CHAPTER -I

INTRODUCTION

1.1 Background

Forestry is the science managing, using, conserving and repairing forests, woodlands, and associated resources for human and environmental benefits. That's why it is said that hariyo ban nepal ko dhan (Green Forests are the wealth of Nepal).

The Government and authorized individuals have exploited nature forest resources for their personal benefit for generations. Forest land was distributed to kin and powerful people by introducing a different tenure system. In the later stage of the Ran regime, one third of state-owned forest was transferred as a birta and kipat and therefore belonged to Rana family. In 1957, the government enforces the Nationalization Act and nationalized privately owned forests. Many scholars suggest the deforestation in Nepal can be traced to the nationalization of communal forest lands in 1950s by the government, thereby alienating local people from their ancestral institution and controls. In fact entitlement of forest was not communal it was with landowners and they allowed local people for forest products use.

Local control over forest remained in places where strong local leadership had excluded Government interference. In these areas, forests were protected thought local action to ensure that local people could continue to meet their needs from the forest, and the Act appears to have had little effect. Despite the argument made by Rhodes, there is not any evidence that shows Government has nationalized communal forest. Most of the forest was under the control of powerful people as private forest, which was national property previously. Even powerful people owned these forests as birta, kipat and other means. Forest was permitted to use to local people as mercy of landlord, and there was system providing gift and labor donation instead of taking forest products. The main intention of this Act was to size the power and control of limited elite Zamindars, bringing all the forest under Government control with a vie to preserving this natural resource, providing for the protection of forest, and controlling use by the people.

The 1957 nationalization Act states the forest constitutes an important part of the national wealth and to protect national wealth, management utilization thereof for the

public interest it is expedient to nationalist private forests (Private Forest Nationalization Act, 1957). There was a provision in this Act that about the limited area of private forest for the individual family, which could not be nationalized. After the end of the Rana era, the government had nationalized private forest in a weak organizational structure and was unable to communicate that view of nationalization to people. Local elite and landlord Zamindar distorted the message of the nationalization Act which accelerated deforestation. Presently, nationalization of private forest has provided an opportunity for increasing community forest in the country, since all the accessible forest under control of Zimindars has been now converted to community forest.

The forest Act 1961 was mainly concerned with forest administration. It defined the categories of forest and covered legal procedures for handling different types of forests, which included the duties of the Forest Department (DOF), forest offences and prescribed penalties. This Act also made provision for private forest plots (ban batika), not exceeding in area of 1.25 hectares in the Hill and 3,25 hectares in Tarai, if the individuals planted and grew trees with their own resources and efforts. However, there was a little provision for transferring Government forest land to Panchayat community forest for their use and it remained inactive. In 1962, King Mahendra instituted the Panachyat Policy, which was a new national political system, based on local people's committees called Panchayats that would build "democracy from the grass roots.

The main focus of the Forest Protection Special Act 1967 (special arrangement) was to further define forest offences and prescribe penalties for these, as well as forest protection. A special court was established under the provisions. This Act provided more power to the District Forest Office in conserving forest resources and policing functions in practice. However, it was only applied in the weaker sections of society, which was brought under the purview of this law enforcement actively. The powerful individuals, who were involved in offences, often escaped thought influence and manipulation. So this Act also proved to be of limited use and the DOF became unable to manage forest resources effectively.

It has been more than two decades since Nepal formally adopted the concept of participatory forest management through the formulation of Panchayat Forest (PF) and Panchayat Protected Forest (PPF) Rules in 1978. Since then, there have been a

number of changes in forest policy. Community based forest management evolved from limited participation of local agencies in forest management in some areas to being the most prioritized forestry program of the government during the period (Bartlett, 1992; Acharya, 2002).

There has been increasing handover of public forestlands to the local communities under the community and leasehold forestry programs implemented by the government with supports from various bilateral and multilateral donor agencies. Several studies have shown that these programs have met with some notable successes in terms of improving the biophysical environment, uplifting rural livelihoods and institutional development, particularly in the Middle Hills where the programs have been extensively implemented (Braney and Yadav, 1996; Collett et al, 1996; Jackson et al, 1998; Sterk, 1998; JTRCF, 2001; Webb and Gautam, 2001; Gautam et al, 2002). Because of these achievements, community based forest management in Nepal, particularly the community forestry program, has been able to draw considerable attention of scholars, development agencies, and environmental activists during the last decade. All is not green, however, with Nepal's community forestry. For example, there are wide differences in the success of the community forestry program among the terai , Middle Hills, and high mountain regions (JTRCF, 2001).

Studies have also pointed towards some limitations of present model of community forestry as the sole resource management alternative even for the Middle Hills (e.g. Jackson et al., 1993; Gautam, 2002). Several anomalies and misconduct within community FUGs have been reported particularly from the terai (Baral and Subedi 2000). This paper first presents a brief overview of the evolution of community based forest management in Nepal. Impact of the community based forest management on the biophysical environment, changes on the availability of essential forest products to the user households due to changes in forest condition, and adaptation strategies of the households to changing availability of the forest products have been analyzed in a mountain watershed in Central Nepal. We report that the community based forest management programs had several positive impacts on the forest and the people of the study area but the programs also had some limitations and may face challenges ahead. The findings are expected to contribute in the identification of prevailing gaps in forest policies and implementation strategies related to 3 communities based forest

management in Nepal and other Asian countries, which can be useful to adopt the existing systems to suite the local contexts for continued benefit of the local people and supporting ecosystems.

The community forestry program in Nepal is a government effort to reduce forest degradation and to promote sustainable forestry practices as well as to improve the livelihood of the community. It incorporates distinct policies, institutions and practices. The two main goals of the community forestry program is to empower local communities whilst encouraging environmental conservation benefits on forests. So, Community Forest (CF) is a partnership program between government and community organization in which government staff play a role as facilitator and catalyst to user groups, to prepare operational plan of forest and constitution of group and in implementation of CF activities whereas community user group is responsible to manage, protect and utilize the forest on the sustainable basis. The need for a community forestry program in Nepal was first emphasized by government policies as early as 1976 (By the National Forest Plan, 1976).

This resulted in amendment of the conventional Forest Act (amendment 1977) by making provisions for handing over part of government forests to the small local governance unit, then known as "Panchayat" (HMG, 1978). It further produced regulations called Forest Rules, in 1978 for smooth implementation of the program.

After the panchayat system was overthrown, political instability was created. In the absence of proper legislative structure, forest administration started handing over the forests directly to the local groups involved in protecting forests. Providing ownership of forest management directly to the local forest users under the regulations of Forest Act, 1993 which made the community forestry program more acceptable, and users started contributing for forest protection and resource management. Then, local communities started to have more responsibility in forest management and they started to get benefits from forest resources in sustainable basis.

Nepal has become one of the first developing nations to adopt a community forestry management program which gives authority to the community and groups to manage forest resources. As a result, Nepal now stands as one of the leaders in community based forest management. Studies have proven the potential benefits

that community forestry will have in combating environmental degradation as well as utilizing resources in a sufficient manner.

Modern forestry generally embraces a broad range of concerns, in what is known as multiple-use management, including:

- The provision of timber
- Fuel wood
- Wildlife habitat
- Natural water quality management
- Recreation
- Landscape and community protection
- Employment
- Aesthetically appealing landscapes
- Biodiversity management
- Watershed management
- Erosion control
- Preserving forests as "sinks" for atmospheric carbon dioxide

However, we will discuss here about the resource management of community forest. As we know that financial administration is heart of Public administration; resource management is heart of every management.

1.2 Statement of the Problem

Community forestry is a branch of forestry that deals with the communal management of forests for generating income from timber and non-timber products through conservation of forest. It involves the participation and collaboration of various stakeholders including community, government and organizations. There is a large variety of stakeholders involved when considering community forestry. Participation from some of the various levels of community, government and non-government organizations (NGOs) are essential in the project's success.

We clearly know that impact of community forest on livelihood fo people based on

resource management which is core job of community forest. It is technical too. That's why multiple stakeholders like community people, government, NGOs representative, tourism industry, community based organizations and traditional leader of society as well involve in decision making and resource management directly or indirectly. So the conflicts are related to decision–making and people's participations based on political ideology and different interest groups (Sharma,1999).

In practice, People's participation has been given a variety of meanings and perceptions. The problems prevail because of inadequate understanding on how the idea of people's participation and empowering the people could be effectively put into practice. This could be because of the lack of knowledge about the social, cultural and economic context of the communities or localities. We need to know that elite people of community are involved in decision making while others are participated in implementation are not fully informed about actual objective of the program. Plantation work of Forest user group with the help of Division Forest Office or other line agency is an perfect example of such participation. So, through such participation, they may misrepresent the program and may not give expected result (Chhetry et al,1992).

Not only participation of ethnic group but also the participation of women users may help in the success of Community Forestry as they are the major collectors of forest. However, most of the women are not directly involved in decision-making and their involvement is found not satisfactory. In this respect, women in executive committee are kept just to fulfill the Government norms. Thus, they are not actively involved in major decision- making meetings. This demonstrates that the present male biased model of development has basically neglected women's work, knowledge and potential capacities in sustaining resource (Kayastha, 1991).

However, the current state of resource management inside the Jamunbari Community Forest has not been studied. Only government effort is not enough, local people themselves should be made conscious for their active participation in forest management and conversation. Anyway eco tourism programs minimized the natural resources exploitation and people are motivated to manage the resource outside the forest too.

The state of the problem is presented in this context as there is a direct interest of the community in the community forest area and as it is an interdependent issue, resource management is a socio-economic and technical issue.

So how to motivate local community people to adopt natural resources outside the forest and effective management of forest resource has been the main problem of this study. This study has been addressed the following research questions:

Research Questions

- What are the factors that influence on social and economic impact of community forest ?
- How the interest groups participate in community forest activities ?
- What are the resources that are used by community to enhance their livelihood?

1.3 Objective of the Study

The general objective of this research is to in Community Forestry Program. However, this research will be the following specific objectives;

i. To examine the role of community forestry in social and economic enhance of people in the study area.

ii. To find the access of user in different resource in community forest.

iii. To identify factors that influence community participation in forest management in the study area

1.4 Limitation of the Study

The research has been no exception either from its limitation. The study has limited in the following;

i. This study is a small-scale study. So, it is limited on small samples based on single community forest.

ii. It is based on limited objectives under limited time and resource.

iii. The study has been included the peoples' participation in Jamunbari Community Forest so the findings of the study may or may not be equally generalized to the other area of Community Forest User Group.

1.5 Significance of the Study

The study will provide suggestions to the local authorities, planners, policy makers, and institutions on how community participation should be improved and thus increase the contribution of natural forests to local livelihoods, poverty reduction, and the national economy.

Resource management and its impact is a cross cutting issue. The plan and policy maker can use this research as a resource to enhance livelihood of community people and sustainable use of resource of the community forest.

1.6 Organization of the Study

The first chapter is an introductory chapter. It comprises the background of the study, problem, objectives, significance and limitations of the study. The second chapters reviews literatures, reference resources of the study. The third chapter explains research methodology to gain the objectives of the study. The fourth chapter describes data analysis and impact of the study. Final and fifth chapter summaries and gives conclusion and recommendation derived in the study.

CHAPTER-II

LITERATURE REVIEW

2.1 An over View of Forest Management in Nepal

A forest is an area of land dominated by trees. Forests are the dominant terrestrial ecosystem of Earth which are directly related with the nation's development. It plays a crucial role in purifying water, mitigating natural hazards, aiding in regulating climate, eco system.

Forest management is a branch of forestry concerned with overall administrative, legal, economic, and social aspects, as well as scientific and technical aspects, such as silviculture, protection, and forest regulation. This includes management for timber, aesthetics, recreation, water, wildlife, inland and near shore fisheries, wood products, plant genetic resources, and other forest resource values. Management objectives can be for conservation, utilization. Techniques include timber extraction, planting and replanting of different species, building and maintenance of roads and pathways through forests, and preventing fire (Ebscher, 1999).

The forest is a natural system that can supply different products and services. Forests supply water, mitigate climate change, provide habitats for wildlife including many pollinators which are essential for sustainable food production, provide timber and fuel wood, serve as a source of non-wood forest products including food and medicine, and contribute to rural livelihoods. By knowing this fact, since the beginning of civilization, different efforts have been made for its protection, but in the Nepalese context efforts made by the government can be summarized in the following chronological way (FAO, 2000).

The forest Act 1961 was mainly concerned with forest administration. It defined the categories of forest and covered legal procedures for handling different types of forests, which included the duties of the Forest Department (DOF), forest offences and prescribed penalties. This Act also made provision for private forest plots (ban batika), not exceeding in area of 1.25 hectares in the Hill and 3,25 hectares in Tarai, if the individuals planted and grew trees with their own resources and efforts. However, there was a little provision for transferring Government forest land to Panchayat

community forest for their use and it remained inactive. In 1962, King Mahendra instituted the Panachyat Policy, which was a new national political system, based on local people's committees called Panchayats that would build "democracy from the grass roots" .The main focus of the Forest Protection Special Act 1967 (special arrangement) was to further define forest offences and prescribe penalties for these, as well as forest protection. A special court was established under the provisions. This Act provided more power to the District Forest Office in conserving forest resources and policing functions in practice. However, it was only applied in the weaker sections of society, which was brought under the purview of this law enforcement actively. The powerful individuals, who were involved in offences, often escaped thought influence and manipulation. So this Act also proved to be of limited use and the DOF became unable to manage forest resources effectively (Lamichhane, 2000).

Forests are directly related with the nation's development. It plays a crucial role for the living standard of people. By knowing this fact, since the beginning of civilization, different efforts have been made for its protection, but in the Nepalese context efforts made by the government can be summarized in the following chronological way. In Nepal, the government earned revenue of US$ 1.11 million from the sale of non-wood forest products or almost 18% of the total revenue of the forest sector in 2002. Ninety percent of rural household income is contributed thought non-wood forest production Non-Wood Forest products (NWFP) related economic activities. In Nepal management of NWFP is done by community forest user groups (CFUG) and national policy explicitly recognizes commercial role (Lamichhane, 2000).

After more than five years of established community forests in Nepal, the collection of forest products including fodder, grass, thatching materials and leaf litter, has increased while fuel wood collection and livestock number decreased. This has led to tree regeneration and improvement of forest health. In addition, the number of community forests in Nepal is increasing: as of 2006 14,258 CFUGs has been formed covering two-fifths of the total population and one-fifth of the total forest area. Studies suggest that the community forest program has had tremendously positive effects on local resource conservation and livelihood conditions. These studies also suggest that the program has improved other areas of natural resources management including watershed conservation and protected area management.

Community forestry is a successful participatory approach for forest protection and management in Nepal. Until now, about 850,000 hectares forests of Nepal have been handed over to eleven thousand forest user groups. Forest users are generating income from the sale of forest products and from membership fees, fines and donations. Community development activities such as irrigation canal improvement, schools, community building and temple construction, drinking water schemes, etc are carried out with the community forestry income (Community Forestry Division, 2008).

2.2 Evolution of Community Forestry Concept in Nepal

Management of common forest resources was well developed in England by the middle Ages with clearly defined use and ownership right and such rights already dated from time immemorial (Baniya, 2000). Thus, far from "Community Forestry" being a modern concept, it is in fact a very old one; another case of "old wine in a new bottle" (Gilmour and Fisher, 1991).

Community-based management of forest, in the form of traditional or indigenous systems, has a long history in the hills of Nepal (Arnold and Campbell, 1986; Fisher, 1989; Messerschmitt, 1993). These systems were operational under different types of institutional arrangements at different times and locations. Talukdari2, kipat3, and religious forest management systems are some examples. Some of the rules adopted by these indigenous systems of forest management include harvesting only selected products and species, harvesting according to the condition of product, limiting amount of product, and using social means of monitoring (Arnold and Campbell, 1986).

Some types of indigenous forest management systems continue to exist in many places despite a widespread perception that nationalization of forests in 1957 destroyed these systems (Joshi, 1993). Community forestry as a formal national forest management strategy was conceived in 1976 after the government drafted a national forestry plan in that year. The Plan for the first time recognized the role of local communities and specifically emphasized local participation in forest management (Pokharel, 1997). This change in policy was the result of the government's realization that forests cannot be managed without cooperation of local communities (Shrestha, 1996).

To implement the concept laid down by the Plan, the Forest Act of 19614 was amended in 1977 to define the new categories of forests to be managed by local communities, religious institutions and individuals. Operating rules for PF and PPF were prepared in 1978, which allowed local government units known as panchayat to manage barren or degraded lands for forest production. PFs were limited degraded forest areas (about 125 hectares) entrusted to a village panchayat for reforestation and use. PPFs were existing forests handed over to a village panchayat for protection and proper management under a shareholder arrangement regarding the distribution of income from the sale of forest products. PPFs were limited to about 500 hectares in each panchayat (Kanel, 1997).

A further provision of leasehold forestry was made in the rules under which limited degraded forest was given to individuals or agencies for reforestation and production of forest products (Wallace, 1981). These amendments in Forest Act and Regulations represent a major shift in 4 Nepal's forest policy although the partnership between the Forest Department and the panchayat was generally not successful (Pokharel, 1997).

The major thrust to the community forestry program came through the Master Plan for the Forestry Sector of 1989. The Plan recognized community and private forestry as the largest among the six identified primary forestry programs and encouraged transfer of forests to local communities for active management and use. It gave a clear direction to the development of community forestry program by emphasizing the needs for establishing Forest User Groups (FUGs) as the appropriate local institutions responsible for the protection, development, and sustainable utilization of local forests and developing operational management plan by communities as a prerequisite to handing over forests for their use. It also emphasized the need for retraining the entire forestry staff for their new role as advisors and extension workers (HMGN/ADB/FINIDA, 1989).

The formulation and implementation of the Master Plan can thus be considered as a turning point in the history of forestry sector policy in Nepal. The eighth five-year plan (1992-97) strongly supported user group-based community forestry program as recommended by the Master Plan. It also emphasized the need for further intensification of people's participation in forestry management practices by implementing leasehold forestry for environmental conservation and the economic

benefit of local people living below the poverty line. These objectives of the leasehold forestry program were to be achieved through intensive management of degraded forest patches including agro forestry and horticultural forestry (HMGN, 1992).

Despite the clear direction provided by the Master Plan, the community forestry program could not gain momentum until the promulgation and enforcement of new forestry legislation (including the Forest Act of 1993 and Forest Rules of 1995) in 1995. This was partly because of lengthy and complicated procedure in handing over of a forest to the local communities. The emphasis of the Master Plan for user group-based forest management could not be materialized during the first few years of its implementation also because it made it impossible to ignore the village panchayat in community forestry arrangements until the official ideology in the favor of panchayat system collapsed in 1990 (Fisher, 2000).

The current forestry legislation strongly supports the Master Plan policy of user group-based forest management. The forest hand over procedure has been simplified by authorizing the local district forest officer to hand over any part of a national forest to the local FUG for management and use as a community forest. The Forest Act of 1993 identifies community FUG as a semi-autonomous local entity that can price, sell and transport surplus 5 forest products independently anywhere within the country. The income generated can be used by the FUG in any community development activities after setting aside 25 percent of the income for forest development. The response to these positive changes in legislation has been encouraging in the favor of community based forest management. The community forestry program has been dramatically expanded in terms of both spatial coverage and number of forests handed over to local communities. Many community FUGs have now moved into intensive forest management for the purpose of producing surplus for sales (JTRCF, 2001).

The government has made some changes in forest policy recently. According to these policy amendments, a FUG is required to share some percent of its income generated from the sell of surplus forest products for commercial use with the national and local governments. Another important component of the new policy includes a collaborative management of contiguous large blocks of forests in the terai and iner-terai as national forest while setting aside barren lands, scrublands,

and isolated forest patches for handing over as community forests. The Forest Department also issued a Circular in September 2000 prohibiting the extraction of any forest product from a community forest, even for meeting subsistence needs, unless a forest resource inventory and assessment of annual increment has been made. These changes in forest policy have met with intense opposition from the Federation of Community Forest Users in Nepal. It is not quite clear why the government, after having met with certain degree of successes from the community forestry program, came up with these new policy provisions. Whatever be the reason behind, the new policy is likely to destroy the mutual trust and collaboration between communities and the forest bureaucracy that has been built up after more than two decades of the implementation of the community forestry program. Community forestry is a participatory forest management system in Nepal that was started in the late 1970s. Gilmour and Fisher (1991) defined community forestry as the control, protection and management of forest resources by rural communities for whom trees and forests are an integral part of their farming systems. The Community Forest Act 1993 gives local people significant control in the management and harvest of forest resources (Euphrat and Shrestha, 2002).

Community forestry programs have played an important role in improving forest condition by adopting better forest protection and management measures. Through forest management, users are generating incomes that are used in community development activities. During the period of Rana ruler in Nepal, the resources were the private property of Ranas especially in terai region; the accessible forest of Terai has good commercial value. So, the Terai Forest was totally controlled under the Rana Rulers. But in the case of Hills, the local farmers had practiced indigenous management of the local forest on their own initiatives. These systems involved locally accepted rules through which a clearly fixed group of beneficiaries regularized forest use and excluded outsiders. The government was failed to manage the forest resources through bureaucratic machinery up to 1976. After that a remarkable event was taken place in the history of community forestry. The villagers had already started managing local forest resources on their own initiative. This system involved locally accepted rules and it fixed the group of beneficiaries who were mainly known and respected in the society and excluded outsiders as users. Considering this fact, His Majesty's Government of Nepal (HMG/N)

implemented Community Forestry Development Program (CFDP) in 1978 to encourage initiatives of local people in the management of the forest resources. HMG/N began CFDP's first phase in 1980 (Bhatia,1999).

Community Forestry is the major strategy of Nepal's forest policy. The community forestry program resulted due to the failure of forest nationalization act 1957. This nationalization act ignored traditionally managed communal forest, which act came into conflict with the traditional type of community management of forest resources (Dahal, 1994). In 1975, a conference was held in Kathmandu to consider issues relating to management of Forest in Nepal. The participants of the conference were Divisional Forest Official from throughout the country and senior members of Department of Forest and Ministry of Forest. The planned three days meeting was extended to 23 days because of the great interest that was generated and desire to make a strong statement on the need to address the deteriorating condition of the country's forest. This conference formulated the National Forestry Plan (NAFP) 1976. NAFP recognized that the Department of Forest had ignored forest of hills which led to the deterioration of watershed. To overcome this problem, the concept of "Panchayat Forest" which aims on the plantation of bared land was proposed. NAFP provided base for the formulation of "Panchayat Forest and Panchayat Protected Forest Act, 1978". Thus, it can be said that the Community Forestry Program in Nepal formally commenced in 1978 (Gilmour et al,1989).

Community Forest Program was launched in 29 districts up to mid 1980s. Initially, Panchayat Forest and Panchayat Protected Forest were handed over to the local political body "The village Panchayat" that was responsible to take care of the forest. In 1980s the concept of User Group was introduced. The most of the forest areas were handed over to communities and its considerable success in the hills earned a lot of recognition internationally (Pokhrel,1999).

Nepal Community Forestry Program was initiated with financial and technical assistance from the World Bank, United Nations Development Program (UNDP), Food Agricultural Organization (FAO) and other donors. CF has been defined as Small scale, village level forestry practices where decisions and actions are made on a collective basis and where the rural people participate in planning, management and harvesting of forest crops and receive a major proportion of the socio-economic and ecological benefits from the forest (HMG/N, 1999).

The Decentralization Act of 1987 introduced the concept of "User Groups" for local control of resource management and development. CF is a term used to describe forest resources. The CF program build on local peoples' and technician', knowledge using the participatory approaches to improve the organizational structures and managements of trees and forest resources (FAO, 2000).

The latest Forest Act was launched in 1993, Act 1993 defines CF as any part of national forest which is handed over by DFO to Users Groups in the form of CF as prescribed entitling to develop, conserve, use and manage the forest products independently by fixing, their prices according to the work plan (HMG/N, 1993).

In 1993 a national FUG workshop was organized involving 40 different groups from districts. Only community representatives were allowed to attend and many issues surfaced regarding ways to streamline operations and address community concerns. The 1993 Act was followed by forest regulations. In 1995, that provides procedural guidelines for implementing the Act. By 1997, the FUGs were given total authority over the use of forest produce, complete autonomy of develop forest management plans, and total discretionary authority over their own fiscal allocations (Poffenberger, 2000).

In Nepal, the Community Forest policy combines with environmental objectives of preventing land degradation and deforestation with socials and economic objectives The latter objectives are to meet the peoples basic needs for fire wood, fodder, timber and other forest products on a sustainable basis and also to contribute to food production through effective interaction between forestry and farming practices (HMG/N, 1988). Therefore all the accessible forest area in the middle hills of Nepal has been over by District Forest Office to the local communities themselves (Aryal, 2000).

2.3 People's Participation on resource management

The concept People's participation has been used since ancient time of Plato and Greek philosopher in public affairs especially in political science. Participation on those days was merely a matter of voting, holding office, attending public meeting, paying taxes and defending the state (Joshi, 1995). The meaning of participation however has changed with the passes of time. Participation of people in the resource of the state is necessary for modern welfare state. The participation

ideology “bottom-up” approach is originated in reaction to failure of beaurocatic led top down approach (Rahnema, 2000).

During half of the 1970s, the concept of people’s participation in resource becomes more popular and fashionable. World Bank also realized the participatory resource management approach in forest is at the heart of poverty agenda. So the resource management is decision making process. The concept, people’s participation has become a politically attractive slogan; it is perceived as instrument for greater effectiveness of sources. (Rahnema, 2000). Community participation is now generally taken as a necessary pre condition to the successful and sustanable management of resources. Community participation is generally agreed to be important for the long term success of local resource management system (Joshi,1995).

People’s participation has been used in a variety of context such as resource identifying, classification, taking ownership by user so tha sustainability of resource could be guaranteed. Various authors define people’s participation is indispensible component in resource management. People’s participation is an actively involvement of the people in the decision making (Joshi, 1995).

So, people’s participation includes their participation in identifying , decision making, implied benefit sharing and evaluation of the whole management (Bhandari, 1997). People’s participation has been taken as means by the Government agencies and the projects for achieving their goals. “A problem free situation of people’s participation is not easy”. There is no common understanding regarding what people’s participation. Participation in the sense of only physically involvement is passive participation. Such participation does not seem effective to manage the resources (Baral,1993).

People’s participation is the most essential feature of Community Forest. Because resources found in forest are related to community people, government, social leaders, authoritarian group and people adjacent to forest area as well. In a liberal democracy like Nepal, the issue of public participation in resource management has become more complicated as equitable distribution of resources is also required (Rahnema, 2000).

People participation as a concept has gain remarkable currency in recent years. This is mainly because of its symbolic power as a glossy cover to make plants, program and project attractive. Besides endorsing people participation is one good way to assert the legitimacy of a program or project today when there is so much talked about in empowering the local people and decentralization. People's participation has been taken as a means by government agencies and their projects alike for achieving their goals. Participatory management is often seen as an appropriate solution to reduce degradation. It has been thought that granting property rights over the local commons would ensure the equitable and sustainable use of environment resources. When the responsibility of allocating natural resources is delegated to local organizations, communities tend to appropriate forestry programs. So this sort of program is one of the best ways of economic and environment activities through the proper management of local resources of forests (Taylor and Francis, 2007)

Community participation is a process in which people is encouraged realizing that they themselves have the abilities, energies and some of the resources to make initiatives to improve their lives. This approach is being fulfilled through the community forestry project, which requires community participation. The willingness to participate in community forestry clearly varied depending on the nature of the activities (Decision making, forest protection, forest development and forest utilization). In each activity different groups of people were found to be participating at different levels and for different resources. The principle aim of community forestry is to involve people in all stages from decision making to harvesting, so it is the most essential feature of community forestry. Within the community forestry user groups there are rich, medium and poor households that participate in the forest resource management. The contribution between the different socio-economic households and forest management is relatively equal. Resources within the forests such as fuel wood, timber, as well as fodder are used by the locals to generate income from sales. The program encouraged community development work that has had a direct effect on lower income households. Due to community development activities, they are able to generate daily incomes for the betterment of their livelihoods (Blomley and Ramadhani, 2007).

However, there has been question regarding the incentives created to allow the involvement of socio-marginalized peoples within the community forestry program. Wealthy households have greater decision-making power when it comes to forest management and governance. This puts those who are of lower caste, women, and so on in a position of lower decision-making authority as well as participation within the program. Wealthier households have greater access to state administrators allowing them to dominate decision-making positions. Because they are able to set forest resource prices, this can reduce incentives for poorer households who cannot afford the high prices to participate. For the community forestry program to reach and maintain its goal of the improvement of the livelihoods of the Nepali people, creating incentives of disadvantaged groups is crucial to development. Therefore, just as public participation is essential for maintaining good governance, so is public participation in management seen as an element of meaningful management of resources.

2.4 Forest User Group

Community forest is a small forest established on public land with community investment for the benefit and welfare of the community which is called community forest. The entire executive power of community forest is vested in the community. And the legal body of community forest is known as forest user group. And forest user group is a legal body that mobilizes and manages resources in accordance with the Division Forest Office, prevailing laws and regulations, and the group's operation plan and constitution. User group officials are like executives elected by parliament who play the user group's executive role. Forest User Group is known focused and common property institution of Community Forest, which recognizes local user's right and practices to considerable extend. (Gilmour and Fisher, 1991).

Community Forestry planning process prescribed four separated phase to form Community Forest or Forest user group. Identification of Forest User Group is the first phase of Community Forest handover process. In this process, the field staffs within the village determined the real users of a particular forest by discussion and checking. Community Forest is defined as a situation, which intimately involves local people in forestry activities (FAO 2000).

Gilmour and Fisher (1991) have defined CF in terms of control and management of forest resources by the rural people who use them especially for domestic purposes and as an integral part of their farming systems. CF started in the late 1970s, when the development strategies of the 1950s and 1960s that focused on industrial development were being criticized for overlooking rural development and not meeting the basic needs of the rural poor. Since then, it has been spreading over the world with different names but similar objectives.

Malla (2001) reports some examples like Join Forest Management in India, Social Forestry in Bangladesh, BC Forestry in Canada, Community Forestry in America, Social Forestry in China, Community Forestry in Nepal, and so on.

The community forestry program was launched in the late-1970s as part of efforts to curb the widely perceived crisis of the Himalayan forest degradation, when the government of Nepal came to the conclusion that active involvement of the local people in forest management was essential for forest conservation in the country. The term community in its broadest sense may refer to any group of persons united by a "community of interest". In this sense a professional group, a residential unit, or a club or a voluntary association may all be referred to as communities. A forest is a biological community dominated by trees and other woody vegetation. Thus community forestry activities are aimed at providing direct benefits to rural people and that "the people" should have a substantial role in decision making. At this level that is as a statement about the philosophy behind community forestry, there is nothing wrong with the term. Community forestry is flourishing in Nepal, improving the livelihoods of rural household of communities, and nurturing democracy at the grassroots level despite a prolonged insurgency and political upheavals (CANARI, 2005).

Several international agencies (Such as NPO, NGO, INGO) assisted the Nepalese Government in formulating the master plan for the forestry sector (MPFS), which recognized the need for local people's participation in the conservation and management of the country's forest resources. In 1989, as the master plan for the forestry sector was being finalized and formally adopted by the government, an ongoing movement against the panchayat system by the citizenry also culminated in the reinstatement of multiparty democracy in the country. The decisions of

subsequent governments further strengthened the regulatory framework of a community-based forest plan for the forestry sector (MPFS, 1989).

Community forestry is one of components of social forestry. Agro forestry, Agro-salvo pastoral systems and private planning programs come under the umbrella term of social forestry, describes the natural and potential role of social forestry. He opines on what ways, and to what extent social forestry can help to alleviate the acute socio-economic problems faceted by many developing countries. In this potential role of social forestry, he mentioned in his paper the ecological aspects like site protection, economic aspects like income and wage and social benefits like a higher quality of life (Agrawal, 2005).

The emerging of the concept of community forestry in the late 60's and early 70's parallels with the wider concert of development with basic community needs. Community forestry initially involved local people in forest activity. Community forestry refers to the control and management of forestry resources by the rural people who are using them especially for domestic purposes and as an integral part of their farming system. Villagers see community forestry or village forestry as the control management and use of forest resources. It seeks to increase the level of awareness of local people and actively involve them in all aspects of forestry activities (Gibbs, A, 1997)

Community forestry has been defined as "The control protection and management of local forest by local people or community known as a user group. Its aim is also help people to solve their own wood supply problems, meet their own needs and preserve the environment in which they live by planting trees on their farms and around villages. Community Forest Extension worker need to debate more time with the forest users in this phase. The process also identifies Socio technical information about the use of forest and Community Forestry area (Joshi, 1995).

When a person is of marginalized group, he or she does not easily mingle with the rest of the community and will have a low profile and therefore may not know what is happening around the village and so miss the chance to be included in the user group. As a result, when a user group is formed such disadvantaged persons are left out. Later on at the time of benefit sharing, the conflicts will surface (Shrestha, 1994).

The second phase of Community Forest process is negotiation phase in which user group is formed, their need and problems are identified and discussed on the problem and issue and find the solution themselves with the assistance of DFO staff. In this phase they prepared constitution of group and operational plan of forest. During the preparation of constitution they formed one executive committee is called Forest User Committee (FUC) on the basis of consensus or voting mechanism of forest protection, management and utilization are mentioned in the operational plan and Forest User Group is responsible to implement these. They have total right to fix price of their forest products, they can use forest products for their collective benefits and use surplus income in forestry development as well as community development work. These authorities can be practiced in a way that should not be affected on sustainability of forest. Third phase is implementation phase that includes carrying out approved forest management activities by the Forest User Group. Last phase is the review of operational plan at the request of Forest User Group of expiry of the operational plan after five years. It is continuous process. The first two phasesare concerned with the formation of Forest User Group and the rest two are concerned with the strengthening of the Forest User Group (Karki, 1994).

According to (Lamichhane, 2000) through the Community Forestry Program following rights are given to the Forest User Group:

2.4.1 Any part of the forest can be handed over to Forest User Group who is traditional users of the forest irrespective of the political boundary.

2.4.2 There is no limit of forest to be handed over as Community Forest to Forest User Group that depends upon their willing and capability.

2.4.3 Forest User Group must be registered at Divisional Forest Office with their constitution and manage the Community Forest according to their operational plan approved by District Forest Office.

2.4.4 Forest User Group can freely fix price, transport and market ad forest products from Community Forest.

2.4.5 Forest User Group can grow long term cash crop applying inter cropping system inside the Community Forest.

2.4.6 Forest User Groups allowed establish forest based industry that can

be run with the raw material yielded by Community Forest.

2.4.7 Forest User Group utilize the fund generated through the sale of forest produce in a development work but amendment of Forest Act 1993 make compulsion to utilize 25% fund in forest management work.

2.4.8 Forest User Group can take action to the members of Forest User Group who break the rule of the constitution or operational plan.

In terms of function there are two basic types of groups: expressive and instrumental. Expressive groups are formed primarily for the purpose of the individual relating to each other. Instrumental groups are formed to reach a specific goal. Forest User Groups are combination of both of these types. It is primarily a task oriented (instrumental) group. It is designated to manage forest. To reach their goals, forest users become close well knit members of community (Lamichhane, 2000).

2.5 Important of Community Forestry

The forest is one of the most important natural resources of Nepal. Forest resources play a major role in the development of human society. Thus, the forest is closely interrelated to human beings. Meanwhile, human's development history was started from forest. The importance of forest products has been increasing day by day for all (CBS, 2011).

Forest resources are essential for rural as well urban people. They are depending on forests for the supply of fodder, fuel, wood, timber, herbs, medicines and other forests products, which are essential for their daily life. Many local populations have understood the multiple benefits for their livelihoods obtained from forests and traditionally they are coming to give protection and conservation of forests for the supply of their needs (Glimour and Fisher, 1991).

Community forestry (CF) can be defined as forest management in which communities manage and use forests, often with some form of legal authority to do so, and it is primarily driven by local community benefits and ecological sustainability goals (Arnold 2001, Ribot 2002). Community forestry is one of the fastest growing forms of forest management. Since its emergence in the 1970s, it

has grown tremendously with communally managed forests being the main source of livelihood for more than 1.2 billion people (Agrawal et al. 2008).

Community forestry has been practiced in several countries around the world including Mexico, Nepal, Philippines, Tanzania, Kenya, and others. It was founded largely as an alternative to state-managed conservation. It was assumed that shifting the management of forests from state to local communities could result in more sustainable management of forests, if communities found it in their interests to conserve them (Maryudi et al. 2012).

Charnley and Poe (2007) reviewed progress in the field of community forestry using four examples from the Americas, i.e., Canada, United States, Mexico, and Bolivia and revealed that although CF remained a promising concept for achieving conservation and development, significant gaps remained between theory and practice. Devolution of responsibility and decision making remained partial, local management resulted in the delivery of ecological benefits in many cases, but hardly any socioeconomic or livelihood benefits occurred. Charnley and Poe concluded that there might be a need for innovative anthropological approaches to help bridge the gaps between CF theory and practice.

Ojha and Kanel (2005) also reviewed 25 years of community forestry in Nepal based on inputs from more than 200 stakeholder contributions through 82 papers based on proceedings from a national workshop. They found that community forest conditions had improved overall compared to other forests; the participation and contributions of women had increased significantly; and the legal and institutional framework had been well developed. On the downside, they highlighted the general lack of evidence of any livelihood improvement as a result of CF; a deficit in the distribution of community forests around the country with the middle hills hosting most CFs whereas the Terai and high hill regions had very few; inequities in control, with representation in decision making dominated by wealthier families and therefore also benefiting them more; need for improvements in processes; and also a more diversified enterprise-driven approach beyond timber and no timber forest products (with a total economic value perspective).

In a global systematic review of key success factors for community forestry, Baynes et al. (2015) identified five key factors. These are: (1) government support for

community forest groups, (2) intra-community forest groups (CFG) governance, (3) material benefits, (4) socioeconomic status and gender-based inequality, and (5) secure property (land and tree) rights. They highlighted that intra-CF governance can be directly improved through social cohesion, capacity building, and the participation of all social groups. Social cohesion, which is a significant determinant of good CF governance, depends on socioeconomic and gender equality, and capacity building. Tree and tenure rights give community forest members harvest rights through devolution. This opens the way to access rights; when community forest members effectively enjoy these rights, they are motivated to participate in community forests decision-making processes and activities, thus improving CF governance. They also observed in the meta-analysis of 46 empirical studies that technological and material assistance influences land and forest productivity.

Berkes (2009) highlighted the importance of knowledge generation, bridging organizations, and social learning to the emergence of adaptive co management in a review of 20 years of co management. He noted that co management can be considered a knowledge partnership in which coordination of tasks such as accessing resources, bringing together different actors, building trust, resolving conflict, and networking are necessary for joint social learning, problem solving, and possibly innovation. Through co learning, co management processes can mature into adaptive co management. Given that co management is a power and responsibility sharing arrangement between government and local resource users, these findings could apply to community forestry actor interactions. However, all of these reports do not sufficiently address a systems perspective with a view to improving innovation. We seek to investigate, review, and reflect on how community forestry has evolved from an innovation system perspective with respect to meeting the objectives for which they were created. Specific questions we seek to answer are: What are the main features of the CF innovation ecosystem in Cameroon? How has community forestry evolved over the past 20 years in Cameroon? What significant innovations have been recorded in CF in Cameroon and with what impacts? And how can the CF innovation ecosystem attributes be used to make CF more effective in delivering the objectives? It is hoped that insights into how innovations happen within community forestry will enable better policy support or leadership actions.

Forests provide the mineral, nutrients, and energy that are essential for the survival of farming system. Forests provide timber and poles for constructing houses and animal sheds and wood for making household and farming tools. Forest product, timber is also used for various local development activities such as building schools, health posts, wood bridges, and so on. People use forest areas to obtain other product for direct domestic consumption and income generation. Honey, mushrooms, birds, animals, fish, and plants are used as dietary supplements (Bhatia, 1999).

Community forests handed over the user groups are being used only for fodder fuel wood and so on. The most visible from of participation is protection work. In many community forests, the used decide that protection work should be carried out in turns (Shrestha, 1996)

Community forestry has evolved to establish management of forests at local level. Rural communities have had significant achievements in meeting their forestry needs, generating and utilizing funds for community welfare, and conserving the forests as well. However, the management of community forestry will be at risk if the existing institutional arrangements within the use group are not improved and user groups do not strive to attain a suitable security for subsistence is for migrated market economy (Karki and Tiwari, 1999).

In the present context community forestry management is a complex situation often meeting conflicting objective and dynamic process them tradition forest management system. As recently been reported, landowners and wealthier households are interested in long term of intermediate produces while landless and poor families are interested for cash income produces gaining experiences and learning process will greatly help to develop the system. However, effective learning to shift protection-oriented forest management approach of the CFUGs to active approach have not been see in the past. To maximize the benefits and to make successful community forestry program there is an urgent need to shift for active forest management. To address the livelihoods issues in community, there is a need of leasing part of CF area to poorer section of community so that forest area will be used for more productivity and poorer will get more benefits from community forestry (Acharya, 2001).

The community forestry has positive impacts on gender, equity, poverty, biodiversity and forest management which are significantly contributing to social change. The poverty reduction aspect is relatively weak as compared to the achievement made on gender and equity. The level of awareness is increased where by quantity and quality of participation of users (poor, women, untouchable) etc. is improved (Upreti, 2000).

It is possible from community forestry to reduce poverty by securing resource for the poor, increasing the availability of resources and providing potential for income generating activities. Community forestry contributes to improve people's livelihoods. It has contributed significantly in building social capital (Pokhrel, 2001).

The people of Nepal have traditionally depended on forest for the supply of fuel wood, fodder, timber and non food forest products. The greatest value of forest in the livelihood of the people is as providers of essential Inputs into the farming system. Tree fodders make up a higher proportion of animal feed. Leaf litter collected from forests is used as

Bedding material in animal stalls and mined with dung to make compost manure which is the major fertilizer for farmland (New ERA, 1998).

Improving socio–economic status, enhancing biodiversity, restoring watershed areas, maintaining soil fertility, controlling forest decline and increasing forest cover and greenery, etc. are the major components of community forestry situation (Ebscher, 1999). Equitable treatment and democratic decision making process in community forestry precludes conflicts and disputes among the users and can create a cordial atmosphere for socio-economic and ecological advancement (Maharjan, 1993). However, community forest has not yet been able to fully ensure equitable, gender-sensitive and poverty- focused outcomes (Uprety, 2001) and there are several practical and social anomalies prevailing. The disadvantaged and marginalized groups and women are still treated as subordinates. The cost and benefit sharing patterns are not based on equity and most of the rich and powerful families in users groups capture disproportionate benefit at the cost of the poor and uneducated forest user (Malla, 2000). Decision making process in benefit sharing is not democratic because of discriminatory attitude from the upper class and

hesitation of the marginalized class to participate. Hence, the direct benefit accruing from community forest to the poorer people is relatively low as compared to general users (Uprety, 2000).

2.6 Forest Resource Management

The main task of the community forest user group is to conserve the forest while sustainably managing the resources of the forest area. The work of forest conservation through community forest users is also called community based resource management. The various good efforts made in this regard are presented below.

During the initial period of FUG formation, particularly in the Terai and Inner-Terai, no adequate measures were taken to incorporate remote users who depend on the same forest. Now nearby residents protected the forest and remote but regular users of the forests have been deprived of their traditional rights. As the issue has arisen, local-level initiatives have been taken by many FUGs to incorporate the remote users as regular forest users but with certain restrictions. They are often regarded as secondary or tertiary users, and they have to pay a fee for participation. Mobilization of FUG funds The legal provision deems that one quarter of the funds generated by a FUG should be spent on forest development. The rest is expected to be spent on other activities including community development. However, in the absence of a proper monitoring system and lack of awareness among the users, funds have been used for numerous unproductive activities (e.g. construction of a village temple and high-interest rate loans). This is a more important issue when a FUG has generated significant financial resources. In Terai, most of the funds were used to pay the salaries of the FUG-employed workers (Baral and Subedi 2000).

Most FUGs could generate potentially much larger benefits from their CFs. The greatest constraint to receiving larger benefits from the CF is lack of forest management skills and knowledge (DRMP 2002). Surplus sale of timber Many FUGs are selling surplus timber to outsiders. According to the forest policy, 40 percent of the earnings from the sale of surplus timber from the Terai and Inner-Terai CFs to outsiders will be collected by the government for program implementation. The policy is viewed differently by different stakeholders, although FUGs selling the surplus timber do not object to paying the 40 percent of the sale

value to the government. The destitute in the community CF has been criticized for not providing benefits to the very poor. An evaluation of CF showed that disadvantaged people represent more than 47 percent in the FUGs (DRMP 2002).

However, equity in sharing forest products is deplorable. The elite among the FUG members tend to dominate decision-making, although facilitators in the CF program try to change this bias. All the stakeholders including FUG members have to be made aware of the importance of the conservation of resources. However, as the objective of CF management is to maximize the value of local forests, FUGs tend to prefer commercially valuable tree species compared to less valuable ones. Unless adequate measures are taken to compromise between the choices, in the future CFs in Nepal will be composed predominantly of high value trees. Income generation (i) From the CFs The management of CFs focuses mainly on timber and fuel wood production. To generate short-term income the introduction of various NWFPs in CFs should be encouraged. Most FUGs are either unaware of this opportunity or they do not possess the necessary technical knowledge for the development and utilization of NWFPs. The development and utilization of NWFPs, especially medicinal and aromatic plants, will greatly enhance the income of FUGs and create employment in the rural areas. The cultivation of medium- or long-term cash crops in CFs, as provisioned in the Forest Rules of 1995, will also ensure a sustained income to FUGs. (ii) From the government-managed forests Poverty has been linked to the deterioration of forest resources in the rural areas. The poor are highly dependent on forest resources (DRMP 2002).

However, the collection of forest products contributes to the degradation of government-managed forests. Forest conservation cannot be justified if the poor have to bear the costs. Income-generation activities, such as livestock husbandry, need few external inputs and are traditional activities that have been implemented successfully in many locations. Forest inventory and revision of the operation plans The government decision in January 2000 for a mandatory inventory of sustainable CF management based on the annual increment is an important decision for the scientific management of forests. However, the capacity of the forestry staff in the field to carry out the inventory is very limited owing to the wide range of duties they have to perform. In the absence of much needed technical support for FUGs, many CF operational plans (CFOPs) are due for revision. Similarly, new operational

plans are in the pipeline. Many communities have not been able to have their CFOPs approved in the absence of the inventory. There is a need for outside assistance. The DFOs, the service providers and the bilateral support programs are all involved in conducting inventories throughout the country.

According to the latest records available in the Department of forest and soil Conservation, there are more than 11000 registered FUGs throughout the country and more than 1.2 million households are involved. The CF network encompasses six to seven million people – about one-third of the total population of the country or more than 60 percent of the rural population. Strengthening the capacity of such a large network is challenging. Although training events are organized for sustainable resource management, the training does not bridge the wide knowledge gap. This is particularly the case for women and disadvantaged groups (DOFSC, 2020)

CHAPTER-III

RESEARCH METHODOLOGY

3.1 Research Design

Research design is a conceptual structure within which a research is conducted. The plan is the overall scheme or program of the research. So the research is based on both qualitative and quantitative data with both descriptive and explorative research design to fulfill the specific objectives of the study related to people's participation in Jamunbari Community Forestry.

3.2 Sample Size and Sampling Method

Jamunbari Community Forest User Group belongs to Kankai Municipality. There are 900 households in the study area. Among them, 90 households i.e 10 percent were selected by using random sampling method under the probability sampling.

3.3 Nature and Sources of Data

The study mainly based on the primary source of information that are collected from study area. The survey method was used by the researcher to find the data related with its phenomena. Data related rules and regulations were obtained by Division Forest Office staff Jhapa.

A secondary source of information relevant to the research study were taken from previously published relevant journals, newspapers magazine, reports, different community forest related websites and many more. Hence in this research both qualitative, quantitative, primary and secondary data were used. Audit reports and journals available online were also used as secondary source of data.

3.4 Data Collection and Techniques

As per the objectives of the study, the required information were collected through the household, field visit where the following tools/method of data collection techniques were used purposively.

3.5 Interview

3.5.1 Interview Schedule

Interview schedule, related questions which were asked to the respondent and filled in by the researcher, is used as the major tool of collecting primary quantitative data. Result oriented probability questions based on the objective of the study was chosen.

3.5.2 Key Informants' Interview

Since this study is based on the exploratory in nature key informant interview were held to those people who are well informed with JCFUG and its activities. Interview with Division Forest Office staff and related sub division Chief Nathunee Gohiwar Yadav were also included as key informant's interviews.

3.6 Observation

Some data was collected by using the observation tool, a method of collecting primary information. Observation of physical environment of community forestry as well as uses of goods and others resources in community forest.

3.7 Data Analysis and Presentation

The collected data were processed and analyzed descriptively by using statistical tools. Quantitative data have been presented in terms of percentage, frequencies, table, chart and figure. Simple statistical tool were used for the data. Both qualitative and quantitative data were jointly presented to sketch out in study area. Ms word, MS Excel and other functions are used for data management, analysis and interpretation.

CHAPTER-IV

DATA PRESENTATION AND ANALYSIS

4.1 Introduction of the Study Area

The survey was conducted under various households in Jamunbari Community Forest which is located Kankai Municipality ward no.1,2 of Jhapa District. The study area is located in west north part of the district. JCF is divided into 5 blocks. The first block contains wetland. Similarly, the second, third and fourth blocks have forest area from which resources are being utilized. The fifth block is chure where only conservation work is being done. The wetland area covers an area of 26.54 hectares while the forest area covers an area of 434.19 hectares.

4.2 Household Information of the study area

4.2.1 Age of the Respondents

Age, a most significant variable, determines the flow of participation in the activities of community forestry. Participants' age group in the activities of the resource management in community forestry have been grouped by below 21, 21-30, 31-40, 41-50, 51-60 and above 60 gradually, presented in the following way;

Table no. 4.1 Age Group of the Participants

S.N.	Age Group	No. of Respondents	Percent
1	21 – 30	15	16.66
2	31 – 40	24	26.66
3	41 – 50	30	33.33
4	51 – 60	13	14.46
5	Above 60	8	8.89
Total		90	100

Source: Field Survey, 2021

Table 4.1 shows that most of the individuals are the age group of 41 to 50 i.e 33.33 , followed by 31 to 40 that is 26.66 percent, 51-60 are 14.46 percent participants were aged below 21-30 is 16.66 percent and above 60 age were 8.89.

Figure No. 4.1 Age Group of the Participants

4.2.2 Gender Composition

Selected respondents sex and frequency and percentage has been given in the following table.

Table 4.2 Gender of the Participants

S.N.	Gender Participation	No. of Respondents	Percent
1	Male	42	46.66
2	Female	48	53.54
Total		90	100

Source: Field Survey, 2021

The data of Table No. 4.1 shows that the 46.66 are male percent participated and remaining 53.34 percent are female.

Figure No. 4.2 Gender of the Participants

4.2.3 Caste/Ethnicity

It is no doubt that Nepal is a multi-caste/ethnicity country that's why people of different caste/ethnicity live in Nepal.

Table No. 4.3 Caste/ethnicity distribution the Respondents

S.N.	Caste/Ethnicity	No. of Respondents	Percent
1	Brahmin/Chhettri	40	44.44
2	Janajati	35	38.88
3	Others	15	16.68
Total		90	100

Source: Field Survey, 2021

Table No. 4.3 shows the Number of people participated in Jamunbari Community Forest from Brahmin/Chhettri were 44.44 which is a little bit more than Janajati and remaining caste were 16.68 were other caste found in the study area.

Figure No. 4.3 Ethnicity of the Participants

4.2.4 Land Holding of the Respondents

Table No. 4.4 Land Holding in kattha, Ropani

S.N.	Land Holding (in Kattha)	No. of Respondents	Percent
1	Landless	6	6.66
2	0 – 1	30	33.33
3	2 – 5	24	26.66
4	6 – 10	18	20
5	10-15	8	8.88
6	More than 20 kattha	4	4.47
Total		90	100

Source: Field Survey, 2021

Table No. 4.5 shows that majority of the households 26.66 percent were found to have 2 to 5 kattha land where as only 6.66 percent households were found landless, and 4.47 percent were found to have more than 1 ropani.

Figure No. 4.4 Land Holding of the Respondents

4.2.5 Income Source of the Respondents

Income sources measure the flow of resources of the household in the past 12 months intends to capture the flow of resources which enables the household to achieve its living standard. The households of the study area had not limited only on one source of income. Instead, they were found to be involved in multiple income sources.

Table No. 4.5 Income source of the Respondents

S.N.	Occupation	No. of Respondents	Percentage
1	Agriculture and Husbandry	38	42.22
2	Foreign Employment	12	13.33
3	Government Service	9	10
4	Pension	8	8.88
5	Trade and Business	15	16.69
6	Wage Labor	8	8.88
Total		90	100.00

Source: Field Survey, 2021

The table no. 4.6 shows that the fact 42.22 percent households were found to be involved in agriculture and husbandry, followed by 16.69 percent were involved trade and business, 13.33 percent were involved in foreign employment, 8.88 percent were involved in wage labor, 10 percent were in government service. Similarly, it is interesting to note that 8 percent households were found to be depended on pension.

Figure No. 4.5 Income Source of the Respondents

4.2.6 Types of Family

Another important factor in resource management is family type. Many families on urban side too depend on wood fuel as well. Family type that were included in survey is given below.

Table No. 4.6 Family Types

S.N.	Types of Family	No. of Respondents	Percent
1	Joint Family	42	46.67
2	Nuclear Family	48	53.33
Total		90	100

Source: Field Survey, 2021

The Table No. 4.6 shows that the regarding the family types, most of the participants 53.33 percent was from nuclear family and the participants of joint family were 46.67 percent.

Figure No. 4.6 Family Types

4.2.7 Respondents' knowledge and skills regarding CF and its resources

The survey of the community people's knowledge and skills shows the ownership and active participation of the users in resources. For the effective resources management; the knowledge about the resources play vital role. This study have stated that women and indigenous people are very familiar with its resources and possess indigenous knowledge and skills which can be of great importance in various forest management activities and solving related issues. The respondents were asked what sorts of particular knowledge and skills do they possess regarding their community forest and its resources.

Table No. 4.7 Respondents' Knowledge and Skills regarding CF and its Resources

S.N.	Knowledge and skills	No. of Respondents	Percent
1	Available species of trees and plants species	48	53.33
2	Properties and uses of trees and plants	26	28.88
3	Cultivation, harvest of plants and crops	16	17.77
Total		90	100

Source: Field Survey, 2021

The table no. 4.8 shows that the knowledge and skills of the respondents were available spices of the trees and plants have 53.33 percent, properties an uses of trees and plants were 28.88 percent and cultivation harvest of plants crops were 17.77 percent.

Fig no. 4.7 Respondents Knowledge and Skills Regarding CF and its Resources

4.2.8 Livestocks of Respondents

Livestocks holding is one of the common things in Nepal; specially in rural areas of Nepal. It is an important factor that makes the participation of users.The livelihood of livestock holding people highly depend on resources of forest. That's why through this survey we can find the condition of resources of forest. Livestock need fodder like grass, leaves and so on, which are basically found in the forest. For this, people need to go to forests and gradually they become familiar about resources and its management.

Table No. 4.8 Livestocks Holdings by Respondents

S.N.	Types of Livestock	No. of Respondents	Percent
1	Cow	25	27.77
2	Ox	10	11.11
3	Buffalo	15	16.66
4	Goat	30	33.33
5	Chicken	5	8.33
6	None	5	8.33
Total		90	100.00

Source: Field Survey, 2021

The Table No. 4.9 shows that the out of all respondents, most of the respondents with 33.33 percent possess goat, 27.77 percent possess cow, 11.11 percent possess ox 16.66 possess buffalo, least being chicken with 8.33 while 8.33 didn’t possess any type of livestock.

Figure No. 4.8 Respondents' Livestocks

4.3 Socio Economic Impact of Community Forest

Community forest user group is community based organization where people of community practice democracy in small area. Though the main goal of community forest is conservation of forest generating income through timber and non timber products of forest. As rural the forest products, collection of forest products requires lot of time and energy resulting in 'time poverty' for women and also restricting them to education, paid work and other productive works. Besides, various health issues to women is also a major concern due to carrying heavy loads of forest products. In the discussions, as well, the respondents stated that before the promulgation of Community Forestry Program, the forests were dwindling and the resources were degrading rapidly due to overexploitation of forest resources, illegal practices, lack of sense of responsibility and lack of consciousness regarding conservation, use, management and sustainability of forests.

The resources available in forest are significant in daily life as well as in construction and eco system. Forest user group plays a vital role for conservation, utilization, management and development of forest resources by the direct participation of user groups in the local level of community. Discussion as above, community forest has not only provided the basic need of the people but also enhanced the livelihood. It has also empowered people towards identify resources;

realize their problems, team buildings, group dynamism as well as resources management in community development activities.

Impact of community forest is directly related to forest products. It can be described with the usages of resource as below in table.

Table No. 4.9 Use of Forest Resource

S.N.	Forest Resources	Purpose
1	Firewood	Cooking food for the household, cooking livestock feed , heating purposes in cold season
2	Timber	Construction of home, shelter for livestock and agricultural work.
3	Fodder	Fodder for livestock
4	Leaves	making traditional plates, household purpose, religious and cultural works and fodder
5	Leaf litters	bedding materials for livestock, compost manure for agriculture
6	Herbs and fruits	For health concern, medical purpose and income source
7	Other NTFPs	Household use, construction work and so on

Source: Field Study, 2021

The Table No. 4.9, we can understand that resources available in forest have various importance. For human and livestock forest resources are necessary. According to Kanel et al. (2012), around 83% of the population in Nepal use fuel wood as the source of energy for their households. From the study as well, it was found that, though majority of the respondents are using LP Gas, they have been using firewood for the purpose of cooking animal feed and maintaining heat in cold

seasons. On the other hand it was found that no one was there using forest resources.

4.4 Sustainable Forest Resource Management

During the time of field study, different acts, regulations and guidelines it was observed and found among various resource management approach, community based resource management approach has been applied in Jamunbari Community Forest. This approach combines conservation objectives with the generation of economic benefits for local community people reducing resources exploitation. When a local people's quality of life is enhanced, their efforts and commitment to ensure the future well-being of the resource are also enhanced.

More broadly, audit report of Jamunbari Community Forest user Group also showed effectiveness of resource management. Participation of women is high than men but the role of women is inactive in decision making process. However, situation is gradually being more favorable for the women’s participation in decision making level day by day. This study shows JCFUG has gained much popularity because of its successful conservation, utilization, management of forest resources.

Moreover, during field survey, it was found that Eco tourism program that have been conducted in JCFUG enhancing the resource and eventually that reduce the pressure on other forest resource. Wildlife conservation program is being well. During the survey, it was found that user group authorities as well community people were aware of forest conservation. Fisheries and children park are the newly generated as income source.

CHAPTER-V

MAJOR FINDING, CONCLUSION, RECOMMENDATION

5.1 Major Finding

Community forest is an organization close to people of society. Therefore, the social and economice impact of community forest is directly related to the community's socio-political, environmental and national laws and international treaties too. Due to the unstable political situation of a developing country like Nepal and the various risks created by it, resource management cannot be untouched by it. In the case of the Terai region, the smuggling of profitable forest products like Sal and its management is a very challenging task. In the context of Jamunbari Community Forest, despite the above-mentioned challenges, it seems to be an exemplary act to find that the tourism, wildlife rescue and wetland management are being carried out in accordance with the prevailing law.

The work of Jamunbari Community Forest Users Group on wetland and tourism promotion is exemplary as it has expanded the resource area which will ultimately contribute significantly to the promotion of local employment, conservation of forest area and resource management. The zoos and ponds constructed in the wetland area have been conserving rare water, land, amphibians. Also it was found that welfare works such as distribution of electric poles and toilet materials to the community are being carried out from the fund received from tourism. Therefore, ongoing eco tourism program in JCFUG is exemplary.

Finally, it would like to unveil the fact that the management of resource in Jamunbari Community Forest User Group is going on due to Forest Act, regulations, operation plan and constitution of CFUG.

Since this research is done in a limited time sample and field in itself, it seems that its finding should be adopted accordingly. Therefore, although the findings of this study can be expressed in a long list, the basic findings are presented as follows.

- As timber is the main and profitable resource of the forest area, its management is complicated.
- Administrative expenditure has been made through tourism which has put less pressure on timber product which is desirable from the point

of view of forest conservation.

- In resource management, the operation plan and the provisions in the constitution have been followed.
- It was found that guards have been provided for the protection of wildlife by fencing for the conservation and conservation of forest resources
- It is a good idea to carry out conservation and tree planting activities in the Chure area without mobilizing any resources.
- It was found that good income is being generated through tourism promotion.
- The community was found to have significant participation in various resource management and conservation activities such as regular bush cleaning, patrolling and sanitation.

5.2 Conclusion

Community Forestry is an evolving branch of forestry whereby the local community plays a significant role in resource management, decision making by themselves in the facilitating support of government as well. It involves the participation and collaboration of various stakeholders including community, government and nongovernmental organizations (NGOs).

We know that the impact of community forest is based on its resources. So it is cross cutting issue and has many stakeholders. Local community people, major authorities of Jamunbari Community Forest, Divisional Forest Officer, incharge of Kankai sub division forest office, Surunga, chief of Kankai municipality ward no.1 and 2 were involved in discussion.

Community forestry deals with the management of forests resources for generating income from timber and non timber forest products as forms of goods while in other hand regulating ecosystem, downstream settlements benefits from watershed conservation, carbon sequestration. It has been considered one of the most promising options of combining forest resource with rural development and community empowerment and poverty reduction objectives.

Resource management issues are inherently complex and contentious. First, they involve the ecological cycles, hydrological cycles, climate, animals, plants and geography etc. All these are dynamic and inter-related. A change in one of them may have far reaching and/or long term impacts which may even be irreversible. Second, in addition to the complexity of the natural systems, managers also have to consider various stakeholders and their interests, policies, politics, geographical boundaries, and economic implications. It is impossible to fully satisfy all aspects at the same time. Therefore, between the scientific complexity and the diverse stakeholders, resource management is typically contentious.

From field survey and interaction with community forest and government authorities, the resource management Jamunbari Community forest have been under the guidelines that mandated by general assembly, operation plan other acts and regulations. Eco tourism program launched by CF is running well under Community forest tourism promotion procedure, 2075. The fund collected through eco tourism have created job opportunities and reduced exploitation of other forest resources.

Forest of Nepal has great importance in agriculture system and in protecting the hilly and fragile land of Nepal. The research was mainly focused on resource management of JCFUG, participation of community people in resource management and role of stakeholders in resource management. The overall objectives of the study were to analyze the management of resources by JCFUG authorities and participation of community people as well as stakeholder. On the study the issue of active participation, management of stakeholder and role of line agencies and different policies on resource management was discussed.

The research was based on both qualitative and quantitative data with both descriptive and explorative research design. Interview schedule had used to collect the primary quantitative information and interview, observation, was used to collect primary qualitative information as per the objectives of the study. Probable questions, therefore, were prepared to ask which was result oriented according to the objectives of the study.

Due to the positive response of the local people regarding resource management and eco-tourism, it was found that the work of resource management in Jamubari

community forest is going well. The acceptance of the respondents confirms that the eco-tourism program being conducted in the Jamunubari Community Forest is the main basis and backbone of the long-term resource management of the forest area. Interestingly, most households, over 90%, were willing to support eco tourism as the resource of community forest.

Forest resource is indispensable natural resources on which every human being all over the world depends on directly or indirectly. Rapidly increasing population growth created pressure on forest resources. So among different resources forest resource management is a tough job. It needs highly specialized knowledge and skills on silvicultural activities like thinning, pruning, singling, bush clearing, firebreak construction. Moreover, it needs expertise for the sustainable use of resources to enhance the livelihool of community people.

5.3 Recommendation

This study put the following recommendations in order to improve livlihood of people and sustainable use of resources in the study area:

- The plan, policies and guidelines by the government should be strictly imposed and also the government needs to ensure whether it's been implemented in a right way or not.
- Moreover, the government in cooperation with other stakeholders must establish consolidated regular training programs to the community on sustainable resource management.
- The local leaders should also be trained on regular basis on the principles and practices of participatory natural resources management.
- Awareness programs, educational trainings and seminars should be conducted on a regular basis by DFO, NGOs/INGOs and other related governmental and non governmental agencies to user group to provide information and ideas as well as to create awareness regarding various issues related to conservation, resource mobilization and development programs.

- The aspect of effective participation should be assured when electing authorities rather than ideological based.
- Eco tourism program should be launched as the long term resource than timber resources.
- All the committee member of user group should be assured for more effective resource management.
- As the wild animals found and injured in different districts are being treated and transferred to the Jamunbari Community Forest, it seems necessary to build wildlife friendly rescue and shelter in addition to the existing ones.
- As it is seen that income can be earned by fishing in the wetland area, it would be helpful to focus on resource management.
- It would be better to establish and manage a nursery on the vacant land of the community forest.

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ANNEX-I

This questionnaire was prepared to get data from respondents for the completion of Socio-Economic Impact of Community Forest, A Case study of Jamunbari Community Forest User Group of Jhapa District

1. General Information

1.1 Name of respondents:

a. Age: b. Sex: c. Occupation:

d. Religion: e. Marital Status: f. Education:

2. Economic Information

2.1 Land Ownership

Khet (irrigated land in Ropani):

Non-Irrigated land in Ropani):

Private Forest:

2.2 Production of Agricultural crops (Muri)

a. Rice b. Wheat c. Maize d. Other cash crops e. Others

2.3 Food sufficiency in month

a. Less than1month b. 3month's c. 6month's d. 9month's e. 12 month's

2.4 Live stock ownership

a. Cow: b. Buffalo: c. Hen: d. Goat: e.Others:

3. Need of Forest resources

Particulars	Amount	From CF	From own farm land	Remarks
Fuel wood				
Fodder				
Timber				
Leaf litter				
Medicinal plants				

4. What you used for cooking food?

   a. Firewood b. Kerosene c. Biogas d. Electricity e. Others

5. Have you participated in sanitation and weeding work?

   …….

6. Have you participated in the group meeting during the Preparation of constitution and operational plan?

   I. Always II. Sometimes III. Never

7. How many times have you participated in-group meetings.

   I. Always II. Sometimes III. Never

8. What is your frequency of participation in following Community Forest activities?

   A. management of resources

      I. High II. Moderate III. Less IV. Never

   B. Implementation of operation

      I. High II. Moderate III. Less, IV. Never

   C. Distribution of Forest resources

      I. High II. Moderate III. Less, IV. Never

9. What do you think why you are participating?

10. What are the main obstacles to you to participate in every activities of Community Forest? Why?

I. Family size II. Education III. Economy IV. Occupational nature

V. Cast/ethnicity VI. Gender VII. Age VIII. Any other

11. What factors encourage you to participate?

I. Family support

II. Education

III. Absent of male

IV. Self motivation

V. Divisional Forest Office staffs

VI. With the request of general users

12. What is your opinion towards participating of women?

13. do you think that CFUG authorites are following rules and regulations?

14. yes b) no c) i dont know

15. Do you think that resources of forest are being managed well?

a) yes b) no c) i dont know

16. What types of knowledge and skill have you gained through participating in resource management ?

a…….b……c……d……e……
……

17. Have you benefited from Community Forest related training?

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