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## **Who are Controlling Community Forestry User Groups in Nepal? Scrutiny of Elite Theory**

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# Who are Controlling Community Forestry User Groups in Nepal? Scrutiny of Elite Theory

Bhagwan Dutta Yadav<sup>1</sup> Hugh Bigsby<sup>2</sup> Ian MacDonald<sup>3</sup>

## Abstract

*Nepal has established community forestry institutions to manage natural resources at the local community level under the assumption that there will be better management than under Government agencies. However, community forestry has not been entirely successful as it has not addressed the needs of poor and marginalised groups. The main goal of this study is to examine how Nepalese social structure guides the structure of the Executive Committee (EC) of Community Forestry User Groups and in particular, whether the EC is dominated by elite groups that could in turn hinder the needs of poor and marginalised groups. This paper uses data from the middle hill district of Baglung, Nepal. Statistical analysis indicates that decision-making is dominated by the local elite, who are typically from higher castes, have larger land holdings, and have a higher income. The empirical results are expected to suggest policy makers design program for empowering people of low caste, poor and lower socio-economic status to create opportunity to be involved in decision making in order to have equal or need based benefits acquired by CF.*

Keywords: Social structure, leadership, caste, community forestry, decision making

## 1. Introduction

Local institutions are very important for developing countries, such as Nepal, where land resources to meet basic needs of the people are institutionally and geographically limited (FAO, 2002). With inadequate institutions, many people stay poor because they have insufficient rights to manage their resources. Neo-classical economic theory, when applied to natural resources, typically focusses on technology and efficiency related to development but ignores the institutional structures that guide the actions of those involved in the utilisation and management of forest resources. However, there has been increasing recognition of the importance of institutions as determinants of economic performance. In particular, it is important to understand how Community Forestry User Group (CFUG) institutions use their decision-making powers and processes because these can have the most significant impact on distribution of Community Forestry (CF) benefits.

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Most show that CF has been successful in increasing forest cover and conserving forest resources in the hill districts, however it has not achieved its goal to alleviate poverty (Dhakal et al., 2006; Agrawal and Gupta, 2005; Malla et al., 2005; Pokharel, 2002; Agrawal, 2001). CF benefits have flowed less to poor and marginalised households than to elite and wealthy households (Adhikari, 2005; Adhikari et al., 2004). There are two schools of thought as what is constraining CF from delivering benefits to the poor and alleviating poverty. One school is that government policy constraints on resource use, in particular limiting forest management and use for environmental goals is the most important factor (Dhakal et al., 2006). Another school of thought is that Nepalese social structure, which is based on caste, class, elites and higher and lower stratas, is the key factor in limiting the ability of the poor to obtain benefits from CF (Iversen et al. 2006; Adhikari, et al. 2007; Jones, 2007; Hansen, 2007; Hobley, 2007; Acharya and Gentle, 2005; Adhikari, et al. 2004; Springate-Baginskim et al. 2003, 2007).

In this paper the focus is on the effect of social structure on decision-making arrangements and the flow-on effects that this can have on the types of benefits generated under CF, and how they are distributed. Power relationships play a major role in decision-making concerning natural resource management. Government authorities and local elites have been reluctant to transfer power to local poor, and national and international agencies implementing CF and Community based natural resource management (CBNRM) have also been hesitant to include local poor and marginalised in the decision-making process (Hansen, 2007). As a result, in many cases decision-making and implementation of CF appears to follow historical patterns, where authorities and a powerful elite make decisions, and local poor and disadvantaged only participate to a minor extent in decision-making (Samantha, 2008; Chakarborty, 2001).

Much of the debate over decision making-process strategies in the last two decades has therefore revolved around the question of how poverty, vulnerability and access to natural resources are linked with economic development of rural poor, and which social structures or institutions will best contribute to ensure the flow of benefits to the poor (Baumann et al., 2003). Central to this discussion has been a consensus that decision-making based on proportionate social structure in local communities is an important step towards moving natural resource management in the right direction (Jones, 2007; Pokharel and Larsen, 2007; Malla et al., 2005; Aquino, et al., 1992). More representative decision-making is believed to

be able to bring about decisions based on need, thus contributing towards the livelihoods of the poor.

In community forestry the basic institution is the CFUG, which consists of all members who meet periodically as an assembly, and an executive committee that takes on key decision-making roles on behalf of the CFUG. The composition of the committee is thus a critical issue in terms of decisions about the use of the community forest. In principle the executive committee should have representation from all members, and thus its decisions will reflect the needs and desires of all members. The key question is thus whether membership of the executive committee is representative of the membership generally, and if not, what factors determine membership of the executive committee.

## **2. Elite Theory**

The underlying assumption of the elite theory is that the elites have some attributes different from other people in the societies which give them an advantage in taking leadership and control over decision making (Aquino et al., 1992). The word elite is derived from the Latin *Eligere* that means to elect. It refers to a relatively small, dominant group in a larger society. The elites are different from other people not only in power but also in needs and interests. Many elites come from a small group of people engaged in the same activity (Fabricius et al., 2006). The background of the elite reinforces their propensity to make decisions that address their own needs and interests, which may disadvantage other people (Bruins, 1999). The emergence of an elite is the result of economic and political forces within a social structure.

Since Nepalese communities are composed of people with heterogeneity in social powers, private resource endowments and community forest product demands, the elite theory may explain characteristics of the CFUG decision-making body. Figure 1 outlines key elements of social heterogeneity and decision-making where the elite may be capturing disproportionate benefits.

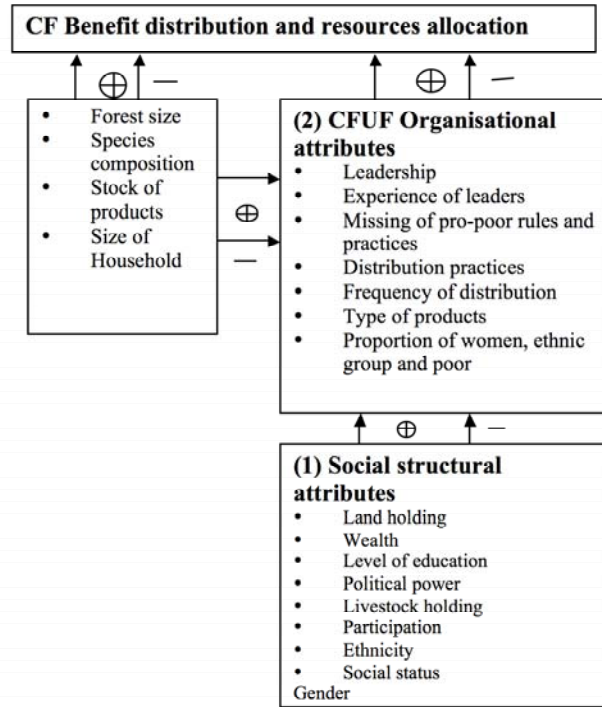


Figure 1 Conceptual framework

A typical rural community in Nepal is composed of households with heterogeneous attributes. In the elite theory, the hypothesis is that people with social power, wealth, education, experience in leadership, and landholding and non CFUG political power will be represented in and have influence on CFUG institutions. The underlying model is thus that leadership roles ( $Y_i$ ) will be some function of particular social attributes ( $X_{ij}$ ).

$$Y_i = \beta_0 + \sum_{j=1}^n \beta_j \ln X_{ij} + e \quad (1)$$

Where the subscript  $i$  denotes  $i^{th}$  observation of the household sample attributes of leadership and  $j$  denotes the  $j^{th}$  observation of the independent variables. Leadership can be measured in a number of ways. One of them is simply to indicate whether a person is an executive committee member or not. This leads to a binary dependent variable (yes or no) and the use of logistic regression.

In this research an econometric model was developed to understand the relationship between leadership and socioeconomic characteristics, such as ethnicity, gender, education, landholding size, livestock holdings, wealth status, and non-CFUG leadership or political activity. In addition, it was hypothesized that leadership in Nepalese society can be explained by social stratification (caste). Thus leadership roles can be represented as,

$$\text{Leadership} = f(\text{landholding, wealth, livestock holding, caste, education, political experience, social status, gender, ethnicity}) \quad (3)$$

Landholding is an influential factor in the decision-making process to determine distribution of benefits from community forestry. For example, Maskey et al. (2006) found that large landholders are likely to get more benefit from community forestry due to their influential status and ability to influence the decision-making process. Yadav et al. (2003) found that there is a distinctively lower level of satisfaction among small and landless households about the benefits they receive from community forests. Wealth can give greater assurance of social status in society and thus has an influence on decision-making. Wealthier people are more able to participate in and influence the outcomes of decision-making processes, and as a result gain more benefits from common resources (Lachhelle et al., 2004). In the same way, a person who has livestock and requires land for grazing their cattle in the CF, has more interest in influencing the CFUG decision-making process. Dev et al. (2003) found that the executive committee members who have livestock usually decided to graze and collect fodder from forest.

Education that provides deep knowledge, skills and thoughts is a power of the leaders that enhance their ability to operate a systematic process. The level of education enhances a person's ability to think logically and choose the best alternative (Daft, 2005; Molians, 1998; Montgomery, 1996). Experience in leadership roles in political organizations also leads to leadership roles in CFUGs, although this can bring conflicting priorities (Mapedza, 2006; Andersen and Ostrom, 2007). Ethnicity, social status and gender play an important role in determining leadership positions. Weinberger and Jutting (2001) found that women-only CFUGs provide more opportunity for women to participate in decision-making process about forest management. Tiwari (2002) found that lower caste, class and ethnicity for both men and women means less participation in the decision-making process.

### **3. Data**

Baglung district, situated in the middle hills physiographic zone of Nepal, was selected for the study. The main occupation in rural areas is subsistence agriculture. The rural population is scattered in small villages or hamlets that are surrounded by a patchwork of rain-fed agricultural land. Forest land varies in size and is frequently found in small patches around agricultural land and on steep slopes. A random selection of 31 CFUGs was done based on

the information from the District Forest office, and the District Level Community Forestry User Group Federation (FECOFUN) of Baglung.

The data were collected using structured questionnaires from two groups, current executive committee members of CFUGs and heads of the households of non-executive CFUG members. With the assistance of the CFUG executive, the household sample was divided into four income groups, poorest, poor, medium and rich household income groups. Generally, these household groups will also represent the different ethnic groups and castes. The data collected in the questionnaires, summarised in Table 1 and 2, covers household income, involvement in the EC and NGOs, information about forest product collection in the past year and demographics factors including ethnicity, landholding, livestock endowment and food sufficiency.

**Table 1: Definition and Description of Variables**

<b>Dependent Variables</b>		<b>Descriptions of variables</b>
NowAnyEC NowKeyEC AnytiECm AnytiKec		<ul style="list-style-type: none"> <li>Household member working as a member in any position of current EC of forest user group</li> <li>Household member working in key positions (chairperson, vice-chairperson, secretary and treasure) of current EC</li> <li>Household member in any EC position (previous or current)</li> <li>Household member in any key EC position (previous or current)</li> </ul>
<b>Land Resources related independent Variables</b>	<b>Expected Sign</b>	
BariRout KhetRout KarRout ButRout OwnBari OwnKhet OwnKhar OwnBut Logland LogSqlnd	- - - - + + + + - -	<p>Area (ropani) of upland (non-irrigated land) rented out</p> <p>Area (ropani) of lowland rented out</p> <p>Area (Ropani) of Grasses land with some trees rented out</p> <p>Area (ropani) of marginal land with trees or grass production rented out</p> <p>Area (ropani) of upland (non-irrigated land)</p> <p>Area (ropani) of lowland (irrigated land)</p> <p>Area (ropani) of upland (non-irrigated land)</p> <p>Area (ropani) of marginal land with trees or grass production</p> <p>Log of total land area (ropani)</p> <p>Log square of total land area</p>
<b>Social structure related independent variables</b>		
CastElit NGOmem RichHH MHH HhPoor Gender HHedAge Eduyear EDucSQ Service Teacher	+ + + + + + + - - - -	<p>If caste elite (Bahun, Chhetry, Newar and Thakury) 1 other wise 0</p> <p>If any household member is a member in NGO 1, other wise 0</p> <p>If the household is defined rich by user groups 1 other wise 0</p> <p>If the household is defined medium by user groups 1 other wise 0</p> <p>If the household is defined Poor by user groups 1 other wise 0</p> <p>If sex of respondents male 1 otherwise 0</p> <p>Household head age in years</p> <p>Education in years</p> <p>Education square</p> <p>If house hold member has government or other service 1 other wise 0</p> <p>If household member teacher 1 other wise 0</p>
<b>Livestock related independent Variables</b>		
CowNo GoatN Buffalo TLivUnit	+ + + +	<p>No of cows in a household</p> <p>No of Goats in a household</p> <p>No of Buffalos in a household</p> <p>Total livestock unit</p>

**Table 2: Income and food related independent variables**

Foodsur	-	If food production is sufficient from home consumption 1 otherwise 0
Food12m	+	If consumption for 12 months in a year 1, other wise 0
Food 6m	+	If food production is sufficient for home consumption for 6 months in a year 1, other wise 0
Food 3 m	-	If food production is sufficient for home consumption for 3 months in a year 1, other wise 0
Casincom	+	Total cash income (in rupees)
Off Farminc	+	If off farm income source 1, other wise 0
Casincomservice	+	If income source from service 1, other wise 0
Totalcas	+	Total cash income (Nepalese rupees)
<b>CF Resources related independent variables</b>		
CF Area (hac)	+	Forest area in Hectares
Timber area(hac)	+	Forest area in Hectares
Pole area	+	Area in Hectares
Below pole area	-	Area in Hectares
Distance in km	-	Distance in Kilometres
CFUG Age	+ -	No of years of Handed over
Forest age	+	Forest area in Hectares
Fortype C	-	Forest type conifer
ForType B	+	Forest Broad leaf
Fortype M	+	Forest Mixed species

## 4. Results

The results are divided into two sections. The first section provides descriptive statistics of the CFUGs that were surveyed. The second section presents the results of the logit regression.

### 4.1 Descriptive Statistics

A total of 310 households and executive committee members were surveyed in the 31 CFUGs. Household range is in size from 2 to 18, with an average of 7 persons. Rich household are 18.6% of total households, medium households 42%, poor households 22.2 and poorest households 18.38 of total households.

Similarly the Bari (land around the home area), *khet* (Suitable for Rice and wheat growing), *kharBari* (suitable for grass and fodder tree growing) and *Butyan* (Suitable for trees crops) whether is own or rented. As can seen following in Table 3 the average land holding, Table 4 Land holding and Livestock by Wellbeing Category and Table 5: Food Sufficiency.

**Table 3: Average land holding**

Land type	Own land (hectares)	Rented (hectares)
Bari	0.004	0.042
Khet	0.098	0.12
Kharbari	0.16	0.012
Butyan	0.15	0.01
Total	.415	0.184

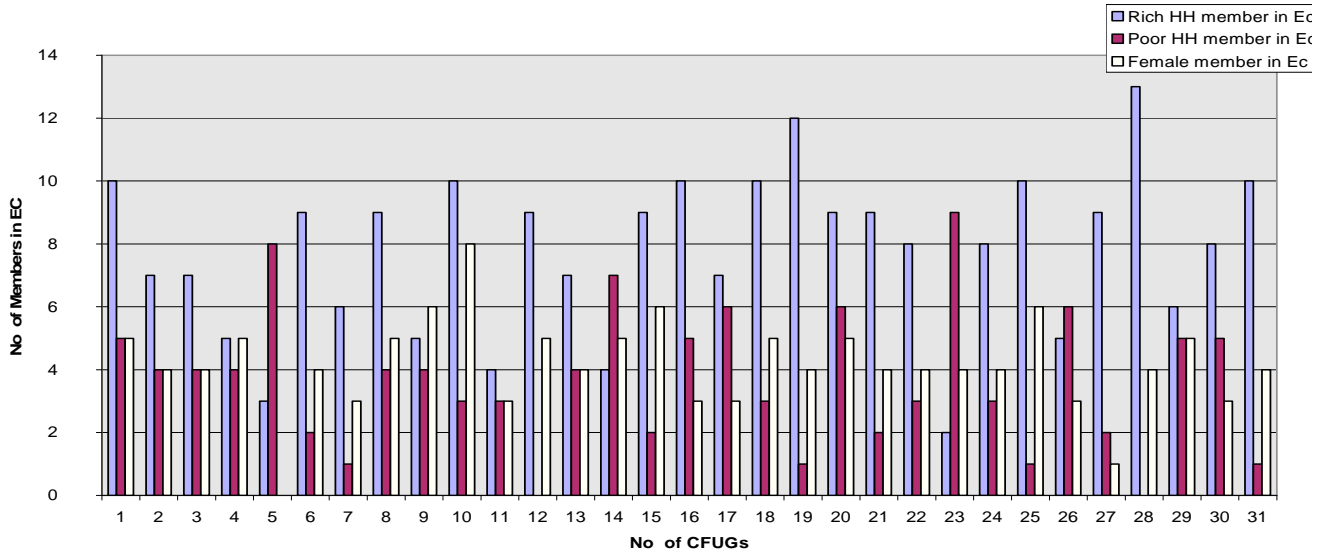
**Table 4: Land holding and Livestock by Wellbeing Category**

	Rich	%	Medium	%	Poor	%	Poorest	%
Households (N)	57	18.6	127	41	69	22.2	57	18.38
Land Holding (Ha)	1.41	18.39	0.9	40.97	0.48	22.25	.28	18.39
Live Stock (N)	4	50	3	37	1	12	0	0

**Table 5: Food Sufficiency**

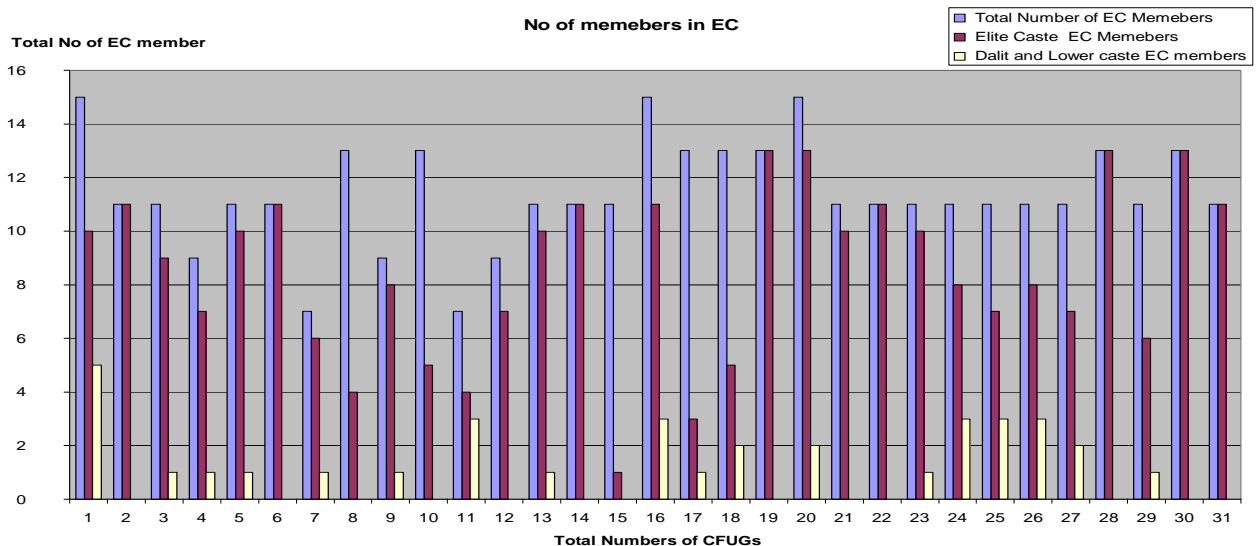
Income group	No of Households	Percent (%)	
Rich	59	19	Food surplus
Medium	109	35	Sufficient for 12 months
Poor	55	18	Sufficient for 6 months
Poorest	87	28	Sufficient for 3months

Social structural Category of members in EC



The Figure 2 shows the Rich household members, Poor household and female members in EC in 31 CFUGs in *Baglung*

In Figure 2 indicates that rich household members in EC of CFUGs have been leading to the poor and female members of EC in decision-making. Similarly, in Figure 3 elite caste members indicate paramount and majority in compare to Dalit in EC. Hence naturally they influence in the deciding-making outcomes. The poor, oppressed and women group are always suffered by decision-making and there may have virtual problem for them to raise their voice in decision-making in EC and assembly meetings that have a greater chance of decision take unfavoured of these sections of Nepalese society.



The following Figure 3 shows the Total members, Elite Caste members and Dalit (Lower Caste) members in 31 CFUGs in *Baglung*

While analysing of the wellbeing category of households and their representation on EC of CFUGs, wealthier household representation is 17.85 % of the total surveyed household population but they were represented 52.12 % on the EC of CFUGs. In contrast, the poorest household 13.88% of those surveyed were under representative with only 3.68 % of all the Executive committees' households as Figure 4 illustrated. These results are similar with results of Adhikari et al. (2006) and Thoms (2008).

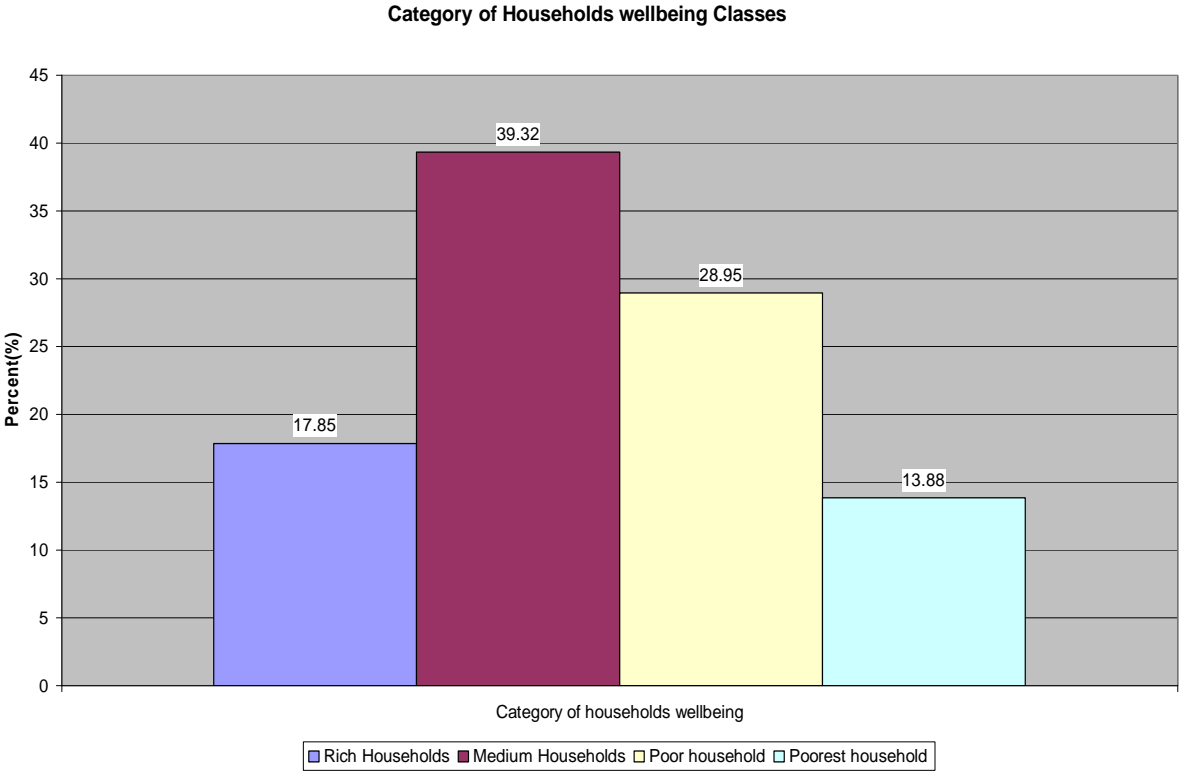


Figure 4: Households well being category in CFUGs

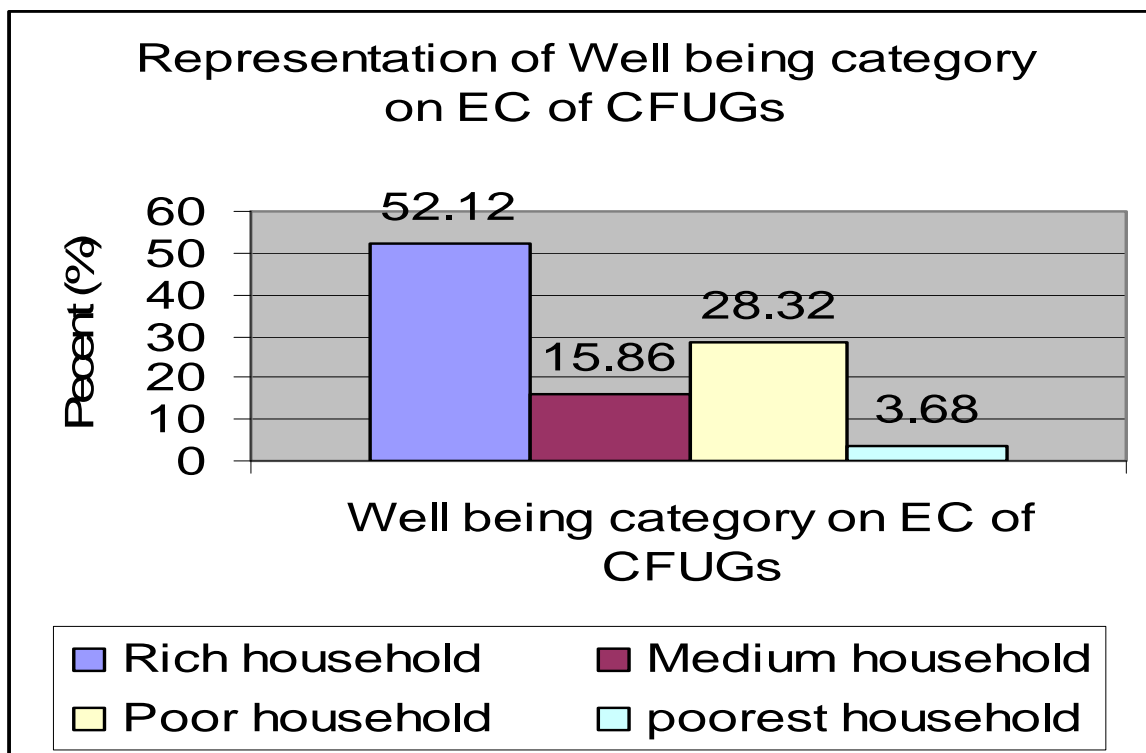


Figure 5 shows the well being category of Households members on CE of CFUGs

While compare the caste and their caste based members in Baglung District level (Figure 6) and surveyed Executive Committee (EC) members of CFUGs level (Figures 7) it shows that lower caste and low socio-economics ethnic representative in proportionally are significantly lower in EC of CFUGs than the caste living in Baglung District level (Figure 6).

Representation of Caste/Ethnic Groups in Baglung District

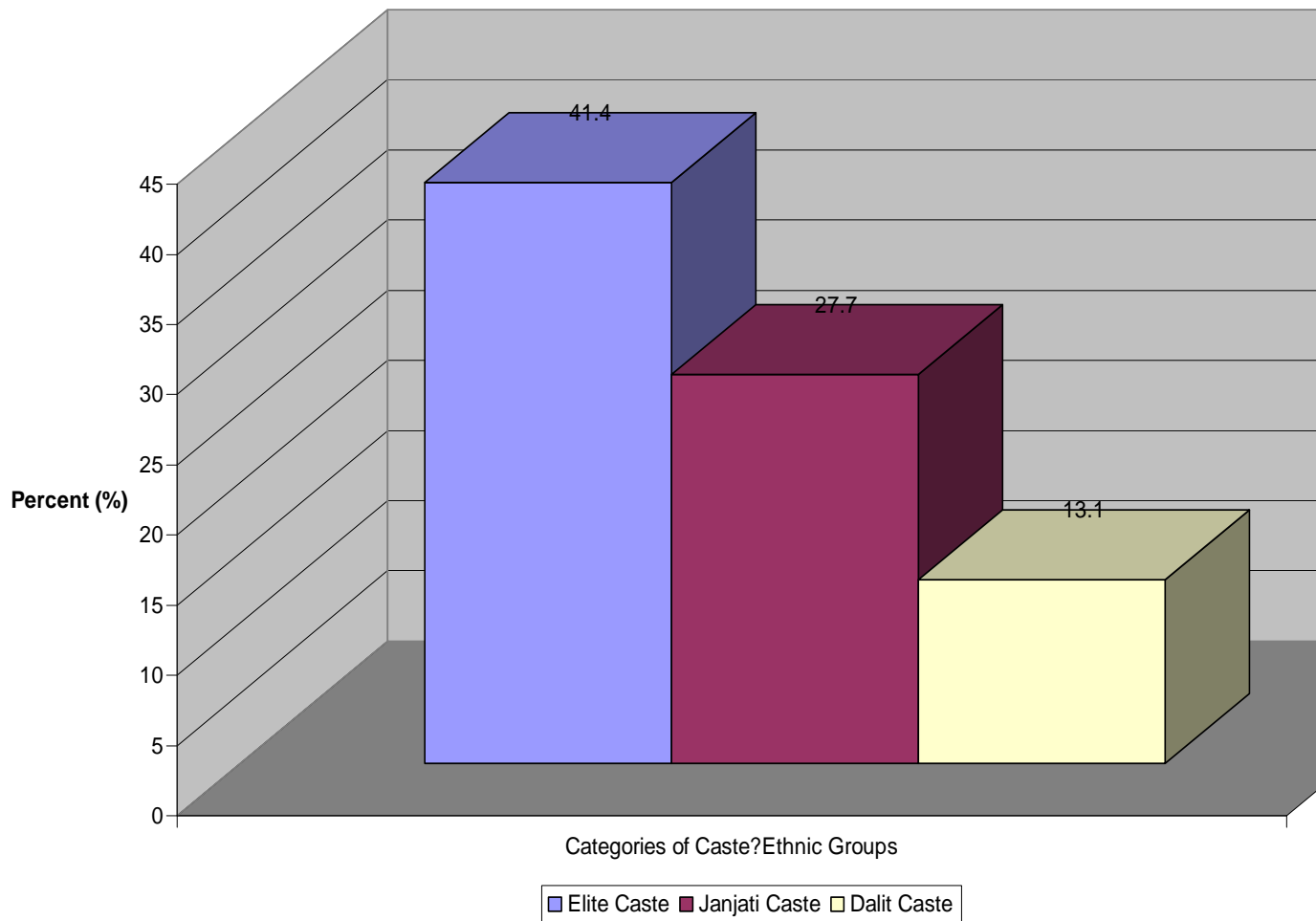


Figure 6: Proportion Percent of Caste/Ethnic Groups in Baglung District Level (Data source: District profile *Baglung*, Nepal)

### Representation of Caste/Ethnic Group households in EC of CFUGs

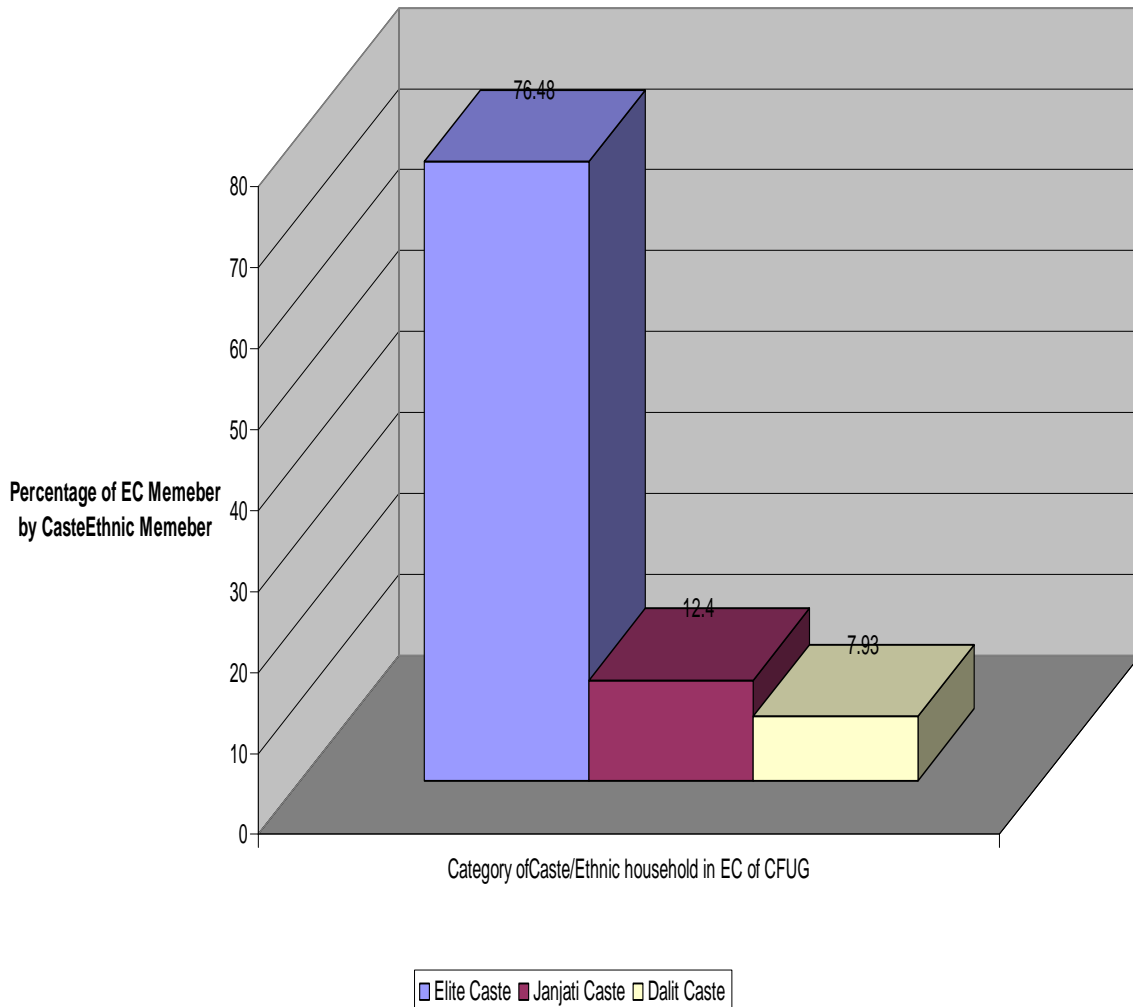


Figure: 7: shows the Caste/Ethnic households members presentation in EC of CFUGs

### Community Forestry (CF) description

After endorsement of “Forest Act 1993 and regulation 1995” by the government which shifted nationalized forests from state control to local communities. More than 15,000 “Community Forest User Groups” (CFUGs) have been formed in Nepal to manage 25 percent of Nepal’s forestland. Among forest covers about 4.27 million hectares (29%) and shrub covers 1.56 million hectares (10.6%) of a total land area of 14.72 million hectares of Nepal (Nagendra et al., 2008; NPC; 2007).

The forest area of the district is 98046 ha whereas coniferous forest is of 16486.10 ha (16.81%) and hard wood forest 50757 ha (51.77%). Mixed forest is 23186.20 (23.64%).

Shrub land is 7565.30 ha (7.71%) and other forestland 51.00 (0.05). Up to the Fiscal Year, 059/060 total 2158.96 ha forest has been hand over to 322 CFUGs for 37674 households (DFO, 2004). The characteristics of forest resources of the sample community forestry are mainly coniferous forests particularly south facing dominated by *Chirpine (Pinus roxburghii)* between 1000-2200m and few their associated species. Similarly broad leaf forests are composed with

*Shorea robusta*, *Schima walichaii* and *Castanopsis indica*. Riverine forests come across of *Toona (Cedrela toona)* and *Albizia procera* low land along the river sides. Mixed forests associated with broad leaf and coniferous subsist in eco-tone area.

The per capita forest area is 0.36 hectare in Baglung whereas in National level 0.26 hectare. In the study area, per capita forestland is 0.022 hectare. The forest area per household is 0.25 hectare in the study area whereas as national level average is 0.2-hectare precipita(Dhakal,2005).

## **5.2 Logit Model Results**

The logistic regression model looks at the relationship between leadership and demographic characteristics of individual household heads. There were four different dependent variables tested, currently an EC member (Model 1), currently a key EC member (Model 2), past or current EC member (Model 3), and past or current key EC member (Model 4). For each model, there were 44 explanatory variables loaded in the first step of the binary logit analysis (Table 3). As suggested by Agresti and Finlay (1999) and Kleinbaum (1994), the least significant explanatory variable was deleted in a step by step process until the model was stable. Since variable deletion creates a nested model, model stability was examined by using the Chi-square test for significance difference of -2log likelihood ratios. The following discussion looks at the results of the final models.

### ***Model 1 Current EC Member***

The results of Model 1 in Table 3 show that the key factors that determine current membership on the EC are as follows:

Table 3 Factors that determine current membership on the EC

Variables	B	S.E.	Sig.
HH no. in CFUG	-0.082	0.017	.000+
Occupation is a farmer	0.872	0.309	.005+
MedHNo	0.071	0.017	.000+
Occupation is a teacher	-1.599	0.651	.014+
Political power	-1.095	0.367	.003+
KhetRented out	0.77	0.328	.019**
RichHNo	0.078	0.018	.000+
PoorHhN	0.052	0.017	.000+
LogGoatu	-2.016	0.813	.003+
NGOmem	0.644	0.305	.035**
LogRPro	12.04	2.53	.000+
Castelit	0.181	0.083	.028**
DalitHH	-1.03	0.44	.018**
LogCowUt	2.741	1.194	.022**
Janprop	-8.474	2.25	.000+
OwnBut	0.086	0.046	.063*
Hhsize	0.106	0.056	.059**
AgeHHh	-0.138	0.065	.034**
LoageHh	11.23	5.98	.061*
LgageHHh	12.541	6.148	.041**
RichProp	8.656	2.87	.003+
LgMHhN	6.868	1.52	.000+
Constant	-15.92	7.236	.028**
Chi-square	109.118		
Cox and Snell R <sup>2</sup>	.300		
Nagelkarke R <sup>2</sup>	.406		
-2LogLikelihood	297.585		
Chi Squared Probability	.0000		
Number of Observation	310		

Note: \* indicates statistically significant at 10%, \*\* significant at 5% and \*\*\* significant at 1%percentage.

### **Model 2 Current key EC Member**

The results of Model 2 in Table 4 show that the key factors that determine current key roles in the EC are as follows:

Table 4 factors that determine current key roles in the EC

Variables	B	S.E	Sig.
HH no. in CFUG	-0.072	0.027	.008+
Occupation is a farmer	0.807	0.397	.042**
MedHNo	0.067	0.026	.011+
Occupation is a teacher	-1.82	1.253	0.145
Politpow	-1.671	0.516	.001+
RichHNo	0.053	0.028	.057*
PoorHhN	0.064	0.029	.027**
Polearea	0.074	0.024	.002+
BelParea	-0.045	0.019	.019**
Lglandow	1.41	0.501	.005+
Food12m	1.411	0.428	.001+
LgAniSer	-0.243	0.097	.012+
GoatNo	0.263	0.149	.077*
Timbarea	0.263	0.149	.077*
Distkm	0.132	0.046	.004+
Logdiskm	2.17	0.91	.017**
Constant	-0.995	0.603	.099*

Chi-square	55.382
Cox and Snell R <sup>2</sup>	.184
Nagelkerke R <sup>2</sup>	.340
-2LogLikelihood	190.560
Chi Squared Probability	.000
Number of Observation	310

Note: \* indicates statistically significant at 10%, \*\* significant at 5% and \*\*\* significant at 1%percentage.

### ***Model 3 Past or Current EC Member***

The results of Model 3 in Table 5 show that the key factors that determine past or current membership on the EC are as follows:

Table 5 factors that determine past or current membership on the EC

Variables	B	S.E	Sig.
HH no. in CFUG	-2.29	0.498	.000+
Occupation is a farmer	0.616	0.273	.024+
MedHNo	0.013	0.004	.005+
Occupation is a teacher	-1.068	0.555	.054**
Politpow	-0.706	0.307	.022**
KhetRout	0.84	0.402	.037**
JanjatHH	0.026	0.006	.000+
LogGoatu	-1.49	0.688	.030**
NGOmem	0.817	0.28	.004+
LogRPro	5.709	1.34	.000+
Castelit	3.865	2.01	.054**
MedHhN	0.013	0.005	.010+
LogRchN	1.208	0.498	.016**
Lganothr	-0.181	0.106	.086*
LogBufUt	2.103	0.935	.025**
LogRchNo	-1.208	0.498	.016**
Timbarea	0.285	0.091	.002***
Logothin	-0.208	0.107	.052**
Constant	5.702	1.55	.000+
Chi-square		66.073	
Cox and Snell R <sup>2</sup>		.213	
Nagelkarke R <sup>2</sup>		.286	
-2LogLikelihood		363.626	
Chi Squared Probability		.000	
Number of Observation		310	

Note: \* indicates statistically significant at 10%, \*\* significant at 5% and \*\*\* significant at 1%percentage.

#### **Model 4 Past or Current key EC Member**

The results of Model 4 in Table 3 show that the key factors that determine past or current key roles on the EC are as follows:

Table 6 Factors that determine past or current key roles on the EC

Variables	B	S.E	Sig.
HH no. in CFUG	-0.185	0.06	.002+
Occupation is a farmer	0.841	0.417	.043**
MedHhNo	0.174	0.06	.004+
KhetRout	1.23	0.324	.000+
JanjatHH	0.118	0.039	.003+
RichHhNo	-1.003	0.617	0.104
PoorHhN	0.169	0.057	.003+
LogGoatu	-3.589	1.31	.006**
NGOmem	0.896	0.435	.039**
LogRPro	9.028	1.91	.000+
DalitHH	-1.596	0.917	.082*
LogCowUt	11.309	3.468	.001+
Polearea	-0.304	0.128	.017+
BelParea	-0.086	0.033	.010+
Lglandow	0.357	0.139	.010+
Food12m	1.176	0.491	.017**
MedHhN	0.026	0.006	.000+
Janprop	-14.63	5.472	.007+
OwnKhet	1.186	0.441	.015**
Maritst	-1.506	0.656	.022+
BufNo	-1.194	0.415	.004+
Constant	-9.471	3.94	.016+
Chi-square		136.764	
Cox and Snell R <sup>2</sup>		.388	
Nagelkarke R <sup>2</sup>		.576	
-2LogLikelihood		181.624	
Chi Squared Probability		.000	
Number of Observation		310	

Note: \* indicates statistically significant at 10%, \*\* significant at 5% and \*\*\* significant at 1%percentage.

Across all models, a number of household characteristics appear consistently (three or more models) as a determining factor. These include,

- Number of households in a CFUG
- Occupation is a farmer (+)
- Medium HhNo (+)
- Politpow (-)
- KhetRout (+)
- PoorHhN (+)
- LogGoatu (-)
- NGOmem (+)

- LogRPro (+)
- Caste elite (+)

The number of households in a CFUG is negatively correlated with a leadership position. Opportunities for selection as the leader for the group increases as the size of the group decreases. and selection conflict and problems increase as the size of the group increase. Another explanation of this result is that if there is small group size, it creates frequent interactions create opportunities to build reputations for any individual (Adhiari and Di Falco, 2008; Poteete and Ostrom, 2002).

An occupation as a farmer is correlated to leadership because these people are most likely to be involved in a CFUG and rely on it for a portion of their income. As a result they have an incentive to be involved in decision-making. In particular, medium income farmers, who can only just manage to produce sufficient food for a year from their own land, are most likely to be in a leadership position.

The NGO member is statistically significant at the 1 to 4% level in three models (shows table3). This indicates that the higher the average number of NGO members in the EC of the CFUGs the lower the likelihoods of the benefits for poor household obtained from the CF. The basic hypothesis is that if person is a member in NGO/CBO, there is a high probability to a member of EC. NGO might have developed leadership capacity or motivated to be a leader. Policy implication of this finding is if poor and oppressed lower caste has got opportunity to develop their leadership capacity, they could be more in representative of EC and build the decision in their favour. This result is similar to the result of Agrawal and Gupta (2005) and Maskey et al, (2006), NGO oriented CFUG emphasis more effectively to select leader from poor household.

## **5. Conclusions**

The purpose of this study is to determine whether there are socio-economic factors that effectively limit membership on the executive committee of CFUGs in Nepal to the social elite in the community. The results show that richer and higher caste household members have a higher probability of being on the executive committee or one of its key members.

The importance of these results is in the flow on effect that elite dominance can have on decisions regarding resource use. A number of studies have found that the wealthier and local

powerful elite tends to maximise its own benefits from CF and natural resource management (Agrawal and Gupta, 2005; Adhikari et al., 2004; Adhikari and Di Falco, 2006; Ostrom, 2005).

The results of this research are particularly very relevant and significant in the context of policy implication that exploited the poor segment of Nepalese society. The users, who get opportunity to be a member of NGO/CBO, also get opportunity to become skilled at how leaderships are holding in decision-making and make fair decision in favour of poor and disadvantaged households. Agrawal and Gupta (2005) pointed out that elite domination issues are potentially in local decision making everywhere could easily observe. The poor group, who rented in land from richer and elite household, do not get opportunity to participate in EC decision-making. Hence, they do not get opportunity to put forward their needs in EC, thus they get less benefit from CF. Moreover, the wealthy and higher caste elite who rented their land to the poor they have most likely to holding the leaderships of CFUG. This result is extremely important for policy implication that the richer and wealthy higher caste elite rented out their land, dominant the poor, hence poor do not get opportunity to improve their socioeconomic status and leadership as well.

The empirical results indicate more imperative to policy implications and conclude to secure higher attachment in EC that turned more benefit to poor from CF. Most significant to enhance the involvement of poor, lower caste, and oppressed group in EC is need to take advantage of their lower opportunity cost and time. They may have more penalties if they participate in EC such as for frequently meeting and regular attendance. The involvement of poor and oppressed group in decision making is only successful if the government secures the involvement of poor and socially oppressed lower caste in decision making of EC that flow more equitable and needs based benefits to these people. Hence, it promotes the good governance and local democracy and humanitarian decision making as well.

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