Chapter 1

Introduction

1.0 Background

Nepal is a land locked country in the lap of Himalayas and home place of natural beauty with traces of artefacts where the majority of its people are engaged in agricultural activities. It has the total area of 147,181 Sq. Km; and is located in between the latitude 26° 22' N to 30° 27' North and longitude 80° 4' E to 88° 12' East and elevation ranges from 90m to 8848 meters. The average length of Nepal is 885Km east to west and the average breadth is about 193 Km north to south. Nepal is surrounded by two big countries of the world, India in the east, south, west and China in the north. The northern mountain range is covered with snow over the year, where the highest peak of the world the Mount Everest is located.

In the geographic diversity and varied climatic conditions people of more than 60 caste/ethnic groups are accommodated in the country. The country is also famous as a tourism centre. People from different parts of world visit this Himalayan country to enjoy its natural beauty as well as rich cultural heritage. Over the history Nepal has been an independent sovereign state.

Topographically, it is divided into three regions, namely: high mountains in the north, hills in the middle and plain (Terai) in the south. The mountain comprise about 15% of the total area of the country, the hills about 68% and the Terai about 17%. The Terai region is the southernmost belt having a width ranging from 30 km to 40 km and its altitude varies from 60 m to 310 m above the mean sea level.

Nepal is one of the poorest countries in the world. The literacy rate of the country is 54.1%, implying that the majority of the people are ignorant of the causes of diseases and their preventive measures. The per capita income of the people is around US \$383 (CBS, 2007). Over 85 percent population of the country lives in rural areas and is dependent on subsistent agriculture, which contributes only 40% of the GDP. Half of the total population of 26.427.399

habitants (CBS, 2007) live below the poverty line. Literacy rate of the rural areas is less than 30%. Rural people do not have even basic facilities such as potable water supply, electricity, health service, road accessibility etc.

1.1 Community Forestry in Nepal

When one has to introduce Nepal to an outsider, only two words come directly in mind; county of Mount Everest and birthplace of Lord Buddha. In the recent years, a third word is added to introduce Nepal itself is: a country of Community Forestry. In Nepal, forestry in the past used to draw the attention of media and professionals mostly on the subject of deforestation. However, in recent time, media has begun to provide a significant space on community forestry. The subject area in forestry at home and outside has moved away from deforestation to community forestry.

Community Forestry; is the process of managing forest to achieve one or more specified objectives of management with regard to the production of a continuous flow of desired forest products and services without undue reduction of its inherent values and future productivity and without undue undesirable effects on the physical and social environment. Forests, particularly in the hills, are an integral part of the land using system. Residents must have access to forest products such as leaf materials for fodder and for animal bedding, fuel wood for energy, and timber for buildings and agricultural implementation.

Government of Nepal formulated the Forestry Sector Master Plan in mid-1980s, and taken the Community Forestry Programme would be the first priority programme in the country in which villagers will be empowered to get organized into groups, commonly known as Forest User Groups (FUGs) and they will be given responsibility and authority to protect, manage and use the forests to the extent that the nearby forests are accessible to them, they are willing to take over the responsibility and they are able to manage the resources. Later, this policy is reinforced and legally backed by legislative framework of the Forest Act, 1993 and Forest Rules, 1995. Basically, community forests are national forests handed over to the local user groups for protection, management and utilization according to the Forest Act, 1993. The forests are managed according to the Operational Plan (OP) prepared by Community Forest Users Groups (CFUGs), approved by the District Forest Office (DFO). According to the act, CFUGs has to be established and registered at the District Forest Office (DFO) before handing over of the forests and they are self sustained institutions. The CFUGs can act as self-governing entities to generate, utilize and sell the forest products as mentioned in the Operational Plan.

According to the legislation, government started registering CFUGs and handing over of forests to the CFUGs for sustainable forest management. During the last 30 years of community forest implementation, about 1.2 million hectares (or 25 percent of existing forests) of national forests had been handed over to more than 14,000 local CFUGs (CFD 2006). These user groups constitute about 35 percent of the country's total population. The achievements of the community forestry can be seen in terms of better forest condition, better social mobilization and income generation for rural development and institutional building at grass root level.

CF promotes and protects rights of community forest users through capacity strengthening, economic empowerment, sustainable resource management, technical support, advocacy and lobbying, policy development, and national and international networking and to uphold the values of inclusive democracy, gender balance, and social justice. Community forestry implies two major components: forest resources and local communities. The process of establishment and maintenance of the relationships between these two elements could be called as community forestry. Government, civil society and local bodies are the main agencies that help to promote community forestry in Nepal.

Figure 1.1: Services Provided to Community Forestry User Groups (CFUGs) in Nepal

A.		В.	C.	
Basic Regulatory	Additional Cap	pacity-Building & Good	Technical	
Services	Governanc	e-Related Services	Services	
Government	Civil Society NGOs, CBOs, Advocacy Groups, Federations, Local Government (VDC/DDC), Donors/Projects:		Private Sector Entrepreneurs, Contractors, Consultants:	
District Line Agency (DOF Staff):				
 registration forest boundardy demarcation operational plan approval legal oversight technical support Monitoring 	 user identification group mobilization constitution development flow of information (on law & policy) forest inventory planning operational monitoring team building collaborative works product harvesting income generation technical support management training study tours conflict management collaboration with various groups 	 fund mobilization savings & credit financial aid & budget support revenue sharing infrastructure development assets management training skills development skill sharing cottage industries development regional/national seminars & workshops visioning governance training advocacy & lobbying formal & informal networking & stakeholder coordination CFUG interactions awareness raising workshops group dynamics training coaching & facilitation supporting/monitoring animators financial & business accounting community development welfare work demonstration plots literacy training research & studies 	 accounting & auditing services feasibility studies resource assessments production assessments market assessments promotion, marketing & commercial expertise Certification investment advice engineering & construction resource persons specialized training private nurseries private plantations reporting 	
(Course Magazrack	nmitt and Singh, 2005			

(Source: Messerschmitt and Singh, 2005).

1.1.1 Community Forest management in Nepal: goals and measures

Community Forest management is the major component in forest management strategies in Nepal. During the last 30 years it was established and improved throughout the country. As a primer goal the improvement of people's livelihoods as well as conserving the natural landscape was set. Referring to the database in 2002, in all but one district of 75 in Nepal community forest management was established. Including 1.2 million households, which is came up with 29.63% of all households in Nepal. These households are organized in 11.408 community forest user groups, managing 897.742 ha of community forests. However the potential expansion of community forests is not reached by far. In 2002 25.6% of potential forest area was used as CF (community forests). Of the 6.3 million ha of forest in Nepal, about 3.5 million ha could be used as CF.

1.1.2 The progress of implementation of CF

After much of the forest in Nepal was lost or degraded a solution to improve forestlands addressing habitant's livelihoods was needed. In the late 1970s the first attempt of forest community had the explicit concern to meet the subsistence needs. The local farmers needed firewood, fodder, leaf litter and small timber. Many of the forests close to villages were not capable of providing these needs. The approach of the government included the developing of farmer's rights and responsibilities. This approach was reinforced in the following 5 years plan, as a result of the government's commitment to people's participation in forestry in Nepal.

In reality, 1978 under the name of the *Panchayat Forests* Nepalese government gave away forest management responsibilities and control to the lowermost politico- administrative units, which were led by elected representatives. The next step was the Decentralisation Act in the year 1982. This Act empowered the "panchayats" to form user groups (UGs) for the protection and utilization of the forests on the local scale. This was also the first time when the handing over of the forests to panchayats was initiated. At this time the forests where mainly monocrop plantations or strongly degraded. The local leaders had the full control over the resources. While the forest did

not benefit the community, the people used to use the national forests for fuel wood and other needs.

In 1987 the second version of the Decentralisation Act introduced the concept of "forest user groups", embedded in the seventh five years plan (1985-1990). In this plan the most important goals were: First, fulfilment of people's basic needs for forest products and second, people's participation in afforestation and forest management.

These goals again were the basis for the "Master Plan for the Forestry Sector" in 1988. Herein the following goals were formulated:

- ❖ To meet basic needs
- ❖ To include local users in decision making and benefit sharing
- To Improve socioeconomic growth
- To encourage sustainable utilization of forest products

It was discerned, that the forest sector plays a major role in poverty alleviation and assistance of the local economics. However, the crucial point was the reinstatement of democracy in 1990. Thereafter the former political units "panchayats" changed to "user groups" (UGs). In the following years the community forests were strengthened and "forest user groups" were defined as: "self-governing, autonomous corporate bodies for managing and using community forests according to a community forestry operational plan".

The recent important goals are:

- Creating employment opportunities
- Income generation
- Sustainable management of forest to provide timber, firewood and fodder of the local people
- Integrating social justice
- Gender balance
- Equity and good governance

As the multitude of steps in the developing of the forest community management system shows, it was and still is a dynamic process. Now it is time for the fine tuning of laws and regulations, applying the experience of the last three decades.

[Source: Emerging issues in Community forestry in Nepal; 2002]

1.1.3 Poverty indicators in Nepal

1.1.3.1 Poverty

One way to define poverty is by economic indicators, like the global acknowledged one Dollar limit for income per day, which indicates the poverty line as measurement in all countries of the world. This line is set up by the World Bank and helps to clarify "who is poor". Another indicator by the World Bank is the undercutting of the average income of the specific country by 50-60%. These two indicators are, as mentioned above, restricted to economic values. But there are other very important clues which point out that there is profound poverty. For example the poor access to education, to clean drinking water or to infrastructure facilities like roads, electricity, etc. Even ethnic and cultural circumstances can cause or are caused by poverty. As the marginalization of women, small ethnic minorities or whole cast's can prove.

The HDI (human development index) incorporates three aspects of human development: life expectancy, education and standard of living. If a region or a country is above 800 it is high ranked. However this index is more detailed than the 'one Dollar limit', it does not by all means render the real characteristics of poverty. Poverty and its development is a solely complex process which includes all possible parameters and leads to the actual state projected onto the people's lives.

According to the Nepal Living Standard Survey 03/04 31.8% of the former 26.44 million habitants were living under the poverty line. Even in the tenth 5 years plan it had been 31% of the 25.2 million habitants at that time. The Ginni Coefficient, which indicates inequalities between the poor and the rich, is 41.4. By these figures Nepal is apportioned to the 20 poorest countries in the world. The Gross Domestic Product of Nepal was added up to 39.53 million US\$/year in 2004 (in comparison to that, Germany had 2.362 trillion US\$ in 2004). This fact and the virtuality that, a major part of the gross domestic product is produced in the agricultural sector (40% GDP 2004) indicate Nepal as a less developed country. While the share of the industry of the GDP is minor, the commercial service produces 40% as well. The economic growth in the last 30 years was throughout below 4% and in recent

years it was stagnant. The rate of inflation about 3.3% and the high rate of unemployment (47% in 2004) are also characteristic figures for the status of Nepal. 17.4% of the employable 11.669.000 Nepalese are chronically below capacity employment and the unemployment is still rising.

This is accompanied by rising prices for comestible and other consumer goods. This again leads to a scant supply for the lowest social class. In addition to these economic facts, the educational background is alerting. 45.9% of Nepal's habitants are not able to read or write. This group is split into 34.5% men and 57.2% women, pointing to the unevenly distribution of education for the sexes. The problematic state of the health care is reflected in a high infant mortality, 48 /100 births in 2007. In spite of the infant mortality was decreasing from 64.4 per 100 births in 2001. The average life expectancy is, with 63.7 years in 2007 still low, even if it was increasing from 60.4 years in 2001. A remarkable point was that the life expectancy for women in Nepal was lower than for men. Distinct from mostly other countries this is due to the very hard life of the women in Nepal, because of the tight cultural burden and work. This has changed in the last years so that the women have an averagely length of life of 64.1 and the men 63.3 years. [CBS Nepal, 2007]

1.1.3.2 Poverty in Nepal

The reasons for the bad economic situation and poverty in Nepal are a network of dealings. In one hand there are the geographical determinations building the framework and on the other hand there are the social-cultural, ethnic, political and historic factors which are influencing each other and setting up the actual situation.

In the following the main factors will be explained briefly.

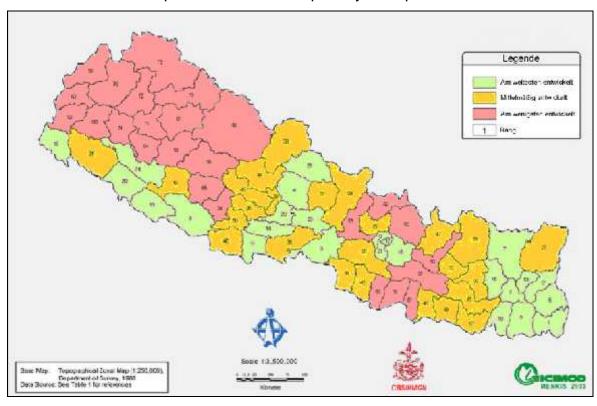
As a basis for the explanations conduces the geographic formation of Nepal. This is because it matches largely to the social-economic and ethnic structure. Therefore it gives a good background for explaining the characteristic distribution of poverty in Nepal.

To understand the situation of Nepal it is very important to involve the national and international context. The Republic of Nepal is situated between 26° and 31° geographical latitude north and between 80° and 88° east. It contains

147181 qm² in the state area. In the north it is bordered by China (autonomic region of Tibet) and in the south, west and east it is rimmed by Indian states.

This inland situation reduces the number of potential trading partners by land way, to two. The high tolls at the surrounding borders for all kinds of traded goods and the high transportation costs account for a severe drawback in competition for import and export. Nepal is very dependent to primarily India and China as well.

The nature spatial conditions of Nepal are mainly minted by the Himalaya Mountain Range and the extraordinary high relief energy. It means; there are very high differences in altitude in a short horizontal distance. Besides this, the climate and connected to that the vegetation in many parts of Nepal are absolutely defined by the yearly monsoon. This sets up narrow limits to agriculture in distinct parts of Nepal. Moreover Nepal has no real natural resources or energy reserves. The major part of Nepal lies above 3000m above sea level and only 17% of Nepal are plain land.



Map 1.1: Distribution of poverty in Nepal

Source: [CBS Nepal, 2001]

The region of the High Himalaya lies 4000m above sea level and encloses most of the highest mountains on the world. A large part of the surface consists of glaciers. Because of the low average temperatures around the year (only 0- 2 month warmer than 10°C) and severe soil erosion caused by the heavy monsoon rain, agriculture is barely possible. In those mountain regions, extreme cold temperatures exceeds below -10°C throughout the year. Hence the supply situation in this region is serious.

The "Hill region", follows the high Himalaya. It covers mountains from Mahabharat and Chure ranges with heights of approximately 600 to 4000 meters over the sea level. This region consists of about 68% of the entire land area and contains the economical core region of Nepal i.e. the capital city Kathmandu. It is used intensively by agriculture and exhibits a high population density of 46% of the national population. The few existing roads on these high gradient topography and landscape makes transportation of goods somehow impossible. Transportation of goods and the road network are limited to the Kathmandu valley and few other areas. Particularly in this region the problem of water supply scarcity and water carrying from long distances, usually contaminated are the causes for spreading of diseases such as diarrhea and parasite. [CBS Nepal, 2007]

Another region called Terai lies at the border to India, extends about 30 kilometers broad zone and tropical jungle landscapes expanded by flat, 70 to 150 meters over the sea level fruitful agricultural areas. In this part of the country the majority of the agrarian production of Nepal takes place and also an insignificant part of the industry is settled. The Terai is also connected with east-west Mahendra Highway and better equipped than the remaining part of the country. The better road network is due to the lesser relief energy, which causes landslides and other road destructive effects in higher regions. The Terai has several domesticated airports making direct connections to the capital city Kathmandu.

It is shown that in particular the natural-vegetation and geo relief conditions have crucial effects to the economic development of Nepal. A majority of the areas of the country lies in a stable economic development.

A further factor that makes the establishment of a sustainable economic structure in Nepal difficult, is the multiplicity of the ethnic groups of habitants and the still wide-spread caste system. Those about 26.4 million inhabitants of the country were divided into two main groups, Indoaryans 80% of the population Tibeto burmanis composition with 20% [http://www.oav.de/wiha/wh_2006_nepal_kurz_np.pdf].

These groups are divided far into approximately 100 ethnical groups, with numerous own languages and dialects as well as cultural customs. For example divided by caste there are 15.80% *Chhetri*, 12.74% *Brahman*, 7.14% *Magar*, 6.75% *Tharu* and many more groups around 5% of the population. Classified by mother tongue there are 48.61% *Nepali*, 12.30% *Maithili*, 7.53% *Bhojpuri*, 5.86% *Tharu* and 5.19% *Tamang* just to mention the biggest groups. Based on these facts cooperation and communication are more difficult in the context of the economic development.

The traditional properties of the caste system account for the impermeability of the social barriers. Connotes that there is nearly no way from the lower castes, to which belongs the greater part of the Nepalese population, to ascend in higher castes.

This induces an inhibition of the economical potential of many Nepalese. The low position of the woman in the Nepalese society causes that there are very limited chances for personal and economic development, which again increases the marginalization of the female population. Traditionally, women bear the main responsibility of the family and have usually no chance for education and income activities. Transferred this reduces enormously the potential of economic development in Nepal. Women are completely excluded in one hand from economic decision-making processes and are subjected to exploitative socio-economic conditions and on the other hand in rural areas they ensure for the fact that traditional, social relations and cross-linking will leave to disintegrate women ever more frequently from male and family members for their fate to be left alone. [CBS, Nepal 2007]

The political situation, which was marked by instability and rumors, changed since the last election on 10.04.2008. The Maoist Party which was the main counterpart of the former Nepalese government is now the strongest party in

Nepal. As a consequence the regions of Nepal, which were the centers of the opposition, are more or less quite now. Nepal received a democratic change in government that should be a chance for development. At this time the government building process just started, so it is hard assume in which distinct way it goes.

Besides this there is social fragmentation and polarization of the society caused by the unequal distribution of wealth. Also the landowner, which decreases still to former feudalistic structures promote poverty. A majority of people have however only small pieces of lands and they are unproductive for the agriculture. That is due to lack of insufficient knowledge and lack of specialists, due to it, as well as the ponderous bureaucracy and centralistic administration of the country the execution of aid programs and makes the possibilities more difficult for a successful eradication of poverty. Mismanagement with resources and unsatisfactory employment of adapted technologies as well as the rising prices for agricultural products on the world market makes the Nepal's economy weaker and also makes it difficult to eradicate the poverty.

Therefore it becomes clear that the poverty of the country is to due to a complex network of relations and causes. Hence only holistic solutions can obtain successes to fight poverty.

1.1.4 Community Forest management: poverty reduction

After explaining the poverty and the ecological problems in Nepal, the decisive question is: In which extent is community forestry an adequate strategy for poverty alleviation? And how does it influence the social status and development of the poorest?

According to "The poverty reduction strategy paper 2004" four pillars within the development strategies are most important:

1. Broad based economic growth:

fast growth with equitable distribution of benefits,
 accelerating agricultural growth that will directly benefit the poor
 developing other key sectors, like manufacturing and tourism

2. Human development:

-) improve the quality of life in rural areas and enable the rural poor to take advantage of opportunities for advancement
- coverage and quality of primary education, basic health care, safe drinking water, rural roads and rural electrification

3. Social inclusion and targeted programs:

- bringing women and marginalized groups and regions into development mainstream;
- special efforts to provide equitable access to resources, skills, income earning opportunities, education, healthcare and other basis needs; focus on neglected regions

4. Good governance:

) improving the efficiency of the social service, to reduce corruption and improve service delivery, transparency and accountability

In the following the purviews in which the community forestry can bring progress are elucidated. In terms of economic growth community forestry can participate mainly in mid- and long terms. But since the CF was introduced in many regions of Nepal decades ago, some of the positive results are already visible.

The forests which were planted 20 to 30 years ago start to render revenue for the villagers. By now more and more forests around the communities are able to meet the needs of the people for timber, fuel wood, leaf litter and grass in a sustainable way. Of course it is still a long way to stop all kinds of degradation, but the progress is clearly visible.

New financing and market strategies were applied; For example micro- credits are available for the poorest. By bearing the short-run costs, these credits facilitate the opportunity to start goat farming, buy seeds or invest the money in any other kind of employment. The assistance of the village community brings the chance to advance single households without detracting them from their actual work. In addition it creates employment and income opportunities at the users site. Further the community improves the planning and managing of the distribution of the products, ensuring the poor farmers access to local

markets. Even though the major part of products produced in the VDC is also consumed in the VDC. The selling of timber for example is still limited to the local scale. The distribution on regional or national scale is a matter of coordination and marketing, but also requires the according laws and conventions. As there is progress in producing timber, fuel wood and leaf litter the CF can also enhance the production of Non-Timber Forest Products (NTFPs). In many cases NTFPs are worthwhile as an agricultural alternative for the villagers. The cultivation of these crops can be planned and supervised by the VDC and the District Forest Office (DFO) and its staff. The consultancy by the district forest officers helps the farmers cultivate the best crops regarding to costs, demand and climatic requirements.

The VDC helps coordinate, plan and permute projects outside the forest community as well. Seeing all problems of a village society together, this is absolutely necessary. For example the water management on local scale is connected tightly to preservation of forests and their sustainable use. Community managed irrigation is one advance which could be undertaken by the village community. Water management is sorely relevant for the crops which can be cultivated in the village, as well as for the size of livestock.

Referring to the *Country assistance Plan 2004*, Nepal; advanced decentralization is named a major point in developing Nepal and alleviating poverty. Community Forestry strengthens the coherence within village communities and improves the independence of these communities. The independence again, is achieved by sustainable use of the natural resources around the villages, which in general have the potential to provide sufficient resources for all residents. Therefore community forestry comes forward to accelerate agricultural growth and causes equitable distribution of benefits.

With regard to Human Development CF can also help achieve the postulated goals. Mainly in the field of "improving the life of rural people" FC can play a major role. The general effects of FC are positive in relation to the opportunities of advancement which are arising for the villagers.

Even if the effects of FC to the quality of primary education, basic health care, safe drinking water, rural roads and rural electrification are indirect, there is an

interaction. If the Forest Community and the related management systems are working in a proper way they are providing enough resources and therefore enough money for the residents to re-invest in the above mentioned fields. For the advancement in the community it is decisive, that all members are working together on problems and local issues. The implementation of Forest Communities presumes democratic performance and other administrative structures on the VDC level, like VDC meetings and votes about the local problems. So CF, as implemented in a functioning way, could be used as a basis for other decision making processes as well. The same stakeholders can also work on water supply projects, for example, and any other kind of issue can be discussed in the meetings as well. Like this FC brings the people together and empowers the villagers to handle projects, which were quite too expendable for one or two families, but can be managed by the village community. In this way FC helps staging problem solving potential for many purposes and should be benefiting the poor as the richer members of the village.

The funds and the manpower which can be set free by enhancing the life of the villagers are absolutely essential for a long term development of the local communities. Particular in remote regions the village community becomes less dependent to the governmental supplies and subsidies. It can take a long time until the governmental administrative processes bring an urgently needed project on the way. This can partly evaded by being more self-supporting as a village community.

For social inclusion of women and marginalized groups, as well as equitable access to resources, skills, income earning opportunities, education and healthcare, Community Forestry can play a major role for advancement. As described above, for CF particular structures in the village society and in the DFO are premising. These structures allow and prevalently promote the points mentioned above.

Like this the inclusion and special education of women in the forest communities is very important. As the participation of women in CF was identified as a major key issue in the 1999 Workshop of Participatory Forest Management organized by ICIMOD (ICIMOD 1999a). Women represent a

central part in the communities, especially in the use and gathering of forest products, their further education and integration in decision making processes is necessary. And particular in the mid-hills and high mountains women bear the greater part of proportion of households and farm responsibilities than the men.

The success of any forest management project depends to the skills of the women who are collecting the fuel wood, leaf litter, or are doing the pruning or farming. If the women are not integrated or their share in the VDC (Village Development Committee) is limited, the benefits of CF will be limited as well. In different remote villages the women still cover their faces when talking to men (ICIMOD 1998). Besides this fact, it is common that women feel inhibited in expressing themselves in mixed gatherings. On the other hand the mostly male staff of the DFOs showed problems in communicating to women in the villages, too. This shows that it is crucial to promote integration of women, but also education is needed to give the women the chance to take part in discussions and decision making processes. Education can be very important in boosting women's self confidence. This again lets the women take stronger positions for their opinions in many kinds of discussions. This anew procures for example sharing of benefits, representing small groups in the society and all in all a more deliberated development. Lastly the nuts and bolts of developing the rural villages by using community forestry strategies for poverty alleviation, women play a central role and are more and more seen like this. The villages with better education and more integration develop faster and produce more benefits.

Good governance is about enacting the necessary laws and contracts, or changing the old laws. Another crucial point is the coordination of donors, NGOs and other organizations which are interested in promoting development in Nepal. There are ample numbers of organizations with different focuses on different regions. But every donor pushes in distinct fields according to subjective priorities, which makes coordination throughout all districts and levels of administration, necessary.

Good governance also implements the coordination between the public and private actors in the timber and fuel wood sector. Since major parts of timber

and fuel wood still come from national forests, a lack of coordination between the sellers from the FCs and national forests can cause severe disadvantages in marketing the forest products on regional scale. This again can lead to degradation of the surrounding national forest, because of overuse.

Important interfaces between both actors are the District Forest Offices. They should set up the framework adopted to the particular local situation, but integrated in the national regulatory environment. The district forest officers have to do the fine tuning related to every single village and forest.

So, the governance is quite decisive for the success of all kinds of efforts. If the coordination fails or the laws don't fit to the actual situation, a lot of the input (labor, funds) can be wasted, or can cause even damage. Miss leaded coordination for example can directly or indirectly amount to marginalization of single groups in the community or can lead to degradation of less controlled national forests.

1.2 Objectives and research question

This study focused on the following research objectives and research questions:

-) How can the forest resource management effort contribute to rural poverty alleviation in the country?
- How far does the programme address needs of poor and excluded men and women?
- Are the social and economic situations of poor and excluded groups improving? Are the poor and excluded less vulnerable?
- Are there more equality and less gender- and caste-discrimination in the management, utilisation, and distribution of common property and forest resources?
- How are the effects of institutional structures and processes to the poor and excluded groups changing?
- What are significant changes in environmental management and which activities have the most positive impact?
- Is sustainable use prevalent in Syalapani?

1.3 Statement of the problem

As governments realise that; they are not always best at managing natural resources, many are transferring land rights to communities. As well as improving environmental management, this process is expected to reduce rural poverty. Forest User Groups (FUGs) make decisions about management of community forest resources. These groups usually consist of the most powerful community members. These people make decisions for their own benefit, and ignore the needs of poorer people and women. This means poor people lose out economically from the shared resource and have less incentive to follow rules designed to protect the forest.

1.4 Organisation of the study

The study is divided into five chapters:

Chapter 1- Introduction; Background, statement of the problem, Objectives of the study, Organisation of the study and Limitation of the study.

Chapter 2: Literature review of the study

Chapter 3: Research Methodology

Chapter 4: Analysis and Discussion

Chapter 5- Summary, Conclusion and Recommendation

1.5 Limitation of the study

- The study is limited to the specific area (Syalapani Area) of Dang district; therefore generalization may not be equally applicable to other parts of the country.
- The study is fully dependent upon the field visit data as well as the interview data, responses by the respondent of the study area.
- This study is conducted within the given timeframe and financial limitations.
- This study is limited Syalapani Community Forest Area of Dang district.

Chapter 2

Literature Review

2.1 Community Forest Management: knowledge and proceeding

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

Community forestry in Nepal provides some key outcomes in the aspects of livelihoods and democracy and identifies two key lessons in relation to forest resource management, social inclusion and contribution to democratization in Nepal. First, mechanisms for policy amendment and revision for community-based forest management need to be based on real-life experiences rather than ad hoc and top-down decision-making. Second, if given complete autonomy and devolution of power, community forest user groups can become viable local institutions for sustaining forests and local democracy. They are also delivering rural development services by establishing partnership with many NGOs and private sector service.

2.2 Community Forestry for poverty Reduction

The poor-focused Leasehold Forestry Programme (LHFP) is taken as an important programme to bring forest degradation to a halt and address poverty in Nepal. It shows that provisioning pro-poor forest policies has served as a good starter towards poverty reduction, but several dimensions need to be considered to maximise benefits and services for poor households. Such dimensions include: appropriate implementation mechanisms are instituted and local institutions become promoted; community-level deliberations take place to maximise benefits for the poor; good condition

forests are handed over to the poor to enhance their access to forest-based products; the programme works with multiple programmes and partners to address poverty on a fuller scale to go beyond the current level of involvement of few development sectors.

People dependent on forest resources often live in extreme poverty. Communities are being encouraged to participate in forest management as a way to reduce poverty and improve social justice. The success of joint forest management schemes is influenced by local social and ecological conditions.

The majority of the world's poorest people live in rural areas. People who depend on forests for their livelihoods are often geographically isolated, socially and culturally marginalised. *The World Bank estimates* that about 80 percent of people living in absolute poverty depend on forest resources. This means that forest management is a central issue to poverty reduction.

Joint Forest Management (JFM) refers to systems where communities work with state authorities in forest management. This approach can reduce poverty and increase in social equity. Early approaches to JFM saw communities evolve at a low level but still subjected to decisions made by the state. Often JFM focussed on the reforestation of marginal lands rather than managing commercially viable forests. However, in modern JFM approaches, communities are central to the management process, giving them more influence over decisions.

JFM can benefit poor communities by increasing their access to and control over lucrative forest resources. However, JFM can also increase problems and conflicts for communities if forest authorities suffer from rent-seeking and poor governance. In some circumstances it may contribute to further marginalisation and poverty, if management structures permit unfair access to valuable resources by restricting participants' access to commercially valuable forest products or change existing of patterns of forest product use. The key policy lesson includes:

- J Poverty reduction interventions can work with forest communities to increase income-generating opportunities, such as tree cultivation on farms.
- Property rights must be adjusted to meet local needs; no standardised solutions exist.
- External evaluations show deeper integration and coherence is needed between forestry strategies and rural development initiatives.
- National forest authorities may see community management as a challenge to their professional status and may be resistant to such initiatives; they need training to realise the benefits of JFM. However, under-resourced agencies can utilise JFM to increase outreach of state forest authorities.
- JFM needs to be analysed as a management system on its own right, not as a special case for either state forestry or private forestry.

Livelihoods and Forestry Programme (LFP) is concerned for the sustainability and greater reach of its efforts and investment to address livelihoods and forest management issues in its working areas. In order to increase the programme's reach to geographically less-accessible areas and to ensure sustainability of service provisions, LFP invests in developing and mobilising trained local human resources to work with rural communities.

Use of local human resources has been effective not only in economically and socially empowering the P&E but also in making local rural elites and User Groups more responsive to the needs and priorities of their poorest and the most excluded members. The approach, has also been important for ensure the sustainability of the services. This is reflected in the success of local human resources to act as agents of change against social exclusion caused by caste and gender barriers in the communities. Being local, Animators/Social Mobilisers understand the local power dynamics better than any other external actor and for this reason they are in a better position to influence the elites in the communities.

The Livelihoods and Forestry Programme (LFP) monitors its activities broadly in three major areas: progress, outputs and impacts. The programme has also

developed various tools and methodologies for ensuring that the monitoring is both participatory and exploratory.

The first area related to the monitoring-progress utilises different tools including field visits, observations, stakeholder meetings and participatory exercises. Related information is then recorded into a database system called the Electronic Progress Monitoring System (EPMS).

The second area-outputs of the programmes-are measured at the community-group (i.e. civil society organisational) level with a focus on their ability to improve livelihoods and manage (natural) forest resources, as well as organisational governance. Social inclusion issues are considered across all of these three capacity-building monitoring areas.

The third area of monitoring measured the different impacts at the household-level. As LFP's programmes cover more than 451,956 households, impact monitoring is applied in sample areas with chosen households. Representation of different ethnic groups, men and women are ensured while sampling the areas, households and individuals.

LFP also broadly monitors its contribution through the Livelihoods and Social Inclusion (LSI) framework, particularly with a focus on the three domains of change: Assets and access to services; the rules of the game; and voice, and influence and agency. The monitoring system also provides information on the different indicators of the Poverty Reduction Strategy Paper (PRSP), Country Assistance Plan (CAP/ DFID) and Ministry of Forest and Soil Conservation (MFSC) of Nepal. LFP's Logical Framework and Monitoring Strategy help guide the monitoring system.

2.3 Literature Review on Community Forest Researches

Research from the University of York, UK, deals with community forestry schemes in Nepal. There have been environmental improvements since the introduction of common property systems for forests, including more sustainable use and collection of forest products. However, in terms of

economic gains, the poorest and most marginalised members of communities often receive the fewest benefits.

Martel & Whyte, (1992) put their views "Community forestry is a village-level forestry activity, decided on collectively and implemented on communal land, where local populations participate in the planning, establishing, managing and harvesting of forest crops, and so receive a major proportion of the socioeconomic and ecological benefits from the forest."

Eckholm et al, (1984) forwarded their views on community forestry: "Successful community forestry requires...genuine popular participation in decision-making... Experience has proven time and again that participation is more than a development cliche; it is an absolute necessity if goals are to be met. But working with people rather than policing them is a new role for many foresters."

- J. Revington, Rainforest Information Centre (1992) told; community forestry has the following characteristics: the local community controls a clearly and legally defined area of forest; the local community is free from governmental and other outside pressure concerning the utilisation of that forest; if the forestry involves commercial sale of timber or other products, then the community is free from economic exploitation of markets or other pressure from outside forces; the community has long-term security of tenure over the forest and sees its future as being tied to the forest"
- J. Burley, Oxford Forestry Institute has found; "Community forestry, social forestry and rural development forestry are more or less equivalent and reflect Abraham Lincoln's view of democracy government of the people, by the people, for the people."

Rao (1991) told that "The political dimension of community forestry makes it a venue for people's struggle against domination and exploitation of the community's resources by 'outsiders'. Ecology, equity and social justice are part of this struggle."

During the past 30 years of community forest implementation, about 1.2 million hectares (or 25 percent of existing forests) of national forests has been handed over to the 14,300 local community forest user groups. The user groups cover about 35 percent of the country's total population. The achievements of the community forestry can be seen in terms of better forest condition, better participation and income generation for rural development and institutional building at grass root level.

2.4 Community Forest management the environmental consequences

Community forest management is a central strategy on the way to improved environmental management. As the massive loss and the degradation of forests in the 1950s,60s and 70s shows, the previous protective forest policies in Nepal failed. There are two reasons for the failure. One the one hand no incentives for sustainable forest management were undertaken. On the other hand the combination of two crucial issues, poverty alleviation and environmental management was not permuted. Also, limited rights for access and use by rural communities encouraged short- term extractive activities, causing forest degradation.

Because these points were changed and applied, the "community forest system" succeeded.

In general, especially for Nepal forests play a particular important role. They are a key source of subsistence and economic products, as well as essential watersheds, wildlife habitats, centres of biodiversity and CO₂ sinks. Not to forget the relief conditioned special function of erosion control. Hence all of Nepal's urban and rural centres depend to a soundly managed landscape.

The results for landscapes after 30 years: "The condition of community forests has generally improved greatly, while the national forests have noticeable degraded". And for Livelihoods: "Community forestry can be successful in improving livelihoods when people are included in the process and involved in decision making."

[Source: Emerging issues in Community forestry in Nepal, 2002]

All in all Nepalese areas have improved in conditions of natural environment in the last decades. In the whole Mid-hills region occur more trees in private holdings than 30 years ago. This is due to the effect, that grazing, harvesting of fuel wood, fodder and green material was limited. The limitation allowed the resources to regenerate.

But not all CFs have improved. Residents which were excluded from their traditional forests began cutting their own nearby forests to expand pastureland. It is also common, that excluded or deprived residents were evading to national forests in the vicinity. These national forests became degraded, because of uncontrolled overuse. As an example, in some high mountain regions (2000m to 4000m) the sub alpine fir forest got cleared. The forest areas decreased by 20% in the last 14 years and shrublands and grasslands increased by 13.5% and 6%.

Exclusion of residents of distant regions which were accustomed to use these areas for seasonal grazing caused them to use higher and ecologically more sensitive land. By now the sensitive ecosystem of these areas is due to the "indigenous pasture management system" widely still intact. But it is likely to be overused in the future.

It is a fact, that in all three regions of Nepal the national forests get more degraded, as a consequence of establishing community forests. As shown in the above examples the crucial point is that all landless people are forced to meet their needs by using the national forests. An important part of that problem is conditional to the limited power of district forest officers (DFOs). They are not empowered to control the national forests. So there is a loss of 2.3% of forest in Mid-hill and high mountain region, outside the community forests.

In addition, as some examples in the Terai show, poorly functioning user groups can cause further degradation, ineffective forest management and overuse, as well.

[Source: Nalini Kumar, 2002, World Bank]

Chapter 3

Research Methodology

The present study is based on both primary and secondary data and more specifically it is based on qualitative primary data. The Research study is focused on Syalapani community forest area.

3.1 Research Technique

3.1.1 Observation

Observation of the Syalapani community forest area has done in many times to assess the physical and operational status of the forestry project. Information on different forest resources and products was collected by this method. The advantage of this method is that it gives an immediate and vivid understanding of the problem.

3.1.2 Unstructured & Qualitative Interviews

Unstructured interviews were carried out with the residents, who included housewives, local ethnic and low caste residents, different local residents at teashops, and those met while traveling through the community nearby the Forest area. For this, rapport was built with the interviewees by explaining to them the study and its purpose. This type of interview is to help in understanding varying Socio-economic aspects of the village, as well as cross checking the data obtained from Syalapani Forest Users Office on the operational condition of the Community Forestry. Conversation rather than direct questioning was usually perceived by rural people to be more polite, more interesting and expressing a genuine concern about them and their surrounding situation.

The qualitative interview extracted the information on the following issues from the field:

- Social and economic (income generation) information.
- Impacts of forest resource to community people.
- Sustainable livelihood, environment management etc.

3.1.3 Data Collection Types

Both primary and secondary data was collected for the study; although the study mainly depends upon the primary data collected by qualitative method. At the time of sampling, caste, ethnicity and gender balance were taken into consideration. Secondary data such as population, figures, Forest Users' Committee information has been drawn from official documents. Mostly qualitative data have been collected.

3.1.4 Data Analysis

- Data is analyzed in order to measure the potential impact of the community forestry to functioning of structures of the community and sustainability.
- Simple Computer Software like Word and Excel are used for data analysis. Geographical Information system (GIS) software: Arc GIS is used for plotting the Syalapani, study area.
- Figures, graphs and tables are included as per the requirement.

3.2 Research Area and its special features

3.2.1 Dang District

Dang District is a part of Rapti Zone, is one of the seventy-five districts of Nepal, a landlocked country of South Asia. The district, with Ghorahi, Tribhuvannagar as its district headquarters, covers an area of 2,955 km² and has a projected population (2008) of 536,557; the population density of the district is 156.47 km². The literacy rate of district is around 58%. The district is divided into two valleys Dang and Deukhuri. There are 39 VDCs and 2 Municipalities in Dang. East—west Mahendra Highway run from Deukhuri valley has 10 VDCs. It has total forest area of 192,155 Hectare (67%) and has community forestry area 78.500 Hectare (37%). There are 402 community managed forests in Dang.

There are many Tharu people living in the district. Since the early 1990s, activist groups have been attempting to eradicate the practice of child

indentured servitude among the Tharu, many of whom sold their young daughters to wealthy Hindu families in urban areas.

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Map3.1: District Map of Dang

[Source: DDC, Dang, 2008]

3.2	An overview of the Syalapni Forest area			
	Map 3.2: Overview of Laxmipur VDC, Dang			

Indo-Gangetic plain in the south of Nepal, is home to nearly half the

population of Nepal. And has major urban centres. The Terai's fertile soil and

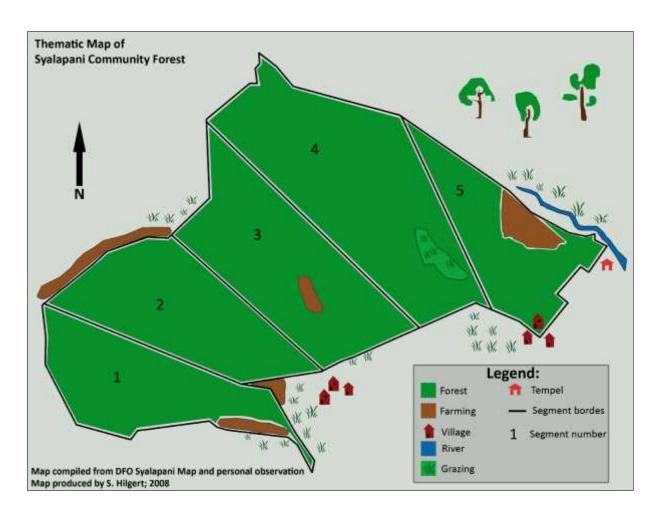
high population density (330 persons per square km) set it apart from other parts of the country.

Of the total land area of about 147181 sq. km. of Nepal, nearly 55334 sq. km. is under the forest area. Thus, forest forms about 37 per cent of the total land (through NGOs claim that it is less than 29 of total land area of Nepal). Due to the geographical diversity, there are various types of climate and vegetation here. Valuable Sal (shorea robusta) forest extends from east to west in the Terai. Sal forest is also found in the lower hilly region and the valley.

Photo 2: Tharu houses with corn field; Source: Nepal, 2008

The mid-mountain region has Chilaune (schima wallichi) and Katus (Cestanopsis indica) forest while pine forest is found in the upper mountain region. As they grow fast, these forests provide fuel wood, grass, and timber. People in the mountains use them as community forests and depend mainly on them to meet their needs. There are Sal forests in the upper part of Chure.

Map 3.3: Thematic map Syalapani VDC, Dang



3.3 Ecological potential of the region

The Terai plains comprise about 487,300 ha of forests lands, whose main species is the high value Sal (*Shorea robusta*) 43 percent of total stem volume; a single mature Sal tree may fetch 1,000 US\$ or more. The Terai also provides habitat for globally important endangered species, such as Asian rhinoceros and the Royal Bengal tiger and variety of species. Their presence generates significant revenues for local people through ecotourism. The region has the best road network in the country. So its forests are highly accessible. The region also boarders to India, which has a huge timber market; this presents tremendous potential for future development and management, while posing an enormous threat to forest protection.

The Sal (*Shorea robusta*) forest in the area of Syalapani is a typical dry monsoon forest, which set up close and high growing forest formation. A Sal tree can reach more than hundred years and grows at a mean speed. Sal likes bright sunny habitats and can barely grow in umbrageous spots.

The dry season is between 2–3 and 4-5 month per year. Due to the fact, that the forest formations are dedicated by the monsoon climate, the yearly dropping of leafs is also dependent to the occurrence of the dry season. The dropping of leafs in the higher and lower parts of the canopy is affected by the dryness and modulates the formation of the leaf litter layer on the ground. The leaf litter layer again controls the combustibility of the forest.

Historically the forests in south Asia were influenced by the humans for the last 12.000 years. This influence includes the use of fire in a huge spatial scale. Means, that fire was brought in, in most of the forests from Thailand, India to southern Nepal. Hence the evolution of forests was influences by the humans it is inseparable connected to fire. During the last ice age this part of Asia was drier than it is in recent times, but the influence of fire preserved the actual state of dry forests, as it compensates the change of climate in the last 12.000 years. This leads to the idea that fire perturbation is more the rule than an exception. Therefore a selection of the vegetation towards xero- and pyrophytic adaptation can be assumed.

Shorea robusta shows different adaptations to fire perturbation. Sal has a thick bark, which protects the inner parts of the tree by isolation, a very high resprouting capacity and a strong juvenescence. Especially the epicormic sprouts are typical for Shorea robusta.

In terms of biodiversity the Sal in Syalapani forest is not assimilable to older natural forests, because it was afforested about 25- 30 years ago.

The forest is dominated by *Shorea robusta*. There are only few other tree species like Sisoo (*Dalbergia sissoo*), which occur rarely in the forest. The understory growth is strongly reduced to a minimum or is not present. The trees are mostly at the same age, between 25 to 30 years. The number of trees between 1,5m and 15m in height is very little.

In the last 10 years Oil-Palms were planted, which occur in loose associations in the forest.

Besides the fact that the Sal forest is approximately a monoculture, which makes the forest delicate for diseases and calamites, there are more problems present. Further problems in Syalapani are a low or reduced biodiversity of herbs and soil fauna, erosion and general degradation of soil.

The low biodiversity is on the one hand due to the formerly deforestation of the forest in the area and on the other hand due to continuous use by the resident villagers. As Sal produces precious timber it was mainly planted during the afforestation in the 1980s, this determined a low biodiversity in these days. But the biodiversity is also modulated by fire perturbation which occurs regularly in Syalapani forest. Even if the fire burns the ground discontinuously it causes a selection, which gives the Sal tree a locational advantage. It turned out in the questioning of the villagers, that most of the fires are ignited by cigarettes thrown away by unscrupulously persons. The intensity of the fires is mainly influenced by the moment and amount of leaf fall, and the characteristics of the understory growth.

Because the understory growth is missing in big parts of the forest, the soil in the spans between the root mats of the trees are not stabilized and are susceptible to erosion. Especial in inclined terrain the erosion can cause a severe loss of soil.

Box 1: Land degradation in Syalapani Forest

There are three types of land degradation in Nepal, physical, biological and chemical degradation. The predominant types in Dang district are the physical and biological degradation. Thirty years ago there was no or only a little forest in the area of Syalapani, the erosion and the reduction of soil organic matter deteriorated the soil quality. The above layers of the soil were flushed away in these years, while in recent times the soil is partly compacted and hard set. The erosion also caused and still causes a change of geo-morphological patterns. For example, former small riverbeds were cut deep into the ground and rivers shifted.

About 80% of the surfaces are not covered by under story plants and even if there is leaf litter on the ground, the amount of biomass carbon in the soil is sparse. Further the activity and diversity of soil fauna is strongly reduced. Today the trees provide cover for the soil, by slowing down the speed of the rain drops. Still there is a moderate runoff inducing more erosion, which can increase during the monsoon. The root mats of the trees effect only a small area around the trunk with protection of erosion. Especially after the dry season the runoff is extremely high, because the surface is caked together and is not capable to absorb any water in the beginning. A high runoff induces that less water can infiltrate to the ground. This leads to a leak in replenishing the natural wells. This again has direct influence on the socioeconomic conditions of the villagers in Syalapani.

Other plants like sling plants and the majority of herbs are not able gain a foothold in the forest. For many plants the missing humus layer makes it hard to germinate on the ground, while the seeds of *Shorea robusta* are more adapted to this situation.

In terms of degradation, fire, selection of vegetation, erosion and grazing are influencing each other and can cause an amplified and accelerated degradation.

3.4 Socio-economic situation of the Research Area

Most of the people of Syalapani area depend on agricultural activities. There is scarcity of water for irrigation. Because of this they are farming only in summer season. It is difficult for them to live from their production, so people use to go to India to get any types of work for the betterment of their livelihood.

Inhabitants of the research area belong to different castes and ethnic groups. The indigenous population, primarily *Tharu*, once constituted the majority of inhabitants. The region's population has grown, however since eradication of malaria in the 1950s. A steady influx of migrants from the hills has settled mostly in cities or created new settlements in forestlands, altering the demographics of the region. Most of the people now living in the northern part of the Terai are new migrants who either cleared the forests or bought land cleared by others. Ethnic and tribal groups are traditionally dependent on the forests originally sited the Terai, but they are now noticeably absent from forest groups. *Tharu* and other indigenous groups live in the lowlands which

were once richly forested. Major harvesting in the late 1800s and 1900s to supply wood for India's railroads cleared many of the lowland forests leaving forests primarily in the northern part of the Terai.

Photo: A scenery view of Syalapani Forest Area

Chapter 4

Data Analysis and Presentation

4.1 Result analysis- Syalapani Community Forest Management

4.1.1 Overview of Syalapani community forest

Syalapani community forest occupied 320 Hectare area of Laxmipur VDC ward no. 9. There are members of altogether 339 Households of 6 different Tole/communities. The total population supplied by the forest is 1745.

Table 4.1: Area and population covered by Syalapani Forest

					No. of
Total area	Total	Po	Tole/		
covered	Households		community		
			involved		
		Male	Female	Total	
320 Hectare	339	891	854	1745	6

Source: Community Forest Users Committee, 2008

The committee is responsible for:

- j increasing the fairness of decision making and management by ensuring that FUGs represent all social groups, including women.
-) encouraging alternative employment opportunities to reduce dependence on forest resources.

4.1.2 Syalapani community forest user group

Syalapani community forest committee is registered in 2052 B.S. The committee is formed every two years by community forest users group. In general assembly election is held to elect the new committee. The running committee is formed with representation from all caste and ethnic group.

Table 4.2: Characteristics of the VDC

Date of	No. of member in		Caste and Ethnicity distribution				
Registration	the committee						
	Male	Female	Brahmin	Chhetri	Baishya	Sudra	
2052-12-2	7	4	6	-	3	2	

Source: Community Forest Users Committee, 2008

The above table shows totals of 11 members in the committee 4 are women. The committee is dominated by Brahmin i.e. 6. There is no representation from Chhetri, 3 from ethnic caste and 2 from marginalised caste have representation in committee.

4.2 Job and employment opportunities

The community forestry contributes in a number of ways to improve people's livelihoods. Experience of community forestry has shown so far that it is possible from community forestry to reduce poverty in a number of ways. Now, there are no income- generating activities started for the betterment of community people.

The programme balances the targeting of activities specific for Poor and Excluded (P&E) groups with other activities that are of benefit to the general community. This is particularly the case in relation to many of the forest management activities that necessitate the understanding and participation of the whole community.

Though poverty and social exclusion is often correlated, this is not the norm. In a community where there are three distinct groups within the broader category of poor and excluded (P&E) i.e. poor and socially disadvantaged groups (e.g. poor Dalits or poor women headed households), poor but socially advantaged groups (e.g. poor high caste households) and non-poor but socially disadvantaged groups (e.g. non-poor women, Dalits, and Janajati). All these groups require assistance at various levels but the priority for resource allocation and types of interventions targeted to them may differ.

4.3 Monthly income scenario

Out of total 14 interviews in Syalapani; most of the householders are very poor. They do have restricted excess to food. They depend on agriculture farming. But their production is not sufficient for whole expenditure. Most of the male house owner used to go to India to work and earn some money.

People are somehow using forest resources for their livelihoods. Some are using fodder, fuel wood, leaf litter and small —diameter timber to support agriculture or collection of medicinal plants to provide income to buy enough food, whereas others need access to forestlands to graze their animals. People's access to the forest and involvement in decision making directly affect the distribution of goods and benefits and, their livelihoods. Few places exist where access to forests is so important for people's daily survival.

There are some key components of community forestry hat effect people's livelihoods are forming the user group, making decisions, and distribution of benefits.

4.4 Selling scenario of forest products

Forest product collection laws favour richer households: less restricted collection is only allowed for products such as fodder and leaf litter, rather than more valuable resources, such as firewood and high value non-timber forest products (NTFPs).

A widespread belief is that women and the poorest members of communities rely most heavily on community forest resources. In Nepal, however, richer and male-headed households rely more on these resources.

High caste households and those headed by men tend to have more private land and livestock. These households also use forest products the most and so they receive the highest income from shared community resources. The Well-educated people use fewer forest products, because they have alternative employment opportunities.

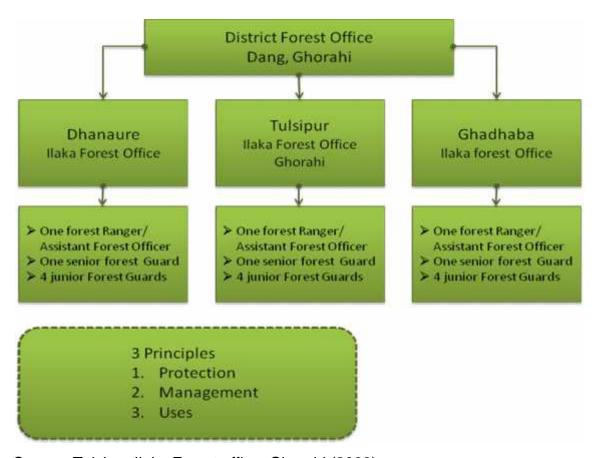
Handing over land rights and resource management powers to communities in Nepal has provided fewer benefits to the poorest people. In order to improve equity in community-managed forests, the different groups within communities must be considered. One potentially fairer system would be to allow for transferable rights over forest products within a common property system. For example, poor people who do not have livestock could sell their share of forest products, such as tree and grass fodder, to another member within the FUG.

4.5 Environmental Management

4.5.1 Management by the DFO

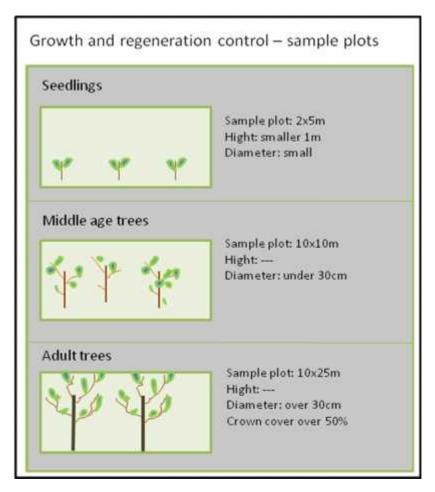
The DFO (District Forest Office) is the governmental institution that helps to manage and control the forest communities on the regional scale. The support comprises technical support, legal support and monitoring of the forest development. The structure of the DFO in the Dang District is shown in figure 2.

Figure 4.1: Structure of DFO



Source: Tulsipur Ilaka Forest office, Ghorahi (2008)

The technical support is executed by the forest officers who control, plan and survey. Whereas the growth control and the work in the forest in particular, is mainly done by the senior forest guards or the junior forest guards. Where the samples are collected and in which manner the trees are scaled is explained in figure 3. The sample plots are scattered over the whole Syalapani forest area, which is divided into five parts. The distribution of the plots is not at random, but follows a linear pattern. So there are sample plots in all of the five sections and along the borders of the forest as well. The surveying of the sample plots is important to control the growth and the actual status of the forest.



Source: Nepal, 2008

These are crucial figures for the calculation of the utilization potential of the forest. The classification of the measured trees into three groups makes it easy to get information about the age distribution and juvenescence. To generate long term information the collected data is stored. By the growth rate of the trees the actual and later use by the user groups can be planed and adjusted. This makes sure, that there is no overuse and misuse in the forest. Besides the observing of the sample plots, the forest guards also control the rest of the forest in irregular intervals. After the plan set up by this information and the experience of the DFO and the UGs, the timber production is managed.

The second part of the support given by the DFO is legal support. If there are conflicts between different parties in the UGs or between UGs and external parties, the DFO gives legal advices. It is very important, that the DFO always represents a neutral interface, which can mediate between both sides. The goal is to find decisions which create a "win-win" situation.

The third part of the support is monitoring. It is performed once a year and includes supervision over:

- The consume of forest products and NTFPs
- The way how decisions are made
- How the available money was spend

It also includes an auditing and debates with the UGs members.

4.5.2 Shifting use in Syalapani

As there are five sectors in the Syalapani forest, the utilization is structured in a cycle with five segments. Each segment represents one type of utilization. For example the cycle starts in segment one with cutting of trees, followed by weeding and pruning, tree improvement and gathering of grass as the fourth station. The fifth station is the regeneration phase, in which it is not allowed to use this part of forest in anyway.

Figure 4.3: Shifting use and plan

Source: Tulsipur Ilaka Forest Office, Ghorahi (2008)

In this way the needs of the villagers can be met and the forest is less likely to be overused. If necessary the phases of resource extraction can be adjusted to the actual state of the forest sector. So if the grass is not growing fast enough the regeneration phase can last longer to make sure that there will be enough grass for weeding or gathering in the next year. The phases of use are also controlled with help of the DFO, but the VDC sets up the parameter for the utilization as it represents the villagers and their needs. For the planning of the duration of utilizations and especially the number of cut trees the monitoring by the DFO is important.

4.5.3 Fire management and degradation

As fire perturbation plays a central role in the mechanisms of degradation and also in relation to the productivity of the forest, it should be a major concern to learn more about the effects of fire to the forest. At the actual state it is recommended, that the DFO and the villagers do more fire protection efforts, to minimize the number of fires, which occur in the dry season. The staying away of fire could bring the forest more productivity of herbs (NTFPs), grass and other fodder materials. So there would be a direct benefit to the residents, which should be sensible after a short period.

It is proven, that in other comparable regions the staying away of fire perturbation can lead to an advancement of succession. In spite of the fact that in different places the succession is a disadvantage for the forest users, because it decreases the multiple usability of the forest by blocking the access to the forest for animals and humans, this succession of vegetation would likely increase the biodiversity in Syalapani and additionally stabilize the ecological system. So succession is wanted to improve the potential production of the forest and to make the forest more unsusceptible for any kind of disturbance. To control the different factors influencing the forest, an integrated fire management should be developed, including a description of the complex fire- ecosystem.

Photo 5: Degraded soil surface after fire perturbation; Source: S.Hilgert

Chapter 5

Summary, Conclusion and Recommendation

5.1 Summary

In Nepal, community forestry concept is a courageous, innovative and future oriented approach towards participatory forest management by local people. Community forestry in Nepal provides some key outcomes in the aspects of livelihoods and democracy and identifies two key lessons in relation to forest resource management, social inclusion and contribution to democratization in Nepal. First, mechanisms for policy amendment and revision for community-based forest management need to be based on real-life experiences rather than ad hoc and top-down decision-making. Second, if given complete autonomy and devolution of power, community forest user groups can become viable local institutions for sustaining forests and local democracy, and delivering rural development services by establishing partnership with many NGOs and private sector service.

People dependent on forest resources often live in extreme poverty. This means that forest management is central to poverty reduction.

- Poverty reduction interventions can work with forest communities to increase income-generating opportunities, such as tree cultivation on farms.
- Property rights must be adjusted to meet local needs; no standardised solutions exist.
- External evaluations show deeper integration and coherence is needed between forestry strategies and rural development initiatives.
- Poor and marginalized members, however, do not benefit. They often lack the resources to pay for forest products, but need them the most.
- Development priorities may not consider the needs and aspirations of the poor and disadvantaged.

5.2 Conclusions

Increased community participation in forest management agrees with current changes towards a more diversified understanding of rural livelihoods amongst forestry organisations and development workers. This change in thinking recognises rural people as having complex livelihoods that depend on diverse resources, not as farmers who depend on a single resource. Policymakers must recognise the differences between benefits sharing approaches, in which communities follow external rules and benefits focus on incomes, and power sharing approaches, where participation is based on empowerment and communities are central to decision making.

- Community management is an effective way to transfer property rights to rural people.
- J Land rights based on community management are more secure for marginalised people, who are often unable to defend their rights to land access through legal systems.
- Community management can improve resource use in tropical forests; different groups use a diverse range of resources, instead of one owner exploiting one or two resources.
- It can promote social equity because several groups share control over resources, including marginalised people. If excessive rent seeking can be avoided, collaboration with state forest authorities may improve management and market access by villagers.

5.3 Recommendations

Community forestry policy should be flexible and reflect regional variation and enable to new models for forest management. User-needs for timber, grazing, NTFPs and subsistence products – must also be considered. Intensive and sustainable management of forest has tremendous potential for employment. Users groups and district forest staffs n general need sound and simple scientific information to manage forests for the desired products and services.

The goal should be to establish a mechanism for sharing defined roles and responsibilities and to increase the commitment and support of local bodies in

sustaining the community forestry user groups and forests. Despite the success story, community forestry faces many difficulties and challenges. In particular, management of high value forests in the Terai and possibility of scaling up community forestry in high altitude and low lands; closer working relationships between government bureaucracy and local communities and the issue of equity to benefit the most vulnerable group of the society are the main challenges that need to be debated and addressed collectively.

Man plays vital role for conservation of forest resources. People need forest product to maintain their daily life. The forest resource has intimate relationship with religion and culture. Random and unwise use of forest adversely affects on automatic natural processes of forest for its growth and development. It also obstacles the reset of forest resources. Afforestation is an activity related to the conservation of the environment; and its importance has grown in Nepal since massive deforestation has taken place as a complex problem.

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Annex

Qualitative Questionnaire

- → Ways of HHs selection (sampling) i.e. Separation of ethnicity / ethnic caste?
- → Where and why? Who?

Baseline Data:

Name:

Caste/ Ethnicity:

Family size, structure:

Occupation:

GPS: Latitude:

Longitude:

Subjective Questions:

- 1. What are the changes in the last 25 / 2 years?
- 2. How did the Job- opportunities change?
- 3. What are the changes in the income situations?
- 4. Do you think that the "forest community" is a good thing?
- 5. Do you think that the rich (high caste) people in the village are dominant? And are these people over-advantaged?
- 6. Which forest products do you produce, sell, transport?
- 7. Where do you sell, buy?
- 8. Are you satisfied with the selling prices of forest resources?
- 9. And how did they change?
- 10. Deforestation and firing? Why do people make fire in the Forest? And who?
- 11. How much money do you have for the whole month?
- 12. Tree nursery; how many? Whom? Who pay?
- 13. What is "bearing angle", fore/back bearing
- 14. Details about organization and bureaucratic system? (Organigram)