

CHAPTER ONE

INTRODUCTION

1.1 Background

The forest in Nepal is known as wealth of country which provides the popularly used proverbs "Hariyo Ban Nepalko Dhan". Forest alone contributes 10 percent of total national GDP, livestock get 40 percent of the total fodder from forest foliage (Banko ganakori, 2005). And fuel wood contributes 76 percent of the total energy resource which comes from forest resources (NPC; 1998). Forest has not only the economic value but also the aesthetic values, services values, beauty values, option values etc. similarly, protective, regulatory & productive function of the forest are invaluable for the organism and environment.

The forest has been contribution to the social, religious, cultural economic and environmental sector from the early human civilization, livestock rearing the forest sector have jointly contributed to the agricultural development of Nepal. While the agricultural contributes two third percent of total income in average, the forest sector has occupied one fourth percent of it.

The conservation and development of the natural resource like forest is impossible from the government effort alone. Regarding this fact, the concept of community forestry development programme was introduced in Nepal since 1978/79 in the name of "Panchayati conservation Forestry." After the experience of about a decade, there was made a contemporary change and it

was again started from the beginning of 1990 as the aim of 'Master Plan' for the forestry in 1988. Since then community forestry development programme is being implemented with collaboration of the local people and financial support of donor agencies.

In the context of Nepal, forest coverage was more than 45 percent, of the total area of the country in 1964; this is being reduced to 29 percent by 1964; this is being reduced to 29 percent by 1998 (NPC, 1998: 290). But it is improved at the end of tenth plan as well as beginning of the interim plan. That is it becomes 39.6 percent of the total area. The population of Nepal has grown during last decade at the rate of 2.2 percent per year whereas forest has degraded at an annual rate of 1.7 percent per year (Banko Jankari, May, 2005).

In rural Nepal, forest is an integral part of life. people depends on forest for fodder, fuel wood, timber, herbs, medicine and other forest products which are daily essential. In addition to this, forest is important for the settlement of wild animals and birds. Mainly, three types of forest are found in Nepal such as coniferous forest, deciduous forest and evergreen forest, which are available in Mountain hill and terai respectively.

The community forestry development programme is a success storm in our country. It is considered as a successful example of the public oriented development programme. Under this program 14,227 user group have been formed till 2005/06 with 11, 85,563 nectars of land have been handed over to user's group in this programme. And 16, 35,667 households are involved (Economic Survey, 2005/06).

Forest Act, 1993 defined community forest as a national forest handed to in user's group for its development, conservation and utilization for collective benefit. (Forest Act, 1993).

Community forestry is a kind of system in which the low people are all in all for its preservation, promotion, management and utilization. In doing so, consumer committee is formed out of the total members who belong to it. It is responsible for handing its activities like preserving, managing, planning for its development and so on. In addition, it sells its products among its members in low cost. The certain percentage of this income is utilized for the development and preservation of the forest and the rest for social works like provision of drinking water, irrigation facility, community development and so on

Community forestry is small scale village level forestry practice where decisions and actions are often made on the collective communal basis for establishment, management, harvesting of forest crops, receiving a major proportion of Socio-economic and ecological benefit from pure forest cropping and food crops agro-forestry on the other (Kayastha, 1991).

The product of community forestry like medicinal herbs and aromatic plants are important. So, they are important components for income generated activities of community forestry which we have recently realized. Bilateral projects such as the Nepal-UK community forestry projects (NUKCFP) are beginning to show interest in the potentiality of this community forestry in increasing the incomes of forest user groups involved in the community forestry. Income could be increased through improvement in cultivation, harvesting and marketing systems. So far as a part of income generation activities not only the community forestry but also all kinds of forestry should be included in the success of this program.

1.2 Historical Background of Community Forestry in Nepal

Community forestry is the main thrust of Government of Nepal forest policy and it is aimed at providing basic needs and economic benefits to the rural population. The master plan for the forestry sector of Nepal 1988 has clear guidelines to place all community forestry management works under the control of user groups in order both to ensure equitable sharing cost and

benefits among the user and encourage sustainable forest management. It is intended that this will ensure equitable sharing of cost and benefits among the stakeholders and encourage sustainable forest management in Nepal. The government has introduced progressive, "New forest Act 1993" and "By-law 1995." In spite of these enlightened ideas for the development of sustainable forest management systems equitable cost and benefits sharing among user have become one of the most challenging issues in planning and development of community forest. The following discussion provides the development process of community forestry in Nepal from the seventh to interim plans has seen discussion.

1.2.1 Forestry Sector Under seventh Plan

Nepal's development planning is based on a series of periodic plans. The seventh plan, (1985-1990) also makes explicit remarks in regard to forest management. The first objective set for forestry was to fulfill the people's daily needs of forest products and this was to be achieved in part "by handing over the government forest to the community" (G/N, 1985).

There was a Master Plan for the forestry sector (MPFS, 1987/88). The government under took the development of a Master Plan for the forestry sector (MPFS) which was a major planning exercise designed to take forestry in the twenty first century, the forestry policy has been mentioned in the MPFS 1988. So, this plan touched all aspects of forestry and forestry related area. The long-term and short -term objectives of the policy were as follows:

A) Long-Term Objectives

- a. To regularize supply of the peoples basic needs for timber, fuel wood, fodder and to the forest products.
- b. To contribute to food production through effective coordination in forestry and agriculture forming system.

- c. To protect the nation's landmass from erosion floods, land slides desert and similar environmental imbalances.
- d. To preserve ecosystem and genetic resources.
- e. To contribute to the national and local economy and create opportunities for employment and income generation through forest management and the development of forest resource base industries.

B) Short- Term Objectives

The Short-term objectives are:

- a. To encourage popular participation in management, protection and development of forest resources.
- b. To prepare necessary legal base for enhancing the contribution of an individual group or institution in managing, protection and developing forest resources.
- c. To strengthen and reform the organizational structure of the forestry sector in order to achieve organizational goals.

1.2.2 Forestry Sector under Eight Plan

G/N has emphasized the community forestry programme since seventh plan and regularized it to the eight five-years. The eight five year plan (1992-97) has the following objectives relating to the forestry sector.

- i. To stabilize the supply of timber, fuel wood, fodder and other forest products, this is necessary for the daily life of the common people.
- ii. To enhance the productivity of forest products and ensure the supply of new materials to forest based industries with a view is contributing to the national economy.
- iii. To increase the income and employment opportunities from forestry sector to numerous small and marginal families

- iv. to develop national parks wild life reserves and protected areas for the conservation an promotion of bio-diversity and create natural recreational areas of tourist attraction

1.2.3 Forestry Sector Under ninth Plan: (1997-2002)

The policies and working policies adopted to protect and develop the forestry sector under ninth plan were similar to those of eight plans. The policies adopted in ninth plan were based on the following guiding principles.

- a. Participatory management
- b. Management based on a situational system.
- c. Increase in Production, self-sustainable development and poverty alleviation.
- d. Income oriented, self-standing and user centered management.
- e. Management of regenerated natural resources.
- f. Women empowerment.

Under sub-sectored programme, high priority has been given to community and private forest development programme. The objectives of this programme regarding to the plan were:

- a. To produce forest products necessary for people.
- b. To increase availability of raw material for industries.
- c. To increase the opportunities of employment for income generation for the poor and marginal people.

During ninth plan, high priority was given to CF for making FF programme effective and dynamic through regular monitoring and evaluation relating to CF by going necessarily technical and other basis assistance after handing over forest to user groups and the training to give technical support to users before the working operational plan.

1.2.4 Forestry Sector under Tenth Plan (2002-2007)

The main purpose of this sector is to help the national goal of reducing poverty. For this, it is to increase the opportunity of employment by adopting

participatory system by its management and preserving flora herbs Geo and water shed, ion-diversity and promoting forestry entrepreneurs.

Sectoral Objectives

- a) The main objectives of this sector are to help national goal in reducing poverty by increasing employment opportunities, preserving and managing the forest flora herbs, agro and watershed, bio- diversity and promoting forest entrepreneurs.

A) Main Strategies

- a. To preserve forest flora, and fauna including bio-diversity and t genetic sources.
- b. To promote local people's participation focusing on, geo and water she sector.
- c. To test scientific management of community forestry by forming the group of local people in forestry, by for mining the group of local people in suitable place out of national forest, it will provide wood to the wooden industries and raw materials.
- d. To in crease participation and accessibility of the people especially backward women and dalits for extension of community lease hold and cooperative forest.

B) Desired Achievements

a. Contribution to Poverty Alleviation and Human Development

The capacity of governmental, non-governmental, local and concerned organizations will be developed through the training, seminars and empowerment programme that are concerned with development sources management, social development programme. As a result nearly 5 lakhs women and backward groups of local forestry user group will be benefited from the services provided by these organizations.

b. Contribution to Employment and Income Generation

253,000 households will get income generating opportunity through the community forestry development program and 25,680 households through leaseholds forest 2,78,680 households will get income generating opportunities.

7250 persons will be engaged in work throughout the year by community forestry programmes and 4880 persons after the implementation of Intensive forestry management work plan i.e. 12,130 persons in total will be engaged in work whole year.

1.2.5 Forestry sector under three year interim plan (2007-2010)

At the beginning of the tenth plan, forest areas were managed through formation of some 12 thousand community forest user groups. By the end of the plan period some 14,500 community forest user groups have been formed and they are managing some 1.24 million hectars of forest areas. In addition to community forests, more than 950 leasehold forest consumer groups have been formed to create income opportunities for people living below poverty lines. These groups are managing 3700 hectares of forest, resulting in improvement of the quality of forest as well as protection of forest, environment and biodiversity. This is also resulting in easy supply of forest, products for people depending on the forest, sustainable management of forests, as well as implementation of community development woks. Through the means of community forest user groups, gender balance, community empowerment, and institutional development works are increasing. In the context of sustainable conservation of Nepal's biodiversity, 19 percent of the total land is covered by conservation areas.

The objectives of the forestry policy in interim plan are as follows:

- i. To develop internal market, promote exports and generate employment by promoting forestry and forestry base industry.
- ii. To ensure regular supply of forest based products by long-term management of aquatic and geographical diversity forest plants.

To develop these objective following policies will be implemented.

1. The necessary, legal provisions and procedural process will be reformed to effectively manage the development of forestry.
2. For the long term development of forest and equate areas the peoples participation will be ensure theory generating opportunities for the income from long- term management of forest, forest related product herbs land and aquatic environment geographical diversity and forest related products business.
3. Some 35 percent of the income of the community forestry will be invested on the Dalit, indigenous nationalities, Madheshi, handicapped, women and poor people's productive businesses.
4. Priority will be given to local Tharu community indigenous nationalities & Madeshi (Muslim and backward community) in Terai for the management of community forestry.
5. A package program will be brought for Seti, Mahakali, Rapti & Karnali by declaring them 'Herbs Zone'.

1.3 Statement of the Problem

The main issue of an aspect of economic effect of community forestry which conduct through Shanti community forestry of Lalmatiya VDC in Dang is to identify whether this community forestry has done social works like construction of roads, schools etc and also to identify how this community forestry is important in the local economy.

Community forestry has been a changing process in Nepal since its initiation in 1970s. The main plan of this strategy is to hand over governmental land for management by community forestry user groups. These are based on community people who use a particular forest for their daily and household needs. The achievements to date have been impressive where the community forestry programme has become fully -operational, particularly in the hilly

areas where communities have used the generated income to build public facilities like schools, roads etc. and have greatly improved their lives. There has also been significant positive environmental impact.

During the working period, the community forestry has following problems which are as follows:

1. How this community forestry can mobilized the villagers?
2. How this community forestry can get a lot of income?
3. How this community forestry can perform so many social work?

These issues have been attempted to be solved in this study. .

Hence, this study support infavour of economic impact on society of Shanti Community Forestry of Lalmatiya VDC, Dang.

Actually, Community Forestry can mobilize the villagers equally. There is no biasness. So, every person can get equal opportunities to serve the society. Not only this, community forestry can get income through selling of timber, fodder, Penalties, Fees etc too. With this income, it conducts so many social services like construction of road, school, increasing the employment in the village.

1.4 Objectives

The general objective of this study is to analyze the importance of Shanti Community Forestry in the local economy.

Specific objectives

We can stipulate the following aspects to analyze the importance of Shanti Community Forestry in local economy.

- a) Road and School
- b) Environment and Income Generation

1.5 Significance of the Study

Community forestry is the most effective programme in a rural agrarian country like Nepal. It makes the people feel that the forest belongs to them and they should look after it carefully.

In Dang district, very limited studies have been carried out about community forestry management system and importance of community forestry in the local economy.

The study will be useful to policy makers, planners and professionals in forestry to consider people's participation roles and importance in forest management more seriously.

Similarly, it helps to researchers to develop skill and confidence on the research purpose as well as enhance the scope and importance of community forestry in the local economy.

Hence, the contribution of this study is to provide valuable information issues of participation, equity, management and importance in community forestry development in district and national level.

1.6 Limitation of the Study

This study has the following limitations:

- a. This study has focused on only one user group (Mourighat & Nanyagaun village of Lalmatiya VDC in Dang district). Therefore, the final outcome of the study may not give the whole picture of other groups.
- b. This study is based on primary data. So, the reliability depends on it.
- c. The study has focused on economic aspect of the participating household only.

- d. It is the memory biasness of the respondents. It is because the households don't keep records of their utilized forest product in Nepal. Hence, the data obtained from interviewing with them have been subject to memory bias.

1.7 Organization of the Study

This study is divided into seven chapters. The first chapter covers background, statement of problem, objectives of the study, limitation of the Study and organization of the study. The Second chapter presents the review of literature. It covers community forestry's concept, development and its effects. Third chapter deals with methodology of the study. The fourth chapter covers the description of the study area and data analysis. The fifth chapter concentrates on an economic impact of community forestry. The sixth chapter describes the management system regarding the community forestry in the study area. And lastly, the seventh chapter presents the summary, conclusion and recommendation.

CHAPTER TWO

REVIEW OF LITERATURE

2.1 Conceptual Framework of Community Forestry

The community forestry concept is a courageous, innovative and future oriented approach towards participatory forest management o by local people. Community forestry program is orderly celebrated as one of the most progressive policy examples of devolving control over forest resources to community based user groups, which has established a viable procedure for handing over the forests to actual groups of users with a legal status as autonomous and corporate institutions with perpetual succession.

D.A Gilmour and R.J Fisher (1992), studied that Community forestry is a social process, concerned with management of forest and tree resource by complex and dynamic social institution and organizations. In addition, the community forestry approach puts the community at the centred rather that the forest. Therefore, title is called “People centered forestry” Community forestry is an actively in which forest managed, protected, and utilized by groups of local people on sustained yield basis and works towards developing their won capability for self-reliance.

CF has proven to be an effective tool for managing and conserving forests where rural people depend on the forests for their daily substance. It also has the potential to reduce poverty by allowing the use of forest and community forest user group (CFUG) resources to improve the livelihoods of the forest and most excluded (CFUG) members LFP and its partners have been developing good practices to ensure that poor and excluded people are targeted and that opportunities actually reach them. These practice made it possible to include there people in CFUG decision making in order to increase their voice, influence and their presence (LFP; 2006:1).

Rabindra Roy in his article "Rural livelihood Time Saved and Community Forestry" described that Community forestry has great potentiality to generate sustainable economic benefits to the local communities at household level and also to support community developments. But, they are in the small scale. If the market develop this situation could be changed. Therefore, there is a need to plan such activities in a large scale that could shift them from subsistence level to the market level. As community forestry program was launched two and half decade ago, to facilitate people in participation on various forest activities. People, no doubt, have been receiving direct and indirect benefits from the forests. Forest is a renewable range of social- economic environmental and cultural benefits and services. This is common, that the rural people are dependent of forest for various products to fulfill their basic needs such as firewood, pole, fodder, leaf-litter, fruit and medicinal plants and to provide other services that are essential inputs into the farming systems energy that are essential for farming system. Forest provides mineral nutrients and energy that are essential for farming system. He has suggested that 2.8 hectare of farmland to sustain the farming system. Further, there may have raised increased in employment opportunities and time saved after the formation of C.F. These would, certainly change the life style of local people.

2.2 Nepalese Context

Nepal is a mountainous country facing many serious environmental problems of forest and land degradation. There are many causes of forest destruction. Due to high population growth, open grazing access, encroachment and the use of as main source fire-wood for cooking, forests are under heavy pressure. The people collect firewood, fodder, timber and all other non-timber forest products and use them without any restriction. Those people who are living near the forest collect more firewood, fodder, timber & others for agricultural equipment. Many other products like fruits, root, crops, herbs, thatch grass etc are collected to sustain their lives.

In order to reduce the depletion of forest, the first community forestry policy through people's participation was introduced in 1978. After restoration of democracy in 1990, a new policy of community forest-1993 was introduced which is being practiced and implemented in rural areas of Nepal. It is highly quantitative based on the social and economic principles.

The National Forestry plan 1976 developed a public co-operation and participation programme to involve people in use and management of local forest. According to that direct benefit from forest made available to public. The forest office started to make alert people for usefulness of protection, the fodder grass and trees seeds were distributed to the rural people. The technical assistance to plant trees was provided by DFOs. Government started to encourage to plant tree through free seed in distribution private plantation and also provide natural forest resources to panchayat organizations as PF and PPF (NFP 1976).

There are many scholars and researchers who have devoted their time to study forestry issue of Nepal. Their efforts to find out the forestry problems and solutions are considering valuable contribution. However, here only some of the literatures of scholars and researchers have been viewed in order to know about the existing status of community forestry in Nepal.

D.A Gilmour and R.J Fishers (1992), identified that Community forestry is not a new concept. It is in fact a very old one: another case of "Old wine in a new bottle." It is our desire to apply modern technologies and ideas to solve age-old problems. In rediscovering of in Nepal, the forestry profession may be doing no more than rediscovering, and redefining a basis role of age old interaction between man and his environment

C.P Upadhyaya (1989), in his study has assessed the perception, role view on distribution of common property forestry (CPF) to determine the factors influencing respondent's view on CPF products distribution and distribution equity. According to him, fact that the distribution of forest product like fodder,

Grass, Timber, paroles, pies, sale leaves etc. should be distributed according to their contribution in community Forestry (CF) management in order to make them full benefited of their involvement. With regards to equitable distribution respondents showed that CPF product should be equitably distributed to the people in the area regardless of their involvement in CPF management and distribution scheme so that long term stability can be maintained. He revealed that socio-economic factors like age, income, caste and education of the household heads, education and age of women of income and education of local leaders significantly attend their perception of CPF management and product distribution.

The production oriented forest module would yield more words and revenue than the protection oriented forest management module over a certain period of time. There would not be any adverse impacts on the environment It is also foreseen that about 3,000 persons' years equivalent jobs would be created annually from the better management of about 25,000 hectors of natural forest [IUCN, 1995).

J. Grownow (1990), in his article, "Nepal Forest User Group" describes the history of Neplals's community forestry programme and argues for an approach to implementation which fosters local empowerment. After decades of disappointment with federal management of forest the Nepalese government enacted legislation in the 1970s to return management to local institutions, under the resumption of community forestry programme, government forests were turned over the Panchayat Party efforts focused primarily on reforestation projects. However, title input from community residents were solicited consequently local people did not perceive these tree plantations as theirs. According to the authors, most forestry personal in Nepal hold that local residents were causing forest degradation through ignorance, subsequent plans to educate local residents were not however perceived in terms of transfer of authority to locals. The author discusses a more recent approach to local empowerment the "User Group". Approach, which recognizes indigenous

knowledge and encourages the formation of local groups which develop their own rules for forest management and use.

S. Adhikari (1998), in his study, has showed the impact of utilization of forest resources and economic condition of people in Dhading District. He has concluded in his study in the following points:

- a. Timber is used for housing and agricultural implements. Similarly, villagers use timber for making furniture like chairs, almari, tools etc. Approximately, 4,616 cubic feet of timber has been used for the construction of total new and old houses and the average is 44 cubic feet. Many Newars and Brahmins have used larger amount of timber for the construction of houses than other ethnic group.
- b. Villagers of this area extract animal bidding in order to obtain high volume of compost manure to fulfill the manure requirement for their farmland. The high volume of compost manure substitute the demand of chemical fertilizer and with the use of compost manure of land will increase.
- c. The interrelation of cropping pattern, the animal husbandry and the forest has been an important feature of the village economy.
- d. From the economic point of view, the use of forest resource is contributing to the people such as an income generation, employment opportunities and in consumption directly or indirectly.

Prakash Giri (2000) suggested that community forestry is a viable strategy for the department of forest to manage the forest resources of the middle hills of Nepal. The users have been found happy about product distribution practices prevalent in their group. The users make an equitable contribution towards protection, management and equitable distribution of return product. He has also mentioned that equity in decision-making and distribution of FUGs funds are more complex processes. However, these processes found to all

cases in his study have maintained relatively well in this regard. These user groups have achieved more equitable decision-making, distribution of funds and economic strength.

Amrit Aryal (2001), identified that Pandey Gaon has high literacy rate i.e. about 77%. They are very much aware of conserving forest. The main occupation i.e. agriculture, cash crops (veg.) have helped to raise people's level of income. Livestock is also other main occupation. After implementing community forestry programme, they were able to enhance their business and agriculture activities. Villagers can get easy accessibility forest product co-operation among people and environmental benefits and community forest has been a source to support development and social works in the village. A temple, electricity and road are the contribution of community forestry in this village.

B.P Kayastha (1991), studied that Nepal has successfully implemented community forestry programme with the active participation of local people forest committee found by user-groups take the responsibility of protecting, plantation and conserving natural forest people participation in stages of decision making, planning and reaping benefits. It has been found that private planting is the most successful component of community forestry programme. Even the poor are willing to participate in community forestry programme because they can collect fuel wood and fodder from the community forests save their time for earning wages.

The potential area of community forest in Nepal is 35,61,600 hectares (61%) of the total national forests. The handing over process of community forestry has achieved a considerable process. As of January 14, 2003, 940,491 (26.41%) hectares of forest area has been handed over to 11,860 forest user groups, which benefit 13,11,771 household (CFD,2003).

Recent experiences in Nepal suggest that CF can yield more than subsistence needs and those FUGs can generate income from a variety of sources including the sale of forest products Fees, Fines and Donations. The income generated from community forest (CF) can and does play an important role in providing local employment and in developing local markets (Malla, 1993, Jackson and Ingles, 1994). In one study, Jackson and Ingles (1994) estimated that the 2000 potential FUGS in one hill districts could generate Rs. 1,90,000,000 each year or , 9.5 times the current budget provided to local government agencies in the exponentially as the number of forest land-over to FUGs increases and the condition of new and regenerating forests' improvements.

Mahesh Raj Dahal in his article “Benefit-cost Analysis of community forest and its distribution Impact on rural Poor” seeks to investigate the equity concern of community forest management with the help of cost –benefit analysis whether recent policy shift towards local community based forest resource management in Nepal have able to address the rural poverty with increased access of community forest resources to rural poorer households. This article compares gross incomes accrue from and gross costs incur of CF to the rich, medium and poor households. Use of two major types of forest produces- consumption based and production based forest products observed in each CFUG as per the forest Act 1993 and forest regulation 1995.

Active participation of poor, women and disadvantaged group in decision-making is critical for effective community forest management and equitable benefit distribution among the users. Poor household, especially those without land, can not use fodder, leaf litter and other agriculture input these are benefits enjoyed mainly by better off households. Timber sold to CFUG members at below market price is mostly purchased and used by better off households. Poor and worse-off households do not have the need or ability to pay for timber. The poorest households do not benefit from the harvesting due to lack of legal provision to sell unused products. The distribution system in CF

is criticized for failing to provide more benefits to the poor households. Some of the recent finding show that C F has in fact made income distribution even worst variation in quality and quantity of community forest between different groups results in some benefits than other groups.

The community forestry in Nepal is said to be unable to be distributed common property forest resource equally and provide a significant contribution to the livelihood of poor and marginalized people. The main reason of community forestry not to be poverty responsive may be the basic policy objective remains only the fulfillment of subsistence needs and its failure to take into account well being benefit approach. More resource generation from the CF depends upon more types and volume of forest products through the productive attitudes of policy rather than rely on conservation of nature gifted available resources like wise, more equitable community forest resources depends on systems and practices of equitable forest products distribution so that poor income households could realized the full value of the share of forest products available to them (Dahal, 2006:103).

Nepal's CF program was originally initiated to achieve the national goal of poverty reduction. But, despite two decades of successful implementation, the programs contribute to poverty alleviation is far from satisfactory. A study was carried to examine how CF funds have been established through the collection of fees, fine and donations, and how these funds actually contribute to poverty reduction. This study has carefully scrutinized the investments made from these funds in order to analyze their impact on poverty alleviation (SANDEE no.11, 2005:3).

The forestry sector of Nepal has strong forward linkages to other sectors of the national economy. The most intensive and pervasive linkage lies with the energy sectors as 78 percent of all energy consumed in Nepal comes from fuel wood. In the absence of coal, gas, oil etc. the Nepalese people are consuming a minimum 300 kg to a maximum of 900 kg of fuel wood per capita per year for

heating and cooking. Fuel wood is also used extensively in brick like kilns, for curing tea and tobacco and in rural industries, restaurants etc. If Nepal could afforest and plants trees wherever feasible and compatible and place the remaining natural forest under a fair level of management and utilization. It can easily fulfill all of its worked land charcoal energy requirements (Dahal & Dahal, 2005:53).

Currently, Tenth Plan (2002 -2007) also emphasis that CF for creating on come generating opportunities for the poor and focuses in the involvement of INGOS and CBOS (community Based Organizations) in carrying out income generating activities for poverty reduction of rural development.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

Research methodology refers to the various sequential steps to be used by researcher in studying a problem with certain object in view. An appropriate research methodology is necessary for an investigation of find out result. In this study, we have tried to find out the effect derived by the user groups regarding the community forestry.

3.2 Source of Information

The study is based on both primary as well as secondary data. The primary data has been collected through the technique of purposive sampling survey. The direct observations by the discussion have been done with forest users by the researcher. The secondary data have been tapped from various types of relevant literature such as journal, articles, dissertations, research report, textbooks, DFO, CFD and DF etc. However, the study is mainly based on the primary data, which has collected from the users of CF. Therefore; the user group member of Shanti Community Forestry is the primary respondent.

Information related to people participation of community forestry operation and their access to resources has been collected. Similarly, participation of users in development process, their status in the society and legal provision made for them has also been documented.

3.3 Methods of Data Collection

The data have been collected with the help of structural, semi structural and open questionnaire covering economic status distribution patter of forest product and available major forest products in the community forest. This includes self appraisal, interview, direct observation and focus group

discussion. Formal interview has been done with the members of the forest users committee of forestry professional to obtain information.

3.3.1 Questionnaire Surveying

The respondents are randomly selected from the FUG members and asked to join the survey. The participants are given survey questionnaires for self administration. Two hundred households have been surveyed through questionnaire. Although, if it is essential that respondents themselves complete the survey questionnaires, face to face discussion, techniques are integrated to complete the questionnaires from basely and illiterate information as well. This is done when the respondent requested to be asked questions in response to the researchers request for self administration. This is because many respondents have never encountered such a questionnaire survey before.

3.3.2 Interviewing

The ideal 'field work' research aims to minimize sampling error and measurement error and yet achieve a maximum breath of courage. This may require a large amount of time and a large budget with limited resources, a compromise has to be made where a target population is scattered over wide hilly areas and inner Terai region. Therefore, interviews are conducted to purposively selected individuals who are directed beneficiaries of community forestry. Economic impact in community forestry is focused in the study. Local leaders, teachers, government employers, women, poor and rich people are also included. Key informants are essentially knowledgeable and in a portion to provide relevant information ideas and insights on a particular subject are also contracted. That is why, a key information focus is considered as a research instrument in field research. Therefore, FUG committee members and employees working on community forestry are interviewed as the key informants for this research.

3.4 Selection of the Study Area

The study area is selected because of the following reasons:

- a. Community forestry has been implemented in this area
- b. Researcher is interested to observe the effect of community forestry and familiar with the area.
- c. This kind of research has not been yet done in this area.

3.5 Sampling Procedure

The population of the study is all 1075 user households in the study area. Out of which, about 200 households have been taken randomly as sample without replacement. Actually, this area lies inner Terai. So, the density of population is high as well as they have been settled very closely. Hence, due to the population and geography, the researcher takes 200 sample households.

3.6 Method of Data Analysis

The data collected from field and respondent have been classified, tabulated and analyzed in terms of simple statistical tools like frequency, percentage and mean and present in the form of tables, pie chart, bar diagram etc. Descriptive method has been taken into consideration to obtain the basic purpose of the study.

Both qualitative and quantitative data analysis techniques are used for the analysis of the collected data. For the analysis of the quantitative data, percentage and mean are used. Similarly quantitative data are analyzed by using descriptive method.

CHAPTER FOUR

DESCRIPTION OF THE STUDY AREA

4. District Background

4.1 Location

Dang district lies in the Mid- Western Development Region of Nepal; it is 27° 52' to 28° 13' N latitude and 82° 2' to 82° 5' E longitude. The area of this district is about 2955 sq. km. its headquarter is Ghorahi (DDC 2006)

4.2 Climate

The climate of Dang varies from tropical to sub tropical. The average maximum temperature is 31° C and the average minimum temperature is 15° C. (DDC, 2006)

4.3 Geography

Dang district has 39 village development committees and 2 municipalities. This district lies 213m to 2058 m high from sea level. This district is surrounded by Chhura and Mahabharat Parbat. So, it is also called Dang valley. The important rivers flowing through this district are Rapti, and Babbai, etc. Almost lands irrigated by river also help to irrigate by Arjun Khola, Rapti and Babai rivers. Others Small River also help to irrigate the land. Similarly, some small lakes are situated in this district. They are, Bharakuna Tal, Jakheda Tal, Charinge Dhaha.

4.4. Population and Ethnicity

The population of Dang district is 4,62,380 which includes 2,28,958 male and 2,33,422 female. The population growth with the rate of 0.8% per year. The number of households are 83,162 with and average size 5 persons. The major ethnic groups of the district are Brahmin, Khhetri, Newar, Magar, Gurung, Tharu, Gupta, Kshetri, Kumal Sharki, Kami, Gharti, Damai etc. (CBS 2001).

4.5 Educational Status

There are 630 members of schools all together (primary, lower secondary, secondary, higher secondary school). And one university, 3 campuses, one Bidhyapith and one technical school. Due to this, the literacy rate of the district is 58% above six year old. Where female literacy is 46.9% and male literacy is 53.1% (DDC, 2006)

4.6 Profile of Lalmatiya VDC

Lalmatiya VDC is located in the eastern region of Dang district which lies in Mid-Western Development Region of Nepal. This VDC is divided into 9 wards. The total population of this VDC is 15854 where male numbers are 7977 and female numbers are 7866. This VDC is connected with Sisahaniya VDC, Hasipur VDC, Goverdiya VDC. This VDC is 40 km away from district headquarter. Most of the people of this VDC have been engaging in agriculture and livestock. Agriculture and rural economy are the main source of the farmers. The main crops, here, are Paddy, corn, wheat and other cash crops such as vegetables, lentil, mustard etc. Buffalo, cow, bullock, goat, poultry farming, pig etc. are the main livestock. People cultivate in traditional way like the people of other similar districts. Animal husbandry is another source of income. Other occupation includes teaching, governmental and non governmental services and sales service. Majority of the population of the VDC are Hindus.

In this VDC, there are almost eight community forestry. Which are responsible to preserve forest and have been done so many civil services. In this VDC one technical school, 2 higher secondary school 5 secondary school, more than 2 lower secondary schools, more than 5 primary schools, one health post and all wards have been used electricity.

Among these things, Lalmatiya VDC is well developed VDC than other VDC of Dang district.

4.6.1 Population Distribution by Caste/Ethnic Group in Lalmatiya VDC.

According to National census report 2001, the population distributed by caste/ethnic group of Lalmatiya VDC has been tabulated in table 4.1.

Table 4.1: Population Distribution by Caste/Ethnic Group in Lalmatiya VDC.

| SN | Caste/ethnic group | Population | Percentage |
|-------|--------------------|------------|------------|
| 1 | Bahun | 3171 | 20% |
| 2 | kshetri | 3171 | 20% |
| 3 | Magar | 792 | 5% |
| 4 | Kami | 317 | 2% |
| 5 | Sarki | 317 | 2% |
| 6 | Tharu | 7135 | 45% |
| 7 | Gurung | 317 | 2% |
| 8 | Damai | 159 | 1% |
| 9 | Badi | 79 | 0.5% |
| 10 | Others | 396 | 2.5% |
| Total | | 15854 | 100% |

Source: Census 2001 CBS.

According to this table, there are more than 10 castes viz. Bahun, Kshetri, Magar, Kami, Sarki, Tharu, Gurung, Damai, Badi, and others. Among them, Tharus are large number which takes 45% of the total population of this VDC.

4.6.2 Population by Religion

Table 4.2: Population by Religion

| Religion | Population | Total Population |
|-----------|------------|------------------|
| Hindu | 15,220 | 96% |
| Buddha | 159 | 1% |
| Islam | 318 | 2% |
| Christian | 79 | 0.5% |
| others | 79 | 0.5% |
| Total | 15854 | 100% |

Source: Census 2001 CBS

According to table no 4.2, most of the people lived in Lalmatiya VDC are Hindus i.e. 96%, Buddha 1%, Islam 2% etc. This table shows that most of the people follow the Hindu religion.

4.6.3 Population by Mother Tongue

Table 4.3: Population distribution by mother Tongue

| Mother tongue | Population | Percent |
|---------------|------------|---------|
| Nepali | 7768 | 49% |
| Magar | 159 | 1% |
| Tharu | 7134 | 45% |
| Gurung | 159 | 1% |
| Awadi | 476 | 3% |
| others | 159 | 1% |
| Total | 15854 | 100% |

Source: Census 2001 CBS

According to table no. 4.3, large percent of people's mother tongue is Nepali i.e. 49% and 2nd large percent of people's mother tongue is Tharu i.e. 45%. Similarly 1% people's mother tongue is Gurung and Magar, 3% people's mother tongue is Awadi and 1% other mother tongue.

4.6.4 Source of Firewood

Table 4.4: Source of Firewood

| Source | Household | Percent |
|-------------------|-----------|---------|
| Private Forest | 150 | 5.17% |
| Community Forest | 2270 | 78.3% |
| Leasehold Forest | 50 | 1.72% |
| Government Forest | 399 | 13.76% |
| others | 159 | 1.05% |
| Total | 2899 | 100% |

Source: DDC report 2001.

From the above table, the community forestry is the main source of firewood where 78.3% household is dependent on it. Second higher percentage i.e. 13.76% households depending on the governmental forestry and from leased forestry 1.72% household utilize it whereas 1.05% others.

4.6.5 Population Distribution

According to the national census report 2001, ward wise population distribution of this VDC has been tabulated as follows:

Table 4.5: Ward-Wise Population Distribution

| Ward no. | Total household | Male | Female | Total | Percent |
|----------|-----------------|------|--------|-------|---------|
| 1 | 145 | 476 | 446 | 922 | 5.81 |
| 2 | 118 | 423 | 386 | 809 | 5.10 |
| 3 | 749 | 1927 | 1873 | 3800 | 23.96 |
| 4 | 380 | 1022 | 1000 | 2022 | 12.75 |
| 5 | 219 | 751 | 720 | 1471 | 9.27 |
| 6 | 127 | 412 | 379 | 791 | 4.98 |
| 7 | 298 | 716 | 744 | 1460 | 9.2 |
| 8 | 477 | 1284 | 1214 | 2498 | 15.75 |
| 9 | 386 | 966 | 1115 | 2081 | 13.12 |
| Total | 2899 | 7977 | 7877 | 15854 | 100 |

Source: Census 2001, CBS

According this table, there are 9 wards in Lalmatiya VDC. The ward on. 3 is the biggest ward in terms of population and household. The ward no. 6 is the smallest ward than other ward to this VDC. Similarly, the population density of ward 1 is highest than other ward and ward no. 6 has very few population density.

4.6.6 Household Having Agricultural, Livestock and Poultry for Lalmatiya VDC

Table 4.6: Household Having Agricultural, Livestock and Poultry for Lalmatiya VDC.

| S.N. | Articles | No. of Households | Percentage |
|-------|-----------------------------|-------------------|------------|
| 1 | Agricultural Land only | 40 | 1.37 |
| 2 | Livestock only | 10 | 0.34 |
| 3 | Land and livestock | 1500 | 51.74 |
| 4 | Land and Poultry | 15 | 0.51 |
| 5 | Livestock and Poultry | 10 | 0.34 |
| 6 | Land, Livestock and Poultry | 1239 | 42.73 |
| 7 | Poultry only | 15 | 0.51 |
| 8 | None of them | 70 | 2.41 |
| Total | | 2899 | 100 |

Source: Census 2001, CBS

Table 4.6 depicts that majority of households are involving in agricultural activities with livestock and poultry. A few members of people have been doing other occupations like government and/or private services shops, cast wise services like tailoring cobbing, gold smith etc. However, these are not perfectly substitutable occupations for agricultural and livestock.

4.7 Present Status of Community Forestry

The current community forestry policy revolves around the concept of forest user group. The concept of those who protect and manage the forest may also utilize its product (MPFS, 1998). A forest user group consists of all members of a community that regularly use a particular area for collections of

forest product and grazing or who have been using and managing traditionally on areas of forest. So, the current policy has been to give responsibility and authority to local people by forming forest user groups to produce, manage and utilize the forest product. People on their own decisions and operational management plan regulate the management of the forest. As such the country's community forestry policy has been recognized as one of the most progressive forest policies in the region because it empowers local communities to manage forest resources. The strategy taken is to hand over all accessible forest to local communities of forest user group to the extent that they are willing their basic needs for the forest product (MPFS, 1998). The latest documentation in forestry department has shown following table:

Table 4.7: Required Community Forestry Distribution

| Development region | No. of FUGS | Total CF areas (hector) | No. of HHS |
|---------------------------------|-------------|----------------------------|---------------|
| Eastern development region | 2,649 | 330,966 | 326,824 |
| Central development region | 3,355 | 262,371 | 401,553 |
| Western development region | 3,834 | 182,521 | 430,514 |
| Mid-western development Reg. | 2,594 | 288,141 | 288,309 |
| Far-western development Reg. | 1,957 | 161,995 | 207,481 |
| Total | 14,389 | 1,225,993 | 1,654,529 |

Source: Department of Forest, 2008 GON

Table 4.7 shows that there are 1225993 hectares forest area that has been already handed over to 14,389 forest user group where the total involvement of the households is 1654529.

From regional perspective, Eastern Development Region consists of 2,649 FUGS, 326,824 HHS with total handed over CF area in 330,966 hectares. Similarly, Central Development Region consists of 3,355 FUGS, 401,553 HHS with total handed over CF area in 262,371 hectares while Western Development

Region consist of 3,834 FUGS, 430,514 HHS with total handed over CF area is 182,521 hectars. In the Mid-Western Development Region, there are 2,594 FUGS and 288,309 HHS with total handed over CF area is 288,141 whereas in Far-Western Development Region there are 1,957 FUGS, 207,481 HHS with total handed over CF area is 161995 hectars.

All the FUGS have been benefited from CF. However, the generated fund by those FUGS varied widely from place to place as it depends on the size, condition, age and type of the forest, the level of the forest utilization, user's ability to pay and the proximity to markets it is difficult to obtain accurate figures on financial status of the user groups.

4.8 Factors Influence Community Forestry Development Process

The factors influencing community forestry development process can be shown in the following flow chart.

Flow chart 4.1: Community Forestry Development Process

4.9 Impacts of Community Forestry

Flow Chart 4.2: Community Forestry System

| Economic impact | Environmental Impact | Social impact |
|-----------------|----------------------|----------------------------------|
| Income | Soil Fertility | Attitude and perception |
| Production | Soil Erosion | Women participation |
| Labour | Soil Moisture | Physical quantity of life index |
| Capital | Vegetative Cover | Participation in decision making |
| Economic | Ecological | Settled CF |
| Upliftment | Balance | programme |

Community forest has 3 sorts impact as shown in the above figure viz. economic impact, environmental impact and social impact. By economic impact, the source of income will increase production rate which in turn, increased the labour supply. Finally, capital will be formed, thus the whole process ultimately invites economic upliftment of FUGS.

Similarly, FUG is concerned with its environmental impact soil fertility, moisture and vegetative cover will be increased in the areas when CF exists while community forests will minimize soil erosion. Eventually, thus, it maintains ecological balance. The last but not the least impact of community forest is social impact. Initially, community forests change the attitude and perception in the positive direction which in turn, increase women participation. Once women's participation is increased due to positive attitude and perception as well as awareness the life quality of FUG member will be increased. These factors strengthen the people in decision making for their own betterment Finally, CF programs will be settled.

4.10 Forest User Group: National Profile

Community Forest User Group (CFUGS) are autonomous institutions, empowerment under the forest Act 1993 to manage and utilize their community forests under the guidance of an operational plan, which they develop, by themselves. CFUGs, choose and executive committee to made daily decisions on their behalf. Women have occupied about twenty four percent of the total members in the executive committee. Out of the total number of 14,389 FUGS, about five percent of the FUGS have only women as its members women CFUGS which are totally managed by women are well managed as compared to those administered by men or mixed. The number of households in CFUGS varies from 5 to 4750 an average being 115 households per group studies have shows that CFUGS of smaller size are more successful than the larger ones, it is estimated that about thirty five percent of the total population of the country is benefited from the CF program, Table 4.9 shows the national profile of community forestry program in Nepal.

Table 4.8: National Profile of Community Forestry

| | |
|--|--------------------|
| Total area of the community forest handed over | 1225,993 (hectors) |
| Average size of the community forest | 88.03 hectors |
| Total number of CFUGS | 14,389 |
| Total number of households involved | 1647.444 |
| Average size of executive committee | 11.25 |
| Average size of community forest user group | 115HH |
| Average number of women in community | 4.03 |
| Percent of women in the community | 24.85 |
| Number of women only CFGS | 648 |

Source: CFD database, 1 June, 2008

CF program has played a vital role in the economic and social life of the people. However, there is a lack of empirical evidence of its contribution in rural livelihood impairment a national level. (Banko Jankani, 2004:19)

4.11 Introduction to Shanti Community Forestry: A Brief Introduction

Shanti Community forest is located in Lalmatiya VDC ward no 5, 6 and 9 and has been considered one of the best FUG in Lalmatiya VDC. This community forest is largest community forest of Dang district. The total area of this community forest is 1486 hectors. The district forest office handed over this forest to the FUG in the fiscal year B.S 2052. This community forest lies 44/45 km way from district headquarter. There different sort of trees like Sal, Sallo, Sisau, Khayar, Kusum Bakaino etc are found.

The total number of households in the FUG is one thousand seventy five. The households are mainly form Tharu caste, few from Brahmin, Khadka, Khatri, Bodi, Magar, Gurung and kami. etc. The FUG consists of an executive handed by Mr. Dadhi Bahadur Pandey. The chairperson is eight passed with 14 members including four women, three representative form watchers. The local leader old generation has accepted to be an advisor in the committee. Many members of the executive committee are educated. The FUG has already crossed first phase of five years.

The FUG has hired three watchers providing a Salary of 1500 per month since the FUG is headed by a member it has carried out appreciating works with the FUG fund, the FUG has carried out extension activities e.g. wall painting, wall pestering and fixed of hoarding boards related to forest protection. The FUG has carried out these actions within the district headquarter and on the way to their village. Because of there extension activities, the FUG is not facing any problem of forest fire in the community forest.

FUG has special income generating program for the members, specially poor and backward cast. Provision of loan to few families for Poultry farming. All members of each poor family is allowed to collect products from the community forest as in case of others, only two members from each family are allowed.

Similarly, the FUG has subsidized the price of the timber for the poor members. The FUG is providing timber at the cost of RS. 250/- for one room construction where as the others are paying Rs. 500/-. The FUG has also collected Rs. 104491/- per year for the community development and welfare the poor member and total income of CF is going to be deposited in the bank with an account name of Shanti Community Forest Development Fund.

One hundred members of the FUG have taken various types of training provided by the district forest office. The executive committee selects the participant of the training. After the training, workshop and study tour the participant should brief others about what he/she was learnt or observed during the training.

It is found that there are many reasons to be a passive FUG. One of the reasons is not getting any benefits from the community forests. Specially, in some cases are conflicts among the members of poor, identification of users and the preparation of the operation plan was just to meet the target FUGS became passive because the FUG is earning income from the CFS. Further more, most people were not aware of CF process.

4.12 Some Information of Study Area

4.12.1 Demographic Characteristics of FUGs.

These wards have total number of population is 6448 with an average family size of 5.5 per household. Currently, these wards have 1092 households. About 49.19% of the population is male and 50.8% is female. Female is more

than that of the male population due to higher birth rates of female children (census 2001, CBS)

4.12.1.1 Population Distribution by Age Group.

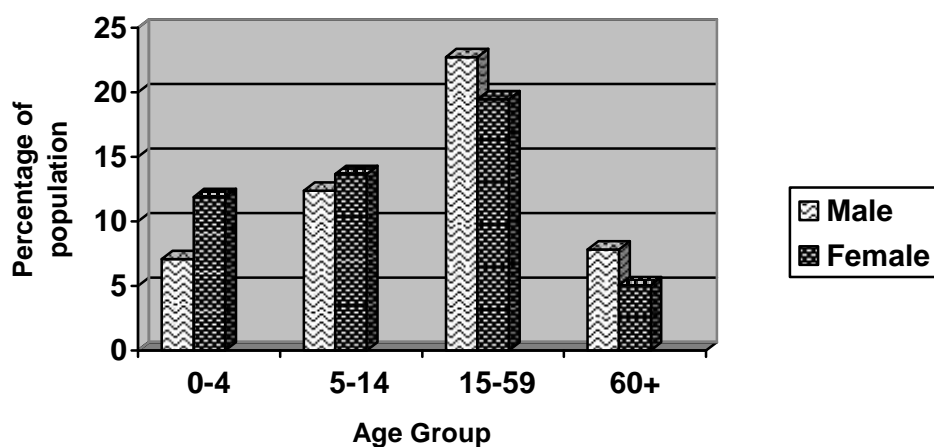
Table 4.9: Age and Sex Composition

| Age group | Male | Percent | Female | Percent | Total pop. | Percent |
|-----------|---------|---------|---------|---------|------------|---------|
| 0-4 | 457.16 | 7.09 | 765.37 | 11.87 | 1222.53 | 18.96 |
| 5-14 | 796.97 | 12.36 | 880.15 | 13.65 | 1677.12 | 26.01 |
| 15-59 | 1464.34 | 22.71 | 1254.78 | 19.46 | 2719.12 | 42.17 |
| 60 + | 504.87 | 7.83 | 326.26 | 5.06 | 831.13 | 12.89 |
| Total | 3172 | 49.19 | 3276 | 50.81 | 6448 | 100 |

Source: Field Survey, 2008

Age and sex composition is one of the most important demographic features of the planners. It will help them to know which sector is weaker and which one is stronger in a community and what support they can do for the upliftment of that age and sex. Age and sex affect marriage, birth fertility and mortality directly. It also shows dependency ratio, above table shows that out of total population of 6448, 44.97% are infant and children (up to 14 years), 42.17% are economically active (15 to 59) and 12.89% are old. Dependents are children and old and their percentage is $(18.96+26.01+12.89)$ i.e. 57.83% Age and Sex distribution we also seen following diagram.

Diagram 4.1 Populations by Age Group



4.12.1.2 Ethnic Composition

Table 4.10: Ethnic Composition of the Sampled Household

| Ethnic Group | No. of households | Total population | Total % |
|--------------|-------------------|------------------|---------|
| Tharu | 80 | 522 | 45% |
| kshetri | 43 | 232 | 20% |
| Brahmin | 44 | 232 | 20% |
| Magar | 8 | 58 | 5% |
| Giri | 5 | 23 | 2% |
| Damai | 5 | 35 | 3% |
| Thakuri | 15 | 58 | 5% |
| Total | 200 | 1160 | 100 |

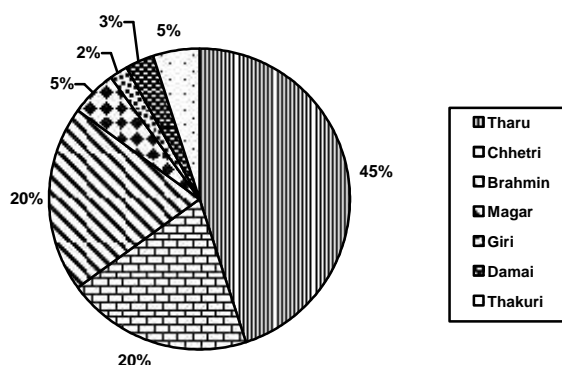
Source: Field Survey 2008

The villages where forest users have been living are inhabited by various ethnic groups. Table no. 4.10 shows that out of total 200 sampled households of the communities. Tharu is the dominant ethnic group which covers 45% (80 HHS and 522 population) followed by kshetri and Brahmin which covers 20% of total households (43 HHS, 44 HHS and 232 populations).

Magar and Thakuri 5% (8 HHS, 15 HHS and 58 populations), Damai 3% (5 HHS and 35 populations) and Giri 2% (5 HHS and 23 populations)

We can be clearer by following Diagram.

Diagram 4.2; Ethnic Compositions



4.12.1.3 Family Size

Table 4.11: Average Family Size by Ethnic Groups

| Ethnic group | Household | Population | Average Family Size |
|--------------|-----------|------------|---------------------|
| Tharu | 80 | 522 | 6.5 |
| Kshetri | 43 | 232 | 5.5 |
| Brahmin | 44 | 232 | 5.5 |
| Magar | 8 | 58 | 7 |
| Giri | 5 | 23 | 4.5 |
| Damai | 5 | 35 | 7 |
| Thakuri | 15 | 58 | 4 |
| Total | 200 | 1160 | $40 \div 7 = 5.5$ |

Source: Field Survey, 2008

Family size affects the economic health condition and condition of the family. The average family size of the sample HHS (Households) is 5 persons which is slightly equal to national average (5.44 persons) household. Thakuri have the smallest family size of 4 persons per household and Magar & Damai have the largest family of 7 persons per households.

4.12.1.4 Sex Ratio

Table 4.12: Sex Ratio by Ethnic Groups

| Ethnic Group | Ratio |
|--------------|--------|
| Tharu | 122.23 |
| Chhetri | 120.2 |
| Brahmin | 109.79 |
| Magar | 103.63 |
| Giri | 106.25 |
| Damai | 108.95 |
| Thakuri | 119.57 |
| Total | 112.94 |

Source: Field Survey, 2008

Sex Ratio= No. of male/no. of female \times 100

The numerical measurement of sex composition of population is often expressed in terms of sex ratio. The sex ration is generally calculated as number of male per hundred females. It is computed for different ethnic groups and is given in above table no. 4.12 of all the ethnic groups sex ratio of Magar ethnic group is lowest (103.63) where as that of Tharu ethnic group is highest (122.23). The sex ratio is unusual.

4.13 Socio Economic Characteristic of User Group

4.13.1 Occupational Composition

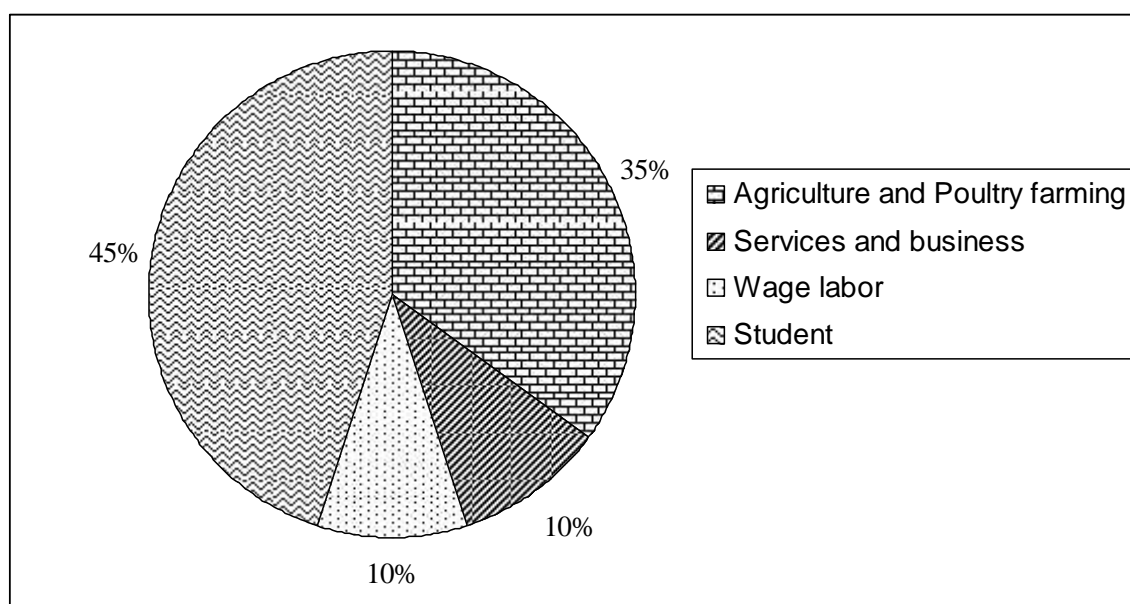
The primary resources of a country are utilized on a commercial scale when a country is industrial and when the new technologies are introduced. It generates diversification of occupational structure. Due to the lack of these factors, there are no alternative opportunities which are non agricultural sector for employment in Nepal.

Table 4.13 Sample Population Distribution by Occupation

| Occupation | Population | Percentage of Total Population |
|---------------------------------|------------|--------------------------------|
| Agriculture and Poultry farming | 2257 | 35 |
| Services and business | 643 | 10 |
| Wage labor | 643 | 10 |
| Student | 2905 | 45 |
| Total | 6448 | 100 |

According to the above table, agriculture is main occupation of the people of sample households 42.17% of total economically active population excluding students is directly involved in agriculture and poultry farming. But poultry farming is just a partial occupation. So, agriculture is the main occupation (35%) of the population of the study area. Only, 643 persons are engaged in wage labor, respectively. It is shown in the follow in the following pie chart.

Diagram 4.3: Population Distribution by Occupation



4.13.2 Educational Status

Education is considered as human capital and important infrastructure of the development as well. It plays a crucial role in all sectors of the society. In modern age, the planners agree in the fact that development without participation of local people is also impossible. If all the persons of households are educated, their participations on any development activities are more effective. It can be said that if all persons of households are educated then society is more conscious about the problem of the community needs of community and become able to provide more appropriate solution.

In this study, the educational status has been classified into five groups. They are:

- | | | |
|---------------|---------------------|--------------|
| i. Illiterate | ii. Literate | iii. Primary |
| iv. Secondary | v. Higher secondary | |

Illiterate are those who cannot read and write. Literate represent those persons who can read or write either from formal or informal education. Primary education means the academic education upto class five. Secondary is

know as the academic education upto SLC. And higher secondary education refers to that the academic education which is above SLC level. The educational status of CFUG is tabulated in table no. 4.14.

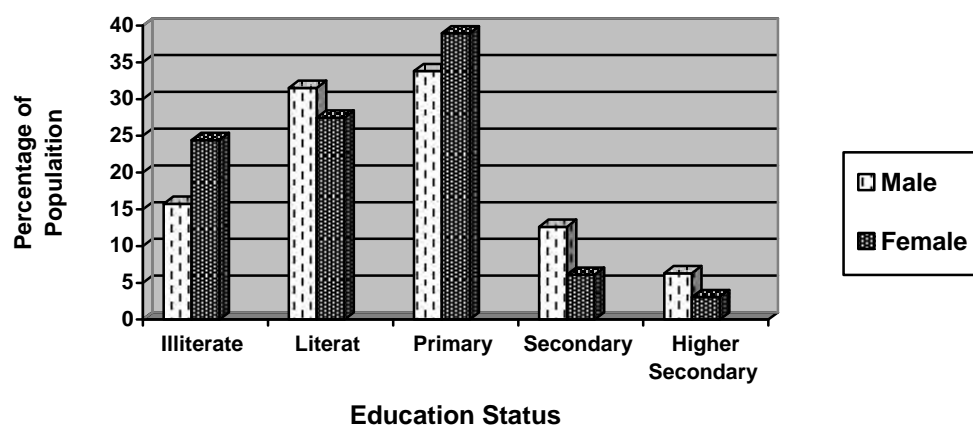
Table 4.14: Educational Status According to Sex

| Level | No. of Female | Percentage | No. of Male | Percentage | Total | Percentage |
|---------------------|------------------|------------|----------------|------------|-------|------------|
| Illiterate | 800 | 24.42 | 500 | 15.76 | 1300 | 20.09 |
| Literate | 900 | 27.47 | 1000 | 31.52 | 1900 | 29.49 |
| Primary | 1276 | 38.94 | 1072 | 33.8 | 2348 | 36.37 |
| Secondary | 200 | 6.10 | 400 | 12.61 | 600 | 9.35 |
| Higher Secondary | 100 | 3.05 | 200 | 6.3 | 300 | 4.67 |
| Total | 3276 | 100 | 3172 | 100 | 6448 | 100 |

Source: Field Survey; 2008

The present survey, which is given by above table depicts that 1300 persons (out of 6448) 20.09% are illiterate out of which male are 500 (15.76%) and female are 800 (24.42%). The numbers of literate are 1900 (29.49%) out to total population among which male 1000 (31.52%) and female are 900 (27.47%). All together 2348 people have received primary education which is 36.37% of total population among which the male are 1072 (33.8%) and female are 1276 (38.94%). And 600 persons (9.35%) have got secondary level of education among them 400 (12.6%) are male and 200 (6.10%) are female. Being the availability of college in the district and out of district 300 peoples have received higher education which is 4.67% of total population among whom 100 are female and rest are male. The overall literacy rate is 80% or more than 65% which implies that the majority of the people of the study area being educated which shown in the following diagram.

Diagram 4.4: Educational Status According to Sex



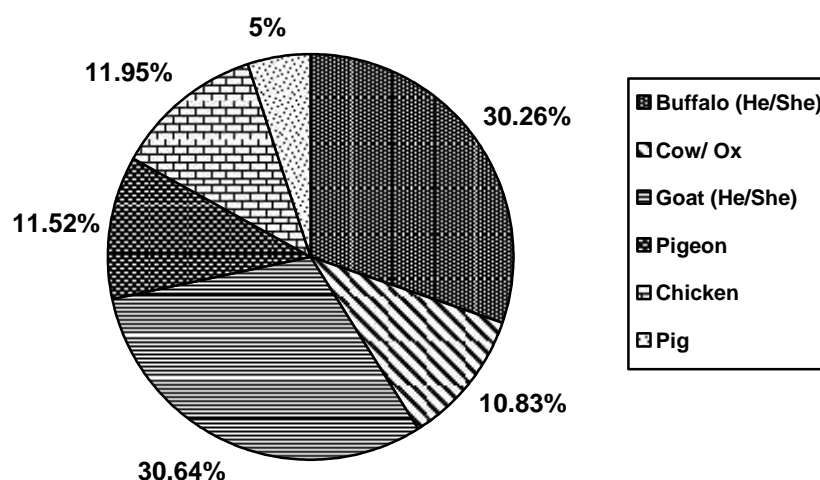
4.13.3 Distribution of Livestock Holding in the Sample Households.

Livestock is one of the important occupations of Nepalese people for getting milk, meat, manure, ghee, eggs and ploughing etc livestock is considered as a liquid asset as it can easily be converted into cash by selling them when there is a money crisis in the house. According to streak, "Livestock plays" multi functional role in Nepal's farming system. They provide milk, meat and draught power for tilling the land and manure of maintenance of soil (streak 1992) Table 4.15 and diagram 4.5 show the total number of livestock holding at present in Shanti CFUG.

Table 4.15: Distribution of Livestock Holding in Shanti CFUG

| Types of animals | Average no. per HH | Percentage |
|------------------|--------------------|------------|
| Buffalo (He/She) | 2.38 | 30.26 |
| Cow/ox | 1.23 | 10.83 |
| Goat (He/She) | 2.35 | 30.64 |
| Pigeon | 0.88 | 11.52 |
| Chicken | 0.93 | 11.95 |
| Pig | 1.0 | 5.0 |
| Total | 8.77 | 100.00 |

Diagram 4.5: Distribution of Livestock Holding in Shanti CFUG



Here, buffalo and goat have occupied the highest percentage of livestock i.e. 30.26 and 30.64 respectively.

4.13.4 Feeding Pattern of Livestock.

Some people of the sampled households keep their livestock by stall feeding and some people take their livestock for grazing. Table 4.16 show the feeding Patter of livestock in the user groups.

Table 4.16: Feeding Pattern of Livestock in Shanti CFUG.

| Feeding pattern | No. of HHS | Percentage |
|-----------------|------------|------------|
| Stall feeding | 50 | 25 |
| Grazing | 150 | 75 |
| Total | 200 | 100.00 |

Source: Field survey, 2008

The above data shows that 25% households practice stall feeding while 75% households go for grazing.

4.13.5 Distribution of Land Holding

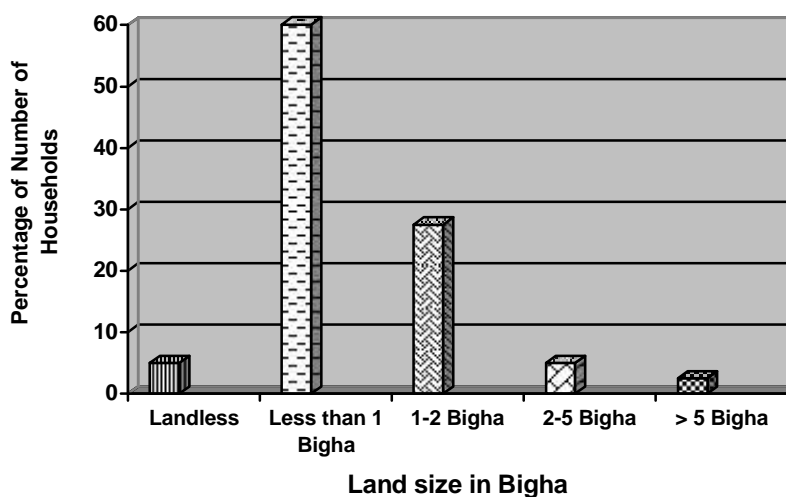
Land holding is one of the most important determinants of the income and food sufficiency of the people. More than 80% households have land for paddy cultivation but not sufficient. Some of people plough other's land as tenants and some people have to spend their income for purchasing rice. Table 4.17 and diagram 4.6 show average land holding pattern of sampled household.

Table 4.17: Distribution of Land Holding Pattern in Shanti CFUG.

| Land size in Bigha | No. of HHS | Percentage |
|--------------------|------------|------------|
| Landless | 10 | 5 |
| Less than 1 Bigha | 120 | 60 |
| 1-2 Bigha | 55 | 27.5 |
| 2-5 Bigha | 10 | 5 |
| > 5 Bigha | 5 | 2.5 |
| Total | 200 | 100.00 |

Source: Field Survey; 2008

Diagram 4.6: Distribution of Land Holding Pattern in Shanti CFUG.



From the above table and diagram, it is clear that 10 households have not their own land and most of the households have less than one Bigha land. It shows that the economic status is not so poor of the people living there.

CHAPTER FIVE

ECONOMIC IMPACT OF COMMUNITY FORESTRY

Benefits (effect) which are identified are strongly linked with effect of community forestry on the economic and financial, environmental and social aspects of communities. These identifying the benefits of community forestry may present the major conceptual difficulties of this area due to the multipurpose nature of C.F. Benefits are more difficult to compute as they usually occur in the long future. For example, the benefits of afforestation in terms of reduce soil erosion may not show up for many years or even decades all these benefits which can be taken from CF may improve the living standard of this user group. Hence the Shanti Community Forestry is important in the local economy.

According to the nature, stage and level of involvement and location in the forest management system, the benefit of community forest are identified below.

5.1 Direct Benefits and Their Values.

Availability of forest products such as fuel wood, timber poles and leaf medicinal herbs and plants are taken as direct benefits. The valuation of timber, grass leaf litter is carried out according to the prices fixed by the FUG. The direct benefits obtained from community forestry are:

5.1.1 Sustainable Collection

The people in the villagers of Mourighat and Neyagaun get sustainable firewood and fodder for their daily need. It is possible only after the introduction of community forestry program. In the early phase, the degraded forest couldn't provide sustainable supply. Afforestation by community forestry program becomes very feasible for livestock rearing.

5.1.2 Availability of Forest Product

The community forest of Mourighat and Neyagaun have highly contributed to increase the forestry products such as grass, leaf litter; user group has accumulated the significant amount in its community fund from its indigenous forest management and this fund is used for the community welfare.

5.1.3 School Support

This community forestry is highly supported to the education. There is one higher secondary school, and one lower secondary school, named as Shree Higher Secondary School Mourighat and Neyagau lower secondary school. The shanti CFUGs have been providing timber for the contraction of school building and making furniture at free of cost. Not only this, community forestry has been provided salary to two teachers of this school as well. Hence, CF is the main source of timber for school construction and maintenance.

5.1.4 Road Construction

Actually, Mourighat and Neyagaun village of Lalmatiya VDC are not remote area, but there were no gravel roads, later when this CF established then gravel road have been constructed. This community forestry has been constructed 100m graveled and ungraveled road in every year. That means large amount of income of this community forest spent on road construction. Hence, Due to the constribution of this CF, the living standard of this villager has been changed.

5.1.5 Community Building Construction

The CFUG has provided timber free of charge for construction and maintenance the community building. Similarly, it was also constructed a rest place "Chautari" near the forest area by mobilizing human labor as well as financial capital.

5.2 Indirect Benefits and Their Values.

The indirect value of CF refers to social and environmental goods and services that the CF provides. Forest degradation and destruction might imply the loss of many of these environmental benefits although the extent of loss would depend on the subsequent land use decrease in soil erosion; reduce stream flooding, increase in forest cover, increase in soil fertility, improvement in water sources, increase in numbers and diversity of birds and wild life and increase in biodiversity. Employment generation, the establishment of an organized FUG and social integration might be some of the social benefit. Mostly, the indirect benefits are as follows:

5.2.1 Environmental Benefits

It is noted that the fertility of land in the villages of Mourighat and Neyagau has increased from past 8 years; it is due to community forestry. Community forestry prevented soil erosion and land slide. It provides catchment protection. The villager has constant source of water for irrigation which was not available prior the implementation of community forestry program. The forest is being dense in every year and people have got provision of fresh oxygen. Thus, the forest has played important role in the balance of ecosystem.

5.2.2 Impact on Households

These types of impact could be measured in terms of time saving, to collect fodder, fuel wood, grass leaf litter and other through it. During the research period in the field, researcher found that more than 20 percent time being saved nowadays. Before the introduction of CF, people had to work about one hour to collect forest product even for leaf litter. Now, they can collect one Bhari leaf litter or fodder in 20 to 30 minutes from their forest. It helps to engage them in fulltime (i.e. 10 am to 6 pm) in their agriculture and business work which has direct positive impact on economic aspect.

5.2.3 Unification of People

Mechanism of encouraging and forming users group committee, thus, building up social capacity for rural development. After the establishment and unification of the community forestry, people are united to face every type of social problems through mutual cooperation.

5.3 Other Effects Derived From the Shanti. Community Forestry

5.3.1 Reduction of Women's Work Load.

In the Nepalese context, women's daily lives are directly connected with food, fodder and fuel wood. Thus, women are the main member of the family who take care and decide the household works. They are busy whole day and their work load is generally much higher than man for the purpose of collection of grass, water and wood for fuel for that they have to walk longer distance. Therefore, respondents are asked to evaluate whether women are benefited from CF in terms of reducing of work and has been decreased after the implementation of CF. Accounting to the respondents and women group discussion indicates that before the implementation of CF sufficient forest products are not available in the nearby forest due to its deforestation therefore, they have to spent 1-2 hours to collect one head load of forest production.

Furthermore, the women group discussion revealed that due to the restriction an grazing in the CF, stall feeding system has been widely used and has to spend considerably less time any for collection of fodder and grass. All these things benefited to women which helps to reduce the work time of women.

5.3.2 Source of Energy

The villagers of the study area are depended upon firewood as main source of energy. Out of 200 samples, 180 households have the firewood as main sources. There is some practice of using alternative source of energy like biogas, kerosene and electricity.

Table 5.1: Source of Firewood.

| Source of firewood | Firewood (in Bhari) | Percentage (%) |
|--------------------|---------------------|----------------|
| Community forestry | 2000 | 50.6 |
| Private forestry | 1500 | 42.5 |
| Other source | 720 | 6.9 |
| Total | 4220 | 100.00 |

Source: Field Survey, 2008

*Bhari = 20-25 kg.

The above table shows that the annual consumption of firewood sampled household is about 4220 Bhari. Where the contribution of the community forestry to fulfill the total demand of firewood is more than 50.6 percent and other demand was fulfilled from the private forest more than 42.5 percent and other sources like agriculture residues which is 6.9 percent.

5.3.3 Source of Fodder for Livestock

Forests are the main sources of fodder for livestock. Fodder trees are important for inner Terai communities as they provide quality feed for livestock. The CF cannot alone meet the demand of fodder for livestock. Private forest (PF) agricultural residues and straw (paral) are other source of fodder to feed livestock.

Table 5.2: Source of Green Grass and Fodder

| Source | Average utilized green grass (in Bhari) | Per Bhari price/total market price | Average utilized fodder and straw in Bhari | Per Bhari price/total market price. |
|--------|---|------------------------------------|--|-------------------------------------|
| CF | 5760 | Rs. 11520 | 1600 | Rs. 5/8000 |
| PF | 1100 | Rs. 10/1100 | 1000 | Rs. 10/10000 |
| G | 1000 | Rs. 25/25000 | 1400 | Rs. 30/42000 |
| Total | 7860 | Rs. 47520 | 4000 | Rs. 60000 |

Source: Field Survey, 2008

Here, CF= Community Forest

PF= Private Forest

Ag= Agricultural Residues

The sample household rely on community forestry an agricultural residues. The above table shows that 5760 Bhari of green grass has been obtained from CF and the rest of the demand is fulfilled by PF (1100 Bhari) of agricultural residues (1000 Bhari). Similarly, out of the total demand of fodder and straw, CF has fulfilled 1600 Bhari by agricultural residues. There data shows that CF also has great impact to the people of the area in fulfilling the demand of fodder and grass for livestock.

5.3.4 Source of Timber

Timber is a main source of consumption material in villages. Not only for the making of houses but also for the making of agricultural tools, 90th (shade for livestock) through distribution of timber from community forestry at a nominal rate of Rs. 100 per cubic feet. But, in case of fire or natural calamities, the community helps with the free supply of timber that is needed.

Once a year matured trees are cut down and sold and that money is used by FUG committee to do social works

Table 5.3: Total Demand of Timber

| Source | Timber cu. ft. | Market price | Total income |
|--------------------|----------------|--------------|--------------|
| Community forestry | 1500(75%) | Rs. 100 | Rs. 150000 |
| Private Forestry | 200(10%) | Rs. 100 | Rs. 20000 |
| Other source | 300(15%) | Rs. 100 | Rs. 30000 |
| Total | 2000cu.ft. | | Rs. 200000 |

Source: Field Survey, 2008

The above table shows that the source of timber. this table shows that the main source of timber in CF. it has fulfilled 75 percent demand of timber

out of total demand where as private forest of other sources have fulfilled 10 percent and 15 percent demand of timber, respectively. There is annual demand of 2000 Cu.ft. timber of about Rs. 200000 to its consumers.

From this point, it seems that Rs. 150000 is the actual income of the CF. But, the study shows that CF sometime makes a free distribution according to the situation. So, there is not the income of about Rs. 150000 Thus, there is an economic impact in timber distribution.

5.3.5 As a Source of Resources

Peoples are mainly dependent on agriculture directly or indirectly because of predominance of agrarian base economy in our country and so are in the study area. There are 35 percent people are engaged on agriculture. It is very necessary to uplift the condition of agriculture. Use of modern technology and fertilizers to raise the level of income. The CF has helped to provide the source of watershed to irrigate land and to yield more production in the village.

5.4 Perception in Management Committee

During the period of observation in the study area, the researcher could get so many information from the management committee member of SCFUG. In this section, the information obtained from the management committee on various aspects of CF, which is analyzed.

5.4.1 Income Source of Community Forestry of Shanti User Group

The CFUG has been generating income from various activities, such as selling of forest product, penalties entry fees or membership fee an functional levy. In this CFUG the interest obtained from the loan to the poor people. They have not collected the money from the donation from outside. Therefore, above all the activities help to increase the fund which is a good scope to do so far many FUGS.

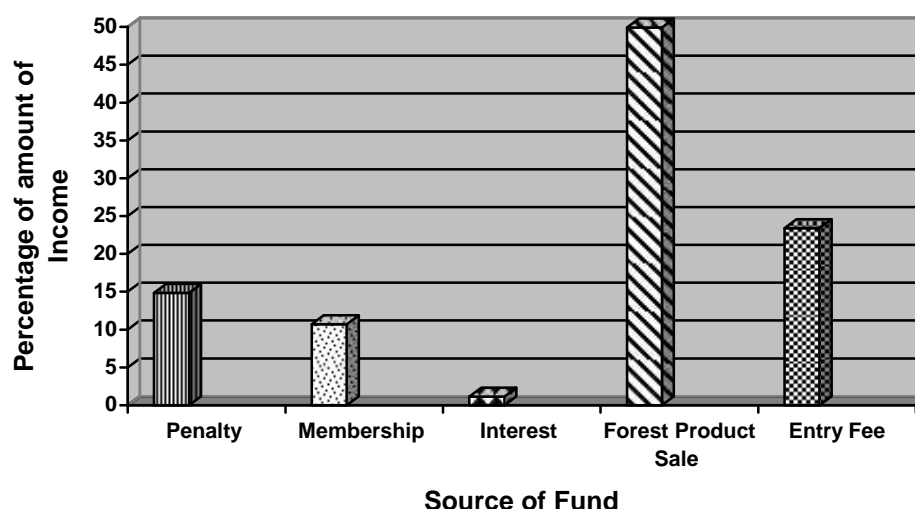
Table 5.4: Income Source and Fund of Shanti CFUG

| Source of income | Amount | percent |
|---------------------|--------------|---------|
| Penalty | RS. 27139/ | 14.35 |
| Membership | Rs. 19570/- | 10.70 |
| Interest | Rs. 2070/- | 1.13 |
| Forest Product Sale | Rs. 91,225/- | 49.92 |
| Entry Fee | Rs. 42730/- | 23.38 |
| Total | 182,734 | 100.00 |

Source: Field Survey, 2008

According to above table last year income of Shanti community forestry has been shown above Rs. 27193 or 14.85 percent was acquired from penalty. If cow and buffalo are strayed the amount of penalty is Rs. 20 and is goat and sheep Rs. 10 per animal. The forest products looters are penalized Rs. 50 to Rs. 1000 according to the nature of crime which they had done. Similarly, Rs. 19570 or 10.70 percent revenue was gained from membership. The member has to renew his or her membership Rs. 10 per household per year. New member should pay Rs. 50 with application. From the interest Rs. 2070 amount should be collected. Not only this, the greatest revenue of CF is achieved from the selling of forest product Rs. 91225 or 49.92 percent fund was collected too. Similarly, this CF is achieved Rs. 42730 or 23.38 percent from entry fee. Hence, the total income of Shanti community forestry product was Rs. 182734 in last year. This amount can be shown in the following diagram.

Diagram 5.1: Income Source and Fund of Shanti CF



5.4.2 Main Source of Income of CFUG:

A. Timber

Timber products are generally divided into two groups: construction timber and smaller products that are used for making agricultural implements. The village people require construction timber only when there are a loss of houses through earthquake, fire or landslides and expansion of the family unit. Moreover timber from community forest is used only when the private resources is insufficient. Timber for the making of agricultural implements (e.g. plough, tools handle) is required.

B. Fire Wood

Fire wood is the major and direct income source for user groups. In this village, almost 90 percent households are joined to carry out fire wood in each year. In this community forest, every Saturday is allowed to cut the fire wood. They can participate after paying some fee as a levy. Each household can collect an average 15 Bhari fuel wood per year. They have to pay the money per Bhari Rs. 2. In this way, they have been collecting all the money in the fund.

C. Green Ground Grass

It is a kind of source for earning income to the CFUG. When there is restriction for grazing animals, the grass grows up.

The CFUG area is opened for collecting grass from Ashoj-Manshir. During this time, some needy users to collect two Bhari grass perday for their livestock. The household can carry out the grass during opening time within little charge.

D. Fines and Penalties

Penalty is another source of income of community forest. As per the rules and regulation user is not allowed to carry out any product like firewood, grass, leafing litter etc. without prior permission, these activities are strictly prohibited. If any user violates the rules, they are Penalized and subjected to a fine as prescribed and approved by themselves. One who delays the renewal of membership is also charged penalties.

E. Membership Fee

The FUG has fixed some amount of the membership fee. In order to acquire the products, it is necessary and compulsory to be a member of particular community forest. If any new user he/she will have to submit application for the membership with the charge of membership fee. However, the membership will not be opened for all non-users of the forest.

5.4.3 Income Generation Program by Using Community Forestry Loan

The Shanti Community Forestry has nearly Rs. 200000 fund in Shanti community forestry account. From the fund, the CF has conducted both community development program and provide loan to user groups in income generating activities. The Shanti community forest management group invested its income in two ways. In one hand, it has invested in social sector such as to help school, temple, rural road, drinking water etc. and on the other hand, it has invested its fund as a loan among user group to generate income i.e. poultry, farming, cow/ buffalo farming etc.

Table 5.5.: Loan Invested in Different Income Generating Activities.

| Sector | HHS | Percent |
|-----------|-----|---------|
| Goat | 26 | 32.09 |
| Poultry | 5 | 6.17 |
| Buffalo | 10 | 12.34 |
| Vegetable | 40 | 49.38 |
| Total | 81 | 100.00 |

Source: Field Survey, 2008

According to above table the community forestry has given each to user group to develop their income generating program. 81 HHS are benefited by such types of program. The huge number of household i.e. 40 HHS have taken loan from CF for vegetable farming. Similarly, 26 HHS are taking loan from CF for goat/sheep farming, 10 HHS have invested their loan in Buffalo and cows rearing. Lastly 5 households are utilizing their loan in poultry farming.

5.4.4 Major Area of Expenditure

The area of expensed are divided into four namely natural capital development, human capital development, physical and social capital development and administration. Natural capital development includes forest management cost. Human capital development includes training and skill development cost. Physical and social capital development includes community infrastructure development cost as well as other investment on income generation activities and support to disaster. Forth category administration cost includes administrative expenses. Forest management includes wage and seeding cost related to forest management activities (nursery, tree planting, harvesting cost, thinning etc.), remuneration to watchman and other expenses for material purchases related to the forest management administration expenses stationary and office supplies and audit cost. The physical capital and social activities includes the community infrastructure development such as funding to sanitation drinking water, construction of community Chautari and other expenses related to community welfare.

Table 5.6: Amount Invested in Different Asset in FUG (2063-2064)

| Major Area of Expenditure | Amount in NRS | Total Amount NRS | % of investment of Total income | Rank |
|---|---------------|------------------|---------------------------------|------|
| 1. Natural Capital forest management | | | | |
| a. Nursery | 2450 | 5550 | 3.03 | IV |
| b. Tree planting | 3100 | | | |
| 2. Human capital (training and skill) | 12509 | 12509 | 6.84 | III |
| 3. Physical/social capital development | | | | |
| a. construction of Chautari | 2000 | 72000 | 39.40 | II |
| b. Village road. | 40000 | | | |
| c. Construction of school | 3000 | | | |
| 4. Administration cost | | | | |
| a. Renew membership fee | 835 | 92675 | 50.71 | I |
| b. Purchase of register | 500 | | | |
| c. Purchase of stationary | 500 | | | |
| d. Salary of Staff | 90840 | | | |
| Total investment | 182734 | | 100.00 | |
| Total income | 182734 | | | |

Source: Annual Report of FUG 2007.

The above table shows that, the income of CF has been utilized in its proper purpose. Most of the income is utilized in this administration cost. Except this international cost, large amount of income of CF i.e (39.40%) has been invested in social welfare that is construction of road, school, and other similarly, it has been invested in Human Capital. That 6.84 percent of income has been invested in Human Capital. At last 3.03 percent of income of CF has been invested in Natural capital forest management. Hence, the largest share of investment in made for administration cost, and them physical/ social capital development than other expense.

CHAPTER SIX

MANAGEMENT SYSTEM REGARDING THE COMMUNITY FORESTRY IN THE STUDY AREA

6.1 Management System of the Community Forestry

In Shanti Community Forestry User Group, there are 15 members in executive committee (EC). They always participated in monthly meeting of FUG committee. The main dimension of participation such as women's involvement in decision making and planning process, implementation process, monitoring and evaluation process and involvement in benefit sharing process are discussed as their participation in CF management.

Total members are represented in executive committee of the SCFUG are as follows:

Composition of Working Committee, 2007

| Designation | Name | Sex | Caste |
|----------------|--------------------------|--------|---------|
| President | Mr. Dadhi Bahadur Pandey | Male | Chhetri |
| Vice-president | Mrs. Matta K.C. | Female | Chhetri |
| Secretary | Miss. Sushila Mahara | Female | Chhetri |
| Member | Mrs. Kali Chaudhari | Female | Tharu |
| Member | Mr. Shyam Thapa | Male | Chhetri |
| Member | Mr. Ram Pd. Chaudhari | Male | Tharu |
| Member | Mr. Ran Pd. Pokhrel | Male | Brahmin |
| Member | Mr. Badu Chaudhari | Male | Tharu |
| Member | Mr. Krishna Bd. Pun | Male | Magar |
| Member | Mr. Kala Nepali | Male | Kami |
| Member | Mrs. Sita Zywali | Female | Brahmin |
| Member | Mr. Suresh Thapa | Male | Chhetri |
| Member | Mr. Kiran Acharya | Male | Brahmin |
| Member | Mr. Ram Bd. Malla | Male | Chhetri |
| Member | Mr. Arjun Shahi | Male | Chhetri |

Advisors: Mr. Krishna Giri and Mr. Damber Raj Bhusal

Attendance of EC member in monthly meeting is assessed based on the minute books of concerned FUG. Attendance is assessed on the basis of sex and year. Moreover, attendance is categorized as expected and actual. Expected ratio of attendance varies year to year due to turnover of the EC member.

Actually this, community forestry had established in 2052 B.S. At that time the president of this committee was Gira Bahadur Karki. From this time, every EC member takes greater responsibility to protect and extend the area of forestry.

During the observing period, the researcher found that low attendance of women in EC member as compared to men in monthly meeting of SCFUG. According to them, this is mainly due to inappropriate time of meeting. In their opinion, the monthly meeting used to conduct during morning and evening which is peak hour of women. They reported that holiday when women possess relatively less pressure of work due to the cooperation from male; which makes easy to attend the meeting to women in EC member.

But in all the activities of CF, women are equally participating with male. Due to this any activities of CF give effective result. Not only this, regarding conflict management, respondents of study area expressed their views during household survey and executive committee's meeting that the involvement of women is negligible. There are also some conflicts between user and non-user group from the same ward particularly on the right of forest resource and during the name registration of new users. The SCFUG spends enough time to manage these conflicts without the involvement of women but they could not succeed. After the complaining and creating pressure by women to accommodate remaining households in the SCFUG, the conflicts are managed. According to local people a few women are involved in conflict management.

Forest user committee provides timber to the people who suffered from natural disasters and calamities without cost. For this, FUG, calls the application with essential fee. The timber has not been provided freely in any cases. The process of timber distribution is given in the following chart or diagram.

Flow chart 6.1: Distribution Procedure of Timber

Timber need

Application

CFUG collects the applications

CFUG studies and determines the quality demand

CFUG meeting

Decision Distribution

Fixed quality and mark tree

Timber Supply

The distribution steps are described below in brief

1. Submission of application:

It is the first step which is submitted by timber needed users to the forest users committee. It is compulsory for every member of users.

2. Decision has been made either by consensus or by majority

Generally decision is made by priority process, the women's participate is very low in the assembly. So, women play little role in decision making and male play vital role in decision making. But the problem of lower occupation caste is not considered in decision process.

In this process, executive body has been played vital role for decision making.

3. Availability

The timber must be distributed for selected users according to their urgent needs. Decision making is done on the basis of the timber availability.

4. Purji (approval slip) distribution

After fixing the quantity of distribution the committee provides a purji with change to the people to enter in the forest for felling tree. The committee marks the trees supposed to be fallen before the actual felling of the trees.

In the process of management system, women's participate have been progressed but the involvement of women in decision making, evaluation process is still lower than men.

6.2 Problems and Prospects of Community Forestry

Wherever a community based program is initiated its success hinges on the participation, co-operation, motivation and satisfaction of the people as a whole. Therefore to make the community forestry program successful, everybody in the community must know the sacrifice, benefits and its prospect for further developments. This can be possible if the program is democratically administered, transparent, people oriented and technically feasible.

6.2.1 Problems of Community Forestry

The main problem of community is conflict and lack of coordination among the people be ethnic, political gender wise or socio-economic. There are other problems like lake of proper sampling protection etc. However, these problems can be solved by external assistance but conflict can't be solved easily and is the main problem, when conflict arises, it affects every aspect of community forestry. Furthermore, the willingness and to work together among the people will deteriorate which leads to lawless and careless cutting of trees for personal use.

In Shanti community forestry, the people work together to obtain their common goal, the forest is well protected and managed the policy for the forest management is made by the user's committee. The user committee also takes the district forest office. Generally, the system has worked well but it has also got some problems which are given below.

6.2.2 Conflict among the User Group

Conflict among the users group is the main problem of community forestry problem. Conflicts arise mainly due to the different personal interest of the people. In Shanti community forestry, the main reason for conflict is political rather than socio-economic. Some of the people stay away from the program because they feel that the users committee has a majority of the people with different political ideology. The gap between rich poor has not posed that problem because the forest products are not given freely to the poor but every household can buy at nominal rate.

6.2.3 Illegal Felling of Trees

Illegal felling of trees occurs sometimes in the Shanti community forestry. Sixteen sampled household responded that, it is a big problem. On the other hand, majority of the household said that it was not a big problem and it has occurred a few times.

6.2.4 Fire in the Forest

7.5 Percent households responded that fire due carelessness has posed a big problem as it has occurred a few time. However, the village's joint effort has solved the problems in the past. But nowadays, it is avoided by making the law as people must give details to go inside the forest. People without permission are restricted from entering into the forest.

6.3 Prospect of Community Forestry

Community forestry has provided many daily needs of the users group. It has encouraged the people to conserve, manage and utilize the forest resource in a sustainable way.

Community forestry is popular the people of villages where community forest program is not started are anxious to initiate community plantation program. The people are aware of the benefits derived by the user group.

Community forestry can be taken as a model in forestry program as its motto for the people, by the people and is more realistic and applicable in the inner Terai of Nepal. Moreover, the NGOs, INGOs and government sectors must devote further to expand community forestry in every village of Nepal.

CHAPTER SEVEN

SUMMARY, CONCLUSION AND RECOMMENDATION

7.1 Summary

The study summarized with the objectives of identifying to analyze the importance of community forestry in the local economy. It is found that there is positive impact of community forest on use group. Such impacts are revealed form of income generation, construction of social works, social overheads and awareness of people on the need for conservation of natural resources. The study has been also designed to review the policy statements and subsequent actions by the user group for sustainable forest development. Finally, it has been planned to analyze the aforesaid issues based on finding and suggest appropriate recommendations for future action.

The major findings obtained from this study are as follows:

1. CFUG'S provided some employment opportunity to poor users in the forest management.
2. In the study area, the main source of income of CF is timber and fuel wood which have been contributing 49.92 percent.
3. In the study area, it is found that male literacy is higher than female literacy.
4. In the study area, the main occupation is agriculture, so 80 percent are engaged in agriculture. In addition to agriculture, people are adopting different occupations to raise their living standard.
5. In the study area, most of the HHS (45%) is Tharus.
6. The CFUGS' provided timber to 40% poor households user for their house construction and provided with addition timber to earn living for them.

7. Male plays the vital role in user's committee. Due to the lack of education, very few numbers of women to be involved in the user's committee. But in seminar and trainings, women are gradually participating.
8. The large amount of income (39.4%) of CF is invested in social overheads environment and income generation

7.2 Conclusion

Community forestry program is the most prioritized program in the sector of forestry in Nepal. The program has been launched in Nepal since 1978. The research units Shanti community forestry was handed over to user group in 2052 B.S. The community forestry is largest community forestry of Dang district which takes 1486 hectares area. The user group of this community forestry are two villages (Mourighat and Neyagaun) ward no. 5,6 and 9. The user groups have made a head committee for execution. Agriculture is the main occupation in the area but some households are landless.

Community forest fulfills the wants of forest products like firewood, fodder, green grass, leaf litter, timber etc. required for day to day lives for villages. In this forest user group, forest products are distributed proportionately on the basis of household size. In general, its users perceive that they are getting an equitable share of the products currently available from their forest.

The villagers of CF have a greater impact on other income generating activities by using saving time to collect fire wood, fodder and leaf litter. It has been amply demonstrated in the area that communities are capable of organizing themselves to converse local forest resources.

Besides, the monetary benefits, the people of study area are being entertained the real benefits like co-operation among the people, environmental improvement etc. after the implementation of community forestry program.

Lastly, it is concluded that following results brought by community forestry program.

1. Increase the women's participation in forestry development.
2. Improvement in ecological system by maintaining forest, pasture, rivers, ponds, streams and controlling soil erosion and land slides.
3. Run other programs regarding community development.
4. Increase the forest area.
5. Increase the awareness and sense of belonging to the forest as their own.
6. Improvement in the economic condition of forest user group.
7. Increase the committees' fund by selling extra forest produces to other places.
8. Time given to other household works by saving time to fetch water and forest product with the increase of the forest and water resources.
9. Improve and extent the length of road and no. of school.

7.3 Recommendations

Community Forestry program is the only one effective program in the mid western part of Nepal. It has gained success to check the rate of deforestation. It has played a very essential role to fulfill the villagers' forest based basic needs as well as to maintain the eco-system. On the basis of findings and conclusion of the study, there are some recommendations for the maximum effective utilization of CF. These recommendations also show the implications in relation to the Shanti community forestry and similar forest user groups.

1. Government and non-government organization should be encouraged to work on community forestry based programs.
2. DFO should have regular interaction and meeting with FUGS, in terms of proper CF management.

3. The women and children are the main collectors of the forest products. So, they should be allowed to participate in all meetings and training related to forest. Their views are also to be incorporated.
4. The user's groups should receive training in community forestry. They should also visit other community forestry where the user's groups/committee is functioning with success.
5. Participatory, monitoring and evaluation system should be developed to assess their own work by the FUGS themselves.
6. Training program on operational plan preparation, forestry rules and regulations and awareness building should be conducted for all community forestry users group. For successful community forest program, the leadership training should be given to the leader.
7. Selling of timber and other forest products should be done through co-operatives of FUGS on the basis of competitive price.
8. Need plantation of NTFPS and fund should be mobilized for the users, especially by involvement of the poor and disadvantaged groups.
9. Improved cooking stove, kerosene stove, biogas program in the inner Terai can be carried out to reduce firewood consumption and improve health. DFO can coordinate with concerned agencies.
10. CFUG need to be supported and strengthened in institutional development aspect through different types of exposures such as field trips training and workshops related to decision making, fund management and overall group empowerment and capacity building.
11. The role of CFUG in improving the welfare of rural communities needs to be known and supported for achieving the success in this direction. All users should be involved in the CF management process. In Shanti CFUG, users should be sensitized through awareness raising program related to CF for the involvement of users from different background.

BIBLIOGRAPHY

- Adhikari, S. (1998), "Organization Assessment of Forest User Group": A Case Study of Fifty FUGs in NRMP Working Area. Dhading Resource Managemnt Project, United Mission to Nepal, Gajuri, Dhading.
- Adhikari, Bhim (2003). "Property Right and Natural Resource: Socio-Economic Heterogeneity and Distributional Implications of Common Property Resource Management", *Working Paper* No. 1-03, South Asian Network for Development and Environmental Economics (SANDEE), Kathmandu, Nepal.
- Aryal, Amrit (2001), *Importance of community Forestry in Nepal. A Case Study of Pandey Goah Community Forestry of Takucha VDC; Kavre District*, Unpublished M.A. Dissertation, Department of Economics T.U. Kirtipur, Kathmandu.
- CBS (2003/04), *Nepal Living Standards Survey*, Kathmandu.
- CBS, (2007), *Statistical Pocket Book* Kathmandu.
- CDF/DoF. Database (2008), *Community Forestry Division, Department of Forest*, Kathmandu.
- Dahal, Mahesh Raj (2006), "Benefit -Cost Analysis of Community forest and Its Distributional Impact on Rural Poor." *In the Economic Journal of Nepal*, Vol. 29, no.2 April-June 2006, CEDCON-TU, Issue no.144 (Page 93)
- DDC (2007), *District Development Committee, District Profile*, Dang.
- Economic Survey (2005/06 PP. 44).
- Fisher R.J. and D.A. Gilmour (1992), "Villagers Forest and Foresters": The Philosophy Process and Practice of C.F. in Nepal, Sanayoji Press, Kathmandu, Nepal.

- Giri, Prakash (2000), *Community Forestry and Pattern of Income Distribution in Nepal, A Case Study of Lekhanath Municipality, Kaski District*, Unpublished M.A. Dissertation, Department of Economics P.N. Campus Pokhara.
- Government of Nepal (1998), *Master plan of Forest Sector*, Minister of Forest and Soil Conservation, Main Report, Dec. 1988, Kathmandu Nepal.
- Grownow, J. (1990), "Nepal Forest User Group," *In Bulletin University of Reading Agricultural Extension and Rural Development* no. 30 Page 19-23.
- IUCN (1995), *EIA of the Bara Forest Management Plan*. IUCN Nepal.
- Jackson W.J. and A.W. Ingles (1994) *Developing Rural Communities and Conserving Bio- diversity of Nepal's Forestry through Community Fores*, (ICIMOD), Kathmandu, Nepal.
- Kayastha B.P (1991), *Element of Community Forestry in Nepal*. Kathmandu, Nepal.
- LFP, (2004), *Innovations for Pro-poor Community Forestry: Community Forest land Allocation Livelihood and Forestry Programme Baluwatar* Kathmandu, Nepal.
- Malla, Y.B. (1993), *Changing Role of the Forest Resorce Market*, An Ignored Dimension of Economy Forestry "Banko Jankari", Vol. 4.
- RDFO (2003), *Report of District Forest office*, Dang.
- Roy, Rabindra (2003), "Rural Livelihood Time Saved and Community Forestry." *C.F. Bulletin, Department of Community Forestry, Babarmahal*, Kathmandu, Nepal.
- Thapa, Prem Bahadur (2004). *An Economic Analysis of Community Forestry. A Case Study of Saraswoti Community Forestry Group*, Dissertation Submitted to the Central Department of Economic, Tribhuvan, University, Kirtipur, Kathmandu.
- Three- years Interim Plan* (2007-2010).
- Upadhyaya C.P. (1989), *Common Property Forest Management and Product Distribution*, People's participation and Role in Gorkha Nepal.

