Participatory Forest Management: Implications for Policy and Human Resources' Development in the Hindu Kush-Himalayas

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Editor
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Cover Plate
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Foreword

The last decade of this millennium is testimony to changing times for the people and forests of the Hindu Kush-Himalayas, and it has seen the emergence of people-centred forest policies in almost all the countries in the region. These policies aim to support and strengthen participatory forest management, and through this process ensure that the needs of mountain women and men are accorded due priority.

The evidence of the will of policy-makers in the countries of the Hindu Kush-Himalayas can be traced back to the beginning of this decade. In 1990, the Government of India approved an order to encourage *joint* forest management between government and forest dependent communities in degraded forest areas. Currently twenty-two states spread over the country have approved enabling government orders. These include all three states of the Western Himalayas—Jammu and Kashmir in 1993, Himachal Pradesh in 1993, and Uttar Pradesh in 1997—and three states in the North Eastern Himalayas—Tripura in 1991 and Arunachal Pradesh and Nagaland in 1997. Nepal approved a new Forest Act in 1993 that provides legal support to community forestry and remains one of the most progressive pieces of legislation in this field. Bangladesh approved a new forest policy incorporating the concept of participatory forest management in 1994. Myanmar gazetted a new Forest Act in 1992 and issued its first community forestry instructions notification in 1995. Bhutan enacted a new Forest and Nature Conservation Act in 1995 and approved its revised 'Social Forestry Rules' in 1996. Pakistan's national draft 'Forestry Sector Policy' was under discussion at the time that this workshop was held, people's participation was a strong element in the proposed policy. The North West Frontier Province of Pakistan developed a draft forest policy for the first time in 1997. The draft is people-centred, it is still under discussion and awaits approval. In 1993, Yunnan Province in the People's Republic of China put into place provisions for the auction of tenure of barren mountain areas, and this has stimulated people's involvement in forest management. Forest policies were revised in 1994 in the Tibetan Autonomous Region to encourage and support the involvement of the local population.

The emergence of people-oriented policies in all these countries over a decade points to a dramatic paradigm shift in forest management. This is the result of the increasing understanding of the fact that forests play a pivotal role in mountain areas and can no longer be managed without the active cooperation of the mountain communities.

An increasing area is being brought under community management through different benefit-sharing systems and tenure arrangements. These arrangements often build on or add to traditional forest management practices in mountain areas and this augurs well for the sustainable development of these areas.

The role of forestry professionals is changing from custodial to participatory. Reorientation of all levels of staff in forest departments is currently underway, and the curricula of educational institutions are being revised to ensure that the new generation of people-centred forestry professionals has the appropriate skills to support community-based forest management.

ICIMOD recognised this emerging trend and in 1993 established the Participatory Natural Resources Management Programme with a clearly defined focus on participatory forest management. ICIMOD has been able to document successes and provide regional and national forums for the exchange of views and experiences through workshops and field visits. We take some pride in having been a part of this exciting decade of change and in having made a modest contribution to changing policies and perspectives in the Hindu Kush-Himalayas.

The regional workshop 'Participatory Forest Management: Implications for Policy and Human Resources' Development' held in May 1998, whose proceedings are described in this publication, is one of the many activities arranged by the Participatory Natural Resources' Management Programme since 1993. This workshop brought together senior policy-makers from seven of the eight countries of the Hindu Kush-Himalayas.

Apart from providing a unique opportunity for professional foresters in the region to share their experiences in relation to the evolution of new policies, the meeting was also a milestone in the establishment of HIFCOM — the Hindu Kush-Himalayan Forum for Forest Conservation and Management – on a broad footing. The idea for HIFCOM was conceived at an earlier ICIMOD workshop held in India in 1995. Over the last three years, the institutional development process has been nurtured in close collaboration with forestry professionals in the region. The workshop in China brought together *seven* of the eight HKH countries for the first time, and the idea of HIFCOM as a regional forum for promoting participatory forest management among forestry and related professionals in the HKH was endorsed by the representatives of all these countries. This endorsement and the willingness of foresters to take responsibility for the further evolution of HIFCOM are indicative of the need for this forum. The stakeholders themselves have now taken over leadership of the forum and have drawn up plans for the future.

As we move into the next century, I am glad that we are able to bring this sense of optimism and hope to individuals and institutions in the Hindu Kush-Himalayas. The evolution of these policies for mountain forests would not have been possible without the sustained effort of the women and men of the mountains who have been managing these resources. It is they who have demonstrated that, given appropriate policies and an enabling framework, they can manage the natural resources of the mountains to meet their own needs whilst ensuring that the needs of future generations are safeguarded.

I am confident that we are now moving from a decade of policies and experiments to a future of practise and implementation that will test these policies on the ground and lead to further reflection, learning, and change. This can only happen successfully if policies are backed by appropriate, timely, and clear laws and rules that enshrine the spirit of the policies. A high level of commitment is required to ensure that policies do not remain merely statements of intent. For this, we will need to address the issue of human resources development with a greater sense of urgency than we have in the past. Apart from development of skills, the workshop participants identified issues of reorientation and changes of attitude as major future challenges.

I would like to take this opportunity to thank the South West Forestry College, Kunming, Yunnan Province, of the People's Republic of China for being such an effective host for the workshop and all the resource persons and authors of the papers for their commitment.

My gratitude also extends to the numerous mountain women and men who have shown that participatory forest management can work. They have been, and remain, our continuing source of inspiration and encouragement.

Egbert Pelinck
Director General

Acknowledgements

Abstract

The Workshop on Participatory Forest Management: Implications for Policy and Human Resources' Development in the Hindu Kush-Himalayas brought together forest management personnel from various parts of the Hindu Kush-Himalayas. The basis of their discussions was the people-centred forest policies that have emerged in many countries of the region and their objectives of supporting and strengthening participatory forest management to ensure that the needs of mountain people receive the priority they deserve. The policies along with their constraints and opportunities were discussed in depth, guided by papers provided by the participants themselves. Volume 1 is the Workshop Document, Volume 2 deals with China, Volume 3 – Eastern Himalayas, Volume 4 – India, Volume 5 – Nepal, and Volume 6 – Pakistan.

Abbreviations
and Acronyms

CFTP	Community Forestry Training Project
CTEVT	Council for Technical Education and Vocational Training
DANIDA	Danish International Development Agency
DFID	Department for International Development
DFO	District Forest Officers
DOF	Department of Forest
EIA	Environmental Impact Assessment
FECOFUN	Federation of Community Forestry Users in Nepal
FINNIDA	Finnish International Development Agency
FSCC	Forestry Sector Coordination Committee
FUG	Forest User Groups
FUGC	Forest User Group Committees
GTZ	German Technical Cupertino
IEE	Initial Environmental Examination
IFMS	Indigenous Forest Management Systems
IOF	Institute of Forestry
masl	metres above sea level
MFSC	Ministry of Forest and Soil Conservation
MPFS	Master Plan for the Forestry Sector
NGO	Non-government Organization
NTFP	Non-Timber Forest Product
NUKCFP	Nepal-UK Community Forestry Project
RFTC	Regional Forestry Training Centre
SDC	Swiss Development Corporation
UK	United Kingdom
US$	United States Dollar
USA	United States of America
USAID	United States Agency for International Development
VDC	Village Development Committee

Glossary

Samiti ko ban	Committee's forest
Samuha ko ba	Forest User Group's forest
Panchayat	An administrative unit during the Panchayat era in Nepal, equivalent to the present day Village Development Committee area
Talukdar	Unofficial functionary
Ban Janet Adda	Forest Inspection Office
Kathmahal	Timber Office
Birta	Land granted by the state
Kipat	An ancient type of land tenure without any legal title, common among the Limbu ethnic group of the eastern mountains of Nepal
Shinga Naua	Locally appointed officials in the Sherpa communities of eastern Nepal with responsibility for allocating forest resources and ensuring that individuals adhered to the rules for forest use
Mana Pathi system	A system of forest protection by local communities, whereby grain is paid in lieu of cash to a forest watcher

Introduction

The workshop proceedings and the studies and papers presented at the 'Regional Workshop on Participatory Forest Management: Implications for Policy and Human Resources' Development in the Hindu Kush-Himalayas, have been published in six volumes as per the details provided here:

Volume I

- Proceedings of the 'Regional Workshop on Participatory Forest Management: Implications for Policy and Human Resources' Development in the Hindu Kush Himalayas, 7-12 May 1998, Kunming, China.

Volume II
China

- Participatory Forest Management: Implications for Policy and Human Resources' Development in China
  Wen Haizhong, Director, Division of Forestry Law and Regulation Implementation and Monitoring, National Forestry Bureau, China

- Participatory Forest Management: Implications for Policy and Human Resources' Development in Yunnan Province
  Zhou Yuan, Deputy Dean, Department of Economic Management, South West Forestry College, Kunming, Yunnan, China
  Zhou Dequn, Associate Professor, South West Forestry College, Kunming, Yunnan, China
  Zhang Lichang, Director, Division of Forest Law and Regulations, Department of Forestry, Kunming, Yunnan, China
  Zhang Jiaxiang, Deputy Director, Division of Forest Law and Regulations, Department of Forestry, Kunming, Yunnan, China

- Participatory Forest Management: Implications for Policy and Human Resources' Development in the Tibetan Autonomous Region
  Gou Wenhua, Director of the Teaching Division, Tibet's Institute of Agriculture and Animal Husbandry, Lhasa, Tibet
  Zhao Bing, Director, Research Institute of Plateau Ecology, Tibet's Institute of Agriculture and Animal Husbandry Management, Lhasa, Tibet

Volume III
Eastern Himalayas

- Bangladesh
  Participatory Forest Management: Implications for Policy and Human Resources' Development: A Case Study of the Chittagong Hill Tracts
  S. M. Jalil, Chief Conservator of Forests, Department of Forests, Bangladesh
  Junaid K. Choudhury, Conservator of Forests, Department of Forests, Bangladesh

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Pakistan

- Participatory Forest Management: Implications for Policy and Human Resources' Development in Pakistan
  Rafiq Ahmad, Inspector General of Forests, Ministry of Environment, Local Government and Rural Development, Government of Pakistan, Islamabad, Pakistan

- Institutional Change Process in the North West Frontier Province, Forest Department, Pakistan
  Mohammad Iqbal, Conservator of Forests, Department of Forestry, Fisheries and Wildlife, Government of North West Frontier Province, Peshawar, Pakistan.

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Contents

1 Introduction

There is a trend sweeping through many parts of the world towards decentralization and devolution of forest management authority. Nepal was one of the first countries to empower local communities to manage forest resources. Implementation of community forestry as the primary forest policy in Nepal is leading to rejuvenation of once degraded forest areas in the mountains.

The two critical areas for the successful implementation of community forestry are policy and human resource development. Nepal's community forestry policy is considered to be one of the most progressive forest policies in the world. The policy stresses the development and management of all accessible forest resources through active participation of the local communities. This is accomplished by handing over forest management responsibilities to the local forest users, if they are willing and able to manage the forest. Management of community forests is regulated by the users' own decisions and by the Operational Plan for the forest area.

At the same time as it adopted a community forestry policy, the government of Nepal developed a human resource development programme to produce appropriate manpower for effective policy implementation. The ultimate aim of the human resource development programme is local level capacity building to enhance the forest management and utilisation skills of the forest users.

Although considerable work has been done in community forestry policy and human resource development, there is a lack of comprehensive and organized analytical knowledge. This case study is an attempt to fill this gap.

1.1 General Background

The Kingdom of Nepal is a land-locked mountainous country with an area of 147,181 sq. km. located between India and China. Its geographical location is between 26^0 22' and 30^0 27' north and 80^0 04' and 88^0 12' east. More than 80 per cent of the area is covered by rugged hills and mountains. These include Mt. Everest, the world's highest peak. In the south there is a belt of flat land called the *Terai*, which is an extension of the Gangetic plain.

1.1.1 Physiographic Zones

Nepal can be divided into five physiographic zones (Figure 1): the high Himal, the high mountains, the middle mountains, the Siwaliks, and the *Terai*.

The High Himal

The Himal is a spectacular area of rocky ice-covered massifs, rolling snow fields, and glaciers and marks the northern boundary of Nepal with Tibet (China). This zone lies between the tree line (about 4,000 masl) and the tops of the Himalayan massifs.

The High Mountains

The high mountain zone comprises the land between the middle mountains and the high

NEPAL
Physiographic Zones

0   60   120km

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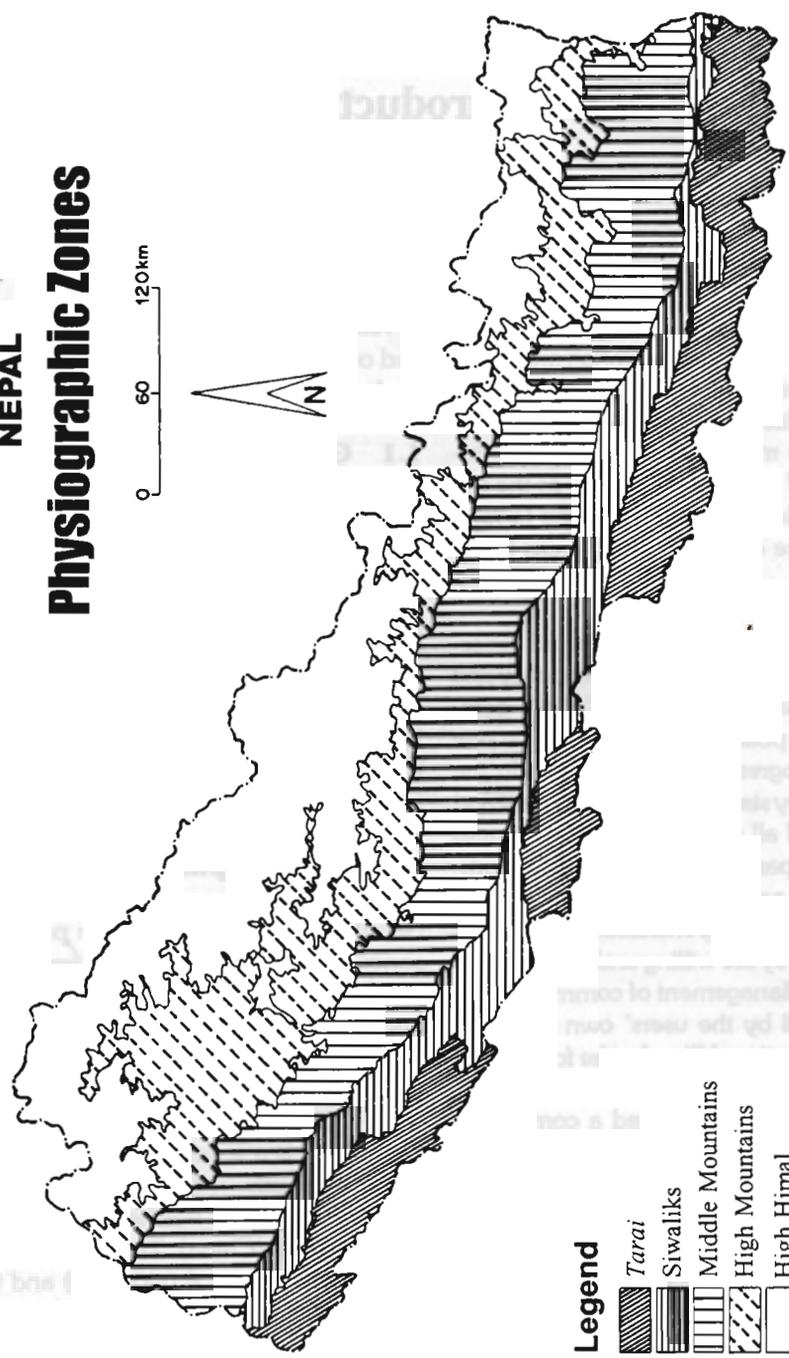
Legend

Tarai

Siwaliks

Middle Mountains

High Mountains

High Himal

Himal. It makes up 20 per cent of the country. The main features are long, steep slopes with heavy forest cover which are important watersheds. This zone contains about 30 per cent of Nepal's natural forests.

The Middle Mountains

This zone (also known as the 'middle hills') is bounded by the Siwaliks in the south and the forest-covered slopes of the High Mountains to the north. This area supports about half the population of the country and about one third of the agricultural production. Some of the main urban centres, including the country's capital, Kathmandu, are located in this zone. Long and intensive use of the land in this zone is shown by the intricate and extensive terrace systems. A large number of landslide scars, eroded areas, and areas with loss of forest land also attest to the intensive use of land. This zone occupies about 30 per cent of the country.

The Siwaliks

The outermost Himalayan foothills, which lie to the north of the Terai and stretch the length of the country from east to west, are known as the Siwaliks. This zone comprises 13 per cent of Nepal's land area. The Siwaliks enclose several valleys and intricately dissected out-wash cultivated plains. Most of the ridges retain their forest cover because their coarse-textured, sandy, shallow, highly erodible soils and steep slopes make them unsuitable for cultivation.

The Terai

The Terai is bounded to the north by the Siwaliks and to the south by the Indian border. This narrow belt of lowland covers about 14 per cent of the country. Originally the Terai was covered by dense hardwood forests, but agricultural development has reduced most of these to discontinuous blocks and strips. Even so, much of the northern Terai (called Bhabar) is still forested.

The geographical location of Nepal means the major climatic influence is sub-tropical monsoon. However, as a result of the varied topography, a wide range of climates, ranging from arctic to humid monsoon, is found in the country.

Nepal has been divided into five Development Regions, 14 Zones, and 75 Districts for administrative purposes. Each district has a District Development Committee responsible for overseeing the overall development of the district. A district consists of many Village Development Committees and Municipalities, which are the lowest elected bodies responsible for local development.

Nepal has a largely subsistence economy. At the time of the 1991 census, the population of Nepal was 18,491,093 and the population density was 125 persons per sq. km. More than 90 per cent of the Nepali population lives in rural areas. The population growth rate is estimated at 2.1 per cent per annum. Over half of the population lives in the mountainous areas and most are dependent on agriculture for their livelihood; yet the ratio of agricultural land to agricultural population is only 0.12 ha/person. As a result, mountain residents are forced to seek off-farm employment through both permanent and seasonal migration to the Terai and urban areas.

The land use in Nepal is summarised in the Annex to this report. Forests occupy 37 per cent of the total land area. The distribution and type of forests are generally related to elevation. Tropical evergreen forests are found below 1,000 masl, typically composed of Shorea robusta, Dalbergia sissoo, and Acacia catechu. Sub-tropical forests are found between 1,000 and 2,000 masl and include Pinus roxburghii, Alnus nepalensis, Schima wallichii, and Castanopsis spp. The lower temperate forests found between 2,000 and 2,700 masl consist of Pinus wallichiana and several species of Quercus. Upper temperate forests, found between 2,700 and 3,000 masl, include species such as Quercus semecarpifolia, Rhododendron arboreum, and Acer spp. Sub-alpine forests are found between 3,000 and 4,200 masl and include Abies spectablis, Betula utilis, Rhododendron spp, and Juniperus indica. The alpine zone has no trees, but shrubby Rhodo-

dendron and *Juniperus* are found up to an altitude of 4,500m.

In strict legal terms, all land that is not privately owned falls under the jurisdiction of the Department of Forests (DOF). According to the Master Plan for the Forestry Sector (MPFS) 1988, more than a quarter of the forest area is degraded (less than 40 per cent crown cover). Almost two-thirds of the forests are occupied predominantly by small-sized timber, and only one third by large timber. Regeneration of pole-sized stands is inadequate. The total growing stock is 522 million cubic metres over bark up to 10 cm top diameter (MPFS 1988).

The DOF is represented in all 75 districts of the country by a District Forest Office, which is headed by a District Forest Officer (DFO) (except in Mustang District). The DFO is assisted by Assistant Forest Officers, Rangers, and Forest Guards, the number dependent on the category of the district.

1.2 The Role of Forests in the Livelihood Strategies of Mountain People

Forests are a versatile and renewable natural resource and provide a wide range of economic, social, environmental, and cultural benefits and services. Since time immemorial, mountain people have depended on forests for various products to fill their basic needs such as fuelwood, fodder, leaf litter, poles, timber, fruit, and medicinal plants and to provide other services that are essential inputs into the farming system.

According to Mahat (1987): *"the hill farming system can be described, in general, as being comprised of a complex arrangement of soils, water, crops, livestock, forest, and other resources within an environmental setting that the farm family manages in accordance with its preferences, capabilities, and available technologies."* Forests provide the mineral nutrients and energy that are essential for the survival of the farming system. Tree fodder makes up a great proportion of animal feed, particularly during the winter months when ground forage is in short supply. Green and dried leaf litter is used as animal bedding and later mixed with dung to form a compost, the major farm fertilizer used by mountain people. Based on fodder availability and consumption, Wyatt-Smith (1982) has suggested that 2.8 ha of accessible forest are required for each ha of farmland to sustain the farming system that exists at present in the mountains of Nepal. Some 2.3 metric tonnes of leaf litter and dung are used per ha of cultivated land annually (Mahat 1985). A substantial proportion of leaf litter is removed from the forest in the Nepalese mountains. This affects the nutrient recycling in the forest ecosystem.

Nearly all-rural mountain households depend on fuelwood for cooking and heating. Per capita fuelwood consumption per annum has been estimated at 330 kg in the *Terai* and 640 kg in the mountains (TU 1976). All tree species except those valued for timber and fodder species are used as fuel. It has been estimated that forests supply two-thirds of the fuelwood. Private trees and agricultural crop residues are other sources of fuel.

Compared to fuelwood and fodder, the demand for timber in the mountains is low. Forests provide timber and poles for constructing houses and animal sheds and wood for making household and farming tools. At high altitudes, conifer shingles are used as roofing materials. Timber is also used for various local development activities, such as building schools and bridges, and thus contributes to the economic and social development of the area. The demand for timber in the mountains of Nepal is estimated to be 0.1 cubic metres per person per annum (Wyatt-Smith 1982).

The people of the mountains also use forest areas to obtain other products for direct domestic consumption and income generation. Honey, mushrooms, birds, animals, fish, and plants (tubers, stems, fruits, flowers, bark, seeds, leaves) are used as dietary supplements. People also augment their cash income by engaging in various small-scale cottage industries that depend on forest products such as hand made paper (using *lokta*, *Daphne* spp.),

bamboo and cane products, ropes, and brooms.

The forests contribute significantly to the subsistence economy of the mountain people of Nepal, thus increasing human and livestock populations means an increasing demand on the forests for food, fuel, and fodder. These demands exert a heavy pressure on forest resources. According to the MPFS (1988), the area of natural forest is being reduced by about 26,000 hectares per year, most of this in the *Terai*. A more recent study (FRIS 1994) indicates that the overall forest area in the mountains has not decreased significantly over the last 15 to 20 years. However, the condition of the forests is being degraded. The extent of this degradation is not known clearly, but it is believed to be widespread. The forest degradation seriously affects the livelihood of the local people.

1.3   History of Forest Management

The history of forest management in Nepal closely parallels the political history of the country. Therefore understanding the evolution of forest management in Nepal requires an understanding of Nepal's political history. The key historical periods are as follow.

*   **Prior to 1769 (Pre-unification Nepal)**: Nepal consisted of a number of small kingdoms and tribal areas. In 1769 Nepal was unified by the Shah dynasty of Gorkha.
*   **1846 – 1950**: Nepal was ruled by a hereditary dynasty of Prime Ministers – the Ranas, with the Shah kings as figureheads. The country was administered as a feudal fiefdom until the Ranas were overthrown in 1950.
*   **1950 – 1960**: In 1950 the Shah king was restored as a constitutional monarch. The following ten years saw an experiment with democracy and was a period of political instability.
*   **1960 – 1990**: In 1960 the king resumed full political control, political parties were banned and a partyless *Panchayat* system was established. The smallest political unit under this system was the Village *Panchayat*

(population 4,000 – 6,000). Each of the 75 districts in the country had an elected District *Panchayat* and at a national level there was a National *Panchayat* (parliament).
*   **After 1990**: Following a period of often violent civil unrest in early 1990, multiparty democracy was reinstated with the king as a constitutional monarch.

In the earlier periods, the rulers of Nepal showed little interest in forest management. Land use policy in the mountains was designed to encourage the conversion of forests to farmland in order to increase the tax base (Bajracharya 1983). In the virtual absence of any State control, local people controlled forest use themselves. The population was small and the forest resources abundant, thus there was little need to regulate forest use. The forests of the *Terai* were protected as a buffer against a British invasion from the south. *Talukdar*(s) (unofficial functionaries) had responsibility for regulating the use of forests in the mountains. They were able to protect forests effectively and control their use. Forests were used only for fuelwood, fodder, leaf litter, grazing, and collection of other forest produce. Local people collected what they needed without payment of any fee to the state, although some kind of gift was given to the *Talukdar*(s) (Mahat *et al.* 1986). Occasionally royal orders were issued concerning the treatment of specified forest areas.

The Rana rulers maintained this view of the forests. The policy of the Rana government was to extend the area under cultivation in the *Terai*. Exploitation of forests was formalised through rules drawn up by the government. This resulted in a massive removal of forest products, mostly timber for sale to India. A British forestry adviser, J. V. Collier, was appointed from 1925 to 1930 to advise the government on the regulation of the *Terai* forests and to aid export of *sal* (*Shorea robusta*) timber to India. Following the recommendations made by Collier, the forests in Morang district were cleared for settlement and agriculture. Intensive felling of forests by Indian contractors took place in the *Terai* up to the end of World War II.

The government forestry organization structure began in Nepal around 1880 when the *Ban Janet Adda* (Forest Inspection Office) and *Kathmahal* (Timber Office) were established. A national Forest Management Office was opened in 1924, headed by one of the Rana Generals. Another British forestry adviser, E. A. Smythies, worked in Nepal from 1941 to 1947. He wrote several forest working plans, which, unfortunately, were not implemented. Smythies was instrumental in starting a 'modern' forest service in Nepal by setting up the Forest Department in 1942, which was based on the model of the Indian Forest Service. Forest exploitation continued and timber was exported to India.

In 1947, a Forestry School was set up under the Department of Forests to provide training to middle-level technicians. The Ministry of Forests was established in 1951 and the Office of the Chief Conservator of Forests with three circles under it was established in 1955.

By 1950, about one-third of the total forests and cultivated land were under *birta* tenure, and three-fourths of that belonged to members of the Rana family. *Birta* land was granted by the state and was usually tax free and heritable. In order to remove this feudal land tenure, the Private Forest Nationalisation Act was promulgated in 1957. The main intention of the Act was to *"prevent the destruction of forest wealth and to ensure adequate protection, maintenance, and utilisation of privately owned forests"* (Regmi 1978).

The Forest Act of 1961, that followed the political change in 1960, provided legislation for the state administration of the forests. The act defined forest categories and emphasised the demarcation of forests. It also defined the duties of the DOF, listed forest offences, and prescribed penalties. However, the government was unable to manage the forests effectively because of the lack of requisite infrastructure. Furthermore, forest management was affected by the government policy of resettling landless people by distributing forest lands and by illegal encroachment. Although several management plans were written for commercial management of the Terai forests, these plans were not implemented.

The Act (and its revision) categorised the forests of Nepal into national, community, religious, leasehold, and private forests. It also made provisions for handing over forest protection to the *Panchayat*(s). The act, however, had little impact on the forests situated in remote areas where local people continued to use the forests for their needs regardless of their legal status. In fact the local people who were considered to be "illegally" using government forests to meet their basic needs were actually managing them.

The Forest Preservation Act of 1967 was enacted to further strengthen the role of the DOF. The National Forestry Plan of 1976 recognized the need for people to participate in forest management. Greater powers were given to District Forest Officers (DFOs) to formalise the transfer of forest land to *Panchayat* control. At the same time, the DOF was reorganized so that the forests in each district came under the jurisdiction of a forest officer. However, the number of staff at field level was low and the management of forests meant mere protection through policing.

In 1978 the *Panchayat* Forest Regulations and *Panchayat* Protected Forest Regulations were adopted which governed the handing over of limited areas of government forest land to the control of *Panchayat*(s). These landmark rules formally recognised the rights of local people to manage their forest resources with the technical assistance of DFO staff.

Another milestone was the declaration of government forestry sector policy in the Sixth Five Year Plan (1981 – 1985) which emphasised community participation in the management, conservation, and use of forest resources. The move towards transferring the control of forests to local people was further strengthened by the provisions of the Decentralization Act of 1982 and Decentralization Regulations of 1984. Subsequently, the 1988 amendment of the *Panchayat* Forest and *Panchayat* Protected Forest Regulations of 1978 adopted the concept

of user groups by citing the Decentralization Act and Rules.

As a result of these legal provisions and the shift in government policy, large numbers of donors supported the implementation of community forestry programmes. Initially, these projects focussed more on establishment of plantations, as the projects gained experience the focus shifted to managing natural forests.

In 1988 the government approved the Master Plan for the Forestry Sector. While the plan covered all aspects of forestry, it strongly emphasised community forestry by earmarking 47 per cent of total forestry sector investment for the following two decades for community forestry programmes. The forestry policy document, which forms a part of the Master Plan, contains a series of statements re-emphasising implementation of community forestry activities.

The Forest Act of 1993 and Forest Regulations of 1995 are the current forestry legislation. These follow the recommendation of the Master Plan. As a result, it is now possible to hand over a particular forest to a forest user group (FUG) for management and use. The DFO can now form and register FUGs and can hand over management and use rights of a particular forest to the FUG. The process of handing over forests to user groups is continuing all over the country and especially in the mountains.

1.4 Development of Government Policy on Community Forestry

Nepal's forestry sector policy addresses all the sub-sectors including forest, soil conservation and watershed management, and national parks and wildlife conservation. Community forestry has the highest priority. US$ 2.9 million was allocated to the community forestry programme in fiscal year 1997/98, 46.8 per cent of the total budget for the Department of Forests (MOF 1997).

For many years, Five Year Plans for national development have been the main instrument for laying out the government's sectoral policy.

The National Forestry Plan of 1976 was the first such document to spell out the country's forest policy. The intention was to institutionalise scientific forest management in Nepal. The Plan also recognised the need for people's participation in forest management, emphasised the establishment of national parks and wildlife reserves, and initiated soil conservation and watershed management activities.

The National Forest Plan of 1976 incorporated a policy of seeking people's participation. In accordance with this, the government formulated a strategy to hand over areas of degraded national forest to locally elected bodies for management and utilisation. The benefits were to be shared between the local bodies and the government. These forests were designated *Panchayat* Forests or *Panchayat* Protected Forests. The strategy did not work well as it could not muster the support of the real users of the forests. Increasingly the government realised that sustainable community forest development could only be achieved by the devolution of forest management responsibility to the actual users of the forests. This approach was highlighted in the Forestry Sector Policy of the Master Plan 'for the Forestry Sector (MPFS 1988). The historical development of forest policy in Nepal is shown in Table 1.1.

1.4.1 The Master Plan for the Forestry Sector 1988

The Master Plan stressed people's participation in the development, management, and conservation of forest resources and identified the legal and organizational framework needed to enhance the contribution of communities and forestry institutions to forestry development. The Master Plan set out the following long-term objectives for the forestry sector.

- To meet people's basic needs for fuelwood, timber, fodder, and other forest products on a sustainable basis
- To protect land against degradation by soil erosion, floods, landslides, desertification, and other effects of ecological disturbances
- To conserve ecosystems and genetic resources

Table 1.1: **Historical Timeline of the Forest Management Policy in Nepal**		
Year	**Policy/Act/Regulations**	**Remarks**
Up to 1846	- Conversion of forests to agricultural land	To increase the tax base of the state
	- Protection of *Terai* forests	As a buffer against foreign invasion
1846 - 1950	- Forest lands given as *birta* to influential officials	Conversion of forests to agricultural land
	- Exploitation of *Terai* forests	Export of timber to India
1957	- Private Forests Nationalisation Act	Indiscriminate cutting of forests
1961	- Forest Act	Protection, management, and utilisation of forests entrusted to the Department of Forests (DOF)
1967	- Forest Preservation Act (Special Provision)	The powers of the DFO as a law enforcing agent strengthened further
1976	- National Forestry Plan	Recognised the need for people's participation in forest management
1978	- *Panchayat* Forest Regulations and *Panchayat* Protected Forest Regulations	Handing over of limited areas of government forest land to the control of *Panchayat*(s)
1981	- Forestry Sector Policy of the Sixth Five Year Plan (1981-85)	Emphasised community participation in the management, conservation, and use of forest resources
1982	- Decentralization Act	Moves towards transferring the control of forests to local people strengthened
1984	- Decentralization Regulations	Moves towards transferring the control of forests to local people strengthened
1988	- Master Plan for the Forestry Sector Nepal	Covered all aspects of forestry; designed to take Nepal's forestry into the 21st century; strongly emphasised community forestry; recognised the role of the real users in forest management
1993	- Forest Act	Regulatory function of DOF still intact, but significantly softened. Forests can be handed over to Forest User Groups by the DFO
1995	- Forest Regulations	Procedural guidelines for implementation of the Forest Act 1993

- To contribute to the growth of the local and the national economy by managing the forest resources, developing forest-based industries, and creating opportunities for income generation and employment

To meet the above objectives, the Plan put forth its policy in the following statements (HMG/N 1990).

- The forest resources of the country will be managed and utilised to give priority to the needs of the people, for example fuelwood, timber, and fodder. Forests near villages will be managed with the participation of local people.

- Land and forest resources will be managed and utilised according to their capability so as to conserve forests, soil, water, flora, fauna, and scenic beauty. In doing so, unique ecosystems, and areas of special scientific, scenic, and recreational cultural values, will be protected.

- Emphasis will be given to multiple utilisa-

tion of land for integrated farming systems by strengthening soil conservation and watershed management activities.
- Land exceeding the needs of the local communities will be allocated for forest management to poor people, small farmers, and forest-based industries.
- No more forest land will be released for cultivation.

In line with its objectives and policies, the Master Plan envisioned six major programmes.

- The Community and Private Forestry Programme. The aim of this was to facilitate the development and management of forests through the active participation of communities and individuals. It was accorded the highest priority by the Plan.
- The National and Leasehold Forestry Programme. This supported the management of production forests by government and of small woodlots (on lease) by groups of people, communities, or institutions.
- The Wood-based Industry Programme. This was directed towards the development and management of wood-based industries that would facilitate the conversion of wood into commodities needed by people.
- The Medicinal and Aromatic Plants and other Non Timber Forest Product Development Programme. This was intended to increase the supply of medicinal and aromatic plants and facilitate their conversion into useful commodities.
- The Soil Conservation and Watershed Management Programme. The aim of this was to protect land from degradation, conserve soil and water resources, and encourage people's participation.
- The Conservation of Ecosystem and Genetic Resources' Programme. This focussed on the protection of special areas for their ecosystem and genetic resource value, and the promotion of *in situ* and *ex situ* conservation of plant and animal resources.

A further six supporting programmes were developed to facilitate implementation of the major programmes outlined above. The programmes were titled:

- Policy and Legal Reforms;
- Institutional Reforms;
- Human Resource Development;
- Forestry Research and Extension;
- Resource Information and Planning; and
- Monitoring and Evaluation.

The single most important changes brought about by the Master Plan were the concept of Forest User Groups (FUGs) and the strategy for handing over all accessible forests to such groups if they are able and willing to manage them.

1.4.2 The Eighth Five Year Plan

The Eighth Five Year Plan (1992-97) reinforced the policy of the Master Plan. The Eighth Plan emphasised the policy of expanding people's participation in the development and conservation of forests by implementing community forestry through FUGs, and of promoting private and leasehold forestry. In line with the policy of the Master Plan, it also committed the government to provide leasehold forests to people living below the poverty line. Moreover, it stressed the need for people's participation in soil conservation activities. The Plan also aimed to bring about people's participation in the management of national parks and wildlife reserves, and to foster goodwill between people and park or reserve administrations.

1.4.3 The Ninth Five Year Plan

The full document of the Ninth Five Year Plan (1998 – 2003) was not published when this paper was written, but the Approach Paper was. According to the Approach Paper, this plan reiterates the policy on community forestry outlined in the Eighth Plan. In addition, it emphasises the need to strengthen the institutional framework for handing over community forests to the users and for effective monitoring of the community forestry programme. It stresses the need to clarify the role of the government, NGOs, and private sector in all forestry development activities. It also aims to simplify the implementation of all forestry programmes and to make them transparent.

1.4.4 Community Forestry Policy

Current community forestry policy is the result of an evolution in forestry policy over a long period of time. The evolution of community forestry clauses in different forest legislation is shown in Table 1.2. After many years of policy exercises, the government recognised forests as 'social property', or the property of society, in contrast to earlier recognition simply as 'national property'. This realisation changed the government's policy towards the protection, management, and utilisation of forests. Currently the government has embraced a policy of involving the people as its partners in the protection, management, and use of the country's forest resources. The approach used to achieve this is the development of 'community forests'.

Community forests are government forests that have been handed over to a group of local people, a Forest User Group (FUG), for protection, management, and utilisation. These forest areas are used by the FUG to meet both individual and collective needs. The activities of the group are governed by a set of rules and arrangements spelled out in the group's Con-

Table 1.2: **Evolution of Community Forestry Clauses in Forest Legislation**				
Clause	1978 Regulations	1979 Amendment	1987 Amendment	1995 Regulations
Community Forest Area	*Panchayat* Forest not more than 125 ha, *Panchayat* Protected Forest 250 ha	*Panchayat* Forest not more than 125 ha, *Panchayat* Protected Forest 250 ha	No limit	No limit
Per cent of Benefit to the Community	40	75	100	100
Use of Community Funds	50% for forestry	50% for forestry	100% for forestry	Surplus for any community development work
Pricing of Products	Not less than government royalty rates	Not less than government royalty rates	Not less than government royalty rates	As per FUG decisions
Plan Preparation	By DFO	By DFO	By community	By community
Plan Approved By	Conservator	Conservator	Regional Director (new name for Conservator)	DFO
Community Forest Boundary	Administrative	Administrative	Administrative	Defined by use practices
Management Responsibility	*Panchayat* (political unit)	*Panchayat*	Users Committee under *Panchayat*	Forest User Group
Chairperson	Elected leader of *Panchayat*	Elected leader of *Panchayat*	Nominated by the *Panchayat*	Selected by the Users Assembly
Adapted from Joshi (1997)				

stitution, and the management of the forest is detailed in an Operational Plan for the forest area. The ownership of the land remains with the government. The DOF, through its field offices, plays a catalytic role in getting the process started and ensuring continuity.

Depending on the locality, community forest areas may be bare land, plantations, shrub land, degenerated forest, well-stocked dense forest, or a combination of these. There is no limit on the size of the forest area that can be handed over as a community forest; the only criterion is whether the user group is able and willing to manage the area. All income from the sale of forest products or from other sources belongs to the group and can be used for forestry or other local development activities.

The current policy on community-based forest management focusses on the following.

- Handing over accessible forests to FUGs irrespective of political or administrative boundaries
- Ensuring that the real or traditional users of the forest make up the FUG
- Sharing of all benefits from community forests among the users
- Using the FUG fund in community development work including forest development
- Changing the role of forestry staff from custodial to facilitatory
- Capacity building of the FUGs and DOF staff through training

Nepal has a central government and, unlike India or China, does not have state or provincial governments. Thus the community forestry policy is implemented all over the country. The Forest Act and Regulations apply to the whole country and are not mountain or *Terai* (plains) specific. A study by Tamrakar and Nelson (1991) indicated that 3.5 million ha of forest, 61 per cent of Nepal's total forest area, is 'potential community forest area'. The community forestry programme is both the largest forestry programme and the one with the highest priority, and it is intended to hand over all accessible forests to local Forest User Groups (FUGs).

1.5 Legal Framework

The government has demonstrated its commitment to the policy of promoting people's participation by effecting timely changes in the forest legislation. These changes were especially significant for people's participation in forest management.

The Forest Act of 1961 was enacted to establish state control over all forests following the Private Forest Nationalisation Act of 1957. The *Panchayat* Forest Regulations and *Panchayat* Protected Forest Regulations of 1978 were implemented in accordance with the National Forest Plan of 1976. These regulations enabled community management of forests by handing over forests to a local village body, the Village *Panchayat* (equivalent to the present day Village Development Committee). But not enough interest could be generated among the real users of forests under these regulations and the results were disappointing.

The Forest Act of 1993 and Forest Regulations of 1995 gave a new direction to people's participation. In line with the declared policy, community forests could now be handed over to the real users in the form of an FUG. The Community Forestry Directives of 1995 and Operational Guidelines of 1995 provided procedural guidelines for effective implementation of the Act and Regulations.

The Forest Act of 1993 and Forest Regulations of 1995 placed government forests into five categories.

- Community Forest—entrusted to FUGs for management and sustainable utilisation for the collective benefit of the users
- Leasehold Forest—leased to institutions, or groups of people
- Religious Forest—handed over to any religious body for protection and development
- Protected Forest—declared by the government to have a special environmental, scientific, or cultural value
- Government-managed Forest—production forests managed by the government

The legal instruments recognise FUGs as autonomous legal entities. FUGs are allowed to grow perennial cash crops in community forests and to establish forest-based industries. FUGs can fix prices, transport, and market products obtained from the community forests and use the funds generated through these in any community development activities. The Act also guarantees non-interference from the forestry administration in the operation of FUGs and in the management of their community forests as long as the group observes the provisions of the Forest Act and Regulations and of the group's Operational Plan.

The government has formulated different Acts for other areas of the forestry sector. The Soil and Water Conservation Act of 1982 and Regulations of 1985 empower the government to declare any area to be a protected watershed. The land within the watershed is classified according to land use, and official permission is required to exploit any forest produce. This Act and Regulations have not come into effect, however, although land stabilisation, productivity improvement, and land use planning programmes are being implemented through community involvement.

Similarly, the National Parks and Wildlife Conservation Act of 1972 and Regulations of 1973, the Wildlife Reserve Regulations of 1977, and the Himalayan National Park Regulations of 1979 have been implemented with the aim of protecting wildlife and regulating hunting. Legal provisions concerning Conservation Areas and Buffer Zones have also been formulated and have been enforced in some areas recently. These legal provisions recognise the need for people's participation and for benefit sharing between National Parks and the people living in the surrounding area.

The Master Plan for the Forestry Sector, the Forestry Sector Policy objectives, and the legal frameworks are appropriate for Nepal where most of the population is rural and living at a subsistence level. Both the Plan and Policy accept the nature of the forest-based rural economy of Nepal. The emphasis on decentralized community forestry is also appropriate

since demands for fuelwood and fodder are dispersed and have to be met within a short distance of a large number of human settlements. These demands are different to those of large urban concentrations, which can be supplied from government-managed forests.

1.5.1 The Policy-making Process

The policy-making mechanism in Nepal is well defined. In general, initiatives to formulate sectoral policy are taken at Ministry level, in the case of forestry at the Ministry of Forest and Soil Conservation (MFSC). The process of policy formulation is as follows.

Any issues of national importance related to forest protection, management, or utilisation and identified by the District Forest Offices are reported to the Director General of the DOF. The DOF carefully scrutinises the issues and communicates any perceived need for a new policy to the MFSC, generally to the Secretary who is the administrative head of the Ministry. At the Ministry, senior officials discuss the issues, and, if a need is felt for the formulation of a new policy, the Secretary informs the Minister of Forest and Soil Conservation. Equally, when a new government is formed, the Minister responsible for the MFSC may instruct the Secretary to formulate a new policy in line with the political party's declared policy.

In either case, consultations and discussions are held among senior officials of the Ministry. Usually a task force is formed to draft the policy paper. Additional inputs are obtained from the Director Generals of any other departments concerned. The task force is generally given the responsibility to interact with or solicit the views of other people or agencies that have an interest in the issue. In practice, the amount of interaction or discussion is limited as a result of both lack of time and the need to maintain a certain degree of official secrecy. More recently the MFSC has encouraged as much interaction as possible between all the parties concerned–including donors, FUGs, and non-government organizations (NGOs). Discussions with donors take place in the Forestry Sector Co-ordination Committee (FSCC) meetings, at

which all the donors involved in the forestry sector are represented.

Once a new policy paper is drafted, the Secretary of the MFSC forwards it to the Minister concerned for approval. The approved policy paper is then presented to the Cabinet Secretariat as a sectoral policy proposal for endorsement by the Council of Ministers (Cabinet) headed by the Prime Minister. The Cabinet Secretariat, headed by the Chief Secretary, scrutinises the policy proposal for appropriateness and then presents it to the Cabinet meeting for approval. Finally, the approved proposal is published as a sectoral policy of the government.

Generally the approved sectoral policy demands changes in either the Forest Regulations or the Forest Act. In cases where an amendment is necessary in the Regulations, the DOF generally drafts the amendment with the help of its Legal Officer. The draft amendment is presented to the Secretary of the MFSC and then to the Minister for approval. The approved draft amendment is then sent to the Ministry of Law and Justice for editing and checking to ensure that it does not contradict existing laws. After approval, the Ministry of Law and Justice presents the amendment to the Cabinet Secretariat for approval by the Cabinet. The approved amendment of the Regulations goes into legal effect with its publication in the official Gazette.

If an Act needs an amendment, the same draft formulation process is followed. The only difference in this case is that the amendment approved by the Cabinet is tabled through the Ministry of Parliamentary Affairs as a Government Bill. The Bill is passed first by the House of Representatives and then by the National Assembly, before being presented for Royal assent by the King who is the constitutional head of the country. After the Royal assent is obtained, the Bill is published in the official Gazette for its effective legal recognition.

1.5.2 Stakeholders in Policy Change

Strictly speaking, the main stakeholders in community forestry activities are the DOF, representing the government, and the FUGs, representing the communities. Other stakeholders are donors (bilateral or multilateral), NGOs (both national and international), and political holders of office.

As mentioned earlier, the present community forestry policy evolved over a period of time and did not result from a single policy change brought about by a certain interest group or stakeholder. Until now, initiatives for policy changes in community forestry have come largely from the government side, especially the DOF. The donors, too, have played a significant role in such changes. Donors have assisted the DOF in the process of policy formulation and, significantly, in the implementation of the community forestry policy. NGOs have not had the opportunity to initiate changes in policy, but recent trends indicate that in future they may play a positive role in policy change in the forestry sector.

1.5.3 Forest Policy vis-à-vis Other Policies

Although Nepal does not have an overall land-use policy, the forestry sector policy prohibits the conversion of forest land into other land uses. However, demands on forest land for construction of infrastructure such as roads, transmission lines, educational institutions, and medical facilities, and for settlement of landless people, is growing. This has resulted in some conflicts. Purchasing private agricultural land for infrastructural development by the government is expensive and can be time consuming. Most Ministries find it an easier option to use forest land which, being owned by the government, does not require cash compensation. This has brought about many conflicts with other sectoral ministries causing delays in the implementation of their projects.

It is mandatory to prepare an Initial Environmental Examination (IEE) and/or an Environmental Impact Assessment (EIA) whenever a proposal is made for change in the land use of forest areas for infrastructural development (HMG/N 1995). The decision to release forest land for other uses is usually based on such

assessments, and measures are prescribed to minimise or mitigate environmental damage.

Before issuing a license to any forest-based industry, the Department of Industry or the Department of Small Scale and Cottage Industries needs a decision from the DOF concerning whether a sufficient supply of raw material is guaranteed. Current forest policy does not provide any quota for raw material to industry, thus establishment of forest-based industries is discouraged unless the industry proposed can show that raw material is available from sources other than DOF managed forest. However, the Forest Act of 1993 allows for long-term leasing of national forest areas to industry as "leasehold forest" for the production of raw material. Thus forest policy is sensitive towards the long-term growth of forest-based industries in the country.

2 Human Resource Development

As a result of the various amendments to the Forest Acts and Regulations, community forestry is now the major programme in Nepal's forestry sector. Competent and motivated staff are needed for effective implementation of the programme. The forestry sector has focussed its efforts on the gradual expansion of the Forest Service and providing opportunities for the necessary human resource development and training.

Decentralized forestry started in 1983 with the establishment of District Forest Offices in all 75 districts, and Regional Directorates in the five development regions, of the country. The DOF was strengthened in 1988, and staff numbers increased to 8,294 (MPFS 1988). The Department was reorganized in 1993, with District Forest Offices in 74 districts only and the Regional Directorates placed under the Ministry of Forests and Soil Conservation (MFSC). The DOF currently has 8,109 members of staff (DOF 1996).

Quality training is recognised to provide the backbone of the competent professional manpower development needed for the successful implementation of community forestry. The type of training provided is described in the following. The training has been classified broadly into academic and in-service training.

2.1 Academic Training

At present, the Institute of Forestry (IOF) of Tribhuvan University provides all formal forestry training in Nepal. In earlier times, formal forestry training was mainly obtained in India. In 1947, the Nepal Forestry Institute was established in Kathmandu. It was moved to Bhimphedi in 1957, and to Hetauda in 1965. The institute was run by the DOF until 1972. The Institute was incorporated into Tribhuvan University under the National Education System Plan of 1971, and was renamed the 'Institute of Forestry'. Until 1981, the IOF had a single campus at Hetauda. In 1981, it started to develop a second campus (the Central Campus) at Pokhara, with funding support from the World Bank and USAID.

The IOF offers Certificate and B.Sc. courses in forestry. The Certificate in Forestry course lasts two years. Fifty students are accepted annually at each of the two campuses for the certificate level course. Ten per cent of places are reserved for women, and five for students from remote areas. The B.Sc. in Forestry course lasts four years. The entry requirement is a Certificate in Forestry, Certificate in Science, or completion of a 10+2 level of schooling. The B.Sc. in Forestry is a general forestry course. The final paper can be written on forest management, wildlife management, or soil and watershed conservation. About 42 students are admitted to the B.Sc. course at the Pokhara campus annually. Ten places are allocated to students with a Certificate in Science. In 1997, the IOF started running a B.Sc. Forestry course at the Hetauda campus. Twenty students were admitted in the first year.

The curricula include subjects relevant to forest management. Courses on community for-

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estry make up about 13 per cent of the curricula, an improvement on previous curricula with only nine per cent of the contents directly related to community forestry.

The six Subject Matter Committees (on silviculture, social forestry, watershed management, wildlife management, general science, and forest management and utilisation) recommend any changes in the curricula required to cope with changing needs. The committee makes recommendations to the Faculty Board. The Boards comprised of the Dean of the IOF; the Director Generals of the Department of Forests, Department of Soil Conservation and Watershed Management, and Department of National Parks and Wildlife Conservation; the Executive Director of the Forest Research and Survey Centre; a representative from Tribhuvan University; and the Subject Committee Chairperson. The Faculty Board makes a final recommendation to the Academic Council of Tribhuvan University for approval.

The major complaint about the IOF's academic training is the lack of faculty members with sufficient field experience. Lack of motivation among the faculty members is another serious hindrance in producing good quality students. Although the IOF has introduced elements of community forestry into its academic training, the courses do not fully prepare the students for work in the DOF. The courses lack adequate field-based work, and this results in limited understanding of the practical implications of the training.

A person with a Certificate in Forestry is qualified to enter the Forest Service as a Ranger. A holder of a B.Sc. in Forestry is eligible to join the Forest Service as a Gazetted Technical Officer Class III.

2.2   In-Service Training

Training is one of the main supporting programmes in the Master Plan for the Forestry Sector. As elsewhere in the world, Nepali foresters are mainly trained according to a traditional curriculum that treats forestry as a technical-biological discipline and pays only marginal attention to social aspects. The social aspect of forestry is very important for community forestry, however, and an in-service training programme is needed to produce competent and appropriate staff capable of effective promotion and support of community forestry.

The key institutions responsible for conducting in-service training on community forestry in Nepal are the DOF Training Section and five Regional Forestry Training Centres. Their roles are discussed below.

2.2.1 The Training Section of the DOF

Systematic in-service training in the forestry sector started in 1980 with the establishment of a Training Wing under the MFSC with support from USAID. The aim of the wing was to design and develop training programmes and activities that would maintain and upgrade the competence of forestry professionals and technical staff (Tuladhar and Rajbhandari 1987). This wing was upgraded to a Training Division of the Ministry in 1989.

The objectives of the Training Division were to conduct job-related courses and workshops for MFSC staff, to prepare guidelines and training materials, and to coordinate the field-level training conducted by various units and projects of the MFSC (Shrestha 1996). The Division was supported from 1990 to 1993 by the FINNIDA funded Forestry Sector Institutional Strengthening Programme, Component No. 2. Following reorganization of the MFSC and its Departments in 1993, the Training Division of the Ministry was transformed into a Training Section under the DOF, and the technical staff reduced by more than two-thirds. Although understaffed, the Training Section is still charged with conducting in-service training for other departments under the MFSC, not only for the DOF.

Between 1980 and 1988, the Training Wing trained about 450 professionals, 829 sub-professionals, 132 village women extension workers, and 73 volunteers in forestry-related fields. Prior to 1993, the Curriculum and Materials' Development Section of the Training Division

was responsible for the revision of the curricula of in-service training courses. After the reorganization in 1993, this responsibility was transferred to the DOF Training Section. In practice, a Working Committee with representatives from all Departments in the MFSC plans and coordinates training programmes under the Training Section. This committee is also responsible for curriculum revision.

The lack of sufficient professional trainers in the Training Section is a serious constraint. All staff are expected to act as competent trainers. No systematic training needs assessment is carried out before courses are designed as there are no personnel specifically trained to do this or to prepare, manage, and maintain updated training plans and materials.

Most of the training conducted for staff is theory-based rather than field-based, with few hands-on practical sessions. Thus understanding of the practical implications of such training is often limited. Hardly any follow-up has been done to assess the degree to which training is being translated into practice. Furthermore, training is rarely evaluated to check its quality. There is need for a coordination mechanism between different departments to carry out systematic training needs' assessments, curriculum development, and follow-up activities.

The Training Section is only one of the sections in the Planning and Training Division of the DOF. As a result, the administrative and financial actions necessary for effective management of training have not been carried out on time. Lack of adequate funding has also been a key constraint (Shrestha 1996). The capacity of the Training Section needs to be strengthened so that it can meet its objectives. A more structured training procedure should be developed together with standardised training packages and a cadre of skilled trainers.

2.2.2 Regional Forestry Training Centres

At the regional level, the DOF operates five Regional Forestry Training Centres (RFTCs) covering 38 hill districts of the country. Since 1989, the RFTCs have been supported by the DANIDA funded Community Forestry Training Project (CFTP) under the Community and Private Forestry Division of the DOF. The aim of the CFTP is to improve the technical and managerial capabilities of both DOF staff and forest users to undertake community forestry activities. There are three levels of training activity under the CFTP.

- Central-level Training - This is generally aimed at DFOs and covers community forestry, extension skills, and technical skills.
- Regional-level Training - The RFTCs provide regional level training and support and coordinate district-level training and extension activities. The training conducted at the RFTCs is intended to increase the skills of District Forest Office staff to implement district-level training courses.
- District-level Training - The courses conducted in the districts are of primary importance for reaching the intended beneficiaries of the programme: the forest users. Training activities for communities are conducted through the District Forest Offices, with technical and managerial back-up from the RFTCs.

Between 1989 and 1996, knowledge and skills on community forestry have been imparted through training, workshops, and study tours to about 615 staff at central level, more than 4,600 staff and 1,100 local people at regional level, and more than 5,500 staff and 23,000 local people at the district level. More than 2,800 women and 24,000 local users have benefitted from community forestry education and extension activities.

The CFTP has developed training packages for RFTCs to address the overall needs of community forestry in the country. The RFTCs may modify these to suit regional conditions. Similarly, the District Forest Offices may modify the district-level training packages to suit district conditions. The RFTCs carry out regular training needs assessments to make the packages more fruitful.

A major constraint of the RFTCs is the insufficient number of competent trainers. The position of Regional Training Officer is generally lower than that of a DFO in the official hierarchy, and this can sometimes hinder effective of training. The RFTCs have been conducting in-service training in community forestry for 38 hill districts supported by a World Bank funded project. Efforts are under way to expand their services to the whole country, including other Departments of MFSC with support from the Government of Denmark.

2.2.3 Training by Community Forestry Projects

In addition to the in-service training provided by the Training Section and the RFTCs, all the major community forestry projects have their own training programmes. These include the Nepal-Australia Community Resource Management Project, the Nepal-Swiss Community Forestry Project, the Nepal-UK Community Forestry Project, and the Environment and Forestry Enterprise Activity Project. The training programmes of some of these projects are discussed below.

In addition to the above, there are several integrated rural development projects and national and international Non-governmental Organizations (NGOs), like the United Mission to Nepal and CARE/Nepal, which also conduct training in community forestry. These are not described further here.

The Nepal-Australia Community Resource Management Project

Australian assistance to the forestry sector in Nepal started in 1966. Initially this assistance involved a technical advisor to guide 'The Kathmandu Valley Reforestation Project' (NACFP 1994). Since 1978, Australian assistance has supported various activities in the Kabhrepalanchok and Sindhupalchok districts of Nepal. In the early years, assistance was limited to establishment of plantations. Community forestry was introduced in Phase III of the assistance (1988-1992). The current Phase (V) of the project is called the Nepal-Australia Com-

munity Resource Management Project. It commenced in 1997 and will end in 2002.

Various phases of the project have conducted training, workshops, and study tours for DOF staff and local users. Between 1975 and 1997, over 1,300 staff were trained, about 62 were provided with in-country or long-term overseas' scholarships and several overseas' study tours and short-term training courses were also conducted. Over 10,000 local users have been trained in various aspects of community forestry.

Nepal-Swiss Community Forestry Project

Swiss assistance to community forestry in the Dolakha and Ramechhap districts of Nepal emerged out of the Integrated Hill Development Project (1975 to 1990). Phase II of the project ran from 1991 to 1996 (after a one-year bridging phase, mid 1990 to mid 1991), and the current Phase III will run from July 1996 to June 2000. The main objective of the project is to enable FUGs to implement community forestry related activities, leading to sustainable social, economic, and ecological conditions in the area.

The institutional capability of FUGs has been developed through workshops, study tours, and forest management training programmes. According to SDC (1996), nearly 8,000 person days of training and study tours (covering 74 different training events) have been conducted for FUG members. About 10 per cent of the trainees have been women. Over 2,500 person days of training have been imparted to project staff. Two scholarships for MSc. courses, 23 scholarships for Certificate in Forestry courses, and one scholarship for a BSc. course have been awarded.

Nepal-UK Community Forestry Project (NUKCFP)

UK assistance for community forestry activities developed from the Koshi Hills' Area Rural Development Programme (Phase I, 1977 to 1979 and Phase II, 1979 to 1986) and the Koshi Hills Community Forestry Project (1987-1993). This programme covered four districts in the east of Nepal. In August 1993, a project agree-

ment was signed for five years between the British and Nepali governments to implement project activities in three districts of the Western Development Region (Parbat, Baglung and Myagdi), and the four hill districts of Koshi Zone in the Eastern Development Region (Dhankuta, Tehrathum, Bhojpur, and Sankhuwasabha districts). The project conducts regular training at district level. Annually, 11 to 12 events are organized in villages for forest users, 14/15 events are held for DFO staff, and four to five events for organizations other than forest staff and users. Details can be found in the NUKCFP annual reports. Sixty-nine people have been sent on relevant courses overseas: 11 officers on postgraduate courses in the UK and Asia; 11 officers on short courses overseas; and 47 Ranger-level staff on short courses in south-east Asia. Twenty-five students have been sent on forestry courses in Nepal: 14 on BSc. forestry courses, and 11 students from disadvantaged backgrounds on courses at diploma level.

2.3 Strengths and Weaknesses in Human Resource Development in Nepal

The strengths and weaknesses of human resource development activities for community forestry in Nepal are discussed in the following.

2.3.1 Strengths

Following the continuous training effort for community forestry since 1980, orientation of forestry staff, except those newly recruited, is complete. However, there is a lack of technical and management training for foresters and forest users on the proper management of community forests. The training needed includes the skills necessary for post hand-over backup, including subjects such as thinning, pruning, harvesting, and logging.

The central and regional level organizational set-up for training on community forestry is a major strength. DANIDA's support for the Regional Forestry Training Centres since 1989, and the new long-term DANIDA support for community forestry under the Natural Resource Management Sectoral Assistance Programme, provides an opportunity for strengthening the training component of community forestry. Various donors have been assisting Nepal in implementing community forestry projects, and training is a major part of all these projects.

2.3.2 Weaknesses

There is no pre-service training school for forest guards. At present, literate persons are recruited as Forest Guards and are gradually given Forest Guard Training by the RFTCs. However, some have to wait several years to be trained.

Although some projects have maintained records of training activities, there is a lack of systematic record-keeping with objectives, scope, information on participants, and duration of training courses. Consolidated record-keeping in one place is important for the effective implementation of a staff training programme. Some efforts are being made to develop this.

In general, training activities lack a systematic approach to their design, and the objectives to be met are not properly specified. In the past, formal training need assessments were not carried out before designing courses. Training programmes have rarely been evaluated for the quality or competence of the trainees.

Effective implementation of skills acquired in training depends a lot on the working environment and on the availability of the necessary support. Follow-up programmes are an integral part of the training cycle. However, these are often lacking, and it is difficult to say with any confidence that the skills and knowledge imparted by training programmes are being put into practice. Although the practical aspect of many training courses has improved, further attention is required to develop the confidence of trainees in implementing the skills learned.

Training can play a major role in the dissemination of new knowledge and skills obtained from research. At present there is no formal link between research and training, and this warrants serious attention.

The Human Resources' Development Plan of the Master Plan for the Forestry Sector has broadly projected the manpower, fellowships, and training required for the period 1989 to 2009 for Nepal's forestry sector. It is unfortunate that a training plan based on training need assessments has not been prepared. The Strategies for Policy Implementation of the Master Plan has emphasised the need for training sufficient numbers of motivated and competent people, but no clear working policy has been formulated for in-service training. The Training Wing drafted an in-service training policy for the Ministry of Forests and Soil Conservation, but it has not been adopted. The lack of a training policy and strategy are also reflected in the lack of training need assessments and training plans.

2.3.3 Recommendations

The following issues require attention in order to improve the provision of quality training.

Development of Need-Based Training Plans

There is an urgent need to prepare training plans based on need assessments so that training is more effective. Training plans should aim to develop more structured training procedures and standardised training packages, and to deliver training accordingly. Training modules should be designed to fill identified gaps in knowledge and should be updated regularly.

Follow-up

Follow-up activities play a crucial role in developing skills among trained staff members. Follow-up activities need to be conducted regularly to evaluate and reinforce what has been learned. Each training activity should include a follow-up programme with a refresher course and an evaluation of the impact of the training on the participants' ability to function in their workplace.

Training of Trainers

Trainers' performances determine the effectiveness of training. Therefore, there is a need to develop a cadre of skilled professional trainers. Opportunities for academic and refresher training should be provided in order that trainers' skills and capabilities continue to develop.

Organizational Upgrading

It is essential that the staff skills and facilities at the Training Section and the Regional Forestry Training Centres are upgraded to ensure effective implementation of training programmes to meet the ever-increasing training need in community forestry,

Site Catalogue

Study tours play a crucial role in upgrading skills and knowledge and in the exchange of technologies. A catalogue of major technological and institutional demonstration sites is essential for planning effective study tours. This site catalogue should include detailed information: objectives, history, achievements, institutional structure, technical focus, accessibility of the site, maps, photographs, and cost of visit.

Forest Guard Training

Forest guards make up the majority of forestry staff. These are the staff who work closely with local people. The need to provide technical back-up to FUGs has increased with the expansion in the number of community forests. Monitoring the implementation of FUGs' Operational Plans is also becoming essential. Forest guards could be extensively used in these activities and should be given appropriate training. A training school should be established for Forest Guards before they enter the Forest Service, it preferably should be associated with the Council for Technical Education and Vocational Training (CTEVT). As more forest areas come under FUG management, Forest Guards may not be able to provide all the technical support needed. Thus there is also a need to train young people with some schooling to be community forestry promoters. These could be employed by the FUGs themselves, perhaps with some initial support from the government.

Institute of Forestry

The Institute of Forestry should run regular short courses for both professional and technical forestry personnel. Course curricula should incorporate more topics that have a direct bearing on community forestry such as conflict resolution, participatory planning, monitoring and evaluation tools, and gender analysis. The IOF should also regularly invite professionals working in the field as guest speakers in order to expose students to recent developments.

Other Issues

3 Other Issues

3.1 Indigenous Forest Management in Nepal

Management of forest resources by local communities is not a new concept in Nepal. *Kipat* can be considered as one of the most ancient types of land tenure representing common property resource management (Arnold and Campbell 1985, as quoted by Joshi 1990). *Kipat* was without any legal title and this system was common among the Limbu ethnic group of the eastern mountains of Nepal.

Another ancient, indigenous collective forest management system is the *shinga naua* system of the Sherpas of Solukhumbu district (Furer-Haimendorf 1984). The *shinga naua* were locally appointed officials with the responsibility of allocating forest resources and ensuring that individuals adhered to rules on forest use. Furer-Haimendorf argued that the replacement of this system by an ineffective national Department of Forest contributed to forest degradation in Solukhumbu.

Many other Indigenous Forest Management Systems (IFMS) have been identified in Nepal. Joshi (1989), Tamang (1990), and Fisher (1991) have reviewed the literature on IFMS. Indigenous forest management systems can be defined as systems of collective forest management that are generated by the internal initiative of a local community. Fisher *et al.* (1989) emphasise that the term 'indigenous' should not be confused with 'traditional', because the latter implies some degree of antiquity whereas an indigenous system may be a new development. This differen-

tiation is significant in the discussion of local forest management in Nepal because many local practices and organizations are relatively recent in origin. Another reason for avoiding the term 'traditional' is that it does not necessarily indicate whether a system is a local initiative or imposed by outside agencies. For example, the forest management by *talukdars* during the Rana period can be described as traditional (because it is old), but it was not indigenous, since it was sponsored by the feudal State and not based on a local initiative.

Reviews of the literature show the existence of diverse kinds of IFMS in different parts of Nepal, mostly in the mountains. Despite this great number of systems, some generalisations can be made about the characteristics of IFMS. These are discussed below.

3.1.1 Forest Use Rights

IFMS are based on the use rights of a certain local community group. The composition of such groups is not limited by politico-administrative boundaries. Use rights usually depend on residential proximity to a forest. Sometimes use rights are restricted on the basis of clan or kinship, or a combination of residential proximity and kinship. In general, forest users believe that non-users have no rights to make decisions about their forest.

3.1.2 An Element of Consensus

A feature common to all effective IFMS is an element of consensus within the user group

about the need to impose certain restrictions on forest use. In small groups with extensive social ties and day-to-day contact, the threat of social ostracism is usually a powerful force for compliance.

3.1.3 IFMS as a Response to Need

The existence of IFMS is directly related to the difficulties people face in obtaining forest products. Where forests are plentiful and accessible, it is unlikely that people will form organizations or arrangements to protect and manage them. Wherever there was a perceived need, people have proved themselves to be capable of positive response.

3.1.4 Control of Access

Access by humans and livestock is controlled in various ways. The most common are as follows.

Households using a particular patch of forest hire watchers to protect the forest. Each household contributes an agreed amount of grain and or cash to pay for the services of the watcher. When payment is made in grain, it is referred to as a *mana pathi* system. This type of protection was common all over the mountainous region of Nepal. In some areas, forests were also 'watched' by allocation of duties for 'watching' to each household on a rotational basis.

Sanctions or punishments are imposed on users who break the agreed rules governing the use of forest resources. Imposition of fines, confiscation of 'illegally' collected products and tools, and other application of social pressures as sanctions are common features of many IFMS.

3.1.5 Secondary Users

In some areas several neighbouring villages agree to allow their residents to collect grass, leaf litter, and dry fuelwood for a limited period in each other's protected forest areas. Collection of fodder, green fuelwood, and timber is usually not allowed.

3.1.6 Protection versus Utilisation

The main aim of most IFMS is to limit access rights to a particular forest area or particular products rather than to achieve any specific silvicultural objective. Even in cases where silvicultural objectives are built in, they tend to be conservative. Most systems tend to stress protection rather than utilisation. The reason for this may be that it is easier to reach consensus among users on protection than on distribution. In addition, protection is less risky than utilisation with respect to the response from forestry officials.

3.1.6 Effectiveness of IFMS

Rural people have demonstrated that they are capable of managing common property forest resources. However, IFMS have or do not exist everywhere in Nepal, nor have all IFMS been successful in maintaining healthy stands of natural forests. Many limitations are apparent with obvious implications for the role of IFMS in the future growth of community forestry.

- IFMS may be 'reasonably' equitable, but the issue of equity has not yet been studied in detail. This is where government forestry officials can play a key role in building in equitable distribution of products and services when FUG Constitutions and Operational Plans are prepared.
- IFMS are often conservative in silvicultural terms. Effective social arrangements for forest protection and the allocation of certain forest products are common, but the systems fail to take opportunities for non-destructive utilisation of the forest. Again, this is where extension and training of the users is important, as is the incorporation of silvicultural prescriptions in forest Operational Plans.
- IFMS are based on fulfilling the subsistence requirements of users; they are rarely monetised. Gilmour and Fisher (1991) suspect that it is precisely this non-monetisation that enables IFMS to operate with a reasonable degree of consensus. Attempts to monetise the activities of community forest management will require

more formal organization of FUGs. Training of FUGs in office management, record keeping, bookkeeping and conflict management will be needed because more and more FUGs are starting to monetise their operations.

Where indigenous systems exist, they should be strengthened and built upon through extension, training, and technical back-up by government forestry officials.

3.2 The Status of Community Forestry in Nepal

The Forest Act of 1993 defines community forests as those forest areas handed over to FUGs for protection, management, and utilisation. Two chapters of the Act deal solely with community forestry and FUGs.

In Nepal, FUGs are the legally recognised, local community institutions responsible for managing community forest areas. An FUG has to be registered with the District Forest Office (DFO) together with a Constitution. After registration, the FUG requests the DFO to hand over a part of the national forest. An Operational Plan for the management, protection, and utilisation of the forest area is prepared and submitted together with an application to the DFO. The Operational Plan is prepared by the FUGs with technical assistance from the District Forest Office. Each FUG has an executive body called the Forest User Group Committee (FUGC) responsible for running the day to day affairs of the FUG. The affairs of the FUG are governed by its Constitution.

An FUG is an autonomous and corporate body. The Act also has a provision for an FUG fund, which can be generated from grants from HMG/N or others, donations, assistance received from any individual or institution, amounts received from the sale of forest products, amounts collected through fines, and amounts received from other sources. Expenses for the development of community forestry are met from the fund and the balance may be used for other rural development activities.

Within about a decade of initiating community forestry activities, the number of FUGs has risen rapidly. On 16 February 1998, the total number of FUGs in Nepal was 6,062 and the total area of handed over forest 403,688 ha.

The increase in FUG formation has both positive and negative implications. On the one hand, it indicates a greater willingness by the DOF to support community forestry as well as a greater confidence of the local people in government policy. On the other hand, concerns have been expressed that the DOF does not have sufficient capacity to support a large number of FUGs. Table 3.1 shows the number of FUGs formed and the area of community forest handed over under different community forestry projects.

Extension and training are now the most important component of government support provided to FUGs. The concept of sustainability is built into the extension and training programme. As such, the level of understanding of sustainability is quite high among the FUGs. In fact, they are more conservative than necessary for the sustainable use of their forest resources.

Surveys have shown that literate and relatively well-to-do users are the ones who have some understanding of current community forestry policy. Experience has shown that many villagers, especially those belonging to disadvantaged groups, think that the community forests were handed over to the FUGC members, who are often the village élite. They use the term "samiti ko ban" (committee's forest) rather then "samuha ko ban" (group's forest).

The process for identification of users and the hand over of community forest are clearly defined in the Community Forestry Manual developed by the DOF. However, in practice some steps in the process often appear to have been bypassed or ignored. This is perhaps the main reason why many users have an inadequate understanding of the community forestry policy, their rights and obligations.

Project and Donors	FUG Member	Community Forest Area	Remarks
Hill Community Forestry Project, World Bank	3,530	236,656	Excluding Udayapur, which is also covered by the Churia project
Nepal-UK Community Forestry Project, DFID, UK	1,191	72,351	
Environment and Forest Enterprise Activity Project, USAID, USA	336	28,145	Records of 3 districts only
Nepal-Australia Community Resource Management Project, AUSAID, Australia	463	21,552	
Churia Forest Development Project, GTZ, Germany	105	17,703	Including Udayapur
Nepal-Swiss Community Forestry Project, SDC, Switzerland	147	13,430	
Other districts not covered by donor funded projects	290	13,851	Records of 9 districts
Total	6,062	403,688	

Table 3.1: **FUGs and Community Forest Areas under Different Projects**

Source: FUG Database of the Department of Forests' Management Information System

3.2.1 The Gender Issue

The involvement and participation of women is crucial for the success of community forestry because they are the primary users of forests. Field experience suggests that women spend more time in the forests than men collecting various forest products. Thus, scarcities of forest products immediately affect women who have to endure the hardship of walking further to collect fuelwood and fodder. Women can contribute in the identification of the real users of the forest area and have an intimate knowledge of tree species. Thus women should play a vital role in decision-making processes related to forest resource management and utilisation.

In spite of this, it is generally observed in FUG assemblies and other meetings that women rarely voice their concerns or ideas and are merely silent spectators. Participation of disadvantaged people and women in the decision-making process remains low, (Shrestha 1996). Although it has been recognised that women play a vital role in forest management, the representation of women in FUGCs has generally been low. Many factors constrain women's participation in community forestry.

When asked why they are not interested in serving on committees, rural women respond that they can spare too little time from domestic chores. The social norms, in which women are discouraged from speaking publicly and interacting with male members of society and professional staff, also limit women's participation. This is compounded by the prevailing high illiteracy rate among rural women. As such, most of the women members of the FUG have no option but to agree to what the men decide in FUG meetings.

However, things are changing, if slowly. There is now a gradual realisation of the importance of women's participation in community forestry. More activities focussing on women are being incorporated to enhance women's participation. Female workers or extensionists are being recruited to implement women-centred activities such as literacy programmes and special training and study tours for women. Examples of all women FUGs are growing. The DOF database shows that 162 of the 6,062 FUGs

recorded up to 16 February 1998 were all women FUGs.

3.2.2 Disadvantaged Groups

It is quite normal in most FUGs to find a mix of different ethnic households. There are generally a few households from lower caste or disadvantaged groups (such as *kamis* [blacksmith], *damais* [tailor], and *sarkis* [cobbler]). These people are mostly dependent on the village élite as they either work as tenant farmers or farm labourers. As a result, they find it difficult to voice their opinions and interests in FUG assemblies.

Poor people who depended on 'open' access forest resources for their livelihood, e.g., charcoal makers, firewood sellers, and sellers of medicinal plants, no longer have access to the forests because they are now 'closed' by FUGs. These people have been forced to change their way of life; most of them now work as labourers at construction sites and stone quarries, or as porters.

3.2.3 Income Generation and Local Development

Experience from many parts of the country shows that FUGs have been making sizeable income from the sale of forest produce. Some FUGs have even adopted innovative ideas of entrepreneurship. For example, Thuloban FUG in Lalitpur district has been selling Christmas trees to big hotels in Kathmandu since 1994 (price US$50 per tree). A number of FUGs are utilising their funds in local development work. The fund is generally used for repair or construction of schools, temples, and trails and for upgrading drinking water facilities. For example, Karkitar Sathimure FUG in Sindhupalchowk district in Central Nepal was able to spend nearly NRs 140,000 (US$ 2,100) on drinking water, irrigation, and temple repair projects in their village. Baghmarey FUG in Dang district is running a secondary school paid from the funds generated by selling forest products. Kumari FUG in Lalitpur district has used its own funds in the improvement of a foot trail in the village.

Thus FUGs are becoming more effective as local institutions for supporting various types of rural development work. People have become more supportive of the community forestry programme as a result of the rural development work being financed by funds generated through community forestry. In future, with increasing institutional maturity of FUGs, community forestry has the potential to become a vehicle for overall rural development.

3.2.4 Transparency

The affairs of FUGs and committees need to be made more transparent through proper record keeping, bookkeeping, and auditing. Some FUGs run by educated executive members are doing a commendable job in this respect. However, the majority of FUGs are not able to do these effectively because they lack the necessary skills. FUGC office bearers often lack adequate administrative and organizational skills. The government training programme has now begun to address this important issue. Capacity building at the local level is absolutely essential to institutionalise FUGs as effective organizations.

3.2.5 Conflict Resolution

Major conflicts in FUGs are related to land encroachment, unclear community forestry boundaries between two or more FUGs, and violations of the Operational Plan by the users themselves. An ability to resolve conflicts is an important factor in making an FUG an effective community institution. Experience shows, however, that FUGs depend greatly on the DOF when it comes to resolving conflicts. The FUG committee usually resolves less serious conflicts arising from the violation of FUG rules and regulations. Local elected bodies also have an important role to play in resolving conflicts related to community forestry.

Unresolved conflicts can threaten social harmony and, in the absence of social accord, community forestry cannot be successful. Therefore conflict resolution needs to be brought into the mainstream in policy, guide-

lines, and training programmes. Traditional dispute settlement mechanisms should also be encouraged when resolving conflicts in community forestry. It is through the traditional methods of conflict resolution that powerless people can have equity and social justice, as they cannot use the formal methods for resolving the conflicts.

3.2.6 Coordination between FUGs and Local Political Units

In some instances the elected representatives of Village Development Committees (VDC) are also office bearers in FUG committees. In such cases, there is better cooperation and coordination between FUGs and VDCs. Some FUG committees also invite VDC officials to their meetings and FUG assemblies. There are also cases in which the help of VDC officials has been sought by FUGs to settle disputes related to community forestry.

Even so, many FUGs tend to have no connection with local political units on matters related to forestry. In principle, local political units should have an active interest in the management of all local resources within their political boundary, including forests. However, both legally and in practice, local political units are not considered to be stakeholders in community forestry. The coordination between FUGs and VDCs is often merely coincidental, when the VDC officials are also office bearers in the FUGs.

In some cases, an FUG as an institution has the potential to have more funds than the VDC, and thus more political effect than the VDC. This could be a potential source of conflict between the two institutions. Realising this problem, discussions are proceeding to identify approaches and methodologies to mitigate such conflicts. It is necessary to develop formal linkages between VDCs and FUGs. Some of the ways in which this could be achieved are: participation of a VDC representative in FUG assembly meetings; VDC facilitated networking of FUGs within the VDC boundary; and coordination of local development work of the VDC and FUGs. This linkage is necessary to ensure

sustained and coordinated strengthening of local institutions related to political decentralization and forest management.

3.2.7 Impacts

Local control of community-managed forest has led to increased productivity and forest biomass as a result of strict protection from fires, free grazing, and uncontrolled cutting. These protection activities have also encouraged natural regeneration of forest and helped in stabilising slopes subject to erosion. Because of increased forest cover, water regimes (both yield and quality) have improved at micro-watershed level. However, as a result of the lack of baseline data, it is not possible to provide empirical evidence of the impact of community forestry in terms of forest growth, increase in biological diversity, and improved water regimes.

At present FUGs obtain regular supplies of forest products such as timber, fuelwood, leaf litter, and fodder. In addition, FUGs that produce surplus forest products also generate income. Community management of forests has also led to optimal use of forest land through the cultivation of cash crops or medicinal plants as ground cover. This has also helped some FUGs in income generation.

Local people are becoming increasingly aware of the importance of community forests, and, as a result, more people are participating in decision-making processes and thus becoming involved in forest management. Studies have shown that a majority of FUGs are self reliant in decision-making (Chhetri 1997).

The numbers and diversity of wildlife are also increasing. As a testimony to this, news about wildlife attacks on villagers and their livestock is becoming more and more frequent. People do not take their livestock to graze in many community forest areas because of fear of attack by wild animals.

A very encouraging impact of the programme has been the change in attitude of the local people towards forestry officials. The feeling of antagonism that existed before has now been

replaced by camaraderie, and forestry officials now feel that they are getting the social prestige that they deserve!

3.2.8 Indicators of Success

Unlike other development programmes in which indicators of success are easily quantifiable, indicators in community forestry can only be largely qualitative. It may not be practical to judge the success of community forestry in terms of what quantities of forest products have been harvested and utilised by the users. Since FUGs are the focal points of community forestry, the success or failure of community forestry should also be based on an evaluation of FUGs. The capability and institutional development of FUGs is the prime determinant of how well community forests are managed sustainably and utilised equitably. Thus the indicators of success of community forestry must encompass institutional aspects of FUGs in addition to some quantifiable parameters. The following could be used as key indicators for ascertaining the success of community forestry.

* Transparency and accountability in the administration of FUGs
* Increased benefit sharing on an equitable basis
* Participatory decision-making within FUGs
* Increased participation of women and disadvantaged groups
* Increase in forest cover and availability of forest products
* Improvement in the quality of the forest
* Income generation from forests
* Use of FUG funds for forestry and other community development work
* Ability to apply the knowledge and skills learned in training programmes

An independent and empirical evaluation of the community forestry programme by a neutral third party is now necessary to ascertain the level of success.

3.4   FUG Networking

Various attempts have been made in Nepal to form local, district, and national level FUG networks, in order to enhance the bargaining power of, and to strengthen, FUGs. The *Samudaik Ban Upabhokta Mahasangh*, or Federation of Community Forestry Users in Nepal (FECOFUN), is the national federation of FUGs. The federation emerged out of a recognised need to link forest users from all parts of the country and represent their interests at the national level. The main goal of FECOFUN is to expand and strengthen the role of actual forest users in policy-making and resource-related activities. Its aims include lobbying, publication, training, and advocacy (Britt 1996). FECOFUN could also offer a mechanism for conflict resolution. Steps have been taken towards some of these aims, particularly in conflict resolution and advocacy. It remains to be seen, however, whether FECOFUN can live up to its mandate. At present FECOFUN is still building up its grass roots' base through information dissemination and district-level assemblies.

FUG Networking Workshops at the district level are an important component of the training programmes of the District Forest Offices. FUGs come together to share ideas and experiences in these workshops. The effectiveness of these workshops is not yet well documented, however.

3.5   Community Forestry in the *Terai*

In the past, the forests of the *Terai* used to play an important role in the national economy. At present, harvesting in the *Terai* forest is confined to removal of dead, dying, and wind-blown trees, and occasionally to clear felling certain areas for transmission lines and roads. The Forest Act of 1993 does not distinguish the mountains from the *Terai* with regard to implementing community forestry. Although the present form of the community forestry programme is considered appropriate for the mountains, its suitability for the *Terai* is still questioned by many professionals.

The main argument is that the *Terai* has different social and economic conditions, and these necessitate a different model for community forestry. The second argument is that only areas near habitations should be handed over as

community forests. Communities in the *Terai* have a heterogeneous structure and animosity and communalism are common. The farming system in the *Terai* is less dependent on forests. Hill communities have a long tradition of protecting and managing local forest areas, but this has been very limited in the *Terai*. One major problem is the identification of primary and secondary users. The identification and formation of FUGs are much more complicated than visualised by the provisions in the forestry legislation. Unlike in the mountains where the users live close to the forests, the users in the *Terai* are spread cross the flat land. There are no forests in some *Terai* districts except along the foothills of the Siwaliks. Traditional users have been continuously distanced from the forests as the forest became depleted and the forest border receded towards the foothills of the Siwaliks. At the same time, people from the mountains migrated and settled near the forests in the foothills, and some of these formed FUGs and controlled access to the forest areas. The traditional users of the *Terai*, by virtue of living far from the forest, were not included in these FUGs and are being deprived of their traditional rights to forest products that they still need. Furthermore, some recent examples in which large chunks of commercial forest were handed over to FUGs far in excess of the users' requirements have raised questions about the appropriateness in the *Terai* of the legal provision of no area limit for community forestry.

Although some *Terai* forest areas are being slowly handed over to users, there is still an ongoing debate about a workable and sustainable strategy for community forestry in the *Terai*. In-depth studies indicate that the policy of community forestry in the *Terai* may need to be modified. Even then, community forestry alone cannot fulfill the need for forest products of the people in the *Terai* without being supplemented by commercial management of the still intact national forest areas.

3.6 Future Directions

Community forests — both plantation and natural — need urgent silvicultural interven-

tion. Intense and continued support is needed to ensure that FUGs are institutionally, organizationally, and technically capable of managing these operations.

An action plan should be formulated for enhancing the participation of women and disadvantaged groups in decision-making. Intense and sustained post handover support to FUGs will be needed to build up their technical, social, and organizational capabilities. NGOs should be encouraged to participate more actively in a complementary way, rather than parallel to the government institutions. The workload in the community forestry programme is increasing, but the staff numbers available to DFOs is constant. Thus NGOs have a tremendous contribution to make in the capacity building of FUGs.

A whole series of marketing issues should also be tackled, for example, prices (and their trends) at different levels of the trade, price quality relationships, volumes traded, and overall trends in demand in the market. In fact a whole range of factors in market dynamics needs to be considered. There is also an urgent need to introduce low-cost technologies for processing forest products at the local level.

Community forestry is oriented towards the production of 'major' forest products, especially fuelwood and fodder. However, an increasing number of FUGs is showing interest in the management of non timber forest products (NTFPs) in their forest areas. Some examples are lokta (*Daphne* spp.), timur (*Xanthoxylum armatum*), tejpat (*Cinnamomum tamala*), chiraita (*Swertia chirayita*), and dhasingare (*Gaultheria fragrantissima*). Unfortunately, there is no specialised centre within the Department of Forests or elsewhere to provide technical support to interested FUGs. District Forest Office Staff also lack sufficient knowledge about NTFPs. There is an urgent need to set up a resource centre aimed solely at providing services to FUGs on NTFPs. Field staff also need more training on NTFP management, processing, marketing, and trade issues.

As more experience is gained, there is a need to modify formal and informal training curricula

to take into account new and emerging needs in the community forestry programme. For example, conflict resolution, record keeping, and accountancy, have been included in various training courses after the need was recognised as a result of recent field experiences. Such a process must continue in order to make training programmes more supportive of community forestry. There has already been considerable training of government staff and FUG members, but, although significant progress has been made, the task is endless. The government alone cannot provide all the services required by FUGs. One positive development is the emergence of NGOs that are providing such support services to communities.

As with all novel development concepts, community forestry will continue to change, and its implementation will always involve a learning process. Policy and legislation may have to be refined accordingly to promote the sustainability of community forestry through deregulation, removal of constraints, and mobilisation of local resources.

In Nepal, community forestry has gone beyond the level of a pilot project and has become a major system of national forest management. However, FUGs are not yet capable of running the community forestry programme on their own. They need and will continue to need technical support from the government and NGOs.

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Annex 1
Fact Sheet on Nepal

Location : Latitude   26⁰ 22' N to 300 27' N
Longitude   80⁰ 04' E to 880 12' E

Bordered by : China - north
India - south, east and west

Area : 147,480 sq. km.

Elevation : 161 masl – 8848 masl

Ecological Zones : Five zones on a south to north axis: Terai, Siwaliks, middle mountains, high mountains, and high Himalayas

Population :

Year	Total	Male	Female	Growth rate %
1952/54	8,235,079	4,050,607	4,184,472	-
1961	9,412,996	4,636,033	4,776,963	+1.65
1971	11,555,983	5,817,203	5,738,780	+2.07
1981	15,022,839	7,695,336	7,327,503	+2.66
1991	18,491,093	9,220,974	9,270,123	+2.08
1996 (Projected)	21,126,636	10,599,478	10,527,158	+2.66

Population density (1991) : 125 per km^2

Average HHsize : 5.6

ADMINISTRATIVE FACTS

No. of districts : 75

No. of hill/plain districts	: 55 (hill) 20 (plain)
Per cent of population in the hills (1991 census)	: 53.3
.Per cent of population in the plains (1991 census)	: 46.7

NATURAL RESOURCES

Land use in Nepal ('000 ha)

Land use type	High Himalayas	High Mountains	Middle Mountains	Siwaliks	Terai	Total
Agriculture	8	244	1,223	269	1,308	3,052 (21)
Forestry	155	1,639	1,811	1,438	475	5,518 (37)
Shrub land	67	176	404	29	30	706 (5)
Grasslands	885	508	278	16	58	1,745 (12)
Non-cultivated inclusions	1	148	667	59	123	998 (7)
Other land (e.g., snow, rock, rivers)	2,234	245	59	75	116	2,729 (18)
Total	3,350	2,960	4,442	1,886	2,110	14,748 (100)

Figures in parenthesis indicate per cent
Source: MPFS (1988)

STATUS OF FOREST RESOURCES

Total Area : 5.5 million ha or 37.4 per cent of the total land area

Community Forest Area
(as of 16 February 1998) : 403,688 ha

Registered Private Forest
(as of 17 February 1998) : 1,517 ha

Unregistered Private Forest : not available

National Parks, Wildlife Reserves, and Conservation Areas : 16.5 per cent of the total land area.

Total Growing Stock : 522 million cu. m. (over bark up to 10 cm top diameter)

More than a quarter of the forests are degraded (less than 40 per cent crown cover). Almost two-thirds are occupied by small-sized timber, and one-third by large timber. There is not enough regeneration or pole-sized stands.

Deforestation
(1978/79 – 1990/91) : 1.3 per cent per annum in the Terai (FORESC 1994)

Plantation	: 10,000 ha per annum (1979-86)
	21,000 ha (4 years of Eighth Five Year Plan 1992/93 – 1995/96)

Status of rangelands/ grasslands : degraded in most cases.

SOCIO-ECONOMIC INFORMATION
Source: CBS (1996)

Percentage of population below poverty line: 49 per cent

Number of Landholdings by Size of Holding 1991/92

Size of holding	Number ('000)	Holdings Per Cent	Cumulative Per Cent
under 0.1 ha	173.0	6.4	6.4
0.1 - 0.2 ha	263.8	9.8	16.2
0.2 - 0.5 ha	729.3	27.0	43.1
0.5 - 1.0 ha	711.7	26.3	69.4
1.0 - 2.0 ha	529.5	19.6	89.0
2.0 - 3.0 ha	168.4	6.2	95.3
3.0 - 4.0 ha	59.6	2.2	97.5
4.0 - 5.0 ha	28.6	1.0	98.5
5.0 - 10.0 ha	32.0	1.2	99.7
over 10.0 ha	8.2	0.3	100.0
Total	2703	100.0	100.0

Land Holding Characteristics 1991/92

Ecological Zone	No. of Holdings ('000)	Area of Holdings ('000 ha)	Average Holding Size (ha)
Mountain	260.7	176.8	0.68
Hill	1,357.7	1,046.2	0.77
Terai	1,117.6	1,374.3	1.26
Nepal	2,736.1	2,597.4	0.96

Area and Fragmentation of Holdings 1961/62 - 1991/92

	1961/62	1971/72	1981/82	1991/92
Area of Holdings ('000 ha)	1,685.4	1,654.0	2,463.7	2,597.4
Average Holding Size (ha)	1.11	0.97	1.13	0.96
Number of Parcels (1000)	10,318.2	12,282.5	9,516.4	10,806.2
Average Parcels/Holdings	6.8	7.2	4.4	4.0
Average Parcel Size (ha)	0.16	0.13	0.26	0.24

Educational Status: Literacy Per Cent

| | 1981 Census | | 1991 Census | |
	Nepal Total	Urban	Nepal Total	Urban
Total	23.3	56.0	39.6	66.4
Male	34.0	66.0	54.5	77.4
Female	12.0	44.0	25.0	54.3

Statistics on Primary Education 1991 - 1994

	1991	1992	1993	1994
Schools	18,694	19,498	20,217	21,102
Enrolment	2,884,275	3,034,710	3,091,684	3,191,614
Boys	1,810,956	1,872,904	1,895,754	1,933,261
Girls	1,073,319	1,161,806	1,195,930	1,258,353

HEALTH STATISTICS

Number of Hospital Beds/
100,000 Population (1994/95) : 15

Number of Doctors/100,000
Population (1994/95)   : 4

Health Services 1994/95 : Hospitals   84
                              Hospital beds   3,188
                              Health centres   17
                              Health posts   775
                              Ayurvedic dispensaries   170
                              Sub-health posts   700

Drinking Water Facilities
(Source: National Research
Associates 1997)   : Drinking water supply coverage: 44 per cent of the total
                        population

Community Management
Status (as of 16 February, 1998)
(Source: DOF official records) : No. of Forest User Groups   : 6,062
                                 Area under FUG management   : 403,688
                                 Total number of households
                                 benefitted   : 645,518
                                 Total population benefitted
                                 (5.6 persons/household)   : 3,614,900

STATUS OF FOREST-BASED INDUSTRIES

Important Forest-based Industries 1994/95

	Number	Employment
Sawmills and other wood mills	157	1793
Paper and paper products	46	1895
Furniture industry	289.	2831

Source: CBS (1996)

Quantity and Value of Products from Forest Based Industries

Product	Quantity	Value ('000 Rs.)
Sawn wood*	289,676 cu. ft.	146,770
Handmade paper*	5,103 qtl.	39,590
Paper*	1,506 qtl.	4,808
Wood furniture*	–	692,453
Wood products (except furniture)*	–	27,582
Processed medicinal products**	.–	25,088
Eco-tourism (1995/96)***	111,211 Visitors to national parks	64,960

* Source: CBS (1996)   ** Source: HPPCL (1997)   *** Source: DNPWC (1996)

Government Revenue from the Sale of Forest Products 1995/96

Products	Quantity	Value (Rs.)
Logs	1,916,323 cu.ft.	} 28,796,782
Fuelwood	3,332,500 cu.ft.	
Medicinal herbs and others	3,233;499 kg	47,958,415
		335,426,235

Source: DOF (1996)

Participating Countries of the Hindu Kush-Himalayan Region

Afghanistan

Bangladesh

Bhutan

China

India

Myanmar

Nepal

Pakistan