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**COMMUNITY FORESTRY DEVELOPMENT IN BHUTAN:
NEW PRACTICE OR ANOTHER BANDWAGON.**

(A CASE STUDY OF THREE COMMUNITY FORESTRY PILOT PROJECTS)



TENZIN CHOPHEL

September, 1997

**A Dissertation Presented for the Degree of Master of Science
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TO MY LOVING PARENTS

ABSTRACT OF THESIS

(Regulation
3.5.13)

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About 85% of Bhutan's population live within the biomass-based subsistence economy. With increasing population (3.1% per annum), coupled with the rising expectation, the demand for all forms of wood-based products and services will continue to increase. However the country is well endowed with forests, currently with 72% of land under forest cover (LUPP, 1995) and has sufficient capacity to meet the local demand for some time. But, for how long? With the gradual degradation and depletion of forest resources in the vicinity of populated centres, localized aggravated shortages, mainly firewood, is being felt by a growing number of rural people. Therefore, conserving and restoring the productivity of natural forest ecosystems and ensuring that the forest resources are available within economic distance to rural communities is a major strategic planning requirement.

Today, community forestry is identified as a viable strategy to local forest resource management. This dissertation is an attempt to look into the legal perspective of community forest development in Bhutan in conjunction to the three pilot projects. A comparative studies of the three projects and their summary of findings are given with recommendation for future development.

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ABBREVIATIONS

AAC	Annual Allowable Cut
Ac.	Acre
BFI	Bhutan Forestry Institute
CF	Community Forest
CFMP	Community Forestry Management Plan
CFUG	Community Forestry User Group
CFMU	Community Forest Management Unit
CLSD	Crop and Livestock Services Division
CSO	Central Statistical Office
DFEO	<i>Dzongkhag</i> Forestry Extension Officer
DFO	Divisional Forest Officer
FAO	Food and Agricultural Organization of the United Nations
FDC	Forestry Development Corporation
FPF	Forestry Programme Framework
FPLUS	Forest Protection and Land Use Section
FRDS	Forest Resources and Development Section
FSD	Forestry Services Division
FYP	Five Year Plan
GRF	Government Reserve Forest
Ha	Hectare
HMG/N	His Majesty's Government of Nepal
ICIMOD	International Centre for Integrated Mountain Development
IIED	International Institute for Environment and Development
JFM	Joint Forest Management
LUPP	Land Use Planning Project
MoA	Ministry of Agriculture
MPFD	Master Plan for Forestry Development
NCS	Nature Conservation Section
NGO	Non Governmental Organization
NRTI	Natural Resources and Training Institute

NWFP	Non-wood Forest Product
PFO	Project Facilitation Office
PPD	Policy and Planning Division
PRA	Participatory Rural Appraisal
REID	Research Extension and Irrigation Division
RGoB	Royal Government of Bhutan
RNR	Renewable Natural Resources
RNR-RC	Renewable Natural Resources - Research Centre.
RRA	Rapid Rural Appraisal
SDC	Swiss Development Co-operation
SFES	Social Forestry and Extension Section
TD	Territorial Division
TFDP	Third Forestry Development Project
UNDP	United Nations Development Programme
WB	World Bank

GLOSSARY OF BHUTANESE WORDS

<i>Chams</i>	Axe-hewn Beams used in traditional Bhutanese house construction
<i>Dangchungs</i>	Poles with less than 10 cm diameter
<i>Dzong</i>	Centre of District Administration (fort)
<i>Dzongdag</i>	District Administrator
<i>Dzongkhag</i>	District
<i>Gewog</i>	Block
<i>Gup</i>	Elected Leader of a Block
<i>Nu.</i>	<i>Ngultrum</i> (Currency of Bhutan)
<i>Shingleps</i>	Shingles
<i>Sokshing</i>	Woodlot for leaf litter collection
<i>Tsamdrog</i>	Pasture Land
<i>Tseri</i>	Shifting Cultivation
<i>Tsims</i>	Poles with 10-12 cm diameter

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CHAPTER 1 RATIONALE, OBJECTIVES AND METHODOLOGY

The first chapter discusses the rationale, objectives and the methodology used for the study.

1.1 Rationale

With increasing population, coupled with the rising expectation, the demand for all forms of wood-based products and services will continue to increase in Bhutan. However the country is well endowed with forests, currently 72.5% of land under forest cover (LUPP, 1995) and has sufficient capacity to meet the local demand for some time. But, for how long? With the gradual degradation and depletion of forest resources in the vicinity of populated centres, localized aggravated shortages, mainly firewood, is being felt by a growing number of rural people. Therefore, conserving and restoring the productivity of natural forest ecosystems and ensuring that the forest resources are available within economic distance to rural communities is a major strategic planning requirement.

Due to mountainous and rugged terrain, a major challenge facing forest resource management planning in Bhutan is to strike a balance between meeting the increasing demand on the one hand and ensuring sustainability on the other. Though the sustainability concept is well accepted, its implementation is open to improvements and technological adaptation. However, environmental planning and its implementation involves costs that may be well beyond the capacity of most to pay in a developing situation. Taking this into account, it has to be accepted that there are many situations where it is better to allow the people to manage the forest to meet their needs rather than to organize supplies from scientifically managed forest management units. Therefore, community forestry development *may be* seen as one of the viable solutions to this requirement. However, having said that, the issue is still debatable.

To date, the development of various forms of social forestry arrangements with the local communities has been quite limited. Initial efforts led to the establishment of a

“Social Forestry Day” held annually involving the planting of trees around households and public institutions such as schools.

Initial social forestry schemes have sought to encourage community participation as a primary means for afforestation of degraded lands in the vicinity of rural villages. More recent considerations of schemes to transfer management of existing forests to community leadership have been stalled on the basis of uncertainty regarding the ability of the Forestry Services Division to relinquish responsibility for all forests under national legislation. Further, the need to subsidize community and social forestry activities in the absence of strong perceived benefits to local participants are seen as undesirable.

Community forestry is relatively a new concept in Bhutan. At present, the concept is being implemented on a pilot scale, with two projects in the East and one in the West. But the question here is ‘how far has it gone’? And ‘is it the right time’? Without involving the local community in resource management and making them responsible, implementation of social forestry activities, for that matter community forestry and its associated discussions, reservations and scepticism will continue to be prolonged. In general, people have not felt the need for community forest as the country is well endowed with forest resources, aggravated by heavily subsidized timber supply from the Government Reserved Forest (GRF), but it is always better to go for proactive planning rather than anticipate reactive measures.

1.2 Objectives of the Study

Against the above background, the objectives of my study are as follows;

- Is it the right time to initiate community forestry development in Bhutan?*
- Review the development of community forestry in Bhutan from inception till date.*
- Study the pilot community forestry projects initiated by the World Bank assisted forestry Development Project in the East and the FAO initiated pilot project in the West.*

- **Make a comparative study of the three pilot projects in the light of resource endowment, legal status and social setting.**
- **Recommendation for further development of the programme.**

1.3 Methodology and Approach

Field visits in the eastern parts of Bhutan, where the community forestry development is taken up on pilot scale. Since the RRA and PRA reports were already made available, it was felt that conducting another one would be a waste of time. However, to validate some of the information in the report, informal meeting and spontaneous semi-structured interviews with the user groups were carried out. Discussions with the forestry officials directly related to the work of community forestry in the field were held in order to gain an insight from the technical viewpoint.

In Thimphu, discussions were held with senior forestry officials of the Forestry Services Division (FSD), Policy and Planning Division (PPD) at the decision making level to understand the legal status, as only one of the three pilot projects were approved by the government for implementation.

The other approach was through extensive literature review in Bhutan and the University in order to develop a wider understanding of the system within Bhutan and other parts of the world, especially India and Nepal.

The main sources of literature in Bhutan were made available from the Ministry of Agriculture, Forestry Services Division, World Bank assisted Third Forestry Development Project in East Bhutan, Social Forestry and Extension Section. Maps and other related land use data were obtained from the Land Use Planning Section (LUPP) of the Ministry of Agriculture.

CHAPTER 2 INTRODUCTION

The second chapter highlights the general country background, giving the geo-political setting of the country, the type of land use including the category and type of forest. It also touches upon the demography and macro trade statistics in general, macro policy setting of the Renewable Natural Resources (RNR) sector which encompasses agriculture, livestock and forestry. It also briefly looks at the farming system *vis a vis* forestry, so that the readers can obtain an impression of how forests fit into the landscape of Bhutan and the importance of forestry in a Bhutanese farmer's life.

2.1 Country Overview

2.1.1 Geo-political Setting

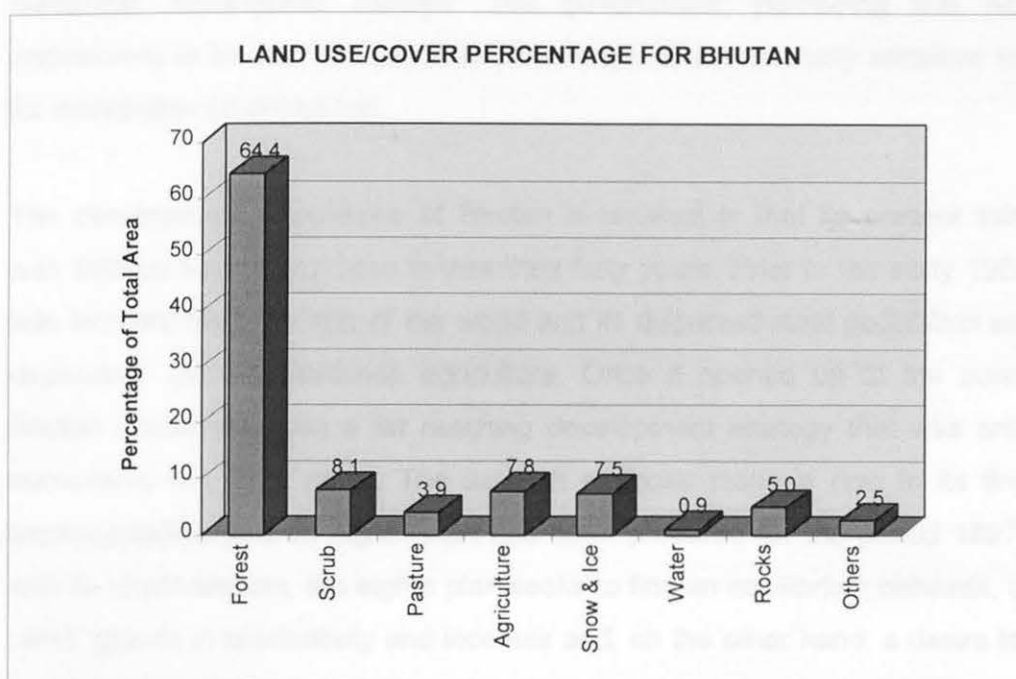
The Buddhist Kingdom of Bhutan is nestled in the remote eastern Himalayas flanked by India to the South and the Tibetan region of China to the North. (See Map 1) The country is totally land-locked covering an area of approximately 46,500 sq. Km. The northern border is demarcated by the mighty Himalayan range, rising up to 7800 meters forming a natural formidable border with China. The southern border stretches about 700 Km, touching the Indian states of Assam, West Bengal, Sikkim and Arunachal Pradesh.

Surrounded by some of the highest mountains in the world and bisected by equally deep valleys, the kingdom of Bhutan is a land of extreme. From the foothills that are contiguous with the Indian Terai up to the high Himalayan ranges, Bhutan can be broadly divided into three broad physiographic zones which are ecologically distinct and varied. The southern zone with a latitudinal range from 200m to 2000 m contains the lower foothills of the Himalayas, with tropical and sub-tropical vegetation. The central zone stretching from Haa in the west to Merak Sakteng in the east ranges from 2000 m to 4000 m in altitude and can be considered the economic and cultural heartland of Bhutan. This zone contains temperate conifer and broadleaf forest, constituting the major forest region of the country. The northern zone, with altitude over 4000 m is covered with perpetual snow, glaciers and barren rocks interspersed with alpine pastures.

2.1.2 Land Use

Bhutan is predominantly an agricultural society with 85% of its population directly or indirectly engaged in the agricultural activities. As stated earlier, 72.5% of the land are under forest cover out of which 8.1% is degraded or scrub forest. The combined agricultural arable land constitutes only about 7.8% while the pasture (grazing land) and alpine meadows cover about 3.9%. Permanent snow-covered areas including glaciers account for about 7.5% of the total area and the water body covers about 0.9%. (LUPP, 1995). The land cover percentage for Bhutan are given in figure 1.

Figure 1 Land cover percentage for Bhutan (LUPP, 1995)



The forest land base can be divided into the following forest types with the approximate corresponding areas :

Table 1 Types of Forest

Sl No.	Type of Forest	AREA in Km ²	As % of total area
1	Conifer Forest	10616	26.5
2	Broadleaf + Conifer	1358	3.4
3	Broadleaf forest	13749	34.3
4	Conifer Plantation	20	0.1
6	Broadleaf Plantation	44	0.1
7	Forest Plantation	64	0.2
8	Scrub Forest	3258	8.1
9	Total	29045	72.5

(Source : LUPP, 1995)

2.1.3 Demography and Macro-Trade Statistics

The small population estimated at 600,000 in 1997 had a per capita GDP of about US\$ 545 in 1996 (CSO 1997), one of the highest in South Asia. The mountainous terrain makes transport and communication difficult, but it has also endowed Bhutan with an enormous hydroelectric power potential. In addition, there are substantial deposits of limestone, gypsum, dolomite and graphite. The forests that cover 72.5 per cent (LUPP, 1995) of the mountainous terrain are host to a unique flora and fauna that include numerous endangered species. The government, perceiving this rich natural endowment to be part of their cultural heritage, is exceptionally sensitive to the need for environmental protection.

The development experience of Bhutan is unusual in that its present infrastructure was built-up from a tiny base in less than forty years. Prior to the early 1960s Bhutan was isolated from the rest of the world and its dispersed rural population was entirely dependent upon subsistence agriculture. Once it opened up to the outside world, Bhutan embarked upon a far reaching development strategy that was articulated in successive five year plans. The seventh of those plans is now in its final year of implementation and an eighth plan has been prepared for the period 1997-2002. As with its predecessors, the eighth plan seeks to find an equilibrium between, on the one hand, growth in productivity and incomes and, on the other hand, a desire to preserve a potentially vulnerable cultural and environmental legacy.

Some of the comparative socio-economic indicators are given in table below.

Table 2 Comparative socio-economic indicators for Bhutan

Population	600,000
Population growth rate	3%
Per capita GDP in USD	545
Average GDP growth rate	6.7% (1985-96)
Life expectancy at birth	
Male	65.9
Female	66.1
Literacy rate	54%

(Source : Central Statistical Office, 1997)

2.1.4 Flora and Fauna

Bhutan is one of very few developing countries where much of the natural resources are still intact. Due to tremendous geographic variation within the country and relatively low population density, many forest ecosystems exist in a relatively pristine state. Therefore, biodiversity is extremely rich for a small country. There are many endemic species of flora and fauna. Over 7,000 species of vascular plants, 150 species of mammal and 770 species of are so far being identified in Bhutan. The still intact habitats contain many species in relative abundance, though they may be extinct or threatened with extinction elsewhere in the world. Bhutan is proud of this heritage and has wise policies and programmes to conserve these species. Recently, the values of genetic resources of Bhutan have attracted international interest and support for the government's conservation efforts.

The forests contain many valuable conifer and broadleaf timber species. *Taxus baccata*, a tree from which a drug for the treatment of cancers is prepared, is found in abundance. Many trees and shrubs are of industrial importance. Over 300 species largely of alpine plants, are used in traditional medicine. Grierson and Long (1983) listed 168 species of horticultural plants introduced to Europe from Bhutan. The Bhutanese flora contains many wild relatives of species used in horticultural such as strawberries, carrot, cherry, apple, and raspberry. A variety of forest mushrooms and food plants supplement and enrich the local diets.

In Bhutan, the Indo-Malayan and the palaeartic zones of fauna overlap over the unique Himalayan zone. This makes the fauna as diverse as the flora. In an area of about 46,500 sq. Km. Indo-Malayan species such as elephant, guar, wild buffalo, pygmy-hog, hispid-hare, and endemic golden langur, as well as Palaeartic species such as takin, blue sheep, red panda, and snow leopard are found in abundance. The numbers of bird species known or presumed to be in Bhutan total over 770. In addition to the overlapping of the zones, the migration of birds enriches the avi-fauna wealth of the country. There are splendid pheasants, hornbills, sunbirds, lagless, floricans as well as the rare black-necked crane. The richness and diversity of flora and fauna including many endemic species, combined with the fact that the forests of the country

are in a relatively pristine state, make these forests important at both national and international levels.

2.2 Macro Policy Setting

The government's development strategy has focused on developing the country's human and physical resources through major investments in health and education, in rural infrastructure, and in development of power and energy-intensive industries. The growth objectives of the government are tempered by an earnest desire to preserve the distinctive cultural heritage of the country and its rich natural endowment of mountain forest, flora and fauna. With the support of a US\$ 20 million trust fund, the Government is managing 26 percent of the land area as wildlife parks and sanctuaries, and has committed itself in perpetuity to keeping 60 percent of the land under forest cover.

2.2.1 Renewable Natural Resources (RNR) Sector

The RNR sector strategies for the seventh plan seek to achieve the socio-economic objectives of self-sufficiency in food, fodder, fuel and wood, as well as "improvements in the income, living and nutritional standards of the population." (Seventh Five Year Plan, 1992-1997) These objectives include environmental conservation that emphasizes forestry development within the framework of the comprehensive watershed management and farming systems development programmes.

For the Eighth Five Year (FYP) Plan (1997-2002), a greater emphasis is being given to policy measures in the RNR sector and on measures to ensure an enabling environment to support economic activity in the sector. The policy agenda contained within the sector strategies are, i) improving the planning base, ii) an enabling regulatory framework, iii) sustainable resource management, iv) introduction of improved technologies, v) promoting people's participation, vi) improved public services and vii) commercialization, privatization and the reduction of subsidies.

Since 1990, a large number of studies and reviews for the RNR sector has been carried out. (refer table 3)

Table 3 Recent Policy Reviews and Studies in the RNR Sector

<u>Policy Studies</u>	
1990	National Irrigation Policy
1990	Master Plan for forestry Development
1991	Accelerated Food Production Programme
1992	Forestry Programme Framework
1992	Research Strategy and Plan for the RNR Sector
1993	Master Plan for Horticulture Development
1993	Master Plan for Livestock Development
1994	RNR Sector Manpower Plan
1994	Comprehensive Food Security Programme
1994	National Extension Policy
1995	National RNR Research Policy
1995	Sub-Sector Policies and Strategies for:
	a) Field Crops
	b) Horticulture
	c) Livestock
	d) Forestry

2.2.2 Forestry Sub-sector context

Bhutan at present is at the cross-road with its forest, in the sense that new conditions of resource use mean that the old patterns of use and behaviour regarding forest are no longer guaranteed to provide acceptable outcomes in spite of past adequacy and performance. Overall, forest resources remain relatively intact, with high conservation, biodiversity, protective and environmental values. This may be attributed to the relatively low population pressure, the wise and frugal use of forest products, and the general inaccessibility of much of the country. Against this background, the traditional ethos of its people has largely been shaped by the cultural and religious beliefs of the majority of the population.

2.2.3 Forest Policies and Legislation

With the nationalization of forest in 1969 as Government Reserved Forest, the first policy of any kind pertaining to forestry was institutionalized as Forest Act (1969).

Thereafter, the RGoB promulgated several rules and regulations including introduction of permit system to regulate the use of forest resources (refer table 4). It is worthwhile to note that with nationalization of forest, it led to effective protection of forests in several parts of the country, contributing to adverse social and environmental impacts. It also led to the breaking down of the traditional systems of forest management and concentrated felling of the forests along the roads and accessible villages.

Table 4 Forest Policies and Legislation:

Policy/Legislation	Year	Remarks
Forest Act	1969	Approved
National Forest Policy	1974	Approved
Social Forestry Rules	1990	Not Approved
National Forest Policy	1991	Not Approved
RNR Sector Strategy	1992	Approved
Decentralization Policy	1993	Approved
Social Forestry Rules (revised)	1993	Interim Implementation
Forest and Nature Conservation Act	1995	Approved
Social Forestry Rules	1996	Under review and approval

The National Forest Policy of 1991 sets forth two overriding policy objective : (a) ensuring the conversation of the forest environment, its resources and diversity, and (b) providing present and future generation access to the products and other economic benefits of forest. The Policy also stipulates that (a) no forest resources may be utilized without a management plan to assure their sustainability, and (b) the participation of the people in the use, management and conservation of forest is to be encouraged.

2.2.4 Institutional Settings

In 1994, the Ministry of Agriculture reorganized its departmental structure into divisions, in order to promote a more integrated and co-ordinated approach within the Renewable Natural Resources (RNR) sector. There are three technical divisions under the present structure, viz. Forestry Services division (FSD), Crop and Livestock Services division (CLSD) and Research, Extension and Irrigation Division (REID).

These technical divisions are supported by Administrative and Finance Division (AFD) and Policy and Planning Division (PPD).

Implementation of forest policy is mandated to FSD and the implementation of field activities is the responsibility of ten Territorial divisions (TDs), which reports directly to the headquarters. FSD comprises of four technical sections providing functional support to the TDs. They are, Nature conservation Section (NCS), Forest Protection, Land use and Utilization Section (FPLUS), Forest Resources Development Section (FRDS), and Social Forestry and Extension Section (SFES). The detailed organisational structure of Forestry Services Division (FSD) is given in the next page.

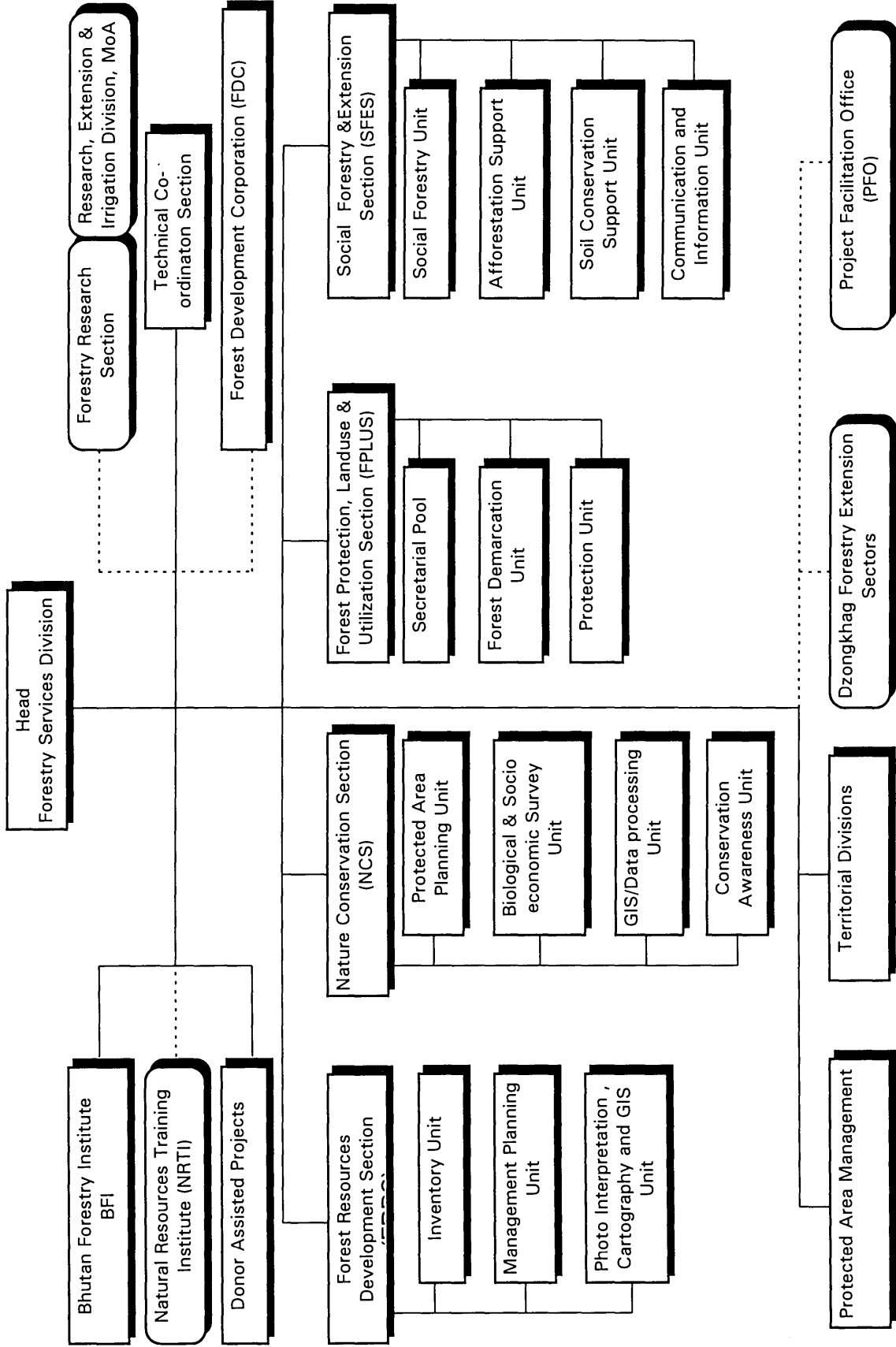
2.2.5 Farming Systems *vis-à-vis* Forestry

Historically, access to forest has remained to be crucial to the existence and sustainability of farming systems. Bhutan is predominantly a rural economy, with over 85% of its population engaged in agricultural (crop, livestock and forestry) activities for daily sustenance. Rural economic life is still largely outside the monetary economy for food and sustenance, with much fuelwood, grazing and fodder derived from the adjacent forested areas under the customary use rights.

The average landholding of these farmers is about 2.5 acres. This small landholding combined with difficult terrain makes large scale mechanization impossible. Therefore the farmers practise subsistence farming and *Tseri* cultivation to meet their daily requirement.

Forest in particular plays a vital role in Bhutanese farming system. The benefit accrued from the forest will be briefly described in two categories, viz. direct and indirect benefit. For instance, ranging from a simple agricultural implement like plough to field manure from leaf litter, fencing post, fuelwood and fodder for draught animal, from the forest can be categorized as direct benefit. Maintenance of soil fertility, protection of water sources, maintaining micro climate are some of the indirect benefit rendered by forest.

Figure 2 Structure of the Forestry Services Division, Ministry of Agriculture (FSD, 1996)



CHAPTER 3. LITERATURE REVIEW

This chapter is a synthesis of literature review the author has referred while preparing the report. It deals with the evolution and concepts of community forestry, definition and terminology that are relevant to Bhutanese context and finally the concept of community forestry that are being implemented in India and Nepal.

3.1 Concepts of Community Forestry

People have been using and managing the forest for many centuries, otherwise there would have been no forest left today. Historical accounts and evidence from different parts of the world are replete with descriptions of, and allusions to, what we would today refer to as 'community forest'. For instance, in England during the middle ages, the concepts of defined users and differential use-rights were well established. Similarly in Switzerland's Alpine areas, highly formalized local institutions were in place before the sixteenth century to control access and usage of communal grazing and forest land. As Gilmour and Fisher (1991) describes aptly; thus, far from 'community forestry' being a modern concept, it is in fact a very old one - another case of "old wine in new bottle". In our desire to apply modern technologies and ideas to solve ageplanting on privately registered land and by the school children in the adjoining school compounds after the old problems, we often forget that people in the past frequently developed very sensible and sustainable working arrangements to manage their natural resources. In today's world we have drifted far from the close association with nature which has characterized most human societies.

Community forestry programme envisages restoring traditional systems of forest management and utilization in the villages. Over the past two decades, perspectives on the role of forests for society have evolved and broadened dramatically from a relatively narrow views of forests as primarily a source of wood to the present view that reflects a wider range of present and future needs of various users (Westoby, 1987).

The typology of change as described by Holey (1996) from 1970s onwards is shown in the table below. Bhutan's forestry policies have also gone through all the changes as

mentioned in the 1990 - new forest sector policies (Forest and Nature conservation Act, 1995), and the Decentralization Policy of 1993.

Table 5 Typology of Change

Decade	Event	Response
1970s	Oil crisis = other energy crisis - firewood Sahelian drought = deforestation Bangladesh flood = deforestation	Forestry for local community development
1980s	Eco-disaster = forestry renaissance	Creation of new forest resources = Woodlots Social Forestry
Late 1980s	Changing development practice = from top-down to bottom-up planning	Local control & management of resources = participation, acknowledgement of value of indigenous technical knowledge, enhanced role of NGOs
1990s	New forest sector policies Rio and Agenda 21 Decentralization Public sector reform	Participatory management = institutional and policy reform, new partnerships Collaborative, joint, participatory, community forestry

2000+ Forestry for Multiple Objectives, Multiple Clients, Multiple Partnerships

Source: Hobley (1996)

3.2 Definition and Terminology

Community forestry is neither a product nor an activity, but a process that effects and is affected by more than community forestry resources. It is a process of community development with special emphasis on the forestry sector. Without an understanding and appreciation of this concept efforts in community forestry cannot be successful. (Knisely, 1993)

Community forestry has been defined differently by different people in different situations. It is a broad term, widely used by international agencies to describe people-based forms of forest management, which includes indigenous forest management systems and government initiated programmes like user groups in Nepal and joint forest management in India. In fact there is no single definition which could be applied to all the different situations and this has created a confusion in the term. To some degree this confusion has been compounded by the concurrent emergence of 'social forestry', a term for which no clear definition exists, and which the term is used by some as interchangeably with

community forestry and by others to describe implicitly narrower spectrum of activities surrounding fuel wood, deforestation, woodlot issues. (Arnold, 1992)

Community forestry departed radically from all previous conceptions of what forestry was about in that it centred on the idea of people's participation - getting local populations to plan and execute their own projects on a self help basis. This meant providing them with the advice and inputs needed to grow seedlings, to plant, manage and protect their own forest resources, and to extract the maximum benefit from those resources. Community forestry is dedicated to the idea of increasing the direct benefit of the forest resource to the rural poor. (FAO, 1983).

Some of the definition that the author has cited while going through the literature are listed below:

FAO (1978) describes community forestry as any situation which intimately involves local people in a forestry activity. It embraces a spectrum of situations ranging from woodlot in areas which are short of wood and other forest products for local needs, through the growing of trees at the farm level to provide cash crops and the processing of forest products at the households, artisan or small industry level to generate income, to the activities of forest dwelling communities.

In the words of Srivastava and Pant (1979), community forest is described as a new concept of forest creation, management and utilization of goods and services for the benefit of society.

Community forestry is defined as the creation, control and sustainable management of communal forest resources by a user group based on participatory process, directed by user groups and supported by forestry professionals. (Carter and Gronow, 1993)

The establishment of wood-based production system on uncultivated, marginal and degraded/barren lands for: site improvement; habitat improvement; major and minor products such as timber and the six 'Fs' - fuel, fruit, fodder, fibre, fertilizer and flowers - for the community through community participation. (Bhargava, 1993)

Community forestry refers to all professional forestry activities that aim specifically at the participation of the local people in forest management and at the fulfilment of the forest needs and aspirations of these people. (Wiersum, 1984)

Community forestry is the control and management of forest resources by the rural people who use them especially for domestic purposes and as an integral part of their farming system. (Gilmour et al, 1991).

3.3 *Community Forestry in Nepal and India*

Today, Community Forestry is seen as a viable forest management strategy in the third world countries. Both Nepal and India are pioneers in this field, and development in this direction has been significant in recent years. In the following paragraphs, we will look at development initiatives taken up by the two countries in the light of community forestry development.

3.3.1 *Community Forestry in Nepal - a brief outlook*

Nepal was one of the few countries to introduce a people-focused forest policy. The nationalization of forests in Nepal (1957) proved to be a disastrous measure, mainly as a result of the lack of resources and infrastructure. However, with the introduction of community forestry, these forests are now on the road to recovery, even though the required minimum infrastructure support is lacking. Other institutional aspects which need immediate attention are research and technology. Introduction of scientific management, and promotion of support activities for the communities. Despite total commitment on the part of the government, the growth of community forestry has been sluggish. This is again due to the lack of resources and staff. Therefore, comprehensive planning and implementation became imperative. (Gilmour, 1991)

The 1970s and 1980s saw large amounts of donor funds being funnelled into community forestry, as different parts of the country were carved into projects. Initially, community forestry was seen to be the solution to the deforestation crisis : local people would plant more trees to meet their fuelwood needs. However, as projects gained experience, there

was a more general questioning of the assumptions underlying the crisis. Finally project staff began to see forests and not just trees, local people had throughout this period of national and international sponsored reforestation continued to use and protect existing forests and trees on their own farmland to supply their needs.

Thus community forestry became a priority programme of the forestry sector and has two major components;

- management of natural forests and enrichment planting of degraded forests, as community forests (previously known as *Panchayat Protected Forests*) and
- establishment and management of community plantations (previously known as *Panchayat Forests*) in open and degraded areas (HMG/N, 1991)

3.3.2 Joint Forest Management in India - a brief outlook

In India, community forestry has been adopted in the form of joint forest management (JFM). JFM of forest lands is the sharing of products, responsibilities, control, and decision-making authority over forest lands between forest departments and local user groups. It involves a contract specifying the distribution of authority, responsibility, and benefits between villages and State forest departments with respect to lands allocated to JFM. However, JFM in India is also facing several limitations. While there is policy back-up, there is no legislative support. And although the issue of forestry falls into the concurrent list, i.e., it can be managed at the federal and state level independently, it is usually managed only by the states. There is, as such, no compulsion on the part of the states to adopt JFM immediately, although 15 states in India have already adopted JFM. The progress has been slow. Only about two per cent of the forest areas in India have so far been brought under JFM and, even when JFM has been implemented, the state still retains the major share of the revenue in most cases. India, however, has established institutional support in the field of forestry education, training, and research. It has a trained and committed bureaucracy.

Despite state control on forests and the introduction of JFM, there has been no problem in the application of scientific methods to forest management. Forestry research in India is gaining momentum with the new security provided by the communities. Thus, through

JFM, India can look forward to the restoration of degraded forests and improved productivity.

Some of the salient principles of Joint forest Management (JFM) are listed below (Hobley, 1996);

- it encourages the development of partnerships between local people and forest departments to jointly manage these forest lands.
- it provides legalized access to the local communities to adjacent forest lands.
- it encourages local people to protect forest areas, to prevent from free grazing of livestock and to assist in preventing illegal activities by outsiders.
- It assures local people of a certain proportion of the intermediate and final harvest from the forest lands protected by them.

CHAPTER 4. COMMUNITY FORESTRY DEVELOPMENT IN BHUTAN

This chapter accommodates a brief developmental history of community forestry in Bhutan, and social forestry in Bhutanese context. It also looks at the legal framework promulgated by the government in conjunction to the community forestry, the decentralization policy and the objectives of community forestry.

4.1 Brief Developmental History

In the early 1950s, concern about the management of the country's forest and for organizing the commercial feeling of trees led the establishment of the forest department. Scientific forestry was introduced: forest land was demarcated, plantation established, and management strategies developed. During this decade and into sixties, there emerged the definition that all land in Bhutan which were not registered as private are "Government Reserved Forest" and fall under the administration of the forest department. This definition was formalized with the promulgation of the Bhutan Forest Act of 1969, which effectively nationalized all forest land. This in turn changed the traditional pattern of forest access and utilization that local communities enjoyed for centuries.

There were two schools of thought on the impact of nationalizing forest in Bhutan. The first school of thought felt that government control of forest resources improved protection and reduced uncontrolled forest exploitation, particularly in more heavily populated areas. While the other school claimed that local communities have lost their feeling of ownership and responsibility for nurturing forests. We cannot deny both the views, since there are evidence in some district of increased re-vegetation on forest grazing land, less forest fires, and a reduction in the illegal conversion of forest lands to cultivated land, while on the other hand there are evidence of an increase in the incidence of forest offences in some areas, and of conflict between some local communities and the forest department.

In any case, the royal government was becoming concerned about the effects of prevailing and projected rates of forest degradation. Increasing human and livestock populations have put mounting pressure on forest resources. Collection of food and fodder, timber, small wood and fuel wood, together with overgrazing and shifting cultivation, have been

Figure 3 Listening to the Wind of Changes: A Village Meeting in progress



(Photo: SFEC/TFDP)

Figure 4 Community Forestry enthusiast with TFDP staff



(Photo: SFEC/TFDP)

pushing the rate of forest degradation ever higher, which in some districts have already reached alarming levels. At the same time, it was realized that the people had to depend on forest for their very survival, and that without their active participation, government by itself cannot ensure the conservation of Bhutan's forests.

It was during the Sixth Five Year Plan period (1987-92) that the erstwhile Department of Forest initiated implementation of social forestry programme in a systematic way. Different social forestry models with organised training were tested in few villages. These pilot demonstration, though limited in scope, revealed encouraging results. However, these models had the following drawbacks:

- It demanded a lot of time and energy from the users since they were given only degraded forest land for establishing community forests by planting trees;
- Users had very limited opportunity to accrue interim benefits from the community forest;
- In several villages farmers were willing to participate in community forest but there were hardly any open degraded forest to qualify for community forest;
- The time lag between planting and harvesting is so wide in forestry that communities could not comprehend how the benefit will be distributed amongst the user group and;
- The Social Forestry Rules (1990) have given unlimited power to the Department of Forest to regulate everything which was found to be a big disincentive for growing trees.

To direct national efforts towards sustaining the country's forest resources, the Royal Government promulgated the Forest Policy of Bhutan, 1991. The policy explicitly puts the preservation of the nation's forest heritage over derivation of economic benefit therefrom. However, it also clearly supports forest use and participation by local people, a subject to which the policy devotes a separate section, as described later in section 4.4.1.

4.2 Social Forestry in the Bhutanese context

The term 'social forestry' has been in common usage in Bhutan since 1979. In response to His Majesty's command, the erstwhile Department of Forestry (now Forestry Services Division) initiated social forestry programme all over the country. For several years, this

programme remained limited to distribution of cost-free seedlings for planting on privately registered land and by the school children in the adjoining school compounds after the establishment of nurseries under the absolute control of the government. The progress of this programme was not appreciative since the legal status of tree tenure planted in the private land still remained as Government property, which proved to be a disincentive to plant trees. Moreover, there was lack of an effective extension network to mobilize community participation.

Forest in Bhutan can be broadly divided into six categories (Table 6).

Table 6 Category of forest:

CATEGORY OF FOREST	MANAGEMENT OBJECTIVE	MANAGEMENT AGENCY
1. Govt. Reserved Forest	To Produce timber, fuelwood, fodder, NWFP, etc.	FSD, FDC
2. Protected Area	To protect wildlife, water source, bio-diversity & other important factor	FSD
3. Community Forest	To produce forest products, multipurpose uses.	CFUGs
4. <i>Sokshing</i>	For soil conservation/field manure	CFUGs
5. <i>Tsamdrog</i>	For Grazing only	CFUGs and RGoB
6. Private Forest	To produce timber, fuelwood, fodder & NWFP	CFUGs

Note: CFUG: Community Forest User Groups.
RGoB: Royal Government of Bhutan
FDC: Forestry Development Corporation

4.3 Legal Framework

4.3.1 Community Forestry in the National Forest Policy, 1993

The opening statement of Bhutan's Forest Policy declares that "forest resources will be used according to the sustainable principles, contributing to social justice and equity. The Policy ensures that forests of Bhutan will play a primary role for the conservation of the environment and its for economic development will be promoted only if sustainable could be assured.

The National Forest Policy has established four goals which are:

- the protection of environment;

- ecological stability of the farming systems;
- meeting long-term basic needs of the Bhutanese people for wood other forest produce;
- Contribution to the economic growth at national as well as local level.

With regard to general principles on forest use and participation by local people, the National Forest Policy envisages the following:

- Forestry practices, including social and community forestry, which improve the availability of fuelwood, fodder and other forest produce on a sustained basis for farming and local needs, will be encouraged and supported;
- Access to forest products for all Bhutanese people will be improved by creating distribution, marketing and proper monitoring systems;
- The Government will encourage the users of forests to participate in the development and management of their local forests;
- The Government will encourage favourable conditions for forestry on private registered land;
- The Government will encourage the forestry extension service, which will appraise and understand villagers' forestry related problems and work with them to improve local forest management.

4.3.2 Community Forestry in Forest and Nature Conservation Act, 1995

Community forestry model in the past was tested by promulgating interim rules in the form of a notification. These rules did not have any substantive legal linkages with the Bhutan Forest Act of 1969 and in no way would have been able to stand against the test of the legal challenges. Recently, RGoB has revised the 1969 Forest Act. The Forest and Nature Conservation Act, 1995, have tightened up all loose ends in terms of content and built substantive linkages with the Policy at least in its fundamental principles.

The provisions in the Forest and Nature Conservation Act, 1995 in support of community forestry are as follows:

- The Ministry may make rules for the establishment of community forests on Government Reserved Forest.

- The rules for community forests may provide for the transfer of ownership of the forest produce in the community forest to appropriate groups of inhabitants of communities adjoining the forest
- The group to which the community forest has been transferred shall manage them for sustainable use in accordance with the rules for community forests and the applicable management plan.
- Permits, royalties, and other charges, as well as assistance to community forestry, shall be governed by the rules for community forestry.

Any person, who contrary to Forest and Nature Conservation Act or Social Forestry Rules, take damages, or destroys any forest produce in a community forest established under the provision of the Act, in guilty of an offence punishable with imprisonment which may extend to 3 months, or a fine which may extend to Nu. 5000, or both, in addition to either (i) confiscation of anything illegally taken or the proceeds from the sale thereof, or (ii) payment of compensation at a fair market value for anything illegally taken, damaged or destroyed

A community forest established under the provision of the Act will cease to be a Government Reserved Forest, but if it shall cease to be a community forest, it shall automatically be reverted as Government Forest.

4.3.3 Community Forest Rules

RGoB has promulgated Community Forest Rules to enable handing over of the traditionally utilized forests to the local communities for sustainable management and utilization. The proposed Rules provide for the transfer of areas of Government Reserved Forest to local users' group. The intention of the Rules is that the ownership of the trees vest with the users' group, while the land remains with the Government. The community forest would no longer be Government Reserved Forest, although if the forests were required by the Government, it would be automatically reverted to the status of Government Reserved Forest. A "certificate of ownership" will be issued only after approval of a management plan, according to which operation must be conducted. No royalty is due on produce consumed by the users' group. The users' group also may without payment of royalty sell the forest produce of the community forest for local use to inhabitants of the village(s) who

are not members of the group. However, users' groups may sell forest produce in excess of local requirements for use outside the village through FSD, at the price determined by a *Dzongkhag* board appointed by *Dzongdag*. Sales of forest produce planted by the users' group shall not be subject to the payment of royalty. The proceeds from the sale or supply of forest products from the community forest shall be credited to the account of the users' group. The concerned users group may use the proceeds of sales for implementation of the management plan and protection of community forest. It may use any excess amount for any other community purpose. (The details of provisions for Social Forestry and Community Forestry in the Forest and Nature Conservation Act are given in Appendix 1)

All sales of forest produce from a community forest shall be subject to a permit issued by the group. This permit shall contain such conditions as are necessary to ensure that the permitted complies with the management plan for the forest. The users' group is required to maintain records of the community forest including records and financial accounts of planting, silviculture operations, harvesting, supply to members and sales. Every users' group is also required to prepare an annual report and submit it to the concerned territorial DFO and *Dzongdag*.

4.4 Decentralization Policy

Since the end of Fourth Five Year Plan(1968 -1972), the policy of decentralization has been central to Bhutan's development philosophy. The Decentralization Policy of the Royal Government of Bhutan (1993) embodies a fundamental statement of principle and development strategy that is intended to permeate all aspect of governance in Bhutan. It recognizes people's participation as a cornerstone without which no development effort can succeed. It expands the development role of local government units by vesting the *Dzongkhag* administrations with certain powers, responsibility and resources that had been herefore confined to national or central government entities. For many government services and programmes, the decentralization policy prescribes a generic blueprint for locally based planning, resource support, implementation and monitoring/evaluation of development activities. It places most sectoral staff and facilities located in the districts under the direct administrative and operational control of the *Dzongkhag* administration.

The Royal Government of Bhutan, under the decentralization policy has mandated four of the forestry activities to be implemented by the Dzongkhag Authorities. The present situation under Dzongkhag decentralization has to certain extent created confusion *inter alia* the forestry activities. Decentralization in our context would mean providing goods and services to the people at the grass root level, and not just transferring power to implement from one institution to another. In other words, the same forestry activities could have been decentralized through the present channel of Territorial Divisions (TDs). Everyone agrees and supports decentralization, unfortunately in theory. Vesting honorific titles on local officials, opening a regional office or stationing a technician in a remote town/village is *cosmetic* decentralization.

There is also a doubt that the technical expertise provided by the Dzongkhag forestry staff may not be adequate since they lack the experience and are newly recruited from the Natural Resources Training Institute (NRTI). This however, does not mean to underestimate the capability of the forester trained from the institution, rather that they are more of a extensionist than a technical forester. At present, technical backstopping is provided by the territorial divisions.

4.5 Objectives of Community Forestry

Community forestry involves a shift in the whole approach to forest management, from a highly technical focus to a participatory one which sees the role of community members in forest management as paramount. (Malla et al. 1988; Gilmour and Fisher, 1991)

The main objective of community forestry is to entrust the users with forest protection, management responsibility and authority. Thus, the users themselves decide and establish norms such as how to define their main role in setting up the community forest and its management, what forest products are to be collected and how they are to be distributed amongst the users, and how to make decisions on forest management issues and implement them on their own. It is the users' responsibility to strengthen mutual understanding and the sense of forest protection amongst them.

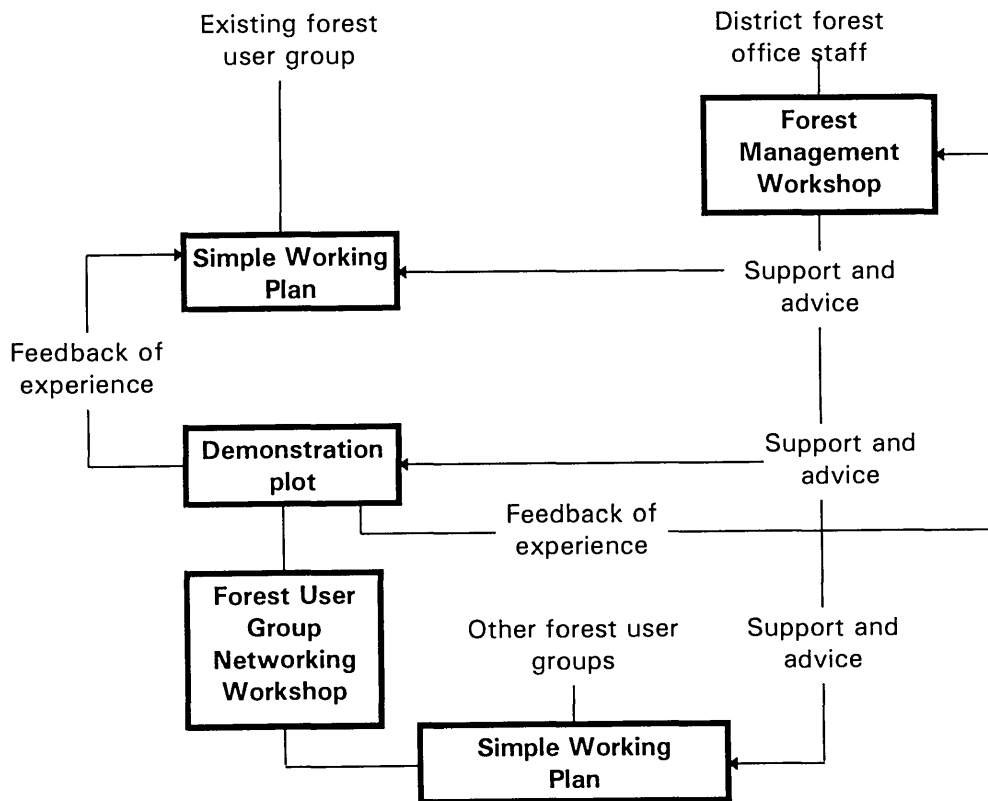
The forest is managed by the collective decision and mutual consent of the user group on issues relating to the their collection of forest products in an organized way without

obstructing the community forest system. The services and advice extended to the users at the government level may not be sufficient to encourage such an attitude and to motivate them for forest protection. Therefore, unless the forest users themselves become aware and show concern in this matter, forest plan formulation, implementation and the use of forest products cannot be organized properly. As the main beneficiary of forest, the user has the most important role in community forestry.

CHAPTER 5. COMMUNITY PARTICIPATION IN NATURAL RESOURCE MANAGEMENT AND PROTECTION AND FORESTRY EXTENSION

The general view of the urban people, including agriculturists and foresters is that rural people are inefficient, and unwilling to give up their traditional methods. In fact, most farmers are inventive and adaptive, and especially when their environment is unpredictable. Today, there is a widespread recognition of the benefit of local participation in rural development. This has evolved from the belief that participation of the local people results in full employment of local knowledge, skills and resources, and means to play an active role in planning, deciding, implementing and evaluating initiatives (Borrini, 1994). In other words, it is a means to facilitate and improve external interventions suiting local needs and aspirations. In this chapter, an attempt is being made to look at people's participation in development process, the type and level of participation and implementation constraints faced currently in context to community forestry development in Bhutan. A participatory forest management process as described by Branney and Dev (1993) is shown in the figure below.

Figure 5 Participatory forest management process.



Adapted from Branney and Dev, (1993)

5.1 People's Participation

People's participation means different things to different people but the general opinion is that it is necessary for successful rural development. It is important to at least consult and best to actively involve local people in any programme meant to benefit them and/or involve them in any substantive capacity. Many non-participatory programmes have resulted in a loss of time and resources and a distress to the local community (Borrini, 1994). According to Paul (1987) community participation is an active process by which beneficiary or client groups influence the direction and execution of development project with a view to enhancing their well-being in terms of income, personal growth, self reliance or other values they cherish. While the Economic commission for Latin America (1973) considered participation as voluntary contribution by the people in one or another of the public programmes that are supposed to contribute to national development. The people, however, are not expected to take part in shaping the programme or criticising its contents. In the two aforementioned definitions, the difference is quite significant in terms of the level of participation, which will be discussed in section 5.3.

People's participation is imperative in any development programme, in the sense that the local people know much better, in terms of usage and management of their resources than the external experts. Ura (1995) summed up the issue of indigenous knowledge, institutions, and resource management as follows: The artefacts of local culture such as language, belief, institutions, farming practices, etc. may reflect a great deal of knowledge about the eco-system within which they have evolved over the millennia. Knowledge and institution about a particular niche or eco-system is always a localized one. By institutions or institutional arrangements, I mean the rules for co-operation and conflict resolution in a community. The dissolution of institutional arrangements for resource management and utilization among the communities and supplanting them by borrowed or replicated institutions should be of particular concern.

5.1.1 Types of Participation:

The inadequacy of traditional approaches in forest protection and management led to a search for alternatives and a number of approaches has been followed, of which some major ones are like forest department sponsored plantations, free seedlings, decentralized

nurseries, environmental conservation education. By mid-eighties, these social and community forestry programmes were being assessed. Growing evidence suggested that, with some exceptions, most of these programmes had either failed or were exhibiting signs of failure in future. One of the key and common factors leading to the failure of these programmes was the absence of people's participation, which led to poor survival rates, and the reluctance of community institutions to take over management responsibility for plantation. The International Institute for Environment and Development (IIED) has recently developed a typology of participation.

Table 7 A typology of participation : how people participate in development programmes and projects.

Typology	Characteristics of Each Type
1. Passive Participation	People participate by being told what is going to happen or what has already happened. It is a one-sided announcement by an outside agency without any listening to people's responses. The information being shared belongs only to external professionals.
2. Participation in information giving	People participate by answering questions posed by outsiders using questionnaire surveys or similar approaches. People do not have the opportunity to influence proceedings, as the findings of the research are neither shared nor checked for accuracy.
3. Participation by consultation	People participate by being consulted, and outsiders listen to views. These outsiders define both problems and solutions, and may modify these in the light of people's responses. Such a consultative process does not concede any share in decision-making, and outsiders are under no obligation to incorporate people's view.
4. Participation for Material incentives	People participate by providing resources, for example labour, in return for food, cash, or other material incentives. Much on-farm research falls in this category, as farmers provide the fields but are not involved in the experimentation or the process of learning. It is very common to see this called participation, yet people have no stake in prolonging activities when the incentives end.
5. Functional Participation	People participate by forming groups to meet predetermined objectives related to the project, which can involve the development or promotion of outsider-initiated social organizations. Such involvement does not tend to be at early stages of project cycles or planning, but rather after major decision have been made. These institutions tend to be dependent on outsiders, but may become self-dependent.
6. Interactive Participation	People participate in joint analysis, which leads to action plans and the formation of new local institutions or strengthening of existing ones. It tends to involve interdisciplinary methodologies that seek multiple perspectives and make use of systematic and structured learning processes. These groups take control over local decisions, and so people have a stake in maintaining structures or practices.
7. Self-Mobilization	People participate by taking initiatives independent of outsiders to change or develop systems. Such self-initiated mobilization and collective action may or may not challenge existing inequitable distribution of wealth and power.

Source : IIED (1994)

At present, community participation in Bhutan is rather discouraging, with problems at both the central and local levels (See section 5.1.4). However, there is every possible room for improvement, with forestry extension gaining momentum. As regards the present pilot community forestry projects, community participation has been to certain extent very encouraging. It can be said that these projects have been participating at a functional level since these institutions have been dependent on outsiders for technical expertise but may become self-dependent in future.

5.1.2 Level of Participation

People's participation can be at many levels of continuum (Desmond, 1996). Table 8 shows the different levels of participation in conjunction to parts played by the local participants and the amount of control by outsiders.

Table 8 Different Level of Participation

Level of Participation	Part played in the process by local participants	Amount of control by outsiders	Amount of support from participants	Outsiders and Insiders relationship
Co-option	No real input or power. Outsiders decide in a top-down manner	***** ***** ***** *****		Outsiders work ON and FOR insiders
Compliance	Tasks are assigned, using incentives. Outsiders decide the agenda	***** ***** ***** *****		Outsiders work FOR insiders
Consultation	Opinions of (male) leaders are sought. Outsiders decide on activities	***** ***** ***** *****	* ** **	Outsiders work FOR and WITH insiders
Co-operation	Local people work together with outsiders. Decisions are made by, and process directed by, outsiders	***** ***** ***** *****	** *** *** ****	Outsiders work WITH insiders
Co-learning	Local people and outsiders share knowledge and work together. Responsibility is shared. Outsiders work as facilitators	**** *** ** *	**** **** ***** ***** *****	Work is BY insider, WITH outsiders
Collective Action	Local people set their own agenda and carry it out. Outsiders may be initial catalyst, but leave		***** ***** ***** *****	Work is BY insiders

(Adapted from Biggs (1989), Hart (1992), and Pretty (1995), by Andrea Cornwall, (1995)

As we move from co-option to collective action, the amount of support from local participants increases while the amount of control from the outsiders decreases. Participation is maximum at the collective action level, where the local people set their own agenda and carry it out. As regards the preparation of the management plans of the pilot community forestry projects in Bhutan, it can be said that the stage is in 'co-learning', where local people and outsiders share knowledge and work together and outsiders are just facilitators.

5.1.3 Women's Participation

In the third world countries, the degradation of common property resources, including forests, has led to feminisation of poverty. (Palit, 1996) Women, as key users and managers of natural resources, have definite roles, responsibilities, and constraints both within and without the households. Attention to gender has, therefore, been particularly relevant to the concept of sustainable resource management.

The constraints faced by women in participating in the forest management programme in Bhutan are, i) limited representation of women in local decision-making bodies, ii) Lack of poor rural women's organisations, and iii) Lack of awareness of legal rights on the part of rural women. The only alternative that women users can overcome the gender hierarchies is by identifying themselves as members of a large group that can provide them with strength and articulation and be an instrument of participation.

5.1.4 Constraints

In Bhutan, however, local participation at the present is generally understood by development planners to mean people's contribution in physical labour to the development programmes (Namgyal, 1996). Participation in information sharing, planning, evaluation and decision making are nearly always lacking, and this reason is often due to:

Local Level:

- low literacy level of the community
- poor appreciation of a clear and direct link between their contribution and some benefits for themselves and community.

Central Planning level:

- authorities reluctant to release information, and last minute people's participation especially to obtain assurance for physical labour contribution.
- planners do not perceive people's view as important and worthwhile to study and note.
- planners already overburdened, cannot dedicate to the new task of involving people.
- inadequate human and financial resources.
- inadequate expertise and mechanisms on the part of the planning system.

5.2 Forestry Extension

A lack of understanding about the linkages between forests, trees and people has been a contributing factor to resource degradation and environmental damages. The misunderstanding is often due to the lack of knowledge about trees and forest, therefore a successful forestry extension can help improve the situation. The definition of forestry extension by Malla et al (1989) is considered as per its appropriateness to the Bhutanese context. Forestry Extension is defined as an on-going two way communication process where the extension agent work closely with the village forest users and listens to their problems and needs in respect to forestry

From a review of these pronouncements, decisions and actions, it is clear that there already exists an adequate framework of formulating a policy on forestry extension in Bhutan. Such a framework may be extracted from the following.

- (a) Forest policy of 1993
- (b) RNR Sector Strategy for the Eighth Five Year Plan (1997-2002)
- (c) Decentralization Policy of 1993
- (d) Forest and Nature Conservation Act (1995),
- (e) The Draft Social and Community Forest Rules(1993),
- (f) National Extension Policy (1994)

The Forest Policy of 1993 explicitly states that: "The government will encourage the extension service, which will understand villagers forestry related problems and work with them to improve local forest management. It is important to make certain that villagers know the rules and regulation as well as options available to them.

5.2.1 Present Scenario

Although much thought and experimentation have gone into applying social forestry in Bhutan, there is no clear and comprehensive policy statement on forestry extension as a function of Ministry of Agriculture (MoA). However, there is expressed and implied reference to it in official pronouncements and documents, and certain organizational and programme actions have been taken from which can be deduced policy intent and direction with respect to forestry extension. Indeed, decision and action seem to have preceded the crafting of a well thought out policy; this is perhaps the reason that forestry extension has not developed fully over these years.

Decentralization has already impacted on the extension function of the MoA with the transferring 1993 of responsibility for implementing all natural resource extension service in the district to the *Dzongkhag* Administrations. For forestry extension in particular, decentralization has had a positive effect. When implementation responsibilities for social and community forest activities, allocations of fuelwood, and forest fire protection were devolved to the *Dzongkhags*, the forest services division placed an initial batch off 58 staff from its territorial division to serve as forestry extensionists under the *Dzongkhag* authorities. For the very first time, therefore, there were personnel in all *Dzongkhags* who were specifically designated to undertake forestry extension work.

The RNR strategy recognizes the need to integrate crop, livestock and forestry in order to reflect the interdependence of the sub-sectors. However with forestry extension in Bhutan still in its infancy, the strategy underscores the need to develop a forestry extension function that could effectively work in a co-ordinated way with the relatively better developed crop and livestock extension services. Indeed, in its section on the forestry sub-sector, the strategy laid out the objectives, programme of activities, and human resource development plan for the Social Forestry and Extension Unit for the Eighth Plan period (1997-2002) - the first that a comprehensive forestry extension agenda become an integral part of the national forestry development programme.

5.2.2 Objectives

The primary goal of forestry extension is to ensure the active participation of rural communities in the conservation and proper utilization of forest resources through improved and locally sustainable forest management. The objectives of the forestry extension policy as envisaged in the Forestry Programme Framework (FPF) are as follows:

- Strengthen the capacity of the Forestry Services Division to meet the basic needs of the local people by developing options, techniques, and resources necessary to enhance forestry at the local level through direct participation.
- Create national awareness and understanding of forestry through dissemination of factual and relevant information using public communication methods to educate different target groups regarding conservation and sustainable development of natural resources.
- Increase support to decentralization and promote popular support to ensure sustainable forestry development.
- Integrate forestry practices wherever possible with the agricultural and livestock activities of local residents in order to protect critical watersheds and promote sustainable land use and environmental protection.

In addition, it is also intended to develop a modest wildlife extension capacity.

5.2.3 Implementation Constraints

The forestry extension at present is co-ordinated by the Social Forestry and Extension Division (SFES). All forestry extension activities under district level plans and projects are implemented under the overall technical and institutional guidance of this division.

Some of the constraints faced in the implementation of forestry extension in Bhutan are as follows:

Lack of staff at the central level: The SFES is presently not equipped with the staffing and other resources needed to fully perform its extension function. As a result, its extension-related activities have been limited to organizing *ad hoc* training courses and

workshops, producing some forestry information materials for use in pilot projects and for creating social forestry awareness within the Forestry Services Division and the general public.

Delivery mechanism: It is felt that the delivery mechanism of forestry extension at present may be inappropriate and needs further improvement.

Lack of communication facilities: Communication facilities need to be strengthened to ensure that appropriate information is disseminated to the general public to create awareness of and support to sustainable management of the country's forest resources. At present, these facilities are nearly lacking.

Mobility: Due to rugged terrain and lack of transportation facilities, the mobility of extensionists has been a major constraint.

As mentioned earlier, forestry extension is still in its infancy as compared to agriculture and livestock extension. However, with the extensionists trained from the Natural Resources Training Institute (NRTI), forestry extension within this short span of time has almost come to the level of the other two sectors.

Pilot Community Forestry Areas

BHUTAN

Scale: 1:1,000,000

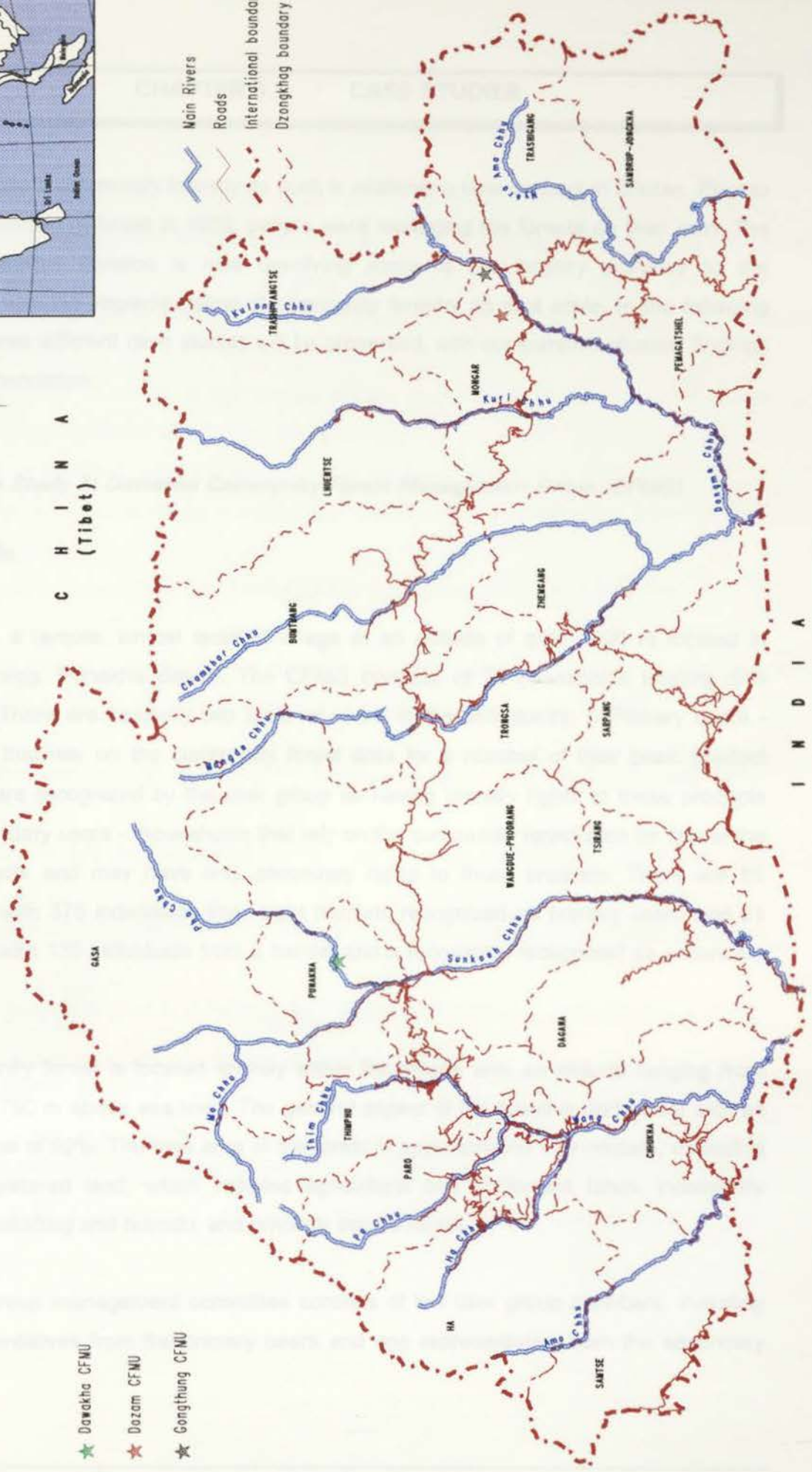
C H I N A
(Tibet)

I N D I A



- Main Rivers
- Roads
- International boundary
- Dzongkhag boundary

- ★ Dawakha CFMU
- ★ Dozam CFMU
- ★ Gongthung CFMU



CHAPTER 6. CASE STUDIES

As earlier stated, community forestry as such is relatively a new concept in Bhutan. Prior to the nationalization of forest in 1969, people were managing the forests on their own. The Forestry Services Division is now devolving some of the forestry activities to the community, with the implementation of community forestry on pilot scale. In the following chapters, three different case studies will be presented, with comparative studies, findings and recommendation.

6.1 Case Study 1: Dawakha Community Forest Management Group (CFMG)

6.1.1 Profile

Dawakha is a remote, almost isolated village at an altitude of over 1600 m located in Tewang Gewog, Punakha district. The CFMG consists of 72 households totalling 510 individuals. There are basically two kinds of users in the community; i) Primary users - households that rely on the community forest area for a number of their basic product needs and are recognized by the user group as having primary rights to these products and ii) Secondary users - households that rely on the community forest area for few of the forest products and may have only secondary rights to those products. There are 51 households with 375 individuals from eight hamlets recognized as primary users and 21 households with 135 individuals from a hamlet and a monastery recognized as secondary user.

The community forest is located entirely within the village with an altitude ranging from 1300 m to 2750 m above sea level. The general aspect of the forest is north-west with an average slope of 52%. The total area of the forest is approximately 779 hectare, excluding privately registered land, which includes agricultural and settlement lands, individually registered *Sokshing* and *tsamdo*, and privately owned forest.

The User Group management committee consists of ten user group members, including nine representatives from the primary users and one representative from the secondary user.

6.1.2 Objectives of CFMG

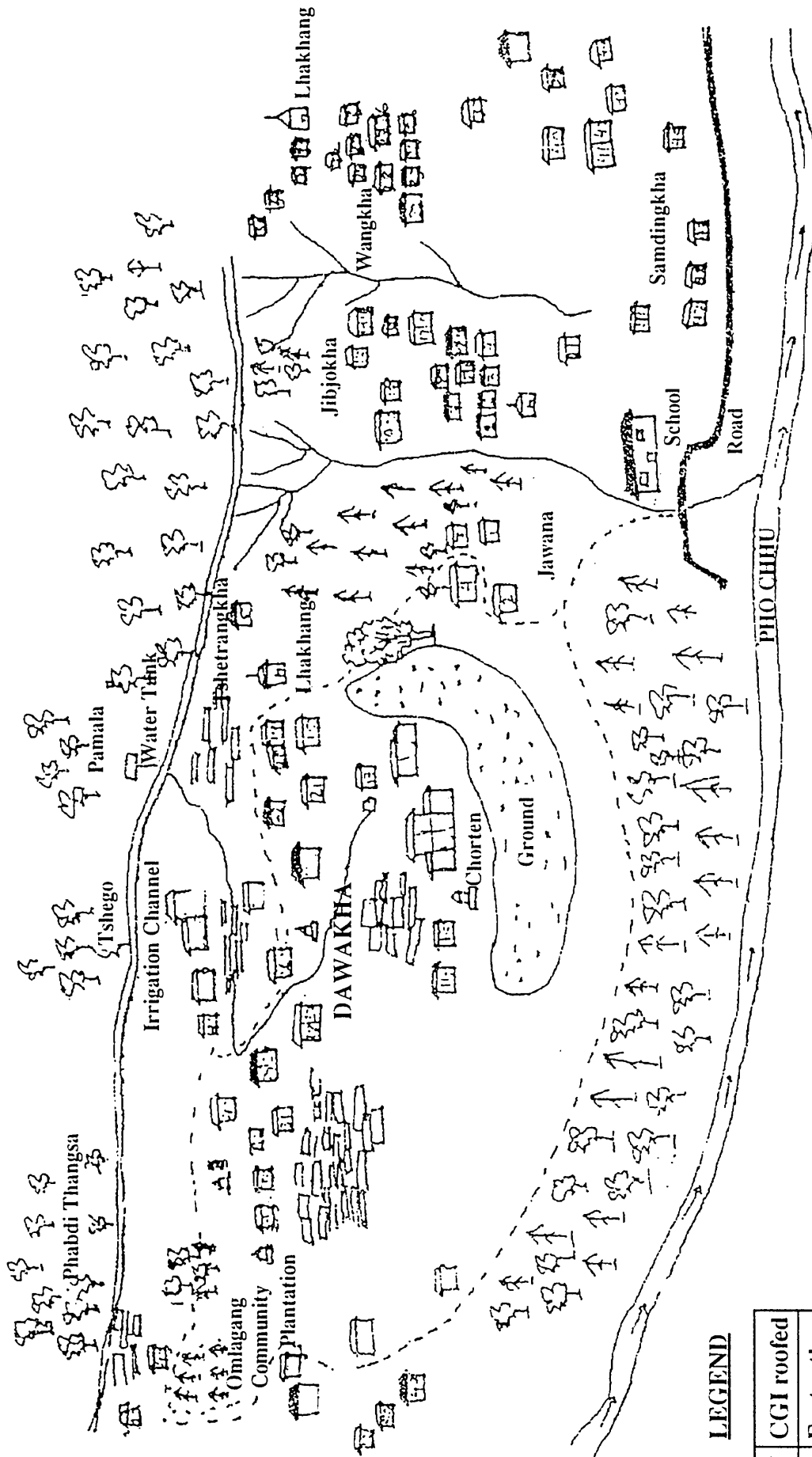
Though the community has abundant forest resources, there is still a scarcity in quality timber for house construction and shingles. Almost all the households depend on forest for daily sustenance and as the source of water for irrigation. In view of the above, the community of Dawakha has set forth the following goals (CFMP 1995):

- To manage the forest for a sustainable supply of products, in priority, construction timbers, water, firewood, poles, bamboo and fodder.
- To maintain the forest for its ecological and environmental functions.
- To distribute forest products and benefits equally to the Community Forest Users Group (CFUG)
- To increase the capacity of the committee to manage the group and funds.

To achieve the above goals, the community of Dawakha has prepared a five year management plan. The main objectives of the management plan are as follows;

- Improve the productivity, especially for wood products, of degraded areas and intact natural forest areas.
- Protect the forest by appointing forest watchers and establishing protection and utilization rules.
- Protect agricultural crops by maintaining a Protected Use Zone as food habitat for wildlife.
- Protect the water source of the village by maintaining and/or improving the forest cover.
- Maintain a management committee that properly carries out its responsibilities for management of the forest.
- Strengthen the technical and managerial knowledge and skills of the User Group through a participatory training programme.
- Generate income and properly manage the funds for management of the forest.

RESOURCE MAP OF DAWAKHA



LEGEND

	CGI roofed
	Footpath
	Ground
	Road
	Wetland

6.1.3 Forest Resources

Dawakha is one of the most privileged villages in terms of forest resources. This can be referred to what Gilmour (1991) described as Abundant Forest Resources Scenario. Prior to 1960, the forest was even more stocked as there were only few settlements around. However, with the establishment of permanent residence after 1960, forest began to diminish as more timber was needed for construction purposes. This was evident from the distance they had to cover to get forest products.

The tree stocking by diameter class for the three zones is as shown in the table below:

Table 9 Average Number of Trees per Hectare

DBH class (cm)	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120+	Total
Intensive	217	10	5.8	2.9	-	-	-	-	-	-	-	-	236
Moderate	73.5	58.8	23.5	14.1	10.6	8.2	1.2	1.2	-	1.2	-	1.2	193.5
Protected	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Source CFMP (1995)

6.1.4 Forest Resource Utilization and Protection

For management and utilization purposes, the community forest has been broadly divided into three zones as per the traditional management system. The Intensive Use Zone, which covers an area of about 200 Ha. consist approximately 39 Ha of chir pine, 74 Ha. of mixed chir pine/hardwood, and about 90 Ha. of lowland hardwood. This zone also includes two acres of Cupressus sp. and Cryptomeria sp. planted in 1993 and 1994 respectively. This zone is being intensively used for fuelwood, leaf litter, posts and poles, construction timber and for seasonal grazing. The Moderate Use Zone covers an approximate area of 508 Ha of lowland and upland hardwoods. It is more importantly used for hardwood construction timbers, including shingles. However, post, poles and seasonal grazing are also uses of this zone but to lesser extent than the first zone. The 70 Ha. of Protected Use Zone consist of upland and high altitude hardwoods. The main purpose of this zone is for grazing and bamboo collection.

The utilization rules, sale rate, penalties and the distribution are given in table 10.

Table 10 Utilization Rules

PRODUCT	RULES	SALE RATE	PENALTIES	TOTAL AMOUNT PER YEAR
Construction timber (chams, shingles, sawn timber)	Months 1-4; all types by permit	Nu. 15 per tree for domestic use	Nu. 300 per tree	Cham: none Shingles: 28 trees Dangchung: 200 Sawn timber: none
Tsim	Months 2-4; by permit	Nu. 7 per tree	Nu. 150 per tree	35 trees (10-19 cm DBH)
Flag poles	Once a year; throughout the year by permit	Nu. 2 per tree	Nu. 150 per tree	26 trees (10-19 cm DBH)
Fence posts	Once a year; through the year by permit	Nu. 2 per tree	Nu. 150 per tree	425 trees (10-19 cm DBH)
Firewood	Months 8-9; after obtaining permit and identifying area	Nu. 22 per year per household, plus Nu. 5 per chirping tree	Nu. 100 per tree (hardwood); Nu. 500 per tree (chirping)	6120 headloads (525 trees; 20-40 cm DBH)
Agricultural tools (plough, yoke, etc.)	Months 1-4; by permit	Nu. 3 per tree	Nu. 150 per tree	-

Note: All months correspond Bhutanese calendar

6.1.5 Silvicultural Development

The main objective of silvicultural development within the community forest is to improve the forest structure for wood production in the intensive and moderate use zones. The general silvicultural activities like thinning, pruning, singling will be carried out in order to shift the traditional collection of firewood, posts and poles from the intensive use zone alone to the a better balance from both the zones. This will result in the improvement of wood volume in the intensive use zone, while improving the proportion of desirable timber tree in the moderate use zone.

The chirping and mixed broad leaf area in the intensive use zone will primarily be managed for construction timber, while the secondary products will constitute poles, posts and firewood. Thinning in the chirping area will be carried out to remove poorly formed trees to allow better spacing, while coppice with standards including thinning, singling and pruning will be carried out in the broad leaf areas. Severely degraded areas will be reforested with multi-purpose species like cupressus, melia, walnut, bamboo and so on. Established plantations will be maintained and moderately degraded areas will be closed to grazing and collection of firewood to allow natural regeneration.

Figure 6 Project staff and community user group in the field.



(Photo: SFEC/TFDP)

Figure 7 An excessively pruned pine tree:



(Photo: Chopel, 1997)

6.2 Case Study 2: Gongthung Community Forest Management Group (CFMG)

6.2.1 Profile

Gongthung community forest consists of Lephu, Kharza, Tektekpa, Shokang, Durung and Nambinang villages, all under Yangneer Gewog in Trashigang Dzongkhag. With an estimated total area of about 337 hectares, the northern boundary of the community forest follows a ridge between Lephu and Durung hamlets with an altitude of about 1700 meters above sea level, while the southern boundary follows the Rolong river with a minimum altitude of about 1000 meters above sea level. (See Map 3).

The community forest will cater to the needs of 161 households in these six hamlets. Since the community forest area (337 Ha) forms just a part of the traditional territory (approximately 1400 Ha), the Government reserved Forest in the vicinity of the hamlets will remain accessible for all users, as per traditional practices. In other words, the Territorial Division (TD) will continue to issue permit for forest products on the basis of domestic needs.

6.2.2 Objectives of CFMG

The goal of the community forest as specified in the management plan are as follows;

- Guarantee production as well as protection of the forest
- Maintain and improve the continuous supply of forest products and services from the community forest in order to assure self-sufficiency of the community and improve their economies and living standard.

To achieve the above goal, the user group has identified the following management objective; **to provide equitably to all users a continuous supply of forest products.** These forest products are broadly divided into two categories, viz. 1) Products governed by utilization rules, including timber, shingle, poles/post and firewood. (See Table 12 for Utilization Rules). The other category, not governed by utilization rules includes products

like firebrand for torch, agricultural tools, food products like mushrooms, fruits, etc. and leaf litter.

6.2.3 Forest resources

The user group have identified ten products they derive from the surrounding village forests which include, firewood, timber, fodder, shingle, bamboo, leafmould, forest food like ferns and mushroom, flagpost, forest grazing, fencing post, stone and boulder, agricultural implements. fire brand (local torch), charcoal and water. Some of these products like firewood, posts and poles, and bamboo indicates a decreasing trend. The user group have cited population increase as the main reason for this trend. Apart from the population increase, degraded catchment areas has contributed to dwindling and inadequate supply of drinking water and the increase in livestock population has been the major factor for the decline in forest grazing areas.

The annual requirements of some of the main products from the community forest are shown in table 11.

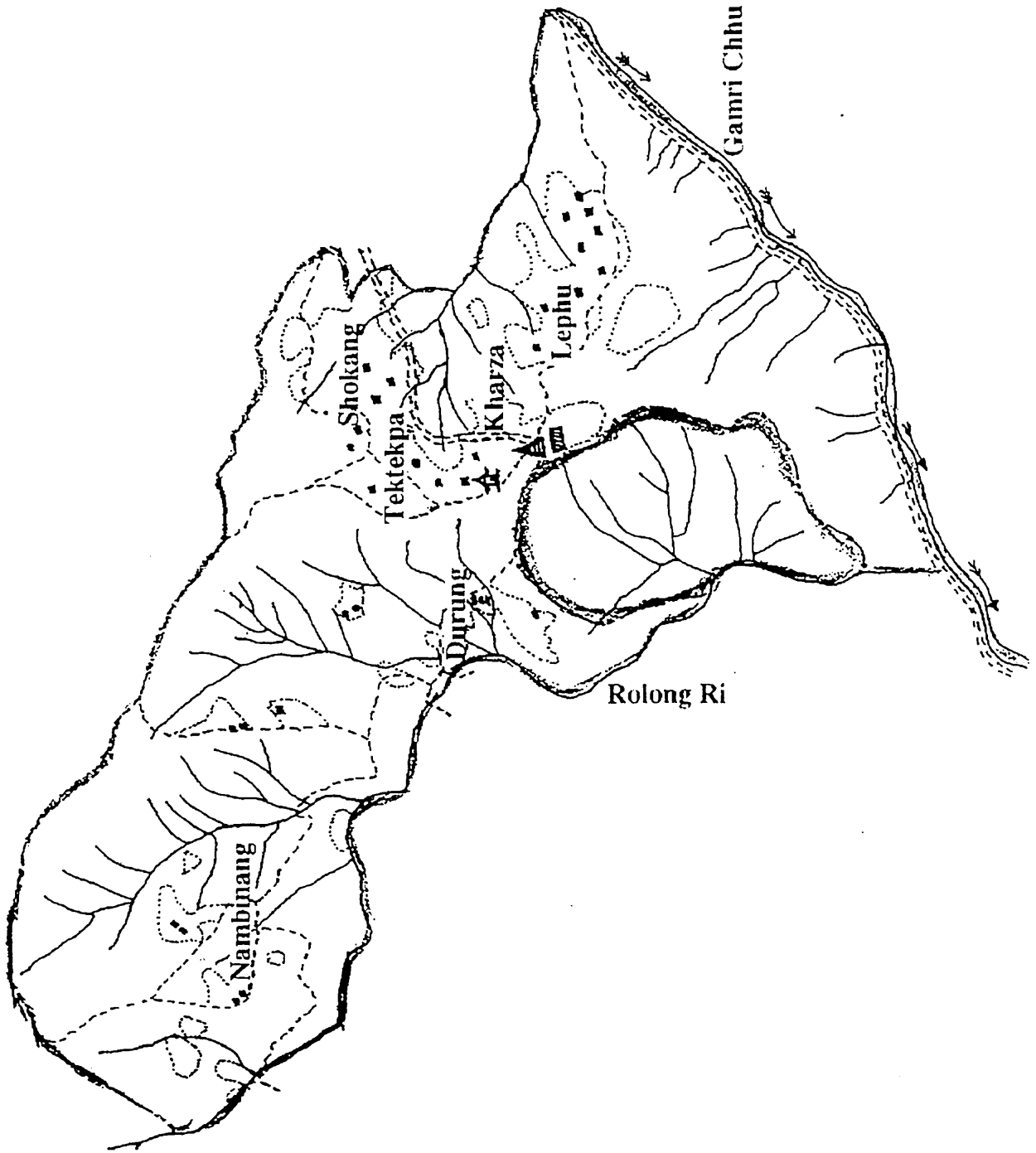
Table 11 Estimated Annual requirement from the CF

Products	Annual Requirement	Equivalent in volume
Timber and shingle	100 trees	274 m ³
Poles	40 poles	8 m ³
Posts	40 posts	8 m ³
Firewood	330 headloads	22 m ³
Total requirement		312 m ³

Source: CFMP (1996-2001)

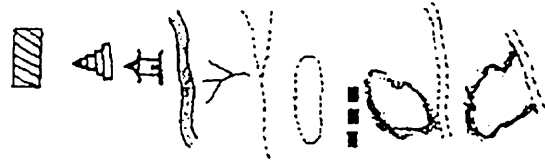
However, more than 50% of the forest products as identified by the user group showed neither increase nor decrease in their availability. For instance, the use of durable species as shingle materials require roofing repairs only after a long period of time (3-4 years). Though there is an increase in population every year, the number of new house constructed is relatively low, hence there is not much demand for construction timber. Fodder needs for stall feeding at home is less since the villagers practice free grazing in the community forest area.

GONGTHONG COMMUNITY FOREST
TRASHIGANG DZONGKHAG



LEGEND

1. Community
2. School
3. Chorten
4. River
5. Stream
6. Footpath
7. Cultivation
8. Settlements
9. V.F.M area
10. Motor Road
11. Territorial Boundary



6.2.4 Forest Resource Utilization and Protection

The detail utilization rules, distribution rate and penalty for some of the forest products to be collected from the community forest is given below.

Table 12 Utilization rules

Products	Rules	Distribution Rate	Fine for Violation
Timber and Shingle	Permit needed and issued in September Marking in September Total requirement/year: 100 trees Quota/HH: Year 1, 5, 9..... (3 year interval)	Nu. 15/Tree (Class 4) Nu 10/tree (class 3)	Nu 500/tree
Firewood	Permit needed and issued in April and October Marking of trees for felling (deformed..) No marking if lopping	Nu 6/felled tree Fee for lopping	Nu 300/case
Poles	Permit needed and issued throughout the year Marking throughout the year total requirement per year: 40 poles	Nu 6/tree (class 2) Nu 3/tree (class 1)	Nu 250/tree
Post	Permit needed and issued in September Marking throughout the year total requirement/year: 40 post	Nu 3/post	Nu 150/tree

(Source: Community Forest Management Plan, 1996-2001)

The other forest products from the community forest are available as per the traditional uses.

Fire is a serious threat to the forest and the CFUG have designed the rules to prevent from this hazard. during each autumn, meetings for the CFUG will be conducted by the committee to sensitize all CFUG members on dangers of fires and their means of prevention. Burning in the forest is not allowed and if there is a case of fire, it should be reported to all users for fire fighting. There is a penalty ranging from Nu. 1000 to Nu. 1500 in case of accident fire, depending on the area burnt and Nu. 1500 to Nu. 15000 if it is intentional. Movement of cattle should avoid the destruction of young seedlings, and a fine of Nu. 150/case is to be levied in violation of this rule.

Resin tapping is completely banned and the removal of barks for fire torch will be allowed from harvested or fallen trees only.

6.2.5 Silviculture Description

The community forest is considered as one management block. The calendar of management activities is as shown below.

Table 13 Management activities

What	When (Gregorian Calendar)												How
	1	2	3	4	5	6	7	8	9	10	11	12	
Fire line	✓	✓	✓	✓						✓	✓	✓	contribution of all users
Plantation/sowing		✓	✓	✓		✓	✓						<i>Alnus, Erythrina</i> , etc. in blank areas
Soil conservation		✓	✓	✓		✓	✓						broadcasting seeds where there is erosion
Selective felling	✓	✓	✓						✓	✓	✓	✓	if good regeneration on the site
Thinning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	to promote growth (2 times)
Pruning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	not more than 1/2 the height of trees
Promotion of Natural regen.				✓	✓								fire control, selective felling

Source: CFMP (1996)

6.3 Case Study 2: Dozam Community Forest Management Group (CFMG)

6.3.1 Profile

Dozam Community Forest Management Group (CFMG) encompasses the hamlets of Zangkhar, Shafangma, Woongkhar, Waichur, Bikhar, Thramloo and Fantshomo, under the Drametse Gewog in Trashigang Dzongkhag. The community forest is located south east of Drametse Dzong and is fairly visible and accessible from the Mongar-Trashigang Highway.

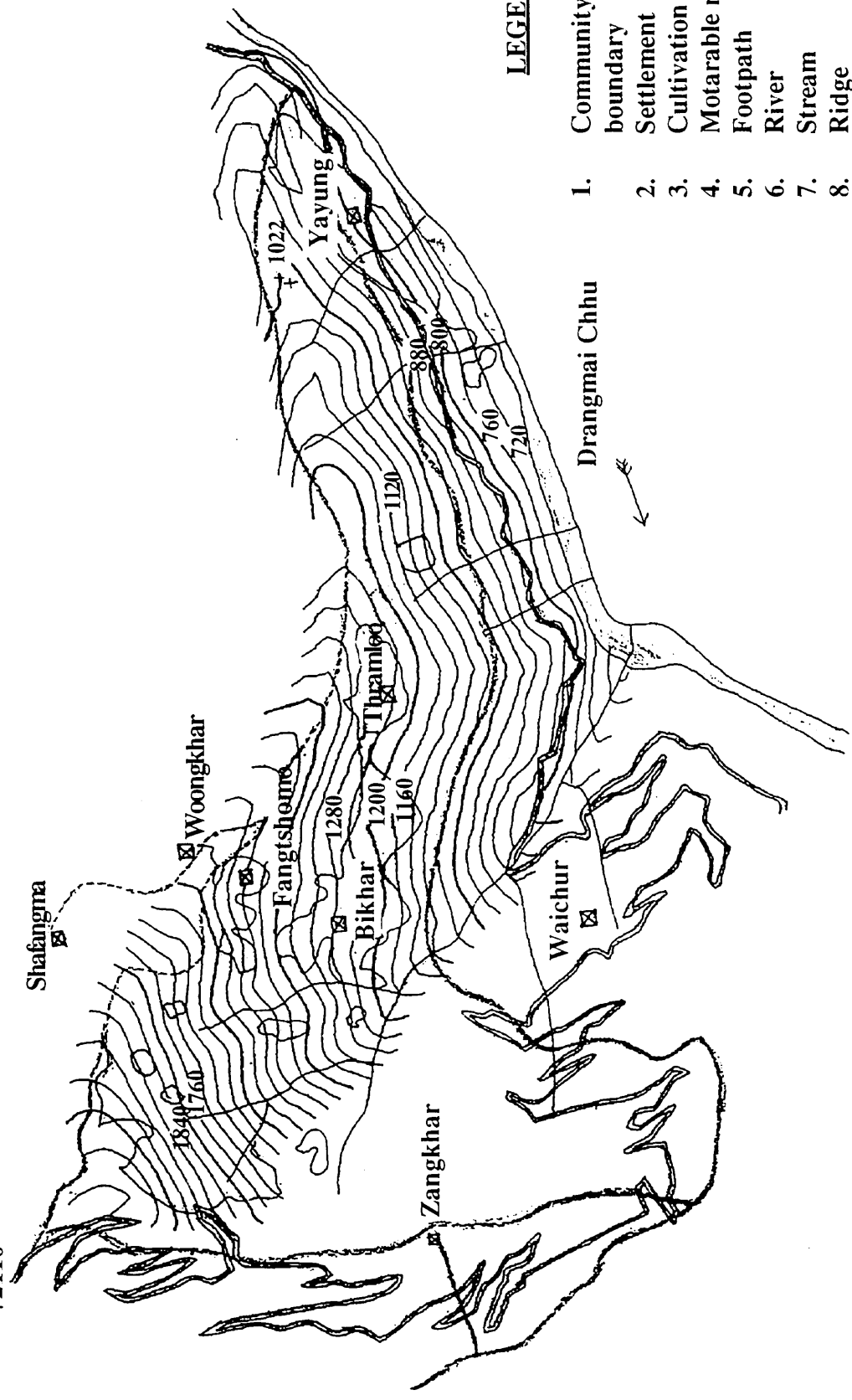
The boundary of the forest is characterised by distinct features. To the north lies a prominent ridge "Khairmaithung" starting from Zangkhar top, extending downwards through Shafangma till Yayung in the East surfaced by paddy fields. The national highway connecting Trashigang and Monggar forms the southern boundary running all from Yayung in the East until almost its junction with Drametse feeder road in the West. A seasonal stream "Shinardrang" that drains out of the major catchment water above the Drangmaichhu river the South ultimately makes up its western boundary.

The forest area approximately covers 300 hectares benefiting 109 households This includes settlements and cultivation of about 100 hectares. The area is generally steep (average of 67% slope), southerly oriented, with altitude varying from 800m in the South to 2,000m in the North. Two main footpaths cross the forest apart from smaller others connecting one to another hamlet. The first footpath starts from Waichur, connects Yayung and the highway. The other one which starts from Drametse, follows the northern ridge of the forest and passes Yayung to, joining national highway (refer CF location map next page).

Dryland cultivation is the primary activity of the community with maize and potato being the principal crops. All land holdings are privately owned and registered either individually or on a joint basis.

**DOZAM COMMUNITY FOREST
 DRAMETSE GEWOG
 MONGGAR DZONGKHAG**

Drametse
 +2110



LEGEND

1. Community Forest boundary
2. Settlement
3. Cultivation
4. Motarable road
5. Footpath
6. River
7. Stream
8. Ridge
9. Contour line

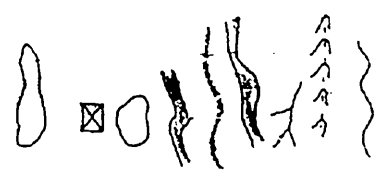


Figure 8. A birds eye view of Dozam CF Area.



(Photo : Chopel, 1997)

Figure 9. A Private Nursery operated by a woman in Dozam CF Area.



(Photo : Chopel, 1997)

6.3.2 Objectives of CFMG

The broad objectives of the social forestry component of the Third Forestry Development Project (TFDP) are basically to;

- promote the integration of trees into the farming systems, and
- ensure the involvement of the local people in the rehabilitation of degraded forest areas and their subsequent protection and management.

To implement the above broad objectives, the Community Forest User Group (CFUG) has prepared and developed a management plan. The management plan envisioned for a five year period will specifically emphasise on combining reforestation and natural regeneration along with some experimental interventions.

The main objectives of the management plan are:

- To improve the availability of fuelwood, timber and fodder within the community forest;
- To rehabilitate the degraded sites, and protect the local environment for a long term productivity;
- To promote other forestry related activities in order to further improve the socio-economic situation of the community.

6.3.3 Forest Resources

Unlike the other two pilot community forest areas, Dozam community forest is poorly stocked owing to the adversity of site and its poor soil quality, which is further aggravated by heavy grazing pressure. This community forest can be referred to as Acute Shortage of Forest Resources Scenario (Gilmour 1991) A series of intimately mixed and metamorphosed Igneous and Sedimentary rocks are present in the area. It consists mainly of phyllite, Gneiss and Quartzite. Soils in the area are highly variable. The colour ranges from red to brown. They are medium textured and are qualitatively poor. The in certain locations, the textures are coarse, gravely and stony. Considerable boulder and stony rubble occur several sites. The soil depths are also from low, medium to moderately deep.

(Basnet et al, 1995) The ground vegetation primarily comprises of lemon grasses sparsely associated with perennial herbs and shrubs. Along the gullies present some broad leaf species. Among the species, *Aseandra butyracea* is considered of major importance to the community for its fruit.

The area is almost completely barren. The dominant forest crop almost depleted is basically Chirping. Fellings are being concentrated for timber and fuel wood. Certain localities indicate sign of natural regeneration. The forest has an estimated total volume of 1012.4 m³ of wood with the maximum annual allowable cut is fixed at 10 m³. since the forest is poorly stocked, forest resources from the unit are not sufficient to meet the daily requirements of the community. The community at present depends on the resources outside their unit. Therefore, the community is aiming at establishing woodlots to meet their immediate need of fuelwood, fodder and timber.

Since the community is in shortage of forest resources, most of the forest products at present are collected from the government land. See table 14 for detail.

Table 14 Source of Forest Products

Forest Products	Government Land (%)	Private Land (%)	Remarks
Firewood	70	30	
Timber	90	10	
Fodder	70	30	Planted some fodder spp.
Leafmould	80	20	Collection of lemon grass
Shinglep	100	-	No suitable spp. within their registered land
Forest Food	80	20	

Adapted from Basnet et al. (1995)

6.3.4 Forest Resource Utilization and Protection :

To control and monitor the present and future utilization of forest products, the CFMG has drawn some rules. The key point to these rules is to avoid over-exploitation of resources and therefore promote the development of a favourable environment for the rehabilitation of the site.

Considering the degraded stage of the community forest, timber for construction, renovation, shingles, flag post, etc. will be provided from outside the community forest as

per actual current practice. Removal of timber from the community forest will be allowed as per the prescribed annual allowable cut (AAC), i.e. 10 m³ per annum. The rate for timber will be charged as per the size and volume of the tree and likewise, removal of timber without the authorization from the committee members will be liable to pay a fine as per the size and volume of the tree. For fuelwood, permit will be issued for domestic consumption. However, only perennial shrubs, unsound and fallen trees will be allowed to collect as fuelwood and no sound timber will be allowed to use as fuelwood. There will be no charge for fuelwood collection.

Interest and commitment of the user group towards protection of the forests will greatly influence the success or failure of the management plan. Pressure from uncontrolled cattle grazing and forest fire are the two main risk in developing the area through rehabilitation.

6.3.5 Silviculture Development

Woodlot plantations will be established at two different sites. The main objective of this programme is to increase the availability of firewood, timber and fodder, within the community forest. Each household propose to plant at least 250 trees per year and the seedlings for the plantation will be distributed freely by the Government at the onset of monsoon every year. It is anticipated that a minimum of 50 Ha. will be brought under woodlot cover during the first five year management plan period.

The existing pine forest will be regenerated through protection and enrichment wherever possible. The main objective of this programme is to rehabilitate the pine forest area and ultimately increase the availability of timber. Enrichment plantation within regeneration blocks will be decided and programmed by the community during CFMG meeting. Each block will be protected from grazing for a minimum of two years. The CFMG targeted 40 Ha. of pine forest to rehabilitate during the plan period.

With an estimated cattle population of about 480 heads, the grazing land needs to be further developed. Sylvo-pastoral areas will be created from the existing small patches of forest. The main objective of this programme is to improve grazing productivity within the community forest and test some option for livestock management. About 0.5 to 1 Ha. of land within the intensive grazing sites will be identified and delineated each year by the

community, which will be developed through plantation of fodder trees as well as by sowing pasture and leguminous grasses.

The choice of species for woodlot plantation, natural regeneration, silvo-pasture development and agro-forestry is given in table 15.

Table 15 Choice of species

Woodlot	Regeneration	Silvo Pasture	Agroforestry
<i>Quercus griffithii</i> <i>Cassia fistula</i> <i>Michelia champaca</i> <i>Juglans regia</i> <i>Pinus bhutanica</i> <i>Pinus roxburghii</i> <i>Aesandra butryscea</i> <i>Duabanga indica</i> <i>Eucalyptus spp.</i> <i>Prosopis juliflora</i> <i>Melia azaderach</i> <i>Leucaena spp.</i> Bamboo	Pinus roxburghii Pinus bhutanica	Trees: <i>Ficus spp</i> <i>Morus laevigata</i> <i>Mallotus spp.</i> <i>Bauhinia spp.</i> <i>Leucaena spp.</i> <i>Kydia Calycina</i> Pasture Grasses : Temperate pasture standard mixture Subtropical standard pasture mixture	Mango Orange Walnut (soft shell) Apple <i>Ficus spp.</i> <i>Cypress spp.</i> <i>Michelia champaca</i> <i>Juglans regia</i> <i>Eucalptus spp.</i> Bamboo

CHAPTER 7 A COMPARATIVE STUDY OF THE THREE CASE STUDIES, AND SUMMARY OF FINDINGS

This chapter discusses the comparative study of the three above case studies with regards to socio-economic setting, types of forest and the present legal status of the Community Forest Management Plan. A summary of findings of the study is discussed later in the chapter.

7.1 *Comparative Study*

The concept of community forestry is very young in Bhutan. Till date, only three community forest has been identified as pilot projects, out of which only one community forest Management Plan is being approved by FSD. The comparative study made here is based on the management plan of the three case studies.

7.1.1 **Present Legal Status**

Provision 17 (c) of the Forest and Nature Conservation Act (1995) states that "The group to which community forests have been transferred shall manage them for sustainable use in accordance with the rules for community forests and the approved management plan". As of now, the new rules for social forestry and community forest are still in its draft form. This delay in formulating the rules have been a serious impediment to community forestry development in Bhutan. Due to lack of experience and knowledge in this field by both the people and the staff of the FSD, it is assumed that the rules for community forestry will take some time before it is finally approved. However, as an interim measure, the programme is being initiated on a pilot scale under the existing Social Forestry Rules.

The CFUG needs to draw up a management plan, normally a five-year plan for managing the community forestry. Technical assistance while drawing up the plan is being granted by the Dzongkhag Forestry Extension Officer (DFEO), supported by project staff in the area. To implement the management plan, the CFUG needs the approval of the Divisional Forest Officer (DFO). In case of the DFO not being able to approve the plan, the matter will be further referred to the forestry headquarters.

Against the above background, the legal status of the case studies will be discussed herewith. Dawakha community forestry was the first project to be initiated under the pilot community forestry scheme, in western Bhutan. The project was financed by the FAO/UNDP under the institutional strengthening programme. The community forest management plan (CFMP) was completed in 1995 with technical assistance from FAO/UNDP project and advice and services from Punakha DFEO and the social forestry staff from the headquarters. When the CFMP was submitted to Wangdue DFO, the community forest area being under his jurisdiction, the approval of the plan was delayed. Since the approval of the CFMP was kept pending by the DFO, the community user group persuaded the matter to be further referred to the headquarters. To this date, the CFMP still remains to be approved.

Under the assumption that the Community Forestry Management Unit (CFMU) will be established in areas where both forest and degraded land exist, Dozam and Gongthung community forestry programmes were initiated as pilot schemes in eastern Bhutan under the World Bank/SDC assisted Third Forestry Development Project (TFDP). Both the schemes fall under the jurisdiction of the Monggar DFO. As mentioned earlier, the Dozam CFMU is completely degraded and barren area, whereas, the Gongthung CFMU has high stock of forest. The CFMP for both the projects were completed in 1996 and were submitted to the DFO for approval. As of now, the Dozam CFMU is approved by the DFO in July 1996 and the Gongthung CFMU still remains to be approved.

7.1.2. Socio-Economic Setting

The fact that 85% of the total population of Bhutan live in the rural areas, these three communities are no exception. They depend on agriculture and forest for their daily sustenance. However, basic infrastructures like community schools, health facilities, RNR extension centre, rural water supply scheme are relatively in place. All the three communities are also linked to the national highways by motorable road.

7.1.3. Types of Forest

Dawakha CF covers an approximate area of 779 ha. catering to the needs of 72 households. Like most of the villages of Bhutan, Dawakha community is privileged to have

abundant forest resources within the vicinity of the village, and as such it is self-sufficient as far as forest resources are concerned. The type of forest ranges from pine forest in the upper areas, mixed conifers in the middle zone and broadleaf forest in the lower areas.

Gongthung CF area is also endowed with abundant forest resources. The CF area covers approximately 337 ha. catering to the needs of 161 households. The forest type prevalent in CF is purely of chir pine forest. Since the CF area is comparatively smaller than Dawakha CF and that it needs to cater to more households, the adjoining Government Reserve Forest (GRF) will remain accessible for all users as per the traditional practices.

Unlike the above two CF, Dozam CF is devoid of forest cover, with scattered pine trees in few places. The area is almost completely degraded and the people rely on the GRF to meet their daily needs. The CF area covers about 300 ha. benefiting 109 households.

7.2 Findings

The findings incorporated here are based on the case studies of Dawakha, Dozam and Gongthung community forestry programme.

7.2.1. Policies and Objectives

To encourage community participation, it is vital that the policy mandates formulated by the government are appropriate and conducive to community initiatives. The process of '*going slow*' in formulating any new policies by the government and '*learning from other's mistake*' is widely appreciated. However, as the Social Forestry Rules are still not being approved, the rural people, who are committed to community forestry are in dilemma. They see no end and beginning to it, and are losing confidence in their work. Thus, it is highly unlikely that even if the rules are approved later, the people may not commit themselves to the work with full enthusiasm. For instance, communities who genuinely want to initiate community forestry may not apply to the government on the reason that Dawakha and Gongthung CFMP not being approved. People may see it as a wastage of time and resources.

7.2.2. Target Populations - are they comparable?

Insofar as the target populations of these projects are concerned, it can be said that they all depend on agriculture and forest resources for their daily sustenance. The people of Gongthung are relatively less business-oriented than the other two communities. The people of Gongthung see community forestry as an activity where they can rely for the forest products for their daily needs. On the other hand, the people of Dozam and Dawakha see it as an economic activity where they can further their income by selling the access products from the community forest. Having said this, there is still the need for forestry extension on the benefits of community forestry which can be achieved through proper delivery mechanism.

7.2.3. Local Resource Endowment - any commonality or extreme?

It is generally understood that a community which is predominantly dependent on forest produce for its subsistence is found to be more judicious in the use of its village resources to meet their basic needs such as fuelwood, fodder and timber than those who have alternative means.

Figure 10 Accessibility of forest resources and probable response of villagers

<u>RESOURCE</u>	<u>LOCAL INTEREST</u>	<u>RESPONSE</u>
1. Ample forest in or adjacent to village	No interest in forest protection or tree planting.	Indigenous management systems exist, confined to defining use-rights only. Few trees on private land.
2. Forest becoming depleted or access restricted (up to 3 hrs. Walk)	Emerging interest in forest development activities (or potential for extension)	Indigenous management systems exist to define use rights and in some cases have biological objectives. Few trees on private land, but interest beginning.
3. Severe shortage of forest products (accessible forest more than 4 -hour walk)	Genuine interest in forest development activities. Little need for people to be convinced by extension	Indigenous management systems well developed and define both use-rights and biological objectives. Extensive private tree planting and protection likely

Source : Gilmour (1990)

In the above case studies, Dozam CF can be considered as a scenario where there is severe shortage of forest products (Figure 8). Since this community is facing acute shortage of forest resources, there will be a genuine interest in developing and managing their forest. However, though the community forest of Gongthung and Dawakha has abundant forest resources, there is an emerging interest in developing and sustainably managing their forest. This interest has come up from the awareness that the forest resources are depleting as the time goes on. The added advantage to the existing resources will be the immediate economic benefit.

7.2.4. Degree of people's involvement or is it still externally driven ?

The people of the three communities have genuine interest in developing community forest. This interest evolves from the perception that community forestry will enhance supply of forest products for their domestic requirement, protect soil and watershed, and generate income to further their livelihood. This is an encouraging indication as Malla (1994) points out that active participation by the user group in any development change makes that change more permanent, by developing a sense of ownership and responsibility, which motivate the users to maintain the new structure and mechanism of development process. Having said that, people should be motivated towards managing their own forest resources through proper extension and education. It is a very human reaction to wait until disaster befalls before doing anything. A good example of this situation is the hugely expensive forest recreation in the United Kingdom.

Since community forestry is relatively a new developmental theme to Bhutan, the rural people needs technical assistance from the forestry staff. However, people from these communities have been actively participating from the commencement till the formulation of the management plan. Therefore, the continuance of selected technical assistance in the field of community forestry is indispensable for the time being. Their involvement is, however, been seen as a part of a process of transition towards complete self-reliance, and a gradual phasing out of technical assistance after the community forest user groups have gained sufficient experience and confidence as well as having completed their training.

7.2.5. Community and private initiative ?

In the past, communities and private individuals were rather seen as protectors of the forests but with the advent of the community forestry concept, they are now recognized as managers and are entrusted with community forestry development-related activities. For instance, the user groups in Nepal as local institution for community forestry development are proving to be quite effective and efficient. They are being congratulated for recovery of greenery, regeneration in the denuded forest area, regularization in the forest product distribution and use.

The initiation taken up by the communities of Dawakha, Gongthung and Dozam, to undertake the community forestry development have been appreciated. There is no doubt that community forestry activities will suffer from community or private initiatives.

7.2.6. Do we have successful replicable models/approaches?

Generally speaking, it appears that there are no models/approaches that can be exactly placed in a Bhutanese situation. This stems from the situation that Bhutan at present is well endowed with forest resources and can meet the demand of the rural people for some time to come. Nevertheless, the resources are depleting in the periphery of populated areas, thus it is an effort by the government to initiate proactive measures to these depleting resources.

The main issue here is to make people realize of the benefit of community forestry in managing their forest resources sustainably. One only has to look at, for instance United Kingdom, where forest recreation has become very expensive. People pay for these recreation facilities and in a developing situation like ours, there are other priorities. Therefore, it is important to make rural people aware of the repercussions of losing their forests. As stated earlier, one of the ways could be by withdrawing the subsidy currently enjoyed by the rural people and through extensive extension on the benefits of community forestry.

7.2.7. Before and after project perspective?

Until recently, local communities participated half-heartedly in any forestry programmes and this is evident from the failures associated with community plantations. It was perceived that these failures were due to the abundance of forest resources and that people did not feel the need to grow trees. However, with increasing population, people have now realised that the forest resources within the villages are depleting and the time spent to collect these resources are getting lengthier year by year.

These realization of the rural people will give an impetus and boost to the community forestry development. It is perceived that once the CFMP is under implementation, the development of their natural forest resources and their utilization will be more rational. The user group of Dozam CF is an evidence of the positive perception on community forestry.

7.2.8. Is there adequate extension?

Extension is a key element to the success of community forestry development. It can be introduced to rural clients as extension packages through which messages on the benefit of sustainable management and conservation of forest resources in the vicinity of the villages can be successfully campaigned. In Bhutan, however, there is a gap of understanding in the sense that the local communities cannot share the same perception as the government.

As far as the above three case studies are concerned, special technical assistance and adequate extension were rendered as they were the pilot projects on which the future of community forestry programme would depend. The technical support were rendered from the projects, Dawakha CFMG from the FAO/UNDP project and Gongthung and Dozam from the Third Forestry Development Project (TFDP).

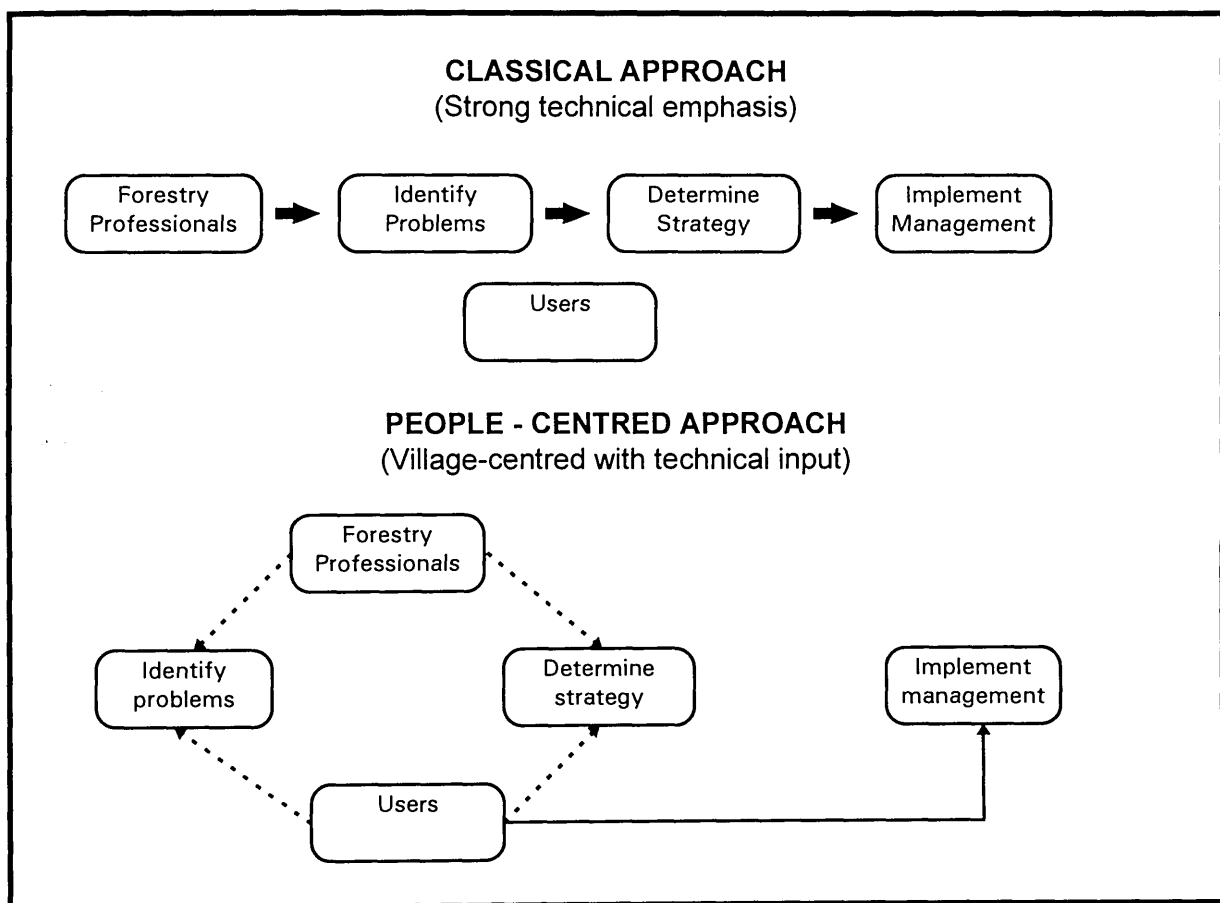
7.2.9. Role of central/decentralized agencies

The success of community forestry will to a large extent depend on the centralised and decentralised agencies, their roles both in terms of policy and administrative matters. The

role of central agency in these pilot projects were, providing guidelines, help in human resource development, and supporting the project with budget and technical assistance. The decentralised agencies (DFEOs) helped the user groups in identifying their needs and requirements, address the burning issues and help develop the community towards the goal of self-reliance.

The roles of central/decetralized agencies should be complementary and efforts should be geared towards pragmatic and simpler project activities, so that the rural mass can understand and associate themselves with. With support towards training and capacity-building of the users, the participation of the rural mass will be ensured thereby bringing success in any project the community might take up or be involved with.

Figure 11 Conceptual framework showing the relative positions and importance of forestry professionals and forest users in the development of forest management using various approaches.



Adapted from Gilmour et al (1991)

In the past, forestry programmes involving local people in Bhutan, were to some extent, following the classical approach (see figure 9), where the user groups were side-lined. There was a strong emphasis on technical assistance from the forestry officials and the user groups were just seen as labour input. However, with the realization of the benefit of local involvement, forestry programmes involving local people are now following the people-centred approach where there is a strong emphasis on the technical input by the local users. The pilot community forestry projects were undertaken with full local involvement, and technical assistance from the forestry professionals.

CHAPTER 8 DISCUSSIONS, RECOMMENDATION AND CONCLUSION

8.1 *Discussions*

There is clear linkage between perceived need for forest products and the response of villagers to initiate forest management systems (Gilmour, 1990), which is particularly relevant to Bhutan where many villages are in close proximity to the forest resources. However, people have not felt the obligation to initiate community forestry programme, as the forest resources are still in abundance. This attitude is further exacerbated by the supply of highly subsidized forest products from the Government Reserved Forest (GRF), which has often resulted in over-utilization and misuse of the forest products to some extent, thereby under-valuing the timber. The argument put forward here is that, insofar as the rural people are concerned, they may not be interested to develop community forestry as long as they enjoy the supply of heavily subsidized forest products from the government.

Bhutan's community forestry development policy is concerned with local management of forest. However, implementation of the policy has been slowed down by the persistence of beliefs, within the forest bureaucracy, that the rural people do not have the knowledge or the capacity to manage forests effectively, thereby contradicting the policy of maintaining 60% of land under forest cover for all time to come. The key issue addressed here is that the implementation of policy must be dynamic process based on the participation and acceptance of the people who will be affected by any policy decision. Simply enunciating well intended policies and guidelines at the central government level will not make forest resource management happen automatically at the grassroots level. As Gilmour and Fisher, (1991) supports that assumptions made in planning any new policy initiative may be found to be incorrect or inappropriate once the policy is put to the test. Implementing community forestry has not proved to be any different in this respect as the process involved in planning forest management with communities is very complex.

The concept of community forestry are enshrined in almost all the forest policies and legislation of Bhutan. These policies and legislation, though daringly progressive, are yet to be premised on ground realities. The pilot projects, therefore, can be the mechanism by

which we can gain the much needed experience in this field. Pilot projects do not necessarily reflect success, it can be failure as well. If the project proved successful, it can be replicated in other areas and on the contrary, if it is a failure, it provides with on hand experiences on planning or in implementation, which can be rectified or modified before it is implemented in other areas. It should not be abandoned as a failure. However, the negative repercussion is minimal since the area covered by a pilot project is very small. In other words, these pilot projects can prove to be the basis on which future development and direction of community forestry should head. At present, there is no basis and experience to judge community forestry programme as a success or failure.

The lack of trained staff for organizing and encouraging broader community activity had limited progress under the former social forestry schemes. Although the social Forestry Rules provide for a number of alternative schemes for community involvement, results have been constrained by the lack of clear programme, structure, regulation, funding, and incentives for community participation.

8.1.1 Forest resource Utilization

Sound traditional forest management practices have no doubt contributed to the relatively good state of forest resources in Bhutan today. While nationalization of all forest in 1969 by and large led to effective protection of forests in several parts of the country, it has also contributed to adverse social and environmental impacts. Firstly, nationalization shifted the responsibility to protect and manage the forest from the community to the state. A strong network of forestry offices replaced the traditional village groups who were morally committed and economically motivated to sustainably use the forest resources around their villages. Villagers eventually lost the feeling of belongingness of their village forest resources and they no more felt obligated to protect and manage them. Secondly, after nationalization, RGoB promulgated several rules and regulations including introduction of permit system to regulate the use of forest resources. This led to the breaking down of traditional systems of forest management and concentrated felling of forest along the roads and accessible valleys. Thirdly, villagers gradually became least interested to improve their grazing resources as well as in planting fodder trees in their private land since access to forests for grazing their cattle became much easier after the community control ceased. As a consequence, 'tragedy of commons' prevailed since there were neither disincentives to

keep large herds of cattle nor the farmers were motivated to plant fodder trees in their land. (Upadhaya 1994). With the advent of community forestry, it is expected that the sense of belongingness of the people may be restored, thereby creating a desirable impact on forest resource utilization.

8.1.2 Effect of CF on Local economy

While the community forestry aims at the rational utilization of resources as mandated by the CFMP, the benefits go beyond in meeting the rural demands and needs of the forest resources. A properly prepared plan with enthusiastic implementation and dedicated monitoring of each activity by the community will definitely yield a far greater crop, in terms of fuelwood, fodder, timber and non-wood forest products.

Since community forestry does not only look into timber production, it can also sustain dairy, apiary, and so on. Therefore, community forestry can support a diverse and multiple land use systems. Carefully designed plan can optimize land use through timber production, pastures, fodder, fuelwood production, and nuts and fruit bearing trees. Properly selected tree species, having multiple uses will enhance the yield of the resources. For instance, flowering trees can support apiary, in a small scale. Besides this, other non-wood products can also be obtained. It is a matter of developing and managing the area with the existing species. Many of the species traditionally used for medicine and dyeing purposes might have to reintroduced and harvested on a sustainable basis.

In general, once the community forestry is fully operational with proper implementation, it is anticipated that it will yield more than the community can consume, thereby generating some revenues through the sale of excess timber and fuelwood to other deficit areas. In other words, the community will boost its economy, thereby uniting the community towards achieving the goal of self-reliance.

8.1.3 Effect of CF on Biodiversity

With the rationale of optimizing the land use through community forestry, the area under discussion will be improved by developing and managing the area through the management prescriptions for the CF activities.

The objective being to improve the forest stocking for timber, fuelwood and fodder production, the tree species suited for meeting the above requirements will vary, as not many species have multiple uses. Therefore, this CF programme calls for planting and managing a wide range of species that have timber, fuelwood and fodder value. Along the same line, the programme also calls for planting fruit and nut-bearing trees. Therefore, the programme, in general, will demand an intensive tree management, with a wide range of species grown for their particular use. Besides the timber species, many plant species will thrive as undergrowth, many of which will have some medicinal value for the community.

This increase in the flora will be able to host a variety of birds, insects and some smaller animals. Though the process is expected to be slow, it cannot be disputed that it will eventually lead to enriching the bio-diversity of the community.

8.1.4 Effect of CF on Forest Conservation Policy

The central theme of community forestry is the control and management of forest resources by rural communities, who will use them to support their farms and household economies thereby contributing to sustainable rural development and conservation of environment. In line with the forest conservation policy of Bhutan, that emphasizes in preserving at least 60% of the total land under forest cover, the role of community forestry cannot be undermined.

As stated earlier, the CF programme is aimed at the sustainability of the forest resources at the community level, it will be implemented under a scientific management plan. The area will be under optimum land use aimed at achieving the maximum benefits from it. This warrants a total utilization of the area under some kind of use, even pasture development.

Under the assumption that more and more marginal forests will be brought under the CF programme, and with proper management, it is perceived that the total area under tree cover will increase. As the CF aims to meet the requirement of the forest products from their own forest, this will reduce the dependency on GRF. It will also decrease the haphazard harvesting (as currently done to meet the rural timber demand), thereby streamlining the harvesting of timber from other Forest Management Units (FMUs). With an increase in tree cover and more areas under management, these activities will contribute to the conservation of soils, which in turn will support more diverse plant species thus increasing bio-diversity and achieving the forest conservation policy of Bhutan.

8.2 Recommendation

- Policies and legislation are tools that will shape any programme, but it should be noted that these government policies and legislation should fit within the paradigm of traditional local systems which will create a conducive working atmosphere. In other words, there should be harmony between the legal framework promulgated by the government to support the programme and the expectations of the user groups at the grassroots level.
- Bhutan's rural people have developed sophisticated and sustainable farming systems, but lately they have taken for granted free access to forest resources. When rural populations were small this may have been acceptable; however as rural population grow this place an unsustainable pressure on the Government Reserve Forest (GRF). One only has to look at Nepal or northern India to see the results of uncontrolled exploitation of National or State forest resources. The intent of community forestry is to relieve the pressure being placed on national forest. This will be achieved by working with and training communities in sustainably managing their own forest resources.
- Villagers will genuinely participate in community forestry programme if they have a sense of group ownership of village resources as well as a full understanding of their traditional rights and privileges. Therefore, assessment of their level of understanding on this through village meetings and proper extension will assist to identify priority villages for implementing community forestry programmes.
- The most crucial part in promoting community forestry will be to build up a common platform towards understanding, strong commitment and reliable labour inputs by community at the initial stage and during the course of management
- A key to success of this programme will be the development of activities that seeks to develop better decision-making processes within communities. This would include participation and equity for women and disadvantaged groups. These processes will need FSD staff with participatory forestry skills that will assist them to work with villagers to develop sustainable forest management practices.

- In future, project support in community forestry should be geared towards training and capacity-building of users. The executive Committee members of the community forest should be trained and prepared in order to enable them to follow management plan prescriptions and promote their application
- In spite of the large forest cover, forest degradation still remains a major concern. At present, the degradation rate is estimated at 0.5% (MPFD, 1991), which is alarming taking into account the cumulative impact. People have been keen to initiate community forestry even on the degraded and barren land (refer Dozam CFMG), hence community forestry could be a viable solution to the degradation of forest.
- Rural people will be motivated to participate in forestry programme, for that matter community forestry if it can offer them immediate perceived benefits. Therefore, the development of benefit-sharing scheme will be important if community forestry is to reach beyond present level. A better incentive will be a guaranteed market and price for the forest produce from such areas. This will enhance the income of the community and they will see it as means of socio-economic development, not merely for the purpose of keeping forest green.
- As said earlier, extension is a key element to the success of community forestry development. There is little past experience or knowledge in this respect. Information regarding options, techniques, and resources necessary to achieve community forestry goals is not available as of now. Therefore, an appropriate extension programme is necessary to utilize such information for the benefit of Bhutan's rural people who have substantial dependence on the adjoining forests.
- Although the Forestry Services Division (FSD) will not levy any royalties, it is mentioned in the social Forestry Rules that 30% of the net income will be charged from the sale of produce from community forestry, if exported. Further, the penalties set for the failure to safeguard such forested areas appear to be too severe. It is most unlikely that farmers will take on such activities with enthusiasm when they are aware of the strong penalty that they are likely to face for failure to keep such agreements. Failure to preserve such areas may be for reasons well beyond the control of an ordinary farmer. Thus, if the programme is to be successful, such penalties and barriers should be discontinued.

8.3 Conclusion

Effective forest resource management requires both detailed knowledge of the resources and the involvement of local forest users, who are often knowledgeable about the resources. Therefore, in order to gain a better understanding and provide a basis for community forestry development, both the foresters and user groups should work out towards common problem perception.

As evident from the case studies, there is no doubt that communities will come forward to participate in the community forestry programme if there is a conducive and enabling policy environment and therefore, the rules governing community forestry programme should be in place as soon as possible. Rural communities become quickly disapproving of bureaucratic delays caused by unclear or weak institutional structures. As of now, though there is policy back-up, there is no legislative support.

Before real success can be achieved, it is clear that there needs to be a better understanding of both the concept of community forestry and the pre-requisites for the implementation of community forestry by staff within the Forestry Services Division.

As of now, there is no basis and experience to judge community forestry programme as a success or failure. The initiation of pilot projects can be marked as the beginning to this experiment. Future needs and directions for the implementation of the community forestry programme will largely depend on the success/failure of these pilot projects.

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Appendix 1 Provisions for Social Forestry and Community Forestry in Forest and Nature Conservation Act, 1995

Chapter 4.

16. Taking Forest Produce from Registered Private Land

(a) The Ministry may issue Social Forestry Rules to encourage any person to grow or nurture forest crops on his own registered private land, excluding Tsamdrog and sokshing

(b) The Ministry may issue rules allowing any person to take forest produce on his own registered private land, excluding Tsamdrog and Sokshing, with or without a permit or payment of royalty, subject to such conditions as may be prescribed in such rules.

(c) No forest produce shall be removed from private land without a transit pass, except those excluded from such requirement by rules issued under 16(b).

(d) An authorised Forest Officer shall issue a transit pass for the removal of timber whenever he is satisfied that it has been taken on private land in accordance with this Act.

17 Community Forests.

(a) The Ministry may make rules for the establishment of community forests on Government Reserved Land.

(b) The rules for community forests may provide for the transfer of ownership of the forest produce in the community forest to appropriate groups, or inhabitants of communities adjoining the forest.

(c) The group to which community forests have been transferred shall manage them for sustainable use in accordance with the rules for community forests and the approved management plan.

(d) Permits, royalties and other charges, as well as assistance to community forestry, shall be governed by the rules for community forests.

18. Protection of Social Forestry and Community Forestry

Any person who contrary to this Act or rules takes, damages or destroys any forest produce on private registered land, in leased forest or in a community forest established under this Chapter, is guilty of an offence punishable with imprisonment which may extend to 3 months, or a fine which may extend to an amount prescribed in the rules issued from time to time, or both in addition to either.

(i) confiscation of anything illegally taken or the proceeds from the sale thereof,
or

(ii) payment of compensation at fair market value for anything illegally taken, damaged or destroyed.

Appendix 2 Community Forest Management Plan Outline*

Sample

Executive Summary

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Part I - Current Situation

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- 1.2 Population
- 1.3 Sources of Livelihood
- 1.4 History of Community Development, Action, and Institutions.
- 1.5 Community Development Needs
- 1.6 Seasonal Manpower Availability

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- 2.1 Location, Boundaries, and Area
- 2.2 Forest Type
- 2.3 Forest Condition/Inventory

3. Forest-User Group Interaction profile

- 3.1 Forest Tenure: Ownership and Use Rights
- 3.2 Forest Resources and Use
 - 3.2.1 Forest Products and Services
 - 3.2.2 Forest User Sub-groups
 - 3.2.3 Seasonal Calendar of Forestry Activities.
- 3.3 History of Forest Condition and Resource Availability
- 3.4 Indigenous Forest Management System

* Proposed Community Forest Management Plan Outline prepared by D.F. Desmond, UNV Forestry Extension Specialist, SFES, Thimphu

3.5 Constraints to Improved Management.

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4.1 Goals

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5. Institutional Aspects (refer to Constitution and By-laws)

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6.3.1 Rules and Sanctions

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Appendix

Appendix 1 Maps (Territorial/Land Use Management)

Appendix 2 List of User Group and Executive Committee Members

Appendix 3 History of Management Plan Development.

Appendix 3 Formulation of a Forest Users Group Constitution and By-laws*

Questionnaire

(To be administered as a PRA exercise)

1. Forest Users Group (FUG)
 - 1.1 Membership
 - (a) Who are the official members or households of the FUG? *Fill in the name of the FUG.*
 - (b) Who will be the registered or official representative of the FUG member?
 - 1.2 FUG meetings
 - (a) Who will attend the FUG meetings?
 - (b) What is the age limit for persons attending the FUG meetings?
 - (c) Are there any other conditions for those attending the FUG meetings?
 - (d) How often should there be a FUG meeting? When will the first FUG meeting be held? What topics will be discussed during the these meetings? *(Repeat the last two questions for the second, third.. FUG meetings).*
 - (e) Who will decide the exact dates of the FUG meetings? How much time in advance? What about in emergency meeting?
 - (f) Who will record the discussions and decisions of the FUG meeting?

* Adpated from Module 5, Development of WUA Constitution and By-laws, National Irrigation Policy Procedural manual, produced by the Community Irrigation Training Project (CITP) and prepared by P. Bleaker, J. Gaudet and S. Nepal.

2. Executive Committee (EC) of the Forest Users Group.

2.1 Composition

(a) How many members does the Executive Committee have? What are the functions of these members (composition of EC)

2.2 Duties of the EC

(a) What are the duties of the committee?

2.3 Duties of the Chairman

(a) What are the duties of the Chairperson?

2.4 Duties of the Secretary

(a) What are the duties of the Secretary?

2.5 Duties of the Accountant

(a) What are the duties of the Accountant?

2.6 Duties of the Community Forest (CF) Guard

(a) What are the duties of the CF Guard?

(b) Who will replace the CF Guard in case he is ill and unable to do his duties?

(c) What happens if a CF Guard is absent because of reasons other than being ill?

2.7 Payment of CF Guard

- (a) What will be the total compensation of the CF Guard? When will he receive his compensation? What are the procedures to collect the compensation for the CF guard from the FUG? Who will collect the CF guard compensation?

2.8 Election and tenure of EC members

- (a) Who elects the EC members? When should the election take place?
- (b) For how long should each EC members serve?
- (c) What happens in case it is found that an EC member is not performing satisfactorily? *(Stress that EC members can only be dismissed or elected during general FUG meetings)*

2.9 EC meetings

- (a) When will the EC meet?
- (b) What topics will the EC discuss during these meetings?
- (c) What kind of decisions can be made by the EC? What kind of decisions cannot be made by EC?
- (d) Who will record the discussions and decisions of the EC meetings?

3. Miscellaneous

3.1 FUG funds

- (A) Under which account and branch will the FUG money be deposited?
- (b) Who can operate the FUG Account?
- (c) Who should approve bank transactions (i.e., deposits and withdrawals from the FUG Account)? *(It is suggested that the EC should be authorised to decide on minor expenses - e.g. up to a sum of Nu._____. For larger sums, however, approval should be taken from the FUG members during FUG meetings).*
- (d) Who will keep records of all bank transactions?

3.2 Contribution

(a) How much does each FUG member contribute? How many times does this contribution be made? What are the other terms that this contribution should be made?

3.3 Fines

(a) What will be the fines for members failing to attend FUG meetings and failing to give prior information to the Chairman as to his whereabouts?

(b) What will be the fines for members attending under intoxicated condition and disrupting the meeting?

(c) What will be the sanction in case the member fails to pay the fine? What are the procedures if the concerned member disagrees with the imposed fine?

(d) How are fines accounted for?

3.4 Other issues

Any other rules that have not been included but are considered important can be added here.

Note: The Constitution and By-laws will only be signed during the handing over of the Community Forest Certificate. The completed form should be carefully kept by the Secretary.

Appendix 4 Draft of Constitutions and By-laws of the Forest Users Group*

SAMPLE

This document describes the organization of the members of the Forest Users Group (FUG) formed for the purpose of managing a community forest awarded through a Community Forest Certificate (CFC). It also prescribes the rules governing the operations of FUG, to ensure its effective management with the end in view of achieving the goals and objectives in its Community Forest Management Plan (CFMP) for the maximum benefit to the members of the FUG.

THEREFORE, ALL MEMBERS OF THE FUG SHALL ABIDE BY THE FOLLOWING RULES AND REGULATIONS:

1. Forest Users Group (FUG)

1.1 Membership

(a) The members of the FUG are the households primarily dependent on the CF for their day-to-day basic needs for forest products, hereafter called the Forest Users Group (FUG).

(b) The head of the households will be official representative of the FUG member.

1.2 FUG meetings

(a) Every member will be represented by one person at these meetings. However, if a member cannot attend due to problems such as sickness, prior notice and information must be given to the Chairman. The member absent from the meetings will have no say on the outcome and decisions in these meetings.

* Adapted from Module 5, Development of WUA Constitution and By-laws, National Irrigation Policy Procedural manual, produced by the Community Irrigation Training Project (CITP) and prepared by P. Bleaker, J. Gaudet and S. Nepal.

(b) All FUG meetings must be attended by fully grown adults capable of taking decisions. Therefore, all children sent as representatives must be 18 years or older.

(c) Any member found to be a constant source of menace to the effective functioning of the group is liable to be fined Nu. _____.

(d) There will be atleast _____ FUG meetings per year. First FUG meeting will take place on _____. Topics to be discussed will include :

_____.

Second meeting will take place on _____. Topics to be discussed will include _____:

_____.

Third meeting will take place on _____. Topics to be discussed will include: _____

Additionally, the FUG will meet whenever the need arises.

(e) Calling for FUG meetings. The Executive Committee (EC) will decide upon the exact date of the FUG meetings. The EC will inform all FUG members of the time, place and topics of the FUG meetings atleast ___ days in advance. However, in case of an emergency, an FUG meeting can be called for immediately by the EC.

(f) Minutes. The discussions and decisions of the FUG meeting will be recorded by the Secretary or his/her replacement.

2. Executive Committee (EC) of the Forest Users Group

2.1 Composition

(a) The EC is composed of _____ members

Chairman	_____	No.
Secretary	_____	No.
Accountant	_____	No.
Executive Members	_____	No.
Community Forest Guard	_____	No.

2.2 Duties of the EC

- ⇒ Ensure that it is properly aware of the wishes and needs of the FUG members and that it fully represents these at all times when discussing and negotiating with the Government and other parties;
- ⇒ Oversee that routine operation and management is taking place in accordance with the Community Forest Management Plan approved by the Government;
- ⇒ Organize work schedules of the Community Forest Guard(s) and payment of their salary;
- ⇒ Organize work schedule for the management, utilization and rehabilitation of the Community Forest.
- ⇒ Establish equitable distribution of benefits amongst the FUG members.

2.3 Duties of the Chairman

- ⇒ Head the FUG and the EC;
- ⇒ Call for EC meetings whenever necessary, informing all concerned persons about the date, time and place and reason for the meeting;
- ⇒ Lead all FUG and EC meetings and decide when each person is allowed to speak giving everyone a fair chance to raise points for discussion.

2.4 Duties of the Accountant

- ⇒ Look after the FUG funds;
- ⇒ Keep clear and precise records of date and accounts of contributions to, or expenditures from the FUG funds;
- ⇒ Keep records of labour wages and expenditures of the FUG.

2.6 Duties of the Community Forest (CF) Guard

- ⇒ Ensure that the CF is effectively protected from all forms of forest destruction in accordance with the Community Forest Management Plan.
- ⇒ Carry out all necessary minor repairs of fences and similar protection work;
- ⇒ Immediately inform the Chairman of repairs and similar works that are beyond his capacity to restore.

In case the CF Guard is absent because of sickness, another member of the EC will temporarily replace him.

In case the CF Guard is absent for other reasons, he will arrange a capable replacement, failing to do so he will be penalised as follows: _____.

2.7 Payment of the CF Guard

(a) The following arrangements have been made to pay the CF Guard:

- Amount of payment: _____
- Time of payment: _____
- Collection procedures _____.

2.8 Election and tenure of EC members

(a) The FUG elect the EC members during the FUG meeting held on _____.

(b) The EC members are appointed for a minimum term as follows

Chairman	_____
Secretary	_____
Accountant	_____
Executive Members	_____
CF Guard	_____

(c) However, the services of any EC member, if found unsatisfactory is liable to be terminated if 3/4 of the entire FUG membership reach an understanding.

2.9 EC meetings

(a) The EC will meet prior to each FUG meeting. Whenever necessary, the EC will meet more often.

(b) During these meetings the EC will discuss the following topics

(c) The EC shall make minor decisions only which will be reviewed during the subsequent FUG meeting. For major issues that concern a large group of the FUG, the EC will call a FUG meeting.

(d) Minutes. The discussions and decisions of the EC will be recorded by the Secretary or his/her replacement.

3. Miscellaneous

3.1 FUG funds

(a) All money collected will be deposited under the FUG's Account at the Bank of _____ Branch.

(b) There will be two signatories authorised by the FUG to operate the FUG Account.

(c) No Bank transactions (deposits and withdrawals) are permitted without the knowledge and prior approval of the Committee. For withdrawals exceeding sum of Nu. _____, the Committee shall first call for an FUG meeting to obtain a general approval.

(d) All bank transactions from the FUG Account should be duly recorded by the Accountant.

3.2 Contribution

(a) Every FUG member is to contribute Nu. ____ to the FUG fund. The contribution will be made only once, unless the same has not been forfeited for reasons stipulated hereunder.

3.3 Fines

(a) Members failing to attend FUG meetings and failing to give prior information to the Chairman as to his whereabouts are liable to pay a fine of Nu. _____.

(b) Members attending meetings under intoxicated condition and disrupting the meeting are liable to pay a fine of Nu. _____.

(c) All fines must be paid within one week. Failure to make this payment within a week, the person will be liable to pay additional fines of Nu ___/day for ___ additional days. Failing this, the person will automatically forfeit his initial contribution of Nu. _____.

(d) All fines will be accounted for in the FUG fund.

The Forest Users Group hereby agree to abide by the above FUG Constitution and By-laws, this ___th day of _____, 19____.

Sl No.	Name	Village	Signature
<hr/>			