CHAPTER- I

INTRODUCTION

1.1 Background of the study

Over the last two decades, the development of community forestry in Nepal has been a core policy of the Nepalese Government and has been progressively updated to take into account the emerging needs of local communities and the experiences of stakeholders involved in community forestry projects. Local people are involved in managing forest areas in order to fulfill their needs for forest products and, indirectly, to enhance the conservation of soil and water, whilst contributing to improving the environment. There is a traditional Nepali slogan that states: "Hariyo Ban Nepal ko Dhan", which is translated as "Green forest is the wealth of Nepal" (cited in WATCH, PFM study, 1996), but this situation is no longer the case because of the misuse of the once rich and expansive forest resources. Historically, Nepal's forestry sector was administered under a feudal system. Different types of local forest protection and different systems of forest product use existed in different parts of the country in the name of customary rights. These local systems were recognized by the Rana Government but thereafter, restricted use of forest products removed the customary rights of people to common property which then began to reduce people's ownership of forest and to create degradation. The linkages between forest and farming systems are described by a number of authors (Mahat, 1987; Gilmour and Fisher, 1991). Community forestry in the context of Nepal is one of the important components for community development because it is closely linked with farming systems and the domestic requirements of households. The community forest provides services to users in three ways: firstly, it is protective, i.e. the protection of soil, water and the environment. Secondly, it is productive, i.e. the provision of different type of forest products including non-timber forest products (NTFPs). Thirdly, it has aesthetic value, i.e. the provision of greenery and beauty. Thus, the forests of Nepal have multiple roles and provide various functions to local people. The productive role of forest in particular is important because it involves providing the local community directly with materials and therefore has significant economic value.

Nepalese people live in communities that may be rural or urban. In both cases, the dependency of people on the forest may vary. For rural communities, the forest is the main source of energy for maintaining their livelihoods. There has been a dependency of rural people on the forest from ancient times for fuel wood, timber, grass, thatch grass,

agricultural tools and other domesticated needs and also for NTFPs including medicinal herbs. These products are an integral part of rural life. There is a lack of alternative resources for rural people to have in terms of energy, fuel, fertilizer, fodder and construction materials at village level. The forest can supply the villages' short-term and long-term needs including materials and cash income. Moreover, forests are not only essential for people but also for both wild and domestic animals. Livestock is part of rural livelihoods and is partially dependent on the forest for fodder and grazing. Another most essential resource for rural people is water and the main source of water is the forest. In rural areas, people depend on natural springs for drinking water and small irrigation systems as well. Populations are required to manage and maintain forest resources so that they are sustainable and remain secure for future generations. In rural areas, people depend on Government support for sect oral development such as the provision of drinking water supply, small irrigation schemes, school building and foot-trail construction. The present trend of forest user group's fund investment is very much related to these activities, but in a more transparent way rather than in a 'bureaucratic' form of investment. The Community Forestry Programme is being implemented throughout Nepal. It has been focused mainly in the central hills up to the present time. In 1988, the Master Plan for Forestry introduced community forestry (CF) as a higher priority initiative. A strategy was developed for handing over all accessible hill forests to local communities based on their ability and willingness to manage the forest. It is estimated that as much as 3.5 million hectares of forest or 61% of total national forest area can be handed over to the local forest user groups (FUGs) for their development and management (ODA report, 1996). At present, about 12,560 FUGs have been formed, about 9,97,077 hectares of national forest have been turned into community forest and 1,397,951 households are benefiting (National database June 2003). The responsibility of FUGs at the local level is to manage local forest, an activity that has been legitimized through the New Forest Act of 1993.

The basic assumption of the 'community forest user group' (CFUG) is that users are united and capable for managing community forests for their mutual benefit. The nature of each community differs at each different location. The capability of each FUG is dependent upon the ability of its individual members. The users are bounded by sets of rules and regarded as an organized corporate body. The strong relationship between the level of involvement of a FUG in active community forest management and its social and institutional development has been particularly striking. Fieldwork undertaken by Branny

(1995) has attempted to define the relationships among the social factors, the institutional factors and forest development. Each FUG requires institutional 'capacity' to trap the potential of forest resources through CF management. User requirements, needs and interests are different between FUGs, which also get involved in capacity building, including participation in different training and workshops as well as implementation in the field. This approach helps to encourage user participation in decision-making and benefits the sharing process adopted by each FUG that can improve local development .There is a lack of expertise in Nepal within the forestry sector, in exploiting forest resources, which tends to occur only for profit in the local and global markets. This is most evident in the numbers of trees of harvesting age for timber that are currently unmanaged in community forest and in the national forest. Most of the CF management plans have little or no provision for harvesting of 'timber trees' and the revision of operational plan of community forest takes time and requires a considerable degree of expertise in commercial forest management on the part of Department of Forestry staff (Regmi, 1999). It is recognized that identified management options to achieve the defined objectives are only very loosely illustrin formation of forest resources. Another question is the level of participation of users in preparing operational plans and their ownership in implementation seems lacking. The current practice of forest management has limited coverage of the value of forest resources and appropriate land use to cope with the diversified forest product needs of each FUG. At present, community forestry is also generating FUG funds from different sources and utilizing those funds for the development of particular infrastructure such as schools, water supply and roads in the community. Further questions are emerging as to whether the contribution from CF management to the development of the community should be the requirement of users and whether it is a long-term strategy. Development programmes operate in communities which are often sect orally guided, target-oriented, and with overlap between other programmes due to lack of sufficient co-ordination among agencies. The issues relating to the three main aspects of community forestry - FUG institutions, forest management, and community development are covered in this thesis, and the finding reported in the thesis are based on data gathered from extensive fieldwork. Once formed, FUGs are mostly involved in protection activities. However, the approach of the projects supporting community forestry was to try and encourage FUGs to make more effective use of their forest than simply harvesting the green material. This approach seems to be having some success since numerous situations have arisen where FUGs are carrying out harvesting

without an agreed working plan or handover certificate (Branney, 5 1995). However, Branney did not mention the quality of the operational plan in which the specific provision of green felling was lacking.

In the earlier stages of community forestry, most of the FUGs were conservative in management and utilization of forest products due to less provision of green tree felling. In fact, the FUG is developing as an institution to manage the community forests by mobilising users. The natural forest resources, which have great potential for economic value such as timber and NTFPs, are also handed over to the FUG but are not effectively managed to obtain optimum products. While it was under their Government ownership, the forest was a large source of revenue to support the national economy. The incoming revenues were royalties from timber and NTFPs, paid by local people. Previously, the Government could spend the revenues generated from forests in the 'national interest' and consequently, the direct impact of that money was not seen at local level. As community forestry is becoming very popular in environmental conservation and for the supply of products for the community with some support from external agencies, it is also widening its vision. The resources of community forest are a long-term business and people always depend on the forest for different product needs. "The long-term vision of community forestry is to build the capacity of people to evaluate their own situation, make informed decision and have the confidence to approach supporting agencies to request assistance when needed" (Roche, 1997).

The FUG leads resource management and it is therefore an important subject to study and to share the experiences among stakeholders. In community forestry, there are three main resources; the users, the forest, and the FUG fund each of which requires management. This research in this thesis will raise questions about how these resources are being managed and mobilised by FUG.

The FUG is developing as an institution to manage the community forests, mobilising users and applying different forest management operations for the improvement of forest condition and utilisation of forest products, according to the needs of the user group. The natural forest resources, which have great potential economic value for timber and NTFPs, are also to be handed over to FUG.A part of the national forest is legally handed over to user groups for development, conservation and utilisation for the collective interest. In other words, community forestry is that in which forest management decisions are led by FUGs. There is a participatory environment where everyone gets involved in forestry activities for their own interests and benefits. The FUG

constitutes all users - rich and poor men and women, those from higher castes and lower castes - united in a sense community feeling and operating community forestry activities based on their agreed rules. The community forestry programme is based on a participatory philosophy where users are involved in decision making, implementation and benefit sharing according to their specific agreements. The Forest User Group (FUG) is a group of individuals consisting two or more interdependent interacting persons that perceive themselves as having a unique

It is said that Nepal is very rich in the matter of resources and socio economic potentialities through the utilization of its own natural granted gifts. Nepal is a rich country in natural resource as forest, water minerals, etc. These natural resources are being used for fuel wood, fodder, timber, medicines and compost manure, electricity, drinking water, irrigation and for various purposes.

It has long being said that green forest is the wealth of Nepal. Its contribution to preserve soils and habitats, balance weather, and keep the environment stable. It is already estimated that 39.6 percent of total land in Nepal is covered by forest and in that, only 15 percent of the forestland has a crown covered forest. Everyone knows that the rural people are totally depended on forest for their livelihood. Forest resources not only support agriculture and livelihood farming but also offer great potential resources for development (IUCN, 2000:12).

Especially, Master Plan for the Forestry Sector 1988 (MPFS) was lunched with the administrative commitments. Then the Forest Act 1993 AD came in to effect. These sorts of polices and laws contribute the role of empowerment and enhancement of local communities to forest resources development. This community forest program was spread all over the country when this thinking was realized in a very sensitive and responsible manner. This concept was developed to ensure equitable income distribution and decision making authority as well as socio-economic development with participatory approach (Khadka, 2000:3).

This plan is basically headed toward empowerment, participation, equal distribution of income, gender equality of disadvantages group of community. According to Community Forest Development Division (CFDD) 1991, the policy of Community Forest (CF) program to manage basic need, participate local people and hand over forest to Community Forest User Group (CFUG) through making able to manage forest sustainability. The division also started that 32 percent of total land area can be converted into community forest and 27 percent non-forest area of total land area can be developed

considerable to community forest area to total land area can be developed considerably to community forest area through this program (Dahal, 1998:4).

This study is aimed to analyze the socio-economic activities and changing situation of CFUG and environment sustainability through community forest development program. This study is targeted to poor people for their livelihood and way of life through maintenance of environment and bio-diversity.

This Tokme Danda Community Forest is located at Taplejung district of Fungling and Dhoku VDC. This forest covers 14.10 hector land and around 240 households are engaged for their livelihood. 850 number of population is directly related with the socio-economic activities of Tokme Danda Community Forest. This forest has various economic and environmental potentialities with having high bio-diversity maintenance. This research is targeted to identify these entire mechanisms.

1.2 Statement of the Problem

The problems, which are being arisen nowadays concerning forest are serious in our country. The legislative and administrative efforts are not the solution of these problems. Being unsystematic management to forest development, people are facing the problems of good utilization of all forest resources. The major problems of this study are as follows:

- Mainly over exploitation of forest without being conscious to other is becoming main issue, deterioration that is indirectly or directly related which affect to the human life as well as bio-diversity mechanism of natural process.
- The major problems can be the lack of grass, fodder, dry leaves, firewood, timber, water sources, fresh air, natural scene, environmental balance, different scarce places and herbs through deforestation.
- These above described activities and the things are directly related to human live. So, the people including women, children use to spend much of their time in collecting and managing these things for their livelihood. Forest is main source of livestock and agricultural farming. Spending much of their time and things for these activities, they cannot afford time and other things for education and income generating activities.

Above these described problems have been ruling in our country not having any other alternatives for socio-economic activities to raise the poor people's live. If we manage our own resources in effective way, the conditions of people may get change.

Therefore, this study helps to identify the impact of FUG economically and environmentally to the particular area. This study also focuses to the poor who are totally dependent on forest. They do their activities depending upon the forest for their livelihood. This study also explores the poor and marginalized member of representative of FUG. How they have been benefitted economically and how are they are environmentally affected. Similarly, their participation on decision making, planning and resources utilization pattern also found. This study covers all activities of FUG of Tokme Danda Community Forest of Taplejung District.

The area where this study is focused up to now no studies have been taken place so this study become fruitful and base at local planning process of policy makers, planners, donor agencies and development planners.

This study is focused on their problems to strengthen the idea to reduce the problems. This research targeted to solve these problems through identifying the solution and destination of good natural resource management.

1.3 Objectives of the Study

The general objective of this study is to identify the economic and environmental activities through development of community forest. The specific objectives are as follows:

- To identify the economic activities of user group in Tokme Danda Community Forest of Taplejung District.
- To analyze the FUG participation in bio-diversity conservation.
- To identify the impact of Tokme Danda Community Forest on socio-economic and environmental life of local community.

1.4 Limitation of the Study

This study confined within the limited area and some focused problems of people. There are many households in the forest user group but only 30 head of households will be responsible for key information. The researcher being the student, the

time and money is very limited to cover all the aspects and area of this research so the area, subject matter and other variables were very limited.

This study specially has been covered the socio-economic, environmental and women's participation of Tokme Danda Community Forest of Taplejung District. This study was taken the selected area of community forest and its user group. The ethnical consideration is also highly prioritized.

1.5 Significance of the Study

This study has its own importance because where this study has taken place no other research work has been carried out yet regarding community forest. The documents of this study identified the people and its exact on community and environment and importance of the forest preservation. This study is more focused on those determinants, which are the indicator of the development. The information has been fruitful information for solution for the problems. This study become additional information and knowledge about community forest and creates the importance and awareness about environmental and bio-diversity preservation as well as socio-economic activities and women's participation.

The research has been based for grass root planning for rural development and has been additional information for policy makers, academicians, local leaders and local environmentalists and for every sorts of planning process. The CF program has received the highest priority in the forestry of Nepal. Community forest policy in Nepal combines on environmental objectives to protect against land degradation, desertification and deforestation with economic and socio objectives to meet the people's basic need for fuel wood, timer, fodder and other forest productions on a sustainable basis. Forest contributes to food production through effective interaction between forest and farming practice.

1.6 Organization of the Study

The study has been organized in five chapters. The first chapter is concerned with the brief introduction, statement of the problem, objectives of the study, limitations of the study and significance of the study.

In second chapter, a short account of relevant literature was discussed. The third chapter describes methodology of the study that contains research design, universe and sample size and source of data, data collection technique and tools and data analysis.

The detailed analysis and presentation of data has been carried out in the fourth chapter. And finally, summary, conclusion and recommendation of the study have been presented in the fifth chapter. On the last part, bibliography, questionnaires and annex has been included.

CHAPTER- II

LITERATURE REVIEW

2.1 Community Forestry in Nepal

The number of community forest is rapidly increasing day by day since the establishment of community forest policy in Nepal and the realization that the conservation of forest is the conservation of soil, water, wood, vegetation, animals, birds, insects that are elements of the whole eco-system and the bio-diversity conservation. In addition, that program is fulfilled through the development of community forest program. So, different research and studies took place on different topics and time to know the reality of community forest. Some literatures are reviewed here to know the existing status of community forest in Nepal and its economic and environmental aspects.

2.2 Community Forestry and the Forest User Groups

The dictionary meaning of the term 'community' is a body of people living in one district or having common interests. The concept of community is used in different ways; both 14 laymen and social scientists speak of a community as a neighborhood, village or small town. Here the term is used to refer to people who represent a special form of society.

However in the case of community forestry, it is a 'constructed community' because its boundary is defined on the basis of forest and geographic setting. Nisbet (1960) defined community as the "relationships among individuals that are characterised by a high degree of personal intimacy of social cohesion or moral commitment and of continuity in time" (Nisbet, 1960, p.17). He explained that the basis of community might be kinship, religion, political power and race. Furthermore, he explained that community involves an interpersonal commitment in which there is "a sense of strong belonging a feeling, of intimacy with others, in which people relate to each other as whole person, not in a segmented role" (Nisbet, 1960, p.19). This perspective regards community as a social entity; it is a combination of social units and the system, which performs the major social functions that have locality relevance (Warren, 1956 coated by Poplin, 1975). In other words, the concept of community concerns the organisation of social activities to afford people daily local access to those broad area activities, which are necessary in day-to-day living. Community can also be defined from a sociological perspective. The word 'community' refers to such units of social and territorial organisation as hamlets, towns,

village cities and metropolitan areas. Hillary found that at least three major elements enter the sociological definition of community, including (i) geographical area (ii) social interaction and (iii) common tie or ties. Thus, community consists of persons in social interaction within a geographical area and having one or more common ties. (Hillary,1955, cited by Poplin, 1975, p. 9). What is about the use of the term community in the context of Nepal? The word community is used in spoken language in different ways. In broad terms, it refers to particular ethnic, religious, racial, social and economic class communities. In another way, it is also used as a unit of social and territorial organisation as hamlets, villages, towns, cities, eastern areas, western areas, hills, Tarai, and so forth. Settlements are generally based on a geographical area which is related to the place in which the people maintain their homes, earn their living, rear their children and, in general, carry on most of their activities. The boundary of a community depends on the type of community. It is very rare for the boundary of a particular community to coincide with or match that of others. 2.5 People's Participation in Community Forestry In the broadest sense, people's participation is a political process in which previously excluded classes or groups seek to become involved, have a voice in, and generally gain access to the benefits of economic and social development (Oakley, 1995). Put simply, participation in community forestry means involvement of people in decision-making and the implementation of community forestry activities related to protection, forest development and product distribution. People participation is a continuous two-way communication process, which involves promoting understanding of the processes and mechanisms through which they are involved in planning, implementing and evaluating activities in order to fulfill their desired needs. "Participation is considered to be an active process meaning that the group in question takes initiatives or asserts its autonomy to do so" (Rahman, 1981).

Experience from various community forestry projects working in Nepal in community forestry suggests that there are three essential requirements for success: (i) empowerment of people to reach judicious and egalitarian consensus; (ii) decentralisation of decision making; and (iii) creation of a participatory environment (Gronow and Shrestha, 1991). This latter requirement is one of the important aspects of community forestry that needs to be considered. Most of the efforts of supporting agencies are invested in post-formation support to achieve the real participation of different levels of people in decision making. The idea of equal participation in an unequal society is difficult and this is realised by all outsiders. The solution for that could be a commitment

of all sectors to help to establish mechanisms of interaction in the community. Many development workers expect initiatives from the people themselves to bring about a change in their situation. There are documented cases in Nepal of villagers developing management systems in response to the depletion of forest resources even when they had no legal authority over the land (Gilmour, 1989). A truly participatory development process cannot be generated spontaneously given the existing power relations at all levels and the deep-rooted dependency relationships. It requires a catalyst initiator who can break this circle, who identifies with the interest of the poor, and who has faith in the people. Through a process of awareness creation, indicators mobilize people into self-reliant action and assist in the building up of collective strength (Wignaraja, 1984, p. 8). The presence of a facilitator can encourage the building of group consensus for long-term resource management. Users require forest products and, as they are involved directly in forestry activities, they need specific knowledge and skills.

FAO (2001). State of the world Forest. Rome: FAO, p. 33.

Regarding the forest of world, this book clearly mentioned the scenario of forest globally that the world has about 3870 million hector of forests. In which 95 percent are natural forests and only 5 percent are artificial of plantations. And 30 percent of world land is under forest area. America has the largest percentage of the world forest. Two third of the world's forests are located in only ten countries. This book concludes defining the need of the conservation of forest areas.

IUCN (1991). A Legislative and Institutional Framework for Environmental Management in Nepal. Kathmandu: IUCN, p. 54.

This book states that where the concept of community forest is realized the people of that area are getting the economic and environmental benefit mostly through the activeness of foreign aid projects such as the Nepal Australia Forestry Project (NAFP), the Asian Development Bank (ADB), FINNIDA and a number of other donor agencies have been providing the financial, technical and other resources for the proper management and good implantation Nepal's program.

Malla, Y.B. (1998). Directions for community Forest Management in Nepal. Kathmandu: Australia Forestry Project, Nepal, p 4.

This book highlights that the community forest program is mainly concerned with the management and use of forest resources to all the forest user groups equally. For the extension of this program, the emphasis should be given on building consensus rather than simply accepting majority decisions and the villagers should be made aware of the

program through planning and management of the forests and distribution as well as the use of the forests. The writer has given the stress on managerial aspect of the forest through which the benefits can be achieved.

Donald, A. and Rai, Navin Kumar. (1992). Readings in Social Forestry and Natural Resources Management for Nepal. Kathmandu: HMG Ministry of Agriculture-Winrock International, p. 278.

In this book the writers seem more concerned with community participation which is a process in which people are encouraged to realized that they themselves have the abilities, energies and some of the resources to take initiatives to improve their lives. And writers focus to the marginalized people, landless people, helpless people, disadvantaged people including women and children that these people are suffering from the various problems especially the fuel needs of women. To solve these problems and to encourage the above described people for the income generating activities and to improve their living standards through the conservation and well utilization of their own local resources, the community participation is necessary. This approach is being fulfilled through community forest projects, which requires the community participation.

Kayastha, Baban P. (1991). Elements of community Forestry in Nepal. Kathmandu: Mrs. Sabitra Devi. P. 53.

He evaluates the essence of community forest where the community forest meets the needs. Problems and aspirations of the local people. They have some the beliefs, which may be religious, or other else but the main tendency towards forest is resource, which is renewable. The strategies for community forestry development vary from place to place and it is used to be based on the socio-economic conditions of the community. Regarding these conditions of the community the role of the forests in fulfilling local needs must be given preference. Energy, food and shelter are urgent needs of rural people. In many of the places these needs are fulfilled by improved management of forest and by creating plantations of fast growing valuable species. Especially the main average of the forest conservation can be gained through crop production and animal husbandry. So, the forest can fulfill the daily needs of the people through well management of its resources.

ICIMOD(1998). Integration geometrics and Participatory Techniques for community Forest Management. Kathmandu: ICIMOD. p. 13.

This book is very serious for the degradation process of forest. And it points out the elements, which are responsible for the problem. It states that one potential

mechanism for preventing forest degradation is to increase community involvement in the management and ownership of forest resources and central theme of community forest is returning forest resources to the local community allowing them to manage the resource and directly benefit from it. Therefore, the real consumer and preserver of forest is community approach is main element for conservation.

MOPE (2001), State of the Environment. Kathmandu: Ministry of Population and Environment, p. 42.

This book clearly defines that community forest program have proved to be a successful policy initiative for addressing land on degradation problems and participation the local people in the mainstream of natural resources conservation, particularly the forests, soil water and bio-diversity resources. This program is being most successful program for the environment and economic activities, which reflects the benefits. The policies are formed targeting for ensuring proper land use planning, implementing integrated package programs that includes vegetative agronomic and water management measure as well as establishing linkages between stakeholders and networking the agriculture , forest, livestock and water resource. These all above policies or targets are liked with the community forest programs.

MOPE (2001), State of the Environment. Kathmandu: Ministry of Population and Environment, p. 50.

Another part of this book is described saying that the community forest has a great potentiality for additional economic benefits to local communities through the managed utilization for forest resources because this approach is granted gift to local communities. And it is a potential method of environment conservation and sustainable development of the nation.

MOPE (2000), State of the Environment. Kathmandu: Ministry of Population and Environment, p. 29.

This book reports that the estimation is that there is a potential of 1,876,300 hector forested and have 1,585,800 hector non forested lands which can be developed as community forested. Similarly, 2313100 hector of Nepal's current national forest can also be considered potential community forest. The above data are the significance evidences to the community forest polices. This policy is regarded, as the best policy for environment conservation and stability and the forest area can also be expanded very smoothly without harming human habitat.

Shrestha, K.R. (2002), Forest and Vegetation Types of Nepal. Kathmandu: Natural Resource Management Sector Association Program.

In this book, he states that the progress of handing over forestland to community forest user groups is remarkable praiseworthy and rewarding. Transformation of the ecosystem a result of community forest, is visible in a number of districts. It has greatly impacted upon the quality of forest in terms of species composition and growth of forest is rich and valuable for bio-diversity through community forest approach.

Khadka, D.K. (2000), Community Forest in Nepal.Unpublished a Seminar Paper. Kirtipur: Central Department of Geography, p. 24.

This paper discusses about the importance of community forest program. People's participation is the best way to manage and protect community forest. There are various problems to the develop the community forest program but there are many effort yet to be made in this regard.

CIFOR (2001), Trees, Moons and Daal Bhat in Nepal. In Centre for International Forestry Report 2001. CIFOR. pp. 26-27.

This report highlights the need of the forest conservation through which the rural people are fulfilling the means of their daily food from forest. So, the community forest program of Nepal has established more than 10000 community based forest user group which have significantly increased forest covering. This is the strategic effort to maintain the environment conservation and bio-diversity maintenance.

CIFOR (2001), Secondary Forests are Available in Asis. In Centre for International Forestry Report 2001. CIFOR. pp. 15.

This article is reported on the basis of changing situation of forest conservation strategy that the forests are gradually becoming to change in the countries like Nepal, India and China where original forests remains for environmental livelihood and industrial purposes.

Haley, D. (2002), Community Forest in British Columbia. In Forests, Trees and People No. 46. Sweden. p. 59.

Community forests provide a vehicle for economic development based upon local initiatives innovation and entrepreneurship. They can help employment opportunities, increase public awareness and support for forest management activities.

Ojha, H. and Bhattarai, B. (2001), Understanding Community Perspectives of Silvicultural Practices in the Middle Hills of Nepal. In Forests, Trees and People No. 44. Sweden. p. 60.

Both of them seems aware and have assured that the establishment of community forest is the process to provide the opportunity for communities to build and strengthen their governance skill and capacity. The community forest is about responsibility taken by natural resources dependent communities for managing local natural resources sustainably and equitably. And they highlight the increasing greenery, wildlife, fresh air and water through the government, forest user group enhancement of the forest contributes to beautifying the overall landscape, an attraction for tourists and recreationists which will in turn benefit the local economy.

Ojha, H., H., Persha, L. & Chhatre, A. (2009). Community Forestry in Nepal A Policy Innovation for Local Livelihoods (IFPRI Discussion Paper). International Food Policy Research Institute (IFPRI). (Retrieved from www.ifpri.org/millionsfed on 27th Aug. 2012)

The Community Forestry Program in Nepal is a global innovation in participatory environmental governance that encompasses well-defined policies, institutions, and practices. The Community Forestry Program in Nepal encompasses a set of policy and institutional innovations that empower local communities to manage forests for livelihoods, while also enhancing conservation benefits. The program was launched in the mid-1970s as part of an effort to curb the widely perceived crisis of Himalayan forest degradation, when the government of Nepal came to the conclusion that active involvement of local people in forest management was essential for forest conservation in the country. Nepal's Community Forestry Program innovations encompass a well-defined legal and regulatory framework, participatory institutions, benefit sharing mechanisms, community-based forestry enterprises, and biodiversity conservation strategies. Community forestry appears to have had a net positive effect on livelihoods and a range of other development concerns in Nepal, resulting in direct and indirect positive impacts on rural livelihoods and welfare. However, we caution that rigorous studies demonstrating significant increases in household income as a result of Nepal's Community Forestry Program are sparse in the available literature. Studies that attempt to further disentangle complex relationships among community forestry activities, unrelated development interventions, and economic and other aspects of household livelihoods, particularly through rigorous research designs that control for external factors, would contribute importantly to a clearer understanding of community forestry impacts on household income in Nepal.

World Bank Operations Evaluation Department (2001).Precis. (N0.227). (Retrieved from http://lnweb90. worldbank.org/ oed/oeddoclib.nsf/ DocUNIDView ForJavaSearch on 27th Aug. 2012)

Community forestry in Nepal illustrates the complex and irreversible changes that community-driven development efforts may bring about in the social, economic, and political fabric of society, according to an assessment by the Operations Evaluation Department (OED). Policymakers must carefully think through in advance the nuts and bolts of the decision-making process, the specifics of benefit sharing among stakeholders, and the implementation strategy. More than 90 percent of Nepal's people live in rural areas. Forests are especially important to the livelihoods of the landless and the poorest, who depend on fuelwood, fodder, and other non-timber products for their daily survival. Forests and shrubs occupy roughly 40 percent of Nepal's land area, about 80 percent of which is either hills or mountains. Community management has slowed the rate of deforestation in Nepal, and 15 percent of the forestland is now protected by UGs. In the mid-hills (where large forest areas are under community protection), the rate has slowed to about 0.2 percent a year. But in the Terai, forests are being depleted at an annual rate of about 1.3 percent.

Dahal, G. R. and Chapagain. A.Community Forestry in Nepal: Decentralized Forest Governance (Retrieved from http://www.cifor.org/publications on 27th Aug. 2012)

Nepal's community forestry has become an example of progressive legislation and policies in the decentralization of forest management. It has attracted international attention because in Nepal, decentralization is linked with emerging issues – sustainable forest management, forest governance, policy advocacy, equity, gender, poverty and the role of civil society in community forestry. In particular, the role of the forest user group network in legal advocacy, capacity building and the establishment of democratic governance on a wider scale shows the unique strength of the community forestry approach in Nepal. A forest user group is principally an institution where people of diverse religion, caste, gender, class and strata can participate equally. Official policies promote social inclusion. But there are still many forest user groups that have not properly followed the principle of social inclusion. For the successful implementation of community forestry, a community's poor, women, Dalits and marginalized groups should participate meaningfully and equitably in decision-making.

Koirala, R., Giri, K and Pokharel, B.K. Development and Status of Community Forestry Governance in Nepal (Retrieved from http:// www.wiso.boku.ac.at/ fileadmin on 27th Aug. 2012)

Now, the community forest has been established as a successful program to improve the forest condition and livelihood of people. Some of the crucial factors for the success of Community Forestry are dynamic and adaptive nature of the program, restructuring and reformulation of policy and devolution of authority to local communities. Supportive policy framework has been the key factor that triggered motivation of local communities for their institutional arrangement to find themselves in transformed scenario and it got the greatest impetus after government legitimized the usufructuary rights of people. The challenges such as fully empowerment of women, disadvantaged group and their role in leadership are highly prevalent and successes are not uniform throughout the country. Community Forestry led devolution revolution not only within the forestry but also in other sectors like watershed management and protected area management. Due to Community Forestry, society has been transformed as decentralized, participatory and equitable. Due to the former kind of output from devolution, Community Forestry is highly touted as the successful participatory model. But, at the same time the later types of output are also equally prevalent. Therefore, higher degrees of challenges such as centralized decentralization, participatory exclusion, and not fully realization of equity, putting the last first have emerged due to lack of perfectly good governance.

Kamnel, K. R. and Dahal , G. R. (2008). International Journal of Social Forestry, 2008, Communoity Forestry and its Economic Implications: An Experience From Nepal. (Retrieved from http://www.ijsf.org/ dat/art/vol01/ ijsf_vol1_no1_03_kanel_nepal. pdf on 27th Aug. 2012)

Forests create externalities and environmental services to distance users. Devising a mechanism of capturing the external benefits for the producers of these beneficial externalities and public services would further enhance forest Community Forestry Policy and Its Economic Implications. Development of simple and useful valuation techniques to measure these services is a must before asking for payment for these services. Forests provide opportunities for conservation, and broad-based economic growth compatible with livelihood promotion. If the higher-level decision makers recognize this relationship, forests and forestry should get priority in national development. An example of the community forestry program from Nepal indicates that community mobilization is

essential for forest management and sustainable utilization, as well as for community development. It also raises many serious questions and challenges: How to link this development to the livelihood promotion of the poorer households? How to ensure that the substantial fund generated from the community forests is canalized towards pro-poor programs? What about the role of enterprise development and marketing of the products so that the poor can be the proprietors and managers of these commercial and viable enterprises? Forest policies have been developed and stated in many documents over the recent decades. It is observed that forest polices and other policies coming from other sectors have influence on the way forests are managed at the local level. How to harmonize these multiple policies and to increase the capacity of these polycentric organizations is also a major challenge in policy design. More inflation of policies does not necessarily lead to good implementation and successful results. Therefore, this paper argues that more attention should be given to the enhancement of the implementation capacity of decision makers.

2.3 Women's Participation in Community Forestry User Group Programme

Involvement of women is crucial for the success of community forestry, Women are the major collectors of forest products such as fuel wood, fodder and fruits grass, and they cook and do most of domestic works. Therefore, they suffer from the social and economic consequences of deforestation. Most directly having to spend more and more time and walk longer distances in search of this essential forest product. However, they should not be considered in isolation and total community participation should be effected (Kayastha: 1991).

If the forests to be successfully managed by local users, then women mostly participate, they are responsible for collection of the fuel wood, fodder, leaf compost bedding, as well as controlling grazing. The men, on the other hand generally take care of cutting and selling timber, and of administrative decisions about the forests.

Women gave worked successfully on both annexed and all female forestry committee in Nepal. Village men and women, and professional farmers generally agree that women are capable of doing committee work of learning how to do it.

Siddiqi (1989s), indicates that women's participation will help the forests first and the women second, women will have to give to forestry before gives to them. Siddiqi (1989s) further writes that, given that it is essential to involve in developing and implementing

workable management plans, Nepalese society and the position of men and women in it, other strategies are unworkable.

Siddiqi (1992), further writes, following the recent concern of development professionals and environment activities regarding effectiveness and sustainability of forest programs. The participation of women in forestry is being seen as essential to the advancement of women in rural community, where life and subsistence are directly dictated by nature and quality of available renewable natural resources women for forestry and forestry for women both are valid, highly desirable and non contradictory concepts.

Women are the main agents of natural resources management particularly in rural areas where forest is the main sources of five word, timber, litter and animal fodder that are mainly collected by women Nepalese agriculture system is predominantly subsistence in nature in which crop live stock and forest have very close interrelationship accretion population growth and rapid Saco economic changes poses multifarious impacts on the interrelationship (Bajracharya, 1983).

The proper management of community forest (CF) is mainly depends on women's participation because in rural communities they have a vital role in environment management and development Their full participation is therefore essential to achieving sustainable development (UNCD, 1992) It is very important to explore and understand their role in rural a has because every rural house hold in the put is dependent on wood for cooking and heating, and on forests land for feeding domestic animals, almost all of these activates are carried out by women (Gurung, 1997).

The collection of forest product, mainly fodder, fuel wood, grass and thatches, is a woman's role in most parts of the country. In addition to the collection of forest products, women fuel wood, fodder and bedding materials, as they are primarily responsible for household chores. Being involved in the collection and management of forest resources, women have developed a traditional knowledge base about their management and utilization. Despite this, women are generally excluded in the decision-making process of CFUGs. As a result, most CFUG decisions, including funds management, are made in favor of relatively wealthier households (Bhatta and Gentle 2004; Gentle 200; Ghimire, 2003).

The exclusion of women in the resource management process has serious negative consequences not just for gender equity, but also for the efficient functioning and long term sustainability of these initiatives, and for women's empowerment (Agarwal, 1997).

Social exclusion has economic, social and political dimensions and it explicitly embraces the relational as well as distributional aspects of poverty (Bhalla and Lapeyre 1997).

The Ministry of Forest and Soil Conservation (MFSC) has encouraged women's participation in community forestry from the very beginning of the program. The MFSE made a policy recommendation for participation of at least 33 percent women in the executive committee of CFUGs (MFSE 1988), however, the provision does not specify women's participation in any specific positions of authority and decision-making. In addition, women-only CFUGs were created to increase women's involvement in community forestry since their participation in the decision-making of mixed-sex CFUGs was minimal. Currently, there are more than 600 women-only CFUGs throughout the country in which women exclusively represent the executive committee and general assembly as representatives of their household. However, a comparative analysis of 190 women-only CFUGs and 1,581 mixed CFUGs revealed that the average household size of women-only CFUGs was 1.5 times smaller than that of total CFUGs and the average forest area per household of women-only CFUGs was half the average of total CFUGs. Similarly, the average area of women-only CFs was three times smaller than the average area of total CFs (Gentle 2003). A similar observation was made earlier by(Agarwal, 2001). Of women-only CFUGs in Nepal. She argued that women-only CFUGs receive small plots; some 50 percent of CFUGs control less than 10 hectares each and often this is barren land needing artificial regeneration. Thus, women-only CFUGs are not an effective means of equalizing women's and men's management of community forestry (Agarwal 2001; Gentle 2003; Gautam 2004; Graner 1997; Rai and Buchy 2004).

CHAPTER- III

RESEARCH METHODOLOGY

3.1 Selection of the Study Area

Tokme Danda Community Forest occupies part of Fungling VDC and Dokhu VDC. Fungling is the headquater of Taplejung district. This forest covered 14.10 hector land and around 240 households are engaged for their livelihood. 850 number of population is directly related with the socio-economic activities of Tokme Danda Community Forest. This forest is considered as the habitat of all scarce animal and plants having high attitude. This forest has various economic and environmental potentialities with having high bio-diversity maintenance. This research is targeted to identify these entire mechanisms.

3.2 Research Deign

Both the descriptive and exploratory research design was adopted. Community forest user group economic activities, their active participation in bio-diversity conservation and the effect of community forest on user groups both economically and environmentally, were discussed descriptive. Exploratory research design was used to find out some problems associated with the forest and analyzed these problems applying different tools on various problems selected with economic activities and management process of community forest activities and the factor affecting in using patterns were discussed on the basis of exploratory design.

3.3 Sample Size

As the selection of the study area and the research design, the sample size was selected because not all the forest user group members can be surveyed due to the physical as well as technical problems. This community forest consists 240 households and it benefits around 850 users among 240 households including 30 heads of the households were surveyed.

3.4 Nature and Sources of Data

This research is field-based study. The primary data like social, economic, environmental conservation and impact on user group through forest product and the related problems were collected through field visit. To collect these data the interview method was applied through structural questionnaires by the researcher himself. Regarding this primary information, the secondary data as available relevant writing documents e.g. village profile, user group constitution, operational plan, publications of the District Forest Office and other related national as well as international documents, publication and report were the key information in the preparation to this project document.

3.5 Data Collecting, Tools and Techniques

The following tools were used to collect data

3.5.1 Questionnaire Survey

For the collection of primary data structure, questionnaire schedule related to the objective of the study were used.

3.5.2 Interview

The interview was carried out by visiting all selected sample units though structural questionnaire sheets. Thirty heads of the household were taken for key informants of this research. The respondents were interviewed together information on the impact of Qualitative analysis was made on the basis of interviewed data.

3.5.3 Focus Group Discussion

Focus group discussions were held in separate group with the active participation of women and men. This discussion was focused more on women participation.

3.6 Data Analysis

Both quantitative and qualitative techniques were used as corresponding to each other rather than compete or mutual exclusive to analyze the data. The qualitative method was descriptive and analytical. The quantitative data were discussed analytically based on findings. Qualitative data were systematized concerning the issue of economic and environmental activities of community forest.

CHAPTER-IV

Data Analysis and Presentation

4.1 INTRODUCTION OF TDCF AND FUG

Tokme Danda Community Forest occupies part of Fungling VDC and Dokhu VDC. Fungling is the headquater of Taplejung district. It is covered by Nangkholayang VDC (in east), Change VDC (in west), Khokling VDC (in north) and Fulbari VDC (in south). This forest covered 14.10 hector land and around 240 households are engaged for their livelihood. 850 number of population is directly related with the socio-economic activities of Tokme Danda Community Forest. This forest is considered as the habitat of all scarce animal and plants having high attitude. This forest has various economic and environmental potentialities with having high bio-diversity maintenance. This research is targeted to identify these entire mechanisms.

When the activity of community forest was spreading all over the county with getting success in natural resource conservation and community development, this forest is also forwarded for community forest in 2050 B.S. Before this, a lot of conservation strategies were exercised as to keep guard, plantation, boundary demarcation where the people used to pay salary and use to collect all the costs as needed for it (TDCF 2050).

Direct beneficiary aspects of this forest to the community, the other environmental functions are also related with this forest. The bio- diversity conservations is fulfilled with its good habitat of all scarce animal and plants. The water source is also maintained. After handling over the forest to forest user group, this forest has typically changed in different matters. Some of the options were interviewed based on priority that the respondents have given their response in comparative perspective that the situations are quite changed after the initiation of the community forest program. Due to the plantation strategy, this forest changed into thickness. This shows the conservation and storage of resources conservation of natural resource and wildlife seems more attractive from these results, natural beauty and scenic attraction of this forest are upgrading very smoothly. All these responses can be considered that all the resources and potentialities of forest are conserved through the initiation of community forest program and quality as well as the quantity also added through this conservation strategy.

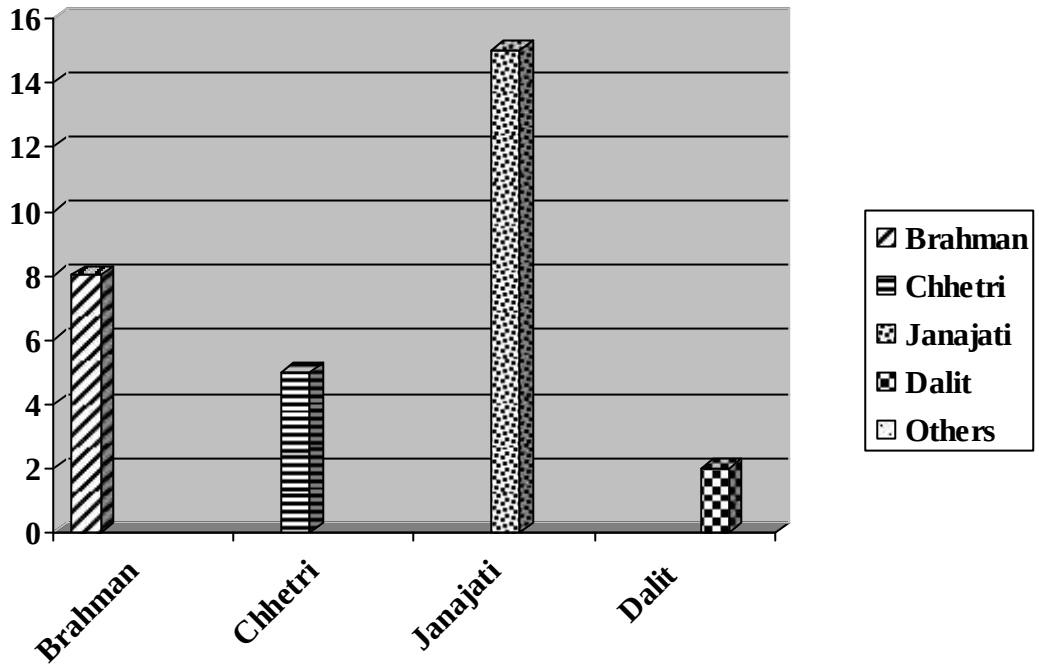
There are many households in the forest user group but only 30 head of households has been surveyed.

Table No.4. 1 Percentage Distribution of Caste of FUG

Caste	No. People	Percentage
Brahman	8	27
Chhetri	5	17
Janajati	15	50
Dalit	2	7
Others	0	0
Total	30	100

Source: Field Survey, 2070

Chart no.4. 1 Percentage Distribution of Caste of FUG



Through this table no. 4.1 the caste composition of Tokme Danda Community Forest User Group can be categorized with dominant caste Janajati where 50 percent of total FUG is covered by them. Brahman 27 percent, Chhetri 17 percent and Dalits are 7 percent. This picture shows there are 4 castes that are being participation actively in forest resources conservation, management and consumption.

Through the interview of respondents, the education status of the FUG is that the 40 percent of total are literate. This education situation is lower than the national

education. Remained 60 percent are still illiterate that they have not access in reading and writing skill. And the illiterate FUG's educational attainment is described as below.

Table No. 4.2 Educational Status of FUG

Level of Education	No. of Respondents	Percentage
Illiterate	18	60
Under S.L.C.	4	13
S.L.C. level	3	10
Intermediate	2	7
Bachelor	2	7
Above Bachelor	1	3
Total	30	100

Source: Field Survey, 2070

The educational attainment is that the 60 percent of total FUG are illiterate, 13 percent are under S.L.C. and 10 percent have just passed S.L.C., 7 percent have passed intermediate level, 7 percent have passed bachelor and 3 percent have passed above bachelor. This scenario of education shows the unsatisfactory condition and the wave of education is being spreaded slowly in this area.

The other mechanisms at FUG are common as all rural communities have. The family type of FUG is both nuclear families. The main occupation of this FUG is agriculture and livestock farming. The role of traditions and cultures in this community seem very vital.

4.2 Economic Activities of TDCFUG

There are various types of occupation of FUG of this forest, which relates in income generating activities. The economic activities include both non-forest and forest product activities, which help to FUG by providing economic support in their daily life. The occupation of FUG, distribution of land, farming type and their relation with forest is clearly defined below which shows the development and economic activates with the development community forest. The support of community forest is highly contributed in economic activities of FUG. The economic activities are described below.

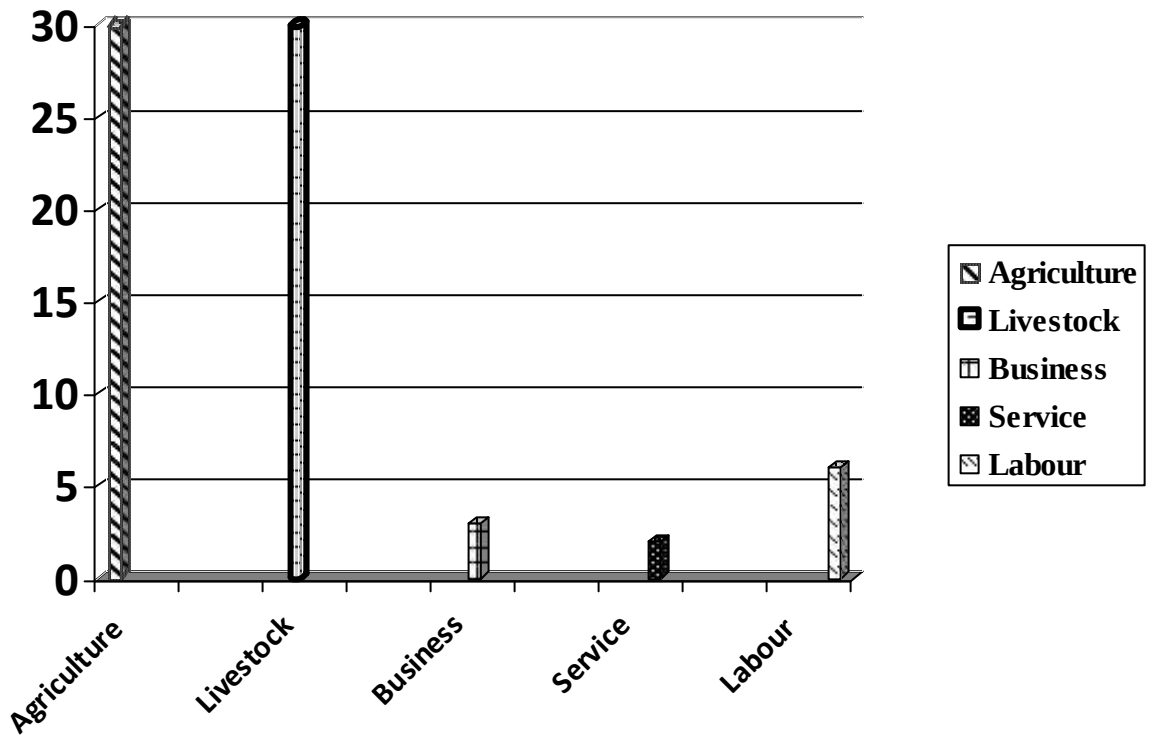
Table No.4. 3 Percentage Distribution of Occupational Status of FUG

Types of Occupation	No. of Respondents	Percent
Agriculture	30	100
Livestock	30	100
Business	3	10
Service	2	7
Labour	6	20

Source: Field Survey, 2070

Some of the respondents have ticked more than one option of item.

Chart no.4. 2 Percentage Distribution of Occupational Status of FUG



As all rural people's occupation this TDCFUG's occupation is also devoted to agriculture and livestock farming where all respondent do this activity of fulfill the hunger of stomach and one of them are doing for commercial purpose. In business sector there are only 10 percent and 7 percent are engaged in service. 20 percent of total FUG also labours for additional income source. Other occupations expect agriculture and livestock are being done simultaneously with farming. Agriculture and livestock farming are main occupation of them. And pasture land is another variable of livestock farming.

These all variable are being fulfilled by their forest through its main potential aspect. As rural life require all the equipments needed for livestock management and agricultural practices are grants of forest. So we can claim that the community people of the FUG gave the intimate, relationship with forest for their farming procedure.

4.3 Using Pattern of CF

All the respondents believe that they are using this community forest for agriculture, livestock farming and for other resources. Irrigation process is also maintained through this forest for the related community. Other resources as timber, house roof material, firewood compost manure, coal and medicinal herbs are the main products of this forest, which all FUG are getting well. All things are providing to all FUG for economic benefit. Main economic activities are related with these forest products. These activities signify about the daily activities of common rural people. Most of the people are getting the main materials as firewood for fuel, fodder for livestock and compost manure for fertilizer purposes denoted the main role in domestic life. FUG claims that their agricultural farming is increasing through the development of community forest.

4.4 Time Matter

Time is evaluated at everywhere in expensive manner. Time factor is highly associated variable is beings' life. All of the respondents replied in the question about time that it is saved and become easy in availability of materials and distance is quietly changed that the potentiality of forest products is becoming richer and richer. The time is saved due to easiness to collect the above-mentioned things for their daily domestic lives. Particularly time is saved in firewood collection, manure collection and fodder collection. The save time is being use in various income generation and other domestic purpose. The alternative economic activities can be generated or launched through the saved time. Therefore, time is vital factor for many activities or particularly in economic activity.

4.5 Types of Livestock Farming

As having main occupation is agriculture, the general types of livestock are found here. The FUG is not more conscious in commercial farming but they are adopting the traditional method of farming. The livestock types are cow, ox, buffalo, and goat, etc. All

respondents use to farm their animals. Some are engaged in goat, pig, chickens as the main additional source of income. These economic activities are being done very traditionally with traditional means of production and method.

4.6 Types of Crops

As livestock farming, the crop farming of FUG and community is also traditional. Only 10 percent people use to farm with improved breed. Most of respondents do not use the modern way of production. 20 percent people are chemical fertilizers and rest of them uses compost manure. Basically, the major crops of the farming are rice, maize, oil based, *Dal* based crops. These crops are considered only the means of food for domestic purpose of respondents. These crops are fulfilling the demand is food directly or indirectly to the people. These agricultural activities are being done only for the purpose of food or to fulfill stomach but not for commercial purpose. These are the basic farming varieties of this forest user group.

4.7 Relation between Farming and Forest

All of the respondents claimed that there is much relation between forming and forest. They additionally identified that without forest there is not possibility of existence because all the activities of daily life are associated with livelihood. Way of living and source of living are being exercised in this forest by FUG. Especially agriculture and livestock farming is highly attached with forest. Farming is associated with forest in the case of that the agricultural resource of variables as nutrient components. Water source, organic manure, and other fertilizer components are being fulfilled through this forest. So this forest is supposed to be contributor of agricultural farming. The fodder manure is another potential aspect of forest for livestock farming.

Table No.4. 4 Fodder Need Per day of FUG

Amount of Fodder (in Bhari)	No. of Respondents	Percent	Average
1-2	9	30	3.16
2-3	4	13	
3-4	7	23	
4-5	8	27	
Above 5	2	7	
Total	30	100	

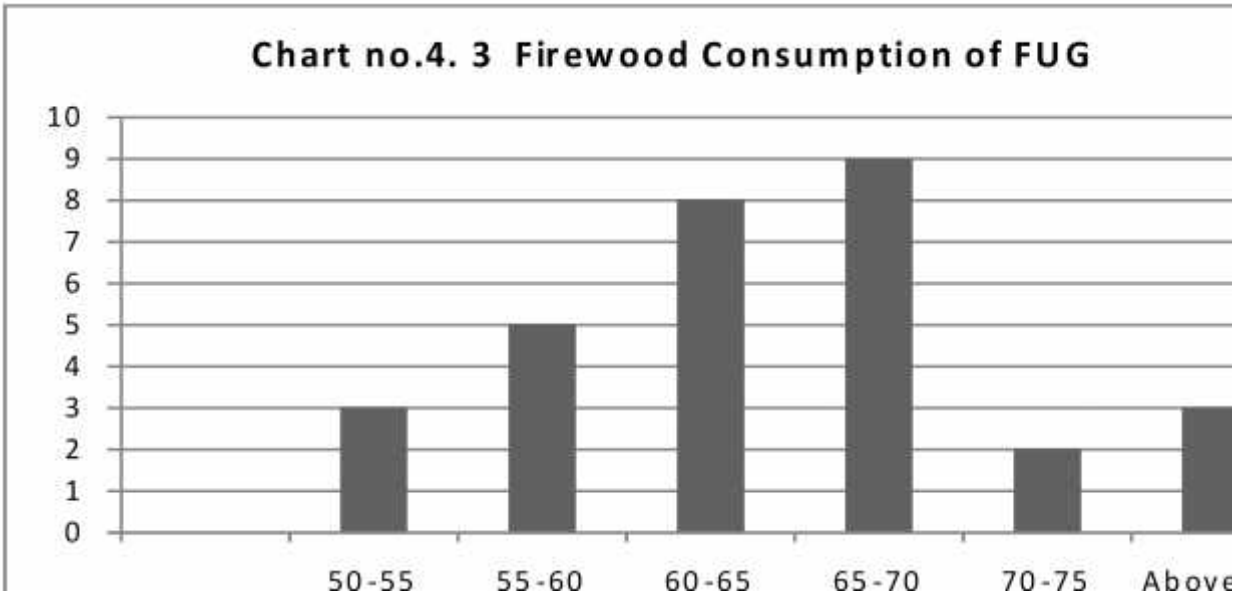
Source: Field Survey, 2070

According to the table no. 4.4, FUG the actual need of fodder to them is in average 3.16 Bhari per day. Where 30 percent people need 1-2 Bhari, 13 percent need 2-3 Bhari, and 23 percent need 3-4 Bhari, 27 percent need 4-5 Bhari and 7 percent need more than 5 Bhari. Except community forest another required fodder, is fulfilled through their land. In rainy and summer season, their own land became successful in providing much fodder and the rest of these seasons, the community forest is responsible for it.

Table No.4. 5 Firewood Consumption of FUG in last Year

Amount of Firewood (in Bhari)	No. of Respondents	Percent	Average
50-55	3	10	65
55-60	5	17	
60-65	8	27	
65-70	9	30	
70-75	2	7	
Above 75	3	10	
Total	30	100	

Source: Field Survey, 2070



Above table no. 4.5 shows that the economic activity related to firewood of FUG is being exercised in high manner that annually each household in taking 65 Bhari in average. Similarly, 4182 Bhari is required every year from the community forest. 10 percent as respondents are taking 50 to 55 Bhari and 17, 27, 30, 7 and 10 percent FUG

are taking 55-60, 60-65, 65-70 and above 75 respectively. These sorts of economic attachment are highly associated with forest.

Table No.4.6 Forest Product Resources Based Industries

Types of Industries	No. of People	Percent
Furniture	6	20
Iron Based	3	10
Bamboo Based	9	30

Source: Field Survey, 2070

From this table no. 4.6, the FUG is involved in these sectors except agriculture and livestock farming for their better income. This table shows the income generating activities, which are exercised by FUG with the conservation and utilization of community forest. The source of materials for their home industries is this community forest. 20 percent are involved in furniture industries. 10 and 30 percent are involved in Iron and bamboo based industries respectively. This involvement of FUG shows the economic activates are being exercised through the development of community forest.

These are other productions of community forest expect above mentioned materials which belong economic matter. Respondents are getting these materials from forest also denoted economic benefit through these materials.

Table No. 4.7 Consumption of Additional Source of FUG

Types of Materials	No. of People	Percent
Medicine	10	33
Vegetable	7	23
Fruits	3	10

Source: Field Survey, 2070

Some of the respondents have ticked more than one option of item.

According to the table no. 4.7, the materials i.e. medicinal herbs fruits and vegetables definitely belong with economic activities and are most essential things for rural people, where 33 percent respondent are taking medicinal herbs through this forest and 23 percent of respondent are getting vegetable through it. And only 10 percent people are taking fruits. Vegetable is the main potential product of this forest, vegetable and tama, niuro, tusa and mushrooms can be used for sale additional income.

4.8 Bio-diversity of TDCF

According to the respondents of Tokme Danda Community Forest the management and maintenance of bio-diversity of forest is highly improved after the adoption of community forest program. Different types of scarce species including plants and animals are conserved highly. The rate of increasing numbers of plants, animals and birds species is becoming effective through the good maintenance of forest. The species, which are listed here through overall observation and discussion with FUG are good examples of Bio-diversity conservation.

In this forest, the species of plants, which support to fodder or fodder product varieties, are around 40. The timber products species 45 and the plants varieties of vegetable and fruits consists around 10. The main plant varieties, which are considered as scare are the medicinal herbs found in this forest. From these, varieties, Chap, Patla, Amala, Kholma are the scarce specie, which are found in this forest. There are around 30 species of fauna including both animals and birds around 17 species of birds and 13 species of animals are found in this forest. From there species Dhukur, Sal and snake are endangered species, which are found in this forest.

Table No. 4.8 Process of Participation in Bio-diversity Conservation

Process of Conservation	No of People	Percent
Planting tree	25	83
Boundary	30	100
Making Aware	21	70

Source: Field Survey, 2070

Some of the respondents have ticked more than one option of item.

According to the table no.4.8, FUG participation in forest resource management seems very effective through various process such as planting, boundaring and making people aware. Where 83 percent respondents are participating in planting process, which helps for better resource management, and 100 percent are helping in boundary making activities. 70 percent respondents are participating in awareness making process to people and each member of community. These processes to protect bio-diversity are best methods. These activities are helping bio-diversity conservation in better way.

Table No. 4.9 Types of Plants in Forest

Types of Plants	Percent
Timber Product	50
Non-timber	25
Medicinal Herbs	15
Fruits	5
Vegetable	5
Total	100

Source: Field Survey, 2070

Respondents are aware toward plans for planting seems normal because 65 percent plants are common and only 35 percent scare. Another great aspect of forest bio-diversity is there are various types of plants. The timber producing plants cover 50 percent where fodder (non-timber product), medicinal herbs, fruits and vegetable product, cover 25, 15, 5 and 5 percent respectively. This table shows balance among all resources.

4.9 Affecting Factors and Constraints in Bio-diversity Conservation

Bio-diversity conservation is very complex matter in it itself needs balance natural habitat. As this fact the natural calamities always disturb this mechanism and result bad effects in bio-diversity conservation various affecting factors which affect the bio-diversity conservation of this forest are floods, natural disasters, cultural traditions etc. 50 percent factor is flood and 30 percent goes to natural disaster. Remaining 20 percent is responsible with cultural and traditional matters.

As the affecting factors there are some constraints of trees, which are seeds, nursery protection management. Where 30 percent is related with seeds and 20 and 50 percent is related with nursery, protection and management. These are main factors and constraints in Bio-diversity conservation.

4.10 Cultural Relation with Forest

Apart economic and natural environmental activities, the social environmental activities are also related with this forest. As the respondent presentation as their ideas and through this report supposed as the following symbol of God.

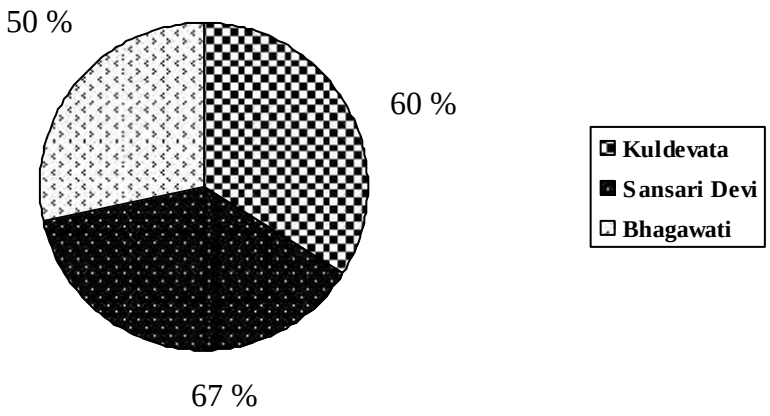
Table No. 4.10 Socio-Cultural Relation of FUG

Types of God	No. of People	Percent
Kuldevata	18	60
Sansari Devi	20	67
Bhagawati	15	50

Source: Field Survey, 2070

Some of the respondents ticked more than one item.

Chart no. 4.4 Socio-Cultural Relation of FUG



Through this table no. 4.10, the respondents are highly attached with cultural and traditional activities to this community forest. 67 percent of the totals FUG are supposing this forest as Sansari Devi, 60 percent are worshipping as Kuldevata and 50 percent are worshipping Bhagawati.

4.11 Economic Impact of FUG

Through all the data and information of TDCFUG collected through respondents concerning to economic activities all table and description show the great potential aspects using pattern of economic resources. The economic impact on user group and a community can be viewed that all the resources and wealth, which are being used by the user group, signifies economic benefits. As the fuel wood, fodder, compost manure, timber, medicinal herbs, vegetable, fruits and other potential aspects are being considered economic activities of user group and community. Except these activities and dependency of FUG on these matters for their economy. These sorts of dependency and using pattern of forest contributed to community as great economic impact or benefit. The following points are the key points of economic impact:

- Main occupation of FUG are considered the agriculture and livestock farming are highly dependent on forest and without forest and without forest resources these activities cannot foster well. So, this dependency shows main economic impact on user group and whole community.
- The construction materials and timber, house roof materials the material for dam are other potential resources of forest which are being used. This using pattern expresses excellence economic impact on user group.
- Other materials coal, medicinal herb, vegetable fruits are the nice indicators of economic impact or user group and community.
- Furniture, bamboo based, iron based industries are running through the forest product resources which shows high economic impact on user group.
- Average 3.16 Bhari fodder is being gained through this forest per day, which is main indicator of economic and helps in livestock farming and development.
- 100 percent people are dependent on agriculture and livestock farming where forest provided required resources which is the economic impact on user group.
- 65 Bhari fuel wood is gained form this forest by each household annually. This shows dependency for fuel wood for their economic benefit.
- Around 33 percent respondents are getting benefit of medicine, 23 vegetable and 10 percent respondents are taking fruits form this forest, which shows another economic impact on user group and community.
- Leaf for ceremonial function and other sources shows high rate of economic impact on community. These above mentioned source of forest are the means of economic impact on FUG and community. All the activities are related to economy and are the means of human existence in daily domestic life. The way of life and daily activities are highly associated with forest, which are the good economic potential aspects of forest to people. The forest is used for various purposes; which is used for economic purpose. The fulfillment of need of domestic life concerns the economic activities, which is performed by forest. These all associated grants of forests to people and community are the economic impact of forest on FUG.
- To provide employment.
- To provie Ghar for bee keeping.
- To work collaboratively with local saving institutions in order to farm high bridge cows, goats.

- To provide firewood mandatorily in weeding and other cultural festivals.

4.12 Environmental impact on FUG

Regarding the economic impact of forest on community and FUG, there are other some environmental impacts which are being increased with the conservation of forest. This forest is also functioning the environmental activities, which has contributed for the balance of natural products and regulation of all resources. This forest highly supports in all economic activities of people and community through its bio-diversity maintenance and proper conservation strategy of FUG. There are some environmental impacts on FUG and community, which are as follows:

- Participation in conservation of bio-diversity shows the balance among all eco-systems and living organisms.
- Natural beauty is increased through the better conservation and plantation of forest.
- Mill forest is the good habitat of 200 species of plants, 30 species of animals and 20 species of birds.
- There are scarce types of organism are conserved such as monkey, Kaliz and other plants as Chap, Patla, Kholma etc.
- Medicinal herbs are other gifts of this forest, which shows good environmental impact on FUG and community.
- The industries which are running are the non-polluted and environmental friendly though the forest product materials which are the key foundations of good environmental impact of Tokme Danda Forest on community.
- Social environmental relation is also associated with the forest because the cultural relation is highly attached with it. This shows great dependence on forest not only economically but also socio-culturally.
- User group have their own images to the forest which is also another type of social environmental impact on FUG and community.
- 50 percent plants are related with timber product and 25, 15, 5, 5 percent related to non-timber, medicinal herb, fruits and vegetable products respectively, which shows the balance among plants. The protective and regulative function of environment seems not disturbed.
- Therefore, this forest regulates all the protective, regulative and constructive functions of environment both economically and environmentally. The above-mentioned impacts are good examples of forest in all matters to human activity.

CHAPTER- V

SUMMARY, CONCLUSSION AND RECOMMENDATIONS

5.1 Summary

After the various activities to the forest sector, the government realized that the real owner of the forest is the community people where they were supposed as the destroyer. From this realization, the government acted the policy, which is community forest program. This program is being spreaded all over the country and is being the good example of community development approach. This program is focused to participate all local people including, minor, marginalized, and excluded class and disadvantage groups. This focus is helping to fulfill the livelihoods of people.

As the economic potentialities, the main another potential aspect of forest is to maintain the environment. All the environmental factors of this earth is associated with forests. Forest performs the various activates as protective, regulative, regulative and constructive. The soil conservation, water cycling process eco-system and bio-diversity aspects and all other aspects to strengthen and regulate the human life as well as biological existence, forest is considered the key factor.

Various research and literatures have discussed related to community forest to know the economic potentialities and environmental potentialities of forests. Through the literature review, the concept of community forest, user group, economic activities, environmental activities, and bio-diversity conservation and its impact on user group and community were reviewed.

This Tokme Danda Community Forest is located at eastern part of Taplejung district in Fungling and Dokhu VDC, Mechi Zone. This forest has occupied 14.10 hector land and around 240 households are engaged for their livelihood. 850 people are directly related with the socio-economic activities of Tokme Danda Community Forest. This research gathered information and data through field visit of this research unit area. The main research objectives were to identify economic activities to TDCFUG, to analyze the FUG participation in bio-diversity conservation and to identify the impact of this forest on socio-economic and environmental life of local community. Most of the FUG is illiterate. After handling over forest to user group, this forest has typically changed in various matters, so the resources capacity became high. The occupation of FUG is mainly

agriculture; livestock farming, business service and some of them do labour. This forest is being used in various matters as firewood, fodder, compost manure, house roof material and timber. Except these materials various home based industries are running with the help of this forest like, furniture, iron based and bamboo based. The source of vegetable, fruit and medicine is also acquired through this forest. To collect these things the expenditure of time has typically changed that the time saved in various matters after initiation of community forest program. Actually, the economic activities of TDCFUG with forest are considered.

Regarding these activities, some environmental friendly behaviors are also exercised that the maintenance of bio-diversity is becoming very successful through this community forest. Various scarce plants and animal are making the habitat to this forest. The process of participation bio-diversity conservation of FUG seems satisfactory through planting, making boundary and making aware to community people. There are various types of plants in forest including timber, non-timber medicinal herbs, fruits, vegetable products.

Except these characteristics, there are various obstacles, which are being the main problem to this forest for better conservation and management. The cultural and traditional FUG is taken this forest for their cultural image. These are the main findings of this research concerning this community forest.

5.2 Conclusion

As the research target of this study various economic benefits and environmental behaviors are being formulated by FUG to this forest. The FUG of this forest are from Brahman, Chhetri, Janajati and Dalit back rounds where most of them are illiterate. The extended family type is dominant in this community. The user group prioritizes various cultures and traditions. After initiation of community forest program, this forest is quietly changed in various matters as in forest thickness, natural beauty, storages of resources and conservation of biodiversity. The occupation of FUG is mainly agriculture and livestock some of them do business and service. For additional income source some of FUG are doing labour activates in various sectors.

The main economic activities of FUG in this forest are particularly agricultural, livestock farming and other home based industries. The entire FUG is involved in agricultural and livestock farming with the help of fodder, irrigation channels, compost

manure, fuel wood and other resources from this forest. With the support of these things agriculture and livestock, farming is getting success. Other economic activities related with forest as the home-based industries signify economic activities of FUG with the help of community forest. Iron based, furniture and bamboo based industries are making based to this forest for raw materials which are indicator of economy and are also acquired for additional income from forest. These are main findings of this research. Another aspect of this research is the environment of forest. The bio-diversity is being conserved very effectively through various activities. Except these relations, the social relation with this forest of FUG is highly attached where most of them are worshiping as incarnation of God. The problems are very general which are being obstacles in fostering various economic activities. Thus, there are main finding of this study.

5.3 Recommendations

Based on the findings of the study, following recommendations are suggested:

- Forest management is the process of managing forests to achieve one or more clearly specified objectives of management with regard to the production of a continuous flow of desired forest products and services, without undue reduction of its inherent values and future productivity and without undue undesirable effects on the physical and social environment.
- This is the longer term objective of CF but the rural community also depends on the forest for short-term benefits. For this purpose, the FUG needs to consider the following Points:
- A site-specific operational plan is required for optimum and wide use of forest land for the benefit of users, e.g. product mixes including NTFPs and grasses. Where possible, the harvest level should be set for each main timber or non-timber product.
- Institutionalized and capable, FUG, Enhancing, sustainable CF management, Series of products benefit, Economic regeneration, Community development and Development of social capital.
- Simple and practical forest resource assessment methodology needs to develop where users also participated and OP should be based on the resource condition and needs of users.

- Most of the community forest is under-utilised because of the protection-oriented mentality of users and the lack of resource information and technical support from DFO staff. For example, Patle FUG can harvest about 900m3per year whereas they are harvesting about 60 m3 per year only because they do not have a detailed OP. Realistic plan should be developed and implemented.
- Management of forest resources for multiple use or different product mixes should consider the diverse needs of different categories of users. Emphasis should be placed on desirable and site-suitable seedling production in the FUG nursery and on the promotion of natural generation.
- Managing community forest should look beyond the basic needs requirement i.e., towards generating financial, physical and social capital.
- The establishment of a participatory implement of plan, monitoring and evaluation system for forest management is a crucial aspect of CF so that the production and use.
- Alternatives on the daily needs must be forwarded which are taki.ng from forest. The current trend of using resources leads loss of resources, so the alternatives will minimize in resources use.
- Women participation is very low so increase women participation.
- Ethnic dispute with Dalit must be eradicated through effective participation strategy.
- There are some distributional disputes among FUG members. So these activities or disputes should be avoided through equal distribution of forest resources and products.
- Other economic activities related with community forest products ought to be launched on the basis of economy where it is possible.
- User group of this forest has no sufficient knowledge of forest management. So, training and instructions program should conduct in this field.
- Current government tax policy and other procedures seems obstacle for promotion of forest, so these activities most be freed to all FUG and CF.
- Social and cultural relation is highly attached with this forest of FUG, so policy for these activities must be forwarded right now.
- Bio-diversity is highly protected in this forest, so the scare plants and animals must be recognized and policy for conservation should be forwarded.

- The trend of using the land of the forest as grave yard should be discouraged.
- Nursery for plantation is needed, so this strategy should be forwarded.
- There is little corruption to be solved.
- Domestic animals are freely entered in this community forest, so boundaring act.

During last 5/6 years, the forest is well protected. Socio-economic and environmental aspects of this forest are leading in balance way so other alternatives and more effective strategies must be taken for rise in resource both qualitatively and quantitative.