and information
- Strengthen all levels of FA officers to have the ability to investigate and document the forest crime cases to the courts, and update the forest crime cases in judicial processes.

3.16 Finance

Budget (USD) for Forest Law Enforcement and Governance Programme for 2010-2020		
Sub-programmes	Calculated budget 2010-2014	Estimated budget 2015-2020
3.1 – Legal and Administrative Reform	488,000	488,000
3.2 – Law Enforcement and Forest Crime Monitoring and Reporting	944,000	944,000
3.3 – Rapid Response on Forest Crime Information	568,000	568,000
Total cost	2,000,000	2,000,000
Donor share	1,500,000	

Assuming that income will be re-invested into the sector resulting in more self-sustained operations in accordance with the finance programme; and that the donor share will decrease significantly in the second five year period.
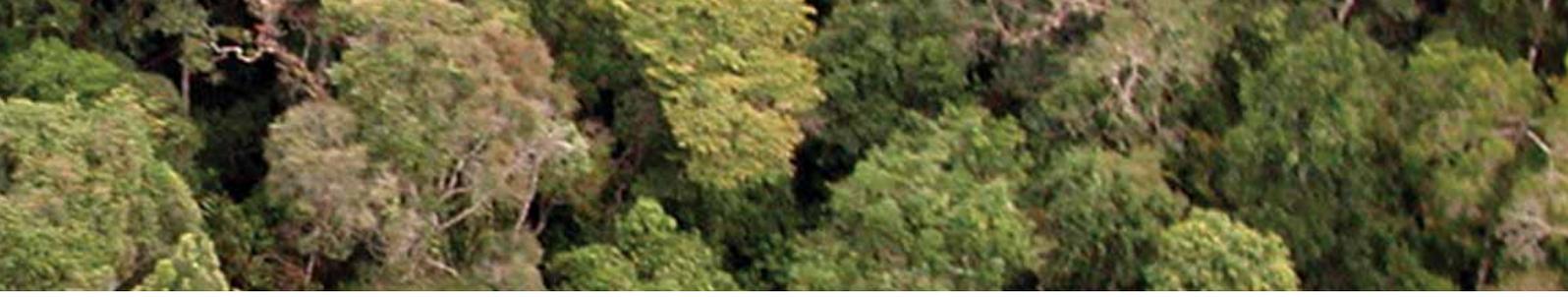
Program 4
Community Forestry Programme[1]

4.1 Main priority areas (keywords)

- Decentralised Forest Management (Community Forestry, Community-based Production Forestry, Partnership Forestry, Community Conservation Forestry),
- Identification and formalisation of Community Forestry,
- Strengthening Capacity of Community and Improvement of Livelihoods,
- Supporting Services to the Development of Community Forestry.

4.2 Programme duration

- 20 years (2010 – 2029)

4.3 How this programme meets the NFP Vision

The following points show how the Community Forestry Programme addresses the principles within the NFP statement:

- It aims to build on the previous National Community Forestry Programme (NCFP) developed in 2006, and to broaden it to cover all decentralised forest management modalities, by targeting 2 millions ha for Community Forestry
- Based on an acceptance of the principle of subsidarity - that communities are best placed to make appropriate decisions regarding natural resource use for their own benefit – Community Forestry will contribute to enhancing rural livelihoods and poverty reduction by communities, obtaining direct and secure access to resources that they are more likely to use effectively to fulfil their own needs and reinvest in SFM
- Pluralistic partnership and participation form the core of all Community Forestry modalities
- The programme proposes to further refine, develop and strengthen the legal and institutional framework for Community Forestry to become more enabling and supportive to the requirements of rural communities involved in sustainable forest management

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[1] *For the purpose of this programme, the term "Community Forestry" is used in its broadest sense as an umbrella term encompassing a variety of slightly different models in which rural people engage in, and benefit from, forest management. This broad usage of the term Community Forestry should not be confused with the use of the same term to describe the particular modality of Community Forestry as detailed in the Sub-decree and prakas on Community Forestry (MAFF, 2006). The Community Forestry Programme has, as one of its objectives, the broadening of the existing legal framework for CF so that aspects of the various models being piloted may be incorporated into it, all of which will be called Community Forestry.*

- By it's nature, Community Forestry balances multiple benefits from forestry, including biodiversity and environmental conservation, as well as productive benefits including construction timber, fuel wood, NTFP for direct use or sale by local communities participating in forest management.

4.4   How this programme meets the NFP objectives

The Community Forestry Programme will contribute directly to the NFP objectives in the following ways:

- All modalities of CF have the objective of managing a part of the Permanent Forest Estate in a sustainable way. All CFs will be permanently demarcated with concrete posts, and the land registered as State Public Land and as Permanent Forest Estate

- Multi-purpose forest management will be according to approved Management Plans that take sustainability, biodiversity conservation and environmental services into consideration as well as socio-economic considerations, equity and governance,

- Community Forestry allows for public participation in decision-making and accountability of management committees to the group members who elect them. Community-based institutional development and democratic governance is a worthy objective in itself, and CF modalities will contribute to this,

- Local communities can mobilise considerable human resources to protect forests if they feel adequately compensated by the benefits from forest management. Such benefits also reduce the temptation to destroy forests,

- Socio-economic development can be enhanced by community forestry modalities

- For the socio-economic development benefits of Community Forestry to have a significant impact, the programme necessarily has to be significantly scaled up, the regulatory framework broadened and made more enabling, and the flow of benefits to communities greater and faster

- This programme will develop more effective models and tools for supporting communities in developing arrangements for sustainable forest governance and management, utilisation, processing, marketing and benefit distribution in different situations

- Community Forestry, by conserving forests, can contribute to mitigating the effects of climate change. Furthermore, through community protection of forests, the potential for engaging in carbon markets is greater than many alternative forest management modalities. The realisation of revenues from carbon markets can contribute to making CF financially self-sustaining.

4.5 Background of programme

Community Forestry has gradually developed since the mid 1990s, through small pilot projects supported by government, and international and national Non-Government Organisations (NGOs), which have demonstrated that community forestry has considerable potential to protect the forests and enhance their productivity and capacity to support rural livelihoods, while at the same time stabilising critical watersheds and ecosystems.

- The Forest Law of 2002 (RGC 2004c) gives the FA authority to grant areas of production forest in the Permanent Forest Estate to local communities in order to manage and benefit from the resource therein

- The National Poverty Reduction Strategy (RGC 2002e) requires all sectors to contribute to the national goal of poverty reduction. In addition, the Cambodian Millennium Development Goal is to maintain 60% land area as forest cover by year 2015. These policies have been incorporated into the Rectangular Strategy (2004) as side 4 of rectangle 1 (Forestry Reform), and further strengthened in the revised Rectangular Strategy Phase II (2008), whereby CF is prioritised as one of forest management models

- Recently RGC encourages CFs to protect community forests for sale the forest carbon credit at carbon market for REDD

- In December 2003, the Community Forestry Sub-Decree (RGC 2003) was approved, which indicated a historic shift from informal CF projects to the emergence of CF as a national strategy that is formally recognised and embraced by the Royal Government of Cambodia (RGC)

- An Independent Forest Sector Review (IFSR 2004) reported its findings and recommendations in 2004, after thorough research and consultations with forest sector stakeholders. The IFSR suggested that CF should be continued and supported with a focus on developing an enabling environment, allowing community forestry to be self-financing and self-sustainable in different settings. The IFSR also recommended piloting Partnership Forestry. The Agricultural Sector Strategic Development Plan 2006-2010 (MAFF 2006) further stresses the importance of formalising Community Forestry

- Referring to recommendation and economic analysis of the IFSR, based on existing forest productivity and current levels of formal and informal fees, it is suggested that for a commune with 5,000 ha of reasonably good forest, the annual flow could be about US$150,000 per year (GFA II 2005)

- The Prakas (guideline) on Community Forestry was signed in 2006, provides a basis for the CF formalisation, implementation and management.

- The NCFP, developed by key actors in community forestry development under the leadership of the FA, was launched in May 2006. A major objective of the programme is to arrange for official recognition of community forestry initiatives on the ground. Other objectives refer to assisting these communities to improve the management of forest resources and ensure greater benefits from such management for all members of the communities

- Various recent reviews (IFSR 2004; ITTO 2005; Van Acker 2005; CDRI 2006 & CTSP 2004) have strongly recommended that decentralised and community-based commercial forest management systems

should be prioritised, whereby different models are used in different situations and pilot attempts are made involving commune councils

- RGC is committed to the decentralisation of political, fiscal & administrative powers to commune council in supporting Community Forestry under Community Forestry Management Committees (CFMCs), as well as through Partnership Forestry, and can include Community and Partnership Forestry in Commune Land Use Plans (CLUPs) and Commune Development Plans (CDPs), and support their development through the use of the statutory Commune Investment Funds (CIFs)

- Referring to CFO Database 2009, there are 401 CF sites established, covering 380,587 hectares, and involving 717 villages (within 194 Communes of 80 Districts) with 79,924 households. In which the Ministry of Agriculture, Forestry and Fisheries (MAFF) issued Prakas for 126 CF covering 145,036 ha in the provinces of Siem Reap, Oddor Meachey, Banteay Meanchey, Kampong Thom, Kampong Chhnang, and Koh Kong. and to receive a prakas approving these. The Forestry Administration Cantonments (FAC) signed Community Forestry Agreements for 94 Community Forests with areas of 133,544 ha

- 12 CFs in Oddar Meanchey is approximately 60,477 ha are being developed as the first pilot for marketing forest carbon credit in Cambodia

- The Technical Working Group on Forestry and Environment (TWG-F&E), a group representing the FA and has representatives from Development Partners and NGOs involving in the forest sector, has included the implementation of the NCFP in its work plan and Joint Monitoring Indicators (JMIs). A number of organisations and Projects have, and continue to, support CF development through the Technical Working Group on Forestry and Environment

- The Community Forestry Office (CFO) established a National Community Forestry Programme Coordination Committee in 2007, which meets regularly to share experience, coordinate activities and provides suggestions for resolving current issues in relation to Community Forestry implementation.

This programme provides an overview of the strategy and targets of the RGC related to Community Forestry, which covers four variations of decentralised forest management. In addition to CF, as detailed in the Sub-decree and prakas, three other variations are being piloted, in recognition that a broadening of the existing legal framework would enable CF to be implemented in a wider variety of situations, such as: forests classified as Protected Forest – Community Conservation Forestry (CCF); where Commune Councils wish to be more directly involved – Partnership Forestry (PF); and where large forest areas have greater commercial potential – Community-based Production Forestry (CPF). During the course of this NFP, the legal framework will be reviewed and revised based on the experience generated from implementing the existing legal framework for CF and from the experience of piloting these variations, and to broaden the term "Community Forestry" to cover all types of decentralised forest management.

Although slightly different in the above four various aspects, they all involve the management of forests with the active participation of local communities with support from the FA, at both the local and central levels, and DPs. Community forestry contributes to the overall management of the Permanent Forest Estate as a principal component, covering a large area of mostly natural forest. The implementation and support of these 4 variations are very similar, so the programme is arranged into three focal sub-programmes:

- **Community Forestry Identification and Formalisation** is to legally register both forest areas and involved communities, for one of the modalities for community forestry
- **Community, Institutional and Livelihood Development** is to support the development of community forestry at the local level, so that forests are managed efficiently and effectively for the contribution in biodiversity conservation, sustainable forest development and the socio-economic benefits to the local communities
- **Community Forestry Development Support Services** is to provide services to the communities such as training on processing of timbers and NTFPs, building capacity of legislation, community management, information management, networking, etc.

These three sub-programmes can be seen as complimentary components necessary for the successful management of forest resources by local communities.

4.6 Problem analysis

There is still a lot of poverty in rural areas. The implementation to date of the NCFP has not yet been able to contribute substantially to poverty reduction due to:

4.6.1 Regulatory Framework

- The access to forest resources by the forest-dependent communities and stakeholders is still limited. CFs are difficult to establish in suspended Forest Concessions and Economic Land Concessions. This is the lack of clear guidance and criteria for the identification of potential CF areas.
- After 15 years (the length of CF Agreements), tenure security is not guaranteed, and the criteria for evaluation are uncertain, leading to reduced incentives to invest in CF management
- Taxation / royalty rates are uncertain, and investment decisions cannot be made in a climate of economic uncertainty
- The legal framework is overly complicated and restrictive. CFMCs have limited powers to impose sanctions on illegal activities perpetrated by outsiders, and are inadequately supported by the FA
- The NCFP did not provide direct livelihood support to communities
- Current Community Forestry modalities are developing under differentiated frameworks, rather than under a unifying yet flexible framework that allows adaptation to local realities
- Although Communes should protect and preserve the environment and natural resources, their responsibility for forest management is currently excluded from Commune responsibilities (RGC 2001 - Law on Commune/Sangkat Administrative Management – Article 45), and this would need to change if Partnership Forestry is to become a mainstream forest management modality.

4.6.2 Institutional Framework

- Most of the Community Forestry organisations and areas have not attained full recognition. As a result, their security of tenure is not assured, and this reduces the motivation and incentive of communities to actively participate and invest their time, effort and own resources fully. The delay has de-motivated many communities, who see the burden as too high compared to those seeking alternative land uses

- The lack of legal recognition also prevents communities from commercialising forest products from CFs legally to their full potential. In the wake of conflicting land uses (forest concessions, Economic Land Concessions, plantations, agriculture, mining, etc.), are the issues remained and need to be solved urgently

- There has been limited collaboration and support from institutions for the implementation of the NCFP and there is a need for strengthening the capacity and the collaboration of stakeholders to support the implementation of NCFP.

- The FA lacks designated, trained and motivated staff to support CF development, as well as the resources for an extensive field programme

- The CF area and its stakeholders lack attention to and knowledge of basic silvicultural means in order to increase growth and quality of desired products whether in natural forest or CF plantations

- Participation of stakeholder communities and user groups in the design of natural resource projects is relatively new and remains limited, and there is limited experience of community involvement in the management of community forestry

- Sokh Heng and Iida (2001) reported that CF is increasingly regarded as one viable concept to improve livelihoods of the rural population and prevent further environmental problems, by encouraging local communities to actively participate in the sustainable forest management practices. However, the development of CF is undermined by a severe lack of financial resources, as well as institutional and human resource capacity, and continues to depend heavily on the support of foreign donors and NGOs

- There are a number of mechanisms that support the development of community forestry. One is the National Community Forestry Program Coordination Committee (NCFPCC), which is being leaded by FA (CFO), has members from international organisations, and non-government organisations. The NCFPCC was established in 2007 to coordinate CF activities, propose work plans, and discuss possible solutions to issues from field implementation. There are national and provincial CF Networks, formed in 1995 by the Cambodia Environment Management Project, is a forum for communities and other community forestry stakeholders to meet and share experiences. However, in spite of all these mechanisms, there is still weak collaboration and support from other institutions on the implementation of the NCFP. There a need of strengthening capacity and collaboration of stakeholders in supporting NCFP

- CF networks have not become sustainable. Past attempts have stopped when external funding stops. Agendas, participant selection and organisation have generally been controlled by NGOs and/or

the FA. There is a need to establish CF Network after getting CF Agreement, run and managed by CF members themselves – only if such networking genuinely benefits CF members can it be sustainable.

4.6.3 Socio-economic

- Community Forestry and indigenous people's aspirations are not always recognised and prioritised in practice, such that the incentives to invest in sustainable forest management are reduced

- In addition to the issues raised above, livelihood activities are limited in CF areas, due to: limited technologies; limited skills of manpower; and limited access to capital

- Overall, the current system for financing CF development is under-funded and unsustainably funded (principally through short-term donor projects). Therefore, sustainable funding mechanisms need to be developed and made available to communities, including systems for capturing carbon financing

- There is a need to promote forest entrepreneurship in forest communities. There is a need to analyse along the production chain – from the point of collection, through various participants in product development and marketing – would obtain a better understanding of the distribution of benefits and would also help to identify opportunities for value-added processing of forest products. encouraging value adding forest production to improve livelihoods and well being. When forest entrepreneurship is promoted, the community may see the forest as a viable source of investment, that will meet the growing demand for timber and other forest products

- Additionally, CFMCs need to record the use of Forest Products for livelihood purposes so the real value of CF can be ascertained.

4.6.4 Environmental

- There is a constant threat and unabated pressure on natural forest areas due to ineffective prevention of deforestation and large-scale land conversion to farming and commercial plantations

- Agriculture remains the main source of livelihood in the rural areas. Nevertheless, proper cost-benefit analysis is usually not undertaken before decisions regarding forestland conversion are made. The only known studies by CDRI (Hansen & Neth, 2006, Heov et al., 2006a, 2006b) make a strong case that SFM is better than most alternatives in most cases in the long-term. Furthermore, the distribution of benefits should also be considered – i.e. how will the proposed course of action contribute to poverty reduction and forest / biodiversity / environmental service maintenance, and who benefits

- Climate change – in terms of the negative impacts of climate change on forest growth and diversity, and in terms of alternative land uses being seen as economically more attractive, regardless of their contribution to mitigating climate change.

4.6.5 Costs

- High costs associated with community forestry establishment

4.7   Objectives of the programme

- Democratic and equitable use of forest resources
- All forest-dependent villagers living in and near the forest are given the opportunity to be involved in CF establishment, management and development follow the guideline on CF in the participatory process of identification of 'potential CF areas' and in decision-making process.
- Review and revise regulations, if necessary, based on the experiences to support the CF development to response local need and solve issue emerged.
- Building capacity of and support to FA staff in order to provide good services to CF development,
- Promote the sustainable community forest management for both commercial and livelihood purposes with increased productivity, biodiversity conservation and sale forest carbon at international market in order to be self-sustaining.
- CF institutions should be transparent, inclusive and well-governed, with full participation, women's involvement and equitable sharing of benefits
- Demonstration of viability of CF and fundamental appreciation that local people are essential and should be involved in the management of forests.

4.8   Indicators

- Number of forest-dependent villages and population involved in CF
- Area of forest areas under formal CF
- Guidelines for the systematic identification of 'potential CF areas' agreed and implemented
- More enabling legal framework for CF
- FA-designated CF staff providing responsive high-quality services to communities
- SFM – increased productivity, biodiversity and carbon
- Increased supply of legally produced FPs
- CF's increased contribution to livelihoods and poverty reduction
- Number of viable self-sustaining CFs and CF-based enterprises
- Value of carbon credits from CFs sold
- Guideline for monitoring and evaluation of CF implementation developed and approved with CF members that demonstrate good governance.

4.9   Means of Verification

- Legal documents on CF (prakas, instructions, agreements, etc.)
- CF Maps

- Resource assessments and inventories
- CF Database
- CF Agreements
- Reports of researches
- Reports of Evaluation missions.

4.10   Programme risks

- Forests are allocated to other land uses or forest management modalities, and CF development was not prioritised.
- Costs outweigh benefits, and or other land uses are more competitive
- Inadequate capacity of communities to sustainably protect and manage forests
- Low capacity, motivation and management of FA personnel to support CF development and protection
- Inadequate and inappropriate funding
- Lack of cooperation/ participation of local authorities, communities and other government agencies
- It is not so clear policy to handover forest resources to communities for management and to revise the framework to address the problems identified above
- Climate change - Cambodia is expected to suffer serious consequences, if appropriate mitigation measures are not taken. (e.g. UNDP HDR 2007)
- Volatility of carbon markets - payments for Reduced Emissions from avoided Deforestation and Degradation (REDD) could affect CF's viability.

4.11   Programme implementation Strategies

- NCFPCC to coordinate activities between the FA, NGOs and other government agencies:
  - ▶ Identification of activities necessary for CF development
  - ▶ Assessment of existing situation of CF – activities completed
  - ▶ Review activities for which completion commitments exist
  - ▶ Analysis of activities still required to complete CF development
  - ▶ Prepare work plans and budgeting to carry out the required activities by CF development partners in coordination, and proposals for additional funding
  - ▶ Progress-reporting by CF development partners

- FA to designate CF officers throughout the service with specific ToRs
- NCFPCC to draft guidelines for potential CF area identification for approval by the FA / MAFF
- NCFPCC to document learning from CF implementation and lead a review of the implementation of the legal framework for CF

- Capacity-building of designated FA officers, NGOs, local governments and CF members
- Partnership with local authorities, NGOs, and private business institutions, especially on enterprise development and marketing by defining clearer roles and responsibilities
- Involvement of CFs on the development of methodologies for assessing carbon in CFs, bundling of CFs for carbon marketing purposes, development of equitable benefit-sharing mechanisms, with CFs for carbon costs and revenues, and participation of CFs in carbon-related decisions
- CFO oversees CF information management, analysis, documentation and dissemination
- CF Federation development from Provincial CF networks through National CF Network.

4.12 Sub-programme 1 – Community Forestry Identification and Formalisation

4.12.1 Description

A necessary step towards promoting community forestry on a nationwide basis is to clarify the status, legality and rights of all existing CFs, including inside forest concessions, and to decide where new community forestry sites should be developed. The identification and formalisation process ensures that CFs are legally recognised and cannot be easily converted to alternative land uses.

4.12.2 Means of Implementation

4.12.2.1 Methodology used in identification and formalization

The identification and approval of potential community forestry areas is the first step towards formalising any kind of community forestry, and it involves the local and central FA and MAFF, as well as local authorities and NGOs. This will be a part of an overall plan of the use of the Permanent Forest Estate, where community forestry management is the preferred form of management due to local communities' interest and dependence on the forest.

The identification of potential community forestry areas requires other programmes of this NFP to be implemented simultaneously, particularly in relation to the demarcation and classification of the permanent forest estate.

4.12.2.2 Identification

- Identification at the provincial and/or district levels of villagers living in or close to the Permanent Forest Estate that might be interested in being involved in one form of community forestry or another
- Systematic consultation by the FAC with the Commune Councils and local communities to confirm interest in community forestry and that areas are available, and to inform of the requirements, responsibilities and benefits through extension and awareness-raising

- Commitment from Commune Councils and local Department of Land officers that these areas will be included in Commune Land Use Plans (CLUPs), demarcation and mapping of communal land of indigenous communities and Commune Development Plans (CDPs) and considered during identification and mapping of State Lands

- Demarcate the potential community forestry areas with all stakeholders together using GPS, create maps and record the agreement of stakeholders. All maps and associated documentation to be maintained in a CF information management system at the Cantonment level

- Forward maps and associated documents to district and provincial authorities for inclusion in Land Use Plans, developed by the Provincial/Municipal State Land Management Committees, and to the central FA, for keeping by the Community Forestry Office (CFO). These are also to be verified, and forwarded to MAFF for approval. These maps and documents will also be circulated throughout MAFF to ensure that proposals for the granting of land concessions and other plantations don't overlap.

MAFF will develop a more streamlined process to approve potential CF requests, following a publicly-known timetable, so that problems with one site in one province do not cause delays to other sites. The cycle is to be repeated until all potential CF areas for all interested villages have been identified and approved.

Initiation of Community Forestry establishment can be made by local communities through contacting the FA, who will then follow the same procedures as above.

Whenever any alternative land-use is being considered, local communities should first be consulted to see if they are interested in community forestry, and possible forest areas identified, before any decisions regarding an alternative land-use are made. Alternative land-uses should, therefore, be put on hold until potential CF areas requests have been processed.

4.12.2.3 Formalising Community Forestry

The individual steps to formalise and implement any kind of Community Forestry (CF, Partnership Forestry, Commercial CF, and Protection Forest CF) are, or will be, specified in the legal framework (Sub-Decree on CF Management and Prakas of CF guideline). The legalization process of any kind of CF should be followed the Sub-decree and Prakas. The individual steps will vary a little depending on which specific modality is being implemented, however the overall generic steps for implementing any kind of CF are similar, and only the differences for each modality need to be specified as necessary. The following are generic steps for establishing community forestry:
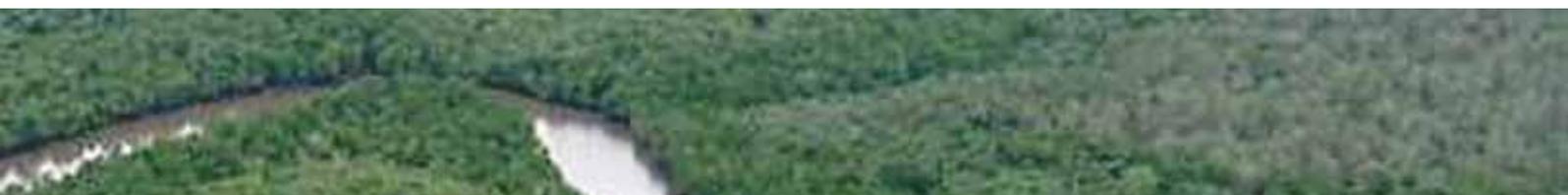
- **Step 0: Identification of potential CF areas – detailed above**

- **Step 1: CF Establishment**
  Interested communities submit a formal application, certified by the village chief to the commune and district councils, to the provincial governor, and to the FA cantonment for approval, demonstrating that the formation requirements have been met (e.g. 60% community members support CF establishment in the case of CF)

- **Step 2: Information gathering**
  A working group is set up comprised of the FA, the community/commune and NGO representatives, to collect information about the community/commune and the use of forest resources, and a report is developed that will serve as the basis for future management planning

- **Step 3: Establishment of community forestry management structure**
  In this stage, the management structure (CFMC or Board of Directors) of the community forest is established. A temporary election committee is established and candidates are elected by the community or the Commune Council is appointed for PF. Once the CFMC is established, a formal request is sent from the CFMC to the FA cantonment requesting the establishment of the CF

- **Step 4: Preparation of internal by-laws of CF management committee/Board of Directors/ Commune Council:**
  By-laws are developed by the CFMC/ Board of Directors/CC with assistance from the FA or NGOs, as needed. The by-laws are approved by the CFMC/ Board of Directors/CC and recognised by the Commune Council. The by-laws are then disseminated to CF members for implementation

- **Step 5: Demarcation of community forest boundaries and mapping**
  With the assistance of the FA or NGOs, as needed, the boundary of the CF is demarcated using GPS. This involves community members, as well as representatives from adjacent villages, in order to avoid conflicts over boundary locations

- **Step 6: Preparation of CF regulations**
  CF regulations are developed by the CFMC/ Board of Directors/CC with assistance from the FA or NGOs, as needed. The regulations must be approved by the CFMC/ Board of Directors/CC Chief and recognised by the Commune Council, district authority, and the FA Cantonment. Approved regulations are distributed to CF members to involve them in implementation and enforcement

- **Step 7: Preparation and approval of the CF agreement**
  A CF Agreement outlining the roles and responsibilities of the CFMC/ Board of Directors/CC. The CF Agreement is prepared by FA Cantonment and signed by the CFMC/Board of Directors/CC, and the FA cantonment or other authority are granted the authority for signing such agreements.

By completing this process, the community has secured access to the forest resources for an agreed period of time that will only be revoked if the Community fails to meet the requirements outlined in the CF Agreement. However, the following steps are still required in order for the community to optimally manage the forest, to be able to commercialise forest products legally and to maintain tenure over the land.

- **Step 8: Preparation of the CF Management Plan**
  The CF Management Plan is developed by the CFMC/Board of Directors/CC, with technical assistance of the FA, NGOs, or private sector foresters, as appropriate. The process involves community participation, training, data collection, analysis and mapping. The final draft must be approved by the FA

- **Step 9: Enterprise Development**
  For CPF, and perhaps for CF and PF, in some instances, a separate business enterprise will be established. The requirements for formalisation will depend on the type of enterprise, and the current legislation governing such enterprises

- **Step 10: Implementation of CF Management Plan**
  The CFMP is implemented, and any associated enterprise operates its business. Annual General Assemblies should be held and progress reviewed, and new annual plans developed

- **Step 11: Monitoring and Evaluation will be carried out in close collaboration with the NFP Monitoring and Reporting.**
  It should be emphasised that, although the above are presented as steps, the order does not necessarily have to be followed strictly, and many steps can be carried out concurrently. All steps should be considered at the beginning of, and throughout, the process of establishing of CF. Potential for marketing carbon will be considered throughout the process, and may develop as a principal management objective and activity in some CFs.

4.12.3 Expected Results

4.12.3.1 Long-term (20 years)

- All communities living in or near any part of the permanent forest estate have the opportunity to engage in Decentralised Forest Management, and identified sites approved for community forestry, and formalisation is complete or in process
- Strengthened cooperation between the Forestry Administration (FA) and Commune Councils (CC), in terms of Partnership Forestry, formalising community forestry land-use planning and other forest related issues
- Reduced number of disputes in use and management within the permanent forest estate, due to the establishment of land tenure for local communities
- Experiences and lessons learned from the identification and formalisation of Community Forestry, Partnership Forestry, Community-based Production Forestry and Community

Conservation Forestry will be documented and will inform forest policy and legal framework development to improve forest management throughout the Kingdom of Cambodia in the future.

4.12.3.2 Short-term (5 years)

- 300 CFs formalised through the signing of Community Forestry Agreements and Community Forestry Management Plans, and at least 200 new potential CF areas identified, through the systematic identification process and in response to requests made by local communities and commune councils, and undergoing the formalisation process

- Partnership Forestry established in 5 communes in 5 target provinces. These will serve as pilot projects to help develop the legal framework for formalising and implementing Partnership Forestry

- Community-based Production Forestry established in 10 communes of the 5 target provinces. These will serve as pilot projects to help develop the legal framework for formalising and implementing Community-based Production Forestry

- 10 Community Conservation Forests established in concerned target provinces. These will serve as pilot projects to issue Prakas and Sub-Decrees detailing the formalisation and implementation of Community Conservation Forests.

4.13 Sub-programme 2: Community, Institutional and Livelihoods Development

4.13.1 Description

The second sub-programme supports community, institutional and livelihoods development to optimise diversified benefits (products and services) to communities from sustainable forest management, to contribute to local livelihood development and poverty reduction. Community and institutional development covers the development and management of CF institutions, within the local context, that support equitable livelihood development. Livelihood development will prioritise sustainable domestic consumption (livestock, food, timber, energy, medicines and NTFPs that support rural livelihoods). Income generating options through commercialisation of forest products will also be encouraged (marketable NTFPs, timber, charcoal, ecotourism and forest carbon credit). Forest products can be marketed raw or processed for added value.

- Capacity building of CF management committees and members will be undertaken to encourage good institutional governance, including:
  - ▶ Inclusive participation and consensus building
  - ▶ CF management committee accountability to CF members and stakeholders
  - ▶ Participatory planning and budgeting
  - ▶ Accounting and financial management
  - ▶ Equitable benefit sharing (RGC, CF management, community development, individual members)
  - ▶ Monitoring and Evaluation

- ▶ Reporting – transparency and communication
- ▶ Proposal writing
- ▶ Forest protection and rule enforcement
- ▶ Conflict management

- Capacity-building of CF management committees and members to optimise sustainability, productivity and quality of forest products for both domestic use and commercialisation
- Enhanced skills for NTFP improvement and marketing
- Awareness-raising at local government levels to encourage their full support and understanding of CF in their administrative areas, and to encourage inclusion in local land use and development plans and financial support for further CF development
- Enterprise development, where CFs desire, to commercialise Forest Products together or other forest related services, such as ecotourism, and which may be promoted at the individual / household, sub-CF level, CF level or inter-CF level. Enterprises may follow a unitary business model, or that of a cooperative or association. Support for enterprise development will entail capacity-building on many of the areas listed above, as well as business management, marketing and technical aspects related to particular products, depending on the degree of processing and packaging required, quality control, and standard compliance issues, etc. Partnerships with the private sector will be encouraged, and CF facilitators will assist communities to obtain fair deals.

4.13.2 Means of Implementation

- CF establishment-needs assessment, for institutional and livelihood development, will be undertaken so that support can be targeted appropriately to those CFs most in need. Likewise the potential for enterprise development will be assessed during the CF management planning stage to ensure targeting of support to those CFs with the greatest needs and potential for success.
- Training on-the-job coaching and mentoring will be employed to enhance community understanding and capabilities. Study tours and exchange visits, as well as CF networking, will be employed to allow CF members to share experiences and learn from each other
- Where possible, capital will be arranged for CF enterprises to cover start-up costs and initial operating costs – this may entail grants from donors, or loans from financial institutions, and links with micro-credit projects will be encouraged. Support from local government funds will be encouraged
- Development of techniques, methodologies, activities, tools, manuals, brochures, etc, for use by communities, to provide guidance for different aspects of CF management, in styles reflecting local languages and cultures.

4.13.3 Expected results

- Sustainable, robust, inclusive CF institutions efficiently and effectively managing themselves and their CF for increased benefits, that are equitably shared to sustainably improve secure diversified livelihoods and contribute to poverty reduction

- Appropriate tools, methodologies and standards developed, approved and used by CF development partners

- Appropriate and adequate capacity of CF development partners to support community and livelihood development

- An increased supply of legally produced and certified forest products and services for national consumption and export

- Strengthened assigned organisations within each community, aiming to promote the quality of the forest products and their market, in order to increase the incomes of community members through involvement in sustainable forest management, the contribution to the community development and poverty reduction

- Enhanced skills of CF members in forest product and NTFP improvement and marketing

- CF members able to solve conflicts within their communities and exercise effective CF management.

4.14 Sub-programme 3 Community Forestry Development Support

4.14.1 Description

For Community Forestry to contribute to poverty reduction and promote sustainable forest management, formal support and recognition is required at all levels. This includes the review and revision of legislation, awareness raising and conflict resolution. This is further elaborated below:

The Royal Government of Cambodia (RGC)

- To help decision makers understand how best to support community forestry, it is necessary to develop and enforce policies and legal documents, both directly and indirectly related to the forest sector, will be developed based on information and documentation received from the institutions working with CF, and in consultation with stakeholders,

- After 5 years, detailed reviews of each of the 4 CF modalities will be undertaken by the FA in collaboration with stakeholders, leading to a revision of the legal framework for CF that broadens its scope and flexibility to enable features of all 4 CF modalities to be possible according to specific site situations

The Forestry Administration

- Develop and maintain a public Information Management System, including databases, archives and GIS, containing all information available on community forestry. The database will be made public to allow anyone interested to access it online, at website

- Encourage communities through reduction or exemption of the royalty and premiums for community forestry as contributions to alleviate poverty in compliance with the policies of the Royal Government of Cambodia
- Support communities in dealing with illegal forest activities.

Local Authorities

- Support CF development through the integration of CFs into local government land-use and development plans, and investment programmes, as well as provide regular financial support CF Communities
- Systematically document CF related data and experiences gained from the implementation
- Establish and develop CF member networks, with the aims to federating, to improve communication and lesson learning between CF members, government agencies and other stakeholders.

4.14.2 Means of implementation

The implementation of sub-programmes has involved concerned institutions working on community forestry, partner organisations, and local communities aiming at some necessary tasks as follows:

- **Capacity building, awareness raising and research as setting in programme 5:** Capacity Development and Research
- **Information management:** Collect, manage, analyse and disseminate information about community forestry to stakeholders
- **Conflict resolution mechanisms:** Enable FA staff to mediate conflicts, thus mitigating their potential destructive effects
- **Community forestry networks:** Establish and develop national and local community forestry networks of CF members, evolving into a self-managed federation, once CFs are legally recognised
- **Coordination and networking:** Improve communication within and between institutions, particularly through a revitalised NCFPCC that feeds directly into higher level policy and decision-making
- **Revision of policy and regulatory framework:** Conduct regular reviews of the effectiveness and efficiency of implementation of the regulatory framework for CF to continually strive for a fully coherent, yet flexible and enabling framework for CF
- **Royalties and fees:** Develop a transparent system for the determination of royalties and fees for community forestry
- Upgrade CF key stakeholders' attention to and knowledge of basic silvicultural means in order to increase growth and quality of desired products whether in natural forest or CF plantations – production is essential for sustainable for CF.

4.14.3 Expected Results

Long-term for 20 years

- Increased awareness of CF (opportunities, legal framework, benefits, constraints)
- Improved capacity of stakeholders working in community forestry development through training, networking and the dissemination of information
- Information on the implementation of CF collected and kept in a database at the central FA, published on the FA website and disseminated to stakeholders and local communities so that all stakeholders have information to guide decision-making
- Conflicts related to CF diminished
- Community forestry networks at provincial and national levels are established
- Systems developed to enable CF engagement in carbon projects, resulting in increased CF contribution to livelihoods and poverty reduction, through income generated by the marketing of carbon credits
- Improvements in sustainable CF management, benefit distribution, governance, marketing and livelihood improvement etc.
- Improved coordination between CF stakeholders
- Reviewed and revised legal framework for community forestry in accordance with new strategies and experience
- Declarations on the determination of royalties and premiums on community forestry adopted and implemented.

4.15 Cross-cutting Implications (Policy and legislation, institutional reform and links, capacity, financing: needs, benefit distribution)

- Changes to give CF supremacy over competing land-use claims and forest management modalities, with long-term secure tenure – clarity on identification of potential CF areas
- Revisions to legislation to ensure that the framework for CF is more enabling, flexible and unifying for all forms of CF – need to specify service responsibilities of different stakeholders

- Improved FLEG with checks and balances of multiple agencies to avoid conflicts of interest and temptation to rent-seeking
- Multipurpose forest plantation
- Simplified SFM systems (inventory, silviculture, growth rates, volume tables, RIL, NTFPs, biodiversity monitoring & management, etc.,)
- Good internal institutional governance
- Extension materials targeting communities (posters, pamphlets, radio, film)
- Local government funding for CF development
- Retention of maximum funds at CF level for sustainable financing of CF activities
- Direct reinvestment of royalties/carbon payments, etc, from the national level into CFP implementation.

4.16 Finance

Budget (USD) for National Community Forestry Programme 2010-2020		
Sub-programmes	Calculated budget 2010-2014	Estimated budget 2015-2020
4.1 – CF Identification and Formalisation	6,350,000	6,350,000
4.2 – Community, Institutional and Livelihoods Development	1,450,000	1,450,000
4.3 – CF Development Support	1,200,000	1,200,000
Total cost	9,000,000	9,000,000
Donor share	6,100,000	

Assuming that income will be re-invested into the sector resulting in more self-sustained operations in accordance with the finance programme; and that the donor share will decrease significantly in the second five year period.

Program 5
Capacity and Research
Development Programme

5.1   Main priority areas (keywords)

- Human Resource Development
- Educational and Institutional Development
- Forestry Extension and Public Awareness
- Data analysis and interpretation
- Research Capacity Development
- Coordination among players.

5.2   Programme duration

- 20 years (2010 - 2029).

5.3   How this programme meets the NFP vision

The Royal Government of Cambodia (RGC) stated in its Rectangular Strategy Phase II in 2008, an aim to ensure environmental sustainability through sustainable management of natural resources (RGC 2008). The NFP provides a set of strategic initiatives that aim at supporting the RGC's forest policies towards economic development, poverty reduction and environmental conservation.

Without relevant, competent and committed capacity-building in the sector, there is little chance that the National Forest Programme (NFP) vision can be met in practice. It is therefore crucial that stakeholders associated with, and/or involved in forest management, possess the necessary capacity to fulfil their respective tasks and contribute towards achieving the common goals stated in the NFP. This Capacity Building and Research Development Programme will contribute to the NFP vision by addressing capacity-building needs at different levels. Furthermore, the programme will enhance forestry research capacities and strengthen applied research to support the implementation of forest policies, plans and programmes.

A highly critical factor in sustaining these activities is to secure financing to upgrade forest education, to ensure the availability of suitably qualified recruits. Prek Leap Agricultural School, and the Royal University of Agriculture, as the main centres of forest education, need to be fully re-oriented towards

equipping future forest managers with skills and capacities necessary to meet the practical, complex and analytical challenges of participatory and sustainable forest management. Such an undertaking has been overlooked for decades and requires a long term perspective, necessary cultural and learning change within the two institutions, in addition to upgrading curricula and teaching methods and capacity.

5.4 How this programme meets the NFP objectives

This programme will contribute to the NFP objectives by identifying strategic capacity needs and, subsequently, initiating relevant capacity-building programmes. This will improve stakeholders in the forest and environmental sectors to capitalise on emerging opportunities in the forest sector, and support the implementation of NFP. It will provide stakeholders with the capacity to meet future challenges through continuous development of innovative problem-solving solutions, management systems and technical inventions within the forestry sector. This, in turn, will increase the prospects of developing and implementing new Sustainable Forest Management (SFM) practices as well as innovative funding schemes.

5.5 Background of programme

Human resource development in the forest sector relates directly to two of the four strategic "growth triangles" of the Rectangular Strategy Phase II, namely agricultural enhancement, capacity building and human resource development (RGC 2008), and as such the programme is directly linked to the Royal Government of Cambodia's national priorities.

Several recent studies have highlighted the importance of, and critical need for, capacity-building, as graduates from the diploma schools and universities are not equipped to tackle the challenges. This is a major problem in meeting on-going reforms related to Sustainable Forest Management (SFM) and decentralisation (JICA 2004; WB 2004; Cambodia Tree Seed Project 2005, GFA 2005). Moreover, in a decentralisation process, for example, it has been estimated that several years of capacity-building are required amongst government staff, commune councils and local communities.

The forestry sector has enjoyed capacity development assistance over the past years, but there remains several competence gaps that need to be addressed to advance the Forestry Administration (FA) into a full-fledged

contemporary forest authority. A capacity building programme for the Forestry Sector, currently supported by JICA, identified that FA staff need training in forest management planning and implementation, silvicultural technologies, and community forestry.

It has also been recommended that capacity-building needs focus on practical skills amongst all stakeholders, analytical capacity, management and pedagogic capacity.

For each of the NFP's sub-programmes to be successfully implemented, it is crucial that implementers have sufficient capacity to contribute substantially towards achieving their respective objectives. As there are currently large gaps between required and actual capacities, it is necessary for the capacity development programme to support all stakeholders involved in NFP implementation.

This Capacity Building and Research Development Programme is designed to respond to the many gaps in human resources in the forest sector. This applies to the theoretical as well as practical aspects, specific as well as interdisciplinary, and especially the cross-over between the two. This will contribute to the development of human resources of all forest stakeholders that will ultimately support the RGC in achieving its multiple goals related to Sustainable Forest Management (SFM) in Cambodia.

5.6 Problem analysis

Large areas of forest that are currently left unmanaged/ unattended are at high risk of forest degradation and conversion to other land uses. The RGC is now in the process of reforming the forest sector to enhance its contribution to national development and conservation goals.

In ongoing forestry reforms, the sector currently faces challenges in terms of finding suitable systems to support the implementation of national visions, and will need to continuously pilot and develop new SFM schemes and scale up good practices. Currently, the FA is in the process of expanding decentralised forest management systems, such as community forestry, and piloting of commercial forest management models in concession areas. Candidates from the universities and diploma schools are not able to meet the challenge of the future. It is vital that existing forest managers and other forest stakeholders develop skills to meet these new demands and changing roles, in order to best support communities, commune councils, private partners and independent organisations that play an important role in development and implementation of SFM models. Such skills are related not only to knowledge enhancement, but to attitudinal changes that enable shifts in relationships towards more equitable balances between stakeholders. This is a long-term process that requires ongoing reflection, in order to improve forest management outcomes.

Forestry research is currently very limited and poorly coordinated and consequently, it rarely contributes directly to the government's efforts to implement SFM. The FA lacks the capacity to undertake basic forestry research, and universities and colleges lack human resources and funds to implement forest research projects. Forest-related research is therefore often undertaken by single independent research institutes and international NGOs, with support from development partners and international research fellows.

These research results are rarely utilised by the FA during the formulation of new forest policies. There is a strong national need to improve collaboration and coordination between research organisations and government authorities when developing new strategies to implement SFM, alleviate poverty, and ensure environmental protection and economic development.

In the forest management planning and monitoring process, the forest sector needs to collect relevant data, using appropriate scientific methodologies. More crucial, however, is that data is utilised through analysis and interpretation. Results will be articulated to managers and decision makers, both within and outside the FA, to improve forest management planning and monitoring of forest resource developments over time. Furthermore, protocols for transparency and information sharing need to be developed, and it will be necessary to develop efficient communication strategies to inform and support policy makers, NGOs, local forest managers, and other stakeholders, as well as to publicise research information and extension materials, and to make them available to relevant stakeholders.

5.7 Objectives of the programme

The overall purpose of this programme is the capacity to support the implementation of NFP. Capacity-development is taken in its broadest sense to include not only training, but also the enhancement of the overall ability of an individual or group to perform his or their responsibilities, and involves not only building the capabilities of the people, but also resources which are needed to perform them, and the framework within which they are discharged.

The specific objectives of the programme are:

- To promote upgrades of the basic education in natural resource management
- To increase capacity within the FA and other forestry stakeholders, to enable them to confidently face the challenges posed by new and innovative Sustainable Forest Management models
- To improve the capacity and efficiency to develop extension strategies, and deliver extension services which actively support ongoing local forest management and reforestation activities
- To develop the research capacity of the FA, colleges, universities and independent non-government research organisations to provide reliable and independent information to support the development and implementation of forest policies and national goals on SFM, environmental protection and poverty reduction
- To support mainstreaming of SFM at local and national levels.

5.8 Indicators

5.8.1 Capacity-building and institutional reforms

- Capacity-needs assessment, conducted for the relevant educations, FA, NGOs and other relevant stakeholders, and strategies for meeting training, needs to be developed and delivered
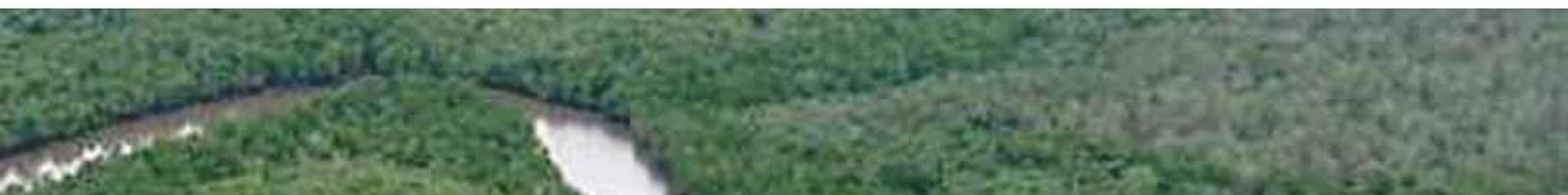
- Institutional reform within the FA completed with clearly defined roles and responsibilities for central and local staff, and training need to be fulfilled
- Performance incentive programme, to enhance productivity of FA staff, developed and implemented
- Staff from the FA, NGOs, community organisations and knowledge organisations participate in trainings
- Individual training plans for central and local FA staff developed and relevant trainings delivered.

5.8.2 Extension service and raising awareness

- Guideline on the mainstreaming of national forestry policy and relative documents were developed
- Local communities, commune councils actively participated and supported to successfully implementation of decentralised forest management and private forest plantation activities
- Capacity of the forestry extension staff was build, related to facilitation and conflict resolution skills
- Media briefings and awareness-raising campaigns on the National Forestry Programme were arranged and operated
- Consultative workshops, on forest management, with local forestry administration, local communities and stakeholders were held
- Forestry extension materials were developed and distributed as printed matter, on the internet, and in other appropriate formats
- A forestry extension centre was built and started operation
- A forestry homepage was developed and updated regularly or necessary for widely users
- SFM issues were integrated into curriculum of public educational institutions at all levels.

5.8.3 Forest research capacity development

- Research programmes supporting NFP undertaken by Forestry Administration (FA), universities and other Cambodian research institutions designed, implemented, completed and ongoing
- Research communication strategy implemented
- Published research documents, policy briefs, statistics and practical manuals
- Joint forestry research projects/programmes with national and international organisations
- Presentations of new research results at national and international workshops/conferences
- Involvement of FA staff and independent research organisations in lectures for MSc forestry and environment students.

5.9 Verification

5.9.1 Capacity-building and institutional reforms

- Capacity-needs assessment documents

- Education curricula
- TORs for FA staff and training plans
- Performance incentive programme for FA staff
- Training documents (for FA staff, NGOs, educational institutions)
- Training plans
- Extension plans and document.

5.9.2 Extension service and awareness raising

- Guideline on the mainstreaming of NFP and other documents related to forestry sector
- Documents and reports of participating in local forest management
- Training manuals for forestry extension staff
- Documents and reports of extension activities on medias
- Report of consultative workshops/meetings
- Website working properly
- Reports of Information Service Centre
- Curricula Documents of relevant educational institutions.

5.9.3 Forest research capacity development

- Research project documents and publications
- Joint research project document, national and international organisation
- Presentations on the results of the research at national and international level
- Research documents of FA staff and research organisations for teaching students.

5.10 Programme assumptions and risks

5.10.1 Assumptions

- That the relevant education institutions are interested
- Staff are motivated to engage in training activities
- Funding for capacity-building and research is prioritised
- Staff with sufficient research skills or potential to develop such skills can be recruited.

5.10.2 Risks

- Lack of trust between the FA and other institutions
- Lack of appropriate teachers, facilitators, lecturers, trainers

- Lack of required cooperation among different stakeholders
- Lack of cooperation from other sectors to implement related trainings related e.g. communes, police, juridical reforms
- Lack of political commitment to reform processes.

5.11 Programme implementation strategies

Implementation of each of the NFP sub-programmes demands specific knowledge at all levels and new interdisciplinary skills from the FA and other stakeholders involved in forest management. In particular, the ability to transfer and deliver often complicated theoretical knowledge in a practical and useful way to the people performing in the field is paramount. It is equally important for the overall success of the NFP that required knowledge is mainstreamed to all relevant personnel, and that it can be articulated in a manner that enables laymen to understand it too.

Both formal training and less formal on-the-job coaching and mentoring will be employed to enhance understanding and capabilities. Exchange visits, as well as networking, will be employed to allow participants to share experiences and learn from each other

Three sub-programmes will be implemented to mainstream capacity-building, mainly related to the acute short-comings of the forest sector towards implementing NFP visions and more specifically related to:

- Education development
- Institutional and human resource development
- Extension and public awareness raising
- Research capacity development.

The programme will also address more chronic problems in the forestry sector by simultaneously improving four main components related to organisational capacity building:

- Context (policies, legislation, political support, mandate and responsibility)
- Structure (horizontal/vertical "line of command", hierarchical/flat management structure, functions, institutional setup – HQ and provinces)

- Corporate culture (informal decision-making, protocols, rent-seeking practices, recruitment procedures, meritocracy etc.)
- Technical capacity.

Over a 20 year perspective, continued organisational reforms related to the above components will optimise the FA as an organisation to efficiently, effectively and sustainably pursue common organisational goals related to NFP.

5.12 Sub-programme 1 – Institutional and Human Resource Development (SELECTED EDUCATIONS, FORESTRY ADMINISTRATION AND OTHERS)

5.12.1 Description

Of the 1,667 persons on staff at the FA, only about 600 have an educational background in forestry, at least at the college level. Additional staff will be recruited to be employed at offices under the FA and trained to fulfil their expected roles. These, and current staff, need training and motivation to fulfil their new roles and actively execute their responsibilities under the NFP. For NFP implementation to be successful, capacity-needs of relevant government and non-government partners will also be partly addressed in the sub-programme.

5.12.2 Means of Implementation

5.12.2.1 Improvement of institutional structure at the Forestry Administration

This sub-programme will support the FA in ongoing reforms to improve its institutional capacity by:
- Establishing the means for new local FA units to support local forest management initiatives
- Implementing performance management to enhance the productivity of FA staff
- Defining clear roles and responsibilities for target staff
- Improving administrative system by establishing efficient information-sharing and communication systems to share technical guidelines, manuals, reports etc, among FA staff and other relevant stakeholders.

5.12.2.2 Development of educations to ensure qualified staff can be recruited

A critical factor in the management of natural resources is to secure upgrading of forest and NRM educations to ensure the availability of suitably qualified recruits. Education institutions need to be fully re-oriented towards equipping future forest managers with the skills and capacities necessary to meet the practical, complex and analytical challenges of sustainable forest management before genuine sustainable development can occur. Such an undertaking requires a long-term perspective

and commitment from development partners, necessitating cultural change within the Preak Leap Agriculture School of Agriculture and the Royal University of Agriculture in addition to upgrading curricula and teaching-capacity.

To ensure that staff recruited into NRM management activities is qualified to fulfil expected roles in the implementation of NFP, this programme will contribute to upgrading higher-level forest education to ensure that standard forest management skills are achieved. This will take place through the:

- Solid development of capacity in multiple aspects of the two forestry education institutions, the Preak Leap National School of Agricultural School (BSc + Diploma) and the Royal University of Agriculture (MSc and BSc), so that they offer basic education in all relevant subjects
- Defining clear roles and responsibilities for target staff
- Improving education system by establishing efficient information-sharing and assistance to production of technical guidelines, manuals, reports
- Contribution to relevant education modules, to ensure that natural resource management is fully reflected in national education curricula.

5.12.2.3 New recruits and human resource development at the FA

The Forestry Administration will recruit new staff based on merit, and implement an internal education system providing opportunities for long and short-term study/training.

5.12.2.4 Capacity building for implementing the NFP

General training at the central FA and other stakeholders, concerning all programmes, includes skills enhancement for:

- Coordination with relevant stakeholders to implement NFP
- Design, management, monitoring and evaluation of projects
- Identification of ways that the central FA can best supports local FAs, and help them develop local skills in management, monitoring, evaluation and problem analysis.

To respond to urgent capacity needs for the implementation of NFP, designated government staff, education institutions NGO partners and local forest management committees and members will be trained. Main areas of capacity building by programme are listed below.

5.12.2.5 National Forest Demarcation, Classification and Registration

- Effective collaboration, conflict resolution and involvement of all stakeholders in the forest demarcation process according to harmonised national guidelines for PFE demarcation
- Experienced central FA staff designated to forest demarcation will be trained to provide backstopping support to local government units, including planning and training local FA staff in national guidelines and provide other support when needed.

5.12.2.6 Forest Resource Management and Conservation (for education institutions and the FA)

- Good governance in forest management systems
- Landscape approaches to forest management-planning to integrate different sectors and socio-economic developments
- Forest management planning at the national and local levels to facilitate implementation of SFM
- Alternative SFM systems (multi-purpose forestry with less focus on commercial forestry), based on overall good forest governance principles
- New approaches to SFM in production forests
- Forest genetic material conservation and use
- Silviculture techniques
- Re-forestation techniques and maintenance
- Eco-tourism opportunities in relation to Cambodia's forests; integration of eco-tourism and forest conservation; and benefit sharing with local communities
- Alternative sources of energy (instead of fuel wood)
- Biodiversity conservation
- Climate change mitigation and prevention
- Sustainable plantation forestry considering ecological, social and economic aspects
- Certification schemes and chain of custody verification systems for forest products
- Timber and NTFP processing and wood technology development
- Extension to local levels on the Forest Management Plan and the Monitoring Assessment and Reporting System (MAR-SFM).

5.12.2.7 Forest Law Enforcement and Governance

- Integration of FLEG into basic education institutions (certificate-diploma-BSc), within natural resource management
- Training of trainers from education institutions to develop a cadre of FLEG officers to train and guide others
- Train designated Lecturers, FA staff, NGO partners, local governments, and CF Management Committees and members in all aspects of forest crime prevention

- Train managers to identify vulnerabilities, which may cause or exacerbate forest crimes
- Train enforcement officers in forest law enforcement and governance, to prevent and combat forest and wildlife crimes
- Inter-agency trainings, addressing capacity shortcomings within the legislature, judiciary and the executive powers, which also aims to improve interagency collaboration in combating and preventing illegal forest activities.

5.12.2.8 National Community Forestry

Designated FA staff, NGO partners, local governments, and Local Forest Management Committees and members who are involved in practical forest management activities will be trained in relevant decentralised forestry modalities (Community Forestry, Forestry Partners, Forest Trade Community ...).

Training on decentralised forest management requires a concerted and extensive programme for various target audiences:

- Formal education, targeting the education system of diploma and BSc
- Professional trainers, through Training of Trainers
- FA staff who have responsibilities to support CF development
- NGO staff from organisations that facilitate community forest development
- Community forest members and committees/local government officials who have responsibilities for managing parts of the permanent forest estate
- Private sectors, which support, or need to understand and accommodate community forestry.

5.12.2.9 Sustainable Forest Financing

Capacity building within financing will initially focus on:
- Formal education, internationally and nationally (BSc, MSc, PhD)
- Professional trainers, through the "Training of Trainers", who can then provide training to others
- FA staff who have responsibilities to support different programmes
- Local government officials who e.g. have responsibilities for facilitating decentralised forestry development.
- Private sectors who involve in forest development.
- Trainings on Reducing Emission from Deforestation and forest Degradation (REDD), for various stakeholders.

5.12.3 Expected Results

5.12.3.1 Institutional structure at selected education institutions and the FA improved

- Clear roles and responsibilities for all staff are defined by 2010

- Directions for upgrading NRM educations identified and plan developed
- Performance analysis and TNA of the teachers conducted
- A performance management programme is applied by 2015, to motivate staff to fulfil duties and proactively support implementation of NFP at the national and local levels
- Effective information-sharing and communication systems established by 2013.

5.12.3.2 Capacity of FA and other forest stakeholders improved

- Qualified staff meeting the new requirement for the FA's organisational structure are recruited and trained, according to expected responsibilities by 2015
- Personal development plans are integrated into capacity-building at the FA, and FA staff are continuously improving their capacities, through long and short-term studies/ trainings, on the job training, and daily coaching on specific subjects related to the implementation of NFP by 2015
- Local authorities, NGO partners, local forest management committees, local forest management members, and private partners are trained and capable of fulfilling their expected roles in collaboration with the FA
- Education system developed to ensure that standard forest management skills, needed for implementation of NFP, are achieved during basic forest training.

5.13 Sub-programme 2 – Extension and Public Awareness Raising

5.13.1 Description

A well-educated forest extension unit/division is fundamental to pilot, develop and scale up good forest management practices, involving local people.

To ensure that forest management models and small scale private plantations are successful and sustainable over time, involving local people and stakeholders, it is important that local forest managers receive sufficient supports related to organisational, law-enforcement and technical issues from experts in sustainable natural resource management.

Mainstreaming awareness on forestry to school kids and students at relevant academic institutions is a very important approach to upgrade knowledge on sustainable natural resources management and brainstorm them to participate in forest protection and conservation in the future.

To achieve successful implementation of the forestry extension and mainstreaming activities, the FA shall strengthen capacity of staff to provide widely forestry extension service.

5.13.2 Means of Implementation

5.13.2.1 Promote inter-generational change

To promote long-term behavioural change, this sub-programme will provide forestry awareness-raising to target school children who will become users and managers of forests in the future. An environment for cross-sectoral communication, information-sharing and knowledge exchange will be developed as a major part of extension activities. The programme will:

- Identify mechanisms of extension activities on sustainable NRM issues in public schools and vocational training institutions
- Develop necessary documents and forestry extension materials
- Launch awareness campaigns to teachers, students and pupils, aiming at raising their awareness on the important sustainable NRM issues.

5.13.2.2 Awareness campaigns to promote NFP implementation

Awareness campaigns aimed at commune councils, local communities and relevant stakeholders on:

- National Forestry Programme and objectives
- Opportunities for local forest resource management
- Forest demarcation objectives and procedures
- Forest development planning and monitoring and evaluation report of sustainable forest management system.
- Laws, regulations and obligations of stakeholders
- Law enforcement included wildlife and forest trade
- Other relevant issues required to raise their awareness.

5.13.2.3 Establishment and Operation of Forestry Dissemination Centre

In the longer term, the FA will operate the forestry dissemination centre for sharing general knowledge and information in forestry to publicise. The centre will publish forestry documents and extension materials for dissemination on Radio, TV, Magazine, Newspapers, and Websites, to raise awareness to the public and stakeholders. Furthermore, all the documents and extension materials will be stored in database to be accessible. The centre will play the important role, contributing to awareness-raising at public schools on sustainable natural resource management.

5.13.2.4 Communication strategy

The Forestry Administration will cooperate with other development partners, public academic and vocational training institutions in creating forestry based knowledge including communication strategy to ensure widely involvement of the public and stakeholders in forestry extension

programme. The communication strategy will identify key target groups for forest extension services and develop ideal strategies, responding to the needs of target groups.

5.13.2.5 Special support to local forest management activities

To support sustainable forest management, the FA will develop a strong and facilitative forest extension service, cooperated with local development partners, to assist local forest managers in implementing all aspects of decentralized forest management, including small scale private plantations. This means that forest extension officers will be trained continuously to obtain qualified technical and facilitative skills, to run local forest management activities.

5.13.2.6 Capacity need assessments

The Forestry Administration will monitor and assess the capacity-building needs to identify target areas and training courses required promptly for the development of an extension service to support ongoing forestry reforms, and local forest management.

5.13.2.7 Sharing Lesson Learnt on Forest Management

The forestry extension unit will assist the FA in improving its collaboration with relevant civil society organizations, academic institutions and development partners, to continuously monitor, evaluate, and explore successful local forest management practices, and develop new forest extension materials based on these experiences. The National Forestry Extension Network will be strengthened as well.

The information service centre will provide some training courses on library management, database management, and data entry.

5.13.3 Expected Outputs

- A facilitative and supportive forestry extension service was developed completely, aiming to assist local communities and stakeholders in sustainable forest management.
- Awareness on sustainable NRM issues was raised through the inclusion of SFM issues in public academic and vocational training institutions.
- The forestry information was improved through regular publishing of forestry documents, such as magazine, newsletter, broacher, posters, and forestry dissemination texts on websites and medias.
- The forestry extension service was monitored and evaluated regularly to ensure that service related to local forest management systems was updated to harmonize with new development programmes.
- General knowledge on sustainable NRM issues was improved through annually dissemination campaigns, to mobilize and encourage local communities and stakeholders to participate actively in sustainable forest management activities.

5.14 Sub-programme 3 – Research Capacity Building Development

5.14.1 Description

The Forest and Wildlife Research Development Institute (FWRDI), within the FA, lacks staff with limited capacity and lacks of fund and facilities. As a result, little coordinated forestry research has been conducted by the FA, and basic forest information is not readily available. Similar problems are faced by Cambodian colleges and universities, who also lack funds and human resources to engage in forestry research. So it is necessary to actively strengthen the forest research activities in order to implement the NFP.

5.14.2 Means of implementation

5.14.2.1 Forest Research Steering Committee

The programme will establish a forest research management committee, with members from FA departments, donor partners, and research institutions. The committee will:

- Guide research strategy to support the implementation of NFP
- Coordinate and align strategic research with the NFP
- Coordinate and cooperate between FA and other research organizations to ensure the project will go along with the forest policy and the NFP
- Coordinate and cooperate with national-international organization on forest research
- Making strategic relationship to efficiently share information
- To monitor and advise for the improvement of research results to ensure the results are believable.

5.14.2.2 Forest -Wildlife Research and Development Institute (FWRDI)

FWRDI has to continue the efforts to coordinate and implement the forestry research in better ways. In order to achieve this goal, it is necessary to have sufficient and qualified research staff including the new recruitment.

The FWRDI must have sufficient fund from the sources (National, International) to support project planners and researchers. This will enable the FWRDI to:

- Conduct applied research for selection of the best SFM model
- Establish and maintain pilot research areas in permanent forest estate
- Trial SFM model in collaboration with relevant partners
- Conduct extension research programmes, in collaboration with relevant development partners, to develop efficient ways to provide assistance to forest management plans and plantation activities with local people
- Liaise with development partners and international forest research organizations to explore funding opportunities and new training opportunities
- Design and implement individual training plans for researchers and research assistants

5.14.2.3 Strengthening capacity of independent universities and research institutions

To ensure that qualified young foresters are available to fill forest research positions, the programme will improve the educational sectors relevant for implementation of SFM and environmental protection. The FA will collaborate with relevant Cambodian and international universities to develop the quality of forestry and biology education at college and university levels. As part of this, the research capacity of universities will also be strengthened and enable them to conduct empirical research, of relevance to national efforts to implement SFM.

Forest research conducted by research institution and relevant organizations is needed to cooperate with FWRDI in order to improve the collaboration, and results of the research are acceptable to the users and especially for planners and policy makers

5.14.2.4 Improve Forest Research Networks

The programme will strengthen collaboration among Cambodian and international research organisations, to develop professional skills, learn from successful international experiences, and take advantage of relevant training opportunities and research funding options.

5.14.2.5 Research to support NFP implementation

Preliminary research areas are listed below. However, mechanisms for identification of future research needs and their prioritisation are required.

- **Forest resource management and conservation**
  - Develop and implement research plan at all levels and monitor the implementation of the forest research such as study on species abundance, the dynamic of forest and wildlife habitat, study on fauna, biodiversity, wildlife inventory and assessment of biodiversity by forest types
  - Study on scientific factors, selection of and breeding flora and fauna, research the techniques for improvement of forest quality, and establishment of botanical garden of decorous species
  - Establishing stations for forest and biodiversity research in the regions with different forest types throughout the country
  - Study of physical and chemical properties of forest soils
  - Study on eco-tourism opportunities, in relation to Cambodia's forests, its integration into forest conservation and suitable systems for benefit-sharing between government and local communities
  - Research and development for timber and NTFP processing.

- **Forest law enforcement and governance**
  - Develop training program for capacity building of FA staff regarding forest law enforcement and forest governance.

- **National Community Forestry**
  - Study on the use of NTFPs, processing technology for value added price with standardisation of forest products, analysing socio-economic status for alternative jobs in order to reduce the pressure on forest
  - Study on the incentive structure for forest product development and marketing
  - Simplified SFM systems (inventory, silviculture, growth rates, volume tables, reduced impact logging, NTFPs, biodiversity monitoring & management, etc.;)
  - Analysis of wood, charcoal and NTFP flows, mapping and characterization of areas of pressures and opportunities (forest/plantations productivity vs. collection/harvesting)
  - Marketing systems for local products.

- **Climate Change**
  - Study the effects of climate change on the forests and the role of forest in climate change mitigation
  - Study on potential areas for REDD Projects.

- **Financing**
  - Monitoring and assessment of environmental and socio-economic impact of the forestry project and development
  - Cost-benefit analysis comparisons with other land use/forest management alternatives
  - Study on incomes from environment services and forest carbon project /REDD.

5.14.3 Expected Results

- A systematic national forest research framework developed to guide national forest research and develop research capacity to support the implementation of NFP
- Establishment of forestry research coordination team to guide the research direction in accordance with NFP
- FWRDI of FA actively supports NFP implementation by designing, managing and implementing applied research programmes on basic forestry
- Cooperation between FWRDI with other universities and research institutions are improved by joint research, and the results will be used by planners and the policy makers
- Cambodian research organisation's involvement in national, regional and international forest research networks strengthened, and the forest research organisations capable of taking advantage of training opportunities and international research funds.

5.15 Finance

Budget (USD) for Capacity and Research Development for 2010-2020		
Sub-programmes	Calculated budget 2010-2014	Estimated budget 2015-2020
5.1 – Institutional and Human Resource Development	8,050,000	5,000,000
5.2 – Extension and Public Awareness	2,350,000	2,350,000
5.3 – Research Capacity Building Development	2,600,000	2,000,000
Total cost	13,000,000	~ 9,350,000
Donor share	9, 200,000	

Assuming that income will be re-invested into the sector resulting in more self-sustained operations in accordance with the finance programme; and that the donor share will decrease significantly in the second five year period.

Program 6

Sustainable Forest Financing Programme[3]

6.1   Main priority areas (keywords)

- Sustainable business for rural communities, management and forest conservation
- Involvement of all sectors (government, development partners, private, communities, international society, etc.)
- Improved business and investment environment (transparency, tenure and users rights security)
- Equal and fair opportunities for all.

6.2   Time duration

- 20 years (2010 – 2029), with a pilot phase of five years from 2010 to 2014, followed by an 8 year-expansion phase (2015 – 2022), and finally a consolidation phase of 7 years (2023 – 2029).

6.3   How this programme meets the National Forest Programme's vision

The Sustainable Forest Financing Programme aims to support and contribute to the National Forest Programme by means of cross-sectoral sub-programmes, associated with the NFP's five other implementation programmes.

Financing, whether it is based on income generation, government funding or development aid, influences all activities and provides an indication to what extent and degree various activities in the National Forest Programme sub-programmes are possible. The Sustainable Forest Financing Programme aims to provide an economically sustainable framework for the NFP.

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[3] *Sources: FA staff interviews; FA Forest Statistics draft, 2007; Independent Forest Review, 2004; Finance Questionnaire April, 2009; Than Sarath and Ty Sokhun; FAO statistics; Study on National and Provincial Timber Supply and Demand, 2008.*

6.4 How this programme meets the National Forest Programme's objectives

The National Forest Programme's objectives are to be achieved through its implementation programmes. Among them is the Sustainable Forest Financing Programme which consists of the following five sub-programmes:

1. Government financing (government cost programme)
2. Income from national forestry
3. Private sector income generation, including Community Forestry
4. Financing via donors
5. Innovative income sources (such as eco-tourism, game, and carbon credit).

> This financing programme shows that the forestry sector can easily sustain itself while providing significant contribution to improvement of livelihoods, business development and ensuring environmental services for the benefit of production of other primary sectors. This is given under the condition that the financing programme is an integrated part of the National Forest Programme, which rests on sustainable principles and that considerable capacity development is undertaken through initial investments by donors combined with legalising reinvestment of revenues into the sector.

6.5 Background

Cambodia has long experienced the devastating effects of uncontrolled logging, especially during domestic war and the large-scale forest concession implementation period. As a direct response to the many problems with illegal logging, a logging moratorium was imposed from January 2002 until now.

Cambodia's forest cover decreased to about 59% (approximately. 10.7 million hectares) in 2006, from about 73% in 1965, primarily due to forest clearance, illegal forestland encroachment, and conversion of forests to agricultural land.

During the 1990s and early 2000s, approximately 6.8 million hectares were managed under a concession regime that contributed much less than expected (only 4-12%) to the national GDP. The export of logs peaked in 1995 with some 590,000 m3, declined to 74,000 m3 in 2000, and almost reached zero in 2007.

Today, total of the Permanent Forest Estate covers 59% of the country in which 28% of forest land is classified as protected area (approximately 3.0 million hectares), 14% as protected forest (approximately 1.5 million hectares), and 30% is forest concessions (approximately 3.2 million hectares) and the remaining 28% (approximately 3.0 million hectares) is classified as other forests.

In a country where 85% of the population lives in rural areas and, to a large extent, depends on natural resources, the sustainable management of the forest sector is essential for livelihood and poverty alleviation (Schweithelm, 2009). This is reflected in the Rectangular Strategy for Growth, Employment, Equity and Efficiency, Poverty Reduction Strategy (2002), and the National Strategic Development Plan (2006-10), all of which prioritise forestry management within national development. Finally, stabilising the forest cover at a level of 60% of the country's surface is one of Cambodia's Millennium Development Goals.

Compared to neighbouring countries, Cambodian forests are still in relatively good condition, and could be a major source of national and local revenue if managed sustainably.

6.6   Problem analysis

The forest sector needs justification in terms of income generation. The concession forests area, community forest and other production forest areas accumulate to net about 5.7 million ha. If just 8-10 USD per ha per annum in timber revenue on average there should be 46-57 million USD in income; an income that is presently not materialising. In addition payments for forestry services, for instance, environmental service, eco-tourism, carbon credit or other forest management pilots will be started and provide income more than logging and they are also sustainable revenue. Thus, If the forest could not produce 8-10 USD per ha per year, the above mentioned services then questions will be raised for justification, in comparison with other land-uses.

Individuals, communities, and the private sector invest when they have sufficient incentives and resources to do so. Long-term investments in Sustainable Forest Management (SFM) depend on key elements such as:

- Secure land tenure
- Secure funding/finance
- Clear, transparent, straightforward manageability, and fair rules and regulations
- Proper administration and peoples' trust in public authorities
- Initial technical and financial assistance.

The Forest Law, 2002, and the Rectangular Strategy provide the legislative and strategic framework for SFM but the implementation of SFM is jeopardized by peoples' perception of status quo, short-sightedness, distrust in the authorities, and cultural conservatism.

Some relevant questions are:

- What is the ceiling, in terms of hectares, to be approved for community forests?
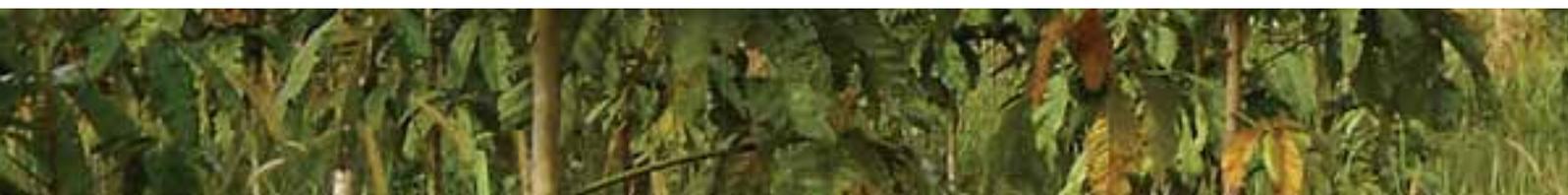
- Will the areas under concession remain at their present levels?
- Will the FA engage in direct management of production forest?
- What is the projected area, in hectares, for Economic Land Concessions within the Permanent Forest Estates (PFE)?

Funding is needed to develop the necessary infrastructure to support the implementation of the Forest Law and the NFP's implementation programmes. Presently, the RGC and FA have the necessary capacities but insufficient financial strengths to implement the NFP and, therefore, external financial and technical support is needed at the initial implementation stages before the national forest sector can become self-reliant and a long-term contribution to public growth and welfare.

6.7 Programme objectives

All sub-programmes shall contribute to SFM and, subsequently public welfare, by means of:

- Securing tenure and user rights
- Ensuring that the full value of all forest resources are captured
- Establishing sustainable financing mechanisms and investment programmes
- Contributing to carbon-neutral growth
- Promoting circulation of forest revenues for reinvestment in the sector for gaining financial sustainability
- Promoting development by following the principles of expanding from grants to self-reliance.

6.8 Indicators

- Political commitment
- Staffs' understanding of, and commitment to targets and goals
- Process of fully fledged budgets and activities formulated for the sub-programmes
- CF's and private tree growers' trust in extension
- Transparent public budgets and accounts showing allocation of funds to FA activities for fulfilling the goals of the NFP and its sub-programmes
- Revenue from forest being reinvested into the sector
- Export of high valued processed-products organised
- Effective and efficient law enforcement
- Benefits and income from CF activities, including income from sales of forest products
- The FA's allocation of resources to the NFP's implementation programmes, in terms of financing, as well as, human resources and funds.

6.9 Verification

- National Forest Programme Monitoring System

- Sub-decrees
- SFM guidelines
- Management plans for CF
- Foreign import statistics compared with Cambodian export data
- CF accounts
- Annual accounts of the FA
- Forest statistics
- Certification standards
- Record-keeping of number of arrests, court cases and convictions.

6.10 Programme risks

- Lack of willingness to think in new ways and take risks
- Uncertainty and low level of implementation of existing policies, including the NFP due to poor institutional capacity
- Relative poor performance record within the forestry sector, especially production figures
- Lack of reliable training-needs assessments, and insufficient capacity
- Lack of willingness and capacity for engaging in cross-sectoral interaction and cooperation
- Illegal logging due to, for example, weak law enforcement
- No approved guidelines for SFM
- Magnitude of undertaking Economic Land Concessions and their future
- Lack of participation into the NFP as some are not in favour of well-organised sector
- Lack of donors willing to grant initial financial support.

6.11 Programme Implementation Strategies

The Sustainable Forest Financing Programme strategy is based on the following assumptions:

- The Cambodia's forest cover will be developed to the targeted level of 60% ~ 10.9 million hectares
- The concession forest area will be re-classified based on its function and actual potentials
- Other economic activities, such as eco-tourism and REDD are accepted and placed on at least three million hectares for each category (ref. table 4)
- Approximately 2 million hectares will be gazetted as CF (table 4)
- The re-classified production forest of 2.4 million hectares will be managed in compliance with SFM guidelines by the FA and the private sector as production forest (table 4)
- Opportunities for the third party with competitive bidding will be promoted to enhance cost-effectiveness of implementation
- Options will be explored for environmental tax collection from the forest industries, which cause environmental impacts.

Long-term economic viability is the foundation of the Sustainable Forest Financing Programme. The philosophy behind achieving sustainability and economic viability builds on the assumption that the international donors will invest in setting up a costly, but necessary infrastructure that, once in place, will be cheap to operate and maintain. This is critical for Cambodia to continue further development of its national resources.

To initiate development following the principles of expanding from grants to self-reliance, the following overall Financing Strategy has been developed:

Table 1: Programme overview

	Short term (pilot phase: first 5 years)	Medium term (expansion phase: next 8 years)	Long term (consolidation phase: remaining 7 years)
Activity	Infrastructure Baselines Education upgrade Capacity building National carbon accounting system	Consolidation of infrastructures Benchmarking Education upgrade Capacity-building M and E	Maintenance of infrastructures Monitoring and evaluation In-service training and courses Knowledge exchange M and E
Funding	Development aid (ODA) Grants National reallocations	ODA 60% Private sector 25% National reallocations 15%	ODA 40% Private sector 35% National reallocations 25%
Conditions	Infrastructure Development such as legislation, markets, resource mapping, and institutions.	Land reforms, titles, tenure, user rights ... Sound markets Culture of fairness (non-corruption) and transparency	Reallocations, like incentives to land owners, support to extension service for forestry, research and development.

Cross-cutting subjects (policy, legislation, institutional reform, linked to other stakeholders, capacity, financing, benefit distribution)

The overall policy framework is in place (Forestry Law, 2002), but revision of existing, and additional, sub-decrees related, for example, to CF and forest demarcation, are needed for the implementation of the NFP. During the process of elaborating the Sustainable Forest Financing Programme, clear goals have been identified and, more importantly, political support has been provided to the proposed economic activities, as well as other activities that could be accepted in protected areas and in protection forest. Protected areas are here considered forest (but not all are forests, large areas are open grassland or open mosaic "forest"), but administered by the Ministry of Environment.

Economic Land Concessions are present within the PFE in protected areas and protection forests, but it is unclear what status these will be accorded in the future.

The formulation of policies and legislation has advanced, but implementation remains weak. For implementation of the NFP and its components, it is crucial to have established demarcation, tenure and users' rights, in order to hand over responsibilities for CF, as well as enable stakeholders to recognise ownership and apply appropriate operational rules.

Organisational adaptation and capacity-building of FA staff is of the utmost importance. With the current approximately 350,239 hectares identified as CF in 325 communities, enormous requirements will be placed on extension services for advice to CF management groups in SFM.

Straight forward and transparent administration of concessions and annual bidding coupes need to be put into place. While some guidelines and regulations exist, outsourcing of monitoring tasks to an independent organisation could be assessed as an option, due to ease of implementation and potential for cost-effectiveness.

Institutional capacity-building and development of a contemporary organisational management structure and corporate culture is a huge undertaking. Combined with additional commitments to demarcate various forest/land categories, issuance of title deeds and description of tenure, and users' rights necessitate a huge input of technical and financial resources. While institutional capacity-development requires sustained efforts in order to optimise the organisation to contemporary circumstances at any given time, activities such as demarcation and issuance of title deeds mainly require one-off investments.

REDD project is executed by FA, it is main component of sustainable forest financing programme. The programme objective will be clearly set in accordance with COP15 (Conference of the Party) meeting.

6.12 Background for budgeting

Revenue generation will be delayed because a number of critical activities cannot start up before the necessary infrastructure (investment) is in place

Net income, for example, REDD is calculated by lowering the prices on carbon sales due to the high cost of organising the system. To handle the issue, small project areas have to be integrated as big areas.

While carbon credit sale is one of the income sources, i.e. up to 20% of some of the sub-programmes (sub-programme 2 and 3) over the next 20 years, it is not regarded as being a "silver bullet" to save the Cambodian forests. The finance of the sector still needs to be primarily supported by more traditional but sustainable forest management as the main mean.

Although Cambodian forestry is able to generate a substantial and sustainable contribution to national development plans, it requires initial external investment, for example, ODA funding.

Table 2: Some other key figures

Item	Amount
Potential sustainable annual harvest of round-wood logs and timber	0.5-1 million m³
Potential sustainable annual harvest of charcoal, firewood, poles etc.	1.5-2 million m³
Estimated sustainable harvestable net out-take of logs (used in the calculations)	O,3-0,5 m³/ha/year
Log prices at saw mills in Cambodia	App. 150 - 200 USD /m³
Economic Land Concessions account probably for	0.8 - 1 million ha
No. of communities with CF (2009)	325 CF
No. of communities expected to be managing CF	2,070 CF
No. of ha CF presently (2009)	350,239 ha
No. of ha CF for Next five year target	350,000 ha
No. of ha expected to be managed as CF	2.0 million ha
No. of staff in FA 2008	1580 staff
Royalties to FA from 36,785 m3 of round logs in 2008	2,565,861 USD
Royalties for timber 54 USD and profit margin 2.5 USD (1999-2009)	56.5 USD m³
Collected fines and premiums by FA 2008	596,270 USD
Yearly consumption of charcoal (0.3 mill. m3 wood)	43,000 ton
Yearly consumption of fire wood	2.3 million m³
Yearly domestic demand for timber and logs to sawmills	300,000 – 360,000 m³
Average estimated forest carbon stock (FA figure)	100 t/ha
Net price for carbon credits (deducted for baselines, formulation, establishment, monitoring and administration costs) (FA figure)	Net 5 USD/t
Net price for carbon credits (deducted for baselines, formulation, establishment, monitoring and administration costs) (FA figure)	Net 5 USD/t

(Sources: prices as of June 2009).

Table 3: Present functions of Cambodian forests based on the decision of having 60% forest cover

Column A	Column B	Column C	Column D	Column E
Managed by Ministry of Environment	**Managed by MAFF/ FA**			
Protected Areas approximately 3 million ha	FA Protected Forest approximately 1.5 million ha	Community Forestry approximately 2 million ha	Forest at present under (private) concessions approximately 3.2 million ha	Production Forest approximately 1.2 million ha
Other and non-use 200,000 ha	Other and non-use 100,000 ha	Other and non-use 200,000 ha	Other and non-use 300,000 ha	Other and non use 200,000 ha
Effective Net 2.8 million ha	Effective Net 1.4 million ha	Effective Net 1.8 million ha	Effective Net 2.9 million ha	Effective Net 1 million ha

Table 4: Expected re-classification of Cambodian forests based on the decision of having 60% forest cover – These figures are used for the following calculation

Column A	Column B	Column C	Column D	Column E
Managed by Ministry of Environment	**Managed by MAFF/ FA**			
Protected Areas approximately 3 million ha	FA Protected Forest approximately 3 million ha	Community Forestry approximately 2 million ha	Forest concessions reclassified to Protected and Production Forest 0.3 million ha	Production Forest approximately 2.6 million ha
Other and non-use 200,000 ha	Other and non- use 0 ha	Other and non-use 0 ha	Other and non-use 0 ha	Other and non use 100,000 ha
Effective Net 2.8 million ha	Effective Net 3 million ha	Effective Net 2 million ha	Effective Net 0.3 million ha	Effective Net 2.5 million ha

6.12.1 Budgets figures and exclusions

The figures used for calculations are mainly derived from interviews with FA staff, results of a questionnaire completed by the FA, and the Independent Forest Sector Review (2004).

Significant services and incomes provided by the forests which have NOT been estimated:

- Value of NTFPs (including fuel-wood, charcoal, medical plants, wildlife)
- Employment effect from timber harvesting in the primary sector, in particular the considerable downstream processing
- Significantly increasing value-adding through the value chain of wood processing
- Positive stabilizing effects that forests have on, for example, drought and flooding on other sectors, notably agriculture
- Payment for environmental services
- Eco-tourism.

Consequently, for simplification, the focus was on logs, timber and carbon only, although these are only a part - and probably less than half - of the total value of the forests.

6.13   Overview of Financing Requirements

Table 5: Financing overview of the costs of the pilot and the expansion phase (first 10 years).

Income by source	USD	Expenses sub-programmes	USD
Government financing	15 million	1. Demarcation, (registration and classification)	9 million
National Forestry	1.7 million	2. Natural Forest Resource (forestry, forest management and conservation) (5 years)	10 million
Private sector	1 million	3. Law Enforcement and governance (5 years)	2 million
Donors specifically to National Forest Programme (4 years)	27,1 million	4. Community Forestry (5-8 years)	9 million
Innovative sources	2 million	5. Capacity Building–research	13 million
		6. Finance Programme accounting (5 years)	0.1 million
		7. Conflict Management Scheme (5 years)	1 million
		8. Monitoring and Reporting System (5 years)	1 million
Initial financing	**46,8 million**	**Initial expenses**	**45,1 million**

(NB: These figures are considered the initial financial operational investments necessary for an organised sector, and a prerequisite for the income potentials and models calculated in the sub-programmes and in the scenarios listed at the end of the programme.)

Furthermore, each implementation programme has attached a detailed budget at the end.

NOTES ON EXPENSES (further reference to the respective programme and actions plans):

National Forest Demarcation, Classification and Registration

- **Demarcation:** 2,000 km annually at a price, based on initial pilot demarcation work, costs up to 500 USD/km, and when reduced by 30% due to gained efficiency and experience, ~ 350 USD/km.

   NB: Outsourcing with competitive bidding of elements of the demarcation and classification work is an obvious option for cost-cutting.

- Classification and registration: More than 8 million hectares are not classified. The cost is estimated up to 1 USD/ha. It is suggested that classification should be undertaken on a pragmatic basis, where needed, and in a speed that matches other operations.

Conflict resolution systems and capacity are not yet developed and therefore not calculated, but about 1 million USD is estimated to be necessary and sufficient to build conflict management awareness and capacity in involved key institutions.

Forest Law Enforcement and Governance

This is a matter of institutional capacity development, setting up monitoring systems, and developing the Forest Law Enforcement and Governance Programme. The formulating cross-sectoral working group for the financing programme stipulates the total investment cost over the first 5 years period will be 1 million. The remaining 1 million will be invested during the expansion phase.

National Community Forestry (CF) Programme

To date, more than 350,000 ha has been handed over to 325 communities, at an expense level of 975,000 USD, equalling 2.8 USD/ha, although CF programme staff expresses that it is actually closer to 20 USD/ha. Handing over another 1,650,000 ha to 675 communities is pending, but is anticipated to be accomplished within the next 8 years. Total investment recommended is between 4.8-5 million USD, subject to donor financing.

Once CF is operational, meaning CF has been handed over with secure tenure rights and an approved management plan for sustainable management, CF can generate a surplus subject to taxation, like any other private enterprise. However, CF outcomes should always be compared with alternative SFM options. Royalties from logging is one example hereof. CF is expected to be a contributor to the operational costs of the National Forest Program.

There is a need for the development of a simplified management planning system for CF. Should this happen, and CF management plans can be developed in an efficient way, it is anticipated that the communities will be willing to pay for the development of the forest management plan. The cost of a simplified management concept is estimated to be in the area of 5 million USD over 5-8 years.

Capacity Building and Research Development

The Strategic Framework analysis and the implementation programmes highlight a significant need for capacity development (human capacity-building and institutional capacity development) throughout the sector. Considerable focus needs to be on sustainable capacity development in particular, but also for feeding educational institutions, and the need for significant upgrading and adaptation, to address the future challenges facing the forest and environmental sectors.

6.14 Sub-Programme 1 - Government financing

6.14.1 Description

This sub-programme will focus on RGC's ability to contribute to the financing of the National Forest Programme through, for example, the reallocation of funds from the national budget, the contribution from fines collected, and any export duties on forest products.

In 2008, the FA had a total of approximately 1,580 staff, and an operational budget of 1,350,000 USD (including P3 and P4 allocations). Fines contributed about 0.5 million USD. (Successful implementation of the NFP is expected to minimise this source of income).

6.14.2 Means of implementation

- Finance will keep track of the above mentioned "income sources"
- Annual accounts will be elaborated and made public
- RGC institutions will accept reallocation of funds at a defined budget-based level, that will contribute to full implementation of the National Forest Programme
- Together with necessary funding, human resources will be allocated
- Alignment with the national system of P3 and P4.

6.14.3 Expected results

Budget reallocations are suggested as following:

- Co-financing of SFM guidelines: 930,000 USD/year. Total over 5 years: 4.65 million USD
- Management system for production forest: 100,000 USD/year. Total over 8 years: 800,000 USD

6.15 Sub-Programme 2 - Income from National Forestry

6.15.1 Description

Management of state forests (refer to Column E of Table 4) are in many countries undertaken by state-owned companies. There is a clear separation between the different authorities responsible for management, law enforcement and regulations.

6.15.2 Means of implementation

- Royalties and legal fees from logging
- Sale of other forest products, e.g. charcoal (not calculated)
- Sale of carbon credits
- Simple surplus from management (not fully calculated).

6.15.3 Expected results

It is anticipated that the State Forest consists of unlogged evergreen forest (50%) and degraded deciduous forest (50%). The sustainable annual average harvest is conservative listed as 0.8 m^3 also here further taking the effect of degradation into consideration. The residues from the logging are expected to be used for production of charcoal, firewood, poles, etc. Total harvest is expected to be below increment the next 10 – 20 years, due to the degraded state of the forests.

Royalties from logging in the intact evergreen areas (Column E table 4)

Description	Unit	Unit price USD	Total USD
1.25 million ha (50% of the production forest)	0.8 m^3/year/ha	56	~ 56 million/year
Starting gradually from year 4 but with an effective running period of 13 years within the 20 years time perspective only.	13 years	56 million	728 million

Carbon stocks are building-up in the degraded forest areas due to harvesting at a lower level than growth. Income from carbon stocks (1 m^3 ~ 1 ton of CO2):

Description	Unit	Unit price USD	Total USD
0.5 million ha	100 ton	5 USD/ ton	250 million

Description	USD
Royalties from logging in the intact evergreen areas Column E Table 4)	728 million
Income from carbon stocks (1 m^3 ~ 1 ton of CO2)	250 million
Grand total USD over 20 years:	978 million

(Note: Harvesting figures are deliberately conservative.)

6.16 Sub-Programme 3 - Private Sector Income Generation including Community Forestry

6.16.1 Description

CF (refer to Column C of Table 4) is considered a variation of private plantation forestry and concession forestry. Forest is, in general, a land-use form producing a yearly surplus, in terms of increment. If the increment is not sustainably harvested when the soil's carrying capacity is reached, the forest will basically start to decay; hence, will be lost as a source of income, hit the ceiling for possible carbon storage. It is therefore sound resource economics to utilise this potential when strict conservation for other reasons are not imposed. Revenue to RGC can be generated from:

- 1.2 million ha of production forest and including up to 500,000 ha plantations (50% Column E of table 4)
- 2 million ha of CF (Column C of Table 4)
- Protected forest or production forest (Carbon credit).

The main tools to secure sustainable logging in concession areas and CF are management plans, certification, eventually REDD, and most importantly, security for investment for a sufficiently long time, including tenure and users' rights.

6.16.2 Means of implementation

- Property tax on private plantations (will not be calculated)
- Royalties and legal fees from logging in CF
- Royalties and legal fees from logging in concessions areas
- Sale of services in forestry.

6.16.3 Expected results

It is anticipated that the production forest area allocated to this programme ~1.25 million hectares (refer to 50% Column E of Table 3) mainly consists of 1/3 degraded deciduous forest, 1/3 semi-evergreen forest 1/3 evergreen forest and an average of 100.000 ha plantations during the period.

- Average harvest including from plantations are set to 0.5 m3 of logs per ha per year
- The residues from logging are expected to be used for production of charcoal, firewood, poles, etc.

Total harvest is expected to be considerably below increment for the next 10 – 20 years.

Royalties from Production Forests (50% of Column E of Table 4):

Description	Unit	Unit price USD	Total USD
1.25 million ha	0.5 m³/ year/ha	56	~ 35 million /year
Starting gradually from year 4, but with an effective running period of 13 years within the 20 years time perspective only.	13 years	35 million	455 million

It is anticipated that CF (Column C of Table 4) mainly will consist of ¾ degraded deciduous forests, and ¼ logged semi-evergreen forests. When all CF is operational with proper management plans in place royalties from logging can be expected. In year 8 a harvest of ¼ m³ of sawn logs per ha per year, additional harvest for charcoal, firewood, NTFP, etc. is expected. In total, a harvest of wood noticeably less than increment during the next 20 years is planned for building a productive stock.

Description	Unit	Unit price USD	Total USD
2 million ha	¼ m³/ year/ha	56	~28 million/year
Starting gradually with an effective running period of 17 years within the 20 years time perspective only.	17 years	28 million	476 million

(Note: Harvesting is considerably less than the wood increment especially in the degraded CF (Note: Royalties for CF can be reduced)

Income from carbon stocks CF areas (1 m³ ~ 1 ton of CO_2):

Description	Unit	Unit price USD	Total USD
0.5 million ha (degraded CF areas)	100 ton	5 USD/ ton	250 million

Description	USD
Royalties from production forest (50% of Column E of Table 4)	455 million
Royalties from CF (Column C of Table 4)	476 million
Income from carbon stocks CF areas (1 m³ ~ 1 ton of CO_2)	250 million
Grand total over 20 years:	1,181 million

(Note: Harvesting figures are deliberately conservative.)

6.17   Sub-Programme 4 - Financing via Donors

6.17.1 Description

Cambodia is categorised as a developing country, and therefore a candidate for receiving ODA. Natural resources are the main assets of the country. Forestry, in particular, contributes to the international fight against climate change by storing carbon in the form of living trees. The forest can also contribute to economic development and improved livelihoods in rural communities if sustainably managed by the primary beneficiaries.

Donors mean bilateral, multilateral institutions and NGOs. Charity foundations and private corporations providing grants are also included in this category.

6.17.2 Means of implementation

The forestry sector needs a holistic approach with financing modalities that best suits individual opportunities. Therefore, a narrow focus on a single modality, or a total ruling out of a modality, e.g. project support via Royal Government (TWG-F&E) .

6.17.3 Expected results

Table 6: Covers prime donor financing areas calculated for the first five years but some lines may advantageously be extended into the next period.

Areas of donor financing	Priority years for support	Total in million USD
Demarcation, classification and registration (9 mill over 10 years)	1-5	1.0
Conflict resolution system and capacity	1-5	1.0
SFM guidelines	1-5	1.5
Forest resource and conservation (various)	1-5	5.5
FSC assessment for certification	1-5	0.2
Forest law enforcement and governance including monitoring and reporting	1-8	1.5
Establishment of national carbon accounting system	1-5	5
National forest inventory	1-8	8
CF formalisation and management planning	1-5 (8)	1.5
Development of management plans for CF	1-5 (8)	4.6
Capacity development, including educational institutions	1-5	9.2
Monitoring and reporting	1-5	1.0
Account systems and routines	1-5	0.1
		40.1

6.18 Sub-programme 5 - Innovative financing sources

6.18.1 Description

Forests provide a number of less traditional sources for potential income generation. They make up the foundation for nature-based tourism, a growing industry worldwide. Beside this, the forest produces environmental services, like erosion protection, clean water, etc, which are, first and foremost, for Cambodian peoples' welfare and health. Moreover, some of these services might be marketable in the future.

Well established markets exist for Non Timber Forest Products. In the case of Cambodia, and especially in CF, the processing of NTFP and medicinal plants could add considerable value to the forest outcomes. Organised sales might be subject to taxation at a later stage.

Note: The formulation of REDD is a chance for strengthening the forest sector and it is an important element for SFM and mitigating climate change. REDD will be potential element of forestry development, as it is not only protects the forest but also contributes to conservation of wildlife and biodiversity. It contributes to poverty alleviation by creation of more jobs and income from sales of carbon credit. REDD activities could be many aspects, according to COP 15 of the UNFCCC at the end of 2009.

6.18.2 Means of implementation

- Payment for environmental services
- Conservation concessions
- Entrance fees to protected forest areas
- Licensing out collection rights
- Sale of the carbon value of avoided deforestation (REDD)
- Sale of carbon storage based on Reduced Impact Logging
- Sale of carbon storage/sinks in degraded deciduous forests
- Sale of hunting rights.

6.18.3 Expected results

- **Payment for Environmental Services:**
  Many attempts have been made, although a major breakthrough has still to be accomplished. Besides carbon storage, unique habitats and clean water are the most likely services under this type of scheme (not calculated)

- **Entrance fees:**
  Easy to establish and collect, but a minimum infrastructure is needed in terms of food, lodging, marked footpaths, maps and information materials (not calculated)

- **Non-Timber Forest Products:**
  In FA forests, collection rights could be sold (not calculated). No investment is necessary and it is easy to implement

- **REDD:**
  Inventory of carbon stock is including biomass of forest above land and in the soil (dead wood and leaves, and other organs). Standing volume in unlogged evergreen forests was calculated as 243 m³/ha (only commercial part), but much has been heavily degraded since that time. It is assumed that the FA's 3 million ha of protected forest (Column B, Table 4) is mainly unlogged evergreen forest, and

in all cases, if no logging takes place they will, within the next 20 year period, develop into mature evergreen forests with a standing volume of approximately 240 m3/ha; 2-3 years are needed to have an avoided deforestation project recognised internationally and placed on the market. The price per ton includes payment for development costs, as in the previous calculations regarding carbon storage/ sinks in degraded forests.

- **Hunting:**
  Examples exist around the world, especially trophy hunting under strict control, which offers good income, and has minimal impact if conducted properly, but it is a very emotional issue (income potential is not calculated). Little investment is needed in this case.

Two Hypothetical Scenarios

These alternative scenarios are included to illustrate two extremes. The scenarios are rough estimates based on an organised forest sector, with harvesting methods in accordance with the governance and sustainability principles outlined in the National Forest Programme. The positive figures for REDD are also assumptions.

1. **Pure sale of carbon and no traditional logging activities REDD**

   FA-controlled and CF areas accumulate to 7.9 million ha (Table 4). Of this avoided reforestation schemes might be possible on up to 5 million ha providing for 5 x 100 ton x 5 USD for 60 years = 2,500 million USD. Some investment in plantings with natural regeneration potential will be needed.

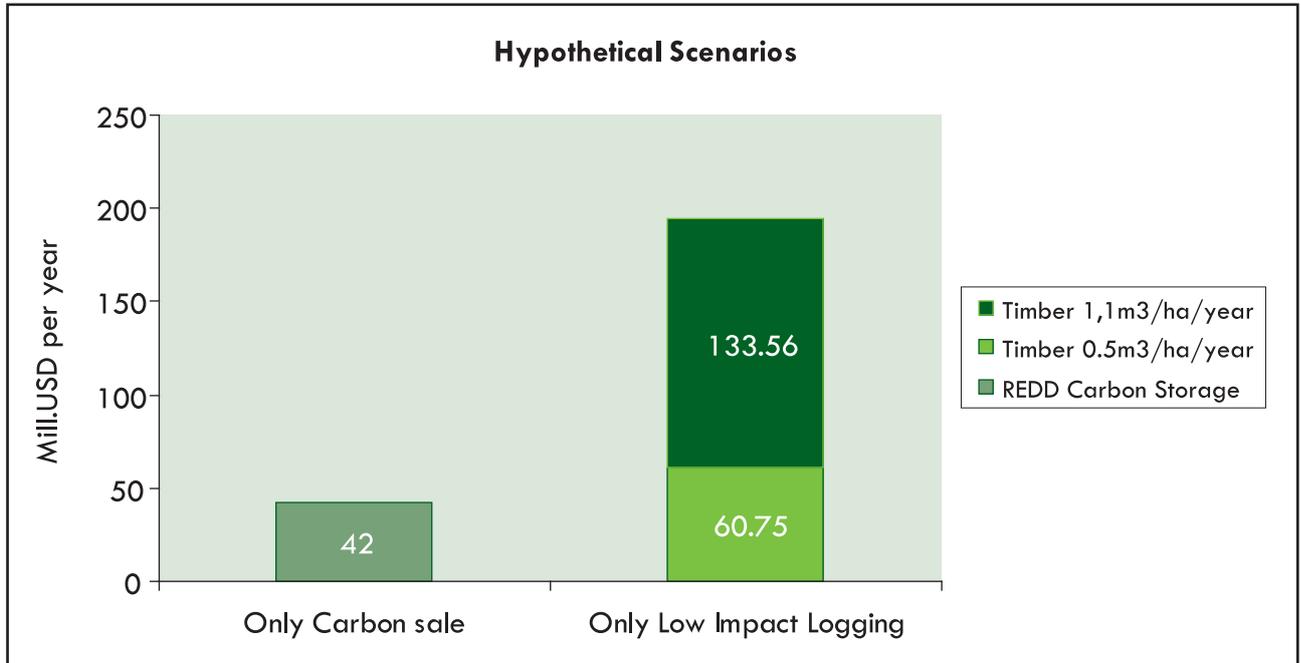2. **Traditional sustainable forestry management**

   This addresses the FA-controlled including the CF areas is 4.5 million ha, of which half equal 2,25 million ha can be classified as degraded forest, with less production for the first 20 years. The degraded forest produces annually 0.5 m^3/ ha of logs of a net value of 54 USD/m^3 = 60.75 million USD/year. The remaining 2.25 million ha of good and intact forest produces 1.1 m^3/ha of logs for a harvest of a net value of 54 USD/m^3 = 133.65 million USD/year.

   Some investment in plantings with natural regeneration potential will be needed.

រូបទី ៖ ការលក់កាបូនសុទ្ធ ដោយមិនមានធ្វើអាជីវកម្មឈើបែបប្រពៃណី (*REDD)*

Hypothetical Scenarios

Legend:
- Timber 1,1m3/ha/year
- Timber 0.5m3/ha/year
- REDD Carbon Storage

Only Carbon sale: 42
Only Low Impact Logging: 133.56 / 60.75

Y-axis: Mill.USD per year (0, 50, 100, 150, 200, 250)

6.19 Finance

Budget (USD) for Forest Financing Programme for 2010-2019		
Sub-programmes (all related accountancy, not implementation)	**Calculated budget 2010-2014**	**Estimated budget 2015-2020**
6.1 – Government costs	20,000	10,000
6.2 – Income from National Forestry	20,000	10,000
6.3 – Private Sector	20,000	10,000
6.4 – Financing via Donors and NGOs	30,000	10,000
6.5 – Innovative Financing Sources	10,000	10,000
Total cost	**100,000**	**50,000**
Donor share	100,000	

Assuming that income will be re-invested into the sector resulting in more self-sustained operations in accordance with the finance programme; and that the donor share will decrease significantly in the second five year period.

6.20 Finance for additional programmes to be developed in 2010

Budget (USD) for Forest Conflict Management Programme and Monitoring and Reporting 2010-2019 to be developed in 2010		
Additional programmes	**Calculated budget 2010-2014**	**Estimated budget 2015-2020**
Measuring, Reporting and Verifying System	2,000,000	2,000,000
Training, Extension and Consultation for REDD	2,000,000	2,000,000
Purification of Carbon Emission	2,000,000	
Capacity Strengthening	2,000,000	2,000,000
Conflict Management Scheme	1,000,000	600,000
Monitoring and Reporting	1,000.000	300,000
Total cost	**10,000,000**	**~ 6,900,000**
Donor share	2,000,000	

Assuming that income will be re-invested into the sector resulting in more self-sustained operations in accordance with the finance programme; and that the donor share will decrease significantly in the second five year period.

Otdar MeanChey

Banteay MeanChey

Siem Reab

Battambang

Pailin

Pursat

Kampong Chhna

Koh Kong

Kampong Speu

Phn

Tak

Kampot

Preah Sihanouk

Koh