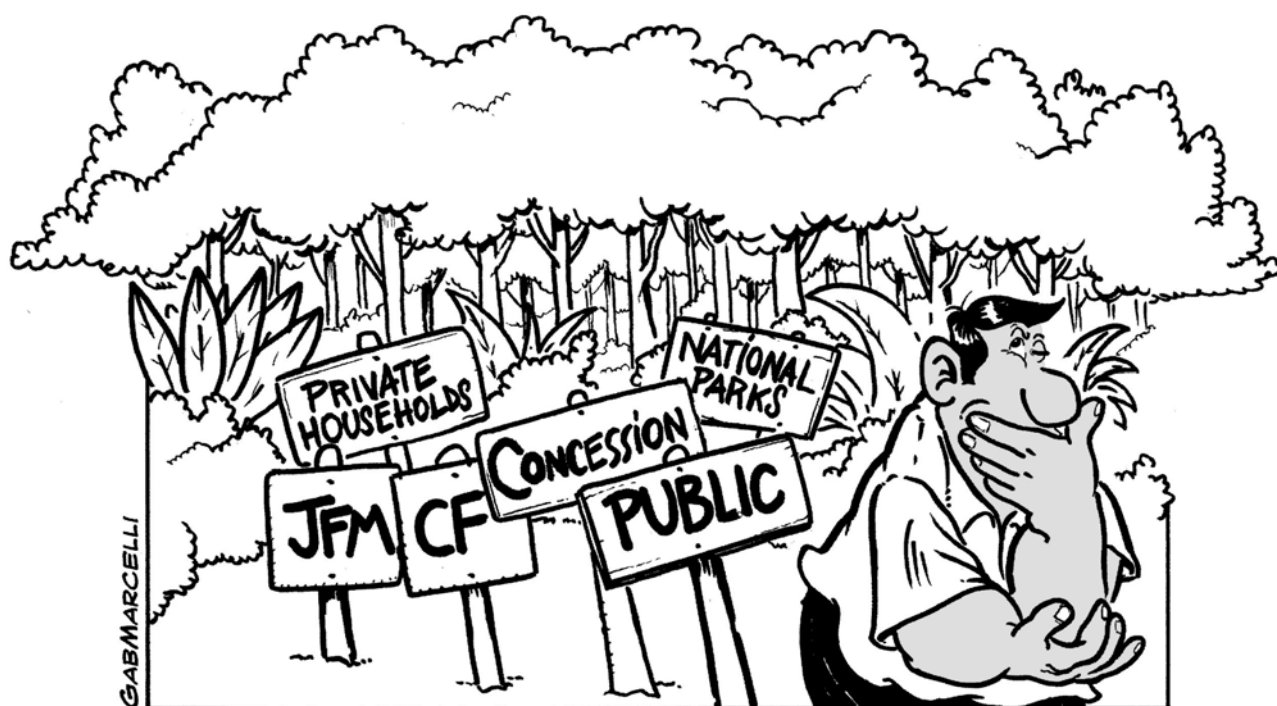


# Understanding forest tenure: What rights and for whom?

## Secure forest tenure for sustainable forest management and poverty alleviation: the case of South and Southeast Asia

(with case studies of Orissa and Meghalaya, India and Nepal)



Francesca Romano and Dominique Reeb  
with case studies by K.D. Singh, J.P. Singh and Bhaskar Sinha; Joy  
Dasgupta and H.J. Symlieh; and B.K. Singh and D.P. Chapagain  
2006



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Livelihood Support Programme (LSP)

An inter-departmental programme for improving support for enhancing livelihoods of the rural poor.



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2006

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## **The Livelihood Support Programme**

The Livelihood Support Programme (LSP) evolved from the belief that FAO could have a greater impact on reducing poverty and food insecurity, if its wealth of talent and experience were integrated into a more flexible and demand-responsive team approach.

The LSP works through teams of FAO staff members, who are attracted to specific themes being worked on in a sustainable livelihoods context. These cross-departmental and cross-disciplinary teams act to integrate sustainable livelihoods principles in FAO's work, at headquarters and in the field. These approaches build on experiences within FAO and other development agencies.

The programme is functioning as a testing ground for both team approaches and sustainable livelihoods principles.

**Email:** [lsp@fao.org](mailto:lsp@fao.org)

## **Access to natural resources sub-programme**

Access by the poor to natural resources (land, forests, water, fisheries, pastures, etc.), is essential for sustainable poverty reduction. The livelihoods of rural people without access, or with very limited access to natural resources are vulnerable because they have difficulty in obtaining food, accumulating other assets, and recuperating after natural or market shocks or misfortunes.

The main goal of this sub-programme is to build stakeholder capacity to improve poor people's access to natural resources through the application of sustainable livelihood approaches. The sub-programme is working in the following thematic areas:

1. *Sustainable livelihood approaches in the context of access to different natural resources*
2. *Access to natural resources and making rights real*
3. *Livelihoods and access to natural resources in a rapidly changing world*

Does forest tenure matter? In what way does it matter? What are the links among tenure, sustainable forest management (SFM) and poverty alleviation (PA)? This paper presents the main findings of research that was conducted by FAO and partners from the Asia Forest Partnership with the aim of analysing and understanding the role of tenure arrangements, their enabling impacts and their limitations. The paper presents a summary of different tenure instruments' performance in supporting SFM and PA, and provides recommendations for more effective forest tenure systems. The case studies of India (Orissa and Maghalay) and Nepal were supported by SP 3.1.

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## Abbreviations and Acronyms

CBFM	community-based forest management
CF	community forestry
CFUG	Community Forest User Group (Nepal)
CIFOR	Center for International Forestry Research
FD	Forest Department
IPF	Intergovernmental Panel on Forests
IUCN	World Conservation Union
JFM	joint forest management
LGU	local government unit
LHF	leasehold forest
NGO	non-governmental organization
NTFP	non-timber forest product
OP	Occupation Permit (Malaysia)
PA	poverty alleviation
RBC	Red Book Certificate (Viet Nam)
RECOFTC	Regional Community Forestry Training Centre for Asia and the Pacific
SFM	sustainable forest management
SFMLA	Sustainable Forest Management License Agreement (Malaysia)
TNC	The Nature Conservancy
UNDP	United Nations Development Programme
USAID	United States Agency for International Development

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<sup>1</sup> A complete list of the papers is included in the References. The papers on India and Nepal were prepared with the support of the LSP Sub-programme 3.1 (“Access to natural resources”).

## 1. INTRODUCTION

This paper represents part of an area of work in support of enhancing access to forest resources in South and Southeast Asia. It is based on eleven case studies. The LSP Sub-programme 3.1 supported three case studies (Orissa and Meghalaya, India and Nepal); other countries covered were China, Indonesia, Malaysia, Pakistan, Philippines, Thailand and Vietnam. The full study, including all case studies, is published as: FAO. 2006. "Understanding Forest Tenure in South and Southeast Asia". Forestry Policy and Institutions Working Paper No. 14. Rome.

See also LSP Working Paper 7 "The culture of access to mountain natural resources: Policy, processes and practices" by ICIMOD.

Worldwide, about 1.6 billion people rely heavily on forest resources for their livelihoods, and an estimated 400 million are directly dependent on forest resources (World Bank, 2002). At the same time, the 2005 Forestry Resources Assessment (FAO, 2006) reports that deforestation is continuing at an alarmingly high rate, mainly through the conversion of forests into agricultural land. The net reduction in forest area for the period 2000 to 2005 is estimated at 7.3 million ha per year, with forests disappearing particularly rapidly in Africa and Latin America.

While the causes of deforestation are certainly multiple, there is increasing recognition that tenure of forest resources and forest land plays a role in sustainable forest management (SFM) (UNDP/UNEP/World Bank/WRI, 2005), and that security of tenure is one of the most important mechanisms to ensure accountability and control of forestry operations at the local level (FAO, 2005).

Current trends in privatization and community involvement in forest management are leading to rapid changes in resource tenure patterns and increasingly complex stakeholder relations. These changes have social, political and economic implications, which need to be monitored and assessed. To what extent does forest tenure – particularly recent tenure arrangements – influence land and resource use? Are secure tenure arrangements part of the solution to forest degradation and destruction?

According to work carried out by Forest Trends, the area of forests owned and administered by communities doubled in developing countries between 1985 and 2000, reaching 22 percent; this figure is expected to increase further (White and Martin, 2002). Although these estimates are the best so far, and are often adopted by the international community (e.g., the Center for International Forestry Research [CIFOR], Forest Trends 2003), the limited availability of appropriate and reliable data calls for careful interpretation and further work. Current forest laws still provide little scope for local people to play a meaningful part in the planning, management and allocation of forest resources (FAO, 2005).

It is in this context that FAO, in collaboration with four partners<sup>2</sup> in the Asia Forest Partnership, has developed a pilot study covering 17 countries in South and Southeast

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<sup>2</sup> The Nature Conservancy (TNC), Tropenbos, the Regional Community Forestry Training Centre for Asia and the Pacific (RECOFTC) and CIFOR.

Asia. A number of initiatives to empower local communities, decentralize decision-making to local government units and increase private sector involvement in forest management have been taking place in this region. The aim of this study is to shape a clearer understanding of these trends and their impact on SFM and poverty alleviation (PA).

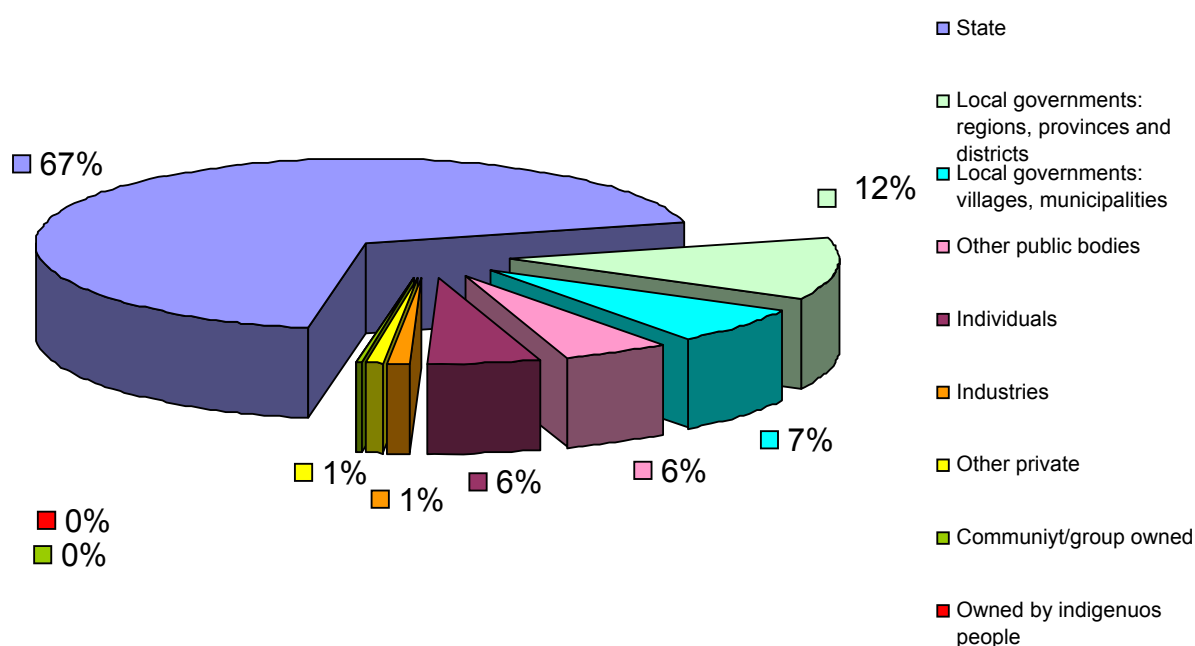


## 2. FACTS AND FIGURES ABOUT FOREST TENURE IN SOUTH AND SOUTHEAST ASIA

The study conducted by FAO and partners in South and Southeast Asia was based on an analysis of forest tenure according to two variables: the type of ownership, and the level of control of and access to resources. It aimed to take into account the complex combination of forest ownership – whether legally or customarily defined – and arrangements for the management and use of forest resources. Forest tenure determines who can use what resources, for how long and under what conditions.

The results of the survey of 17 countries<sup>3</sup> confirm that the tenure system in forestry remains largely dominated by State control, although some important trends are emerging, albeit in limited areas.

FIGURE 1  
Forest ownership structure



Regarding different types of *forest ownership* (Figure 1), at least 92 percent of a total of about 365 million ha of forest is publicly owned, the majority of which (67 percent) is under the direct control of central governments. Private forests, which are mainly in Japan and the Republic of Korea, are more likely to be owned by individuals (accounting for 6 percent of total forest area) than by private industries (1 percent of

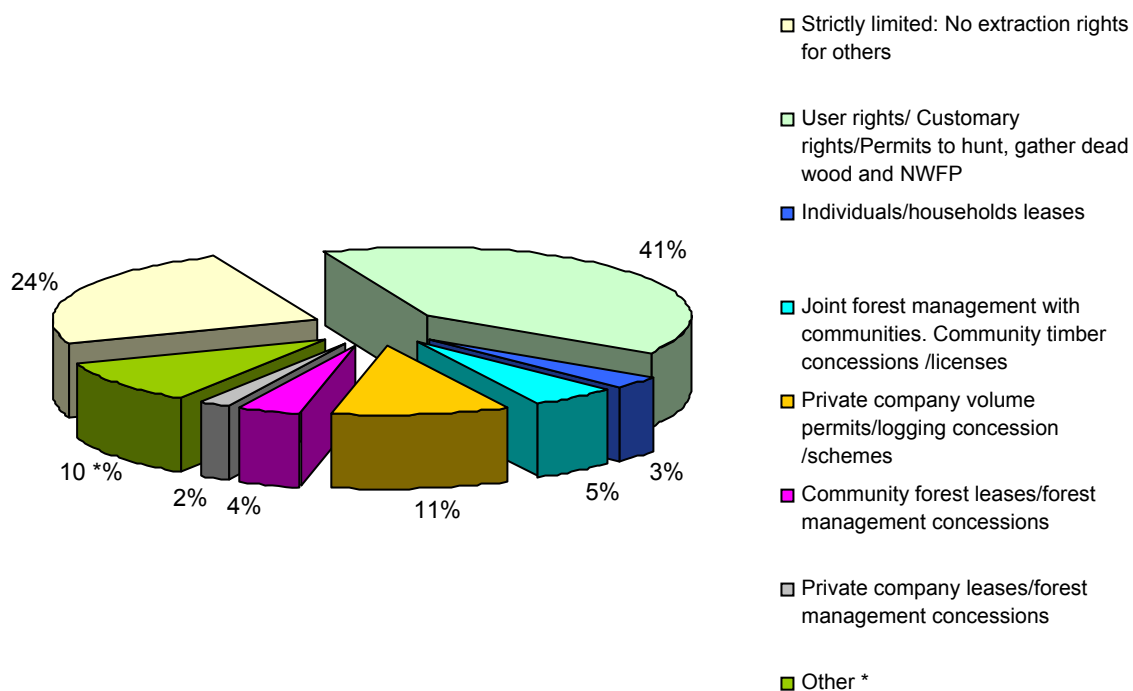
<sup>3</sup> Brunei, Bhutan, Cambodia, China (Yunnan), India, Indonesia, Japan, Republic of Korea, Lao People's Democratic Republic, Malaysia (Sabah), Myanmar, Nepal, Pakistan, the Philippines, Sri Lanka, Thailand and Viet Nam.

the total). An insignificant percentage of forests is owned by local communities, groups and indigenous people.

Regarding different *management categories* (Figure 2), 65 percent of publicly owned forests are managed directly and exclusively by the owner (central or local government). Although user rights for home consumption are granted in most (41 percent) of these forests, this category comprises mainly open-access, non-protected forests that are often left unmanaged owing to lack of government capacity. In Nepal, for example, government-managed forests administered by district forest offices (about 80 percent of total forests) are *de facto* not managed (Singh, Singh and Sinha, 2006).

Figure 2 shows how agreements with limited devolution of management rights and responsibilities (such as joint forest management [JFM], community timber and private logging concessions) are prevailing over longer, more secure, tenure agreements (such as community forest management and private forest management concessions), regardless of whether they involve local communities, individual households or private companies. Local communities manage about 12 percent of public forests through either JFM agreements, longer-term community forestry (CF) agreements or individual/household leases, while 13 percent are granted to private companies, mainly through logging concessions. This percentage increases significantly if it includes about 30 million ha of production forest in Indonesia for which the status is not defined. This forest is likely to be assigned to new timber concessions.

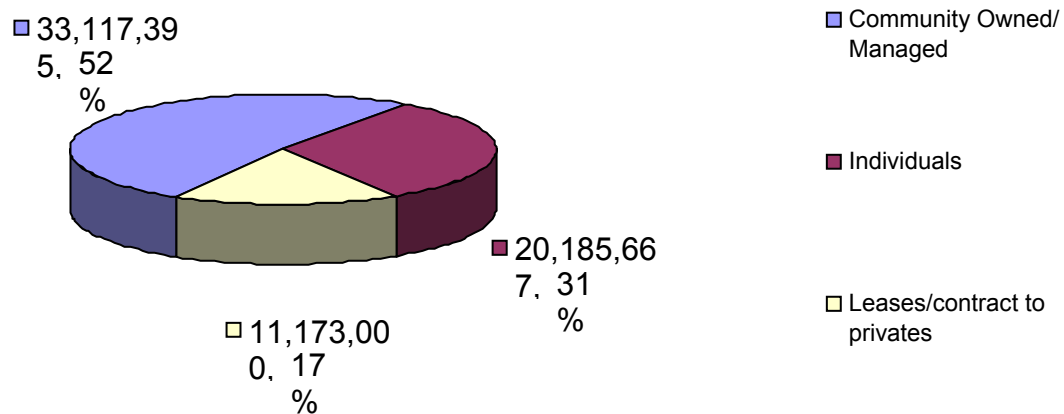
FIGURE 2  
Forest management categories in public forests



\* About 30 million ha of production forest in Indonesia for which the status is not defined.

The forest area managed by local users increases to 18 percent of the total when all the forest that is either owned or managed by local forest holders, communities, user groups or individuals (about 65 million ha, see Figure 3) is included.

FIGURE 3  
Local forest holders



Total surface: 65 million  
ha

The survey highlighted two innovative trends: the allocation of forest land to private households in China and Viet Nam through modalities that are very close to a privatization process; and the establishment of long-term (100-year) forest management concessions – called Sustainable Forest Management License Agreements (SFMLAs) – in Sabah, Malaysia. Detailed data by country are available on the FAO forestry Web site.<sup>4</sup>

The significant role of local forest holders in forest management is confirmed by the figures presented by each country, even though it remains somewhat limited, fragile and variable among countries.

In order to understand the implications that different tenure systems have on SFM and PA, related mechanisms and issues have to be analysed, and the roles that these might play in enabling or preventing the effectiveness of a given tenure system have to be identified. The transfer of rights and responsibilities needs to be qualified in terms of the accompanying security of tenure and management capacity in order fully to understand its impact. For example, private property might not necessarily entail the right to manage or even use resources (e.g., Pakistan), while some well-established long-term exclusive use rights (individual or communal) might be as secure as private, individually titled property (e.g., Viet Nam) (UNDP/UNEP/World Bank/WRI, 2005).

<sup>4</sup> [www.fao.org/forestry/site/33848/en](http://www.fao.org/forestry/site/33848/en).

### **3. THE CHALLENGES OF SECURE TENURE**

Security of tenure is recognized as a fundamental requirement to ensuring that resources are managed sustainably. Duration, assurance, robustness and exclusivity have been identified as the main legal elements for secure tenure arrangements. This implies that tenure holders should have assurance that they will be able to benefit from the returns on their investments without interference. Any strategy to support SFM and enhance the PA role of forests should prioritize the clarification of tenure rights and mitigate factors that impinge on poor people's access to forest resources (Wiersum and Ros-Tonen, 2005).

Evaluation of the effectiveness of various tenure systems in South and Southeast Asia identified numerous constraints that undermine the security of forest tenure. Although situations and contexts differ from country to country, these constraints are related to the main issues described in the following subsections.

#### **3.1 Fragility of granted rights**

Forest tenure reforms are often implemented when overall State management has failed. Such reforms aim to reverse the results of unsuccessful forest management by increasing the participation of local populations or the private sector, recognizing local customary law and allocating management responsibilities to local holders. However, for various reasons, the reforms are often not accompanied by adequate security of tenure, such as clear, formal and long-term recognition of rights and responsibilities in legislation and regulations.

In spite of their achievements, some of the most promising tenure models – such as CF in India-Orissa and the Adat (customary law) system in Indonesia – are not formally recognized and supported by legislation. This lack of institutionalization makes these approaches very vulnerable to policy changes.

The two hills system, which has characterized land reform in China since the 1980s, has contributed a lot to both SFM and PA for local communities, especially in comparison with the pre-reform situation. However, it has been unable to improve local conditions further because of confusions regarding ownership and responsibilities (Box 1). As a result, some of the forestry sector's important potential remains untapped.

Long-standing lack of clarity over ownership and rights over land, particularly regarding the traditional rights of local communities over land and natural resources, has caused the escalation of conflicts in Indonesia, especially since decentralization (Simorangkir and Sardjono, 2006).

Rights also become fragile when they are subject to restrictive time limits or the decision-making power of administrations. The sudden and indefinite suspension of harvesting rights for community-based management agreements in the Philippines, and the introduction of quota systems in China are good examples of governments making unilateral and indiscriminate (in that no distinction is made between managed

and non-managed forests) decisions in response to forest degradation. Recent logging bans in South and Southeast Asia have shown the forestry sector's tendency to react to shocks in extreme ways, thereby weakening tenure rights further.

**BOX 1**

**China's two hills system: who is the real owner?**

Since the early 1980s, China's forestry reforms – known as the two hills system – aim to define and clarify forest ownership rights, among other objectives. The system involves contracts for forestry land under three new management arrangements: household, collective and contracted. Recent research on forest tenure has highlighted some important shortcomings of this reform, including increased deforestation and illegal cutting, and these can be attributed to the frequent shifting of forest policies and a lack of tenure security. Laws regarding forest tenure do not distinguish between forest land and forests, so ownership remains ambiguous. The unclear definition leads to conflicts over benefit sharing, particularly in household-managed forests, and farmers frequently complain that “they have no right to decide how to dispose of their land”, including forests, and that they lack proper access to information.

The responsibilities of collective ownership are also unclear, because the definition of collective varies over time and among provinces.

*Lesson: Unclear and unstable rights lead to unsustainable forest management.*

### 3.2 State control in disguise

Despite the official transfer of tenure rights to other stakeholders, in some cases the State retains predominant or even overall control of forest management activities, including harvesting and marketing. This can happen not only when forests are managed through JFM agreements, and therefore remain public, but also in privately owned forests, which can be sold and transferred by the owner(s).

In India-Orissa the Forestry Department retains substantial control over JFM forestry activities and benefit sharing, so the impact of JFM on PA and empowerment are very limited.

In Thailand, the government, through the Royal Forest Department and the Department of National Parks, Wildlife and Plant Conservation, retains its legislative control over community forests, although some community forests have been managed by villagers for more than 15 years.

In Nepal, Community Forest User Groups (CFUGs) are required to prepare forest inventories of the growing stock, standing forest and allowable cut before the forest is handed over to them and when their management agreements are being renewed (every five years). This is a technically demanding and time-consuming job that the CFUGs cannot do themselves and often cannot afford to pay for, creating delays in the handing-over process and the renewal of existing agreements. This has direct negative impacts on harvesting, extraction and the sale of forest products, which ultimately affect the community development and PA activities of the CFUGs.

In Pakistan private “owners”, either individual or communal, have no management responsibilities (Box 2).

Figures that show increased JFM/CF agreements or trends towards privatization should therefore be assessed carefully in terms of the effectiveness of the transferred rights.

**BOX 2**

**Pakistan: private property without rights**

The forest tenure system in Pakistan varies from region to region and foresees the existence of private forests, either owned by individuals or communal (Guzara forests). These forests are, however, directly managed by the Forest Department (FD) through working plans; owners have to seek FD approval for harvesting, marketing and daily usage of timber and fuelwood.

Resources, especially in Guzara forests, continue to degrade, despite the overall control of the FD. Local farmers are not interested in managing their forests because they have absolutely no responsibility to do so.

A logging ban on commercial harvesting in private forests, even those directly managed by the FD, was imposed in 1992.

*Lesson: Ownership without rights leads to degradation.*

### 3.3 Small trees for small people

The quality of the resources allocated to local holders also needs to be taken into consideration when assessing the implications on SFM and PA. The condition of the resources at the moment of the transfer obviously plays a significant role in the potential of those resources to provide the necessary incentives for sustainable management. The study shows that – with some exceptions such as community-based forest management (CBFM) in the Philippines – most of the forests handed over for joint management or long-term agreements are degraded and have no or little commercial value.

This is the case in Viet Nam and China, where individuals have received mainly low- to medium-quality forests through a forest devolution programme. In Sabah, Malaysia, many forests for CF within areas managed under SFMLAs are in poor condition. In Nepal, leasehold forests are limited to very degraded forests and bare land that require intensive management and heavy inputs (Box 3).

In both Nepal and Viet Nam, despite the poor forest conditions, new owners and holders have demonstrated an ability to derive economic benefits while improving forest management (see the section on Secure tenure for PA in the following chapter). However, in Nepal, where the leasehold forestry programme continues to be subsidized by donors, the sustainability of the approach remains questionable. In Sabah, Malaysia, there has not yet been any significant evidence of success; the poor quality of the forest is a major handicap to PA and SFM, and unless adequate support is provided the real impact of handing over degraded land is negligible in the early years. The failure of some tenure arrangements does not necessarily imply that they are inadequate, but rather that insufficient support and incentives were provided to rehabilitate the forest cover.

**BOX 3****Nepal: degraded forest for leaseholders**

Nepal's leasehold forestry programme was developed to alleviate the poverty of households living close to degraded forests and to facilitate ecorestoration.

Despite its limited coverage, the programme has proved very successful in terms of both PA and improving forest conditions (see Success story 4). However, some question this success because the programme requires heavy inputs and support from external projects; the allocated forest resources are degraded and so need intensive and relatively expensive forest management and capacity building.

The programme has developed a strong sense of ownership, which is a principal driving force to forest management.

*Lesson: Sustainability cannot be expected when resources are degraded.*

### 3.4 National land policy and constraining obligations

Even after 20 years of SFM efforts and an increasing awareness of forestry's role in PA, the specific role of tenure in these processes is still unrecognized. This lack becomes particularly evident when analysing current policies and legal frameworks, which are still inadequate in addressing the rights that contribute to security of forest tenure.

In some extreme situations, the legislative and regulatory framework is obsolete and does not address today's needs and challenges. In Pakistan, for example, there is a complex and unharmonized system of laws to regulate a feudalistic tenure structure. Despite some trends, such as the new Forest Ordinance 2000 that gives legal cover to JFM in North Western Frontier Province (NWFP), so far the government has given limited importance to this issue and there is a lack of adequate data on forest landownership and tenure. People have no access to data and information about FD activities on behalf of communities (Nasir, 2006). In such an atmosphere of mutual distrust, the absence of tenure reform has led to intensive forest degradation.

Evidence from other countries indicates that land policies often limit or prevent the creation and consolidation of new tenure systems, especially when these are based on the recognition of customary rights, including those of nomadic groups (Box 4).

Global trends such as decentralization might also lead to increasingly fragile tenure rights, such as in Indonesia. In addition to a "decentralization of corruption", which can occur as local governments obtain greater control over the forestry sector and timber concessions, the decentralization process has weakened customary rights by creating confusion over new laws that have decentralized some aspects of the State's jurisdiction over lands, forests and other natural resources to district authorities (Simorangkir and Sardjono, 2006).

Examples show that very constrictive national policies and legislation can affect the efficiency of a given tenure system, such as the logging bans in the Philippines and Pakistan, or the introduction of quotas in China. Forest legislation often penalizes local owners or holders through overregulation. In the Philippines, for example, communities that have obtained communal tenure agreements usually protect their

areas from forest fires, poaching and slash-and-burn practices. However, the overregulation of these communities' resource use rights and the nationwide cancellation of these rights have instilled fear, uncertainty and suspicion of government and the CBFM strategy. Three consecutive nationwide suspensions of CBFM harvesting rights have eroded most communities' motivation and commitment to protect and manage their forests (Guiang and Castillo, 2006).

**BOX 4**

**Sabah, Malaysia: Occupation Permits**

In Sabah, a major concern is the lack of recognition and protection for indigenous rights over land and natural resources, which are vital for the survival and development of indigenous communities. In order to formalize the presence of communities in forest reserves, the Sabah Forestry Department (SFD) has recently introduced the use of Occupation Permits (OPs) available under the forestry laws. The permits cost \$M250 (US\$68) per hectare per year. Communities participate in decision-making regarding the duration of and total area covered by the permits, but the ultimate decision is made by SFD. This is a positive step by SFD to acknowledge forest communities with traditional claims to remain on their land. However procedures for land title acquisitions through the State legal system are complex, lengthy and lack transparency. The provisions for titles are also not always wholly acceptable to indigenous people, who consider the land theirs already. In light of all of these factors, land titling has never been widely used to demarcate community boundaries and/or legalize community forests.

*Lesson: Difficult procedures hamper the acquisition of rights.*



## 4. TENURE: A FOUNDING BLOCK FOR SFM AND PA

### 4.1 Does secure ownership lead to SFM?

How does tenure affect SFM? Is there evidence that secure tenure rights have contributed positively to forest management and conservation, or that a particular tenure system is more effective than others?

#### *When State forest management works*

State management remains the best option in some circumstances, especially for national parks and protection forests. In India-Meghalaya, State-owned forests are the best funded and managed forests (Dasgupta and Symblich, 2006). In Viet Nam, State forests are probably the best of all tenure systems in terms of forest management, in areas where budget is available (Nguyen, 2006). In India-Orissa, areas under JFM are characterized by substantial FD control over activities and benefit sharing, and represent a successful example in terms of SFM (Singh, Singh and Sinha, 2006). All of these successes depend on the availability of sufficient funds and capacities.

Other systems are efficient, particularly those based on customary settings and community initiative, which are sometimes the only systems in place.

#### *When CF works*

When rights are granted on a long-term basis and are clearly defined, CF and JFM have had positive effects for SFM and the regeneration of degraded lands (Success story 1)

#### SUCCESS STORY 1

##### **India and Nepal: a long tradition in CBFM**

CF in Nepal has a long history, and is recognized as one of the best and most successful examples of CBFM. The 1993 Forest Act makes clear provisions regarding rights and responsibilities related to CF. Community forests represent about 20 percent of Nepal's total forest area; since the beginning of the programme, forest conditions have improved considerably and degradation has been prevented (Singh, Singh and Sinha, 2006). CF agreements have no time limit, but are managed on the basis of operational plans that have to be renewed every five years. The programme benefits from a strong strategy and many years of capacity building, but its success is also due to its building on existing traditional structures (Singh, personal communication).

JFM in India-Orissa is another case of the devolution of management responsibilities proving to be successful in terms of SFM. This programme has helped the regeneration of degraded forests, and represents a first step towards collaboration between communities and FDs. However, the programmes's main limitations are its heavy dependency on project funding and the high level of control exercised by the State administration. These raise the question of sustainability, unless the JFM concept can evolve towards more shared decision-making.

### ***Private smallholders: a growing reality***

China and Viet Nam have made one of the most innovative and progressive changes in forest tenure: the allocation of forest land to individual smallholders. About 20 percent of forest land in Yunnan province (China) and 23 percent in Viet Nam (FAO Forestry Web site, 2006) are now directly managed by individuals. In Viet Nam land is allocated through Red Book Certificates (RBCs), which provide long-term or indefinite access and use rights. Although the forests allocated are of medium and low quality, individual owners have proved to be more effective forest managers than organizational owners (e.g., private companies) (Success story 2).

#### **SUCCESS STORY 2**

##### **Private smallholders in Viet Nam: a new approach to SFM and PA**

Private property in Viet Nam includes forests managed by individual households and joint venture enterprises. Under this arrangement, forest is allocated to an owner for long-term (50 years, renewable) management. Most forest owners under this arrangement are entitled to a legal land use certificate (the RBC) for the forest area they are granted. By law, the RBC is the highest legal document certifying ownership of a piece of (forest) land. It represents legal recognition of all rights and responsibilities as regulated by current land law. RBC holders have the right to exchange, transfer, lease, inherit and mortgage their RBCs and to use their forests in joint production and commercialization activities. Owners of forest under this arrangement are required to pay taxes.

Under this private property scheme, forest owners are obliged to protect their forest allocations against unauthorized use and to plant trees where needed; they have the right to utilize the forest to maximize their profits. According to Nguyen (2006), local households have generally achieved (or have the potential to achieve) higher economic benefits from forest resources since the accession to private property: people have developed the forest resources on their allocated land. As forest plantation takes at least five to seven years, even for fast-growing trees, local people's investments in tree planting since rights were devolved reflect their confidence in tenure security. Forest devolution is giving people a chance to improve their livelihoods in the long term, while also improving forest conditions.

### ***Local governments***

The case of local government units (LGUs) in the Philippines is a particularly good illustration of how the decentralization and devolution of management responsibilities, control and monitoring to local governments can be particularly successful, as long as it receives adequate support, especially in capacity building (Success story 3 and Box 6).

#### **SUCCESS STORY 3**

##### **Local government in the Philippines: an untapped potential**

Although it is still too early to assess LGUs' role in protecting and managing forest lands, experience to date has shown that – with the right mix of political will, resource allocation and long-term perspective – they could make a difference in stabilizing tenure rights, claims and occupations in forest lands under co-management agreements; help to resolve claim and boundary conflicts, which tend to reduce productivity and focus; and mobilize local and available grant resources for forest development activities.

According to Guiang and Castillo (2006), LGUs have the highest performance for SFM, but the very limited surface they cover means that this needs further investigation. Nonetheless, LGUs have demonstrated greater flexibility in allocating financial resources to support social infrastructure, extension services and set-up capital for community enterprises.

## 4.2 Secure tenure for PA

### *Communities, income generation and equity*

Analysis of the case studies has shown that CBFM often has a comparative advantage over other tenure systems regarding PA, particularly in addressing the needs of the poorest and promoting equity and empowerment.

#### SUCCESS STORY 4

##### **Leasehold forests in Nepal: created to address poverty**

Unlike CF, leasehold forests (LHFs) in Nepal have been created expressly to alleviate poverty in households that are close to degraded forest areas. LHFs also have eco-restoration and rehabilitation roles, as most of them are established in degraded forest areas (Box 3). In LHFs, the benefits are therefore generated later than they are in CF. The more integrated LHF approach has led to reductions in food deficiency: all benefits go to individual families, without having to share them with the government, and forest products are available to LHF beneficiaries throughout the year.

The close linkages between the benefits obtained and the eco-restoration of degraded leasehold areas probably contribute to the success of this system, together with a strong sense of ownership among leasehold groups. However, the very small area – 5 000 ha – of implementation and the high financial and human inputs required call for careful interpretation of results.

#### SUCCESS STORY 5

##### **Common property in Viet Nam: reaching the poorest**

In Viet Nam, common property arrangements are found in forest managed by collectives. Owner groups are entitled to have RBCs for the areas of forest allocated to them. Legal recognition of this form of management arrangement has recently emerged as an important issue in forest management in Viet Nam. At present, only a small area of forest is under common property arrangements, but the potential for the future is promising.

Among the various tenure systems in Viet Nam, the management of forest as common property appears to address PA best. Communities have demonstrated the ability to distribute benefits among their members, including the poorest. Common property is sometimes a better system than private property for managing forest because of village regulations that specify the rights and responsibilities of members and exclude unauthorized loggers.

#### SUCCESS STORY 6

##### **Equity through tenure: CBFM in the Philippines**

The allocation of forests to communities through CBFM agreements has made it possible to transfer natural resource assets to marginalized groups in response to demands for social justice and PA; CBFM addresses the equity issue in the Philippines. Among the different tenure systems, CBFM seems to have the greatest potential for supporting livelihoods, providing farm-level incentives to adopt agroforestry and tree farm technologies, and raising marginalized communities out of extreme poverty and hopelessness. The increasing participation and involvement of provincial and municipal LGUs in CBFM seem promising.

However, so far the real potential of this system has yet to emerge from several constraints. As well as the limited capacities of communities to absorb, learn and respond to their obligations as forest managers, highly restricted access to timber and non-timber as sources of revenue risk causing the gradual abandonment of most forest lands over time.

### *Plantations, the positive and the negative*

Forest plantations, particularly for production purposes, are an increasing feature of forestry in East and Southeast Asia, where they represent about 7 percent of total forest area (FAO, 2006). China, Indonesia, Malaysia and Thailand are among the countries where the most plantations are found.

Forest plantations are usually associated with clearer and more secure tenure than natural forests. In addition, plantations are closely associated with income generation and employment (Box 5). When established in consultation with local stakeholders and within an adequate business environment, plantations provide these expected benefits and contribute to PA. However, forest plantations in the Southeast Asia region, especially for oil-palm, have been the cause of rapid forest degradation (such as in Malaysia and Indonesia) and conflict among stakeholders (Box 6).

#### **BOX 5**

##### **Private plantations in the Philippines: a potential source of income**

In order to reverse the decline of the forest industry, which was highly dependent on natural forests as a source of raw materials, the Philippines is currently looking at forest plantations as a sunrise industry for the forestry sector. All over the country, there are highly suitable areas for the establishment of plantations for short, medium and long rotations. However, the private sector has not been as proactive as expected in developing forest plantations because the overall business environment, regulations and incentives are perceived as unfavourable. Given its technical, organizational, entrepreneurial and financial capacities, the private sector could still change the country's mind-set with respect to forest production. In particular, plantations have high potential to generate employment and community enterprises.

#### **BOX 6**

##### **Oil-palm plantations: threat to natural forest or potential for PA in Indonesia?**

During the 1990s, forest and land conversion became more intensive with the development of oil-palm plantations. These plantations were justified by oil-palm's ecological suitability and the economic business alternatives it offered in the face of decreasing forest resources. By the end of 2000, about 4 million ha of new oil-palm plantations had been established across Indonesia.

In the last decade, local communities have begun to dominate the development and management of plantations. Increasing community interest in this smallholder scheme is promoted by the possibility for individuals to claim land that was formerly declared State-owned (forest) lands, and by assured incomes.

However, the expansion of oil-palm plantations has had two negative consequences. First, natural forest has been removed to make way for increasing palm plantation surface. Deforestation is also caused when the establishment of oil-palm plantations is used to justify the obtaining of concessions to exploit remaining residual stands of natural forests. Second, unclear land occupation rights under traditional law have led to conflicts among villages, and some families have been unwilling to enter the plantation programme for fear of losing their traditional (but not officially recognized) rights to land.

### 4.3 Role of traditional laws and self-initiated activities

Informal tenure systems that regulate natural resource use and access, including in forests, are present to some extent throughout South and Southeast Asia. In some cases, legal tenure systems have attempted to recognize customary rights, such as through the use of OPs under the forestry laws in Sabah. However, most traditional systems that overlap with official tenure systems are completely disregarded by law, leading to severe and unresolved conflicts. In Pakistan, for example, customary law is widely practised by forest dwelling/-dependent communities all over the country, but is frequently in conflict with the formal laws applied by the forest administration.

Nonetheless, there is evidence that in a number of situations the existence of strong traditional customary rights has had positive implications, particularly on conservation and SFM (Molnar, Scherr and Khare, 2004).

Traditional customary rights are particularly effective where legislation does not provide secure tenure rights and the forest administration is weak or absent. In Indonesia, for example, Adat-based management has demonstrated a positive impact on not only SFM but also PA through increased income generation (Deschamps and Hartman, 2006) (Success story 7).

#### SUCCESS STORY 7

##### **Indonesia: Adat to support PA**

Adat forms the basis for forest tenure in long-established communities. Created by the community and administered by a local council of elders, it defines rights and responsibilities and codifies legal sanctions. Regarding SFM and the conservation of forest resources, in the absence of secure tenure rights, the creation of collaborative management structures that are supported by customary law can foster a sense of community ownership and engender a commitment to conservation. In particular, SFM based on traditional land-use systems has the potential to provide social and economic benefits at a level equal or superior to other land-use systems in nearby rural areas. The socio-economic and ecological conditions of forest-based communities utilizing customary law can be better than those of communities with economies based primarily on agricultural production.

*Lesson: In the absence of State control, collaborative management with customary law can work, even when there is no secure tenure.*

Similarly promising self-initiatives that regulate tenure rights, including access and management, have been observed in India-Orissa, but these have still to be analysed in depth. These CF initiatives are contributing to PA, especially aspects of social welfare, health and education, although they are not formally recognized by the legislation and therefore insecure and fragile (Success story 8).

**SUCCESS STORY 8**

**India-Orissa: informal tenure systems**

CF is one of the tenure system in place in India-Orissa, along with national parks, protected and reserve forests, private forest and JFM. However, unlike the others, CF has no formal or legal basis, but is purely self-initiated.

The major weakness of this system is the very limited scale of its application. Nonetheless, CF management is a bold experiment with a promising future. The most remarkable aspect of CF is that it emerges from the community's self-initiated efforts to meet its forest-related needs in response to changing socio-ecological conditions, and its desire to cope with uncertainties and livelihood insecurity. As well as good results in forest management, including the regeneration of forest canopy, CF has positive effects in improving the livelihoods of local communities, especially when it evolves from the village to the federation level. This is owing to confidence in the efficacy of its institutions and enhanced bargaining power.

**SUCCESS STORY 9**

**Thailand: increasing informal CF tenure systems to protect forest resources**

CF has existed throughout the history of village settlement in Thailand, but it was not called CF. Although CF has taken many forms and served various functions in Thailand, the Community Forestry Act of 1992 has been under development for more than a decade and has still to be finalized. Villagers, NGOs and academics began informal discussions of issues related to CF policy, legislation and implementation in 1990.

Nationwide, at least four major types of CF can be identified: (1) newly organized community protected forests, which have emerged as a response to illegal logging; (2) monastery (*wat*) forests, which are restricted areas where plants and animals are protected; (3) wetland forests, which communities protect as breeding grounds for fish, frogs and crabs, and as a source of bamboo, timber and fuelwood; and (4) cultural forests, which have economic, historical or religious significance.

Despite the lack of a comprehensive legislation, the number of community forests has been constantly increasing since 1985.

A large number of informal community forests have been established throughout Thailand, and are functioning despite having no legal recognition. Enactment of the Community Forest Act, which is supposed to provide the necessary legal framework, has been delayed for many years mainly because of uncertainties about the natural resource decentralization scheme (Lakanavichian, 2006).

#### 4.4 How can tenure arrangements be consolidated?

It is difficult to isolate tenure from other enabling or constraining factors that have implications for SFM and PA. However, the cases analysed in this study show clearly that secure forest tenure is fundamental for effective forest management, and tenure security has to occur in conjunction with other requirements.

##### *Capacity to exercise rights*

The taking over of responsibilities always requires the capacity to fulfil those responsibilities. The granting of tenure rights and management responsibilities to households, the private sector and local governments needs to be accompanied by capacity building to exercise the rights and responsibilities acquired. The following capacity building requirements have been identified in the case studies:

- awareness raising of concerned stakeholders about their rights and how they can exercise them, as well as capacity building to retain these rights and minimize the risk of elite groups becoming dominant (Box 7);
- the creation of management capacities, including technical, financial and organizational aspects; in the Philippines, for example, the limited success of CBFM initiatives is partially owing to the limited capacities of local holders; resource managers need a long-term strategy for capacity building, coaching, mentoring and follow-up (Guiang and Castillo, 2006);
- strengthening capacities, in particular of central and local forest administration, to support local holders; this crucial aspect is often underestimated and is not implemented because of the limited resources available for forest administration (Box 8).

##### BOX 7

##### **Pakistan: the prevailing interest of timber traders**

In some protected forest of North Western Frontier Province (NWFP) in Pakistan, the rights of local communities to receive shares of the proceeds of timber sales have often been diverted by powerful timber traders who purchase the rights of poor communities many years before they prepare their working plans. In response to growing public dissatisfaction with this system of rights sale and purchase, the NWFP government passed legislation in 2002 that makes it compulsory for the original right holder to be present when royalties are distributed to the current right holder.

##### **Nepal: community forestry captured by elite groups**

In CF, elite groups who hold key posts in executive committees get most of the benefits and opportunities. The active participation of users, especially the poor, disadvantaged groups and women, is difficult to achieve, particularly in decision-making processes and benefit sharing. The monopolization of power by local elite groups is summed up by the term “committee forestry”, which is sometime used instead of “community forestry”.

**BOX 8**

**Sabah and the Philippines: when support from and for the State is missing**

In the Philippines, LGUs can take more active roles in tenure assessment, the control of illegal logging, enforcement, the promotion of investment in forest lands, and assistance to communities in developing community-based enterprises and improving their livelihoods. However, achievement of these roles depends greatly on the assistance that LGUs obtain from the Department of Environment and Natural Resources (through leaders and key technical staff) to protect and manage their forest lands effectively, especially those that are under co-management agreements such as communal forests and watersheds.

In Sabah, Malaysia, the State created the SFMLA in 1997. This is a form of long-term concession, and SFMLAs now cover about 2 million ha of forest. In SFMLAs, the responsibility for SFM is shared between the State Forest Department (SFD) and the private sector. SFD is expected to focus on training the licensee's personnel, preparing guidance for the licensee and continuously improving the technologies and skills needed for SFM. SFD staff monitor the performance of SFMLA companies, which implement forest management plans approved by SFD. These plans include silviculture, rehabilitation and the development of CF initiatives on SFMLA land. However, state forestry personnel have limited capacity in professional forestry, and there are too few professional foresters among the field staff to monitor harvest planning and current logging activities.

The direct consequence of this is that after eight years of implementation, no meaningful improvement in SFM has been achieved, except in forests where SFD has put certification schemes in place. This lack of improvement is compounded by the licence holders' search for immediate and short-term profits. However SFMLAs have contributed to stopping the gazetting of forests to create oil-palm plantations, which constituted a massive threat to forests since the 1990s.

*Lesson: Under any institutional arrangement, tenure without management capacity is likely to lead to unsustainable forest management.*

### ***Supportive framework***

The establishment of a supportive framework within the forestry sector is a first step towards SFM, but the sustainability – and more specifically the economic sustainability – of forest management also depends greatly on the institutional framework beyond the forestry sector. Among the incentives and other requirements for realizing the potential of sound tenure systems are:

- improved access to markets and marketing systems to offset remoteness from processing centres and the inefficient transport that results from the poor road infrastructure of most forested areas (e.g., CF in Sabah, Malaysia and the Philippines);
- economic incentives through appropriate tax system reforms that encourage investment in the sector, particularly for smallholders (e.g., China freehold hills);
- incentives for development and investment from the private sector, particularly in the first phases of activities when financial inputs are required (e.g., plantations in the Philippines and Forest Management Units in Sabah, Malaysia);
- funds with which to develop and implement management plans as required by law, and/or the simplification of management planning requirements; in the Philippines, for example, only 30 percent of CBFM has approved management plans because of the lack of funds and capacity;



- the creation and implementation of an appropriate planning and monitoring system for the better allocation of human and financial resources and to avoid unfair competition from illegal and unsustainable use of forest resources.

In Sabah, Malaysia, the effectiveness of SFMLA is debatable. However, good results emerged in some areas where a certification process is in place, showing that forest management would probably benefit from the existence of a verification/monitoring system exercised by a third party (Toh and Grace, 2006). In China, the partial failure of the two hills system reform, which resulted in unsustainable forest management, is a result of factors that include a failure to identify and address shortcomings in the reform owing to a lack of monitoring and evaluation systems for policy implementation, especially at the local level (Zheng, 2006).

It should be noted, however, that the emergence of new legal mechanisms to support greater forest tenure rights has not always resulted in more robust rights in practice. Where political, social, economic and ecological conditions do not motivate and sustain local management, a supportive legal framework might not make any difference (FAO, 2005).

## 5. SUPPORTING FOREST TENURE REFORM

The forestry sector is beset by constraints, which are the underlying causes of forest degradation. The data and case studies used in this study highlight the fundamental importance of secure tenure rights and the necessary capacity to exercise those rights. Forest tenure in South and Southeast Asia still seems far from providing the sort of incentives that are needed for SFM and increased contribution to PA for the following reasons:

- The area of forests where secure rights for local stakeholders have been devolved remains extremely small. Unclear forest tenure constrains SFM in many countries.
- Current policies and legal frameworks are still largely inadequate to address the security of tenure rights.
- The forestry sector is characterized by an undiversified and poorly adapted system of tenure arrangements, and is slow to adapt to current trends such as decentralization and greater stakeholder participation. The sector also tends to react to shocks in extreme ways, such as logging bans, which further weaken tenure rights.
- The roles, responsibilities and rights of many resource users and managers are still only vaguely defined.
- Customary user rights are generally unrecognized or inadequately recognized.
- Tenure holders need strengthened support and capacity to manage and use forests sustainably.

Secure tenure has much potential to contribute to solving forest degradation and destruction. If this potential is to be realized, far greater emphasis should be given to designing and adapting more effective tenure systems in support of local users, particularly disadvantaged groups, and to providing the necessary supportive legislation.

Experience demonstrates that security of tenure is a necessary but not sufficient condition for effective forest management. The devolution of management responsibilities in a weak institutional framework is bound to fail. Ongoing and future forest tenure reforms need to address the following priority areas.

### *Provide clear and secure forest tenure*

Regardless of the type of tenure system in place, whenever tenure rights are not secured and ambiguous situations arise, SFM is under threat. Clarity of tenure is a strong incentive for SFM as it guarantees benefits from investments made and minimizes conflicts.

***Move forest ownership from single (State) ownership to more diversified tenure***

State ownership and management dominate forest tenure. A more diversified tenure system could be a valid resource for better forest management, particularly in situations where State capacities have been demonstrated to be weak.

***Acknowledge customary management systems***

One of the recurrent elements in the cases analysed is the lack of recognition for community or indigenous management systems. As stressed by FAO (2005) disregarding traditional and customary rights always leads to conflict, lack of interest in long-term management versus short-term immediate benefits, and illegal activities. New and more diversified tenure systems should officially acknowledge the existence of customary management systems, including those of nomadic people.

***Enhance tenure holders' capacity to exercise their rights and manage forest resources sustainably***

Capacity building is probably the most important enabling factor that makes the benefits of a diversified tenure system available.

***Support disadvantaged groups (to address poverty)***

Some of the tenure systems analysed have clear and direct implications for PA and are particularly advantageous for the poorest. However, forests can provide substantial support to PA only when specific pro-poor policies are developed and tenure systems (including rights, management and monitoring requirements, and support systems such as taxation) are designed for less advantaged groups. Tenure itself does not guarantee implications for PA, but it does provide the fundamental basis.

***Give poor people tenure over valuable resources***

The resources and forests over which rural households are granted rights are often of low quality, or are even bare land. While there are examples of local communities improving the condition of marginal forests – and their own incomes – there is no evidence to support the view that the same communities would manage valuable resources badly. Any PA strategy based on forest resources should take this aspect into consideration in order to improve outcomes.

## 6. CONCLUSIONS

Clear, secure and devolved forest tenure is a fundamental requirement for SFM and for improving the role of forests in PA. Although most rural poor people have some access to land and forests, they typically remain poor because their rights to the land are weak and their tenure is insecure (Bruce, 2004). This is particularly true regarding the three dimensions of PA: opportunity, security and empowerment (World Bank, 2000). However, most current policies and legal frameworks continue to limit access to natural resources. The forestry sector appears to have made less progress on this issue than other natural resource sectors, and still provides a largely inadequate framework to address the security of tenure rights.

In South and Southeast Asia, evidence – albeit at a limited scale – shows that tenure arrangements that provide tangible rights to local users are conducive to SFM and livelihood improvement. Most examples reviewed in the case studies indicate that unclear and insecure forest tenure results in the vague delineation of roles, responsibilities and rights for the many resource users and managers, which clearly contributes to unsustainable forest management. In addition, inequitable and inappropriate tenure arrangements generally trigger conflict, bad governance, weak law enforcement, lack of confidence in institutions, and limited interest in forestry, thus ultimately contributing further to unsustainable forest management and wasted potential for PA.

In recent decades, the problem of forest degradation and destruction in developing countries has been addressed through various technical solutions or attempts to pass responsibilities on to local communities, without sufficient attention to the overall institutional framework and with an inadequate understanding of the root cause of the problem. Assessment of these past and ongoing efforts points to the tenure issue as the root cause of poor performance in the forestry sector. Why has forest tenure received such slight attention when agricultural land reform has been on the agenda for a long time? If it is accepted that farmers should have full control over their farms and the products they cultivate, why should the situation be different for private owners or communities managing forests? Given that the returns on investment are far longer-term in forestry than in agriculture, why are tenure rights in forestry much weaker than those in agriculture? The answer to these questions probably lies in the historical context of forestry, which considered forest and timber to be resources of national importance – as are agricultural resources too – and because tenure issues have implications that reach far beyond the forestry sector.

Today there is little disagreement on the forestry sector's need to continue and enhance its reform process, as encouraged by national forest programmes. The Intergovernmental Panel on Forests (IPF) principles that guide the formulation and implementation of national forest programmes explicitly stress the need for the participation of and partnerships with all stakeholders in a shared effort to achieve SFM. Forest tenure should receive the greatest attention, despite its complexity, if these reforms are to succeed.

There is therefore a great need to improve understanding of the implications of forest tenure, stimulate national and international debates on the subject, and raise the awareness of policy-makers, providing them with the arguments and evidence that can stimulate an in-depth reform of the forest tenure system.

## REFERENCES

Bruce, J.W. 1998. *Tenure brief. Review of tenure and terminology*. Madison, Wisconsin, USA, Land Tenure Center.

Bruce, J.W. 2004. Strengthening property rights for the poor. In R. Meinzen-Dick and M. Di Gregorio, eds. *Collective action and property rights for sustainable development*. Washington, DC, International Food Policy Research Institute.

FAO. 2001. *How forests can reduce poverty*. Rome, FAO and DFID.

FAO. 2003. *Multilingual thesaurus on land tenure*. Rome.

FAO. 2005. *Best practices for improving law compliance in the forest sector*. FAO Forestry Paper No. 145. Rome, ITTO and FAO.

FAO. 2006. *Global forest resources assessment 2005*. FAO Forestry Paper No. 147. Rome.

Knox McCulloch, A., Meinzen-Dick, R. & Hazell, P. 1998. *Property rights, collective action and technologies for natural resource management: a conceptual framework*. SP-PRCA Working Paper No. 1. Washington, DC, International Food Policy Research Institute.

Molnar, A., Scherr, S.J. & Khare, A. 2004. *Who conserves the world's forests? Community-driven strategies to protect forests and respect rights*. Washington, DC, Forest Trends.

Scherr, S.J., White, A. & Kaimowitz, D. 2003. *A new agenda for forest conservation and poverty reduction. Making markets work for low-income producers*. Washington DC, Forest Trends, CIFOR.

UNDP/UNEP/World Bank/WRI. 2005. *World resources 2005. The wealth of the poor. Managing ecosystems to fight poverty*. Washington, DC, World Resources Institute (WRI).

White, A. & Martin, A. 2002. *Who owns the world's forests? Forest tenure and public forests in transition*. Washington, DC, Forest Trends.

White, A., Khare, A. & Molnar, A. 2004. *Who owns, who conserves and why it matters*. Washington, DC, Forest Trends.

Wiersum, K.F. & Ros-Tonen, M. 2005. *The role of forests in poverty alleviation: dealing multiple Millennium Development Goals*. North-South policy brief. Wageningen, Netherlands, Wageningen University.

World Bank. 2000. *World development report 2000/2001: attacking poverty*. Washington DC.

World Bank. 2002. *A revised forest strategy for the World Bank Group*. Washington DC.

### ***FAO and Asia Forest Partnership papers***

Dasgupta, J. & Symblich, H.J. 2006. *Trends in tenure arrangements of forest and their implications for sustainable forest management: the need for a more unified regime. A case study from Meghalaya, India*. Rome, FAO.

Deschamps, V. & Hartman, P. 2006. *Trends in forest ownership, forest resources tenure and institutional arrangements: are they contributing to better forest management and poverty reduction? case studies from Indonesia*, with TNC. Rome, FAO.

Guiang, E.S. & Castillo, G. 2006. *Trends in forest ownership, forest resources tenure and institutional arrangements in the Philippines: are they contributing to better forest management and poverty reduction?* Rome, FAO.

Lakanavichian, S. 2006. *Trends in forest ownership, forest resource tenure and institutional arrangements: are they contributing to better forest management and poverty reduction. A case study from Thailand*. Rome, FAO.

Nasir, S.M. 2006. *Trends in forest ownership, forest resources tenure and institutional arrangements: a case study from Pakistan*. Rome, FAO.

Nguyen, Q.T. 2006 *Trends in forest ownership, forest resources tenure and institutional arrangements: are they contributing to better forest management and poverty reduction? The case of Viet Nam*. Rome, FAO.

Simorangkir, D. & Sardjono, M.A. 2006. *Implications of forest utilization, conversion policy and tenure dynamics on resource management and poverty reduction: case study from Pasir district, East Kalimantan, Indonesia*, with Tropenbos. Rome, FAO.

Singh, B.K. & Chapagain, D.P. 2006. *Trends in forest ownership, forest resources tenure and institutional arrangements: are they contributing to better forest management and poverty reduction? Community and leasehold forestry for the poor: Nepal case study*. Rome, FAO.

Singh, K.D., Singh, J.P. & Sinha, B. 2006. *Trends in forest ownership, forest resource tenure and institutional arrangements: are they contributing to better forest management and poverty reduction? A case study from Orissa, India*. Rome, FAO.

Toh, S.M. & Grace, K.T. 2006. *Case study: Sabah forest ownership*. Rome, FAO.

Zheng, B. 2006. *Changes and trends in forest tenure and institutional arrangements for collective forest resources in Yunnan province, China*. Rome, FAO.

## **CASE STUDY I: ORISSA, INDIA**

K.D. Singh, J.P. Singh and Bhaskar Sinha

### **I.1 Introduction**

Orissa has a multiplicity of different forest tenure systems and provides an excellent opportunity for studying various aspects of forest management and tenure, particularly their contribution to sustainable forest management (SFM) and poverty alleviation (PA). The poverty of the people and the scarcity of livelihood opportunities have given rise to many community-driven (bottom-up) approaches and government (top-down) initiatives. This study presents six types of forest resources tenure, five of which occur on state lands: national parks and wildlife sanctuaries, two multiple-use forest management regimes, joint forest management (JFM) and community forestry initiatives. The sixth tenure type is industrial forestry on private land.

National parks and sanctuaries are classified under the Wildlife Protection Act of 1972 and cover 796 185 ha. Two multiple-use forest management regimes are classified under the Indian Forest Act of 1927: reserved forests cover 1 964 000 ha, and protected forests 2 401 000 ha. Reserved forests have clear boundaries and good management plans and constitute the state's most intensively managed forests. Protected forests are less clearly defined, and are beset by uncertainties. Among these, the unsettled nature of their boundaries is a source of serious public discontent, particularly in tribal communities, and is contributing to the rapid destruction and degradation of forests.

JFM is a recent initiative arising out of the 1988 National Forest Policy. It involves sharing forest benefits and forest management responsibility between the state and the community, and it currently covers 652 258 ha. Self-initiated community forest management (CFM) covers 186 900 ha, most of which is in protected forests under State control. The communities involved in CFM may be groups of households, individual hamlets or villages, clusters of villages or federations of 80 to 90 villages. Private forests cover 1 8471 ha of forest land, which is used for industrial objectives.

For each of these types of tenure, the paper provides a short description of the institutional arrangements, legal basis, current status and trends, and analyses the impacts on SFM and PA. It makes a comparative evaluation of the tenure types, and presents recommendations for the future.

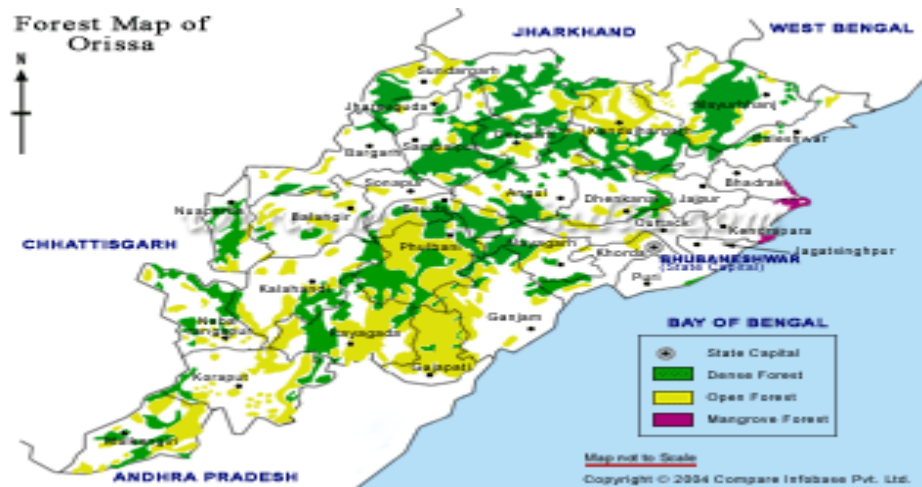
**Disclaimer:** The aim of this paper is not to criticize or commend a particular system of forest management or the parties involved in it, but to assess how effective each system has been in maintaining the integrity of forest ecosystems and contributing to the socio-economic development of forest-dependent communities. The discussion aims to help guide the choice of appropriate options for different forest management situations and to improve existing systems of forest management.

### **I.2 The formal and legal basis**

Orissa is located on the eastern coast of India and covers a total area of 15 570 700 ha. Its population of 37 million inhabitants (Director of Census Operations, 2001) works out at 2.4 people per hectare; Orissa accounts for 4.7 percent of India's total area and 3.6 percent of its population. The state is well endowed with natural – mineral, marine, agricultural and forest – resources, but has a high level of poverty at 55 percent of the population, compared with the national average of 39 percent (NCAER, 1999).



FIGURE 1  
Forest cover in Orissa



Orissa has 5 813 600 ha of forest land, but only 4 836 600 ha of this is covered with vegetation (FSI, 2003). The main forest types are northern tropical semi-evergreen and moist deciduous; the main commercial timber species are sal (*Shorea robusta*), pia sal (*Pterocarpus marsupium*) and asan (*Terminalia tomentosa*); and among the main non-timber species are bamboo, kendu (*Diospyrus melanoxylon*), mahua (*Madhuca indica*) and tamrind (*Tamrindus indica*).

Orissa follows the National Forest Policy of India, which emphasizes the need for balance between ecology and local use rights. The Orissa Forest Act of 1972, which is modelled on the Indian Forest Act of 1927, provides the legal basis for forest management and serves as an important tool. Since the act was enforced, a number of additional laws and rules have been framed to control and manage various activities related to the planning, control and development of forests and wildlife resources.

In 1980, forestry became a matter for central government control, and the Indian Forest Conservation Act was passed. This act aimed to control indiscriminate deforestation by obliging states to obtain central government approval before forest land can be used for non-forestry purposes. States must also compensate for the forest land affected, by establishing plantations that are twice the size of the deforested area. The act has been very effective in slowing down the rate of deforestation, but less successful in controlling the process of forest degradation.

The Orissa Forest Department (OFD) was established in 1936, during the colonial period, and is currently headed by a Principal Chief Conservator of Forests. The forest area is divided into 27 forest divisions, each of which is under a divisional forest officer; the smallest management unit is a “beat”, which is under a forest guard. Working plans are updated every ten years, and research, extension and training services are involved in maintaining and improving the quality of forest management and ensuring a sustainable supply of goods and services. OFD has 280 professional officers and 3 171 forest guards, implying ratios of 21 000 ha per professional officer and 1 830 ha per forest guard.

Table 1 presents a summary of the forest ownership classes and management regimes used in this study.

TABLE 1  
**Ownership patterns and forest management systems in Orissa**

Ownership/contractual regime	Operational forest management regime
I. Public ownership	Owner is the exclusive manager: – national parks/sanctuaries; – reserved forests under multiple-use management; – protected forests under multiple-use management.
	Devolved management rights: – joint forest management (JFM); – community forest management (CFM).
II. Private ownership	Private forest management.

***Type 1: National Parks and Wildlife Sanctuaries***

National parks and sanctuaries cover 5 percent of the state’s land area and 13.7 percent of its forest area, encompassing most critical habitats. Two national parks cover a total of 99 070 ha, and 18 wildlife sanctuaries cover 697 115 ha. Similipal Tiger Reserve has an area of 275 000 ha, which overlaps with Similipal National Park (84 570 ha) and Similipal Sanctuary (190 500 ha). The Wildlife Wing of the Forest Department, with its staff of wildlife wardens, is responsible for wildlife management under the Wildlife Protection Act of 1972.

***Type 2: Reserved Forests***

At present, OFD manages 1 964 321 ha of reserved forests. These were constituted under the Indian Forest Act of 1927 which restricts communities’ rights to the collection of fallen fuelwood and non-timber products from these forests. Reserved forests are well demarcated and managed according to a long-established written code, which is updated every ten years. Some of these forests have been managed since 1886, when grazing control and fire prevention were introduced and regeneration operations implemented.

***Type 3: Protected Forests***

Protected forests constituted under the Indian Forest Act of 1927 cover 2 400 836 ha and are managed by OFD. The boundaries and rights of local communities for this group of forests are not yet clear, and the forests have transitional status only. Protected forests are divided into demarcated protected forests and undemarcated protected forests depending on the progress made in forest settlement.

According to law, the land is under the Revenue Department’s control, while tree growth is under OFD. Most protected forests are close to or within the geographical boundaries of revenue villages and are recorded in the Revenue Department’s Record of Rights as, for example, gramya jungle (village forest). This is confusing, as village forests are legal entities under the Orissa Forest Act.

Before independence, protected forests belonged to princes and landlords. The State annexed them after independence, declaring those with some evidence of earlier management “deemed reserved forests”, and the others “protected forests”. These forests are reported to include some shifting cultivation areas, which are used by approximately 150 000 tribal families. Land with a slope of more than 10 degrees has been declared government land and has not been surveyed, even though some tribes traditionally live on such hills. This has resulted in public unrest and fears of eviction in the communities that may be the rightful owners of the land.

#### ***Type 4: Joint Forest Management***

In India, JFM was formally introduced with adoption of the 1988 Forest Policy, but participatory forest management has a much longer history in Orissa, which OFD has continued by encouraging local communities to protect and manage government forests close to villages. The Swedish International Development Agency (SIDA)-assisted Social Forestry Project gave new impetus to the movement from 1984 to 1994, when timber, fuelwood and fodder plantations were established on village land in cooperation with local people. Village forest committees (VFCs) were officially constituted to protect and manage these newly created forests under the Village Forest Rules of 1985.

On 1 August 1988, the Government of Orissa issued a resolution making provisions for villagers to undertake legally defined responsibility for protecting the forests adjoining their villages in return for concessions that help them to meet their requirements for fuelwood and small timber, under section 24 of the Orissa Forest Act 1972. Divisional forest officers were made responsible for constituting forest protection committees (FPCs) for selected villages.

A further step was taken by a Government of Orissa Resolution of July 1993, following the Government of India resolution on JFM of 1990. The Orissa resolution provides detailed guidelines for local community involvement in the protection of forests through the formation of village-level forest protection committees, called Van Samrakshan Sammittees (VSS), with their own executive committees, duties and responsibilities. A state-level steering committee, chaired by the Forest Minister, was also constituted to monitor and guide implementation of the resolution.

These and other initiatives, taken at different times and by different agencies, gave rise to a movement towards participatory forest management, as summarized in Table 2. The statistics reported in Table 2 may differ significantly from reality because some communities and forest areas are included in more than one programme or have since disappeared altogether.

**TABLE 2**  
**Evolution of participatory forest management in Orissa**

<b>SN</b>	<b>Type of committee</b>	<b>Number</b>	<b>Area (ha)</b>
1	Village forest committee (VFC), 1985	9 141	118 122
2	Forest protection committee (FPC), 1988 and 1990	4 928	1 007 705
3	Van Samrakshan Sammittee (VSS), 1993	1 473	142 318
4.	Unregistered forest protection group (CFM)	769	114 841

*Source:* OFD, 1999.

Participatory JFM arrangements for the protection and regeneration of degraded forests are now well established in Orissa. According to the latest available report, in 2003, 6 822 VSS were protecting 652 258 ha of forest. OFD's main responsibilities in JFM are: assisting in the selection/demarcation of the forest area for JFM; preparing the JFM micro-plan, and obtaining approval and budget for its implementation; transferring sound silviculture and soil conservation skills to VSS members; and guiding the implementation of JFM micro-plans. Recent resolutions indicate that there is a tendency towards greater decentralization and benefit sharing with communities.

### ***Type 5: Community Forest Management***

Community forest management (CFM) represents the antithesis of State forest management, and is sometimes referred to as “self-initiated community forest management”. In Orissa, CFM has no legal basis and is purely informal. Several local tribes are known to have their own active forest protection groups, but very little has been reported or written about these. However, according to a Directorate of Social Forestry survey, there were 2 509 CFM groups/villages in 1999, informally covering a total area of 186 900 ha throughout the state. CFM is more widespread in protected than reserved forests. A sample survey in three districts shows that local non-governmental organizations (NGOs), OFD and the communities themselves are all instrumental in initiating the CFM movement (Singh, Sinha and Mukherji, 2005). CFM is a very healthy sign that communities are taking responsibility for controlling forest degradation and deforestation.

The communities involved in CFM can be a group of households, a settlement or hamlet, a cluster of villages or even a federation of 80 to 90 villages; the areas under protection range from a few to 10 000 ha.

Planning and control of CFM appears to be steered by village or hamlet representatives, who are selected or elected according to local customs and traditions. These traditional institutions are responsible for organizing meetings, where rules and regulations for the management and monitoring of CFM forest resources are collectively decided. The committees also decide how benefits from the resources should be shared, and set punitive measures (social and monetary) for offenders. In CFM, all management issues are discussed and decided in the specific context of the village concerned, taking account of the local community’s needs. This village-level operation makes CFM one of the most decentralized systems in existence.

### ***Type 6: Private Forest Management***

Actors in the paper industry approached the government for allotments of forest land for plantations that would satisfy the industry’s raw material requirements; so far, however, their requests have not been fully satisfied. Many paper mills are now encouraging farmers in Orissa to grow plantations of Casurina, Acacia and Eucalyptus species. The industry assists individual farmers by supplying seedlings and through buy-back arrangements. One Orissa company – the JK Paper Mill – helped farmers to establish 18 471 ha of plantations in 12 districts. To begin with, the mill had to struggle to encourage farmers to plant trees, but once a few successful plantations had been planted, more and more private farmers started to approach the mill, which expects to be procuring all its hardwood requirements from plantations in the near future.

## **I.3 Changes and trends**

### ***Type 1: National Parks and wildlife Sanctuaries***

Although the area of land set aside for conservation has remained relatively unaltered, the number of animals in the protected areas is reported to have increased significantly: tigers are up from 17 in 1972 to 99 in 2001/2002, and in 1999 the other animals reported included 67 leopards, 500 spotted deer, 450 wild elephants and 350 gaurs. Visits to the parks indicate that there is very good management of wild animals and forest cover.

### ***Type 2: Reserved Forests***

OFD’s gradual loss of authority over forests started soon after independence. At present, the management of forests through strict guidelines for sustained yields conflicts with local people’s unauthorized cutting to satisfy their immediate fuelwood and grazing needs, which

are estimated to have increased significantly since independence. Politicians often make policy decisions without consulting foresters.

The Indian Forest Conservation Act of 1980 and the logging ban are examples of the actions taken by the legislature and the judiciary, respectively, to prevent rapid deforestation and the overexploitation of forest resources. However, these measures have not been able to stop unsustainable fuelwood collection, grazing and timber smuggling by organized gangs, the impact of which is illustrated by the fact that in 2001/2002 a total of 58.98 million rupees (RS – slightly more than US\$1.37 million) of illegally harvested forest products were seized, together with 1 140 vehicles. This should be compared with the total revenue received by the state from timber and fuelwood in the year 1999/2000, which was RS52.1 million – less than the value of the smuggled goods seized.

Encroachment and shifting cultivation have become major problems in forest management. Table 3 shows the cases of encroachment offences that OFD booked in one reserve forest block in Rayagada Forest Division covering an area of 10 223 ha, with sal (*Shorea robusta*) as the dominant species. The quality of forest in this area is good, but shifting cultivation has already denuded some of the best forests and is now extending to new areas. Cases of encroachment or smuggling offences often take a long time to be settled and usually end in acquittals.

TABLE 3  
**Forest encroachments**

Year	Cases booked	Area (in acres) encroached	No. of trees felled	Remarks
1999/2000	17	20	454	The case history does not record the area encroached, so the actual area is much greater than that recorded here.
2000/2001	14	3	1 267	
2001/2002	26	10	897	

Source: OFD 2005, field survey reports.

As a result of the logging ban, non-timber forest products (NTFPs) have become the main source of state revenue; their percentage share rose from 35 percent in 1981/1982 to nearly 90 percent in 2001/2002 (Table 4). Kendu leaves (*Diospyrus melanoxylon*) generated three-quarters of the total revenue from forests.

TABLE 4  
**Annual revenues from NTFPs**

Year	Total income from forests (million RS)	Income from NTFPs (million RS)	NTFPs' contribution (%)
1980/1981	372.6	131.9	35.4
1990/1991	1 090.1	904.7	82.6
2000/2001	845.0	757.0	89.5

Source: OFD, 1991; 2005.

### *Type 3: Protected Forests*

The finalization of protected forest boundaries and rules has been very slow (Table 5). Statistics indicate that in the last 30 years only 119 000 ha of protected forests have been notified as reserved forests, and 640 000 ha have been transferred to other land-use categories (e.g., non-forest or degraded forest land).

TABLE 5

**Forest areas by legal class**

Legal status	Forest area (ha)			
	1957/1958	1972/1973	1981/1982	1999/2000
Reserved	2 246 000	2 590 000	2 504 000	2 709 000
Protected	4 316 000	3 885 000	3 492 000	3 008 000
<b>Total</b>	<b>6 562 000</b>	<b>6 475 000</b>	<b>5 996 000</b>	<b>5 717 000</b>

Source: Sahu and Das, 1997.

Because of these unsettled conditions, no effective forest management can be introduced in this vast forest territory. A 1972 report noted with concern that “this valuable asset is being ruined at a much greater rate than is normally imagined. The low level of production of 0.17 m<sup>3</sup>/ha speaks of a very low level of management. The forests are surely capable of producing at least twice as much, if not more. The revenue would also correspondingly double itself. If timely steps are not taken, this valuable asset will be lost for ever” (Ministry of Environment and Forests, 1972).

***Type 4: Joint forest management***

During the last ten years, JFM has spread very rapidly in Orissa, and OFD has taken concrete measures to create local institutions for forest protection and management. The nature of usufruct sharing is evolving constantly, and when committees are constituted, women’s representation is ensured. There are reported to be 6 822 JFM committees protecting a forest area of 652 258 ha, compared with 1 473 VSS protecting 142 318 ha in 1999.

Forest development agencies (FDAs) at the forest division level represent an innovative mechanism for decentralizing power in forest protection, development and expansion. FDAs pass all money for development activities directly to the communities or JFM committees concerned. In order to reduce the demand for fuelwood, cooking gas is being supplied to forest and forest fringe dwellers, free of cost to start with.

The lack of progress in forest settlement is the main bottleneck for the further advancement of JFM. Land is the main source of livelihood for rural people in Orissa, and the non-settlement of rights poses the greatest threat to JFM. While the exact number of people whose rights are affected is not known, it is likely to be large.

***Type 5: Community Forest Management***

CFM was initially concentrated in Dhenkanal, Mayurbhanj, Koraput and Sundergarh districts, and is now spreading rapidly to others. Singh, Sinha and Mukherji (2005) report that CFM has become a mass movement in Orissa, even though it lacks any legal basis. From a field survey of three districts, the authors found that 69 to 75 percent of the existing committees were formed in the last 15 years (Figure 2). This trend indicates the strength of demonstration in spreading CFM.

As well as spreading from village to village, the CFM approach is also showing a trend towards the formation of federations, which provide smaller, village-level institutions and communities with better protection and bargaining power for their NTFPs. The formation of Budhikhamari federation was supported by OFD and the local politician, while collective action at the village level has also led to inter-village cooperation and the development of federations of CFM groups (“F” in Figure 3), which are playing an important role in addressing livelihood concerns.

FIGURE 2  
Evolution of CFM in three districts of Orissa

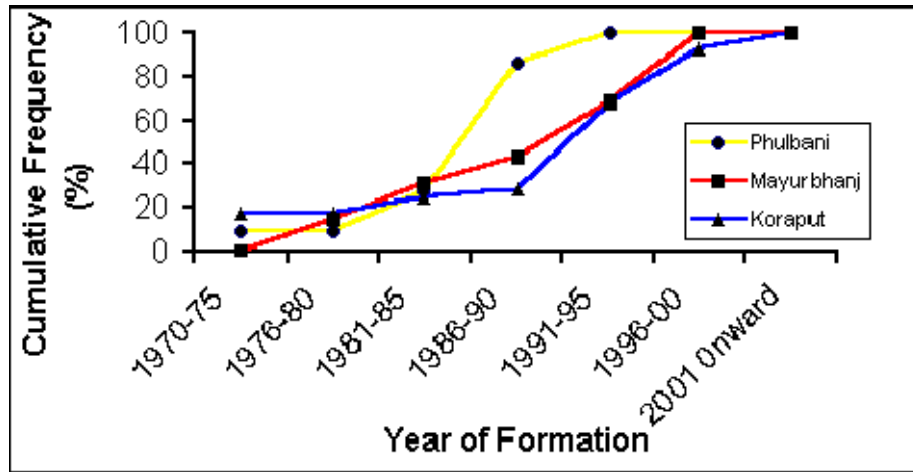
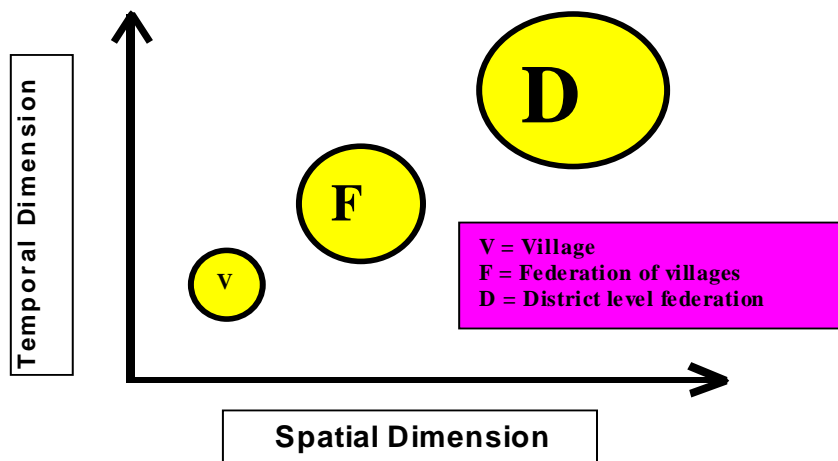


FIGURE 3  
Evolution of CFM in Orissa



The Nayagarh federation provides a good example of the challenges faced by federations at the district level (“D” in Figure 3). This is a large federation, but because it is a forum and not a registered society, OFD contests that a small number of people are using it for their own vested interests. The exercise of rights over forest is beyond OFD’s control, and such alienation may create a situation of chaos when the timber value of the forest has been fully realized. It is therefore felt that OFD should be able to mobilize and harmonize CFM, including by increasing communities’ sensitivity to forests.

**Type 6: Private forest management**

When it became difficult to procure bamboo and royalty rates increased, the paper mills started to use different technology and reduced their need for bamboo. In the past they used 50 percent bamboo and 50 percent hardwood for paper making, but now they rely mostly on locally grown plantations of Eucalyptus, Acacia and Casurina species, and the proportion of bamboo has declined to 15 percent. Home-grown bamboo is preferred because it requires

fewer chemicals than forest bamboo. Currently, the paper industry procures 3 500 tonnes of home-grown bamboo from Assam and Bengal and produces 350 tonnes of paper per day.

#### **I.4 Status and impact of different forest management regimes**

##### ***Type 1: National Parks and Wildlife Sanctuaries***

In general, wildlife management has been very effective, as reflected by the increasing numbers of animals in parks and sanctuaries. The Wildlife Protection Act is an important legal instrument in protecting wildlife against the pressures of a growing population and the commercial interests of poachers. All of India is dedicated to conserving its rich biological diversity.

The government-sponsored Eco-Development Programme is playing an important role. This programme combines conservation measures with economic development of the people residing in and around sanctuaries and national parks, in order to reduce their dependence on forest products and improve the ecological health of the protected areas. The aim is to increase the productivity of land and forest resources so that alternative sources of employment and income become available to forest dwellers. Examples of the measures introduced include developing agriculture, improving land productivity, developing minor irrigation schemes, establishing fodder and fuel plantations, livestock care and improvement, introducing fuel-saving devices, providing medical care and family planning, and building environmental awareness.

##### ***Type 2: Reserved Forests***

There is no doubt that the Indian Forest Act of 1927 prevents the major loss of reserved forests by providing a sound basis for the settlement of boundary disputes, the protection of local rights and the effective control of illegal activities. However, a side-effect of OFD's strict implementation is the arousal of public anger and increased threats to forest staff.

OFD acknowledges that the "reserved forests are not fully stocked and moist deciduous forests are changing to dry deciduous types and becoming more vulnerable to fire. It is estimated that 50 percent of reserve forests are under various stages of degradation, with 30 percent being in severely degraded state with a canopy cover less than 20 percent". Among the reasons cited for the degraded condition of forests are increased smuggling, shifting cultivation, head loading and other biotic pressures. Since enactment of the Forest Conservation Act in 1980, about 26 608 ha of forest has been converted to industrial and other development projects.

The ongoing ban on green logging (since 1992) is a response to the perception throughout India that forest harvesting in the past was unsustainable and adversely affected the long-term ecological and environmental balance. Table 6 sums up the most important strengths, weaknesses, opportunities and threats (SWOT) in state forest management in terms of forest area. The system seems to be facing a great challenge that is unprecedented in India's history of forest management. An ideal solution would be for the state and communities to join hands, as described later in the section on lessons learned.



TABLE 6  
SWOT analysis of forest sector administration

Strengths	Weaknesses
Disciplined, organized staff Long history, tradition and culture Technically sound, well-trained personnel Operational, even in remote, isolated areas Well laid-out forest policy, legislative support, rules and regulations	Short tenure, lack of staff continuity Poor motivation, no incentives for doing good work Use of obsolete technology, poor application of research in the field Work in isolation, poor communication skills, lack of publicity Inadequate funds and investment
Opportunities	Threats
Increased public involvement in forestry and the environment Funding from international and national agencies Access to modern technologies to improve resource management Growth of agroforestry and farm forestry Work with other agencies and sectors	Increasing human, livestock and biotic pressure on forests Encroachments on forest and regularization of encroachers Low government priority to forestry Political interference Conflict of policies with other sectors

Source: D' Silva, 1995.

### *Type 3: Protected Forests*

While reserved forests occur in large blocks, protected forests (which are also called revenue forests as the land is under the control of the Revenue Department) occur in small patches interspersed with habitation. Table 7 illustrates the distribution of population in forest areas of various sizes.

TABLE 7  
Village populations in forests areas of various sizes

Forest area	No. of villages	Total forest area (ha)	Population
< 100 ha	24 861	580 308	13 067 735
100–500 ha	4 036	841 184	2 445 513
> 500 ha	405	358 461	411 520
Total	29 302	1 779 953	15 934 768

Source: FSI, 1999.

Protected forests are affected by local rights and privileges, and subject to heavy shifting cultivation. The protection and management of forests that are less than 100 ha and surrounded by villages poses a formidable challenge, and it is generally accepted that forests are degrading under immense biotic pressure.

The present situation has enormous implications for forest management. For a start, OFD is unable to develop any kind of management plan for protected forests, and in the absence of working plans, the department is prevented from harvesting any timber from these forest lands by a Supreme Court ruling. Thus, even if the current State ban on felling in protected forests were lifted, OFD would not be able to undertake harvesting operations. Its ability to do so in the future is also doubtful unless forest surveying and boundary settlement are completed.

### *Type 4: Joint Forest Management*

Many questions have been raised about the sustainability of JFM. Most forestry institutions still retain the titles, structures and functions designed during colonial times, and there has

been little change in the training and terms of references of staff members such as conservators of forests, working plan officers, divisional forest officers, range officers and forest guards.

JFM is an innovation that places sustainable forest management (SFM) within the framework of integrated area development, where it can contribute to poverty alleviation (PA) in the forested regions of the country. Any forest management system must have a strong element of community participation if it is to be sustainable; the government is taking steps to increase community involvement in forest management, as reflected in successive government orders and resolutions since the new Forest Policy was declared in 1988. The challenge is for JFM to become a real people's movement, as described in the next section, and for OFD to assume the role of facilitator, adviser and capacity builder in the greening of India.

### ***Type 5: Community Forest Management***

CFM groups recognize that their operations have no formal or legal basis. On their own, they have little chance of survival, so they are forming federations in order to mobilize cohesive support. CFM groups also acknowledge that OFD has an important function in supporting CFM efforts, but they are not willing to change from community governance to OFD-controlled JFM. The following observations on CFM forests were made during a sample survey (Singh, Sinha and Mukherji, 2005):

- The forests under most CFM groups are well-stocked, with canopy of more than 60 percent.
- The stands are regenerating naturally, indicating strict protection.
- The dominant species of most CFM stands in Khandamal and Mayurbhanj is sal.
- Strict measures to regulate fires and felling have been introduced.
- Soil moisture has increased, owing to leaf litter accumulation.
- Biodiversity has been enhanced by the protection of fruit and NTFP-bearing trees.
- Trees for household construction are marked and felled under the supervision of concerned members.

Collective action for forest protection has strengthened local institutions and enabled villagers to take up the management of other common pool resources. In some cases, women's involvement in forest protection has increased their self-confidence and ability to deal with the outside world, including government officials.

Singh, Sinha and Mukherji (2005) used a sampling approach coupled with remote sensing to collect their data on CFM. The use of a multi-date remote sensing survey provided change matrices for the years 1990 to 2000 and revealed that CFM practices are – on the whole – contributing to significant increased forest. The CFM system was found to be effective and self-sustainable.

Part of the fieldwork was aimed at identifying communities' awareness of and responses to VSS; their responses regarding different aspects of JFM were mixed. People's reasons for participating in community-driven conservation varied, and only 30 percent of the villages sampled in Kandhamal opted for CFM because it gave them symbolic rights over a patch of forest for conservation, thereby helping them to protect it from neighbouring villages. Some communities felt that VSS had been formed too quickly and involved too few people. In Mayurbhanj, some villages stated that they were willing to join VSS for two main reasons: to obtain symbolic rights over forest patches, thereby helping to protect them from other villages; and in anticipation of grants for village development.

Rural livelihood sources were broadly categorized into agriculture, forest and daily wage labour. Agriculture is the main source of livelihoods in all three survey districts, with the

highest value recorded for Koraput (Table 8). The scope to enhance agricultural productivity in the study area is limited because most agricultural land is rainfed. The focus on developing village infrastructure through various government-sponsored programmes over the last decade has created increasing wage labour employment for local people, and this now constitutes a significant proportion of the overall rural economy. In the absence of other opportunities, however, forest is still an important component of livelihoods; its contribution to livelihoods is greatest in Mayurbhanj and least in Koraput, while wage labour's contribution follow the reverse pattern.

TABLE 8  
**Forest's contribution to livelihood in the three survey districts**

	Kandhamal	Koraput	Mayurbhanj
Total population	648 000	1 178 000	2 223 000
Forest as main livelihood source (people)	194 000	94 000	911 000
Current forest area (ha)	539 000	148 000	413 000
Forest as main livelihood source (people/ha)	0.37	0.64	2.20

Source: Singh, Sinha and Mukherji, 2005.

Among CFM's most important contributions is its reversal of the historic trend of deforestation in the study area. Two of the three districts surveyed – Kandhamal and Mayurbhanj – registered increased forest cover since 1990, particularly Kandhamal. Koraput, on the other hand, showed a continuous decline from 60 to 17 percent over the past 40 years, but there are signs of this reaching a plateau. The continuous decline in Koraput is mainly the result of rampant shifting cultivation.

Per hectare, forests in Mayurbhanj provide the greatest contribution to local livelihoods (Table 8), as the communities in this district are the best organized for processing and marketing NTFPs and have good institutions for forest protection and harvesting. The ranking of social capital from forest protection and resource use in the three districts is Mayurbhanj first, followed by Kandhamal and then Koraput.

#### ***Type 6: Private forest management***

The development of forests under private ownership and in close cooperation with forest industries is very encouraging, and follows the recommendations of the 1988 Forest Policy that “forest industries should raise the raw material needed for meeting their own requirements, preferably by establishment of a direct relationship between the factory and the individuals, who can grow the raw material”. Although limited in area (18 471 ha), private forests are making a useful contribution to forestry development.

Visits to the Eucalyptus plantations around Rayagada showed that progress has been made. Some of the plantations had been harvested, and the coppice crops were close to harvest, promising increased yields with no or only very little extra cost to farmers. The paper mill publishes annual reports on the farmers who have benefited from the plantations. On average, Eucalyptus plantations grown from ordinary seedlings yield 50 tonnes/ha after six years, and the second rotation crop is expected to yield 50 percent more than this. Clonal plantations are expected to yield twice as much. The net income per hectare ranges from RS57 000 to 87 000 (US\$1 300 to \$2 000) with a six-year rotation. This income makes plantations attractive to farmers, particularly on land where agricultural crops cannot produce comparable incomes in the absence of reliable irrigation facilities.

Farmers are reaping significant benefits from the paper mill's plantation programme, and it would be beneficial to find some way of involving the poor people who depend on cutting down forest for shifting cultivation in such plantation programmes. In some areas, good agricultural land is being used for forest plantations, while in others natural forest is being cleared to make way for agriculture. It would be worthwhile looking at the whole scenario of land-use practices.

### *Contributions to PA and SFM*

The concept of poverty has evolved over time, with the emphasis shifting from economic development (e.g., income and consumption) to social issues such as education, health and the vulnerability and powerlessness of poor people. Poverty is now seen as depriving people of their basic human capabilities, rather than merely forcing them to survive on low incomes. Among forest dwellers in India, poverty is the result of small agricultural holdings, lack of irrigation facilities, poor soil, weak infrastructure and facilities, and remoteness from markets. Given the poor returns from agriculture and the limited opportunities for enhancing productivity, forests can play a vital role in reversing poverty, provided that policies are integrated with the social, ecological and economic needs of the society.

Forest management's contribution to PA requires the empowerment of forest-dependent communities, the building of their social capital, and mitigation of the constraining factors that make them more vulnerable to drought and disasters. The more involved the community is in the management system, the greater that system's impact on poverty reduction. CFM has not received much government attention, especially in OFD. Some NGOs have carried out a survey of CFM, but OFD regards this survey as poorly designed and its findings as biased. OFD has always asserted that communities protect their own forest patches, but systematically destroy forests outside these areas.

The concept of SFM has also evolved. In the early stages, sustained timber production was the main goal, then NTFPs came to prominence, and later environmental services. NTFPs have a major impact on the economy of tribal communities, but many NTFPs are used for subsistence only, and their contribution has not been properly accounted for. A holistic view of all the factors concerned is required before the role of forest management systems in SFM and PA can be properly evaluated.

Table 9 presents a subjective evaluation of the contributions of six forest management regimes to PA and SFM in a scale from 1 to 5, defined as follows: 1 = very poor; 2 = poor; 3 = satisfactory; 4 = good; and 5 = very good.

TABLE 9  
**Subjective scores of different forest management systems**

Management system	Average score (%)	Contribution to PA	Contributions to SFM		
			Ecological	Economic	Social
1. National parks and sanctuaries	50	1	5	3	1
2. Reserved forests under multiple-use management	70	3	4	4	3
3. Protected forests under multiple-use management	30	3	1	1	1
4. JFM	75	4	3	4	4
5. CFM	80	5	3	3	5
6. Private forest management	55	3	1	5	2

In Table 9, CFM, JFM and state forest management score fairly highly for both PA and SFM; the management of national parks and sanctuaries and of private forestry score low for PA,

but have the highest marks in their respective fields – conservation and contribution to production forestry, respectively. Protected forests have the lowest overall score, as they are not sustainable and contribute relatively little to PA.

### I.5 Lessons learned and future challenges

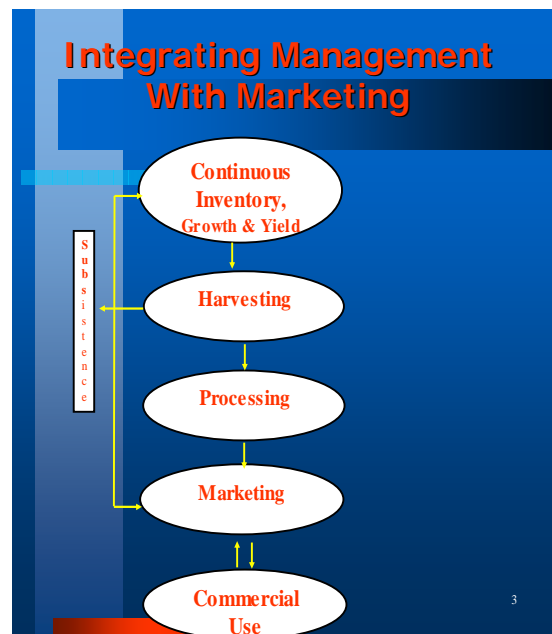
Two major issues for the future can be highlighted. The first relates to the development of an SFM system for NTFPs, and the second is concerned with the empowerment of forest dwellers.

#### *Management, utilization and marketing of NTFPs*

The issues related to NTFPs are the same in all forest resource tenure and management systems, and therefore need to be tackled from a broad viewpoint. Management of NTFPs is not included in any of the existing management regimes, despite NTFPs' vital importance for SFM and PA. As shown in Figure 4, all the phases of NTFP management contribute to the development of local communities. An integrated (sustainable) management and marketing system for NTFPs needs urgently to be developed.

Harvesting (collecting) from the wild is the most primitive way of benefiting from an area's resources. Cultivation implies modernization and includes soil preparation, sowing, planting and breeding. Irrigation and fertilization sometimes change the relevance of natural production factors drastically, and usually entail temporary or permanent changes to the quality of natural sites.

FIGURE 4  
Integrating the management and marketing of NTFPs



NTFPs are currently divided into the following three categories of regulation:

- *Nationalized NTFPs*: Three items – kendu leaves (*Diospyrus melanoxylon*) since 1963, sal seeds (*Shorea robusta*) since 1973, and bamboo (*Dendrocalamus strictus* and *Bambusa arundinacea*) since 1988 – are nationalized forest products, whose procurement and trade are directly controlled by the government.

- *Lease barred items:* Most of these are items whose harvesting affects the trees – bark, leaves, oilseed and gums. They are restricted and directly controlled by OFD.
- *Deregulated NTFPs:* The procurement and trade of these 68 NTFPs have been largely freed from OFD's regulatory control. Ownership was transferred to local governing bodies called Gram Panchayats (GPs) in March 2000, and the Minor Forest Produce Administration Act was passed in 2002.

The results of deregulating 68 NTFPs have been mixed. Only a few are traded in significant quantities, and prices have declined for many. In addition, the system has increased uncertainty for traders, as there are usually many players at the local level, which creates competition. In most areas, OFD staff would like to renationalize these NTFPs, but NGOs are of the opinion that capacity building for GP institutions and the self-help groups of primary collectors could address some of the anomalies.

In the meantime, GPs are neither equipped nor well-placed to handle the procurement and trade of denationalized NTFPs, even after four years of the new arrangements. The following questions have been raised about the effectiveness of GPs in controlling and regulating local trade and traders:

- Have GPs been able to initiate a process to create multiple buyers to replace the previous monopoly?
- Have GPs encouraged and motivated producers' cooperatives, primary groups and people's organizations?
- Are primary collectors receiving fair prices for their produce?
- Have GPs succeeded in controlling illegal trade and exploitive harvesting?
- Are primary collectors protected from cheating by intermediaries?
- Will the new rules promote the sustainable management of NTFPs?

The answers to these questions need to be assessed carefully in order to identify the next steps in improving the capacity of primary collectors to benefit from deregularized NTFPs.

### ***Empowerment and sustainable development of forest fringe dwellers***

After 120 years of forest management, Orissa is leading the nation by introducing several new forest initiatives. At the time of independence, the state's forests covered nearly 6.6 million ha, broadly classified into two legal categories: reserved forests, with well-defined boundaries and very limited local rights; and protected forests, with unsettled boundaries and unformalized local rights. At the end of the millennium, state forests still covered 5.7 million ha, thanks to strict control by a well-organized forest service (now OFD) with a long history of planning and management. One important lesson learned from the history of forest management is the need to take expeditious action to settle uncertainties about the legal issues affecting forests; as population pressure increases over time it becomes more and more complex to settle rights, because emotive issues start to affect rational decisions. Regarding directions for the future, the following issues are emerging as very relevant:

- OFD should cede more forest management responsibility to communities by taking up a more advisory and extensionist role and giving communities more control over planning.
- OFD should develop innovative strategies for monitoring and evaluating SFM. Local communities should be empowered to manage their forests, with micro-plans acting as guides rather than mandatory documents.
- Local communities should be allowed to sell their forest produce according to their own preferences and convenience, with social safeguards from the government.

- The relationship between VSS created for JFM and local village-level institutions responsible for overall development needs to be clearly defined.

The situation is most precarious in protected forests. In the absence of recognized rights over land, people have been displaced without compensation. Examples of this are the Soil Conservation Department's establishment of cashew plantations for lease to private parties on 120 000 ha of tribal cultivated land, and the Supreme Court's ban on forest activities on slopes of more than 10 degrees, for soil conservation reasons. These acts of omission and commission have led people, especially tribal people, to continue cultivating and living on lands over which they have no valid title.

CFM is a bold experiment with a promising future. The most remarkable feature of CFM is that it is born out of communities' desire to meet their own forest-related needs in response to changing socio-ecological conditions, uncertainties and livelihood insecurity. However, the role of CFM as a valid forest management system can be questioned for two main reasons. First, the concept is confined to the protection of small patches and is sometimes associated with the destruction of forest in the surrounding area, so the question of sustainability remains unresolved. Second, CFM institutions have no formal basis, and communities and OFD are suspicious about one another. The concept could be extended to larger areas if communities were made aware of the more sustained incomes they would achieve and if government departments supported communities' use of forests to increase socio-economic development. The role of the government has to be redefined and redesigned on the basis described earlier in this paper.

Of the forest management systems discussed, CFM seems to represent the largest input of social capital, which is a necessary condition for the successful implementation of PA programmes in the long term. Most schemes and programmes aiming at development fail to achieve their targets because the design of development packages does not take account of the social capital available. This was illustrated by the trends of forest cover change reported in the three districts surveyed by Singh, Sinha and Mukherji (2005).

The 73rd Amendment to the Indian Constitution of 1992 made it mandatory for all states to decentralize governance through a three-tier structure of state, district and local bodies. This constituted an important landmark in the democratization of India in constitutionally recognizing village councils and empowering them to safeguard and preserve local traditions, customs, cultural identity, community resources and customary modes of dispute resolution. Among the 29 functions recommended for decentralization, three relate to forestry – social forestry, fuelwood plantations and NTFPs – so the legal basis for effective people's participation in forest protection and management is now available. However, the modalities of this process and the working relation between JFM and local bodies are still to be formalized.

There is an urgent need to change the system of forest governance, as there is for all aspects of civil administration. According to Rangachari and Mukherji (2000), "the post-independence administration has merely continued from where the colonial government had left. It can be plausibly argued too that the new administration has introduced complexities not only in forest management or the role of the tribes with reference to their habitat, but also the relationship of the citizen to the government. It has done this by introducing a multiplicity of functions and jurisdictions without any real or effective local self-government. In the process, matters have become complicated for the citizen owing to a proliferation of sub-departments with functions pertaining to a narrow focus".

The authors also state that "if indeed the progression to a more holistic and people-centred system of resource management takes place, as envisaged in these pages, the eventual

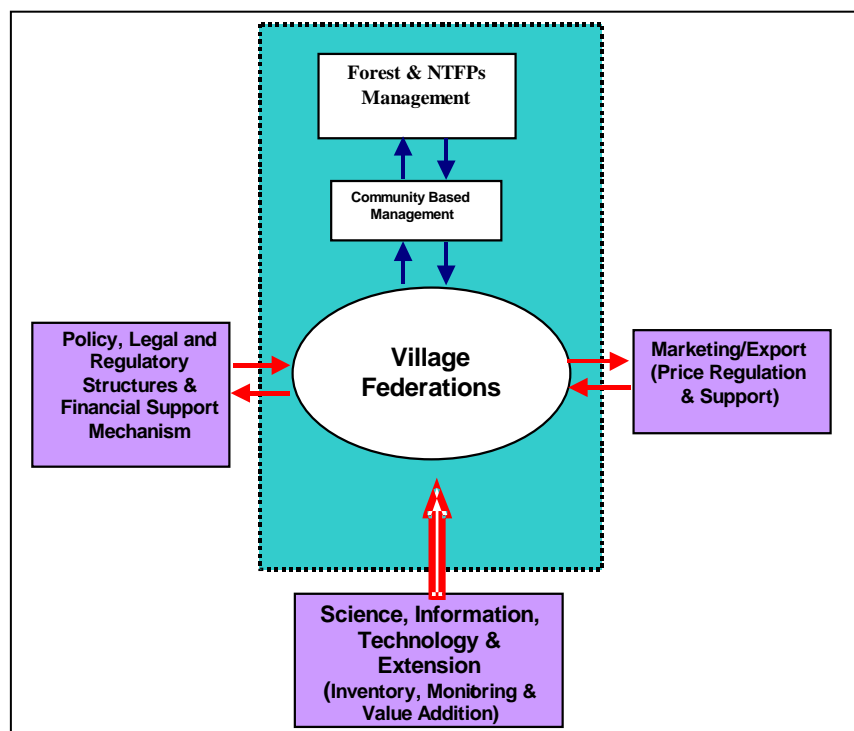
withdrawal of the government from roles other than that of a facilitator of the programme may well be in prospect. Meanwhile, while JFM may be a process-oriented activity, structure is also important as long as the government remains in the saddle, and this needs to be appreciated”.

There is need to create innovative institutions based on adaptive management and a more equitable and inclusive decision-making process. The potential of NTFPs to contribute to tribal economies is immense and not yet fully realized. Figure 5 illustrates the framework of an SFM system, including the technical, ecological, social and economic dimensions. This model is currently under experimentation in Orissa’s Baripada Development Block.

The large rectangle in Figure 5 shows communities’ increased share of responsibility for forest management; the other three rectangles show the role of government, which includes:

- establishing legal, regulatory, conflict resolution and enforcement structures for the management of forest and common land resources, including a mechanism to redirect part of the revenues from the management of forests to local communities and to compensate communities for loss of revenue due to closure of areas for regeneration or other technical reasons;
- organizing science, information, technology and extension services to support the planning, monitoring and evaluation of forestry development and PA programmes, and periodic reporting on the progress and constraints in PA;
- marketing, processing and value addition: in the case of NTFPs, there is market as well as institutional failure; there are possibilities for private–public partnerships for the cultivation, processing, value addition and marketing of timber and NTFPs.

FIGURE 5  
Conceptual model for the management of NTFPs





According to Singh and Marzoli (FAO, 1996), OFD has to make some difficult decisions in order to change forestry institutions by fostering a sense of social responsibility and a focus on meeting the economic and social needs of people. Among the many pessimistic scenarios regarding India's forests, there is a more positive scenario wherein technical and social goals can be harmonized. This option calls for the intensive management of forests within an overall framework of integrated area development, an appropriate institutional environment and ideological change, in which investment, technology and people's participation constitute inseparable parts.

It is hoped that the lessons learned from this study will be useful in realizing the twin goals of SFM and community development: the dream of "village republics" that the Father of the Nation – Gandhi – described in 1963 in *The village reconstruction*.

## References

- D'Silva E. 1995. *The role of forest departments in the 21st century*. Washington, DC, World Bank, Economic Development Department.
- Director of Census Operations. 2001. *Census of India*. Orissa.
- FAO. 1996. *Forestry in India: yesterday, today and tomorrow in the framework of country capacity building project in forest resources assessment*, by K.D. Singh and A. Marzoli. Rome.
- FSI. 1999. *State of forest report 1999*. Dehradun, India, Forest Survey of India (FSI), Ministry of Environment and Forests.
- FSI. 2003. *State of forest report 2003*. Dehradun, India, Forest Survey of India (FSI), Ministry of Environment and Forests.
- Gandhi, M.K. 1963. *The village reconstruction*. Bombay, Bhartiya Vidya Bhavan.
- Ministry of Environment and Forests. 1972. Legal status of forest areas in a few selected states. Agenda for the Meeting of Study Group 5, 14 July 1972. New Delhi.
- NCAER. 1999. *India human development report*. New Delhi, Oxford University Press.
- OFD. 1991. *A decade of forestry in Orissa, 1981–90*. Aranya Bhawan, Bhuwaneshwar, Orissa, India.
- OFD. 1999. *Capacity building for participatory and sustainable management of degraded forests in Orissa*. Bhuwaneshwar, Orissa, India.
- OFD. 2005. *Orissa forest status report*. Aranya Bhawan, Bhuwaneshwar, Orissa, India.
- Rangachari, C.S. & Mukherji, S.D. 2000. *Old roots new shoots, a study of joint forest management in Andhra Pradesh*. New Delhi, Ford Foundation.
- Sahu, N.C. & Das, B.N. 1997. Forest policy in Orissa: A third visit. In P.M. Mohapatra and P.C. Mohapatra, eds. *Forest management in tribal areas*, pp. 43–57. New Delhi, Concept Publishing.
- Singh, K.D., Sinha, B. & Mukherji, S.D. 2005. *Exploring options for joint forest management (JFM) in India*. Rome, FAO and Washington, DC, World Bank.

## CASE STUDY II: MEGHALAYA, INDIA

Joy Dasgupta and H.J. Symlieh

### II.1 Introduction

India has a long and varied history of forest tenure and management systems, dating back to the second century BC. Tenure arrangements have varied from rigid State control to forms of community-controlled forest land, the nature of control being dictated by the needs of the State; for example, small-scale farmers and pastoralists were completely excluded from the elephant forests of the Mauryas. This situation of diversity continued until the arrival of the United Kingdom colonists (Gadgil and Guha, 1992), whose strongly utilitarian and mercantile philosophy had no place for the tenure rights of local communities. Overriding the claims of local communities, the colonizers proceeded to annex much of India's forest land through a series of legal measures that were introduced between 1865 and 1878 (Gadgil and Guha, 1992). During annexation, forest land was neither defined nor categorized (Rosencranz and Diwan 2001) – it all became State-owned forest land.

At present, according to the state forest departments, India has 76.52 million ha of forest area, constituting 23.28 percent of the country's total area. Forest area has been classified into reserved (54.44 percent of the total), protected (29.18 percent) and unclassified (16.38 percent) forest. Forest ownership is mainly with the government, but clans and communities own significant areas of unclassified forest in the northeastern states.

The seven northeastern states of Meghalaya, Mizoram, Nagaland, Tripura, Arunachal Pradesh, Manipur and Assam have the largest areas of unclassified forest in India, and these are controlled by local communities with very little State control. Although the United Kingdom colonizers tried to introduce greater State control to this region in the nineteenth century, the combination of remoteness and resistance from the local people thwarted their attempts. Forest rebellions in the late nineteenth and early twentieth centuries halted the spread of reserved forests and the government annexation of clan lands, a situation that continues today.

This study outlines the evolution of forest tenure practices in Meghalaya, with particular reference to the colonial and post-colonial situations. It also reflects on the implications of changing tenure patterns on forest management practices in the state.

Meghalaya covers an area of 2.24 million ha between latitudes 25°02' and 26°07' N and longitudes 89°49' and 92°50' E. The state is mainly plateau except for narrow strips in the north, west and south. Elevation ranges from 150 m to 1 950 m above sea level. Major rivers of the state include the Simsang, Manda and Ganol in the Garo hills and the Umiam, Umtrew and Kupli in the Khasi and Jaintia hills. The western part of Meghalaya is warm, with mean temperature ranges of 12 to 33 °C, while the central upland is relatively cooler, with a mean minimum temperature of 2 °C and a mean maximum of 24 °C. Average annual rainfall varies from 4 000 to 11 436 mm, and Cherrapunjee and Mawsynram – which have the highest rainfall in the world – are located in Meghalaya. The state is hilly, the undulating hills in the north contrasting with the steep and abrupt slopes of the southern fault zone. This area is part of the Meghalaya plateau, which is the source of many rivers flowing into the Brahmaputra and Barak systems. The highest elevation in this area is Shillong Peak (1 961 m).

#### *Forest resources*

Meghalaya's forest land covers 0.95 million ha, accounting for 42.34 percent of the state's total area. Of total forests, reserved forests account for 10.33 percent, protected forests for

0.13 percent and unclassified forests for 89.54 percent. The control of most unclassified forests rests with the autonomous district councils of Khasi hills, Jaintia hills and Garo hills.

The forests of Meghalaya are rich in biodiversity and endowed with rare species of orchids and medicinal plants. Major forest types found in the state are subtropical pines, tropical wet evergreens, tropical semi-evergreens and tropical moist deciduous. Sacred groves, mostly located in the Khasi and Jaintia hills, represent particularly highly valued vegetation in the area. Based on satellite data from December 1998, forest cover is 15 633 km<sup>2</sup>, or 69.7 percent of the state's total area. Dense forest covers 5 925 km<sup>2</sup> and open forest 9 708 km<sup>2</sup>. The discrepancy between forest area according to land records and forest cover reported by satellite data is a major issue, and is probably mainly the result of land regeneration and fallowing during the process of shifting cultivation.

### *Classification of forests*

The State Forest Department has classified the forests of Meghalaya into the following six categories (Tiwari et al., 1999):

- Reserved forests (including government forests, national parks and sanctuaries) cover 993.0 km<sup>2</sup> and are owned and controlled by the State Forest Department. These forests are among the best in the state, and local communities have very few rights over them.
- Unclassified forests, which cover 7 146.5 km<sup>2</sup>, are forests where local communities have all the rights and *de facto* control. Most of these forests are used for shifting cultivation.
- Private forests cover 384.0 km<sup>2</sup> and belong to individuals, who use them primarily for personal consumption.
- Protected forests cover 129.0 km<sup>2</sup> and are used by local communities, primarily for personal consumption. Local communities have rights to these forests, but they are controlled by the State Forest Department, which considers the status of protected forest as an interim measure; the department intends to convert these forests into reserved forests.
- Village forests, which cover 25.9 km<sup>2</sup>, were demarcated and registered by the village community under the United Khasi–Jaintia Management of Forests Act 1958. Most of these forests are used for subsistence purposes.
- Community (Raij) forests, which cover 768.0 km<sup>2</sup>, are large community forests (Raij means commune) that are managed by the Raij or commune head under the local administrative head.

These different types of forest have different impacts on people's livelihoods. Reserved and protected forests have very little direct influence on livelihoods, as they are managed almost entirely by the State Forest Department and local people cannot legally extract anything from them – especially not from reserved forests. Unclassified forests provide the backbone for livelihood generation, as these are the areas where most shifting cultivation takes place. Village, community and private forests are used mainly for meeting the subsistence needs of communities in terms of fodder and fuelwood.

## **II.2 Land tenure**

Tenure arrangements are linked to the traditions of a society. The case of the Khasi and Jaintia hills is well documented; there are three major categories of landownership system in

this area (Simon, 1996): community-owned areas; privately owned lands; and state-owned reserve forests.

### ***Community-owned areas***

Community lands, including forest areas, have a number of uses, which are reflected in their names. In the Khasi and Jaintia hills, the functions and purposes of most forests are based on village administration and religious perceptions. Community forests are known as Law Kyntang, Law Adong, Law Lyngdoh, Law Shnong, Law Raij, Law Sumar, Law Kur, etc., denoting the usages to which they are supposed to be put (H.J. Symlieh, personal communication). Land tenure was not disturbed by the colonial presence in these areas, as only a few areas were acquired outright by the United Kingdom colonizers, while most of the smaller territories were treated as though they were beyond the borders of colonial India (Simon, 1996). After independence, the prevailing land tenure and practices were recognized and maintained in the district council legislation. The United Khasi–Jaintia Management of Forests Act of 1958, recognized Law Kyntang, Law Lyngdoh and Law Niam as areas managed and controlled by the Lyngdoh (religious head) or by the person or people responsible for carrying out local or village religious ceremonies. Law Shnong and Law Adong were defined as village forests for conserving water etc.; they are used by the villagers and managed by the Sirdar or head with the help of the village durbar.

Law Raij are looked after by the heads of the Raij or commune under the management of the local administrative head (Government of Assam, 1958). Law Ri Sumar belong to individual clans, while private forests belong to the individual or clan who established or has inherited them (Ri Kynti).

Most land in the Garo hills is forested and belongs to specific clans. These lands are known as A'king lands and are theoretically controlled by the community through the Nokma. However, the Nokma is a woman, and actual control of A'king land falls to her husband (Dutta, 2001).

In the Khasi and Jaintia hills, the presence of sacred groves and village forest is an integral part of tribal belief and culture, which gives divine connotations to the forests and groves where the village's spirit and god protectors (U RyingkewUBasa) reside. Recent tenure and management systems recognize the sanctity and status of such forests.

In the Garo hills, A'king lands are owned by the clans and managed by the clan heads. There are no sacred forests in the Garo hills, but the people believe that the spirits of the dead reside in thick forests. Garo forests are used for slash-and-burn agriculture with adequate return cycles, and other traditions are still followed, in spite of the many changes that have taken place (Dutta, 2001). All 7 146 km<sup>2</sup> of unclassified state forests is controlled by communities.

### ***Private and clan forests***

The establishment of private and clan forests is an age-old practice throughout Meghalaya, and is becoming more common in many areas as the drive to privatize resources gains momentum. Although private and clan forests cover a comparatively small area, when taken together with community forests they account for more than 88 percent of the state's total forest area.

According to the Forest Management Systems in Meghalaya project (Meghalaya Department of Forests and Environment, 2001), "sacred groves (Law Lyngdoh/Law Kyntang) with a total area of about 10 511.7 ha, are found scattered in different places of the Khasi and Jaintia Hills and are generally found below the hill ridges. These groves are considered to be the storehouse of a variety of plant genetic resources".

These groves range from 0.01 to 900 ha in area, and sometimes a stand of five to eight trees is given the status of a sacred grove (Tiwari, 1999). These patches of forest belong to the clan/community or individuals and are under the direct control of the clan council or local village durbar (Syiemsships, Dolloiships, Nokmaships). They represent the unique forest ecosystem of the region and are very rich in flora and fauna, testifying to the efficacy of traditional forest management systems in the state (Meghalaya Department of Forests and Environment, 2001).

### *State-owned forest land*

Although state-owned forest land is the smallest tenure system in terms of the land area managed, it is also the best funded and best managed owing to its strongly coercive management approach. State-owned forest land accounts for 12 percent of total forest area, but contains some of the best forests. State-owned forest land also benefits from central government funding, and given that most of these forests were acquired in the nineteenth century, there is a reasonably well staffed state bureaucracy to manage them.

The implication of these tenure systems is that there are multiple-stakeholders at the individual, clan, village and regional levels, with the state at the apex. This creates a very complex system with overlapping sets of responsibilities. Table 1 simplifies the categories of forest land, by including Raij land in the other categories, for example.

TABLE 1  
**Tenure arrangements in Meghalaya**

Community forests	Sacred groves	Reserved forests	Protected forests	Private and village forests
7 916.0 km <sup>2</sup>	105.0 km <sup>2</sup>	993.0 km <sup>2</sup>	129.0 km <sup>2</sup>	409.9 km <sup>2</sup>

### **II.3 Institutions involved in forest management**

Three major institutions are responsible for forest management in Meghalaya: the State Forest and Environment Department; the Autonomous District Councils of Garo, Khasi and Jaintia; and the community.

Formal forest administration seems to have arrived in the areas that now make up the state of Meghalaya sometimes in the 1870s. According to available records, the first reserve was Saipung Reserved Forest in the Jaintia hills, which was created with an area of 150 km<sup>2</sup> by Notification No. 26 of 25 July 1876. The most recent reserve to be created was Riat Laban Reserved Forest in the east Khasi hills, which was created with an area of 0.2 km<sup>2</sup> by Notification No. For. 179/80/187 of 28 March 1988. At present, there are 24 reserved forests within the state: three in the Jaintia hills; nine in the east Garo hills; seven in the west Garo hills; and five in the east Khasi hills. The total reserved forest area comes to 713 km<sup>2</sup>, while the state's five protected forests cover a total area of 12 km<sup>2</sup> (Meghalaya Department of Forests and Environment, 2001). The reserved forests created by the Indian Forest Act of 1927 provide the most protection; all the community rights in these areas are restricted, and all entry and use are allowed only on payment of fees, which are deemed to provide concessions rather than rights (Gadgil and Guha, 1992). Protected forests are far more accessible to local communities, whose rights continue to be exercised in protected forests. The best forests were designated as reserved forests, and less valuable ones as protected forests.

The Forest Department of Meghalaya started to function independently in 1970 with two divisions: the United Khasi–Jaintia Hills Division and the Garo Hills Division. The department now has 17 divisions, with three more likely to be established in the near future. The main focus of the department is on ecosystem restoration, public awareness raising, afforestation programmes and the preservation of catchment areas. It has a total staff of approximately 450 people and a total annual budget of about US\$15 million.

Of Meghalaya's estimated total forest area of 9 496 km<sup>2</sup>, only 993 km<sup>2</sup> is under the control of the State Forest Department. About 1 127 km<sup>2</sup> is managed by the district councils of Khasi hills, Jaintia hills and Garo hills as per provisions in the Sixth Schedule to the Constitution of India. The remaining forest cover is under community, clan and private landownership (Meghalaya Department of Forests and Environment, 2001).

TABLE 2  
**Meghalaya forest area**

Total area of state	Reserved forest	Protected forest	Unclassified forest	Total forest	Percentage of total land area
22 429 km <sup>2</sup>	981 km <sup>2</sup>	12 km <sup>2</sup>	8 503 km <sup>2</sup>	9 496 km <sup>2</sup>	42.3%

Reserved forests are managed according to five-year working plans, which are prepared by the state government; protected forests are managed mainly for the preservation of catchments areas. The State Forest Department collects royalties on all minor forest products and minerals from reserve forests and other forests that are controlled by the district councils; the department shares the revenues with the district council concerned in a ratio of 40:60 (Meghalaya Department of Forests and Environment, 2001).

### *State Forest Department*

The organizational set-up of the State Forest Department is as follows:

- Principal Chief Conservator of Forests and Chief Wildlife Warden;
- Chief Conservator of Forests (Social Forestry and Environment) and Chief Conservator of Forests (General and Wildlife), followed by Conservator (Social Forestry and Environment) and District Forest Officers for each district, and Conservators of Forests;
- four District Forest Officers for Wildlife and four for Research and Training;
- 250 subordinate service staff members, such as Forest Rangers, Deputy Rangers, Foresters, Forest Guards and ministerial staff of the Directorate of Forests.

The main responsibility of the State Forest Department is to manage reserved forests and the sanctuaries that have recently been set up for wildlife conservation. Until recently, the department followed a protectionist management approach that sought to keep people out of such areas, but recently it has started to constitute joint forest management and ecodevelopment committees. It receives grants from the central government to improve forest management, and is currently upgrading its infrastructure framework.

### *District councils*

#### The Sixth Schedule to the Constitution of India

Since colonial times, certain parts of northeastern India have been demarcated as excluded or partially excluded areas. These areas were inhabited almost entirely by tribal populations with their own indigenous and autonomous administrative and legal structures. The United Kingdom colonizers made separate legal provisions for these areas because they were reluctant to interfere in tribal matters.

After independence, the makers of the constitution also acknowledged the special status of the people in these excluded regions, who had not been included in the mainstream and were therefore behind in terms of development. The Sixth Schedule to the Constitution of India was promulgated in response to this recognition.

The Sixth Schedule is a very elaborate piece of legislation, which has undergone many changes through constitutional amendments, parliamentary legislation, presidential orders and central government notifications since it was first enacted. Put in simple terms, the Sixth Schedule gives excluded and partially excluded areas special status by granting them greater autonomy than other areas in the same state. The main motive for this special treatment is to protect the people in these areas from dangers, including the risk of losing their land to more sophisticated people from the plains, such as moneylenders (Hidayatullah, 1979).

Each district council has its own forest wing with personnel responsible for forest management. The State Forest Department arranges training in various aspects of forestry for the personnel of district councils, and sometimes deputed senior state forest officers to the district councils. At present, the forest wings of the district councils are each constituted by a Chief Forest Officer, an Assistant Forest Officer, 16 foresters, 32 assistant foresters, and 64 forest guards.

In response to sections 3 (a) and (b) of the Sixth Schedule, the state government transferred the administration, management and control of all forests other than reserve forests to the district councils in January 1956 (H.J. Symblich, personal communication). About 8 500 km<sup>2</sup> of forest came under the jurisdiction of district councils in this way. However, although the autonomous district councils are supposed to control most of the forest land in Meghalaya, they have very few human resources for doing so. In addition, most of the land they manage is plantation, so although the councils have developed forest bureaucracies, they have not really been following the notions of “scientific” forest management. In addition, they do not receive much funding from the state government.

In practice, these forest lands function as community land or private property (Ri Kynti), and are managed according to the customary rights and traditions of the local political set-up. The district councils have de jure ownership over the erstwhile colonial areas, such as the Sirdarship and B–Mahal areas, although these too tend to fall into local community control. In addition, a total of about 7.8 km<sup>2</sup> of Rajj forest scattered throughout the Khasi and Jaintia hills is controlled by local communities (Meghalaya Department of Forests and Environment, 2001).

With the exception of reserve forest, the district councils collect 50 percent royalties from all their forests, but most of these forests are subject to hazards such as fire, cattle grazing and unscientific and random tree felling. Even since the Supreme Court’s timber ban in 1996, sporadic felling of trees, bamboo, etc. continues in the forest areas managed by district councils. This may be owing to a lack of sustained effort, effective planning and well-thought-out protection for these forests on the part of the district councils (Dutta, 2001).

There are two sources of conflict in this complex managerial scenario. The State Forest Department has started to create ecodevelopment and joint forest management committees for sanctuaries and reserve forests, respectively. These are supposed to be participatory forest management units and have funding support for activities that include the establishment of plantations and medicinal plant nurseries, among other income-generating activities. The first source of conflict lies in the fact that the district councils have not introduced similar schemes to their forestry areas, so poverty alleviation receives very little attention in overall forestry planning throughout the state. The State Forest Department’s innovations have remained out of reach for most people in Meghalaya.

The second source of conflict lies in the fact that the current legal regime grants district council control over much of the forest estate, but in reality the land is owned by local communities and people, who see forests as a resource to be mined for economic benefits. Local communities do not receive economic returns for forest preservation from the district councils, and so they have little interest in sustainable forest management. District councils have also tended to rely too much on revenues from timber and transit fees, while paying insufficient attention to the long-term implications of such forest exploitation. Thus, forestry provides income, but in a way that is not sustainable for the long term.

#### The United Khasi–Jaintia Management of Forests Act

Forest management in the Khasi and Jaintia hills provides an example of a system in which formal and non-formal management structures have been integrated. If properly implemented, such systems have tremendous potential for sustainable management.

The forests to which the United Khasi–Jaintia Hills Autonomous District (Management and Control of Forests) Act 1958 applies are classified into the following categories:

- *Private forests*: These belong to individual or joint clans and are situated on recognized inherited private lands (Ri Kynti).
- *Law Ri Sumar*: These belong to individual or joint clans and are situated on inherited, village or common Raij lands.
- *Law Lyngdoh, Law Kyntang, Law Niam (sacred groves)*: These are set aside for religious purposes and are managed by Lyngdohs (religious heads) or other people with responsibility for carrying out the religious ceremonies of a particular locality.
- *Law Adong and Law Shnong*: These are reserved for the village and managed by the Sirdar and head with the help of the village durbar.
- *Protected forests*: These are areas for the growth of trees and forests that benefit the local inhabitants. They are managed and owned by the local village.
- *Green block*: These are forests belonging to an individual, a family, a clan or a joint clan. They are situated on Raij land that the government has declared “green block” for the provision of aesthetic beauty and water supply for Shillong town and its suburbs.
- *Raij forests*: These are looked after by the heads of the Raij and are under the management of the local administrative head.
- *District council reserved forests*: These have been declared as such by the Executive Committee.
- *Unclassified forests*: These were known as unclassed state forests before the Constitution of India. They are directly managed and controlled by the government and include forest(s) not falling within any of the other classifications.

The 1958 act can be considered a pioneer act for forest administration within the district council areas of northeastern India. Most district councils continue to apply it today, with minor modifications. In 1960, the United Khasi–Jaintia Hills Autonomous District Rules were added, according to which all the private forests – including sacred groves (Law Lyngdoh, Law Kyntang and Law Niam) – in the areas of district councils are to be registered (Chapter I section 2) with the Chief Forest Officer, giving the home addresses of all the people owning forest, together with the forest boundaries and other particulars.

According to the Principal Act (Act I of 1989), Law Lyngdoh, Law Kyntang and Law Niam are to be managed by the Lyngdoh or person(s) to whom the religious ceremonies for the particular locality or village(s) are entrusted, in accordance with customary practice and



subject to the rules that may be framed by the Executive Committee from time to time (section 4 (b)). The Lyngdoh is a religious and not an administrative head.

No timber or forest products from Law Lyngdoh, Law Kyntang and Law Niam can be removed for sale, trade or business. To remove any timber or forest product required for religious purposes, the Lyngdoh can apply through the Local Administrative Head for a free permit from the Chief Forest Officer or any forest officer authorized by the Executive Committee to act on the chief's behalf (Rule 31 [9] of the 1960 rules). Although this makes it seem as though the state controls the use of timber and other products from these forests, this system has hardly ever operated, and permission is seldom sought. The reasons for this failure to function include a lack of coordination among different managers, resulting in the creation of extra bureaucratic layers of decision-makers, which in effect have converted local village decision-making bodies into recommendatory bodies.

The permits issued by the Chief Forest Officer or the authorized forest officer of the district council specify the quantities of timber and other forest products that can be removed, provided that no trees are felled unless they have been marked by an officer of the district council or sanctioned by the Lyngdoh for religious functions or ceremonies.

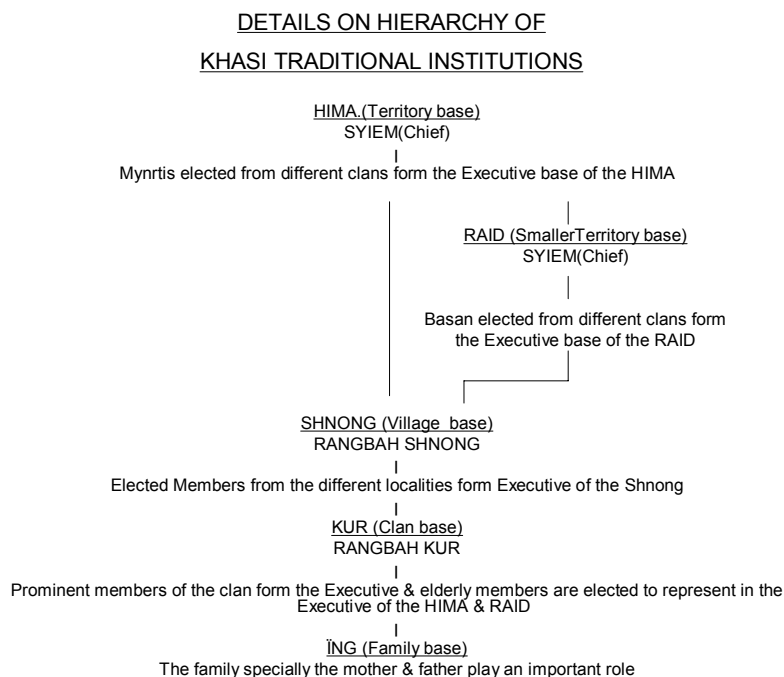
### *Traditional institutions in the Khasi–Jaintia hills in the post-colonial era*

Local government institutions are one of the pillars of the Indian administrative system, particularly in the frontier areas. The practice of self-governance is centuries old, even in the Khasi hills, and predates much of the modern terminology now used to describe it. Khasis have been managing their own social, economic and political affairs through Syiems (chiefs) on the basis of freely given popular consent for many generations (H.J. Symlieh, personal communication).

Khasi politics are state- rather than village-based, and there are 25 Khasi states, 16 of which are Syiemships, while one is a Wahadadarship (Wahadadar means civil official), three are Lyngdohships (sacrificer or priestly king) and six are Sirdarships (village chief or elder). The non-states (which were called British areas in the colonial administration) comprise 32 villages, which are divided up into Doloiships (deriving from the Tibetan for a religious shrine) and Wahadadarships with jurisdictions over groups of villages. Sirdars and Dolois have similar powers to those of Laskars.

The Syiem is the head of the state and runs day-to-day administration with a cabinet, which administers markets, collects fines, etc. The Syiem and cabinet also act as the judge and jury in judicial cases, according to the functions assigned to them by the district council. In the past, the Syiem also determined foreign policy. Syiems are hereditary positions with limited powers; they are maintained by market levies, which are sometimes shared with the cabinet members. Syiems have no power to make laws and their authority over the departments assigned to them is clearly defined. Owing to the matrilineal inheritance tradition, Syiems are succeeded by their nephews or brothers. This rule subsists in appointments to all offices in the state. Women are not entitled to succeed as Syiems, unless there is no male heir. Women are however the custodians of ancestral property, and the Syiem-sad – the mother, maternal aunt or sister of a Syiem – is regarded as the custodian of state ceremonies and the titleholder of crown lands. A system of dual Syiemship has been set up in some states, where two Syiem families administer the state together. The state is known as the Hima, implying that it has organic and ethical unity. The Ki khun–ki hajar, or indigenous population, is exempt from taxes, but other residents are not.

FIGURE 1  
Traditional Khasi institutions



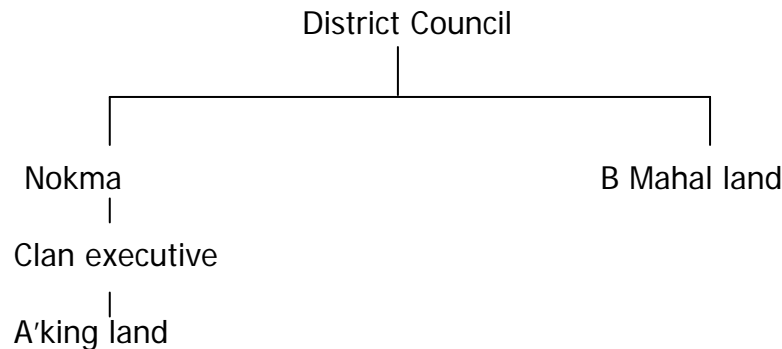
With the onset of the Sixth Schedule and the establishment of the district councils, continuation of the political, social and economic roles of traditional chiefs has created contradictions and conflicts, even though the Sixth Schedule was set up to safeguard customs and traditions. District councils function more as custodians than administrators because they lack the long-established relationship with the people – which includes belief in the divine agency of traditional rulers – that forms the foundation of traditional government in the Khasi–Jaintia hills. This has lessened the democratic spirit of government in these areas (H.J .Symlieh, personal communication).

### *Traditional institutions in the Garo hills*

In the Garo hills, the land is not under the direct control of the district council, but instead belongs to the clan as A'king land. It is under the custody of its female head, the Nokma, whose husband acts on her behalf in all clan decision-making; the Nokma has no authority to take decisions on land and its use. Decisions are meant to be collective among representatives of the clan. These lands include large areas of thick forest.

Sacred groves are under the control of the Nokmas, whose jurisdiction covers 15 to 20 villages each. The beliefs attached to sacred groves in the Garo hills are similar to those in the Khasi and Jaintia hills; groves are protected and cannot be used for any purpose (Tiwari, 1999). Forest areas that are not used for cultivation are also left untouched, and trees cannot be felled in a radius of at least 10 m around springs and other sources of water. Other land, known as B Mahal, is under the direct control of the district council, which can use it according to its needs.

FIGURE 2  
**Traditional institutional set-up in the Garo hills**



### *Changes in land tenure*

Given the complexity of the different systems in force in Meghalaya, forest management is bound to be complicated. Although there was little visible change until the 1970s, attitudes have gradually been transforming, and less value is now attached to forests and sacred groves. As a result, tenure is also changing, but conflicts continue to arise. The move from traditional community (collective) systems to unknown private systems is unlikely to strengthen communities, and may create problems in the future. It is also important to note that changes in tenure are likely to lead to changes in society's value system.

## **II.4 Case studies**

### *Khasi hills*

In the Khasi hills, there are many sacred groves – their exact number is not known. Some of these forests have degraded, but others are standing the test of time. Locally, sacred groves are known as Law Kyntang, and they have been created since time immemorial. Overseeing and protecting the groves is the prime duty and responsibility of the local Lyngdoh. It was the Lyngdoh, along with the village head and elders, who originally consecrated the forest to sylvan and village deities, and the cutting of trees and removal of forest products are prohibited, except when they are used within the precincts of the forest.

Among the sacred groves that still exist is the one at Mawphlang. This was established about 500 years ago for revering and offering sacrifices to the god protectors of the village (Lyngdoh of Mawphlang, personal communication). Tynra also has a surviving sacred grove, which was established some time after the 1897 earthquake.

Mawkhlam-Nongpyndeng in the west Khasi hills is an example of a sacred grove that has ceased to exist. Instead, the villagers have resolved to keep a large tract of land under forest, even buying more land from local people to add to it. In this area there are about 19 forest patches, which are for community use at various times. Management of these forests is solely by the community, and people can exploit the benefits of some forest patches, while the use of others is restricted.

### *Jaintia Hills*

Among the sacred groves in the Jaintia hills is Jowai, whose date of establishment is unknown, although it has existed for a very long time. This sacred grove is associated with the

religious festival Beh Dien Khlam, and rituals are performed in it at the end of the festival when a rooster is sacrificed.

The sacred grove at Umsiang village in Ri Bhoi district is no longer used for religious rites and has recently been converted by its private owner (with traditional legal approval) for the planting of betel leaves. This village has a good forest conservation record, and stopped logging activities even before the 1996 ban on timber extraction was introduced (H.J. Symblich, personal communication).

TABLE 6  
SWOT analysis of forest sector administration

Strengths	Weaknesses
Disciplined, organized staff Long history, tradition and culture Technically sound, well-trained personnel Operational, even in remote, isolated areas Well laid-out forest policy, legislative support, rules and regulations	Short tenure, lack of staff continuity Poor motivation, no incentives for doing good work Use of obsolete technology, poor application of research in the field Work in isolation, poor communication skills, lack of publicity Inadequate funds and investment
Opportunities	Threats
Increased public involvement in forestry and the environment Funding from international and national agencies Access to modern technologies to improve resource management Growth of agroforestry and farm forestry Work with other agencies and sectors	Increasing human, livestock and biotic pressure on forests Encroachments on forest and regularization of encroachers Low government priority to forestry Political interference Conflict of policies with other sectors

Source: D' Silva, 1995.

### *Garo hills*

Some A'king lands have been transformed from forests to plantations, mainly of cashew, orange, tea, rubber, pepper and coffee. Such use of forest land is usurping the community's traditional land rights, which can be transferred permanently and claimed even after many generations (Nimesh Ved, personal communication).

## II.5 Discussion

### *Historical setting*

In Meghalaya, land tenure has been a significant issue for many generations. Most of the population depends on subsistence agriculture, but there is also a flourishing iron industry in the Khasi hills. Such products as iron implements, orange, betel leaves, areca nuts, cotton and herbs are sold in the plains, and food items are bought.

In general, the colonial period had little impact on land tenure, except in a few areas such as Shillong, where leasing was introduced. The post-independence period also saw few changes, because the local government (the United Khasi and Jaintia District Council and the Garo Hills District Council at that time) maintained existing land tenure conventions. The transition to a district council-based management system was in many ways the main change in forest management, but the emergence of the district councils as land managers brought problems to the forest areas (apart from government ones) over which they had control, because the councils' forest management was very poor and there was almost no control of tree felling.

The district councils owed their new importance to a combination of factors that enabled them to emerge as the owners of forests in Meghalaya. Among these factors was the fact that – compared with the rest of India – Meghalaya had made no real forest acquisitions (Dutta, 2001). In addition, the early twentieth-century uprisings based on forest grievances in the Garo hills had resulted in forest reservation being viewed as a last resort. These situations were aggravated by the passage of such laws as the United Khasi–Jaintia Management of Forests Act (1958) and the Garo Hills District Forest Act (1958).

The critical issues to emerge in the early post-independence era were that notions of management were very vague, the framers of the relevant legislation had not clearly defined what they meant by such terms as “looking after”, and there were no working plans or scientific guidelines for forest management. These omissions would come back to haunt forest administrators about 30 years later, but at the time the situation was considered adequate.

### *The current era*

The onset of a predominantly market economy changed the situation in Meghalaya in the 1970s and 1980s. Timber extraction suddenly became very lucrative because there was a substantial market for timber in the plains to the north. Timber extraction was supposed to be regulated by the district councils, but two factors hampered and discouraged their activities in this regard. First, although district councils had constitutional authority to manage forests, and the local chieftains were supposed to be under their authority, most traditional chiefs did not acknowledge the councils’ authority. Second, the councils depended on transit fees and other cesses on timber exports, which in some cases contributed up to 70 percent of council revenues.

An example illustrates this situation. According to the Garo Hills Forest Act of 1958, a levy (called an A’will fee) could be paid by anyone, including outsiders, who wanted to extract forest products from A’king lands. The money raised from these fees was divided between the Nokma and the council in the ratio of 25 to 75 percent, resulting in uncontrolled depletion of forest cover on a massive scale. By the beginning of the 1990s, it was clear that most forests outside the reserve forests were seriously depleted and degraded. At that time, the State Forest Department was questioning the district councils’ technical competence to manage their forests and was seeking greater control of state forests in response to the risk of widespread deforestation (T.T.C Marak, personal communication). Forest management was seen to contribute little to local sources of livelihood because most chiefs or district councils made few efforts to redistribute the income from A’will fees or to use it for value addition of products or livelihood generation. In addition, many landowners were using their timber resources to accumulate income rapidly, without paying any heed to sustainability issues. Timber extraction itself had little impact on livelihoods as it was monopolistic (H.J. Symlieh, personal communication).

The stage was set for a major confrontation as reports of widespread deforestation in northeast India emerged from the forest survey of India and other agencies. In 1996, the bubble burst, when the Supreme Court of India intervened to preserve the forests of northeast India in response to reports of illegal timber felling and the Forest Conservation Case, which had been filed in February 1995 (Rosencranz and Diwan, 2001). Relying on evidence from satellite images, the court concluded that extensive deforestation had taken place and ordered a total ban on timber extraction throughout northeast India, irrespective of forest ownership. Forests in the autonomous district councils were clearly included in this ban. In a stroke, all timber operations in the region were deemed illegal. This came as a deathblow for the timber industry, but in many ways it led to the development of real forest management. In 1998, the

court permitted the resumption of logging for operators whose working plans had been approved by the central government. The court's main intention was to systematize and regulate the forest management scenario of India's forested areas, thereby filling the gap left by the United Khasi–Jaintia Management of Forests Act, which codified customary notions of usage and management, but made only very cursory reference to sustainable and systematic management. Through a series of orders, the court clearly outlined the organizational process of forest management and proposed some best practices for forest management in the northeastern region (Rosencranz and Diwan, 2001).

In Meghalaya, the illegitimization of the timber trade meant that many landowners had to return to previous sources of income (H. Karbih, personal communication), local-level functionaries lost their main source of income and the district councils lost a substantial part of their revenue base, although the exact sums concerned are difficult to establish. On a more positive note, steps have since been taken to convert a laissez-faire regime into a more regulated one. All three district councils have drawn up work plans and submitted them to the central government, but the plans have yet to be cleared (Deputy Chief District Forest Officer, Khasi Hills Autonomous District Council, personal communications). The State Forest Department persists in its belief that the district councils lack the technical competence to make viable and sustainable work plans, which are undoubtedly complicated by the ruggedness of the terrain and the multiplicity of landowners involved.

#### *Needs and lessons learned for the future*

At present, the main need is the will to continue the process of regulation; a combination of approaches may be the best option, and it might not be possible to initiate all of these simultaneously. The legal system also needs to be reformed to take into account the management of forests for ecosystem services and biological diversity, rather than continuing with the old mindset of "forests are for timber only". The capacity of district councils needs to be upgraded and their land management role emphasized, in contrast to their current role as the collectors of revenue. Landowners need to be compensated and provided with financial incentives to change their land-use practices. The orders of the Supreme Court are pointers in this regard, as they direct the central government to provide monetary and non-monetary incentives for forest-rich states. The Government of Meghalaya can definitely benefit from this and help to improve forest management in the state.

No full land survey has been carried out in Meghalaya, so it is difficult to assess the success of forest management throughout the state (D. Wahlong, personal communication). However, it seems that nearly all examples of successfully managed community forests are sacred groves, most of which have been managed for a very long time, and there are very few examples of new forest conservation initiatives. This probably has more to do with specific conditions in Meghalaya than with any intrinsic flaw in the concept of using district councils for forest management. In other parts of the northeastern region, district councils seem to be better managed. In Mizoram, for example, they have their own reserve forests and demarcated village reserves, and much of the original biodiversity has been preserved (Singh, 1996). Another significant development in some areas is the emergence of youth organizations, such as the Young Mizo Association (YMA) and similar student organizations in Nagaland. These have started to discuss conservation and are making efforts to convince their local communities to set aside land for conservation; village student organizations act as watchdogs for YMA reserves in Mizoram and village wildlife reserves in Nagaland for example. Such initiatives need to be encouraged in Meghalaya if the state's forest areas are to survive. The district councils in Meghalaya need to develop greater commitment to the principles of good governance, rather than viewing themselves as the providers of bureaucratic jobs. The three district councils in Mizoram offer good examples in this regard.

## **Conclusion**

While traditional institutions in the colonial and pre-colonial periods were reasonably successful forest managers, changes and conflict arose when district councils were introduced as the managers, when in reality they were just the overseers. The situation was exacerbated by the emergence of a lucrative timber market, which encouraged landowners to extract timber rather than manage their forests. In spite of the subsequent Supreme Court orders that sought to establish scientific management, problems persist because none of the actors are properly equipped to carry out the new responsibilities thrust upon them.

The main need now is to build district councils' capacity to work with local communities in promoting better notions of forestry. Although the councils may be the *de jure* owners, it is the local leadership that controls forests, and policy prescriptions need to take this into account by creating incentive systems for different stakeholders to encourage them to think beyond timber. The Supreme Court Order regarding biodiversity fees to be disbursed to biodiversity-rich states offers a good starting point in this. Today's forest ownership and institutional framework need to adopt more of a stewardship paradigm that takes a more long-term view of the returns from forestry and forest management.

## **Recommendations for Sustainable Management in Meghalaya**

The following recommendations can be made for sustainable forest management in Meghalaya:

- The State Forest Department should be developed as a service provider for landholders, encouraging them to concentrate on non-timber forest products.
- The district councils need to think less about earning revenue and more about management.
- The state should provide non-monetary and monetary incentives to communities that are successfully protecting their forests as ancient sacred groves or modern biodiversity reserves.

## **References**

- Dutta, R. 2001. *Community managed forests in Meghalaya*. Socio-Legal Information Centre, India.
- Gadgil, M. & Guha, R. 1992. *This fissured land: an ecological history of India*. India, Oxford University Press.
- Government of Assam. 1958. *The United Khasi–Jaintia Management of Forests Act*. Publishing Department Government of Assam, India.
- Hashah, J. 2004. Community sacred groves. A case study of Laitkynsew and Tyrna villages. Shillong, India, Department of Geography, NEHU. (unpublished M.A. dissertation)
- Hidayatullah, M 1979. *The Fifth and Sixth Schedule to the Constitution of India*. Gauhati, India, Ashok Publishing House.
- Kothari, A., ed. 1996. *People and protected areas: towards participatory conservation in India*. India, Sage Publications.
- Meghalaya Department of Forests and Environment. 2001. *The state of forests in Meghalaya*. Government of Meghalaya, India.
- Pde, L.H. 2002. *Ka Khlaw Kyntang, Deofavente*. Shillong, India.
- Rosencranz, A. & Diwan, S. 2001. *Environmental law and policy in India*. India, Oxford University Press.

Roy Burman, B.K. 1996. Forest and tribals in India. In L.P. Vidyarthi, ed. *Applied anthropology in India (principles, problems and caste studies)*. Allahabad, India, Kitab Mahal.

Saxena, N.C. 2002. Forest in India; trees of the people. *Hindu Survey of the Environment*, pp. 47–51.

Simon, I.M. 1996. *Gazetteer of India, Meghalaya District Gazetteer – Khasi Hills*. Shillong, India, Directorate of Arts and Culture, Government of Meghalaya.

Simon, I.M. 1996. *Gazetteer of India, Meghalaya District Gazetteer – Garo Hills*. Shillong, India, Directorate of Arts and Culture, Government of Meghalaya.

Simon, I.M. 1996. *Gazetteer of India, Meghalaya District Gazetteer – Jaintia Hills*. Shillong, India, Directorate of Arts and Culture, Government of Meghalaya.

Singh D.1996. *The last frontier: land, forests and people a case study of Mizoram*. India, Tata Energy Research Institute.

Syiemlieh, H.J., ed. 2003. *Community forest management in Khasi Hills (a case study of a few community- and clan-managed forests)*. Meghalaya, Report Submitted to National University of Juridical Sciences, Calcutta, India.

Tiwari, B.K., ed. 1999. *Sacred forests of Meghalaya. A project report*. Shillong, India, NAEB, NEHU.

Tiwari, D.N. 1994. *Forest and environment*. Dehradun, India, International Book Distributor.



## CASE STUDY III: NEPAL

B.K. Singh and D.P. Chapagain

### III.1 Introduction

#### *Background*

The institutional arrangements for Nepal's forestry subsector have undergone major changes in the last half century in terms of tenurial arrangements and the ensuing management practices. Prior to 1957, a large segment of the country's forests were owned and managed privately, although some forests were under other forms of tenure, such as those owned by religious trusts or the State. At that time, there was no ceiling on the area of land that an individual or family could own. In 1957, the government nationalized all forests and took over their management responsibility. This radical change in forest tenure was accompanied by the implementation of officially sponsored resettlement schemes, which involved clearing several thousand hectares of forest lands in the southern plains, called the Terai. The combined effect of forest nationalization and forest clearing led to illegal tree felling in nationalized forests and the establishment of illegal settlements on forest lands. In retrospect, an important factor that was ignored in the nationalization of forests was the rural people's dependence on forests for a wide range of products, such as fodder, bedding materials for animals, roofing materials for houses and other non-timber products for different uses.

As could be expected, the government's management of nationalized forests was generally poor because it defied the time-tested traditional system of community management of natural resources as common property. This led to recognition of the advantages of decentralizing forest management as community forestry, initially on an experimental basis. As a result of the positive results achieved from the experiment, the government decided to recognize formally the decentralized management of nationally owned forests. This provided the background for the evolution of the different systems of forest tenure that are observable in Nepal today.

The purpose of this paper is to contribute to a better understanding of the relationship between forest resource tenure and forest management, with a focus on the implications for poverty alleviation. The term "tenure" is used here to imply a bundle of rights that are recognized by law and custom and that a person, a group of people or a private or public entity holds in land or trees. The paper seeks to examine the nature of these rights, their origin, their operationalization and the ways they relate to other activities, including the planting, conservation and utilization of trees.

#### *Sources of information and methodology*

This study's review and analysis of policy and legislation are based on the available official documents; the statistics used are based on available secondary and anecdotal information. Two different sources of data and information were used. Information about trees on privately owned land came from the National Sample Censuses of Agriculture, published by the Central Bureau of Statistics (CBS). These provide information on the trees planted by farm households, broken down by district and size of holding, for the survey years 1991/1992 and 2001/2002. However, the reporting methods of these censuses differ, so the comparability of the information available from these sources is also limited. The earlier (1991/1992) survey reports the total number of trees standing at the time of survey, while the later one reports separately the area of compact plantation, the number of trees on this and the number of trees scattered on the entire holding. Information on community and leasehold forestry came from

the Department of Forest, the Department of Forest Research and Survey and various projects and programmes supported by bilateral, multilateral and international donors.

Additional information was collected during field visits and discussions with forestry staff and community forest user groups (CFUGs). The study researchers visited remote Himalayan, mid-hills and Terai districts and discussed different types of forest ownership, the forest management systems used and their contribution to poverty reduction with forestry officials, field staff and the officials of CFUGs, leasehold groups and the Federation of Community Forest User Group in Nepal (FECOFUN).

To the extent permitted by the available information, comparisons were made among different systems of forest tenure – private, community and leasehold – and their management systems.

### *Definitions, scope and limitations*

This study focuses on the tenure of forest resources and its influence on the planting, conservation and utilization of trees. According to the Forest Act of 1993, any area that is wholly or partially covered by trees is defined as a forest. FAO defines forest as “all lands with a forest cover, i.e., with trees whose crown cover is more than 10 percent of the area, that is not used primarily for purposes other than forest” (FAO, 2004). This definition emphasizes that forests are not used primarily for purposes other than forest, but is less clear on the meaning of forest use. This study uses the Forest Act definition, which uses the term forest to include all trees other than the horticultural plants that have been planted in privately owned and operated lands. The study covers three types of forests: private, i.e., trees planted on privately owned land; community; and leasehold.

The study examines the broad national context for community and leasehold forestry, concentrating more on policy aspects than on operational details. In addition to analysing the available data, it also discusses the socio-psychological aspects that drive changes, particularly the confidence that arises among beneficiaries from a sense of ownership in forest management.

The depth of the analysis and discussion is influenced by the limitations of the information available. As well as a general shortage of information, the available data (as indicated in the preceding subsection) are not always comparable, and this is a major limitation. Information on leasehold and community forestry is limited to the number of forest user groups, the average size of such groups, and the approximate area of land occupied by community and leasehold forests.

Leasehold forestry is directed to the “poorest of the poor”. In rural Nepal, the area and quality of land operated by a rural family is the main indicator of its poverty, so it is reasonable to assume that the households covered by the leasehold forestry programme own either no or very little land. This is one of the major assumptions of the following analysis.

The criteria for designating a community forest are different. A community living in the vicinity of a patch of hitherto degraded forest, and willing to contribute to its rehabilitation, can be entrusted with its management and utilization within the framework of an agreed management plan. The management plan generally gives priority to rehabilitation through regeneration and does not encourage the planting of exotic species or fruit trees. In this tenancy type, no discrimination is made according to the size of holding, incomes or other socio-economic factors of participating households.

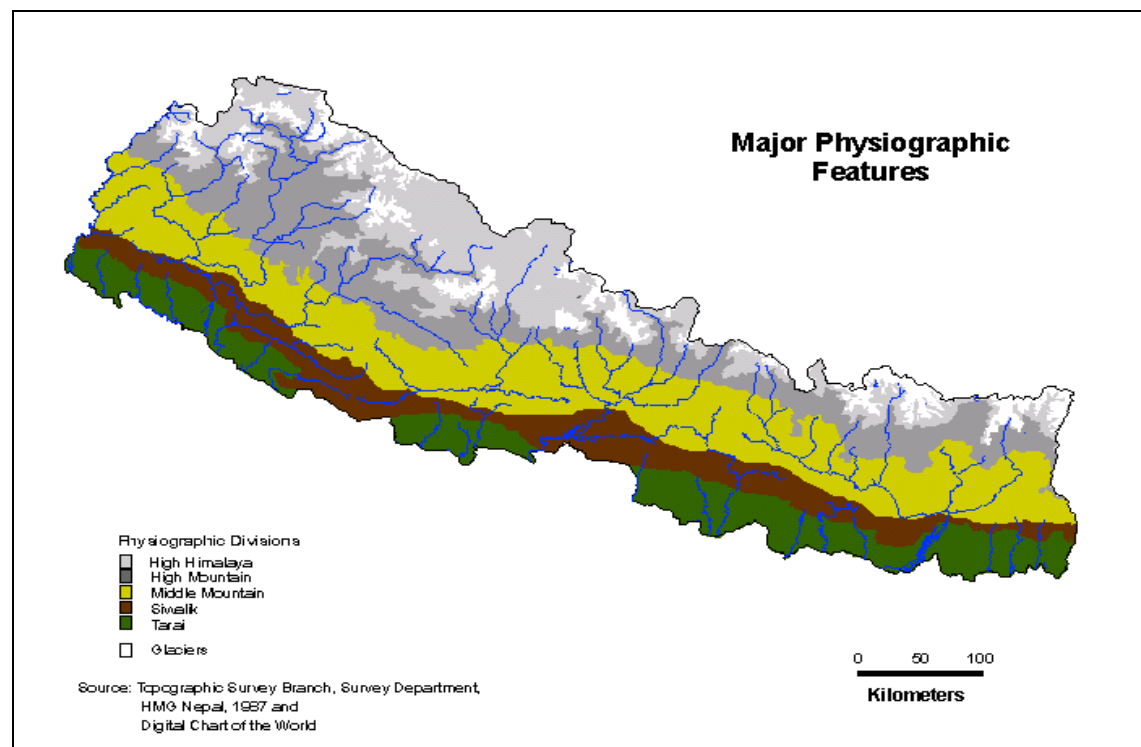
The policy analysis part of the study focuses on the existing legislative instruments and official policies. Their evolution and underlying rationale are reviewed when it is necessary to clarify a particular issue.

### *The country context*

Surrounded by China in the north and India in the east, west and south, Nepal is a landlocked country that lacks opportunities for large-scale timber trade via sea transport. It covers a total area of 147 181 km<sup>2</sup> of very diverse land.

There are three broad topographic regions based on altitude and terrain: mountains, hills and Terai (plains in the south). Physiographically, the country is divided into four broad regions: mountains, hills, Siwaliks and Terai (Figure 1). Mountain and hill regions are generally intercepted by valleys, many of which have similar temperature conditions to those of the Terai. The average temperature decreases as altitude increases. Nepal is in the southwest monsoon region, and average rainfall generally decreases from east to west. The agro-ecological diversity created by the wide-ranging altitudes (and hence temperatures), rainfall patterns and soil types has contributed to the country's extremely rich and diverse biodiversity.

FIGURE 1  
**Major physiographic features of Nepal**



### *Ecological diversity and the role of forests in livelihoods*

Ecological diversity has also contributed to the evolution of a variety of complex farming systems. About 87 percent of Nepal's population of 24 million people pursue subsistence and semi-subsistence farming systems that integrate crop production with animal husbandry and depend on forest products for household use and animal husbandry. Generally, the role of livestock in farm incomes increases with altitude. Almost all farm households keep some bovines for farm power and manure, but the exact number depends on access to forest and common pasture for fodder and bedding materials. Forests thereby also contribute to maintaining soil fertility by supplying materials for the domesticated animals that generate farmyard manure, which is still the main source of fertilizer in Nepal, although mineral fertilizers are becoming popular in accessible areas. In addition, forests are a source of wild

fruits and other edible plants, and the major source of medicinal plants. In summary, forests are an inalienable part of Nepalese livelihood systems, as is recognized by existing policies and reflected in the legislative instruments currently in force.

### **III.2 Policies, laws and government organizations concerning forest resource tenure**

#### *Policies and laws*

Two laws and the policies related to them have the greatest influence on forest resource tenure: the Forest Act of 1993<sup>5</sup> and the Lands Act of 1964. The first provides tenure systems for forests – including private, leasehold and community forestry – while maintaining State ownership of all forest lands. The following are the categories of forest defined by the Forest Act:

- *National forest*: All forests other than private forest, regardless of the demarcation of their boundaries and including cultivated or uncultivated land, roads, ponds, lakes, rivers, streams and the shingly land that is surrounded by or in the vicinity of a forest.
- *Government-managed forest*: National forests managed by the government.
- *Protected forest*: National forests that the government has declared protected in consideration of their environmental, scientific and cultural importance.
- *Community forest*: National forests that have been entrusted to user groups (as defined in clause 25 of the act) for development, conservation and utilization in the interest of the community.
- *Leasehold forest*: National forests that have been leased (according to clause 32 of the act) for specified purpose(s) to a legally defined institution, forest-based industry or community.
- *Religious forest*: National forests that have been entrusted to any religious entity, group or community as specified in clause 35 of the act.
- *Private forest*: The planted or protected forests on land that belongs to an individual as per the prevailing law.

These definitions make it clear that ownership of all except private forests rests with the State. The differences among categories of forest regard only access to the forest.

Although the Forest Act created an opening for private forestry, it still reflects the Private Forest Nationalization Act of 1957 by inserting a clause (clause 39) on registration. This states that any individual or institution willing to register a private forest may do so at the District Forest Office, which can then issue a certificate of registration. The purpose of the 1957 act, as indicated by its title, was to nationalize the then privately owned forests. Although not mandatory, the mere existence of this clause is a source of concern, especially because of the nationalization of private forests in the past.

The impact of the 1957 act, combined with the launching of resettlement programmes, led to a decline in national forest cover, from 51 percent in the 1950s to 45.6 percent in 1964. To address the problem of encroachment on nationalized forests a new Forest Act was promulgated and enforced in 1961. This was the first law specifically designed to protect nationalized forests, while “maintaining the interest of the common people”. However, this law too failed to address the problem of forest encroachment, as it declared all lands except cultivated land to be State property. Such a declaration may even have triggered the deforestation process, as the population was growing rapidly and opportunities for employment outside agriculture were not readily available.

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<sup>5</sup> This act came into force on 3 April 1995, when the Forestry Regulations were also promulgated.

The Lands Act of 1964 provides for ownership of land by individuals and other legally defined entities. It is designed primarily for cultivable land, and fixes land ceilings for the hills, including the mountain, Kathmandu valley (where the capital city is located) and Terai regions. However, it does not restrict landowners regarding the ways they use the land, which can include forestry purposes if the landowner chooses. Considering that farming systems in most parts of the country integrate crops and livestock, implying a need for fodder and bedding materials for livestock, the Lands Act also provides for land area in addition to cultivated land. The owner can use this “homestead land” for planting fodder and other trees and grasses.

### *Government organizational structure*

Although Parliament<sup>6</sup> is the final authority in Nepal, executive authority is exercised by a Cabinet consisting of the Prime Minister and Ministers. The operational responsibility for periodic policy planning and implementation of forestry and related matters lies with the Ministry of Forests and Soil Conservation, which is headed by a Minister or Minister of State. Operational responsibilities are entrusted to five specialized departments operating at the regional (five), district (75) and subdistrict levels. The main department concerned with private (for registration purposes only), community and leasehold forestry is the Department of Forest. The current organizational structure of the ministry and its departments is presented in Figure 2.

### **III.3 Discussion**

#### *Stakeholders in Community and Leasehold Forestry*

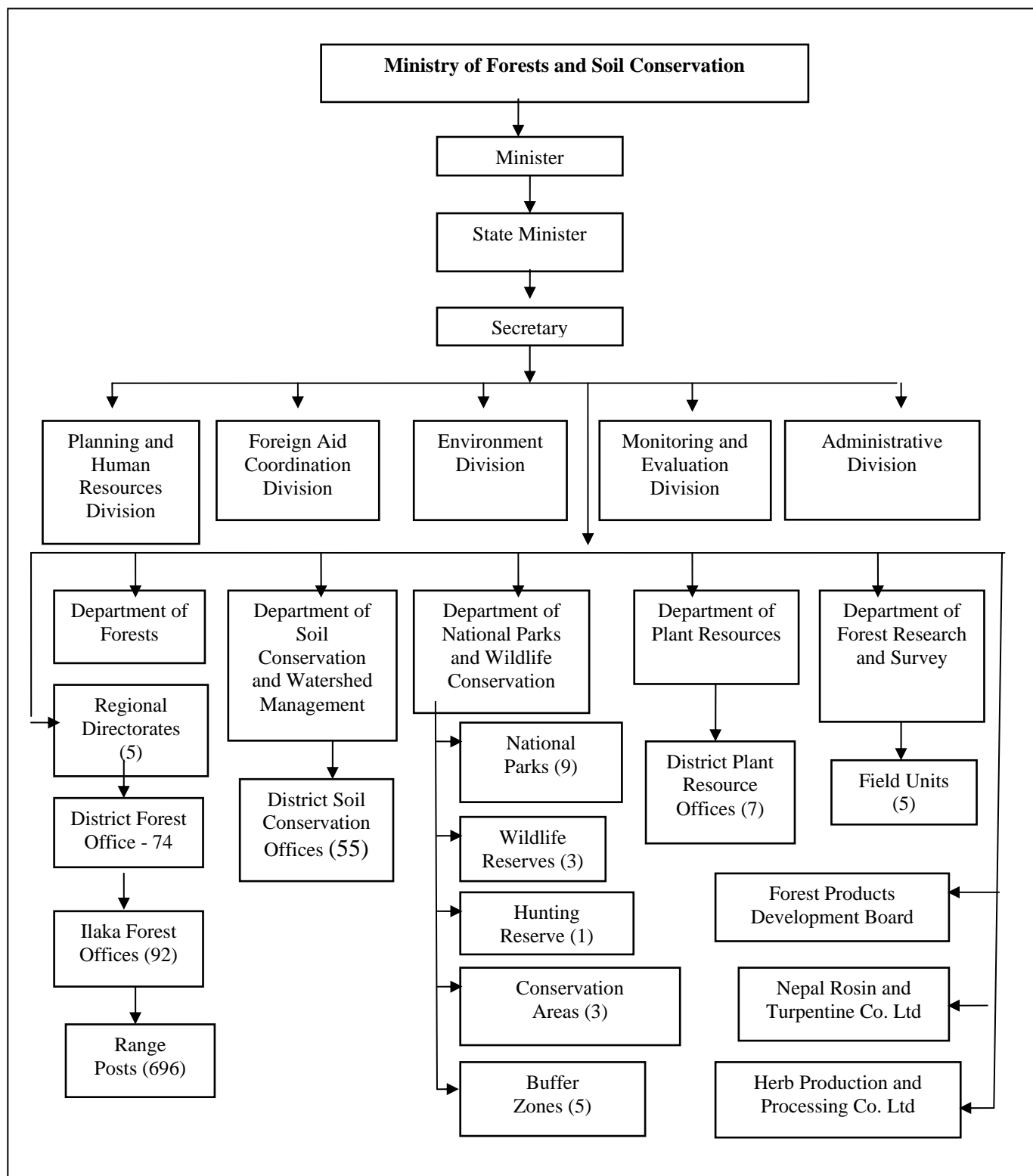
CFUGs and district forest offices of the Department of Forest are the rights-holders of community forests in Nepal. In addition to the CFUG federation, FECOFUN, there is another federated body – the National Federation of User Groups (NEFUG) – which accepts membership from all kinds of user groups in the forestry sector. A number of bilateral projects and national and international non-governmental organizations (NGOs) provide direct funding and other support to community forestry in Nepal.<sup>7</sup> The main stakeholders in leasehold forestry are leasehold groups, District Forest Offices, the Department of Forest, Regional Directors of Forest, leasehold group cooperatives, the Department of Livestock Services and the International Fund for Agricultural Development (IFAD).<sup>8</sup>

<sup>6</sup> According to Article 44 of the Constitution of the Kingdom of Nepal 1990, the term “Parliament” refers to the House of Representatives, the National Council and His Majesty the King all together.

<sup>7</sup> The traditional users of a forest living in its vicinity form a CFUG. Each CFUG elects an executive Forest User Committee (FUC), prepares a group constitution and is officially registered with the District Forest Office. CFUGs are legally recognized entities under the Forest Act. While FECOFUN is an exclusive organization for CFUGs only, NEFUG includes leasehold forestry groups, CFUGs, soil conservation groups and buffer zone groups. Many bilateral donors support community forestry projects in Nepal. These include the Nepal–Australia Community Forestry Project in three districts, the Nepal–Swiss Community Forestry Project in three districts, the German Agency for Technical Cooperation (GTZ) in three districts, and the United Kingdom’s Department for International Development (DFID) in 15 districts.

<sup>8</sup> The District Forest Office implements both leasehold and community forestry programmes at the district level. The Department of Forest is the lead agency in the Leasehold Forestry and Livestock Programme. The Regional Director of Forest is the authority that approves lease certificates. Leasehold groups are federated at the district level and have been registered as multipurpose cooperatives in three districts. There is a plan to federate all leasehold groups into cooperatives for their long-term sustainability. The District Livestock Services Office is a line agency that provides inputs for forage development in leased land and veterinary services for leasers’ livestock.

FIGURE 2  
Organizational structure of the Ministry of Forests and Soil Conservation



Source: Ministry of Forests and Soil Conservation, 2002.

*Ownership, rights and responsibilities in private, community and leasehold forests*Private forests

According to the National Sample Census of Agriculture 2001/2002 (CBS, 2004), nearly 1 million out of roughly 3.4 million private agricultural holdings<sup>9</sup> contain planted forest trees. Of these, about 166 000 holdings contain compact plantations (Table 1).

TABLE 1:  
**Status of private forests, 2001/2002**

Particulars	Value
Total number of agricultural holdings	3 364 139
Total area of agricultural holdings	2 654 037 ha
Holdings reporting forest tree plantation	989 860
Holdings reporting compact plantation	166 126
Area of compact plantation	27 057 ha
Total number of trees in compact plantations	20 545 131
Total number of trees in scattered plantations	18 159 813

The discussion in the rest of this section focuses on community and leasehold forests; private forests are mentioned only when demanded by the specific context.

Community forests

The Forest Act of 1993 and the Forest Regulation of 1995 make clear provisions regarding rights and responsibilities related to community forests. CFUGs are legally registered at the District Forest Office. In accordance with the provisions made in their operational plans, CFUGs are authorized to protect and manage the forest and establish plantations. The operational plan of a community forest is prepared by the CFUG, with technical assistance from forestry rangers and/or NGOs and approval from the District Forest Officer. It describes how to protect, manage and utilize the forest, fix the price of, sell or dispose of its products, and punish violators. An operational plan is valid for five years and renewable after termination.

The CFUG can collect forest products and distribute them among its members according to the rules stipulated in the operational plan. A community forest should be managed and its products utilized in such a way that there is no negative impact on the environment. CFUGs can sell their forest products to outsiders if there is a surplus after the requirements of group members have been met. They are authorized to fix the prices of forest products for sale to outsiders, but these prices cannot be lower than those fixed by the government. The forest land cannot be sold or used as collateral for loans.

CFUGs are responsible for protecting the community forests from encroachment. It is illegal to construct residential buildings, cause erosion and landslides through CFUG activities, quarry, collect stone or soil and catch or kill wildlife (Government of Nepal, 1993; 1995). Figure 3 presents a schematic depiction of the various stakeholders and their functions with regard to community forestry.

<sup>9</sup> According to the National Sample Census of Agriculture 2001/2002 (CBS, 2004), a holding is considered to be an agricultural unit when it has an area under crops of at least 0.01272 ha in the hills or 0.01355 ha in the Terai; or keeps at least two head of cattle or buffalo; or keeps at least five head of sheep or goats; or keeps at least 20 head of poultry; or keeps any combination of livestock considered equivalent to two head of cattle or buffalo (e.g., one head of cattle and four sheep).

### Leasehold forests

Forests are leased out: (a) to groups of poor families; (b) to industries or organizations; and (c) for ecotourism. Very little forest land is leased out for wood-based and ecotourism-related industries because of the long bureaucratic process involved and the low priority given to these activities in the forest policy (MPFS, 1989), the Forest Act and the Forest Regulation. Between the promulgation of the Leasehold Forestry Regulation in 1978 and August 2005, only 216 ha of forest was leased out to ecotourism and wood-based industries (Department of Forest, 2005). Most leasehold forests are handed over to groups of poor families.

A leasehold forest is handed over for a maximum of 40 years, which is extendable for another 40 years. As in community forestry, the operational plan provides the basis for forest protection and management and the exploitation and distribution of products among the leasehold group members. The operational plan for a leasehold forest is prepared by the leasehold group, with technical assistance and facilitation from the Forestry Ranger, the Livestock Junior Technician and/or local NGOs. The Forest Regulation exempts very poor families from paying lease fees, but others have to pay from 200 rupees (NR) to NR1 500, depending on the geographic region in which the forest is located. Fees are higher in the Terai and lower in the mountains. Organized bodies pay higher lease fees than industries or communities, and communities pay the lowest fees.<sup>10</sup>

Leasehold groups are authorized to extract forest products, distribute them among the group members and sell surpluses to outsiders in accordance with provisions made in the operational plan. Leaseholders are responsible for protecting any surviving old and large trees<sup>11</sup> on the leased land, but these trees remain the property of the government. Leaseholders can transfer or sell their rights to others after they have successfully completed one-third of their lease period. They cannot, however, sell the leased land or pledge it as collateral for obtaining loans.

In leasehold forestry, conflicts have been observed during the identification and allocation of lease land, and over the leasehold forest itself. Before the leasehold land has been handed over, conflicts concern boundary claims between private and leasehold land, membership of the leasehold group, and the conflicting claims of better-off and poorer families. After the land has been handed over, the main sources of conflict are grazing rights and social issues. Leased land is a limited resource, and when local people see the benefits of leasehold forest, many non-leaseholding households want to join leasehold groups (Singh, 1995). Such conflicts have been resolved by local community consensus, mediation from forestry rangers, the formation of additional leasehold groups where there is high potential for leasehold forestry, and other means.

### ***Management Agreements in Community and Leasehold Forestry***

The legal basis for a community and or leasehold forest is a certificate issued by a forest agency. These certificates are contracts between the users and the government. A CFUG is first formally registered at the District Forest Office. It then prepares an operational plan for the community forest in a participatory manner among its members. The chairperson of the CFUG submits the operational plan for the approval of the District Forest Officer, who examines the documents and issues a certificate for the community forest. The chairperson signs a commitment letter stating that the CFUG will abide by the provisions made in the operational plan.

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<sup>10</sup> An organized body is an institution that is officially registered by law in the government organization. NGOs, private companies, etc. are organized bodies. In this case, a community is any ethnic or other group that does not fall under the poverty line.

<sup>11</sup> A tree is defined as a perennial plant with a self-supporting main stem or trunk of more than 30 cm diameter.



Leasehold groups, which are made up of five to 20 traditional users of the forest, follow a similar procedure. The main difference is that the District Forest Officer forwards the operational plan to the Regional Director of Forest,<sup>12</sup> who approves it and issues a certificate to the leasehold group for the leasehold forest. The District Forest Officer then prepares a lease commitment paper, which the chairperson of the leasehold group signs.

### ***Planning and monitoring of community and Leasehold Forests***

The operational plan provides a broad framework for developing a detailed plan and monitoring system. Under these general guidelines, CFUG members carry out annual planning. Details of the annual plan and monitoring mechanism are worked out in advance at the monthly meetings of the Forest User Committee (FUC),<sup>13</sup> which is responsible for planning, implementing and monitoring progress in community forestry. The FUC's plan is then tabled at the CFUG's annual general assembly for approval. The CFUG is required to submit an annual progress report to the District Forest Officer describing the activities planned and achieved.

When an operational plan is being prepared or renewed, a ranger (a mid-level forestry technician) prepares an inventory of the forest stock in each block or compartment and over the whole community forest area. This inventory provides the basis for planning activities in the community forest. The range post (the lowest-level functionary in forestry administration) supervises forest planning at the ilaka<sup>14</sup> level, which is also where CFUGs present their annual plans. For administrative purposes in the forestry sector, a district is divided into one to three ilaka and has eight to 15 range posts. The ilaka-level plan is presented at the district planning workshop and subsequently at the regional planning workshop. The Department of Forest combines the outcomes of the district and regional planning workshops and submits the consolidated proposal to the Ministry of Forests and Soil Conservation and the National Planning Commission. The annual programme budget prepared by the Ministry of Finance, with recommendations from the National Planning Commission, obtains final approval from Parliament. Community forestry projects<sup>15</sup> are funded by donor agencies including the Danish International Development Agency (DANIDA), DFID, the Government of Australia, GTZ, the Swiss Development Cooperation (SDC) and the Cooperative for Assistance and Relief Everywhere (CARE) Nepal. Donor-funded projects provide technical and financial assistance for organizing the ilaka- and district-level planning workshops and meetings.

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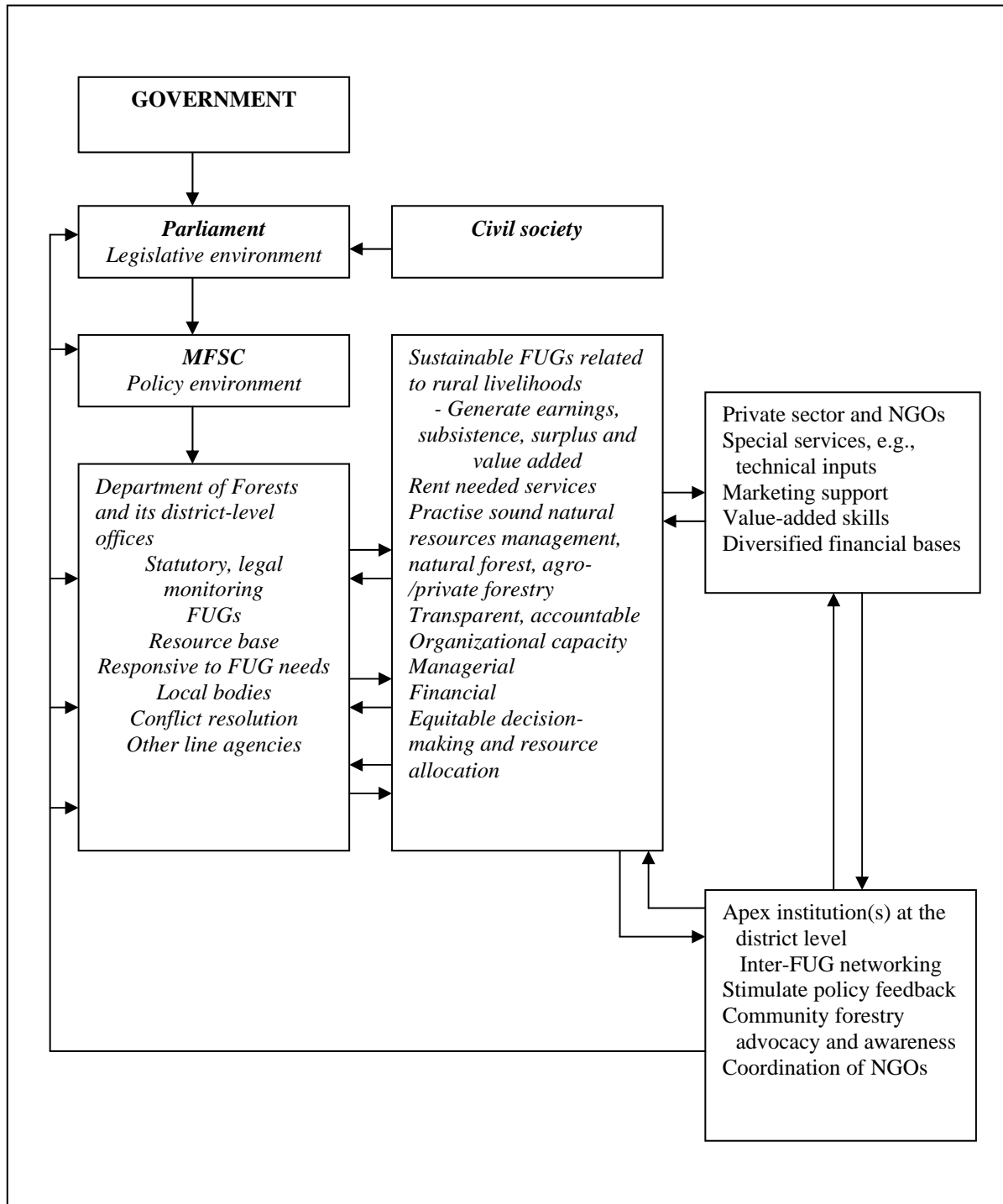
<sup>12</sup> There are five political and administrative regions in the country.

<sup>13</sup> The FUC is an executive committee of the CFUC. It is formed through election at the CFUG general assembly, and its tenure is normally fixed at two to three years.

<sup>14</sup> An ilaka is a territorial forest office under the District Forest Office. The ilaka forest office is headed by an assistant forest officer and administered by four range posts.

<sup>15</sup> Community forestry projects are funded by bilateral donors or international organizations for a limited period, such as three, five or ten years. Each project has its own working area or district, which is different from those of other projects.

FIGURE 3: STAKEHOLDERS AND THEIR FUNCTIONS IN COMMUNITY FORESTRY



Leasehold groups adopt the same approach for planning at the range post/ilaka and district levels. Staff members from the District Livestock Services Office and NGOs/group promoters participate in planning workshops. The leasehold forestry programme integrates forestry, livestock and microfinance organizations, whereas community forestry works solely with the forestry organization. Leasehold forestry programmes are presented separately at the regional-level forestry and livestock planning workshops. Forestry-related components of the annual programme are compiled at the Department of Forest and livestock components at the Department of Livestock Services. The departments then forward the programmes to their respective ministries, and they are finally approved by the National Planning Commission. The Ministry of Finance is responsible for allocating the budget, and the consolidated annual programme budget of all sectors is tabled in Parliament for approval in the form of the Appropriation Bill.

The FUC reviews progress in the community forest at its monthly meetings. The range post/ilaka forest office also monitors activities, including the extraction and distribution of forest products. The District Forest Office is responsible for the overall monitoring of all community forests in its district. The Regional Director of Forest monitors all the community forests in its region on a sample basis. Donor-supported community forestry projects carry out more intensive monitoring because they have the necessary resources to pay their own staff and/or engage external consultants. Donor-supported projects also publish annual progress and monitoring reports.

The Community Forestry Division of the Department of Forest has a management information system section, which maintains records of community forests in the whole country, providing an overall picture of community forestry and information on individual districts. The Monitoring and Evaluation Division of the Ministry of Forests and Soil Conservation prepares guidelines and annual monitoring reports. In spite of its many layers and mechanisms, the monitoring system for community forestry is a weak and neglected component.

All leasehold group members participate in monthly meetings to review and monitor leasehold forestry activities. The leasehold group's activities are also monitored by the forestry ranger, the livestock junior technician/junior technical assistant and group promoters or social mobilizers at the field level. The District Coordination Committee (DCC) or District Forestry Coordination Committee (DFCC) monitors leasehold forestry programmes at the district level, while the project coordinator and livestock coordinator monitor the overall leasehold forestry programme at the project level.<sup>16</sup> A management information system is

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<sup>16</sup> Junior technicians/technical assistants are field-level livestock technicians based in the field offices who deliver livestock treatment services and facilitate the leasehold farmers through forage development. Group promoters are recruited by the Leasehold Forestry and Livestock Project Office. They are all women and selected from the leasehold group families. Group promoters receive training in holding leasehold group meetings, collecting monthly saving, mobilizing community members and managing conflict. They work as messengers between leasehold groups and district forestry and livestock service offices. The DCC coordinates among line agencies at the district level and helps the smooth functioning of leasehold forestry activities. The committee members are people from the forestry and livestock sectors, representatives of the District Development Committee, women's development officers and district administration officers. DCCs are formed in the districts where leasehold forestry programmes have been launched. The DFCC is a new committee chaired by the chairperson of the District Development Committee, which is an elected body that coordinates the development activities of all the agencies operating in the district. Other members of the DFCC come from agriculture, livestock services, soil conservation, women's development, political parties, NGOs and the district administration office. The District Forest Officer serves as its secretary. The DFCC is a broader forum than the DCC; where they are formed, DFCCs therefore supersede DCCs. The main objectives of the DFCC is to coordinate forest development activities among stakeholders and to implement the forestry sector programme in a transparent and effective way.

maintained at the project coordinator's office for the leasehold forestry programme throughout the country.

### III.4 Changes and trends in private, community and leasehold forestry

In 2005, the Department of Forest Research and Survey estimated the total area of forest in Nepal to be 3 635 500 ha, distributed in all ecological zones. Regarding species, the Terai has tropical and sub-tropical broadleaf forests of *Shorea robusta* and associates, whereas the mid-hills have broadleaf (*Castanopsis*, *Schima wallichii*) and chirpine (*Pinus roxburghii*) forests. The high Himalaya comprises temperate forest species including blue pine (*Pinus excelsa*, *Cedrus deodara*), oak (*Quercus* spp.), *Arundonaria* (thin bamboo) and junipers.

#### *Private Forestry*

The above estimate does not include the trees planted in privately owned land, which covers about 50 000 ha. Most of the trees in private forests are fodder or multipurpose species for domestic use. Between 1991/1992 and 2001/2002 the area under this form of tenure increased by about 16 percent, an impressive rate of growth considering the competing demands from alternative uses of privately owned land. According to Central Bureau of Statistics figures (CBS, 1993; 2004), about one-third of all landholdings contain planted trees. While the total area and the proportion of the total area of holdings devoted to tree planting increased, the proportion of households planting trees decreased from nearly 40 percent in 1991/1992 to about 30 percent in 2001/2002.

TABLE 2  
Trends in tree planting on private land, 1991/1992 to 2001/2002

Description	1991/92	2001/02
Area under trees (ha)	44 087 <sup>1</sup>	50 972
Percentage of area devoted to tree planting	1.70	1.92
Percentage of landholdings planting trees	39.48	29.42

<sup>1</sup> The area under trees is calculated by dividing the total number of trees by the average number of trees per hectare reported for the year 2001/0202. This figure assumes that the number of trees per hectare in 1991/1992 was the same as in 2001/2002.

#### *Community Forestry*

Of the 75 districts in Nepal, 74 have community forests – only one mountain district, Mustang, does not. Altogether, community forests cover 1 139 233 ha and are found in all ecological zones, including high mountains, mid-hills, Siwaliks, inner Terai and Terai.<sup>17</sup> Most community forests are natural, but human-made plantations have also been given to CFUGs. Some 83 percent of community forests are covered with forest, 14 percent with shrubs, 3 percent with plantations, and less than 1 percent with grass (Kanel, 2004).

Government-owned forests have been leased out in 31 districts, mostly in the mid-hills and some parts of the inner Terai. The total area of degraded forest land transferred as leasehold forests to groups of poor people is 8 507 ha. The condition of these forests has improved dramatically, and they have now been turned into secondary forests.

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<sup>17</sup> The inner Terai region covers the valleys between the Mahabharat and Siwalik hills. Mahabharat is a wide range in the mid-hills, and Siwalik (also known as Churia hill) is the outermost Himalaya in Nepal. The plains located in the southern part of Nepal are referred to as the Terai.

TABLE 3

**Areas under community and leasehold forests**

Tenure type	Forest area	No. of districts covered	Ecozones
Community forests	1 139 233 ha	74	All
Leasehold forests	8 507 ha	31	Mid-hills and inner Terai

*Sources:* The management information systems of the Community Forestry Division for community forests, and of the Leasehold Forestry Programme for leasehold forests.

Enactment of the Private Forest Nationalization Act of 1957 marked the beginning of forest policy in Nepal. The act aimed to protect, manage and utilize national forests and promote public welfare. Earlier, during the Rana regime,<sup>18</sup> vast tracts of forests were under the private management of elite groups, including members of the royal families and their relatives. Despite its intended objective, the act became very unpopular with the public because it undermined the traditional rights of local communities to protect, manage and utilize local forest resources for their own sustenance. The policy therefore resulted in the destruction of vast tracts of valuable forest.

Under the Forest Policy of 1961, attempts were made to protect, manage and utilize forests for the improved economic welfare of the people and the country. The first Forest Act was promulgated and enforced in 1961. It concentrated on State ownership of and authority over forests, and all lands except agricultural land were to be treated as forest land. This encouraged the conversion of forest areas into agricultural land as a way of laying private claim to publicly owned lands. The rate of deforestation accelerated, and national forest cover had declined from 51 to 45.6 percent by 1964.

According to the Forest Protection (Special Arrangement) Act of 1967 all forest offences, including forest encroachment, were treated as State crimes. The District Forest Officer was authorized to seize all goods and equipment and put offenders in jail. The officers tried to enforce the act, but deforestation was not reduced. In 1976, the National Planning Commission formulated the National Forest Policy with the objective of maintaining and restoring ecological balance through reforestation and watershed management programmes. However, problems of encroachment and deforestation were not properly addressed, and forest area continued to decline from 45.6 percent in 1964 to 35.7 percent in 1977.

In response to the substantial loss in forest area, the Panchayat Forest (PF) and Panchayat-Protected Forest (PPF) Regulations of 1978 were promulgated, devolving forest management responsibility to local bodies. The village Panchayat was the lowest political and administrative unit. Degraded national forests were handed over to the village Panchayats for either plantation or protection and management. These provisions involved the lowest political body in planning and decision-making processes, but did not include the participation of traditional users, who had a direct stake and concern in the PFs and PPFs. Thus, the regulations did not address the issues of field-level users. This led to a new wave of conflict among local users, local politicians and the forestry establishment (which often harassed local people under the pretext of mismanagement).

The Master Plan for the Forestry Sector (MPFS), prepared in 1988 and approved by the government in 1989, addressed many of these issues and provided a basic framework for the forestry sector. The MPFS classifies Nepal's forests into six categories, one of which is community forest. One of the plan's priority areas is local community participation in the management of community forests.

<sup>18</sup> The oligarchic Rana family ruled Nepal for 104 years, until February 1951.

Following the restoration of democracy<sup>19</sup> in 1990, the CFUG concept emerged formally in 1991, when a Community Forest Policy was issued. This policy is widely recognized as an excellent example of local empowerment and the involvement of users in forest resource management (Joshi and Pokharel, 1998). Its key directives are: (a) the handover of all accessible forests to traditional users as community forests; (b) the priority of community forests over other kinds of forest ownership; (c) District Forest Offices' authorization to hand over community forests; (d) the formation of CFUGs to protect, manage and utilize the community forests according to the provisions made in the operational plan approved by the District Forest Office; (e) CFUGs' authorization to fix the price of forest products; and (f) CFUGs' authorization to utilize surplus funds for any kind of community development work. Based on the MPFS, the Forest Act of 1993 and the Forest Regulation of 1995 provide a legal basis for the implementation of forest policy.

The handing over of community forests accelerated rapidly during the 1990s, but gradually declined in later years. This was mainly because most of the accessible forests in the hills and mountains had already been handed over, but also because the government had restricted the handing over of large tracts of forest in the Terai. Government policy is to manage larger forests in the Terai under the Collaborative Forest Management Programme. In accordance with provisions in the Forest Policy of 2000, only scattered and disjointed patches of forest are handed over as community forests in the Terai.

Before a community forest is handed over, the CFUG concerned is required to prepare a forest inventory quantifying the growing stock of the standing forest and the allowable cut. This is technical and time-consuming work, which most CFUGs cannot do by themselves. However, neither can they afford to pay an outside technician to carry out the inventory for them; the job is usually done by a mid-level forestry technician. This is one of the factors that has delayed the handing over process and the renewal of old community forest. It also has a direct negative impact on the harvesting, extraction and sale of forest products, which ultimately affects the community development and poverty alleviation activities of CFUGs. Recently, the Danish Government withdrew its funding of community forestry development in 38 districts; other donors, including the Australian Agency for International Development (AusAid), the United States, GTZ and SDC, have gradually reduced their community forestry programmes until the current situation of conflict<sup>20</sup> in the country improves. The trend in handing over community forests increased from 1988 to 1996 and gradually slowed down thereafter.

TABLE 4  
Evolution of community forestry in Nepalese legislation

	Regulations 1978	Amendment 1979	Amendment 1987	Regulations 1995
<b>Community forest area</b>	PF not more than 125 ha; PPF not more than 250 ha	PF not more than 125 ha; PPF not more than 250 ha	No limit	No limit
<b>Rate of benefit return to the community (%)</b>	40%	75%	100%	100%
<b>Use of community funds</b>	50% for forestry	50% for forestry	100% for forestry	Forestry; surplus for community development

<sup>19</sup> The King of Nepal banned the multiparty system in 1961 and enforced the partyless Panchayat political system on 31 December 1964. The Panchayat system was overthrown by people's movements in 1990, when democracy and the multiparty system were restored.

<sup>20</sup> Nepal has been facing serious security problems in its interior for the past decade owing to violent conflict between Maoist rebels and the government. About 14 000 people have lost their lives to this problem.

<b>Pricing of products</b>	Not less than government rates	Not less than government rates	Not less than government rates	As per CFUG decision
<b>Plan prepared by</b>	District Forest Office	District Forest Office	Community	Community
<b>Plan approved by</b>	Conservator	Conservator	Regional Director (Conservator)	District Forest Office
<b>Community forest boundary</b>	Administrative	Administrative	Administrative	Defined by use practices
<b>Management responsibility</b>	Panchayat	Panchayat	User committee under Panchayat	CFUG
<b>Chairperson</b>	Elected leader of Panchayat	Elected leader of Panchayat	Nominated by Panchayat	Selected by CFUG assembly

Source: ICIMOD quoted in McDougall, 2002.

### *Leasehold Forestry*

The Leasehold Forest Regulation was promulgated in 1978 at the same time as the PF and PPF were introduced. However, leasehold forestry was not effectively implemented in the field until 1993. The Leasehold Forestry and Forage Development Project, which started in 1993, was the first project to implement leasehold forestry for the poor. It was first piloted in four districts and gradually extended to ten districts from 1993 to 2001. The National Planning Commission considered leasehold forestry to be an effective and tested model for poverty alleviation and environmental conservation. It expressed its strong commitment to this programme for the poor and categorized it under Priority I in the Tenth Five-Year Plan.<sup>21</sup> Later, during 2002/2004, the project was extended to cover 26 districts with funding from government resources and no additional support from outside donors. The Forest Act and Forest Regulation also provided a legal framework for the promotion of leasehold forestry. In 2002, the Ministry of Forests and Soil Conservation brought out the Leasehold Forestry Policy to support the poor and promote forest-based industries and ecotourism. As a result, the leasehold forestry concept was included in the Western Upland Poverty Alleviation Project,<sup>22</sup> which has been implemented since 2002 for poverty alleviation in the most remote districts of the Karnali zone – Humla, Jumla, Bajhang and Bajura. Initiated in four districts more than 11 years ago, the Leasehold Forestry Programme is now being implemented in 11 districts, and the government has signed an agreement with IFAD for implementation of the programme's second phase in 22 districts for a period of eight years starting in July 2005. Throughout Nepal, an estimated 900 000 ha of shrub- and other appropriate land is available for leasing to about the same number of households (Yadav and Dhakal, 2000).

The handing over of leasehold forests to the poor followed an increasing trend from its beginnings in 1993 up to 2000, but the pace slowed when funding from IFAD ceased. Currently, the Western Upland Poverty Alleviation Project and the Leasehold Forestry and Livestock Project are being implemented in 30 districts, and the pace of handing over leasehold forests has picked up again. NGOs have been heavily involved in identifying and mapping potential lease land, facilitating leasehold groups' preparation of operational plans,

<sup>21</sup> The National Planning Commission uses a scoring system to rank development projects into three orders of priority – I, II and III. The performance of Priority I projects and programmes is more intensively monitored at the higher level. The Five-Year Plan sets out national and sectoral strategies and priorities, as well as physical targets, under various programmes. The current (Tenth) Five-Year Plan covers the period 2002 to 2007.

<sup>22</sup> This is a poverty alleviation project, which was launched in remote districts of Nepal with technical and financial assistance from IFAD. Leasehold forestry development is one of its main components, and seeks to provide poor households – the project's main target group – with access to and control over forest resources.

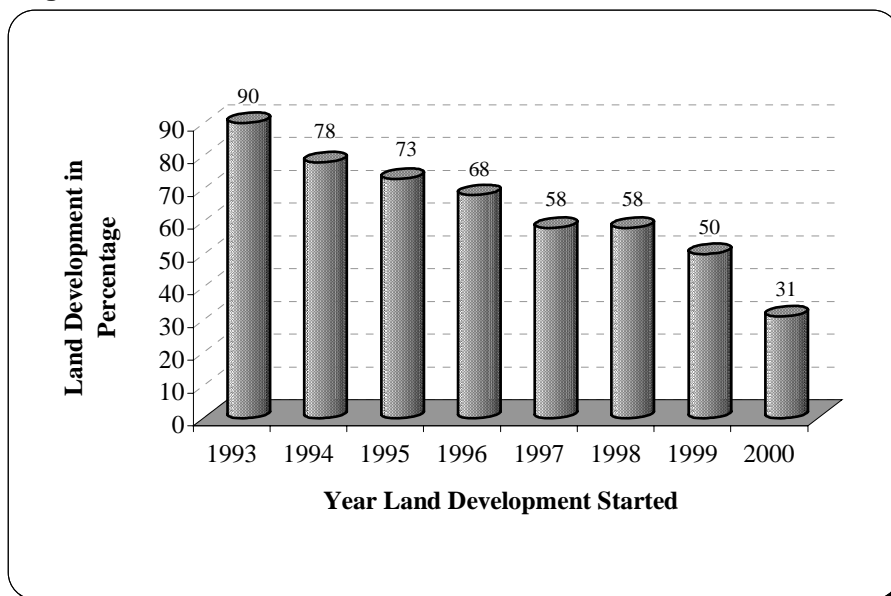
forming and strengthening groups, and developing capacity. In hill and mountain zones, the Department of Forests is the de jure authority for administering all degraded and shrublands, but local communities, as customary users, continue to use these lands for grazing, the extraction of forest products and the holding of social and cultural events. The allocation of community or leasehold forestry is therefore basically determined by the local community or users of forest land.

Protecting leasehold forest from grazing and forest fire invigorates the natural regeneration of local grasses and tree species. The leasehold groups manage their forests by clearing unwanted grasses and shrubs, thinning thick stands (poles and saplings), pruning branches, and singling stems.

At two monitored sites in Makwanpur and Kavreplanchok districts, the numbers of plant species increased by 57 and 86 percent, respectively, between 1984 and 2000; the numbers of trees and tree species also increased substantially (IFAD, 2003). Field data were gathered from two sites – one at Chitrepani in Makwanpur district, and the other at Bhagwatisthan in Kavre district – in 1994/1995 and 2000. One of the most significant measurable differences in vegetation between 1994/1995 and 2000 was a massive increase in species diversity. In Chitrepani, plant diversity in the leasehold forest (9 ha) increased from 37 species in 1994 to 58 in 2000, an increase of 57 percent. In Bhagwatisthan leasehold forest (78 ha), it increased from 70 species in 1995 to 130 in 2000, an increase of 86 percent (FAO, 2000a).

In newly formed leasehold forests, an average of only 32 percent of the ground was found to be covered by vegetation; this steadily increased to 50 percent in one of the two-year-old forests, 68 percent in the four-to-five-year-old forests, and 78 percent in the six-to-seven-year-old forests (Singh and Shrestha, 2000). The project impact study records that 84 percent of project households reported fewer months of scarcity of animal feed, even though they were keeping increasing numbers of large livestock (FAO, 2000b).

FIGURE 4  
Vegetation cover in leasehold forests, 1993 to 2000



### III.5 Management and tenure systems in community and leasehold forestry



## *Community forestry*

### Forest management in community forests

Initially, community forest management was oriented towards the production of timber, fuelwood and tree fodder from plantations of pine and other species. Later, the strategy changed to the management of natural regeneration. Most community forests are protection-oriented, but thinning, pruning, singling and the removal of dead and fallen trees are common practices. A selection system<sup>23</sup> is therefore used in the management of community forests, and there is little intensive forest management. Most community forests have high potential for non-timber forest products (NTFPs), and the conservation and cultivation of NTFPs has recently been introduced in some forests. However, fuelwood, timber and fodder are still the prime products extracted from community-managed forests.

The Livelihoods and Forestry Programme<sup>24</sup> carried out a baseline survey in 2003 and found that forest conditions were improving, according to 93 percent of respondents in the western and 72 percent in the eastern districts, and that CFUG members believed that managing community forests is a worthwhile endeavour. This programme covers four districts in the eastern development region, three in the western and eight in the mid-western. Branney and Yadav (1998) assessed the change in forest conditions and management in community forests between 1994 and 1997 in four eastern hill districts and found an overall improvement in community forest conditions: the total number of stems per unit area increased by 51 percent, even though the basal area of forest in poor condition increased by a significant 29 percent. In a study on land-use change, Jackson et al. (1998) found that shrub- and grassland had been converted into more productive categories of forest land, reflecting the care that communities take in managing and conserving their forest resources.

### Livelihoods in community forestry

Livelihood improvement for poor households through the community forestry programme is a new concept. Some community forestry projects started this on a pilot basis and have observed very positive results. The Fourth National Community Forestry Workshop (2004) identified livelihoods as one of the key issues that should be integrated with forestry policy, laws and programmes.

### Capacity in community forestry

The Strategy for Community Forestry (1992) included the following elements: (a) phased handover of all accessible hill forest areas to communities, as long as they are able and willing to manage them; (b) formulation and implementation of simple operational plans; and (c) retraining of forestry staff for their new roles as advisers and extensionists. Accordingly, the management responsibility for community forests was transferred to the CFUGs. The field staff (rangers, assistant forest officers and district forest officers) provide advice, technical assistance and support to the CFUGs, but final decisions are made by the groups themselves. District forest officials (including forestry rangers), NGOs and project officials have received rigorous training on participatory forest management, training methodology (training of trainers), facilitation methodology, and tools for rapid and participatory rural appraisal; they have also made extensive visits to learn from other community forests. Trained staff from the District Forest Office and local NGOs train the CFUGs to enhance their capacity to manage their groups and forests in a sustainable manner. A cadre of local resource people has been selected from among innovative and active members of the CFUGs. These local resource

<sup>23</sup> The selection system in forest management involves removing old, selected, identified or marked trees from the forest at specified intervals. At the same time, smaller trees are thinned out to provide light and space for seedlings to emerge and poles to grow. The main objective of the selection system is to keep the forest in a condition of continuous regeneration and growth.

<sup>24</sup> With technical and financial assistance from DFID, this programme launched the first community forestry programme initiated in Nepal since 2001. It seeks to improve livelihoods through forestry.

people have received intensive training and now provide training and facilitation for other community forests.

The Community Forestry Division and community forestry projects/programmes supported by funding agencies have developed and published community forestry guidelines, leaflets, manuals, training course curricula, handbooks, extension materials, radio programmes, and other audiovisual and printed materials. The division tries to maintain uniformity by adopting the same processes all over the country. Thus the community forestry programme is best implemented when a forestry staff member from one district is transferred to another so that the same process can be followed in all districts. The capacity of district forest offices, NGOs involved in the programme and CFUGs has been enhanced through rigorous training courses and visits.

CFUGs are federated at the district, regional and national levels. The national-level organizations are FECOFUN and NEFUG, each of which has a national network that works as a pressure group and provides capacity building to the CFUGs. As well as the central Training Division in Kathmandu, regional training centres have been established in all five development regions. The division and centres train mid-level technicians (mainly rangers) and officers; most training courses focus on community forestry.

Most studies and research in the forestry sector focus on aspects of community forestry. They are conducted by university students pursuing academic degrees (B.Sc., M.Sc. and Ph.D.), community forestry projects and scholars and professionals from various countries, and provide valuable analytical insights into various community forestry issues and measures for improving the programme's effectiveness.

### *Leasehold forestry*

#### Forest management in leasehold forests

In leasehold forestry, leasehold groups at first emphasize protection measures such as warding off grazing animals and forest fires. Forestry and livestock officials provide technical inputs and support for this; the protection helps to invigorate the natural regeneration of local grass and tree species. After the third year, leasehold groups start to carry out prescribed improvement activities, including clearing weed species, thinning by removing stems to maintain equal distances, removing dead, dying and diseased trees, and pruning branches.

In the second phase, leasehold groups start to sow or plant perennial forage species (such as stylo, molasses, broom grass and Napier grass) in vacant areas. Multipurpose and fodder tree species are planted on the lease land, and these can provide group members with short-, medium- and long-term income and benefits. The trees planted include fruit-bearing species that have market value (*Choerospondias axillaris*, *Juglans regia* and *Bassia butyraceae*). Pineapple, banana, ginger, turmeric and NTFPs are intercropped for medium-term benefits. In these early stages, the leasehold group members make substantial investments of labour and inputs. Forests are intensively managed by utilizing both horizontal and vertical spaces to reap optimum production and income benefits. Agroforestry with the planting of forage crops is commonly practised on the leased land, but the cultivation of cereal crops is not allowed. All forest management measures are adopted through the unanimous decisions of leasehold group members, with technical advice and inputs (planting materials, seeds, training) from the district forest and livestock services offices.

### Livelihoods in leasehold forestry

Most leasehold group members are marginal or small farmer<sup>25</sup> families, whose own food production is enough to feed their families for only up to six months a year. The leasehold forestry programme therefore aims to diversify the income sources of leasehold group members through the use of the leased land and/or off-farm income-generating activities. A household survey showed that the period of household food deficiency among leasehold group members decreased (FAO, 2000b). The leased land has become a good source of income for many poor households, who can now send their children to school as a result. After becoming leasehold group members, many households have started small enterprises, such as keeping goats, selling milk, providing veterinary services and selling veterinary products, beekeeping, vegetable farming and selling fruits and forage seeds (Singh and Shrestha, 2000). Leasehold groups have developed their own savings mechanisms and cooperatives from which they can obtain loans; this has drastically reduced their dependence on local moneylenders who charge exorbitantly high interest rates. Long-term land tenure provides leasehold groups with a strong incentive to invest labour and inputs for short- and long-term crops on the leased land, thus providing an opportunity to improve their livelihoods.

### Capacity in leasehold forestry

The first part of the Leasehold Forestry Project (1993 to 2003) was implemented for four years as an exploratory stage; this was followed by a six-year development period. Based on the lessons learned from this first phase, the project has been continued into a second phase spanning the period from 2005 to 2012. In the three districts of Makwanpur, Dhading and Tanahu, leasehold groups have gradually been federated into multipurpose cooperatives for long-term sustainability, but the federation process is a long one. At present, the project receives back-up support from two agencies: the Leasehold Forestry Section (unit) of the National Forest Division of the Department of Forest; and Western Upland Poverty Alleviation Project. Operational guidelines, training and workshop manuals and handbooks have been prepared.

Learning from the lessons of the first phase, leasehold groups have been joined into clusters of five to 15 groups, each covering at least 70 households. In 2005, the leasehold forestry project was converted into a programme,<sup>26</sup> which started in four districts and has now been extended to 30. District forest and livestock services officials and other stakeholders have become more familiar with the leasehold forestry concept and implementation procedures. Separate leasehold forestry policy, laws and programmes have been formulated, and the National Planning Commission and Ministry of Forests and Soil Conservation, including its Department of Forest, are committed to implementing these as a priority.

### Leasehold forestry policy and legislation

The Forest Act of 1993 and the Forest Regulation of 1995 accord community forestry priority over leasehold forestry. Potential forest land is identified and a 35-day legal notice served to the local community soliciting their interest in accepting the identified patch of forest as a community forest. This patch can then be given out as leasehold forest only if the local community does not respond by submitting an application for community forestry.

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<sup>25</sup> Farmers with less than 0.5 ha of agricultural land and per capita income of less than US\$80 are considered small farmers.

<sup>26</sup> Project activities are implemented for fixed periods, but a programme continues as part of regular government activities. For example, the Hills Lease Forestry and Forage Development Project was implemented for eight years, until its status was changed to programme so it could continue as a regular government programme. During a project, development activities are carried out intensively and resources are provided to engage national and international experts on contracts.

The District Forest Officer is legally authorized to hand over virgin or productive and dense forest as community forest without discrimination regarding the socio-economic condition of the local community. There is no limit on the forest area that can be handed over, and community forests range from small patches to more than 5 000 ha. On the other hand, only small patches – usually of between 5 and 10 ha – of degraded forest or shrubland are leased out to groups of poor families; the Regional Director of Forest has to approve the leasing out, which involves a long bureaucratic process.

It should be noted that there is not yet any government policy or programme to implement leasehold and community forestry in a complementary manner. The Tenth Five-Year Plan states that leasehold forests can be implemented independently or within community forests, but guidelines for this have not yet been developed.

In order to obtain forest land on lease, an aspiring group has to submit a financial feasibility report. This is a demanding condition for the poor people concerned, and the forestry ranger usually helps them to meet the legal requirements.

CFUGs are legally registered at the District Forest Office, but the legal registration of leasehold groups is not stipulated in the Forest Act or Leasehold Regulation. In the first phase of the Leasehold Forestry Project, groups were registered with the Small Farmers Development Project (SFDP) of the Agricultural Development Bank, but this was legally questionable. SFDP is no longer an authorized line agency for the second phase of the project or for the Western Upland Poverty Alleviation Project.<sup>27</sup> The legal status of leasehold groups is therefore unclear. However, leasehold group cooperatives are legal entities that are officially registered at the District Cooperative Office.

In interviews, government officials and field forestry staff mentioned that they are positive towards the community and leasehold forestry programmes because both are successful. However, while leasehold forestry addresses poverty directly, this is not so clear in community forestry. Officials perceive that the two programmes could complement each other.

***Government policy and legal issues related to community and leasehold forestry***

Table 5 summarizes the policy and legal issues in community and leasehold forestry.

**TABLE 5**  
**Policy and legal issues in community and leasehold forestry**

SN	Forest-related policies	Community forestry issues	Leasehold forestry issues
1 2	Master Plan for the Forestry Sector (1989)	Makes community forests the first priority, but only for fulfilment of basic forest product needs. No components for livelihoods and commercialization.	Includes leasehold forestry for wood-based industries, but not for the poor.
3	National Conservation Strategy (1988)	Considers community forests a modest response to Nepal's massive deforestation and forest deterioration problem.	Makes no specific mention of leasehold forestry.
4	Agriculture Perspective Plan (1995)	Identifies the community forest programme for the hills and mountains, but not for Terai	Proposes leasing out pasture areas in the hills and flood-affected barren lands of the

<sup>27</sup> In the first phase of the Leasehold Forestry Project four agencies – the Department of Forest, the Department of Livestock Services, SFDP and the Nepal Agricultural Research Council – worked together and were regarded as line agencies for the project. In the second phase, only the first two are recognized as line agencies.

		areas.	Terai and inner Terai to individuals and groups.
5 6	Forest Policy for Terai, Inner Terai and Siwaliks (2000)	Allows only fringe and isolated forest patches to be transferred as community forest. Puts large forest areas under the government's block forest management. Levies 40% tax on sale of forest products to non-members of user groups. Tax recently reduced to 15%.	Makes no mention of leasehold forestry.
7 8 9	Revised Forestry Policy (2000)	Gives priority to community forest management in the allocation of resources for research and development. Makes no mention of distant users' access to forest products to fulfil their basic needs. This is one of the burning issues related to community forestry in the Terai.	Identifies areas that produce forest products surplus to community needs; these could be leased to farmers' groups or forest-based industries. Leasehold forest allocation gives priority to people below the poverty line. Leaseholders are encouraged to engage in forestry if benefits exceed costs. Introduces programmes and incentives for establishing and managing tree farms in leasehold forests for industrial and multiple-use purposes.
10 11	Nepal Biodiversity Strategy (2002)	Involvement of local communities in forest management in the Terai and Churia hills is a critical issue. Sustainable production of forest products is the main objective of community forestry. May have negative implications for biodiversity conservation, because many user groups include removal of unwanted species, etc. in their operational plans.	Does not give much mention to leasehold forestry.
12	Leasehold Forestry Policy (2002)	Makes no mention of the priority given to community and leasehold forests. Accords leasehold forestry for the poor the same priority as community forestry at the policy level.	Is the first comprehensive leasehold forestry policy to benefit the poor and promote ecotourism and industries. Makes no mention of the institutional aspects of leasehold groups.
13	NTFP Policy (2004)	Promotes cultivation of NTFPs and medicinal and aromatic plants in community forests; and involvement of the poor, women and people in the buffer zones of protected areas. Makes no mention of cultivation of banned species.* Has no policy to help communities absorb shocks from frequent price changes and market insecurity for NTFPs and medicinal plants.	Promotes cultivation of NTFPs and medicinal and aromatic plants in leasehold forests. Cultivators pay royalty to the District Forest Office, irrespective of whether products come from leased, private or community land. More clarity needed regarding this matter.
14	Poverty Reduction Strategy (2001)	Seeks to enhance participatory natural resource management for sustainable production systems by giving communities rights over natural resource and biodiversity management through community and leasehold forestry. Seeks to enhance livelihood opportunities for the rural poor	

		through proper land-use planning and by empowering them in forest management and utilization through community and leasehold forestry programmes.	
15	Tenth Five-Year Plan (2002)	Seeks to expand the area of community forests, and to give access to disadvantaged groups and women and increase their participation.	Increases livelihood opportunities for the poor and disadvantaged groups. Expands the area of leasehold forests for the poor. Most leasehold forestry programmes are in remote, interior hill and mountain areas. Insecurity is a problem for government agencies and development workers moving around to deliver services.
16	Forest Act (1993)	Recognizes CFUGs as legal entities through registration at the District Forest Office, along with their constitutions. Requires CFUGs to report on the situation of the forest and their financial details within one month of completion of a financial year; this is not normally complied with. Considers CFUGs autonomous corporate bodies with perpetual succession, but heavily dependent on the District Forest Office for assistance.	Any corporate body, industry or community established under the prevailing law has to apply to the Regional Forest Director for leasehold forest. The poor, women and disadvantaged groups in remote areas cannot do this. The process for obtaining land on lease is very lengthy. A Leasehold Forestry Policy** has been formulated, but is neither included in the act nor implemented in the field. Community forestry's priority over leasehold forestry has created problems in implementing leasehold forestry.
17	Forest Regulation (1995)	CFUGs should prepare operational plans with technical assistance from forest rangers. CFUGs can manage and utilize forest products in accordance with approved operational plans, but depend on rangers and District Forest Offices for preparation of plans and collection and sale of timber to non-group members. Need permission to collect and sell timber to non-group members.	The government needs to develop a national programme for leasehold forestry that clearly identifies its target groups. Absence of such a programme has hindered countrywide extension of the leasehold forestry programme. There are two leasehold forestry projects being implemented in the hill and mountain districts.
18	Local Governance Act (1999)	Contradicts the Forest Act in many matters. Forests granted by the prevailing laws and government are the property of the Village Development Committee. Sale proceeds from sand, stone, concrete, soil, etc. go to the District Development Committee. This violates the definition of forest products under Section 2(c) of the Forest Act. Empowers village development committees to hear complaints regarding pasture, grass and fuelwood, which is contrary to the Forest Act.	

*Notes: \* Through a notice in the official Nepal Gazette of 12 February 2001, the government completely banned the collection, utilization, sale, transport and export to other countries of two medicinal and aromatic plant species: panch aunle (Dactylorhiza natagirea) and bark of Okhar (Juglans regia).*

*\*\* A policy provides a broader framework, but for implementation it is necessary to formulate an act, regulation and periodic and annual programmes. For example, the Leasehold Forest Policy (2002) is not included in the Forest Act (1993) and Forest Regulation (1995), so it cannot be implemented effectively in the field.*

### **III.6 Effectiveness and different forest tenure systems**

Community forestry aims to fulfil basic forest product needs, whereas the main objective of leasehold forestry is poverty alleviation and rehabilitation of degraded forest lands (environment conservation). The coverage of community forestry is much larger in terms of both forest area and population, but it is not directly focused on poverty reduction. Leasehold forestry has smaller coverage, but has a very positive impact on poverty alleviation, as well as improving degraded forest lands owing to the stronger sense of ownership among users. Table 6 compares community, leasehold and government-managed forestry (UNOPS, 2001).

TABLE 6

#### **Comparison of leasehold, community and government-managed forestry**

### Understanding forest tenure: What rights and for whom?

S.N.	Community forestry	Leasehold forestry	Government-managed forestry, administered by the District Forest Office
1	The basic objectives are: a. meeting the bona fide needs for forest products of the people living near forest areas; b. managing good forest areas with a view to sustaining the supply of forest products. Degraded areas can be part of a community forest, but as long as there is a choice, they are seldom accepted, and currently account for less than 5% of community forests (Kanel, 2004). Communities select the best option.	The basic objectives are: a. poverty alleviation for the poor households living close to degraded forest areas; b. eco-restoration of degraded forest areas.	The objective is not explicitly expressed, but the general perception is that it is to fulfil the forest product needs of people in general.
2	Includes everyone living near forest areas, irrespective of their economic, social or ethnic status. There are no targeting criteria to address poverty.	Targets poor people living near forest areas, including disadvantaged ethnic groups.	The target group is not spelled out.
3	CFUGs are comparatively large and heterogeneous.	Leasehold groups are small and homogeneous.	There is no group approach.
4	The approach aims mainly to manage existing forests. It is a preventive measure against the degradation of forest through regulating the harvest of forest products and controlling grazing, forest fires, etc.	The approach pays more attention to natural resource management. It tries to correct past mismanagement by rehabilitating and restoring degraded forest areas.	Covers forest areas other than community, leasehold and other forest for specific purposes. A forest management scheme is prepared for harvesting specified amounts of forest products each year.
5.	Forest products are available to beneficiaries only at specified times of the year. For example, fodder collection may be allowed only during certain periods.	Forest products are available to beneficiaries throughout the year (as determined by them).	Forest products are available for all the citizens of the district; surplus products are sold at auction.
6	Manages forests on the basis of operational plans; the benefits must be shared with the whole community.	Manages forests on the basis of operational plans; the benefits flow directly to beneficiaries.	Manages forest according to the forest management scheme; really consists only of gathering fallen trees.
7	CFUG members have little incentive or interest in implementing the operational plan. An individual member can get fuelwood, fodder and timber for subsistence at fixed prices, but cannot use the revenue generated from the forest, which is normally spent for community development. Individual households therefore have less interest in the forest.	The concept encourages environmental restoration and protection by giving beneficiaries an incentive to implement the operational plan. There are close linkages between the benefits obtainable and the eco-restoration of degraded leasehold areas.	There are no incentives, other than the District Forest Office's responsibility; forests are therefore degrading.
8	Community forestry is not legally mandated to alleviate poverty, but forest conditions have been considerably improved in these forests.	Leasehold forestry prescribes a unique mechanism in which poor and resource-scarce people are involved in conserving the forest and harnessing the benefits from it.	Limited amounts of timber from government-managed forests are available to victims of natural calamities at subsidized rates. Other households can obtain limited amounts for house construction and agricultural tools. But the sale and distribution of forest products through the District Forest Product Supply Committee are not effective, and people are not getting timber easily.



9	Most forests are handed over for 5 years, extendable indefinitely for periods of 5 to 10 years if they perform satisfactorily. There is no specified time limit for reverting community forests back to the government.	Degraded forests are leased out for a maximum of 40 years, which can be renewed for another 40 years.	Forests are directly administered by the District Forest Office, with no people's participation.
10	In the hills, there is no need to share the benefits from the forest with the government. In the Terai and Inner Terai, 15% of the benefits from forest product sales – mainly of sal ( <i>Shorea robusta</i> ) and khair ( <i>Acacia catechu</i> ) – to non-members is paid to the government.	Poor families are exempt from leasing fees. They do not need to share the benefits with the government.	15% of revenues collected from forests are shared with the local government District Development Committee; the remaining 85% go into government funds.
11	CFUG members maintain a feeling of "our" community forest.	There is a strong feeling of "my" forest among the leasehold group members. This sense of ownership is the principal driving force in managing the forest.	As it can be managed as common property, forest is often treated as an open-access resource; hence the "tragedy of the commons" applies. There is no feeling of ownership among the local communities.
12	Forest is protected and forest products are collected.	Forest is intensively managed, accompanied by intercropping with perennial forage species.	Forest is protected by the District Forest Office staff.
13	Fuelwood and timber are the main products, but NTFPs are also gathered.	Forage and NTFPs are the main products.	Timber is the main product, but NTFPs are also collected.
14	Only the forestry organization is involved.	This is an integrated approach that involves the forestry, livestock and cooperative sectors.	Only the District Forest Office is involved in protection.

### III.7 Proposals for the way forward

One of the major policy and legal constraints to the expansion of private forestry is the fixation of a land ceiling in the Lands Act of 1964. The purpose of the act was to ensure some degree of equity in the ownership of land, which is the principal source of livelihood and income for most of Nepal's population. This policy objective makes it difficult to argue in favour of waiving the ceiling.

#### *Adapting policies and legislation in community forestry*

Social equity and poverty alleviation should be an ultimate goal of community forestry. The following second-generation issues for community forestry have been identified (Kanel, 2004):

- governance,
- livelihoods, and
- sustainable forest management.

The Ministry of Forests and Soil Conservation should formulate a policy to address these issues, and reflect this policy in legislation for its effective implementation in the field. This implies that forestry legislation (the Forest Act of 1993 and the Forest Regulation of 1995) needs to be amended to make it explicitly pro-poor.<sup>28</sup>

In some Terai districts, the Ministry of Forests and Soil Conservation has adopted a multi-stakeholder approach by forming District Forestry Coordination Committees (DFCCs) chaired by the chairperson of the District Development Committee. Other members of the DFCC are the district soil conservation, livestock, agriculture and women's development officers, and representatives of NGOs, wood-based industries and political parties in the House of Representatives. The District Forest Officer is the ex-officio secretary of the DFCC. The main objective of the DFCC is to make all forestry sector programmes transparent for all stakeholders in the district. The DFCC concept should be adopted in all districts.

Community forests in the Terai, the hills and the high mountains contain large quantities of many NTFPs, including high-value medicinal and aromatic plants (Luitel et al., 2004). These are collected from wild forests only, are exported and serve as sources of additional income for poor people. Proper conservation and cultivation of NTFPs is sporadic. The Ministry of Forests and Soil Conservation has recently published the NTFP Policy and Strategy (2005), and all community, leasehold and other forestry programmes should incorporate the large-scale cultivation of NTFPs, including medicinal and aromatic plants, to create short- and medium-term employment opportunities and income for poor people.

Enterprise and marketing aspects of forest products are a weak component in community forestry. The transformation of forest products into semi- or fully processed materials and goods is also very limited, even though such products have huge potential. The community forestry programme should adopt a policy to promote pro-poor enterprises with marketing support.

Leasehold forestry is a successful model for addressing poverty and the conservation and management of degraded forest resources. It gives the poor long-term tenurial ownership, encouraging them to invest their labour to reap greater benefits. Some community forests have adopted a similar concept on a pilot basis within their forest areas, and this has been

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<sup>28</sup> "Pro-poor" means that interventions are positively biased in favour of the poor.

found effective for poverty alleviation. The concept should therefore be adopted in all community forests.

In community forestry, elite groups who hold the key posts on executive committees obtain most of the benefits and opportunities. It is unlikely that all users – especially the poor, disadvantaged groups and women – are able to participate actively, particularly in decision-making and benefit sharing; sometimes, it would be more accurate to refer to “committee forestry” rather than community forestry. It is therefore recommended that community forestry adopt a policy of positive discrimination; policy and legal provisions should be made that earmark programmes and budgets for the poor.

In the Terai, all forests are located in the northern parts of the districts, while most of the population live in the southern areas. Only the communities adjoining forests – many of which settled there through migration – are considered to be the users and beneficiaries of community forests. Most traditional users who live some distance away from the forests are excluded from their conservation and management, and do not obtain any forest products or benefits. Surplus products from the community forests are sold through auction. Neighbouring communities or village development committees in the district cannot compete with timber contractors. Thus the government should adopt a policy and formulate legislation to enable the participation of traditional and distant<sup>29</sup> users of community forests in the Terai. The needs of local people should be given priority over those of timber contractors who export forest products outside the district.

The range of the outer Himalaya is lower in altitude, ranging from 100 to 1 500 m above sea level. This area is called the Siwaliks and is fragile in structure, with loose gravel, conglomerates and coarse sand. Community forests with local participation are vital to conservation of the Siwaliks, and conservation-oriented forest management should be adopted in the community forests of this area. The removal of green trees and the carrying out of activities that disturb the soil should be completely banned, and perennial NTFPs should be promoted as sources of income for poor families.

Most community forests are protection-oriented, with simple thinning, pruning and singling. In order to get optimum benefits, intensive forest management practices should be adopted in the Terai, including the cultivation of NTFPs and forage farming.

### ***Leasehold forestry policy***

Although the leasehold forestry programme is effective for poverty alleviation and the rehabilitation of degraded forest lands with the active participation of poor people, it still covers only 8 500 ha in only 30 districts after a decade of implementation. It is thus time to extend the concept of leasehold forestry to all districts and more community forests. The government should allocate sufficient budget for this.

The concept of cooperatives as the apex-level bodies of leasehold groups has been implemented in the three districts of Makwanpur, Tanahu and Dhading. Cooperatives provide the leasehold groups with long-term institutional and financial sustainability, and have also resolved many conflicts. The cooperative concept should therefore be adopted more widely to cover all leasehold groups. In the longer-term, the cooperatives should form district- and national-level associations.

The Forest Act and Forest Regulation do not yet authorize District Forest Offices to hand over leasehold forests to groups of poor families; The necessary amendments to the act have not

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<sup>29</sup> These are forest users who live some distance from the forest and are not included in the CFUG.

been made because Parliament has been absent. At present, the Regional Director of Forest approves lease certificates, but this is a time-consuming bureaucratic process. Authority for leasehold forests should be devolved to the District Forest Office, as is already the case for community forests.

Leasehold and community forests should not be regarded as competing with each other. They should rather be treated as complementary in order to obtain more benefits for the rural poor; the government should adopt a policy to make this happen.

Past experience shows that when only a few leasehold groups are formed in an area, they are easily suppressed by local elite groups. Leasehold forestry should adopt a cluster approach so that all leasehold groups can be included in cooperatives. It will be easier and cheaper to deliver services and inputs to such clusters, and clusters of five to 15 groups, representing at least 70 households each, will facilitate the bulk production and marketing of products.

## References

Branney, P. & Yadav, K.P. 1998. *Changes in community forest condition and management 1994–1998. Analysis of information from the Forest Resources Assessment Study and Socio-economic Study in the Koshi Hills, Nepal*. Project Report No. G/NUCFP/32. Kathmandu, UK Community Forestry Project.

CBS. 1993. *National Sample Census of Agriculture: 1991/92*. Kathmandu, Central Bureau of Statistics (CBS).

CBS. 2004. *National Sample Census of Agriculture: 2001/02*. Kathmandu, Central Bureau of Statistics (CBS).

Department of Forests. 2005. *Records of the Department of Forests*. Kathmandu.

FAO. 1989. *Community forestry rapid appraisal of tree and land tenure*, by J.W. Bruce. Forest, Trees and People, Community Forestry Note. Rome.

FAO. 2000a. *Impact of leasehold forestry on livelihoods and environment*, by F. Ohler. Kathmandu.

FAO. 2000b. *Assessment of the impact of HLFFDP on participating households from the Household Survey Data 1994–1999*, by R.H. Thompson. Project Internal Document 10/2000. Technical Assistance to the Hills Leasehold Forestry and Forage Development Project (HLFFDP). Kathmandu.

FAO. 2004. *Global forest resources assessment update 2005*. Nepal country report (final draft). Kathmandu.

Government of Nepal. 1993. *Forest Act 1993*. Kathmandu, His Majesty's Government of Nepal.

Government of Nepal. 1995. *Forest Regulation 1995*. Kathmandu, His Majesty's Government of Nepal.

ICIMOD. 2002. *Potential for conflict in community forestry and decentralization legislation in Nepal. Talking points*. Kathmandu, International Centre for Integrated Mountain Development (ICIMOD).

IFAD. 2003. *Interim evaluation of the Hills Leasehold Forestry and Forage Development Project*. Rome.

Jackson, W.J., Tamrakar, R.M., Hunt, S. & Shepherd, K.R. 1998. Landuse changes in two middle hills districts of Nepal. *Mountain Research and Development*, 18(3): 193–112.

- Joshi, A.L. & Pokharel, K.P. 1998. Participatory approach in Nepal forestry sector: A policy evaluation. In *Proceedings of an International Seminar on Sustainable Forest Management (31 August to 2 September 1998)*. Institute of Forestry Pokhara, ITTO.
- Kanel, K.R. 2004. *Twenty five years of community forestry: Contribution to Millennium Development Goals*. Proceedings of the 4th National Workshop on Community Forestry. Kathmandu.
- Luitel, H., Banjade, M.R., Neupane, H.R. & Pandey, R.K. 2004. Sustainable non-timber forest product management issues and ways forward. Paper presented at the 4th National Workshop on Community Forestry, 4 to 6 August 2004. Kathmandu.
- McDougall, C. 2002. *Planning for the sustainability of forest through adaptive and collaborative management*. Nepal country report. Kathmandu, Ministry of Forest and Soil Conservation and Indonesia, Center for International Forestry Research.
- MPFS. 1989. *Master Plan for Forestry Sector*. Kathmandu, Ministry of Forest and Soil Conservation.
- Singh, B.K. 1995. *Conflict management in the leasehold groups (Nepal)*. Conflict Management in Forest Resource Management Workshop Report. Kathmandu, ICIMOD, GZT and RECOFTC.
- Singh, B.K. & Shrestha, B. 2000. *Group site information report of the leasehold groups*. Kathmandu, Hills Leasehold Forestry and Forage Development Project.
- UNOPS. 2001. *Supervision Report of the Leasehold Forestry and Forage Development Project, Malaysia*. New York, United Nations Office for Project Services.
- Yadav R.P. & Dhakal, A. 2000. *Leasehold forestry for poor: an innovative pro-poor programme in the hills of Nepal. Policy outlook*. Kathmandu, Ministry of Agriculture and Winrock International (Series No. 6).



## Further information about the LSP

The Livelihood Support Programme (LSP) works through the following sub-programmes:

### **Improving people's access to natural resources**

Access of the poor to natural assets is essential for sustainable poverty reduction. The livelihoods of rural people with limited or no access to natural resources are vulnerable because they have difficulty in obtaining food, accumulating assets, and recuperating after shocks or misfortunes.

### **Participation, Policy and Local Governance**

Local people, especially the poor, often have weak or indirect influence on policies that affect their livelihoods. Policies developed at the central level are often not responsive to local needs and may not enable access of the rural poor to needed assets and services.

### **Livelihoods diversification and enterprise development**

Diversification can assist households to insulate themselves from environmental and economic shocks, trends and seasonality – in effect, to be less vulnerable. Livelihoods diversification is complex, and strategies can include enterprise development.

### **Natural resource conflict management**

Resource conflicts are often about access to and control over natural assets that are fundamental to the livelihoods of many poor people. Therefore, the shocks caused by these conflicts can increase the vulnerability of the poor.

### **Institutional learning**

The institutional learning sub-programme has been set up to ensure that lessons learned from cross-departmental, cross-sectoral team work, and the application of sustainable livelihoods approaches, are identified, analysed and evaluated for feedback into the programme.

### **Capacity building**

The capacity building sub-programme functions as a service-provider to the overall programme, by building a training programme that responds to the emerging needs and priorities identified through the work of the other sub-programmes.

### **People-centred approaches in different cultural contexts**

A critical review and comparison of different recent development approaches used in different development contexts is being conducted, drawing on experience at the strategic and field levels in different sectors and regions.

### **Mainstreaming sustainable livelihoods approaches in the field**

FAO designs resource management projects worth more than US\$1.5 billion per year. Since smallholder agriculture continues to be the main livelihood source for most of the world's poor, if some of these projects could be improved, the potential impact could be substantial.

### **Sustainable Livelihoods Referral and Response Facility**

A Referral and Response Facility has been established to respond to the increasing number of requests from within FAO for assistance on integrating sustainable livelihood and people-centred approaches into both new and existing programmes and activities.

For further information on the Livelihood Support Programme,  
contact the programme coordinator:  
Email: [LSP@fao.org](mailto:LSP@fao.org)

## LSP WORKING PAPERS to August 2006

- Baumann P., (July 2002) **Improving Access to Natural Resources for the Rural Poor: A critical analysis of central concepts and emerging trends from a sustainable livelihoods perspective.** FAO, LSP WP 1, Access to Natural Resources Sub-Programme.
- Cotula L., (August 2002) **Improving Access to Natural Resources for the Rural Poor: The experience of FAO and of other key organizations from a sustainable livelihoods perspective.** FAO, LSP WP 2, Access to Natural Resources Sub-Programme.
- Karl M., (August 2002) **Participatory Policy Reform from a Sustainable Livelihoods Perspective: Review of concepts and practical experiences.** FAO, LSP WP 3, Participation, Policy and Local Governance Sub-Programme. Also available in Spanish and French.
- Warren P., (December 2002) **Livelihoods Diversification and Enterprise Development: An initial exploration of Concepts and Issues.** FAO, LSP WP 4, Livelihoods Diversification and Enterprise Development Sub-Programme.
- Cleary D., with contributions from Pari Baumann, Marta Bruno, Ximena Flores and Patrizio Warren (September 2003) **People-Centred Approaches: A brief literature review and comparison of types.** FAO, LSP WP 5, People-Centered Approaches in Different Cultural Contexts Sub-Programme. Also available in Spanish and French.
- Seshia S. with Scoones I., Environment Group, Institute of Development Studies, University of Sussex, UK (November 2003) **Understanding Access to Seeds and Plant Genetic Resources. What Can a Livelihoods Perspective Offer?** FAO, LSP WP 6, Access to Natural Resources Sub-Programme.
- Biggs S. D., and Messerschmidt D., (December 2003) **The Culture of Access to Mountain Natural Resources: Policy, Processes and Practices.** FAO, LSP WP 7, Access to Natural Resources Sub-Programme.
- Evrard O., (Janvier 2004) **La mise en oeuvre de la réforme foncière au Laos : Impacts sociaux et effets sur les conditions de vie en milieu rural** (with summary in English). FAO, LSP WP 8, Access to Natural Resources Sub-Programme.
- Ellis F., Allison E., Overseas Development Group, University of Anglia, UK ( January 2004) **Livelihood Diversification and Natural Resource Access.** FAO, LSP WP 9, Access to Natural Resources Sub-Programme, Livelihood Diversification and Enterprise Development Sub-Programme.
- Hodgson S., (March 2004) **Land and Water – the rights interface.** FAO, LSP WP 10, Access to Natural Resources Sub-Programme.
- Mitchell R. and Hanstad T., Rural Development Institute (RDI), USA, (March 2004) **Small homegarden plots and sustainable livelihoods for the poor.** FAO LSP WP 11, Access to Natural Resources Sub-Programme.
- Hanstad T., Nielsen R., Brown J., Rural Development Institute (RDI), USA, (May 2004) **Land and Livelihoods: Making land rights real for India's rural poor.** FAO LSP WP 12, Access to Natural Resources Sub-Programme.
- Fisher R.J., Schmidt K., Steenhof B. and Akenshaev N., (May 2004) **Poverty and forestry : A case study of Kyrgyzstan with reference to other countries in West and Central Asia.** FAO LSP WP 13, Access to Natural Resources Sub-Programme.
- Cotula L., and Toulmin, C. with van Vlaenderen, H., Tall, S.M., Gaye, G., Saunders, J., Ahiadeke, C. and Anarfi, J.K, International Institute for Environment and Development (IIED), UK (July 2004) **Till to tiller: Linkages between international remittances and access to land in West Africa.** FAO LSP WP 14, Access to Natural Resources Sub-Programme.
- Baumann P., Bruno M., Cleary D., Dubois O. and Flores X., with contributions from Warren P., Maffei T. and Johnson J. (March 2004) **Applying people centred development approaches within FAO: some practical lessons.** FAO LSP WP 15, People Centred Approaches in Different Development Contexts Sub-Programme. Also available in Spanish and French.
- Neely C., Sutherland K., and Johnson J. (October 2004) **Do sustainable livelihoods approaches have a positive impact on the rural poor? – A look at twelve case studies.** FAO LSP WP 16, Institutional Learning Sub-Programme.
- Norfolk S. (2004) **Examining access to natural resources and linkages to sustainable livelihoods: A case study of Mozambique.** FAO LSP WP 17, Access to Natural Resources Sub-Programme.
- Unruh J. (2004). **Post-conflict land tenure: using a sustainable livelihoods approach.** FAO LSP WP 18. Access to Natural Resources Sub-Programme.



- Eckman, C. (2005). **Lessons Learned by the WIN Project on Livelihoods Diversification and Enterprise Development: An Overview of WIN LDED-related Activities in Cambodia, Nepal and Zambia.** FAO LSP WP 19. Livelihoods Diversification and Enterprise Development Sub-Programme.
- Warren, P. (2005). **Between the Household and the Market: A livelihoods analysis of SPFS seed multiplication in Southern Guatemala.** FAO LSP WP 20. Livelihoods Diversification and Enterprise Development Sub-Programme.
- Strele M., Holtge K., Fiebeger M., Were J., Schulmeister A., with contributions from Weingartner L., (2006) **Participatory Livelihoods Monitoring . Linking Programmes and Poor People's Interests to Policies Experiences from Cambodia.** FAO LSP WP 21. Participation, Policy and Local Governance Sub-Programme.
- Unruh J. and Turray H. (2006). **Land tenure, food security and investment in postwar Sierra Leone.** FAO LSP WP 22. Access to Natural Resources Sub-Programme.
- Nielsen R., Hanstad T., and Rolfes L. **Rural Development Institute (RDI). (2006). Implementing homestead plot programmes: Experience from India.** FAO LSP WP 23. Access to Natural Resources Sub-Programme.
- Quan, J. Natural Resources Institute University of Greenwich. (2006). **Land access in the 21st century: Issues, trends, linkages and policy options.** FAO LSP WP 24. Access to Natural Resources Sub-Programme.
- Cotula L., Hesse C., Sylla O., Thébaud B., Vogt G., and Vogt K. International Institute for Environment and Development (IIED). (2006.) **Land and water rights in the Sahel: Tenure challenges of improving access to water for agriculture.** FAO LSP WP 25. Access to Natural Resources Sub-Programme.
- Gomes N. (2006). **Access to water, pastoral resource management and pastoralists' livelihoods: Lessons learned from water development in selected areas of Eastern Africa (Kenya, Ethiopia, Somalia).** FAO LSP WP 26. Access to Natural Resources Sub-Programme.
- Tanner C., Baleira S., Norfolk S., Cau B. and Assulai J. (2006). **Making rights a reality: Participation in practice and lessons learned in Mozambique.** FAO LSP WP 27. Access to Natural Resources Sub-Programme.
- Tanner C. and Baleira S. with Afonso Â, Azevedo J. P., Bila J., Chichava C., Moisés A., Pedro C. and Santos J. (2006). **Mozambique's legal framework for access to natural resources: The impact of new legal rights and community consultations on local livelihoods.** FAO LSP WP 28. Access to Natural Resources Sub-Programme.
- Romano F. and Reeb D. (2006). **Understanding forest tenure: What rights and for whom? Secure forest tenure for sustainable forest management and poverty alleviation: the case of South and Southeast Asia, with case studies of Orissa and Meghalaya, India and Nepal.** FAO LSP WP 29. Access to Natural Resources Sub-Programme.
- Lindsay J., Wingard J. and Manaljav Z. (2006). **Improving the legal framework for participatory forestry: Issues and options for Mongolia.** FAO LSP WP 30. Access to Natural Resources Sub-Programme.
- Schmidt S. with Altanchimeg C., Tungalagtuya K., Narangerel Y., Ganchimeg D., Erdenechimeg B., Dambayuren S. and Battogoo D. New Zealand Nature Institute - Initiative for People Centered Conservation. (2006). **Depleting natural wealth – perpetuating poverty: Rural livelihoods and access to forest resources in Mongolia.** FAO LSP WP 31. Access to Natural Resources Sub-Programme.
- Schmidt S. with Altanchimeg C., Tungalagtuya K., Narangerel Y., Ganchimeg D., Erdenechimeg B., Dambayuren S. and Battogoo D. New Zealand Nature Institute - Initiative for People Centered Conservation. (2006). **Rural livelihoods and access to forest resources in Mongolia: Methodology and case studies of Tsenkher Soum, Ulaan Uul Soum, Binder Soum, Teshig Soum and Baynlig Soum.** FAO LSP WP 32. Access to Natural Resources Sub-Programme.

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