

Research Report

On

A study of Opportunities and Constraints for Development of Private forestry Model in Mid-Hill Region
of Nepal

(A case study from Kavre and Kaski district of Nepal)



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Forewords

The concept of developing forests on private land is emerging these days. Private forestry provides several benefits, but it has received little attention from the forest managers. Agendas on community forests, collaborative forests, leasehold forests are discussed at different forums but private forestry is getting minimum priority however, it has a vital role to play in agriculture and food security.

In the previous forest surveys, private forests were excluded, but now the Forest Resource Assessment is considering taking into account private forests to find out the statistical parameters of both national and private forests. The Private Forest Development Guideline 2070 clarifies in detail the concept of private forestry and also simplifies the process for developing private forestry. There are many models and operational plan for managing tropical and subtropical forests situated in the Terai part of Nepal, which is as more expanded and block forest than the Mid-hills of the country and also less hindrance in land tenure system.

I would like to thank Gopal Gautam ,Prakash Lamichhane ,Rajendra Basukala and Sundar Rai for preparing this report. I would like to express my gratitude former Director General of FRTC Dr. Deepak Kumar Kharal and Former DG Prakash Mathame, Deepak Kumar Kharal, for supervising and guiding the program. I would like to further thank to DDG Mr Dhirendra Kumar Pradhan for his support. I am further thankful to Reviewer team Mr Bimal Kumar Acharya, Mrs Manju Ghimire, Mr Bishnu Prasad Dhakal and Mr Kiran Kumar Pokharel for improving this document in publishable form. At last but not least, I acknowledge all professional, FRTC staff and who involved directly or indirectly to shape this document.

I am very hopeful that this document will be helpful to guide and support the policy maker, researcher and student for further management of private forestry from this report.

Yam Prasad Pokharel
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1) Introduction

The concept of developing forests on private land is emerging these days. Private forestry provides several benefits, but it has received little attention from the forest managers. Agendas on community forests, collaborative forests, leasehold forests are discussed at different forums but private forestry is getting minimum priority however, it has a vital role to play in agriculture and food security.

There are many historical events ownership, definition, establishment, utilization, registration and marketing. Those events can be categorised into five phases on the basis policy formation and their implementation i.e. before democracy (2007 B.S.), Interim Phase (2007 to 2016 B.S.), Panchayat phase (2017 to 2046 B.S), Reestablishment of Democracy (2047 to 2063 B.S.) and after Democratic Republic (2063 B.S. and after). A look at our past policies and efforts at initiating private forestry shows that there is documented history about private forestry development dating from the 15th century. In 1436 B.S., Jayasthiti Malla promulgated a law, according to which any private land left barren for five years had to be convert into a forest. During the reign of Prithivi Narayan Shah, there was a penalty for those felling trees. The Muluki Ain of Nepal, promulgated in 1903 B.S., banned the felling of trees on other's private land. Juddhika Shumsher in 1991 B.S. introduced a provision where one could cut an old tree only after planting a new one. He also made it mandatory to seek prior recommendation from the government to fell private trees.

In 2013 B.S. Nepal endorsed the Private Forest Nationalisation Act, 2013 to nationalise private forests. According to this law, any forest larger than 25 ropanis in the mountains and 5 bighas in the Terai region was nationalised. The Forest Act 2018 had a positive role in developing private forestry. Article 33 of this act had a provision, which allowed the planting of trees by the landowner to sell forest products. Article 39 (A) of this law mentions about providing technical assistance to the private forest owners for forestry development. The National Forest Policy, 2033 formulated a working policy for developing private forestry while the Master Plan for the Forestry Sector also considers private forestry as one of its major programmes.

In 2049, His Majesty's of Government promulgated the Forest Act. This act further clarifies the concept of private forestry by categorising forests into National and Private Forests. According to this act, a private forest landowner should submit the necessary documents to the District Forest Office (DFO) for registering private forests. After examining the documents, the DFO provides a certificate of registration. The DFO can provide technical assistance to the private forest owner should there be such a request. In the later years, the Ministry of Forests and Soil Conservation formulated a strategy for developing private forestry.

In the research and survey aspect also there has been positive development. In the previous forest surveys, private forests were excluded, but now the Forest Resource Assessment is considering taking into account private forests to find out the statistical parameters of both national and private forests. The Private Forest Development Guideline 2070 clarifies in detail the concept of private forestry and also simplifies the process for developing private forestry. For example, the DFO has been providing seedlings free of cost for developing forests on private land. Until now, 2,455 private forests covering 2,360 hectares of land have been registered in Nepal.

There are many models and operational plan for managing tropical and subtropical forests situated in the Terai part of Nepal, which is as more expanded and block forest than the Mid-hills of the country and also less hindrance in land tenure system. However, in the Mid-hill part of the country there are small pieces of land separated with steeply sloped hills that creates difficulties in the management of forest in

the form of clusters. Additionally, there are problems of small land holding in the region. To solve the condition different kinds of forest management systems are practiced in Nepal, among which Community Forestry (CF) is highly practiced in the Mid-hills of the country. People are managing timber and firewood from community forest whereas they are fulfilling their crops, fodder and livestock needs from agriculture residues. However, in the recent period, people are migrating towards urban areas or some foreign country seeking off-farm job opportunities. Due to the situation, their agricultural land is being exposed and fallow which is ultimately converting in the grassy and bushy areas and some of those land are matured as virgin and unmanaged forest on private land.

According to Annual Agricultural Census National Report, 2002 and 2012 the number of forest tree species on private land holding increased dramatically as 10 times, so this research is very useful to manage those trees as Private Forestry Model. The study was carried out by DFRS with the aim of developing private forestry especially for the middle hill region of Nepal. The study was mainly focused on the opportunities and constraints for development of the suitable private forestry model to manage those types of forested areas in private land, which is very crucial for mid-hill region as well as for creating job opportunities using forest resources in the same region.

Chapter 2: Objectives of the Study:

2.1) General Objectives: To assess opportunity and constraints for developing the suitable Private Forestry Model for Mid-Hill regions of Nepal.

2.2) Specific Objectives:

- To access the present condition of Private forestry asset in Mid-hill region.
- To find out problems of mid-hill private forestry.
- To identify the potentiality/opportunity of private forest in the Mid-hills region.
- To recommend valuable suggestions to authorized sectors and stakeholders for Rapid development of private forestry.

Chapter 3: Limitations of the study.

- This study is carried out in just two districts of mid-hill regions which might not represents the 39 districts problems and situations.
- The research focuses on social views and people perception only whereas; the study do not covers exact situation, dimensions, health and numbers of trees and lands.
- This research does not cover the market availability, which is very important part for private forestry development.

Chapter 3: Literature Review:

The Middle hills are low lying and tectonic valley, lie between Northern and Southern belt. It is a 40-60 km wide running along the length of the country parallel to the Himalayan range. It consist high ridges and steep valleys with numerous streams and rivers. The elevation ranges from 800–2,400 metre. The climate is subtropical with variable micro-environments. The farming has been done in the terrace hill slopes. Farms are small and subsistence types. Soil is of low to medium fertility level. This belt is densely populated. Middle hills occupy 39 districts, and consists about 41 percent (6152,460 ha) of the total land area in which 32 percent is agricultural land, 45 percent is forests, 8.9 percent is under rangelands and rest others. Mid hills support 45 percent of the total population.

Private Plantation system is biologically more complex than other systems for using waste land/degraded land, bunds, orchards through either forestry fuel-wood, fodder wood, timber and fruit cultivation or forest farming. A common hypothesis is strongly employed to the private plantation on farm land that integration of the trees which increase the overall productivity, meet the needs of people, reduce the pressure on forest, reduce the wind velocity, soil erosion and improve the physical and chemical property of soil, increase the biodiversity, ameliorate the environment. There have very few attempts on this aspect. However literature reveals ample vacuum as regards to systematic studies on private Plantation, its designing and implementation and during this, their problem and constraints faced by farmers. This chapter seeks to review the available published literatures on Private Forestry. The general history of forest management of Nepal is reviewed. Brief review of status, problem, prospects, socio-economic constraints and Govt. policies regarding Private Forestry implementation are cited. The literatures related to potentialities of plantation in communal lands, income and employment generation aspects have been made to review the information available on Private Plantation as following.

Forest Act (1993) defined private forests as forested or degraded forest land that is owned and managed by private individuals or organization for utilization and selling of their forest produce according to their own interest.

Community and private forestry division, defined private forestry as raising tree on private agricultural or forest land used to supplement animal fodder, fuel wood and other basic resources or simply to provide saleable produce.

National forestry plan, prepared in 1976, was realized the above facts. This plan attempted to change the negative attitude and action of private forest nationalization act, 1957 and provided more flexibility and allowed local people in the control and management of forest resources.

Forest Act, 1961 & in 1978 have given right to the people for Private Plantation due to the high rate of population growth, an extreme pressure has been created on the forest. Thus development of Private Forest is one of the best ways to reduce pressure on existing forests and to check environmental degradation by involving the people. Nowadays, govt. of Nepal has given an emphasis on Pvt. Plantation and Private forestry is introduced as a primary forest development Programme in MPFS/N.

MPFS (1998) reported that the great potential of private Forestry is due to wide variation in climate, soil and topography; Nepal is very rich in flora and fauna. It has 5.5 million ha. of natural forest (37% of the total land area), 0.71 million ha. Of shrub land (5%), 1.79 million ha. of grass land (12%), and 0.60 million ha of tree covered land adjacent to farms (4%).

FAO, (1978) reported that between 1964 and 1975, 1.5 million ha. of forest area has been decreased. If such discriminate destruction of the forests continues, the accessible forests in the hills would be disappeared in 15 years and in Terai within 25 years. In this situation scientific management and conservation of forests is necessary realizing this. Dept. of forest was established in 1994, in order to improve the forest management practices.

Bajaracharya, D., 1983) reported that, the railway network in the northern India was started for expansion which had the major source used for timber and boulder was the Terai forest of Nepal. The revenue collected from the sale of Terai forest products was estimated to about 40% of the national income were used in administrative as well as in other development works and did not given emphasis on forest management.

Mahat et al 1986b cleared the idea of Forest Nationalization Act 1957 which, enacted the Pvt. Forest nationalization Act to protect, manage and conserve the forest for the benefits of entire country. This Act

brought all forests land under Govt. control with an idea of taking away large forest holding belonging to only a small percentage of the total population for a more equitable distribution of this wealth among the people of the nation.

FAO/World bank 1979 reported that the act unfortunately, ignored traditional communal rules that regulated in forest use. Instead of inspiring people to move towards the objectives stated in the Act, it succeeded in fomenting destruction and suspicion of the people.

Briksharopan report B.S. 2044/45 stated based on the rules and regulation of community forestry that much forestry related projects are functioning in the country and majority of the projects have an objective of distribution of seedling free of cost for Pvt. tree planting programs and also from fiscal year 2033-34 to 2044-45, afforestation unit had distributed a total of 86, 23,834 seedling to private land holding for private plantation.

Tiwari, (1989) has stated that 2, 80,900 seedlings had been distributed by Resource conservation and Utilization project (RUCP) in Gorkha, Myagdi and Mustang district. All together 2, 18, 52,800 seedling had been distributed by Terai community Forestry Project,

Malla Y. B., (1988) has also stated that in fiscal year 1988/89 CARE/Nepal had distributed 2,52,118 seedlings while in fiscal year 1990 it was distributed 5,76,662 seedling for Pvt. Plantation. In the last 25-year period Pakharibas Agricultural Center has distributed over 200,000 seedlings and established about 500 blocks of fodder and fuelwood trees on the Pvt. Land.

Joshi, (1984) has stated that the total area has decreased from 6.4 million ha. in 1974 to 4 million ha. at present (1990) that is an annual loss of 120000ha. Other estimates say that these are disappearing at the rate of 3% per year. One ha. of cleared forest losses 30-75 tons of soil annually. In Nepal, approximately 4000000 ha. are cleared each year in diva sting landslides and floods.

Annapurna N. Das, (1999) has suggested that the common interest among rural households of both Terai and Middle Hills towards growing bamboo in private farmlands. Rural households in the Terai preferred timber species such as sissou (*Dalbergia sissou*) and fruit trees, which have high commercial values.

N.B.S. (2002) enumerated and calculated the number of Private Forest registered in High mountain, 55 consist 23.99 ha., in Mid Hills, 485 with 662.60 ha., and in Terai, 1708 have 1404.23 ha. of total 2248 of total 2090.82 ha. in Nepal.

Robinson, (1986) has reported that a number of estimates have been published which shows that farming system depends on forestland for fodder more than for other products. For instance, Wyatt-Smith (1982) calculates conservatively for the western Middle Hills that a ha. of agricultural land depends on 2.8 ha. of forest land for fodder, 0.24-0.48 ha. For fuel and 0.32 ha. for timber. Other estimates for fodder and leaf litter give a range from 1.6 ha. to 8.8 ha.

Master Plan consists of six primary and six supportive programs. Community and Private Forestry is one of the major primary Programmes. According to MPFS reports community and Pvt. Forestry aims to develop and manage forest resources through the active participation of individual people and communities to meet their basic needs. Being a major program, it has stressed more on support 46 % financial requirements of the total cost. The main component of Pvt. Forestry program is the distribution of tree or subsidized seedling to encourage the establishment of Pvt. tree forms. For the development of the Pvt. Forest it will expense on more area continuously and within 2010-11, Pvt. Farm's trees will be established in 3,25,000 ha. area.(Annex-2)

The output target of master Plan has a tendency to decrease the supply of timber, fuel wood, and fodder from natural forest, if it will be fulfilled by Pvt. Tree farms. About half of the biomass of fuel supplies

and almost three-quarter of total timber supply in 2010-11 will be fulfilled by plantation and Pvt. tree farms. (Annex-2)

Similarly total projected timber supply by different sources based on current trend was assumed from private farm up to 2010/011 will be 1034....., from forest 589....., from plantation 589....., of all total 2212.9 (Annex-2)

Fisher & Malla, (1987) believed that increased privatization unless accompanied by extensive redistribution of land could only decrease the access of poor farmers to forest products. From an analysis of the findings from two Panchayats of Kavreplanchowk district mentioned, it leaves little room for optimism about the potential for Pvt. Planting program for the benefits of small farmers.

Bhatta & Lamsal, (2000) expressed their view that Pvt. Forestry has potentiality to supply fodder, fuelwood and timber to meet the need of farmers if it is managed properly and can be reduced the pressure to both CF and NF.

Gentle P., (1990) has reported that there are some grazing lands available, which can be used for plantation. Some farmers in the hills and inner Terai have already developed by planting trees. Free grazing system is major cause of mortality of large number of seedlings, which has been a major obstacle for the Pvt. tree planting program.

Robinson, (1986) reported that there are several issues in the field but the potential for planting of trees on Pvt. land is bridging the gap between demand and supply of forest products.

Hardin, (1968) perceived that Pvt. Plantation is the opportunity to utilize an otherwise underutilized or waste land resources, and there is also a common assumption that trees on Pvt. Land are much more likely protected than on common land.

Leacyh & Mearns, (1988) analyzed the impacts of fuelwood and fodder shortages are presently confined to some places and some sections of the Nepalese population but the trend is towards more places and more people.

Annon, (1998) studied and collected attitude from people and suggested that people had become motivated to plant trees on their own lands due to scarcity of the forest resources.

Singh, (1991) concluded that private forest increases the productivity of marginal lands, generates employments in forestry activities and reduces the pressure on national forest.

The Master Plan for Forestry Sector states that the balance between demand and sustainable yield for the three main forest products is negative and forecasts that this trend will increase into the forecast able future. (HMGN, 1988)

Using the ratio of cultivated to uncultivated land as an indicator, the data presented in Annex-2 shows that in the Middle Hills and Terai pressure on forest land other uncultivated lands is highest. It is also in these regions that an increase in tree production on farms could make the biggest positive impact, because farmland covers such a large proportion of the area. (HMGN, 1988)

3.1) Literature regarding Government Policy:

Forest Act, 1993 and regulation, 1995, HMG/N has also made provision for registration of Pvt. Forest.

Provision relating to Pvt. Forests according to Forest Act 1993 is;

The owner of a Pvt. Forest may develop, conserve and manage it or use or sell and distribute its products by fixing their prices as he likes.

There is a provision to give certificate to farmers for Pvt. Forest.

•	Any individual or institution desirous of having a Pvt. Forest registered may apply to the DFO for such registration.
•	The district forest officer shall issue a certificate as prescribed after preparing necessary records of the application received under sub-section (1)
•	The DFO may make available necessary technical assistance to the owners of Pvt. Forests who have obtained certificates under sub-section (2)

3.2) Forest Rules 1995, HMG/N has framed the following rules:

3.2.1) Application for Registration of Pvt. Forest:

Any individuals or institution desirous of having a Pvt. Forest registered must submit an application in the form indicated in schedule 24 to the DFO concerned along with evidences to prove that he/it owns and occupies the concerned land. (Annex-1)

In case an application is filled under sub-rule (1), the district forest officer shall make necessary enquiries into the application, and in case it is proved that the land mentioned in the application is owned and occupied by the applicant, he may register the concerned land as a Pvt. Forest by explicitly mentioning the species and numbers of trees located on the land, and issue a certificate thereof in the fore indicated in schedule 25. (Annex-1)

In case the owner of a Pvt. Forest registration under sub-rule (2) plants new trees on the land owned and occupied by him, he must inform the DFO about the same in writing, explicitly mentioning the species and numbers of forest products.

3.2.2) Transportation of timber:

In case the owner of a Pvt. Forest wants to use for his own purposes the products of his Pvt. Forest at the place where it is locate, he may do so after notifying the District Forest Officer in writing either directly or through the concerned Ilaka Forest Office at least 24 hours before use, along with the recommendation of a member of the VDC or Municipality concerned, explicitly mentioning the categories and quantities of the concerned forest products.

The owner of a Pvt. Forest registered under rules may transport the products of his Pvt. Forest by providing a written information thereof to the DFO at least 24 hours in advance along with the recommendation of a member of concerned VDC or Municipality, explicitly mentioning the category and quantity of the concerned forest products, and having the matter endorsed by the forest check posts located enroots.

The owner of a Pvt. Forest, which is not registered under this chapter, must submit an application to the DFO either directly or through the Ilaka Forest Office (IFO) to fell trees on his Pvt. Forest. The District Forest Officer may conduct necessary enquiries with the application and grant permission for felling the trees.

Timber from a Pvt. Forest mentioned in sub-rule (3) may be transported only after obtaining a release order from DFO concerned and having the matter endorsed by check posts located en route.

For the purpose of transporting timber collected from trees felled in Pvt. Forests the commencement of these rules, an application must be submitted to the authority or committee prescribed by HMG by notification in the Neplal Rajpatra. The timber shall be transported according to the decision taken by the authority or committee so prescribed after conducting necessary enquiries into such application.

3.2.3) Duplicate copy of certificate to be issued:

In case the certificate of Pvt. Forest is lost, torn out or destroyed, or otherwise rendered useless, and in case the concerned Pvt. Forest owner submits an application for its duplicate copy, the District Forest Officer shall issue a duplicate copy accordingly.

Kandel & Keshav Raj, (1995) explained that policy instruments such as a hierarchy of permits to harvest trees, process of tree products and trade wood products have unnecessarily created a barrier in the wider adoption of trees on farms.

3.2.4) Literature regarding communal/Public land:

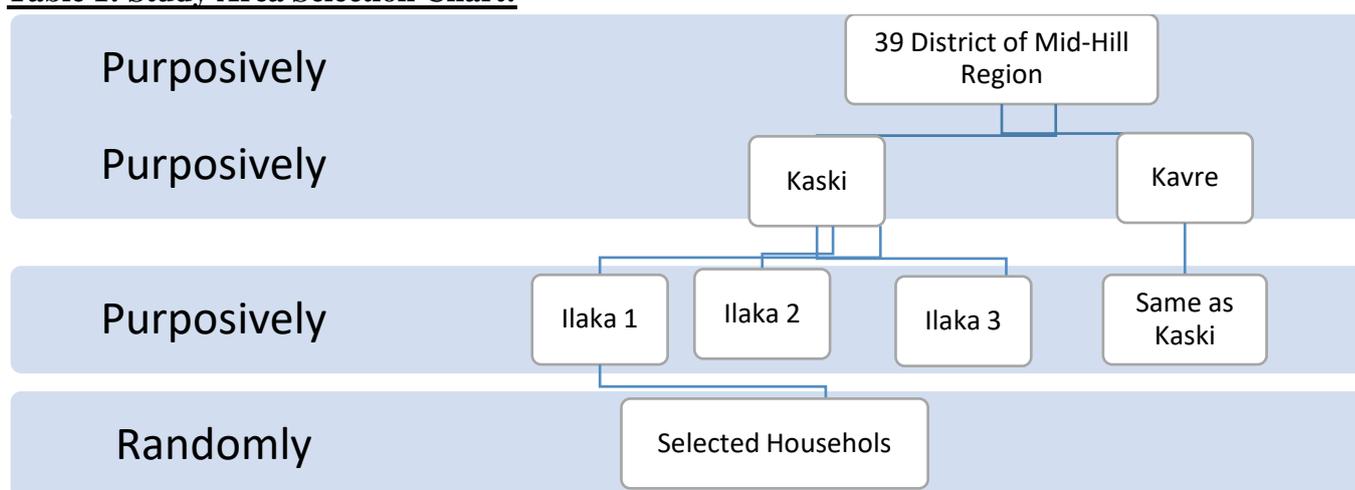
Chapagain & Debendra prasad, (1984) reported that rural HHs are likely to continue to rely heavily on public lands to meet their needs for firewood, fodder and nonfodder biomass. Given the high concentration for population per unit of cultivated land, the role of public lands as the main source of non-food biomass is bound to increase. Besides, growing land scarcity in the face of an expanding population is going to pose increasing threats to the area and quality of public lands unless some drastic steps are taken immediately. The results from the hypothetical experiments conducted in this study strongly suggest that individuals in groups are willing to contribute resources to the provision of collective goods, including public lands. Further it has been added that,....., the HHs were willing to curtail their level of extractive activities on exiting public land when led to believe that such curtailment would help pressure the quality of these resources.

Chapter 4: Methodology

4.1) Selection of Study Area:

The study area was chosen purposively based on certain criteria like expected knowledge of local people about private forests, implementation of private forestry programs by governmental and other organization throughout the districts. By the process and discussion among the researchers and other experts of DFRS two districts, Kavreplanchowk and Kaski were chosen to carry out research. Further specific sites of defined V.D.C were selected through the discussion with DFO staffs and Local CFUGs. After the purposive sampling of the household coverage 88 and 73 households were selected from kaski and kavre districts respectively. Before the selection of these households several discussions were made with DFO staffs, Regional Directory and CFUGs.

Table 1: Study Area Selection Chart:



4.2) Data Collection

4.2.1) Types of Data

Primary Data	Secondary Data
<ul style="list-style-type: none"> • Information about their land use. • Migration and employment Data of the targeted V.D.C • Overall Land use data of the V.D.C etc. • Plantation and seedlings distribution by DFO, DSCO and DADO for Private land etc. 	<ul style="list-style-type: none"> • Status of private forestry within district by DFO and DOF. • Annual Agricultural Census report and other information from Central Bureau of Statistics • Various Research article and thesis report related with Private forestry. • Publication from Various INGOs, NGOs and Governmental Organizations. • Government act and policies regarding private forestry.

4.2.2) Methods of Data Collection

a) *Semi structured Questionnaire Survey (Annex: 3)*

Pre determined questionnaire was asked to the randomly selected household within the area suggested by DFO staffs.

b) *Focus Group Discussion*

Altogether seven discussions carried out within the area suggested by DFO staffs. Three discussions were made in Kaski district whereas remaining four discussions were carried out in Kavre district. Mass discussion became fruitful to conclude the present conditions, problems and suggestions to develop private forestry models.

4.3) Data Analysis

Data were analyzed using using Excel and SPSS software. Social data's were analysed qualitatively and quantitatively. No statistical tests were carried out through the data analysis process because only social variables were used instead of statistical variables.

5. Result and Discussions:

5.1 Introduction of the chapter:

The results of the present investigation are presented in this chapter. The results obtained for present status of private forest, people attitude, problem and constraints of studied VDCs/HHs of selected two districts and existing policy of private plantation were discussed under different broad headings.

5.2). Assessment of the existing status of private forests.

5.2.1). People's perception about increasing Barren land and number of trees.

Majority of people (62.73%) in the study area feel that, the number of trees and area of fallow land are increasing in comparison to the past. This situation can be taken as potentiality of the region to develop those areas as a private forestry. Especially the number of trees increased remarkably after establishment of community forestry and the area of fallow land amplified after the trend of migration towards urban areas since the Maoist protest time. Out of total respondents, 80.70 % thinks that the major cause of the increasing uncultivated/ fallow lands in this region is emigration.

Perception of Respondents on Increasing Tree Number

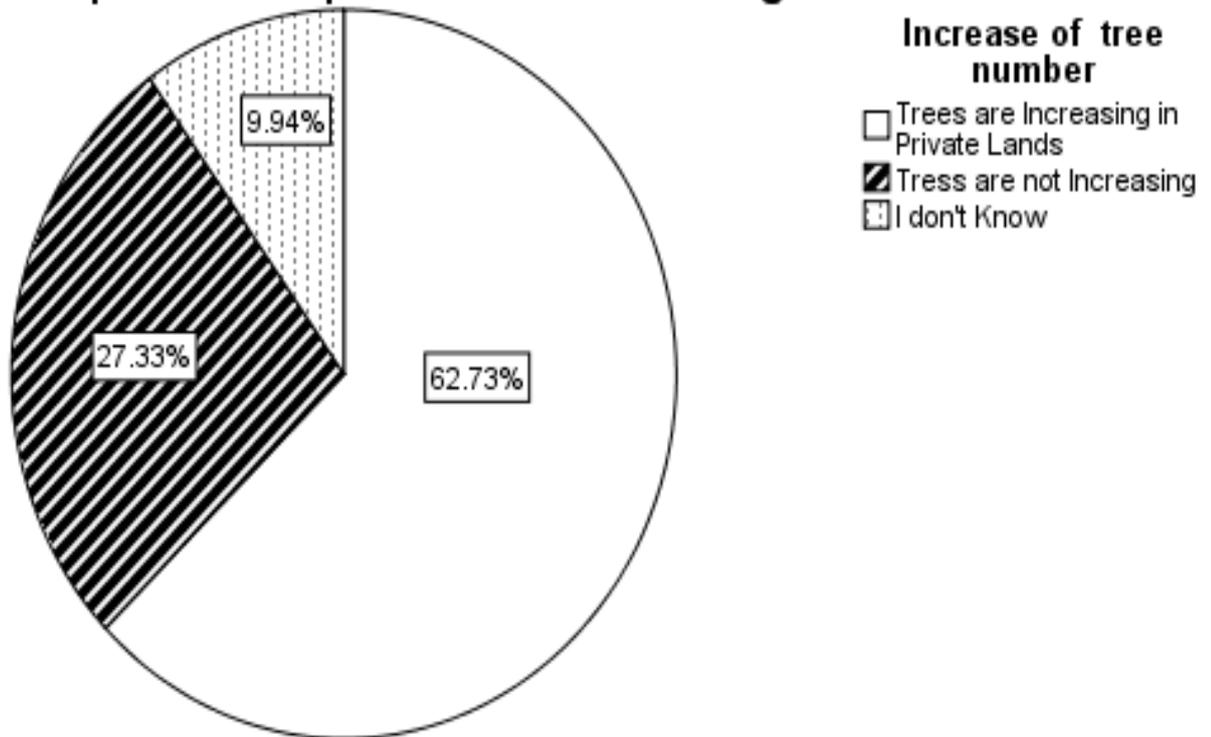


Figure 1 : People's Perception on Increasing number of Trees in Private Land.

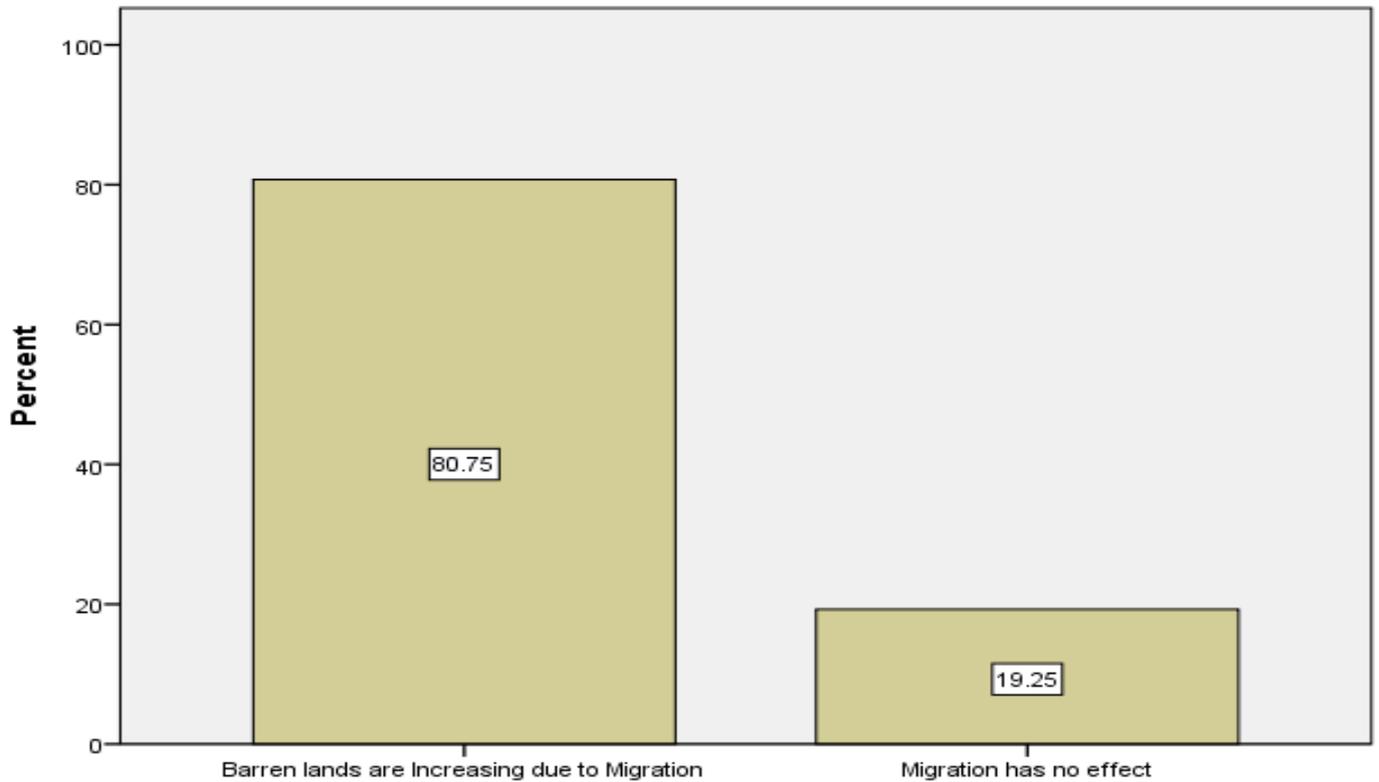


Figure 2: Relation of Increase in barren lands and Migration.

5.2.2. Analysis of Tree in Private lands.

In study areas, respondent's households own total 34750 trees. The average number of trees per household is 215.84. Among the total tree species Chilaune has largest proportion i.e. 41% followed by Uttis(19%), Salla 14 % and Katus 7 %. Others tree species like Mauwa, Kimbu, Dudhilo, Kutmiro, Saur, Kaulo, Khaniyo, Mallato, Sal etc., covers 19 % among total tree species. Trees in private lands generally are not found on block areas but they are found scattered.

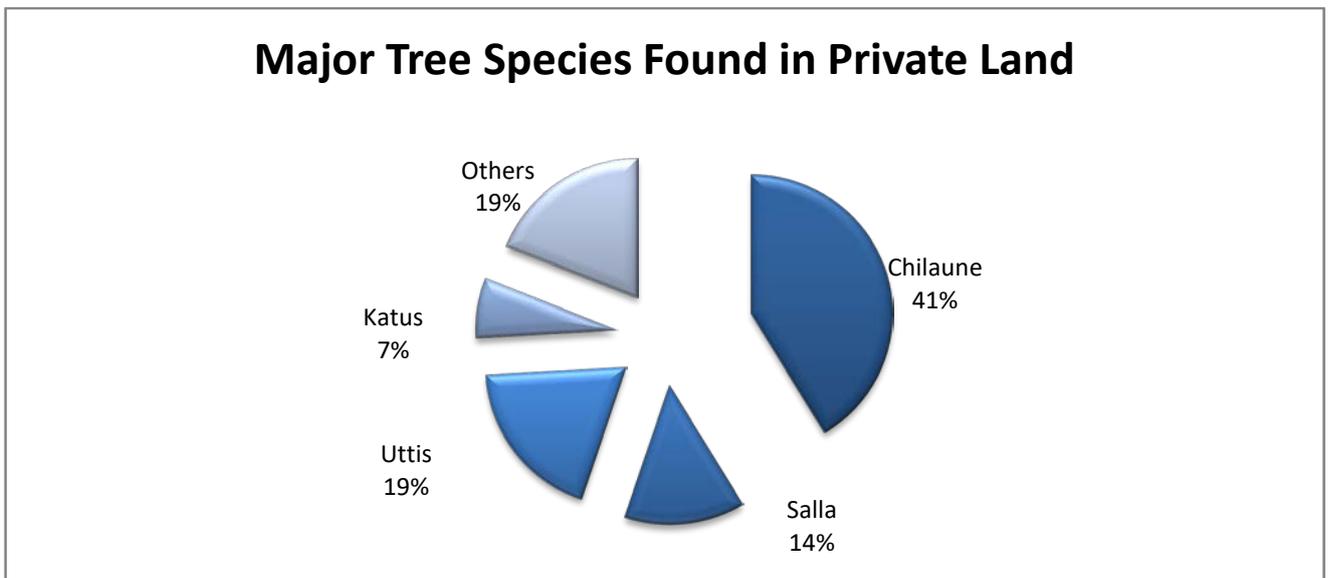


Figure 3: Proportion of Tree species found in Private land.

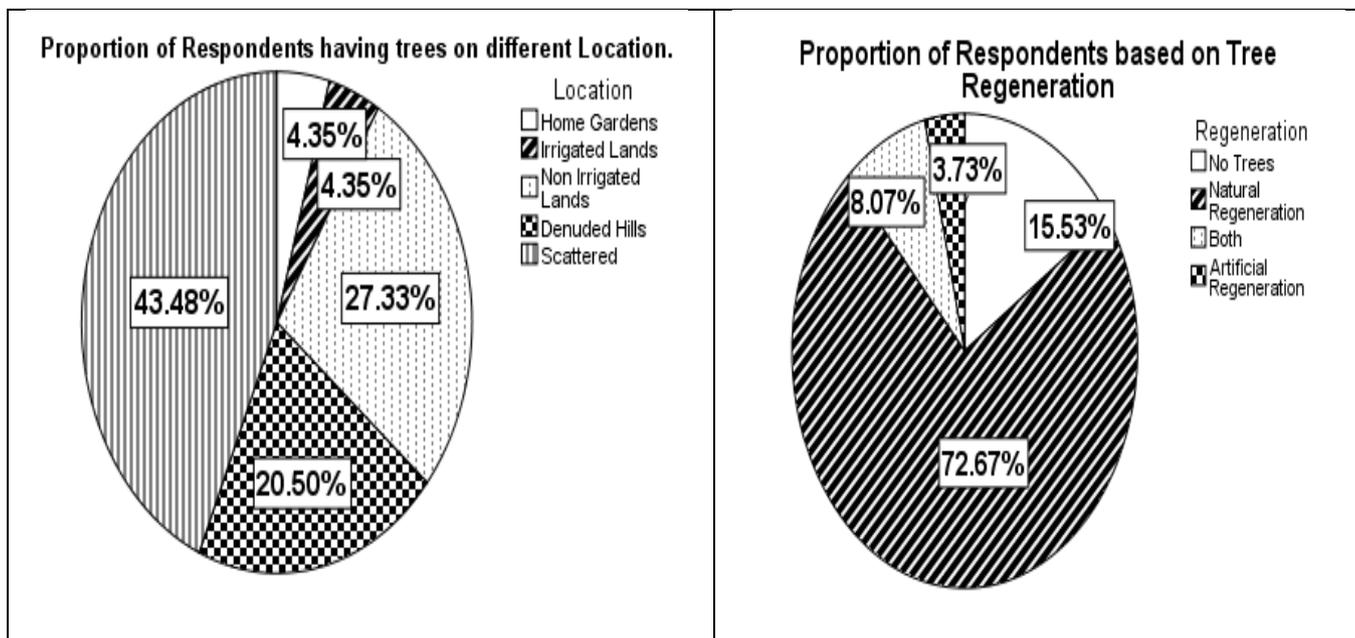


Figure 4: Proportion of respondents with different tree location. **Figure 5 : Proportion of Respondents based on regeneration of their Trees**

As shown in figure 4, Trees of about 43.48 % respondents are scattered, whereas 27.30 %, 20.50 %, 4.35%, and 4.35 % trees of them are found on non irrigated land, denuded hills, irrigated lands and home garden respectively. Regeneration of trees was mainly found naturally. 72.67 % of respondents feel that the mode of regeneration of these trees is natural. 8.07 % respondents do not have their own trees. It means more than 90 % of them, had grown trees on their private land.

5.3. An identification of socio-economic constraints and problems towards private plantation in study area.

Respondents were asked whether they have been facing problems in growing trees on their farmland. The results of multiple responses obtained from the tree grower/farmers/respondents are given in figures below. Lack of lands, technical knowledge and skill, hectic governmental legislation in growing trees remained dominant problems in all the three VDCs even if they have interest in it. Some of the respondents expressed uncertainty in getting products of tree species that has been grown on farmland. The information obtained was also verified during the group discussion. Lack of marketing opportunity for the tree products was also one of the major concerns of farmers during the field survey.

5.3.1 Reasons for not further plantation:

To get the answer for this section, some structured options were asked to the farmers and are grouped according to their responses as shown in table 1.

Table 1 : Reasons for not further plantation.

Reasons	Lack of more land	Unavailability of seedlings	Failure of previous plantation	Uncertain Govt. policy & rules
Number of respondents	20	67	17	57
% of respondents	12.42	41.16	10.55	35.40

Source: Field Survey 2016

The table (1) shows that lack of land (41.16%) is one of the main constraints for not further plantation. The table also shows that previous plantation is neglectable problem, which is because only few people have practised plantation.

Thus, main reason behind this is hand to mouth problem. People, are also, freighting against uncertain governmental policies and rules and some of them do not have sufficient land for plantation. As far as comparison among sampled VDCs is concerned, there is no big difference in % among VDCs in terms of reasons for not further plantation besides the reason.

5.3.2 Awareness Level of People:

Respondents were asked their knowing and hearing about some private forestry related issues and trends. The responses got from them are recorded and presented as in Figure 6.

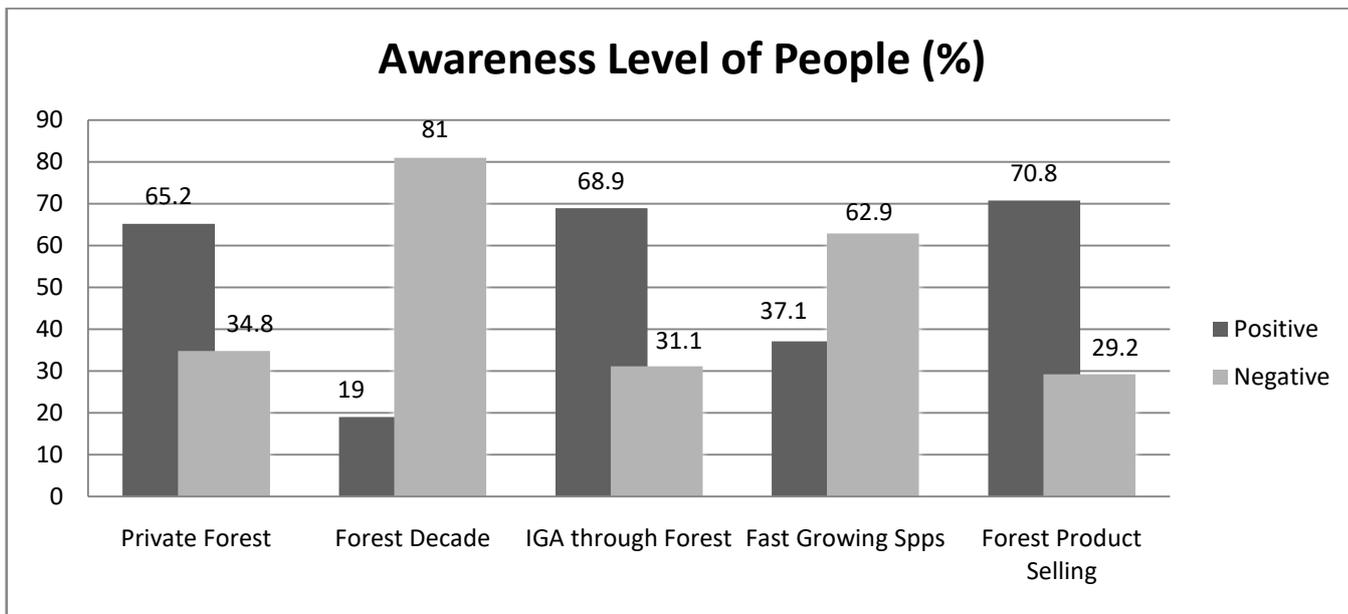


Figure 6: Awareness Level of Respondents

The figure 6 explains that 65.2 % of people know about "What is Private Forest" whereas other 34.8 farmers still did not know and hear about private forestry. This data clearly says that level of awareness about private forestry is still low. Ministry of forest and soil conservation is now running a forest decade program, which is focusing private forestry but knowing of people about the program is very important. The table presents that, only 19 % of the respondents know about forest decade program. More than 80 % of the people are still unknown of the program. It clearly says that government is being unsuccessful to aware stakeholders about forest decade program.

As shown as in figure, 68.9 % of people feel that forest would be major income generating sources and 31.1 % of them do not believe on earning through forests. We too asked them about their knowledge about fast growing species. It is found that, only 37.1 % of them know about fast growing species and other are interested to know, but they are not getting access of knowledge and techniques.

5.3.3. Medium for awareness:

As we know, there are numerous organizations to raise awareness level of people about private forestry. We did a survey of their activeness towards the people. The description below is according to the respondents.

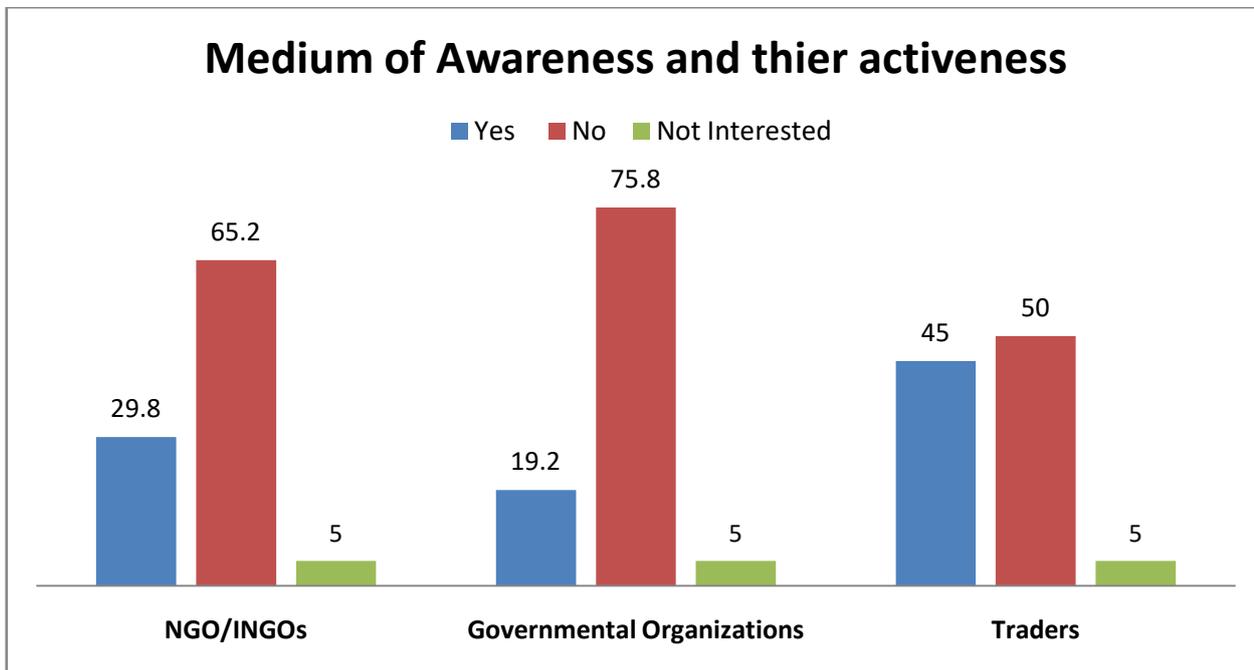


Figure 7: Activeness of medium of awareness.

As shown in figure 7, nation has very weak mechanism to aware people on our objectives. According to data, governmental organizations are more passive followed by NGO/INGOs. Only 19.2 % and 29.8 % respondents are getting access to NGO/INGOs and Government respectively. However, timber traders are more active than previous two in communicating people about private forestry and product marketing. However, traders cannot satisfy people because they only concentrate on their profit.

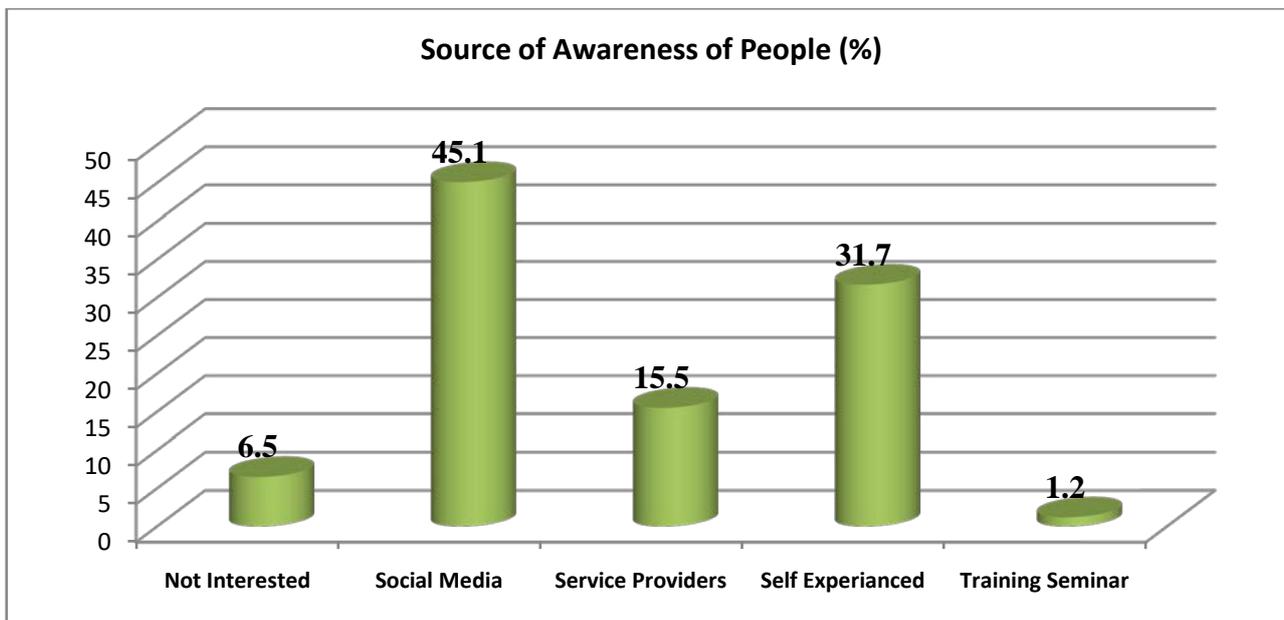


Figure 8 : Major Sources of Awareness of People

Figure 8 illustrates that, social media are now a day's more active to aware people on everything. 45.1 % of respondents feel social media are their source of awareness. 31.7 % of them experienced about private forestry by neighbours and traders or they observed the process. Training and seminar do not seem familiar with people, which have less contribution to the people's awareness people. As we already discussed in previous figure, service providers are not efficient (15.5%) on providing knowledge and very less percentage (6.5 %) of people are not interested in private forestry.

5.3.4 Technical knowledge and financial support:

None of the farmers has scientific knowledge of tree planting like space designing, pit size, and depth required; tending operation like thinning and pruning in regular basis. They plant tree by their traditional skills. They bring seedlings from nursery and make a pit without caring the size, spacing and proper site.....Dahal. P. (1990). In the previous section, 75.08 % HHs who were not getting technical advice from Governmental organization and 65.2 % HHs were not getting technical advice from NGOs/INGOs. Most of the farmers showed their keen interest for tree planting in large-scale need financial support and technical advice.

During the research work, seven focus group discussions were made. The findings of those discussions are attached in Annex 1.

5.3.5 Problems related with land tenure:

During the whole research duration, in all discussions throughout the focus group discussions, major problem pointed by the respondents is land tenure. Majority of the farmers has enough land but those lands are not registered legally. A person is consuming the land since very past but he/she do not have the legal registration card. In addition, according to the current forest law 1993, District Forest Office does not accept to register those land and forests, as private forest and even the owner do not have the legal authority to sell the trees grown in those lands without *Lalpurja*.

5.3.5 Other miscellaneous problems:

Different other problems were seen and observed during the field research and various complains were collected from peoples during seven focus group discussions. Some of them are described above and rest of them are listed as below:

- People are less aware about technical knowledge on private forestry and their benefits as presented above.
- Tedious forest laws, which is restraining the registration and marketing process.
- Challenge to protect trees from animals like monkeys, goose etc.
- Lack of awareness programs about provision on laws related with private forestry.
- Unscientific seedlings distribution and lack of monitoring about their growth performances.
- Surveying cost from surveying technician is too high.
- Species like chilaune and katus are less valuable ie. No extension about fast growing and economically important species.
- Less projects on planting trees though almost trees on private land are naturally regenerated.
- People have small pieces of land and do not have registration cards.
- Various organization providing conflicting concepts and ideas to people which leads people on more confusion.
- Royalty and taxpaying mechanism is too complex and unfriendly.
- Fire, grazing and illegal trading is scaring people.

Chapter 6: Conclusion and Recommendation

6.1 Conclusions:

- In the study area, number of trees in private land and amount of fallow land is increasing. Increasing fallow lands can be the major opportunity to plant trees and develop them as private forest. Emigration and community forestry program are seen as the the major reason behind the situation.
- The average number of trees per household was found 215.84, which can be taken as a major opportunity to promote private forestry as a major source of income for mid-hill region. However, composition of the tree species found have low economic value and found scattered which, is a restraining factor to manage those trees for better output.
- 72.67 % of respondents have their trees of natural regeneration, which means people are not aware or not motivated towards plantation, which can be the major learning to the managers, who are objecting to develop private forestry. According to the field survey, more than 40 % respondent claims unavailability of seedlings of important species as a main reason of not planting trees and people 35.40 % of them feel that tedious governmental process also restraining the people's motives.
- Awareness level of people about private forestry (65.2%), forest decade (19%), IGA possibilities through private forestry (68.9 %), fast growing species (37.1 %) are seems unsatisfactory which resembles the poor extension mechanism of both governmental and non-governmental organization. Governmental organization and NGO/INGOs are just connecting with 19.2 % and 29.8 % of people, which clearly shows devotion of service providing organization also found quite low because only 15.5 % people think the service providers are their source of awareness.
- Having the land ownership from very past but not belonging their legal registration card is found another major problem, which is being major constraints of not registering the forests as a private forests.

6.2 Recommendations:

Experience gained during the whole research duration and after several discussions with farmers, service providers, traders and some experts following recommendation and way forwards are generated.

- Government should launches various package program for awareness like extension of research materials, training, seminars and campaigns especially focusing the farmers showing their interest on private forestry.
- Government should revise a land registration process to assure the ownership of land otherwise Department of Forests should register the private forest on their land just based on their social ownership of land.
- Government should prepare a land use and land capability map so that, farmer can be assure about their productions.
- Nation should provide seedlings of fast growing and economically valuable species to develop private forestry as a major source of income.
- Royalty and taxpaying process should be simple and costumer friendly.
- Government of Nepal should treat with various problems and diseases on private forestry trees.
- A specific program like "one cluster one production" prioritized on every sites throughout the country.

- Conversion of pine forests to multipurpose trees.
- Compensation of people's loss should be assured.

6.3). Way Forward

The study has some limitations as described in chapter 2. To omit these limitations, further researcher should keep following methods in consideration.

- The study should run both social and technical survey at a time.
- This type research should carry out by the District Forest Offices and this department should compile the data and publish the report.
- In addition, further research should cover the data's on market availability and the accessibility.

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Annex 1:

May 1995 [Ministry of forest and soil conservation; Nepal Rajpatra, Vol 44, no. 54 (extraordinary), Chaitra 20,2051 (April 3, 1995)]

Schedule 24

[Pertaining to Sub-Rule (1) of Rule 61]

Application for registration of Private Forest

District Forest Officer,

District Forest Office

.....

I/We hereby request that the trees planted by me/us in my/our-cultivated land be registered under the 1993 Forest Act and the 1995 Forest rules. The particulars relating to the species and the number of trees planted by me/us and the area covered by them are given below. I/we have also attached herewith the evidence of ownership of the land possessed by me/us.

Particulars

S.No.	Plot No. Of land	Area of Land	Species of Tree & Plants	No. Of Trees/Plants

Application

Full Name

Address Date:

May 1995 [Ministry of forest and soil conservation; Nepal Rajpatra, Vol 44, no. 54 (extraordinary), Chaitra 20,2051 (April 3, 1995)]

Schedule 25

[Pertaining to Sub-Rule (2) of Rule 61]

Private Forest Registration Certificate

His Majesty's Government

Ministry of Forest and Soil Conservation

Department of Forest

District Forest Office.....

To,

Following action taken on your application to this office for the registration of a Private Forest, the forest products planted in the following cultivated land have been registered as a private forest and this certificate has been issued accordingly, subject to the 1993 Forest Act and the 1995 Forest Rules. Particulars of the Private Forest Name:

Boundaries:

Area:

Species of forest products:

Number of forest products:

Authority Issuing the Certificate

Name:

Designation

Signature:

Date:

Note: In case this certificate is lost, torn out, or destroyed, another certificate shall be issued on payment of a fee of Rs. 25.

Annex:2 Literatures about MPFS

Targeted Private farm trees plantation:

Year	1990-91	1995-96	2001-01	2005-06	2010-11
Production ('000 hac.)	48.1	104.0	169.9	2407	325.0

Source: MPFS, Main report (1988)

Assumption of fuel supply ('000 ton):

Source	1985-86	1990-91	2000-01	2010-11
Pvt. tree farms	2962	2916	3694	4868
Natural forest	4057	3853	3758	4285
Plantation	0	419	1420	2657
Agricultural residues	938	1041	1613	1905
Dung	991	1149	1310	1390
Shrub land	253	290	351	402
Total	9201	9668	12146	15507

Source; - MPFS Main report, 1988

Projected timber supply by sources on current trend assumption ('000 ton)

Source	1985-86	1990-91	2000-01	2010-11
Private tree farm	360	453	605	1034
Forest	524	503	504	589
Plantation	0	58	247	589
Total	884	1014	1356	2212

Source: MPFS Main report, 1988

National land use, 1985-86 (000hac)

	Cultivated land	Grasslands	Forest lands	Shrub lands	Non-cultivated inclusions	Uncultivated land	Ratio of cultivated to Uncultivated land
High Hills	244	508	1639	176	148	2471	01:10.1
Middle Hills	1223	278	1811	404	667	3160	01:02.6
Siwalik	269	16	1438	29	59	1542	01:05.7
Terai	1308	58	475	30	123	686	01:00.5

Source: MPFS (HMGN, 1988)

Annex:3 Questionnaire

निजि वनको विकाशका लागि अध्ययन गर्ने विषयमा किन तथा स्थानिय बाँच्ना गरीने अन्तर्वाताको लागि प्रश्नपत्रको नमुना ।

खण्ड क
घरधुरीको विवरण

घरमुलीको नाम थर:

ठेगाना:

परिवार संख्या:

महिला:

पुरुष:

संकेत नं :

वैदेशिक रोजगार तथा हरी रोजगारीको अवस्था:

दस्यको मुख्य पेशाहरु:

मुख्य आमदानीका स्रोतहरु:

वर्षिक आमदानी :

जग्गाको विवरण:

घरवारी परिमाण:

उपयोग:

डक गको दुरी:

खेतवारी परिमाण:

उपयोग:

डक गको दुरी:

खाली जग्गाको विवरण:

कृषिवालीको विवरण:

प्रजाती:	उत्पादन परिमाण:	व्यापारका अवस्था:	उपयोग:

पशु विवरण:

जात	परिमाण:	उपयोग:	घाँको स्रोत

निजि रुखहरुको विवरण:

प्रजाती:	संख्या:	अवस्था:	उमेर:	प्रयोग:

सामुदायिक वनमा आवद्ध भएको वा नभएको :

वनपैदावार (काठ, दाउरा) स्रोत :

खण्ड ख

निजि वन विकाशका मस्याको पहिचान

- १) जग्गा खाली खाखु भाको रहेछ किन र य मा खेती पाति गर्न के मस्या छ र ?
- २) खालि जग्गा देख्दा काले हामीलाई दिनुहो उपयोग गछौं भन्न आउनु भाको छ कि ?
- ३) गरेको खेती पाती वाट खान र अन्य खर्च पुग्छ कि पुग्दैन ? खेती पाती वाट न्तुष्ट हुनुहुन्छ ?
- ४) खाली जग्गामा रुख लगाएर केही आमदानी गर्न किन्छ होलानी , य मा रुमा अलि गाह्रो भएपनि नियमित हेरचाह गर्न पदैन हैन र ? य वारेमा केही ठोचु भाको थियो कि ।
- ५) य री निजी वन विकाश गर्न ल्लाह, ँभाव तथा प्रोट ।हन गर्न कुनै ंघ ंस्थाहरु आएका छन त ?
- ६) वन म्वन्धी पैदावार जस्तै जडीवुटी, काठ, दाउरा वेचेर आमदानी गरेको देखु ँनु भाको छ ? छ भने कहां वाट ँनु या देखु भयो ?
- ७) यदि ँनु भएको छ भने तपाइले प्रया किन गर्नु भएन त ?
- ८) कुनै ठेकेदार तथा व्यव ।यीहरु हामीलाई रुख दिनु हामी किन्छौं भनेर आएका छन त ?
- ९) मानौ तपाईंलाई काले खाली जग्गामा रुख रोप्नु फाईदा हुन्छ, राम्रो आमदानी हुन्छ भनेर आए भने के तपाईं त्य बाट आमदानी गर्न उत ।हित हुननुहुन्छ ?
- १०) य री गर्न तपाईंलाई अप्प्यारो के पर्ला त ?

खण्ड ग

प्रया मुल्याँन तथा ँभाव ंकलन

- १) तपाईं निजि वन विकाश गरी आमदानीको श्रोत वनाउन पर्छ भन्ने कुरामा कत्तिको कारात्मक तथा तयार हुनु हन्छ ?
- २) तपाईं तथा तपाईंका कोही छिमेकि निजिवनको वारेमा जानेका अथवा त्य का प्रया मा लागेका छन त ?
- ३) महत्वपूर्ण विरुवाहरु जस्तै रुद्राक्ष, श्रीखण्ड, ि रौ, उत्ति बाट राम्रो आमदानी गरेको ँनु भएको ँनु भएको छ ?
- ४) के क तो भयो भने चाहीं तपाइ लगाएतका कि ।नहरुले निजि जग्गामा रुखविरुवा रोप्छन जस्तो लागछ त ?
- ५) यस्तो कुनै ंार तथा कथकतभ तपाईं कल्पना गर्नु कि तपाईं निजि रुखहरुवाट महिनाको कम्तीमा २० हजार जस्तो आमदानी गर्दै हनु हुन्छ त्यस्तो ंारलाई त्य वनाउन के के गर्नु पर्ला जस्तो लाग्छ ?