CHAPTER 1

INTRODUCTION

1.1 Background

Nepal is a small, beautiful and land locked country by China and India. It is located between 80 .04 to 88 12E Longitude and 26 22 to 30 27N Latitude. It has an area of about 1, 47,181 square kilometers and rectangular shape extending from east to west.

Community Forestry in Nepal is a vital source of income generation. CFUGs earn through the sale of forests, membership fees, through fines from rules violators. CFUGS fund is collected grand from DFO, different NGOs and INGOs for income generation activities. According to one estimate, the annual income of CFUGs is MRS 914 million (over US\$ 10 million), with forest products contributing the major share (Kanel and Niraula, 2004). This income is not shared with the government but is mobilized by communities for building local public goods and for forest management. CFUGs are required to invest 25% of their income in forest development, while the rest can be used for community purpose (Gautam at el., 2004). With this money, CFUGs have constructed school, temples, trails, roads and other social works. Nepal's forests are essential for the well being of rural community's who depend on them for supplies of fuel wood, fodder, poles, timer and many other products. They also provide essential raw materials for natural development and help to maintain a sound environment.

Forest is naturally dynamic systems, subject to cyclical through periodic disturbances, senescence and ecological succession (Kemp et.al, 994). Forest slows the run-off during periods of heavy rainfall and facilitating the recharge of shallow aquifers. Local water resources whether may be shallow wells, springs, or streams, provide the domestic water critical to the survival of rural families. Therefore, forest is one of the most important natural resources for the developing country. The forest has been contributing in the pace

of development to the social, religious, cultural, economic and environmental sector from the early human society.

The community forestry program has been recognized as major strategy for the development and management of forest resource of Nepal through the user group approach. This approach has been reported to be quite effective and sustainable for meeting needs of the people for a variety of products and also restoring the forest resources in the middles of Nepal (Sharma, 1996). Forestry along with the agriculture plays a central role in the economic and social life of the rural people who are 83 percent of Nepal's population. The majority of the household in the villages depends on the forest for their livelihood in subsistence agriculture and economy. Hence, the relation between the forest, land, livestock and human are of prime importance in context of natural resources management. Thus there are tremendous opportunities of integrating community forestry into community Development Activity.

Local people in Nepal have conducted various type of income generating activities with the help of Community Forestry Program. It has made several impact to uplift the life standard of women, poor and backward group. The user group has established fund by the income from the forest product including (timber and non timber production), grant and penalty along with various social activities including road construction, drinking water supply, helping school etc. Local people take responsibility for protection and management work in return; they receive access to forest products. In some cases they also benefit from being able to generate income within the forests. The longer the time in which people can be confident that they will have effective use of resources the more likely they are to manage it sustainably (Fisher, 1995).

Forest is one of the major resources for the survival of rural people in Nepal. Fruits, fuel wood, timer, food materials, grazing space, leaf litter etc. are provided by forest, which has high markets value. Forest are occupies 29 percent of the total land area of the country (Economic Survey, 2008/09). Forest is the source of raw materials and wood – based industries such as ply-wood, paper, furniture, medicine etc.

The Community Forestry Development Program is a successful example of the public oriented development program. Nepal is a leading country in the field of Community Forestry. Forest is the wealth of any country besides supplying timber and other products; forests play a vital role in environmental protection and are also of economic and social significance. Forest in the mountain areas are particularly important because they protect soil cover or site and protect downstream areas from excessive flooding and other harmful fluctuations in stream flow; thus this reduces the silt load of river preventing the clogging of reservations irrigation system, canal and docks.

The government formed the forest Act 1993, focuses on sustainable management of forest resources under community-based property right regimes. The forest act vested more legal authority in FUGs. This legislation was given greater coherence by the 1995 Forest rules, which clearly the powers and duties of FUGs As per these policies, local communities are organized as FUGs and accept the responsibility for protection, management and sustainable utilization of forest areas under community-based property right régimes. It focuses of the new act and regulation institutionalizing. CFUG is an independent and self governing entity. In present context of CF, income could be increase through improvement in cultivation, harvesting and marketing systems In addition to, the FUG can generate funds from different sources and the community uses the funds for community development activities along with forest development

In Nepal CF is seen as an opportunity to reduce poverty, just as community drive and development in many parts of the world (Mansuri and Rao, 2004; Narayan, 2002 cited from pokhrel, 2008). CF has to dimensional relation with rural poverty, one is survival benefit relation and other is well being benefit relation (Dahal, 2003). In order to empower the FUGs to manage Community Forests on an equitable and sustainable basis, the government has introduced progressive Forest Act, 1993 and Forest Regulation, 1995 (Maharjan, 1998). Still there are some problems observed in Community Forestry implementation process. They are mainly related to the economic position of the women, poor and social differentiation in society. More prominent issues are elite domination on

decision making process and inequity in benefit sharing mechanism (poudel, 2003). Under intensive community forest management, Gini coefficient lowers by 0.038 meaning that there will be a reduction of poverty by 22 percentage point (Sharma, 2010)

Community Forestry is poised as a great success in Nepal, with the latest statistics showing: 14,717 Forest User Groups managing 12, 61,902 hectares of community forests with 17, 09,800 beneficiary-households (DOF; 2010).

In this regard, the present management process of Community Forestry need to be improved to ensure the rights of poor, women and disadvantaged people in decision making process. The prevalent gender, cast and wealth ranks biased in society are barriers to equitable sharing of benefits of participation in Community Forestry. Wealthier and higher caste individuals are involved in higher level of decision making as opposed to poorer and low caste individuals who participated in lower levels. Emphasizing participation of such groups in higher level of decision making results in equity in participation. The poor, women and disadvantaged individuals have less access to FUG fund and its mobilization. Of course, the Community Forestry has improved forest management, created some short-term employment opportunity, generated income for community development activities and developed institutions in farming system. But the contribution to poor and DAG is minimal (Banko Janakari, 2006).

Thus community forestry in Nepal is in the process of dynamic development and therefore its definition cannot remain static. It may change according to time and necessity on the perspective of sustainable development of community forest, to improve environment and there users' livelihood.

1.2 Statement of the Problem

Community forest development in Nepal is an approach, which enables community or more exactly user group to direct the establishment and sustainable management of their local forests for their own benefit. The government has realized that without the active participation and co-operation of local people, the conservation and utilization policy will not be effective and sustainable. Therefore, the scope of this problem community forestry was introduced.

This program emphasizes sustainable development of forest by involving communities as forest user groups (FUGs). The program has been very significant with regard to forest development. It is estimated that there is a potential of 18, 76,300 Ha. forested and 15, 85,800 non-forested land which can be developed as community forest. Similarly, 73, 13,100 Ha. Nepal's current national forest can be considered potential community forest (Economic Survey, 2008).

This study will try to find out the problem and prospects associated with the community forestry way the benefit of CF according to groups and income distribution. Nepal Community Forest Programme has proved to be a very encouraging effort in the forestry between farmers and government (Mahat, 1986). Therefore, national forest handed over to a forest users group for development, conservation and utilization for the collective benefit of the community should be monitored from time to time.

In this situation this study will fully try to solve the following questions:

- 1. What are the local development activities and income generating activities under taken by Suntalidanda community foresry?
- 2. What are the direct and indirect benefits derived by user group of Suntalidanda community forestry?

1.3 Objective of the Study

The general objective of the study is the asses the existing socio-economic condition and the gap between poor and rich users deriving benefits from community forest. However, specific objective are:

- I) To analyze the income generation by community forest user group from community forest.
- II) To compare the resource use from CF among poor, medium and rich well being rank CF users.

1.4 Significance of the Study

CF is the most popular and effective program implementing in Nepal. It has solved many problems of the community by providing fuel wood, fodder, timber, employment opportunities and community development areas. Since the last three decades, the Community Forestry in Nepal has developed dramatically. Thus, the development and sustainability of CF is the hard core issue in present scenario. There still needs micro studies and researches. That's why this researcher has selected the Suntalidanda Community Forestry to know the forther information and contribution of CF in economic activities of the user group of that area.

1.5 Limitation of the Study

Every study has its own limitation and this study is an exception. The following are the main limitation of the research.

- a. This study covers only Devichaur VDC; therefore generalization may not be valid for all mid-hill region of Nepal.
- b. Because of lack of baseline information on Role of community forest in distribution for the past or the time before the forest were handed over to users, the changes in distribution in the forest was assessed through interviews with local people only.

- c. All facts of community forest in distribution were not cover by this study. It is widely understood by people and is considered to be the measureable parameter of distribution.
- d. Special identification and nomenclature work was not completed due to the technological expert.
- e. Not based on the theoretical frame.
- f. Applied research designs are merely exploratory and descriptive.

1.6 Organization of the Study

This study is derived into six chapters. The first chapter deals with the introduction. It includes the background of the study, statement of the problem, objective of the study, significance of the study, limitation of the study and organization of the study. Chapter second covers the literature review. The third chapter deals with the methodology of the study. The fourth chapter includes general description of the study area. The fifth chapter covers impact of community forestry in distribution of forest product in different well being rank of CFUG. The last six chapter deals summary, conclusion and recommendations for the Community Forest User Committee and for policy makers implementing agencies.

CHAPTER-II

LITERATURE REVIEW

There are many scholars and researchers who have devoted their time to study and dynamic forestry issues of Nepal. Their efforts to find out the forestry problems and solutions are considered valuable contributions. However, here only some literatures of scholars and researchers have been reviewed in order to know about the history, dynamic issues and existing status of community forestry in Nepal. In this chapter the literature review is classified into four categories.

2.1 Historical Background of Community Forestry Program

Due to the population growth, the pressure on the natural resources has been expanded dramatically, especially forest clearing for agriculture and industrial demands for timber in the developing countries of the world. Most of the people of developing countries are poor so they have to depend on natural resources for their livelihood. In the past, the forest policies of most developing countries had viewed that the people were the prime threat to the forest so that they should not be included in the management of forest. Mostly countries had nationalized their all the private forest to protect, manage and utilize for people's welfare by the governments so that they would not be depleted. As a result of nationalization of forest, the forest conditions of most countries continued to worsen and the governments there after realized that unless people are involved in the management of the forest, the governments along couldn't manage them.

With this concept, Community Forest Program was started in many countries of the world. However, the terminology used for it and their methods of implementation are different in the different parts of the world.

2.2 Communities and Forest Management: An International Review

According to FAO (1987), the CF concept was started in the Philippines in the late1960s in the name of smallholder tree farming. The paper Industries Corporation of the Philippines had launched a combined agriculture and tree farming development project to ensure a constant supply of raw material for its pulp mill and to improve the socioeconomic position of farmer on the periphery of its forest concessions and at the same time to strengthen its relationship with them.

In China, agriculture planning was fully integrated with forestry, animal husbandry and fisheries so that maximum benefit could be derived from the land and water resources of the country.

In Thailand, CF started since 1968 in the name of forest village system. The objectives of the forest village scheme were: (i) to attract landless people to establish themselves in forest village which offer improved facilities, a better standard of life and greater stability than nomadic life; (ii) to encourage village people to establish "taungya plantation" to reforest areas of the forest estate which had been degraded by over exploitation or shifting cultivation; (iii) to create opportunities for long-term forest employment.

According to IUCN (2000), in Pakistan, some policy changes emerged to support community forestry in terms of national law in the early 1980s. Some projects, which had begun to support community forestry program in Pakistan.

In Sri Lanka, community forestry project had started from 1982 to 1988 with the support of Asian Development Bank (ADB). This project stressed on block plantation, community woodlots and farm forestry. After 1989, this project has emphasized on block plantations to encourage farm forestry and community based activities. Now, 400 NGOs had also been engaged in various forestry related activities at the community level.

In 1988, the National Policy of India gave serious emphasis on the people's involvement in the development and protection of forests. Since 1990, the Government of India had

started Joint Forest Management (JFM) in many states. With the backing of new national and state government JFM polices, community forest protection became a massive peoples' movement covering much of the natural forest in Orissa, southwest Bengal and southern Bihar. By early 2000, the Ministry of Environment and Forest of India had estimated that 33,000 Forest Protection Committees were operation across India controlling access to 10.2 million hectares of degraded natural forests.

Community involvement in forestry has a long history in Bangladesh. As early as 1871, tribal Sweden farmers in the Chittagong Hill Tracts were engaged in the plantation of teak trees in abandoned dry land fields. This system of taungya derived from the Burmese terms for hill cultivation.

In Bhutan, the government had nationalized all the forests in 1969 with the good intension of ensuring environment protection and equitable availability of forest products to all Bhutanese. While nationalization of all the forests led to effective protection of forests in some parts of the country, it also contributed to adverse social and environmental impacts. The Bhutanese government commanded the Department of Forestry to prepare a scheme on social forestry to involve the local people in planting of trees in their own private or village lands. The basic aim of the Bhutan's Community Forestry Programme was to transfer the rights and responsibilities for sustainable management of resources on land owned by the government to local community forest management groups.

2.3 Community Forestry Development Programme in Nepal

In Nepal, the concept of people's participation in forest management was recognized by law in 1978 to fulfill the basic need of forest products and to up lift the socio- economic condition of local people. In this context, forest resources were entrusted for management to local political body, the Village Panchayat. But in course of time, this policy could not achieve the expected result. The reason was the Village Panchayat could not genuine

interest in forest management, simply because the members of Village Panchayat were busy in political matters.

The concept of Forest User Group (FUG) based Community Forest (CF) was put forth by the Master Plan for the forestry Sector in 1989. This Plan has recognized the Community Forestry Programme as the largest among six programmes. This programme relies on local FUGs for protection, management and utilization of forests. The Master Plan has given emphasis on handing over all accessible forests of hills to local communities to the extent that they are able and willing to manage them. The challenge of CF programme is to mobilize the members of FUG to manage the CF to meet their subsistence needs of forest products and raise their socio- economic condition.

Fisher and Gilmour, (1991) reported that "Hariyo Ban, Nepal Ko Dhan" i.e. Green Forest is Nepal's wealth is old slogan showing people's perceptions of Nepal's forest resource. It proves the forest is one of the most important resources of Nepal. In the past, the population was less and people lived in the close harmony with nature and gave top priority to the conservation of forest resource. In these days, forests were locked upon as sources of subsistence and vital sources for maintaining life-supporting system.

In Nepal, forests play a vital role in rural livelihood. Forest products are essential components of rural farming system in Nepal. The rural people use leaves and grass for animal fodder, leaf litter for compost preparation and making animal bedding, timber for building houses and making agricultural implements and fuel wood for cooking food. Hill farming system of Nepal is heavily depend on forest and forest-based resources, providing more than 50 percent of the livestock feed is estimated come from the forest. A considerable transfer of nutrient from forest and agricultural land is mostly facilitated by cattle, buffalo, goat and sheep (Carson; 1992).

Forestry, livestock and crop production are the integral components in Nepalese rural farming system. Almost all the requirements for the animal fodder are gathered from the forests. The animals are kept not only for milk and meat but also to make compost for

crop production, the compost being still a dominant source of maintain soil fertility in hills as compared to expensive and scarce chemical fertilizers. The leaves from the forest are used to prepare bedding materials for farm animals as well as mixed with the animal manure to prepare compost. Forest are an integral component of the subsistence agricultural practices by the majority of the rural people in the middle Hills (Branney and Dev, 1994: 136).

It is believed that CF programme can contribute greatly to raising the level of rural people's income and thus alleviating poverty. So, donors like Danida, DFID, AusAID (Australian Agency for International Development) are providing grants for implementing the CF Programme in Nepal. In order to build-up the capacity of people to support and involve in CF Programme, different training programmes are provided for staff, FUGs, local leaders, teachers, women, etc.

Forest Act 1993 and Forest By law 1995 have ample provisions for the development of CF Programme. In CF Programme, responsibilities have been given to FUG to take all the decisions for CF management and implement action. The government staffs only provide support to FUGs as advisor, facilitator and motivator. There are many clauses in Forestry Act and By- laws, which are related to the community forest. The main clauses of the Forest By-laws 1995 concerning CF is:

- Any part of accessible forests can be handed over to the communities who
 are traditional users of the resources, if they are interested to manage the
 forests.
- II) Any amount of National Forest can be handed over to the FUGs, if they indicate that they are capable of managing the resources.
- III) Conversion of National Forests to Community forest has priority over conversion to any other forest use such as leasehold, protected and production forests.
- IV) CF boundaries are fixed by traditional use practices rather than administrative boundaries.

- V) District Forest Officers (DFOs) are authorized to hand over forests to FUGs. This authority was vested with higher officials or the center in the past legislation.
- VI) FUGs have to manage the CF as per their constitution and operational plan both of which are approved by the DFO.
- VII) FUGs are autonomous and corporate bodies with perpetual succession right.
- VIII) FUGs can plant long- term cash crops, such as medicinal herbs, without disturbing the main forest crops in general.
- IX) FUGs can fix prices of forestry products irrespective of the government royalty.
- X) FUGs can transport forest products from one place to another simply by informing DFO.
- XI) FUGs can establish forest-based industries according to the resources available in their CFs.
- XII) FUGs can use surplus funds in any kind of community development works.
- XIII) FUGs can amend their OPs and inform DFO later.
- XIV) Any governmental and non-governmental agency can help FUGs to be organized and to manage CF.
- XV) FUGs can punish any member who breaks the rules of the constitution and OP.
- XVI) DFOs can take the CF back from FUGs if they operate against the OP.
- XVII) FUG has to make Operational Plan constitution as per the regulations.

In short, Forest Act 1993 and Forest By-laws 1995 have favored the development of CF Programme (Joshi, 2002).

CF seeks to increase the income of CF households' members through livestock development and different farm income generating activities. The project intends to encourage CF groups to start group saving funds. Each member has to contribute certain

amount of money per month for group fund. This fund is expected to be utilized mainly to meet the emergency needs of the group members and to fulfill credit needs of the group members to start small scales income generating activities (Aryal, 2002).

Table No. 2.1 Shows the Revolution of CF Legislation in Nepal

| Clauses | 1978 Panchayat Forest | 1979 | 1988 Amendment | Forest Act 1993 |
|------------------|-----------------------------|-------------------|------------------|----------------------|
| | Regulation and Panchayat | Amendment | | Forest By – laws |
| | Protected Forest Regulation | | | 1995 |
| Community forest | Panchayat forest not more | Not changed | No limit | No limit |
| area | than 125 Ha.Panchayat | | | |
| | Protected forest not more | | | |
| | than 250 Ha. | | | |
| Percentage of | 40 percent | 75 percent | 100 percent | 100 percent |
| benefit to the | | | | |
| community | | | | |
| Use of funds by | 50 percent for forestry | 50 percent for | 100 percent for | Surplus fund for |
| the community | | forestry | forestry | any community |
| | | | | development |
| Pricing of | Non less than government | Non less than | Non less than | FUG to decide |
| products | royalty rates | government | government | |
| | | royalty rates | royalty rates | |
| Plan preparation | By DFO | BY DFO | By community | By FUG |
| Plan approved | Conservator | Conservator | Region director | DFO |
| Forest boundary | administrative | administrative | administrative | Not defined by |
| | | | | administrative or |
| | | | | political boundaries |
| Management | Panchayat | Panchayat | Users committee | FUG |
| responsibility | | | under Panchayat | |
| chairperson | Elected leader of the | Elected leader of | Nominated by the | Elected by the users |
| | Panchayat | the Panchayat | Panchayat | |

Source: Joshi 1997

2.4 Working Procedures of Community Forestry

After the restoration of democracy in 1990, a new forestry policy was formulated. The main principal of the policy was to meet basic forest product and needs of the local people by phase wise handing over of all accessible forests to local communities. The emphasis was given to the users' group rather than village development committee. Nepal is said to be the leader and innovator of community forestry program. The main aim of the program is to develop a community forest in the village level. The community forestry development follows the four stages.

I. Identification Phase

- 1. Awareness rising through extension worker. 2. Forest identification and survey.
- 3. Forest boundary survey. 4. Users identification. 5. Discussion between users and district forest office 6. Formulation of forest user's groups.

II. Negotiation Phase

- 1. Negotiation between district forest office and users. 2. Preparation of constitution.
- 3. Forest boundary survey. 4. Preparation of operation plan. 5. Submission of constitution and operation plan to district forest office. 6. Approval of constitution and operation plan by district forest office.

III. Implementation Phase

1. General Assembly and election of forest user's committee according to approved constitution. 2. Administration and financial management. 3. Management of forest according to operational plan. 4. Monitoring and evaluation.

IV. Diversification and Expansion Phase

1. Revision of constitution and operation plan (OP). 2. Preparation of community development plan. 3. Preparation of annual working plan. 4. Internal resource mobilization of and establishment of linkage with service provider. 5. Implementation of community development activates.

2.5 Sustainable Development: Concepts and Definitions

The term "sustainable development" was initiated in the first United Conference on the Human Environment in 1972 and was modified again in the World Commission on Environment and Development in 1987. It refers sustainable development as follow "Sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspiration." The definition of this term has been further expanded and redefined by FAO to meet the management and sustainability resources as "the management and conservation of the natural resources base on the orientation of technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs for the present and future generations. Such sustainable development (in agriculture, forestry and fisheries sectors) conserves land, plant, water, animal genetic resources and is environmentally non-degrading, technically appropriate, economically viable and socially acceptable.

2.5.1 Sustainable Forest Management

Due to the factors, particularly in the developing countries, such as population pressure, poverty, environmental degradation and crisis etc., the management objective and method under the sustained yield concept seen to be inadequate in forest management. The deforestation and other environmental degradation rates still increase at alarming rate.

The concept of "sustainable forest management" has been widely adopted. It refers to "the process of managing permanent forest land to achieve one or more clearly specific objects of management with regard to the production of the continuous flow of desired forest productivity and without undue undesirable effects on the physical and social environment" (ITTO, 1992). Then sustainable forest management involves the production of wood and other products for commercial as well as for local uses purposes. It also includes the protection of the area to be managed for biodiversity and environment conservation, recreation and tourism purposes. It is a multi-disciplinary task, which requires collaboration among government, non-government and local people. To achieve such sustainable forest management, FAO.1993 has set a guideline that: The security and improved livelihood for the present generation as well as maintaining the potential of the forest heritage for future generation must be concerned: the forest potential must be seen within the broader context of rural development, in which the balance of forest and other land uses must be considered:

Responsibilities for forest management must be clearly identified and competing interests must be reconciled through dialogue and partnership:

Forestry activities will have to complete for scarce financial resources and both the production and environmental functions must be shown to be worth's-while to both users and financers.

2.5.2 Sustainable Community Forest Management: Concept and Definition

In line with Anon (1995), sustainable CF management may be defined as the process of managing community forest by FUG with one or several clearly defined management objectives. These objectives have to be mentioned in the operational plan of community forest. The intention of management should be to achieve a continuous supply of desired goods (forest products) and services of forest, without causing a disproportional decrease in the value of the forest areas and their future productivity nor undesirable environmental impacts. Sustainable CF management has interdependent technical economic, social and ecological aspects. Each aspect has certain minimum requirement that needs to be fulfilled to achieve sustainability.

In the words of Brundtland (1983, 1987), sustainability is wise use of resources in such a way that the future generation will have the same or an improved resources endowment too. In the context of the CF, equity and sustainability can only be achieved when we understand the concept of people's participation.

Maharjan (1998) "Characteristics of Ideal FUG" includes the following:

FUG should have:

- I) the feeling of ownership
- II) the knowledge and skills of technical forest management
- III) the knowledge about Forest Laws and By-laws
- IV) the knowledge about Operational Plan and Constitution of community forest
- V) good co-operation and communication within FUG and outside FUG good leadership
- VI) good participation in decision-making process of CF

FUG should have awareness about the rights, duties and responsibilities.

Kafle (1997) deals with people-centered forest management practices. This study concludes that technical, institutional and administrative support is needed for FUGs for further improvement of community forestry.

Gurung (1999) deals with the women's participation on community forest management. The main finding of the study is that women's participation is important in almost all community forest management and educational status plays a key role in involvement of women.

Dongol (1999) deals with the role of capital formation in contributing to sustainable community forestry. This study reveals that the successful capital formation in community forestry changes the people from destroyers to protectors so the capital formation is an effective medium for moving local people towards sustainable management of forests.

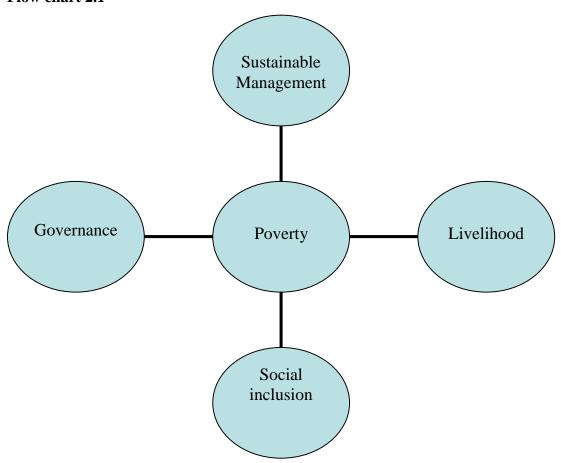
Among doctoral thesis, Pokharel (1997) deals with foresters and villagers in contention and compact in community forestry. The thesis concluded that community forestry is a dynamic process, therefore the implementing agency, such as the DFO, must be transformed to make it more flexible according to the situation and requirements of local communities.

2.6 Poverty and Community Forestry Interface

Poverty in Nepal is widespread where 31 percent of the population lives below the poverty line (NPC, 2006). Particularly hills districts have acute poverty enforcing unsustainable use of forest resources leading to degeneration and reduction in product supply (Paudyal, 2003). The master plan for the forestry sector, the agriculture perspective plans and the Tenth plan are the main policy instruments for poverty reduction and sustainable forest management.

Poverty is an entanglement of complex and complicated problems. Most of the studies reveal that CF has dominance of elites (Garner, 1997, Neupane 2000, Malla, 2001) has not been able to provide equitable sharing of benefits (Adhikari, 2002, Sharma, 2003) among the weaker section of the society. However, Community forestry has important sources for supplementing livelihoods and necessities for rural households. Especially for the households, CF has provided fuel wood, fodder, small timber and various non-timber products. Although, the resources are managed under local community regime, experience shows that the poor households are still marginalized from decision making process, equitable sharing of community fund and social inclusion. Poverty and CF interface (figure below) shows the intricate relationship of poverty to sustainable forest management, governance, livelihood and social inclusion. However, operational plans of CF do not make adequate provisions for social inclusion and livelihood poor.

Flow chart 2.1



According to tenth plan, Nepal has been able to introduce itself as a country of community forestry in world. With the help of community forestry, Nepal has improved the field of forest, environment, bio-diversity sustainable management and socio-cultural development. Through the medium of community forestry, the democratic exercise, gender equity, social justice and social improvement have been launched in the local community. Community forests have been handed over to the local communities to improve the livelihood of people below the poverty line (Paudyal and Thapa, 2004).

2.6.1 Process Approach

Participation of local people and multi-partnership approach are the key working principles. CFUGs are the focal point for any intervention of forest activities. District forest office is working in close collaboration with CFUGs. Federation of community

forest user groups (FECOFUN), NGOs, VDCs, DDC and community based organizations.

3. Contribution of Community Forestry in Socio- Economic Development and Poverty Reduction

Many studies have been conducted and various dimensions of community forestry that are mainly focused on social and policy aspects. Studies on assessing overall contributions of CF in Nepal is limited (Acharya and Oli 2004).

In many places CFUGs have become the vehicle for rural development and at present CFUGs are the main democratically elected local institutions in place. For many poor rural people, CFUGs also act as rural banks and source of revenue and income. Pokharel et. al.(2006) describes CFUGs as vehicle for rural development for the following reasons:

- a) CFUGs manage their finances and give loans to villagers.
- b) CFUGs support their members for income generating activities such as vegetation farming, livestock, horticulture, fishery and bee keeping.
- c) CFUGs contribute to the construction and maintenance of physical infrastructure such as irrigation canals, drinking water schemes, community building, wooden bridges, etc.
- d) CFUGs invest in scholarships for poor children, teacher's salaries, schools buildings and furniture.
- e) CFUGs invest their funds and labor in the construction of roads and trails.
- f) CFUGs promote eco-tourism and nature awareness by constructing picnic and recreational sports, temples and eco-clubs.
- g) CFUGs invest in health posts and medical equipments.
- h) CFUGs establish forest based enterprises.

Kanel and Niraula, (2004) has made a national wide study on expenditure and income of CFUG. They have estimated that Rs.747 million has earned by 14000 CFUG in Nepal during F/Y 2003. The figure of earning is 69% by the selling of timber, 18% by fuel wood

and 10% by bedding materials. That study has further shown that all CFUGs have made 28% expenses in forest protection, 36% in social infrastructure and only 3% in pro- poor programme, while total expenditure done 740 million and 7 million has deposited as capital saving.

Pokharel,(2008) has mentioned in his working paper carried out in 100 CFUGs in three different mid. Hill districts, Lamjung, Tanahu and Kaski. This studies main objective is to verify whether CF is indeed enbling the self financing of local public goods and to measure how much of the investment made through CF really reach the poor (though pro-poor programme). That study finds that the income from community funds increase local development resources by about 25% and overall 74% of the annual benefits of CF funds accrue to non-poor while only 26% accrue to the poor.

4. Unequal Distribution of Community Forestry Income

According to the studies done by Ojha and Bhattarai (2000) and Agrawal (2000) poor households do not benefit from community forests as much as affluent households and are not very interested in community participation. Poor households also have a high opportunity cost of participation as the time spent on participation could be used as labor for cash income. Medium class households benefit the most in comparison to high and lower class households. Upper class households are indifferent as they have low opportunity cost of participating in the management.

Adhikari (2002) argues, poor users do not actually benefit when all opportunity costs are accounted for in the assessment of costs and benefits of forest management. So, even the seemingly equitable provisions may not actually reflect the degree of equity that the poor users really want.

Sharma (2010) focus that income from animal husbandry, salary has a disequalizing effect while wage income, self employment and income from community forest products have equalizing effect on income distribution.

Thus literature review shows us there is a knowledge gap to measure the inequality in the context of distribution of income and benefit flown from CFUG. To know the distribution of income and benefit by the Lorenz curve of selected CFUG in Lalitpur district for inequality assessment.

CHAPTER: III

RESEARCH METHODOLOGY

3.1 Selection of the Study Area:

The research was conducted in Suntalidanda Community Forest Users Group Devichaur VDC in Lalitpur district. The area is selected due to the following reasons.

- I) Researcher is familiarity in the area.
- II) Community forestry program has been implemented in the area.
- III) Easy accessibility to the area.
- IV) No researcher of this kind has been done so far in this area.

One FUG of Devichaur VDC was selected for in depth study while selecting FUGs social, economic, technical and institutional dimension of the community forest was given the due consideration in order to make the study more practical, technically sound & reliable with the present situation of the community forest.

3.2 Research Design:

Descriptive research design was used in this study. It makes an attempt to describe and collection the necessary data to document the impact of community forestry on distribution of respected field. It is hoped that this research design may fulfill the specific objective of the study.

3.3 The Universe of the Study:

There are nine community forests in Devichaur VDC. Among them, Suntalidanda Community forest user Group was selected as study unit positively. That community forest user Groups consists of 140 HHs and it benefits about users. Out of 827

households, 25% were selected as the sample unit from the list of the user group by lottery system, with an assumption of five categories namely (I)Age and sex (II) Ethnicity (III) Occupation (IV) Socio-economic status (V)Education status (VI) Well Being Ranking and participation in executive committee.

3.4. Nature and Sources of Data:

Data from primary and secondary sources are used in this study. Both qualitative as well as the quantitative data also used to fulfill the objective of the study.

3.5 Data Collection Methods:

Both primary and secondary data were used to meet the objective of this study.

3.5.1. Interview Schedule:

Reconnaissance survey of the field (survey) was done at first and the survey techniques followed the participatory methods. Information was collected following the GAS-PRA (Gender Assessment Study- Participatory Rural Appraisal) as well as household survey techniques. For assessing socio-economic status of users, their participation towards forest management, attitude towards role of community forestry in distribution, existing conservation, protection, utilization procedure, possible alternatives and various data were collected by asking some questions with sampled households in the study area.

3.5.2 Key Informants Interview:

Staffs of District Forest Office, Forest user Group committee members, Village Development committee members and other educated users were the key informants for the study. Formal and informal discussions were performed with them. The discussion was held on their contribution, history of community forestry and status of participation of women, lower cast and other general users. They were also asked about important of

community forests. Checklist was prepared to discuss with them. Based on the discussion, the relevant information was recorded in plain sheet. Besides that, two users, one male and one female were also taken as key informants. They are the devoted users in protecting the forest since community forestry was launched in depth informal discussion was carried out with their experiences, feelings and contribution. Maximum focus was given to collect qualitative rather than quantitative data from the key informants.

3.5.3 Observation:

Direct observation was applied to get relevant information for the study. In the course of fieldwork, present condition of forest, applied forest management operation (thinning, pruning, fire line construction) was observed. The researcher attended one of the user committee meetings as an observer. Participation of women and their activeness in the meeting, FUG recording and accounting systems was also observed. Firewood storage, fire wood consumption, feeding materials of domestic animals, agricultural practices, community development activities done by FUGs was also observed. Observation was made during rapport building and informal discussion with users. The observation helped very much in understanding the field reality, which was fruitful for the study that could not been captured though verbal discussion.

3.5.4 Formal and Informal Group Discussion:

During field stay, the researcher met local users, women users, and caste users. Formal and informal discussions were done with them. Discussion with women users group and lower caste users group were taken separately. Qualitative data were collected through discussion. The discussion focused on the matter of the user's participation in different community forest activities. Their view about community forestry management, community development activities initiated by FUG and current and past status of Role of Community Forestry Distribution of Income and Forest Product Benefit in CFGs was also discussed.

3.5.5 Resource Inventory Design of Vegetation Assessment:

Preliminary survey of whole forest was carried out. Then stratified systematic random sampling was done in permanent rectangular/square plots by taking references of bearing in fixed intervals. Sampling intensity was 1% of total forest. Sample size was 100 square m. for main plots and (2×5) square meters for regeneration plots. Poles from 10-29.9cm DBH was measured from main plots (10×10) square meters, and seedling less than 4cm. DBH and 30cm (1feet) in height were counted as regeneration and sample size of timber plot has taken (10×10) square meters field and measured in DBH over 30 cm in diameter. The condition has assessed by direct observations.

3.5.6 Secondary Data Collection:

The secondary information was collected from related DDC, VDC, DFO, TU library, Range post, other papers and publication mainly general type of information like climate, total population, topography gender role &other Socio-economic status of the people.

The forest resources inventory was carried out following the "guidelines for inventory of community forests" 2061, published by MFSC, Nepal.

3.6 Data Analysis and Presentation:

Data were analyzed both qualitatively and quantitatively. Data obtained by using PRA tools were analyzed quantitatively in descriptive methods where as data obtained from resources inventory were analyzed quantitatively. The quantitative data were analyzed by mean percent to assess the people's participation and attitudes towards the community forest in distribution. Other necessary analytical exercise was carried to come up with appropriate recommendation like either positive impact after gender consideration in FUGs or negative impact. Relevant maps, tables & chairs are also presented wherever they are useful.

3.7 Ethnical Consideration:

In this study, some ethnical norms and values were used, which guided for less biasness during study period such as,

- I) Responds personal/private relation and confidential matters, which affects in his/her life, were not mention in this study.
- II) Responds or key informants were explained the purpose and objectives of the study clearly and in understandable way. This study did not consider adding any of researcher's own expectation and false information.
- III) No necessary pressure was made to the user refusing to involve in the discussion but more effect were made to motivate such user to involve in the discussion.
- IV) Data/ information were not exploited or manipulated during study period data and information's were interpreted on the basis of gathered information and findings.
- V) The due respect was given to the responds culture, social values and their ideology.
- VI) It was very easy to collect information (Socio-economic & resource information) from villagers by being batter familiarity & good report built up with then.

CHAPTER IV

GENERAL DESCRIPTION OF THE STUDY AREA

4.1 LALITPUR:

General Location

The Lalitpur district is situated in the southern part of Bagmati zone, the central development region of Nepal. The district has a total area of 393 square k.m. It lies between latitude 27 22'N to 28 50' and longitude 85 14' e to 82 26'E. It is bordered to the east by kabhrepalanchock district and to its west by Makwanpur and kathmandu districts To its south lies in Makawanpur district while Kathmandu and Bhaktapur district border it on the North. It has a total of 41 VDC and one sub-metropolitan city. The southernmost part of Lalitpur is sub-tropical Siwalik range. Middle part is temperate Mahabharat range with sub-tropical deep and narrow river valley and warm temperate tectonic valleys of Kathmandu lies in the northern part of district. Thus, the district has both the valley area and mountain regions. The attitude varies from A 60 m. to 283 m from sea level with a variation in climate from sub-tropical to cool temperate.

Population

The total population of this district is 331212 where male 167,000(50.7%) and female 1, 64,212(49.3%) according to DDC profile Lalitpur 2001. The density of population is 667.8per sq. km. And average family size is 5.6 persons. Population growth rate is 3% (DDC 2001). The demand of forest produce in municipality area is exaggerated by brick chimney operating in vicinity of the municipality. This is one way or the other way has added extra pressure on the forest lying close to the municipality.

Agriculture is the main stay of rural population, with subsequent pressure of local forest for litter, folder, firewood, timber, agricultural implements. The district has multi-cast, multi ethnic & multi-linguistic people.

Geology and Soil

In Lalitpur district, there is a great variety of rock types predominated by pre-combine, eocene phyllites, quartzite schists with pockets of granites and Limestone. The bedrock is highly fractured and mixed.

The associated soils vary from silt loam to clay loam, with variable depth varying from poor to well drained sites. Kanti Raj marga built in 1995 by Royal Nepal Army, was the first link road of Lalitpur. The road is now being reopened, at present condition, this road reaches only up to chhabeli, Bhattedanda, about 30km far from Lagankhel. The other road links from Patan area to Godavari, Badikhel lamatar, Saibu, Lele etc. Chandan pur-Lele link road has already completed.

Climite

The climate varies from sub-tropical to cool temperate because of the altitudinal variations, most of this district fall under warm temperate climatic region. The average temperature here ranges from 23.6 c (maximum) to 0.7 c (minimum). The temperature in some parts of the district could be as high as 37 c and minimum as low as 4 c. The average rainfall of the district is 1232 mm. There are few places like Godavari, where the precipitation is high then other places of the district. Most of the rainfall occurs during the summertime from May to September. Hailstorm is also experienced in a few occasions (Sources: DFO Profile 2009).

4.1.2 Land Use Classification

According to land resource mapping project (1986), land use in the Lalitpur district is given in the following table 4.1.

Table-4.1 Land use in Lalitpur District.

TYPE

ECOLOGICAL REGIONS

| S.N | TYPE | SIWALIK | MIDDLE | TOTAL % IN HECTARES. |
|-----|-----------------------|-----------|--------------|----------------------|
| | | | MOUNTAIN | |
| 1. | Agriculture(total) | 296 | 17363 | 17659(45.0%) |
| | Slopping terrace | 114 | 6839 | |
| | | | | 6953(17.7%) |
| | Level terrace | - | 2112 | 2112/5 40/ |
| | Valley floor Priors | 182 | 8412 | 2112(5.4%) |
| | Valley floor &tars | 102 | 0412 | 8594(21.9%) |
| | Grazing | _ | 87 | 0354(21.570) |
| | orwang . | | | 87(0.2%) |
| 2. | Forest (Total) | - | - | - |
| | Crown Cover 2 | - | 11415 | 11415(29.1%) |
| | Crown Cover 3 | 5 | 3885 | 3890(9.9%) |
| 3. | Shrubs | - | - | - |
| | Total | _ | 5423 | 5423(13.8%) |
| 4. | Other(Total) | - | 793 | 793(13.8%) |
| | Sand, rock and Gravel | - | 319 | - |
| | Urban | - | 459 | - |
| | Landslide | - | 15 | - |
| | Abandoned | - | - | - |
| | Total | 301(0.8%) | 38966(99.2%) | 39267 |

Source: LRMP (1986) Land Utilization report

Table 4. 2 Geographical Area (in hector)

| Region | Cultivated | Uncultivated | Grazing | Forestry | Other | Total |
|----------|------------|--------------|---------|----------|-------|--------|
| Mid-hill | 12,588 | 4,779 | 87 | 20,722 | 793 | 38,966 |
| Chure | 208 | 88 | - | 5 | 0 | 301 |
| Total | 12,793 | 4,867 | 87 | 20,727 | 793 | 39,267 |

Source: Village profile of VDC 2060

4.1.3 Factor influencing Community Forestry Development Process

The factor influencing Community Forestry Development process can be shown in the following chart.

Flow chart 4.1

CF Development Process

Literacy, Population, Attitude, Perception

Community Forestry Development

Soil Fertility, Social Moisture Wild Life

Income Level of the People

FUGs Impact

The flow chart 4.1 describes us about the Community Forest Development process. According to the flow chart, first of all people were made literate that changed the people's attitude towards CF and also developed their perception. Then, soil fertility and social moisture wildlife also came in rise and began to develop slowly. Similarly, the income level of people also began to develop as well as improved after that development. Finally, positive impacts were found in forest user groups through this process.

4.1.4 Impacts of Community Forestry

Impacts of Community Forestry can be seen in the following flow chart:

Flow chart 4.2 **Community Forestry System Economic Impact** Social Impact **Environmental Impact** Attitude and Soil fertility Income percentage Women participation Production Soil erosion Labor Physical quality of Soil moisture Life Capital Vegetative cover Participation in decision making Economic upliftment Ecological balance Settle CF program

Source: (Thapa; 2004:39) Impact analysis framework of Community Forestry.

Community forest has three impacts as shown in the above figure 4.2, economic impact,

environment impact and social impact. By economic impact, the source of income will

increase production rate which in turn increased the labor supply. Finally, capital will be

formed, thus the whole process ultimately assists in the economic upliftment of FUGFs.

FUG is concerned with its environment impact soil fertility, moisture and vegetative

cover with be increased in the areas where CF exists while it helps to minimize soil

erosion. Eventually, thus it helps to maintain proper ecological balance. Another major

impact of community forest is the social one. Initially, community forest helps to change

the attitudes and perception of the people in the positive direction. Which in turn,

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 battlement. Finally help in launching the CF programmers will be settled.

4.2.1 Population and Households in Devichaur VDC.

According to the Livelihoods and Environment Awareness Project office Devichaur VDC

2010, the total households are 524 and their populations are male 1386 and female 1367

in all total 2753 in Devichaur VDC.

Source: Census 2010, LEAP Devichaur VDC Office

4.3 **Introduction of Suntalidanda Community Forestry**

Suntalidanda Community Forestry is situated in Devichaur VDC, ward no 4 Lalitpur but

the user groups has covered Devichaur VDC-3,4,5,6,7 and 8. The total are of the

Community Forestry is 107.00 hectre. It has been divided into 2 blocks of Community

Forest area. The each block has been also divided into 2 sub blocks. The first block area

is 47.75 hectors and second block is 58.25 hectors. It was handed over to the FUG in

2050/02/21 B.S.

34

The total number of present households is one hundred forty in the SDCFUG. Those houses mainly represent the people of Tamang, Brahmin, Chhetri, Dalit(Damai) community. There are 11 members in Executive Committee of Suntalidanda Community Forestry. The community forest is large and has protected daily by two watchers in the salary of NRs 2,000 per month. The main species of the forest are Pinus species, Utis(Alnus nepalessis), Chilaune (Schema walichi), Katus(Castonopsis indica), Quacus species, Rhododerdron species etc. According to Forest Action Plan (First 10 years Renewal, 2060 to 2069), annual forest collection from the CF area prescription are tree 968 cft. Pole 7,725 cft. and fuel wood 2833 head load (Bhari). Since, the forest handed over many appreciating works with the FUG fund has mobilized in social works, education sector, communication, and other developing works, different types of training, plantation and good for forest management activities. Performance of the good work the FUG has got prize two times from the district forest office.

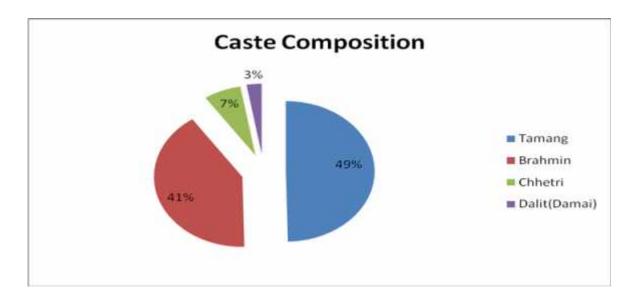
Table 4.3 Caste Composition of the Study Area

| Caste Group | No of HHs | Population | Percentage |
|--------------|-----------|------------|------------|
| Tamang | 68 | 424 | 48.7 |
| Brahmin | 56 | 349 | 40.0 |
| Chhetri | 12 | 75 | 6.7 |
| Dalit(Damai) | 4 | 24 | 2.7 |
| Total | 140 | 872 | 100 |

Source: Field Survey, 2010

The Suntalidanda community forest has 140 households. There are 872 users among these household which are legally as primary users. The above table shows that Tamang are 68 households and their population is 424. Similarly, Brahmin are 56 households, Chhetri 12 households and Dalit(Damai) 4 households and their population are 349, 75 and 24 respectively.

Figure 4.1: Caste Composition in SDCFUG



In the study various caste groups inhabit area, where forest user groups have been living. The figure 4.1 shows that out of 140 households of the users, where Tamang 49 percent, Brahmin 41 percent, Chhetri 7 percent and Dalit(Damai) 3 percent are in the study area.

4.3.1 Population Distribution by Age Group of SDCFUG

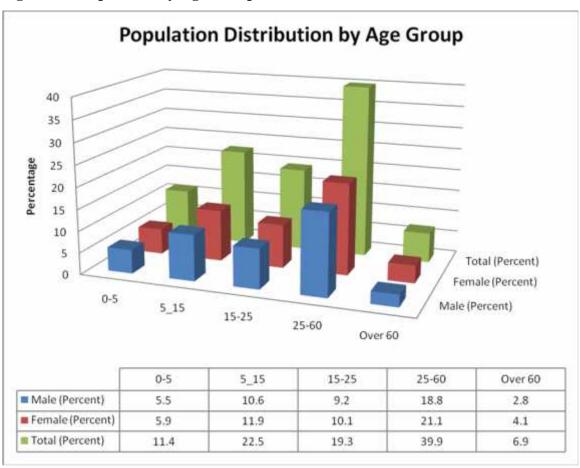
The total number of population of SDCFUG is 872. There are about 53.2 percent of the populations is female and 46.8 percent is male. Female is more than male population due to higher birth rate of female 25-60 mature year's old age. This has shown in following table 4.4 and figure 4.1. The table shows that 11.5% have 0-5, 22.5% 5-15, 19.3% 15-25, 39.9% 25-60 and 6.9% over 60 age group.

Table 4.4: Age and sex composition

| Age Group | Male | Percent | Female | Percent | Total | Percent |
|--------------|------|---------|--------|---------|-------|---------|
| 0-5 | 48 | 5.5 | 52 | 5.9 | 100 | 11.4 |
| 5-15 | 92 | 10.5 | 104 | 11.9 | 196 | 22.5 |
| 15-25 | 80 | 9.2 | 88 | 10.1 | 168 | 19.3 |
| 25-60 | 164 | 18.8 | 184 | 21.1 | 348 | 39.9 |
| Over 60 | 24 | 2.8 | 36 | 4.1 | 60 | 6.9 |
| Total | 408 | 46.8 | 464 | 53.2 | 872 | 100 |

Source: Field Survey, 2010

Figure 4.2: Population by Age Group



Age and sex composition are the most important demographic features for the planners. It will help them to know which age group is weaker and which is stronger in a community and what kinds of support them can do for the progress of that age and sex. Age and sex affect marriage, birth/fertility and mortality directly and also shows dependency ratio as table 4.4 and figure 4.2 show that out of total population of 872. The table shows that 40.8% are inactive populations and the active age group 15-60 belongs to 59.2%.

4.4 Socio- Economic Characteristic of User Group

4.4.1 Occupational Composition in SDCFUG

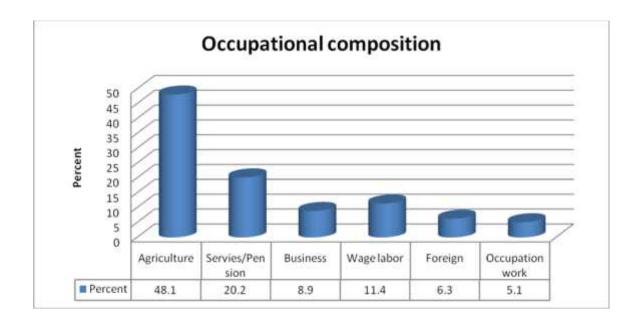
Agriculture is the main occupation of Nepal. This trend can be seen in this study area also. Livestock, selling milk is the first income source of this user groups. Moreover, some people are engaged in other occupation such as services, business, wage labor, foreign jobs and occupational work. In this study area, student, infant and inactive persons are not included. In the sampled households the occupational numbers have increased because of the joined family. Table no 4.5 below presents the occupational composition of Sundalidanda Community Forest User Groups (SDCFUG).

Table 4.5: Occupational Composition of Sampled Households in SDCFUG

| Occupation | No of HHs | occupational No | Percent |
|-----------------|-----------|-----------------|---------|
| Agriculture | 21 | 38 | 48.1 |
| Servies/Pension | 7 | 16 | 20.2 |
| Business | 2 | 7 | 8.9 |
| Wage labor | 2 | 9 | 11.4 |
| Foreign | 1 | 5 | 6.3 |
| Occupation work | 2 | 4 | 5.1 |
| Total | 35 | 79 | 100 |

Source: Field Survey, 2010

Figure 4.3 Occupational Composition



The above table shows that the total active occupational number is 79 in sampled house 35. There are 38 persons involve in agriculture, 16 persons services and pension, 7 users business, 9 wage labor, 5 users foreign and 4 users occupational work are in sample study area. The figure 4.3 indicates that 48.1 % involve in agriculture, 20.2% in services and pension, 8.9 % in business, poor household involve in wage labor and occupational work which are 16.5% and 6.3% include in foreign work.

4.4.2 Education Status of SDCFUG

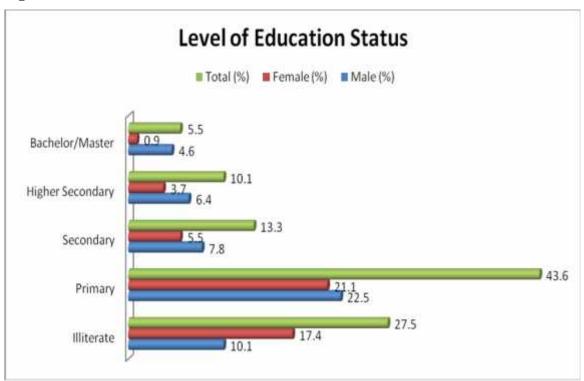
Educational status also represents the economic condition partially because it is human resource. That's why the researcher has tried to show the educational status of respondents sampled households which has shown in the following table 4.6 and figure 4.4.

Table 4.6 Education Status of SDCFUG

| Level of Education | Male | | Female | Total | | |
|--------------------|------|---------|--------|---------|-----|---------|
| | No | Percent | No | Percent | No | Percent |
| Illiterate | 22 | 10.1 | 38 | 17.4 | 60 | 27.5 |
| Primary | 49 | 22.5 | 46 | 21.1 | 95 | 43.6 |
| Secondary | 17 | 7.8 | 12 | 5.5 | 29 | 13.3 |
| Higher Secondary | 14 | 6.4 | 8 | 3.7 | 22 | 10.1 |
| Bachelor/Master | 10 | 4.6 | 2 | 0.9 | 12 | 5.5 |
| Total | 112 | 51.4 | 106 | 48.6 | 218 | 100 |

Source: Field Survey, 2010

Figure 4.4 Level of Education Status



The above table 4.6 describes that illiterate are 27.5 %, in primary level 43.6%, secondary level 13.3%, higher secondary 10.1% and Bachelor/Master level 5.5% in the sample study area. It also shows that male and female are 51.4% and 48.6% respectively. There is available a higher secondary school that's why the level of education of female is little bit less than male in this study area.

4.4.3 Information of Land Holding

Land Holding is one of the most important determinations of the income and food sufficiency. In this study area, more than 97 percent households have land. There are only some people have landless.

Table 4.7 Land Holding pattern in SDCFUG

| Land holding size (Ropani) | HHs | Percent |
|-------------------------------|-----|---------|
| Land less | 4 | 2.9 |
| 0-5 | 44 | 31.4 |
| 5-10 | 32 | 22.9 |
| 10-20 | 36 | 25.7 |
| Over 20 | 24 | 17.1 |
| Total | 140 | 100 |

Source: Field Survey, 2010

The above table indicates that there is 2.9% land less households, 31.4% households have 0-5 Ropani, 22.9 % households' 5-10 Ropani, 25.7% households 10-20 Ropani and 17.1% households have over 20 Ropani.

CHAPTER V

IMPACT OF COMMUNITY FORESTRY IN DITRIBUTION

The study is based on the well being strata i.e. the income distribution among the users with different well being ranking (mainly poor, medium and rich). To observe the impact of community forest, the different households in SDCFUG were differentiated into three ranks. Most commonly three ranks (poor, medium and rich) were indentified in this study area. The criteria for each of the rank are identified on the basis of land holding, food supporting capacity, income amount, educational status, occupational status etc. Thus, the Suntalidanda Community Forest User is categorized into three well being groups.

- **1. Poor:** Poor HHs mostly depends on least amount of agriculture land. The HHs mostly dependent on seasonal agriculture laboring, low income, food supporting capacity low and educational status is also low. They have no own forest product and primarily depend upon CF and less purchasing power.
- 2. Medium: Medium well being rank households comprise of subsistence farmers work on their own land, food supporting capacity is 6-12 months, annually income level NRs 50,000 to 2,00,000 per household. The HHs number includes primary to secondary education level. Less private forest, job HHs and moderate purchasing power were categorized in the medium rank.
- 3. **Rich:** Rich well being ranking HHs have various sources of income more than agriculture/livestock farming. They included secure and well paid jobs, surplus gain and land holding capacity is more than 20 Ropani. They have private forest as resources for supply forest products. Education status is high. Similarly, annual incomes around more than 2 lakh, purchasing power high were considered as rich as well in their houses.

5.1 Well Being Status of SDCFUG

In this study area, there are many well being classes among the user group. There are many ethnic groups which are categorized according to their natural, social, physical, financial and human impact. This types of classes help to make good forest action plan to their need for livelihood and easy to implement according to rules and regulation.

Table 5.1: Well Being Classes of SDCFUG

| Ethnic | Well Be | ing Class | Total | Percent | | | | |
|---------|---------|-----------|--------|---------|------|---------|-----|------|
| Group | Poor | Percent | Medium | Percent | Rich | Percent | | |
| Tamang | 32 | 22.9 | 26 | 18.6 | 10 | 7.1 | 68 | 48.6 |
| Brahmin | 10 | 7.2 | 28 | 20.0 | 18 | 12.9 | 56 | 40.0 |
| Chhetri | 3 | 2.1 | 7 | 5.0 | 2 | 1.4 | 12 | 8.5 |
| Dalit | 2 | 1.4 | 2 | 1.4 | - | - | 4 | 2.9 |
| Total | 47 | 33.6 | 63 | 45.0 | 30 | 21.4 | 140 | 100 |

Source: Field Survey, 2010

The table 5.1 shows that there are four ethnic groups living in this study area. The ethnic caste of Tamang 22.9%, Brahmin 7.2%, Chhetri 2.1% and Dalit 1.4% are in poor category. Similarly, the medium class of Tamang 18.6%, Brahmin 20%, Chhetri 5.0% and Dalit 1.4% and rich well being class are 7.1% Tamang, 12.9% Brahmin and 1.4% Chhetri out of 140 households in this study area. It also shows that among the ethnic groups 33.6% poor class, 45% medium and 21.4% rich class households have included.

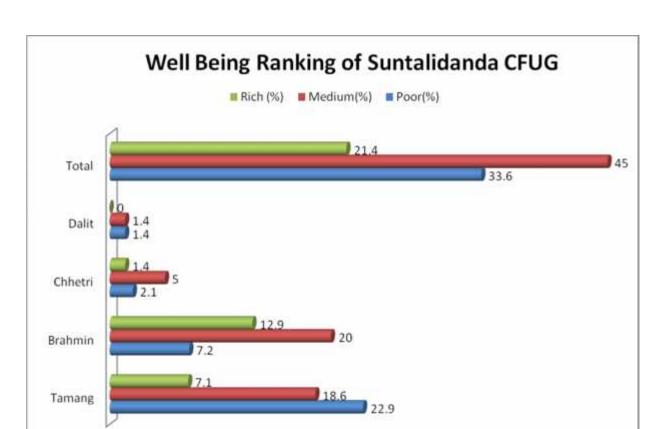


Figure 5.1 Well Being Ranking of Suntalidanda CFUG

The above figure shows that there are 21.4 % rich category, 45.0 percent medium and 33.6 % poor class households in this study area. This means we should focus poor class in planning and implementation phase to make forest operation plan.

5.1.2 Information of Land Holding

Land Holding is one of the most important determinants of the income and food sufficiency. More than 97 percent households have land but it is not sufficient. The land less people have to spend their income for purchasing food in daily use. Table 5.2 shows average land holding pattern of household.

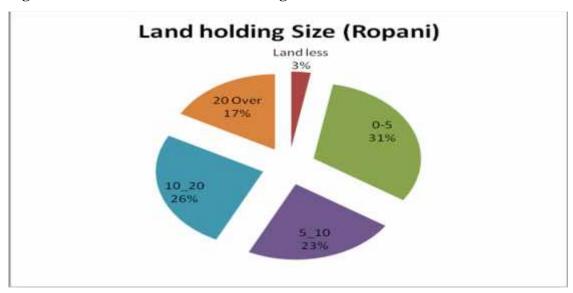
Table 5.2 Land Holding Pattern in SDCFUG

| Land Holding Size (Ropani) | Households(HHs) | Percent |
|-------------------------------|-----------------|---------|
| Land less | 4 | 2.9 |
| 0-5 | 44 | 31.4 |
| 5-10 | 32 | 22.9 |
| 10-20 | 36 | 25.7 |
| 20 Over | 24 | 17.1 |
| Total | 140 | 100 |

Source: Field Survey, 2010

Table 5.2 shows that 4 households do not have their own land and 44 households have 0-5 Ropani land, 32 households have 5-10 Ropani, 36 households have 10-20 land and 24 households have more than 20 Ropani land. It shows the poor economic status of the people living there. There is 3% land less, 31% 0-5 Ropani, 23% 5-10, 26% 10-20 and 17% over 20 Ropani land holding HHs have included.

Figure 5.2: Information of Land Holding Size of SDCFUG



5.1.3 Food Supporting Pattern in SDCFUG

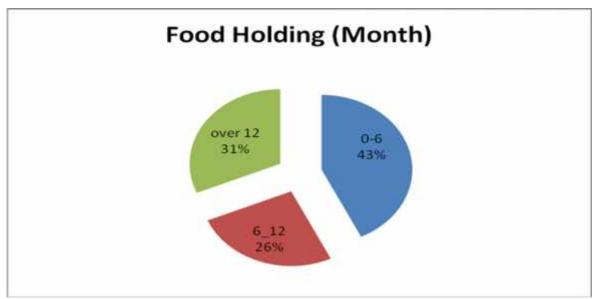
Food Support is also important factor of income and good life style. It is the one kinds of factor well being ranking which shows living status.

Table 5.3 Food Supporting Pattern

| Food Supporting Month | Sampled HHs | Percent |
|-----------------------|-------------|---------|
| 0-6 | 60 | 42.8 |
| 6-12 | 36 | 25.8 |
| Over 12 | 44 | 31.4 |
| Total | 140 | 100 |

Source: Field Survey, 2010

Figure 5.3 Food Supporting in Month



The above table and figure show that 43% HHs have 0-6 month's food support. Similarly 26% HHs have 6-12 month's food support and 31% HHs over 12 months.

5.1.4 Well Being Ranking on the Basis of Possession on SDCFUG

Table 5.4 Well Being Ranking on the Basis of Possession

| Land holding in | Food supporting Month | Annual income In Rs 000 | Education status | No of HHs | HHs % | Well Being Ranking |
|-----------------------|-----------------------------|-------------------------|------------------|--------------|-------|--------------------------|
| Ropani | Wionth | 111 13 000 | | | | Kanking |
| 0-5 | 0-6 | 0-50 | Up to Primary | 47 | 33.6 | Poor |
| 5-15 | 6-12 | 50-200 | Up to SLC | 63 | 45.0 | Medium |
| 15 Over | 12 Over | 200 Over | Higher level | 30 | 21.4 | Rich |
| Total | | | | 140 | 100 | |

Source: Field Survey, 2010

The baseline information of FUG was collected during data collection. The information of land, income, land holding, food supporting capacity and educational status were collected respectively. The data was cross checked through constitutional and forest operational plan of SDCFUG. They were divided into main three well being rank that was measured on the mentioned criteria.

5.2 Status of Forest Products

The majority of rural people in Nepal depend of forest to support agriculture and livestock system. Community forestry provides fuel wood especially for cooking and heating, timber for building, construction implements and furniture, fodder and bedding for livestock, leaf litter for compost and NTFPs used as herbs and many kinds of medicine. Community forestry also plays a crucial role in maintenance, conservation resources and promoting tourism.

Community forestry is primarily the main sources of forest products for the SDCFUG. Besides this, private lands are considered as the sources of grass and firewood. The SDCFUG has allowed its users to collect grass and leaf-litter throughout the year. Fuel wood collection is done in the months Mansir to Falgun only according to rules and regulation of action plan and their constitution. Similarly for the purpose of house construction FUG distribute the timber to the needy household period according to Kartik to Ashad by paying certain amount of Community Forest Action Plan's rules. The collection of forest products from CF are tabulated in the following table no 5.5.

Table 5.5 Annual Forest Products Collection from SDCFUG

| Forest Products | Poor(47) | Medium(63) | Rich(30) | Total | % |
|------------------------|----------|------------|----------|--------|------|
| Fuel wood(Head load) | 2,600 | 4,800 | 1,682 | 9,082 | 13.9 |
| Fodder (Head load) | 5,552 | 18,612 | 9,497 | 33,661 | 51.4 |
| Timber (cft.) | 619 | 1,500 | 1,380 | 3,499 | 5.3 |
| Leaf litter(Head load) | 2,820 | 8,445 | 8,044 | 19,309 | 29.4 |
| Total | 11,591 | 33,357 | 20,603 | 65,551 | 100 |

Source: Field Survey, 2010

From the table it can be interpret that the poor category households have been collecting less forest product with respect to medium and rich category. Medium and rich category are collecting fuel wood, fodder, timber and leaf litter from the community forestry. Since the poor category does have less lives stock thus they do not collect fodder and bedding materials for their livestock. The poor category, on average 2,600 head loads of fuel wood, 5,552 head loads of fodder, 619 cft. of timber and 2,820 head loads of leaf litters have collected by the 47 households in the study area. Likewise, 1682 head loads of fuel wood, 9497 head loads of fodder, 1,380 cft. of timber and 8,044 head loads of life litter was found to be collected by 30 rich households during study.

From the above analysis it is clear that rich households are benefit more in collection timber and leaf litter as compared to poor as well as medium class. The rich class households consist of large number of livestock and make huge house. Therefore, they collect forest product are higher than medium and poor. Contrary to fuel wood the rich households have their own private forest to collect fuel wood rather due to unavailability of private forest to medium class.

5.3 Management of Suntalidanda Community Forest

There are many impacts of community forestry on their livelihood during the study area on the SDCFUG. The impact can be analyzed under following headings. They are classified as below.

- I. **Natural Impact:** Change in the leaves of the forest condition and improvement the forest resources by silvicultural operation.
- II. Social Impact: Improved social capital for collective planning, social conception, action and welfare.
- III. **Physical Impact:** Support for community infrastructure and development activities by user groups.
- IV. **Financial Impact**: Household livelihood/ income generation opportunities.
- V. Human Impact: Skill development through group management, record keeping, forest management, leadership training to the different groups and IGAs.

The main indicator of impact is the change in human life style and sustainability of forest product continuously. Other indicators used are the household livelihood opportunities emerging through wider FUG community's development activities and improvement in other household and other local assets.

5.3.1 Natural Impact

Improved and more sustainable forest product flows depend of improved condition of the forest resources in the CFUG. In this forest user group the mature tree neither was nor protected before CF management system. This has been achieved through careful protection of forest, illegal felling, encroachment and unregulated extraction of forests and controlling the regular uses of forest resources. The below figure provide the idea of on the types of forest production received by members of FUG in the different wealth rank.

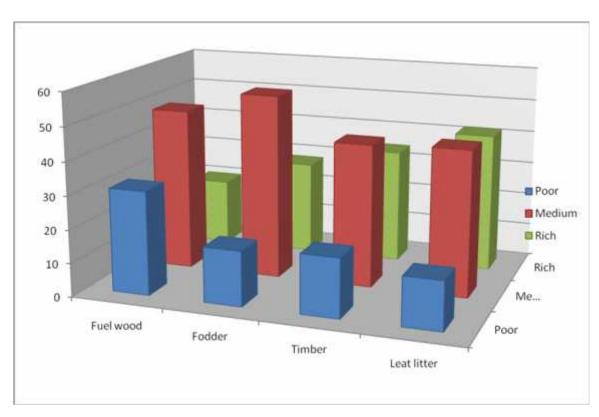


Figure No 5.4 Percentage of Users with Different Wealth Categories

Source: Based on table 5.9.

The above figure illustrates the use of different forest products by the FUG members of different wealth rank. Fuel wood is greatly used by the poor households because of lack of other private resources. They do not have other resources of fuel wood for cooking as

well as private forest. So they totally depend upon the CF for the fuel wood. They use less timber because they are unable to build to make house and lack of money. Rich people use less fuel wood and fodder because of their own private forest land. But the study shows that rich people have used maximum amount of timber from the CF. Medium class people use maximum percentage of fuel wood and fodder in the comparison to other wealth categories. This is due to less equality of fuel wood and fodder in their private forest. Similarly, fodder extract is maximum due to large number of livestock comparison poor groups clearly seen as using low percentages of forest products.

5.3.2 Social Impact

FUG creates a new forum with potential for local level planning, development, improved social work, structure and social cohesion. In the livelihood pattern, this is often labeled at "social capital". The benefits of creation of "social capital" depend upon the participation the households and individual in local institution and enhanced knowledge of right and duties involved in securing a livelihood and rights.

Participation of Dalit is the main concern in every sector nowadays. Similarly, women participation has one of the strong agenda in community workfare. In the case of SDCFUG, the participation of Dalit and women play the significant role in uplifting the social level. We can see in different figures and tables lower level of participation of different ethnicity and gender in management committee of the SDCFUG.

Suntalidanda Community Forest User Group, the Executive Committee is dominated by Brahmin. There is dominant of Janajati and Dalit(Tamang and Damai) in executive committee because of the lower participation. However, the number of population of Tamang is high; there is low involvement in this committee because of their lower education and lack of leadership power.

5.3.3 Physical Impact

During study, it is found that FUG has not properly invested their fund to develop social physical capitals such as community school, drinking water, road etc, but certain fund mobilized to develop and improve forest and certain amount has invested human skilled development such as forest management training, news paper and telephone services. They have not invested income generation activities of the poor class groups. The income and expenditure of Suntalidanda CFUG in terms of monetary values are given below table.

Table No 5.6: Income and Expenditure of SDCFUG for FY 2065/066

| Income | | Expenditure | | | |
|------------------------|-------------|--------------------------------|-------------|--|--|
| Activities | Amount(NRs) | Activities | Amount(NRs) | | |
| Last year deposit | 54,500 | Forest management training | 14,728 | | |
| Cash balance | 5,919 | Bushes cutting | 23,750 | | |
| Entrée fee | 80 | Plantation | 5,200 | | |
| Monthly fee | 9,620 | Silviculture equipment selling | 6,445 | | |
| Selling from firewood | 1,570 | Stationary cost | 1,734 | | |
| Selling from timber | 28,709 | News paper | 250 | | |
| Fine and penalty | 900 | Audit charge | 600 | | |
| Application amount | 50 | Forest watcher payment | 12,300 | | |
| From telephone service | 170 | Tea | 826 | | |
| - | - | Telephone bill payment | 6957 | | |
| - | - | Casual expenditure | 1,200 | | |
| - | - | Bank Deposit | 27,588 | | |
| Total | 1,01,518 | | 1,01,518 | | |

Source: Field Survey, 2010

Table shows the income and expenditure of SDCFUG. The small amount of income have not successes to increase and fund allocation in education sector as well. Therefore, the physical development activities of the community are seen weak in the case of SDCFUG.

5.4 Financial Impact

Financial capital is livelihood cement building, availability of cash that people enable to adopt livelihood strategies. Some of them are defined as follows:

5.4.1 Income Generating Activities

Implementation of income generating activities (IGAs) is one of the most important activities to enhance the livelihood of the FUGs. Those activities are conducted by LEAP Nepal, Samjhauta Nepal and other organizations in the coordination of CFUGs.

The main income generating activities are livestock, horticulture, bee keeping and different kinds of skill training like as vet nary, electrician and knitting. This helps to uplift the economic condition of the poor. But the poor wealth respondents also informed during interview that the executive member does not show interest for them. Similarly, executive members of SDCFUGs informed that they have no sufficient budget and could not lend them fund without special programme. The number of HHs in SDCFUG involved in IGAs tabulated below:

Table 5.7: No of HHs Involved in IGAs

| Well Being Rank | No of HHs Involved in IGAs | | | | | |
|-----------------|----------------------------|------------|--|--|--|--|
| | No of HHs | Percentage | | | | |
| Rich | 2 | 16.7 | | | | |
| Medium | 4 | 33.3 | | | | |
| Poor | 6 | 50.0 | | | | |
| Total | 12 | 100 | | | | |

Source: Field Survey, 2010

From the above table it is shown that only 12 HHs are involved in different income generating activities supported by LEAP, Samjhauta, CFUG and other organization. Wealth rank belongs to poor one, all of them involved in skilled develop training. During surveying time, the benefited respondent replied that they have benefited from the IGAs programme. Thus, income of the user group has increased to improve the living stander.

5.5 Human Impact

Community forest user group offers the forum for social cohesion. The social awareness forest use is the primary programmes are bee keeping; vet nary, electrician and knitting training which are supported by LEAP, Samjhauta and other organizations. CF occasionally runs skill development trainings and more other awareness programme throughout the year.

5.5.1 Forest Management Training

These types of training provided to executive members and FUG members to help for the forest management properly. Forester officer has transferred the forest technology knowledge to user groups on the CF land in the three days training. In this training,

silvicultural operation, forest product measurement, sample plot designs, different types of stage of tree have learned the user groups.

5.5.2 Income Generation Rerated Activities

SDCFUGs have not lunched in income generating activities in user groups own their fund. Others organizations have provided to the user group in income generating programmes in vet nary, electrician, knitting training and bee keeping. In future it is going to conduct income generating activities for carpenter, other electrician, and computer training for the poor and needy to help to focus the poor user groups.

5.6 Demands for Forest Product in SDCFUG

There is a fully available forest product, especially fuel wood and timber to the forest user groups. The forest area is 107.0 hectare for the 140 households. There is other scatter forest land near the user groups which forest land has been conserved and utilized as own land. Many rich users have their own private forest that's why these types user groups less go to forest to use the forest product like as fuel wood, fodder and leaf litter. Most of the medium and poor user groups depend upon community forest. All most of users depend on timber which is not available in private forest. The following table focus on the demand for forest products from different well being rank.

Table No 5.8 Annual Demand of Forest Product in SDCFUG (in FY 2066/067)

| Forest | Poor(47) | | | Medium | n(63) | | Rich(30) |) | | Total | % |
|----------------------------|----------|-------|-----------|--------|--------|--------------|----------|--------|--------------|----------|------|
| Product | CF | PF | Purch ase | CF | PF | Purc hase | CF | PF | Purc hase | | |
| Fuel wood (Head load) | 2,600 | 260 | 720 | 4,800 | 756 | - | 1,682 | 840 | - | 11,658 | 9.7 |
| Fodder (Head load) | 5,552 | 4,700 | - | 18,612 | 12,408 | - | 9,497 | 14,242 | - | 65,011 | 54.3 |
| Timber (cft.) | 619 | - | - | 1,500 | 225 | - | 1,380 | 276 | - | 4,000 | 3.3 |
| Leaf litter (Head load) | 2,820 | 1,600 | - | 8,445 | 6,224 | - | 8,044 | 12,022 | - | 39,155 | 32.7 |
| Total | 11,591 | 6,560 | 720 | 33,357 | 19,613 | - | 20,603 | 27,380 | - | 1,19,824 | 100 |

Source: Field Survey, 2010

5.7 Distribution of Forest Products According to the Wealth Being Rank in SDCFUG

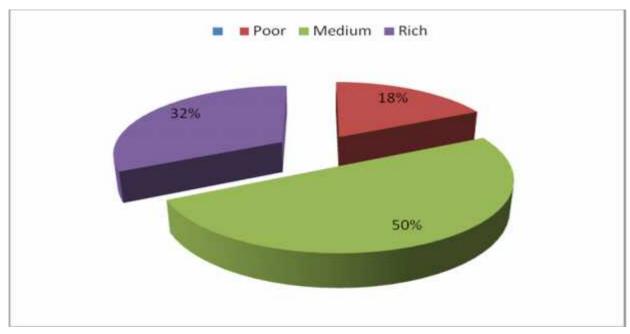
The study focuses of consumption of forest products according to the wealth strata. The poor, middle and rich class extracted the forest resources according to their needs. Poor class extracted almost all the forest products from CF while major portion of fodder and leaf litter are being used through PF in middle class as well as rich class. The prime supply of wood is done by the CF in all three wealth categories. The following table shows the consumption pattern of forest products according to the wealth rank.

Table No. 5.9 Annual Consumption of Forest Products from SDCFUG (in Head load)

| Wealth | Fuel w | ood | Fodder | | Timber | | Leaf litt | er | Total | |
|------------|--------|------|--------|------|--------|------|-----------|------|--------|------|
| Ranks | | | | | | | | | | |
| | Amt. | % | Amt. | % | Amt. | % | Amt. | % | Amt. | % |
| Poor(47) | 2,600 | 31.1 | 5,552 | 16.5 | 619 | 17.7 | 2,820 | 14.6 | 11,591 | 17.9 |
| Medium(63) | 4,080 | 48.8 | 18,612 | 55.3 | 1,500 | 42.9 | 8,445 | 43.7 | 32,637 | 50.3 |
| Rich(30) | 1,682 | 20.1 | 9,497 | 28.2 | 1,380 | 34.4 | 8,044 | 41.7 | 20,606 | 31.8 |
| Total | 8,362 | 100 | 33,661 | 100 | 3,499 | 100 | 19,309 | 100 | 64,831 | 100 |

Source: Field Survey, 2010

Figure 5.5 Consumption of Forest Products from SDCFUG



According to above table, the community forestry contributes the wealth categories in discriminate manner. The middle class wealth holder takes large benefit of about 50 % of total distribution from forest products. Similarly, rich wealth householders benefit about 32% of the total distribution. Only about 18 % of the forest products have been consumed by poor class of the society. The study shows that medium class takes maximum benefit from community forestry according to their household size then, rich class households consumed. Finally, the less consumption of forest products have consumed by poor households on the SDCFUG.

5.8 Distribution of Community Forestry Benefits on the Different Wealth Categories (In Monetary Terms)

Table No 5.10 CF Benefits on Different Wealth Categories

| Wealth Class | CF Contribution per year (Head load and cft.) | | | | | | | | | |
|-----------------|---|--------|--------|---------|--------|--------|-------|-------------|---------|--|
| | Fuel wo | od | Fodder | | Timber | Γimber | | Leaf litter | | |
| | Qt. | NRs | Qt. | NRs | Qt. | NRs | Qt. | NRs | | |
| Poor(47) | 2600 | 130000 | 5552 | 166560 | 619 | 18570 | 2820 | 70500 | 385630 | |
| Medium(63) | 4080 | 204000 | 18,612 | 558360 | 1500 | 45000 | 8445 | 211125 | 1018485 | |
| Rich (30) | 1682 | 84100 | 9497 | 284910 | 1380 | 41400 | 8044 | 201100 | 611510 | |
| Total | 8362 | 418100 | 33661 | 1009830 | 3499 | 104970 | 19309 | 482725 | 2015625 | |

Source: Field Survey, 2010

Fuel wood per head load = NRs 50 Fodder per head load = NRs 30

Timber per cft. = NRs 30 Leaf litter per head load = NRs 25

Above table shows that poor household in the community take less benefit from the community forestry. 47 household have consumed NRs 3,85,630 i.e. 19.13% out of total NRs 20,15,625, 63 middle household have consumed NRs 10,18,485 i.e. 50.53% out of total NRs 20,15,625. Similarly, rich household have consumed about NRs 6, 11,510 i.e. 30.34% out of the total sum of NRs 20, 15,625.

From the analysis, it has been observe that 30 household of rich wealth categories consumer forest produces relatively higher than medium households. While poor household lies in the bottom in order to consume the community forestry products. In this study, it has been closely observed that poor class is suffering from trickledown effect.

5.9 Income and Benefit Distribution between the Different Household

The measurement of dispersion of income and benefits in between different wealth categories can be study with the help of Lorenz curve. The inequality in the distribution of forest products is seen to be occurring. The major objective of the study is to analyze income generation by users from CF. To find out the difference between income with CF and without CF in the following table.

Table No 5.11 without CF

| Mean | Cum. | Cum.% | No. of | Cum.Value | % |
|----------|---------------------|-------------------------------------|---|---|--|
| Value | | | HHs | | |
| 25,000 | 25,000 | 10 | 47 | 47 | 33.6 |
| | | | | | |
| 75,000 | 1,00,000 | 40 | 63 | 110 | 78.6 |
| | | | | | |
| 1,50,000 | 2,50,000 | 100 | 30 | 140 | 100 |
| | | | | | |
| | Value 25,000 75,000 | Value 25,000 25,000 75,000 1,00,000 | Value 25,000 25,000 10 75,000 1,00,000 40 | Value HHs 25,000 25,000 10 47 75,000 1,00,000 40 63 | Value HHs 25,000 25,000 10 47 47 75,000 1,00,000 40 63 110 |

Source: Field Survey, 2010

Table No 5.12 With CF

| Income(NRs) | Mean | Cum. | Cum.% | No. of | Cum.Value | % |
|-------------------|----------|----------|-------|--------|-----------|------|
| | Value | | | HHs | | |
| 0-100,000 | 50,000 | 50,000 | 11.1 | 47 | 47 | 33.6 |
| | | | | | | |
| 1,00,000-2,00,000 | 1,50,000 | 2,00,000 | 44.4 | 63 | 110 | 78.6 |
| | | | | | | |
| 2,00,000-3,00,000 | 2,50,000 | 4,50,000 | 100 | 30 | 140 | 100 |
| | | | | | | |

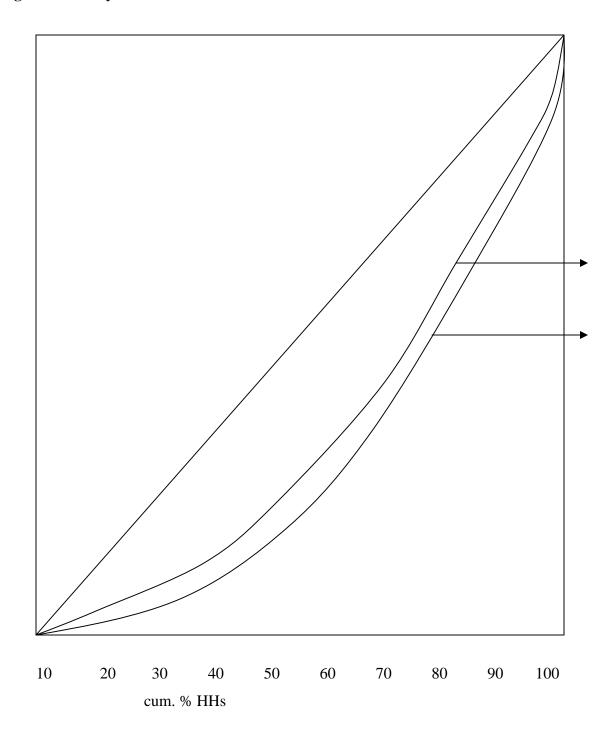
Source: Field Survey, 2010

5.9.1 Lorenz Curve for Selected CFUGs

The income inequality of the HHs can be shown by the Lorenz curve. The departure of line below the line of equality (Straight line) in the Lorenz curve shows the (diagonal line) to the households' income. This shows that farther the line from the equality line greater is the inequality.

Our study interprets the inequality of income without community forestry and income with community forestry of the SDCFUG which is shown in below figure.

Figure 5.6 Analysis of Lorenz Curve



Thus, the study shows that greater the income, greater inequality among the wealth rinks. From the figure it is shown that there is a huge inequality in the distribution of income of CF resources as well.

CHAPTER: VI

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1 Summary

The study entitled "Role of Community Forestry in Distribution: A Case Study of Suntalidanda Community Forestry," was conducted in Lalitpur District. The study mainly focuses on income generation by the CFUGs. The resource uses the CF among poor, middle and rich and the identification of management system regarding the CF in the study area.

During the research of Suntalidanda Community Forest, the researcher has set some research questions, which are (1) In which way the community forest help to forest user group? (2) What are the problems of FUG in managing community forest? (3) Are community forestry really distributing forest products among users groups? (4) What sort of activities is imitated by FUG for development of themselves? (5) Are community forestry supporting community development activities? (6) What are the impacts of community forestry in the rural people?

The main objected of the research were to analyzed the impact of community forestry on distribution and community development activities. This study tries to focus on the existing vegetation status of community forests, attitude of forest user group users group towards distribution and community development activities, potential and successful community development activities that was initiated by forest user groups in the community. To fulfill these objects, Suntalidanda community forest of Devichour VDC was selected as research area thirty five (25 %) household members of Suntalidanda community forest user groups were taken as sample and other key information of Ranger, Teacher and VDC member were visited. This study covers both sociological aspect of community forest user groups and biological aspect of community forest user group and

sociological aspect covered by house hold questionnaire survey, informal. And or formal discussion with forest user group and committee members, observation and biological and vegetation aspect covered from detailed forest inventory record in community forests. Out of 140 HHs 35 HHs were selected by using simple random sampling procedure. For more information, primary as well as secondary data were collected qualitative data were also tabulated and analyzed. Simple statistical tools were used for quantitative data analysis. The data and information have been tabulated, edited and presented in bar diagrams, pie charts. The Lorenz curve has been drawn to analyze the income inequality between different well being ranking. Similarly, the Lorenz curve analysis used to analyze income distribution with CF income.

The community is highly heterogeneous in terms of ethnicity. There are different ethnic groups like: Janajati (Tamang), Brahmin/Chhetri Dalit(Damai). Well Being Ranking is categorized in the terms of land holding, food supporting capacity, level of education as well as annual income. Similarly, other social status and human development activities of the respondent are taken into the consideration during the well being ranking. 47 HHs are poor class categories on the basis land and food holding, level of education, annual income and services. Similarly, 63 HHs are middle class groups and 30 HHs are rich or wealthy ranking categories.

The major sources of income of the respondents are agriculture, livestock (selling milk) vegetable, services and foreign employment. Services/pension, business and foreign employment are the main income sources of rich categories. Agriculture, wage labor and occupational work are the main source of income of poor rank groups.

The total population of Devichaur VDC is 2753 among them 872 population have getting direct benefits firewood, timber, agricultural tools, livestock feeding and fodder etc from Suntalidanda CF. The indirect benefits of Suntalidanda CFUGs are: environmental benefits, unification of people and impact on households. The major source of income of the Suntalidanda CFUGs fund is the income generated through the sale of forest products and other sources like fine and penalties, entry fees or membership

fee, Renew fee, Interest and Grants. The Expenditure sources of income in Suntalidanda CFUGs are: cutting firewood wage, developing of social work, forest activities, users group training, stationary expenditure, tea and welcome guest and other expenditures.

Finally, the research has focused on the contribution of CF to income generate of forest users, to develop social activities for the marginalized group and participation of Janajati(Tamang) and Dalit in community forest management committee. It is found that CF has great contribution to user groups in their livelihood. There is weak participation of women in Forest Executive Committee member in vital role because of lack of education, consciousness and dominated by male.

6.2 Conclusion

- 1. Timber is the main source for the poor, medium as well as rich user groups.
- 2. Poor users are found more benefited from CF due to lack of their own private forest and alternative source of income.
- 3. Agriculture is the major occupation of the user groups in this study area. On the basis of number of households, about 60 % of households engaged in agriculture.
- 4. The large number of households of Tamang (Janajati) about 48.6 % has involved in the user groups.
- 5. The sampled household having annual income less than NRs50,000 are 33.6%, 50,000-2,00,000 income group is 45% and more than NRs 2,00,000 is 21.4 % in this study area.
- 6. CFUGs have involved in few social and income generating activities.
- 7. The consumption of forest products in SDCFUG by poor groups is 18%, 50 % by middle class well being rank and rich consumer 32% by the FY 2009/2010.
- 8. There is weak participation of women and marginalize group (Tamang) in executive committee member in vital role.
- 9. There is weak follow implementation according to forest action plan.
- 10. The CF benefit distribution to the poor, medium and rich HHs have taken by 19.13%, 50.53%, and 30.34 % respectively in monetary terms.

- 11. The main source of income within CF is fuel wood, timber selling, monthly fee from users, as well as fine and penalty collected that was Rs 1, 01,518 in FY 2009/2010.
- 12. The Lorenz curve shows the greater inequality in the distribution of income from CF source and non CF source as well.

6.3 Recommendation

The participation of people in forest management for their livelihood shows CF programme as only effective programme in the hilly part of Nepal. To some context, it has gained success to check the rate of deforestation. Similarly, due to the lack of knowledge in relationship between rural poverty and environmental/natural resources, incomes generates activities, equitable distribution of forest resources and have not gained a momentum.

From the income and benefit distribution perspective, the studied CF is found poorly managed and traditional system at all. The sustainable use of forest products, mobilization of CF fund, to generate income activities, to do social works and selection of executive committee could not catch developmental face. For empowering income generation as well as lowering the inequality in benefit distribution of CFUG, following strategies are recommended:

- Women and marginalized group's participation in decision making should be increased through awareness and encouraging to hold responsible in user committee.
- 2. Forest user committee and forest user group should change the existing rules of one representative from one household to the compulsory participation of all users in group meeting or assemblies.
- 3. Government and non-government organization should be encouraged to work inside the community based on community forestry programmes.
- 4. Community forestry is a common properly regime. So it should be able to act on the basis of needs for the CFUGs.

- 5. The proper community forest management activities should be conducted annually and periodically.
- 6. The local political body should have to co-ordinate and integrate their development budget with CFUG and full responsibility authority should be provided to FUG to sustain and development.
- 7. Regular field visits by technical staff like as AFO, Ranger, motivator and other extension organizers should be increased.
- 8. Feasibility study should be carried out IGA and NTFP management and encouraged them.
- 9. It is necessary to increase people participation in community forest management and community development activities.
- 10. Community forestry can contribute to poverty reduction involving poor and low caste households and should be improved in their livelihood.

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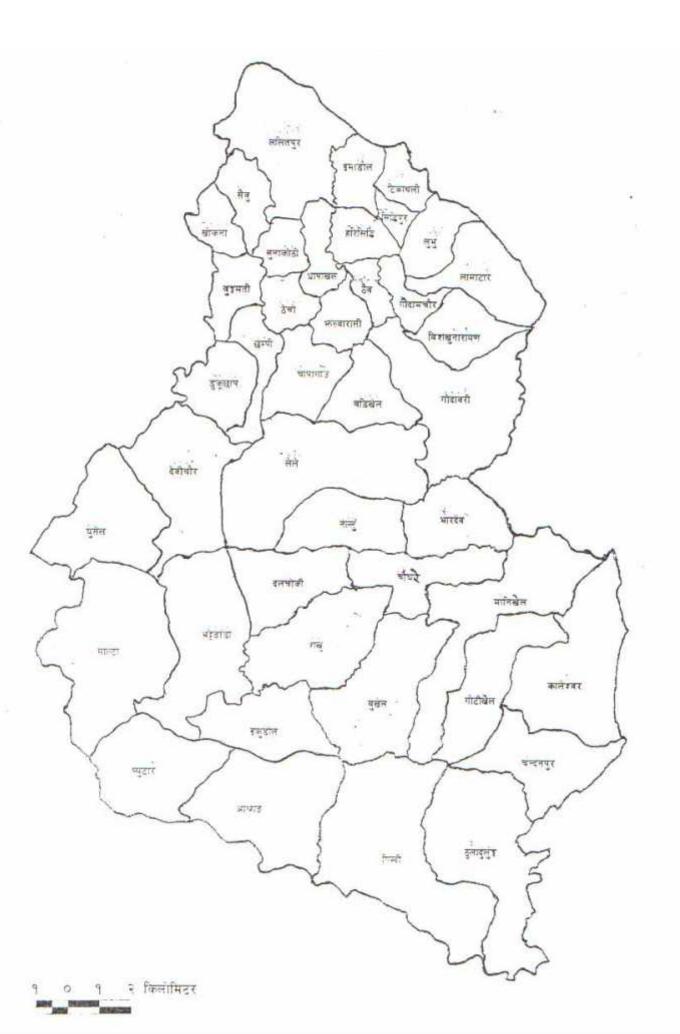
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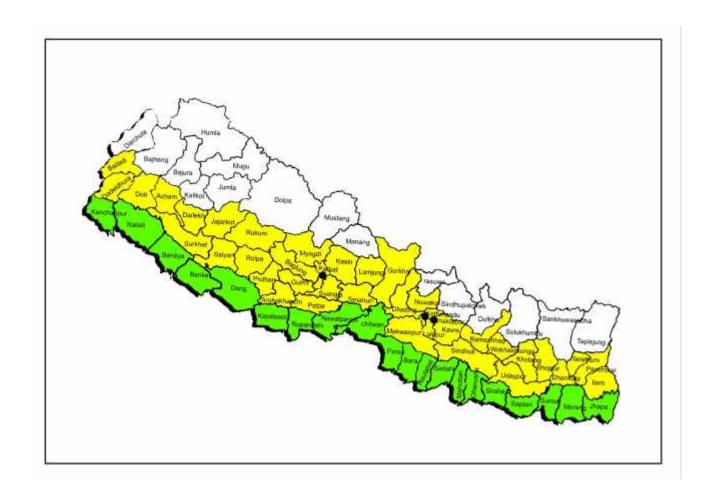
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उत्तर



Questionnaire

Household Survey: 2010

| 1 | Status of respondent: |
|---|------------------------|
| | Name: |
| | Age:Sex : |
| | Ethnic Group:Language: |
| | Education: |
| | Occupation: |
| | |
| _ | |

Family Description

| S.N. | Name | Famale | Male | Educational | | Occupation |
|------|------|--------|------|-------------|--------|------------|
| | | | | Status | | |
| | | | | 1 2 3 4 5 6 | | = |
| | | | | Male | Female | _ |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |

Education

- i. Illiterate
- ii. Literate (either formal or non-formal education)
- iii. Primary
- iv. Secondary
- v. Higher Secondary
- vi. Intermediate or Higher level
- vii. In your family how many users members use forest products 12 months?

| 2. | Do yo | ou have own la | nd? | | | | | |
|----|-------|------------------|----------|-----------|----------|------------------------|-----------|--------|
| | a) | Yes | | b) | No | | | |
| 3. | Do yo | ou cultivate on | your ov | vn land' | ? | | | |
| | a) | Yes | | b) | No | | | |
| 4. | How | much was the | last yea | r produ | ction ab | le to feed your fami | ly? | |
| | a) | below six m | onths | | b) ab | ove 6 months and be | elow | |
| | c) | 12 months a | nd abov | ve . | | | | |
| 5. | How | many animals | do you | have? | | | | |
| | a) | Buffalo | | | | | | |
| | b) | Cow/Ox | | | | | | |
| | c) | Goat | | | | | | |
| | d) | Chicken | | | | | | |
| | e) | Pig | | | | | | |
| | f) | Pigeon | | | | | | |
| | g) | Duck | | | | | | |
| 6. | Do yo | ou sell your liv | estock | product | ion? Lik | te: ghee, milk, egg, 1 | meat etc. | |
| | a) | Yes | | b) | No | | | |
| 7. | How | do you feed th | ne anima | al? | | | | |
| | a) | Stall feeding | g | b) | Grazi | ing | | |
| 8. | When | re do you get t | he fodde | er? | | | | |
| | a) | Community | forestry | y | b) | Private forest | c) | Others |
| 9. | In wh | nich time (mon | ths) do | you get | fodder | from CF? | | |
| | | | | | | | | |
| 10 | Do yo | ou get enough | fodder | to feed t | for your | livestock? | | |
| | a. | Yes | b) | No | | | | |

11. Income Source of people:

| S.N. | Occupation | Income in Rupees | Annual |
|------|-----------------------------|------------------|--------|
| 1. | Agriculture/Livestock | | |
| 2. | Business | | |
| 3. | Service | | |
| 4. | Wage labor | | |
| 5. | Others | | |
| 12. | Is firewood the main source | e of energy? | |
| | a) Yes | b) No | |
| | If no what is the other s | ource of energy? | |

| 5. | Others | | | | | | | |
|-----|-----------|---------------|----------|----------|------------|----------------------|---------|--------|
| | | | | | | | | |
| 12. | Is firewo | od the main | source | of ener | gy? | | | |
| | a) Y | es | | b) | No | | | |
| | If no | what is the | other so | ource of | energy | ? | | |
| | a) K | erosene | | b) | LPG | Gas | | |
| | c) G | obar gas | | c) | Other | rs | | |
| 13. | How man | ny Bharis of | firewo | od you | need a | week? | | |
| 14. | | | | | | role in supplying fi | rewood? | ••••• |
| | a) Y | es | b) | No | | | | |
| 15. | Where de | o you get tir | nber? | | | | | |
| | a) C | ommunity f | forest | | b) | Private forest | c) | Market |
| 16. | Where do | o you get fir | ewood, | fodder | , life lit | er and non Sal pole | ? | |
| | a) C | ommunity f | forest | | b) | Private forest | c) | Market |

| 17. | Is there any development progarmme support by CF? | | | | | | | | | |
|-----|---|----------------|-------------|-----------|-----------|----------|-----------------------------|--|--|--|
| | a) | Yes | b) | No | | c) | No idea | | | |
| | If ye | s, what are th | ey? | | | | | | | |
| | a) | Constructi | on of road | d | | | | | | |
| | b) | Trial impre | ovement | | | | | | | |
| | c) | Constructi | on of scho | ool | | | | | | |
| | d) | Other soci | al works | | | | | | | |
| 18. | Do y | ou get other b | oenefits fr | om con | nmunity | forestr | y rather than fuel wood and | | | |
| | Fodde | er? | | | | | | | | |
| | a) | Yes | b) | No | | | | | | |
| 19. | Do y | ou agree with | all the la | ws of C | CF? | | | | | |
| | a) | Yes | b) | No | | | | | | |
| 20. | Are : | you engaged i | in any act | ivities c | of CF? | | | | | |
| | Why | , ••••••• | | | | | | | | |
| 21. | "CF | programmed | is most no | ecessary | and im | portanc | e" Do you agree with this | | | |
| | sta | tement? | | | | | | | | |
| | a) | Yes | b) | No | | | | | | |
| 22. | In yo | our opinion w | hich secto | or is mo | re effect | ive abo | ut the forest? | | | |
| | a) | Governme | nt | b) | Comn | nunity | | | | |
| 23. | Wha | t should do th | ne best wa | y to cor | nserve C | F? | | | | |
| | a) | Active par | ticipation | of user | s group | | | | | |
| | b) | Motive to | people | | | | | | | |
| | c) | No idea | | | | | | | | |
| | d) | Educate th | e people | | | | | | | |
| 24. | How | much contrib | oute by C | F on the | followi | ng thing | g | | | |
| | a) | Education | (i) 25% (i | ii) 50 % | (iii) 75 | % (iv) | 100 % | | | |
| | b) | Road (i) 25 | 5% (ii) 50 |) % (iii) | 75 % (iv | v) 100 9 | % | | | |
| | c) | Employme | ent genera | tion (i) | 25% (ii) | 50 % (| (iii) 75 % (iv) 100 % | | | |
| | 4) | Income ge | neration (| i) 25% | (ji) 50 % | (iii) 74 | 5 % (iv) 100 % | | | |

The Executive Committee Members of the Suntalidanda CFUG (2067)

| S.N. | Name | Destination | Sex | Ethnicity |
|------|-------------------------|---------------------|--------|-----------|
| 1 | Sekhar Prasad Timalsina | President | Male | Bramin |
| 2 | Bishnu Prasad Timalsina | Vice-president | Male | Bramin |
| 3 | Gita Timalsina | Secretary | Female | Bramin |
| 4 | Jayaram Sapkota | Assistant secretary | Male | Bramin |
| 5 | Khadananda Dulal | Treasure | Male | Bramin |
| 6 | Hari Prasad Sapkota | Member | Male | Bramin |
| 7 | Basna Maya Lama | Member | Female | Janajati |
| 8 | Kanchhi Marpa | Member | Female | Janajati |
| 9 | Deepak Lo | Member | Male | Janajati |
| 10 | Ambika Bajgai | Member | Female | Bramin |
| 11 | Manmaya Thing | Member | Female | Janajati |