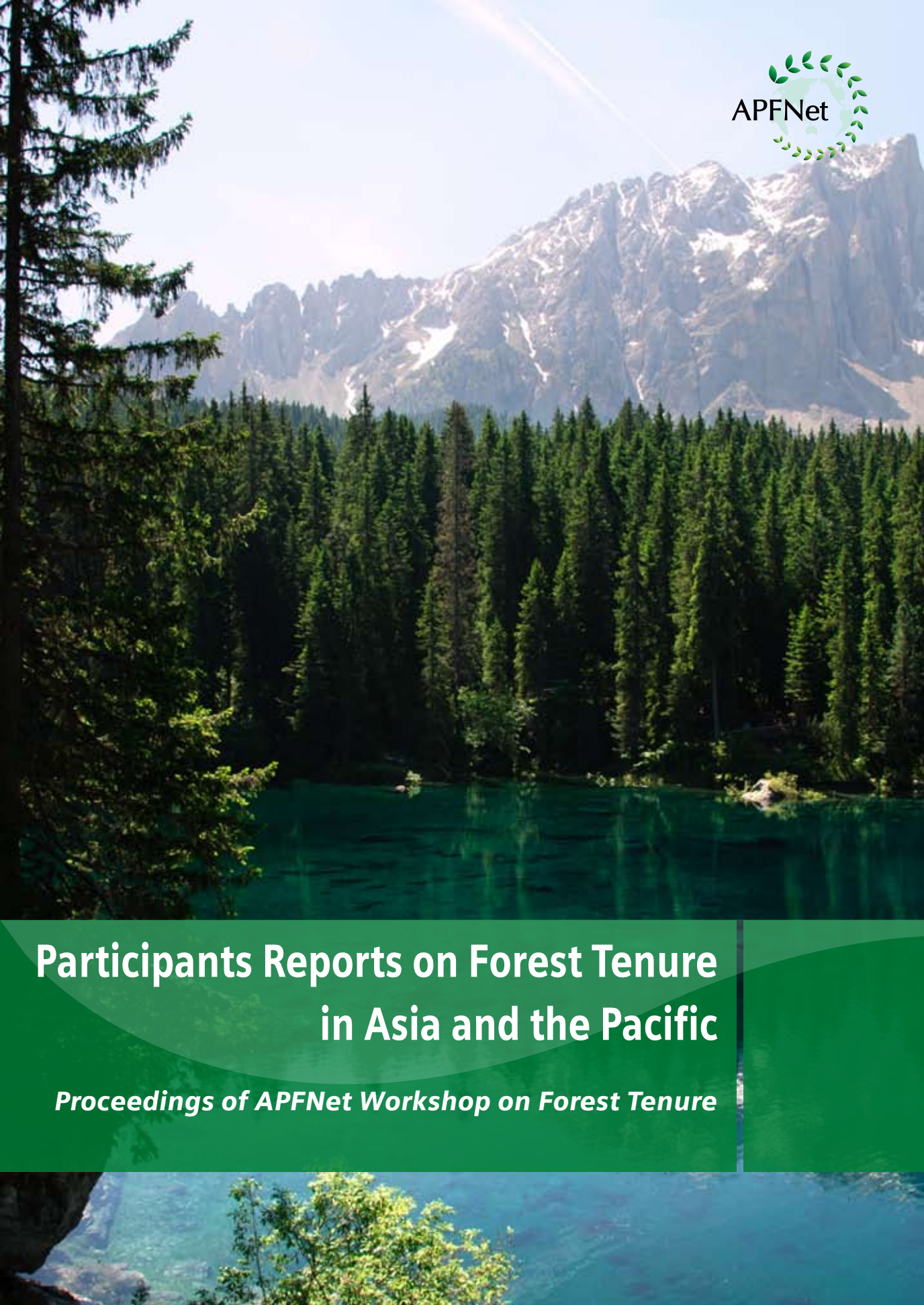

APFNet

# Participants Reports on Forest Tenure in Asia and the Pacific

*Proceedings of APFNet Workshop on Forest Tenure*






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**Edited By**

*Rosalie, LuQian and WangQian*

## Preface

As part of its capacity building program under the theme "forestry and rural sustainable development", the Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet) sponsored a workshop on forestland tenure in July 2010. This initiative provided a venue for senior forestry officials from 13 member countries, including China, to learn from each other about the successes and ongoing issues related to forest tenure and forest tenure reform in the region.

Every afternoon during the workshop, participants were given the opportunity to describe forest tenure arrangements in their respective countries. Information they conveyed covered historical changes, drivers of reform, patterns and ownership, impacts, and future trends. These presentations were extremely useful and served as the basis for many rich exchanges and discussions.

They highlighted similarities among countries but also underscored vast differences. In Mongolia, for example, forestland covers 11.4% of the country's total land area while that of Cambodia spans 59.09%. In Papua New Guinea, 100% of forestland is under customary ownership and is governed by customary law. In China, roughly 40% of forestland belongs to the state while the remainder belongs to collectives. In other instances, state ownership is total. Such differences confirm the need for reform strategies and measures to be based on each unique set of national circumstances.

In the interest of sharing the valuable insights which participants provided, APFNet is pleased to make this compilation of country reports available. The documents not only identify the challenges that Asia-Pacific countries still face with regard to forestland tenure reform, but they also include the key factors which determined the success of implementation and the effectiveness of outcomes.

We hope that readers will find the information helpful in terms of any forest tenure reform they are either contemplating or are currently undertaking. Last but not least, we would like to thank all workshop participants for their important contributions. Without their efforts and their willingness to recount experiences and lessons learned, this publication would not have been possible.

Derictor General
APFNet Secretariat

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# Bangladesh Country Report on Forest Land Tenure System

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Source: *Bangladesh Forest Department, 1999*

**Figure: Forests Distribution in Bangladesh**

## 1. Introduction

Bangladesh is a sovereign country in South Asia, flanked by India on three sides except for a small border it shares with Myanmar in the far South East. The Bay of Bengal is situated all along its southern border. Its geographical location is between 20° 34' and 26° 38' North latitude and between 88° 01' and 92° 41' East longitude. It is a tropical country which covers 147570 square kilometers and experiences mild winters from October to January and hot and humid summers from March to June. The average annual rainfall is about 2000 millimeters, concentrated during the monsoon months of May to September. Very often the country faces natural disasters, especially cyclones and tidal bores. Bangladesh is a low-lying deltaic country at the confluence of two mighty river systems, namely the Ganges and the Brahmaputra. The land is deep, fertile and flat. Most parts are less than 12 m above the sea level while the highest point is about 1,052 m. It has a population of about 151.41 million (BBS 2008) and an estimated per capita GDP (BBS 2008) of about USD 322.8 (Taka 22597) in 2008. More than 20% of its population lives on a dollar a day (GED, GOB 2005).

Land tenure refers to the legal relationship or prevailing norms between people and the land. It is the association with a piece of land (including water found on it), either of the state or of a proprietor, under specific terms and conditions.

Land tenure is generally categorized as:

- Private: An assignment of rights is to a private party which may be an individual, a group of people, or an organization. For example, within a community, individual families may have exclusive rights to residential parcels, agricultural parcels or certain trees over a land parcel.
- Communal: Every member of a community has a right to use independently the holdings of the community, for example, to grazing cattle on common pasture.
- Open access: Specific rights are not assigned to anyone and no one can be excluded. Examples are free access to the high seas, rangelands, and forests.
- State: Proprietary rights rest with the state.

Forest land generally refers to land that is either under tree cover or legally designated as such.

## 2. Historical Background

In the past, forest land was under the control of rulers but could be used by local people. Between 800 and1400 A.D., Bengal (most of present day Bangladesh) came under the Pal dynasty when the Indo-Bangladesh region was divided into a large number of individual sovereign states (Dwivedi 1980). Although forestry was administered at the state level at that time, the only function authorities performed was the collection of revenue from harvests. Throughout this period, forest land was converted to agricultural land. During the Mughal period (1526-1700), states were brought under central control and administered as Suba. The forest land tenure system continued as before, with agriculture taking priority.

After the fall of the Mughal dynasty, Britain ruled the Indo-Pak subcontinent from 1757 to

1947 AD. Initially, the forest land tenure system remained the same, where the goal was to collect royalties from the many forest toll stations placed along important river banks. The conversion of forest land to agriculture land continued as well, mostly through settlements granted to the public.

In 1793, Earl Charles Cornwallis brought about what is known as the permanent settlement of Bengal - a revolutionary change which granted chunks of land to Zaminders (landlords) for a fixed fee and on a permanent basis. Forest land could now be owned privately. However, the tax or rent which a landlord paid to the Crown was far more than what could be earned from the sale of forest products. Thus, the conversion of private forest land to agricultural land remained significant.

In the 18th century, vast tracts of present day Bangladesh had extensive forest cover, all of which was owned by the British Crown. Since people wanted to grow more crops and the Crown wanted to collect more tax, forests were destroyed to achieve these ends. Though the Government owned all land, the state recognized user right, especially because it generated revenue through taxation. People were given forest land on the assumption they would convert them into agricultural land. Records indicate that the northern part of the Sundarban Reserved Forest was forest land even in the mid 19th century. However, it is now inhabited and has become agricultural land. Similarly, most of the greater Sylhet and districts were forest land in 19th century but have since become tea estates and human habitations.

The British Crown promulgated Act VII in 1865 to establish a rule of law in the forest sector - a first in this part of the world. The Act declared many tracts of forest land as reserved forest under the management of the forest department. Most of the existing Sundarban was made into reserved forest in 1875-76 and forest land in the greater district of Sylhet received the same designation under Assam Forest Regulations. Much of the forest land of Chittagong and Chittagong Hill Tracts (CHT) followed suit in the early 20th century and tracts were managed by the British Government.

In 1945, the British Government promulgated the Bengal Private Forest Act which led to the accelerated clearing of private forest land in order to retain tenure rights. Five years later, the Pakistan Government promulgated the State Acquisition and Tenancy Act which authorized it to take over many of the proprietary rights of landlords over this land with regard to tenants and to ownership of villages, market places, forest land, and ghats. All non-retainable properties became the property (khas) of Government, along with all forest land of more than 10 acres, including areas where trees were scattered. Government later decided to acquire this forest land through the forestry department. Small parts were later declared reserved forests and tenure arrangements changed accordingly.

When British rule ended in 1947, present day Bangladesh became an independent country for Muslims, known as East Pakistan. It emerged as a sovereign nation in 1971.

## 3. Drivers of Forest Land Tenure Change

The above historical background sheds light on changes to forest land tenure over the last few centuries. The balance of this report covers the drivers of reform during the last 50 to 60 years.

### 3.1 Prevailing Policy of the Government

Government promulgates a number of policies for the purpose of administration and control. Forest land tenure is largely affected by those related to land, land use, water and forestry.

In the 1940s and 50s, landlords paid a fixed amount of revenue to Government. As noted earlier, because each unit of forest land fetched less income for the landlord than agricultural land, large scale conversion took place, thereby changing tenure arrangements.

In the 1950s and 60s, government policies, considered the leasing of forest land for other uses as more beneficial to the nation. Thus, much of the forest land administered by Government (khas land), but not under the control of the forestry department, was leased out for agriculture, horticulture, and rubber gardens, for example.

In the 1970s, large chunks of unclassified state forests, especially in CHT, were leased out for establishing rubber gardens. As of 2010, more than 13,660 ha were granted to individuals for this purpose, with the result that the status of this forest land changed from khas into private. Around the same time, many of the plain land people were allotted 5 acres per family of unclassified state forests to establish homesteads, orchards, gardens, and agricultural fields. Under this policy, another 7570 ha of forest land changed from khas to private and, in almost all cases, forest cover was lost. In addition, more than 14575 ha of reserved forest was transferred to the Forest Industries Development Corporation in the 1970s and 80s for rubber plantations.

All the newly accreted lands along the coast are 'khasland1' as per the prevailing law of the land. In the 1980s, the Government undertook massive afforestation of these new accretions and more than 165 thousand ha were turned into forest land, 50% of which has been permanently designated reserved forests. The balance of about 81 thousand ha has since shifted to agricultural land. Moreover, the Government gave thousands of ha of reserved forests to the military.

When shrimp farming was lucrative in the 1970s and 80s, the Government leased more than 8 thousand ha of reserved mangrove forests in Chokoria Sundarban to influential people, thereby changing their status to shrimp farms. It also leased many khasland mangroves for the same purpose, especially in the greater districts of Chittagong and Khulna. The transactions involving khasland resulted in the further conversion of large chunks of forest land to farmland.

### 3.2 Administrative Decisions and Bureaucracy

The land use policy of 2001 prohibits the change of forest land to other uses but, in spite of these provisions, district administrations still lease the land for different purposes because it is considered khasland. The recent decision of the Government to release 50% of coastal forest land for agriculture contradicts the prevailing land use policy.

### 3.3 Economic Perspectives

Infrastructure development, especially the construction of roads through forest land, makes this land more accessible and incites powerful people to grab it for establishing various industries, as happened in the Dhaka Forest Division where the status of more than 2025 ha of forest land has changed. Several law suits over title are pending settlement in the court of law.

Another cause of forest land conversion is the discovery of valuable products to mine. In these cases, authority over the land is transferred to different agencies. Examples of such occurrences include a gas field in Shahjir Bazar (the greater district of Sylhet) and stone quarries in Sunamgonj (greater district of Sylhet).

### 3.4 Population Pressure

Bangladesh has one of the highest population densities in the world and pressure on land is severe. The influx of people into forest land, especially after rivers erode, regularly results in encroachment because they have no alternative for shelter. Although Government continues to own these sites, they are converted to homesteads, agricultural fields, and orchards and lose their designation as forest land. At times, local influential people incite poor rural people to grab forest land for uses other than forestry and, over decades, thousands of people took over large chunks of the "Sal" forest land. To address this situation, the Government of Bangladesh launched a program of social forestry in Dhaka, Tangail, Mymensingh, Dinjpur and Rangpur, involving encroachers as participants. The program was highly successful and, in the space of 10 to 12 years, more than 35,100 ha (PCR of FSP 2008) were brought back under tree cover, thereby recovering its status as forest land.

Although population pressure is a common occurrence and a root cause of encroachment on forest land, it does not officially change the tenure status of the land. Rather, it is the land use pattern which changes.

## 4. Current Government Policies and Implementation of Forest Land Tenure

The designation of land as forest land refers either to how it is classified in official records or to the fact it is forested or under tree cover. Most forest land in Bangladesh is under the control of the Forest Department and is classified according to 8 legal categories, as indicated in the table below.

**Table: Legal Nomenclatures of Forestlands**

| No. | Legal Nomenclature | Area in Million Hectares | Percent of Total Land Area of Bangladesh | Ownership vests with | Management vests with | Remarks |
|---|---|---|---|---|---|---|
| 1 | Reserved forest (RF) | 1.246 | 8.62 | Forest Department (Government) | Forest Department | No activity is allowed without prior permission of the FD |
| 2 | Notified forest (NF) | 0.224 | 1.55 | District Administration (Government) | Forest Department | Some tree species are declared reserved |
| 3 | Protected forest (PF) | 0.037 | 0.25 | District Administration (Government) | Forest Department | Not supposed to be leased out for a certain period |
| 4 | Acquired forest (AF) | 0.008 | 0.05 | District Land Administration (Government) | Forest Department | Non retainable under SATA 1950. To be managed as RF & under the process of reservation |
| 5 | Vested forest (VF) | 0.003 | 0.02 | District Administration (Government) | Forest Department | |
| 6 | Unclassified state forest (USF) | 0.730 | 5.05 | District Administration (Government) | District Land Administration | Ethnic people have the right to practice slash and burn agriculture |
| 7 | Homestead forest (HF) | 0.700 | 4.84 | Private | Private | |
| 8 | Tea estate forest (TE) | 0.070 | 0.48 | Private | Private | |
| | **Total** | **3.018** | **20.86** | | | |

Source: Management Planning Unit, Forest Department, Government of Bangladesh, June 2010.

The major government policies that affect forest land tenure are

- Forest Policy
- Land Use Policy
- Industrial Policy
- Environment Policy

- Agriculture Extension Policy
- Water Policy

The prevailing Forest Policy was promulgated in 1994 and is well drafted. It incorporates all the necessary aspects for the improvement of forests and forestry in Bangladesh, including social and participatory forestry. Afforestation and enhancement of forest cover to 20% of the land area of the country are notable features.

The Land Use Policy of Bangladesh was declared on June 13, 2001. It is also well drafted and clearly opposes the conversion of forest land to other uses. Although it promotes the conservation of natural resources, very often it not followed in that spirit, especially by Deputy Commissioners who use the bureaucratic hierarchy as a cover(Biswas & Choudhury 2004).

Even though the Industrial and Agricultural Policies do not conflict with forest land tenure per se, often this land is converted to industrial and/or agricultural uses.

## 5. Types of Forest Land Tenure and Ownership

Ownership is the most important feature of tenure and forest land tenure is no exception. However, communities, especially those involved in forest management, can accrue user rights over forest land that is owned by Government (FD) and, through agreements, can share in the benefits. In addition, other rights have been accepted in some forest land, such as the right to practice slash and burn agriculture in unclassified state forests, and the right of easement through forest land to farm land (as in many Sal forestlands). Thus, there are two types of ownership of forest land: private and government.

Private ownership: Tenure over private forest land is clear and fully in favor of the individual or organization named in the land record. It extends, for example, to forest land for homesteads, rubber gardens, and tea estates.

Government ownership: According to records, proprietary rights over government owned forest land are not always completely in its favor. Local residents and communities living nearby for generations, develop unwritten rights which become especially significant when they participate in forestry operations under social forestry or co-management programs.

## 6. Impacts and Consequences of the Forest Land Tenure System

In the past, the Crown controlled forest land but local people had user rights. In 1793, the British rulers in India introduced permanent settlement which took away the proprietary rights of cultivators and gave them to Zamindars. This new system relegated cultivators to tenants and, as a result, discontent and resentment grew among them. As noted earlier, the tax or rent which the landlord paid to the Crown amounted to more than earnings from the sale of forest products. Therefore, this private forest land was often converted to agricultural land.

To reduce conflict, Pakistani rulers introduced the State Acquisition and Tenancy Act (1950) which abolished private ownership of forest land and prohibited sub-letting. It charged rent

to a number of intermediaries, including to the tenants cultivating the land. However, to avoid expropriation, some Zaminders cleared their forests and made it agricultural land.

Certain categories of land, including forest land, were managed by Government as khas. These lands were declared non-retainable by any tenant or ex-receiver of rent. Later on, however, khas land that was under the administrative control of Government, not the forestry department, was leased for use other than forestry - a situation which changed the status of the tenure.

The land tenure system basically revolves around ownership and forest land tenure is no exception. As per prevailing regulations, Government maintains a record of rights which it amends following new land transactions such as registration and transfer, as well as on the basis of physical field surveys.

The tenure of forest land, like the regular tenure system of the country, incorporates a use aspect - in this case, use associated with forests and forestry - but this dimension is often neglected when tenure is granted. In view of the fact that the Forest Policy (1994) and Land Use Policy (2001) call for special treatment of forest land, tenure aspects are expected to remain forestry based. However, increasing population pressure may hinder attempts at conservation and the consequences of maintaining the status quo with regard to forest land tenure are likely to be adverse.

## 7. Future Trends

Mustafa (2002) concluded that, in Bangladesh, two interrelated trends with respect to its Forest Policy is surfacing: state-sponsored commercialization of forestry and the alienation of forest communities from the management and use of forest resources. Since the policy is directly related to forest land tenure, the same trends are expected to emerge in this area as well.

The visible aspects of forest management and the hopes and aspirations of the people at large indicate that the following issues are eminent.

Under social forestry, participants will pressure for a bigger share of the benefits.

As the co-management of protected areas (conservation sites) progresses, communities will attempt to secure total management of these locations and all benefits.

Communities adjacent to forests that are not yet under co-management are likely to demand that Government hand over the management of these sites to them, especially with regard to revenue collected from recreational services.

Based on the above, forest land tenure in the future will accord increasingly more rights and privileges to adjoining communities, including participants engaged in social forestry.

## 8. Conclusions

Bangladesh's land tenure system, of which forest land is an integral component, has evolved over centuries. Since forest land is home to most of the terrestrial biodiversity and performs vital ecosystem services, measures must be taken to ensure these critical environmental

aspects are not jeopardized because of changes to land tenure. In this regard, the capacity of the Forest Department must be strengthened so that it can safeguard these functions under the prevailing land tenure system of the country. With Government granting more usufruct rights, there are indications that both forest management and livelihoods are improving. If trends continue, tenure reform will be instrumental in promoting the conservation of forest ecosystems.

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# Forestland Management in Cambodia

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## 1. Introduction

Cambodia is located in Southeast Asia and shares borders with Thailand, Viet Nam and Lao PDR. Total land areas is 181,035 Km² and the country consists of the following administrative categories: 1 capital (Phnom Penh), 23 provinces, 185 districts, 1,621 communes and 14,073 villages. The population numbered 13,388,910 in 2008; population density is 75/Km²; annual population growth is 1.54%; forest area in 2006 totaled 10,730,781 ha (59.09%); currency is the Riel; race is Khmer (minority ethnic 10%); the official language is Khmer; and 95% of Cambodians are Buddhists. Since altitudes vary, Cambodia experiences different climatic conditions.


**Figure 1: Regional and national map**

Forests cover more than half the country's land area and are a significant renewable natural resource. They not only form part of important ecosystems and protect environmental quality, but they are also critical to socio-economic development.

## 2. Forestland Management and Classification

Article 58 of the Cambodian Constitution and Article 15 of the Cambodian Land Law state that forests are the public property of government. They are managed by three government agencies: the Forestry Administration (Ministry of Agriculture, Forestry and Fisheries) is responsible for the permanent forest estate (PFE) which consists of forest reserves and private forests; the Fishery Administration (Ministry of Agriculture, Forestry and Fisheries) handles flooded forests, including mangroves; and the Ministry of Environment (Article 3 of the Forestry Law) oversees the country's 23 protected areas - national parks, wildlife sanctuaries, protected landscapes and multiple-use areas.

With regard to local communities living within or near permanent forest reserves, the state recognizes and ensures their traditional user rights. Individuals who plant trees on private land or on state forest land where they have been granted user rights have the right to

maintain, develop, use, sell and distribute their products.

Tree planting on state forest land is done by the Forestry Administration (FA), by communities, and by people who have been granted user rights in accordance with Sub-decree 26, dated 25 March 2008. In addition, Sub-decree 146, dated 27 December 2005, allows the government to enter into agreements with investors to grant long term concessions on degraded forest land to establish forest plantations.

Based on the Forest Law, Sub-decree 26, and guidelines for community forestry, the state provides access to permanent forest reserves for local communities to manage, conserve and develop. The FA, in cooperation with other government agencies, local authorities, development partners, and the communities themselves, are helping to implement community forestry in permanent forest reserves.

Sub-decree 53, dated 01 April 2005, sets out the procedures to establish, classify and register permanent forest estates. The process to demarcate boundaries started in 2007, followed by joint monitoring between government and development partners.

### 2.1 Forest Cover Change

From 1965 to 2006, forest cover in Cambodia decreased from 13.2 million ha (73%) to 10.73 million ha (59.09%). The annual rate of change over this same period is estimated at 0.34%. The main causes of forest cover change are as follow:

- Clearance and encroachment
- Fire
- Population pressure and poverty
- Increased demand for timber
- Economic development
- Limited capacity and funds to implement sustainable forest management

**Table : Forest Cover in 2006**

| No. | Forest Types | Forest Area | % |
|---|---|---|---|
| 1 | Evergreen forest | 3,668,902 | 20.20 |
| 2 | Semi evergreen forest | 1,362,638 | 7.50 |
| 3 | Deciduous forest | 4,692,098 | 25.80 |
| 4 | Other forest | 1,007,143 | 0.20 |
| | Total forestland | 10,730,781 | 59.09 |
| 5 | Non Forests | 7,429,893 | 40.91 |
| | Total country land area | 18,160,674 | 100 |

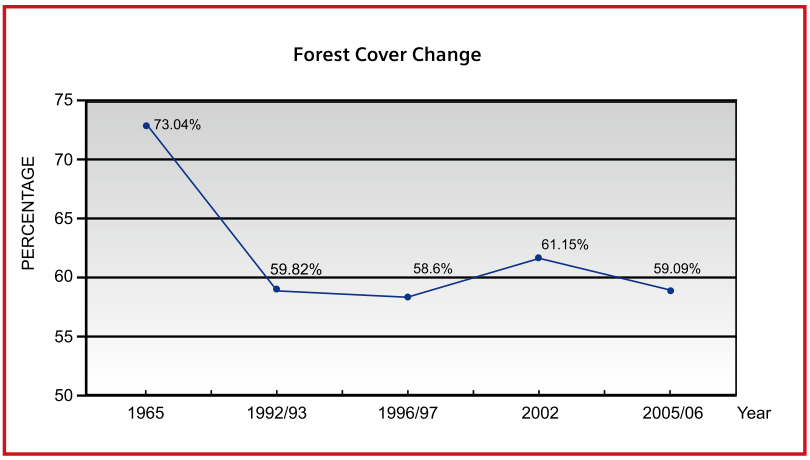


**Figure 2: Change in Forest Cover from 1965 to 2006**

### 2.2. Forestland Uses

**– Protection Forests: 4,534,032 ha (25%)**

- Protected areas: 3,100,000 ha (17 %)
- Protected forests: 1,434,032 ha (8 %)

**– Production Forests: 6,196,749 ha (34%)**

- Forest concessions: 3,068,888 ha (17%)
- Community forestry: 309,354 ha (2%)
- Unclassified: 1,919,225 ha (10%)
- Land economic concessions: 899,282 ha (5%)

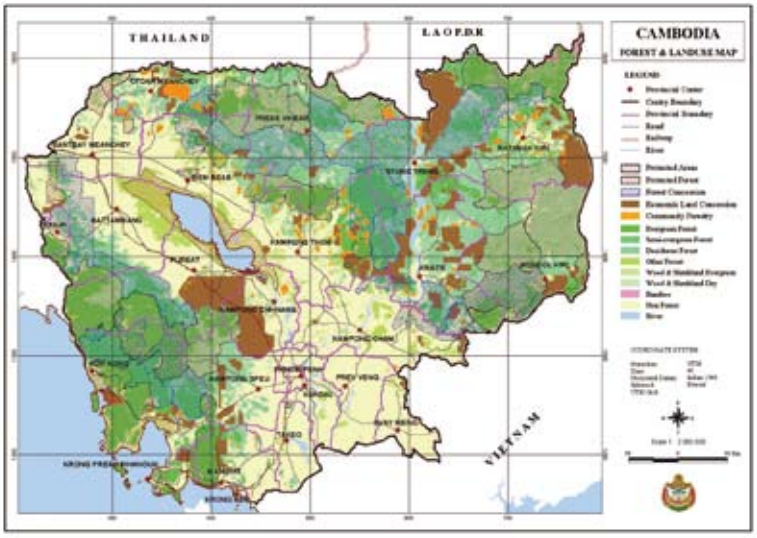


**Figure 3: Forestland Uses**

**Picture 1: Participation in Community Forestry**

## 3. Government Policies on Management of Forest Land & Implementation

### 3.1 Policies

As owners of all forest land in Cambodia, the government has established the following policies:

- Forestry sector reform to manage forest resources sustainably (22 October 1998)
- Declaration 06 to curb land encroachment (25 September 1999).
- National forest policy statement (July 2002) regarding conservation, governance, socio-economic development and poverty reduction
- Sub-decree 19 on social land concession (19 March 2003)
- Sub-decree 79 on community forestry management (02 December 2003)
- Decision 32 on establishment of the national committee for prevention, elimination and suppression of forest cutting, burning, clearing and occupying forest land for properties in provinces and municipalities (02 June 2004)
- Order 01 to combat forest land encroachment and land grabbing (09 June 2004)

- Sub-decree 53 on procedures to establish, classify and register permanent forest estates (01 April 2005)
- Sub-decree 118 on state land management (17 October 2005)
- Sub-decree 146 on economic land concessions (27 December 2005)
- Sub-decree 168 on appointment and composition of national authority to resolve land conflict (15 March 2006)
- Order 01 on preventing clearance of forest land for real estate (10 May 2006)
- Circulation 02 on illegal encroachment of state lands (26 February 2007)
- Promulgation of Phase I in 2002 and Phase II in 2008 of the rectangular strategy and action plans to support state reforms, including forestry reform
- Sub-decree 26 on use state forestland to plant trees (25 March 2008)
- Sub-decree 1146 on appointment and composition of national authority to resolve land conflict (16 October 2008)

### 3.2 Implementation of Policies

Government has taken back 246,672 ha of forest land which were illegally occupied and it is now managed as forest plantations, protected forests, social land concessions and economic land concessions.

From 2006 to 2009, a number of agencies across sectors collaborated to demarcate 5,856 poles (about 933km) of secure forestland, including community forests, protected forest, and forest plantations, for example.

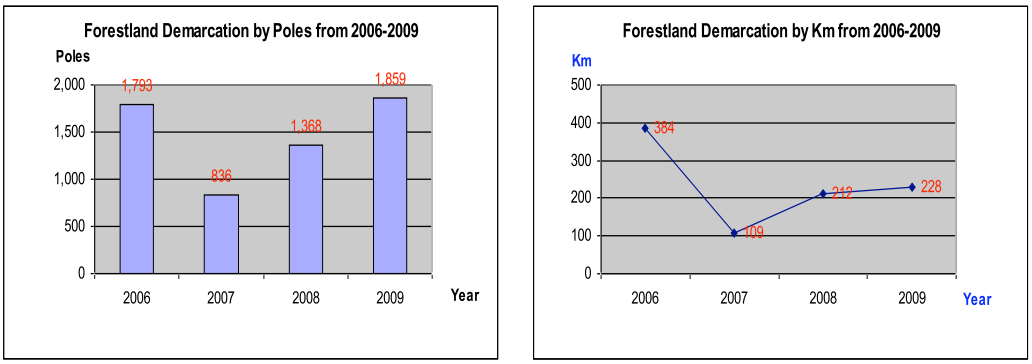


**Figure 4: Forestland demarcation**

**Picture 2: Forestland demarcation**

## 4. Patterns of Forest Land Management

### 4.1 User Rights

Indigenous people are granted rights to use forest land in accordance with the Forestry Law and the Sub-decree on land registration of indigenous people. Local communities are allowed to manage and use forest land in a sustainable manner for daily subsistence and to alleviate rural poverty, based on the laws and relevant regulations.

### 4.2 Issues and Challenges

The main issues and challenges in forest land management are as follows:

- Encroachment and land grabbing
- Conflicting interests between local people and people coming from outside
- Different views among stakeholders on the demarcation of forest land
- Forest land conversion for other purposes

## 5. Future Activities

The Forestry Administration will undertake the following activities in relation to the management of forest land:

- Include the demarcation and classification of state forest land in the national forest program
- Complete at least 1,000 km of forest land demarcation per year
- Reach 60% forest cover by 2015, in line with the Millennium Development Goal of the government
- Review and improve the management of land economic concessions
- Strengthen forest law enforcement to combat illegal activities and associated trade, including land encroachment and land grabbing
- Provide social land concession to people without land
- Promote community forestry to achieve sustainable forest management and alleviate poverty

## 6. Conclusion

The management of forest land is crucial for sustainable development and requires implementation of many laws, regulations and mechanisms. Forest land tenure also contributes to sustainable forest management, improvement of rural livelihoods and socio-economic development.

# China Country Report On Forest Land Tenure System

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## 1. Introduction

This paper summarizes the key points contained in a soon-to-be-released publication which details the evolution of China's forestland tenure reform since the founding of the People's Republic of China in 1949. It provides an overview of forest resources in the country; identifies changes in and drivers of forestland tenure reform; describes current government policies and implementation in this area; outlines patterns and ownership with regard to forestland tenure; notes the impacts and consequences of change; looks at future trends.

## 2. Forest Resources in China

The 7th National Forest Inventory, published in 2010, reveals that forestland in China totals 303.78 million ha, 194.45 million ha of which is under forest cover. Stumpage is 14.91 billion m3, with storage capacity of 13.72 billion m3. In terms of forestland ownership, 123.32 million ha (roughly 40% of the total) belong to the state and 182.47 million ha (about 60%) belong to collectives.

Forests are mainly located in five regions: Northeast China and Inner Mongolia; mountainous areas in Southwest China; hilly areas in Southeast China; mountainous areas in Northwest China; and in tropical forest areas which account for 40% of China's territory and cover more than 70% of national forested land. In recent years, despite increases in forest cover and better quality of forest resources, the sector is unable to fill current demand to drive socio-economic development.

According to the Regulations for Implementation of the Forest Law of the People's Republic of China, forest resources consist of forests, stumpage, forestland, and wildlife and microorganisms in forested areas (SFA, 2001). In a broader sense, forest resources sometimes also include the eco-environmental and other commercial resources in forests (Huang, 2008).

In primitive society, when forests provided habitat not only for wildlife but for all humans, property rights did not exist because these resources were commonly owned. Later on, when individuals possessed, used, disposed of and benefited from forests, the notion of private ownership began to take hold. When rights and obligations over forests gained legal recognition and protection, forest tenure came into being.

## 3. Changes in and Drivers of Forestland Tenure Reform

Since the founding of the People's Republic of China in 1949, the forestland tenure system has undergone several changes (Table 1). After attempts over more than half a century, experiences gained and lessons learned laid a solid foundation for the current round of reforms. During the agrarian period (1950-1953) China's allocation of forestland and forests to households granted ownership to farmers. After agricultural cooperatives were established (1953-1956), they became the owners and managers of all forestland and forests, including those belonging to farmers. At the onset of the opening up period (1980-2002), government attempted to implement the "Three Fixes" forestry policy which called for all forestland to be collectively owned. Collective forest management improved but tenure was still an intangible and unclear concept to local people. Farmers were not given secure rights nor were appropriate mechanisms put in place to share the proceeds from forest management - a key component of effective collective forest tenure reform (Lida and Huaiwei, 2009).

**Table : History of China's Forestland Tenure Reform**

| Period | Changes in Tenure Systems | Effectiveness of Tenure Systems |
|---|---|---|
| **1950~1953**<br>Agrarian Reform:<br>forests allotted to households | Ownership of farmers to land, including forestland and forests, was confirmed. They could harvest, trade, lease and give forestland as gifts. A number of large scale forest farms and forest enterprises were established under collective ownership. | Farmers became enthusiastic about forestry production as a result of their rights to own, manage and dispose of forestland and forests. |
| **1953~1956**<br>Agricultural cooperatives:<br>collective forests to cooperatives | Ownership of forestland shifted from individual farmers to joint ownership by individuals and collectives. Farmers only retained ownership of allotted private forest plots and trees around their houses. Ownership of forestland and large forests was shifted to cooperatives. | Rural forest management shifted from decentralized to centralized. Community forestry took shape as individual members were no longer entitled to own or use the forestry assets assigned to cooperatives. |
| **1957~1980**<br>People's Commune:<br>collective ownership and management | From the onset of the Cultural Revolution, the community again took possession of the trees around members' houses and on private forest plots to manage centrally. Collective ownership in rural areas became the norm, replacing all private ownership of land. | Thousands of rural forest farms were established nationwide under centralized management. Forest farmers destroyed many forests when they lost private ownership and use rights and became dissatisfied with how rights were distributed. |
| **1980~2002**<br>Reform and Opening up:<br>forestry "Three Fixes"<br>pilot for forest tenure reform | Farmers were given management rights over forestland and ownership of trees in regions previously under collectivities. Free markets were instituted and forests were allocated to individual households. The contracting period was extended to 70 years, allowing the transfer of both use and management rights. Management, administration and organization of resources became diversified. | Farmers were allocated private forest plots and contracted out responsibility for some of them. Tenure remained unclear and policies did not keep pace with changes. As a result, illegal logging and deforestation became severe in South China. In the wake of economic reform, forest property rights took various forms and forest products were traded in the market. |
| **2003 to present**<br>improving the market economy system and<br>strengthening tenure reform | Farmers assumed a dominant position in forest management when tenure and ownership were clarified, management right diversified, deposition right identified, and usufruct guaranteed. Forest tenure reform was integrated into rural reform, including of taxes and fees, institutions, and social safety nets. | Reform was introduced in a systematic way. Tenure and property rights became more secure and the transfer of management and use rights easier. Owners under these new arrangements are diverse and they are taking a genuine interest in sustainable forest management. Forest productivity is now tied to the free market system. |

Forest tenure reform in China is an outcome of the sector's shift to a market economy. When the CPC Central Committee and State Council abolished government monopoly on the purchase, sale and distribution of timber in 1985, the timber market opened up and significantly raised the value of forestland. The price of timber soared from RMB37/m3 to RMB300-400/m3 and dramatically increased the income of forest farmers. From 2002 to 2008, the price of timber and other forest products increased by 84.06% and 50.75% respectively. Since 2002, the special tax on agricultural products and many charges on logs and bamboo were eliminated in most parts of China. Specifically, timber taxes and charges in Jiangxi province decreased by more than 70%. In Shanxi province and Inner Mongolia, farmers do not pay a fee for logging but contribute to the afforestation fund. In Zhangping, Fujian province, profits from timber amount to 90 RMB per m3. In Jiangxi province, farmers can make an extra 5 RMB for a single piece of bamboo and 150 RMB/m3 more for timber.

## 4. Current Government Policies on Forest Land Tenure and Implementation

June 2003 marked the beginning of China's new round of forest tenure reform, following the CPC Central Committee and State Council Decision on Accelerating the Development of Forestry. This decision called for forestry institutions to be reformed; forest and forestland use rights to be transferred; forestry tax and charges to be unified; policies on resource utilization, investment and financing to be improved; and for non-public forests to be developed. It also stipulated the need to reform state owned forest farms, nurseries and enterprises, to manage forests by different categories, and to optimize forest management arrangements.

In 2004, the State Forestry Administration (SFA) authorized Yichun and Sanming to pilot tenure reform in state-owned and collective forests. By 2005, the central government began to develop rural areas, exploring new approaches to solve issues related to agriculture via the development of forestry. (Rural areas were faced with high poverty and an underdeveloped economy; agriculture yielded few returns; the level of industrialization was low; and the income disparity between urban and rural areas was wide.)

In 2007, the 17$^{th}$ Committee of the Communist Party of China put forward the Scientific Concept on Development which required altering approaches and accelerating implementation of forestland tenure.

## 5. Pattern of Forestland Tenure and Ownership: Collective-owned Forests

In June 2008, the ***CPC Central Committee and State Council Guidelines on Fully Promoting Collective Forest Tenure Reform*** called for the management of collective forestland by households under contracting arrangements and advocated the liberalization and improvement of forest production - a provision which launched renewed efforts to bring change. The guidelines clarify the thrust of the reform, mainly in the following six areas.

***Tenure clarification:*** Legal certificates are issued to establish households firmly under collective economic organizations as the holders of contractual management rights to forestland and ownership of trees. Tenure over forestland which is unsuitable for contract management must be settled by other methods such as equality in distribution of shares and profit according to law and as agreed by the collectivity. Forestland and trees under

disputed ownership should be settled according to law, after which time the principal management entities can be identified. Farmers use forest plots for private purposes free of charge and on long-term basis - seventy years, with probability of renewal. The collective organizations may retain a small amount of community forestland to manage and administer, under agreed contracting arrangements and according to law. Because contractual rights supersede ownership rights, owners of forestland cannot arbitrarily rescind or adjust the contract, nor can they interfere with the contractor's entitlement to exclusive control of the land. Contractors are also protected from third-party grievances.

In addition, ownership will be clarified of collective forestland and of trees managed by authorities in nature reserves, forest parks, scenic spots, river courses and lakes as well as by state-owned forest (agriculture) farms and cultivation farms in order to maintain the stability of these areas and safeguard the legitimate interests of rightful holders.

***Demarcation of boundaries and issuance of certificates:*** Previous reform efforts overlooked the importance of delineating boundaries and issuing certificates. As a result, many problems arose, such as people managing forests without certificates, and people with certificates either not having forests, or managing forests not assigned to them. Therefore, this round of reform must first clarify contractual arrangements, delineate boundaries through on-site inspection, register eligible recipients, then issue forest certificates that contain detailed and accurate information. Forestry authorities at all levels should identify specific departments to administer forest tenure and undertake assigned tasks, including registration, issuance of certificates, archive management, transfer of property rights, arbitration of disagreements in contracted forestland, and investigation and mediation of disputes related to forest tenure.

***Management rights:*** This area of tenure reform provides for commercial forests to be managed differently than ecological forests for public benefit. The former defined as forests which grow under favourable site conditions and their harvest and utilization will not harm the ecological balance and biological diversity of the region. Farmers can select any management model and trade timber freely, according to law. The latter forests grow in important or ecologically fragile areas and, as long as their functions are not impaired, rational use of resources is permitted, including understory intercropping, poultry farming and tourism.

***Disposition rights:*** Without altering the use of forestland, contractors can subcontract, lease, transfer, exchange, or convert it into shares. This land can also be mortgaged or used as equity and in cooperative joint ventures for afforestation/reforestation and tree operations. If contractors choose to transfer their management rights, they can charge compensation but this transfer can not exceed the remaining period of the contract.

***Usufruct:*** In the context of forest resources, usufruct refers to the right to contract forestland and easements to allow those who hold agreements to occupy, use and benefit from the area under contract. It further provides for farmers to be fully compensated if forestland is expropriated, be paid a resettlement subsidy, and be provided with social security funds to guarantee the same standard of living. If the forestland managed by a household under contract is expropriated legally, the contractor is entitled to compensation as well.

***Responsibilities:*** Written contracts to manage community forestland promote sustainable

forest management and are compulsory. They must clearly define responsibilities of the contractor and the contractee in terms of afforestation, tending, protection, fire prevention, and control of pests and diseases. Forestry authorities at the local level need to strengthen efforts to standardize the management of contracts.

In June 2009, the CPC held the first national forestry conference since the founding of New China to deploy a strategic plan to intensify forest tenure reform, drawing on the results of pilot tests. It announced that the development of the forest sector was key to implementing the Scientific Concept on Development and indicated that forestry was a priority for ecological integrity; a strategic choice to combat climate change; and an essential component for the advancement of rural areas. Subsequent to these statements, central government declared that collective forest tenure reform was complete and actively engaged in the further reform of state-owned forests.

Current reform aims to systematically and fully resolve tenure issues. Compared with past rounds, the objectives are clearer, concepts are better thought out, and procedures are more standardized. The process recognizes farmers as the main players and makes problems associated with unclear tenure a top priority for action. In this regard, the scope of the reform covers forests, trees and forestland where ownership of trees by rural community organizations is ambiguous and rights to use forestland have not been decided. It focuses on collective commercial forests and forestland as well as collective lands which county governments have deemed suitable for forestation. When ownership is confirmed, registration should be completed as soon as possible and certificates issued. Forests designated for public benefit by governments above the county level are temporarily excluded from the reform, as are trees and woodland where ownership is under dispute.

## 6. Pattern of Forestland Tenure and Ownership: State-owned Forests

According to China's Constitution, state-owned forests refer to all forest resources that belong to the state i.e. all citizens. On June 30, 1950, the Land Reform Law of People's Republic of China designated large forests, waste lands and hills as state owned and provided for the establishment of state-run forestry enterprises in northeastern China and Inner Mongolia where continuous tracts of forests were concentrated. In central and southern China, the state set aside a significant amount of forestland for afforestation, mainly to produce timber to meet the demands of a growing national economy and to respond to industry's need for infrastructure development. Currently, 135 key state forestry enterprises and 4482 state forest farms manage and operate state-owned forest resources in China. Forestry departments at all levels are responsible for forest management and the formulation of rules, regulations and policies in areas such as forest resources surveys, monitoring, statistics, logging quotas, and utilization of forest resources.

Since the establishment of New China, state-owned forests have provided more than one billion cubic meters of timber, a figure representing 50% of all national timber output. At present, state-owned forest farms produce most of the timber and timber products in the country, have the largest area of newly planted trees, support wildlife and biodiversity, and are an important component in the conservation of natural forests. However, with the transition to a modern economy in the mid 1980s, state-owned forestry enterprises and forest farms faced various difficulties, including having to deal with conflicting views over

resource management and use.

**State-owned Forestry Enterprises**

The development of state-owned forestry enterprises took place in three stages.

- **1950s to 1970s:** Forests were viewed as economic resources and the sector was considered an industry. Timber production was the sole concern of enterprises and little or no effort was made to replant after harvesting. It played a vital role in terms of national industry, construction, and military supply, in addition to helping to end the international blockade and reviving the economy. Although timber production was planned, enterprises were encouraged to exceed targets. Forest management, in principle, formed the foundation for logging, replanting, afforestation and integrated use but it was not applied conscientiously. Neither did the ecological and social benefits provided by state forests receive full recognition. Throughout this period, timber, steel and cement were considered the three most important materials.

- **1970s to 1990s:** The second stage centered on promoting afforestation and forest conservation became as important as economic development. However, due to prolonged over harvesting, the forestry industry was in serious trouble by the end of the 1980s. In February 1990, a project was launched to manage the crisis. Enterprises began to adjust timber output in a planned manner and to restructure operations to also focus on integrated utilization and diversified management, in addition to timber production.

- **1998 to 2003:** The rapid development of China's economy and increased demand for forest goods and services helped to increase state investment in the sector. In 1998, disastrous floods in river valleys, including the Yangtze River and Songhua River, placed environmental issues high on the government's agenda. A project to conserve natural forests was launched in key state-owned forest regions, including southwest and northwest China, and northeast Inner Mongolia. Timber production was reduced significantly and replaced with measures to protect the environment. A specific grant was allocated to tackle the economic issues which forestry enterprises faced as well as the social impacts resulting from the shift in focus. In 2003, the Central Party Committee and State Council promulgated the Decision on Accelerating Forestry Development which placed ecological considerations at the heart of sustainable forest management. Industry further reduced timber output and, through a national project to protect natural forests, it explored ways to address dwindling resources and the economic crisis the sector was experiencing.

State-owned forestry enterprises were established quickly to meet the urgent domestic need for timber. Due to time constraints and the large quantity of timber required, enterprises in forested regions were set up first, followed by government, then social services, hospitals and schools. Because few other industries established in these areas, government income almost exclusively depended on logging and transportation. Institutions which delivered social services relied on forestry enterprises for their survival as well. This situation led to an unclear assignment of responsibilities between government and state-owned enterprises since the latter was involved in both administrative and business activities - a system which had them overseeing logging operations as well as felling trees.

Under a planned economy, the management of enterprises, forest resources, and administration were well coordinated and promoted development of the sector to meet national demand for timber. However, with the establishment of a modern market economy and the gradual depletion of resources, this centralized approach led to overlapping functions between enterprises and governments. When profits and government revenue plummeted, social service agencies also struggled to survive. Hardship in forest regions brought drastic cuts in salaries and resulted in conflicts among the local population, the environment, the economy and resources. The arduous task of building a prosperous society, in harmony with the forest region, still lay ahead.

The following reforms in state-owned forest regions allowed them to move into a modern market economy:

- The new system separated management from supervision and regulatory functions.
- Government no longer was involved in the day-to-day operations of enterprises.
- Ownership of forest resources was distinct from management rights.
- The state relinquished their assets and reduced their capital.
- Enterprises were handed over to the private sector or joint-stock companies.
- Local government delivered social services.

**State-owned Forest Farms**

State-owned forest farms were public institutions set up to accelerate tree planting, conserve forest resources, and improve ecological conditions in fragile regions and in huge areas of state-owned waste hills and land. When New China was founded, a great number was set up in remote and sparsely populated regions where the economy was undeveloped. Several more were subsequently built on state-owned forestland and in large areas of waste hills and land where communities were incapable of managing them. From the 1960s to 1970s, more state-owned forest farms were established in provinces (autonomous regions and municipalities), cities and counties.

By the end of 2007, after six decades of development, the number of these farms increased from the initial 50 to 4482, distributed in 31 provinces and 1600 counties. Employees number 660,000 - 470,000 of whom are in service and 190,000 retired. The management area totals 62 million hectares, more than 50 million of which is forestland. In addition to housing some 1300 wildlife nature reserves, state forest farms act as shelter belts in ecological regions of national importance and contribute significantly to economic development.

Although communities recognize the achievements of state-owned forest farms in terms of tree planting and forest conservation, ineffective systems of management and operations, insufficient capital, the slow pace of reform, and the absence of supporting policies, for example, have been problematic.

***Lack of investment and weak infrastructure:*** State-owned forest farms operated on the principle of production first, livelihoods second. The limited capital at their disposal was invested mainly in afforestation while infrastructure development was all but ignored. When the state terminated grants in the 1980s, construction of roads and drinking

water facilities was halted, as was the rebuilding of electric power facilities, old housing, and communications and cable TV networks, all of which made economic and living conditions worse.

***Unclear status and ineffective management:*** Although state-owned forest farms, as public institutions, managed operations as enterprises, they were not sufficiently funded or autonomous. The status of employees was also unclear, being neither workers nor farmers. Multiple management authorities led to ambiguity and marginalization, making it difficult to protect their rights and interests according to law. Such shortcomings seriously impeded forestry development both then and now. In recent years, the state invested heavily in forestry development but support for state-owned forest farms is insufficient, local financial investment is limited, and forest reform policies and measures are not in place.

***Huge debt and a heavy socio-economic burden:*** A serious shortage of national investment in forestry means that people must depend on declining timber stocks as their main source of revenue. Due to harvesting quotas and the designation of some commercial forests as ecological forests for public benefit and nature reserves, logging was reduced, timber production dropped, and incomes decreased.

***Heavy staff costs:*** With the decrease in logging and timber processing, the number of surplus forestry workers and retired staff grew, along with the heavy cost to continue to support them. With the decline in forest revenues, economic conditions deteriorated. Forest farms failed to pay retired workers their pensions and were unable to pay workers, retirees, and laid-off staff minimum living expenses on time and in full. Some farms could not even afford to disburse a few dozen Yuan per month to staff, a situation which left many destitute.

## 7. Impact and Consequences of Forestland Tenure Reform

By the end of 2009, 9 provinces (autonomous regions and municipalities) completed the tasks of clarifying forest tenure and contracting forestland to households. Work in 14 provinces is fully underway and another 8 piloting the reform. Tenure for 101 million hectares of forestland was confirmed, accounting for 59.42% of total collective forestland area. Some 48,040,000 certificates covering 75,733,300 hectares (75% of total area) were issued to hundreds of millions of farmers and 570,000 forest tenure disputes (83.8%) were settled.

When forestland was contracted to individual households, farmers had genuine control and held valuable assets. They effectively restored ecosystems and became prosperous. After tenure reform, the average share of forestland distributed to each household reached 12.4 hectares or 558 cubic meters and the average value of assets amounted to 500,000 yuan.

Forest tenure reform extends beyond the rural household contract responsibility system and profoundly changed rural production methods. Other positive outcomes include:

- Wider publicity, clarification of tenure and the provision of incentives awakened the enthusiasm of farmers to tend, protect and manage forests
- Reform focused on revitalizing forestry, providing farmers with their own forestland, and reducing taxes and levies

- Local authorities not only became more familiar with the situation of farmers and developed stronger ties with them, but the reform also heightened awareness of legislation, of democratic ways of doing business, and of the need to improve service delivery
- A new approach to forestry development is taking shape, with farmers taking the initiative to tend and manage most commercial forests - a situation which has reduced the fiscal expenditure of villages and increased farmer incomes
- new forestry economic cooperation organizations, social service organizations and self-regulatory organizations were gradually established to facilitate the transformation of functions of forestry authorities and grassroots
- The market mechanism resulted in a better allocation of forestry production factors, more efficient utilization of forestland resources, and an increase in both the amount and quality of forest resources - all of which brought about enormous positive differences in farmer incomes, forestry and economic development, and the health of the environment.

Because implementing of forest tenure reform in China requires different models and stages, it is a complex and tenuous process. Problems encountered include the following:

- Interest groups have shown resistance due to the way that shares have been reallocated.
- Contrary to reform policies, some property rights to forests and forestland are acquired illegally through political power.
- Vast tracts of forestland are contracted or transferred for too long a time and at unreasonably low prices, violating the principle of fairness on which reform is based.
- A number of farmers and workers who have been granted property rights fail to manage the forest resources due to factor which limit production potential.
- Property rights are not integrative and property management is not smooth because the forest resources management system has not been reformed and the market for forest products is not developed.

The system of forest tenure now in use was initiated under the planned economy and no longer fits current conditions. Outstanding issues from the previous system are impeding the rational allocation of forest resources, lowering the added value of forests, and dampening the enthusiasm of farmers to get involved in forest management, all of which ultimately constrain development of the sector.

***Forest tenure is not properly defined:*** Including ownership of forestland: Due to frequent changes in ownership over the years, it is not clear who owns some of China's forestland. In addition, ambiguous boundaries are being contested. In other cases, forest tenure certificates show the wrong demarcation, thus depriving people of exclusive access to forest resources, a situation which leads to improper management and deforestation.

***Forest tenure rights is sometimes only partially granted:*** In such instances, government intervention in forest management can be excessiveness, administration unclear and private

rights infringed, for example, when authorities force farmers to develop and implement overly strict management plans; when owners are not given the right to dispose of wood; and when transfer rights are restricted in areas such as logging, transportation and the sale of forest products.

***State and community ownership of forestland does not always benefit the citizens of China who are the real custodians:*** In practice, the State Council and village committees are entrusted with the management of forest resources on behalf of the people they serve. However, the state devolves this responsibility to various levels of government, some of which reap all the benefits from managing or contracting forestland, leaving the real owners in name only. Similarly, village committees control forest resources even though residents of the community are the ones who are entitled to possess, dispose of and benefit from them.

***Current laws and regulations are out of date and incomplete:*** As a result, they do not effectively regulate forest management or protect forest tenure. For example, there are no provisions governing forest allocation, the issuance of forest management licenses and the transfer of forest resources. Moreover, assessment procedures are mixed with those to approve licenses and some administrative procedures are inconsistent with the Law of Administrative Licensing and the Property Law.

## 8. Future Trends

Forest tenure reform in China separates ownership of and access to trees, forests and forestland. Thus, rights and obligations vary, depending on the type of arrangements that different principals hold. A new system with incentives and binding responsibilities is taking shape. While the ongoing reform is not without problems, achievements and lessons learned so far could inform other countries as they undertake their own reforms.

The success of forest tenure reform in China lies in the development and implementation of policies which reflect its unique conditions: various types of forest resources, multiple stakeholders and benefits, and different degrees of socio-economic development throughout the country. Various models that take into account diverse interests have been developed and pilot projects are testing approaches to protect the ecosystem, increase resources, improve livelihoods and establish businesses.

***Balancing stakeholder interests in and demands on forests:*** Forest tenure reform involves empowering different stakeholders to benefit from the rights they possess. For example, farmers expect the forests they manage to yield maximum economic returns; forest enterprises try to obtain the most profit from sound forest management; villages or communes want to generate the most revenue from forests to support their administration; and government seeks to ensure the integrity of forest ecosystems and a secure timber supply.

***Supplementing reform with complementary actions:*** Forest tenure reform in China requires progressive implementation because it involves multiple stakeholders and objectives. Elements include separating ownership of forestland with use rights; delineating the boundaries of forestland and forests and identifying their principals and issuing certificates which clarify the obligations and rights of property holders. Complementary actions consist of strengthening the institutional framework for forest management and introducing innovative

measures such as tax reductions and exemptions, subsidies for nurseries, mortgages and loans at discounted rates, and government insurance to reduce risks.

***Adopting models:*** The natural, historical and institutional environment varies from place to place in China, as do other factors such as the productivity of forestland, benefits gained from forest management and the dependence of farmers on forest resources. Hence, models have been adopted in the course of China's tenure reform in state-owned and collective forests.

***Promoting wide participation:*** Forests are major means of production to farmers and important sources of income to staff and other workers of forest enterprises. Both groups are the driving force and beneficiaries of tenure reform. In this regard, protection of public interests in forests and forestry development is both the starting point and the ultimate goal of reform.

***Concluding pilot projects before applying results more widely:*** The goals of forest tenure reform in China are to develop the forest sector, including forest enterprises, and improve livelihoods. They determine the way forest resources are used and how benefits are allocated. In the process, some people gain and some lose - a situation which inevitably raises obstacles and risks in carrying out the reform. Pilot projects are therefore implemented in a few select regions before results are applied on a larger scale.

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# Country Report of India On Forest Land Tenure System

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## 1. Introduction

During the colonial period, most forests and forest land was the property of local rulers/ princes and were managed according to their wishes. After independence, Government abolished these rights (known as Zamindari rights) and, under the provisions of Private Forest Act (1946), it acquired and took control of all forests and forest land - a situation which retains to this day.

## 2. History of Forest Management

In India, organized forest management started in later part of the 19th century. It included protection, regeneration and utilization of forest products under the framework of working plans based on the principles of sustained yield. The government was the chief beneficiary although local communities were granted some rights and concessions. However, their aspirations were not mainstreamed in forest management.

The Forest Department was founded and began servicing the country in 1870. The first policy statement which outlined the broad principles for the use of forest resources was issued in 1894. It specified that the sole objective of forest management was to promote the well being of the country. It also dictated that adequate forest be maintained primarily to preserve the climatic and physical conditions of country and, secondly, to meet the needs of the people.

**The 1894 Forest Policy Classified the Forest into Four Categories:**

- First Class (Preservation Forest)
- Second Class (Forest for Commercial Purpose)
- Third Class (Minor Forest Products)
- Fourth Class (Pasture Land)

The table below stipulates the ownership and user rights under this policy.

**Table 1: Ownership and Rights in the 1894 Forest Policy**

| Class of Forest | Ownership | Rights of Public/ Community | Management Objective |
|---|---|---|---|
| First | Government | None | Preservation of climate |
| Second | Government | Very limited user rights | Supply valuable timber |
| Third | Government | Access for small timber and fuel | Supply small timber and fuel at nominal cost to local population |
| Fourth | Government/ Community | Grazing for a fee | Grazing ground for communities |

According to the 1894 Forest Policy Guidelines, permanent cultivation took precedence over forestry because, first and foremost, the needs of the local population had to be met at non-competitive rates, if not free of charge. When this condition was fulfilled, the next priority was to generate maximum revenue.

The beginning of the twentieth century saw progress in different fields of forestry. In 1906 the Imperial Forest Research Institute was established but World War I seriously undermined conservation efforts, given the need to use forest resources to support the war. The destruction of Indian forests continued after the end of the conflict and the situation deteriorated even further during the second World War.

**The 1952 National Forest Policy**

With a few exceptions where individuals held private forests, Government was the main owner. However, the 1952 National Forest Policy and the abolition of the Zamindari Act were clear attempts to bring private forests under Government control. With regard to private forests, the policy states that owners should be given the opportunity to manage their forests in accordance with an approved working plan but if they attempt to sacrifice their capital for immediate gain, Government will legally take over management responsibilities. Even before this policy, sections 35 to 38 of the 1927 Indian Forest Act provided for the possibility to bring private forests under Government ownership and control.

**The 1952 National Forest Policy classifies Forests into Four Categories:**

- Protection Forests
- National Forests
- Village Forests
- Private Forests and tree land

The table below stipulates the ownership and user rights under this policy.

**Table 2: Ownership and Rights in the 1952 Forest Policy**

| Class of Forest | Ownership | Rights of Public/ Community | Management Objective |
|---|---|---|---|
| Protection Forests | Government | None | Preservation of climate |
| National Forests | Government | None | Needs of defence, communication and industry |
| Village Forests | Government village/ community | Access for firewood and small timber and for grazing | Local requirements for small timber, fuel wood and grazing |
| Private Forests and tree land | Individual | Full | According to working plans as long as capital is not sacrificed for immediate gain |

### The 1988 National Forest Policy

There is no major shift in the concept of ownership and rights in the 1988 National Forest Policy. Ownership of the forest is largely vested in Government and limited rights are provided to tribal people and local communities in the form of servitude. The principal aim of National Forest Policy 1988 is to ensure environmental stability through preservation and restoration of the ecological balance. Forest land or land with tree cover is treated as a national asset and must be safeguarded to provide sustained benefits. By emphasizing that rights and concessions be granted only in accordance with the carrying capacity of forests, the policy places further restrictions, even on servitude.

Paragraph 4.2.3 encourages the provision of certain ownership rights over trees grown on village and community lands for persons belonging to weaker sections of society, for example, landless laborers, small and marginal farmers, scheduled castes and scheduled tribes. Paragraph 4(6) recognizes the symbiotic relationship between tribal people and forests, seeking to involve them in forest protection, regeneration and development as well as to provide gainful employment to people living in and around forests. Therefore, the 1988 Forest Policy also does not provide for communities or individuals residing in and around forests to own them.

The table below stipulates the ownership and rights under this policy.

**Table 3: Ownership and Rights in the 1988 Forest Policy**

| Class of Forest | Ownership | Rights of Public/ Community | Management Objective |
|---|---|---|---|
| State owned | Government | Generally none but sometimes only limited ones (servitude) within the carrying capacity | Environment stability through preservation and restoration of the ecological balance |
| Forest land or land with tree cover | Government | Sustained benefits to the entire community | Provide sustained benefits. |
| Village and community lands | Government/ Community | Usufruct rights over trees to weaker members of society | Provide benefits to weaker society groups |
| Private forests or tree lands | Individual | Full | According to approved working plans but owner cannot sacrifice capital for immediate gain |

The Forest Policy 1988 provides an excellent opportunity for people to participate in forest management and is being pursued with varying degrees of enthusiasm across the country. The most notable achievement has been the reduction in forest fires and encroachments and in illicit fellings. The field functionaries believe it is now easier to enter into productive dialogue with local residents and to improve forest protection, both of which lead people to adopt agroforestry practices as a side effect of this policy.

Better recognition of the environmental role of forests and ecosystem services, although

always ingrained in the rural ethos, was rekindled. People living in and around forests do not view them as a commodity but more as a provider, particularly in difficult times. Initiatives emanating from this policy must not only earn and maintain the trust of people but also reinforce it at every opportunity through transparency and continued progress.

As a nation, dependence on forest goods and services is high. Therefore, the imperative is to create an environment which encourages people to grow trees on farmland, much like they grow and own agricultural crops. They should look upon these trees as an insurance and a means to earn additional income.

Joint forest management (JFM) has its origins in the National Forest Policy of 1988. Salient features of this approach are given below.

- The conceptual framework, introduced in 1990, emphasized partnerships with people living in and around forests especially women, customary rights holders and the tribals.
- The Government of India issued the first guidelines in June 1990 and the first revisions in February 2000. They were again updated in 2002 to include the management and utilization of non-timber forest products (NTFP) and to stipulate co-ordination with Panchayati Raj Institutions at the village and district levels.
- Currently, 106,479 joint forest management committees (JFMCs) oversee 22.02 million ha of forest, involving 21.99 million people.
- To complement JFM, a National Afforestation Plan (NAP) was launched in 2002-2003. The scheme covers 9.24 lakh hectares managed by 23,750 JFMCs under 715 FDAs in 28 states.

## 3. Monitoring of Forest and Tree Cover

**India is Committed to Protect, Regenerate and Expand its Forests.**

India's Forest Conservation Act (1980) is one of the most progressive forest conservation legislation in the world, severely restricting the conversion of forest land to non-forestry purposes. In 1988, the National Forest Policy lays out clear direction and guidelines for forest conservation and afforestation but pressure on India's forests continues to be high, with more than 200 million people depending on these resources for their livelihood. The rapid growth of the Indian economy also places heavy demand on forest land for infrastructure and industrial development - the construction of dams, roads, power stations, and towns, for example.

**Scientific Monitoring of Forest and Tree Cover is a National Priority.**

India has been regularly and systematically monitoring its forest cover since 1987, using efficient and cost effective remote sensing technology. While providing a synoptic view of a large area, it also captures bio-physical properties of land features through reflected electro-magnetic radiation, often technically referred to as "signature".

The Forest Survey of India (FSI), Ministry of Environment and Forests, has been assessing forest cover every two years since 1987 and has produced eleven reports on the state of

India's forests. It has kept pace with the rapid advancement of remote sensing technology over the last two decades and, thus, has improved the methodology it uses to map forest cover. Following samples taken in 2001, assessment of tree cover has included smaller patches of plantations and scattered trees.

**Biennial Cycle of Forest and Tree Cover Assessment: the rationale**

India is among a few countries in the world which have an operational system for wall-to-wall mapping of forest cover on a two-year cycle. The work involves interpretation of more than 300 satellite images, each covering about 20,000 km2. Besides a series of steps of digital interpretation, the mapping includes ground verification on a large number of points spread across the country. Tree cover assessment is a sampling based exercise using data from about 10,000 sample plots. The enormity of the process makes two-year intervals just adequate for the assessment and this cycle is considered sufficient for the purpose of policy and planning. Changes over a shorter period are unlikely to be significant.

**Key Results of India's State of Forest Report 2009**

The following satellite data was gathered between October 2006 and March 2007:

- Forest & tree cover is 78.37 million ha. It represents 23.84% of the geographical area and includes 2.82% tree cover.
- The net increase in forest and tree cover since the previous 2-year assessment is 0.18 million ha (0.23%).
- The increase in forest cover between 1997 and 2007 is 3.13 million ha (4.75%).
- The estimated growing stock of India's forests and trees outside forests in 2007 was 6,098 million m3.
- The forest cover in hill and tribal districts increased by 66,300 ha and 69,000 ha respectively compared with the previous assessment. Mangrove cover in India increased by 5,800 ha over the same period.

**Forest Cover in Different Density Classes**

The forest cover assessed is classified into three types of canopy density:

- Very Dense Forest (VDF) - canopy density more than 70%,
- Moderately Dense Forest (MDF) - canopy density between 40-70%
- Open Forest (OF) - canopy density between 10-40%.

Scrub, a degraded forest land with canopy density of less than 10%, is not considered part of forest cover.

**Table 4: Forest & Tree Cover of India in 2007**

| Class | Area (million ha) | % of Geographical Area (G.A.) |
|---|---|---|
| Forest Cover | | |
| Very Dense Forest | 8.35 | 2.54 |
| Moderately Dense Forest | 31.90 | 9.71 |
| Open Forest | 28.84 | 8.77 |
| Total Forest Cover | 69.09 | 21.02 |
| Tree Cover | 9.28 | 2.82 |
| Total Forest & Tree Cover | 78.37 | 23.84 |
| Non-forest | | |
| Scrub | 4.15 | 1.26 |
| Non-forest | 255.49 | 77.72 |
| Total G.A. | 328.73 | 100.00 |

In India, State (Provincial) Government controls and manages forests according to various national acts and guidelines. Some states have modified these but, in case of conflict, the will of the Government of India prevails.

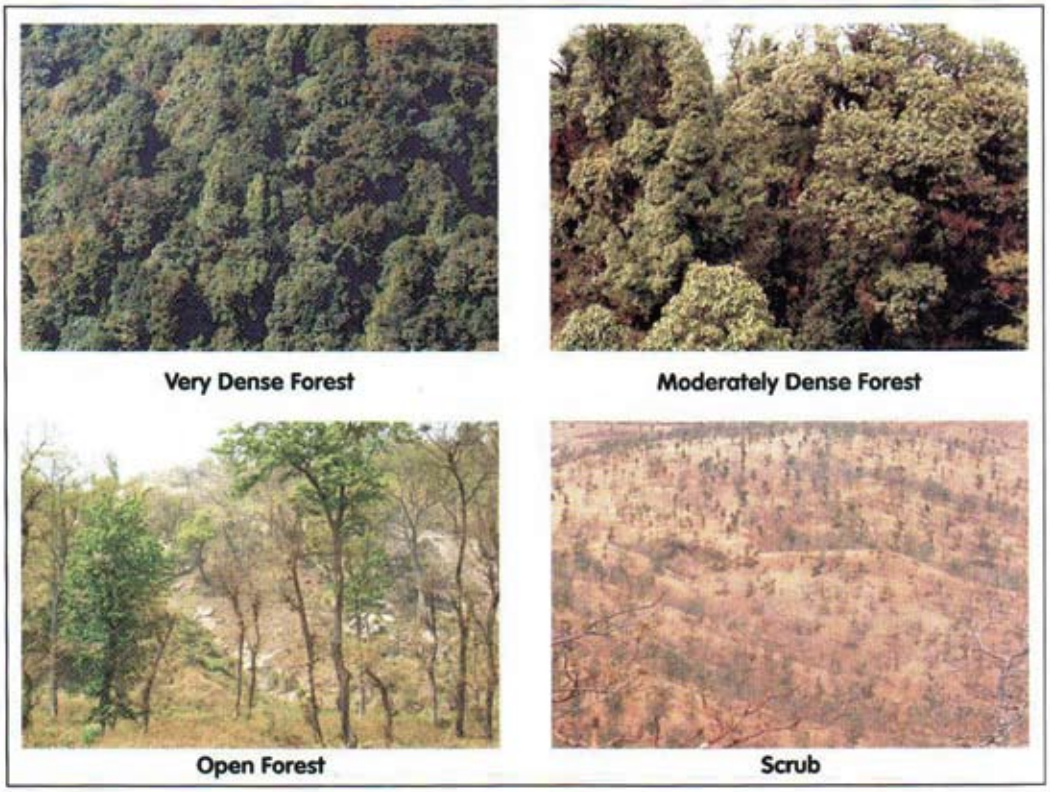


**Figure : Pictorial Illustration of Different Classes of Forest Cover & Scrub**

## 4. Status of Forest and Tree Cover: Analysis

In 1988 the National Forest Policy aims to have one third of India's land area under forest/ tree cover. As per the 2005 State of Forest Report, cover stood at 76.87 m ha (23.39% of total area), leaving a gap of about 31 m ha. Of this amount, about 5-6 m ha would be available for afforestation within recorded forests so the balance would have to be located on non forest lands. Although forest cover has stabilized over the past two decades, change in forest quality is a concern. The area under Very Dense, Moderately Dense and Open Forests constitute 2.54%, 9.71% and 8.77% respectively.

### Current Initiatives

**National Afforestation Programmer:** This is a major programme to regenerate degraded forests through people's participation. Joint forest management committees (JFMC) are implementing agencies and this process links livelihoods with regeneration activities as a strategy for forest conservation and development. However, the means available and the spread of the programme mainly in degraded forests limited its capacity to increase forest and tree cover. Afforestation schemes of the ministries responsible for agriculture and for rural development help but their focus is not on enhancing forest cover.

**Convergence of NREGA and NAP:** NREGA, while augmenting employment, strengthens natural resource management through works that address the causes of chronic poverty and so encourage sustainable development. The Ministry of Environment and Forests alone cannot achieve the goal of covering one third of India's land area with forests and trees. Hence, the convergence of NREGA with afforestation programmes in general and NAP in particulatly would maximise government efforts in this regard.

**The Mission for a "Green India":** This government initiative, established under the National Action Plan on Climate Change, aims to green India by reversing the degradation in about 6 million ha of forests.

**CAMPA Funds:** The monies received as compensation for the diversion of forest land and revenue collected under the Forest (Conservation) Act, 1980 would be utilized for forest protection and regeneration. Guidelines for forming the State CAMPA Authority and modalities of utilizing the funds have been recently issued.

**Gram/Panchayat Van Yojana:** This new scheme will support the interim planting of trees on unused non forest land to meet forage, energy, and other livelihood needs of rural communities. The programme will not only contribute to afforestation but will also build capacity to develop small and medium forest enterprises.

**Accelerated Restoration and Regeneration of Forest Cover:** Rs. 500 crore has been allocated this financial year to fund a new scheme under the state plan for restoration and regeneration of forests.

**Analysis:** Past and current initiatives have helped to stabilize forest cover at around 20% despite increasing demand on resources. India is one of the few countries in Asia to have done so over the past decade. Even though afforestation in the country since the Xth Plan is about 1.50 m ha per year, it is not reflected in the assessment of the Forest Survey of India, partly due to younger plantations not being counted but mainly because of large scale removal of forests (recorded and unrecorded) for consumption.

**Strategy:** There are five interlinked issues with regard to sustainable forest development and all must be addressed to successfully increase forest and tree cover. They are:

- Protecting existing forests
- Improving productivity
- Managing according to demand – especially for rural energy and fodder
- Strengthening institutions and policy
- Enhancing forest cover.

**Synergies:** The document outlining the mission to green India identifies these strategic and interrelated issues and proposes comprehensive interventions based on a landscape approach and site specific plans. It takes into account the resources available under the CAMPA fund, convergence with programmes in other sectors, especially with NREGS, institution building, and decentralization envisaged under the National Afforestation Programme.

**PROTECTION OF FORESTS THROUGH IMPLEMENTATION OF "THE SCHEDULED TRIBES AND OTHE TRADITIONAL FOREST DWELLERS (RECOGNITION OF FOREST RIGHTS) ACT, 2006"**

**Act:** "The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, while recognizing the traditional life styles of forest dwelling communities, empowers them to sustainably use and manage forests, wildlife and the environment in their respective forest area. The provisions which grant secure rights to these people over land and their traditional livelihoods will not only give them the resources they need to earn a living, but will also strengthen the conservation forests, including biodiversity. There are considerable expectation from the Act. Its speedy implementation will provide the means to protect forests.

**Implementation:** Ever since the Act took effect on 31 December 2007, many States are enthusiastically implementing its provisions.

*At the central government level, the Ministry of Tribal Affairs (MOTA) is responsible for facilitating implementation of the Act.* It has institutionalized a Web-based Management Information System ( http://forestrights.gov.in ) to monitor progress in this regard. Information collected from the States as of 30 June 2009 shows that more than 21.48 lakh claims have been filed and more than 2.71 lakh titles have been distributed, in addition to more than 1.35 lakh which are ready to be issued. Most States aimed to complete the process by 2009.

**Implementation Issues**

**Shifting Cultivation:** Conferring forest rights to individuals and communities practicing shifting cultivation is a highly complicated issue due to the nature of cultivation and considerable socio-economic variations in the concerned states. In fact, the Act does not recognize shifting cultivation as a forest right.

The draft report of the Inter-Ministerial National Task Force on Rehabilitation of Shifting Cultivation Areas indicates the area under shifting cultivation is decreasing, especially where investments have been made in the social sector and for settled cultivation.

The Ministry of Tribal Affairs considered the issue of vesting rights to scheduled tribes and other traditional forest dwellers who practice shifting cultivation in March 2009 and decided that, on a formal reference from any State, the view of the Government should be as follows:

"In the context of the preamble of the Forest Rights Act, shifting cultivation, considered to be environmentally unfriendly, should not be encouraged. So, if there are any claims filed by shifting cultivators, either individually or as a community, our aim should be to settle these rights as per the provisions of the Act. The specific local circumstances would be relevant for Gram Sabhas to recommend or not recommend vesting of these rights. Simultaneously, it would be necessary for State Governments to focus existing programmes on these, "to be settled" shifting cultivators so that they are able to optimize their investments and minimize the adverse impacts of such cultivation on soil and water".

**Modern Technology:** The state of Maharashtra is using modern technology such as satellite imageries to assess the granting of rights, a system which is worth looking at.

**Real Time Help:** Andhra Pradesh has developed a model which uses social modulators to facilitate the process by which scheduled tribes and other traditional forest dwellers apply for rights under the Act.

**Post Right Conferment and Forest Protection:** The bigger role and challenge for the Ministry of the Environment and Forests and the State Forest Department will come once forest rights have been conferred: how to institutionalize systems and how to involve the holders of rights in the sustainable utilization and protection of forests. Specifically, issues related to the various forest rights to be conferred are as follows:

- **Land Rights:** While the Act confers responsibilities to the holders of forest rights, including communities, for biodiversity conservation and protection, it also confers the right of forest villages to convert into revenue villages. Once this happens, the land within a village ceases to be forest land, a situation which has caused the loss of contiguous forests in the Western Ghat States, the Himalayan States and the North-Eastern States.

- **Ownership, Collection, Use and Disposal of MFPs and Other Community Rights Such as Fishing and Grazing:** The traditional role of the forest department regarding forest resources, land, water, biodiversity and MFPs has been as custodian. However, the Act transfers the ownership of MFPs from public to private and assumes that the holders of rights will sustainably use the MFPs and other community forest resources through traditional practices. This paradigm shift will need considerable thought and guidance on the part of forest departments so that the sustainable upkeep of these resources is ingrained in the institutions and systems to be established/reformed.

  The Act is also clear about the responsibility of forest communities to protect the resources which they have been assigned and forest departments must realize that, with this provision, forest protection must be shared. This legal requirement provides a solid basis for participatory forest management in future.

  Building the capacity of communities as well as government functionaries to work together is urgent so that, by the time the rights are settled, secure systems are in place to ensure joint forest protection and conservation.

- **The Need to Complete the Procedures with Regard to Critical Wildlife Habitats:** The Act stipulates that no resettlement in critical wildlife habitats shall take place until facilities are complete and land has been allocated. In order to safeguard these important areas, therefore, it is necessary to identify and post notification of critical habitats and to finalize procedures for resettlement with all due haste.

## 5. Summary of Forest Management in India

1. The forests are a national property owned by Government.

2. They are managed as per working plans approved by the Government of India.

3. The country has 661 protected areas (99 national parks, 515 wildlife sanctuaries, 43 conservation reserves and 4 community reserves) which cover about 4.8% of India's total area.

4. Protected areas are managed by the prescription of plans approved by Government.

5. National Forest Policy 1988 calls for 33% of the country to be under forest and tree cover. At present, the area stands at 78.37 million hectares (23.84%).

6. The additional 30.11 ha required to fulfill this objective will be achieved through such initiatives as (i) National Afforestation Programme, (ii) Plantation of Degraded Forest under State Plan (iii) National Mission for a "Green India", (iv) Plantation of Degraded Forest Area under NREGA, and (v) Gram/Panchayat Van Yojana.

7. Van Mahotasava Organization creates public awareness about the importance of planting trees and to motivates them to plant on a massive scale on agricultural land, school/college buildings, Government campuses, homesteads, river banks, canal banks, and road sides.

8. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights ) Act, 2006 recognises the customary rights of these people over forests.

9. Joint forest management has been adopted to involve all relevant stakeholders in the protection, regeneration and management of forests. The approach calls for the forest department and local communities to collaborate in all aspects. Features of JFM and of JFM committees are as follows:

- They have been formed in all villages situated in and around forest areas.
- All people above 18 years of age are members.
- Forest officials organize a meeting of villagers to elect the chairman.
- The tenure of the chairman is 2 years.
- Staff of the forest department is ex-officio Secretary.
- The Chairman holds meetings with forest officials to discuss forest management issues, including ways to improve forest cover, plantation on banks/degraded forests and protection of the existing forest.
- Committees are consulted prior to undertaking any developmental activities.

- JFM has been effective in (i) forest protection (ii) fire control (iii) hunting control (iv) rehabilitation of degraded forests and (v) natural regeneration.
- People have the right to collect NTFPs.
- Financial transactions and auditing of accounts are now transparent.
- Forest cover has increased progressively.

# Lao PDR Country Report on Forest Land Tenure Reform

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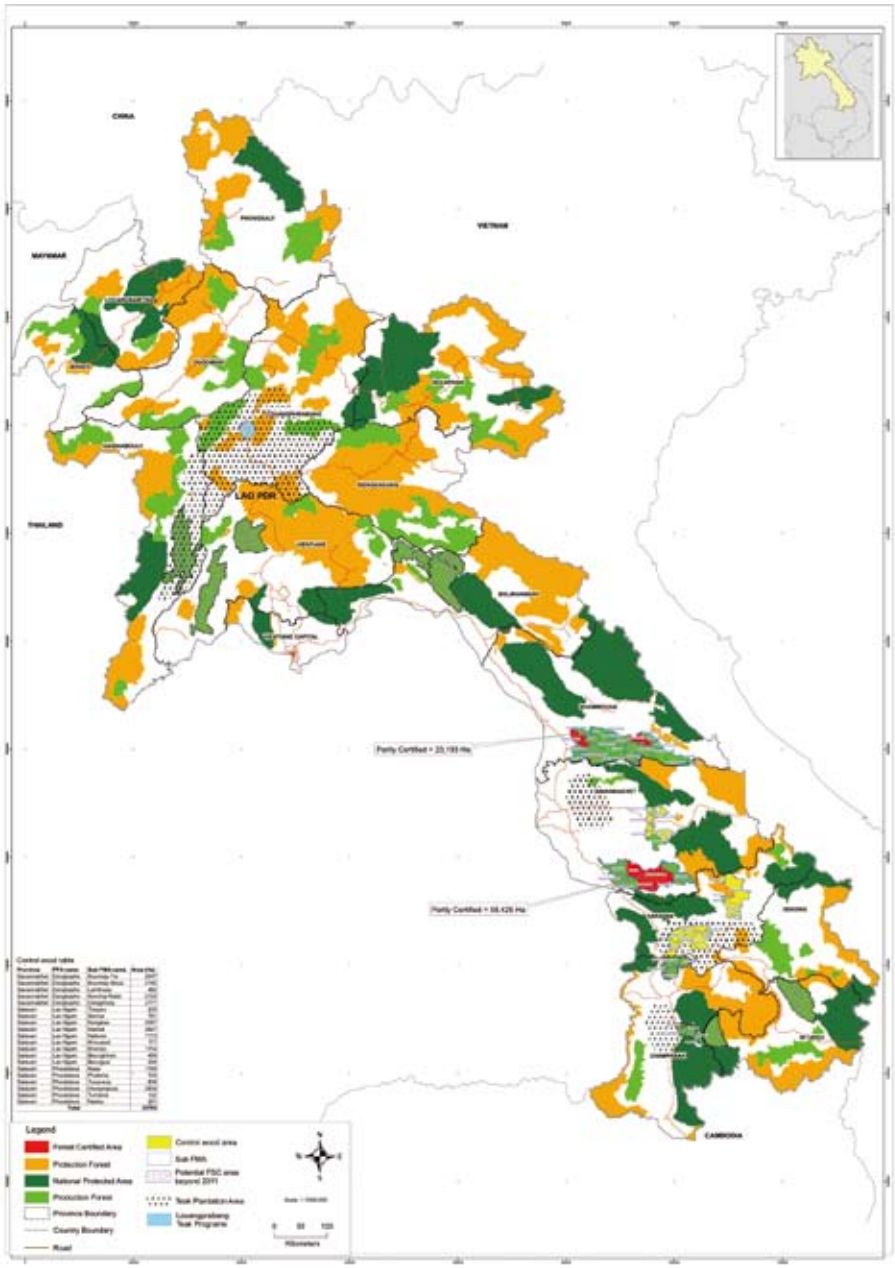


**Figure : Forest Cover in Lao PDR**

## 1. Introduction

Since the early 1990s, the Lao government has undertaken substantial land reform, challenging access to land and farmer practices. As the constitutional landowner, the state differentiates between forest from which farmers are excluded, in principle, and farmland which has been redistributed and used under supervision. Many Laotians view this policy as ineffective.

## 2. The Historical Changes in and Drivers of Forestland Tenure Reform

### Formative Years (1975 – 1986)

As the king of Laos was considered the owner of all land until 1975, it was managed according to customary rules at the village level. There were many types of land tenure, ownership, and property rights, depending on the region and on the several dozen ethnic groups. No single rule, regulation or perception dominated the country.

When Lao PDR was founded in 1975, land ownership was transferred from the king to the people, represented by the state (Ducourtieux et al, 2005). Initially, villagers in the same region owned the land and farmers were encouraged to cultivate it collectively. The government abandoned this approach due to difficulties associated with its implementation, including a drop in rice production, and land was returned to their former owners in the villages. In 1986, the government shifted towards a socialist market.

At the end of the 1970s, the forestry sector utilized capital it earned to invest in forest regeneration, planting, rehabilitation, and in forestry and agricultural industries. Nine state forest enterprises (SFEs) were established and, with donor assistance and government investment, many were equipped with modern logging machinery and wood processing facilities.

The first comprehensive forestry legislation was the Council of Ministers (CM) Instruction No. 74 on forest protection, passed in 1979. It included provisions on ownership of resources as well as on forest conservation and logging. It also prohibited shifting cultivation in watershed areas, recognized traditional uses by local people, and promoted forest restoration and afforestation. CM Instruction 74 was symbolic and, through SFEs, the exploitation of forest resources generated royalties and foreign currency.

### Fourth Party Congress and Second Socio-Economic Development Plan (1986-1990)

Since the mid-1980s, Lao PDR has rapidly moved to a market-driven economy. Secure land tenure and property rights became an important component of this transformation as a means to promote investment and efficient use of land.

The Fourth Party Congress in 1986 adopted a "New Economic Mechanism" which began the shift to a market-oriented approach under state leadership. The development plan called for stabilizing shifting cultivation, not by order and force, but by providing alternative crops and livelihoods to the two thirds of the population who practiced it. The document acknowledged the challenges associated with this task and the need to manage forests in a comprehensive manner by integrating non-timber forest products, forest protection, and environmental services. It also noted that sustainable forest management plans needed to be based on science to be compatible with economic and environmental benefits in the long run.

This document reflected the concern of the Party over forest exploitation which did not take protection into account at that time. After the Congress, however, no legislation for comprehensive forest management was enacted.

### First National Forest Conference (1989)

By the First National Forest Conference in 1989, the country's abundant forest resources were being deforested. The prime minister and party secretary-general, Mr. Kaisorn Phomviharn presided over this landmark event which more than 500 people from local governments and the private sector attended. His speeches stressed the importance and benefits of forests for both the economy and the environment as well as highlighted the need for comprehensive forest management legislation and implementation. He also noted that illegal logging and exploitation of natural resources needed to be resolved. The outcomes of the conference, including a call to ban indiscriminate logging, provided the basis for Lao PDR's current forestry policy.

The Council of Ministers responded quickly to recommendations by issuing two decrees: CM Decree No. 117 on the management and use of forest and forestland; and CM Decree No. 118 on the management and protection of aquatic animal, wildlife, hunting and fishing. Stabilization of shifting cultivation remained high on the political agenda. Forest use and the provision of alternatives were elaborated as follows:

- 2 to 5 hectares of forest and forestland to each household and 100 to 500 hectares to each village
- management and use of allocated resources as long as wood volume increases
- possibility to inherit or transfer forest allocations to others
- ownership of individuals and groups to degraded land where they plant trees, regenerate, grow crops or raise livestock.

Tested in the following years, this new policy, with some modifications, was introduced nationwide in 1994. After SFEs were established in all provinces (18 in 2002), provincial forest enterprises (PFEs) were setup for logging and processing as well as for issuing logging permits to private companies for a fee. However, given that SFEs operated at a huge loss to government due to lack of management skills and subsidies, and given that the country was moving to a market economy where government no longer ran businesses, SFEs and PFEs were dissolved or privatized soon after the conference.

**Fifth Party Congress and Third Socio-Economic Development Plan (1991-1996)**

The government of Lao identified poverty eradication as a priority and introduced land reform as a core policy to address this challenge. In line with decentralization nationwide, power and financial resources for sustainable forest management were transferred from central government to lower authorities through the Land and Forest Allocation (LFA) (Fujita and Phanvilay, 2008).

Land allocation was introduced experimentally in 1990 in the Luang Prabang and Sayabury provinces, mainly with support from the Swedish International Development Cooperation Agency (SIDA), Asian Development Bank and FAO (Baird, 2007; Fujita and Phanvilay, 2008). In 1994, Prime Minister Decree No. 186 instituted LFA as a program across the country. Its aim was twofold: to provide secure land tenure to promote farmer investment and to encourage communities to protect the forest environment by removing a large portion of their land from the slash and burn cycle (Ducourtieux et al, 2005).

The Fifth Party Congress in 1991 again highlighted forests, calling for their classification and

delineation, for outlining the responsibilities and benefits of the management of each forest type, for accelerating forest and forest land allocation, and for supporting those who live in mountainous areas to shift to sedentary agriculture.

After the congress, Prime Minister Decree No. 67 banned logging which, in 1993, was found not to have decreased. The decree also ordered the Ministry of Agriculture and Forestry (MAF) to ensure forest management, logging, processing and trade conformed to laws and regulations and to classify forests into four categories: protection, conservation, regeneration and production. After SFEs were abolished, a national logging quota was set up but, despite this measure, reality was different on the ground.

In 1993, two important decrees were issued: PM Decree No. 164 on the establishment of a national conservation forest and a national biodiversity conservation area; and PM Decree No. 169 on the management and use of forests and forestland. The former made national history with regard to biodiversity conservation while the latter, in response to the logging ban, replaced CM No. 117 which was issued in 1989. It is the basis for the 1996 Forestry Law which prohibits activities in protection and conservation forests as well as defines forest, ownership, forest categories, and three types of management contracts: collective forest management (between a district and a village), family forest management (between a district and a household to use degraded forest land for agriculture, planting trees and raising livestock, with a provision for long-term use rights after three years of successful implementation), and commercial afforestation.

Following PM Order No. 15, issued in 1994 to introduce a two-way quota system for the export of logs and processed products, PM Decree No. 186 called for the delineation and allocation of land forest for tree planting and protection, providing a legal framework for the ownership of planted trees and for a tax exemption on land where trees were planted. It was replaced by the Forest Law in 1996.

**Sixth Party Congress and Fourth Socio-Economic Development Plan**

The Sixth Party Congress focused on:

- the allocation of land and forests for local people to protect and use
- continued stabilization of shifting cultivation, especially in watershed areas, rich forest areas, and areas designated for forest conservation
- tree planting of various species for domestic use and commodity production
- trict control of logging and forest enterprises.

Although the Forest Law of 1996 is comprehensive and consolidates previous decrees and instructions, it does not address two important aspects: contracts for harvesting and selling logs, or the extent to which authority for forest management shall be delegated to the provinces, districts, and villages. Two more legal documents also were issued in 1996: PM Order No. 3 on expansion of land management and of land and forest allocation; and MAF Instruction No. 822 which has two components. One deals with which forest type to use in production and which to set aside for conservation purposes. The other allocates degraded land to households for crop cultivation, tree planting or grazing on a contract basis. If performance is satisfactory after three years, they receive title to the land.

This program is one of the few which has clear policy objectives and detailed instructions for implementation. Land and forests are allocated to each family on the basis of its human and financial capacity to manage and cultivate. More than 330,000 households (50 percent of the total involved in agriculture) were assigned up to 2 ha per active laborer. Although the area of shifting cultivation decreased from 1996 to 2000, the number of households involved in this type of farming remains high (Kitamura).

With regard to village forests, the Forest Law (1996) identifies five categories based on traditional use and discussions between villagers and local governments. Most are designated for protection but growing domestic and foreign demand, coupled with the need for cash income, often differs from what is happening on the ground.

**Seventh Party Congress and Fifth Socio-Economic Development Plan**

MAF issued regulations on village forest management in 2001. It retains the same classification of village forests and sets out requirements for the collection and sale of NTFPs. In 2002, PM Decree No. 59 on the sustainable management of production forests was promulgated. It acknowledges the participation of local villages, including in terms of labor, planning, sales, and benefit sharing, based on contracts between villages and local authorities.

**Forest Law**

Forestry Law (2008) governs the management and utilization of forest resources and sets out three categories of forests: conservation forest, protection forest, and production forest. Logging is only permitted in production forests for which there is a sustainable management plan, must involve the community, and adhere to a quota system.

As noted earlier, the state owns and controls all land in Lao PDR, including forestland. The Department of Forest, under the Ministry of Agriculture and Forest, handles forests, issues permits and controls harvesting of resources. However, government supports and encourages individuals, households and organizations to plant trees on degraded land to improve the environment and supply industry with wood.

## 3. Patterns of Forestland Tenure and Ownership (Including Customary and Official)

A study of the impacts of the Land and Forestland Allocation policy on two communities in the foothills of Phou Khao Khouay National Protected Area in Viaintiane province was conducted to understand how people used and managed land and forests before the LFA; how people adapted practices after implementation of the LFA; and how LFA affected the traditional tenure system and food security.

Results showed that household earnings rose significantly and resource management changed due to the clarification of boundaries between villages and national protected areas. Although communities lost control over some forests and natural resources which they held for years, they retained the right to collect and sell forest products to supplement incomes - just as before.

The new state law officially recognizes traditional agricultural lands and grants communities secure tenure. However, in practice, villagers still operate under customary rules so that much remains unchanged. Since the government assigned them responsibility for natural resource and forest management within their community, they have yet to feel empowered. On the contrary, some people believe they are viewed as mere test cases who have no need or capacity to manage resources. They are looking for evidence that their lives will improve under the new policy but, so far, they have not really understood its aims.

## 4. Impacts and Consequences of Forest Land Tenure System Reform

The Land and Forestland Allocation Policy increases the security of land tenure and thus encourages farmers to practice intensive farming to improve livelihoods. It also minimizes slash and burn cultivation which is detrimental to natural resources and the environment.

Land reform associated with forest zoning changed the way most villagers perceive their territory: where swidden is authorized and where it is not. In the latter case, they do not consider the area as forest or as belonging to them. Consequently, they feel it does not require community protection. They invoke the same logic for bans on hunting unless such measures increase wildlife resources for future hunting purposes.

Farmers define forests according to their uses: wood and timber stock, reserve of future arable land, protection of water for paddy fields, wildlife reserve, and sacred or ceremonial values. If decision-makers want to encourage communities to preserve forests, these traditional uses cannot be ignored, as has been the case so far. Numerous conflicts between traditional land tenure and government land law have arisen as a direct result of changes in the way villages view the territory, especially regarding non-forest timber products, gardens and grazing (Aubertin 2000).

One of the objectives of the new law is forest conservation but, in fact, threats to forests are increasing: expansion of swidden fields is common, many provinces record the sale of land, illegal logging is still flourishing, and the shortage of arable land is generating food insecurity and forcing people to rely more on forest products for survival. So far the law appears to be failing since deforestation is on the rise. Land reform can bring about many potential benefits  but pitfalls have occurred almost everywhere it was implemented, with dramatic consequences for people and the environment alike.

In the demarcation of village territories - where boundaries changed significantly in some cases - local management and use of resources were not taken into account. The conservation of forests and land has been weak both institutionally and organizationally, especially in new migrant areas where forest management was not efficient or community controlled (Fujita 2003). In many provinces, new waves of migrants have been recorded subsequent to either village relocation or the implementation of land reform (Evrard 2004; Romagny & Daviau 2003; Jones 2004). Adequate permanent livelihood alternatives have not been successful because many families were given unsuitable paddy land (poor soil or lack of water) and insufficient technical support. The failure to develop upland permanent cropping or paddy fields have resulted in further deforestation and increased encroachment, with people fleeing the areas in some cases (ADB 2001). The deterioration and degeneration of forest resources and wildlife are a direct result of rice shortages, to the point that some species and NTFPs have been eliminated through over harvesting (Foppes 2000). In some

areas, NTFP harvest grew to represent 40 to 60% of household income, rising up to 80% at certain times of the year (UNDP 2001).

Villagers often consider the allocation of land unfair and the main cause of poverty (ADB 2001), for example in Phongsaly province and remote districts of neighbouring provinces. Moreover, it brings about ecological changes and epidemics of pests, both of which make matters worse. As the head of one village in the survey expressed: "After the land allocation was carried out, we began to be short of rice to eat. If they allocated us some of the paddy given to the Hmong that would have been better, because they have more than they need" (Kw_n villager in Bokeo, quoted in ADB, ibid).

Most poor villages trace their plight to a combination of direct and indirect factors: relocation + land allocation + pests + natural disaster. They claim that prior to land reform, rice yields and agricultural production were sufficient. At that time, costs for health, education, and consumer goods were either low or nonexistent but now farmers face lower yields and have higher needs. "To make up for rice deficiencies and to cover new costs, poor villages are more and more having to exploit new means of supplementing livelihoods" (ADB 2001).

There is a willingness to find alternative policies but success has been limited. For example, when the Lao Swedish Programme on Forestry challenged the way reform was implemented, the adjustments and new goals that were made still aimed to stabilize swidden and separate agricultural zones from forest areas (Leuangkhamma, Sysomvang & Jones 2001). Policies are loosened when people exert enough pressure but they are not changed to the extent required. Local authorities also sometimes relax their enforcement of swidden restrictions if there is sufficient land to maintain a system of rotation.

The impacts of this land reform has affected women more severely in terms of increasing their workload while diminishing the fruits of their labour. Problems associated with the allocation of land have alienated and marginalized Lao women in the uplands and lowlands alike (ADB 2001). For example, the limitations placed on swidden rotations depletes soil so that fallows consist mainly of grass. Since cutting grass is traditionally women's work, girls are getting involved at increasingly younger ages. This change has an impact on their education, to the point where most do not attend school at all. Moreover, the allocation of land often neglects or ignores the importance of access to women as well as their right to be given or to inherit land.

## 5. Future Trends

The trend of forest land tenure can be divide into two categories:

- Forest Law: Government is the sole owner and manager of all forest resources in Lao PDR and the state controls all natural forest land. The Department of Forest under the Ministry of Agriculture and Forest handles all matters relating to forests, including the issuance of permits and the harvesting of forest resources.
- Tree planting: Individuals, households and organizations have the right to own the trees they plant and forest legislation supports tree planting on degraded land to improve the environment and increase the supply of wood to industry.

Local people have the right to manage and benefit from natural forests in the case of both protection and production forests. The Forest Strategy 2020 calls for increasing forest cover to 70% by 2020 and mainly targets protection forests to achieve this goal. In order to encourage local people to participate in forest management, benefits to them must be considered. Moreover, support to local stakeholders who take care of forests in the context of REDD+ may be an option.

# Malaysia Country Report On Forest Land Tenure System

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## 1. Introduction

Malaysia is a country of 26 million people and covers 330,000 square kilometers: Peninsular Malaysia 131,585 sq km, Sarawak 124,450 sq km and Sabah 73,711 sq km. It is a federation of 13 states and three federal territories. The eleven states of Selangor, Perak, Pahang, Negeri Sembilan, Kedah, Perlis, Johor, Kelantan and Trengganu, Malacca and Penang (Peninsular Malaysia), the two Borneo states of Sabah and Sarawak (East Malaysia), and the federal territories of Kuala Lumpur, Labuan and Putrajaya. Apart from the three territories that are administered by the federal government, the other states are governed by their respective state government. Peninsular Malaysia, which is about the size of England, was formerly referred to as the Federation of Malaya. It attained independence from Britain on 31st August 1957 and was absorbed into the greater Federation of Malaysia on 16th September 1963. On the formation of Malaysia, Singapore and the British Protectorates of Sarawak and Sabah became part of the new Federation.

Approximately 80% of the population live in Peninsular Malaysia, with the balance in Sabah and Sarawak. The Orang Asli, the indigenous minority peoples of Peninsular Malaysia, comprise just 0.5 per cent of the total population. Their name, meaning 'first peoples', encompasses 18 ethnic groups which are officially classified as Negrito, Senoi and Aboriginal Malay for administrative purposes. The Negritos comprise a little more than 3 per cent of the Orang Asli population, the Aboriginal Malays about 43 per cent, and the Senoi about 54 per cent. The major groups in Peninsular Malaysia are Malays, Chinese and Indians. Other groups such as Eurasians, and migrants from Indonesia and the Philippines also reside there.

There are 39 indigenous groups and sub-groups in Sabah, the largest being the Kadazan dusuns. In Sarawak, there are 37 indigenous groups and sub-groups, the largest being the Ibans. Although they have distinct languages, cultures, lifestyles and livelihoods, they share a close physical, cultural and spiritual relationship with the land and forests. They consider them living entities which have spirituality and a sacredness of their own. The land and forests provide them with food, clothing, medicines, fuel, and all materials necessary for their existence. These locations also school the present and future generation and are the abode of their ancestors. Land and forests, therefore, give life and meaning to their whole being, for it is in the land that their history and identity are contained.

## 2. Forest Resources

In 2005, Malaysia was estimated to have 15.97 million ha of dry inland forest, 1.36 million ha of swamp forest, 0.58 million ha of mangrove forest, and 0.40 million ha of planted forest, most of which are found in Sabah and Sarawak, given that Peninsular Malaysia is more developed (Table 1).

**Table 1: Distribution and Major Forest Types by Region in 2005 (million ha)**

| Region | Land Area | Natural Forest | | | Forest Plantation | Total Forested Land | Percentage Total of Forested Land |
|---|---|---|---|---|---|---|---|
| | | Dry Inland Forest | Swamp Forest | Mangrove Forest | | | |
| Peninsular Malaysia | 13.16 | 5.41 | 0.30 | 0.10 | 0.07 | 5.88 | 44.7 |
| Sabah | 7.37 | 3.70 | 0.12 | 0.34 | 0.20 | 4.36 | 59.2 |
| Sarawak | 12.30 | 6.86 | 0.94 | 0.14 | 0.13 | 8.07 | 65.6 |
| Malaysia | 32.83 | 15.97 | 1.36 | 0.58 | 0.40 | 18.31 | 55.8 |

On the plains and low hills, the dry inland forests predominate and form an almost unbroken canopy. They represent 89.2 percent of natural forests, mostly of the family Dipterocarpaceae, with many of the species of the genera *Anisoptera, Dipterocarpus, Dryobalanops, Hopea, Shorea* and *Parashorea*. In the mountains, the forests thin out and exhibit considerable variation in flora. The high forests give way to swamp flora in the swampy areas and to mangroves along some coastal areas.

Malaysia recognizes the crucial role of forests not only in the production of timber but, more importantly, in the conservation of soil, water and wildlife, as well as in the protection of the environment. It has designated 15.30 million ha as permanent reserved forests (PRF) which are under sustainable management. Approximately 12.19 million ha are production forests and the remaining 3.11 million ha are protected (Table 2).

**Table 2: Permanent Reserved Forests by Region in 2005 (million ha)**

| Region | Protection Forest | Production Forest | Total Land Area Under PRFs | Percentage of Total Land Area |
|---|---|---|---|---|
| Peninsular Malaysia | 1.52 | 3.18 | 4.70 | 35.7 |
| Sabah | 0.59 | 3.01 | 3.60 | 48.8 |
| Sarawak | 1.00 | 6.00 | 7.00 | 56.9 |
| Malaysia | 3.11 | 12.19 | 15.30 | 46.6 |

## 3. Historical Changes in and Drivers of Forest Land Tenure

### Peninsular Malaysia

Peninsular Malaysia, historically known as Malaya before 1963, is the largest of the three main regions that make up the country. Large-scale rice cultivation, rubber, oil palm, and tin are all found here.

The vegetation varies from swamp in the lowlands to plush evergreen forests. Industrialization and a growing economy significantly influence land use, with agriculture, logging, and

resettlement all contributing to the deforestation of Malaysia. Although shifting cultivation is expanding as well, it only accounts for a small percentage of the land use in Peninsular Malaysia. Timber was a leading export for Malaysia, although agriculture production was also destined to foreign markets. Agriculture expansion boomed from 1904 to 1932, slowed down for a time, then increased again from 1966 into the 1980s. Because of the rapid development of land in the 1960s and the clearing of forests, suitable land for habitation decreased. The Federal Land Development Authority (FELDA), established in 1956 by the British, opened new area for cultivation and was a major factor in the clearing of forests. Because of the changes in land use and weak government policies to control it, forest cover has been declining since the 1960s.

**Sabah**

Sabah's forests, which once covered about 56.7% of land area, mainly consist of tropical evergreen and tropical rain forests. Although deforestation is a problem, it has received less attention than in the peninsula or in Sarawak. Many of the contributing factors are similar - agricultural expansion, land development, and logging. Poverty, often overlooked as a reason for forest degradation, also plays a role. For example, government agencies will authorize forests to be cleared to create affordable living space. The building of roads and increased logging provide access to new land as well - activities which, in turn, cause forests to become degraded. Population pressure, combined with the shortage of suitable land for agriculture, are responsible for deforestation as well. Extensive planting of crop-yielding trees also affects forest area over the long term. Sabah's policy to open new land for development drew the attention of FELDA, which began to pay more attention to forest degradation in this region in the 1980s.

Timber became Sabah's most important export in 1958 and, by the time it became a state in Malaysia, constituted a high proportion of government revenue and a subject of state politics in which forest conservation was of little concern. From 1966 to 1991, it lost approximately 1.85 million ha of forest due to logging.

**Sarawak**

Although oil, gas and timber drive economic growth in Sarawak, forestry and agriculture remain the key sources of state revenue and are the largest employers in Sarawak. Forests for timber production - a major export - take up much of the land but the replanting of harvested areas depends on extraction methods used. In addition, agriculture and tree-crop plantations are increasing, both of which involve forest clearing. Resettlement also can lead to forest loss. Logging, particularly in the rainforest, replaced shifting cultivation as the main cause of deforestation. Other causes, in order of importance, are agricultural development and aquaculture in coastal wetlands; plantation development; shifting cultivation; dams and resettlement - none of which are regulated to any great extent. Accelerated plantation agriculture and land development, in turn, are gradually overtaking logging as the driver behind forest removal. The revenue that such activities generate makes it difficult for Sarawak to stop the loss and degradation of these resources.

## 4. Policy and Legislation

In accordance with the Malaysian Constitution, forestry comes under the jurisdiction of state governments which are empowered to enact laws and formulate policy independently. The authority of the federal government only extends to the provision of advice and technical assistance, training, and research.

In order to coordinate approaches and harmonize policies of other sectors that interface with forestry, the National Land Council (NLC) established the National Forestry Council (NFC) in December 1971. The NLC is empowered under the Malaysian Constitution to formulate a national land use policy for mining, agriculture and forestry. The Deputy Prime Minister chairs the NFC which is comprised of the Chief Ministers of the thirteen Malaysian states, the Minister of Natural Resources and Environment Malaysia and other federal ministers whose portfolios have an impact on the forestry sector: finance; trade; agriculture commodities; science, technology and the environment. The heads of the forestry services of Peninsular Malaysia, Sabah and Sarawak are also members. In addition to enhancing collaboration, the NFC serves as a forum for federal and state governments to discuss and resolve issues relating to forest policy, administration and management. The NLC endorses all decisions of the NFC but the responsibility for implementing them largely lies with state governments.

In 1992, the National Forestry Policy 1978 (NFP) was revised to include the conservation of biological diversity, the sustainable utilisation of forest genetic resources, and the role of local communities in forest development.

To ensure effective forest management and implementation of the National Forestry Policy in Malaysia, state authorities have been formulating and enforcing various acts and ordinances since the early 1900s. Forest management planning and operations were further streamlined and strengthened with the adoption of the National Forestry Act and the Wood-based Industries.

Similar to the NFP, the National Forestry Act 1984 was amended in 1993 to incorporate additional provisions related to sustainable forest management, by way of more stringent penalties for violations, including the illegal felling of trees, and to provide for mandatory imprisonment of convicted offenders. The police and armed forces were given new powers of surveillance in the forestry sector, with the aim of curbing illegal logging, encroachment, and timber theft.

In December 2007, Parliament approved Malaysia's International Trade in Endangered Species Act 2008 to legislate the administration and management of international trade in wild fauna and flora so that it does not threaten the survival of any species of wild fauna and flora in the country. Currently, the Ministry of Natural Resources and Environment is drafting regulations.

Other pieces of legislation of major importance to the forestry sector are:

- National Land Code 1965
- Penal Code (FMS Cap. 45), 1948 (Amendment 1993)
- Criminal Procedure Code (FMS Cap.6) 1903 (Amendment 1995)
- Evidence Act 1950 (Amendment 1993)

- Financial Procedure Act 1967 (Amendment 1993)
- Water Enactment 1935
- Land Conservation Act 1960
- Protection Of Wildlife Act 1972 (Amendment 1976 & 1988)
- Malaysian Timber Industry Board Act 1973
- Environmental Quality Act 1974 (Amendment 1995)
- National Park Act 1980 (Amendment 1983)
- Malaysian Forestry Research and Development Board Act 1985
- Mining Enactment 1926
- Local Government Act 1976
- Biosafety Act 2007.

## 5. Patterns of Forest Land Tenure and Ownership

The tropical rain forests of Malaysia are extremely complex ecosystems and are richer in tree species than similar areas of Africa and South America. They are, in fact, the most species-rich plant communities known anywhere in the world and have evolved over million of years. There are at least 15,000 species of flowering plants, of which 2,500 are tree species; 286 species of mammals; 600 species of birds; 140 species of snakes; 150 species of frogs; and thousands of species of insects, many of which are still being documented. In addition, more than 1,300 plant species have been identified as having potential pharmaceutical properties, with some currently being used as traditional herbal medicine.

Table 3 shows that, at the end of 2005, an estimated 18.31 million ha (55.8 percent of total land area) was forest. Land under perennial tree crops such as rubber, oil palm, cocoa and coconut totaled 5.55 million ha (16.9 percent), and land used for other purposes such as settlements and infrastructural development amounted to 8.97 million ha (27.3 percent).

**Table 3: Land Use Patterns by Region in 2005 (million ha)**

| Region | Land Area | Natural Forest | Forest Plantation | Agricultural Tree Crops | Other Land Uses | Total Forest Area | Percentage Total of Forest Area |
|---|---|---|---|---|---|---|---|
| Peninsular Malaysia | 13.16 | 5.81 | 0.07 | 3.32 | 3.96 | 5.88 | 44.7 |
| Sabah | 7.37 | 4.16 | 0.20 | 1.50 | 1.51 | 4.36 | 59.2 |
| Sarawak | 12.30 | 7.94 | 0.13 | 0.73 | 3.50 | 8.07 | 65.6 |
| Malaysia | 32.83 | 17.91 | 0.40 | 5.55 | 8.97 | 18.31 | 55.8 |

If the 5.55 million ha of tree crops - which are similar to reforested land and are increasingly looked upon as alternative sources of wood supply, especially rubberwood - were counted as part of the area under tree cover, it would increase to 23.86 million ha or 72.7 percent of Malaysia's total land area.

## 6. Impact and Consequences of Forest Land Tenure Reform

### Policy and Institutional Framework

In the Malaysian Federation, the 13 states have jurisdiction over land, forests, fishery, agriculture, and water resources within their respective boundaries, including the power to decide on the use and allocation of resources. In the administration and management of forests, for example, each state has its own forestry department and agencies to implement policies at state, district and local levels. Constitutionally though, the federal government has the power to establish departments or ministries for the conservation of resources and informs local government of its plans. State agriculture and forestry departments are obliged, under the constitution, to refer to federal counterparts on certain matters.

In practice, however, states have pursued their own policies on land, forests and the environment even when they contradict those issued at the federal level, and vice versa. Moreover, forests are looked at in two different ways: as physical and economic resources controlled by the state; and as commercial assets for private logging companies and individuals to generate revenue and income.

### Conflict with Indigenous Peoples

Indigenous and forest-dependent peoples generally see forests as a physical, social, cultural and spiritual resource on which their livelihood, their beliefs, their identity and their survival are based. Because the state considers the forestry department as the sole custodian of these resources, it disregards the fact that indigenous peoples have been the real stewards since time immemorial.

When federal and state governments exercise development options, it is with the view that forests are a land resource to expand commercial agriculture and extract timber for domestic and foreign consumption. This attitude has led to loss of land and livelihoods for indigenous

and forest dependent peoples. In particular, states have revoked the customary rights to land and forests of Orang Asli communities by, for example, making it illegal and punishable to occupy land if the state has not issued them certificates and titles. As a result, indigenous peoples who access or traverse forest areas claimed by the state have been evicted from their ancestral lands and resettled. Indigenous women have less power to defend their customary land rights and are often the ones who suffer most when the state prohibits or restricts community access to and control over forest and land resources.

**Deforestation and Logging**

Government surveys in 1966 recorded Peninsula Malaysia as having approximately 7.86 million ha of forest. This area decreased to 7.24 million ha in 1974 and to 6.50 million ha in 1984 - a loss of about 622 thousand ha between 1966 and 1974, and 733 thousand ha between 1974 and 1984. In the 1990s, the annual forest loss fluctuated from a low of 7,847 hectares in 1995 to a high of 170,842 hectares in 1996. Overall, the annual forest loss from 1992 to 1996 was 58,002 ha compared to 70,000 ha in the early 1970s.

In Sarawak, it was reported that the state maintains an annual log production of about 12 million cubic meters, reserving 60 per cent for local processing and the remainder for export. Furthermore, Sarawak Forestry Department statistics show a decline in the total forest area by just over 10 per cent, or one million ha, between 1980 and 1990. The government also claims that Sarawak still has 7.31 million ha, or 59 per cent of land area under forest cover – 1.25 million ha (10 per cent) of hill mixed Dipterocarpaceae and peat swamp; and 168,000 ha (1.3 per cent) of mangrove and Nipah swamp. However, official statistics conceal the fact that almost the entire forest area of Sarawak (8.8 million ha) had been licensed for logging by 1990. The same statistics show that the average area logged per year between 1983 and 1990 was about 220,000 ha. Observers have noted that, by 1999, only 2.26 million ha of the licensed areas remained in terms of the absolute area logged. This figure does not take into account harvesting methods which have caused major forest destruction and degradation.

As for Sabah, its forests began to decline between 1890 and 1930 when British colonisers introduced logging, tobacco and rubber plantations. By 1953, natural forest covered 86 per cent of Sabah. By 1981, only 68 per cent remained and 63 per cent by 1984. More than a third of the natural forest was lost over a century, most in the 1970s and early 1980s. Figures reveal that Sabah's forests dwindled from an estimated 6.05 million ha in 1966 to 4.2 million ha by 1991 - some 1.85 million ha in total, for an average annual loss of 74,000 ha. The official website of the Sabah Forestry Department posts total area currently gazetted as forest reserves as about 3.59 million ha.

In both Peninsular Malaysia and Sarawak, forest area declined by almost 50 per cent between 1971 and 1989. In Sabah, the area still un-logged in 1989 was less than 20 per cent of that available in 1971, indicating that most forests had been logged in the interim. For Malaysia as a whole, FAO estimates 400,000 ha were lost annually between 1990 and 1995. In fact, logging is the major cause of deforestation and forest degradation in the country.

**Livelihoods and Poverty**

Some 350 million people live in forests and 1.6 billion depend on forests for their livelihoods. They are often among the poorest, most marginalised people on the planet. The rural poor in many developing countries depend on forests for fuel, food, medicine, grazing and fertile

soils, and these resources are particularly important in times of stress, for example during droughts or war. However poverty is also a cause of deforestation.

**Biodiversity, Soil Erosion and Flood Risk**

The loss of forests and wildlife habitats is the major cause of biodiversity loss. Tropical rain forests are the most diverse on the planet in terms of plant and invertebrate species. Forests also modify the quantity of water in rivers, its quality and the evenness of flow, and can reduce the severity of floods, in addition to preventing soil erosion and landslides.

## 7. Future Trends

To contribute to effective and efficient land resources management, it is essential for land laws to address not only possession and ownership but also the rights and obligations of the owner and occupier. Malaysia's National Land Code consolidates law and policy regarding land tenure, registration of titles, transfer of land rights, leases and charges in respect of land and easements, and other rights and interests stipulated in Article 76(4) of the Federal Constitution. The National Land Code also ensures that land is managed sustainably for present and future generations.

## 8. Conclusion

Because each country has its own set of unique social, economic and political circumstances, land reform programs must be tailored to address the issues which arise as a result of specific historic and geographical conditions.

The main aim of land reform is to improve the standard of living of peasants by reallocating land through legal registration; redistributing income through creation of employment and increased agricultural productivity; and by opening up more land for resettlement through road construction and improvement of irrigation channels. Malaysia is in the process of having all the legislation, policies and strategies in place to achieve sustainable land resources management. Strict implementation of these instruments will be necessary if the nation is to achieve desired outcomes.

# Mongolia Country Report on Forest Resources Tenure and Institutional Arrangements

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## 1. Introduction

Mongolia is situated in central Asia, east of northern Russian Siberia, south of the Chinese territory of Inner Mongolia and west of China's province of Xinjiang. Its population numbers about 2.7 million. At 1.5 persons per km2, Mongolia has one of the lowest population densities in the world. However about 57% of people now live in urban centers. Although an estimated 40% is thought to live below the poverty line, life expectancy is 64 years and the literacy rate at age 15 is 97%, - one of the highest in the developing world.

With a land area of 1.656 million km2, Mongolia is about six times the size of Great Britain or about the same size as Alaska in the United States. Average elevation is 1.580m but more than 80% of the country lies above 1000m. The lowest point is 518m and highest point is 4374 m. The country spans the major transition zone between the deserts of central Asia and the Boreal Taiga of Siberia, reflecting a general trend from drier and warmer climate at lower elevations in the south to moister and colder at higher elevations in the north. These six zones are:

- Desert (largely un-vegetated)
- Desert steppe (short-grass prairie, sparse shrubs and scattered small trees)
- Steppe (tall-grass prairie with a significant forbs component)
- Boreal Forest (coniferous with a deciduous broad-leafed component)
- Montane (mixed sub-alpine coniferous forests, krummholz, alpine meadows and tundra)

The last three zones all exhibit varying depths and distribution of permafrost (from continuous to sporadic). Mongolia is situated on a major continental watershed that is aligned roughly east-west. North of this line, rivers flow either to the Arctic Ocean (Selenge and Orkhon) or the Pacific Ocean (Onon, Kherlen and Khalkhyin Gol). South of the line, all rivers flow to the Central Asian depression which has no outlet. Climate is extreme dry continental, with marked variations in both seasonal and diurnal temperatures. Most precipitation occurs between June and August.

## 2. Forest Area, Types and Condition

Forest land in Mongolia covers an estimated 17.8 million ha (11.4 % of total land area). The main forested areas are located along the Russian border at the southern edge of Siberia's vast taiga forest, the largest continuous forest system on earth (closed forest: 920x106 ha (ECE/FAO 1985)). The Mongolian forest forms a transition zone between the Siberian taiga and the central Asian steppe. The elevation varies between 800 and 2 500 m above sea level. Closed forests covers 12.8 million ha, open forest 3.6 million ha, and non-forest 1.4 million ha (UNDP 1998).

The MNET forest report records about 140 species of trees and bushes: 61% Siberian larch (Larix sibirica), 8% Siberian pine (Pinus sibirica), 7% Birch (Betula platyphylla), and 4% Scotch pine (Pinus sylvestris).

Two-thirds of the total forest resources of Mongolia - an estimated 5 to 6 million ha - are potentially exploitable. They are located in nine northern central provinces (aimags). The average growing stocks in the northern forests vary between 54 and 79 $m^3$/ha in the entire forest area, and between 100 and 154 $m^3$/ha in exploitable forests. Total growing stock is 1.3 billion $m^3$ and the exploitable volume 600 million $m^3$ (Jaakkoo Pöyry 1995).

This fragile ecosystem performs many essential functions: collecting and regulating river flow, protecting soil from erosion and degradation, mitigating climate change, absorbing greenhouse gas, creating favorable conditions for flora and fauna, preserving permafrost, and maintaining the natural balance.

Mongolian forest legislation divides forest resources into two categories for management purposes: protected zones (93.2% of total forest area) and utilization zones (6.8%). In protected zones, restrictive green areas are established for 5 km around the headwaters of major lakes and rivers, 3 km on each side of major rivers, 1 km on each side of railways or major roads, 80 km around large cities, and 30 km around smaller towns. These zones also encompass forest on slopes of more than 30°, forests of less than 100 ha, forests within 50 m of a harvesting block, and saxaul forests. Regulated collection of domestic fuelwood and non-timber forest products (NTFPs) are the only forms of exploitation permitted.

This category also includes zones which were strictly protected under the old forest law - forests classified as sub-alpine and those within special protected areas, national parks, nature reserves and cultural monuments. Limited exploitation in some of these areas is allowed for local fuelwood needs and designated NTFPs. The utilization zone is a default category, covering remaining forest areas which are designated for commercial timber harvest subject to permits and government fees.

Natural regeneration of the Mongolian forest is slow and the harsh climate causes frequent damage by fire and insects. Over the last 30 years, unregulated logging, fire and insect invasion destroyed an estimated 1 million ha of natural forest. Over the same period, the area of scarce forest and of logging increased 10- to 15-fold, while that of burned forest rose 3- to 4-fold. Global warming and the negative impact of human activities over the last ten years have increased the drought area of Mongolia by 3.4 percent, resulting in desertification. The area under severe desertification has increased 5.4 times. Mongolia lost approximately 4 million ha of forest over the last century, an average of 40 000 ha/year. During the 1990s, however, approximately 60 000 ha/year was deforested (World Bank 2006). The major hazards to forest are climate change, wildfire, pests and unsustainable timber harvesting. This last cause accounts for a particularly large share of resource depletion.

## 3. Stakeholders in Forest Management

According to Mongolia's Constitution, forest resources are state property held on behalf of the Mongolian people. The Mongolian Law on Forests (MLF), the Mongolian Law on Environmental Protection and the Mongolian Law on National Protected Areas grant rights to manage forest resources to three types of stakeholders: government (the Ministry of Natural Environment and Tourism, local authorities and the Ministry of Industry and Commerce); private (enterprises, individuals and community groups); and other (international donors, buffer zone councils, non-government organizations, research and scientific institutions, and local environmental organizations).

As the owner of most forest land, the government grants forest tenure to national protected areas (NPAs), private enterprises, and community groups (Table 1).

**Table: Forest Tenure Distribution in Mongolia**

| Stakeholders | Type of Management | Duration of Contract | Estimated Total Forest Area (ha) |
|---|---|---|---|
| National Protected areas | | Unspecified | 3332000 |
| Private enterprises | Contact | Up to 60 years | 160000 |
| Community groups | Contract | Up to 60 years | 343691 |
| **Total** | | | **3823691** |

## 4. Stakeholders and Tenure Reform

The Ministry of Natural Environment and Tourism (later MNET), the State Professional Inspection Agency (later SPIA), communities, NGOs and international donors are the groups most likely to support forest tenure development which is still in its early stages. The priority is to establish agencies with trained personnel to increase community awareness of tenure issues.

Other stakeholders that may support tenure change include Parliament (Ikh Khural), the Cabinet Ministry, local governments and the Ministry of Industry and Commerce, but the interests of these entities may conflict, depending on whether their focus is on economic development or nature conservation. Government agencies tend to support industrial and infrastructure development without paying much attention to its undesirable side-effects on nature.

Stakeholders that are likely to resist or distrust tenure reform include small scale logging enterprises, mining companies, illegal loggers and small-scale mining operations. All these groups benefit from short-term uncontrolled exploitation of forest natural resources and do not welcome changes that call for the need to conserve forest resources and work with local communities rather than local governments.

## 5. Forest Management Rights and Responsibilities

**Ministry of Natural Environment and Tourism:** Through its Forestry Division, MNETT is responsible for all aspects of forest management, including legislation, policy-making and implementation. It determines annual harvest volumes for forest resources and carries out monitoring. The newly established National Forestry Agency provides technical support and oversees forest land transfers.

**Local Government:** Mongolia is decentralizing management responsibilities, including for forests, to government at city, provincial (aimag), district (soum) and sub-district (bag) levels. Most environmental legislation grants the authority for natural resources management to local governments, making them responsible for implementing forest legislation, monitoring forest management and leasing forest resources to private and community bodies.

**National Protected Areas:** At the United Nations Earth Summit in Rio de Janeiro in 1992, Mongolia committed to protecting 30 percent of its territory by 2030. The Law on Special Protected Areas (1994) established a protected area system, which comprises four categories: 1) strictly protected areas; 2) national parks; 3) natural reserves; and 4) natural and historical monuments.

The management of protected area concentrates on biodiversity conservation, ecotourism and support to traditional livelihoods, in cooperation with local government. NPAs are established for unspecified periods but Parliament can remove some areas from protected status to meet critical development needs or to change the protection regime.

At present, the country has 61 NPAs, covering 21.8 million ha or almost 14% of the national territory. Of these, forests cover 3.32 million ha in 35 NPAs (almost 17% of total forest area): 1.77 million ha of coniferous and 1.54 million ha of saxaul. Some 12% of the forest area is under strictly protected management (MNET, 2003).

**Community Groups:** Forest communities are voluntary associations of local people who share common interests. In Mongolia, more than 300 forest communities (4 224 families or 8 793 individuals) lease 343 691 ha of forest. The first communities were established in the late 1990s with support from international donors. Their goal was nature conservation and the sustainable use of natural resources.

According to the Law on Environmental Protection and the Mongolian Law on Forests (MLF), these groups have the right to lease a maximum of 6 000 ha of natural forest for up to 60 years, with possible extension, and use the timber and other natural resources on this land in accordance with a forest management plan. The law also allows forest communities to own any forest resources they plant themselves. In exchange, they must report annually on the status of their forest areas, enforce relevant environmental legislation, carry out rehabilitation and reforestation activities, and recruit volunteer rangers and conservation managers to protect the forest against wildfire, pests, and degradation, for example.

**Private Enterprises:** Logging companies account for most private involvement in forest resources management but data on this aspect vary and conflict. The Tax Department reports that, of 678 private forest companies nationwide, only 89 are logging companies. Since Parliament banned the export of timber in 1999, they can operate only in internal markets. In 2006, 574 800 m3 of timber was harvested, mostly in the provinces of Selenge, Bulgan and Tuv where infrastructure is relatively well developed and market demand high. Private companies manage forested area based on 60-year leases or management concessions which have to be renewed every year. The timeframe can be extended if the forest has been properly managed. In general, the rights and responsibilities of private enterprises are similar to those of forest communities but their annual budgets include reforestation and other environmental rehabilitation activities. They also have to pay local taxes.

**MNETT** reports that 164 private enterprises are licensed for forestry operations, of which nine have leased 160 000 ha of forest.

**Academic and Research Organizations:** National universities and research organizations lease 10 500 ha of forest but Mongolian legislation does not specifically provide for these organizations to lease land for research and training purposes.

**Other Actors:** The Ministry of Industry and Commerce's Mineral Resource Authority leases

some forest territories to mining companies, in coordination with local government.

## 6. Management Agreements

Under Mongolia's current legislation there are three types of forest resource tenure: public, leasehold (community or private corporate) and private.

**Public Tenure:** Although only a few district forestry agencies have been established so far, local governments have clear authority for unspecified periods over the forest resources which the state has allocated to them, including the right to reallocate their management to private and community entities. Government organizations do not pay taxes on the forests they manage themselves and the state provides a budget for their operation.

**Community Leasehold Tenure:** The New Forestry Law of 2007 provides greater opportunities for community involvement by allowing citizens to form voluntary partnership groups, i.e., forest communities. In forest areas, a forestry group must comprise at least 30 individuals or 15 families. In steppe and gobi (semi-desert) areas the minimum is 20 individuals or 10 families. At least 80% of the group must be permanent residents of the local administrative division. Forest communities have the right to lease forest areas near their homes. Applications are approved at local government meetings, after which the group must approach the local governor who issues a certificate.

To guarantee sustainable forest management, the community group submits a forest management plan (FMP) to the Provincial Environmental Management Department for approval and provides annual reports on its implementation to local authorities.

**Private Corporate Leasehold Tenure:** Private companies follow similar procedures to lease forest resources as forest communities. As already noted, most are profit-oriented logging companies which are allocated large areas and have contracts with local authorities.

**Private forest:** Private enterprises, community groups and individuals have the right to own any forest they plant but no forest areas have yet been privatized.

## 7. Forest Monitoring

Day-to-day monitoring and inspection of forest resources is the responsibility of local authorities and local branches of MNETT and SPIA, to which law enforcement authority was transferred in 2005. MNETT has established Nature and Environmental Units in every province to supervise district rangers while MNETT oversees databank management and monitors FMPs annually, based on the forest inventory.

## 8. Recent Developments

Since 2005, an amendment to the Law on Environmental Protection, MLF (2007) and MNETT Order 114, along with new contracts and certificates for community-based natural resources management, have clarified the rights of forest communities and established basic requirements. Article 4.1 of MLF grants ownership to forest communities over the forests

they have planted. They also have use rights over timber and NTFP and are given harvesting quotas based on their FMPs. The new regulation is expected to bring positive outcomes in the future.

These legal changes help to balance the rights and responsibilities of users by allowing forest communities to: 1) conduct the activities identified in the FMP; 2) utilize the timber and non-timber resources from their tenured forest according to the FMP and license, and sell any surplus; 3) formulate proposals for national and local funding, and compete for tenders; and 4) participate in management and professional skills building and training.

**Legal Milestones**

- Constitution of Mongolia (1992)
- Protected Area Management Law (1994)
- Forest Law (1995)
- Government Resolution 125 (1998)
- National Forest Programme (1998, 2001)
- Amendment to Environmental Protection Law (2005)
- Nature and Environmental Minister's Order 114 (2006)
- Forest Law (2007)

## 9. Obstacles to Implementing New Tenure Systems and Conclusions

The situations described in the following paragraphs all decrease the willingness of leaseholders to invest in forest resources.

**Conflict between NPAs and Forest Communities:** The sudden establishment of a NPA tends to produce hostile and negative reactions from community members, rather than cooperation. MNET cannot manage these huge NPAs properly with its small share of the national budget so that Mongolia's NPAs are "paper parks" that lack real protection and management.

**Little Political will to Diversify or Develop New Forest Tenure Types:** Weak government support for CPGs is the most urgent problem. Although the national government, including Parliament and MNE, are designing and passing legislation to support community-based forest management, province and district governments and representatives themselves are not doing enough to establish community groups and lease forest areas. Although local officials do not openly oppose them, they hold requests from community groups for longer than the legal time limit and do not provide financial support.

**Limited Rights to Timber:** Mongolia's forest is rich in NTFPs but timber generates higher profits. Forest resource users are therefore interested in exploiting timber but do not always

receive the annual harvesting quota indicated in their FMPs. This situation leaves leaseholders with insufficient financial gains and prevents them from managing and utilizing their forest resources properly. Community group and private leaseholders are therefore unable to fund conservation measures and improve livelihoods.

**Conclusions:**

**1. Complete the Work on Forestry Legislation:** In today's world, private and public sector management depends on speedy adaptation to changing trends. The private sector is driven to keep pace through competition, profit generation, advertising and customer demand. This sector cannot survive unless it can monitor market signals. The public sector, however, must respond to different demands from different groups of society. In Mongolia, public servants tend to steer rather than serve public interests and opinions. Training and public awareness should therefore be directed to not only communities or private companies, but also – and in the first place – to the government officials who deliver public services. It is vital that government staff fully understand, correctly interpret, and be willing to implement legislation and regulations.

**2. Stengthen Management of NPAs:** Mongolia's protected areas face an uncertain future, owing to the lack of funding, capacity, environmental awareness and incentives for ecosystem management. As long as the government does not have the resources to increase staff and invest in equipment for NPAs, they will remain "paper parks" and the protection of natural resources will fall short of what is required. To break the cycle of poverty and environmental degradation, Mongolia must involve local communities in the long-term conservation of protected areas. New socio-economic and socio-environmental partnerships are needed to maintain the country's NPAs and the biological wealth they harbour.

**3. Setting the Priority for Forest Tenure:** Mongolia faces a major dilemma regarding natural resource management. In the past, corrupt and weak governance allowed private industry to benefit from natural resources without control, transparency or accountability. Mongolia now has to find the right balance between utilization and conservation. Today's degraded forest simply cannot withstand further inadequately controlled utilization, including by communities and private companies. Moreover, Mongolia does not have sufficient financial capacity to subsidize community groups to manage the environment. Sustainability depends on generating enough economic benefits from forest resources to motivate leaseholders to invest in conservation and expansion of forest cover. Community groups, private companies and NPAs will then have sufficient income to fund afforestation, pest and wildfire control, and prevention of illegal logging, among other activities.

**4. Prepare Communities to Manage Forest Resources:** Conservationists have long sought to separate humans from nature by diminishing their involvement in environmental management. While people traditionally have focused on the environment, scientists believed that the management of ecosystems was the way to ensure the health of the planet. Today, this approach is no longer viable. Population growth, combined with fewer natural resources, call for human aspects to be fully considered in the design of environmental programmes and in the establishment of goals.

**5. Solve Land-use and Tenure Issues by Focusing on Livelihoods:** Co-management may hold the greatest promise for improving governance and management of forest land since, on the one hand, there is a clear need to draw on the knowledge of local herders and obtain

their support for any regulatory regime. On the other hand, herders need and want local government to take a more active role in regulating pastoral land use. While the formalization of tenure may be compatible with this approach, much can be gained by focusing on the rules that govern where and when livestock move, rather than on who has what rights.

**6. Commission a Case Study:** A specific case study on forest land tenure in the context of community forestry would shed light on these and other important dimensions of forest management and utilization in Mongolia.

# Forest Land Tenure System in Myanmar

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## 1. Historical Changes in and Drivers of Forest Land Tenure

In 1856, Dr. Dietrich Brandis, a German botanist, came to Myanmar and initiated scientific forest management, first by issuing regulations in October that same year. They were mainly concerned with prohibitions and made no reference to forest tenure. On behalf of the British Empire, Dr. Brandis and Dr. Cleghorn formulated the Government Forest Act in 1865 which also applied to lower Myanmar. According to this Act, land covered with trees, shrubs and forests could be declared state forests without affecting the rights and privileges of individuals or communities. Reference in law to these latter aspects, therefore, meant that they were now officially recognized. In time, it became clear that more practical legislation was required to balance people's rights and privileges with the need for government to control activities in reserved forests for public benefit. In 1881, a separate Forest Act was formulated for lower Myanmar but provisions still did not stipulate the nature of rights and privileges.

The Burma Forest Act (1902) replaced the Forest Act (1881). It called for forests to be managed according to specific work plans and authorized taung-ya cutting in some areas. It was superseded by the Forest Law (1992) which was drafted to include the concept of sustainable forest management. This legislation encompasses not only the rights and privileges inside forest land but also provides for private and community participation in forest conservation and management. In this regard, it changed the forest land tenure system in Myanmar.

## 2. Current Government Policies and Legal Framework Related to Forest Land Tenure

### 2.1 Forest Law (1992)

***Use and access rights of local people***

The Forest Law (1992) clearly states that:

The Minister shall in respect of constituting a reserved forest appoint a forest Settlement Officer to inquire into and determine in the manner prescribed the affected rights of the public on the relevant land and to carry out demarcation of the reserved forest. (Section 6 b)

The Minister shall in respect of specifying a protected public forest delegate the Director-General to inquire into and determine in the manner prescribed the affected rights of the public which may arise under the prohibition contained in the declaration. (Section 6 c)

***Private land tenure***

Section 14 stipulates provisions for the development and maintenance of forest plantations:

If permission is obtained from the Government:-

- The government and any person or any organization have the right to carry out in joint venture;

- Any person or any organization has the right to carry out in accordance with the stipulation, cultivation and maintenance of forest plantations with exception of village owned firewood plantations cultivated by the villagers for their use.

### 2.2 Forest Rules (1995)

Forest Rules 6,7,8, and 9 explain, in detail, the use and access rights of affected people as a result of the establishment/declaration of reserved forests and protected public forests.

Forest Rule 41 explains, in detail, the development and maintenance of forest plantations through joint ventures, as provided for under Section 14 of the Forest Law.

### 2.3 Community Forestry Instructions (1995)

***Communal Land Tenure***

The Forest Department issued Community Forestry Instructions (CFIs) in 1995 to encourage the rural population to plant trees on barren land and to rehabilitate degraded forests. The ultimate goals are to support economic development, regain environmental stability and meet the basic needs of local communities.

Local communities are permitted to establish community forests in:

- degraded natural forests where natural regeneration is difficult
- areas where there is potential to meet local demand for forest products
- areas suitable for this purpose and where there is need to conserve soil and water
- natural forests which for various reasons should be managed by the local community
- forest land traditionally managed by the local community

They are initially granted a 30-year lease on land to establish community forests and the period can be extended if performance is satisfactory and the user groups agree. In addition, this land tenure can be inherited.

## 3. Pattern of Forest Land Tenure and Ownership in Myanmar

In Myanmar, the state owns all land which is administered by two organizations: Settlement and Land Record Department under the Ministry of Agriculture and Irrigation and Forest Department under the Ministry of Forestry. The Forest Department is responsible for forest land and for granting tenure rights inside this land. All other land falls under the jurisdiction of the Settlement and Land Record Department.

According to the Forest Law (1992), forest land includes reserved forests and protected public forests. It identifies three types of tenure:

- Use and access rights granted to individuals
- Land tenure granted to local communities

- Land tenure granted to private entities

### 3.1 Rights and Privileges Granted to Individuals

In Myanmar, the rights and privileges of individuals inside reserved forests have been recognized since colonial times. At present, Forest Policy (1995) is being implemented to meet the national goals of the sector in the context of sustainable development. Among other activities, 30% of total land is to be constituted or declared reserved and protected public forest. Such a move will affect the use and access of local people dwelling inside the proposed area but their rights and privileges will be duly considered and legally granted.

In line with the legal framework, the Forest Department has issued a standing order with respect to constituting a reserved forest and declaring a protected forest for public benefit. Seven steps are to be taken, as described below:

**Step-1** A preliminary survey and demarcation are conducted.

**Step-2** A proposal is submitted to the Director General with the following information

- Description of the proposed area
- Conditions of the forest
- Historical background
- Stakeholders
- Rights and privileges to be claimed by local people
- Objectives of the constitution of reserved forest/declaration of protected forest
- Forest utilization
- Staff requirement.

**Step-3** The proposal is submitted to the Minister after clarification.

**Step-4** Minister announces plans to constitute a reserved forest or declare a protected public forest.

**Step-5** If affected people register a claim, a Settlement Officer (Director General of Forest Department in the case of PPF) investigates and makes a decision on the rights and privileges to be granted; marks the boundary; prepares and submits settlement forms (1-5). The Settlement Officer must issue notice that a claim has been made within 90 days from the time it is received.

**Step 6** Cabinet approves and notification is issued.

**Step-7** Final boundary is drawn.

In the above-noted standing order, people's rights and privileges are taken into consideration and duly granted when justified. Common claims involve use of land for orchards, taungya, grazing, and collection of forest products such as firewood, poles, posts and other non-timber forest products.

### 3.2 Forest Land Tenure to Local Communities

Currently, more than 0.1 million acres of community forests (both plantation and natural) have been established throughout the country. The following table provides details on the establishment of community forests which have been given 30-year land tenure.

**Table 1: Establishment of Community Forests with 30-year Land Tenure**

| State/ Division | Reserved Forest{Acre} | | | Unclassified Forest {Acre} | | | Total | No. of | No. of |
|---|---|---|---|---|---|---|---|---|---|
| | PLN | N/F | Total | PLN | N/F | Total | (Acre) | Group | Member |
| {2} | {3} | {4} | {5} | {6} | {7} | {8} | {9} | {10} | {11} |
| Kayin | 1260 | 1827 | 3087 | | | | 3087 | 3 | 348 |
| Kachin | | | | 100 | | 100 | 100 | 1 | 75 |
| Kaya | | | | | 1103 | 1103 | 1103 | 4 | 278 |
| Chin | | 575 | 575 | | 2506 | 2506 | 3081 | 15 | 209 |
| Sagaing | 40 | 370 | 410 | 2138 | 1714 | 3852 | 4262 | 33 | 1434 |
| Tanintheryi | | 245 | 245 | | 200 | 200 | 445 | 5 | 118 |
| Bago(East) | 285 | | 285 | | | | 285 | 4 | 116 |
| Bago(West) | 298 | | 298 | | | | 298 | 3 | 134 |
| Mandalay | 7928 | 1723 | 9652 | 1198 | 65 | 1263 | 10914 | 99 | 2206 |
| Magwe | 990 | 724 | 1714 | 7337 | 1466 | 8803 | 10517 | 40 | 18188 |
| Mon | 150 | 15 | 165 | | | | 165 | 4 | 59 |
| Yakhine | 10 | 778 | 788 | 987 | 1563 | 2550 | 3337 | 85 | 3447 |
| Yangon | 745 | 20 | 765 | | | | 765 | 6 | 210 |
| Shan (South) | 11 | 23989 | 24000 | | 28597 | 28597 | 52597 | 192 | 10182 |
| Shan (North) | 705 | 394 | 1099 | 83 | 200 | 283 | 1382 | 15 | 178 |
| Shan (East) | | | | | 5603 | 5603 | 5603 | 14 | 652 |
| Ayeyawady | 2694 | 3512 | 6206 | | | | 6206 | 49 | 2228 |
| **Total** | **15116** | **34172** | **49288** | **11843** | **43015** | **49255** | **104146** | **572** | **40062** |

### 3.3 Forest Land Tenure Granted to the Private Sector

Teak plantations were established in Myanmar on a small scale, using the taungya method, as early as 1856. Although reforestation and afforestation were carried out in the 1960s, large-scale plantation forestry did not take hold until 1980. During that decade, trees were planted on more than 30,000 ha each year. Since then, the area of newly established forests has grown to more than 40,000 ha annually: the Forest Department plants more than 30,000 ha and the Dry Zone Greening Department (DZGD) plants about 10,000 ha in the country's Central Dry Zone.

Up until 2006-07, the government established all forest plantations but, due to a shortage of human and financial resources, it is finding it difficult to maintain and develop additional areas on its own. With the shift to a market-oriented economy, authorities are encouraging

the private sector to become involved in plantation forestry through profit sharing. In this regard, the Forest Department has recently launched a programme, in accordance with Section 14 of the Forest Law. Depending on the division of authority, there are two categories of private forest plantations: teak and non-teak (other hardwoods).

***Private Teak Plantations***

The objectives of the establishment of private teak plantations are to:

- maintain Myanmar's reputation as home of teak
- increase foreign earnings and profits shared between government and private sector
- protect the environment and improve livelihoods through the creation of jobs.

According to the terms and conditions to establish private teak plantations, land is leased to private companies/entrepreneurs for 30 years and they must abide by the laws, rules and regulations relevant to environmental protection. They can sell their products in both domestic and foreign markets, again in accordance with rules and regulations. The government's share of the profits is 25% of either the product or the value of the product. As shown in the table below, Cabinet approved the lease of almost 0.13 million acres of forest land to 160 private companies and entrepreneurs for the establishment of teak plantations.

**Table 2: Status of Land Tenure Granted and Establishment Private Teak Plantation**

| State / Division | No. of Company/ Entrepreneur | Area Applied(Acre) | Area Approved by Cabinet (Acre) | Area Established (Acre) |
|---|---|---|---|---|
| Kachin | 6 | 37500 | 7500 | 4000 |
| Kayah | 1 | 100 | 100 | 0 |
| Kayin | 12 | 7211 | 2350 | 950 |
| Sagain | 7 | 10760 | 8060 | 6000 |
| Bago(East) | 85 | 148814 | 76486 | 8750 |
| Bago(West) | 10 | 11650 | 7100 | 5300 |
| Magwe | 8 | 7778 | 7193 | 1075 |
| Mandalay | 14 | 14228 | 3550 | 500 |
| Mon | 1 | 200 | 0 | 0 |
| Rakhine | 3 | 292 | 0 | 0 |
| Yangon | 4 | 5600 | 4100 | 100 |
| Shan (South) | 1 | 250 | 250 | 250 |
| Shan(North) | 2 | 5800 | 5800 | 800 |
| Ayeyawady | 6 | 9900 | 6100 | 4700 |
| **Total** | **160** | **260083** | **128589** | **32425** |

***Private Non-Teak (Other Hardwoods) Plantations***

The objectives of the establishment of private non-teak (other hardwoods) plantations are to:

- encourage the growth and use of lesser species
- protect the environment
- meet the domestic demand for timber
- boost economic development with the investment of private sector in forestry.

State and Division Forest Officers permit the establishment of non-teak (other hardwoods) plantations after approval of the Director General of the Forest Department. The size can range from 5 to hundreds of acres, depending on the interest and investment capacity of individuals. As shown in the table below, 35,928 acres have been planted so far.

**Table 3: Land Tenure Granted and Private Non-Teak Plantations Established**

| State/Division | No. of Company/ Entrepreneur | Area Applied(Acre) | Area Approved (Acre) | Area Established (Acre) |
|---|---|---|---|---|
| Kachin | | 16,121.00 | 12232.00 | 11,902.00 |
| Kayah | | 420 | 420.00 | 260.00 |
| Kayin | | 1,860.95 | 1392.45 | 998.45 |
| Chin | | 621 | 381.00 | 371.00 |
| Sagain | | 3,997.00 | 2707.00 | 3,917.00 |
| Taninthayi | | 252 | 252.00 | 252.00 |
| Bago(East) | | 7,811.10 | 4,521.50 | 4,521.50 |
| Bago(West) | | 1,207.00 | 1058.00 | 988.00 |
| Magwe | | 3,995.85 | 3922.85 | 2,270.85 |
| Mandalay | | 8,824.44 | 7435.51 | 4,855.41 |
| Mon | | 2,607.00 | 340.00 | 340.00 |
| Rakhine | | 1,379.15 | 1,221.00 | 1,148.00 |
| Yangon | | 4,629.60 | 1459.20 | 960.20 |
| Shan (South) | | 1,994.00 | 1,307.00 | 1,559.00 |
| Shan(North) | | 876.9 | 756.90 | 756.90 |
| Shan(East) | | 122 | 122.00 | 122.00 |
| Ayeyawady | | 878.73 | 866.73 | 705.73 |
| **Total** | | **57,597.72** | **40,395.14** | **35,928.04** |

## 4. Impact and Consequences of Forest Land Tenure System

Granting local people use and access rights inside forest land could reduce conflicts with the Forest Department, in addition to supporting livelihoods, meeting basic needs, and fulfilling social, traditional and customary functions.

At present, community forestry is still under development in Myanmar, for example, in Ascare in the Central Dry Zone. However, communities seem to be less interested in other parts of the country which still have abundant forest resources. Recognizing that extension

is crucial to further expansion of this approach, efforts also must be made to determine and address the reasons for slow progress.

Since private forest plantations only started 4 years ago, it is too early to assess the impact of this type of land tenure. According to reports, private forest plantations are successful so far. Thus, this programme is expected to have significant positive impacts on the national economy and development of the forest sector, including job creation and improved livelihoods. However, potential negative impacts must be taken into account as well so that they do not lead to further degradation of forests and land. For example, the size of the leased area should be manageable within the human and financial limitations of individual companies and entrepreneurs. The Forest Department, in collaboration with the private sector, must also address technical and environmental concerns, such as the increased risk of disease and fire in monoculture plantations, the possibility of soil erosion, and changes to forest ecosystems.

## 5. Future Trends

Myanmar continues to implement its national forest policy which encompasses economic, social, cultural and environmental aspects. Moreover, the Forest Department believes that it is essential to recognize and grant use and access rights to local people in order to achieve the policy's goals. Thus, this type of forest land tenure system will remain status quo.

Although Community Forestry Instructions have been in existence since 1995, communities have shown little interest in adopting this approach, particularly in areas where forest resources are still considerable. Lack of awareness is part of the problem but other reasons for this lack of uptake are still unknown. Thus, the slow pace at which communal land tenure is granted is likely to continue in the foreseeable future.

Since the introduction of private forest plantations, the area has increased year after year. Companies and entrepreneurs are interested in investing in this business because of persuasion through mass media. At the same time, population growth and industrial development are resulting in greater demand for timber as the number of commercially valuable species are declining in natural forests. In addition, the move toward a market economy and privatization could provide more favourable conditions for private investment in plantation forestry. For these reasons, the number of private forest plantations is likely to increase in future and land tenure granted to the private sector is expected to make up a significant portion of the forest tenure system in Myanmar.

# Philippines Country Report On Forest Land Tenure System

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## 1. Mandate & Ooganizational Profile

Pursuant to Executive Order No. 192 of June 1987, the Department of Environment and Natural Resources (DENR) is responsible for the conservation, management, development, and proper use of the country's environment and natural resources, including in reservations, watershed areas and public lands. It is also in charge of licensing and regulating the utilization of all natural resources as may be provided for by law in order to ensure the equitable sharing of benefits for the welfare of the present and future generations of Filipinos.

Under DENR, the Forest Management Bureau (FMB) supports the effective protection, development, occupancy management, and conservation of forest land and watersheds, including in grazing and mangrove areas, ancestral lands, and wilderness and other natural reserves. In this regard, among other functions, it recommends policies and programs to reforest and rehabilitate critically denuded/degraded forest reservations, improve water resource use and development, establish plantations, including rattan, bamboo and other valuable non-timber forest resources, rationalize wood industries, regulate the utilization and exploitation of forest resources, including wildlife, to ensure a continued supply of goods and services.

## 2. Trends in Forest Policy (Historical Changes and Drivers of Forestland Tenure)

Looking back, forest policy accounted for the massive deforestation of the country's tropical rain forests. Historical records from the 1950s to 70s (table 1) show a logging boom with no restriction on exploitation. As a result of several decades of forest decline, policy has been reformed and the direction of forest management has shifted. By the 1970s, the Marcos regime introduced people-centered forestry through the Forest Occupancy Management (FOM), Family Approach to Reforestation (FAR), Communal Tree Farming (CTF) and Program for Forest Ecosystem Management (PROFEM).

Forest cover in 2000 was reported as 5.4 million ha, down from 17.8 million in 1934. However, the 2003 forest assessment conducted by FMB and the National Mapping and Resources Information Authority (NAMRIA) showed that total forest cover was actually 7.17 million ha.

From being a major log exporter in the 1960s to 1980s, the Philippines is now a net importer. In 2005, it imported about 0.165 million cu m and exported less than 1000 cu m of logs from plantations.

**Table 1: History of Forest Policy and Trends**

| Year | Era//Events | Policy | Trends/Paradigms of Policy Shift/Decision |
|---|---|---|---|
| 1521 to 1800s | Spanish colonization | Spanish Royal Decrees<br>Cortes de Magera or large-scale felling of trees with forced labor and technology | Gain revenue, supply timber to Spanish Navy |
| 1860s | | Inspeccion General de Montes became a bureaucratic system for forest concessions | Concessions granted in virgin forests and business transactions made on lands and forests |
| 1890s | | Royal Decree | Laws and regulations governing the operations of the Philippine Forest Service |
| 1900s | US colonial rule | Bureau of Forestry Forest Act of 1904 (Act 1148) by US Congress – encouraged rational exploitation of forests through regulations which prescribed fees and taxes and promoted the conversion of forest land to agriculture. | First law on the export of forest products and first long-term timber licenses issued Philippines as major exporter of logs to US and Japan Forests as a source of capital |
| 1910s | | Forest Law of 1917 or Act No. 2711 Forestry school established | Communal forests and pastures |
| 1930s | Commonwealth period | Regalian Doctrine of the 1935 Constitution stipulated that all timberlands belong to the state | All timberlands belong to the state |
| 1940s | Japanese occupation, post independence era | Forestry Administrative Order No. 14-1 | Issuance of gratuitous permits in communal forests |
| 1950s | Large scale logging to meet market demands for timber in Japan and US | Philippine Selective Logging System (PSLS) on dipterocarp forests imposed Policy of 'land for the landless', Homestead Act | Regulated felling procedures and promoted export and import substitution policies |
| 1960s | Marcos Era | Granting of timber license agreements (TLAs) FAO 11 of 1970 – the duration of TLAs was extended to 50 years | Logging and concessions soared TLAs issued based on political patronage |
| 1970s | | PD 705 LOI 1260, FOM, FAR, PROFEM | Shift to people-oriented forestry Logging ban in critical areas |

Revised Forestry Code or Presidential Decree 705, as amended, has guided forest management since 1975. Public lands which are 18% in slope and above cannot be classified as alienable and disposable, nor any forestland 50% in slope or more as grazing land. As amended, its strategies focus on the management of productive forest through selective logging and on reforestation of degraded areas. They also support upland communities through issuance of tenure instruments and provide strict protection of critical watersheds.

## 3. Government Policies and Implementation of Forest Land Tenure

A major turning point in the history of the country and of forest policy was the People Power event in 1986 which brought about much greater input from non-government organizations and other interest groups. These changes gave way to decentralization and to public participation in resource tenure issues, a move which led to their involvement in policy formation more generally. The restoration of democracy in the Philippines placed social justice and equity at the center of the country's forest policy agenda. In 1987, the Aquino Administration promulgated the new National Forestation Program (NFP) which offered market incentives and involved communities, families, non-government organizations (NGOs), and corporations in the management, implementation, and evaluation of reforestation projects.

Presidential Decree 705, as amended, still guides forest administration but many provisions are no longer relevant. Thus, DENR has shifted policy with respect to such areas as forest resources allocation, disposition and management. Except for PD 705, most policies were enacted after 1986.

**Table 2: Current Forestry Policies of the Philippines**

| Policy | Major focus |
|---|---|
| Revised Forestry Code - Presidential Decree No. 705 of 1975 | Creation of the Bureau of Forest Development (BFD) with line authority. Adoption of multiple use, land classification and delineation of forestland, key conservation and reforestation strategies, census and initial recognition of forest occupants. |
| The 1987 Philippine Constitution | Confirmation of the Regalian Doctrine; the state may develop and utilize natural resources or enter into co-production, joint venture, or production agreements. |
| Local Government Code (LGC) - RA 7160 of 1991 | Partially devolved some functions of DENR to local government units (LGUs). |
| National Integrated Protected Area System (NIPAS) - RA 7586 of 1992 | Allocation of forest resources to protected areas for biodiversity purposes, preservation of habitats, watershed protection, and maintenance of ecological balance. |
| Executive Order No. 263 of 1995 on Community-based Forest Management | Adoption of CBFM as the strategy for sustainable forestry and social justice. |
| Indigenous People's Rights Act – RA 8371 of 1997 | Creation of the National Commission on Indigenous Peoples and recognition and protection of their rights. Through IPRA, ancestral domain was recognized in legislation above the notion of state ownership over all classified forest land. Indigenous peoples can apply for a Certificate of Ancestral Domain Claim (CADC) or Certificate of Ancestral Land Title (CALT) to certify ownership. |
| Executive Order No. 318 of 2004 | Adopts guiding principles to promote sustainable forest management in the Philippines: 1) delineation, classification and demarcation of state forestland; 2) holistic, sustainable and integrated development of forest resources; 3) community-based forest conservation and development; 4) incentives to enhance private investments, economic contribution and global competitiveness of forest-based industries; 5) proper valuation and pricing of forestry resources and financing SFM; and 6) institutional support for SFM. |

***The 1987 Philippine Constitution***

The 1987 Philippine Constitution provides the framework for policy and lawmaking in the country and has reoriented natural resource management in favor of co-production and of communities as the main implementers of SFM strategies and programs. More specifically, the two principles which apply to sustainable forest management relate to due process and participation and to resource utilization.

***Due Process and Participation:*** The constitutional principles on which public participation is founded are the right to due process, the right to information, the right to just compensation, and the right of various sectors to participate in nation building.

***Resource Utilization:*** The government gets its legal authority to control the utilization and management of natural resources from the Regalian Doctrine which states that "All lands

of the public domain, waters, minerals, coal, petroleum, and other mineral oils, all forces of potential energy, fisheries, forests or timber, wildlife, flora and fauna, and other natural resources are owned by the State. With exception of agricultural lands, all other natural resources shall not be alienated." (Article XII, Section 2).

With this Article, forest policy has shifted from the issuance of harvesting permits and licenses to exploration, development and utilization by the State itself or by the State entering into co-production or joint-venture agreements with Filipino corporations or with associations which are at least 60% Filipino-owned.

***Moving from Timber Licensing Agreements to Joint Venture, Co-production, Production Sharing***

Consistent with the reorientation of natural resource management since 1987, timber license agreements (TLA) are being replaced with production sharing or joint venture agreements between state and private sector. Holders of TLAs numbered 376 in 1977 for a total area of 10 million ha and an authorized AAC of 21 million cu m. At present, there remain only 6 TLAs which cover 325,310 ha.

***Conservation and Development of Natural Forests***

There are two types of natural forests in the Philippines: 1) primary (old-growth) which are under protection and cannot be logged and 2) secondary, which include forests above 50% slope and 1000 m above sea level. Under current government policy, these areas are managed solely for biodiversity conservation. Local communities are therefore expected to protect these forests and no utilization is allowed.

***Ban on Logging in Primary or Old-growth Forests***

To retain the country's remaining natural forests in perpetuity, all logging in old growth forests was banned in January 1992. Since then, all timber production shifted to the residual forest.

***Republic Act No. 7586 or the NIPAS Act.***

Concurrent with the ban on logging in old-growth, Republic Act No. 7586 of 1992 or the NIPAS Act placed all old growth forest, national parks and other protected areas under the Integrated Protected Area System (IPAS) with the aim of preserving biodiversity and environmental values. Recently, rules and regulations were revised (DAO 2008-26) to strengthen implementation and all government institutions involved integrated the processes they used to establish, manage, and de-establish all protected areas under the law. These policy initiatives also can support institutionalization of the financing mechanism for PES.

**Tenure Instruments in Production Forests**

In production areas, the private sector is encouraged to engage in forest management through the Integrated Forest Management Program (IFMP). Tracts of public land are awarded to individuals/private corporations through production sharing contracts - either Integrated Forest Management Agreement (IFMA) or Socialized Industrial Forest Management Agreement (SIFMA) - which give them the right to develop, manage, protect and utilize the specified area. Tenure instruments for the private sector includes Community Based Forest

Management Agreements (CBFMA), and Forest Land Grazing Management Agreements (FLGMA).

***a) Integrated Forest Management Agreement (IFMA)***

An IFMA is a contract between DENR and a qualified applicant which grants the latter the exclusive right to develop, manage, protect and utilize forestland and forest resources over a specified area ranging from 500 to 40,000 hectares. The duration is 25 years but is renewable for another 25 if land is developed on a sustainable basis and in accordance with an approved Comprehensive Development and Management Plan (CDMP). Under these arrangements, both parties share in its produce. Given that the supply of forest products increasingly must come from plantations, the government is encouraging corporate investment in this area through the Industrial Forest Plantation Management Program.

***b) Socialized Industrial Forest Plantation Management Agreement (SIFMA)***

The Socialized Industrial Forest Plantation Management Program is a modified version of the Industrial Forest Plantation Management Program. Eligible areas are grasslands, brush lands, and open/denuded forest land under the jurisdiction of DENR, including those within government reforestation projects that are otherwise to be classified under the NIPAS, CADC, CALC vested rights, licenses, permits or management agreements. Individuals or single families are assigned from 1 to 10 hectares and associations or cooperatives can sign for up to 500 hectares.

***c) Forest Land Grazing Management Agreement (FLGMA)***

Agreement are signed with individuals, associations and corporations to increase the carrying capacity and productivity of grazing lands through improved forage and pasture grasses, proper management practices and breeding technology. These arrangements provide secure tenure and incentives to invest in such lands.

***d) Community Based Forest Management Agreement (CBFMA)***

Executive Order No. 263 of 1995 mandated the adoption of CBFM as the national strategy for sustainable forestry and social justice. It recognizes the need to enter into long-term agreements with communities and indigenous people for the protection, rehabilitation, development, conservation, and management of forestland. The Government must respond to the need of communities for long-term tenure and resource-use rights, provided they employ low-impact and labor-intensive harvesting methods. It allows organized communities to harvest timber from plantations and from second growth forests, subject to regulations and on condition that the area will be managed according to the principles of sustained-yield. The community must also use a portion of the income derived from harvesting to protect, renew and improve the forest resources and to engage in alternative sources of livelihood. The incentives of CBFM include, within a specified area, the right to 1) occupy, possess, utilize and develop forestland and its resources; 2) claim ownership of improvements introduced; 3) allocate forestland and its resources to members and enforce use and management rights; 4) be exempt from rent and from charges on timber and non-timber products harvested; and 5) receive all income and proceeds from the utilization of forest resources.

The institutionalization of CBFM is the main government strategy to restructure the timber

industry which corporations once controlled (Ramos, 1993). Timber license agreements controlled one-third of the country's 30 million ha from 1971 to 1977. With the shift in the government's forest management approach in favor of CBFM from the 1980s onward, TLA areas gradually declined to less than a million ha today as a result of cancellations and non-renewals. The 1997 DENR strategic plan for CBFM envisioned that 9 million ha of forestland, mostly current and potential open access areas, would be placed under community management. At present, 1,783 CBFMA covering 1.6 million ha of forestland have been issued to 321,638 households.

These key programs and policies over the last three decades have influenced forestland tenure reform. Local people are now accepted as forest managers and their rights over forestland and resources are increasingly recognized through different tenure instruments which were developed through negotiation, accommodation, and contestation of the many actors and their diverse interests at various levels – international, national and local.

## 4. Patterns of Forest Land Tenure and Ownership

### Role of Tenure Holders

DENR has been mandated to manage the forestland and resources of the country. However, because this land makes up more than half the land area, DENR and previous agencies co-opted other stakeholders to help with its management. In the early years, TLAs were supposed to protect the forest and, later on, other obligations were added. They are being replaced by other forms of tenure, consistent with the Constitution, giving access to natural resources through joint venture, co-production and production sharing agreements: CBFMA, SIFMA, IFMA, FLGMA, tree farm leases and agroforestry farm leases. Tenure holders have the responsibility to protect their forest areas, in addition to developing forest plantations and agroforestry areas. Holders of these agreements have tenure over about 3.42 million ha.

Indigenous peoples, by virtue of RA No. 8371, were given the right to own title to ancestral lands and domains. As of September 2007, certificates granting them 5.9 million ha of ancestral lands/domains were issued and DENR is assisting them to prepare forest management plans. In collaboration with the National Commission on Indigenous Peoples, DENR must now build their capacity to manage forests in a sustainable manner so that the areas under their care will flourish.

### Management of Protected Areas

Several stakeholders participate in the management of protected areas through the Protected Area and Management Board (PAMB). The PAMB reviews and endorses DENR's management plan and manual for protected areas; decides on planning, resource protection, and general administration of the area; approves proposals, work plans, and management guidelines; delineates boundaries, buffer zones, and ancestral domains within the PA; promulgates rules and regulations to promote biodiversity conservation; and oversees implementation of the management plan.

A superintendent is responsible for the day-to-day operations of protected areas, functions which include serving as chief officer for implementing the management plan; establishing

partnerships with local communities; developing programs related to park information, education and visitors; enforcing rules and regulations; and confiscating illegally collected forest products.

**Management of Forestland by Government Owned or Controlled Corporations (GOCCs)**

About 685,000 ha of forestland, particularly watersheds, are under management of government owned or controlled corporations. They are basically in the business of generating energy, such as the National Power Corporation and the Philippine National Oil Company (EO No. 224, 1987), and are mandated to protect and rehabilitate watersheds under their jurisdiction. The National Irrigation Administration (NIA) is also involved because it supplies water to dams and provides water irrigation systems. These corporations are also required to assist settlers within their watersheds.

**Role of Non-government Organizations**

NGOs do not manage forestland or forest resources directly but help to train families and communities when the latter are being organized. Their involvement in forest management started when DENR implemented the Integrated Social Forestry Program (DAO No. 97,1988). At that time, NGOs were called upon to assist with the census of forest occupants, organization of communities, information and technology dissemination, and the monitoring and evaluation of agroforestry projects. They also helped communities find markets for their products and provided social services in areas such as health, livelihoods and access to credit.

As members of the PAMB, they assist in formulating and in monitoring the implementation of management plans in protected areas. They also sit on multi-sector Forest Protection Committees, gathering and providing information to the police and DENR about illegal forest activities, including logging and the transport of such logs

**Role of Local Government Units in Forest Protection, Conservation and Management**

In addition to their role in the management of protected areas, RA 7160 or the Local Government Code provides that local government units (LGUs) share the management of forest resources with national government (RA No. 7160, 1991). Furthermore, the Code stipulates that municipalities implement community based forestry projects, including integrated social forestry programs, subject to the supervision, control and review of DENR. Provincial governments enforce forest laws related to community projects and other laws which protect the environment, again subject to the supervision, control and review of DENR.

Pursuant to the Local Government Code, DENR devolved projects under Integrated Social Forestry to LGUs excepts those partially or wholly funded by foreign donors and those located in protected areas and critical watersheds (DAO No. 30, 1992). Along with ISF projects, community development officers and community development assistance of DENR were also handed over, in addition to the budgetary appropriations for the projects.

LGUs have also entered into Memoranda of Agreement with DENR and communities for the management of watersheds and they train organizations involved in livelihood projects, providing start up capital in some instances. With regard to forest law enforcement, LGUs have issued ordinances for the protection of forests and watersheds and impose penalties for illegal logging and slash and burn activities.

**Role of Civil Society Organizations**

Civil society organizations (CSOs) are assisting the government to implement forest laws and regulations and, in this regard, they participate in forest protection committees which DENR established, along with representatives from the church, academia, the military/police, LGUs, and NGOs. These committees have lowered the incidence of illegal logging in some parts of the country but are hampered by the lack of logistical support to carry out their mandate.

## 5. Impacts and Consequences of Forest Land Tenure System Reform

Policy changes and structural reform to provide democratic access to forest resources affected patterns and trends of forestland tenure. Organized upland communities are granted authority to manage and protect the forest in the belief that they will manage the resources well, especially when permitted to harvest them. The government also supplanted TLAs with IFMA and the SIFMA to replace commercial access of enterprises to natural resources with access on the basis of production sharing agreements.

Various assessments have been made of the socio-economic and environmental impacts of forest tenure reform and the associated policy and related changes in terms of livelihoods, income, forest condition and equity of different tenure instruments, in particular CBFMA, CADT/CALT and devolution of forest governance to local government units through co-management agreements. All proved to be a good strategy compared to the former TLA system. However, upland communities need technical and financial support to develop their areas more effectively. More than the tenure itself, it is the financial, technical and livelihood support that improves the livelihoods and increases the income of recipient communities.

The establishment of private commercial tree plantations has been slow. Given the current pace of about 10,000 new ha annually, it will take years before plantations meet local demand for logs. More incentives are needed, such as stable policies on forest plantations, reduced transactional costs and assistance in the identification of available suitable areas.

As the country continues to designate protected areas, it is essential to have a functioning PAMB in place or a superintendent who serves as the on-site manager. Currently, a few protected areas can fund their own operations and management but, through the Integrated Protected Area Fund (IPAF), more of them will be able to invest the income they generate to protect and develop the area.

## 6. Future Trends

This paper traced the evolution of forest policy in the Philippines from the colonial period to the present, highlighting the move from a regulatory, centrally controlled and industry-biased approach towards one that is more decentralized, participatory and people-oriented. At the core of these shifts is the tenure reform which took place through the adoption of community based forest management. The transfer of access, use and management rights are expected to improve the socio-economic status of individuals and communities as well as protect the environment. On the basis of the situation that will likely occur in the next two decades, the following will take place regarding forest cover:

- Policies to support forest plantation development will be adopted and will benefit smallholders, including on private land.
- Incentives to establish forest plantations are expected to be made available, possibly including micro-financing for smallholder farmers.
- More confident investors will put money into forest plantations, including through joint ventures with forest communities and people's organizations - a scenario that will provide options to develop CBFMA areas.
- The government will provide more funds to rehabilitate and better manage watersheds.
- It will take time before an effective population program will take effect. Meanwhile, continued migration into the forestland will destroy part of the natural forest cover.
- More funds will be allocated to rehabilitate watersheds as a result of the rice and energy crises.
- Part of the forest will give way to plantation development for biofuels.
- Better monitoring of forestland and resources will result in better protection.
- Policies on payment for environmental services in forestland will be implemented.

On the whole, the natural forest may decrease because of continued poaching for fuelwood, illegal logging, conversion to crop production and production of biofuels. However, there will be a net increase in forest cover due mainly to tenure reform: CBFMA, CADT/CALC, co-management, establishment of protected areas, plantation development and rehabilitation of watersheds by large tenure holders such as the National Power Corporation, the Philippine National Oil Company and the National Irrigation Administration.

## 7. Conclusion

The development of forest policy in the Philippines highlights the move from a regulatory and centrally controlled approach of the colonial period to policies over the last three decades that are more decentralized, participatory and people-oriented. Forest cover declined from 17 million ha in the 1930s to 5.4 million ha in 1997 but increased to about 7.2 million ha in 2003. A number of different stakeholders at various levels have played a crucial role in formulating policy that emphasize community involvement in forest management.

The Philippines will continue to depend on natural resources and demand for wood and other forest products will increase. Secure land tenure and property rights should take into account the need to provide appropriate and sustainable livelihood opportunities as well as market support in the form of infrastructure, capital, product identification and development, and market information.

Given the shifts in forest policy over the past years, considered radical by some, it remains to be seen whether such initiatives will persist and eventually lead to sustainable development.

# Papua New Guinea Country Report on Forest Tenure

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## 1. Introduction

Papua New Guinea has a total land area of 46.284 million hectares, of which an estimated 29.437 million ha are covered in forests which are complex in composition, structure and function (figures 1 and 2). Other information on land classification is as follows:

- Other wooded lands – 4.474 million ha
- Inland water bodies – 0.998 million ha
- Other land – 11.375 million ha

The country is situated 6 degrees south of the equator and thereby falls within the moist tropical rainforest zone on the world. Average rainfall is 3,000 mm per year, although some parts of the country receive less than this amount.

The PNG Forest Authority has classified PNG's 59 vegetation classes based on 6 structural formations: forests, woodland, savanna, scrub, grassland and mangroves. Once remote sensing is completed, the area of each class of vegetation will be available.

Although the country's population is only six million, it has in excess of 800 languages and tribes. Although customary owners hold 97% of the land and 100% of forests belong to the people, tenure arrangements vary widely under the matrilineal and patrilineal societies which are found in PNG. In some cases, the landholding unit (the tribe, the clan or the extended family) owns the land as a corporate body.

### Main Tree Species

There are an estimated 15,000 to 20,000 higher order plant species in PNG of which more than 2,000 are tree species. Over 400 of these are utilised in one way or another, including for timber production and logs for export.

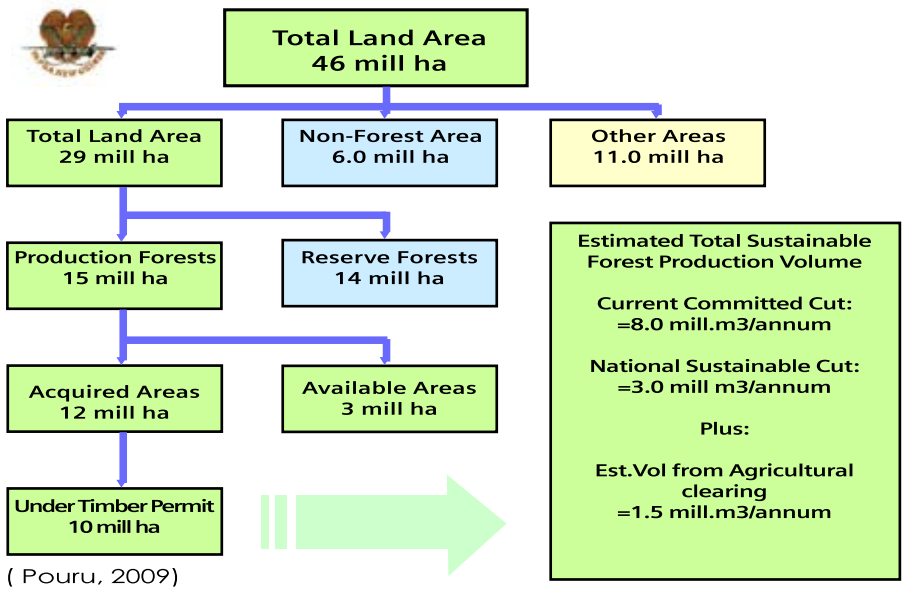


**Figure 1: PNG's Forest Resource Base**

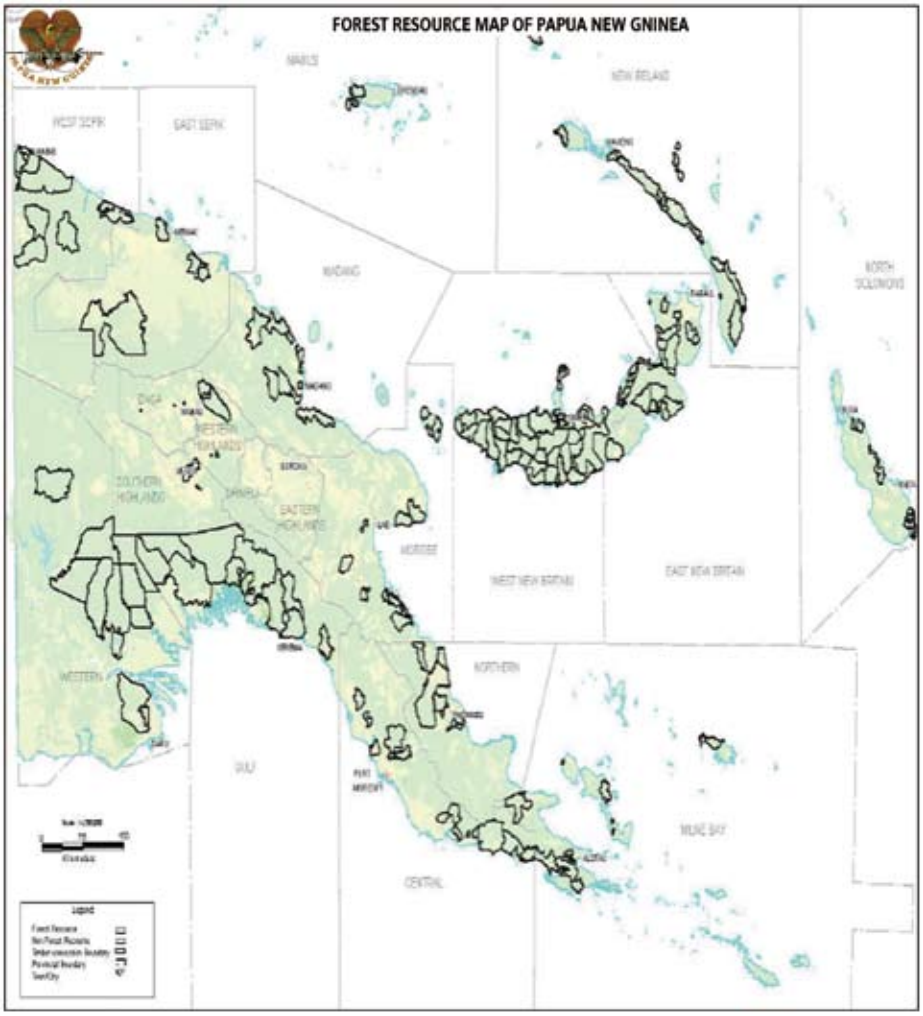


**Figure 2: Forest Resource Map of Papua New Gninea**

Some of the main commercial tree species exported are: *Homalium, Pometia, Calophyllum, Eucalyptus, Terminalia, Dillenia, Toona, Buchanania, Canarium, Anistoptera, Endospermum, Octomeles, Instia, Syzgium, Celtis, Burckella ,Mastixiodendron, Dracontomelont, Canarium.*

## 2. Historical Changes in Forest Land Tenure

1925 – Lane Poole recommended a forest policy.

1948 – After World War II, John McAdams called for a forest survey to be conducted.

1957 – Paul Husluck issued a policy statement on forestry.

1971 – Forestry Private Dealings Act (Chapter 217) ended government monopoly over

access to timber. Upon application to and approval of the Minister for Forests, an area could be declared a Local Forest Area where the customary owners, by following procedures set out in the Act, were entitled to sell their timber to any person. Regulations of the Forestry Private Dealings Act set out the powers and duties of the agent appointed to act on behalf of customary owners and required the operator to forward monthly returns to the Department of Forests.

1973 – Forestry Industries Council Act (Chapter 215) established the Forest Industries Council to promote the interests of this constituency, giving it various functions in the grading and marketing of forest products. Operators engaged in logging, milling or marketing activities had to register under the Act, operate in accordance with the conditions of their registration, and pay a levy to the Council. The Forest Industries Council Regulation made further provisions for registration and the levy (FAO Legal Papers Online, June 2002).

1991 – The Forestry Act was passed and has since been amended six times: in 1993, 1996, 2000, 2005, 2007 and 2010.

1991 – The National Executive Council (NEC) issued the National Forest Policy for forest management, industry, research, training and education, organization and administration.

1992 – The Forestry Regulation No.15 was issued and amended the following year.

1993 – National Forest Guidelines were issued.

## 3. Drivers of Forest Land Tenure Changes

The customary land in Papua New Guinea is central to the lives of its citizens and any reforms in this area need to be implemented cautiously and with sensitivity. Modern society and the cash economy, in particular, have introduced changes, including in some of the uses of customary land. For instance, shifting cultivation is no longer practiced in some parts of the country, giving way to more permanent commercial plantations of cash crops such as coffee, cocoa, oil palm and rubber. Such long term use is causing tension and is straining the traditional system to the point where people are being killed in disputes over land use.

In order to address these problems, the government of PNG has a responsibility to ensure that when changes of a social and economic nature are introduced, they bring peace and prosperity to all rather than disunity and conflict.

In 2008, the Constitutional and Law Reform Commission recommended that the Land Groups Incorporation Act be amended to make Incorporated Land Groups accountable for transparent and effective governance by providing appropriate accountability mechanisms and management processes. The Commission further recommended that changes be made to the Land Registration Act to allow voluntary registration of customary land, naming these groups as the perpetual holders of this land on behalf of all customary owners.

## 4. Current Government Forest Land TenurePolicies and Implementation

As noted earlier, approximately 97% of the country (and 100% of forest land) is under customary ownership and is governed by customary law. In practical terms, this means

that boundaries were not surveyed and titles were not registered. The precise nature of this ownership varies from one culture to another but, generally, title is communal and in the hands of traditional clans. Following Independence in 1975, this form of ownership was guaranteed under Section 53 of the Constitution (protection from unjust deprivation of property). Thus, a major challenge in terms of economic development is to identify who the members of specific groups are so the owners of particular forest areas can be determined. Disputes between government, forestry companies, and groups have often come down to whether the PNG Forest Authority and companies entered into contractual relations with Incorporated Land Groups - the true owners - for use of the land.

The Land Groups Incorporation Act of 1974 introduced a major innovation by allowing landowners within a group to form a single legally constituted body, the Incorporated Land Group (ILG). Formal identification consists of listing current members and membership criteria, supported by genealogies. Lists can be reviewed on an annual basis and changes in the group's composition noted. Each ILG is required to identify its properties which neighboring clans must verify and indicate agreement (Holzknecht, 1996). While the Act does not register land in the ILG's name, it does record the ILG's interest in and control of the properties listed in its constitution (including named land areas, forests and rivers). None of these measures interfere with the customary arrangement of temporary access rights to land resources for certain individuals.

The Act describes an Incorporated Land Group in these terms:

The Registrar may recognize as an incorporated land group a group consisting only of incorporated land groups if he is satisfied that

(a) the member groups possess common interests and coherence independently of the proposed recognition, and share or are prepared to share common customs

(b) the association between the groups represents a customary form of organization as a corporate body.

In March 2009, the Land Groups Incorporation (Amendment) Act, 2009 and the Land Registration (Customary Land) (Amendment) Act, 2009 were passed. This legislation marks one of the first steps towards reforming customary land tenure – primarily as a means for customary landowners to use their land for economic development in a fair, equitable and convenient manner under a legal system that ensures they do not cede ownership of their land at any time but continue to have control through the ILG.

Under prevailing arrangements, however, weaker members of the social unit do not have the same access to and use of customary land as others in the group who are stronger and more powerful. Nor do they enjoy much economic benefit. These recent amendments are designed to address such inequities.

For small scale forest development, a Timber Authority (TA) is issued, usually for a one-year period and 5,000 cubic meters. ***The TA grants rights to harvest the natural forest and does not relate to use of the land.*** The types of TA available are for domestic harvesting; road lines; plantation forests; minor forest products; and large scale agriculture where forest clearance is inevitable to establish cash crops such as rubber and oil palm.

## 5. Patterns of Forest Land Tenure and Ownership

The current tenure system in PNG is constraining forest development. With 97% of the land under customary ownership, it is the basis upon which more than 80% of the population earn their livelihood.

Before the Forestry Act of 1991, acquisition of forest resources in PNG was by way of Timber Rights Purchase Agreements (TRPA). Under this system, more than 75% of the adult members of the clan must have consented to transfer their timber rights to the State but they retained ownership over the land and rights to develop it.

The Forestry Act, 1991 replaced the TRPA with forest management agreements (FMA), the only difference being that the customary land group was legally recognized, consistent with the Land Groups Incorporation Act, 1974. In addition, the Forestry Act, 1991 calls for these groups to formalize their status with the Department of Lands and Physical Planning before they can enter into any agreement with the PNG Forest Authority.

Implementation of FMA should have resolved numerous problems because ownership is vested in the incorporated group. However, tenure issues under the new system are the same as under the TRP system because groups still consider the land belongs to their families, regardless of incorporation.

The State has title to about 3% of the land by way of outright purchase or 99-year leases. The PNG Forest Authority is managing this area sustainably and has established a few forest plantations. Other forest plantations are owned either by organizations or the community (see table below).

**Table : Forestry Platatuons Established Since 1960s**

| Province | Plantation | Year Started | Area(HA) | Species | Ownership |
|---|---|---|---|---|---|
| Central | Brown River | 1955 | 1,266 | Teak | Community |
| | Kuriva | 1985 | 738 | Teak | State |
| Miline Bay | Ulabo | 1985 | 1,465 | E.deglupta | Community |
| | | | | T.brasri | State |
| Morobe | Bulolo/Wau | 1985 | 12,000 | Hoop,Klinki and Pinus | State |
| Madang | Gogol,North Coast | 1975 | 12,375 | A. Mangium E.deglupta | Company State |
| NIP | Kaut | 1986 | 200 | E.deglupta | State & Community |
| WNBP | SBLC | 1972 | 12,000 | E.deglupta/ T.brasii | Company |
| ENBP | Kerevat | 1950 | 2,385 | Teak & Balsa | Community |
| | Open Bay | 1972 | 12,000 | E.deglupta/ T.brasii | Company |
| EHP | Kainantu | 1976 | 962 | Pinus patula | State |
| | Fayantina | 1981 | 1,200 | Pinus patula | |
| | Lapegu | 1963 | 2,723 | Pinus patula | |
| WHP | Waghi | 1962 | 2,143 | E.grandis | State & Community |
| | | | | P.patula | |
| SHP | Ialibu | 1972 | 240 | P.patula | State |
| **Total** | | | **62,277** | | |

## 6. Impacts and Consequences of Forest Land Tenure Reform

As mentioned earlier, 97% of the land and 100% of the natural forest in Papua New Guinea are customary owned.

With reforms in the registration of land and the incorporation of land groups, the government is addressing the negative consequences of past policies where the people in rural areas were mere spectators in development activities. Now, they are more involved in the management of their forests and land, in partnership with government. Authorities anticipate that all landowners will have access to the use of their forest and land for both domestic and commercial purposes by 2010.

## 7. Future Trends

In response to the socio-economic changes brought about by a modern cash economy, the government is proactively guiding the implementation of new laws and policies in PNG. It expects that reforms will produce the following outcomes:

They will significantly modify land use, from short term to longer term and more individualistic use. As a result, they will address law and order issues which arise from time to time.

They will unlock the vast economic potential in customary land caused by legal and administrative constraints related to the adaptation to a modern economy. Reforms not only empower customary land owners to do business with the rest of the world but also secure and protect their interests and land.

They will protect weak and vulnerable members of the social unit by ensuring that powerful members of the same clan conduct business in a fair and equitable manner.

They will provide an efficient and effective legal system as well as secure tenure for all parties who wish to utilize portions of their customary land for economic development and wealth creation.

## 8. Conclusions

Customary tribal groups own and manage 97% of the land in Papua New Guinea, making tenure arrangements unique compared with most other parts of the world. Due to this type of system, forests growing on this land belong, by default, to these groups. In order to carry out forest operations such as harvesting of timber, collection of non-timber forest products, and reforestation, state agencies - including the PNG Forest Authority - must extensively consult the landowners who are often referred to as the resource owners.

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# Forest Land Tenure in Sri Lanka

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## 1. Background

Sri Lanka is an island in the Indian Ocean, located between latitude 5°55_ and 9°51_ N and longitude 79°41_ and 81°54_ E. It is about 100 km southeast of the southern tip of the Indian subcontinent. It is 432 km at its longest point (Devundara to Point Peduru); 224 km at its widest point (Colombo to Sangamankanda); and covers 65,525 sq km, including inland bodies of water. The hills appear in the center and south of the center.

Average mean temperature along the coast is 26.7 C (80 F) and 19.7 C (66.50 F) in the hill country. In Colombo, the commercial capital on the west coast, the temperature varies from 26.4 C (79.5 F) to 27.8 C (82.12 F). Relative humidity varies from 70% during the day to 90% at night. In the lowlands, the climate is tropical with an average temperature of 27°C. In altitudes of nearly 2,000 meters, temperatures can drop to 16°C. Bright, sunny warm days are the rule and are common even during the height of the monsoon. Climatically, Sri Lanka has no off season. The south-west monsoon brings rain from May to July to the western, southern and central regions of the island, while the north-east monsoon brings rain in December and January to the northern and eastern regions.

**Table 1: Climatic and Altitudinal Zones of Sri Lanka**

| Climatic Zone | Rainfall (mm) | Altitudinal Zone | Altitude (m) |
|---|---|---|---|
| Wet zone | >2500 | Low country | 0-300 m |
| Intermediate zone | >1750- 2500 | Mid country | 300-900 m |
| Dry zone | 1000-1750 | Up country | > 900 m |
| Arid zone | < 1000 | Montane zone | > 1500 m |

Sri Lanka's population was around 20.2 million in mid-2008 and is projected to reach 23.1 million by 2031. Growth declined from 1.5% during the 1980s to 1.1% in 2008. The population is unevenly distributed across the country, with nearly 60% concentrated in the wet zone. Sri Lanka is one of the most densely populated countries in Asia, at 322 persons per square kilometer in 2008. Of the total population, 74% are Sinhalese, 18% are Tamils, 7% are Muslims, and 1% are of other ethnicity.

The service sector makes up about 60% of GDP and grew more than 7% in 2006-2007, mainly due to telecom, trading, transport, and financial services. However, growth slowed to 5.6% in 2008. Information technology is becoming increasingly important, especially in the areas of training and software development. Industry accounts for 28% of GDP, of which manufacturing - the largest sub-sector - accounts for 18%. Construction comprises 7% of GDP, while the share of mining and quarrying is 1.5% and that of electricity, gas, and water is 2%. Within the manufacturing sector, food, beverage, and tobacco account for 44% - the largest in terms of value addition. Textiles, apparel, and leather come next at 20% of value addition, followed by chemical, petroleum, rubber, and plastic products.

Agriculture has lost its relative importance to the Sri Lankan economy in recent decades. It employs 35% of the working population but accounts for only 12% of GDP. Rice, the staple cereal, is cultivated extensively. Tea, rubber, and coconut plantations also form part of the sector. In recent years, the tea crop has contributed significantly to export earnings. The

production of rice and other food crops for domestic consumption is expected to improve with the return of peace to the eastern and northern provinces.

Public administration and defense expenditures increased in recent years due to hostilities, expansion of employment in the public sector, and the cost of maintaining a Cabinet of 106 ministers. Moreover, tourism has been impeded by the volatile security situation.

## 2. Historical Changes in Forest Land Tenure

The protection of nature in Sri Lanka dates back to the introduction of Buddhism in 246 BC and its philosophy which called for revering all forms of life and forbade any killing. Prior to this time, hunting was likely enjoyed by at least the elite of society. King Devanampiyatissa established one of the world's first wildlife sanctuaries in 246 BC and his successors continued to uphold Buddhist precepts: forests were protected by royal edicts, tree felling and collection of forest products were controlled, and fragile ecosystem of the wet zone forests were left practically undisturbed. Kings appointed ***Kele Koralas*** (forest officers) whose duties included prevention of poaching and protection of royal trees. In the 12$^{th}$ century, King Keerti Nissanka Malla proclaimed that no animals should be killed within a radius of seven Gav (35.7km) of the city of Anuradhapura (Abeywickrema, 1987; IUCN, 1990). Changes in attitudes and land-use practices began with the onset of the colonial period. Until the early 19$^{th}$ century, however, most of the hill country and low country dry zones were forested. Large tracts of forest remained in the north, east, and south-east. Only the extreme south and south-west were cultivated, paddy fields and coconut plantations being common (Holdsworth, 1872). From 1830, vast tracts of forest at middle altitudes were cleared for coffee plantations which were replaced by tea after a leaf-blight infestation in 1850. Forest clearance in the dry zone began around 1869 and accelerated towards the turn of the century with the introduction of large colonization schemes. Shifting cultivation or chena was also practiced more widely and contributed significantly to the destruction of forest cover (Perera, 1977).

The Wastelands Ordinance (1840) facilitated such changes by vesting all forest, waste, unoccupied or uncultivated land or chena in the British Crown - lands which were previously held by royalty, communities, temples, and individuals. In effect, it safeguarded colonial interests and eroded traditional rights to use the forest.

The emphasis on timber production continued long after independence in 1948, the result of which, combined with the demands of an increasing population, reduced forest cover from about 84% of land area in 1881 to 23.9% in 1992 (Population rose from 0.9 million in 1822, the first census, to nearly 18 million in 1994).

## 3. the Evolution of Conservation Policies and Legislation

In 1873, the eminent botanists Hooker and Thwaites, and Ceylon's Governor Gregory expressed concern over the conversion of forest land to coffee and tea plantations. At that time, Hooker warned against the replacement of natural forests with plantations because of the serious impact this would have on the climate. He further advocated the protection of all natural forests above 5000 feet (about 1500 m) as climatic reserves (Jansen, 1989), a proposal which was eventually incorporated in an amendment to the Forest Policy in 1938.

The preservation of indigenous flora and fauna has featured consistently in forest policy, from Governor Sir Herbert Stanley's first statements in 1929 to the adoption of national forest policy objectives in 1953. These goals were reformulated in 1972 and 1980, the latter revisions emphasizing environmental protection and participation of local people in forestry. The first comprehensive national forestry policy statement, with clear objectives and supporting strategies, was approved in early 1995.

Forestry legislation was introduced principally to protect national and community interests by designating state forest land as reserved forests and village forests. The Forest Ordinance became "greener" through various amendments, for example, Amendment Act No. 13 of 1966 which prohibited activities such as stripping of bark, tapping quarrying, burning lime or charcoal, collecting forest products, and pasturing cattle. The Ordinance, last amended by Act No. 84 of 1988, is undergoing further revision to strengthen conservation provisions, improve enforcement measures, raise penalties for offenses and establish conservation forests.

In order to overcome the weaknesses inherent in the Forest Ordinance, the National Heritage Wilderness Area Act was passed in 1988 to preserve unique or outstanding areas in their natural state. Entry to these sites is by permit and activities are restricted to scientific research and observation of flora and fauna. The Act also has the power to override any contradictions with other written law, except the Constitution. It was introduced principally to safeguard biodiversity in Sinharaja, the largest tract of rain forest remaining, which was declared a national heritage wilderness area and a World Heritage Site in 1988.

Various legislation from 1890 onwards to control the killing of wildlife was integrated under Act No. 1 of 1908. Proponents of the restrictions formed the Game Protection Society in 1894 – today the Wildlife and Nature Protection Society – and employed watchers to protect areas reserved for game hunting. The Conservator of Forests undertook similar initiatives. Forest Ordinance No. 10 of 1885 declared two vast, uninhabited forests as wildlife sanctuaries, namely Yala in 1900 and Wilpattu in 1905 (Kotagama, 1992).

In 1930, forest administration was placed under the Ministry of Agriculture and Lands. One of its first initiatives was to set up a Fauna and Flora Protection Committee to advise on the reservation of additional areas to protect. Its recommendations were accepted in 1935 and provided the basis for the Fauna and Flora Protection Ordinance which was enacted in 1937 (Kotagama, 1992). This legislation has since been amended several times. Amendment Act No. 1 of 1970 is particularly significant in that it recognizes the rights which indigenous peoples acquired prior to the establishment of a national reserve or sanctuary. However, such rights are deemed to have lapsed if not exercised for a continuous period of two years. The most recent Amendment Act No. 49 of 1993, provides for the establishment of several new categories of reserves and raises the penalties for infringements of the Ordinance, fines which had become grossly inadequate.

Although Sri Lanka has long recognized the need for a wildlife conservation policy, one was only recently adopted following Cabinet approval in June 1990. The National Policy for Wildlife Conservation was formulated in response to the Sri Lanka National Conservation Strategy (CEA, 1988), approved by Parliament in 1988, and its objectives are based on those of the World Conservation Strategy (IUCN/UNEP/WWF, 1980).

## 4. Reservation of Forests and Protection of Wildlife

Forest reserves were gazetted from 1850 onwards but none was demarcated until 1885 and none were notified with boundaries until 1890. Most of the network was established in the 1920s, although a large number of smaller reserves were notified in the subsequent two decades. Many more reserves were proposed during this period but never actually notified.

While the reserve network has not appreciably grown since the 1950s, the function of forests and proposed reserves shifted in the mid-1970s from production to conservation when the Forest Department established 36 Man and Biosphere reserves within which timber extraction was not permitted. In last few years, the network of forest conservation areas has expanded considerably, with the addition of 13 conservation forests in the wet zone and the Knuckles Conservation Forest in the wet and intermediate zones.

The network of wildlife protected areas has grown progressively since the enactment of the Fauna and Flora Protection Ordinance in 1937. The beginnings of this network are masked, however, by the fact that the new Ordinance abolished game sanctuaries established from 1900 onward, later declaring them national reserves or sanctuaries. The network expanded considerably during the 1980s, mostly in the basin of the Mahaweli Ganga and adjacent areas, to protect water catchments and to provide refuge for animals displaced by the Accelerated Mahaweli Development Programme.

## 5. Forest Land Ownership and Management Authority

Currently, about 55 percent of the area under natural forest is reserved and administered by the Forest Department and the rest falls under the jurisdiction of the Department of Wildlife Conservation. The designated areas under the two departments constitute 17% and 13% of the total land area respectively. In 1995, the former comprised forest reserves, proposed forest reserves and national heritage and wilderness areas. The Sinharaja and Knuckles forests and 31 wet zone forests have been classified as conservation forests, thereby introducing a new category of protected area under the Forest Department. In addition, 20 mangrove sites selected for conservation and all 42,000 ha of forests at elevations above 1500 m were proposed for inclusion in this category. The protected area network under the Forest Department thus includes all conservation forests and national heritage and wilderness areas. The Forest Department has also demarcated 29 Man and Biosphere Reserves to ensure that representative forest ecosystems are conserved. The Department of Wildlife Conservation demarcated four additional ones in wildlife areas. The categories of protected areas within the jurisdiction of the Department of Wildlife Conservation thus comprises strict natural reserves, national parks, nature reserves, jungle corridors and sanctuaries. Local administrators manage forests of less than 200ha (dry zone) or 20 ha (wet Zone) which are collectively categorized as other state forests. Mahaweli Authority has jurisdiction over only a small amount of forest area.

According to a map prepared in 1992, Sri Lanka's closed natural forest cover was 23.9% of land area, or about 1.5 million ha. Including sparse forests, this cover increases to 30.9%, or 2.0 million ha. The average rate of deforestation during the past few decades, both planned and unplanned, was an estimated 42,000 ha per year (Bandaratillake, 2001).

**Table 2: Forest Resources in Sri Lanka (GIS Data 1999)**

| Forest type | Extent (ha) | % of Total Land Area |
|---|---|---|
| Montane | 3 ,099 | 0.05 |
| Sub montane | 65, 792 | 1.00 |
| Lowland rain | 124, 340 | 1.90 |
| Moist monsoon | 221,977 | 3.38 |
| Dry monsoon | 1 ,027 ,544 | 15.66 |
| Riverine | 18, 352 | 0.28 |
| Mangrove | 9,530 | 0.15 |
| Sparse Forest | 471,583 | 7.19 |
| Forest Plantations | 96,250 | 1.40 |
| Total | 2,037,469 | 31.05 |

**Table 3: Administration of FGR**

| Agency | Extent (ha) | % of Total Land Area |
|---|---|---|
| Forest Department | 1,192,370 | 17.6 |
| Department of Wildlife Conservation | 845,099 | 12.4 |

**Community Forestry in Sri Lanka**

- Rural forest plantation: The Forest Department signs 3-year agreements with farmers and offers incentives for them to establish woodlots and regenerate forest plantations. However, they have no rights to timber. After 3 years, FD hands over maintenance activities.
- Co-operative forest plantation: The Forest Department supplies seedlings and provides incentives for farmers to plant them in parallel with chena cultivation. Again, they have no rights to timber. After 3 years, FD hands over maintenance activities.
- Farmer woodlots: Two types of woodlots were established under two separate projects. Between 1994 and 1999, FD signed agreements with local communities to plant trees. From 2000 onward, FD signs agreements with farmers and offers them incentives to plant trees. In the early stage, farmers can inter crop to earn extra income.
- Private forest plantation: FD leases barren lands for 30 years to private entrepreneurs to plant trees. It has issued guidelines and conditions for this purpose and carries out regular monitoring. Holders of the leases are entitled to 90% of the timber harvest and the rest goes to FD.
- Community natural resource management project (Aus-aid): Evidence from community managed forests indicate that, in most cases, deforestation and forest degradation have substantially decreased in a short period of time and the forest condition is

improving as a result of fire aversion, enrichment planting, a reduction in unsustainable exploitation, and the establishment of woodlots adjacent to the natural forest.

Community-based forest management (CFM) has a number of positive environmental benefits, including

- less damage from fire
- re-vegetation of degraded forests
- increased forest cover and improved habitat for wildlife
- reduced soil erosion, improved water quality and quantity, and less siltation in rivers
- greater capacity for carbon fixation
- more biodiversity

The approach is well ensconced in government policies and development strategies. Moreover, the Forest Department has strong support from the Ministry of Environment and Natural Resources to expand community forestry into the dry and intermediate zones. Through the management of 79 sites since 2006, including 24 sites in the past 3 years, it has shown that it has the technical capacity to implement the expanded CFM program.

Forest tenure reform has provided local communities with legal rights to the forest areas that they have traditionally depended on for their livelihoods. With support from external agencies (e.g. local authorities and development projects) to exercise their newly-acquired rights, communities will be better equipped to protect the forests allocated to them from unauthorized use and to benefit from sustainable forest management.

# Forest Land Management In Thailand

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## 1. Introduction

Thailand covers a land area of 513.115 km2. It shares borders in the northwest and west with Myanmar, in the northeast and east with Lao PDR, in the southeast with Cambodia and in the south with Malaysia. Its economy is predominantly agricultural, with the sector and related industries providing a living for 70 percent of the population. Bangkok is the capital where all central governmental and administrative headquarters are located. It is also the principal business and education centre of Thailand. Population density is about 125 persons/km2 and about 21.8 percent (1999) is urban-based. The climate is tropical: rainy, warm, cloudy southwest monsoon (mid-May to September) and dry, cool northeast monsoon (November to mid-March). The southern isthmus is always hot and humid. Population numbered 63,389,730 in 2008.

## 2. The Forests of Thailand

- Tropical evergreen 52,679 sq. km. (10.25% of country area)
- Mixed deciduous 87,445 sq. km.(17.01% of country area)
- Dry dipterocarp 18,570 sq.km. (3.61% of country area)
- Swamp 304 sq.km. ( 0.06% of country area)
- Inundated 256.8 sq.km. (0.05% of country area)
- Beech 125 sq.km. (0.02% of country area)
- Pine 462 sq.km. (0.09% of country area)
- Bamboo 1,504 sq.km. (0.29% of country area)
- Mangrove 2,463 sq.km. (0.48% of country area)

## 3. Assessment of Forest Areas in Thailand

In 1973, the first forest assessment report based on Landsat-MSS at the scale of 1:250,000 was published. At that time, forest area was estimated at 221,725.00 sq. km, about 43.33 percent of the area of the country. The Forest Resources Assessment Division of the Royal Forest Department (RFD) then conducted additional assessments in 1976, 1978, 1982, 1985, 1988, 1989, 1991, 1993, 1995, and 1998 .

Between 1973 and 1998, about 92,003 sq. km. of forests were lost in Thailand, an average of about 3,680 sq. km. per year. Deforestation peaked in the mid-1970s to about 11,596.50 sq. km. annually.

Subsequent assessments of forest area produced the following statistics:

**Table: Assessment of Forest Areas in Thailand**

| Year | Forest Area (sq. km) | Percentage |
|---|---|---|
| 2000 | 170,110.78 | 33.15 |
| 2004 | 167,590.98 | 32.66 |
| 2005 | 161,001.30 | 31.38 |
| 2006 | 158,652.59 | 30.92 |
| 2008 | 172,185.28 | 33.44 |

Source : Royal Forest Department, Forestry Statistics of Thailand 2551(2008)

In 2002, RFD was divided into 3 departments: 1) Royal Forest Department (RFD) responsible for national reserved forests; 2) Department of National Parks, Wildlife and Plant Conservation (DNP) responsible for national parks and wildlife sanctuaries; and 3) Department of Marine and Costal Resources (DWR) responsible for mangrove forests, marine and costal resources.

## 4. Causes of Deforestation

The factors which contribute to deforestation in Thailand are extensive and complex, extending from population growth to expanding agricultural production for export. Key reasons cited in a study of several Northeastern provinces were population density, price of wood, poverty in term of real provincial GDP, the number of roads, rice yield, and distance from markets (Panayotou and Sungsawan, 1989). A similar study in the same region identified poverty in terms of real GDP per capita, population growth, and the real price of cassava (Tongpan, et al., 1990). Yet another study showed that the demand for agricultural land, which helps to explain forest conversion, is positively related to the price of main crops and the farm population, and negatively related to agricultural productivity and the degree of industrialization (Panayotou and Parasuk, 1990).

Most probably, the two main causes of deforestation in Thailand are increasing demand for agricultural land to meet the needs of a growing population and commercial logging. Demand for land depends on land prices, agricultural productivity, prices of agricultural products, alternative sources of off-farm employment and income, and population growth (TFSMP, 1993). The intensity of logging, whether legal or illegal, is influenced by wood demand and prices, forest accessibility, and population growth. The effects of these factors are probably as follows:

- **Land prices:** There are no proper market or market prices for forest land since it belongs to the state but, nevertheless, land speculation is common close to growth centers. The implicit price of forest land is determined by the cost to the farmer of clearing and transport, as long as the marginal cost is lower than the marginal benefits obtained from both the forest and the farm produce.

- **Land productivity:** As land productivity increases, the demand for land increases as forgers try to maximize profits. However, subsistence farmers need less land to meet basic food requirements. Conversely, if land productivity decreases, subsistence farmers need more land to support themselves, while profit-oriented farmers have less incentive to invest in new land. The aggregate of land productivity therefore depends on the proportion of subsistence farmers to commercial or profit-oriented farmers.

- **Crop prices:** Higher crop prices make it profitable to clear new land, some of which may

have been economically inaccessible in the past. For commercial farmers, the effect of crop prices is similar to the effect of land productivity. Most agriculture expansion made possible by clearing forests aims to increase the production of upland cash crops.

- **Off-farm employment and income:** Industrialization provides alternative opportunities to earn income and reduces the demand for land. In an open, diversified cash economy, food can always be purchased and exchanged for other goods that are being produced.
- **Forest accessibility:** The accessibility of the forest affects both logging and land clearing through the behavior of the logger and the farmer to maximize profits. The most easily accessible forest is logged or cleared first and, with time, the remaining forest may become more and more economically inaccessible. This occurrence slows down deforestation, whereas new roads in connection with logging or infrastructure development increases the demand for new land.
- **Wood demand and prices:** High demand for tropical hardwood and high prices are likely causes of deforestation. However, the areas harvested officially were not large enough to explain the high rate of deforestation even if the logged areas had not property regenerated. Logging probably had a greater indirect effect on deforestation by the construction of roads which gave easier access to forests.
- **Population growth:** Population can shift demand either for new land or more wood. In regions of high population density, one would expect the relative forest cover to be smaller, assuming other factors are equal.

## 5. Historical Changes in Forest Management in Thailand

In the past, timber was an important export commodity and played a significant role in Thailand's economic development. Foreign timber companies have harvested teak from natural stands in the north since the end of the nineteenth century. In 1968, the RFD called for all forest land to be under management plans and prepared timber-harvesting schemes because many logged forests showed signs of overexploitation; forest stands were deteriorating at a faster rate; and yields from the second cut were low. Forest management plans have been improved several times in response to environmental and economic conditions. To protect against overexploitation, half the forests that had been available for timber harvesting were closed in 1979 in the hope that they would return to their original state naturally. However, logging roads provided access to poor and landless people who converted forests to farmland. By 1990, an estimated 10 million people lived on reserved forest land without title and the RFD could not control the establishment of new villages. The only remaining forests were in remote and inaccessible areas or in national parks where protection measures were enforced more strictly. Finally, the Royal Thai Government (RTG) yielded to population pressure and allocated forest land to these people.

In 1993, due to the high demand for forest land, the Royal Forest Department transferred approximately 70,848 ha of reserved forests to the Department of Land Reform for allocation to poor farmers and villagers who had no land on which to earn a living. In 1997, the Cabinet approved the Forest Resources Management Plan and Program to address the forest land tenure problem nationwide. This program has 4 objectives, namely to: 1) control use of forest land 2) protect forest land 3) rehabilitate forest resources and the environment 4) monitor and evaluate the program. To complete the first aspect, RFD conducted a census and found

that more than 450,000 households occupied forest land. Cabinet therefore issues a decree on 30 June 2010 which approved the following measures and guidelines to solve the forest land tenure issue:

***Forest Resources Management:***

1. Reserved forests: After transferring some reserved forests to the Department of Land Reform in 1993 to distribute to poor farmers, Cabinet indicated that forest land unsuitable for agriculture, such as steep slopes, must be transferred back to RFD to manage in a manner that involves the participation of people, in collaboration with the district administration and the Department of Land Reform (DLR). Farmers who receive the land from DLR must plant fruit trees or other trees on 20% of the area allocated. If the land is close to forests, they are obliged to plant trees adjacent to the forest boundary.

2. Conservation forests: Conservation forests such as national parks, wildlife sanctuaries, class 1 and 2 watersheds, and mangroves will not be transferred to DLR. A census must also be conducted within these areas to add to the database for management purposes and occupation must be verified regardless of whether they were declared conservation forests before or after the occupation. If villagers were on the land before designation, RFD will demarcate their household and land which they cannot expand further. Villagers occupying vulnerable forest land are moved to areas where they are provided with needed facilities. RFD must then rehabilitate the areas which will be strictly protected. However, if it is found that villagers occupied the forests after designation, they are relocated and the land rehabilitated. While waiting for relocation, RFD demarcates the territory in use and prevents them from extending the boundaries.

***Forest Protection:***

1. Laws must be strictly enforced to minimize illegal forest activities, including encroachment, tree cutting, environmental deterioration.

2. The National Forest Committee will monitor government efforts to integrate forest control with the suppression of illegal activities in order to enhance efficiency.

3. The Ministry of Agriculture and the Ministry of the Interior will cooperate to establish local administration organizations and communities to protect forests against encroachment and the environment from deteriorating.

4. RFD will launch the Forest Resources Management Plan and Program, in collaboration with relevant agencies, to achieve the goals noted above.

5. The agencies involved need to correct the problems associated with issuing land tenure and with illegal land occupation.

6. The Bureau of Budget should provide sufficient resources to agencies so that they can implement these measures.

The objectives of the Forest Land Resource Management Program, launched in 1997 and approved under National Economic and Social Development Plan (NESDP), are to:

- set up management plans for the use of forest land
- establish clear forest boundaries
- determine, manage and verify land rights of villagers living in or near forests
- prevent forest encroachment and disputes.

The program comprises 2 components as follows:

**Setting Forest Boundaries**

- Conduct survey for marking forest boundaries
- Conduct survey of boundary lines to set poles
- Set poles along the boundary lines
- Conduct survey for fencing boundary lines
- Put up fences along the boundary lines

The setting of solid and clear forest boundaries is done with the participation of local villagers from the onset. They form a committee to conduct the activity and membership consists of local forest officials, the chief of the national park or wildlife sanctuary or the official who controls the area, and a local administrator (Tumbon Administration) who is elected by local villagers. The committee approves the boundary lines to be used for pole setting or fencing and convenes a meeting to inform villagers.

**Management of Villagers in the Forests**

- Conduct inventory of the land held by and registered to villagers
- Develop plans for the use of forest land
- Determine and verify villagers' land rights
- Set clear boundaries

## 6. Current Government Policies and Implementation of Forest Land Tenure

Thailand has promulgated many forest laws which have been effective in controlling and defining the processes to protect and sustainably manage/use forest resources. At present, six forest laws regulate forestry activities, as follows:

- Forest Act B.E. 2484 (1941) and amendment B.E. 2532 (1989)
- National Park Act B.E. 2504 (1961)
- National Reserved Forest Act B.E. 2507 (1964) and amendments B.E. 2522 (1979) and B.E. 2528 (1985)
- Wildlife Preservation and Protection Act B.E. 2535 (1992)

- Forest Plantation Act B.E. 2535 (1992)
- Chainsaw Act B.E. 2545 (2002)

All the forest laws make reference to forest land tenure and most are geared to forest protection. Only the National Reserved Forest Act B.E. 2507 (1964) provides for some utilization, with conditions.

Forest encroachment by rural poor people is chronic. The Royal Thai Government (RTG) has yielded to pressure from the many people who inhabit state forestland and provided occupancy rights periodically. The policy of the Ministry of Interior which is implemented at provincial and district levels encourages rural people to have their own land to earn a living, produce crops and raise animals. However, this policy conflicts with that of the Ministry of Agriculture and Cooperatives which aims to protect the natural forests. In accordance with government's resolve to address population pressure and encroachment, the RFD had to regularly turn over reserved forestland. Ministerial resolution, dated 4 April 1985, granted amnesty to all forest encroachers who had been prosecuted and allowed them to occupy the land they formerly used. In the absence of evidence on which to establish boundaries, this decision resulted in extensive forest destruction. Thousands of new encroachers discovered this loophole and cleared more forests. While no reliable data exist, it is estimated that these people are occupying about two million ha (Nalampoon, Anan, 2000).

In addition to the resolution noted above, the RTG earlier launched the SOR-TOR-KOR program in 1982 which is still operational. Families who are landless or do not have sufficient land to earn a living are each given 2.4 ha of degraded forests. To date, millions of ha have been converted for agricultural purposes. In 1997, the Agricultural Land Reform Office conducted a survey which revealed that approximately 0.6 million families were still landless in 44 provinces, many of whom live on state forestland. From 1992 to 1999, the number of landless families increased by two percent per annum (Report of Situation of Environmental Quality, 2001) and, until offenders are relocated to settlements, forest encroachment will continue.

## 7. Patterns of Customary and Official Forest Land Tenure and Ownership

According to forest law and relevant land laws, villagers in forests have no right to the land. In fact, a 1991 memorandum of understanding between the Department of Land (DOL) and RFD prevents DOL from granting them title. The intent of the MOU is to verify the land within and adjacent to the forests, using aerial photos and established survey techniques. The two departments then work with the Department of Land Development (DLD) to ensure that the demarcation of farmers' lands is outside forest boundaries. In cases where farmers claim land rights inside forest areas, ad-hoc working groups of agencies involved verify the legitimacy. As noted earlier, they are given title if they occupied these lands before the forest was designated, as long as they do not live in vulnerable areas.

The Agricultural Land Reform Office (ALR) will allocate transferred forest land or private land bought by RFD to poor farmers under the SOR-TOR-KOR program which stipulates that it can not be sold to non-farmers, must only be used for agriculture, and can be inherited.

Seven major tribes occupy mountainous areas in northern Thailand - Karen, Hmong (Meo), Yao, Lisu, Lahu, Lawa and Akha - in addition to rare and smaller tribes living elsewhere in

the north, such as the Palong, Khamu, Thins and Mlabri. The Hill Tribes traditionally practice shifting cultivation which they supplement with hunting and gathering. Farmers who are under the jurisdiction of ALR are allowed to occupy not more than 8 ha per household. Households that have permission to live in the forests are allocated a maximum of 3.2 ha each.

## 8.Impacts and Consequences of Forest Land Tenure System/Reform

Due to population pressure which places a high demand for land, villagers encroached on forests nationwide. Although RFD measures and programs allow farmers to cultivate land within forest areas, land is still in short supply to the point where outsiders are purchasing forest land through informal means, without official documentation.

Three departments are involved in land tenure, namely RFD, DOL and ALR. Because each organization has its own rules and regulations for granting land, the rights and conditions associated with its allocation can vary. Village farmers who prefer to receive title to forest land rather than use rights do not always subscribe to the RFD's program. Some form groups to negotiate their land rights with government.

The forest area which RFD transferred to ALR makes government rehabilitation of this land impossible. Therefore, it will be difficult to achieve the 40% increase which is called for in the National Forest Policy 1985.

## 9.Future Trends

Many academics are studying forest and land laws, including those related to forest land management, to identify gaps and and best practices to resolve the many conflicts which arise as a result of so many pieces of legislation. In the meantime, RFD and other government agencies must continue collaborating closely in the exercise of their duties. The use of state-of-the-art technology and equipment such as remote sensing, GIS and GPS should also be applied as part of routine operations. Staff require training in this area as well as in social aspects of forestry to help them address concerns of the people they serve.

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# Viet Nam Country Report on Forest Tenure

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## 1. Introduction

Viet Nam is a tropical country in the Indochina peninsula of Southeast Asia. Its total land area is 33,038,000 ha which is divided into 64 administrative provinces and municipalities.

Radical changes in the forest sector of the country took place over the last two decades. In 1993, forests covered 9.3 million ha or 30 percent of land area, compared with 12.83 million ha or 38.2 percent in 2008 (10.28 million ha of natural forest and 2.55 million ha of production forest). The three categories are: special use forests - 2.07 million ha or 16.2% of land area; protection forests - 4.98 million ha or 38.8%; and production forests - 5.78 million ha or 45.0%.

In addition, forest quality improved considerably and stakeholders participated widely in forest protection and management. Notably, the poverty rate dropped from 58.1 percent (1993) to 13.8 percent (2008). Such changes were driven by a rapid decline in forest area during the decade after unification, ineffective management of state forest enterprise (SFE),


**Figure 1: Viet Nam Administrative Area Rows Map**

the state's recognition of the importance of involving local people in forest management, and successful reform of the agricultural sector in the late 1980s.

In recent years, many national and regional workshops have concluded that forest tenure reform, of which Forest Land Allocation (FLA[1]) is a part, contributed significantly to the dramatic change in the forest sector.

**The Outline of this Country Report is as Follows:**

– Changes in and drivers of forest land tenure reform

– Current government policies on forest land tenure and implementation

– The pattern of forest land tenure and ownership (traditional and official)

– The impact and consequences of forest land tenure reform

– Trends

– Conclusion

## 2. Changes in and Drivers of Forest Land Tenure Reform

With the introduction of Doi Moi in 1986, Viet Nam shifted from a central system to a market-oriented economy. It did so to reduce the role of Government in all economic sectors, assign more responsibility to local authorities, and broaden the rights of economic organizations and households to conduct business.

The forest sector also gradually expanded to not only include harvesting, but also investment in plantation development, natural regeneration, agro-forestry, and business. However, in the first ten-years of economic reform, changes were slow to take hold as State enterprises managed most forest land according to pre-Doi Moi regulations.

To promote development of the forest sector, Government has consistently allocated forest land over the last 45 years to attract the participation of organizations, households and individuals in forest protection and management.

**Allocation of Forest Land Since 1968**

1968-1982: This period witnessed the development of state forest companies and cooperatives which operated in large areas of natural forest. The rights of individuals to manage forests were not clear.

1983-1992: In this period, the Ministry of Forestry issued Decision 1171 LN/QD, dated 30 December 1986, which allocated forest land based on plans for the management of the three types of forests noted above (special use, protection and production). Subsidies were discontinued and independent operators were expected to self-finance production.

1: In Viet Nam, the Party and State have paid great attention to FLA issues since the 1980s.

1993-2005: Assembly IX replaced the Land Law of 1987. It was passed on 14 July 1993, came into effect on 15 October the same year, and was amended in 1998 and 2001 to reflect the policies of the Communist Party and the State, specifically with regard to Articles 17 and 18 of the Constitution.

The forest land allocation system is similar to the Land Law with regard to forest utilization and management rights as well as inheritance rights. Relevant legislation and policies are listed below:

- January 1981: Instruction No. 100 CT-TW of Party Central Secretary Board on delivering products to labor groups and individuals
- November 1983: Instruction No. 29 CT-TW on promoting forest land allocation, forest regeneration and agro-forestry
- December 1986: Party Congress VI adopted the Do Moi policy for national implementation
- April 1988: Resolution No. 10-NQ/TW to reform management of the agriculture economy
- August 1991: Law on Forests to attract local people and other economic sectors to protect and manage forests
- November 2003: Land Law revised to confirm that State allocates land and use rights on behalf of the people of Viet Nam who are the real owners

December 2004: The Law on Forest Protection and Development stipulates that natural forests and forests planted with government funds belong to the State which grants rights to these resources.

## 3. Current Government Policies on Forest Land Tenure and Implementation

Over the last two and half decades, various legal documents have been issued in an effort to improve the management by owners of specific forests. There are now more than 100 laws and regulations relating to forests and management at different levels.

### 3.1 Some Current Government Policies on Forest Land Tenure

*1) Law*

- Law on Land 13/2003/QH 11, approved by National Assembly XI in November 2003, includes 7 chapters and 146 points. (The law was revised five times - 1998, 1993, 1998, 2001 and 2003)
- The 2004 Law on Forest Protection and Development 29/2005/QH 11 replaced the one issued in 1991.

*2) Government Decrees*

- Decree 135/2005/ND-CP dated 8 November 2005: Allocation of agricultural, forest land and wetland for aquaculture production in SFEs replaced Decree 01/CP dated 04 January 1995

- Decree 181/2004/ND dated 29 October 2004 on "Implementation of land law in 2004": replaced Decree 163/1999/ND-CP dated 16 November 1999 and other Decrees on forest land allocation for permanent use by households and communities for forest production

*3) Prime Minister Decrees*

- Decision 202/TTg dated 2 May 1992: Forest allocation on a contract basis for protection and rehabilitation
- Decision 178/2004/QD/TTg dated 12 November 2001: Right, responsibilities of households and communities with regard to forest land allocation
- Decision 186/2006/QD-TTg dated 14 August 2006: Replaced regulations on management of special use and protection forests issued by Decree 08/2001/QD-TTg in January 2001
- Decision 304/2005/QD-TTg dated 23 November 2005: Tested FLA in communities and households in Central Highlands which were the target groups of Decisions 132 and 134
- Other Decisions: Contents and policies on FLA under programme 327 and project 661
- Regulations on land management.

*4) Ministry of Agriculture and Rural Development (MARD) Circular*

- MARD Circular 102/2006/TT-BNN dated 13 November 2006: Guidance to implement Decree 135/2005/ND-CP dated 08 November 2005 on allocation of agriculture, production forest land and wetland for aquaculture production development in SFEs

### 3.2 Implementation of Forest Land Tenure

*Issuance of Forest Land Use Certificate (Red Book)*

As indicated in report 93/BC-CP, as of 30 September 2007, the Ministry of Natural Resources and Environment had issued Red Books (certificates) covering close to 5 million ha of forest land to organizations and more than 3 million ha to households, for a total of 8,116,154 ha. This area represents 62.1% of the target (Table 1).

**Table 1: Red Books Issued andForest Land Allocated**

| Groups | Number of Red Books Issued | Area (ha) | Average area |
|---|---|---|---|
| Organization | 5,518 | 4,947,070 | 897ha/Red Book |
| Individual households | 1,104,109 | 3,169,084 | 3ha/Red Book |
| Total | 1,111,032 | 8,116,154 | .1 % of local demand |

*Status of Forest Allocation:*

MARD Decision 2530/QQD/BNN-KL-LN, dated 27 August 2007, reports 12,873,850 ha of forest nationwide in 2006, of which 10,320,394 ha were allocated as follows:

- Households: 2,866,261 ha (22%)
- State enterprises: 2,504,852 ha (19%)
- Protection forest management board: 2,155,967 ha (17%)
- Special use forest management board: 1,743,259 ha (14%)
- Joint ventures: 97,756 ha (1%)
- Cooperatives: 591,768 ha (5%)
- Armed forces: 360,531 ha (3%)

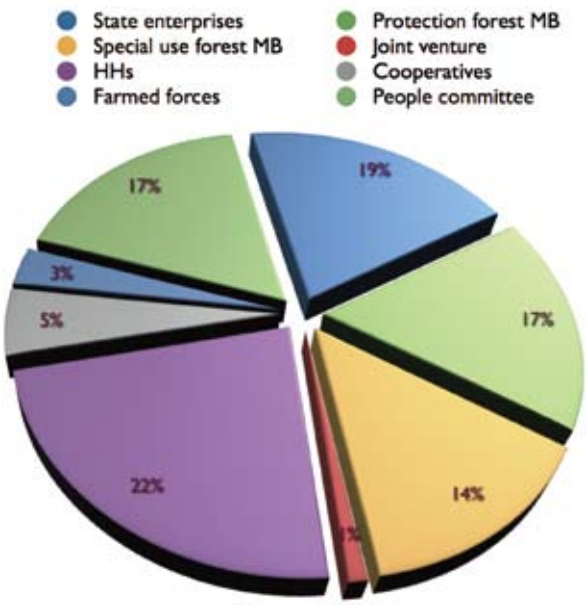


**Figure 2: Forest Area Allocation**

**Table 2: Forest Land Managed by Local Communities as of 31 December 2007**

| Forest Land Managed by Local Communities | Protection and special use forests | | | | Production forests | | | |
|---|---|---|---|---|---|---|---|---|
| | Total | Natural Forest | Plantations | Bare Land | Total | Natural Forest | Plantations | Bare Land |
| **2792956.3 wTotal** | 1968500.4 | 1404829.4 | 40953.7 | 522710 | 824455.9 | 426802.9 | 43583.2 | 354059.8 |
| **1643254.1 Allocated** | 1164515 | 803191.6 | 18546.6 | 342776.8 | 478739.1 | 134735.5 | 30566.5 | 313437.1 |
| **247029.5 Not yet allocated** | 146338.7 | 107093 | 5786.3 | 33459.4 | 100690.8 | 55142.1 | 7373.8 | 38174.9 |
| **902662.7 Contract based** | 657646.7 | 494544.8 | 16620.8 | 146473.8 | 245016 | 236925.3 | 5642.9 | 2447.8 |

**Table 3: Transfer of Use Rights on Production Forest to Households**

| Location | Number of households allocated with forest land (ha) | | | | | | |
|---|---|---|---|---|---|---|---|
| | Number of households | 3 | 3-5 | 5-10 | 10-15 | 1520 | 20-50 |
| Nation Wide | 1849 | 1632 | 95 | 97 | 12 | 12 | 1 |
| Northern Mountainous | 908 | 870 | 26 | 8 | 2 | 2 | |
| Northern Delta | 28 | 28 | | | | | |
| Northern Central | 160 | 98 | 7 | 47 | 4 | 4 | |
| South Central | 4 | 267 | 14 | 18 | 2 | 2 | 1 |
| Central Highlands | 43 | 34 | 7 | | 1 | 1 | |
| South East | 134 | 128 | 2 | 2 | 1 | 1 | |
| Mekong delta | 272 | 207 | 39 | 22 | 2 | 2 | |

### 3.3 Factors Influencing Forest Land Allocation:

*Positive Factors:*

- Liberalization of and increase in agricultural outputs (Sikor 2001)
- Availability of new technologies (Sikor 2001)
- Support from donor-led initiatives (Neef and Schwarzaier 2001; Nguyen 2005; Phu Loc Forest Protection Unit 2000; Roth 2005; Vo 2000)
- Market opportunities for fruit trees, cash crops, and plantations (Roth 2005; Sikor 2001)
- Response to the needs of local people (Nguyen et al 2004; Nguyen 2005)

*Negative Factors:*

- Unclear policies and guidance (Dinh and Research Group of VFU[2] 2005; MARD 1998, 1999)
- Incompatibility with local practices (Nguyen 2006b; Sikor 2001; Sunderlin and Huynh 2005; Tran and Sikor 2006)
- Lack of coordination among concerned agencies (Neef and Schwarzaier 2001)
- Lack of economic incentives (Nguyen 2006a; Sikor and Nguyen 2007; Sunderlin and Huynh 2005)
- Poor or inaccessible forests (MARD 1998, 1999; Sunderlin and Huynh 2005)
- Lack of follow-up support (MARD 1998, 1999; Sunderlin and Huynh 2005)

## 4. Pattern of Forest Land Tenure and Ownership (Official and Traditional)

### 4.1 Official + Pattern

**• Forest Conservation and Livelihoods in Bach Ma National Park, Thua Thien Hue**

The management board of Bach Ma National Park[3] in Thua Thien Hue province is tasked with managing the forest area under its responsibility for biodiversity conservation and environmental protection. The importance of this forest makes it an attractive investment for national and provincial governments as well as international donors. However, in the absence of alternatives, local people suffer from the park's strict protection policies which prevent them from collecting and using forest products to meet their subsistence needs.

In its original form, forest contracting has the potential not only to improve forest resources but also to alleviate poverty. With the announced rate of dong (D)50 000/ha per year, a household which protects 30 ha can earn as much as D1.5 million a year, or 125 per month - a significant amount for poor upland households whose annual incomes are no more than D1 million per capita. In addition, the collection of non-timber forest products (NTFPs) under the forest canopy can provide extra income or materials for home consumption. Nevertheless, poor households are not often selected as contractees because they can not supply the labor to carry out the extra work required. In addition, local people are not clear about their rights to the forest, particularly about the possibility of benefiting from the forest in future. As a result, they depend on State funds and protect these resources only when financial support is available.

**• Forest Protection in Ea H'leo State Forest Enterprise, Dak Lak Province**

Ea H'leo SFE was set up in 1992 to manage, protect and develop 32 700 ha of forest;

2: VFU: Viet Nam Forestry University

3: Established in 1991, Bach Ma National Park3 is 40 km southeast of Hue city and covers about 43 331 ha, of which 22 031 ha is the core area and 21 300 ha, the buffer zone. The park is identified in Viet Nam's Biodiversity Action Plan as one of the few remaining primary forests. It includes about 19 percent of the flora and half of the fauna species in Viet Nam. In addition to various investment projects, national and provincial programmes have been implemented as well as donor-funded projects.

carry out agricultural production and commercialization; and harvest, process and sell forest products. Of this area, 22 500 ha is natural forest, 12 700 ha is protection forest and 20 000 ha is production forest. Forest protection is the most important activity.

Since its establishment, the enterprise has established three branch offices in three communes, each of which has a staff of four. Their main task is to detect and penalize the illegal use of forest resources, forest land, timber and NTFPs. In recent years, the expansion of pepper cultivation has increased the need for timber poles, placing pressure on the forest to meet demand. Forest protection has therefore been strengthened. Officers patrol the areas under their responsibility on a daily basis and monitor the use of resources. In addition, staff help villages to develop regulations on forest protection and to evaluate their implementation. In cooperation with communal authorities, they also raises public awareness of the importance of forest protection. It has contracted 65 households to protect 5000 ha of forest under Programme 327. Other activities which Ea H'leo SFE performs include exploitation and processing of round logs, enrichment of natural forest, plantation of protection forest (through contracts with local people) and plantation and tending of tree crops (rubber and coffee).

Source: Lam truong Ea H'leo, 2002; Nguyen, 2005b

**• Forest Management by Households in Quang Binh Province**

Between 1998 and 2002, more than 40 000 ha of forest land was allocated to more than 11 000 households in 16 communes of the Minh Hoa and Tuyen Hoa district of Quang Binh province. Devolution at such a large scale was very progressive at the time, considering the political uncertainty about the allocation of forest land to local stakeholders. Land was distributed equally among individual households which received narrow strips from the foothills to mountain ridges. In some cases, allocations were split into two or three smaller areas at different locations. However, the consequences on forest management were not taken into account during the process and most households can only identify the boundaries of barren land allocated to them, not those of the forest area.

Although few conflicts have arisen since the allocation of forest land, the potential exists in certain areas. At present, boundaries in natural forests are not contested because of the open access situation brought about by the owner's inability to identify them. Even when individual plots of natural forest are demarcated, households are unlikely to have sufficient resources to manage and protect them on their own.

Households of all economic status have planted trees on the barren and shrub land allocated to them, mostly Acacia, Cinnamon and Eucalyptus. However, lack of technical training resulted in poor quality plantations so wood from these sources is sold to the paper factory. Tree planting produced a high demand for seedlings and, despite supplies from the province, some households have set up their own nurseries to grow Acacia and Eucalyptus. Seedlings are of low quality but the owners are still able to sell them locally to other households.

### 4.2 Traditional + Pattern

Cham B village in Dak Lak province, Central Highlands, is considered a typical example of traditional forest land tenure and ownership in Viet Nam, despite the forest having been

designated state property. Similar to many other communities in the area, villagers have been living in close connection with the forest for generations and consider the land belongs to the collectivity.

Local institutions regulate access to arable land in this forest and farmers whose parents used to farm in the area can return and claim this land. As a tradition, when someone first cleared a patch of forest for cultivation, he would plant several mango trees to mark ownership. After the land was left fallow, all villagers would recognize that the trees demarcated the boundaries.

Similarly, ownership of timber trees is traditionally on a "first see, first own' basis. Households seeking timber for their houses make a clear and visible mark on the tree trunk. Only the person who made this mark has the right to take the tree home. The village headman uses traditional rules to determine violations and punishment. He also settles disputes in accordance with customary law.

## 5. The Impact and Consequences of Forest Land Tenure Reform

National forest policy reforms during the 1990s changed the focus of forestry from exploitation to protection and afforestation, and prompted a shift from state management to people-centered approaches. However, the devolution of forest management has been slow, with mixed results (MARD 1998, 1999; Sunderlin and Huynh 2005). Despite the many guidelines and instructions on forest land allocation, their vagueness caused confusion among officials implementing them at the field level (MARD 1999;198), confusion which significantly slowed progress. In some cases, individuals and households were not allocated forest land at all (Le 2006).

A lack of coordination among the General Department of Land Administration (responsible for issuing land-use certificates), the Department of Forestry, and the Forest Protection Department (in charge of forest land allocation and forest protection contracts) contributed significantly to the failure of the FLA program. Domination of the process by local officials was also a factor (Nguyen 2006; Sikor and Nguyen 2007; Sunderlin and Huynh 2005).

The gap between policies and practices was another reason for weak implementation. In Son La province, a study by Sikor (2001;7) found that the FLA policy did not achieve the expected success because when the land was allocated, control did not shift to villages. Thus, local people resisted the change.

### 5.1 Positive Impacts

Poverty was considerably reduced in mountainous areas and, in Viet Nam, it dropped from 58.1% in 1993 to 19.5% in 2004.

Small and medium farm owners were established.

Permanent settlement was replacing shifting cultivation.

Forest exploitation shifted to forest establishment and rehabilitation.

Communities became more ethnically diverse, techniques improved and trade promoted.

Gender issues were better addressed.

### 5.2 Negative Impacts

Land conflicts surfaced in some places, especially in Northeast and Central Highlands.

Land utilization was not equitable between genders.

The development process of upland ethnic minority group changed.

Poor households had less access to natural resources and traditional activities were curtailed.

Traditional practices and law conflicted with land management and utilization.

## 6. Trends

Much research on forest land tenure has been carried out over the years in Viet Nam. The issuance of Red Books to certify management and use rights in production forests is the most notable reform implemented. Experience with the new system is described below.

### 6.1 The First Trend

Production activities on the allocated land: Of the 804 households surveyed in 16 communes, 276 (33.21%) did not make any changes after they were issued a Red Book and only 97 of these (35%) were involved in forest production. The remaining 528 households limited their activities to collecting fire wood and bamboo shoots because they lacked capital and technical support. As a consequence, the land allocated was not effectively used.

### 6.2 The Second Trend

Leasing or purchasing another Red Book to expand production forest land area: Findings from the same survey showed that 42 of the 804 households leased a total of about another 189 ha, or an average of 4.5 ha each. Some 89 households (medium and higher incomes) purchased Red Books for 718 ha of land, or an average of 3.8 ha each. In addition, almost 127 of them(15.8%) conducted joint business activities with forest enterprises or companies. Thus, it can be concluded that each household made the best use of their advantages, using money to purchase or lease land and engaging in joint ventures if they had sufficiently large tracts.

### 6.3 The Third Trend

Leasing or selling the Red Book: Households which leased their Red Book numbered 64 (2.8 ha each, on average), compared with 63 which sold it (2.5 ha each, on average). The latter group were categorized as follows: 79 poor households, 42 medium income and 6 better-off. Those who were better-off further invested in their tea plantations in Phu Tho province. This showed the development trend of the market oriented economy and the status of forest production in the rural uplands. However, the common trend found in the surveyed communes was joint business (15.8% of total households) with forest enterprises. This approach created jobs for local people, helped people maintain their land and offered good investment opportunities for forest enterprises.

**The Fourth Trend:**

Land allocation on the basis of contracts: Forest enterprises contracted households to manage and protect forests and/or land. Households could then use this land as collateral to obtain mortgages.

## 7. Conclusion

Prior to the 2004 Land Law, villages and communities were not legal entities. Although they are now considered as such, the Government still does not recognize several rights. The lack of a comprehensive legal framework to address this aspect results in inefficient forest land management in some areas of Viet Nam. Therefore, decision makers need not only to develop policies that respond to new conditions and requirements, but they must also make greater strides in implementing forest land tenure reform and raise public awareness of the changes. Communities would then have more incentive to protect, use, and manage forests well, especially if their traditional rights (Huong Uoc or Quy Uocs) were incorporated into the legal framework.

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