

# **CHAPTER –ONE**

## **INTRODUCTION**

### **1.1 Background of the study**

Nepal is rich in terms of forest resources and biodiversity. A broad range of ecosystems flourishes in relatively small area of land in Nepal. The forest resources have made a significant contribution to economic and social development of the country. Besides, forests are indispensable as a life support system for people in the inner terai, hills, and mountains, where agriculture, livestock and vegetation influence the ecology of the area and the lives of the local population in Nepal.

In rural Nepal, forests are an integral part of the farming system as there is a heavy dependence on forests for the essential elements of fodder, fuel wood and construction timber (Gilmour, 1992). Eighty percent of fuel wood for domestic consumption is obtained from forests and fodder from forestland provides more than 40 percent of livestock nutrition (FAO, 1978). Most hill farmers rely heavily on maintaining a flow of nutrients and energy from the forest to their farms. Nutrients contained in grass and leaves flow from the forest to the agricultural terraces to maintain agricultural productivity (Gilmour, 1992).

Historically, forestland has been the prime source for the expansion of agriculture (Yadav, 2004). It has also a crucial protection function with respect to soil and water conservation. Hence, the forest is an integral part of

the agro ecosystem of Nepal and considered a wealth of the nation because it is important to sustain the economy. Thus, better forest management practices, together with an increased consciousness of the environment, are of paramount importance to Nepal's development.

Nepalese people live in communities that may be rural or urban. In both cases, the dependency of people on the forest may vary. For rural communities, the forest is the main source of energy for maintaining their livelihoods. There has been a dependency of rural people on the forest from ancient times for fuel wood, timber, grass, thatch grass, agricultural tools and other domesticated needs and also for NTFPs including medicinal herbs. These products are an integral part of rural life. There is a lack of alternative resources for rural people to have in terms of energy, fuel, fertilizer, fodder and construction materials at village level. The forest can supply the villages' short-term and long-term needs including materials and cash income. Moreover, forests are not only essential for people but also for both wild and domestic animals. Livestock is part of rural livelihoods and is partially dependent on the forest for fodder and grazing. Another most essential resource for rural people is water and the main source of water is the forest. In rural areas, people depend on natural springs for drinking water and small irrigation systems as well. Populations are required to manage and maintain forest resources so that they are sustainable and remain secure for future generations.

In rural areas, people depend on Government support for sectoral development such as the provision of drinking water supply, small irrigation schemes, school building and foot-trail construction. The present trend of

forest user group's fund investment is very much related to these activities, but in a more transparent way rather than in a 'bureaucratic' form of investment.

The Community Forestry Programme is being implemented throughout Nepal. It has been focused mainly in the central hills up to the present time. In 1988, the Master Plan for Forestry introduced community forestry (CF) as a higher priority initiative. A strategy was developed for handing over all accessible hill forests to local communities based on their ability and willingness to manage the forest. It is estimated that as much as 3.5 million hectares of forest or 61% of total national forest area can be handed over to the local forest user groups (FUGs) for their development and management.

The basic assumption of the 'community forest user group' (CFUG) is that users are united and capable for managing community forests for their mutual benefit. The nature of each community differs at each different location. The capability of each FUG is dependent upon the ability of its individual members. The users are bounded by sets of rules and regarded as an organized corporate body. The strong relationship between the level of involvement of a FUG in active community forest management and its social and institutional development has been particularly striking. Fieldwork undertaken by Branny (1995) has attempted to define the relationships among the social factors, the institutional factors and forest development. Each FUG requires institutional 'capacity' to trap the potential of forest resources through CF management.

The forests of Nepal are declining. Traditional forest management practices dealt with protection and commercial aspects through regulatory and punitive means. Forest policies, laws, by-laws, and regulations were

formulated with a view to protect and conserve the forests. The nationalization of forestland in 1957 and the subsequent policing and protection oriented Forest Act of 1961 in reality was not able to prevent the alarming depletion of the country's forests. From 1964 to 1985, Nepal lost about 570,000 ha of its natural forests (HMG/N, 1993).

To alleviate this situation, a major and far-sighted change of strategy came in 1978 when the concept of people's participation in forest management was written into forest law. The concept of community forestry (CF) has taken momentum only since 1989 after the Master Plan for the Forestry Sector (MPFS) came into effect. The overall forest policy strategy is to improve the management of the country's forest resources, with a sustainable balance between people's needs, the production systems and the environment. This created a new common ground, which seeks a balance in managing the forests in ways that both protect the environment and meet the people's needs.

The CF concept, which is now fully institutionalized through the Forest Act 1993 and Forest Rules 1995, is based upon the user-group approach. The basic system in CF is to hand over nearby national forest land to local communities. All the activities are carried out with the approach of "for the people, by the people." The user-group concept is used as the basis for sustainable forest management.

CF is a participatory management approach that has been developed over 25 years in Nepal's forestry sector. It has been demonstrated as a highly successful management approach that has resulted in rural farmers gaining increased access to forest resources, together with improvements to biodiversity and landscape values. So far, 1.1 million hectares of forest

(about 25% of the national forest area) has been handed over to more than 14,500 Community Forestry User Groups (CFUGs) involving 1.8 million households.

## **1.2 Statement of the Problem**

The assumption of the CF policy was that the benefits of improved forest resource conditions would accrue to all involved in CF management, especially the poor, women and deprived. The experience so far has shown remarkable improvements in the conditions of the handed-over community forests, and this trend is continuing. But significant improvement in the lives of those that are dependent on local forest resources (women, poor and disadvantaged occupational castes) is yet to be seen across most CFUGs. The most popular participatory forestry programme of Nepal has been unable to reach the poor (Yadav, N.P., 2004).

The success of CF has been spectacular, with around 14,500 CFUGs registered and community forests covering more than 1 million ha of forestland. However, as implementation has proceeded, a range of second-generation issues has emerged. Issues such as income generation, equity, active forest management (particularly the development of “appropriate” silvicultural systems), and commercialization of products from community forests and expansion of community forest modalities beyond the Middle Hills have assumed importance (Gilmour, 2003). Thus, CF has been facing challenges to its sustainability, livelihood and governance aspects, widely referred to as second-generation issues.

Despite achievements and contribution that community forestry has made in Nepal, there are many unresolved issues and challenges in all areas of capital

as well as governance. In worst cases, the implementation of CF policy has inflicted added costs to the poor, such as reduced access to forest products and forced allocation of household resources for communal forest management with insecurity over the benefits. Untransparent decision-making and fund management reflect weak FUG level governance in many cases (Pokharel, 2003).

Management of CF is geared towards the production of intermediate products that are inputs in the farming system and towards subsistence rather than income generation. Obviously households with livestock and farmland, yet fewer livelihood options and higher dependency on commons, would benefit from CF more than the landless poor who have little/no use of farming system inputs from commons (Richards, et al, 1999). The existing patterns of CF management tend to be skewed towards fulfilling the livelihood needs of land-poor and serving the interests of well-off peasant farmers. Access to livelihood support for landless poor from CF remains limited/ restricted even when they are included in the group, and this inclusion costs them more than the benefit they could potentially get. CF has not been able to make significant positive impact on livelihoods of rural community in general and of poor in particular (Tiwari, 2002).

The success of the CF policy lies in building and/or strengthening a robust social institution of a group of people with collective concern over the forest they have traditionally depended on. One must, therefore, examine how CFUGs have been evolving as an institution in the course of CF development process. CFUG has got legal recognition as a self-governed, autonomous and corporate institution to be operated under a collectively agreed constitution. The traditional users of a forest are expected to organize

as a user group, recognizing individuals' collective use rights over a particular forest and drafting a constitution by themselves to function as an institution. But the majority of the CFUG members have often been found broadly little aware of the contents of their own constitution as well as the Community forest operational plan (OP). Experience and studies reveal that the majority of users have little knowledge about their own rights and responsibilities towards effective functioning of their CFUGs (NP Yadav, 2004).

Forests are the main source of wood and animal fodder for rural inhabitants and the vast majority of the population is directly involved in managing a forest as part of everyday life. The people in rural areas are experiencing the hardship in their livelihoods due to scarcity of infrastructural facilities and institutional support systems and services. Nowadays, CF programme is considered as improving livelihood of rural people after its stages of plantation, protection and production in 1970s, 1980s and 1990s, respectively. This trend shows the gradual progress of CF programme and it is said to be the effective common property resource management and community development model too. Community Forest Management for income generation and employment generation was highlighted after the Master Plan for Forestry Sector. The livelihoods of millions of poor people depend on forest resources because they have no alternative to survive. This led to introducing the new livelihood approach and encouraging further participating in the protection of the resources. Poverty is serious problem of the country and poverty reduction is regarded as only one of the nation's development goals (NPC, 2002). Tenth Five Year Plan (2002-2007) has targeted to reduce the poverty level up to 30% during the plan period. To

achieve this goal, the plan has also emphasized community forestry program for income generation through employment generation activities. The plan has targeted to provide 7250 full year employments from the activities of community forestry alone (NPC, 2002).

Basically the level of poverty in rural area is more serious than urban one. Thus, to achieve the target of the development plan, main challenges are employment generation and poverty reduction in rural areas. Unless poverty is addressed, it is not possible to fulfill the obligation of forest management goal. To overcome these problems, a wide range of initiatives has been initiated in the forestry sector during the past few years. However, due to the limited study, to answer the question of “how much effects are created on the livelihood of the rural people from community forestry initiatives?” is still questionable.

Some case studies on the impact of community forestry on the different aspect of livelihood assets have been carried out. Kanel & Niraula, 2003 have studied focusing on the financial aspect of livelihood and found forest product as the main source of user’s income, which constitutes more than 83% of total income and concluded the great potentiality of community forestry program for contributing to improve community development and to reduce rural poverty (Kanel & Niraula, 2003). Dev et.al., in his study in eastern mid-hills, found the positive impact in terms of improved level and security of forest product and benefit flow, household income generating opportunities, support for community infrastructure and development activities but the impact was below their potential (Dev et.al, 2003). Yadav, 2004, states that community forest provides regular and seasonal



employment to users as forest watchers, nursery foremen, and office secretaries and seasonal labor for harvesting. Unfortunately, former study are lacking in the Terai region to find out the contribution of community forestry in rural livelihood with respect to employment generation.

### **1.3 Objectives of the Study**

The general objective of the study was to assess the contribution of community forestry in rural development.

#### **Specific objectives**

In order to achieve the general objective some specific objectives were as follows;

- ) To assess the different resources owned by community forest User groups.
- ) To analyze the status of various rural development opportunities and their access to different level of users.
- ) To examine the relationship between the access of different rural development opportunities and socioeconomic category of the people.

### **1.4 Rationale of the Study**

Although the study area is very small in comparison to the total area covered by the community forestry programme in Nepal, it is hoped that the outcome of this study can give the indication of the trends occurring in the implementation of community forestry programme in relation to the participation, awareness and the utilization of forest resources there by its relation to rural development in the district. In particular, the research will

provide valuable insights for the agencies supporting the whole community forestry process in Nepal, especially the DFID-funded Livelihoods and Forestry Programme presently working in the district. The study will generate relevant information and establish processes that will be useful to all stakeholders, for the development of support strategies for further promotion of community forestry in the wider sense. In earlier stages of community forestry, most of the FUGs were conservative in their management and utilization of forest products. They focused on the protection of community forest with limited use. Present community forestry has crossed the protection phase and is moving towards the productive stage because the needs of users are increasing and this cannot be fulfilled by the protection mechanism. The forest requires appropriate productive mechanisms, i.e. based on silviculture operations, which can help to fulfill the needs of local people. The productive role of forest in particular is to provide materials and be of economic value directly to the local community as well as having other indirect benefits to people. The findings seem to be useful to planners and implementers in making modifications in existing strategies that, in Turn, could improve programme implementation in the district and subsequently contribute to community forestry development in Nepal.

## **1.5 Limitation of the Study**

This study especially covered the few such community forests in Nawalparasi from where the people are getting forest resources. The findings and recommended strategies can be applicable within the district as

well as to some other parts of the country, but cannot serve as a basis for making a generalization of the true situation of CFUGs in the entire country.

) This study covers only 5 community forest out of 74 community forest in the district. The study may not represent entire community forests.

) Due to lack of base line information the information about the situation before the community forest intervention are basically based on the memory of the respondents.

## **1.6 Organization of the Study**

The report is divided in six chapters. First chapter deals about the Introduction of the study and second chapter deals about literature review regarding the study. Research Methodology is included in third chapter. Similarly, the fourth chapter deals about physical setting of Nawalparasi and fifth chapter have analysis of the findings and discussion with relevant with the objectives and the sixth chapter have concluded the findings and last have recommended some suggestions for future planning in community forestry sector for the better contribution to the rural development through increasing employment to the forest users especially for pro-poor initiatives in the planning and implementation process of the program.

# **CHAPTER -TWO**

## **LITERATURE REVIEW**

The following sections discuss previous studies and other significant information related to this research. Encompassed subject areas include historical background of forest management in Nepal, concept of community forestry, community forestry in Nepal, policy and regulatory environment of community forestry, community forestry development process, people's participation in forest resource management, potential benefit of income generation through community forestry, rural development through community forestry, poor and poverty and achievements and challenges of community forestry in Nepal.

### **2.1 Historical Background of Forest Management in Nepal**

History indicates that interest of the government in forest management emerged only after the overthrow of the Rana regime in 1950. The first forestry policy was written in 1953/54. Though the policy recognized the importance of forests for meeting subsistence needs, it was never implemented. To prevent the destruction of forest wealth and to ensure the adequate protection, maintenance and utilization of privately owned forests, *The Private Forest Nationalisation Act* was passed in 1957 and all forestlands were brought under the control of the Forest Department. However, due to lack of human, financial and other resources needed to put all accessible forests under proper management, government could not achieve the above objective and hence, widespread indiscriminate cutting of forests. The government passed *The Forest Act, 1961* to protect, manage and

utilize the forest efficiently. For strengthening the role of the Forest Department, *The Forest Conservation Act, 1967* was introduced. However, these Acts also could not help to control the deterioration of forest.

In 1975, a conference was convened in Kathmandu to consider various issues relating to the management of forests in Nepal. It was attended by Divisional Forest Officers (DFOs) from all over the country and senior members of the Forest Department and the concerning Ministry. It was remarkable in that the planned three-day meeting extended to 23 days because of the great interest that was generated and the desire to make strong statement on the need to address the deteriorating condition of the country's forests. The conference was followed by the formation of a working group charged with the task of formulating a plan to guide the future development of forestry in Nepal. This culminated in the publishing of the National Forestry Plan in 1976, which provided a policy base for initiating forestry development work in the hills area that had been largely ignored (Gilmour and Fisher, 1991).

This was followed by the adoption of *Panchayat Forest Rules* and *Panchayat Protected Forest Rules (1978)* that would govern the handing over of government forestland to the local Panchayat, expecting people's participation in the forest management through local political body. These landmark regulations gave formal recognition of the rights of villagers to manage their own forest resources with technical assistance being provided by the Forest Department. The right of villagers was further strengthened by the provision of the Decentralization Act, 1982. The model was no longer sustained due to division of forest resources and people as well by political boundary and administration by elected political bodies.

Therefore, considering the urgent need to redress the deteriorating forest situation, the government of Nepal, with assistance of ADB and FINNIDA, prepared and implemented a long-term Master Plan for the Forestry Sector (MPFS) in 1989. Twelve programmes have been formulated to meet its long-term and medium-term objectives of all aspects of forestry and forestry-related areas. Out of them, the government has led strong emphasis to Community and Private Forestry Programme. This is the largest programme and recognized as the first priority program by the MPFS. About 47 percent of the whole forestry sector budget is allocated for the community and private forestry programme alone. Community forestry (CF) aims at the development and management of forest resources through the active participation of individual people and communities to meet their basic needs (MFSC, 1989).

The previous acts, rules and regulations were reviewed; drawbacks were identified with the reference of MPFS that recognize the concept of Forest User Groups (FUGs). Consequently, the Forest Act, 1993 and the Forest Regulations, 1995 emerged to implement the CF programme efficiently. The concept of FUGs is simple in that one who protects and manages the forest shall also utilize its products. The central policy thereof is to develop and manage forest resources through active participation of communities to meet their basic needs of forest products. To achieve this, the strategy put forward is to handover all accessible forests to communities to the extent that they are able and willing to manage them. The management of the forests is to be regulated by people's own decision and through CF operational plan.

## **2.2. The Concept of Community Forestry**

During the succession of bottom-up development approaches, the pro-industrialization forest development model was challenged in the 1970s. Westoby, a former economist of FAO, became a strong advocate of a CF programme in the 1970s and played a significant role against forest-based industrialization and emphasized the mobilization of resources for socio-economic development (Gilmour and Fisher, 1991).

The concept of CF emerged in response to the failure of the forest industries model to lead to socio-economic development, and partly to the increasing rate of deforestation and forestland degradation in the Third World (Gentle, 2000).

The term social forestry first came to prominence in the 1976 report of the National Commission of Agriculture in India that was used for a program of activities to encourage those who depended on fuelwood and other forest products to produce their own supplies – in order to “lighten the burden on production forestry” (FAO, 1989).

Conceptually, community/social forestry was initially defined as any forest management activity or situation which intimately involves local people in a forestry activity and tree growing activities, for which rural people assume (part of the) management responsibility and from which they derive direct benefit through their own efforts (FAO, 1978).

Gilmour and Fisher (1991) define CF as "the control and management of forest resources by rural people who use them especially for domestic

purposes and as an integral part of their farming system". This definition emphasized local control over resources.

The original concept of community forestry was based upon three main elements- fulfillment of the basic needs of fuelwood, fodder and timber at the rural household, supplying food and the environmental stability for cropland and the generation of income and employment in rural communities. The eighth World Forestry Congress (Jakarta, 1978) further endorsed the concept of CF, which was devoted to the theme "Forestry for People" (Gilmour and Fisher, 1991; Gentle, 2000).

Community forestry, according to Arnold (1983), can be defined as "the active involvement and participation of the local people in the planning and execution of tree growing and management to meet their own needs and the government support of the people's need to be able to grow and manage trees."(Bhatta 2002)

According to Blender, et al. (1998), managing forests with the express intent of benefiting neighboring communities, is community forestry. The common denominators in all community forestry programs are their focus on the role of forest-dependent communities in managing resources and in sharing the benefits that flow from those resources.

The Forest Act of Nepal, 1993, defines community forest as "that part of the national forest which the District Forest Officer hands over to the user groups for development, protection, utilization and management in accordance with the operational plan, with authorization to freely fix the prices of the forest products, and to sell and distribute the forest products for the collective benefit and welfare" (HMG/N, 1993).



A key goal of community forestry is the long-term conservation of forest resources. Nevertheless, conservation goals must be integrated with efforts to generate a steady flow of products that meet the needs of local people. The fundamental idea behind social / community forestry is to support directly the sustainable use of forests that provide welfare to the community.

Central to the concept of community forestry is the basic idea of “community.” A community is often defined as the human population that lives within a limited geographical area, shares common interests and carries a common interdependent life.

Different approaches have been adopted for involving local people in forest management in Nepal. For example, CF Programme is intensively practiced in middle hills, Leasehold Forestry Programme has been implemented with dual objectives- to alleviate poverty of people below the poverty line and generate the investment opportunity in the forestry sector, Collaborative forest Management is being implemented in some Terai and inner Terai districts for productive forest management and Buffer Zone Management system is being practiced in the buffer zone of the protected areas (National Parks / Reserves/ Conservation Areas) to make the local people self-sufficient in forest products.

Hence, CF is a participatory forest management system in which local people are involved in the protection, development and utilization of the forest. Nepal has been implementing CF programme through the active participation of local people, called Community Forest User Group (CFUG). The CFUG is an autonomous and corporate body having perpetual succession (HMG/N, 1993). After the registration of its constitution in the

concerning District Forest Office, the CFUG is entitled to take over the responsibilities to conserve, develop, use and manage any part of national forest as community forest. The operational plan (OP) is written by the CFUG in consultation with the field forestry staff. Management of the CF is outlined in the OP. The OP of the particular forest is approved by the concerning District Forest Officer. After the approval of OP, the concerning CFUG receives legal rights over the forest resource. The Forest Act, 1993 allows CFUG to control access to the particular forest and monitor resource extraction. Similarly, CFUG has a right of production and sale of forest product as prescribed in OP, generate funds from various sources, fix the price of forest products, spend the CFUG fund in forest development activities and for community development activities such as roads, education, health, irrigation and drinking water. Under current arrangements of CF in Nepal, the government owns the land, but CFUGs are entitled to receive the benefits flowing from forests, which provide incentives for managing the forests (Kanel and Niraula, 2003).

### **2.3 Community Forestry in Nepal (Historical Perspective)**

Community forestry in Nepal evolved through an interaction of multiplicity of factors. This stems from a sense of collective spirit embodied in Nepalese society through generations. There were frequent cases, particularly in the hills, of communities having been involved in the conservation of forests and regulating of forest resources. Earlier experiences with different political turmoil, population growth, regulatory enforcement and adjustments, excessive dependence of the people over forest resources, and a paradigmatic shift in global development thinking are some of the other

factors that contributed to evolve it to the present scenario of decentralization and devolution.

Earlier statutes have been specifically harmful to the development and conservation of the Nepalese forests. Their main shortcomings stem from their indifference to, or failure to address, the needs and aspirations of the people who continued to depend on forest products for their very subsistence. The Private Forests Nationalization Act of 1957 brought forests, which were earlier perceived to be private, under state jurisdiction. Forest Act 1961 and Forest Protection Special Arrangement Act of 1967 failed to democratize the regulation of forests. Coupled with population growth and government's continued inability towards effective protection and misappropriations all led to consistent decline in the forest cover. As such, community forestry could have been adopted also as an ad hoc approach to timely halt the deforestation process.

The National Forestry Plan of 1976 listed the major constraints and proposed policies to tackle them. It recognized the critical forestry situation of the time and laid down as objectives for forest management the restoration of the balance of nature, economic mobilization, practices of scientific management, development of technology and promotion of public cooperation. However, the Plan was partly implemented (MPFS, 1988).

The community forestry thrust followed the formulation of Panchayat Forest Rules and Panchayat Protected Forest Rules in 1978. The community forestry project was introduced in 29 hill districts with assistance from the World Bank. Community forestry was also promoted with bilateral

assistance. Later, community forestry was also tried in 14 Terai districts with World Bank assistance (MPFS, 1988).

Community forestry started in one Village Panchayat in Sindhupalchowk district with the naming of a forest committee by the District Forest Officer (DFO). The forest committee, having been nominated by the DFO was given authority to decide on the use of forest allotments, which were protected or newly planted by its members. Community forestry was initiated by the villagers supported with the DFO's modest budget, plus small amount of foreign assistance in the form of training and establishment of the nurseries (MPFS, 1988).

## **2.4 Policy and Regulatory Environment of Community Forestry**

### **2.4.1 CF related Provision in the Constitution of the Kingdom of Nepal 1990**

Part 4 of the Constitution of the Kingdom of Nepal 1990 contains Directive Principles and Policies of the State. No cases, however, can be filed in any court regarding the compliance of the State with the principles and policies. Selected provisions of the Constitution include (HMG, 2000):

Article 25 (1): It shall be the chief objective of the State to promote conditions of welfare on the basis of the principles of an open society, by establishing a just system in all aspects of national life, including social, economic and political life, while at the same time protecting the lives, property and liberty of the people.

Article 26 (3): The State shall pursue a policy of mobilizing the natural resources and heritage of the country in a manner, which might be useful and beneficial to the interest of the nation.

Article 26 (4): The State shall give priority to the protection of the environment and also to the prevention of its further damage due to physical development activities by increasing the awareness of the general public about environmental cleanliness, and the State shall also make arrangements for the special protection of the rare wildlife, the forests and the vegetation.

The constitutional provisions are conducive to promoting community forestry, in particular with respect to using the forest resources in the interest of the nation through establishing a just system of distribution of the resources through ecologically sound manner.

#### **2.4.2 Master Plan for the Forestry Sector**

The first national community forestry workshop held in 1987 contributed to the prioritization of the community forestry program in the Master Plan for the Forestry Sector (Acharya , 1999). The Master Plan analyzes country's forest resources and their potentials, and has prepared simulation models for the assessment of wood and fodder supply and demand balance. It identifies sectoral issues and analyzes these against existing conditions. The plan identifies four long-term and three medium term objectives with a view to preparing a long-term development plan (MPFS, 1988). The long-term objectives relate to meeting the basic needs of the people, protecting the soil and water resources, conserving ecosystems and gene-base and consolidating local and national economies. The medium-term objectives

focus on democratizing the regulation of forests, and making legal, institutional and structural adjustments to that effect.

These objectives have led to the framing of six primary development programs, of which the community and private forestry program has principal focus: some 47 percent in terms of financing.

All other primary development programs of the Master Plan effect, or at least relate to community forestry processes. However, the community and private forestry program of the plan forms the foundation for community forestry initiatives. The main components of the program are (MPFS, 1988)

Management of national forests and enrichment planting of degraded forests, both as community forests;

Establishment and management of community forests in open and degraded areas;

Distribution of free or subsidized seedlings to encourage the establishment of private tree farms;

Promotion of the use of fuel-efficient stoves by supporting their development, production and distribution.

The following supportive programs are designed to backstop these main components (MPFS, 1988):

- ) Updating legislation and encouraging people to accept full responsibility for the development, management, and protection of community forests;

- ) Strengthening the forestry organizations to lend full support to the program;
- ) Reorienting and retraining forestry professionals and technicians to the changeover;
- ) Research and development on the establishment, silviculture, and management of forests, especially on adverse sites;
- ) Drafting management plans at both district and community levels and establishing resource databases to support planning; and
- ) Establishing an effective monitoring and evaluation system.

The Plan also charts and phases the output targets against required inputs. The inputs required in achieving the targets stem from two sources: (a) community forest establishments, and (b) private tree farm establishments. The input for community forest establishment (that includes plantations, 10% enrichment, 5% enrichment, and zero enrichment) for the year 2000-01 is 549.6 thousand hectares, and that for the end of the Master Plan period (2010-11) 1285.6 thousand ha, considered on the basis of cumulative accomplishments (MPFS, 1988).

### **2.4.3 Forest Act 1993**

Forest Act 1993 evidences a marked shift towards democratizing the regulation of forests. It has repealed conventional forestry laws and paved way for liberalizing forestry initiatives in the Kingdom. Among 13 chapters, Chapter 5 (sections 25-30) and Chapter 9 (sections 41-45) of the Act furnish provisions relating to community forestry processes (HMG/N, 1993).

Under the Act, the District Forest Officers may validate FUGs constituted for being desirous to collectively develop and manage specified forests and utilize products thereof. The Act authorizes the District Forest Officer to hand over portions of national forests so that communities may conserve and manage the forests and adopt independent distribution mechanisms for forest products. Community forest OP forms the basis of such handover and communities may make timely amendments in such plans. It has provisions of penalizing user-group officials or invalidating user-groups and taking back community forests that fail to comply with groups' constitution and OP. The user-groups themselves can penalize their members contravening their codes. The Act also establishes precedence of community forestry over leasing.

The Act is considered the most conducive legal arrangement for the development and promotion of community forestry in the history of Nepal, and in other nations of the globe at present. Community forestry as envisioned in Nepal is perhaps one of the most innovative and truly community-oriented programs in the world (Knisely, 1993).

#### **2.4.4 Forest Regulations and Other Statutory Provisions**

Forest Regulations 1995 is the procedural law that enables materializing the Forest Act and relevant policies on community forestry. Chapter 4 of the Regulations stipulates procedures and provisions concerning community forestry.

The provisions and procedures laid out in the rules impart increased autonomy of forest user-groups that are real actors of community forestry, and promote a changeover of governmental role from policing to facilitation.



Similarly the Department of Forests (DOF) has prepared community forestry directives. The directives further simplify matters of determining community forests, formation of users-groups, and handing over of community forests. It further clarifies on registering of users-group, preparation of OPs, establishment of industries, transportation of forest products and withdrawal of community forests and so forth.

The Community and Private Forestry Division under the DOF has prepared Operational Guidelines for the community forestry development program. The guidelines specify the process for planning community forestry. Some other statutory provisions that effect community forestry processes include: Cabinet or Ministerial level decisions, and Departmental circulars.

#### **2.4.5 Community Forestry Development Process**

In order to implement the CF development process in phase wise with easier means CF Division, Department of Forests has prepared and implemented the "Guidelines for Community Forestry Development Program." These guidelines are divided into five phases to facilitate the identification and formation of CFUGs, the preparation and implementation of operational plans, and review and revision of the process in the spirit of the Forest Act 1993 and the Forest Regulations 1995.

##### **2.4.5.1 Identification Phase**

This phase includes the following activities.

- ) Rapport-building with forest users.
- ) Interaction with potential users concerning CF policy and its importance to their communities.

- ) Collection of social and technical information regarding sustainable management of forests and utilization of forest products.
- ) Identification of users and potential community forest areas.

#### **2.4.5.2 Forest User Group Formation Phase**

This phase includes the following activities.

- ) Formation of the CFUG.
- ) Preparation of the CFUG's constitution and registration of the CFUG at the District Forest Office as required by the Forest Regulations.

#### **2.4.5.3 Operational Plan Preparation Phase**

This phase includes the following activities.

- ) Discussion and agreement by the CFUG of an operational plan related to forest management, institutional development of the CFUG, and community development.
- ) Preparation and approval of the CFUG's operational plan.
- ) Handing over of management rights for the community forest, and utilization rights for forest products and income to the CFUG.

#### **2.4.5.4 Implementation Phase**

This phase includes the following activities.

- ) Implementation of approved constitution and operational plan.

- ) Advice to the CFUG at its request.
- ) Technical and institutional support to the CFUG.
- ) Monitoring of implementation of forestry management activities by the CFUG, and assistance in resolving issues and problems that arise.
- ) Carrying out of activities related to institutional development of the CFUG.

#### **2.4.5.5 Review and Revision Phase**

This phase includes the following activities.

- ) Either at the CFUG's request or upon expiry of the operational plan's term, revision of the operational plan as directed by the CFUG's interests, objectives of management, forest conditions, and existing rules, regulations, circulars and directives of the government.
- ) Amendment of the constitution as required by the needs of the CFUG.
- ) Approval of revised constitution and operational plan.
- ) Regular monitoring and evaluation of constitution and operational plan.
- ) Signed agreement with the CFUG.

### **2.5 People's Participation in Forest Resource Management**

People's participation is an important decisive factor in any development effort. Forest resources have an obvious importance on the economic life of the people living in, around or adjacent to them. This is particularly obvious

where people depend on forests for subsistence such as wild plant and animal foods, firewood and fodder for livestock.

Attempts to manage the forests are more likely to succeed if the people involved in collecting and harvesting forest products support management plans. They are much more likely to support management plans if the plans take some account of their economic interest (Fisher, 1992). Significant role of forest users in the development of management plans is also important for the successful implementation of the plan. When plans override local interests, or when they are based on inaccurate assessments of these interests, the people are likely to ignore the rules and to continue their normal activities. Fisher (1992) pointed an example of women in Nepal, who mostly collect firewood, yet they are rarely involved (in any serious way) in planning forest management. Unless their concerns are recognized and incorporated in the plan they are unlikely to support the plans.

Jackson and Ingles (1994) argue that CFUGs are motivated to accept the responsibility for forest management because users have a vested interest in the fate of their local forests. This argument is particularly relevant when products from community forests have value in the market, because FUGs have an incentive to ensure that forests are properly managed in order that they can continue to obtain benefits from the sale of products. This argument is unique not only to community forestry but also to other participatory natural resource activities. For example, Jackson et al. (1994) argues:

“...people will act to conserve valuable biological resources in situations where they are organized to take action, have a measure of control over the resource base, have sufficient information and knowledge, and believe that

their social and economic well-being is dependent on sound, long-term resource management.”

According to Yadav (2004), failures of some forestry programs in the past can be traced to the non-inclusion of communities during project planning, execution and evaluation.

In many areas of Nepal, where community forestry has been successful, there has been a decrease in the rate of forest degradation and increase in the quality of natural forests, through plantation establishment on marginal lands and improved management of natural forests. Much of the improvement in forest condition, increased vegetation and species diversity can be attributed directly to forest user-group protection and management practices (Blockhus, et al., 1995).

In many Asian countries, attention is turning towards natural forest management as a way to increase forest productivity while preserving biodiversity. Natural forest management is a strategy for enhancing the productivity of a forest as it grows naturally, instead of relying on artificial planting. Because these methods do not depend on heavy doses of costly external input, they are well suited to community-based management effort. Presently, the focus of the community forestry program in Nepal is on natural forest rather than on establishing plantations (Shrestha, 1995).

## **2.6 Potential Benefits of Income Generation through Community Forestry**

Recent experiences in Nepal suggest that community forestry management can yield more subsistence needs and FUGs can generate income from a

variety of sources, including the sale of forest products, fees, fines and donations (Yadav, 2004). The income generated from community forests can, and does, play an important role in providing local employment and in developing local markets (Malla, 1993; Jackson and Ingles, 1994). In one study, Jackson and Ingles (1994) estimated that the 2,000 potential FUGs in one hill district could generate Rs. 19,000,000 (US\$ 352,000) each year, or 9.5 times the current budget provided to the local government agencies in the district. They further suggest that the capacity for income generation will expand exponentially as the number of forests handed over to FUGs increases and the condition of new and regenerating forests improves.

The group fund generated from the sale of forest products, levies, and outside grants are the financial capital through the community forestry. The average FUG fund size of about NRs. 8,000 in 1996 has risen to NRs. 13,000. It is reported that there is a balance of about NRs. 100 million among 12,000 FUGs in the country (CFD, 2002). This amount is almost equivalent to the government's annual forestry development budget allocated to all districts (Pokharel and Nurse, 2004).

Timber and timber products are not the only products available in community plantations. In a study, Jackson et al. (1994) estimated that an area of 130 ha. of well managed pine plantations in the Nepal Australia Community Forestry Project (NACFP) area could potentially generate an annual operating surplus of almost Rs. 1 million (US\$ 18,520) from the sale of surplus timber. Maharjan et al. 2004 in a study of Koshi hills of Nepal observed receiving employment opportunity from resin tapping from the pine trees of the community forests. He also noted that before the forest users engaged in resin tapping, their main occupation was making charcoal

and selling it to the local market, but when they were employed in resin tapping work each user made an income of US \$ 100 to 120 in one tapping season.

## **2.7 Poor and Poverty**

There are no definite words to define the term 'poor'. Nepal is a economically poor country in comparison to USA. People of Karnali may be poor when we compare them with the people of Kathmandu. However, even in Karnali zone, there are rich and poor. Hence, poor itself is a relative thing and will remain forever (Kanel and Niraula, 2004). It is only its magnitude that matters. In the context of Nepal, poor are those who live in small huts having no ventilation, no land or having small piece of land, getting low diet, having unhealthy body, daily wage earners, illiterates, socially disadvantaged or marginalized, deprived of education, health care and modern facilities. In other words, person who is the most vulnerable to shock, stress and seasonality is a poor of Nepal (Pokharel, 2004).

According to World Bank, poverty is hunger, lack of shelter, being sick and not being able to see a doctor, not being able to go school and not knowing how to read, not having a job. It is fear for the future; living one day at a time, losing a child to illness brought about by unclean water, and is powerlessness, lack of representation and freedom (<http://www.worldbank.org>).

Poverty is understood and defined by people in many ways. The encyclopedia defines poverty as "the state or fact of being in want". It further clarifies that the poor are poor because they lack enough income and resources to live adequately by their accepted living standards of their

community. The former definition is that of absolute poverty whereas the other appears to be a relative poverty definition. It is like, between two similarly placed villages, one becomes poor because the other village has access to transportation. Another definition of poverty is called textbook poverty, notions of which are inherited through western education.

Poverty has commonly been assessed in terms of income or consumption with reference to a determined poverty line. It is closely related with income and employment opportunity for people. However, income-based definitions are now widely agreed to be too narrow and there have been various attempts, for instance through the Human Development Index, to consider a wider set of variables and in some cases to draw in qualitative indicators such as dignity and autonomy (Pokhrel, 2004).

The Poverty has two dimensions- low incomes, which is insufficient to maintain a dignified life, and low level of human capabilities, which restricts a citizen's options to lead a life of his or her choosing. According to Chambers (1983) poverty is a form of deprivation trap, with strong interactive linkages of five clusters to other forms such as income poverty, physical weakness, isolation, vulnerability and powerlessness

**Figure 2.1 : Chamber's interpretation of poverty (1983)**



## **2.8 Sustainable Livelihood Approaches**

Sustainable livelihood is widely used in contemporary writings of the poverty and rural development. The welfare definition of poverty has recently been broadened to recognize the importance of access to assets. Asset poverty is defined as insufficient assets (natural, physical, financial, human, and social) or lack of an appropriate mix of assets, to be able to generate or sustain an adequate and sustainable level of livelihood. Livelihood defined in this connection as comprising the capabilities, assets and activities required for a means of living and sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities both now and in the future. Sustainable livelihood is a way of thinking about the objectives, scope and priorities for development with the ultimate aim of poverty elimination (DFID, 2001).

The development of sustainable livelihoods has become the central theme in the quest for the alleviation of poverty. The historical emphasis on the efficient utilization of natural resources has been superseded by a more holistic approach to focus on all livelihood assets and to identify the best entry points to promote change. There are several tools for understanding the poverty and sustainable livelihoods as widely used in present context. Such as;

DFID's Sustainable Livelihood (SL) Framework

UNDP's Sustainable Livelihood (SL) Framework

CARE's Livelihood Model

Oxfam's Sustainable Livelihood (SL) Analysis

Out of these tools, the DFID's SL framework is used as conceptual framework for overall research work because DFID approach has emphasized the natural resources as key component of livelihood in the rural community. It is a holistic approach that tries to capture, and provide a means of understanding the vital causes and dimensions of poverty without collapsing the focus onto just a few factors. The conceptual framework (Fig 1.2) shows number of basic elements of the livelihood in the Community Forestry. The livelihood framework is a tool to improve our understanding of livelihoods, particularly the livelihoods of the poor. The framework presents the main factors that affect people's livelihoods, and typical relationships between them. It can be used in both planning new development activities and assessing the contribution to livelihood sustainability made by existing activities (DFID, 2001).

**Figure 2.2: Sustainable livelihood/ conceptual framework adopted from DFID, 2001**

A number of projects and programs have been designed and implemented under various livelihood approaches globally (Ellis, 2000). In the context of Nepal, recently a livelihoods and forestry program is being implemented by DFID support in three Terai districts of Western Region, Nepal. The study area is also one of them where the program is being implemented. Researchers own working experience in the program and the readily available documentation of the DFID has been primary inspiration for using the SL approach in this research. Silwal, 2003, using this approach, has found that poor and poorest class had relatively low access to the rural development opportunities except in forest utilization and community fund

mobilization activities in his study in the buffer zone of Royal Bardia National Park. The contribution of community forestry program in social capacity building and rural infrastructure was found substantial in the study carried out by Acharya & Oli in one community forests of Parbat district.

## **2.9 Rural Development through Community Forestry**

Jackson and Ingles (1994) observed that effective participation of local people is essential for making community development work. Community Forestry encourages the participation of local people in decision-making by:

Providing local control over forest management;

Encouraging local participation in defining needs and setting priorities for development;

Encouraging local participation in implementing solutions;

Providing a direct a local source of funds for community development; and  
Strengthening local links between development and forest conservation.

FUGs carry out many community development activities on their own. Construction of village trails, small bridges, community building, schools, drinking water, and temples are the examples of community infrastructure supported by CFUGs. Evidences show that a large amount of FUG fund is being spent on various community development activities. For example, analysis of data of NSCFP (2003) indicated that FUGs had spent 39 percent of their FUG fund for community development activities, mainly on

construction (21%), education (8%), health (6%), and other (4%) (Pokharel and Nurse, 2004).

The present forest policy, rules and regulations provide the legal rights of the rural people to manage the community forest for their priority needs. The surplus income of user groups could be used for development activities other than forestry. FUG can also raise funds from different sources as indicated in the Act. It is also empowered to acquire use, sell, transfer, or otherwise dispose of mobile or immovable property (Act 93 section 43, clause 3).

Although the basic objective of the community forestry programme is to fulfill the subsistence of forest product to the local people, the new policy allows FUGs to cultivate NTFPs, and any other perennial cash crops as well as the commercialization of community forest products and their processing (ODAs review of PFM, 1996). The initial aim of community and private forestry was to develop and manage forest resources through the active participation of individual people and communities to meet their basic needs (MPFS 1988). If both forest policy statements are compared, it is clearly shown that community forestry objectives are shifting from basic needs to perceived needs of users.

‘Forestry for local community development’ is a new people oriented policy, the objective of which is to raise the standard of living of the rural dweller and to involve him in the decision-making process. This affects his very existence and transforms him into a dynamic citizen, capable of contributing to a larger range of activities than he was used to and of which he will be a direct beneficiary. Forestry for local community development is, therefore, about the rural people and for the rural people (FAO, 1978).

Community forestry cannot be successful unless it addresses the root issues (social, political and economical in equalities of an area). For this reason, community forestry must be understood as a process of equitable distribution of resource ownership, management and access. Seeing the condition of the forest related to its true cause reveals that effective community forestry is a part of the large process of community development and change. Community forestry is not an end in itself but a tool with which a community can shape and control its resources for future use.

Liz Wily argues that community forestry is playing the role of an agent of social change in many ways. The ‘success’ of the institution in the form of the FUG is more than socially inclusive forest management. It involves how the organization is already commonly used as a stepping stone to other self determined and self reliant developments, clean drinking water, resting place, path reconstruction, school building and donation for the sick (poor) people or provision of seed money for income generation.

## **2. 10 Achievements and Challenges of Community Forestry in Nepal**

CF in Nepal is one of the pioneer programmes of participatory Forest Management in the world. The innovative CF policy has widely implemented in the Middle hills areas. Many CFUGs have been operating for several years and have become firmly institutionalized. They represent an effective local development institution, increasingly involved in wider community development activities, often networking with a range of government and non- government groups (Baginski et al. 2003).

Over 14,000 CFUGs have been formed to date with a total of nearly 1.48 million household members. The CFUGs include approximately 35 percent

of the country's population and have taken over responsibility to manage about 10, 07,000 ha. of forest land area, nearly 18 percent of the total forest land area of the country (DoF, 2004). Such facts and figures are presented in Table 2.1.

**Table 2.1 Status of Community Forestry in Nepal, 2008**

Total area of the community forests handed over	2.07 million Ha.
Average size of the community forest	81 ha.
Total number of CFUGs	14,125
Total number of households involved	1.98 million HH
Average size of executive committee	11
Average size of CFUG	112 HH
Average number of women in committee	2.7
Average percent of women in the committee	24.2
Number of Women only CFUGs	692

*Source: Community Forestry Bulletin, 2008*

In Nepal, at the moment, an average of two CFUGs is being formed every day and they are given authority and responsibility to manage and use the national forest resources in the form of community forests (Pokharel et al. 2004). If appropriately mobilized, CFUGs can be used for any kind of development activity. Potential of disseminating information to rural people through CFUGs is enormous. Besides, these CFUGs can be very effective organizations for delivering services in the remote part of Nepal.

Community forests handed over to communities are natural capital. Nepal's community forestry has proved that communities are able to protect,

manage and utilize forest resources sustainably (Pokharel and Nurse, 2004). Evidence shows that there are positive changes in forest condition once they are handed over to the communities. For example, from the analysis of FUG database in the Dhaulagiri Hills over a five-year period (between 1996 and 2001), Subedi et al. (2002), found that canopy cover of community forests increased from 11 percent to 23 percent. The availability of the forest product also increased, with a concurrent reduction in the time spent for collecting forest products. It was also found that an increased number of FUGs have harvested timber (19% increase), fuelwood (18% increase) and grasses (9% increase). Pokharel and Nurse, 2004).

Certain groups in community forestry are able to gain access to and benefit from collective actions. This is because socio-economic attributes of households like land holding, livestock holding, and family size have direct impact on the extraction of forest resources and some of FUGs rule and regulations also tried to exclude poor societies. This exclusion from the forest use is a serious challenge to community forestry management and poverty alleviation (K. C., 2004).

The main challenge lies in integrating CF policy and practice with democratic governance and livelihood imperatives (Kanel and Kandel, 2004). Poor, women and other marginalized groups of people are not getting an equitable share of benefits (Pokharel and Nurse, 2004).

Evidences show that poor households have not received adequate opportunity for training package offered in community forestry intervention. The poor have not also been given sufficient loans from the FUG fund. Besides, the physical infrastructures constructed through FUG's

funds have also not benefited the poor as compared with the better-off members of the same FUG (Pokharel and Nurse, 2004). FUG use funds collected from fees and selling timber to develop some social activities like construction of irrigation canal, and temple. These have no direct implication to landless and lower caste households (K. C., 2004). An experience from Mid-hills community forestry has shown that there is always limited and ineffective representation of poor, women and disadvantaged (DAG) in decision-making, training and exposure visit or study tour, general assembly and FUGC. This leads to decision-making and implementation by FUGC, which ignores the concerns and priorities of poor, women and DAGs.

Forest products sharing mechanism is not well defined in the operation plan of many FUGs. Although it is the role of the general assembly to decide the distribution mechanism, the executive committee takes most of the decisions regarding benefit-sharing mechanisms. As the representation of poor and disadvantaged group in the executive committee is meager, the sharing mechanism could hardly fulfill the demands of forest products for the poor and disadvantaged groups (Kanel and Kandel, 2004).

Active participation of poor, women, and disadvantaged groups in decision making is critical for effective community forestry management and equitable benefit distribution among the users. Poorer households, especially those without land, cannot use fodder, leaf litter, and agricultural inputs from CF, which benefits are enjoyed mainly by better-off households. Also, timber is mostly purchased and used by better-off



households since the poor households do not have the need or ability to pay for timber. The poorest households do not benefit from the harvesting due to lack of a legal provision to sell unused products. The distribution system in community forestry is criticized for failing to provide more benefits to the poor households (Kanel and Kandel, 2004).

CF must be understood as a process of equitable redistribution of local resource ownership, management and access (Bhatta, 2002). According to Tiwari (2002), equity problems are rooted in: (a) traditionally existing attitude to discriminate on the basis of caste, class, sex and ethnicity; (b) significantly low level of awareness about CF policy; (c) inadequate representation and virtually non-involvement of all interest groups in setting institutional rules and arrangements; (d) lack of innovative and livelihood supportive forest management interventions and (e) control and dominance of executive committee and elite therein over user group. Even most transparent user groups often practice 'equality' rather than equity in sharing of costs and benefits of forest management. Therefore, CFUGs need to make more democratic efforts to improve their organizational, social and technical capacities to eliminate such shortfalls (Tiwari, 2002).

Equity is a serious issue in the success of CF programme (Bhatta, 2002). Equity is about fairness, about social justice, about the accessibility/acceptability of something, and it refers to a fair relationship between certain items in an exchange situation between rights and obligations, benefits and burdens, advantages and disadvantages (Yadav,2004). Equity issues emerge from unequal treatment, unfair and unreasonable distribution of investments and returns in collective

undertakings. Keshav, 2007 assert that equity also considers the concept of equal opportunities and fundamental human rights.

Equity problems are exacerbated by asymmetries among users, which create opportunities and benefits for some at other's expenses (Tiwari, 2002). Problems of community management of forests that concern human wellbeing cannot be dealt with just technically, as they are equally attached with political, social and economic inequalities prevalent in society with respect to resource use ownership (Knisely, 1993). Social equity revolves around unequal power relations between the rich and the poor, the high and the low castes, women and men, and is characterized by both cooperation and conflict (Tiwari, 2002). Ideally, CF process should be capable of addressing such inequitable power relations with respect to forest management and use. This, however, in case of CFUGs in mid-hills has yet to take place in real life situations (Tiwari, 2002).

# **CHAPTER -THREE**

## **RESEARCH METHODOLOGY**

Systematic research methodology is necessary to solve the research problem because it is also the way of systematic investigation to find answer to the problem and create the knowledge. It helps to analyze, examine and create interest on various aspects of research as data and information collection, analysis and presentation.

### **3.1 Research Design**

Research design provides a way to reach research objectives. It describes the general framework for collecting, analyzing and evaluating data after identifying: (i) what the researcher wants to know and (ii) what has to be dealt with in order to obtain required information (Wolff and Pant, 2000:74). In this study descriptive and exploratory research design has been used. This research design makes an attempt to collect and describe the relevant data to analyze the pattern of the community forestry management.

### **3.2. Rationale of the selecting Study Area**

The study was conducted in Nawalparasi district, which is located in the western development region of Nepal. The district was selected purposively because of the following considerations:

- a) This district is one of the Terai districts for community forestry initiatives.

- b) The familiarity of the researcher with this district being development worker.
- c) The diversity of forest resources and also in social dynamics motivates the researcher for doing research in this district.
- d) The district has an on-going user-group-based community forestry program implemented since 1990.
- e) The district represents a typical Terai and hilly region of the country so the findings could be applied and may be useful to other similar districts of Nepal.
- f) Relevant secondary data are substantially available in the District Forest Office.
- g) The area is accessible by road.
- h) The researcher is acquainted with the district and local situation.
- i) Easy accessibility to the area.

### **3.3 Nature and sources of Data**

Both primary and secondary data have been used in this study. However, the analysis part is basically based on primary data. Primary data were collected from the field study with the help of sample method, key informant interviews (with users, government and non-government officials, and committee member), field observation and focused group discussion. Secondary data were derived from village profile, Forest User Group Constitution and Operational Plan, publications of District Forest Office, Nawalparasi and Department of Forest, CBS, documents of different government agencies, journals and published and unpublished related documents.

### 3.4 Population and Sample Selection for Household Survey

For this purpose, after the discussion with committee member, the totals of 1497 user households were taken as a universe. Out of 1397HHs, 286 HHs has been sampled with quota sampling and simple random sampling has been used for household survey. The sampling structure is presented in following table.

**Table 3.1: Sampled Respondents**

<b>Name of CFUG</b>	<b>Total Household</b>	<b>Sampled Household</b>
Binai CFUG	148	11
Sundari CFUG	1032	85
LowerArkhala CFUG	160	88
Upper Arkhala CFUG	106	77
Aurahia CFUG	51	25
<b>Total</b>	<b>1497</b>	<b>286</b>

### 3.5 Data Collection Techniques

#### 3.4.1 Primary Data Collection Techniques

The following tools/ techniques were used to collect primary data.

##### A) Questionnaire (Semi-Structured)/ Interview

The questionnaire was designed to address the objectives of the study (Annex 1). The interviews were conducted with the users covering 286 households, who were able to answer the structured questionnaire. However,

in the case of absence of household head the interviews were conducted with any member who could answer the questions. The questionnaire intended to record the information (data) about socio-economic, educational condition, involvement of community forest management.

### **B) Field Observation**

This is one of the most important tools for collecting qualitative data. Required qualitative information were recorded through observation of various activities such as firewood collection, collection of leaf-litter and fodder for livestock from forest, utilization pattern of forest products and income generating activities. Besides, women involvement in FUG Committee meetings, and their involvement in the decision making process were also observed to assess their role in decision making process. This information helps to verify information collected through focused group discussion and interviews. The observation helped tremendously in understanding the field reality, which was fruitful for the study that could not capture through verbal discussion.

### **C) Focused Group Discussion**

Both women and men groups were considered as interest groups for collecting information from group discussion. Discussion with women and men were taken separately. All together 5 focused group discussions were conducted. Out of five, three focused group discussion were conducted with men and women separately and two discussions were taken with together. Number of participations were 6/8 persons in each focused group discussion. Qualitative data were collected through group discussions. Group discussions were carried out to explore changes related to social status, their

time to collecting forest products after implementation of CF in the village, users' participation in different community forestry activities.

#### **D) Key Informants interview**

Key Informants for this study were those who were able to express thoughts, feeling, opinions regarding different aspects of community forest management along with the nexus between forest products and income generating activities. Key informants were selected purposefully as to ensure that issues raised would be addressed by them. District Forest Officials, Nawalparasi, Forest User Group Members, committee members, secretary of VDC, ex-VDC chairperson, elderly of the community, social activist, and chairperson of the FUGs were the key informants for the study. A separate guideline was prepared and used to collect information from the key informants. Maximum efforts were made to collect qualitative data from the key informants. The guidelines for the key informants' interview are placed at Annex III.

#### **2.4.2 Secondary Data Collection Techniques**

The relevant secondary data and information were collected from the literature such as reports of government and non government offices related to forest in general and community forestry in particular; publication of different related offices, research papers, village profile, district profile, Constitution and Operational Plan of the studied FUG, research papers, minutes of General Assembly Meetings and Executive Committee Meetings.

### **3.5 Data Analysis and Presentation**

The qualitative data were analyzed and interpreted descriptively making the argument in logical way. The quantitative data were coded, classified on the basis of nature of data and then presented in various tables by using simple statistical tool such as mean and percentage. After presentation of the data in tables they were analyzed and interpreted coherently. Cartographic techniques were also used for the presentation purpose.



## **CHAPTER - FOUR**

### **PHYSICAL SETTING OF NAWALPARASIDISTRICT**

Nawalparasi district is situated in western development region which is more developed in the trade and industrial sector and more fertile land among the districts of western region. Nawalparasi district lies between 27° 21'to 27°47' North latitude and 83°36' to 84°35' of East longitudes. It is 200 km away from Kathmandu valley. The elevation ranges from 91m to 1936m above mean sea level. The climate of Nawalparasi district varies from sub-tropical to tropical temperature and also there is mild and cool temperature in the hilly area. The district receives an average rainfall of 1500 mm. It has one municipality and 73 VDCs, 5 parliamentary representative election sectors, 13 Ilikas. Headquarter of the district lies in Parasi Bazar. Total population of the district is 562088 of which 277131 are male and 284957 are female. The number of household in the district is 97144 and average household size is 5.8 members per household. The literacy rate of this district is 63.5 percent. The female literacy rate is 53.88 percent whereas the male literacy rate is 73.07 percent. The occupation is agriculture that plays the important role for the livelihood of the peoples of this district. Main castes of this district include Brahmin, Chhetri, Kamli ,Tharu ,Chamar' Dom, koiri,Musahar,Bhota, Majhi , Sunar (Goldsmith), Damai (Tailor) and Sarki (Cobbler) Muslim, Rai, etc.

#### 4.1 Land Use of Nawalparasi District

District lies in between the Mahabharat Siwalik range and terai, the area can be divided broadly in three groups namely the hilly inner -Terai and plain area. Hill and inner Terai covered with forest and plain area has more agricultural land. The analysis done by forest department, between the period of 1990/91 and 2000/01 the rate of increasing forest cover was 0.16% and total of 3062 ha area was covered more in the period of 10 years (DoF, 2005).

<b>Land Use Type</b>	<b>Total (ha.)</b>
Forest	102510.3
Shrub and Bush land	2131.3
Grass land	52.2
Barren land	8470.5
Water body	5961.0
wetland	308.8
Agriculture land	78953.2
<b>Total</b>	<b>198387.3</b>

*Source: LFP Terai, 2008*

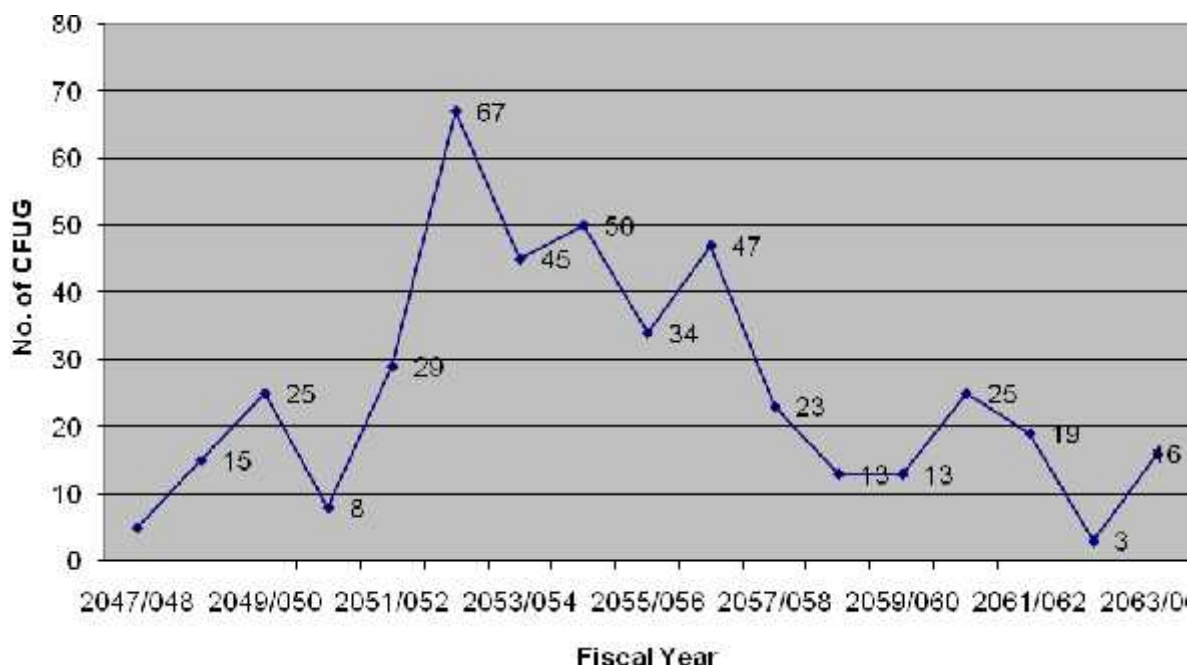
If this figure is expressed in percentage, about 33% area is cultivated and more than 60 % is still in forest area.

## **4.2 The Community Forestry in Nawalparasi District**

Community forestry program began in the district after the Panchayat Forest (PF) Rules and Panchayat Protected Forest (PPF) Rules came into effect in 1978. The handing over of PFs and PPFs to local Panchayats continued until 1990. The democratically elected government, which followed the abolition of the Panchayat system in 1990, passed the legislation concerning the concept of community forestry and its respective laws. Hence, the handing over of the national forest resource to the FUGs could take off. Community forestry concept, which is now fully institutionalized through the Forest Act 1993 and the Forest Rules 1995, is based upon the user-group approach. Total forest area in the district is 102510.3 Hactor. A total of 74 FUGs have already been formed in the district as of 2009 .(DFO, 2009).

## **4.3 Community Forestry Handover Trends in Nawalparasi District**

The handover of forest patches to the community was started in Nawalparasi in the year 037/38 in the Name of Panchayat and Panchayat Protected Forest. But the in the name of community forest handover process was started in the year 2047. The hand over process was rapid after the enactment of Forest Act and Regulation. Now there are altogether 74 community forest user groups registered in the DFO office.



**Figure 4. 3: Community Forest Handover Trends in Nawalparasi**

#### **4.4 Selected CFUG**

The following are the Community Forest User Groups (CFUGs) selected for the study.

##### **4.4.1 Binai Community Forest User Group**

###### **(A) Nature of the Forest:**

Binai community forest lays in the ward no 1 of Dumkibas VDC. The forest is plantation forest. Total area of the forest is only 28.5 ha. It was established in 2064/065 when the users planted different species like Sisoo, Khair and Epil-epil in the streambed near the village.

**(B) Users group:**

Binai CF is a community forest managed by heterogeneous group. There are altogether 148 households as users of the community forest from different casts and ethnics; however Brahmin is the dominant cast. The total benefited populations are 808.

**(C) Management Practices:**

Being the plantation forest, in the beginning this CF was managed through collecting monthly fee from users. After three years of plantation and grazing control, grass and forage cover developed and now necessary expenses are collecting through the sales of thatch grass, broom grass and forage seeds selling. The users of this CF are protecting the forest on rotational watching system (Palo Pahara System). In the peak agricultural season (the time of paddy cultivation), they appoint a watcher in payment basis. People are getting sufficient grass from CF but they can not get timber; however firewood can be collected in small quantity from the forest. Users are dependent on neighboring community forest for timber.

#### **4.4.2 Sunedri Community Forest User Group**

**(A) Nature of the Forest:**

Sunderi community forest lies in Amarapuri Village Development Committee. It is natural forest and was handed over to the community in 2054/055. The physical condition of forest was worse during the time of handover.

**(B) Users group:**

Total of 1032 household from ward no 1 and 2 of Amarapuri VDC is involved in this CFUG. It is heterogeneous in ethnic composition. Brahmins, Chetri, , Magar, Bhujal and Dalit are major ethnic group present in this CFUG. Awareness level of the users is relatively better in comparison to other CFUGs. So, it seems easier to disseminate message and decisions made in the meetings.

**(C) Management Practices:**

The forest condition was not good during the time of handover. Right after taking over as a CF all the illegal felling and encroachment has been stopped. User groups also complied the rules and norms of CF. Silvicultural operations are being applied according to the OP. Thus, the forest status has been gradually improving over the period. There are other IG activities on the barren land in to the forest and such are pro- poor activities. Users' committee has been operating NTFP based small enterprises where poor and handicapped users are being involved to operate the machine. This has helped such users' HHs to support their livelihoods through the income. The users collect timber and fire woods from the decay and dying trees where as where as leaf litters, forage, are collected with the permission of the committee. There is equity base forest products distribution system in this CFUG. Users HHs are stratified into 4 Socio- economic categories. So, the provision of concession for the poorest categories is in place. Not only this, priority for employment opportunities that generated from the CF, is given to for poorest HHS.

### **4.4.3 Lower Arkhala Community Forest User Group**

#### **(A) Nature of the Forest:**

Lower Arkhola community forest lies in Upper Arkhola Village Development Committee. It was handed over in 2056/057. The total area of this CF is 31.75 ha. It is natural forest mostly covers the Mahabharat hills. Sal, Saj, Karma, Dhauti are major tree species found in this CF. Eulaliopsis binnata is plenty in this CF. Different types of NTFP producing species like Harro, Barro, Amla, Khair are also present in this CF but users are not using NTFP for commercial purpose.

#### **(B) Users group:**

Total of 60 household from ward no 7 of Upper Arkhola VDC are involved in this CF. Mainly two ethnic groups are there, namely; Magar, Kami and Damai. Magar is dominant cast in this CF.

#### **(C) Management Practices:**

Grazing is strictly prohibited in this CF. The users residing close to the forest collect fodder and grass from the forest but distant users only use timber and firewood from this CF. For fuel wood collection, twice a month the forest is opened. Users can take dead wood by paying Rs.2.00/ Bhari. In the case of timber, Users committee cut the 4 D tree and distribute as per the necessity of the users. There are two forest watcher appointed for guarding the forest. During the dry season users are aware about the fire incidence in the forest. There is no practice of NTFP promotion and cultivation.

#### **4.4.4 Upper Arkhala Community Forest User Group**

**(A) Nature of the Forest:**

Some part of the CF lies in Upper Arkhola VDC of Nawalparasi district. Similarly, some part of the CF covers Churia hills. Sal, Saj, Karma, and Simal are major tree species found in this CF. Mature tree can be found plenty in this CF.

**(B) Users group:**

Total of 106 household ward no, 4, 5 and 6 of Arkhola VDC are benefited from this CF. Major ethnic groups are Magar, Kami and damai. Magar is dominant cast here too.

**(C) Management Practices:**

This CF has practiced intensive forest management in a block of 63.88 ha. The forest product was distributed to the users as well as out side from CFUG. The Mahabharat hill block of this CF is open for grazing purpose because this area is famous for goat farming also. There are two forest watcher appointed for the protection of forest and NTFP cultivation site.

#### **4.4.5 Aurahiya Community Forest User Group**

**(A) Nature of the Forest**

The forest condition was almost degraded while this was handed over to the users, however this is Sal dominated natural forest. This was not enough to be good forest. So, plantation of Sisso and other tropical species has been done. This lays in ward no 1 of Swathi Village Development Committee.



The regeneration of Sal is well established and the condition of the forest is going to be improved after handover. Total area of this CF is 1.34 ha.

**(B) Users group:**

Total of 51 households are involved in this CFUG and total benefited population is 238. Mainly, Tharu, Gupta, Yadav, Brahmins, Chetri, Kumal, and Dalit are major ethnic group within the CFUG.

**(C) Management Practices:**

Forest is in good condition. Silvicultural operations are undertaken as required. 4 D trees are also being cut to fulfill the timber demand of the users. NTFP cultivation is also practicing in this CF. There are one forest watcher for the protection of the forest.

## **CHAPTER -FIVE**

### **DATA ANALYSIS AND INTERPRETATION**

This chapter discusses of socio-demographic characteristics of the respondents, livelihood strategy, livelihood assets, and access to the assets, employment generation and future potentialities.

#### **5.1 Socio-Demographic Characteristic of the Respondents**

The socio-demographic figure of the respondent's sex, ethnicity and age of the respondents are presented as bellow:

##### **5.1.1 Respondents by Sex**

67 percent of the total respondents were male as the female has hesitation to express their ideas. Other cause for fewer female respondents was also due to cause of not being the female as household head.

**Figure 5.1: Respondents by Sex**

### 5.1.2 Ethnic Composition of Respondents

**Table 5.1: Ethnicity of the Respondents**

CFUG	Cast of the respondents						
	Brahmin	Chetri	Tharu	Magar	Dalit	Other	Total
Binai	0	0	11	0	0	0	<b>11</b>
Sundari	13	12	21	8	31	0	<b>85</b>
Lower Arkhala	0	23	52	4	9	0	<b>88</b>
UpperArkhal	14	8	28	13	9	0	<b>72</b>
Aurahiya	4	4	0	7	10	5	<b>30</b>
<b>Total</b>	<b>31</b>	<b>47</b>	<b>112</b>	<b>32</b>	<b>59</b>	<b>5</b>	<b>286</b>

*Source: field survey, 2009*

### 5.1.3 Age of the Respondents

The age of the respondents was grouped in three groups. As the categorization of the government, as age of 16-35 was as youth group, age 36-58 as middle aged (Productive aged) and more than 59 as old aged was categorized. Maximum age of the respondents was 73 and minimum was 20 years with mean age was 40.64 with standard deviation of 10.847. Majority of the respondents (55%) were from the middle aged followed by young aged (38%). Only 7% respondents were the old aged.

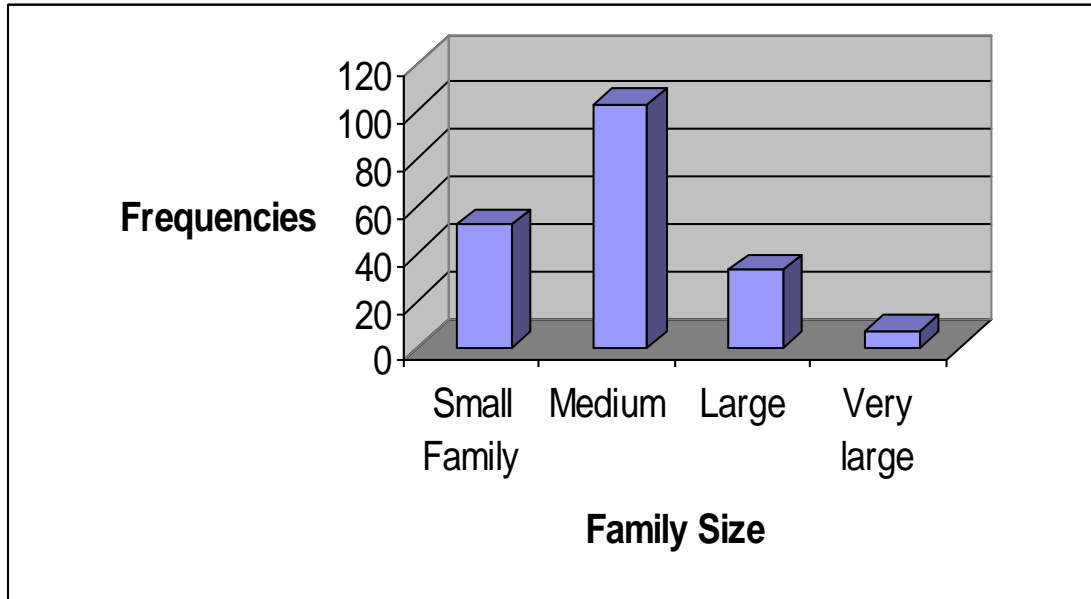
**Table 5.2: Age of the Respondents**

<b>Age Group</b>	<b>Frequency</b>	<b>Percent</b>
16-35 = Young	109	38.11189
36-58= Middle Aged	158	55.24476
>59= Old Aged	19	6.643357
Total	286	100

*Source: field survey, 2009*

#### **5.1.4 Family Size of the Respondents**

The family size determines the fuel wood consumption situation per household and also determines the person for employment out side the household. So for this purpose, respondents were categorized as family member having less than 4 as small family, 5-8 as middle family, 9-12 as large family and more than 13 as very large family. Minimum family size was 2 members and maximum was 19 members. The mean family size was 6.20 members with standard deviation of 2.913. The family size of the respondents was more than both national average (5.45) as well as district average (5.6) .



**Figure 5.2: Family Size of the Respondents**

## **5.2 Livelihood Strategy**

### **5.2.1 Occupation of Respondents**

Occupation determines the way of living to sustain livelihoods. Occupation determines the dependency of any person on forest related activities. Agriculture is closely related with forest. The more the agricultural occupation in the community the more is the dependency on forest. So in this study, respondents were categorized on the basis of their occupation. Out of total respondents, 83% had agriculture as main occupation.

**Table 5.3: Occupation of the Respondents**

(n = 286)

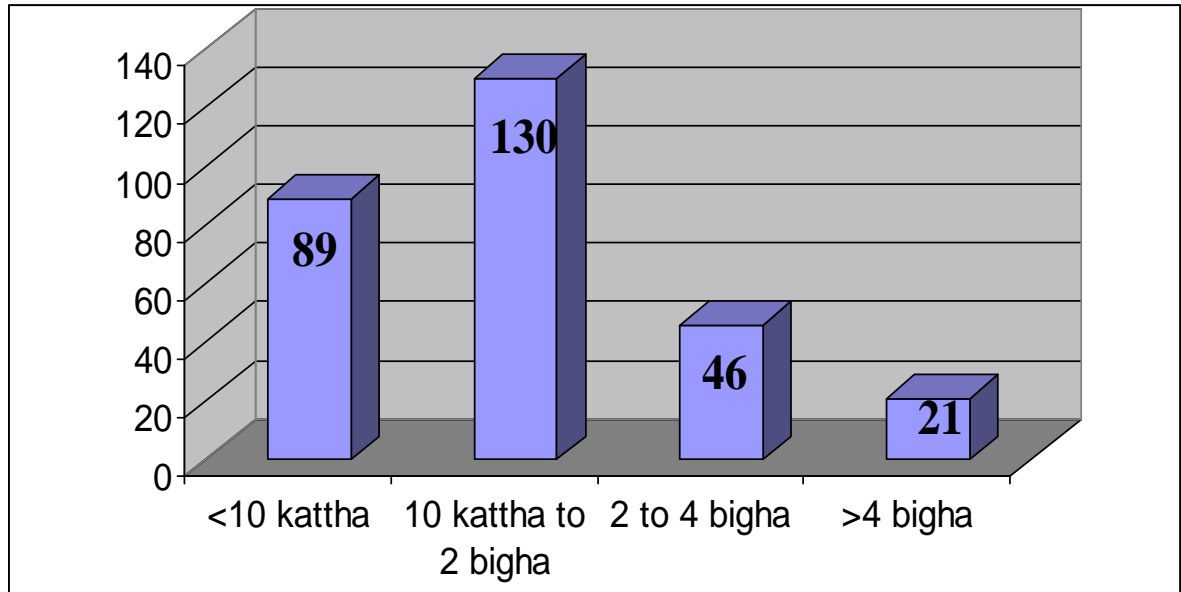
CFUG	Occupation of the Respondents						Occupatio nal cast	Total
	Agriculture	* Job	Business	Labor	Others			
Binai	10	0	1	0	0	0	<b>11</b>	
Sundari	74	6	0	0	3	2	<b>85</b>	
Lower Arkhala	78	2	2	0	6	0	<b>88</b>	
UpperArkhala	54	2	4	8	6	3	<b>77</b>	
Aurahiya	22	0	0	0	0	3	<b>25</b>	
<b>Total</b>	<b>238</b>	<b>10</b>	<b>7</b>	<b>8</b>	<b>15</b>	<b>8</b>	<b>286</b>	

*Source: field survey, 2009*

\*Service

**5.2.2 Landholdings of the Respondents**

In the agrarian society, landholdings determine the well-being status of any household. The more the landholdings, the greater is the status. On this assumption, land holdings was categorized in four groups namely, having the land less than 10 Kattha (0.33ha), 10 Kattha to 2 Bigha (0.33 to 1.66ha), 2 Bigha to 4 Bigha (1.66 to 2.66 ha) and more than 4 Bigha (2.66 ha).



**Figure 5.3: Land holdings of the Respondents**

### **5.2.3 Livestock Rearing Practices**

Livestock rearing practices determines the pressure on forest from the livestock. Over grazing impact is considered as major damaging factor on forest of Terai. The livestock rearing practices in the study area was gradually being changed in stall feeding system from traditional free and open grazing system. The livestock rearing practices have been remarkably changed to the stall feeding from free grazing system after the handover as community forest.

**Table 5.4: Change in Livestock Rearing Practices**

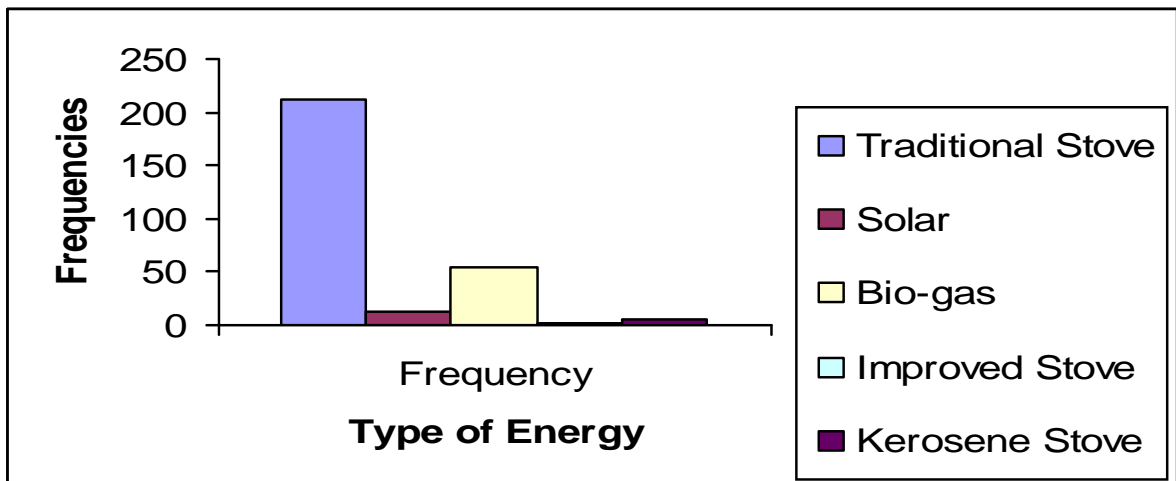
(Unit = household number)

Buffalo rearing practice			Cow rearing practice		Goat rearing Practice	
Rearing System	Before CF	After CF	Before CF	After CF	Before CF	After CF
Grazing	111	33	171	63	134	58
Stall feeding	14	62	19	93	19	73
Mixed	0	30	0	34	0	22
Total	125	125	190	190	153	153

*Source: field survey, 2009*

#### 5.2.4 Energy Using System

Majority (74%) of the respondents are dependent on traditional type of stove which needs more fuel wood. Only 19% respondents have biogas as alternative energy source.



**Figure 5.4: Energy Using System**



### **5.2.5 Forest Management Activities**

Different forest management activities are regularly practicing in the community forest. The major programs of forest management are thinning, pruning, sanitation and weeding activities. In the beginning, the plantation activity was adopted but now plantation is not being carried out.

### **Figure 5.5: Forest Management Activities**

### **5.2.6 NTFP Management Activities**

Three community forests namely, Binai, Sundari and Upper Arkhala had NTFP promotion program. During the study period, it was observed that Binai, Sundari and Upper Arkhala had only been practicing the NTFP cultivation activities. In the UGs where NTFP activities were practicing mainly they had cultivated the Harro, Barro, Amala, Pipala and Broon Grass. Besides, Binai CFUGs are cultivating 4 species of forages.

### **5.3 Livelihood Assets**

The livelihood pentagon of the sustainable livelihood framework deals about the five capitals of rural livelihoods. This study mostly focuses the assets developed due to the implementation of the community forestry program.

#### **5.3.1 Natural Assets**

##### **5.3.1.1 Condition of the Forest before Hand Over**

Majority of the respondents (67 %) agreed that the forests before handover were in good condition. 30 % had idea about the bad condition and only 3 % had idea about the very bad condition of the forest. As the CF of Binai is plantation forest, majority of the respondents from this CF had idea about the very bad condition of forest before being CF.

##### **5.3.1.2 Condition of CF after Handover**

Majority of the respondents 65 % believes that the forest condition is being improving after the hand over as community forest. The respondents of the Sundari CFUG argue that forest condition have been changed drastically after the hand over to the community as CF.

**Table 5.5: Condition Changed after Handover**

(Unit = household number), n =286

<b>Changed condition</b>	<b>Users Group</b>					<b>Total</b>
	<b>Binai</b>	<b>Sundari</b>	<b>Lower Arkhala</b>	<b>Upper Arkhala</b>	<b>Aurahiya</b>	
Very improved	5	0	18	3	3	29
Improved	6	14	69	52	18	159
No change	0	10	1	11	0	22
Bad	0	4	0	8	4	16
Very bad	0	57	0	3	0	60
<b>Total</b>	<b>11</b>	<b>85</b>	<b>88</b>	<b>77</b>	<b>25</b>	<b>286</b>

*Source: field survey, 2009*

### 5.3.2 Financial Assets

Financial capital refers to stocks of money to which the household has access (Ellis, 2000). Financial capital denotes the financial resources that people use to achieve their livelihood objectives. The definition used here is not economically robust in that it includes flows as well as stocks and it can contribute to consumption as well as production. However, it has been adopted to try to capture an important livelihood building block, namely the availability of cash or equivalent that enables people to adopt different livelihood strategies (DFID, 2001).

### 5.3.2.1 Situation of Group Fund

All CFUGs had their own fund. The fund was saving in the bank account. The balance was between 10000 to 400000 rupees. Income and expenditure situation of CF fund was as follows;

### 5.3.2.2 Income Sources

Major income source of CF was selling of forest product. Timber and fuel wood sale was major source of income. Khar/ Ghas and different species of Herbal selling had also major income source in selected CFUG.

**Table 5.6: Major Income Source of CFUG**

(Unit = NRs.)

Activities	CFUG					
	Binai	Sundari	Lower arkhala	Upper Arkhala	Aurahiya	Total
<b>Timber</b>	0	99293	155589	1282629.5	306219	1843730.5
<b>Fuel wood</b>	0	1770	32245	226800	18167	278982
<b>Khar/Ghas</b>	49081	4820	8695	0	23870	86466
<b>NTFP</b>	0	0	0	0	3942	3942
<b>Khair</b>	0	0	326094.45	0	0	326094.45
<b>Fine</b>	1400	0	0	0	566	1966
<b>Other</b>	2419	17797	19187.2	28408.2	52621	120432.4
<b>Total</b>	<b>52900</b>	<b>123680</b>	<b>541810.65</b>	<b>1537837.7</b>	<b>405385</b>	<b>2661613.35</b>

*Source: field survey, 2009*

The remuneration of forest watcher and office bearer had remarkable amount of CF expenses. Similarly, infrastructure development also had enormous amount. About 23 % amount of total income was expended in infrastructure development. Forest and NTFP management had expense less than 30 %. About 7 % amount was expending as office operating cost in which the remuneration of office bearer is not included. 24 % amount is expended for the purpose of forest product extraction from the forest. This much amount was due to the extraction cost of Upper Arkhala CF during the intensive forest management. The expense was basically gone for the labor payment.

**Table 5.7: Major Source of Expenses of CFUG Fund**  
(Unit = NRs.)

Activities	CFUG					
	Binai	Sundari	Lower Arkhala	Upper Arkhala	Aurahiya	Total
<b>Forest Watcher</b>	3500	22800	38575	36000	34800	135675
<b>Office Bearer</b>	0	0	22800	18000	20100	60900
<b>Infrastructure Development</b>	37400	35000	203315.03	182950.31	147018.36	605683.7
<b>Bank Balance</b>	9955	46111.79	85828.88	163000	4000	308895.67
<b>Forest Management</b>	0	13720	141923	505273	0	660916
<b>NTFP Management</b>	0	0	0	98830	19170	118000
<b>Forest Product Extraction</b>	0	0	0	530784.39	121177.645	651962.035
<b>Office Operating Expenses</b>	2045	6048.21	49368.74	3000	59119	119580.95
<b>Total:</b>	<b>52900</b>	<b>123680</b>	<b>541810.65</b>	<b>1537837.7</b>	<b>405385.005</b>	<b>2661613.355</b>

*Source: field survey, 2009*

### **5.3.3 Physical Assets**

Physical capital comprises the basic infrastructure and producer goods needed to support livelihoods (DFID, 2001).

#### **5.3.3.1 Infrastructure Created through CF Fund**

Office building, school building, road, conservation pond are created through CF fund. Each CF has its own office building with necessary furniture. In Binai CF, conservation pond was created through CF fund. Every CF has contributed during the time of office and school building through financial as well as timber support from the community forest. Road and culvert were also major infrastructure created through CF.

### **5.3.4 Social Assets**

The term social capital attempts to capture community and wider social claims on which individuals and households can draw by virtue of their belonging to social groups of varying degrees of inclusiveness in society at large (Ellis, 2000). Social capital refers to the internal social and cultural coherence of society, the norms and values that govern interactions among people and the institutions. Social capital in the context of the SL framework is defined as the social resources upon which people draw in pursuit of their livelihood objectives (DFID, 2001).

#### **5.3.4.1 Participation in Meeting**

Total of 65% respondents argued that they attended meeting. The percent was 100 in the case of Sundari CFUG but fewer respondents attended

meeting in Aurahiya CF. Meeting attaining percent was only 60 and 61 % respectively in Lower and Upper Arkhala CFUG respectively.

#### **5.3.4.2 Frequencies of Attain Meeting**

Out of 65 % respondents who attain meeting only 29 % attain meeting always. More than 50 percent respondents attain meeting rarely.

### **Figure 5.6: Mode of Attendance in Meeting**

#### **5.3.5 Human Assets**

Human capital refers the skills, knowledge, ability to labor and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives. Human capital is increased by investment in education and training as well as by the skills acquired through pursuing one or more occupations (Ellis, 2000).

### 5.3.5.1 Educational Level of the respondents

Among the total respondents, 22 % were illiterate. 65 % respondents were literate and 9% had the education up to SLC. Very little 4 % respondents have higher education. In this study higher education is regarded as college level education (level more than SLC).

**Figure No. 5.7 Educational Level of Respondents**

### 5.3.5.2 Knowledge about the CFUG Rule

Less than half (45%) respondents were aware about the rule of their CFUG. More than half of the respondents had no knowledge about the rule of CF.

**Table 5.8: Respondents Knowledge about the CFUG Rule**

Response	Users Group					Total
	Binai	Sundari	Lower Arkhala	Upper Arkhala	Aurahiya	
Yes	6	11	72	29	10	128
No	5	74	16	48	15	158
<b>Total</b>	<b>11</b>	<b>85</b>	<b>88</b>	<b>77</b>	<b>25</b>	<b>286</b>

*Source: field survey, 2009*



### **5.3.5.3 Participation in Awareness Program**

Only 31% respondents have participated in awareness program. The major awareness program participated by the respondents were study tour, seminars/ workshop, forest management training, leadership training, co-operative trainings and others.

### **5.3.5.4 Type of Awareness program**

The major awareness programs which the respondents participated were study tour and forest management training. Majority (35%) respondents participated in study tour followed by forest management training. 11% respondents were participated in seminar and workshop. Only 6% respondents had taken leadership and accounting training.

## **Figure 5.8: Type of Awareness Program**

### **5.3.5.5 Participation in Income Based Training**

Only 13% respondents had taken income based training. Among the respondents who have taken the income based training, majority had taken agricultural and vegetable farming training followed by livestock farming, poultry and beekeeping. Only 2 respondents have taken hotel management and 2 have taken other training.

## 5.4 Access to the Assets

### 5.4.1 Access in Natural Assets

#### 5.4.1.1 Benefit Sharing System

Benefit sharing system has not well established in the study area. 56 % respondents respond that the forest products were distributed as needed. It means that the distribution system was as the decision of executive members. If executive members would not want to give any products to any body than he/she become ineligible to get the product. In the case of Binai, the system was equal based because this CFUG is plantation forest thus the forest products were also producing less in both quantities and/or qualities.

**Table 5.9: Benefit Sharing System**

(Unit = Respondent number)

CFUG	Benefit sharing system				
	Equal	Equitable	By auction	As needed	Total
Binai	11	0	0	0	11
Sundari	5	0	18	62	85
Lower Arkhala	15	59	5	9	88
Upper Arkhala	4	8	3	62	77
Aurahiya	7	0	0	18	25
<b>Total</b>	<b>42</b>	<b>67</b>	<b>26</b>	<b>151</b>	<b>286</b>

*Source: field survey, 2009*

#### **5.4.1.2 Provision for Poor**

In the response regarding the question "Is there any provision for poor people during benefit sharing of forest product". All respondents have same arguments that there was no any provision for poor and marginalized group. They have to pay same amount to get the forest product as the rich users pay.

#### **5.4.2 Access in Human Assets**

##### **5.4.2.1 Access in Awareness Training**

There was less number of participation in the training organized by community forest but the trainees were basically either the member of executive committee or local elite who had leisure time and had interest in the training. Among the total of 88 respondents who had taken awareness activities, the rich and middle class respondents hold the participation in seminars, leadership and forest management training. Out of 172 respondents representing from poor and very poor class only 42 had participated in awareness program. Out of selected 34 rich respondents, 20 had participated any one of the awareness program.

**Table 5.10: Awareness program with respect to Wellbeing Rank**

(Unit = Respondent number)

Awareness Program	Wellbeing Rank			
	High	Medium	Poor	Very Poor
Study Tour	0	12	14	5
Seminars	5	2	2	1
Leadership	1	0	1	0
Accounting	5	0	0	0
Forest management	9	8	7	3
Cooperative	0	3	2	0
Others	0	1	2	5
Total	20	26	28	14

*Source: field survey, 2009*

#### **5.4.2.2 Access in Income Based Training**

The access in income based training was not different from the awareness program. Out of total 38 respondents who had taken income based training, only 5% people representing from very poor well-being rank had got the chance to participate where as 78 % were either rich or middle category.

**Table 5.11: Access in Income Based Training**

(Unit = respondent number)

Income Based Training	Wellbeing Rank			
	High	Medium	Poor	Very Poor
Beekeeping	0	3	0	0
Agriculture	0	15	6	0
Poultry	5	0	0	0
Hotel Management	2	0	0	0
Others	0	2	0	0
Livestock Farming	0	3	0	2
<b>Total</b>	<b>7</b>	<b>23</b>	<b>6</b>	<b>2</b>

*Source: field survey, 2009***5.4.3 Access in Physical Assets**

There was no discrimination in the access in the physical assets. Road, irrigation canal, were equally accessible to all users. In the case of electricity there was no subsidy system for poor users thus this facility was not equally accessible to the poor users.

## 5.4.4 Access in Financial Assets

### 5.4.4.1 Know about the Fund

Out of 56 respondents who know about group fund, 50% respondents from rich group have knowledge about the group fund but in the case of very poor group it was only 1%. All the fund mobilization decision was carried by influential committee member.

**Table 5.12: Knowledge about the group fund**

(Unit = Respondent number)

Well-being Status	Know about fund	
	Yes	NO
High	17	17
Medium	11	69
Poor	27	68
Very Poor	1	76
Total	56	230

*Source: field survey, 2009*

### 5.4.5 Access in Social Assets

There was equal chance in being the member of the group. There was also equal opportunity in being the executive member but poor have less motivated in that type of membership as they had no time to give in such type of social activities.

#### **5.4.5.1 Membership**

In the executive committee, the representation from rich and middle class was 42percent. The representation of very poor group, was only 17 percent, Where as the representation of poor was nil, but the vital post in the executive committee were captured by rich wellbeing status people.

### **5.5 Employment Generation**

Community forest can generate different type of employment to the local users. Employment generates income. The income may contribute to sustain the livelihood there by contribute in rural development. The country has been facing the major challenge of unemployment of citizen. Forestry activities are labor intensive. Thus in this study; the researcher was interested in finding out the major activities in community forest. The amount of employment generated in every year through community forest and also the amount of money flow to the local economy through employment. Similarly, this research has tried to analyze the employment opportunity in gender perspective also.

#### **5.5.1 Employment generation Activity**

Silvicultural operation, NTFP cultivation and harvesting of timber based forest products were found as the basic activities which creates employment in CFUG level. 12 % respondents have got employment in different silvicultural operation. Similarly, 9 % respondents have got employment in NTFP related activities. Employment in the name of forest watcher was also remarkable in CF.

### 5.5.2 Permanent Employment

The employee might be changed; some of employments were permanent type. Forest watcher and office bearer were permanent types of employment. In the study area, there were 12 permanent employees for year round. Out of them 8 were forest watcher and rests were office bearer.

**Table 5.13: Permanent Employment**

CFUG	Type of Employment			
	Forest Watcher	Month	Office Bearer	Month
Binai	1	2	0	0
Sundari	1	12	0	0
Lower Arkhala	2	12	1	12
Upper Arkhala	2	12	1	12
Aurahiya	2	12	2	12
Total	8		4	

*Source: field survey, 2009*

### 5.5.3 Temporary Employment

Users were getting employment from CF. Employment were temporary and daily wages types but the amount was remarkable. Employment related data were presented as follows;



**Table 5.14: Temporary Employment in FY 2063/64**

<b>CFUG</b>	<b>Work Day</b>	<b>Rate</b>	<b>Total Wage</b>
Binai	364	100/day	36400
Sundari	390	125/day	48720
Lower Arkhala	926	125/day for labour	174708
Upper Arkhala	6080	100	608000
Aurahiya	972	120	116700
Total	8732		984528

*Source: field survey, 2009*

#### **5.5.4 Employment in Gender Perspective**

The employment in CFUG was male dominant type. NTFP cultivation was potential for employment to female also. For example, in Binai CFUG, women has got total of 408 work day employment in pipala seed collection and broom grass cutting and management. Forest work was considered hardship work for female. Silvicultural and harvesting operations were basically done by male. Women were actively involved in silvicultural operation doing as volunteer labor but when CF needs wage paid labor in same work women become discriminate in the opportunity. One positive aspect in gender perspective was that all CFUG had fixed same wage rate to both male and female for same type of work.

## **5.5.5 Future Potentiality**

### **5.5.5.1 Forest Based Industries**

In the case of Nawalparasi district, only 74 CF have been handed over so far and most of accessible forest has been demarked as block forest .Thus the block forest still remained under government management. The surplus timber from CF is consumed by furniture and saw mills. Data available from the Small Scale Enterprises Office, there are running 20 sawmills and 120 furniture industries. Altogether 691 full year employment is generated through these forest-based industries. Due to low availability of sawn timber, saw mills are not being able to operate in its potential. Most of them are running in half of their potential capacity. Active management in community forest can help to increase supply of log. Increase in supply of log can fetch increase in employment in the mill.

### **5.5.5.2 Forest Products Sale outside of the CFUG**

The data reveals from District forest office, in the fiscal year, 2065/066 altogether Rs.15341583.43 have been earned from the sale of forest products out of their user group. Total of 27808.9 Cft. woods was sold out side of the FUG. From selling the surplus forest products, CFUGs are able to generate Rs.1046782.50 royalty in national account.

### **5.5.5.3 NTFP Cultivation & Processing**

NTFP cultivation is labor intensive work. Nawalparasi district has enormous potentiality of different species of NTFP cultivation. Livelihood and Forestry Programme (LFP) has prioritized the NTFP cultivation for livelihood support and generate extra employment in rural area. The open area in CF could be allocated for NTFP cultivation. Every CFUG can involve poorest of the poor household for NTFP cultivation. This may becomes alternate employment to the poor users in the leisure time of their agricultural work.

# **CHAPTER-SIX**

## **SUMMARY, CONCLUSION AND RECOMMENDATION**

### **6.1 Summary**

A Community forestry practices in Nepal has celebrated its 31<sup>th</sup> anniversary. In the beginning, this practice had the priority of basic need fulfillment of the users but now community forestry practices not only limited in providing forestry products to the users but also supporting rural development in broader sense. Employment opportunity can support sustainable livelihood of the poor by coping the stress in the time of leisure from agricultural work by providing extra income to the household level. This study has emphasized the aim of finding out the impact of community forestry in rural development particularly in Nawalparasi district. To achieve the above general objective, some specific objectives as to analyze various livelihood capitals and their access to people, to find out the community forestry contribution in rural development and lastly to find out the employment opportunity generated by community forest management were set for the study.

This study was carried out in five CFUGs of Nawalparasi district. Focus group discussion, face-to face household survey, formal as well as informal discussion with DFO and other concern agencies and study of relevant literature including the operational plan of the selected CFUG were the basic

methods adopted together the information. All qualitative as well as quantitative information were analyzed using the computer MS-Excel.

All together 286 household were surveyed during the field study. Out of them, 33% had poor well-being status; 28 % had medium and 27 % had very poor well-being status. Only 12 % respondents were from rich well-being status. 33 % was female representation. Out of selected five CFUG, three were heterogeneous in ethnic composition. Two had dominated by Magar community. Majority of the respondents (55%) were middle age group. The average family size was 6.2 members per house hold which is greater than both national as well as district average.

Agriculture was the major occupation of the respondents, 83 % respondents had agricultural occupation. Land holdings has positive correlation with well-being status in agrarian society, thus it was tried to find out the landholdings of the respondent. The majority of the respondents were from medium level landholdings (0.33 to 1.6 ha) size.

Livestock rearing practices was changing towards stall feeding system from conventional open grazing system after the handover the forest patches as community forestry. It has created positive impact on regeneration of tree species and other species. Alternative energy was found at initial stage in the study area. Only 19 % respondents have installed Bio-gas plant for cooking purpose. This figure indicates that, there is great potentiality of bio-gas installation. Some forest management activities were practiced in CFUG but

they were still passively managed with strict protection. The resources were underutilized. Neither, the forest operational plan was positive towards active forest management nor the users were aware about the importance of active forest management for sustainable benefit. Recently, some NTFP promotion activities were introduced in 3 selected CF; users were facing the problem of selling their products due to weak marketing linkage.

This study has highlighted the potentiality of future employment generation through intensive management of productive forest and NTFP promotion in CF through short term lease to the poor users.

## **6.2 Conclusion**

) In consideration to rural development through livelihood assets generation, the positive indicator of improving forest condition after the handover was observed. 65 % respondents believe that the condition of forest was being improving. The total income of selected CFUG was NRs.2661613.35 and expenditure was 2352717.68 in single fiscal year 2063/64. Total of NRs.308895.67 was deposited in the Bank account. The expense of group fund had contributed to build different infrastructure like community buildings, school buildings, conservation ponds etc. Each selected CF has its own community buildings with necessary furniture. CF practices have contributed to build the social cohesion among the users. Users had developed the culture of discussion for doing collective action for common benefit with out any

discrimination. In spite of 22 % illiterate respondents, the CFUG had contributed in awareness and skill generation activities in community level.

- ) Regarding the access of different livelihood assets, observed some disparity. The benefit sharing system was not well established. The benefit was not equitable distributed to the all level of users. Rich and medium well-being level users had better access than the poor and very poor users. There was no any subsidy provision for poor in benefit sharing system. Training opportunity receiver had wider gap between rich and very poor users. Only 24 % poor respondents got the opportunity in training where as the percentage of rich was about 58 percent.
- ) No disparity was observed in the access in physical as well as social assets. All had equal chance to use infrastructure and also to be the member of user group and/or committee member. The accessibility of users on financial assets was observed by putting the question, “Whether they know about the amount of group fund”. Only 1 % of poor well-being status respondents responded that they had knowledge about the group fund. Among the rich group it was 50 %.
- ) CF has created ample opportunity of employment to the poor. Forest management and NTFP cultivation & processing activities has created total of 8732 workday employments in the year 2063/64 as wage labor. Out of them 8 forest watchers and

4 office bearers were in monthly payment basis. The opportunity was questionable in the gender perspective.

The researcher has come in conclusion that CF has contributed positively in rural development but rich and medium users have captured the assets in comparison to the poor and very poor users.

**Fig. 6.1: Summary of Linkage between Community Forestry and Rural Development**

### **6.3 Recommendation**

The researcher has recommended following recommendation for future to improve the accessibility of poor and very poor and also to increase the employment to the users.

#### **Recommendation for Users Level**

- i) Equitable benefit sharing system should be adopted during the distribution of forest products and group fund.
- ii) Some amount of fund should be allocated for pro-poor activities in every community forest in a regular manner.
- iii) It is very important to include poor, women and other disadvantaged members in the decision making position of CFUGs. That makes them accountable to represent poor in planning and implementation, and increase leadership as well.
- iv) CFUGs should increase participation of their users in sharing of information and in decision-making process.

#### **Recommendation for District Level**

- i) Technical support for active forest management needs to be provided through DFO and/or other partner organizations.
- ii) NTFP cultivation should be promoted with sufficient technical knowledge and well-established marketing mechanism should be improved in district level.



- iii) Identification and promotion of viable forest based enterprises can be established in a way that provides sustainable benefits to the poor users.

### **Recommendation for Policy Reform**

- i) There should be provision of utilizing degraded and fallow CF land cultivating agricultural crops by poor users for the period of three to five years (or between the periods required to develop forest).
- ii) Policy should be shifted from subsistence level to commercialization of forest resources through active forest management in productive community forest.

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## ANNEX -A

### Checklists for Observations, Group discussions, and Meetings

#### 1. Checklist for observations

##### 1.1 Observation at home and homestead

- ) Use of timber and non-timber forest resources in the house/household goods
- ) Type & number of livestock (local, hybrids), rearing pattern (stall feeding, grazing).
- ) General observation of private trees

##### 1.2 Observation on farmland

Private trees on farm land

##### 1.3 Observation on community forests (if any related activities are going on and forest condition)

- ) Forest development works (plantation, protection etc)
- ) Harvesting and utilization of timber, forage
- ) Protection system (watcher, fencing/ trench)
- ) Forest condition (coverage, regeneration trends)
- ) Grazing pressure

##### 1.4 Observation on meeting/ assembly

- ) Participation of (poor & women) in community forestry activities
- ) Information sharing process
- ) Decision making process

) Minute/ record keeping process

## 2. Checklist for Group Discussions

) Participants: Focused to poor (one women and another men & women mixed groups)

) Group size: 7- 13 participants, a facilitator and a reporter

) Time frame: 2-3 hours.

) Methods: PRA tools like informal discussion, resource mapping, trend line

) Materials: Locally available materials, flip charts, marker and tape recorder (if possible)

<b>S.N.</b>	<b>Objectives</b>	<b>Methods</b>
1.	Identify access and control of forest resource before and after CF system	Group discussion
2.	Identify income and employment opportunity in forestry work before and now	Group discussion
3.	Asses decision making and benefit sharing system in CFUG	Group discussion
4.	Identify major strengths/ weakness and their consequences of the community forestry program	Group discussion
5.	Identify changes in livelihood assets	Group discussion
6.	Observation of infrastructure construction and consequences (trench, canals, village road etc)	Group discussion



### **3. Checklist for Community Forestry User Committee Office Records**

1. Records of the involvement of human resources in different forest management and development work.
2. Fund expenses
3. Direct Employment
4. If available, records of partial or full employee
5. Involvement employment and/or self employment after training

## ANNEX-B:

### Questionnaires Format for HH Survey

#### घरधुरी सर्वेक्षण फारम

मेरो नाम उदयबहादुर पौडेल हो । म त्रिभुवन विश्वविद्यालय ग्रामिण विकास संकायमा स्नातकोत्तर तहमा अध्ययनरत छु । मैले आफ्नो अध्ययनको क्रममा यो घरधुरी सर्वेक्षण गरीरहेको छु । यस सर्वेक्षणको उद्देश्य सामुदायीक वन बाट ग्रामिण विकासमा भएको योगदान सम्बन्धि निश्कर्ष निकाल्नु रहेको छ । सबै जानकारीहरु अत्यन्त गोप्य र बेनामी तरिकाले विश्लेषण गरीनेछन् । कुनै जानकारीहरु पनि अध्ययन प्रयोजन बाहेक अन्य कार्यमा प्रयोग नगरीने र कुनै तेश्रो व्यक्तिलाई उपलब्ध गराईने छैन । जानकारीहरु केवल अनुसन्धान रिपोर्ट तयार गर्न मात्र प्रयोग गरीने छन् । त्यसकारण तपाईंहरुलाई आफ्नो विचार खुलस्त र निस्पक्ष ढंगले व्यक्त गरी मेरो अध्ययनलाई वास्तविक र सत्य तथ्य बनाई दिनुहुन अनुरोध गर्दछु ।

उपभोक्ता समुह

स्तरीकरण श्रेणी:

उत्तरदाताको नाम :

लिंग: पु. । म.

उमेर:

उत्तरदाताको पेशा:

शैक्षिक योग्यता:क) निरक्षर

ख) साक्षर

ग) एस. एल. सि.

घ) उच्च शिक्षा

परीवार संख्या:

१. तपाईंको ।परीवारको स्वामीत्वमा रहेको जम्मा जग्गा उल्लेख गर्नुहोस (बिगाहामा)

.....



छन भने,

कार्यक्रम	सहभागी		आयोजक	
	पुरुष	महिला	सामुदायीक वन	अन्य
शैक्षिक भ्रमण				
कार्यशाला गोष्ठी				
नेतृत्व विकाश				
लेखा तालिम				
वन व्यवस्थापन				
सहकारी व्यवस्थापन				
अन्य				

५. सामुदायीक वन बाट कुनै आयमुलक तालिम र रोजगारीका अवसर पाएको भए, कृपया खुलस्त हुनुहोस ।

कार्यक्रम	तालिम पछी		आयोजक	
	रोजगार	ब्यवसाय	सामुदायीक वन	अन्य
पशु पालन				
स्वास्थ्य उपचार				
कुखुरा पालन				
कृषि				
नर्सरी व्यवस्थापन				
माहुरी पालन				
अन्य				

६. के तपाईं तलका सामाजिक कार्यमा संलग्न हुनु भएको छ ?

कार्यको विवरण			मानविय श्रम (श्रम दिन)
छ	छैन	सरसफाई	
		बाटो निर्माण	
		बाटो मर्मत	
		स्कूल निर्माण	
		स्कूल मर्मत	
		खाडल निर्माण	
		खाडल मर्मत	
		मचान निर्माण	
		मचान मर्मत	
		चेतनामुलक कार्यशाला	
		अन्य	

७. तपाईं र तपाईंका परीवारका सदश्यहरुको देहायका सुविधामा कतिको पहुँच छ ?

सुबिधा	२०५८	२०६३
	लाग्ने समय	लाग्ने समय
खाने पानी		
स्कूल		
स्वास्थ्य		
सिंचाई		
पशु स्वास्थ्य		
विद्युत		
बैंक		
मोटर वाटो		
अन्य		

८. तपाईं वा तपाईंका परीवारका सदश्यहरु आय आर्जनको कार्य वा कुनै लघु उद्यम कार्य मा संलग्न हुनुहुन्छ ?  
 क) छ ख) छैन  
 यदि छ भने, कृपया प्रमुख कार्यहरु भनिदिनु हुन्छ कि ?  
 क) ख) ग)
९. के तपाईंलाई सामुदायीक वन उपभोक्ता समुह बारे थाहा छ ? क) छ  
 ख) छैन
१०. तपाईं वा तपाईंका घरका सदश्यहरु सा व मा कस्तो प्रकारको सदश्य हुनु हुन्छ ?  
 क) कार्यकारीणी सदस्य ख) साधारण सदस्य
११. तपाईं बैठकमा जानुहुन्छ ? क) जान्छु ख) जादैन  
 यदि जानुहुन्छ भने, कती पटक  
 क) सधैं ख) प्रायः ग) पटक, पटक घ) कहिले काँहि मात्र जान्छु
१२. तपाईं बैठकमा कस्तो भूमिका निभाउनु हुन्छ ?  
 क) कृयाशिल ख) निस्कृय ग) केवल उपस्थित हुने र कुनै हस्तक्षेप नगर्ने
१३. तपाईंले तलका मध्ये कुन कुन कार्यमा समुहले निर्णय गर्दा आफ्नो भूमिका निर्वाह गर्नु हुन्छ ?  
 क) वन पैदावार बिक्रि वितरण ख) समुहको कोष परीचालन  
 ग) सामाजिक कार्यमा घ) अन्य (कृपया खुलाउनु होस)
१४. तपाईं आफ्ना समितीका सदश्यको बारेमा के सोच्नुहुन्छ ?  
 क) ईमान्दार छन् ख) संकास्पद छन् ग) ठिकै छन्  
 घ) ईर्स्यालु छन् ड) तटस्थ छन्
१५. तपाईंलाई आफ्नो समुहको नियम कानुनको बारेमा जानकारी छ ?  
 क) छ ख) छैन

१६. तपाईंको समुहले बनाएको नियम कानून प्रति तपाईं कती सन्तुष्ट हुनु हुन्छ ?  
 क) पूर्ण सन्तुष्ट                      ख) सन्तुष्ट                      ग) तटस्थ  
 घ) सन्तुष्ट छैन                      ड) एकदमै संतुष्ट छैन
१७. तपाईंको समुहले विधान तथा कार्य योजना तयार गर्दा तपाईं संग छलफल गरेको थियो ?  
 क) थियो                                      ख) थिएन
१८. तपाईंको सामुदायीक वन हस्तान्तरण हुनु भन्दा पहिला कुन अवस्थामा थियो ?  
 क) साढे राम्रो                      ख) राम्रो                      ग) खराव                      घ) धेरै खराव
१९. तपाईंको सामुदायीक वन हस्तान्तरण भए पछि कुन अवस्थामा परिवर्तन भै रहेको छ ?  
 क) धेरै सुधारात्मक                      ख) सुधारात्मक  
 ग) कुनै परिवर्तन छैन                      घ) खराव                      ड) धेरै खराव
२०. गत वर्षमा तपाईं वा तपाईंका परिवारका सदस्य वन व्यवस्थापन कार्यमा संलग्न हुनु भएको थियो कि थिएन् ?  
 क) छु                                      ख) छैन
२१. तपाईं यदि संलग्न हुनु भएको भए कति पटक संलग्न हुनु भएको थियो ?  
 क) एक पटक                      ख) दुई पटक                      ग) तिन पटक  
 घ) चार वा चार पटक भन्दा बढि पटक
२२. कुन प्रकारको वन व्यवस्थापन कार्य तपाईंको सामुदायीक वनमा भैरहेको ?  
 क) एकल्याउने                      ख) हाँगा काट्ने                      ग) पत्ल्याउने  
 घ) गोडमेल                      ड) सरसफाई                      च) वृक्षारोपण  
 छ) अन्य (प्रश्ट पार्नुहोस)
२३. के तपाईंको सामुदायीक वनमा समुहका सदस्यहरु जडिबुटिको बारेमा सचेत छन् ?  
 क) छन्                                      ख) छैनन्                      ग) थाहा छैन

- यदि छन् भने कुन कार्यक्रम संचालन गरीरहेका छन् ?
- क) नर्सरी स्थापना    ख) जडिबुटि खेती    ग) जडिबुटि संकलन    घ) अन्य
२४. तपाईंको समुहमा वन पैदावार वितरण कसरी हुन्छ ?
- क) सबै लाई बराबर    ख) समानुपातीक    ग) लिलामी बाट  
घ) आवश्यकता अनुसार
२५. गरीव तथा पिछडीएको वर्गको लागी सामुदायीक वनबाट वन पैदावार वितरणमा कस्तो ब्यवस्था छ ?
- क) निःशुल्क    ख) न्यून मुल्यांकनमा    ग) समान मुल्यमा
२६. तपाईंको विचारमा तपाईंको समुहले गरीव तथा पिछडीएको वर्गको लागी कुनै विषेश योजना तर्जुमा गरेको छ ?
- क) छ    ख) आंशिक छ    ग) छैन    घ) थाहा छैन
२७. उपभोक्ता समुहमा महिलाको विचारको कत्तिको सम्मान हुन्छ ?
- क) सधै हुन्छ    ख) प्रायः हुन्छ    ग) कहिले काँहि हुन्छ    घ) हुदैन
२८. तपाईंलाई आफ्नो समुहको कोष प्रति कत्तिको चासो छ ?
- क) सधै छ    ख) प्राय छ    ग) मलाई मतलब छैन  
घ) कार्यालय संचालकले बताउन चाहदैनन
२९. तपाईंको समुहको कोषमा भएको रकम बारे तपाईंलाई थाहा छ ?
- क) छ    ख) छैन
३०. सामुदायीक बनले आयोजना गर्ने भौतिक निर्माण र वन ब्यवस्थापन कार्यमा संलग्न हुनुभएको छ ?
- क) छ    ख) छैन



३१. यदि छ भने, कृपया कुन काममा कति दिन काम पाउनु भयो ? बताईदिनुहोस ।

कार्यक्रम	संलग्न दिन		आमदानी
	पुरुष	महिला	

३२. सामुदायीक वनको काममा दिईने ज्याला कुन दरमा छ ?

कामको किस्म	कामदार		ज्याला दर	
	महिला	पुरुष	महिला	पुरुष

धन्यवाद

ANNEX -C

# Map of study area

## Study CFs

Uc to Akhela CF

Ta to Akhela CF

Duncari CF

Eirai CF

Auraliya CF

