

Livelihood Strategies of Indigenous Nationalities in Nepal: A Case of Chepangs

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Abstract

This paper analyses the livelihood strategies adopted by the Chepangs, a highly marginalized indigenous nationalities of Nepal. Household survey was conducted in Shaktikhor Village Development Committee (VDC) in Chitwan district and Handikhola VDC in Makawanpur district among 120 randomly selected households. Additional information was collected through participatory techniques. Six major livelihood sources were identified viz., farming, wage laboring, forest, handicrafts, skilled non-farm jobs, and remittance. Farming forms the mainstay of livelihood for majority of the households. Skilled non-farm jobs and remittances are comparatively more remunerative livelihood sources, however it forms primary livelihood source for only a few households due to lack of education, assets possession, investment capital and skills. Diversification is adopted as the livelihood strategy by entire households. Combination of farming, wage laboring, and forest is the most dominant strategy although it derives lower income. This implies that the households are constrained from adopting the more remunerative livelihood options. Policies and development efforts should be aimed at improving farming, access to forest resources, and promoting non-farm opportunities for sustainable livelihoods of the Chepangs.

1. Introduction

1.1 Background

In the last two decades, development researchers have focused on understanding the different components of rural livelihoods in the developing countries (Chambers and Conway, 1992; Scoones, 1998; Carney, 1998; DFID, 1999). Many studies have also focused on the analysis of livelihood strategies adopted by the rural people (Dharmawan and Manig, 2000; Thennakoon, 2004; Shah et al., 2005; Adi, 2007; Babulo et al., 2008). Livelihood strategy denotes the range and combination of activities and choices that people make and undertake – ways of combining and using assets – in order to achieve their livelihood goals (DFID, 1999). Livelihood strategies are often location specific because the opportunities or possibilities available for communities to undertake survival actions differ according to locations. ‘Rural livelihoods’ often tend to be equated with ‘agricultural livelihoods’, which fail to recognize the diversity of integrated livelihood strategies that the marginalized rural households undertake (DFID, 2003). Therefore, a thorough understanding of the diversified livelihood strategies of the marginalized rural community is essential for formulating development programs and policies aimed at improving their livelihoods.

In Nepal, indigenous nationalities¹ constitute 37.5% of the total population. Indigenous nationalities in Nepal reside in rural areas and depend upon subsistence agriculture for their livelihood. Their socio-economic and human development indicators lie far below the national average (NIRS, 2006). The marginalization of the indigenous nationalities from the development mainstream has caught the attention of the development agencies and policy makers. Multi-sectoral development projects are required to improve the socio-economic status of these communities, and these should be based on a study, which has captured the ground realities of their socio-economic characteristics, and identified the issues associated with their livelihoods. With this background, this paper will contribute to identify and analyze the major patterns of livelihood strategies adopted by the Chepang community, one of the highly marginalized indigenous nationalities of Nepal.

The paper has been divided into five sections. Concepts of livelihood strategy from various literatures will be highlighted in the next section. The second section of the paper focuses on the methodology of the study. Review of related literatures has been done in the third section; findings of the study will be discussed in the fourth section and the fifth section concludes the paper.

1.2 Livelihoods and livelihood strategies: A conceptualization

The most widely accepted definition of livelihood is the one given by Chambers and Conway (1993, p. 6): “a livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living”. This definition of livelihood has been followed by many academicians and development practitioners (Carney, 1998; Scoones, 1998; DFID, 1999; Murray, 2001; Bhandari and Grant, 2007). Ellis (1999, p. 2) defines livelihood as “the activities, the assets, and the access that jointly determine the living gained by an individual or household”. Both of these definitions agree that livelihood is about the ways and means of ‘making a living’. Another feature that both definitions share in common is that livelihood deals with the resources available, and how they are utilized. The concept of livelihood resources has been given differently by different authors. Chambers and Conway (1992) define it as assets of two types, viz., tangible (resources and stores), and intangible (claims and access). On the other hand, Scoones [18] has identified four different types of livelihood resources as natural capital (natural resource stocks), economic/financial capital (saving, credit, remittance, pensions), human capital (skill, knowledge, ability to labor, good health), and social capital (networks, memberships). In addition to Scoones, Carney (1998) has identified one more capital assets, i.e. physical capital (infrastructure, production equipments).

Livelihoods are often shaped by the access to and control over these resources and at the same time are affected

by political, economic, and socio-cultural circumstances (termed ‘structures and processes’ by Carney, 1998; and ‘institutional processes and organizational structures’ by Scoones, 1998). Besides, in the due course of making a livelihood, people have to cope with stresses and shocks; and at the same time create and embrace new opportunities (termed ‘vulnerability context’ by Carney, 1998; and ‘contexts, conditions, and trends’ by Scoones, 1998). These vulnerabilities, together with opportunities influence on the management and utilization of resources, and on the choices made. These ideas are very well explained in the sustainable rural livelihoods framework given by Department for International Development (DFID) (Carney, 1998; DFID, 1999) and Institute of Development Studies (IDS) (Scoones, 1998). The frameworks have been used as conceptual frameworks in some of the livelihood studies done in rural Africa and Asia (Thennakoon, 2004; Shah et al., 2005; Babulo et al., 2008).

Ultimately, livelihood outcomes are determined by the livelihood strategies adopted by a household or an individual. Livelihood strategies are the diverse actions oriented towards meeting desirable needs, involving manipulations of livelihood resources and constructing regulatory mechanisms at different levels of society (Dharmawan and Manig, 2000). Scoones (1998) has identified three broad clusters of livelihood strategies, namely agricultural intensification/extensification, livelihood diversification, and migration. Under the first strategy, agricultural intensification/extensification, communities gain most of their livelihood from farming either through intensification (more output per unit area through capital investment or increase in labor inputs) or through extensification (bringing more area under cultivation).

Second livelihood strategy is livelihood diversification, which has been discussed in detail by Frank Ellis in his works (Ellis, 1998; Ellis, 1999). According to Ellis (1999; p. 2), livelihood diversification is defined as “the process by which households construct a diverse portfolio of activities and social support capabilities for survival and in order to improve their standard of living”. Studies reveal that in rural areas of low-income countries, farming alone is not sufficient to eke out a living (Barrett, Reardon, and Webb, 2001; Adi, 2007; Babulo et al., 2008). As a result, most rural houses are found to depend on diverse income sources besides farming. It usually includes off-farm wage works, non-farm activities, non-farm self-employment, and remittances.

The third livelihood strategy is migration, which may be voluntary or involuntary. Furthermore, according to Ellis (1998), migration may be seasonal (according to agricultural season), circular (according to cyclical labor demands in non-farm labor markets), permanent (usually rural to urban), and international. A household may pursue these three strategies singly or in combination together or in sequence.

This conceptualization sheds light on various components of rural livelihoods and is important to understand complexity of rural livelihoods; which in turn is determined by interactions existing among the livelihood assets, vulnerability contexts, policies, institutions, organizations, and livelihood strategies.

2. Methods

2.1 Chepangs: The study community

The Chepang community, with a population of 52,237, constitutes 0.23 percent of the total population of Nepal (CBS, 2003). The Chepangs inhabit in scattered settlements nearby the forest, in remote, steep terrains in the west of Makawanpur district, northeast of Chitwan district, southeast of Gorkha district, and south of Dhading district. Although major highways of the country surround their traditional area, feeder roads joining their settlements to the highways are almost absent. Besides transportation, other infrastructure like schools, health centers, communication, and irrigation canals are also very limited in their settlements. As described by Brian Hodgson in 1857, they were “living entirely upon wild fruits and the produce of the chase” (Hodgson 1874; p. 45). Thus, until the last 150 years ago, Chepangs were totally dependent on hunting and gathering. Later, they started practicing *khoriya*² cultivation. Currently, they

practice sedentary and subsistence rainfed agriculture in marginal land. However, due to poor quality of land, and limited irrigation facilities during the dry season, farming alone is not enough to provide food for them for the whole year (FORWARD, 2001a). During the lean period, Chepangs still depend on forests to gather wild edibles. However, control over and access to forest resources have been severely restricted due to unfavorable state policies, which in turn threaten their traditional livelihoods (Upreti and Adhikari, 2006). The Private Forest Nationalization Act enacted in 1957 transferred all the forests that had been traditionally used from the past under the government ownership. Enactment of Forest Act 1993 formed a base for the introduction of Community and Leasehold Forestry, which banned all the hunting and cultivation activities within the forest area, thereby negatively affecting the traditional system of the Chepang livelihoods. At the same time, most Chepangs do not have legal ownerships of land they have been using. Cadastral survey conducted in the Chepang area in early 1970s only registered lands that were permanently cultivated as private properties, thereby failing to recognize *khoriya* patches as land suitable for registration (see Piya, Maharjan, and Joshi, 2011). Chepangs are thus characterized by poverty, illiteracy, food insecurity, food self-insufficiency, and lack of resource ownerships.

2.2 Selection of the study sites, data collection, and analysis

Shaktikhor Village Development Committee (VDC³) from Chitwan district and Handikhola VDC from Makawanpur district were purposively selected as the study sites (Figure 1). Some basic differences exist between two study VDCs, which facilitated comparative study. Chepangs form the largest ethnic group in Shaktikhor VDC and fourth largest ethnic group in Handikhola VDC. Elevation of Shaktikhor ranges from 250-1200 meters above sea level (masl), and that of Handikhola VDC ranges from 350-700 masl. Shaktikhor VDC is linked to the East-West Highway by an all season-graveled road up to the foothills of the VDC (Figure 2). Handikhola VDC, on the other hand is separated from the East-West Highway by the Rapti river. Thus, transportation to Handikhola VDC is available only during winter, which touches only a small portion of the VDC, and a larger part of the VDC is untouched by transportation all the year round (Figure 3).



Figure 1. Map of Nepal showing Chitwan and Makawanpur districts

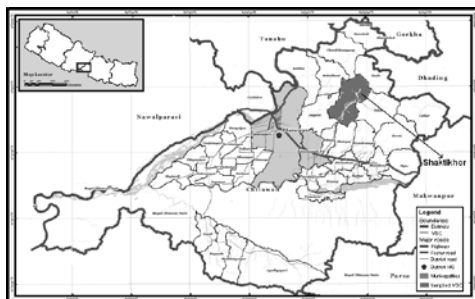


Figure 2. Map of Chitwan district showing Shaktikhor VDC



Figure 3. Map of Makawanpur district showing Handikhola VDC

For the collection of data, Chepang households⁴ formed the basic units of study. A total of randomly selected⁵ 120 households, 60 from each VDC formed the study sample. It accounts for 15% of total Chepang households in Shaktikhor VDC and 26.1% in Handikhola VDC. Quantitative and qualitative primary data were collected through individual household survey using semi-structured interview schedules during August-September 2008. University students of the related field and field staff having working experiences with the Chepang community in the locality were hired as enumerators for the field survey. The household survey was conducted under the daily supervision of the researchers. The households covered by the survey were untouched by motorable roads and electricity. Follow-up field visit was done during February-March 2009. Information was also collected through participatory methods like key informants' interview, and focal group discussions. The methodology was thus composed of a combination of participatory methods and small-scale sample surveys, which is likely to prove the most cost-effective means of determining the livelihood strategies of rural households (Ellis, 1998; Ellis, 1999; Malleson et al., 2008). The nature of the study is primarily qualitative, with some quantitative data to support the arguments. Data entry was done in Excel and SPSS spreadsheets. T-tests were done for testing the mean differences between the two VDCs.

3. Literature Review

Agriculture forms the major livelihood sources for most of the rural population in Nepal (CBS, 2003). NIRS (2006) reports that the share of farm income is about 48% for all Nepal, while it is 51% for the group of hilly indigenous nationalities excluding Newars⁶. Besides farming, non-farm income and remittances form the other two most important sources of income. Bhandari and Grant (2007) opine that agricultural production alone is not a viable livelihood option for rural communities in Nepal. Thus, diversification of livelihood strategies is a common strategy among the rural population. In their study conducted in Kaski district of Western Nepal, they identified three major categories of livelihood strategies viz., highly dependent on agricultural production, highly dependent on forest products, and highly dependent on employment income and other business. The last group of households were reported to have relatively higher security compared to the other two types of livelihoods.

There are few studies that analyses the livelihood strategies of the Chepang community. FORWARD (2001b) reports that the Chepangs have adopted 'multi-pronged livelihood strategies' encompassing permanent agriculture and animal husbandry, slash and burn cultivation, wage labor, hunting and gathering practices, cottage industries and barter system. This study emphasizes that Chepangs have diversified their livelihood sources because no single source is sufficient for their livelihood all the year round. However, this study fails to give further information on the contribution of each livelihood sources singly or in combinations.

Agriculture is the major livelihood sources for the Chepang households (Nakarmi, 1995; Gribnau et al., 1997; FORWARD, 2001a; FORWARD, 2001b; Aryal, 2007). Since agriculture is not sufficient to provide food for the whole year, other subsidiary livelihood activities are undertaken for earning cash income. FORWARD (2001b) reports that, besides agriculture, wage laboring and livestock are the major source of livelihoods undertaken by 74% and 66% of the Chepang households respectively. In the same line, in a study done in Chepang community in Dhading district by Nakarmi (1995), it is reported that agriculture is the main occupation for 97% of the households while livestock raising, and cottage industries constituted other supplementary activities undertaken by 81% and 6% of the households respectively. These studies however fail to give the contributions of the livelihood activities in terms of income. In the same line, Aryal (2007) reports that agriculture is the primary source of livelihood for 98% of the Chepang households in Dhading district, while wage laboring was the primary source for the rest 2%. On the other hand wage laboring formed the secondary source of livelihood for 93% of the households. Besides these, other secondary livelihood strategies consisted of salaried jobs and petty business for 3% and 32% of the households respectively.

In a study done by Gribnau et al. (1997) in Chitwan district, it was found that Chepangs primarily depend on agriculture, besides which they also depend significantly on forest, small livestock especially goats, fruits and medicinal plants, wage labor, and taking loans. According to this study, field crops provide 24% of annual cash income for a Chepang household, while livestock, forest, and wage laboring respectively generates about 38%, 15%, and 14% of the annual cash income for a Chepang household in Shaktikhor VDC of Chitwan district. This study will contribute to dearth of existing literatures on livelihood studies of Chepang community by conducting an in-depth livelihoods study reporting the households involved in each livelihood sources, contribution of each sources to annual income of the households, and analyzing the combination of the livelihood sources by the Chepang households.

4. Findings

4.1 Sources of livelihoods in the Chepang community

Six different sources of livelihoods were identified in the Chepang community viz., farming, wage laboring, forest, handicrafts, skilled non-farm job, and remittance. Farming and forestry are natural resource based livelihoods sources, while the rest form non-natural based livelihoods sources. Farming includes income from crops grown for own-consumption or for sale and livestock. Income from crops was calculated by measuring the value of different crop products over one year period for each household. Income from livestock consists of two components: sale of live animals and livestock products either consumed or sold. Market prices or own reported values were used to estimate the income from farming. Wage laboring includes the off-farm activities for which the households are paid on an hourly or daily basis. In the survey, wage laboring includes both agricultural and non-agricultural labor. For non-agricultural labor, the adult male members of the family migrate temporarily outside the village during the dry season when there are no agricultural activities to be done. Another important source of livelihoods for the Chepang community is the forest. In this study, forest products collected either for human consumption or for sale were valued using market prices or own reported values. While computing forest income, fodder and litter were not included due to the difficulties in their valuation. Next source of income for the Chepangs is the income from bamboo handicrafts like baskets used for daily household purposes, and only the income from sold items were considered while computing income from handicrafts. Skilled non-farm job included non-farm activities requiring some particular skill and monthly paid jobs. These activities were usually pursued outside the village and include jobs like cooking in hotels, carpet weaving, teaching and other salaried jobs like peons, clerks, and post-man. Another source of livelihood is remittance from abroad, usually earnings through laboring in India and other countries like Israel and Malaysia. Wage laboring, skilled non-farm jobs and remittance involve temporary migration because there are very few earning opportunities at the local level.

Table 1. Gross annual income per HH (NRs.) from different sources

Source	Gross annual income/HH (NRs.)		
	n	Mean	SD
Farming	120 (100)	37,660	29,522
Wage labor	106 (88)	18,050	19,622
Forest	102 (85)	8,328	12,677
Handicrafts	11 (9)	2,520	2,680
Skilled non-farm job	23 (19)	28,361	28,322
Remittance	5 (4)	52,600	37,467
Aggregate	120 (100)	68,543	42,380

Source: Field survey, 2008

Note: Figures in parenthesis indicate percentage

NRs. = Nepali Rupees; 70 NRs. = 1 US\$; n = number of households; SD = Standard Deviation

Table 1 shows the gross annual income that households derive from each of these livelihood sources. Farming forms the most important source of livelihood for all the households covered by the study. Besides farming, wage laboring and forest also forms an important source of livelihoods for a majority of the households in both the VDCs. Other three sources, i.e. handicrafts, skilled non-farm jobs, and remittance are pursued by fewer households. In terms of the average amount of annual earning per household, however, income from remittance is the highest although very few households are receiving it. The average annual income per household is the third highest for skilled non-farm job, which is also undertaken by very few households. This is because of higher investment and vocational education required for these sources, which most of the Chepang households cannot afford.

Households have one distinct source of livelihood, which it considers primary, to which more time is allocated, and from which more income is derived. As depicted in Table 2, farming is the primary livelihood source for the majority of sample households (69%) covered in the study, followed by wage laboring (23%). Although most of the sample households derive some income from forest, it does not form the primary source of livelihood for any of the sample households. Highest gross annual income is derived by households having remittance as the primary source (NRs. 133,533), followed by skilled non-farm job (NRs. 87,578). However, as already discussed, very few households are dependent on these two sources owing to the high investment and skills required.

Table 2. Gross annual income per HH according to the primary source

Primary source of income	n	Gross annual income/HH (NRs.)	
		Mean	SD
Farming	83 (69.2)	66,677	43,019
Wage labor	27 (22.5)	63,824	37,899
Skilled non-farm job	8 (6.7)	87,578	41,947
Remittance	2 (1.7)	133,533	9,126

Source: Field survey, 2008

Note: NRs. = Nepali Rupees; 70 NRs. = 1 US\$; n = number of households;

HH = Household; SD = Standard Deviation

4.2 Spatial variations

Differences in location play an important role in determining the livelihood outcome, which is depicted by gross income in this study. From Table 3, it can be seen that farming is the mainstay of all the households' livelihood in both the VDCs. However, in Shaktikhor VDC income from farming is significantly higher than in Handikhola VDC. This is because average landholding in Shaktikhor is 1.15 ha, which is significantly higher (at 1% level of significance) compared to 0.33 ha in Handikhola. At the same time, irrigation facilities are better developed in Shaktikhor. Nearly 60% of households in Shaktikhor owned plots having seasonal sources of irrigation compared to only 30% households in Handikhola. As a result, Chepang community in Shaktikhor has better prospects to produce high value products that can be marketed. Furthermore, Shaktikhor forms a major market center for all the surrounding Chepang VDCs. Praja (Chepang) Cooperative established at the foothills of Shaktikhor VDC acts as a collection center and marketing outlets for agro-products like black-gram, four-season beans, and ginger produced by the Chepangs. On the other hand, in Handikhola, low landholding, limited irrigation facilities, and market have led to low income from farming.

Forest income was also found to be significantly higher in Shaktikhor VDC. This difference can be explained by various factors, the first one being access to forest resources by the community. Handikhola VDC is surrounded by Parsa Wildlife Reserve in the West, and Chitwan National Park in the South (see Figure 3). It is illegal to collect forest products from protected forests, which mean that the access to surrounding forest resources is severely restricted in Handikhola. In addition, forest in and around Shaktikhor is itself denser and richer in species diversity because of higher altitude. As a result, availability of commercially important forest products is higher in Shaktikhor VDC, which contributes to significantly higher forest income there. Praja (Chepang) Cooperative is also the collection and marketing center of non-timber forest products. Thus, differences in agro-ecology, resource holding, access to resources, and market availability in the two study-sites play an important role in contribution to the income of the households from different livelihood sources.

Table 3. Spatial variations in gross annual income per HH from various sources

Source	Gross annual income/HH (NRs.)					
	Shaktikhor			Handikhola		
	n	Mean	SD	n	Mean	SD
Farming	60 (100)	45,604***	29,103	60 (100)	29,716***	27,974
Wage labor	51 (85)	15,483	16,786	55 (92)	20,431	21,813
Forest	55 (92)	11,582***	15,986	47 (78)	4,520***	5,041
Handicrafts	3 (5)	1,156	987	8 (13)	3,032	2,981
Skilled non-farm job	10 (17)	24,000	35,480	13 (22)	31,716	22,324
Remittance	1 (2)	15,000	-	4 (7)	62,000	35,814
Aggregate	60 (100)	73,689	45,303	60 (100)	63,396	38,940

Source: Field survey, 2008

Note: Figures in parenthesis indicate percentage

NRs. = Nepali Rupees; 70 NRs. = 1 US\$; n = number of households; SD = Standard Deviation

*** Significant at 1% level of significance

4.3 Diversification of livelihood sources in the Chepang community

It was found that the entire Chepang households depended on two or more sources for their livelihoods. Thus, livelihood diversification is common among the Chepang community. Activity portfolio of the sampled households was analyzed to observe the patterns of combination of livelihood sources. Four broad groups of livelihood strategies have been identified based on the number of livelihood sources the households depend upon. Altogether, 12 different patterns emerge from the analysis, which is given in Table 4. Farming is the mainstay of the Chepang's livelihood, as it forms one of the components in all the livelihood patterns. It can be observed that mean gross annual household income is the lowest for the group with only two livelihood sources, and the income increases with the combination of more livelihood sources. Overall, the lowest income is NRs. 39,279 for the combination of farming and wage laboring, and the highest is NRs. 136,921, for the combination of five livelihood sources including farming, wage laboring, forest, skilled non-farm jobs, and handicraft.

From Table 4, it is evident that the annual income from the livelihood strategies having remittance or skilled non-farm job as one of the components is higher within each group, and also higher than the aggregate mean income. This implies that, remittance and skilled non-farm jobs are comparatively more remunerative livelihood sources.

Table 4. Gross annual income per HH (NRs.) according to livelihood strategies

Livelihood strategies	n	Gross annual income/HH (NRs.)	
		Mean	SD
Two sources			
Farming, Forest	9 (7.5)	44,293	41,744
Farming, Wage labor	7 (5.8)	39,379	20,975
Farming, Skilled non-farm job	2 (1.7)	76,548	46,044
Sub-total	18 (15.0)	45,966	35,063
Three sources			
Farming, Wage labor, Forest	69 (57.5)	65,455	35,086
Farming, Wage labor, Skilled non-farm job	4 (3.3)	105,358	32,327
Farming, Wage labor, Remittance	3 (2.5)	115,731	63,436
Farming, Forest, Skilled non-farm job	2 (1.7)	106,663	12,588
Farming, Forest, Remittance	1 (0.8)	127,080	-
Subtotal	79 (65.8)	71,208	38,160
Four sources			
Farming, Wage labor, Forest, Skilled non-farm job	11 (9.2)	81,707	45,741
Farming, Wage labor, Forest, Handicraft	8 (6.7)	43,894	21,143
Farming, Wage labor, Forest, Remittance	1 (0.8)	111,641	-
Subtotal	20 (16.7)	68,078	41,467
Five sources			
Farming, Wage labor, Forest, Skilled non-farm job, Handicraft	3 (2.5)	136,921	106,794
Subtotal	3 (2.5)	136,921	106,794
Aggregate	120 (100)	68,543	42,380

Source: Field survey, 2008

Note: Figures in parenthesis indicate percentage

HH: Household; NRs. = Nepali Rupees; 70 NRs. = 1 US\$; n = number of households; SD: Standard Deviation

Among all the livelihood strategies, combination of three livelihood sources forms the most dominant livelihood strategy, out of which combination of farming, wage laboring, and forest is the most common diversification strategy followed by nearly 58% of the households. In fact, wage laboring and forests are not simply alternative options, but are integrated into the livelihood of Chepang community. During the dry seasons, when there are few agricultural activities in the village, Chepangs undertake wage laboring to fulfill the consumption needs, for which they temporarily migrate outside the village for jobs like carrying loads, working in stone quarries, and road constructions. Chepangs depend on forest for collection of fodder, fuel, and commercial products. Apart from that, forest is an important source of wild edibles for the Chepangs especially during the lean periods. However, income from this particular combination is the lowest within this group and is lower than the aggregate average annual income. This shows that the majority of Chepang community is dependent on less remunerative livelihood strategies earning comparatively lower returns. This implies that the Chepang households are constrained from choosing more remunerative non-farm livelihood options, and are compelled to continue depending on these livelihood sources due to lack of formal education, vocational training, citizenship certificates, capital for investment, and lack of non-farm opportunities. The average education of the heads of the sample households is very low (1.2 years). More than 63% of the household heads are illiterate, and nearly 29% of them have only attained primary level education (Annex 2). As a result of low level of education, they are unable to pursue salaried jobs, or go abroad for foreign employment as they are unable to follow the necessary official procedures required. In addition to low education, more than 42% of the sample population does not possess citizenship certificates due to lengthy official process which is often difficult for illiterate community. Citizenship certificates are often issued from district headquarters far away from their settlements, which the Chepangs cannot afford easily. Lack of citizenship certificates means they are unable to issue passports for going abroad, claim allowances for senior citizens, buy and sell lands, open bank accounts, issue birth-death-marriage certificates, or obtain subsidized good and public services. Land is the most important asset for any rural community. However, most of the Chepang households only possess upland and khoriya, which are less fertile compared to paddylands (Annex 3). Paddylands are owned by only 37% of the sample households, and only 45% of the sample households have access to irrigation. Land can be used as a liability to obtain loans for investments in more remunerative options, but for that land need to be registered. However, more than 56% of the sample households do not possess registration certificates for the lands that they cultivate, partly because of lengthy official procedures, and partly because of faulty government policies which registered only permanently cultivated lands thereby excluding the lands under shifting cultivation practices. Unregistered lands cannot be used as liabilities to obtain loans for further investments. Livestock is next important asset for Chepangs. However, most of the households belong to small-holders' category owning less than 5 livestock units, so that they rarely make extra income that can be saved or used for further investments. The livelihoods of Chepang community is thus constrained from choosing a more remunerative option by many interacting factors like low educational attainments, low asset possession, unfavorable government policies, lack of access to fundamental rights like possession of citizenship and land registration certificates. These constraints are often interlinked and interact with one another to constrain the livelihood choices of the Chepangs; for instance without citizenship certificates, they cannot issue passports and land registration certificates; or receive bank loans. Unregistered lands cannot be used as liabilities to obtain formal credits. Government policies do not recognize their lands for registration, and furthermore all the government official procedures related to issuance of citizenship certificates, registration of land, borrowing formal credits are often too difficult for illiterate community to comprehend. As a result there are fewer choices of less remunerative livelihood options for these households to choose from.

4.4 Discussion

Farming, inclusive of agriculture and livestock, is the mainstay of the livelihood of the Chepang community.

Besides farming, wage labor, forest, handicrafts, skilled non-farm jobs including salaried job, and remittance are the major livelihood sources for this community. Farming and forestry are natural resource based livelihoods, while the others are non-natural resource based. Wage labor, skill non-farm jobs, and remittance involved temporary out-migration by the male members of the households. After farming, wage laboring formed a source of income for 88% of the households, which is quite near to 75% reported by FORWARD (2001b) and 94% reported by Aryal (2007). Forest, another important source of livelihood for 85% of the Chepang households, however has not been given considerations by previous studies except for Gribnau et al. (1997). The remaining livelihood sources viz., handicraft, skilled non-farm jobs, and remittance were undertaken by relatively lesser households (9%, 19%, and 4% respectively). On average, farming contributed 50% of the total income, which exactly matches with 51% reported by NIRS (2006) for hilly indigenous nationalities. After farming, wage labor contributed 26.3%, forest 10.3%, skilled non-farm jobs 7.9%, handicraft 0.3% and remittance 3.2% of the gross annual income.

In terms of primary sources of income, farming formed a primary source for 69% of the households, while wage labor, skilled non-farm jobs, and remittance formed a primary source for 23%, 6.7%, and 1.7% of the households. However, gross annual income per household was highest for households having remittance as the primary source, followed by skilled non-farm jobs, agriculture, and finally wage labor. Remittance and skilled non-farm jobs are thus more remunerative income sources, however, very few households have the capacity to choose these sources for their livelihoods. Analysis of income portfolio of the households revealed 12 different combination strategies of various income sources. Among all the livelihood strategies, combinations having remittance and skilled non-farm jobs as one of the components has comparatively higher annual income than those depending on farming, forest, and wage labor. Combination of farming, forest and wage labor was the most dominant livelihood combination strategy followed by 58% of the households; however, income from this combination was lower than other combinations having remittance or skilled non-farm job as a component. Thus majority of the Chepang households is dependent on less remunerative livelihood sources earning comparatively lower returns. This is because the livelihood choices of these households are constrained by multiple factors comprising of low education, low landholding, low livestock holding, lack of citizenship certificates, lack of land registration certificates, and unfavorable land policies. These factors are interlinked and interact with one another, thereby further constraining the Chepang households to choose more remunerative livelihood options.

5. Conclusion and policy implications

The fact that higher incomes are generated with the combination of three or more livelihood strategies leads to the conclusion that there's a need to promote diversification. Furthermore, emphasis should be placed on more remunerative income sources like skilled non-farm job opportunities. However, advocating for diversification and promotion of skilled non-farm job opportunity does not imply that the agriculture and livestock sector can be overlooked. Since farming still forms the mainstay of the livelihood of the Chepang community, interventions in the agricultural and livestock sectors are still important. Furthermore, the fact that majority of the households draws some portion of their income from forest resources implies that forest is not just an alternative livelihood option, but is rather integrated into the livelihood of this community. The implication of this for policy is that the access of the Chepang community to forest resources should be ensured. It is thus important for the policy makers and development agencies to recognize the complementary relationship among farming, forestry, and non-farm livelihood strategies in sustaining the livelihood of the Chepang community.

Endnotes

- ¹ According to National Foundation for Development of Indigenous Nationalities Act 2002, indigenous nationalities means tribes or communities having their own mother language and traditional rites and customs, distinct cultural identity, distinct social structure and written or unwritten history. Based on the same Act, Nepal Government has identified 59 Indigenous Nationalities (NIRS, 2006).
- ² *Khoriya* cultivation is also known as shifting cultivation or slash-and-burn cultivation. In ancient times, Chepangs practiced *khoriya* cultivation by clearing and burning small patches of forests, which was planted with food crops usually maize, millet, and legumes like blackgram and soybean. The land was usually cultivated for a year or two at the most, and then abandoned for the next ten to fifteen years. By that time, it would have regenerated into forest and soil would gain fertility. In the meantime, they would clear other pieces of land and continue this practice.
- ³ VDCs are the lowest tiers of administrative units in Nepal, and are composed of 9 wards.
- ⁴ A household includes more than one individual (although a single individual can also constitute a household), who share economic activities necessary for the survival of the household and for the generation of well-being for its members (Khatri-Chhetri and Maharjan, 2006).
- ⁵ The list of the Chepang households and the names of the household heads were first prepared with the help of the representatives of the Village Committees of the Nepal Chepang Association in the study VDCs. Then, each household was assigned a number, and the sampled households were randomly selected by lottery method.
- ⁶ The 59 indigenous nationalities in Nepal are further classified into five groups comprising of endangered, highly marginalized, marginalized, disadvantaged, and advanced group. This classification is based on a composite index comprising of variables like literacy rate, housing, land holdings, occupation, language, graduates, residence, and population size. Newars and Thakalis are the only two indigenous nationalities falling under the advanced category. The indigenous nationalities are further classified into mountains, hills and tarai based on the geographical location where they form a majority. Chepangs fall under hilly and highly marginalized indigenous nationalities, together with Baramu, and Thami (for details, see Annex 1).

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Annex 1. Classification of 59 indigenous nationalities in Nepal

Region	Classification				
	Endangered	Highly Marginalized	Marginalized	Disadvantaged	Advantaged
Mountain (18)		Shiyar (Chumba) Shingsawa (Lhomi, Karbhote) Thudam	Bhote (Bhotiya) Dolpo Larke (Nupribe) Lhopa (Mustang) Mugali (Mugu) Topkegola (Dhokpya) Walung	Barhagaunle (Bargau-le) Byansi (Sauka, Byasi, Rang) Chhairotan (Tamang, Thakali, Panchgaule) Marphali Thakali (Puntan, Punel) Sherpa Tangbe (Tangbedani) Tingale Thakali (Yhulkosompaimbi)	Thakali
Hill (24)	Bankariya Hayu Kusbadiya Kusunda Lapcha (Lepcha, Rong) Surel	Baramu Chepang Thami (Thangmi)	Bhujel Dura Pahari Phree (Free) Sunuwar Tamang	Chhantyal Gurung (Tamu) Jirel Limbu (Yakthung) Magar Rai Yakkha (Dewan) Yolmo (Helambu)	Newar
Inner Terai (7)	Raji Raute	Bote Danuwar Majhi (Bhumar)	Darai Kumal		
Terai (10)	Kisan (Kuntum) Meche (Bodo)	Dhanuk (Rajbanshi, Khumu) Dhungar/Ghangar/ Jhangad/Dhangad Santhal (Satar)	Gangai Rajbanshi (Koch) Tajpuriya Tharu Dhimal		
Total	10	12	20	15	2

Source: Pokharel, 2005

Annex 2. Socio-economic characteristics of the sample households

Socio-economic parameters	Shaktikhor (n=60)	Handikhola (n=60)	Overall (n=120)
Average years of education of the HHH	1.3	1.1	1.2
Education of the HHH			
<i>Illiterate (cannot read or write)</i>	35 (58.3)	41 (68.3)	76 (63.3)
<i>Primary (up to grade 5)</i>	22 (36.7)	13 (21.7)	35 (29.2)
<i>Lower secondary (grade 6 – 8)</i>	1 (1.7)	5 (8.3)	6 (5.0)
<i>Secondary (grade 9 – 10)</i>	2 (3.3)	1 (1.7)	3 (2.5)
Possession of citizenship certificate (%)	59.9	53.9	56.8
HHs possessing access to irrigation	36 (60.0)	18 (30.0)	54 (45.0)
HHs possessing registered land	23 (38.3)	29 (48.3)	52 (43.3)
Average livestock holding per HH (LSU)	7.9	4.3	6.1
Livestock holding by category			
<i>Small (<5 LSU)</i>	20 (33.3)	41 (68.3)	61 (50.8)
<i>Medium (5 - 10 LSU)</i>	26 (43.3)	17 (28.3)	43 (35.8)
<i>Large (>10 LSU)</i>	14 (23.3)	2 (3.3)	16 (13.3)

Source: Field Survey, 2008

Note: Figures in parenthesis indicate percentage

HHH: Household Head; HH: Household; LSU: Livestock Unit; n: Number of HHs

Annex 3. Average landholding of the sample households by land category (in ha)

Land category	Shaktikhor		Handikhola		Overall	
	n	Area/HH	n	Area/HH	n	Area/HH
Paddyland	29 (48.3)	0.32	15 (25.0)	0.19	44 (36.7)	0.28
Upland	54 (90.0)	0.71	58 (96.7)	0.24	112 (93.3)	0.47
Khoriya	35 (58.3)	0.62	17 (28.3)	0.15	52 (43.3)	0.46

Source: Field survey, 2008

Note: Figures in parenthesis indicate percentage

n = Number of Households; HH: Household