

# **FOREST POLICY REFORM PROJECT**

## **FOREST POLICY TRANSITION PAPER FOR CAMBODIA**

**Final Draft**

Coordinated by

Associates in Rural Development (ARD, Inc.)

May 1998

**Executive Secretariat to:**  
**Manage & Execute Forest Management Policy**  
Department of Forestry and Wildlife  
40 Preah Norodom Blvd  
Phnom Penh  
Cambodia

**ARD, Inc.**  
P.O. Box 1397  
Burlington, VT 05402  
U.S.A.  
ard@ardinc.com

## TABLE OF CONTENT

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>INTRODUCTION .....</b>	<b>4</b>
Forest Policy.....	4
Cambodia Today, Vital Indicators.....	5
National Planning Framework.....	6
<b>CURRENT STATUS IN THE FORESTRY SECTOR.....</b>	<b>6</b>
<b>Forest Resource Base .....</b>	<b>6</b>
Importance of Forests.....	6
Deforestation and Forest Degradation.....	6
Root Causes of Deforestation and Degradation.....	7
Immediate Causes of Deforestation and Degradation.....	8
Effects of Deforestation and Degradation.....	8
<b>Forestry Legislation .....</b>	<b>10</b>
Forest Law.....	10
Forest Concession Agreements.....	10
<b>Land Use Allocation .....</b>	<b>11</b>
Land Use Planning and Allocation of Land Use Rights .....	11
Land Use in Protected Areas.....	11
<b>Forest Resource Management.....</b>	<b>12</b>
Forest Concession Management .....	13
Reforestation .....	14
<b>Forest Industries and Log Trade.....</b>	<b>15</b>
<b>Forestry Revenues.....</b>	<b>16</b>
Formal Forest Taxes .....	16
Informal Forest Taxes.....	16
Tax Evasion .....	16
<b>Monitoring and Enforcement .....</b>	<b>17</b>
<b>Institutional Strengthening.....</b>	<b>17</b>
<b>STRATEGIES .....</b>	<b>20</b>
<b>Forest Resource Base .....</b>	<b>20</b>
<b>Forestry Legislation .....</b>	<b>20</b>
Forestry Law .....	20
Commercial Concession Agreements.....	20
<b>Land Use Allocation .....</b>	<b>20</b>
Land Use Planning Allocation of Land Use Rights.....	20
Land Use in Protected Forest Areas .....	21
<b>Forest Resource Management.....</b>	<b>21</b>
New Community Forest Concessions.....	21
New Forest Concession Management .....	21
Reforestation .....	21

<b>Forest Industries and Log Trade</b> .....	22
<b>Forestry Revenues</b> .....	22
Review of Forest Tax Collection System.....	22
Review of Forest Tax Structure.....	22
Balancing Forest Tax Structure and the Collection System.....	23
Towards Stumpage Appraisal.....	23
Revenue Sharing.....	24
<b>Monitoring and Enforcement</b> .....	24
Log Tracking and Revenue Collection.....	24
Forest Law Enforcement.....	24
<b>Institutional Strengthening</b> .....	25
<b>RECOMMENDED ACTIONS</b> .....	26
<b>Forest Resource Base</b> .....	26
Forest Inventory.....	26
Classification of Forest Lands.....	26
<b>Legal Framework</b> .....	26
Forest Law.....	26
New Commercial Concession Agreements.....	27
<b>Land Use Allocation</b> .....	27
Land Use Planning and Allocation.....	27
Land Use in Protected Forest Areas.....	28
<b>Forest Resource Management</b> .....	29
New Community Forest Concessions.....	29
New Forest Concession Management.....	29
Reforestation.....	30
<b>Forest Industries and Log Trade</b> .....	30
<b>Forestry Revenues</b> .....	31
<b>Monitoring and Enforcement</b> .....	32
<b>Institutional Strengthening</b> .....	33
<b>CONCLUSIONS</b> .....	34
<b>The Next Steps</b> .....	34
<b>Priorities for Action</b> .....	34
<b>APPENDICES:</b> .....	37
<b>Appendix 1: Forest Policy Reform Project, List of Project Outputs</b> .....	37
<b>Appendix 2: Transition Plan - Implementation Summary</b> .....	39

## LIST OF ABBREVIATIONS

ADB	Asian Development Bank
ARD	Associates in Rural Development, Consulting Firm

AUSAID	Australian Bilateral Assistance
BFD	Buddhists for Development
CARERE	Cambodian Resettlement and Reintegration Programme
CDC	Council for the Development of Cambodia
CEMP	Cambodia Environmental Management Program
CFMIS	Cambodian Forest Management Information System
CIFOR	Centre for International Forestry Research
COM	Council of Ministers
CONCERN	Concern Worldwide, NGO
CPR	Community Property Rights
CSIRO	Commonwealth Scientific Industrial Research Org.
CTIA	Cambodia Timber Industry Association
DAI	Development Alternatives Incorporated Consulting Firm
DF&W	Department of Forestry and Wildlife
EIA	Environmental Impact Assessment
EU	European Union
FAO	Food and Agriculture Organisation
FMIS	Forest Management Information System
FWRI	Forestry and Wildlife Research Institute
FORSPA	Forestry Research Support Program, Asia & Pacific
FORTECH	Forestry Technical Services Consulting Firm
FPC	Forest Protection Committee
FSEDP	First socio-economic Development Plan, 1996-2000
FTP	Forest Trees and People (FAO)
FWRI	Forestry and Wildlife Research Institute
GFD	Government Forestry Development
GIS	Geographic Information System
GDP	Gross Domestic Product
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HRMS	Haryana Resource Management Societies, India
ICRAF	International Centre for Research in Agroforestry
IDRC	International Development Research Centre
IPGRI	International Plant Genetic Resources Institute
IT	Information Technology
ITTO	International Tropical Timber Organisation
IUFRO	International Union of Forest Research Organisations
KAMFOREXIM	Cambodian Forestry Export and Import Office, DF&W
MAFF	Ministry of Agriculture, Forestry and Fisheries
MCC	Mennonite Central Committee
MEF	Ministry of Economy and Finance
MIME	Ministry of Industry, Mines and Energy
MIS	Management Information System
MOC	Ministry of Commerce
MOE	Ministry of Environment
MOU	Memorandum of Understanding
MRC	Mekong River Commission
MRD	Ministry of Rural Development
MUA	Multiple Use Area
NGO	Non-Government Organisation
NP	National Park
NPRD	National Program to Rehabilitate and Develop, 1994-95
NSCFP	Nat. Steering Com. to Manage & Execute Forest Policy
NWFP	Non Wood Forest Products
PIP	Public Investment Program
PL	Protected Landscape Area
PRA	Participatory Rural Appraisal
RCAF	Royal Cambodian Armed Forces
RECOFTC	Regional Community Forestry Training Centre
RGC	Royal Government of Cambodia
SFE	State Forest Enterprise

SIDA  
SOE  
TFAP  
USAID  
UNCED  
UNDP  
UNV  
WRI  
WS  
WWF

Swedish Bilateral Assistance  
State Owned Enterprise  
Tropical Forestry Action Plan  
USA Bilateral Assistance  
United Nations Commission for Environmental Develop.  
    United Nations Development Program  
United Nations Volunteer  
World Resources Institute  
Wildlife Sanctuary  
Worldwide Fund for Nature

## **Executive Summary**

### **Forest Resource Base**

From 1969-97, 2.6 million ha of Cambodia's forests have been deforested and serious degradation has been incurred over most forest areas containing valuable commercial species. The forest cover has been reduced from 13.2 million ha (73% of country) in 1969 to 10.6 million ha in (58%) in 1997. There has been little recent forest inventory conducted intensively in Cambodia's forests, with the exception of the UNDP/FAO Forest Inventory Project in one district. With severely limited knowledge of forest resources, the DF&W is severely hampered in fulfilling its responsibility for forest resource planning, management and monitoring necessary for implementation of a sound forest policy. It is proposed to carry out a national forest resource assessment at a macro-level within one or two years using remote sensing and GIS technology. A suitably designed forest resource assessment, combined with inventory data from all forest concessions would provide more accurate estimates for forest resource planning, management and monitoring.

### **Forestry Legislation**

The current forest law is complex, inconsistent and unenforceable. An unclear legal framework has made enforcement by forestry and other officials difficult, if not impossible. Forest laws are difficult to obtain and analyse; provide no objective standards for forest protection; and provide no integrated guidelines or standards for forest management. Award of rights to harvest are granted without transparency and with non-competitive procedures. It is proposed to draft a new forest law that will replace all prior forestry law; avoid complexity and be accessible to regulators and law abiding community; bind forestry officials to objective standards in the issuance of logging permits; provide transparent procedures for award of logging rights; hold loggers responsible for "forest management" and environmental damage; provide procedures for handling income to the forestry department; allow penalties sufficient to deter illegal activities; and provide disincentives to corruption.

Forest Concession Agreements are poorly drafted, allowing substantial "loopholes" in concessionaire responsibility and contain conditions with enforcement difficulties. It is proposed that a model forest concession agreement be prepared to bind the concessionaire to objective standards of sound forest management. A case-by-case approach be conducted to review existing concessionaire performance as a basis for negotiating terms and conditions for future operations by more sound management practices.

### **Land Allocation**

Nearly 70% of Cambodia's total land area has officially been allocated for forest concessions (39%); protected areas (18%); and agriculture, military and fishing concessions (12%). Constraints in land use allocation include lack of appropriate technical information on the land resource base; few procedures to insure that land-use decisions are made in a rational manner incorporating social, economic and environmental considerations; few procedures that require inter-departmental review; lack of legal status given to local development plans; and a lack of opportunity for public input into the decision-making process. It is proposed that a review of the coordination by RGC Ministries be carried out to put the legal framework, policy and planning procedures in place to allow provincial, district and commune inputs to be combined with central RGC to make more rational land use decisions, including community access to forest concessions and protected areas.

Under Royal Decree, on the "Protection of Natural Areas", November 1993 designated 3.4 million ha as protected areas, however, no legislation states that logging is illegal in these areas. As protected areas are surrounded by forest concessions, mixing of logs, logging, transport and trade activities are common. Due to a lack of permanent MOE presence all protected areas have been logged to varying degrees by military, opportunist businessmen and traders authorised by local strongmen or high ranking RGC officials. In addition, rural communities harvest and forage in protected areas for wood and non-wood forest products.

It is proposed that the legal framework by reviewed and policies and procedures be clarified between MAFF and MOE to ensure sound management, monitoring and enforcement. Initiatives need to be introduced for community participation in buffer zone management of protected areas.

### **Forest Resource Management**

Forestry, fishing and agriculture concession allocation to private companies and military gives exclusive right of land use on the expectation that they use their expertise and investment to manage the resources.

sustainably. Communities with traditional rights of access are faced with unclear rights under these concessions. Land use conflicts are common due to denied access to wood and non-wood forest products and logging damage to forests on which they depend. It is estimated that fuel wood and charcoal use is 6 million m<sup>3</sup>/year and traditional and subsistence use of wood, 1-2 million m<sup>3</sup>/year. The flooded forests of the Tonle Sap region and mangrove forests of Koh Kong, Kampt, Kep and Kampong Som are particularly vulnerable, despite ecological importance for wildlife and biodiversity conservation. It is proposed that more flexible approaches be adopted for community resource management including transfer of land use rights to select (and capable) communities in exchange for their being responsible for management and protection. Management plans are necessary for the two flooded forest and once mangrove forest nominated as Wetlands of International Importance under the Ramsar Convention and for the Tonle Sap Biosphere Reserve.

The RGC lacks institutional capacity to manage, monitor and enforce commercial forest concession developments. Despite the allocation of 7 million ha of forest concessions, the "collection permit" quota system (which operates beyond the planning and monitoring of the concession system), accounted for in excess of 90% of log production in 1997. It is proposed that the "collection system" quota system cease and the forest concession management system be endorsed and strengthened. The concessionaire must be held responsible for implementing the Forest Management Planning Package for planning, management and monitoring of all the operations within their concession.

There has been limited commitment to reforestation by the public or private sectors due to a lack of clear policies, unclear land use rights and access to tree crops, inadequate technical support and extension systems, lack of security and high risks. It is proposed to ensure that the facilitating factors for particularly smallholder, social and community forestry (multi-use, Agroforestry) are put in place as soon as possible.

### **Forest Industries and Log Trade**

At current rates of log production and trade, forest resources will be seriously depleted within 5 years. Log production in 1997 was estimated at 4.3 million m<sup>3</sup> (including 0.9 million m<sup>3</sup> of log exports). The annual allowable cut in 1969 was 500,000 m<sup>3</sup>/year (prior to 2.6 million deforestation and 3.4 million ha to protected areas, and widespread degradation). The operating capacity of major mills is about 1 million m<sup>3</sup>/year with a further 1 million m<sup>3</sup>/year from in excess of 1,000 illegal mills. Efficiencies of mills are low by international standards so under difficult market conditions they have suspended operations. It is proposed to cease the "collection permit" system, cease approval of new investments in new forest industries and maintain the log export ban until the sector is in phase with sustainable levels of log supply. De-linking of log production and log processing be phased in gradually.

### **Forestry Taxation**

Despite increases in log production and trade (particularly illegal), there has not been a corresponding increase in tax revenue to the RGC. In 1997, US\$12.4 million (between US\$20-25/m<sup>3</sup>) was paid to the RGC as formal taxes on 450,000 m<sup>3</sup> (10% of log production). Nearly 4 million m<sup>3</sup> was produced illegally, without formal tax revenue. In 1997, if formal taxes had been collected on all log production, RGC formal revenue would have been US\$100 million. In addition, informal taxes to supplement local government funds, military activities and salaries of government officials accounted for an additional US\$50/m<sup>3</sup>. If these informal taxes were paid on the 4.3 million m<sup>3</sup> in 1997, this equates to an additional US\$200 million paid to Cambodians outside the formal tax system. It is proposed that the formal tax rate be established at levels which will allow sustainable management of Cambodia's forests (rather than the current high cost, high risk situation which prevails). The residual stumpage system is considered most practical, simple, cost effective and responsive to international market prices. There is considerable potential to reduce log production volumes to sustainable levels of cut and increase the revenues to the RGC by more appropriate taxation and improved collection methods. There is a need to share revenue equitably between central and local governments to reduce the informal tax demand.

### **Log Monitoring and Enforcement**

Illegal activities in the forestry sector include: logging in protected areas; unauthorised logging in concessions by concessionaires; unauthorised logging in concessions by poachers; illegal transportation of logs; illegal log export in violation of log export ban; illegal log scaling, species declaration, grading, and prices (transfer pricing) to reduce taxes; illegal processing by unauthorised sawmills. A pattern of authorisations provides support to forest operations which circumvent the forest concession management system, the law and formal tax collection. It is proposed to conduct a log tracking and revenue collection system on forest concession (legal) log production from forest landings to export shipment under an international, private monitoring company. In addition, it is proposed to conduct forest law enforcement, in the interim, to suppress illegal logging, transport, processing and

trade in priority areas and collect revenues from disposed logs on behalf of the RGC. Proposals are still being formulated.

### **Institutions and Administration**

The DF&W are faced with unclear forest law; lack of clear lines of authority; too many staff of inadequate training; excessive influence of various interest groups (outside DF&W); lack of transparency; low salaries; and widespread illegal payment of salary supplements. It is proposed to rationalise forest planning, management, monitoring and enforcement of forest lands between DF&W and Departments of Fisheries and Agriculture within MAFF and with MOE for protected areas. The DF&W should represent the RGC on all commercial forest concession and production forestry issues and be delegated sufficient powers to carry out technical responsibilities effectively. To do this, an internal re-organisation of DF&W is necessary to make it more responsive to the forestry sector needs. This can be achieved by building the capacity of staff to more effectively carry out their tasks and by providing the necessary funds to fully resource the DF&W and its staff, particularly in the field.

## INTRODUCTION

Cambodia's rich forest resources can and must play a central role in the country's development. Covering more than half of the nation's land area and contributing fuelwood, building materials, export earnings, and to many other aspects of national life, the fate of the nation's forest is one of the foremost issues facing the country. Unfortunately, the forest resource is faced with danger from many directions. Illegal logging, over-exploitation, weak administration and poorly designed revenue systems are keeping forest from playing the role that they must if development in Cambodia is to be successful and sustainable.

Recognising this the RGC, with support from international agencies, in 1996 established a National Steering Committee to Manage and Execute Forest Management Policy and commissioned a series of technical studies. This report builds on these and other studies to bring together the most important themes and issues facing the forestry sector and proposes an agenda for forest policy implementation. The report begins proposing a set of overarching objectives for forest policy in Cambodia. These objectives are derived from, and link to, policy objectives expressed by RGC for rural and agricultural development and are consistent with the RGC objectives for economic development and environmental management.

This report is divided into sections on current status and key issues; strategies and recommended actions in accordance with critical forest policy components including: Forest Resource Base; Legal Framework; Land Use Allocation; Forest Management; Forest Industries and Trade; Forestry Taxation; Monitoring and Enforcement; and Institutions and Administration. The concludes with the priority next steps to be considered by the RGC.

A list of outputs from the Forest Policy Reform project is summarised in Appendix 1 and the Transition Plan for Implementation of Forest Policy is summarised in Appendix 2.

### Forest Policy

Forest Policy is the way Government uses institutional and legal means to carry out activities to achieve national forestry development objectives. It is a common vision of how to manage and benefit from forest resources. It includes the role of law, government, organisations, companies, communities, non-government organisations, international donors and individuals in forestry, and how all of these interact in a national development plan. It is about measures to bring harmony in the relationships among the different stakeholders that lay claim to the land and to bring equity into their allocation and use. Under the national development plan, it is about fostering and encouraging the forest industry which plays such a vital role in the economy, but also ensuring that benefits accrue to rural communities dependent upon natural forests to improve their quality of life, whilst nurturing the environmental benefits of forest for future generations. It is about the preservation of flora and fauna and the natural environment. It is about people and their interactions with forest resources, their working conditions and their livelihoods.

*The ultimate objectives of a forest policy are to benefit people and society, not trees, land or forest products. The objective can be stated as:*

### **Forest Policy Objective:**

The management of forest resources in a sustainable way to benefit Cambodians, now and in the future. These benefits to Cambodians to include:

- Revenue to government to support national development;
- Social and economic development;
- Forest conservation and environmental protection; and
- Transfer of knowledge and technology and investment from private enterprise.

### **Cambodia Today, Vital Indicators**

The potential role that forestry can play in national Socio-economic development plans for Cambodia must be seen in the wider context of the current state of the nation, particularly the rural sector.

Military action continues in rural areas in attempts to undermine the authority of the RGC, resulting in insecurity, loss of life and loss of livelihoods on the one hand, whilst committing scarce financial resources of the RGC on the other. Military forces are located in all provinces for strategic and security purposes. To assist in funding these operations, the military extract significant revenues from the forestry sector including log harvesting, transport, processing and trade. They are also active in protection of forest industries investors conducting legal and illegal forestry operations. Their power in the 5 military regions remains absolute and unchallenged by law abiding citizens, organisations and investors.

Some key indicators in the state of the nation are:

- Population in 1995 estimated at 10.2 million; 47% under 15 years of age; 85% rural, growth rate of 2.8%/year; anticipated population 12 million by 2000;

**Life expectancy 51.6 years (20% below the average for Asia); child mortality under 5 years is 80,000/year (18.1%), 50% of children under 5 years are stunted or underweight;**

- About 90% of Cambodia's poverty is experienced in rural populations with 50% having access to basic health services; 26% to safe water (wells and streams); 6% to environmental sanitation; and 71% to basic levels of education;
- Rural populations survive at subsistence level, where multi-occupational households and individuals are common;
- Only 39% of the national population is in the active labour force, including 5 percent of all children under the age of 15 years;
- GDP growth 1990-95 was 5.9%/year; however, agricultural GDP grew at only 2.6%/year (reduced rice yields) whilst the rest of the GDP grew at 9.1%/year;
- In 1994 only 69% of cultivated areas were harvested as 31% were destroyed by floods or drought;
- Fish contributes up to 60% of the populations' protein intake, with heavy dependence on the Tonle Sap region which is being exploited at unsustainable levels.

### **National Planning Framework**

The process in derivation of forest policy has occurred within the wider national planning framework in Cambodia including:

- The National Program to Rehabilitate and Develop Cambodia, 1994-95;
- First socio-economic Development Plan, 1996-2000;
- Public Investment Program, 1996-98;
- Cambodia, from Recovery to Sustained Development, World Bank, 1996;
- Cambodia, Forest Policy Assessment, World Bank, UNDP and FAO, 1996
- Strategic Plan, Ministry of Agriculture, Forestry and Fisheries, 1997-2000;
- Reaffirmed Commitment to Reform by RGC at CG Meetings, Tokyo, July 1996; Paris, July 1997.

## **CURRENT STATUS IN THE FORESTRY SECTOR**

### **Forest Resource Base**

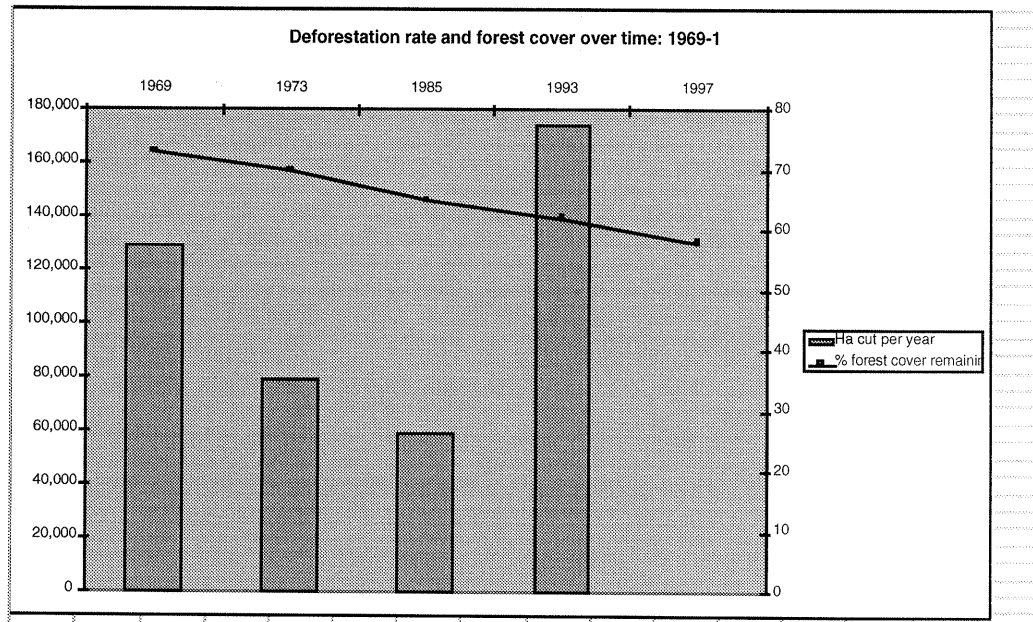
#### **Importance of Forests**

Forests, covering about 58% of Cambodia, represent a valuable resource for the economic development of the country. From 1995 to 1997, forest exploitation formally contributed an average \$15 million per year to RGC revenue or 6% to national treasury budget revenue, with potential to increase in excess of US\$100 million/year with more appropriate tax system and collection. Over the last five years, a substantial forest industry has been developed over 7 million ha of forest concessions, in excess of 4 million m<sup>3</sup>/year log production, in excess of 2 million m<sup>3</sup>/year forest products processing the forest industries sector, providing employment and other sources of tax revenue. Some 85% of the population are rural dwellers who depend on agriculture, fisheries and forest products for their subsistence, beyond the commercial economy. Harvesting of wood and non-wood (rattan, bamboo, resins, food etc.) for traditional uses are common. About 98% of rural people and 85% of Phnom Penh residents depend upon wood and charcoal as their source of fuel which results in 6 million m<sup>3</sup>/year of wood being used for this purpose. Flooded and mangrove forest types provide important habitats for Cambodia's fisheries on which 40-60% of the people depend for their livelihoods and protein needs. Furthermore, the environmental functions of forests to conserve soil and regulate water flow are critical for the provision of potable water and for the irrigation systems on which Cambodian agriculture depends. Cambodian forests have also attracted international tourists, particularly in the Siem Reap region.

#### **Deforestation and Forest Degradation**

Land use analysis by MAFF shows that between 1973 and 1993 there were significant decreases in dry land forest (down 1.1 million ha); and edaphic forest (down 316,900 ha). The rate of deforestation during this period was in excess of 70,000 ha/year. This figure reflects a conversion of forest to agricultural land use, but a significant proportion of forest area was simply so severely degraded as to be re-classified as shrublands rather than forest type.

An assessment of land cover in 1995 by the Japan Forest Technical Association (JAFTA) using interpretation of LANDSAT TF data and even more recent work by the MRC/GTZ Forest Cover Monitoring Project reveal a continuation of these trends. Deforestation has continued at alarming rates. Between 1993 and 1997 a further 700,000 ha of deforestation occurred, 345,000 ha being relegated to shrublands and a similar amount converted to agriculture. The rate of deforestation has accelerated to over 180,000 ha/year as a result of greater harvesting pressure from loggers and local communities.



## Root Causes of Deforestation and Degradation

The root causes of deforestation and forest degradation in Cambodia include:

- **Abject Rural Poverty:** Per capita incomes in rural areas of Cambodia are some of the lowest in the world. Factors relating to rural poverty which increase deforestation include chronic fuelwood shortages, poor standards of nutrition and health and high underemployment and unemployment;
- **Insufficient Arable Land:** The fertility rates in Cambodia remain high, so population growth rates are in excess of 3%. At this rate of growth, the current population of about 10 million will double within the next 25 years. It is recognised that 85% of Cambodians live in rural areas and depend primarily upon subsistence agricultural techniques which yield low levels of harvest by international standards and insufficient food during floods and droughts. There remains pressure to encroach into forest areas in search of new arable lands and products from the forest to supplement low incomes;
- **Over-allocation of Land Use Rights:** The RGC has allocated over 63% of forest lands as forest concessions to international investors. However, illegal logging and processing is carried out over these same areas authorised by different levels of RGC. Within this setting, local communities compete for traditional uses of forest lands, generally without formal land use rights recognised by the RGC, concessionaires, or the military. The absence of a cadastral system, combined with a lack of funds and other resources has resulted in few initiatives to allocate land-use rights to families or communities within or outside forest lands. As a result, there is an inadequate sense of land ownership, resulting in apathy and a limited sense of responsibility toward publicly-owned natural forest areas. As these areas belong to “everyone, but no one”, natural forests are considered a free good and are consequently over-exploited by all;
- **Inadequate Development and Administration Funds:** Under current conditions the RGC has inadequate budgetary funds: for rural development through central and local governments; to maintain military security; to pay salaries of public service personnel at levels sufficient to sustain their families; to pay for the build up to and implementation of elections in 1998;
- **Limited Institutional Capacity:** The capacity and capability of the RGC, MAFF and DF&W (including provincial and district levels) to plan, manage, monitor and enforce the laws in the forestry sector are severely handicapped by interventions of powerful people and the predominance of the military in illegal harvesting, transportation, processing and exporting forest products from natural forests. The legal, policy and regulatory frameworks are complex and many institutional structures are top down. Low numbers of trained personnel and scarce funds and other resources are all serious constraints to forest and land management.

## Immediate Causes of Deforestation and Degradation

The *immediate causes of deforestation and forest degradation* in Cambodia include:

- *Predominance of Illegal Harvesting:* In the last three years, the level of illegal harvesting, processing and export operations under the protection of powerful people and the military has accelerated to four times the sustainable capacity of the forest;
- *Source of Informal Funds:* The prevalence of graft, corruption, extortion and payment of excessive facilitation fees has become part of the public administration culture in general and administration of the forestry sector in particular to supplement incomes for local government, public servants, military and powerful individuals;
- *Over Capacity of Log Processing:* In recent years installed capacities exceed the capability of the forests to sustain log supply by a factor of four and current operating capacities of these mills by a factor of two. The implications are serious as the processing plants compete for the same resources, which become more depleted;
- *Agricultural Encroachment:* for plantations or large-scale agricultural development;
- *Unsustainable Agricultural Practices:* undertaken by rural communities for food production, including slash and burn, overgrazing, fires etc.;
- *Land Grabbing:* by powerful businessmen and senior RGC officials in strategically important locations and/or arable soils;
- *Foraging for Wood and Non Wood Forest Products:* such as fuelwood, charcoal, poles, building materials, rattan, bamboo, gums, thatch, medicines, and foods by rural communities for subsistence use and sale in local markets.

## Effects of Deforestation and Degradation

The *effects* of deforestation and forest degradation include:

- *Loss of Raw Material Supply to the Forestry Sector:* Within five years log supply problems will cause some forest industry investments to be closed down;
- *Loss of Tax Revenue to the RGC and the Economy:* As log supplies run out, so do the royalties, fees, taxes, employment, infrastructural development (formerly carried out by forestry investors), export earnings, etc.;
- *Reduced Water Conservation and Increased Soil Erosion:* Forests provide a buffer to filter water and hold soil in place. In watersheds where forests are degraded or destroyed, peak floods and soil erosion increase during the wet season, and minimum flows decrease during the dry season. This decreases agricultural productivity and reduces the amount of arable land further, resulting in fewer land use options and shorter economic life for investments in the agricultural and energy sectors. Productivity losses in turn increase pressure on remaining natural forest areas;
- *Loss in Biodiversity:* As forests are reduced from primary to secondary forest and then to shrublands, their overall productivity is reduced and irreplaceable genetic resources are lost;
- *Fuelwood and Charcoal Shortages:* Severe shortages of fuelwood for household and industrial purposes already exist. Fuelwood in some communities can only be obtained 20-30 km from the household in high population density areas (Tonle Sap);
- *Social and Cultural Diversity Loss:* Severe over-exploitation of natural resources can lead to declining or stagnating standards of living in rural communities, forcing people to relocate to other areas. Such effects can cause a breakdown of cultural and traditional diversity, leading to social friction.

There has been little recent forest inventory conducted in Cambodia's forests, with the exception of the UNDP/FAO Forest Inventory Project in Sandan District, Kampong Thom Province. There is an urgent need for a national forest resources inventory. With severely limited knowledge of forest

resources, the Department of Forests & Wildlife (DF&W) is severely hampered in fulfilling its responsibility for a national forest resource assessment. A valid assessment forms the basis for sound policy decisions -- making allocations to concessionaires, establishing annual allowable cuts, providing planning and management guidelines and enforcing compliance with policy, regulations and guidelines. However, the conventional inventory method is time consuming, expensive, and relatively cumbersome in Cambodia because of the security situation and the limited dry season.

Key forest resource issues are:

- Cambodia does not possess reliable, recent, national forest inventory data;
- Land allocation decisions are made with limited land-use knowledge;
- Forest land allocation is made with limited data on quantity or quality of wood available;
- Forest concessionaires do not conduct an inventory of their entire forest concession prior to harvesting, claiming the cost is excessive. Areas are selected for logging based on aerial observation and a 5% inventory;
- Annual allowable cuts are calculated on incomplete forest inventory data and without knowledge of growth rates.

Key forest land classification issues are:

- With the accelerated deforestation and forest degradation, forest type and land use data requires regular updating;
- Current classification of forest lands does not reflect land use priorities of smallholder or industrial investors, protected area managers or needs of local communities;
- Forest land use conflicts are common on all forest areas.

The paucity of systematic and reliable land use and soils data is a serious constraint to planning for natural resource development at central and local levels. There is a substantial unmet national need for land resource information at the semi-detailed and detailed levels (scales of 1:50,000 and larger). While many private efforts produce information, it is not collected in a systematic way or stored in a central place. The work of internationally supported projects in several Ministries is not formally coordinated. However, there is a loose coalition of data and analytical service providers which could provide the building blocks for development of an adequate system.

## **Forestry Legislation**

Current legislation and regulations governing the forest sector are inadequate in a number of respects. In general terms, they are complex, inconsistent and unenforceable. An unclear legal framework has made enforcement by forestry and other officials difficult, if not impossible.

### **Forest Law**

As it now stands, forestry law is difficult to obtain and analyse, provides no objective standards for forest protection and provides no integrated guidelines or standards for forest management. It is not effective with respect to the award of rights to harvest, allowing rights to be granted using non-transparent and non-competitive procedures. Indeed, it allows the issuance of logging permits that are not subject to the sound forest management practices that are required by Concession Contracts. As a result, a very large portion of legal logging is done pursuant to logging permits, not Concession Contracts.

Key forest law issues are:

- Outdated existing forest law ( June 1988), inaccessible, complex, inconsistent and unenforceable more suited to centrally planned economy, not reflecting current market oriented economy;

- Prevalence of forestry activities which seem illegal, but are authorised by a wide array of senior RGC officials (Council of Ministers, MAFF, MOC, MIME, MOE, Governors, Police, RCAF);
- No objective standards or integrated guidelines for forest management and forest protection in a systematic legal and regulatory framework;
- Allows RGC to issue logging, transportation and export permits which seriously undermine the forest concession system in non-transparent and non-competitive procedures;
- Inadequate rights of access for small-holders and communities to forests for traditional wood and non-wood forest products making these activities primarily illegal
- Few convictions, light penalties.

### **Forest Concession Agreements**

Key forest concession agreement issues are:

- Poorly drafted agreements, loopholes in concessionaire responsibility, enforcement difficulties;
- The RGC are bound to unfavourable provisions for long terms;
- Rights for “logging”, not “sustainable forest management”;
- Logging rights linked to investment in forest industries developments;
- Inadequate access rights for rural community use of forests.

### **Land Use Allocation**

#### **Land Use Planning and Allocation of Land Use Rights**

The population in 1995 was 10.2 million, with 47% under the age of 15 years and growth rate of 2.8%. Life expectancy remains low (51 years) as 85% of the population is rural and most live at subsistence level. Of the most serious poverty in Cambodia, 90% is in rural areas. In 1994, 31% of cultivated areas were destroyed by floods or drought. Growth in the agricultural has been almost stagnant, whilst the remainder of the economy has grown at 9.1%/year.

Nearly 70% of Cambodia’s total land area has officially been allocated for forest concessions (7 million ha, 39%), protected areas (3.3 million ha, 18%), and agriculture, military and fishing concessions (0.7-0.8 million ha each, 12% total). While only the central government has the formal right to make land-use allocations, decisions are passed down to local RGC agencies. Responsibilities for enforcement of those decisions have not been clearly defined. Coupled with a lack of resources, this ambiguity results in limited enforcement of regulations governing land use. Small-holders have few rights to protect their access to the common property resources that meet their subsistence needs.

Key land use planning and allocation of land use rights issues are:

- Lack of legal consideration for rural community access to forest lands for subsistence supply of wood and non-wood forest products (including food);
- Lack of horizontal co-ordination in land allocation decisions by Ministries of RGC at central level;
- Lack of vertical co-ordination between central, provincial, district and commune levels of RGC;
- Over-allocation of land-use rights and conflicts are common;
- Few procedures exist to ensure land use decisions are made in an economically, socially and environmentally rational manner;
- No inter-departmental review and no public participation in decisions;
- Lack of legal status given to local development plans;
- Frequent intervention in land-use allocation by powerful people;

- Lack of appropriate technical information on the land resource base;
- Few procedures to insure that land-use decisions are made in a rational manner with reference to a development strategy incorporating social, economic and environmental considerations.

### **Land Use in Protected Areas**

The Royal Decree on the “Protection of Natural Areas”, November, 1993 designated 3.4 million ha or 18.8% of Cambodia’s total area as protected areas. There include 7 National Parks (NP), 10 Wildlife Sanctuaries (WS), 3 Protected Landscapes (PL) and 3 Multiple Use Areas (MUA). The Royal Decree does not forbid logging in protected areas, and all protected areas have experienced some degree of logging. In the majority of cases, logging operations involve military units. Near international borders, foreign logging companies operate with local authorisation and military protection.

Key protected area management issues are:

- Protected areas are usually surrounded by Forest Concessions, so masking of harvesting, transport, trading and processing of wood from protected areas and forest concessions is common;
- Little public understanding of the status and concept of protected areas;
- There is a lack of permanent presence of MOE staff and weak capacity to manage, monitor and enforce laws;
- All protected areas have been subject to varying intensities of logging;
- The military, associated with local logging and milling companies are active in logging protected areas;
- In protected areas near international borders, foreign logging companies operate export operations with the authorisation of local strongmen and high ranking officials
- Rural communities harvest and forage in protected areas for wood and non-wood forest products;
- Without development funds from the central RGC provincial, district and commune, authorities use exploitation of protected areas as sources of development funds for their regions.

## Forest Resource Management

The Forest Concession system of forest land allocation is the most appropriate for commercial development of forest resources in Cambodia in the medium term but needs refinement in the way concession agreements are set up and subsequently regulated. The Forest Concession system in Cambodia has been successful in bringing a forest-based industry to Cambodia, but it has failed to contribute to long-term sustainable management of the forests and making forests accessible to rural populations.

Under the current forest concession management system, the infrastructure developed by forest concessionaires induces local communities to encroach into forest areas to increase agricultural production and harvest the forest for fuel wood, charcoal, traditional uses of wood, local log/lumber trade and non-timber products. Some of the areas that the state is granting as concessions are “common property” areas to which communities have always had access. The right of rural people to collect forest products in these areas is now unclear. Land use conflicts are increasing.

Part of the rationale for granting forest, fishery and agricultural concessions to private companies and the military is the expectation that they will use their own resources to develop and protect the land as well as manage it. Actually, local communities can play a similar positive role. Instead of communities being viewed as a source of resource mismanagement, community resource management programs can change incentives so that communities responsibly manage and protect natural resources. A community resource or forest management agreement can provide the means. The agreement would vary according to the resource to be managed, the interest and ability of community members and the amount of technical support available.

Freshwater flooded forests and coastal mangrove forests provide many important ecological functions and are important for the livelihood of a large proportion of Cambodia's population. They both are under the jurisdiction of the Department of Fisheries, MAFF. Protected areas within these forests come under the jurisdiction of the MOE. In 1993 an estimated 0.6 million ha of flooded forest remained on the margins of the Tonle Sap Lake, the Mekong River, the Tonle Sap River and other wetlands. The importance of flooded forests is underlined by the fact that in 1995 the five provinces bordering the Lake supported a population of 2.45 million, a quarter of the population. Increased population pressure has led to large scale destruction of the flooded forest for conversion to rice fields, over-cutting for fuelwood and charcoal production, and wildlife hunting.

In 1993 an estimated 85,100 ha of coastal mangrove forests remained, principally in Koh Kong Province (63,700 ha). Mangroves help to stabilise shorelines and give protection from storms thereby reducing the risk of erosion. They also protect adjoining ecosystems such as sea grass beds and coral

reefs. The current degradation of mangrove areas is mainly due to fuelwood harvesting, charcoal production and intensive shrimp farming in Koh Kong Province and cutting for fuelwood and conversion to salt farms in Kampot Province.

The draft National Wetland Action Plan states the urgent need for a greater understanding of the role of flooded forests in the ecosystem in order to develop sustainable management options. The unchecked and unsustainable exploitation of these resources needs to be halted. Eighty percent of the best forest and fishing grounds have been allocated to the private sector, with two-year licenses for fishing lots favouring short-term exploitation. Local communities are often badly disadvantaged in gaining access to these resources. Involving them in community-based management will require the strengthening of local institutions, such as village or commune development committees.

Key community forest concession management issues are:

- Forestry, fishing and agriculture concession allocated to private companies and military give exclusive right of land use on the expectation that they use their management expertise and experience to manage these resources sustainably;
- Communities who have traditionally depended upon these same common property resources are faced with unclear rights of access under these concessions;
- Land use conflicts are common between concessionaires and local communities;
- Common conflicts include denied access to wood and non-wood forest products, logging damage to forests on which they depend and exposure to armed and powerful men;
- Traditional harvesting of forests for 6 million m<sup>3</sup> of fuel wood & charcoal; 1-2 million m<sup>3</sup> for building purposes, and other non wood forest products (rattan, bamboo, resin, medicines, food etc.) considered illegal and not sustainable in high population areas;
- Serving rural population needs with wood and non wood forest products contributes significantly to deforestation and degradation;
- The Inundated Forests in the Tonle Sap and Mangrove Forests of Koh Kong, Kampot, Kep and Kampong Som are particularly vulnerable, despite ecological importance for wildlife & biodiversity conservation.

## **Forest Concession Management**

The advantages of the Forest Concession System include management by a company experienced in forest management and the fact that only one entity (the company) controls administration, timing of operations and marketing of forest product. Disadvantages include inflexibility in dealing with local community issues, conflicts with traditional users over rights to the forest, and the difficulties inherent in monitoring forest management in Cambodia.

The issue is made more complex by parallel log quota or permit systems. The "collection permit" and "old log permit" systems allow business opportunists from private enterprise and the military to conduct forestry activities outside the formal forest concession system with impunity. Collection permits are issued with little or no technical input from DF&W. Obtaining permits is relatively simple and streamlined compared to forest concession procedures. Their issuance at various levels to a wide variety of organisations serves a number of patronage needs. As a result, log production is now primarily conducted under the permit systems, with virtually no monitoring or enforcement of laws, policy and procedures. In fact, a significant proportion of log production is actually stolen from within forest concession lands or from protected areas and national parks.

Key forest concession management issues are:

- Concessionaires depend heavily upon contractors and sub-contractors to conduct roading, harvesting and transport operations, but have little or no control over their standards of operation;
- The RGC lacks institutional capacity & capability to set up, manage, monitor, enforce and protect forest concession developments;

- A secondary forest resource allocation or “collection permit” quota system has developed outside the primary forest concession system;
- In excess of 90% of log production and trade originates from the secondary quota system - the basis for most uncontrolled logging and trade (including export).
- Collection permits have no technical inputs or control from DF&W, specific forest area or forest management monitoring;
- The administrative procedures of the “collection permit” system are more simple than the excessively bureaucratic system involved with the forest concession system;
- Collection permits can be granted to private, parastatal and public organisations & concessionaires;
- Collection permits link international firms to local industry to civilian authorities and to military units at commune, district, provincial and national levels;

## Reforestation

There has been limited public sector investment in reforestation (pre-1972, 5,470 ha and since 1985, 2,000 ha) and no private sector, industrial plantation development. Smallholder or community reforestation with assistance from international agencies and NGO groups has gathered momentum over recent years.

Key reforestation issues are:

- Policy, end use objectives and mechanisms for reforestation have not been clear;
- Land for reforestation has not been readily available;
- Land-use rights, tenure of land, ownership of crops are not clear;
- Inadequate technical knowledge and support capability, limited research and lack of extension capacity;
- Lack of security and relatively high risks, inflexible land use, long term investment, and unclear financial benefits in reforestation make investment in other activities more attractive;
- Reforestation taxes are not directed back to provinces of origin;
- Insufficient co-ordination within MAFF (Agriculture, Forestry & Fisheries Departments) and MOE regarding reforestation and agroforestry;
- Lack of networking with existing agencies and NGO groups with technical expertise and experience in reforestation in the region;
- The potential is high for smallholder, social and community tree planting to support farming, food production and people in flexible, multi-tier land use where the financial benefit is clearly to the rural investor.

## Forest Industries and Log Trade

At current rates of log production and trade, the forest resource will be seriously depleted within 5 years, with some concessionaires already facing severe shortages of log supplies on their concessions. *The annual allowable cut pre- 1970 was established at 500,000 m<sup>3</sup>/year (prior to 2.6 million ha deforestation, 3.4 million ha designated as protected areas and before heightened levels of forest degradation from accelerated levels of commercial and subsistence harvesting during the period 1969-97).*

Independent evaluation in 1997 revealed that log production had reached 4.3 million m<sup>3</sup>/year rate. DF&W records indicate that a minimum of 1.2 million m<sup>3</sup> of installed capacity exists in major plants, with a further 500,000 m<sup>3</sup> to be installed in 1998. Additionally installed capacity of veneer mills and

sawmills exceeded 4 million m<sup>3</sup>/year and operating capacity exceeded 2 million m<sup>3</sup>/year. There is a prevalence of unauthorised/illegal mills operated by the military, local RGC, communities, unscrupulous businessmen and traders, private companies and some concessionaires. DF&W have records for 646 sawmills, of which 256 are illegal and 390 are legal. Provincial foresters estimate in excess of 1,000 unregistered and illegal sawmills operate within Cambodia with a combined operating capacity of 1.0 to 1.5 million m<sup>3</sup>/year. The conversion factors of veneer mills and sawmills in Cambodia are generally low and thus inefficient by international standards.

In the wake of the Asian economic crisis, Southeast Asian log and forest product market prices have collapsed since the last quarter of 1997. From September 1997 to March 1998, log and sawn timber prices fell by 30-35%. However, within Cambodia during the same period, prices declined by 40-50%. As costs of production for veneer and sawn timber now exceed international market prices in Cambodia, some forest industries investors have suspended their operations pending recovery of prices. However, log exporters continue their practices, even under these more difficult conditions.

Key forest industries and log trade issues are:

- Rate of illegal logging, transport, processing & export of logs & timber have increased by a factor of 4 times in the past 2 years;
- Official RGC data for log and timber production and export under-estimated actual levels by a factor of 10 times in 1997;
- Lack of a Forest Management Information System (FMIS) results in unreliable data with wide disparities on levels of log trade and forest industries activities;
- Log and timber trade continues in defiance of the log export ban (which is not enforced) to/through Thailand and Vietnam to international markets where prices are more attractive than domestic market prices in Cambodia;
- MAFF & DF&W are not generally consulted by the MOC, CDC & MIME in the approval process for new forest industries investments;
- Generally forest industries investors agree to de-linking log production and log processing if achieved in a step by step approach in association with other major reforms in the sector;
- Administrative procedures from forest to mill yard to export port are complex, extensive, slow and characterised by payment of facilitation fees at every step.

## **Forestry Revenues**

### **Formal Forest Taxes**

Despite major increases in log production and forest products trade (particularly illegal) there has not been a corresponding increase in tax revenues to RGC. In 1997, US\$12.4 million (between US\$20-25/m<sup>3</sup>) was paid to the RGC on legitimate log production of about 450,000 m<sup>3</sup> (10% of log production). Also in 1997, about 4 million m<sup>3</sup> log equivalent was produced illegally and did not get taxed formally by RGC. If formal taxes had been collected on the 4.3 million m<sup>3</sup> of production in 1997 RGC would have received in excess of US\$100 million to the central Government.

### **Informal Forest Taxes**

Informal taxes of about US\$50/m<sup>3</sup> are paid to provincial and district authorities in lieu of development budgets (50%) and to RGC staff and military to supplement low salaries (50%). If the full informal taxes had been paid on all illegal log production of 4 million m<sup>3</sup> in 1997 at the rate of US\$50/m<sup>3</sup>, there would have been an additional US\$200 million paid to the central RGC. This money was paid directly to Cambodians, primarily within the Cambodian economy.

Key forest tax issues are:

- More efficient collection of formal taxes must take precedence over increased forest charges which apply to only 10% of the sector
- The formal tax rate must be set at levels which will allow sustainable management of Cambodian forests
- The combined formal and informal taxes incurred by the forestry & forest industries sectors, make Cambodia a high cost, high risk source of forest products
- The most appropriate forest royalty calculation method for Cambodia under current conditions is the residual stumpage system

The royalty rates need regular review to reflect international rates & market changes

“Informal taxation” has obvious financial repercussions. Because of its scale, Cambodia has become a high-cost source of wood in the eyes of outside investors despite the advantages of location, terrain and (in some cases) the quality of the resource. “Informal taxation” reduces the value of the standing forest. Lowering its current burden is one of the main ways of creating additional scope for greater income being channelled to the Government.

### **Tax Evasion**

At present, forest taxes in Cambodia are evaded in four principal ways.

- Logs leave the country in violation of the log export ban (nearly 0.9 million m<sup>3</sup> in 1997);
- Sawn timber is exported by non-concessionaires without payment of royalties or export taxes (about 2.4 million m<sup>3</sup> log equivalent in 1997);
- Some of the processed output by forest concession holders is based on untaxed logs (166,000 m<sup>3</sup> log equivalent in 1997); and
- Virtually none of the logs processed and sold in the domestic market (0.7 million m<sup>3</sup> log equivalent in 1997) pay tax to the government.

### **Monitoring and Enforcement**

As outlined in preceding sections Cambodia is experiencing rapidly accelerated log processing and export trade far in excess of sustainable levels, resulting in accelerating rates of deforestation and forest degradation over most accessible forest lands. At current rates of exploitation the forest resource will be seriously depleted within 5 years. The formal revenues paid to RGC do not reflect increased log production, processing and trade due to the prevalence of illegal operations and rampant tax evasion.

Key log monitoring and enforcement issues are:

- Doubtful legitimacy of authorities as their approvals seem to be inappropriate or contradict the RGC formal development and strategic plans and policies
- In the absence of effective law and enforcement, an authorisation signed by a known senior RGC or military official proves more effective than a truly legitimate authorisation from an unknown grantor in Phnom Penh
- About 90% of log production, log processing and export trade is from approved “collection” and “old” logs in addition to the forest concession system, resulting in stealing of logs from forest land allocated to others in commercial concessions and protected areas
- The military play a prominent role in anarchic logging, transportation, log processing and export of logs and timber
- A pattern of authorisations provide direct or indirect support to forest operations which circumvent the forest concession management system, the law and formal tax

The main illegal activities in the forestry sector are:

- logging in protected areas;
- unauthorised logging in concessions by concessionaires;
- unauthorised logging in concessions by poachers;
- Illegal transportation to avoid tax;
- Illegal log export in violation of log export ban;
- Illegal log scaling, species declaration, grading and prices (transfer pricing) to reduce tax;
- Illegal processing by unauthorised sawmills.

## **Institutional Strengthening**

Attempts to recreate the institutional basis for a Cambodian society and re-establish the legal infrastructure have been initiated in recent years, but the process of institutional change is handicapped and needs to be seen as an iterative process implemented in stages.

The forestry sector is one of the most important in Cambodia for economic development, for providing a modest livelihood to rural people and for maintaining an environmental balance. To achieve the full potential of the sector it is necessary to initiate radical institutional changes.

MAFF and DF&W have jurisdiction over 7 million ha of forest concessions and 0.3 million ha of non-concession forest lands not yet allocated. The MOE have jurisdiction over 3.3 million ha of National Parks (0.8 million ha); Wildlife Reserves (2.0 million ha); Protected Landscapes (0.1 million ha) and Multiple Land Use Areas (0.4 million ha). MAFF, Department of Fisheries has jurisdiction over 0.6 million hectares Fisheries Concessions in Inundated forests of Tonle Sap and coastal Mangroves and Department of Agriculture over 0.4 million hectares of Agricultural Concessions. The Ministry of Defence has jurisdiction over 0.8 million ha forest land as Military Concession or Development Areas.

Key institutional issues are:

- Lack of well defined and accepted legal system;
- Lack of clear lines of authority;
- Politicised and over staffed public service;
- Excessive influence of various interest groups (particularly Military) in policy, planning, management, monitoring and enforcement;
- A General lack of transparency;
- Low public service salaries;
- Widespread illegal payments to supplement salaries and budgets;

Over-allocation of forest resources, over-capacity in the forest industry, unsustainable rates of exploitation, and illegal operations have all flourished in the past few years. This situation has occurred in part because there are no comprehensive institutional, legal or policy frameworks, no clear procedures for management, monitoring or enforcement, and insufficient resources available to MAFF and DF&W.

The current institutions responsible for the commercial forestry sector include the following.

- *MAFF* has overall responsibility for policy, planning and procedures;
- *DF&W* has technical responsibility for the sector but it has little direct authority, working through MAFF at central and provincial levels;

- The National Steering Committee to Manage & Execute Forest Management Policy (NSCFP), set up in 1996 to coordinate all parties involved in the forestry sector, review investment programs and make policy proposals, has met only twice.

Many decisions determining access and use of forest land are taken by different branches of the Government, often in a non-transparent fashion and with little accountability. This is true of the decisions affecting allocation of forest land, authorisations to harvest logs, and approvals of large-scale wood processing investments. Through their impact on the pattern of forest utilisation, these decisions have also a profound effect on the pattern of forest revenue collection by the Government.

A number of RGC Ministries and other organisations are directly or indirectly involved in the forestry sector.

- *The Council of Ministers (COM)* grants approval for the allocation of concessions and investment in the forest industries sector;
- *The Ministry of Economy and Finance (MEF)* receives US\$10-12 million/year remitted to the Treasury as royalties, taxes and fees from the forestry sector;
- *The Ministry of Environment (MOE)* has jurisdiction over protected areas and monitors and enforces EIAs for all development projects;
- *The Department of Fisheries, MAFF* is responsible for administration of Fisheries Concessions on inundated and mangrove forests;
- *Council for Development of Cambodia (CDC)* is responsible for co-ordinating investment in the forestry and forest industry (plywood and sawmills) sectors and approves concession licenses and investment plans;
- *The Ministry of Industry, Mines and Energy (MIME)* issues permits for investment in the forest industry sector;
- *The Ministry of Commerce (MOC)* approves the export of wood and non-wood forest products including lumber, rattan, bamboo, resin; maintains a register of all forest products exports; and promotes investment in Cambodia;
- *The Ministry of Rural Development (MRD)* is a new Ministry not currently in the NSCFP but warrants being included due to its potential role in rural development planning;
- *The Ministry of Defence (RCAF)*, is directly involved in several programs which have an impact upon forests. The military are involved in a wide range of informal forestry sector activities including harvesting, transportation, processing and trade of logs and processed forest products;
- Numerous *NGO Groups* assist the Cambodian forestry sector in community participation in planning, management and monitoring;
- *International Donors* provide technical assistance and funds support to the forestry and protected area sectors.

Dilution of the DF&W forest management responsibilities is a major contributing cause of forest depletion in Cambodia. Dispersed and uncontrolled decisions make it impossible to hold any single party responsible for the state of forest management, a situation cultivated by those who benefit from the present over-exploitation of the resource. Renewed official commitment to the DF&W central role in forest management is essential.

Another salient characteristic of the forestry sector is the high incidence of conflicts over rights to land use which constantly occur throughout the country, in nearly every forest concession, protected area or fisheries concession. The most common conflicts are within levels of government, between concessionaires, and between concessionaires and other parties (particularly with military and/or local communities).

## **STRATEGIES**

### **Forest Resource Base**

With the advent of remote sensing and GIS technologies, it is possible to carry out a national forest resource assessment at a macro-level within one or two years. A suitably designed forest resource assessment, combined with inventory data from all forest concessions will provide more accurate estimates for forest resource planning, management and monitoring.

Forest land use classification should reflect priority needs, including protection (various types), commercial/production (industrial and community) and conversion forests for agriculture or other priority land uses.

### **Forestry Legislation**

#### **Forestry Law**

There is a clear need to promulgate a *new* forestry law that will:

- Replace all prior forestry law;
- Avoid complexity and be accessible to regulators and the regulated community;
- Bind forestry officials to objective standards in the issuance of logging permits;
- Provide transparent procedures for award of logging rights;
- Hold loggers responsible for reforestation and environmental damage;
- Provide procedures for handling income to the forestry department;
- Allow penalties sufficient to deter illegal activities;
- Provide disincentives to corruption.

### **Commercial Concession Agreements**

Unilaterally abrogating existing Concession Contracts would face certain risks in any resulting litigation and potentially be damaging to Cambodia's credibility among future investors. However, an investigation of concessionaire performance may support a case for termination of many of the Concession Contracts, perhaps up to half, and many of these concessionaires may be relatively willing to release their rights due to changed economic circumstances. Adopting a case-by-case approach to concession reform would reduce risk to the Royal Government, educate forestry officials in contract compliance issues and allow time to implement needed law reform.

### **Land Use Allocation**

#### **Land Use Planning Allocation of Land Use Rights**

More coordination between ministries and between central and provincial RGC units needs to be encouraged. Under present circumstances, there is little technical input from government agencies charged with resource management. There are, however, existing and proposed mechanisms that can increase dialogue over land allocation decisions. They include the following.

- The Cambodian Development Council is supposed to approve projects requiring investment incentives after discussion and written approval from the appropriate line ministries and agencies;

- The Ministry of Environment's (MOE) proposed regulatory framework for Environmental Impact Assessment (EIA) contains procedures for inter-ministerial review of projects and mechanisms for local participation, allowing for public input.

## **Land Use in Protected Forest Areas**

Due to the uncertainty of on-going funding for protected area management there is an urgent need to rationalise the legal framework, policies and procedures for planning, management, monitoring and enforcement in protected areas between the Ministry of Agriculture, Forestry and Fisheries, Ministry of Environment and the Ministry of Defence.

## **Forest Resource Management**

### **New Community Forest Concessions**

There is a need to develop more flexible definitions and approaches to community participation in forestry and options for community resource management. These need to be incorporated into the legal framework to allow transfer of land use rights to communities with the capacity and capability to use forests responsibly and sustainably as Community Forestry Concessions. To achieve this there will need to be strengthened technical and extension support services in planning, management and monitoring with assistance from appropriate NGO groups.

### **New Forest Concession Management**

It is necessary to transform the existing forest concession system from harvesting rights to forest management rights on a sustainable basis. To achieve this a Forest Management Planning Package is being developed by the Forest Concession Management Project together with the DF&W. The package will bring local communities and authorities into the forest concession allocation process, create a model forest concession management agreement, provide EIA, Management Plan and Annual Harvest Plan guidelines and introduce a Cambodian Forest Code of Practice. Although the concessionaire contracts out forest operations, it is critical that the concessionaire be held accountable for all operations within his concession and compliance with laws, policies, planning package and procedures of the Government.

### **Reforestation**

Immediate prospects for large scale, industrial plantation investment by the private sector is relatively low whilst security is poor and investment risks high. It will take several years before the facilitating factors are in place and there is sufficient security of investment for large scale, industrial forest plantation development. However, a stronger focus on smallholder reforestation will address the root and immediate causes of deforestation and forest degradation, particularly for fuel wood, charcoal and building materials. This will require a different planning and implementation approach by the Government to incorporate a combined bottom up and top down approach. It will be necessary to more fully understand the needs and aspirations of the smallholder and rural communities.

## **Forest Industries and Log Trade**

It is critical to cease the "collection permit" system and fully support log production and trade from the concession system, cease issuance of new log processing investment licenses and maintain the log export ban until the forestry and forest industries sectors are back under control and in phase with sustainable levels of log production. The rationalisation of the forestry and forest industries sectors must include MAFF and DF&W for technical advice. The prominent role of the military needs to be

redirected away illegal logging, transporting, processing and trade to rural development activities (including functions supporting forestry development).

## **Forestry Revenues**

### **Review of Forest Tax Collection System**

More efficient collection of forest revenue is preferable to increasing forest charges, but improved management of Cambodia's forest lands is most important of all. This is because the direct and indirect net benefits generated by soundly managed forests easily exceed any additional revenue that might be collected as a result of logging forests too intensively. In recent years, there has been insufficient recognition of non-wood values in forest legislation, regulations and actual forest management. The attention given to wood production and its potential for revenue generation has deflected forest policy away from a balanced pursuit of multiple management objectives.

Both tax evasion and "informal taxation" are essentially political and administrative problems, responsive only partly to economic and technical solutions. Policy should continuously search for a structure of formal taxation that could reduce the extent of tax evasion. However, such a search should not become a substitute for efforts to tackle tax evasion and "informal taxation" directly.

The principal role of forest taxation is to generate funds to serve broader social objectives of the government. The flow of revenue to RGC and the flow of benefits to the population must be sustained and not needlessly put at risk. A well structured and implemented system of forest taxation can support this objective.

### **Review of Forest Tax Structure**

The forest revenue system cannot *alone* bring about sustainable forest management. Nonetheless, a good forest tax structure can shift the pattern of forest management in socially desirable directions. For instance, taxes can be used to discourage logging in environmentally sensitive areas or to lower the cutting intensity. The taxation regime should fit the special needs of each area. In general, maximum tax should be levied on areas set aside for conversion to higher-value uses; an intermediate level of taxes should be used in areas reserved for permanent forestry; and low or no taxes (or subsidies) should be applied to areas whose functions are mainly environmental.

There is a risk that fiscal policy may inadvertently deplete non-wood resources and the environmental potential of the forest. The revenue system gradually to be put in place in Cambodia should acknowledge the extent of environmental obligations that may be placed on any one concessionaire. The concessionaires' tax liability should be calculated on the basis of a periodic audit of their environmental performance.

### **Balancing Forest Tax Structure and the Collection System**

A desirable forest revenue system, in Cambodia as much as elsewhere in the tropics, will:

- Relate the amount of tax to the value of the resource;
- Adequately account for variations in actual cost of production;
- Share the risk of price fluctuations between the resource owner and the forest operator;
- Be free of provisions and practices that obscure the true profitability of forestry operations;
- Be free of technical or administrative complexity;
- Reinforce, the forest concession system.

Relatively complex trade-offs exist among different tax mechanisms. Among other things, good systems are characterised by a better balance between economic efficiency (in particular, use of tax mechanisms that minimise incentives to deplete the resource) and the ease of tax assessment and collection. They tend to be introduced gradually, in line with the improving administrative and enforcement resources of the government owner.

### **Towards Stumpage Appraisal**

On balance and in the medium to long run, the forest revenue system in Cambodia should be based on stumpage appraisal, i.e. the taxes should in principle be set equal to the estimated stumpage value of each forest management unit. This is not the case now. In Cambodia today royalties and their rates bear at best an approximate relationship with the value of the resource. For instance, virtually all concession holders pay identical royalties, despite substantial variations in operating conditions or transport distances. A stumpage-based revenue system requires the government owner to reliably establish the value of distinct parcels of forest land, either through competition (e.g. auction sales) or administratively. In the latter case, reliably estimating the value of separate parcels of forest land is one thing in which foresters all over the world are supposed to excel.

From a short-term perspective, pre-occupation with poor revenue collection under the existing royalty-based system is justified. A number of alternative taxation measures that would help close the evasion loopholes deserve careful consideration even if they might be seriously inefficient otherwise. A more determined collection of export tax falls in this category. If such taxation alternatives are adopted, however, their use should be considered as temporary. They should not replace the ultimate objective of taxation reform and should not be seen as a substitute for monitoring of the performance of different groups of operators.

## **Revenue Sharing**

The \$15-20 or so in “informal taxes” that is estimated to be retained from each cubic meter at the local level can be considered a partial substitute for payments that would normally be made through a budget process but are not because of the absence of budget-transfer mechanisms. This is certainly the case of the moneys “voluntarily” contributed by timber concessionaires for local public infrastructure (schools, health clinics). It is somewhat less so in the case of “facilitation” payments as supplements to low salaries of selected local government staff and even less in the case of the army and police, which are normally financed centrally.

An abrupt elimination of “informal taxation” would combine a desirable assault on vested interests with an undesirable weakening of the local economy. If the Government is to capture more logging profits at the cost of reducing “informal taxation”, as it should, it is important to do so in tandem with a reform of the budget-transfer mechanism. The forest revenue system to be put in place should therefore tie the setting of forest taxes to transferring some of the revenue back to wood producing areas

At present (with only small exceptions) the management and administrative activities of DF&W are financed out of the general budget. In addition, many DF&W staff share in the proceeds of “unofficial taxation.” Reorganisation of DF&W financing deserves to be discussed jointly with forest revenue sharing. The possibility of using a management fee in place of the existing reforestation tax to finance regular DF&W administration should be considered together with possible enabling changes in DF&W administrative status. A reforestation tax should have no role in Cambodia’s revenue system.

## **Monitoring and Enforcement**

### **Log Tracking and Revenue Collection**

It is proposed to set up a log tracking and revenue collection system to provide control of harvested log output from legal forest concessions from forest landings to export shipment. The system to be simple, low cost, low technology, relatively fraud proof and contracted to an independent, international private monitoring company, funded from revenues collected. Compliance with the Forest Management Planning Package will remain the responsibility of the DF&W and MAFF.

### **Forest Law Enforcement**

A forest law enforcement group is to be established on an interim basis to identify and suppress illegal logging, transporting, processing and trade activities in priority areas, and ensure that revenues collected from disposal of these logs is paid to the central RGC. A proposal is being prepared by the Log Monitoring and Enforcement Project to have the forest law enforcement group independent of the DF&W and MAFF to allow them to focus on monitoring and enforcement in compliance with the Forest Management Planning Package with forest concessionaires.

## Institutional Strengthening

If the DF&W is to play a prominent role in the forestry sector, it needs a stronger organisational structure and mandate to:

- Represent the RGC on all production forestry issues with delegated powers sufficient to carry out technical responsibilities effectively;
- Improve the present internal organisation to be more responsive to sector needs;
- Build up the capacity of staff to carry out their tasks more effectively;
- Receive adequate financial resources to enable it to accomplish its work; and
- Establish effective coordination with other ministries, departments and organisations to minimise overlapping functions.

The present organisational structure does not enable the DF&W to meet present forest policy objectives nor to implement procedures. Internal DF&W changes which need to be considered include:

- *Divest interest in the DF&W Companies*, which include a transport company, four sawmills and a petrol station;
- *Reorganise KAMFOREXIM* to collect, analyse and disseminate market intelligence information and conduct periodic royalty reviews;
- *Establish a Community Development Section* to support the forest policy objective of assisting community forest management more fully;
- *Establish a Management Information System & Information Technology Section* to improve planning, management and monitoring;
- *Establish a Forest Inventory Unit* to provide accurate data on existing natural and plantation forest resources, rates of growth and yield, rates of deforestation and degradation etc.;
- *Establish a Forest Research Institute* to carry out research programs within or outside DF&W; and
- *Consolidate the Wildlife Office functions of DF&W and the Protected Area Management functions of the MOE.*

The role of DF&W in Cambodia should not be to conduct reforestation. It is to ensure that those who have access to the forest do not deforest or cause undue forest degradation in their harvesting and that they undertake reforestation in suitable sub-areas in their custody at their own cost.

There is a clear need to build MAFF and DF&W staff capacity, install a stronger work ethic, and develop a stronger commitment to sound decision making. In particular, higher remuneration and incentives should be considered because of the strategic importance of the sector. Intensified training should be tailored to the needs of different levels of staff. The sector would also benefit from a definition of the functions of the different levels of government with which it deals and clear statements of the duties of each government unit, including individual job descriptions. Adequate budgets for equipment, supplies, repairs, travel and research would lessen DF&W dependence on the forest industries.

## RECOMMENDED ACTIONS

### Forest Resource Base

#### Forest Inventory

**Aim:**

*Quantify the quantity and quality of forests and forest lands as the basis for sound land use decision making and calculation of annual allowable cuts for sustainable forest use.*

**Forest Inventory; Recommended Actions:**

- Secure international support to conduct a national forest inventory;
- Require forest concessionaires to conduct an inventory of their entire concession, perhaps by means of a lower % sample;
- Conduct a national forest inventory;
- Collect, collate and store forest concession inventory data in a Forest Management Information System (FMIS);
- Use the combined national forest and forest concession inventory data to improve planning, management and monitoring of forest concession management.

#### Classification of Forest Lands

**Aim:**

*Classification of forest lands and current land use to reflect current agricultural, forestry and fisheries and other priority land use needs.*

**Land Classification; Recommended Actions:**

- Prepare current forest land use and land allocation maps (forest, fisheries, agriculture and military concessions, protected areas) and make these readily available to planners, investors and the public;
- Update forest land use maps on a regular basis;
- Establish procedures to systematise and store land resource data to be made available to all RGC Ministries and development agencies;
- Establish criteria for designating protection, production and conversion forest areas.

### Legal Framework

#### Forest Law

**Aim:**

*New forest law which is simple, clear, enforceable and supports the planning, management and monitoring procedures as detailed in the new Forest Policy and the First socio-economic Development Plan, 1996-2000.*

**Forest Law; Recommended Actions:**

- Withdraw new Forest Law approved by the Council of Ministers, but before National Assembly;

- Prepare a new Forest Law to support the new Forest Policy, Model Forest Concession Agreement, Community Forest Concession Agreement and Forest Management Planning Package;
- Until new Forest Law introduced, approve legal instruments detailing interim mandates, procedures, responsibilities and authorisations necessary to implement immediate reforms including:
  - Model Forest Concession Management Agreement for commercial and community concessions;
  - Transport permits, conditions for control, taxes to be paid and to whom payment is to be made;
  - Reform of the forest industries (log processing) sector;
  - Export of forest products, specifications, approved locations for export, documentation and control;
  - Monitoring and enforcement on concessions and protected areas;
  - RGC Revenue collection methods, systems & rates.

## **New Commercial Concession Agreements**

### **Aim:**

*New commercial concession agreements to support the concept of “Sustainable Forest Management” by private forest investors and compliance with the Forest Management Package.*

### **New Commercial Concession Agreements; Recommended Actions:**

Prepare a model Forest Concession Management Agreement as the basis for future forest concessions;

- Detail procedures, responsibilities and authorisations necessary to execute new Forest Concession Management Agreements;
- Adopt the model Forest Concession Management Agreement and procedures;
- Conduct a case by case technical audit of existing forest concessions;
- Conduct a case by case re-negotiation of Forest Concession Agreements.

## **Land Use Allocation**

### **Land Use Planning and Allocation**

#### **Aim:**

*Land Use Planning and Allocation be achieved in an open, participatory and transparent basis to balance alleviation of poverty, food security and access to wood and non-wood forest products to rural populations with investment opportunities in commercial forest concessions for major scaled economic development as detailed in the First socio-economic Development Plan.*

### **Land Use Planning and Allocation; Recommended Actions:**

- Review planning co-ordination between Forestry, Fisheries and Agriculture Departments in MAFF and combine policy, planning & technical inputs to redefine and designate forest land use;
- Define the rights of provincial governments to make land use allocations and define an effective mechanism for province, district, commune and village participation;
- Land allocation decisions be made by the appropriate ministry using established planning and EIA procedures and inter-ministerial review of development proposals;

- Establish a pro-active land resources evaluation program within MAFF to co-ordinate data collection in a consistent and competent manner and make it readily available to investors and the public;
- Review international donor support to a systematised, consistent approach to development planning using existing and planned GIS/RS services available.

### **Land Use in Protected Forest Areas**

#### **Aim:**

*Better land use in protected forest areas with unique features, suitable for National Parks, Wildlife Sanctuaries, Protected Landscapes and Multiple Uses, involving local communities wherever practical and feasible.*

#### **Land Use in Protected Forest Areas; Recommended Actions:**

- MOE, MAFF and DF&W co-ordinate their planning, management, monitoring and enforcement initiatives for the forestry and protected area sectors to ensure that they are compatible and complementary;
- International donor supported projects [NEAP (World Bank), SPEC (EU), ETAP (UNDP), EIA (ADB)] in the Ministry of Environment co-ordinate their inputs, activities and outputs with those of the RGC forestry reform projects to ensure that recommendations are compatible;
- Establish compatible legal, policy and planning framework to support reforms in the forestry and protected area sector;
- Combine monitoring and enforcement procedures in forestry and protected area sectors;
- Determine the status of unique and threatened habitats (particularly wetland forests) and identify priority areas for protection;
- Develop coherent legal, policy and institutional framework which allows for effective co-management of the wetland forest resources;
- Introduce severe penalties for non-compliance with laws, policies and procedures;
- Initiate participatory planning, management and monitoring procedures with provinces, districts, communes and villages within or in buffer zones of protected areas;
- Include community development plans within management plans for protected areas;
- Establish forest research in wildlife protection, wildlife inventory, scientific classification and public awareness programs.

## Forest Resource Management

### New Community Forest Concessions

**Aim:**

*New community forestry planning, procedures, training, extension systems and public awareness programs established to support community based forest concession management in select forest lands to meet traditional wood and non-wood forest product and locally based investor needs.*

**New Community Forest Concessions; Recommended Actions:**

- Clarify mandates between Departments of Forestry, Fisheries and Agriculture in MAFF and with MOE and MRD for provincial, district, commune and village participation in allocation of Community Forestry Concessions;
- Define a model Community Forestry Concession Agreement and detail the responsibilities;
- Detail authorities empowered to sign Community Forestry Concession Agreements;
- Identify priority Community Forest Concession areas and assist in preparation of management plans, technical support, extension services and public awareness (including in the wetland forest resources);
- Stop the use of *samras* and other unsustainable fishing methods in the wetland forest areas;
- Establish community forestry projects to reduce the reliance on mangroves or flooded forest as a source of fuelwood;
- Revise the fishing lot leasing system with a substantial increase in leasing term, but setting the annual allowable harvest within sustainable limits;
- Strengthen the enforcement capacity of relevant authorities;
- Prepare management plans and strengthen technical support, extension services, public awareness, monitoring and enforcement programs for the two inundated forests and one coastal mangrove forest nominated for Wetlands International Importance and the Tonle Sap Biosphere Reserve;
- Establish close networking with NGO groups active in community forestry initiatives which have already developed a Community Forestry Network , Community Forest Policy Working Group and now assist select communities in community based forestry projects;
- Establish forest research in social and community forestry including fuel wood & charcoal production, forest protection and non-wood forest products.

### New Forest Concession Management

**Aim:**

*New forest concession planning, management, monitoring and enforcement procedures to support management of natural forests on a sustainable basis through low impact logging, natural forest rehabilitation, forest protection and local community involvement.*

**New Forest Concession Management; Recommended Actions:**

- Support Forest Management Concession System (with refinements for more effective & efficient management), including natural forest rehabilitation,;
- Eliminate the use of the Collection Permits/Quotas;
- Introduce the Forest Management Planning Package including the Cambodian Forest Code of Practice as controlling document on forest management;

- Hold the concessionaire accountable for compliance with laws, policies, plans, EIA and the Forest Code of Practice;
- Ensure local needs and traditional forest use rights are recognised in resource allocation, management planning and forest operations;
- Set sustained yield cut levels on an individual concession basis;
- Rationalise planning and issuance of annual harvesting coupes with the harvesting season rather than calendar year;
- Establish forest research in low impact logging, forest inventory, growth and yield functions and natural forest silviculture.

## **Reforestation**

### **Aim:**

*Preparation of the Facilitating Factors for Reforestation investment by small-holders, communities and commercial industrial plantation investors to encourage private investment in reforestation by a range of mechanisms.*

### **Reforestation; Recommended Actions:**

- Establish the facilitating factors for smallholder forestry - land-use rights, security of access to tree crops, quality seeds and seedlings, technical advice, agroforestry extension systems, free access to markets and allow smallholders and communities to directly benefit;
- Provide facilitating factors in priority communities to demonstrate alternative mechanisms for reforestation and document inputs and outputs, working with select NGO groups with experience in smallholder and community forestry;
- Establish strong links with NGO groups through the Community Forestry Network and social or community forestry projects or programmes supported by international donors;
- Establish networking with regional research organisations and other agencies which have already conducted or co-ordinated research in reforestation (FORSPA, ITTO, CSIRO and CIFOR) in the SE Asian region;
- Establish a forest research and demonstration programme in species & provenance trials, site & species matching, seed germination, nursery and silvicultural techniques;
- With international agencies, NGO groups and regional research organisations, disseminate information on applicable lessons learned and success stories;
- Rationalise and strengthen the community reforestation support capacity and extension services within DF&W, MAFF and MOE;
- Include community forestry and reforestation in the curriculum at the Forestry School at the Royal University of Agriculture.

## **Forest Industries and Log Trade**

### **Forest Industries and Log Trade; Aim:**

*Establish the forest industries and log trade on a competitive basis to reflect international inefficiencies and markets at levels in phase with sustainable log supply.*

### **Forest Industries and Log Trade, Recommended Actions:**

- Cease log production and trade from “collection” and “old” log systems;
- Endorse log production and trade from the “forest concession” system;

- Endorse the log export ban and seek co-operation from neighbouring countries;
- Cease log processing by illegal sawmills and confiscate equipment if necessary;
- Cease illegal sawn timber exports, focusing enforcement at major export ports;
- Cease issuance of new Investment and Timber License Agreements for new logging concessions and log processing plants, in the interim, with greater co-operation between the MOC, CDC, MIME, MAFF and DF&W;
- Endorse log processing from the major, legitimate companies with modern technology and knowledge, higher efficiencies and better marketing capability;
- Simplify the planning and monitoring bureaucracy and administrative systems to support the “forest concession” system and legitimate forest industries and forest products export sectors;
- Assist the formation of the fledgling Cambodia Timber Industry Association (CTIA);
- Provide an environment of consultation between the CTIA, DF&W and RGC concerning important forestry & forest industries matters;
- Conduct a technical audit (joint RGC, CTIA and International Advisors) to evaluate conditions and performance of each concession and major forest industries investment in a co-operative way to provide the basis for voluntary re-negotiation of Investment and Timber License Agreements;
- Establish a joint RGC (DF&W) and CTIA Marketing Intelligence Unit to monitor domestic and international market dynamics for logs and other forest products;
- DF&W to introduce and maintain a Forest Management Information System , including log production and log processing sectors in accordance with the prototype designed under the Forestry Reform Projects.

## Forestry Revenues

### Forest Taxes and Revenue Sharing; Aim:

*Reviewed forestry taxes and revenue sharing calculation, collection and distribution procedures to more efficiently and effectively deliver revenues to the RGC and equitably share these revenues for development of Phnom Penh, provinces, districts and communes and to legitimately supplement incomes of public servants and the military.*

### Forest Taxes and Revenue Sharing, Recommended Actions:

The actions to be taken are closely linked to those introduced in Land Use Allocation; Forest Resource Management; Forest Industries and Log Trade; and Monitoring and Enforcement.

- The RGC understand the enormity of the informal taxes and scale of tax evasion and explore alternative, practical ways to increase formal tax revenue on a smaller volume of log production since the present rate of over-logging needs to drastically reduced to a sustainable level;
- Conduct a gradual transition to a stumpage appraisal on all harvested volumes extracted from approved felling coupes and base stumpage values on the most profitable alternatives open to Cambodia, rather than on the residual values that treat any inefficiency in domestic wood processing as acceptable - paid to central RGC;
- Forest revenue reforms complement expanded reforms in Public Administration for formal planning and budgeting in provincial governments;
- Contract an outside agency to collect the 10% export tax on non-exempt processed forest products - paid to central RGC;
- Consider introduction of a nominal annual tax based upon area (hectares) of commercial forest concessions at rates to reflect trends in international market prices - paid to central RGC;
- Introduce a legitimate transport tax (river or road) to be paid to provincial governments from whence the logs originated, based upon an agreed rate/m<sup>3</sup> - paid to provincial RGC;

- RGC (MEF) allocate an agreed % of forestry based revenue to DF&W to cover costs of planning, management, monitoring and enforcement in the commercial concession sector
- Allow DF&W staff to receive legitimate management, consulting and service fees from the forestry sector
- Train DF&W, MAFF and MEF staff in the practices of stumpage appraisal, competitive timber auctions and forest land valuation;

## **Monitoring and Enforcement**

### **Log Monitoring and Enforcement; Aim:**

*Log monitoring and enforcement of the total log production, forest products trade and revenue collection system to ensure compliance with the law, policy and procedures, and to more effectively deliver revenues due to the RGC.*

### **Log Monitoring and Enforcement; Recommended Actions:**

- Prepare interim legal instrument (until Forest Law approved) to conduct Log Tracking and Revenue Collection system proposed and the penalties for non-compliance;
- Appoint an internationally reputable private monitoring company to manage Log Tracking and Revenue Collection;
- Start log tracking at the log landing to record: species, log volume (CTIF international standard log scaling), log grade and hammered log number which is checked on delivery to the processing mill;
- Once annual allowable cut has been approved, a simplified revenue collection system and administration be adopted;
- Consider alternative Law Enforcement scenarios and approve the most appropriate for unique Cambodian situation;
- Define the detailed structure, basis for intervention, management and financing of the Law Enforcement group;
- Prepare interim legal instrument (until Forest Law approved) to allow the Law Enforcement group to suppress illegal logging, transport, processing and trade activities in priority areas (e.g. Koh Kong, Battambang, Ratanikiri), ensure revenues collected from disposal of these logs is paid to RGC and detail penalties for infringements;
- Empower the Law Enforcement group to confiscate equipment used in illegal logging, transportation and processing of wood and forest products;
- Introduce a Management Information System to complement the Forest Management Information System to record forestry sector statistics and data base on surveillance, geo-referenced satellite imagery, aerial photography, GIS mapping and other relevant information to be updated on a regular basis;
- MIS data be made available to a wide range of stakeholders within and outside the RGC.

## **Institutional Strengthening**

### **Institutional Mandates Structures and Procedures**

*Rationalise the RGC institutional mandates, structures and procedures for more streamlined and effective land use allocation, forest management, forest industries and trade revenue collection, and monitoring and enforcement as reflected in the new Forest Policy.*

### **Institutional Strengthening; Recommended Actions:**

- Clarify the jurisdiction and collaboration over forest lands between DF&W and Departments of Fisheries and Agriculture in MAFF, MOE and Ministry of Defence;
- Define the DF&W mandate within RGC and prepare the interim legal instruments to provide authority (central and provincial levels) to implement the new Forest Policy, (including authorisations for approvals and signing at various levels);
- Support initiatives for proposed Log Tracking and Revenue Collection System and Law Enforcement Programme and define these in interim legal instruments;
- Prepare a mission statement for DF&W based on the new Forest Policy to be used as a reference document in all internal discussions and work within DF&W;
- The National Steering Committee meet quarterly, recommendations widely circulated to appropriate ministries and actions monitored on a regular basis;
- Strengthen role & authority of the Executive Secretariat within DF&W & provide technical, financial & other resources to allow it to support policy implementation;
- Set up Task Group to oversee improvements in the internal organisation of the DF&W by redefining the duties of DF&W based on the new Forest Policy, (including feasibility of provision of legitimate management and consulting services for fees);
- Conduct a comprehensive training needs assessment for DF&W and develop a departmental training plan;
- Evaluate the resources (financial, personnel and equipment) needed to support a reorganised DF&W and prepare an investment programme to provide these;
- Formal recognition of the Cambodia Timber Industry Association by the RGC as a representative voice of the forestry and forest industries sectors;
- Set up Provincial and District Forestry Committees with broad representation (local government, NGO's and military) to deal with conflict resolution issues;
- Require concessionaires to report annually on community development activities and on forest management within their concessions;
- Investigate strategies to involve the military in integrated rural development (including forestry) activities including reintegration of demobilised soldiers into forestry extension, protection and community forestry activities within present military development zones.

## CONCLUSIONS

Because there are many recommended actions identified in this paper it is necessary to establish priorities and schedules for implementation in a systematic way.

### The Next Steps

The ARD Forest Policy Reform Project, in collaboration with the Executive Secretariat for Forest Management, the DF&W and the other three WB-funded contractors, has provided substantial background information on the status of the forestry sector in Cambodia. The various technical papers (summarised in Appendix 1) have explored, in depth, topics of critical concern to Cambodia for the future development of the sector. This transition paper provides a compilation of those technical papers and lays out the current situation, issues, and recommended actions for forest policy reform.

Support for the forest policy reform process should come from a wide audience of stakeholders who are willing to support policy changes. Perhaps the most important group of stakeholders are senior government officials who will be responsible for implementing and supporting policy changes. The National Steering Committee to Manage and Execute Forest Management Policy assisted by the Executive Secretariat need to debate the issues and guide the new forest policy through the RGC approval process in the Council of Ministers and National Assembly.

The ARD Forest Policy Reform Project and Executive Secretariat are presenting the findings of this project to various audiences in Cambodia for discussion on the issues and recommendations. Final forest policy will rest with the RGC. A formal statement outlining the RGC official forest policy needs to be written and disseminated. Once officially adopted, the new policy needs an accompanying transition plan that identifies actions to be taken, provide target dates for actions, and identify key organisations/agencies for implementing the action.

A draft Transition Plan - Implementation Summary for consideration is presented in Appendix 2

### Priorities for Action

There are a few issues that are so extremely important to the future of Cambodian forestry that they deserve mention here. Without immediate action on these issues, the forest resource base and the benefits it produces may be destroyed. The following issues/actions need to be addressed immediately to ensure forestry's future.

1. Take steps to *drastically reduce the present rate of over-logging* from the 4.3 million m<sup>3</sup>/year rate of log production to a sustainable level (annual allowable cut to be determined).
  - Authorisations to "collect" logs must be discontinued;
  - Moratoria on new concessions and additions to local wood processing capacity should be announced while a review of concessionaire performance takes place;
  - Cease log processing by illegal sawmills, confiscating equipment if necessary;
  - Introduce strong forest law enforcement capacity and capability.
2. *Secure more room for manoeuvre for the Government to introduce changes to the revenue system.*
  - Where not open to legal challenge, cancellation of non-performing forest concessions offers such a prospect. The Government should not reject this opportunity for fear of creating two parallel systems of forest taxation. An improved system of forest revenue assessment and collection should not be held hostage to existing inappropriate arrangements.

- The tax treatment embodied in the 1994-1998 forest concession contracts should be changed, preferably based on a voluntary re-negotiation
3. *Make public all decisions concerning allocation of forest land and the terms and conditions of forest lease agreements.*
- Use an official gazette, available to the public at cost, for the purpose. There must be a single version of events accepted by all branches of the government and the industry. The record must be open to verification and challenge by the parties involved. Greater accountability is a necessary condition for assessing forest tax liability and actually collecting the taxes.
  - Redefine and re-designate forest lands; and
  - Ensure land allocation decisions are made by the appropriate ministry using proposed EIA procedures and an inter-ministerial review.
4. *Use of the forest revenue system to drive inefficient producers out of business.*
- A more explicit commitment, in the medium to long run, to base stumpage values on the most profitable alternatives open to Cambodia, rather than on the residual values that treats any inefficiency in domestic wood processing as acceptable.
  - *The policy of banning log exports* contributes to inefficient local processing and should be *phased out in the future when enforcement and regulation of the sector has been established.*
5. *Conduct of a concession-by-concession review* (with international technical assistance) that could open the way for voluntary re-negotiation of the terms of the 1994-1998 concession agreements. The main objectives would be to:
- Establish the state of the forest asset entrusted to the concessionaire for management and the possibilities of legal recourse to compensate for recent depletion and possible under-payment of tax;
  - Set sustained yield cut levels on an individual concession basis calculated on a proper inventory of forest resources; and
  - Open the way for mutually advantageous re-definition of concession rights and obligations (e.g. higher tax in exchange for partial lifting of log export ban, redrawing of concession boundaries to lower management costs, changes in the investment agreement in exchange for higher royalties, etc.).
6. *Adopt a new forest taxation regime for all forest areas reclaimed from “old” concessionaires.* The main features of the revised concession agreement, should be:
- Use of a model Forest Concession Management Agreement as a basis for negotiation of future forest concessions;
  - Establish the Cambodian Forest Code of Practice as the controlling document on forest management;
  - Clear specification of forest maintenance, environmental and community development obligations that accompany log production, with a tax credit given for satisfactory performance. More explicit separation of formal tax liability from informal social infrastructure obligations of forest operators;
  - No obligation to set up processing facilities but increased amount of performance bond demanded of lease holders. Different management of performance bond system;
  - Increasing freedom to dispose of logs, subject to satisfactory forest management performance;
  - Tax to be collected as close to the forest as possible. In suitable cases, and by mutual agreement, area tax could replace royalty. In other cases, royalty to be established through a stumpage appraisal system following publicly announced criteria. Fullest possible use to be made of pre-payment of taxes.

7. *Improve forest legislation and clarify rules, regulations and enforcement responsibilities.*

- Withdraw the current forestry law bill pending in the Council of Ministers and initiate preparation of a new Forest Law to support the new Forest Policy, its implementation and the model Forest Concession Agreement;
- Conduct training in Forest Law and Forest Concession Agreements;
- Rewrite the community forestry sub-decree to clarify procedures and broaden its scope or include provisions for community forestry issues in the new Forest Law.

8. *Initiate institutional reforms to strengthen the forestry sector.*

- Review the organisational structure of the DF&W to strengthen its mandate to implement forest policy;
- Incorporate the military into legitimate, controlled forest management;
- Set up Provincial and District Forestry Committees with broad representation (local government, NGO's and military) to deal with conflict resolution issues.

## Appendices:

### Appendix 1: Forest Policy Reform Project, List of Project Outputs ARD, Inc.

#### Technical Reports

- 1 Land Allocation in Cambodia and Mechanisms for National and Provincial Level Coordination (Butterfield);
- 2 Social Forestry as a Vehicle for Redefining Resource Management Institutions in Cambodia (Fox);
- 3 Reforestation and Natural Forest Rehabilitation Policy in Cambodia (Carle);
- 4 Forest Industries and Log Trade Policy in Cambodia (Carle);
- 5 Taxation and Policy Reform in Cambodian Forestry (Ruzicka);
- 6 Community Livelihoods and Common Property Resources in Cambodia (Butterfield);
- 7 Strengthening Institutions for Implementation and Forest Policy in Cambodia (MacAndrews);
- 8 Forest Research Policy in Cambodia (Tennent);
- 9 Forest Management Information Systems and Information Technology Policy in Cambodia (Tennent);

Forest Policy outputs, key issues, strategies and recommended actions from the four RGC commissioned studies are available in three forms:

- 1 Forest Policy Transition Paper (Technical Version)
- 2 Forest Policy Transition Paper (Summary Version)
- 3 Forest Policy Transition Plan - Implementation Summary
- 4 Log Monitoring and Enforcement

All reports are already available in English. Khmer versions will be available by the end of May.

## **Other Outputs Forest Policy Reform Project**

### **Technical**

- 1 Forest Industries Questionnaire, Summary (Carle)
- 2 Provincial Forester Workshop, December, 1997, Proceedings, Conclusions and Recommendations (Executive Secretariat, Edited, Carle);
- 3 Land Allocation and Community Livelihoods Workshops, Kampong Thom and Kratie Provinces, Proceedings, Conclusions and Recommendations (Executive Secretariat, Edited, Butterfield);
- 4 The Study of the Effects of Forests on Rural Livelihoods in Kampong Thom Province, Cambodia (Executive Secretariat, Edited, Butterfield);
- 5 Customary Land Use Practices and Resource Tenure Systems Among Krung and Tampuen Communities in North East Cambodia (Fox);

### **Administrative**

- 1 Inception Report, Forest Policy Reform Project, August 1997 (Carle);
- 2 Mid Term Report, Forest Policy Reform Project, February 1998 (Carle);
- 3 Final Report, Forest Policy Reform Project, May 1998 (Carle)

### **Discussion Papers**

Consultants prepared discussion papers for interaction with relevant RGC Departments, Ministries and other stakeholders; and work plans for task group follow up by the Executive Secretariat and DF&W counterparts.

### **General**

There were 18 person months of international inputs, but with close cooperation with the Executive Secretariat, DF&W and counterparts, it was possible to achieve beyond the terms of reference and anticipated project outputs. The process involved a process of field trips, workshops seminars, questionnaires, discussion papers, technical reports and close collaboration and cooperation by a wide range of stakeholders ((provincial and central RGC, forest industries, NGO and Community Groups, International Donors), but particularly the DF&W, MAFF, MOE and ME&F. Without their full support, it would not have been possible to achieve project activities and outputs within schedule. Project administration was ably assisted by the Project Management Unit of the Ministry of Economy and Finance

## Appendix 2: Transition Plan - Implementation Summary

Policy Component/ Objective	Key Issues	Strategies	Implications
<b>FOREST RESOURCE BASE</b>			
<p><b>Objective 1:</b> <b>Survey Forest Lands</b> to measure the quantity and quality of forests and forest lands as the basis for sound land use decision making and calculation of annual allowable cuts for sustainable forest use</p>	<ul style="list-style-type: none"> <li>• 1969-97, 2.6 million ha deforested</li> <li>• 1969-97 forest cover 73% to 58%</li> <li>• Deforestation rate doubled 1993-97</li> <li>• Degradation of existing forests accelerating over most forest areas</li> <li>• No recent, reliable national forest inventory data</li> <li>• Land use allocation done with limited land use knowledge on forest lands</li> <li>• Annual allowable cuts for forest concessions calculated on incomplete forest inventory data</li> </ul>	<ul style="list-style-type: none"> <li>• Remote sensing and GIS technology available to Cambodia allows a national forest inventory at macro level to be done in 1-2 years</li> <li>• Review forest concession forest inventory procedures to more accurately reflect the full forest resource under their Concession Agreements</li> <li>• Combine national and concession inventory data in a Forest Management Information System to improve forest resource planning, management and monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Survey conducted</li> <li>• Key to conduct concession</li> <li>• Inventory</li> <li>• Inventory of Information</li> </ul>
<p><b>Objective 2:</b> <b>Classification of Forest Lands and Land Use</b> to reflect current agricultural, forestry, fisheries and other priority land uses</p>	<ul style="list-style-type: none"> <li>• With accelerated deforestation and forest degradation, forest type and land use data and maps require regular updating</li> <li>• Current classification of forest lands does not reflect land use priorities of smallholder and industrial investors or needs of local communities</li> <li>• Forest land use conflicts are common in all forest areas</li> </ul>	<ul style="list-style-type: none"> <li>• Forest land use classification reflect priority needs including: <u>protection</u> (various types), <u>commercial production</u> (industrial and community) and <u>conversion</u> forests for agricultural or other priority land uses</li> </ul>	<ul style="list-style-type: none"> <li>• Pro and land fisheries, a concession these land investors</li> <li>• Use a regular P</li> <li>• Ecosystems to be made Ministries</li> <li>• Pst designating conversion</li> </ul>
<b>LEGAL FRAMEWORK</b>			

<p><b>Objective 1:</b>  <b>New Forest Law</b> introduced that is simple, clear, enforceable and supports the planning, management and monitoring procedures as detailed in the new Forest Policy and the First Socio Economic Development Plan 1996-2000</p>	<ul style="list-style-type: none"> <li>• Outdated ( June 1988), inaccessible, complex, inconsistent and unenforceable forest law and other regulatory documents more suited to centrally planned economy, not reflecting current market oriented economy</li> <li>• Prevalence of forestry activities which seem illegal, but authorised by a wide array of senior RGC officials (Prime Ministers, MAFF, MOC, MIME, MOE, Governors, Police, RCAF)</li> <li>• No objective standards or integrated guidelines for forest management and forest protection in a systematic legal and regulatory framework</li> <li>• Allows RGC to issue logging, transportation and export permits which seriously undermine the forest concession system in non-transparent and non-competitive procedures</li> <li>• Inadequate rights of access for smallholders and communities to forests for traditional wood and non-wood forest products making these activities primarily illegal</li> <li>• Few convictions, light penalties</li> </ul>	<ul style="list-style-type: none"> <li>• Replace all prior forestry law</li> <li>• Simplify the law and make it available to regulators, investors and public to allow them to conduct legitimate business in a lawful way</li> <li>• Bind officials to objective standards</li> <li>• Provide access to forestry sector information and data</li> <li>• Provide transparent procedures for awarding forest management rights</li> <li>• Hold concessionaires responsible for reforestation and environmental damage</li> <li>• Ensure access for smallholders and communities to forests for traditional wood and non-wood forest products</li> <li>• Clarify procedures for tax collection to RGC</li> <li>• Introduce sufficient penalties as a deterrent for illegal activities</li> <li>• Provide disincentives for corruption</li> <li>• Introduce interim measures whilst new Forest Law is prepared during which time urgent actions are necessary</li> </ul>	<ul style="list-style-type: none"> <li>• ... approved before ...</li> <li>• ... support the Forest Concession Agreement Planning ...</li> <li>• ... introduced detailing the responsible necessary reforms ...</li> <li>← ... Management concession ...</li> <li>← ... for ... which ...</li> <li>← ... Re- (log pro ...</li> <li>← ... Ex- specific for exp- con- ...</li> <li>← ... M- con- ...</li> <li>← ... R- method ...</li> </ul>
<p><b>Objective 2:</b>  <b>New Commercial Concession Agreements</b> introduced to support the concept of “Sustainable Forest Management” by private forest investors and compliance with the Forest Management Planning Package</p>	<ul style="list-style-type: none"> <li>• Poorly drafted agreements, loopholes in concessionaire responsibility, enforcement difficulties</li> <li>• The RGC bound to unfavourable provisions for long terms</li> <li>• Rights for “logging”, not “sustainable forest management”</li> <li>• Logging rights linked to investment in forest industries developments</li> <li>• Inadequate access rights for rural community use of forests</li> </ul>	<ul style="list-style-type: none"> <li>• Introduce a model Forest Concession Management Agreement to bind the concessionaire to objective standards of sound forest management</li> <li>• Conduct a case by case review of existing concessionaire performance as basis for negotiating terms and conditions for future operations by more sound management practices</li> </ul>	<ul style="list-style-type: none"> <li>• ... Pre- Concession basis for ...</li> <li>• ... De- responsibility necessary Concession ...</li> <li>• ... An- Concession and proced ...</li> <li>• ... Co- audit of ...</li> <li>• ... Co- negotiator Agreement ...</li> </ul>

**LAND USE ALLOCATION**

<p><b>Objective 1:</b>  <b>Land Use Planning and Allocation achieved in an open, participatory and transparent basis</b> to balance alleviation of poverty, food security and access to wood and non-wood forest products to rural populations with investment opportunities in commercial forest concessions for major scaled economic development as detailed in the First socio-economic Development Plan, 1996-2000</p>	<ul style="list-style-type: none"> <li>• Population 1995, 10.2 million, 12 million by 2000, 47% under 15 years, growth rate 2.8%, life expectancy 51 years, mortality before 5 years, 18%</li> <li>• Rural population 85%, most living at subsistence level, 90% of most serious poverty exists in rural areas</li> <li>• In 1994 69% of cultivated areas harvested, 31% destroyed by floods or droughts</li> <li>• During 1990-95, GDP (excluding Agriculture sector grew by 9.1%/year, however, Agriculture based GCP grew only 2.6%/year</li> <li>• Land allocations by concessions issued by central RGC to 70% of Cambodia's area (forestry 39%; protected areas 18%; &amp; agriculture, military and fishing 4% each)</li> <li>• Lack of legal consideration for rural community access to forest lands for subsistence supply of wood and non-wood forest products (including food)</li> <li>• Lack of horizontal coordination in land allocation decisions by Ministries of RGC at central level</li> <li>• Lack of vertical coordination between central, provincial, district and commune levels of RGC</li> <li>• Over-allocation of land-use rights and conflicts are common</li> <li>• Few procedures exist to ensure land use decisions are made in an economically, socially and environmentally rational manner</li> <li>• No inter-departmental review and no public participation in decisions</li> <li>• Frequent intervention in land-use allocation by powerful people</li> </ul>	<ul style="list-style-type: none"> <li>• Review coordination between and within RGC Ministries at central level</li> <li>• Put legal framework, policy and planning procedures in place to allow provincial, district, commune inputs to be combined with central RGC inputs to make more rational land use decisions, including community access to forest lands</li> </ul>	<ul style="list-style-type: none"> <li>• Review coordination between Agriculture, Forestry and Fisheries Ministries at central level</li> <li>• Put legal framework, policy and planning procedures in place to allow provincial, district, commune inputs to be combined with central RGC inputs to make more rational land use decisions, including community access to forest lands</li> <li>• Review government allocation mechanisms for rural communities</li> <li>• Review procedures made by the established procedures of development</li> <li>• Review the resources of MAFF and consistent make it more public</li> <li>• Review support to approach using extra services</li> </ul>
---	--	--	---

<p><b>Objective 2:</b>  <b>Rationalisation of Land Use in Protected Forest Areas</b> with unique features suitable for national parks, wildlife sanctuaries, protected landscapes and multiple uses, involving local communities wherever practical and feasible</p>	<ul style="list-style-type: none"> <li>• Royal Decree on the "Protection of Natural Areas" November 1993 designated 3.4 million ha of protected areas including 7 National Parks, 10 Wildlife Sanctuaries, 3 Protected Landscapes &amp; 3 Multiple Use Areas</li> <li>• No legislation states that logging is illegal in protected areas and 15 of the above areas have high incidence of valuable commercial species</li> <li>• Protected areas surrounded by Forest Concessions, so mixing of logging, transport, trading common</li> <li>• Little understanding of the status and concept of protected areas</li> <li>• There is a lack of permanent presence of MOE staff and weak capacity to manage, monitor and enforce laws</li> <li>• All protected areas have been subject to varying intensities of logging</li> <li>• The military, associated with local logging and milling companies are active in logging protected areas</li> <li>• In protected areas near international borders, foreign logging companies operate export operations with the authorisation of local strongmen and high ranking officials</li> <li>• Rural communities harvest and forage in protected areas for wood and non-wood forest products</li> <li>• Without development funds from the central RGC provincial, district and commune authorities use exploitation of protected areas as sources of development funds for their regions</li> </ul>	<ul style="list-style-type: none"> <li>• Rationalise the legal framework, policies and procedures for planning, management, monitoring and enforcement in protected areas between MAFF and MOE</li> <li>• Introduce initiatives for community participation in buffer zone management of protected areas</li> <li>• Ensure international cooperation with MOE is consistent with the First socio-economic Develop. Plan, MAFF Strategic Plan 1997-2001 and the new Forest Policy.</li> </ul>	<ul style="list-style-type: none"> <li>• MOE coordinate management, enforcement and protection they are not completing</li> <li>• MOE projects (EU, ECU) Ministry of their impact those of the projects to recommend</li> <li>• MOE policy on support for protected areas</li> <li>• MOE enforcement protected areas</li> <li>• MOE non-compliance and proceed</li> <li>• MOE management procedure, community, buffer zone</li> <li>• MOE development plans for</li> <li>• MOE wildlife management, scientific awareness</li> </ul>
<p><b>FOREST MANAGEMENT</b></p>			

<p><b>Objective 1:</b>  <b>New Community Forestry</b>          planning, procedures, training, extension systems and public awareness programmes established to support community based forest concession management in select forest lands to meet local wood and non-wood forest product needs</p>	<ul style="list-style-type: none"> <li>• Forestry, fishing and agriculture concession allocated to private companies and military give exclusive right of land use on the expectation that they use their management expertise to manage these resources sustainably</li> <li>• Communities who have traditionally depended upon these same common property resources are faced with unclear rights of access under these concessions</li> <li>• Land use conflicts are common between concessionaires and local communities</li> <li>• Common conflicts include denied access to wood and non-wood forest products, logging damage to forests on which they depend and exposure to armed and powerful men</li> <li>• Traditional harvesting of forests for 6 million m3 of fuelwood &amp; charcoal; 1-2 million m3 for building purposes, and other non wood forest products (rattan, bamboo, resin, medicines, food etc.) considered illegal and not sustainable in high population areas</li> <li>• Serving rural population needs with wood and non wood forest products contributes significantly to deforestation and degradation</li> <li>• The Inundated Forests in the Tonle Sap and Mangrove Forests of Koh Kong, Kampot, Kep and Kampong Som are particularly vulnerable, despite ecological importance for wildlife &amp; biodiversity conservation</li> </ul>	<ul style="list-style-type: none"> <li>• Develop flexible definitions and options for community resource management and incorporate these into the legal framework</li> <li>• Transfer land use rights (and financial benefits derived from land) to communities in exchange for them taking responsibility for management and protection of select Community Forestry Concessions</li> <li>• Prepare management plans for the two inundated forests and one coastal mangrove forest nominated as Wetlands of International Importance under the Ramsar Convention</li> <li>• Manage and protect the Tonle Sap Biosphere Reserve designated as a unique ecosystem to have birds (and other wildlife), fish and humans live in harmony</li> <li>• DF&amp;W and MAFF &amp; MOE provide the technical support services for Community Forestry Concession planning, management and monitoring with assistance from NGO groups</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Agriculture MRD for and village of Comm</li> <li>• Detail the</li> <li>• Design Comm Agreement</li> <li>• Forest Con preparatio technical and public</li> <li>• Pre strengthen extension monitoring program forest and nominated Important Biosphere</li> <li>• Eng with NGO forestry in developed Network Working community forestry pr</li> <li>• For social and including production wood fores</li> </ul>
--	--	--	--

<p><b>Objective 2:</b>  <b>New Forest Concession Planning, Management, Monitoring and Enforcement Procedures</b> to support management of natural forests on a sustainable basis through low impact logging, natural forest rehabilitation, forest protection and local community involvement</p>	<ul style="list-style-type: none"> <li>• The Forest Concession system in Cambodia has been <u>successful</u> in bringing a forest-based industry to Cambodia</li> <li>• It has <u>not</u> been <u>successful</u> in contributing to long term sustainable management of forests or meeting the needs of rural communities</li> <li>• Concessionaires depend heavily upon contractors and sub-contractors to conduct roading, harvesting and transport operations, but have little or no control over their standards of operation</li> <li>• The RGC lacks institutional capacity &amp; capability to set up, manage, monitor, enforce and protect forest concession developments</li> <li>• A secondary forest resource allocation or “collection permit” quota system has developed outside the primary forest concession system</li> <li>• In excess of 90% of log production and trade originates from the secondary quota system - the basis for most uncontrolled logging and trade (including export)</li> <li>• Collection with little or no technical inputs or control from the DF&amp;W</li> <li>• Collection permits can be granted to private, parastatal and public organisations &amp; concessionaires</li> <li>• Collection permits have no technical control, specific forest area or forest management monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• The concept of Forest Concession Management on a sustainable basis be accepted as the primary commercial system of forest land allocation</li> <li>• The concessionaire be held accountable for the planning, management and monitoring of all the operations within his concession, including those of his contractors and sub-contractors</li> <li>• Fully incorporate the Forest Management Planning Package including:             <ul style="list-style-type: none"> <li>← Land and Forest Concession Allocation (including local community needs)</li> <li>← Model Forest Concession Management Agreement</li> <li>← Environmental Impact Assessment Guidelines and Procedures</li> <li>← Pro-forma Sustainable Yield Management Plan and Annual Harvest Plan</li> <li>← Cambodia Forest Code of Practice</li> </ul> </li> <li>• Cease the Collection permit and quota system</li> </ul>	<ul style="list-style-type: none"> <li>• Support Forest Concessions for improved management, rehabilitation</li> <li>• Eliminate Permits/Quota</li> <li>• Introduce Planning of Cambodia controlling management</li> <li>• Hold the RGC for compliance plans, EIA Practice</li> <li>• Ensure forest resource planning</li> <li>• Set sustainable individual</li> <li>• Rationalise annual log harvesting year</li> <li>• Establish logging yield based silviculture</li> </ul>
---	--	---	--

<p><b>Objective 3:</b> Preparation of the <b>Facilitating Factors for Reforestation</b> investment by smallholders, communities and commercial industrial plantation investors</p>	<ul style="list-style-type: none"> <li>• There has been limited public sector investment in reforestation (pre 1972 5,470 ha) and since 1985, 2,000 ha) and no private sector industrial plantation development</li> <li>• Policy, mechanisms &amp; end use objectives in reforestation not clear</li> <li>• Land for reforestation has not been readily available</li> <li>• Land-use rights, tenure of land, ownership of crops are not clear</li> <li>• Inadequate technical knowledge and support capability, limited research and lack of extension capacity</li> <li>• Lack of security and relatively high risks, inflexible land use, long term investment, &amp; unclear financial benefits in reforestation make other investments more attractive</li> <li>• Immediate prospects for large scale, industrial plantation investment by the private sector is relatively low whilst security is poor and investment risks high</li> <li>• Reforestation taxes are not directed back to provinces of origin</li> <li>• Insufficient coordination within MAFF (Agriculture, Forestry &amp; Fisheries Departments) and MOE regarding reforestation, agroforestry</li> <li>• Lack of networking with existing agencies and NGO groups with technical expertise and experience in reforestation in the region</li> <li>• The potential is high for social and community tree planting to support farming, food production &amp; people in flexible, multi land use where financial benefit is to rural investor</li> </ul>	<ul style="list-style-type: none"> <li>• It will take several years for the facilitating factors to be in place for large scale, industrial forest plantation development</li> <li>• A focus on smallholder, social and community reforestation will address the root and immediate causes of deforestation and forest degradation by addressing some of the needs of rural populations, particularly for fuelwood, charcoal and building materials</li> <li>• A combined top down and bottom up planning approach (combining local needs and local practices) be adopted to ensure that the facilitating factors are put in place</li> <li>• Include community forestry and reforestation in the curriculum at the Forestry School at the Royal University of Agriculture</li> </ul>	<ul style="list-style-type: none"> <li>• Facilitating factors for use rights, crops, and technical extension, markets, and community doing so</li> <li>• The priority is alternative reforestation outputs, with groups with and community</li> <li>• Engage NGO group Forestry N community programming donor</li> <li>• Test regional re- other agencies conducted reforestation and CIFOP</li> <li>• Engage community demonstration provenance matching and silicon</li> <li>• Work with NGO group organization information learned and</li> <li>• Review community capacity in DF&amp;W, MAFF</li> </ul>
--	--	---	---

**FOREST INDUSTRIES & TRADE**

<p><b>Objective 1:</b> <b>Forest Industries &amp; Log Trade</b> established on a competitive basis to reflect international efficiencies and markets at levels in phase with sustainable log supply</p>	<ul style="list-style-type: none"> <li>• At current rates of log production and trade, the forest resource will be seriously depleted within 5 years (some concessionaires already face problems)</li> <li>• Independent evaluation of log production in 1997/98 was estimated at the rate of 4.3 million m3/year</li> <li>• The annual allowable cut in 1969 was set at 500,000 m3/year (before 2.6 million ha deforested &amp; serious degradation of prime forests by commercial and subsistence harvesting, 1969-97)</li> <li>• Installed capacity of veneer mills and sawmills in 1997 exceeds 4 million m3/year and operating capacity, 2 million m3/year</li> </ul>	<ul style="list-style-type: none"> <li>• Cease the "collection" permit system and fully support log production and trade from the concession system</li> <li>• Reduce log production and trade to sustainable levels</li> <li>• Maintain the log export ban until the sector is back under control and in phase with sustainable levels log production</li> <li>• Stop approvals off new log processing investments in Cambodia until the sector is under control and in phase with sustainable levels of log production</li> <li>• Involve MAFF and DF&amp;W in the rationalisation of the forest industries sector</li> <li>• Redirect the military away</li> </ul>	<ul style="list-style-type: none"> <li>• Cease from wood systems</li> <li>• Engage trade from system</li> <li>• Engage advise new</li> <li>• Cease sawmills</li> <li>• Cease exports, in export port</li> <li>• Cease Investment Agreement concession, in international DF&amp;W cooperation</li> <li>• Engage</li> </ul>
---	--	---	---

<b>FORESTRY TAXATION</b>			
<p><b>Objective 1:</b> Reviewed <b>Forestry Taxation and Revenue Sharing</b> calculation, collection and distribution procedures to more efficiently and effectively deliver revenues to the RGC and equitably share revenue for development of central, provinces, districts and communes to legitimately supplement incomes of public servants and military</p>	<ul style="list-style-type: none"> <li>• Despite major increases in log production and forest products trade (particularly illegal) there has not been a corresponding increase in tax revenues to RGC</li> <li>• In 1997, US\$12.4 million (between US\$20-25/m3) was paid to the RGC on legitimate log production of 450,000 m3 (10% of log production)</li> <li>• In 1997, about 4 million m3 log equivalent was produced illegally and did not get taxed formally by RGC</li> <li>• If formal taxes had been collected on the 4.3 million m3 of production in 1997 RGC would have received in excess of US\$100 million</li> <li>• Informal taxes of about US\$50/m3 are paid to provincial and district authorities in lieu of development budgets (50%) and to RGC staff and military to supplement low salaries (50%)</li> <li>• If informal taxes were paid on the illegal logs at the rate of US\$50/m3, there was an additional US\$200 million paid to Cambodians</li> <li>• More efficient collection of formal taxes must take precedence over increased forest charges which apply to only 10% of the sector</li> <li>• The formal tax rate must be set at levels which will allow sustainable management of Cambodian forests</li> <li>• The combined formal and informal taxes incurred by the forestry &amp; forest industries sectors, make Cambodia a high cost, high risk source of forest products</li> <li>• The most appropriate forest royalty calculation method for Cambodia under current conditions is the residual stumpage system</li> <li>• The royalty rates need regular review to reflect international rates &amp; market changes</li> </ul>	<ul style="list-style-type: none"> <li>• The RGC at the highest levels must be committed to a reform of practices, based upon maximum transparency, time-bound programme of military demobilisation and interim use of strong enforcement to rapidly reduce the level of illegal activities to sustainable levels</li> <li>• Establish principle that a forest revenue system be a component of the management of the nation's natural wealth rather than a stand alone objective - more revenue must not come at the expense of the future productivity or environmental &amp; social values of forest land</li> <li>• The formal royalty tax system be simple, responsive to international market prices, enforceable, administratively achievable and cost effective for the RGC</li> <li>• Recognise that changes in structure of formal taxation alone will not improve the management of resources unless accompanied by steps designed to reduce or eliminate theft and tax evasion</li> <li>• As sustainable levels of log production and trade are achieved, there is potential for the RGC to increase formal tax revenues in a step by step approach as the public administration reform programme of planning and budgeting delivers revenues to provinces and districts and institutional reforms allow increased, legitimate income to forestry officials</li> </ul>	<ul style="list-style-type: none"> <li>• The RGC to reduce the informal evasion and to increase formal tax revenues</li> <li>• Apply the same volume of felling control</li> <li>• Forest revenue expanded to cover administrative and budgetary government</li> <li>• Introduce a driver of a government's original rate/m3</li> <li>• Contract for the 10% of processed central RGC</li> <li>• Consider annual rates of commensurate to market prices</li> <li>• RGC/Ministry forestry by covering economic commercial</li> <li>• Allow DFR legitimate and service sector</li> </ul>





INSTITUTIONS & ADMIN.			
<p><b>Objective 1:</b>  <b>RGC Institutional Mandates, Structures and Procedures Rationalised</b> for more streamlined and effective land use allocation, forest management, forest industries and trade, revenue collection and monitoring and enforcement planning, management and monitoring as reflected in the new Forest Policy</p>	<ul style="list-style-type: none"> <li>• MAFF, DF&amp;W jurisdiction over 7 million ha of forest concessions and 0.3 million ha of non-concession forest lands not yet allocated</li> <li>• MOE over 3.3 million ha of National Parks (0.8 million ha); Wildlife Reserves (2.0 million ha); Protected Landscapes (0.1 million ha) and Multiple Land Use Areas (0.4 million ha)</li> <li>• MAFF, Department of Fisheries over 0.6 million hectares Fisheries concessions in Inundated forests of Tonle Sap and coastal Mangroves</li> <li>• RCAF, 0.8 million ha forest land as Military Concession</li> <li>• Lack of well defined and accepted legal system</li> <li>• Lack of clear lines of authority</li> <li>• Politicised and over staffed public service</li> <li>• Excessive influence of various interest groups (particularly Military) in policy, planning, management, monitoring and enforcement</li> <li>• A General lack of transparency</li> <li>• Low public service salaries</li> <li>• Widespread illegal payments to supplement salaries and budgets</li> </ul>	<ul style="list-style-type: none"> <li>• Rationalise forest planning, management, monitoring and enforcement of forest lands between DF&amp;W and Departments of Fisheries and Agriculture within MAFF and with MOE for protected areas</li> <li>• The DF&amp;W represent the RGC on all commercial forest concession and production forestry issues and be delegated sufficient powers to carry out technical responsibilities effectively</li> <li>• Improve present internal organisation of DF&amp;W to be more responsive to forestry sector needs</li> <li>• Build capacity of staff to more effectively carry out their tasks;</li> <li>• Provide adequate financial resources to DF&amp;W and its staff to enable them carry out their work</li> </ul>	<ul style="list-style-type: none"> <li>• Clarify jurisdiction over forest lands between Dept of Fisheries, MAFF and Agriculture</li> <li>• Define the roles of the RGC &amp; prepare a plan to provide improved Forest Policy authority and signing authority</li> <li>• Support the Enforcement of these in the field</li> <li>• Prepare a plan based on the needs used as a basis for action</li> <li>• The National quarterly, circulated action plan</li> <li>• Strengthen Secretariat technical work to implement</li> <li>• Set up Timor improvement DF&amp;W by the new Forest feasibility study management</li> <li>• Formalize the Timber In RGC as a forestry and</li> </ul>