

CHAPTER-ONE

INTRODUCTION

1.1 General Background

Community forestry (CF) was initially defined by FAO, as "any situation which intimately involves local people in a forestry activity" (FAO, 1978).

It has been a major programme for the management of the national forest through people's involvement. The realization for the people's involvement in the management of the forest was done in the 1st National Forestry Plan 1976. The concept formally gets recognition after the promulgation of Panchayat Forest Rules and Panchayat Protected Forest Rules in 1978. The Master Plan for the Forestry Sector (MPFS), 1988 in its long-term vision has given CF as the first priority for the management of forest of Nepal. It allocates 47% of the total expenditure of the forestry sector in community forestry activities (MPFS, 1989).

The Forest Act, 2049 and Forest Regulation, 2051 has formed the legal basis for the community forestry as a progressive one. The legislation identifies the role and rights of the forest user groups and gives them legal rights to protect, manage and use forest resources according to an operational plan (OP) prepared by themselves. Out of 5.5 million ha. of forest of the country, 61% of them are identified as potential CF (MPFS 1989). 14,389 CFUGs has been formed covering 1.2 million ha. of forest which is benefiting 38% of the people all over the country (Kalpabriksha, 2064 Chaitra).

Initially, the main aim of the community forestry program was to protect greenery and to fulfill the subsistence need of forest product for the rural people. This aim has almost achieved up. At present, a number of CFUGs stepped into monetized sector of economy in addition of fulfilling their basic forest products needs. The balance of timber in CF, current level of marketing and problems associated, role of different stakeholders, possibilities of improved marketing, and impact of current and proposed policies needed to be studied to boost up the timber marketing from CFs. The community forests are making money from selling the surplus forest products outside the CFUGs and contributing to several community development works such as in activities like school, water supply, irrigation facilities, trail road construction etc (Dongol, 1999).

Thus, we can say that CFUGs has made a significant progress in developing the community through managing its community forest and selling timber outside of its user boundary. As there is realized a number of seen/unseen problem in timber marketing from CFUGs, this study tries to find the real situation of timber marketing and demand-supply condition of users studying five CFUGs of Kaski district.

1.2 Problem Statement and Justification

The forest provides the basic commodities to people and contributes 15% in total Gross Domestic Product (GDP) of the country (HMGN/ADB/FINNIDA, 1989). According to the economic survey of FY 063/64, production price of GDP is calculated 6 kharba 46 arba 47 karod 10 lakh where agriculture and forest share 32.57%. According to FAO 2000, forest share 3.5% in GDP. but Central Bureau of Statistics, forest share only 2.11% to the GDP (Kalpabriksha, 2064 BS barsha 18, anka 196).

In the past major source of timber in Nepal was government managed forest however, CF and private tree growers are also emerging to hold strong share in timber marketing (Oli, 2000). Due to the expanding population and rapid urbanization, the demand for timber has been increasing in the marketing centers of the country (Oli, 2000). Furthermore, demand of timber in rural areas is also increasing because of changing economic standard of rural people and increased number of commercial enterprises (Malla, 1992).

The agencies involved in primary sale of the timber are District Forest Office (DFO), Forest Product Supply Board (FPSB), Forest Product Development Board (FPDB), Timber Corporation of Nepal (TCN), District Development Committee (DDC), Private Tree Growers and CFUGs (Oli, 2000). Among them, though TCN and FPDB were the main public agencies in timber marketing (Oli, 2000) in the past, CFUGs has been as the most important agency in timber marketing in the recent year.

Commercial exploitation of surplus timber from CFs is still poor (Hunt and Rasailly, 1999). The reason behind this are; lack of information on the market of timber and current demand, inaccessibility, lack of awareness of users on their right and gap in overall policy framework (Hunt and Rassailly, 1999). Besides these problems there are opportunities like maximizing benefit through establishing timber processing units to get better price and generate local employment (Baral, 1998) and establishing of co-operatives to solve problem of small area and requirement of the capital (Acharya and Skarner, 1993).

On the other hand, with the advent of CFUG program, CFUGs are eligible to sell excess amount of wood products after their consumption (GON, 1995; cited from Thapa, 2006). Some CFUGs whose forests have been registered for several years, have begun to mass saving from the sale of surplus timber (FRIS, 1998) and some CFUGs have already begun to contributing fund to community development. It reveals that CFs in Nepal is gradually moving from subsistence to monetized sector of economy (Singh, 1998).

Thus, it is necessary to think over timber marketing from CFs and studying its opportunities and constraints. However, very few studies have so far been carried out in this regard. The condition of timber balance in CF, current level of marketing and problems associated, role of different stakeholders, possibilities of improved marketing, and impact of current and proposed policies needed to be studied to boost up the timber

marketing from CFs. Based on these grounds, this study intends to assess the current level of timber demand-supply and trend of timber marketing outside CFUGs, problems related with it and its share in CFUGs income. The outcomes of the study will be directly useful to the CFUGs and indirectly to different stakeholders associated with timber marketing.

Thus, following questions are expecting to solve the above problems of timber marketing;

- Q1. What are the situation of demand and supply of timber in the selected community forest users group?
- Q2. How much timber has been consumed inside the community?
- Q3. How much amount of surplus timber are there in each selected community forest?
- Q4. What are the annual trends of timber marketing from the community forest?
- Q5. What are the barriers of timber marketing from community forest?
- Q6. How much income is generated by CFUGs?
- Q7. What amount of income shared by timber in the total income?

1.3 Research Objectives

1.3.1 General objective

An assessment on the trends of timber marketing from community forests.

1.3.2 Specific objectives

- To assess the demand and supply situation of timber in the study areas.
- To explore the trends of timber marketing from CFs.
- To identify the problems of timber marketing from the CFs.
- To show share of income from timber marketing in total CFUGs income.

1.4 Limitations

- Data about resource stocking of the forest is taken from approved forest operational plan.
- The demand for timber of people other than users is not incorporated in this study.
- Limited budget and time frame becomes a constraint.

CHAPTER-TWO LITERATURE REVIEW

The main focus of the forest management is ultimately to make independent the user group on forest products and increase the income from selling forest products. Timber marketing is the major source of income in the user groups in the recent days. Supply of timber is not

only a function of management and cost of production but also a forest related policies (Kanel, 1994). Here, i have reviewed theoretical and conceptual matter on the trends of timber marketing and related aspects and also make inside study on the problems of timber marketing due to different factors.

2.1 Theoretical Concepts

Several terms i.e., demand, supply, market/marketing, production etc. are associated with the marketing of timber. The theoretical concepts of such terms are given as follows:

Demand/Derived demand

By demand for a commodity, we usually mean the absorption capacity of the market for that commodity in a given period of time at a given price (Goon et. al., 1996). The quantity of a commodity that the numerous households wish to purchase are called the demand for that commodity (Pant, 1984). Market demand or consumer demand for a commodity depends on a variety of economic and non-economic factors. On the economic side, the demand for any good depends, among other things, upon three important factors: the price of the commodity, the price of the related commodities, and the income of the consumers. On the non-economic side, consumer demand depends upon the behavioral and environmental forces that shape consumers' tastes and preferences.

The demand for a factor of production is said to be a derived demand. This is because of both the intensity of demand and the relationship between factor price and quantity demanded are determined by for the final products. The greater the demand for the finished product, the greater the demand for the factor of production and vice-versa (Pant, 1984). The demand for wood, panel products, paper, etc., is not direct but is derived from the sale or expected sale of finished fabricated products: furniture, doors, windows, newspapers, books, magazines, and hundreds of other things that are made from them.

Supply and Marketing

Supply is a list (or schedule) of quantities that will be offered on the market at various prices for a particular set of circumstances during a given period of time (Pant, 1984).

A market is an area within which buyers and sellers are in close communication with each other that price tends to be the same throught the area (by Alfred Marshall, cited from Pant, 1984). The market is the overall demand for a product at a given price, place and time under specific standards and conditions. Market can be divided into consumer and industrial market. Consumer market consists of individual and households who buy products for their direct consumptions. Market circumstances are often called exogenous

factors because they are not determined primarily by what happens in the market itself. Price is an endogenous factor as it is determined by the market (Pant, 1984).

Marketing is the process of identifying, stimulating and satisfying customer's demand. It requires the collection and analysis of information to identify markets and learn what customers need and want. Marketing also involves the physical delivery of goods to the customer.

Marketing information system: A system to collect, analyze and distribute information of environment in an orderly and regular way within an organization to direct seasonal production, help determine production investments, plan and improve marketing, and in general, help production adjust to demand on production and marketing to the prevailing conditions of the business environment (FAO, 1996).

There are, apparently, three objectives of exporting logs, etc.: (i) foreign exchange, (ii) lucrative prices for logs in the domestic market, and (iii) ready sale of surplus logs (Pant, 1984). No doubt in the CFUG context of Nepal, the export of timber outside CFUG is due to above latter two reason.

Trends

The past trends can be used to evaluate the success or failure of management policy or policies practiced hitherto (Kothari, 2000). On the basis of past trends, the future patterns can be predicted and policy and policies may accordingly be formulated. We can as well study properly the effects of factors causing changes in the short period of time only, once we have eliminated the effects of trend. By studying cyclical variations, we can keep in view the impact of cyclical changes while formulating various policies to make them as realistic as possible. The knowledge of trend analysis in timber marketing will be of great help to us in taking decisions regarding inventory, production, purchases and sales policies so as to forecast the results and is very important tool in the hands of researchers (Kothari, 2000).

2.2 Timber Consumption in the World and Immerging Issues

Shifts in domestic and global markets have critical implications for these communities. Global demand for timber and non-timber forest products continues to grow; forests are increasingly valued for their environmental services. In the timber trade, exports of tropical timber are declining, secondary processing is increasing, and domestic consumption in developing countries is booming, particularly in China and India, home to some two-thirds of the world's forest-dependent poor. Promising community and small-producer enterprises have emerged throughout the developing world. In Mexico, 750 communities own timber enterprises. Forest communities in Nepal and India generate more than US \$3 billion in economic activity annually.

All over the world, 3 billion people depend on mountains for hydroelectricity, timber, and mineral resources. In developing countries, per-capita timber consumption rates are high. The average consumption of wood and wood products is estimated to be 0.7 cub. m. for the entire world; the corresponding figures for the developing and developed countries are 0.5 and 1.2 and , the US has the highest rate, 2.4 (World Resources Institute, 1998). Moreover, in the developed countries, the timber consumed is predominantly from coniferous species; the forests are managed intensively for fiber production; non-commodity services of forests are increasingly demanded; and there is a long tradition of an active role of the public sector as a steward for forest resources and supplier of timber to local and national markets. On the other hand, for developing countries, forestry issues are inseparable from the fundamental challenges of development and the environmental consequences of population growth and economic conditions.

Poverty can increase if excessive forest areas are used for timber production. Fisher (2001) showed that timber-based forestry results in poverty in Japanese and American communities despite these countries having many off-farm employment opportunities. In a study in British Columbia (Canada), Bradsaw (2003) reported that increasing production of lumber from community forests destabilizes employment of forest-based people. Similarly, Parkins *et al.* (2003) report that the higher the logging activities in the localities, lower is the immigration due to low employment opportunities in logging zones. Wunder (2001) stated that timber industry contributes fewer jobs to non-skilled local people. In a simulation-based economic analysis in India, Kumar (2002) concluded that the poor households are the net losers over 40 years from joint forest management. The joint forests are managed to meet the timber needs of the rich households.

2.3 Second and Third Generation Issues in Community Forestry

The first generation issues of community forestry of fulfillment of basic forest products need are somehow achieved. The new issues such as: sustainable forest management, good governance, poverty reduction are the major second-generation issues (25 years of CF, 2004). Other second-generation issues include power transformation, increasing level of insurgency, social and political issue, gender and social equity. Though we haven't fulfilled our second-generation issues, third generation issues of carbon sequestration, forest certification etc are come into existence with the global awareness.

2.4 Forest Management Practices in Nepal

Forest management practices in Nepal have changed from exploitative, when major forest products were sold to India, to the protective form of management introduced in 1987. From then on export of forest products was highly restricted and a ban on felling green

trees was imposed. The ban unintentionally hampered the development of good forest management practices, and the exploitation and protection policies have resulted in a lack of experience in practical forest management. During the exploitative period, less attention was to regeneration, as the major purpose was to clear land for new settlements. Attention to silvicultural practices has slowly been given, but it has become routine in national forests.

2.5 Forest Management Practices In Community Forestry

It has been observed that most of the existing community forests are over stocked. In most cases, the average number of trees per ha. excluding regeneration is more than 1100 (Baral, 1998). Natural forests are very young and have a few big trees while plantation forests are uniform. But average stocking (trees) in plantation forest is slightly lower than those of natural forest. They need immediate thinning if their productivity is to be improved. Immature trees are frequently sacrificed for fuel-wood while there is huge quantity of fuel-wood untapped in their own community forests. Study of several CFUGs has shown that timber is not as scarce as fuel-wood and fodder in rural areas. Therefore, there will be surplus of timber in most of the CFUGs.

Moreover, benefits from CF also are maximized through various timbers processing industries such as small mill and furniture industry. CF if managed properly can produce more than enough timber to meet the needs of FUGs. FUGs often sell surplus timber in the local market without processing.

2.6 Timber Trade

Changes in trade, markets, communications and infrastructure have impacted communities and changed them from a subsistence to a market system, which has given the incentive to communities to convert land from forest into cash crop production.

The main issue is that when community forestry policy was established, it largely considered subsistence products (fuel wood, fodder, medical plants, etc) for use by the community. After fifteen years of appropriate management of community forestry areas, many user groups now possess merchantable timber products. For many areas, there is no consensus as to how to commercialize these products, what prices should be charged, how extraction should be conducted, the distribution of benefits and the role of the Department of Forestry. Marketing of additional income for the communities and an additional timber products, if it is well managed, could provide significant incentive to appropriately manage forest resources.

In the Upper Hill, trade in timber products is not possible because the area is largely inaccessible. Alternative income generation activities could be provided through eco-tourism. The Upper Hill has significant attraction for trekking and mountaineering, representing 35.9% of Nepal's economy.

The Terai area, on the other hand, has been negatively impacted by illegal trade in timber, both to India and inside the country. The trees in Terai are of high quality and value. The area is of political interest because of the income it can generate.

2.7 Timber Sales Marketing

The determination of when and how to sell timber is often the most important financial decision a forest landowner can make. The manner in which any timber sale is marketed will greatly effect the results and profitability achieved. Knowledge of the market place, seasonal trends and factors affecting changes in the timber market, as well as expertise in classifying and marketing specific forest product classes, are all necessary to achieve the highest returns from the sale of timber. Technical expertise and experience in the marketing and sale of timber will produce superior results.

If as a result of the lack of forest management in the past, or prior over-harvesting, the current timber stand contains only residual timber, the implementation of a final harvest followed by reforestation practices, may be the best option available. Whether a selection method thinning, a final harvest or other forest management prescription is appropriate, a timber marketing plan can be formulated to serve the goals and objectives of ownership.

Marketing of timber or other forest products is usually the culmination of a long investment strategy and a means to reach a variety of resource management objectives. It deserves patient planning, careful consultation and a keen knowledge of what and why you are selling. It is also the beginning of the next management period for our property. Planning for forest regeneration should be as much a part of our sale as wise marketing.

2.8 Forest Harvest and Revenue

The forest act and Rules grant full freedom to the CFUG to harvest the forest produce so long as they abide by the work plan and their actions do not cause significant adverse impact to the environment (Bhattarai and Khanal, 2005). This is one of the greatest strength of the community forest program in Nepal. This legal initiative was guided by the aims and objectives of the MPFS under which the community forest was also supposed to contribute to economic and social progress of the community besides meeting their basic needs. When this was operationalized, people began to feel that their rights, which were taken away not very long back, have been restored. They also took it as an opportunity for resource generation for overall development of their village. It also enhanced the institutional development of the community. It is this freedom which, in fact, made the community forestry program of Nepal a model by itself a much more attractive and people

friendly program compared to the Joint Forest Management initiated in India and other forms of participatory Forest Management in South Asia.

2.9 Forest Policy and Timber Marketing

The first forest policy in Nepal came into effect in 1976 as the National Forestry Plan. It emphasized on restricting export of forest products only in processed or semi processed form, and providing raw materials to wood based industries on a competitive basis, discouraging any monopolistic trends (GON/ADB/FINNIDA, 1989; Gilmour and Fisher, 1992).

Master plan for the forestry sector (MPFS) was prepared by the Government of Nepal (GoN) in 1989 for a period of 21 years (1989-2010). The main objectives of the MPFS were to meet the people's basic needs of fuel wood, fodder, timber and other forest products and to contribute to food production through an effective integration between forestry and farming practices; and to contribute to the growth of local and national economy by developing forest management, forest industries and creating opportunities for income generation and employment (GoN/ADB/FINNIDA, 1989). This plan realized people's involvement in natural resource management and utilization of forest by local users.

Similarly, the current forest policy of three years (2063-2065) emphasizes the management and utilization of the forest resources in a manner that will stride balance between environment and development (GoN, 2007).

2.10 Sale of Forest Produce and Transparency

The lack of transparency in the sale of forest produce especially the sale of timber has been a major attack against CFUGs.

Some CFUGs work towards timber marketing is not fair and questioned of the selling and using of the revenue. In order to avoid extreme fluctuation in the price of timber, some flexible mechanism of fixing minimum price can be developed.

2.11 Marketing of Timber in Nepal

Commercial exploitation of the Nepalese forest dates back of 1924, since when export of Sal sleepers to India started (FRIS 1998, and Gilmour and Fisher, 1992). Now the situation is different. Kanel (1994) showed urban people are the market determinant of the timber. Demand of timber in rural areas is also increasing because of increased number of commercial enterprises in rural areas (Malla, 1993). Even if government managed forests are found to be the most important source of wood product, now CFUGs and private farmers of Hills are also becoming strong timber suppliers (Oli, 2000).

While official price are one third of free market price the majority of consumers must buy on the open market to meet their needs. Private sector both 'official sanctioned' and

'unofficial' are thus playing even greater role in forest product marketing system (Oli, 2000). Low priced official supplies do not necessarily go to the low income group who have greatest need of such timber. For them, competition for access to official supplies is intense. As a result, influence, rather than need, determines allocation (Shaikh, 1989). Timber smugglers, on the other hand, are engaged in supplying mainly construction timber to rural areas as well as urban households because there is no authorized agent or public supply system for the sale of timber in these places (FRIS, 1998).

2.12 Main Institutions Involved in Collection and Marketing of Forest Products

The agencies involved in marketing of wood products in Nepal are TCN, FPDB, DFPSB, DDC and CFUGs (Shaikh, 1989) and private forest holders obviously. Among them, currently, there are four institutions involved in producing forest products. The same four institutions are also largely responsible for collecting forest products data. However, the supply of forest products and services from these agencies is inadequate (Oli, 2000) and the gap is fulfilled by private sector as well. Details of the activities of the four main institutions involved in collection of forest products data are given in the following sections:

2.12.1 Department of Forest

The Department of Forests (DoF) is responsible for the protection, sustainable development and promotion of all types of national forests. It has 74 district forest offices (DFOs) all over the country except in Mustang district of the western development region in the Himalaya. One of the principal objectives of the department is to fulfill national demand for forest products such as round wood, fuel wood, household construction timber and small timber for agriculture implements through its district offices. As the felling of green trees is prohibited, the department currently obtains logs from dead, fallen or uprooted trees. In addition, district forest offices harvest forest products when trees are removed during development work. In several districts, there District Forest Products Supply Board (DFPSB) under the chairmanship of District Forest Officer which perform this work very efficiently and distribute the forest products in the concerned district to the local people in cheap way. Forest products supply is mainly directed towards fulfilling national demands for round wood, sawn wood and fuel wood. Following standard method of distribution, at first, the DFO in the district allocate 50% of the forest products to the DFPSB to satisfies district demand and then remaining is given to the TCN to sell in the open market.

Though the DFPSB has been formed in this district, but currently it is not in operation. In fiscal year 059/060 the DFO, Kaski collected and sold 586 cft. But later due to the lack of demand and application from local people, the DFO has neither collected nor sold the timber.

2.12.2 The Timber Corporation of Nepal

The Timber Corporation of Nepal (TCN) is a semi-autonomous body under the [[Ministry of Forests and Soil Conservation]](MFSC). The institution has a government mandate to meet the forest products demands of the urban population and sells sawn wood and fuel wood as appropriate. The TCN acquires round wood from the Department of Forests and produces sawn timber.

TCN was established during 1960s with the objective of collecting and selling forest products in the 33 Terai Districts of the country and has branches in most of these districts. In 1988-89 the Fuel wood Corporation of Nepal merged with the Timber Corporation of Nepal.

District Forest Office (DFO) allocates 50% forest products to District Forest Products Supply Committee (DFPSC) satisfy district demands at first. Out of the remaining stock, 50% are provided to the TCN for sale in the open market.

TCN is currently suffering from internal problems and is not receiving as much round wood from districts forest offices as before. The volumes produced and sold by TCN are therefore lower than in previous years.

During the fiscal year 1990/91 the Timber Corporation sold 5,35,000 cubic feet of log wood, 4,44,000 cubic feet of timber and 6,59,000 quintal of firewood. During the first 8 months of ,the fiscal year 1991/92, the Corporation sold 4,93,000 cubic feet of log wood, 3,36,000 timber and 2,49,000 quintals of firewood.

Timber is collected and sold also in Kaski district from more than two decades. The timber in this district is brought from Terai and inner Terai district in sawn form and then sold to local people.

2.12.3 Forest Products Development Board

The Forest Products Development Board (FPDB) is a autonomous body established in the 1975. It continued plantations by clearing degraded Sal (*Shorea robusta*) forest and other forest types and replacing them with fast growing species such as Eucalyptus, *Tectona grandis* and *Dalbergia sissoo*. Forest products including round wood, fuel wood, poles for

transmission lines, wood residue (locally known as koro) and raw materials for the particle board industry is sold after harvesting from its own plantations.

Low priced official supplies do not necessarily go to the low income groups who have the greatest need to them. Competition for access to official supplies is intense. As a result, influence rather than need determines allocation. Timber smugglers, on the other hand, are engaged in supplying mainly construction timber to rural areas as well as urban households because there is no authorized agent or public supply system for the sale of timber in these places.

2.12.4 Community Forest User Groups

Currently, some CFUGs registered for several years have begun to mass savings from sale of surplus forest products. Some examples to support this saying are explained below. Singh, 1998 found that forest users group in their institutional endeavours are gradually maneuvered towards a monetized sector of economy. He explained that Baghmara community forest user in Dang district had Rs. 450000 and Kankai CFUG in Jhapa district had Rs. 578000 in their fund. Out of that, the main portion was through the sale of forest product. He also highlighted that for CFUGs in Kabhre district were jointly established saw mill with loan and technical support from NACFP, which is the first saw mill installed by the endeavor of the CFUG in Nepal. The income so obtained has contributed to the pro-poor program including drinking water supply, support to school and income generating activities.

Similarly, Baral et al. 1999 indicated that Chhatiwan CF of Kailali district sold 27000 cft. of timber to the commercial market. The CFUG had collected about 10 million in their fund from different sources. However, Karki et al. 1994 reported that forest resources had been considerably undervalued and forest products had been praised in inappropriate manner. Oli 2000, agreed on this and explained that CFUGs have been selling the surplus timber at price below the royalty rate which was also agreed (Baral et al. 1999). They found that several CFUGs in Dang district have been selling their valuable Khair at an unimaginably low rate.

2.13 Supply and Demand

In the absence of more recent projections applicable for the whole country, most of the information has been adapted from MPFS (1988). Supply and demand situation for fuel wood, timber and fodder have been considered here. Table below shows the projected timber supply and demand based on the trends of 1985. It shows the deficit of timber throughout the projected period. However, if the forests of Terai are managed for production

in place of today's protection approach, the situation could be reversed. In this projection, the production of community forest areas has not considered. Community forestry together with private forestry may also be a significant source of timber in the year to come.

Table 1. Projected timber supply and demand (m3)

Year	Supply	Demand
1985	8,84,500	11,32,800
1990	10,14,100	15,10,200
1995	11,83,100	20,05,300
2000	13,55,800	25,06,700
2005	16,09,400	28,81,900
2010	22,12,200	32,50,600

(Adapted from MPFS, 1988)

The capacity of the present saw milling industry is more than sufficient to meet sawn wood requirements up to 2010. However, most of the mills have to be renovated before that date. Some have to be relocated before better access to the raw material. In order for it to be able to serve Nepal with a supply of sawn wood, sawmilling wood have to be recognized as an industry and not just an extension or by-product of forestry.

2.14 Challenges, Issues and Barriers in Timber Marketing in CFs

Although community forestry has led to the expansion and deepening of the greenery and local communities are getting various benefits from forests and funds, many challenges also lie ahead of the program. These challenges include assessing the contribution of the program, pro-poor orientation, emphasis on income generation activities, focus on forest management for demands products, involvement of local government, and the good governance including transparency and inclusion. A brief discussion of the existing challenges is presented below.

2.14.1 Revenue sharing

Local people use the forest products for their subsistence needs. But community forest also have surplus forest products like timber, firewood, medicinal plants and other NTFPs. Until July, 2000, local user used to pay 40% of their income from the sale of their surplus timber (from the Terai and adjoining districts) to the government. This is now reduced to 15% from the sale of surplus timber only from two species (Sal and Khair) through the financial bill enacted in July 2004. So far, local government does not any share from this income. According to LSGA (1998), management of natural resource lies within the jurisdiction of the local government.

Acharya and Skarner (1993) found that CFUGs has so far been little involved in external sale of forest products aside of some fuel wood and timber. The major drawbacks they found are firstly the area belonging to one CFUG is often rather small and secondly they are difficulty to find market for new products. Accessibility is also considered as major problem in timber marketing in CFs (Hunt and Rasaily, 1999). The following table sketches the twist and turns of government decision taken at different times.

Table 2: Government order and Tax/Revenue Burden

Date	Government order for tax collection	Remark
May 2000	Council of Ministers decidedd to collect 40% incomes of selling the timber for the commercial purpose of the user	FECOFUN challenged this decision in Supreme Court
March 2003	The Supreme Court cancelled the government's illegal decision on tax collection from CFUGs	MoFSC filed a review petition with the Supreme Court but Supreme Court rejected
July 2003	Government included a provision in Finance Ordinance to collect 40% of the revenue only from all kinds of income of the CFUGs	FECOFUN, civil society and donor community opposed this provision
August 2003	Government published a notice to collect 40% of the revenue only from of selling the timber for the commercial purpose in outside the CFUGs	FECOFUN, civil society and donor community opposed this provision
January 2004	Government amended the finance ordinance and included a provision to collect 40% of the revenue from the sale of timber from two species- Sal (<i>Shorea robusta</i>) and Khair (<i>acacia catechu</i>) and 10% from the others species sold for the commercial purpose outside the CFUGs	FECOFUN and all stakeholders, not satisfied with this provision, opposed this. CFUGs responding to it by not selling timber commercially.
July 2004	In the new Finance Ordinance the government inserted a provision which required the CFUGs in the Terai to deposit 15% of the revenue collected from the sale of two species of the timber- Sal (<i>Shorea robusta</i>) and Khair (<i>acacia catechu</i>) -outside the community	FECOFUN is not still satisfied with this provision.

(Source: Bhattarai and Khanal, 2005)

2.14.2 Quantifying GDP contribution

Several micro-scale isolated case studies have shown that community forestry has significantly contributed to the Gross Domestic Product (GDP), sustainable forest management and good governance. However, there is a lack of concrete data to show the contribution and linkages of community forestry with these emerging themes. Therefore, sometimes, the program faces severe constraints in justifying the financial investment to continue the program.

2.14.3 Difficulties in applying improved silvicultural management techniques

The emerging evidence indicates that CFUGs are reluctant to apply improved techniques of forest management thinking that they might destroy the forests. The concept of active forest management and optimum production for fulfilling the needs of local community and sale of surplus forest product is comparatively new for CFUGs. It is evident that harvesting of CFs is sufficiently below the maximum sustainable level (FRIS, 1998). Such types of situation is mostly prominent where powerful people use government forest as de facto CFs, access have been denied to groups with less influence and power. Thus, considering a larger number of user groups, reluctance to apply improved silvicultural techniques is also a challenge in community forestry.

2.14.4 Less Focus on Pro-poor programs

The community forests annually generate about US\$12 million from the sale of forest products. However, CFUGs have experienced difficulties in investing their fund in right kind of activities. They are now spending 36 % of their expenditures in community development activities such as school, road, health post and other development activities (Kanel and Niraula, 2004). The benefits from those activities are minimal to the poor. About 3% is spent on pro-poor programs. Additional spending on the livelihood improvement of poor, disadvantaged group and women are the big challenges in community forestry. Local elites are less dependent on forest resources and OPs formulated by dominant groups tend to be more protection oriented (Pokharel et al. 1999) and not always address the needs of all categories of users (Baral et al., 1999).

2.14.5 Market Failures

There are four sources of market failures; public goods, externalities, natural monopolies, and information asymmetries. These sources have traditionally provided the economic rationale for public intervention in private affairs.

Provision of Public Goods

A problem arises with a common pool resource (CPR). Since the nature of the CPR can be characterized as being non-excludable and non-rivalrous, the problems of free riding arises which can lead to resource degradation through over-consumption. Most natural resource

problems can be framed as variations of a CPR dilemma. For instance, forest resources with open access are an example where conditions are readily created for over-exploitation (Regmi, 2004).

Externalities

In a CPR problem externalities stem from incomplete, insecure property rights or a complete absence of property rights. When externalities exist, it becomes difficult or impossible to depend on markets to solve resource problems (Acheson, 2000). If there existed easily enforceable property rights to all resources, the allocation of environmental resources could function efficiently within the traditional private market system. The issue of property right is important because (a) it is not always clear who possesses 'rights' to limit the use of environmental resources, and (b) the costs of enforcing these rights may be very high.

Natural monopoly

Natural monopoly occurs when fixed costs of providing a good are high relative to the variable cost so that average cost declines over the relevant range of demand (Weimer and Vining, 1992). Under these conditions a single firm can produce the particular output at lower cost than any other market arrangement, including competition. If no substitute goods are readily available, firms in monopoly positions are tempted to increase prices beyond the optimal levels of allocative efficiency, so as to maximize their own profits.

Information asymmetries

Another source of market failure are those factors that make the acquisition of accurate information costly or impossible to obtain. Market efficiency is a situation where all consumers maximize utility and firms maximize profits. This becomes impossible when consumers do not know the price of goods or when producers send goods to wrong places. Opportunism, quality problems, and asymmetrically held information all increase the cost of information on prices, and can lead to situations of market failure. Two important information problems are associated with natural resource use: a) it may be very costly or impossible to determine the full effects of environmental resource use because their occurrence is distant in space and time, and (b) weighing the benefits of information on resource use against costs is a difficult exercise (Bish, 1998).

2.14.6 Natural resources and government failure

There is no doubt that, many resources have been managed well by the government but it may be wrong to assume that is the only way to manage resources. Governments can very well fail in the natural resources area too. Many forests under government control have not

been well-managed. In regards to the developing world, several causes of government failure have been pointed out in the literature. The first and foremost is corruption. A study in Cameroon revealed that excessive timber exploitation leads forest degradation and loss of genetic resources (ITTO, 2007).

2.15 Opportunities and Risks

In order to make the best use of the forest resource, CFUGs have to gain knowledge of market to get the best economical benefit from the forest products (Acharya and Skarner, 1993).

Market oriented economy of CFUGs also poses many risks some of which are explained below:

- The role of middlemen might be very crucial for marketing of timber (Singh, 1998).
- Greed to make quick money from the forest might threaten the environmental condition as in case of the CFs in Kapilbastu district.
- Use and/or misuse of group fund and transparency of the fund would be a sensitive issue as in Chhatiwani CF in Kailali and Hachumasa CFUG in Jhapa district (Baral et al., 1999).

2.16 Share of Timber in CFUGs Income/Value

A study result presented in the 25 years of community forestry conference in KTM expressed the value of forest. The value of forest products is calculated by using both stumpage price and user price. Among the forest products, timber generates the highest percentage (69.26 %) followed by fuel wood (18.42 %) and grass/fodder and bedding materials (10.10 %) (Kandel, 2004). *Khair*, medicinal and herbal products, pine resin and other unidentified (miscellaneous) forest products are also collected from community forest but their share is very low in terms of monetary value. This shows that CF in Nepal can generate about Rs 1.83 billion/year. It is the value of forest products actually harvested from the CF. But it is obvious that CF are under utilized and under-harvested. The value of directly used forest products can be way beyond if the forest is harvested in a sustainable way.

2.17 Income Generation and Expenditure from CFs

2.17.1 A Case Study carried out By Community Forest Division (CFD)

CFD had carried out a rapid appraisal of forest product utilization, income and pattern of expenditure of 1778 CFUGs from 12 districts covering both hill and the Terai for the year

2002. These data were extrapolated for all CFUGs in Nepal. The findings are reported in Kanel and Niraula (2004). A variety of forest products are collected, used or sold by CFUGs and generate fund, which is spent mainly on forest and community development activities. The value of forest products harvested and used is calculated by using both user and stumpage price. User price refers to the actual rate the forest users collect while selling the forest products within and outside the group. Community forest users charge nominal fees (way below market price) for the use of their forest products, but if they sell them to outsiders, they charge the market price. Stumpage price is the market price of the products (used by both users and outsiders) at the site, before the forest products collected, used and sold within and outside the CFUG.

The total annual income from the sale of forest products from community forest is about Rs. 747 million. However, if we calculate the value of forest products used within the CFUGs at a market rate, the annual value of these forest products is about Rs. 1.8 million. The proportion of the value of forest products shown in the table is based on their stumpage price. Among the forest products, timber generates the highest percentage (69%), followed by fuel wood (18%) and grass/fodder and bedding materials (10%). Forest users consume a major proportion of forest products (79%) within the group. Khair, medicinal and herbal products, pine resin and other unidentified forest products are also collected from community forest but their share is very low in terms of monetary value.

In both Terai and Hill regions, the majority of forest products are used internally by CFUG members (86%) and grass/fodder and bedding materials (10%). The total income of the CFUGs includes income from forest products plus the income from other sources. The total annual income of CFUGs is given in Table above. Based on the user price, annual income of CFUGs in Nepal is Rs 892.7 million (after deducting last year's balance). Forest products are the major source of CFUG income, which constitutes around 83 percent of total income. It is even higher in Hills (90%), but not so high in Terai (59%). The second largest source of CFUG income is from 'other sources', which is said to be other because many sources are not identified clearly.

More than one-third of CFUG income (35%) is derived from the Terai region.

CFUGs are also receiving income from sources such as grants from government and non-governmental organizations, the membership fees collected from the members, fines and punishments and entrance fees paid by visitors. But these sources contribute insignificantly in their total income.

It is claimed that CFUGs are spending 28.5 % of their income in forest protection and management. It is higher than the mandatory level (at least 25%) mentioned in Forest Act and Regulation. CFUG expense in training and extension, which is a basic activity to develop human capital of the CFUG members, is only a small fraction (2%). It may be due to high level of support from government agencies and NGOs. Community development comprises the highest proportion of CFUG expenses (36%), which includes school support, road

construction and other community infrastructure development. Operational cost is the third biggest area of CFUG expenditure. Stationery, equipment, rent, allowances etc are included under this heading. CFUGs spend a high proportion of money (17%) under miscellaneous headings, which is an unidentified area of expenditure. Although it is very low (3%), CFUGs are also spending their money on pro-poor programmes.

The total annual budget of the Department of Forest was about Rs 680 million, and the annual income of the Department was about Rs 550 million in 2002. However, community forest covers only about 25 percent of the total national forest, but generates more than Rs 740 million per year, showing that this programme is highly efficient in forest management. Although, we can see that the CF programme generates substantial income, the distributional effects of this programme are being raised. For example, a case study of four CFUGs shows that poor users do not get as much benefit from community forests as others. In other words, rich and middle groups get more benefits than poorer households (Kanel et al., 2003). Similarly, Adhikari (2003) shows that the transaction cost of managing community forests are borne more by poorer sub-groups than the richer and middle income sub-groups of a CFUG. We do not have large scale or macro-level data to support these case studies, but HMG is considering how to redesign CF programme activities so that poor, disadvantaged and women could get more benefits. The data presented above provides some information on the amount and pattern of forest product and financial resource utilization by CFUGs. However, how these investments are contributing to poverty alleviation at the individual level has yet to be analyzed in detail. It is mentioned that at least 3 percent of the total expenditure is spent only on pro-poor programmes. This has directly contributed to poverty reduction and helped to contribute to the first millennium development goal of eradicating extreme poverty and hunger in the rural areas of Nepal. Users are also spending their income and getting assistance in conducting non-formal education at the CFUG level. The literacy level of women and other disadvantaged groups is also expanding with these programmes. Therefore, the CF

programme has contributed to meeting the second MDG i.e. achieving universal primary education in the rural areas. However, more needs to be done in attaining these goals.

2.17.2 A Case Study from Kabhrepalanchowk and Sindhupalchowk District

55 CFUGs were randomly chosen in Kabhrepalanchowk and Sindhupalchowk districts on fund sources in CFUGs. Income generation of CFUGs is not a continuous cash flow and there is little effort to improve the cash flow. There are various sources of income, the main source being the sale of forest products.

2.17.2.1 Forest products

Main source of income was the sale of timber, fuel wood, NTFP, seedlings and grasses with the highest from timber sale. Timber sale was 67.3% of total forest products, and contributed to 45.4% of the total income (Table 5). About 67% of the total income was from the sale of forest products. The highest income year was 2001/02 and lowest was 2000/01. The high income year was mainly due to timber sold during that year.

2.17.2.2 Other sources

Other sources of income were grant, fines, interest, visitor fees, membership fees and others. Grants were mostly from various projects, NGOs, INGOs, VDC/DDC and local organizations. Penalties were imposed for forest offences and it was mostly collected from the users. Some income was also made from interest on loans provided to the users. A number of CFUGs charged fees for visitors to the CF. Income from user membership fees was proportionately the highest.

CHAPTER-THREE

STUDY AREA

3.1 Nepal

Nepal lies between 26 degree 22' and 30 degree 27' North and 80 degree 04' and 88 degree 12' East. It is landlocked by India and China, and occupies an area of 1,47,181 sq.km. It is a land of extreme contrasts in climate and geography. It has a unique topography ranging from lowlands with sub-tropical forests to arctic conditions in the Himalayan highlands. Within a mere 150 kms, the land rises from near sea level at 58 m. in Mukhiyapatti in south in Dhanusha district (Amatya, SM, 2000) to over 8000 m in the North. This together with the monsoon rainfall along the south facing slopes has resulted in virtually all climate zones found on planet Earth. As a result, Nepal has been endowed with a great diversity of life zones providing a home for a large variety of plants, birds and animals (MoFSC, 2002).

3.2 Kaski District

Kaski district was selected for the purpose of study from western development region. This district is one of the hilly districts and centrally located in western development region. It is situated between 8349' East to 8417' East longitude and 285' North to 2835' North latitude and is approximately rectangle in shape. It shares border with Shyangja in the South, Lamjung and Tanahun in the East, Manang and Mustang in the North and Parbat in the West. The district is divided in 4 constituency and 13 region. There are two municipalities and 43 village development committees in the district. The total households in the district is 67,970 and the total population of the district is 3,66,669 out of which female and male population comprises respectively 1,82,094 and 1,84,575 (DDC, Kaski 2063). Family size of the district is 4.47 and the growth rate is 2.85%. The literacy rate of the district is 57%.

The total area of Kaski district is 2,01,700 ha of which total forest area is 89,943 ha. Out of the total forest area Annapurna Conservation Area Project manages 54% (48,160 ha) whereas Kaski district forest office manages 46% (41,783 ha) forest. According the DDC, Kaski, 2063, the cultivated land in the district is estimated to be 48,962 ha and the settlement area is 22,901 ha.

There are 244 no. of large and small saw mill in this district of which 127 in Pokhara Municipality area, 35 in Lekhanath Municipality and rest of the nos. are in villages.

3.3 Salient Features of CFUGs in Kaski District

CFs handing over process started since 2048/49 FY in this district by handing over 18 CFs to the local users in the first year. The trend of CFs handing over picks in FY 2051/52 by the handed over of 65 CFs while the least handed over in the FY 2057/58 by handed over of only 8 CFs. 446 CFUGs have been registered with diversified groups of CFUGs, both urban and semi-urban socio-economic composition and many issues have been experienced during the implementation of community forestry program in Kaski district (DFO, Kaski, 2065).

The salient features of CFUGs in this district has been mentioned in the following table:

Table 3: The Salient Features of CFUGs in Kaski District

Total potential CF area under DFO	33,000 ha
CFUGs handed over	446
Area of forest handed over	17,355 ha
Total benefited HHs from CF	39,409
Total beneficiary people	2,18,215
Maximum HHs in a CFUG	1196
Minimum HHs in a CFUG	19
Women CFUGs	11
Biggest CF in area	656 ha
Smallest CF (in area)	0.53 ha

The biggest CF is Jhowakoma Khirkhane CF in ward no 5,6,7,8 of Sildujure VDC with 656 ha area and the lowest CF is Amaldanda Kshetra CF in ward no. 5,8 of Majhthana VDC with only 0.53 ha. Thus, the biggest CFUG is about 1238 times bigger than the lowest one. In this district, there are 2.47% CFs which are totally managed by the women.

3.4 General Information about the Selected CFUGs

Brief introduction about the selected CFUGs and the corresponding forests are plotted as follows:

3.4.1 Information of the CFUGs

Five CFUGs selected for the study have following household (table 4) and population (table 5) composition.

Table 4: HHs and Handed Over Year of the CFUGs

SN	Name of CFUG	Address	Year of handed over	Revision			Households			
				1st	2nd	3rd	Dalit HHs	Janajati HHs	Other HHs	Total
1	Bhulbhuladevi CFUG	Bharatpokhari-1	2053/3/20	2058/10/30	2061/10/03	2063/10/28	19	23	44	86
2	Satidevi CFUG	Bharatpokhari-5	2055/12/05	2063/01/17			0	1	33	34
3	Takanja CFUG	Sidda-1,2	2060/03/31				29	33	104	166
4	Ritthekhola CFUG	Sidda-3	2060/03/31	2064/10/07			1	15	30	46
5	Siddeshwor CFUG	Sidda-4	2060/03/31	2064/09/09			7	38	35	80
Total							56	110	246	412

The largest CFUG in hhs coverage is Takanja CFUG from Sidda-1,2 with 166 hh and smaller one is Satidevi CFUG with only 34 hhs from Bharatpokhari VDC one. All the CFUGs are handed over five years ago. One CFUG has been revised 3 times while one has not been revised even once.

Table 5: Population Beneficiaries from the CFUGs

SN	Name of CFUG	Address	Population beneficiaries		
			Male	Female	Total
1	Bhulbhuladevi CFUG	Bharatpokhari-1	257	258	515
2	Satidevi CFUG	Bharatpokhari-5	78	75	153
3	Takanja CFUG	Sidda-1,2	489	490	979
4	Ritthekhola CFUG	Sidda-3	119	124	243
5	Siddeshwor CFUG	Sidda-4	236	233	469
Total			1179	1180	2359

Takanja CFUG has greater population (979) in the selected CFUGs and Satidevi has the least population (253) beneficiaries. The male and female beneficiary in the studied CFUGs are approximately equal.

3.4.2 Information About the Community Forests

Brief description about the community forest has been given in the table below:

Table 6: Forest Areas and Species Composition of the CFs

SN	CFUGs	Address	Area of CF (ha.)	No. of block	Main species
1	Bhulbhuladevi CFUG	Bharatpokhari-1	184.87	10	Sal, Chilaune
2	Satidevi CFUG	Bharatpokhari-5	32	3	Sal, Chilaune
3	Takanja CFUG	Sidda-1,2	204	4	Sal, Chilaune
4	Ritthekhola CFUG	Sidda-3	93	4	Sal, Chilaune
5	Siddeshwor CFUG	Sidda-4	148	4	Sal, Chilaune
Total			661.87	25	

Takanja CFs are largest in area with 204 ha. and Satidevi CFs is least in area with 32 ha. Bhuladevi CFs has managed the forest with 10 blocks while Satidevi has managed only with 3 blocks. The reason behind this may be due to the area differences between the CFUGs. Though there is large gap in area among the CFs, three CFs has been managed with 4 blocks.

CHAPTER-FOUR

METHODOLOGY

4.1 Research Framework

The selection of appropriate methods and techniques for the collection, processing, analysis and interpretation of data is the most important parts of any type of research work. As this research is basically exploratory, it attempted to collect quantitative on the basis of a well defined checklist. The qualitative data is also captured by several methods and analyzed to know the social process. The whole study is based on the following conceptual framework (research framework).

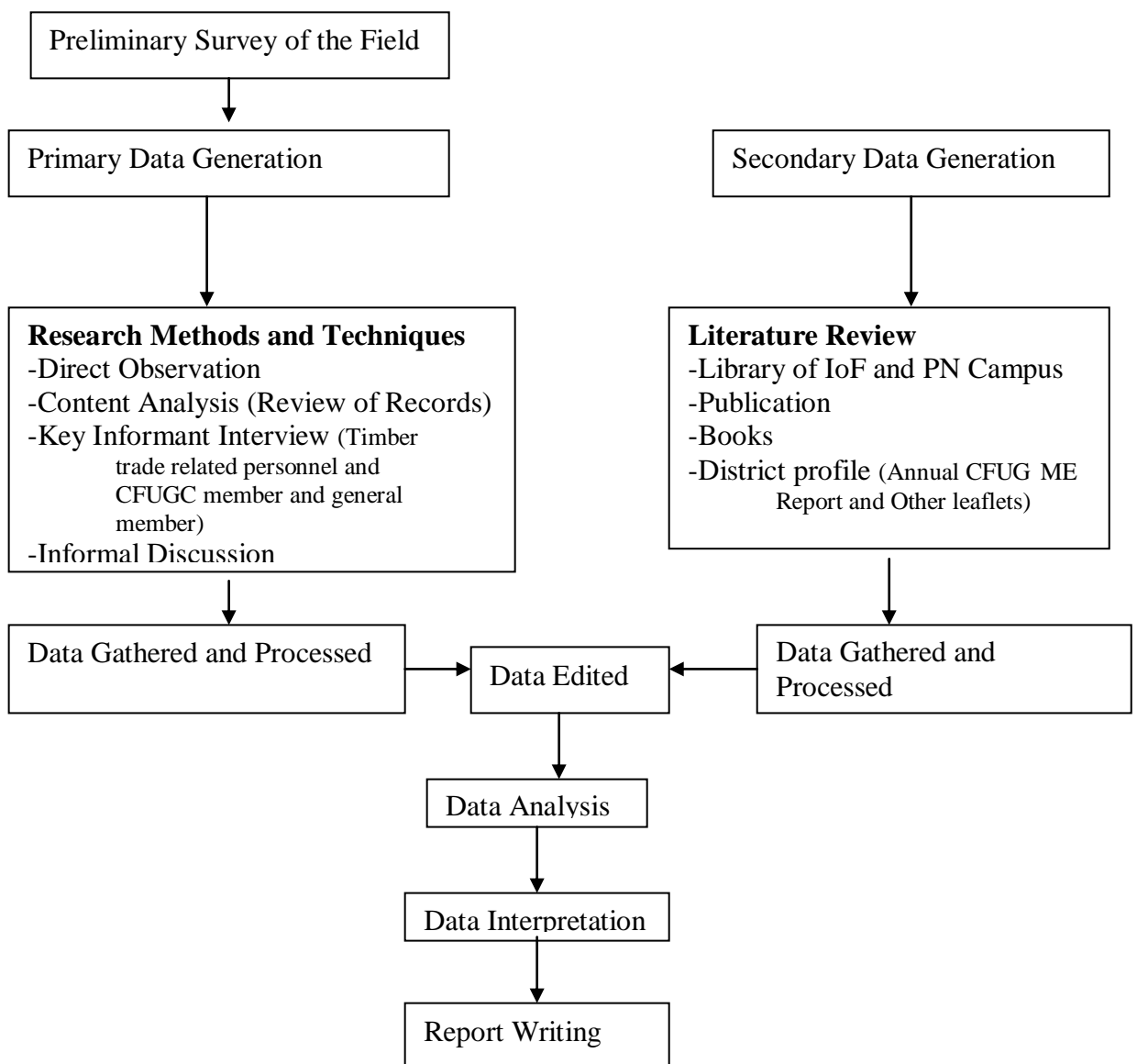


Figure 1: Research Framework

4.2 Selection Criteria of CFUGs

446 CFUGs have been handed over to local community under the district forest office (DFO, Kaski, 2065). Out of them, 5 CFUGs was selected on the following basis for the intensive study:

4.2.1 CFUGs that were handed over at least 5 years ago.

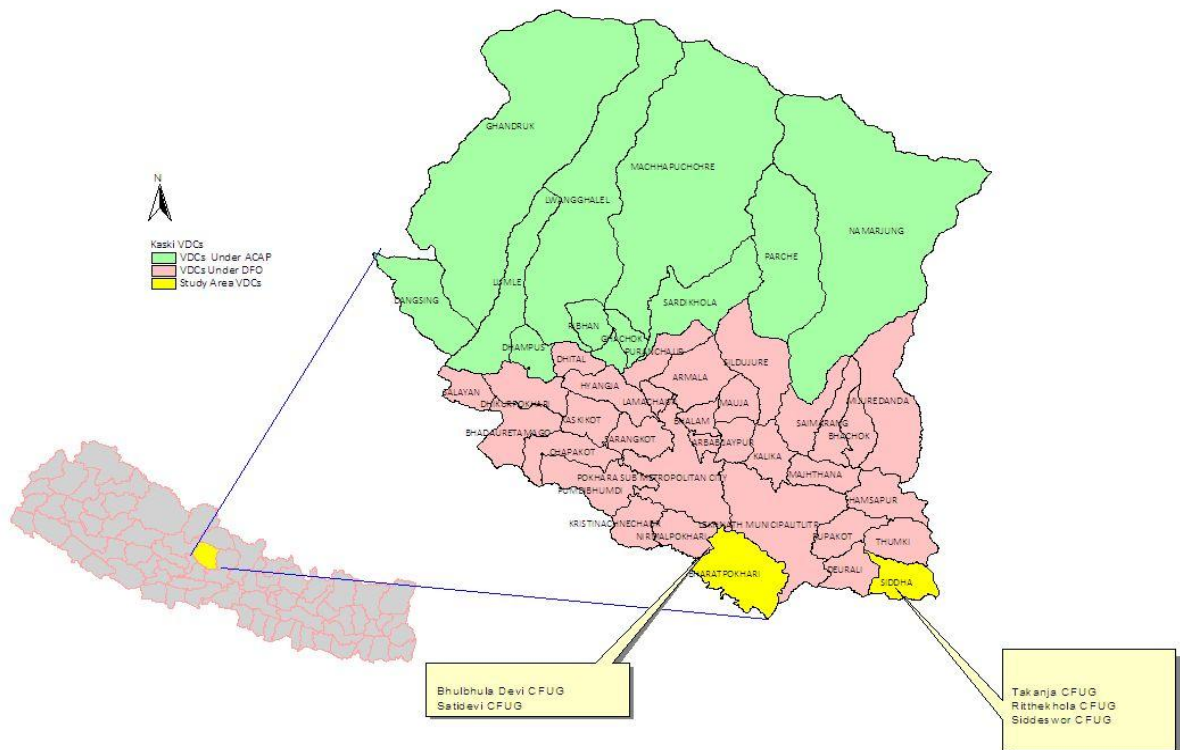
4.2.2 Management activities being conducted in the CFs.

4.2.3 CFUGs that have initiated timber commercialization.

During the selection of CFUGs extensive discussion with DFO personnel is undertaken.

The map of the CFUGs selected for the study is shown in the following figure:

Figure 2: Map of the Study Area



4.3 Methods and Techniques for Data Collection

4.3.1 Primary Data

Data that were collected afresh and for the first time, and thus happens to be original in character are primary data. To collect primary data at first, reconnaissance survey of the study area was carried out to collect general information about existing situations or environment of the study area and then the data were collected with the help of following different PRA and RRA tools:

4.3.1.1 Field observation

Field observation was done to see the condition of forest due to commercial exploitation of forest products. It also helped to see the infrastructure development through income generated by timber marketing from CF and the distance of the forest from motor road. Different saw mills, depots of logs, TCN offices and furniture making small industries were also observed.

4.3.1.2 Content Analysis

Under this method, the researcher reviewed the records and documents of the CFUGs. The constitution, approved operational plans and audit reports were reviewed mainly in this method. Those data are collected based on a pretested checklist. Other informations collected from the general assembly meeting, committee meeting decisions along with the information regarding income (particularly the income obtained through timber commercialization) and expenditure are abstracted. All the demand/supply situation of timber is taken from the inventory report of operational plans along with the trade of timber outside the CFUGs from audit reports and yearly report of CFUGs.

4.3.1.3 Key informant interview

With the help of a checklist, key informants like Saw mill owner, traders and other timber bidders were consulted to get the information related with the present trend of timber marketing, barriers regarding the timber marketing. The interview also help to get knowledge about market price of timber, and government recent policy towards timber marketing in CFUGs.

The group of key informant interviewed are those from CFUG members and CFUGC members from the selected community forest users group. The group provides information regarding barriers in timber marketing and trends in timber marketing in the studied years.

4.3.1.4 Informal discussion

The researcher informally discussed with the DFO personnel and other stakeholders interested in the timber marketing to make the research finding more reliable. The

discussion was mainly based on the concept of timber marketing trend, problems regarding the timber marketing.

4.2.2 Secondary Data

Secondary data were collected from different relevant published and unpublished literatures from District Forest Office, FECOFUN, DDC Kaski, IoF and Prithvinarayan Campus library Pokhara, and different websites.

4.4 Data Analysis

The data collected are scrutinized, edited and tabulated. Then the required data were fed into Statistical Package for Social Sciences (SPSS) 11.5 and Ms Excel program for the analysis of data. The findings are interpreted in simple charts, tables, figures and descriptive terms in different section. The quantitative data were analyzed by using frequency distribution, percentage, bar diagram, pie chart, line chart etc. Qualitative data were analyzed in descriptive form.

CHAPTER-FIVE RESULTS AND DISCUSSIONS

The untiredness effort of the researcher brought him to complete his research work. The findings of this research is given as follows in different sections of this chapter.

5.1 HHs and Population of Community Forest User Groups

Five CFUGs were studied to address the objectives mentioned ahead. The summary of the CFUGs with their hhs and population representation is given in the following table.

Table 7: HHs and Population Composition of the CFUGs

Name of CFUG	Address	Households				Population beneficiaries		
		Dalit HHs	Janajati HHs	Other HHs	Total	Male	Female	Total
Bhulbhuladevi CFUG	Bharatpokhari-1	19	23	44	86	257	258	515
Satidevi CFUG	Bharatpokhari-5	0	1	33	34	78	75	153
Takanja CFUG	Sidda-1,2	29	33	104	166	489	490	979
Ritthekhola CFUG	Sidda-3	1	15	30	46	119	124	243
Siddeshwor CFUG	Sidda-4	7	38	35	80	236	233	469
		56	110	246	412	1179	1180	2359

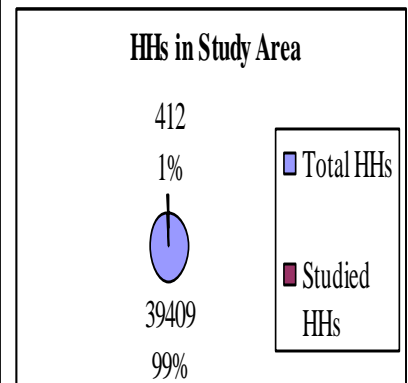
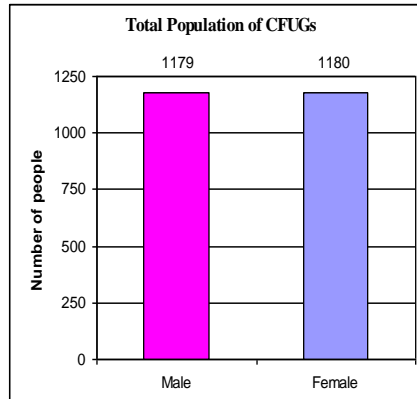
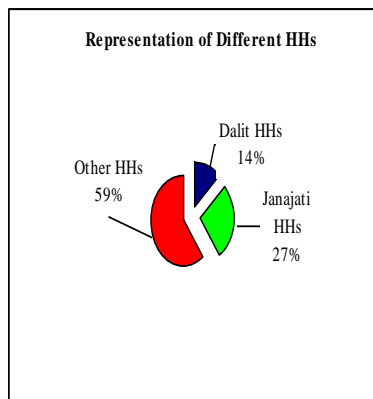


Fig. 3: Representation of Different HHs

Fig. 4: Male and Female Population

Fig. 5: Studied HHs

Representation

All together 412 hhs are there in the studied five CFUGs. Out of them, 14% is represented by dalit and 27% by janajati hhs. The other caste like bahun, kshetri etc. represents 59% which is also shown in the above pie chart. The population in the bar diagram shows that female population is more by one than male population. The total HHs representation in the studied CFUGs are only one percent.

5.2 Forest Areas and No of Blocks

The size of the studied CFs are different from one another. Takanja CF from Sidda VDC has greater than all other CFs while Bhulbhula Devi CFs from Bharatpokhari VDC comes after Takanja. The area of the CFs has been given in the table below.

Table 8: Forest Areas and Species Composition of the CFs

SN	CFUGs	Area of CF (ha)	No. of block
1	Bhulbhuladevi CFUG	184.87	10
2	Satidevi CFUG	32	3
3	Takanja CFUG	204	4
4	Ritthekhola CFUG	93	4
5	Siddeshwor CFUG	148	4
Total		661.87	25

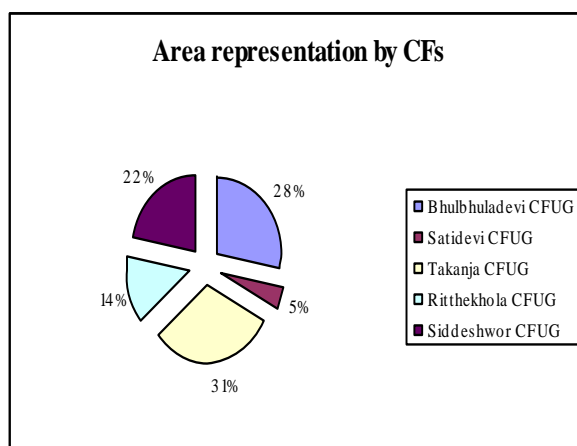


Fig. 6: CFUGs Area Representation

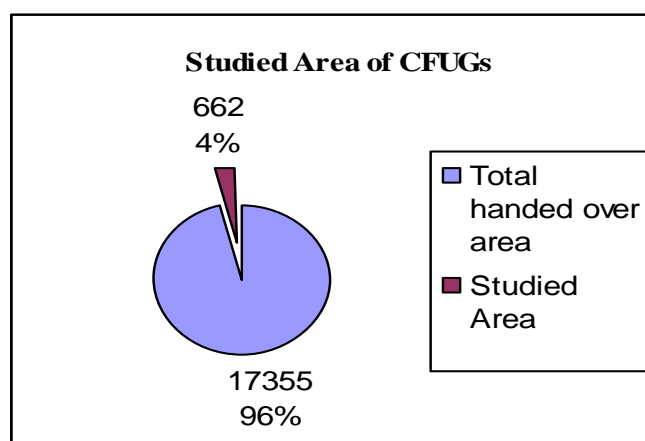


Fig. 7: Percent of CFUGs Studied

The chart above show that Takanja CF represents 31% area while Satidevi represents only 5% area of the studied CFUGs. Bharatpokhari represents 33% area while Sidda represents 67% area. Another chart above shows that 4% area is covered in this study.

5.3 Income and Expenditure of Community Forest Users Group

All the studied CFUGs have expended more money in community development work as shown in the figure below. Calculation shows that only 9% expense on forest development work. The largest income from different sources are in Takanja CFUGs (5111 thousand

Rs) while least income by Satidevi CFUG (only 325 thousand Rs). It is 39% and 3% respectively.

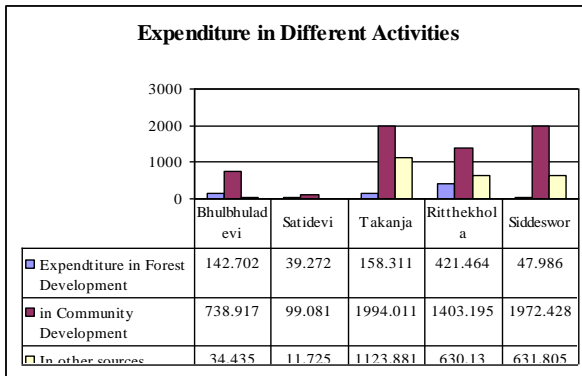


Fig. 8: Expenditure of CFUGs Income

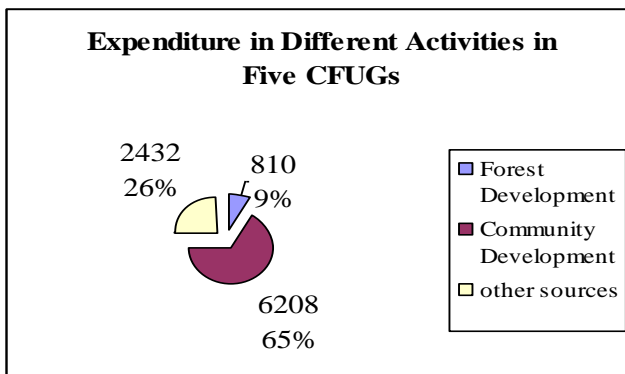


Fig. 9: Percent of Expenditure in Different Activities

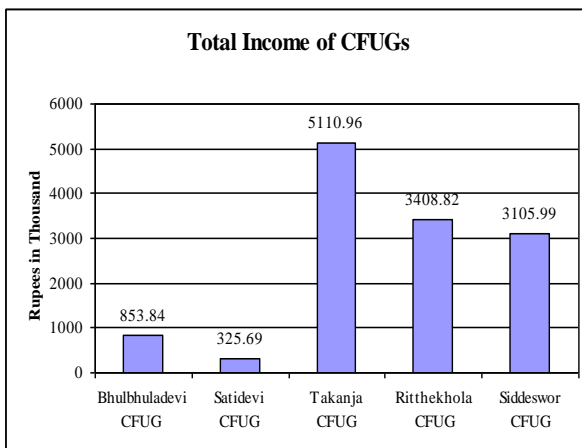


Fig. 10: Total Income of CFUGs

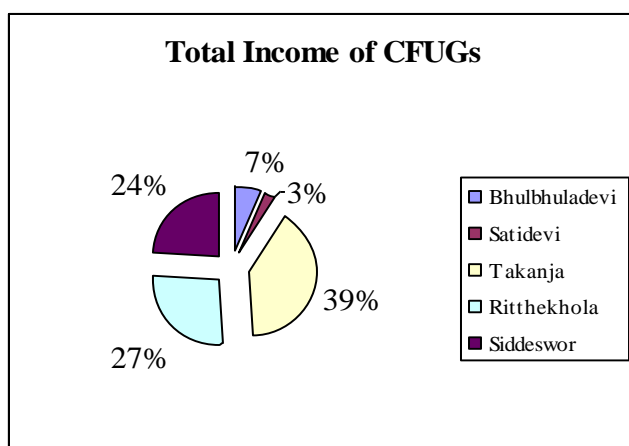


Fig. 11: Income Representation in Percent

5.4 Marketing of Timber from CFUGs at Nation wide

The available data below shows that timber consumption in FY 2063/64 at national level is 2,602,823 cft in which CFs comprise approximately equal with that of national forests.

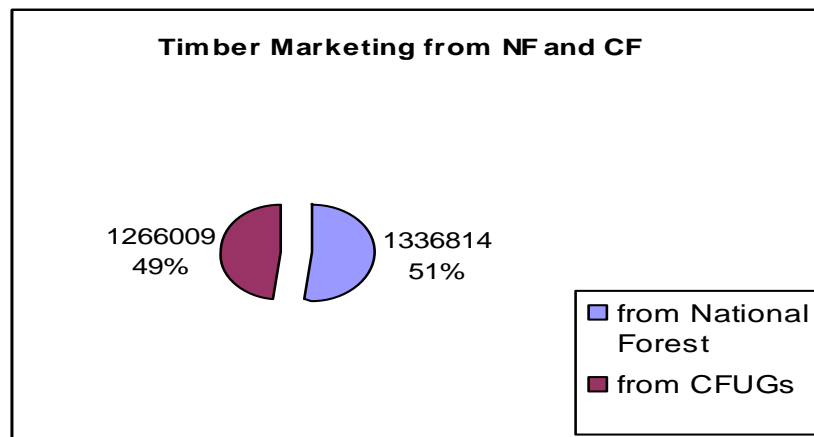


Fig. 12 : Marketing of Timber from National and CFUGs 063/64) (source: Hamro Ban, 2063/64 and CFD, 2064).

When we look backward some year, in 058/59 and in 059/60 FY there were only 578003 and 565628 cft has been exported from the community forest respectively. And it can be said that about 2 and half times the timber marketing has been increased in the 3 year span. The revenue from the timber marketing is Rs. 1,576,084,000 for the year 2005/06 (kalpabriksha, 2064, Ank, 196).

5.5 Regional Level Share in Timber Marketing

The total consumption of timber from the national forest of western development region is 178664.44 cft (RFD, Pokhara, 2065). The total consumption of timber from the community forest under Western Development Region is about 1,64,456.87 cft.

5.6 Timber Marketing from CFUGs in Kaski District

There are 8 CFUGs, in average, involved in timber marketing in this district in the five year. The table below shows the timber trade outside CFUGs in the district in five fiscal.

Table 9: Number of CFUGs Involved in Timber Marketing In Kaski District

SN	FY	No. of CFUG	Species	Quantity (cft)	Total
1	060/61	8	Sal	16644	16644
2	061/62	6	Sal	5639	5639
3	062/63	5	Sal	4818	4818
4	063/64	10	Sal	19278	
			Khair	1457	20735
5	064/65	11	Sal	12889.37	
	Total	40	Uttis	241.95	
			Chilaune	110.71	
			Katus	68.76	
			Simal	57.25	13368.04
	Total			61204.04	61204.04

(Source: DFO, Kaski, 2065)

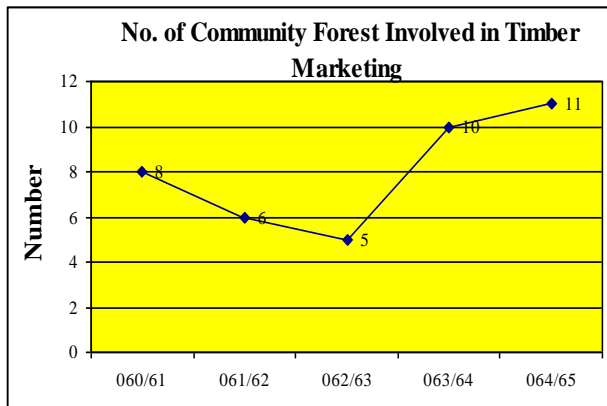


Fig. 13: No. of CFUGs Involved in Timber Marketing

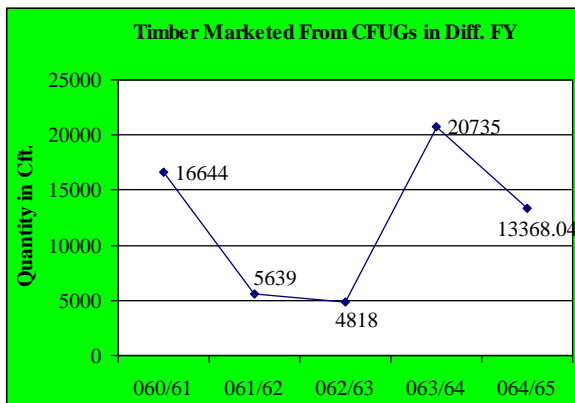


Fig. 14: Quantity of Timber Traded in Diff. Fiscal Year

The no of CFUGs involved in timber marketing in five year is shown in the trend line above. Similarly the trend line of timber trade from CFUGs is shown in the another trend line in which marketing of timber in FY is greater than other FY year. In 062/63, there is less trade in timber marketing. The less timber trade in FY 062/63 is due the influence of

maoist activities. When the maoist came into compromise with the seven party, then the users get conducive environment in FY 2063/64 and resulted in greater extraction of timber.

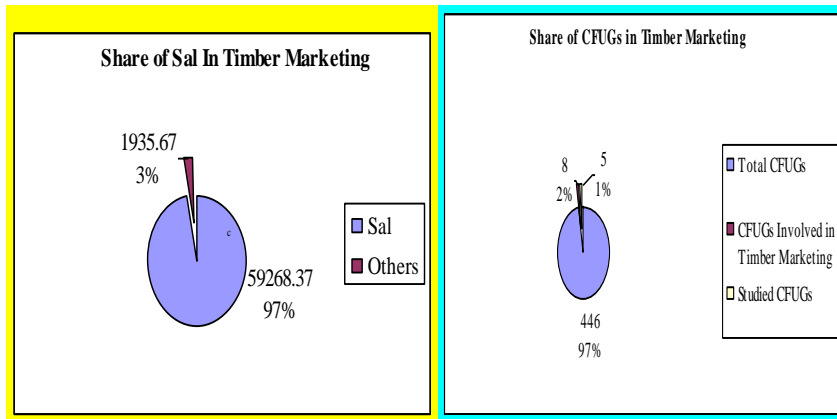


Fig. 15: Share of Sal Timber

Fig. 16: Percent of Studied CFUGs in Total

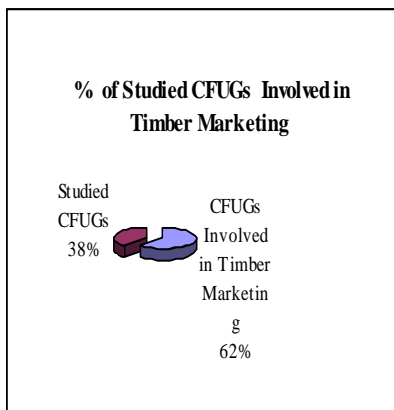


Fig.17: Percent in Average CFUGs

The share of Sal in timber marketing outside CFUGs is 97% as shown in the figure above. Though there are 446 CFs handed over in the district, 2% is involved in timber marketing and 1% is represented in this research. Thus the ratio of CFUGs involved in timber marketing in the district and studied CFUGs is 62:38.

5.7 Timber Trade by other than CFUGs in Kaski District

5.7.1 Timber Collected and Sold by Timber Corporation of Nepal, Pokhara Branch

The table below shows the timber collection, sale and balance of timber in TCN Pokhara Branch Office.

Table 10: Timber Collected and Sold by TCN in Pokhara

FY	Timber Collected (Sawn in cft)	Previous Balance	Total	Timber Sold (Sawn in cft)	Timber Sold (Goliya in cft)	Income	Balance
060/61	1715.34	173.15	1888.49	1588.1	2223.34	1100395.55	303.39
061/62	1556.02	303.39	1856.41	1226.44	1717.016	880791.84	629.97
062/63	942.39	629.97	1572.36	949.27	1328.978	663334.1	623.09
063/64	2895.91	623.09	3519	2581.91	3614.674	1757252.4	937.09
064/65	5828.99	937.09	6766.08	4626.72	6477.408	3758196.84	2139.36
Total	12938.65	2666.69	15602.34	10972.44	15361.416	8159970.73	4632.9

(Source: Timber Corporation of Nepal, Pokhara Branch, Bhadra, 2065)

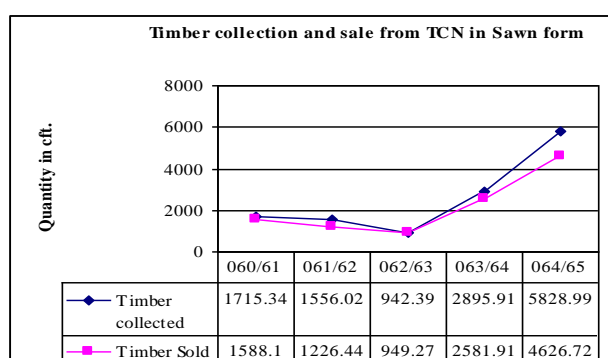


Fig. 18: Timber Sale from TCN

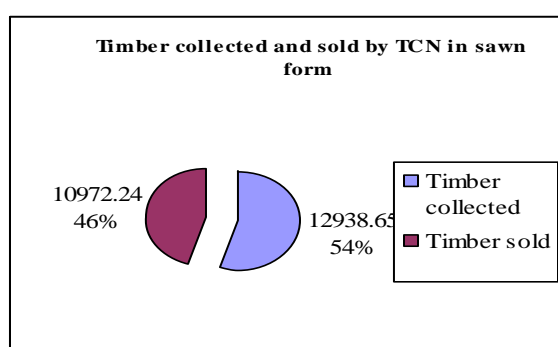


Fig. 19: Sold Ratios of TCN Timber in Kaski

The timber corporation of Nepal branch office if Pokhara is also collecting and selling timber to the city people. The figure above showed that timber sold from the TCN of Pokhara is less than the collection and thus balance is accumulated every year. Each year some amount of timber is added in the previous years' balance. In the previous 3 year the timber is sold in decreasing order and the later two year, the timber selling is in increasing order though less than the collection. The reason behind is that the quality of timber from Terai is better. The timber collected by TCN is in sawn form from the Terai district.

5.7.2 Timber Trade by Private Land in Kaski District

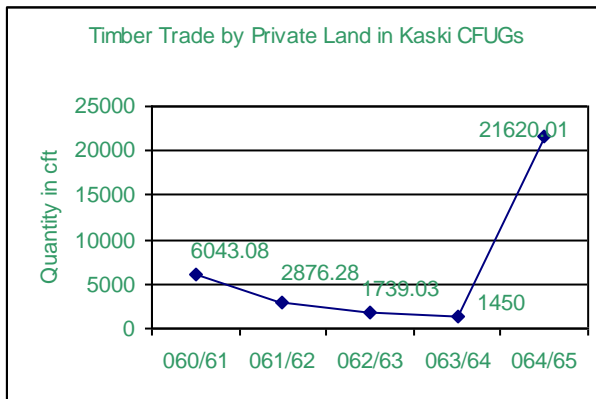


Fig. 20: Timber Trade by Private Land

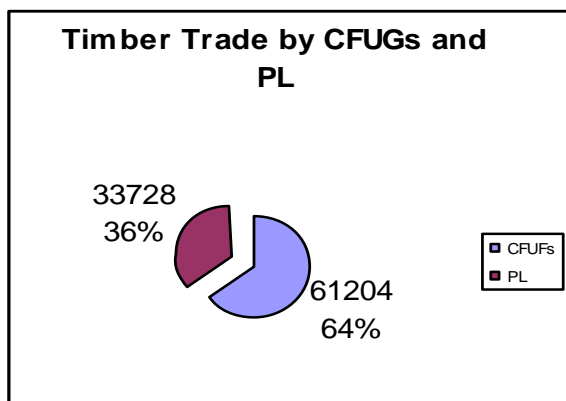


Fig. 21: Ratios between the CFUGs and PL Trade

Here in the above figure we can see that timber trade from private land in this district is in decreasing order from fiscal year 060/61 to 063/64. But in 064/65 it increased drastically. The reason behind is the government's decision on lifting ban from 3 species viz. Khair, Simal, Champ for the trade. Due to the government new decision the trade from 063/64 to 064/65 increased 7 times. 36% in quantity, timber is traded by private land in comparison to CFUGs in five year period.

5.8 Share of Timber Consumption in the District by Different Agencies

The figure below shows the share of timber marketing by different agencies in the district. The five year data from FY 060/61 to 064/65 shows that about one fourth of the timber is sold by Timber Corporation of Nepal in the district in compared with the total timber sold by CFUGs outside the users.

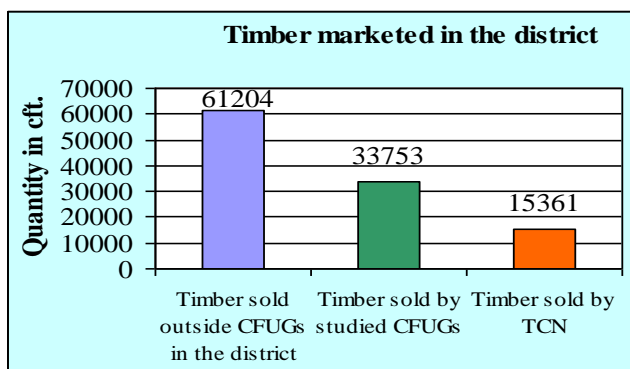


Fig. 22: Timber Marketed from CFUGs& TCN

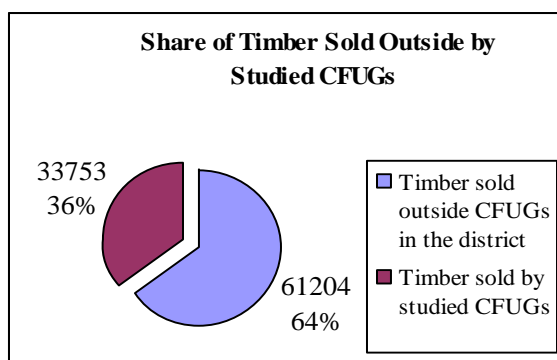


Fig. 23: Share of Trade of Studied CFUGs

The figure above shows that share of timber marketing by studied CFUGs is 36% in five year period.

5.9 Demand and Supply Situation of Forest Products in the Study Area

5.9.1 Demand and Supply of Timber (annually) in cft

The table below shows the annual timber demand of the users and supply capacity of community forests.

Table 11: Demand and Supply of Timber (annually) in cft

SN	Name of the CFUG	Address	Annual Demand (cft)	Annual Supply from (cft)			Surplus (cft)	Deficit (cft)
				CF (cft)	Private forest/land	Other Sources		
1	Bhulbhuladevi CFUG	Bharatpokhari-1	500	2416	0	0	1916	
2	Satidevi CFUG	Bharatpokhari-5	300	816	0	0	516	
3	Takanja CFUG	Sidda-1,2	550	1765	0	0	1215	
4	Ritthekhola CFUG	Sidda-3	770	2688.16	0	0	1918.16	
5	Siddeshwor CFUG	Sidda-4	1044	2821.06	0	0	1777.06	
	Total		3164	10506.22	0	0	7342.22	

(Source: Field survey, 2065)

The demand and supply situation of timber is compatible with the no of hhs. As there increase in hhs no, increase in the demand of timber by CFUGs except CFUGs in Takanja. The increasing migration from village towards the city has decreased the demand of inside

consumption of timber in this CFUG, though the area of CFUG and annual supply capacity of the forest is greater than other CFUGs.

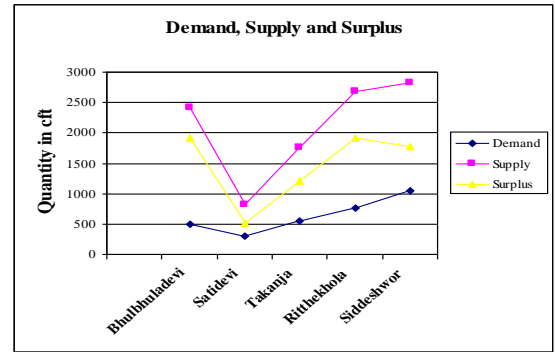
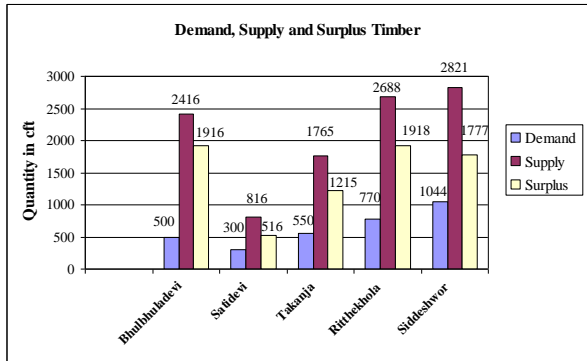


Fig. 24: Demand Supply Quantity of CFUGs

Fig. 25: Demand and Surplus Trend of Timber

Each CFUG in the above line shows that there is surplus timber. Ritthekhola CFUG has greater amount of timber and Satidevi CFUG has lesser amount of timber. Each CFUG has the potentiality for the marketing of timber.

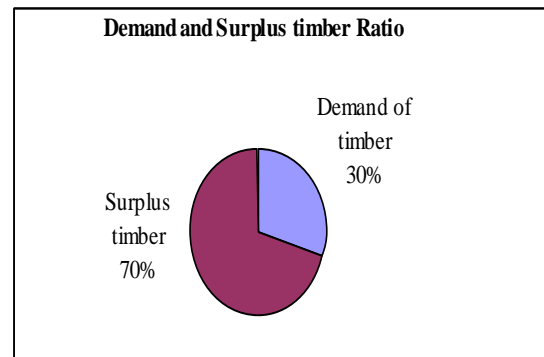
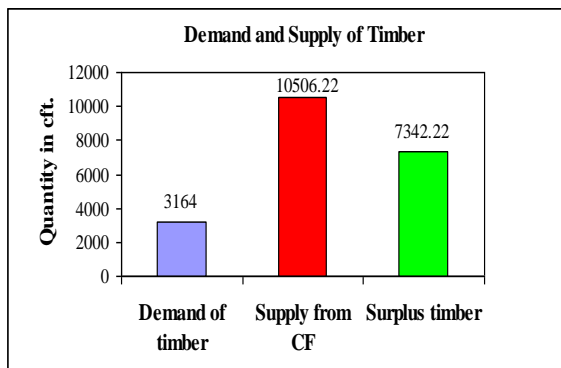


Fig. 26: Total Demand and Supply from Studied CFUGs

Fig. 27: Demand and Surplus Ratio of Studied CFUGs

The figure above shows that the supply capacity of the community forest is more than two times than the demand of users.

5.9.2 Demand and Supply for the Products Except Timber

The demand and supply situation for the fuel wood, fodder and bedding materials from the community forest is quite different from the situation of timber. The situation of these product in the study area is given in the successive sections below.

5.9.2.1 Fuel wood Demand and Supply

The table below shows the demand and supply condition of fuel wood in five CFUGs. The table below shows that about 2160-2250 kg (72-75 Bhari) fuel wood is demanded by users each year by each family.

Table 12: Demand and Supply of Fuel wood (kg)

SN	Name of the CFUG	Address	Firewood Demand	Supply from		
				CF	PL	Other sources
1	Bhulbhuladevi CFUG	Bharatpokhari-1	185760	167189	18571	
2	Satidevi CFUG	Bharatpokhari-5	71400	52500	18900	
3	Takanja CFUG	Sidda-1,2	358560	315533	43027	
4	Ritthekhola CFUG	Sidda-3	103500	95220	8280	
5	Siddeshwor CFUG	Sidda-4	172800	155520	17280	
Total			892020	785962	106058	

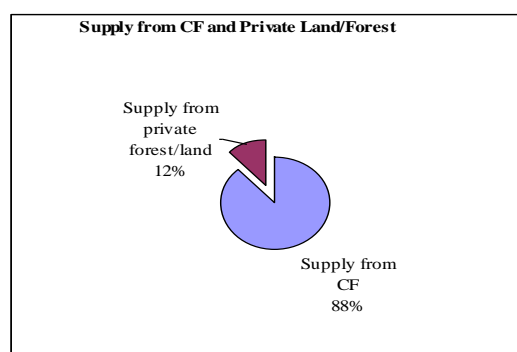
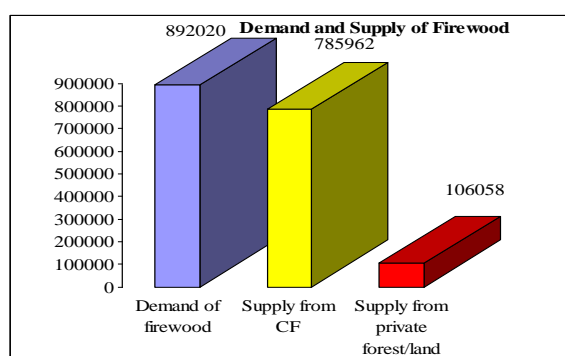


Fig. 28: Demand and Supply of Firewood

Fig. 29: CF and PL Supply Ratio

88% of fuel wood is supplied from the forest while 12% is fulfilled by their own land or sources. Though the figure shows that the private land also contributed in supplying fuel wood demand of the users, it does not mean that the CFUGs is unable to meet their fuel wood demand. It is only the share of private land in fulfilling the demand for fuel wood.

5.9.2.2 Fodder demand and supply

The table below shows the demand and supply condition of Fodder in five CFUGs. There is a great deficit of fodder in CFs area. The major portion of the fodder demand is

fulfilled by the private sources. The demand for the fodder seems 3600 kg (120 Bhari) per hh per annually on an average.

Table 13: Fodder Demand and Supply in Study Area

SN	Name of the CFUG	Address	Fodder Demand	Supply from		
				CF	PL	Other sources
1	Bhulbhuladevi CFUG	Bharatpokhari-1	309600	15480	294120	
2	Satidevi CFUG	Bharatpokhari-5	122400	2448	119952	
3	Takanja CFUG	Sidda-1,2	622500	24900	597600	
4	Ritthekholra CFUG	Sidda-3	168360	8418	159942	
5	Siddeshwor CFUG	Sidda-4	288000	5760	282240	
Total			1510860	57006	1453854	

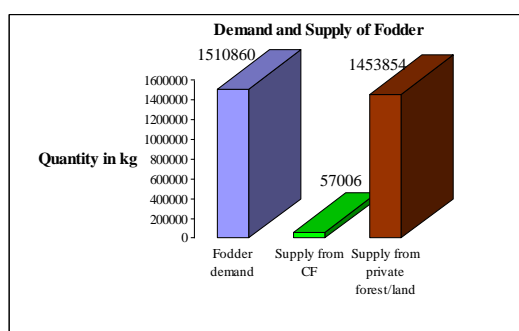


Fig. 30: Demand and Supply of Fodder

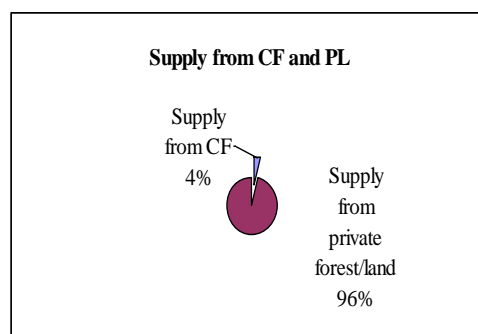


Fig. 31: Fodder Supply from CF and PL

Only four percent of the fodder demand is fulfilled by the community forest and rest is from their own private sources. This figure shows that there is no emphasis by users in multiplying the fodder species in the community forest. If we talked of poverty reduction and if there is the role of livestock in poverty reduction, there should be some emphasis in the preservation and plantation of better palatable trees in the community forest.

5.9.2.3 Demand and supply for bedding materials

The table below shows the demand and supply condition of bedding materials in five CFUGs. The condition for the requirement and supply of the bedding material is quite different from the above figure.

Table 14: Demand and supply for bedding materials

SN	Name of the CFUG	Address	Bedding material Demand	Supply from		
				CF	PL	Other sources
1	Bhulbhuladevi CFUG	Bharatpokhari-1	25800	27075	1425	
2	Satidevi CFUG	Bharatpokhari-5	10200	9675	525	
3	Takanja CFUG	Sidda-1,2	49800	46812	2988	

4	Ritthekhola CFUG	Sidda-3	15180	14421	775	
5	Siddeshwor CFUG	Sidda-4	28800	27360	1440	
Total			129780	125343	7153	

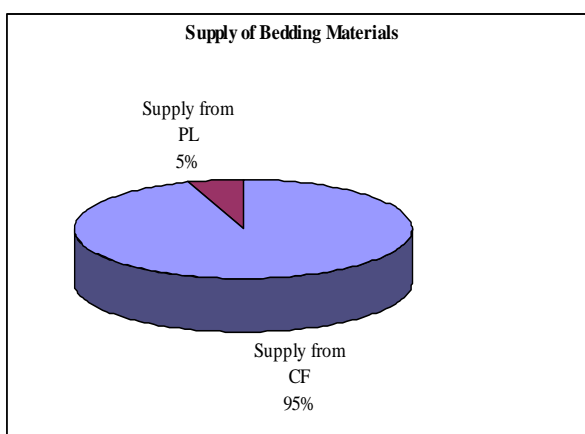
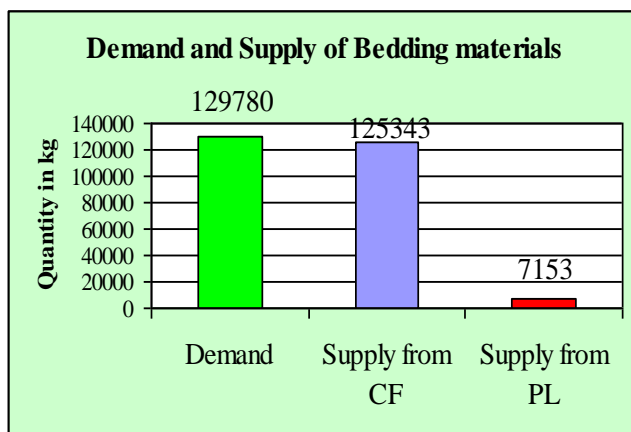


Fig. 32: Demand and Supply of Bedding Materials

Fig. 33: Supply Ratio from CF and

PL

Community forest meet ninety nine percent demand of the users. Thus, it is evident that must of users forest products demand is fulfilled from the CFs except fodder demand. It is seen that demand for the bedding material is only 10 Bhari (300 kg) annually per family and 5-6 % is fulfilled by the private land and rest are from the community forest.

5.10 Trends of Timber Marketing from Community Forests

The consumption of timber in the CFUGs has been discussed below.

5.10.1 Timber Consumption in Five Fiscal Year (within and outside) Separately

In the table below it is seen that the timber trade in highest quantity outside CFUG is done in 063/64 FY year. Similarly, least timber supply outside CFUG is in FY 060/61 (only 55 cft). Timber support to the community development without fee is done in the starting two years by only one CFUG (Bhulbhula devi).

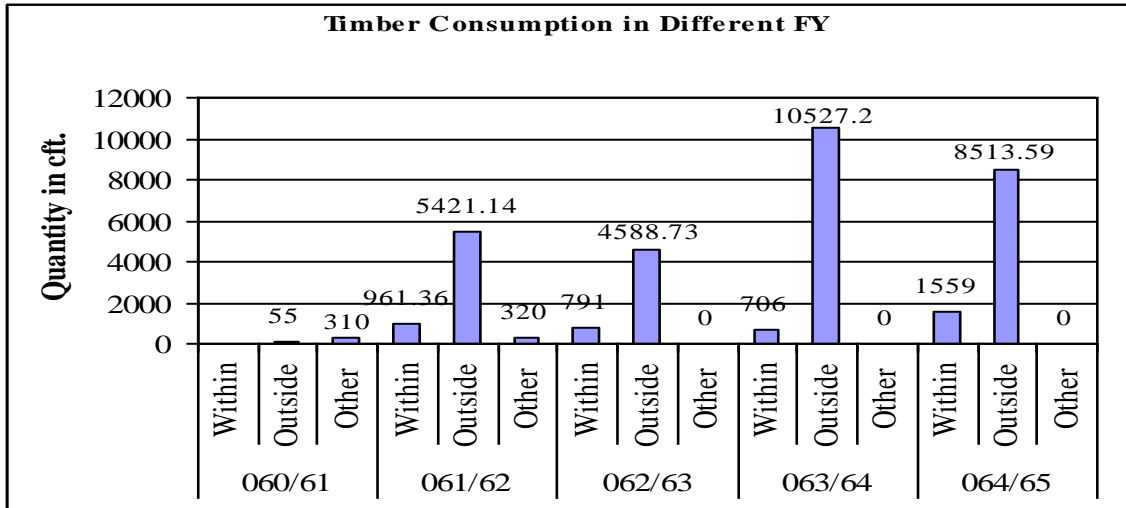


Fig. 34: Timber Consumption by Fiscal Year

5.10.2 Trends of Timber Consumption from Different Community Forests

The table show the cumulative consumption of timber in five fiscal year.

Table 15: Consumption of Timber in Five FY

Name of the CFUG	060/61	061/62	062/63	063/64	064/65
Bhulbhuladevi	310	674.36	360	746	1042.31
Satidevi	0	100	80	544	541
Takanja	0	2635.89	2353.89	3301.69	3435.4
Ritthekhola	0	2677.25	1114.91	3060.39	2775.34
Siddeshwor	55	615	1555.93	3862.1	2278.54

(Source: Field Survy, 2008)

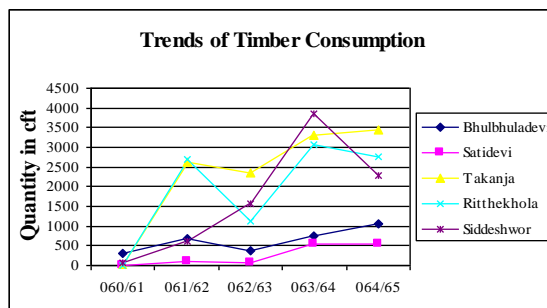


Fig. 35: Consumption of Timber by CFUGs

The table and figure simultaneously explain that 3 CFUGs in the beginning of the study year there is no consumption of timber. The Siddeshwor CFUG has consumed more timber in 063/64 and also the same CFUG has less timber consumption in 060/61 FY in the consumed list. The consumption here means internal, external and other consumption also.

5.10.3 Total Timber Consumption in Five Year Periods (cft)

Here i have discussed about the total timber consumed by the individual CFUGs in five fiscal year in cumulative quantity. The analysis shows that Takanja CFUG has sold 11726 cft of timber alltogether in five year which is 35%. Least is by Satidevi CFUG 1265 cft in five studied fiscal year which comprise only 4%. The reason may due to the small area of forest and less stocking. This CFUG (Satidevi) has not been seen in extracting timber adding the previous year quantity even though not extracted in the previous year. The detail records of field generated can be seen in the appendix 4. The informal discussion with the key informant revealed that about 58% of the timber consumed in the market is of Sal and the rest are the Sissoo, Aanp, Salla and so on.

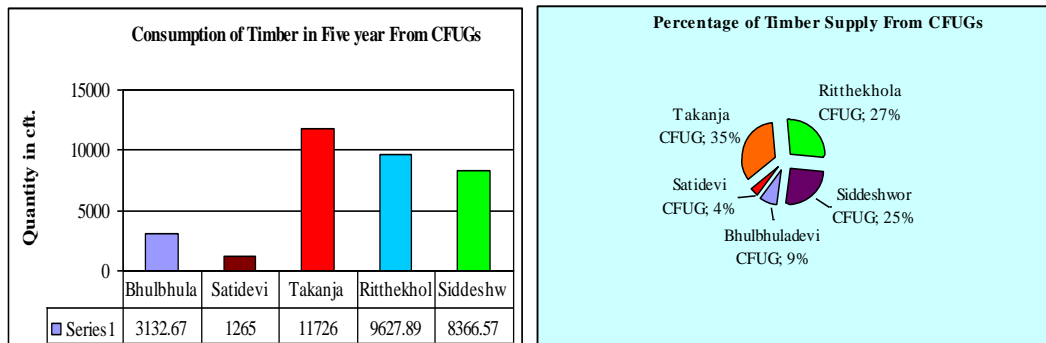


Fig. 36: Consumption of Total Timber by CFUGs **Fig. 37: Percentage of Timber Supply from CFUGs**

5.10.4 Ratio of Timber Marketing from CFUGs in Totality

The total percentage of timber extraction from the CFs is only 39% than the their stock. This shows that still there is the over stocking of the timber in the studied CFUGs. The total timber extracted 2/3 rd of the stock.

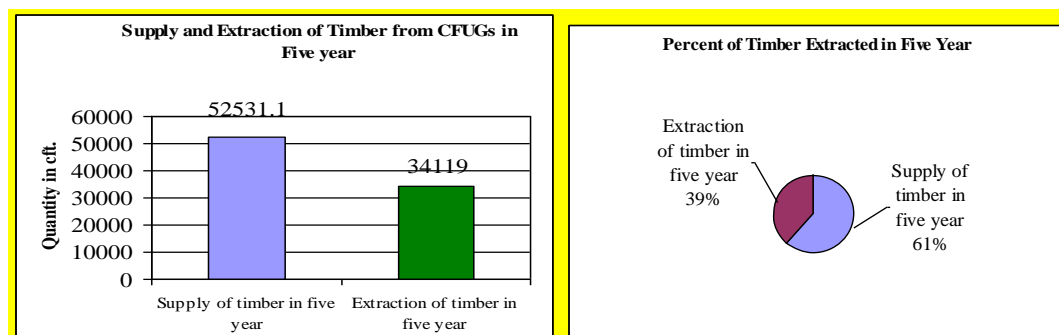


Fig. 38: Total Timber Extracted from CFUGs **Fig. 39: Timber Etracted in Ration with Supply**

5.11 Firewood (Chatta) Consumption (quantity and income) from CF

The following table analyzes the trade of firewood and income from it to the CFUGs. It is shown that Ritthehola has earned more money from trade of firewood (43000 Rs) and

least by Bhulbhuladevi CFUGs (only 10,000 Rs) in five year period. The reason behind is that either forest is greater and supplying more firewood or there is less demand for firewood or fuel wood demand also fulfilled by the private land in case of CFUGs that has been involved in trade. The CFUG which has not been earned more money or not traded much of its fuel wood is due the more consumption of fuel wood in their own group.

Table 16: Fuel wood (Chatta) Consumption (quantity and income) from CF

SN	Name of the CFUG	Address	Fiscal Year									
			060/61		061/62		062/63		063/64		064/65	
			outside cfug	income (Rs)	outside cfug	income (Rs)	outside cfug	income (Rs)	outside cfug	income (Rs)	outside cfug	income (Rs)
1	Bhulbhuladevi CFUG	Bharatpokhari-1	0	0	0	0	0	0	4	10000	0	0
2	Satidevi CFUG	Bharatpokhari-5	0	0	0	0	0	0	2	10800	3	14400
3	Takanja CFUG	Sidda-1,2	0	0	1	4151	0	0	0	0	8	32000
4	Ritthekhola CFUG	Sidda-3	0	0	7	28000	0	0	3	15000	0	0
5	Siddeshwor CFUG	Sidda-4	0	0	0	0	0	0	4	8400	4	14000
			0	0	8	32151	0	0	13	44200	15	60400

Note: 8 chatta sale of firewood from Takanja CFUG in FY 064/65 is the collection of previous years also.

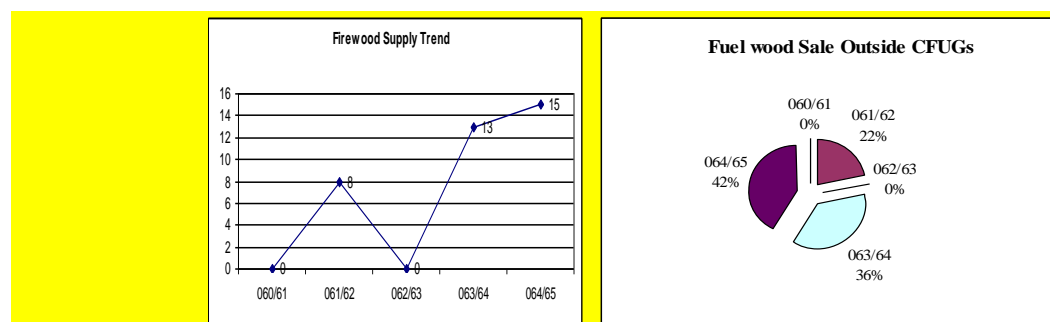


Fig. 40: Firewood Demand Trend

Fig. 41: Firewood Trade in Five FY

In five year period there is no trade of fuel wood in two fiscal year (060/61 & 062/63). In 064/65, there is 42% or 15 chatta out of total 36 chatta has been sold outside. It may be due to the accumulation of fuel wood of the previous year.

5.12 Income Obtained from Sale of Timber

It is evident from the table that Takanja CFUG has got more income from the sale of timber than any other CFUGs. The Satidevi has got less amount of income from the sale of timber.

Table 17: Income Obtained from Sale of Timber

S N	Name of the CFUG	Address	Fiscal Year											
			060/61		061/62		062/63		063/64		064/65			
			Inside cfug	outside cfug	Inside cfug	outside cfug	Inside cfug	outside cfug	Inside cfug	outside cfug	Inside cfug	outside cfug		
1	Bhulbuladevi CFUG	Bharatpokha ri-1	0	0	1901.7	91111	16000	76500	4200	238792	15600	244963		
2	Satidevi CFUG	Bharatpokha ri-5	0	0	2000	0	1600	0	2400	108133	0	138146 .3		
3	Takanja CFUG	Sidda-1,2	0	0	1480	952426	5411	680823	160	145828 2	1880	107906 8		
4	Ritthekhola CFUG	Sidda-3	0	0	475	706840	425	440800	1405	622485 .7	750	109476 7		
5	Siddeshwor CFUG	Sidda-4	0	8250	5550	12000	900	581701	4140	149302 7	0	856784		
			0	8250	11407	176237	7	24336	4	12305	0	18230	341372	8

The figurative data will make more clear the earning pattern.

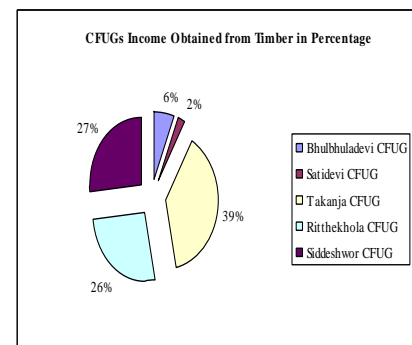
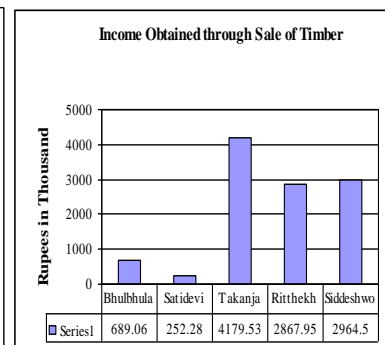
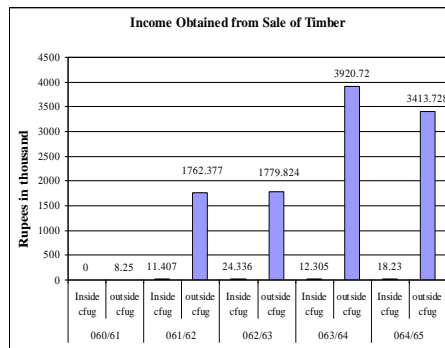


Fig. 42: Income from Sale of Timber by FY Fig. 43: Income Obtained by CFUGs Fig. 44: Percent of Income of CFUGs

In FY 060/61, there was no income from the sale of timber inside the CFUGs. The FY 063/64 became the dominant in earning from the sale of timber outside the CFUGs. In percentage, we have pictorial data as 39% earning from Takanja whereas only 2% from Satidevi CFUGs.

5.13 Barriers to Timber Marketing

The barriers to timber marketing is searched through the interview of selected key informants from trade related persons and community forest user groups committee member and general member. For making the information reliable, five ranks are ordered from 1-5 as 1 denotes most influential barrier while 5 denotes least influential barrier. Five barriers are categorized by the pretest result i.e. Legal, Market, Transportation, Quality and Quantity of timber and Availability of Technician.

5.13.1 Response of Key Informants from Traders/Bidders

All the traders, bidders and industry persons are agree with that the sealing process is quite good step in timber marketing but they all are emphasize for the well implementation mechanism. The 20 key informants are selected for the interview. All the respondents are agreed with that the quality of timber from Terai is better than the hills.

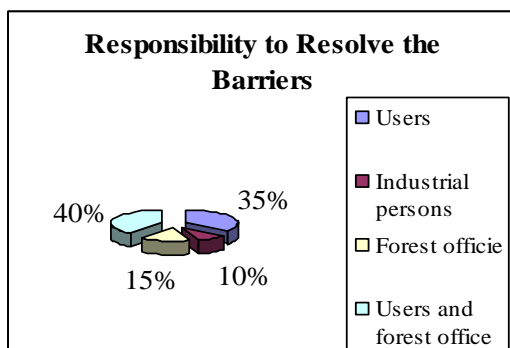
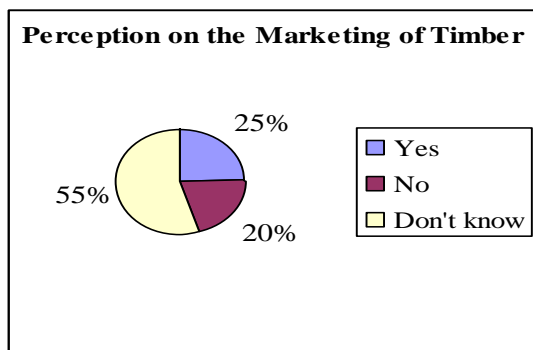


Fig. 45: Traders Perception on the Timber Trade **Fig. 46: Perception on Barrier Resolving Resp.**

More than half (55%) of the trade related respondents are ignorance about whether timber marketing from community forest is in right direction or not. The reason is that most of the industry persons are getting timber from Terai and are not directly linked with the CFUGs rather they are buying timber from the middle men. Some who said 'yes' are satisfied with the CFUGs timber and had worked in the Kaski CFUGs and those who said 'no' are not

satisfied with timber marketing directly with CFUGs. On the response of the responsibility to resolve the barriers, most (40%) are agreed with the idea that users and DFO personnel should play equal role. Along with majority also argue that CFUG is an independent body so CFUGs should have key role in resolving the timber related problem.

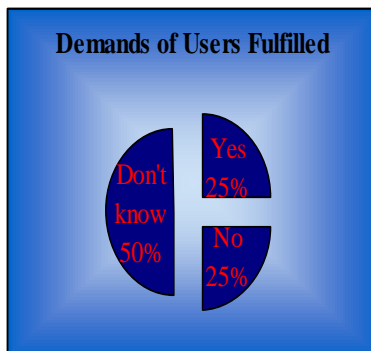
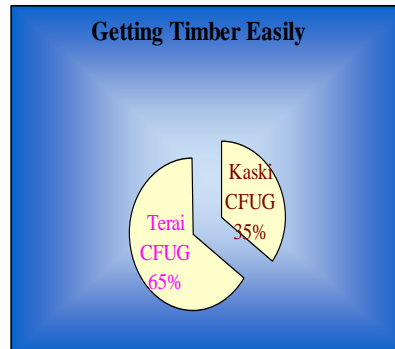


Fig. 47: Response on the Cheapness Demands Fulfilled

Fig. 48: Response on the Easiness

Fig. 49: Response of

About two third of the traders are agreed with the fact that easy and cheap marketing of timber is from the Terai because there is a well defined system of trading and no much more problem in bringing the timber on time. As majority of the respondents are buying timber from middle men in the terai and not directly linked with the CFUGs, they view that 50% are not known whether the demands of users are fulfilled or not.

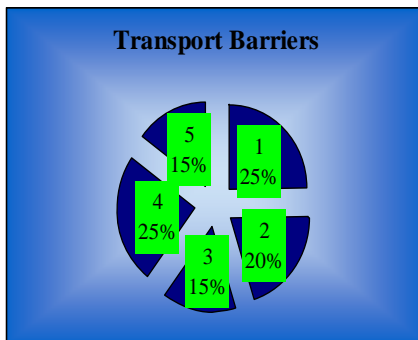
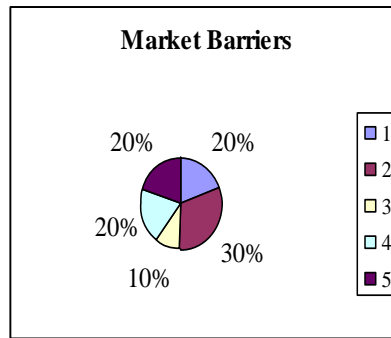
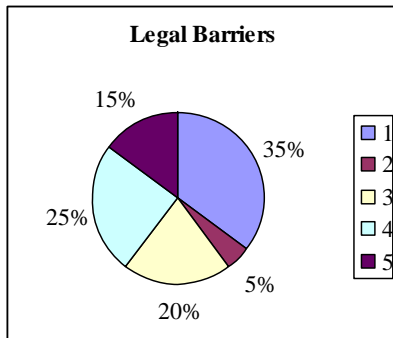


Fig. 50: Response on Legal Barriers

Fig. 51: Response on Market Barriers

Fig. 52: Response on Transport Barriers

To know the barriers in timber marketing 5 order are made putting order 1 as most influential barrier and order 5 as the least influential barrier. Though all the users are agreed with the provision that sealing is a good initiative to check the irregularities of timber transportation on the way, 35% are still accept that acceptance letter from DFO before the timber harvest and after the hammering is a major legal barrier in timber marketing promotion. Marketing, to some extent, depend on the trader's personal skill. Here, 50% responded it as a most influential (ranked in order 1\$2) due to credit market and sometimes storing of the timber more than a year. As transportation is the seasonal problem, 25% responded that it is also a most influential problem. While 20% traders not faced so much transportation problem.

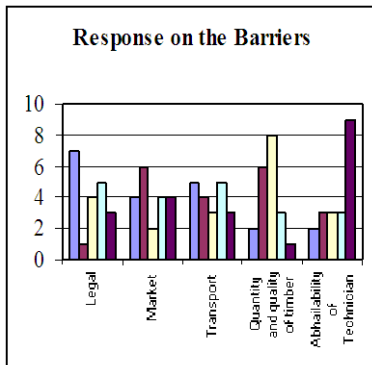
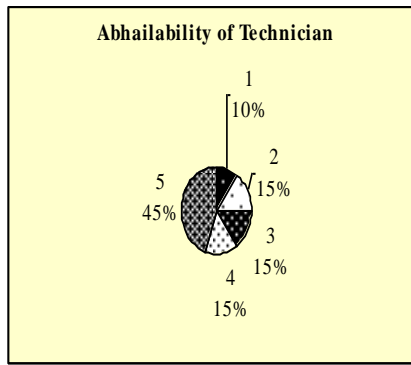
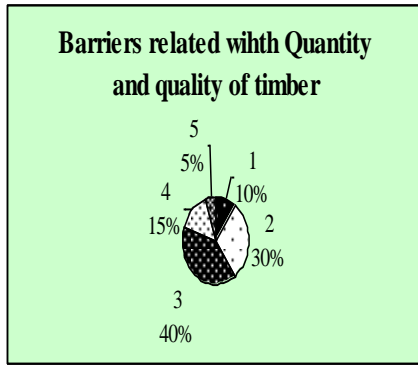


Fig. 53: Response on Q \$ Q Barrier on Barriers

Fig. 54: Response on Tech. Avai.

Fig. 55: No. of Persons Responded on Barriers

As sometimes quantity and quality also determines the timber marketing trend of some region, area or CFUGs. Here, about 10% believed it as a most influential in timber marketing process. 45% categorize technician availability as not a big problem and ranked the problem in a last order.

Summarizing the response on the problem it is evident from the figure above that majority of the traders do not experienced technician availability as a major problem.

Numerically, most of the traders viewed that legal problem is the major problem in timber marketing whereas quantity/quality of timber and availability of technician as a least barrier.

5.13.2 Response of Key Informants from Community Forest User Groups

44 selected key informants are interviewed to elicit information on the marketing barriers for timber.

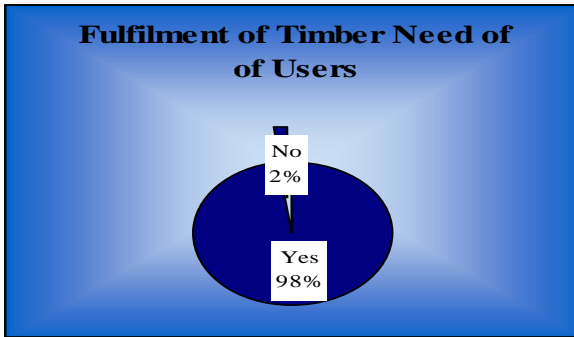
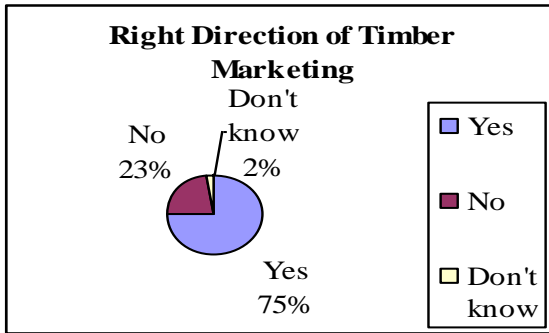


Fig. 56: Response on the Way Timber Marketing

Fig. 57: Response on Timber Demand Fulfilled or Not

The 75% of the users are agreed on that the procedure adopted for the marketing of timber is in a right direction. They viewed that information circulation in different offices, free tender calling and fairness in selection of bidder is a good and all-round acceptable process. Similarly, about 98% of the users agreed that timber is sold outside after the fulfillment of need of all the users.

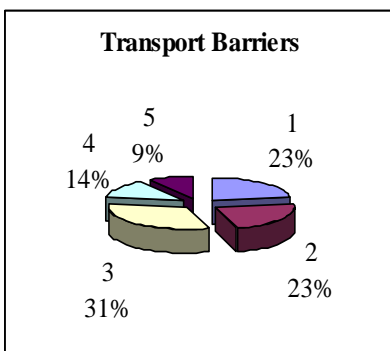
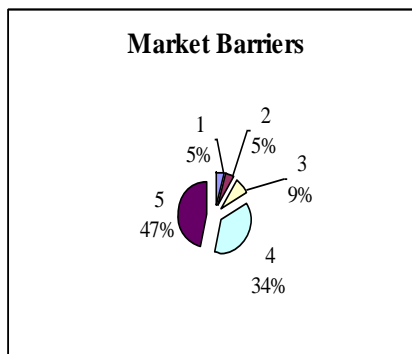
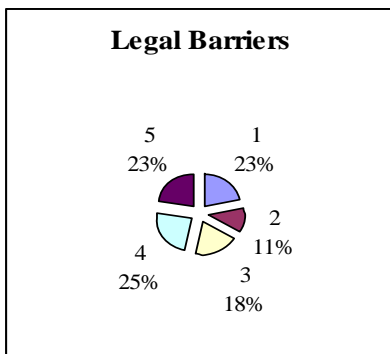


Fig. 58: Response on Legal Barriers **Fig. 59: Response on Market Barriers** **Fig. 60: Response on Transport Barriers**

Users view on different types of barrier do not coincide with each other. CFUGs constitution and operational plans provision are also the legal provision for users. 23% of the users believe that the provision for selling of timber outside should be passed from users plays very important role. Sometimes, the decision is affected by the different ideology of the users. The need for the acceptance letter from DFO also affect the decision as getting such letter sometimes become very difficult. But only 5% believe market as most influential problem. Transport is affecting at a large extent in the timber marketing in this district and generally timber is send in the market in the coming year and probably this is the reason that 23% takes it as the most influential affect in timber marketing.

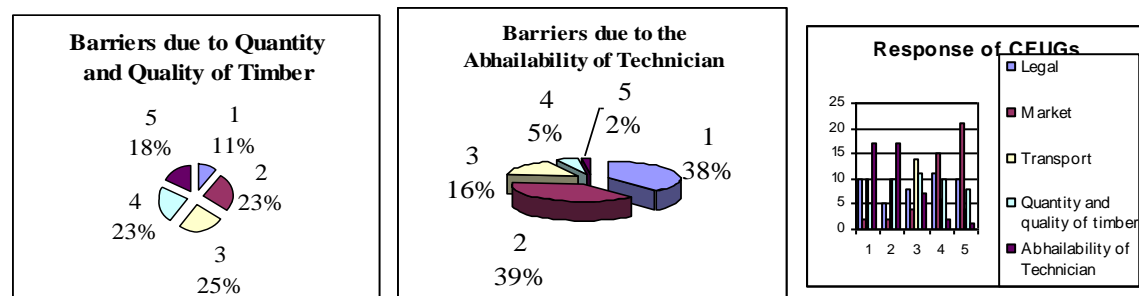


Fig. 61: Response on Q & Q Barrier **Fig. 62: Response on Tech. Avai.** **Fig. 63: No of Persons Responded on Barriers**

Sometimes timber quality plays a crucial role in the quick marketing of timber. If there is good quality timber, the more bidders come in contact with the users. This problem as major is taken by 11% while 18% take it as a negligible problem. Many users are seen analogous with each other in experiencing technician availability as the either 1st or 2nd order of major barrier. Though they shared the view that due to technician exercise in inventory work makes us easy to manage the forest properly but they also blamed due to less frequent visit of the leading regional technician in the field delays the work of the timber selling and so becomes a major problem because in the absence of consent from field level incharge nothing is possible to do timber relating work.

Sometimes people without pan no. are agreed to pay more money for the timber but due to current provision without PAN no. no one are allowed to compete in the bidding process. In this regard users viewed that people without PAN no should be allowed to compete in the bidding process.

Numerically, most of the users viewed that availability of technician and market as the major and minor barrier respectively.

5.14 Share of Timber Income in Total Income of CFUGs

I have in different chart and figure here tried to explain the income from the sale of timber and other forestry products. The timber income reached its peak from the Takanja CFUG and very much meager from Satidevi CFUG. Income from fuel wood is more from Ritthekhola and other sources leads in Takanja.

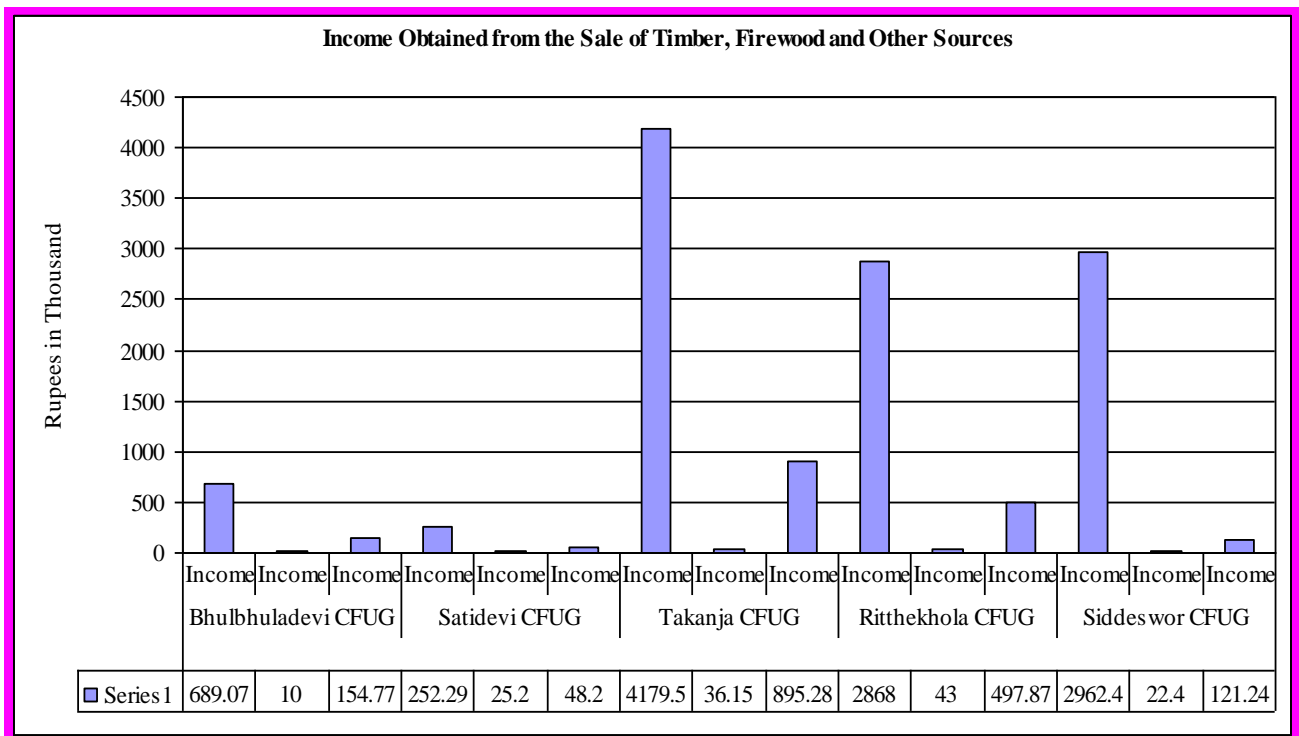


Fig. 64: Income Obtained from Timber, Firewood and Other Sources

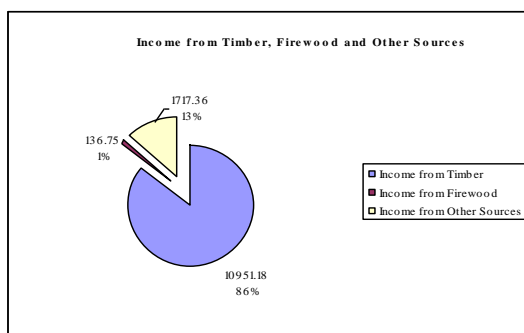


Fig. 65: Income Share of Timber

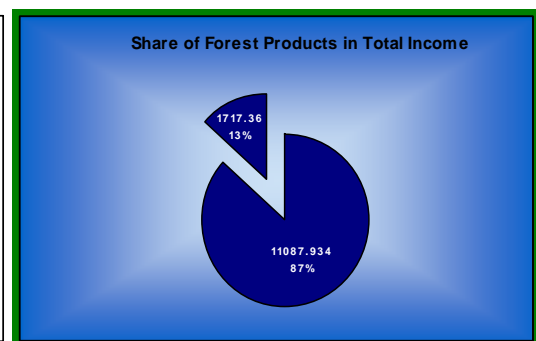


Fig. 66: Income Share of Forest Products

The share of timber income in total CFUGs income is 86% while only 1% share from fuel wood. The share of forestry products income in total income is 87% and rest from different other sources.

CHAPTER VI

CONCLUSION AND SUGGESTION

6.1 Conclusion

Forest management practices in Nepal have changed from exploitative, when major forest products were sold to India, to the protective form of management introduced in 1987. From then on export of forest products was highly restricted and a ban on felling green trees was imposed. Initially, community forestry policy considered the subsistence products (fuel wood, fodder, medical plants, etc) for use by the community. After fifteen years of appropriate management of community forestry areas, many user groups now possess merchantable timber products. Timber marketing is the major source of income in the studied user groups. The average consumption of wood and wood products is estimated to be 0.7 cub. m. for the entire world; the corresponding figures for the developing and developed countries are 0.5 and 1.2 and , the US has the highest rate, 2.4.

There are 8 CFUGs, in average, involved in timber marketing in this district in the five year. The timber trade in highest quantity outside CFUG is done in 063/64 FY year. Similarly, least timber supply outside CFUG is in FY 060/61 (only 55 cft). The analysis shows that Takanja CFUG has sold 11,726 cft of timber altogether in five year which is 35%. Least is by Satidevi CFUG 1265 cft in five studied fiscal year which comprise only 4%. The demand and supply situation of timber is compatible with the no of hhs. As there increase in hhs no, increase in the demand of timber by CFUGs except CFUGs in Takanja. The share of timber marketing by studied CFUGs is 36% in five year period. The total percentage of timber extraction from the CFs is only 39% than the their stock. This shows that still there is the over stocking of the timber in the studied CFUGs. But it is believed that there is no such stocking as the data presented here; there must be more timber extracted due to the margin in measurement.

More than half (55%) of the trade related respondents are ignorance about whether timber marketing from community forest is in right direction or not. Though transportation is the seasonal problem, 25% responded that it is also a most influential problem. As sometimes quantity and quality also determines the timber marketing trend of some region, area or CFUGs. Here, about 10% believed it as a most influential in timber marketing process. 45% categorize technician availability as not a big problem and ranked the problem in a last order. As majority of the respondents are buying timber from middle men in the Terai

and not directly linked with the CFUGs, 50% are not known whether the demands of users are fulfilled or not. Traders interviewed are of different type. Some have their business with only CFUGs while some have only TCN. Some other have made their business easy by making good relation with the middle men working for national forests in the Terai region.

The 75% of the users are agreed on the procedure adopted for the marketing of timber is in a right direction. Similarly, 98% of the users agreed on timber selling is done outside CFUGs after the need fulfillment of all the users. But only 5% believe market as most influential problem. Transport is affecting at a large extent in the timber marketing in this district and generally timber is send in the market in the coming year and probably this is the reason that 23% takes it as the most influential affect in timber marketing. This problem as major is taken by 11% while 18% take it as a negligible problem. The share of timber income in total CFUGs income is 86%, 1% share from fuel wood and the remaining 13% from different other sources.

Some studied CFUGs have cut more timber than allowable cut due to the need of money for community development work. CFUGs that have cut more timber than the prescription, has been punished from DFO. TCN in this district though is selling timber but collecting it from outside district. FPDB has been formed but not active in this district.

6.2 Suggestion

It is one of the main timber consuming industry in the country so the timber business should be focused by the government sector to enhance the industry capacity and fulfilling the timber demand of the urban people. Sometimes people without PAN NO are agreed to pay more money for the timber but due to current provision without PAN NO no one are allowed to compete in the bidding process. So the provision for giving chance to the neighboring people to compete without PAN no may benefit the users.

The monitoring of timber extraction should be done regularly so that CFUGs could not exploit the timber more than the annual prescription. Along with it should also be taken in mind that overstock shouldn't be there in the forest keeping in mind the sustainable forest management. The knowledge of trend analysis in timber marketing will be of great help to us in taking decisions regarding inventory, production, purchases and sales policies so as to forecast the results and is very important tool in the hands of researchers. Though they shared the view that due to technician's exercise in inventory work makes us easy to manage the forest properly but they also blamed due to less frequent visit of the leading regional technician in the field delays the work of the timber selling and so becomes a major problem because in the absence of consent from field level in charge nothing is possible to do timber relating work.

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Appendix 1: Content Analysis

A. Checklist for CFUGs

- | | |
|---|------------------------------|
| Q1. Name and address of the CFUG: | Q2. CF handed over year: |
| Q3. CF revision year: 1st revision year: 2nd revision year: 3rd revision year: | |
| Q4. Total area of CF: | Q5. Total no. of blocks/ha.: |
| Q6. Total number of a. HHs: and b. Total populations: | |

c. Dalit HHs:

d. Janajati HHs:

e. Other HHs:

Q7. Total annual timber demand/supply of CFUGs

Species	Total demand (cft)	Total timber supply from (cft)			Surplus	Deficit	Remarks
		CF	PF	Others			

Q.8 Annual demand/supply of other forest products

Particulars	Annual demand (bhari/kg)	Annual supply from (bhari/kg)			Surplus (bhari/kg)	Deficit (bhari/kg)
		CF	PF	Other		
Firewood						
Fodder						
Bedding materials						
others						

Q9. Total income and expenditure of CF (in Rs.)

SN	FY/Species	060/061		061/062		062/63		063/64		064/065		Remarks
		income	expend	income	expend	income	expend	income	expend	income	expend	

Q10. Income obtained from timber trade

	060/061			061/062			062/63			063/064			064/65		
	selling of timber inside CFUG	Selling of timber outside CFUG	other sources	selling of timber inside CFUG	Selling of timber outside CFUG	other sources	selling of timber inside CFUG	Selling of timber outside CFUG	other sources	selling of timber inside CFUG	Selling of timber outside CFUG	other sources	selling of timber inside CFUG	Selling of timber outside CFUG	other sources
Sal															
Khair															
Uttis															
Simal															
Other															

Q11. Expenditures**Q11. (a) Expenditure in Forest Development Work**

SN	Name of CFUG	Sources of Expenditure	060/61	061/62	062/63	063/64	064/65	Total
1		Fireline						
2		Forest watcher						
3		CF constitution/Workplan						
4		Nursery/seedling production						
5		Plantation						
6		Godmel						
7		Equipment support to DFO/Ilaka						
8		Technician Expenditure						
9		Other						

Q. 11. (b) Expenditures in community development

Sectors	Expenditures (Rs)					Remarks
	060/61	061/62	062/63	063/64	064/65	
Roads						
Fireline						
Electricity						
School support						
CFUG building						
Scholarship						
Others						

Q12. Have CFUG audited their expenditures?

Audit reports of the Years					Remarks
060/61	061/62	062/63	063/64	064/65	If yes √ if not leave

Q13. What are the comments on the audit reports?

Q14. What are the strategy for the sell of surplus timber outside CFUG?

Notice of bidding (detail)		
Personal contact		
Inter group linkage		
Advertisement		
Credit facility		
Commission to middlemen		
Others		

Q15. General trend of highest price in the bids

Lowest: Rs. **Highest:** Rs.

B. Checklist for Other than CFUGs (TCN, DFPSB etc)

a(i). Timber collection and trade by Timber Corporation of Nepal

Species	060/61			061/62			062/63			063/64			064/65			Remarks
	Timber (cft)			Timber (cft)			Timber (cft)			Timber (cft)			Timber (cft)			
	collected	traded	revenue (Rs)	collected	traded	revenue (Rs)	collected	traded	revenue(Rs)	collected	traded	revenue(Rs)	collected	traded	revenue(Rs)	

a(ii). Firewood collection and trade by Timber Corporation of Nepal

Species	060/61			061/62			062/63			063/64			064/65			Remarks
	Firewood in Chatta			Firewood in Chatta			Firewood in Chatta			Firewood in Chatta			Firewood in Chatta			
	collected	traded	revenue(Rs)	collected	traded	revenue(Rs)	collected	traded	revenue(Rs)	collected	traded	revenue(Rs)	collected	traded	revenue(Rs)	

b(i). Timber collection and trade by District Forest Product Supply Board

Species	060/61			061/62			062/63			063/64			064/65			Remarks
	Timber (cft)			Timber (cft)			Timber (cft)			Timber (cft)			Timber (cft)			
	collected	traded	revenue (Rs)	collected	traded	revenue (Rs)	collected	traded	revenue(Rs)	collected	traded	revenue(Rs)	collected	traded	revenue(Rs)	

b(ii). Firewood collection and trade by District Forest Product Supply Board

Species	060/61			061/62			062/63			063/64			064/65			Remarks
	Firewood in Chatta			Firewood in Chatta			Firewood in Chatta			Firewood in Chatta			Firewood in Chatta			
	collected	traded	revenue(Rs)	collected	traded	revenue(Rs)	collected	traded	revenue(Rs)	collected	traded	revenue(Rs)	collected	traded	revenue(Rs)	

c. Number of Community Forest User Groups involved in Timber Marketing

060/061	061/062	062/63	063/064	064/065	Remarks

Appendix 2: Key Informant Interviews

A. Checklist for interview with industry personnel, bidders and the traders

Name/Address:

1. What are the name of your industry ?
2. What type of industry it is ?
3. Which species are used in your industry in a larger quantity ?
4. What are the sources of the raw material ?
 CFUGs of Kaski district CFUGs from Outside Kaski Private Forest/land
 DFO/TCN
5. What are the price for the mostly used timber?
6. How much transportation cost do you have to pay per cubic feet?
7. What form of timber do you buy?

a. Green/dry logs b. Round/Converted

8. From where do you get more qualitative timber ?

CFUGs of Kasi district CFUGs from outside Kasi Private Forest/land DFO/TCN

9. How much timber of which species do your industry consume annually ?

i. Sal ii. Sissoo iii. Salla iv. Aanp v. Other

10. From where do you prefer to buy timber and why ?

11. From where do you like to buy timber ?

CFUGs of Kasi district CFUGs from outside Kasi Private Forest/land DFO/TCN

12. From where do you feel easier in getting timber ?

13. From where it is cheap to buy timber for your industry ?

14. What are the barriers in taking timber from CFUGs?

Problems	Ranking				
	1	2	3	4	5
Legal					
Market					
Transportation					
Quantity and quality of Timber					
Technician support					

15. Who should take initiative to solve the problem ?

- i. Users group
- ii. Forest products entrepreneur
- iii. Forest Office

16. Do you think the extraction of forest products from CF is in a proper way ?

- i. Yes ii. No iii. Don't know

17. Is the timber extraction from CF is done after fulfillment of the needy users ?

- i. Yes ii. No iii. Don't know

18. What do you think about the extraction of timber in the near future?

19. How the extraction process of timber from the community forest can be made easier ? Suggestion, Please.

B. Checklist for interview with CFUC member and general members

1. Have your CFUGs sold timber outside your CFUGs ?

2. If yes, which species is traded and at what quantity ?

3. What form of timber do you sold outside CFUGs ?

a. Green/dry logs b. Round/Converted

4. What process have you been followed during the sale of timber outside CFUGs ?

Assembly decision Personal contact CFUG/CFUGs relation Tender

5. What types of problem have you faced during the sale of timber outside CFUGs ?

Problems	Ranking				
	1	2	3	4	5
Legal					
Market					
Transportation					
Quality and quantity of timber					

Technician support					
--------------------	--	--	--	--	--

6. Is the procedure adopted are appropriate for selling of the timber outside the CFUG ?
 Yes No Don't know
7. Is the timber extraction from the CFUGs in a right direction? Yes No Don't know
8. Are the marketing of timber after the fulfillment of demand of needy users ?
 Yes No Don't know
9. What would you recommend for the better/easy process of timber extraction from CFs?

Appendix :3 Extraction of Timber from the Community Forests

SN	Name of the CFUG	Address	Fiscal Year														Total	
			060/61			061/62			062/63			063/64			064/65			
			Within CFUG	Outside CFUG	Other	Within CFUG	Outside CFUG	Other	Within CFUG	Outside CFUG	Other	Within CFUG	Outside CFUG	Other	Within CFUG	Outside CFUG		Other
1	Bhulbuladevi CFUG	Bharatpokhari-1	0	0	31	63.36	291	320	80	280	0	140	606	0	520	522.31	0	313
2	Satidevi CFUG	Bharatpokhari-5	0	0	0	100	0	0	80	0	0	120	424	0	0	541	0	
3	Takanja CFUG	Sidda-1,2	0	0	0	148	2487.89	0	541	1812.89	0	32	3269.69	0	675	2760.4	0	1172
4	Rithekhola CFUG	Sidda-3	0	0	0	95	2582.25	0	0	1029.91	0	0	2779.39	0	150	2625.34	0	920

5	Siddeshwor CFUG	Sidda-4	0	55	0	555	60	0	90	1465.93	0	414	3448.1	0	214	2064.54	0	836
Total				55	31	961.3	5421.14	320	791	4588.73	0	706	10527.2	0	1559	8513.59	0	3

Note: Other support denotes support given to school or other public activities without cost.

Note: In Takanja CF, 682.77 cft in FY 064/65 is from fireline trees.

Appendix :4 Income (Nrs.) Obtained from Different Sources Except Timber and Firewood

SN	Name and of CFUG	Address	Name of Sources	Fiscal Year					T
				060/61	061/62	062/63	063/64	064/65	
1	Bhulbhuladevi CFUG	Bharatpokhari-1	tender form	0	10000	12000	10000	900	3
2			new member entry	0	0	0	0	0	
3			application fee	0	0	0	0	0	
4			punishment	0	0	0	0	0	
5			tender form	0	0	0	0	0	
6			sale of users things	0	0	0	0	0	
7			van pravesh	0	0	0	0	0	
8			renewal of membership	0	0	0	0	0	
9			sale of oranges	0	0	0	0	0	
10			khar	0	0	1482.2	0	0	14
11			support from different organization	0	0	0	0	0	
12			constitution/workplan preparation	0	0	0	0	0	
13			for ticket	0	0	400	0	350	
14			Bank Interest	0	258	0	0	0	
15			previous balance (cash)	0	14006	105375	0	0	1
			teacher application	0	0	0	0	0	
			other income	0	0	0	0	0	
			Total	0	24264	119257	10000	1250	1
SN	Name and of CFUG	Address	Name of Sources	Fiscal Year					T
				060/61	061/62	062/63	063/64	064/65	
1	Satidevi CFUG	Bharatpokhari-5	tender form	0	0	0	15000	10000	1
2			new member entry	0	0	0	0	0	

SN	Name and of CFUG	Address	Name of Sources	Fiscal Year					T
				060/61	061/62	062/63	063/64	064/65	
			application						
17			other income	10465	0	630	3000	0	
			Total	25895	31800	293363	473714	70515	8
1	Ritthekhola CFUG	Sidda-3	tender form	0	6100	7500	10000	9000	
2			new member entry	0	0	0	0	0	
3			application fee	0	545	0	0	0	
4			punishment	0	15000	7500	7500	0	
5			sale of users things	0	0	0	0	0	
6			van pravesh	0	0	0	0	0	
7			renewal of membership	0	0	0	3750	3800	
8			sale of oranges	0	7530	0	8000	12000	
9			khar	0	0	0	0	0	
10			support from different organization	0	215	0	0	0	
11			constitution/wor kplan preparation	0	0	0	0	0	
12			for ticket	0	0	0	0	0	
13			Bank Interest	0	2690	0	4644	0	
14			previous balance (bank)	0	17940	257840	2000	0	2
15			previous balance (cash)	0	0	21629	0	0	
16			teacher application	0	500	0	0	0	
17			other income	0	3190	0	0	0	
			Total	0	0	78000	11000	0	8
				0	53710	372469	46894	24800	4

SN	Name and of CFUG	Address	Name of Sources	Fiscal Year					T
				060/61	061/62	062/63	063/64	064/65	
1	Siddeswor CFUG	Sidda-4	tender form	0	0	10000	6000	900	
2			new member entry	100	0	2000	2330	0	
3			application fee	0	0	0	0	40	
4			punishment	0	0	6000	6000	900	
5			sale of users things	0	0	0	0	0	
6			van pravesh	0	0	0	0	0	
7			renewal of membership	7100	800	0	0	1260	
8			sale of oranges	0	0	0	0	0	

9			khar	0	0	0	0	0	
10			support from different organization	0	0	0	0	0	
11			constitution/workplan preparation	0	0	0	0	0	
12			for ticket	0	0	0	0	0	
13			Bank Interest	0	0	0	848.4	0	
14			previous balance (bank)	0	0	0	45308	10308	55
15			previous balance (cash)	0	0	11653	9692.1	0	21
16			teacher application	0	0	0	0	0	
17			other income	0	0	0	0	0	
			Total	7200	800	29653	70179	13408	1

Appendix 5: Name List of Key Informant from CF Committee member and General Users

SN	Name of The Respondent	Address
1	Mr. Shankar Adhikari	Bhulbhula Devi CFUG, Bharatpokhari- 1
2	Thaman Singh Magar	"
3	Chhabilal BK	"
4	Dhruba Thapa	"
5	Madhu Thapa	"
6	Krishna Bdr. Thapa	"
7	Kima Thapa	"
8	Bhim Bdr. Gurung	"
9	Tara Maya BK	"
SN	Name of Person	Address
1	Jibanath Lamichhane	Satidevi CFUG
2	Krishna Bdr. Baniya	"
3	Rajendra Pd. Paudel	"
4	Yanga Pd. Lamichhane	"
5	Tika Devi Lamichhane	"
6	Bishnu Maya Parajuli	"
7	Gauri Thapa	"

8	Badrika Baniya	"
9	Hari Pd. Paudel	"
SN	Name of Person	Address
1	Ms Khima Devi Bastola	Takanja CFUG
2	Apsara Paudel	"
3	Ujeli BK	"
4	Krishna Bdr. BK	"
5	Prem Jung Shahi	"
6	Bharat Chhimal	"
7	Bishnumaya Pariyar	"
8	Rajan Acharya	"
9	Dambar Bdr. Thapa	"
SN	Name of the Person	Address
1	Amrit Bdr. Acharya	Rittheholad CFUG
2	Buddi Bdr. Basnet	"
3	Hira Basnet	"
4	Durga Parajuli	"
5	Manmaya Rana	"
6	Surendre Jung Shahi	"
7	Ganga Rana	"
8	Purnimaya Rana	"
SN	Name of the Person	Address
1	Sher Bdr. Shahi	Siddeswor CFUG
2	Min Bdr. Shahi	"
3	Nar Bdr. Malla	"
4	Santa Bdr. Malla	"
5	Ammar Bdr. Singh	"
6	Sukraraj Shahi	"
7	Santosh Shahi	"
8	Manirah Shahi	"
9	Kopila Malla	"

Appendix 6: Name List of Key Informant from Industry Personnel, Bidders and the Traders

SN	Name of the Respondent	Name of Industry	Address
1	Surya Narayan Lamichhane	New Suraj Kastha Udyog	Pokhara Municipality- 9
2	Bishnu Prasad Baral	Jalpa Kastha Udyog	Pokhara Municipality- 8
3	Basudev Paudel	Chalise Kastha Udyog	Pokhara Municipality- 4
4	Aanand Ranjit	Lokapriya Saw Mill	Pokhara Municipality- 4
5	Amrit Sunuwar Rai	Thuldai Saw Mill	Pokhara Municipality- 10
6	Gobinda Bahadur Thapa	Furniture Udyog	Pokhara Municipality- 15
7	Badri Pokharel	Nav Nagmani Kastha Udyog	Pokhara Municipality- 10
8	Niranjan Ranjit	Sanjiv Saw Mill	Pokhara Municipality- 10
9	Tika Karki	Pokhara Kastha Udyog	Pokhara Municipality- 10
10	Dayashankar Gautam	Kushal Kastha Udyog	Pokhara Municipality- 11
11	Bhola Baral	Machhapuchhre Furniture Udyog	Pokhara Municipality- 11
12	Mohan Kumar Ranjit	Ranjit Kastha Udyog	Pokhara Municipality- 11
13	Khim Bahadur Thapa	Thapa Kastha Udyog	Pokhara Municipality- 1
14	Navraj Subedi	Amrit Furniture Udyog	Pokhara Municipality- 1
15	Ran Bahadur Gurung	Indrayani Saw Mill	Lekhanath Municipality- 12
16	Ngyan Bahadur Gurung	Saw Mill	Lekhanath Municipality-11
17	Kamal Bahadur Basnet	Lamachaur Kastha Udyog	Lamachaur- 3
18	Junge Damai	Ram Saw Mill	Puranchaur-6
19	Amrit Bahadur Karki	Navdurga Saw Mill	Pokhara Municipality- 4
20	Anilraj Koirala	Bindabasini Kastha Udyog	Pokhara Municipality- 9

Appendix :7 Photo Essays



e. Timber Extracted from the CF for Marketing



f. Timber Depot of a Saw Mill