

Cultural Ecology of the Highland Communities: Some Anthropological Observations from Eastern Nepal

Laya Prasad Uprety*

1. Prelude

This research paper has two-fold objectives: (i) to familiarize the graduate students majoring in anthropology with the theoretical underpinnings of cultural ecology, and (ii) to analyze and explicate the ecological-cultural adaptations among the communities living in the harsh mountain ecological setting of eastern Nepal and their traditional organizations and institutions contributing to community welfare and social equity within the framework of cultural ecology. The paper has been based on the impressionistic data garnered in from the Himalayan ecological setting in eastern Nepal.

2. Theoretical Underpinnings of Cultural Ecology within Ecological Anthropology

D.L Hardesty (1977:1) notes that the science of anthropology has traditionally been a “holistic” discipline. Anthropologists have advocated a broad, comparative study of human behavior in the search for general laws and principles, and little about man has been left out. Contextually, anthropologists have explored the ways in which “environment” has been used in the anthropological explanation, an area of endeavor referred to as “ecological anthropology”. Of the several roots of “ecological anthropology” such as environmental determinism, environmental possibilism, population ecology, systems ecology and ethnology, cultural ecology is one.

It is contextual to begin the discussion by defining “ecology” first before going to the notion of “cultural ecology”. Odum (1971:1) defines ecology as the “the study of the relation of organisms or groups of organisms to their environment or the science of interrelations between living organisms and their environment.” Hardesty (1977:8-9) notes that ecology as a science blossomed in the 20th century but had initially been restricted to the study of plants and animals other than man. Julian Steward had expressed the ecological perspective in anthropology in 1930s. In his contribution to the “Method of Cultural Ecology”, he emphasized that culture and environment are not the separate spheres but are involved in the dialectic interplay or what is called “reciprocal causality”. Two ideas are important in the reciprocal causality: the idea that neither environment nor culture is a given but that each is defined in terms of the other, and the idea that environment plays an active, not just a limiting or selective, role in human affairs.

Steward (1955:30-41) also notes that the principal meaning of ecology is “adaptation to environment.” Steward believed that some sectors of culture are more prone to a strong environmental relationship than other sectors and that ecological analysis could be used to explain cross-cultural similarities only in this “culture core”. The “culture core” consists of the economic sector of society, those features that are most closely related to subsistence activities and economic arrangements. His method of cultural ecology involved the analysis of: (i) the interrelationship between environment and exploitative or productive technology; (ii) the interrelationship between “behavior” patterns and exploitative technology, and (iii) the extent to which those “behavior” patterns affect other sectors of culture. His goal was to explain the origin of particular cultural features and patterns, which characterize different areas. Vayda and

* Mr. Laya Prasad Uprety is the Reader in Anthropology at Tribhuvan University.

Rappaport (1968) noted that his methods required the detailed studies of local groups in their environment as a prerequisite to making ecological generalizations. Referring to the concept of cultural ecology evolved by Steward, Rambo (1979:5) notes:

...Steward (1938) demonstrated that the low density and high degree of dispersal of the Shoshone population, their organization into small family bands with highly flexible residence and lack of territoriality, and their lack of permanent leaders, all reflected the inability of their simple technology to extract a larger and more stable supply of food from the thinly scattered and sporadically available resources of the Great Basin environment.

According to Steward and Murphy (1977:44), cultural ecology is the study of processes by which a society adapts to its environment. Thus, cultural ecology recognizes the social organization as an adaptive response to a group of living in a particular environmental setting. Steward and Murphy (1977) emphasize that the central variable in cultural ecology is the organization of work. In terms of the theory and method of cultural ecology, they (1977:22) state:

The theory and method of cultural ecology posit a relationship between the resources the environment, the tools and knowledge available to exploit them and the patterns of work necessary to bring the technology to bear upon the resources...

Both Steward and Murphy maintain that the key element in the man-environment equation or relationship is the process of work, the division of labor and the management of human work in the pursuit of subsistence. Julian Steward's concept of cultural ecology has been useful in providing a new perspective for comprehending how societies develop an adaptive response to the immediate environment. Vermillan (198:60) notes that most culture-ecological studies primarily focus on survival at the group level.

However, the cultural ecology framework provides a homeostatic or static equilibrium model of adaptive societies. Stated somewhat differently, the model offers an ahistorical image of optimal and balanced resources use. This point is a weakness of cultural ecology. In this regards, Rambo (1979:11) writes:

It (cultural ecology) has been much less useful in studying complex modern societies where the actions of large human populations are producing rapid environmental change with consequent need for re-adaptation of the cultural core. As used by Steward and used by others, the cultural ecology model is lacking any systematic conceptualization of the environment or of the ways in which human activity impinges on it. Thus, its emphasis is almost exclusively on the human side of the man-environment equation, focusing on the adaptation of culture to nature while ignoring environmental change in response to human intervention.

Thus, cultural ecological studies must focus on ecological change or dis-equilibrium in the environment resulting from human adaptive responses/activities. Environmental adaptation cannot be viewed statically only. Therefore, the man-environmental equation or relationship should be studied with the adoption of a more dynamic perspective. Anthropologists have also viewed that the ritual and ideology have also the role to interact with the environment, which is glaringly missing in the cultural ecological studies. Despite the theoretical limitations of the cultural ecological framework, I have made an attempt to analyze the impressionistic data on the ecological adaptations of the highland communities of eastern Nepal by applying it.

3. Sociology of the Study Locale

The study area included five mountain Village Development Committees (VDCs), namely, Mahamanghe, Yamphudin, Tapethok, Lelep and Walangchung of Taplejung district in eastern

Nepal. During the period of fieldwork in September-October in 1994, there were a total of 1058 households (18.7%% in Mahamanghe, 12.3% in Yamphudin, 23.9% in Tapethok, 37.3% in Lelep and 7.7% Walangchung). The total population of five VDCs was 5,776. The social composition comprised the *Limbus*, *Rais*, *Gurungs*, *Tamangs* and *Bhotias* (who identified themselves as the *Sherpas*) as the ethnic groups and *Brahmins*, *Chhettris* and the traditional service caste people. The *Limbus* are the aboriginal people. The caste group people had migrated to this area after the political integration of *Limbuwan* (the land of the *Limbus*) to Nepal in 1974 A.D. The *Rais*, the aboriginal people of Arun valley, were also the migrants to this area. The *Gurungs* were reported to have migrated to this area from Kaski district of central Nepal in 1832 A.D. The *Tamangs* were also reported to have migrated from the hill districts of central Nepal after the integration of *Limbuwan* to Nepal. All the *Bhoitas* were originally from *Bhote* (Tibet). In other words, *Bhotias* were regarded as the people of Tibetan origin. In the lower belt of the study area such as the Mahamanghe, Yamphudin and Tapethok, there is higher concentration of the *Limbus*, *Rais* and *Gurungs*, and caste groups. Conversely, there is higher concentration of *Bhotias* (*Sherpas*) in Lelep and Walangchung VDCs. Sir Joseph Dalton Hooker (1905) and Christopher von-Furer Haimendorf (1975) have called these *Sherpa* people of upper Tamar and Gunsar region including the Walangchung as “*Bhotias*” Hooker (1905) asserted that in all aspects of appearance, religions, manners, customs and languages, they are Tibetans and lama Buddhists. It was revealed from the key informants that the *Bhotias* living in the upper part of the Tamar and Gunsar Khola valleys had some difficulty in acquiring the citizenships because it was very difficult for the local administration to distinguish the Tibetan refugees and the local inhabitants of the Tibetan origin due to their linguistic and cultural similarities. As a consequence of it, the local Nepali *Bhotias* gradually began to identify themselves as the *Sherpas* to eschew the administrative hassle for the acquisition of citizenship. Nonetheless, a few were still willing to identify as the *Bhotias* (Uprety, 1994).

4. Methodology

The fieldwork for the study was conducted for three weeks in September and October, 1994. Ethnographic method was used for the garnering in the necessary data, which involved the use of key informant interview, participant observation, informal and formal group interviews and focus group discussions. A total of 75 informants (15 from each VDC) were purposively selected from the different cross-sections of the communities to ensure the representative opinions expressed and interviewed. Household and community meetings were also attended with permission in the capacity of the “marginal native”. The qualitative data collected were analyzed by organizing them thematically by perusing the original descriptions of the field notes and developing generalizations.

5. Anthropological Observations on the Ecological- Cultural Adaptations of the Highland Communities

The discussion below furnishes the anthropological observations on the ecological-cultural adaptations of the mountain communities by focusing on the “culture core”- the main economic and subsistence activities practiced for the livelihood. Adoption of one economic and subsistence activity was not enough for their survival. Therefore, a variety of economic and subsistence activities had been found being practiced as the household coping strategies in the harsh ecological setting. The economic and subsistence activities adopted by the highland communities have been considered in this paper as ecological-cultural adaptations.

5.1 Farm Economy

Barring an exception to Walangchung VDC, farming was practiced as an important form of economic activity in Mahamangkhe, Yamphudin, Tapethok and Lelep VDCs. Nonetheless, the cropping intensity in the upper part of Lelep VDC such as Gyapla and Gunsa area was relatively low due to the cold climatic condition. There the farmers used to grow only one crop a year in a particular plot of arable land and therefore, their dependence on agriculture for the subsistence was also found to be low. Though farming was predominantly practiced in these VDCs, only a handful of households were reported to be self-sufficient in food production.

The local taxonomy of agricultural land was based on the availability or non-availability of irrigation facility, type of crops grown and the traditional pattern of land use or cultivation. For instance, in ward no. 2 of Mahamangkhe VDC, local people had classified the land into four types, viz, *Khet* (irrigated land for paddy production), *Bari* (unirrigated upland for potato, maize, millet, wheat, and barley production), *Khoriya* (land for swidden agriculture where maize and millet are grown for a few years and left fallow for some years), and *Pakho* (slopy wet wasteland where farmers had started to grow cardamom as cash crop). With the exception of *Khet*, all other three categories of land were available in Yamphudin and whereas only *Bari* and *Khoriya* were observed in Ghaiyaboari, Amjilasa, Yangjuwa/Gypla and Lungthung villages of Lelep VDC, but in ward no. 3 of Lelep village, *Khet*, *Bari* and *Khoriya* were observed. However, only *Bari* was observed in Gunsa village of Lelep VDC. Local key informants also reported that *Khoriya* was also called *Losea*, in the local parlance.

Khoriya Kheti (swidden agriculture or shifting cultivation) was traditionally practiced by the relatively poorer/marginalized farmers. Most of the *Khoriya* land was registered in the names of the individuals when the cadastral survey team came in the late 1980s. But in Yamphudin villages, some *Khoriya* land under *Kipat* (communal land ownership among the *Limbus* and *Rais*) was still unregistered during the time of the fieldwork. Poorer/marginalized farmers used to grow maize and millet in such land. The fallowing period used to range from three years to five years. As the local population was burgeoning rapidly, the pressure on *Khoriya* had also increased owing to the lack of other productive land. For instance, there were 25 *Rai* households in Yamphudin VDC across the Kabeli river, who predominantly relied on the *Khoriya Kheti* due to the lack of other fertile/better land. The *Rai* key informant added that there were only 5 *Rai* households in that place 50-60 years ago. It is axiomatic of the fact that the growth of local population had its effect on marginal land by shortening the fallowing period.

If the *Khoriya* land was registered in the names of the local landlords and if the poorer farmers wanted to cultivate it, they were required to pay *Kut* (fixed payment of grains in the form of rent) to the owners as verbally agreed upon. In the case of unregistered *Khoriya* land under the *Kipat* system (abolished in 1968 by 1964 Lands Act), the *Kipatias* (traditional owners/users/holders of *Kipat* land) used to claim such land as theirs and if the poorer farmers had to cultivate such land, they also had to pay *Kut* to the *Kipatias*. Theoretically and legally speaking, such unregistered land belongs to the state but in practice, the case was different.

The introduction of cardamom as a cash crop had been a recent agricultural innovation in some villages of Mahamangkhe and Yamphudin VDCs. A *Bhandari Chhetri* of ward no. 2 of Mahamangkhe VDC introduced the cardamom in late 1970s. He brought 100 seedlings of cardamom by paying Rs.10 (Indian currency) from Sikkim, India and started its farming in his wet wasteland. The success of his cardamom farming on pilot basis motivated other local farmers also and its practice was largely expanded over a short span of time. Then, other farmers also bought the seedlings from Sikkim. The *Bhattari Chhetri* also sold seedlings to his neighbors for

which he charged Rs.25 per 100 seedlings. When other farmers started getting the reasonable price in the villages (because the businessmen began to come there for buying), cardamom farming became even more popular and farmers cultivating it had no cash shortage for the household expenses, schooling the children, buying new piece of productive agricultural land, etc.

In a couple of villages of Mahamangkhe VDC, there was also the system of growing the cardamom on *Adhiya* (share-cropping arrangement under which half of the production goes to the landlord and half to the actual grower). Poor farmers who did not have wet wasteland used to grow cardamom on other's land. The landlords used to give the seedlings and the labor input was from the actual grower. At most, some households used to grow cardamom up to 50 *ropanis* of land but some households used to grow it up to 2 *ropanis* at the minimum. A key informant also reported that one *ropani* of land could yield 10 kilograms of dry cardamom for which five man-day's labor input was required. Farmers used to dry the cardamom on the fire and the fuel wood required for this was managed by the farmers themselves from the trees they had planted in the land itself for the shade of the cardamom seedlings.

Cardamom growing was also equally popular in Yamphudin VDC. There 250-300 mounds of cardamom used to be annually produced. In all these villages, the price of cardamom per mound was Rs.2, 500 in 1994. Sometimes they used to get as high as Rs.40, 000 per mound if the price of cardamom increased in the international market. All food deficit households of Mahamangkhe and Yamphudin VDC used to use the income derived from the sale of cardamom to buy food grains and other household necessities. But there was no cardamom cultivation in Lelep and Walangchung VDCs, both being the colder and higher in altitudes. Given the fact that an overwhelming majority of the households in all the five VDCs were food deficit, they had resorted to other economic activities for their livelihood. A discussion and analysis of these livelihood activities have been provided below.

5.2 Pastoral economy, Community Institutions for Ensuring Equity in the Appropriation of Communal Grass Resources and Transhumance

Pastoral economy was also observed as the important economic activity of all the villages of the study areas for the livelihood. The farmers shared that this sector used to provide the bulk of their subsistence. In the lower belt of Kabeli Khola valley, Gunsu Khola valley and Tamar Khola valley, animal husbandry was practiced to supplement what they used to produce from the agricultural activities. But in the upper part of these parts of these valleys where agricultural practices were relatively limited due to severe cold climatic condition, animal husbandry was considered and practiced as one of the major sources of household income for subsistence. The following section would specifically deal with the typology of the raised livestock and their uses, fodder resources and the related institutions, herd movement pattern (transhumance) and pasture resource management and issue of dual ownership on the pastureland.

Cattle, buffaloes, goats, sheep and pigs were raised in Mahamnagkhe VDC. Yaks and crossbreeds of yaks and local cows were raised in Ymaphudin VDC in addition to cattle, buffalo, sheep and pigs. In these villages, the female crossbreeds were called '*Urang*' and male crossbreeds were called '*Phamjo*', in the local parlance. A Gurung key informant reported that he introduced the system of crossbreeding in late 1960s. Barring an exception of yaks and crossbreeds, similar livestock were raised in Hellok and Tapethok villages of Tapethok VDC. In Amjilasa, Gypla, Pholey and Gunsu of Lelep VDC also, people were seen raising cattle, yaks, naks, crossbreeds of yaks and local cows, sheep, goats, and pigs. In Walangchung, naks, yaks and crossbreeds as well as mountain goats were principally raised. Poultry was universal.

With respect to the uses of livestock, local cows were raised for milk products, and the production of calves as well as for manure. Oxen were raised primarily for traction purposes. Goats were primarily raised for meat, manure sacrifice and sale. Sheep were also raised for wool, meat, manure and sale. Chickens were for domestic consumption and sale. Yaks were raised for crossbreeding purposes, transportation of goods as pack animals and manure. Naks were for milk products, and production of younger ones. Crossbreeds were raised to use them as pack animals and also for manure and sale. Buffaloes were raised in the lower belt of Mahamangkhe, Yamphudin, Tapethok and Lelep VDCs for milk, manure, meat, and sale of these dairy commodities to earn small amount of cash income. Besides these uses of the livestock, a few other uses were also ascertained in a couple of villages.

It was reported in Yamphudin VDC that crossbreeds particularly 'Urangs' were raised in large number which used to contribute a lot to the production of the dairy products. During the time of the fieldwork in October, 1994, about 30 households were engaged in 'Churpi' (dry cheese) and 'Ghieu' (clarified butter) production. However, the quantity of production used to vary from household to household. The local rate of "Churpi" per maund (40 kgs) was Rs.6, 500 and "Ghieu" was Rs.2, 800 per maund. "Churpi" used to be exported to Dharan and Kathmandu via Gopetar in Panchthar district where transport facility was available and "Ghieu" used to be exported to Tibet where the Nepali trans-himalayan traders used to come to buy in the villages. The key informants reported that the rich households could earn as high as Rs.200, 000 per year from the sale of "Churpi" and "Ghieu" whereas the medium households could earn the income ranging from Rs.50, 000 to Rs.60, 000. Occasionally, households having relatively fewer livestock owing to the poor economic condition could also earn the income ranging from Rs.10, 000 to Rs.15, 000 per year.

In Pholey of Lelep VDC, the Tibetan refugees also used to produce "Churpi" and "Ghieu". They used to export "Churpi" to the district capital of Taplejung and "Ghieu" to Tibet. In most cases, these Tibetan refugees used to barter "Ghieu" with the Tibetan commodities such as wool, salt and tea. Crossbreeds were used as pack animals. They were also sold occasionally for cash income.

Analogously, the people of Gunsa, upper part of Lelep VDC, used to predominantly practice livestock-raising for "Churpi" and "Ghieu" production. It was reported during the field visit that a relatively rich *Bhotia* of Gunsa who was also the head *Lama* of Gunsa monastery used to produce plenty of "Churpi" and "Ghieu". Every year he used to produce five maunds of "Churpi" which he used to sell to businessmen of the district capital of Taplejung at Rs.5, 000 per maund. Similarly, he also used to produce three maunds of "Ghieu" every year and one maund of "Ghieu" was sold at Rs.3, 200. But the neighbors of the head *Lama* held the opinion that the production of "Churpi" and "Ghieu" was more than his reporting. Like the people of Gunsa, Walangchung people also used to produce "Churpi" and "Ghieu" for sale.

Fodder resources are extremely indispensable for the livestock- raising. In the study areas, it was found that farmers had a system to feed the livestock the green grasses from the cropland, leaves from the fodder trees planted in the cropland, by-products of agriculture, forest grasses and forest fodder trees and graze in the open pastureland.

In Pholey and Gunsa of Lelep VDC of Taplejung district, an interesting institution apropos of communal grass resources was ascertained. These two villages used to lie within the boundary of ward no. 9 and hence, used to constitute a single territorial community with respect to the resource consumption/utilization within the public land of the ward. Given the fact that grasses are grown in public land as the common property resources, the community had traditionally

established an institution of “Grass Cutting Day” to regulate the behavior of the resource appropriators. This ‘Grass Cutting Day’ was the function of two reasons: (i) scarcity of fodder/grasses in the private and public land, and (ii) community intention for ensuring the equity in the distribution of communal grass resources. Every year, ‘Grass Cutting Day’ used to be fixed in the month of *Bhadra* (August-September). The day used to be fixed by the ward member in consultation with the community. In most cases, the days for cutting grass could be three-four days without interval. Within these days, each household had to cut grass and fetch at home. In so doing, each household could have equitable share of the communal grass resources. The community to control the perennial over-exploitative attitude of some members of the community and thereby establish egalitarianism with respect to the communal resource use crafted this institution. In other words, had there been the cornucopia of the fodder/grass resources, it would not have arisen in the community.

Another amazing finding was that even the grasses grown in one’s own limited kitchen garden area was not allowed to be cut prior to the “*Grass Cutting Day*” every year. When asked the reason of it, the key informants reported that this institution also could help to control the theft of the grasses grown in the private land as well as the trespassing of these resources. Since every household had to cut the grasses of private land at the same time, there was no chance of stealing others’ grasses. They argued that if someone would cut grasses of his/her land prior to the fixed day, he/she might finish the grasses in short span of time and might attempt to steal from others’ land if they were abundantly available.

In 1994, the “Grass Cutting Day” had begun on the 10th of Aswin (26th September). On that day, I had reached Gunsa village of Lelep VDC and hence, found no people (both economically productive males and females) during the daytime because all of them had gone for cutting grasses. The following day I saw people of Pholey of Lelep VDC bringing and drying grasses within the premises of the houses. It was reported that one could cut and bring two *bharis* (bundle about 40-50 kgs) of grasses from the forests in one day. This was indicative of the fact that households having more family members could cut and bring more quantity of grasses. Nonetheless, there was still control on such households by fixing days for grass cutting.

In Walangchung village settlement, there was a traditional communal organization of herders, which was called ‘*Gothala Kiduk*’, in the local parlance. It used to work for the welfare of the herders. It also used to decide when to cut grass from the common land and when to move the herds of cattle/yaks to the pastureland.

Transhumance was commonly noticed in the study area. It was more so in the upper belt of the study area such as in Walangchung and Lelep VDCs. Such transhumant pastoralism (mainly the herd movement of cattle, yaks/naks, crossbreeds and sheep between mountain and lowland pastures) had been practiced as an ecological-cultural adaptation in this mountain environment. Transhumant pastoralism was found to be practiced by the inhabitants of all the villages who had relatively larger number of the livestock. It was shared that households having larger number of the livestock of the ward no. 2 Mahamangkhe VDC used to take their cows and buffaloes in the high pasture from Baishak (April-May) to Kartik (October-November). During this period, only goat and milking and traction animals used to be kept in the lowland. It is cold in the high pasture from Kartik onwards and animals were brought to the low land where crop harvesting used to begin and there was need to feed the by-products of agriculture and manure the agricultural land too. In Yamphudin VDC area, livestock were taken to high pasture from Chaitra (March-April) to Bhadra (August-September).

Similarly, the livestock owning households of Hellok of Tapethok VDC used to take their livestock to the high pasture from Chaitra (March-April) to Kartik (October-November). Some households, at times, used to bring down their livestock a little earlier, say in Bhadra (August-September). In Pholey and Gunsa of Lelep VDC and Walangchung, livestock were taken to high pasture from Jestha (May-June) to Aswin (September-October). The main reason to practice the transhumant pastoralism was that the number of the livestock could not be supported all the year round by the fodder resources/grazing resources of one ecosystemic zone. The case below in the box shows how farmers in the study area /district practice the transhumant pastoralism.

An interesting case of transhumant pastoralism was found during the fieldwork in September-October, 1994 on the way to Ghaiyabari and Gypla in Lelep VDC. A *Bista* key informant reported that there were 12 *Bista* households of Phakhola VDC of Taplejung district, a VDC of lower part of Tamar Khola Valley, where people used to practice transhumant pastoralism. These households were primarily shepherders. Each of these households used to possess 200 sheep. These households used to take their sheep to high pasture for the six months in the summer, particularly from Chaitra (March-April) to Aswin (September-October). The reported route to the high pasture was from Phakhola to Yamphudin VDC, and from there to Tseram pass to reach Gunsa and from Gunsa to Has Pokhari and then down the way to Phakhola. These pastoralists were normally two to three in number from each particular household because one person had to transport sheep products to house or to the place of market for sale. One had to manage foodstuff from the household down from the provenance and one was always required to be with the sheep in the high pasture. They used to fleece wool twice a year in Chaitra (March-April) and Aswin (September-October). Each household used to produce 200 kilograms of wool in six months and the wool used to be sold in Sekathum of Lelep VDC. The wool was bought by the *Gurungs* of the neighboring villages. The price of one *Dharni* (2.5kgs) wool used to cost Rs.280. They also used to produce “*Ghieu*” which was sold at Rs.80 per kilogram. Each household also sold about 25 rams every year. Each one would cost Rs.1,000 and with respect to the expense for sheep, one kilogram salt used to be fed to 15 sheep in every 10 days’ time. While bringing the sheep down from the high pastures, they also used to manure the farmlands once the farmers of the route requested them. They used to spend two to five days in each of the farmland for manuring as per the request of the farmers. In return, they were given food or rice or whatever food-grain was available. This system of manuring by sheep was very common in the lower belt of Tamar Khola valley during the winter season. In this way, herd movement culture was commonly practiced for ecological-cultural adaptation due to the superabundance of pastureland in the mountain ecosystemic zone and need to adopt this transhumance as a culture for the survival.

While discussing the cultural ecology of the study area, it is also worthwhile to focus on the pasture resource management and issues of dual ownership of pastureland reported in 1994. Most pastures of Mahamangkhe VDC and Yamphudin VDC had traditionally been under the *Kipat* land tenure system. *Kipat* was a communal type of ownership system historically prevalent among the *Limbus* and *Rais*. In these VDCs, *Kipat* was the predominant form of land tenure system among the *Limbus*. Members of the *Limbu* community had the usufructuary right, that is, to use the land and pasture but no power to sell and ownership was derived from membership of a clan kinship. A major distinguished feature of *Kipat* land tenure was the non-alienability of land/pasture to the non-members of the community. When the land of the *Limbus* was formally integrated in Gurkha in 1774 A.D., the *Kirat* clan chiefs’ traditional rights were left intact through formal recognition with the stipulation that they would continue to accept the suzerainty of the central government of Kathmandu (i.e. Gorkhali government). The *Kipat* system continued for long period of time even after the political integration of Nepal. But in 1964, the government implemented Land Act, which was the first attempt to abolish it (New Era, 1992).

Till 1994, the use of the traditional pastures had still been heavily influenced by the legacy of the previous *Kipat* land tenure system of the *Limbus*. It was reported in Mahamangkhe village of Mahamangkhe VDC that there were still seven traditional *Limbu Kipatiyas* (*Kipat* holders) who were still claiming the pastures as their own despite the fact that most of the pastures were not registered in the names of these individuals during the time of cadastral survey. The survey team held the position that the piece of land to be registered in the name of the individuals had to be cultivated and inhabited and therefore, the uncultivated/uninhabited traditional pasturelands were not registered. But the *Kipatiyas* were still either exclusively using these pastures or mortgaging them for a certain years to *Brahmans*, *Chettris* and *Gurungs* (who were not the *Kipatiyas*). The *Kipatiyas* claimed that they had the traditional document of having the pastures under their control. But theoretically, the land or pasture that was not included in the survey automatically belonged to the government. Despite this fact, the *Kipatiyas* were still levying the grazing tax in the form of mortgage. However, the key informants of Mahamangkhe VDC reported that they used to take livestock to high pastures for six months for which they had to pay Rs.10 for each cattle and buffalo head to the *Kipatiyas*.

Thus, in Mahamangkhe and Yamphudin VDCs, the users of the pastures had the general confusion with respect to the ownership of pastures during the time of my fieldwork (that is, whether the pasture would belong to the traditional *Kipatiyas* or to the government). Obviously, the pasture that was not registered in the names of the individuals would belong to the government but the *Kipatiyas* had not given up their traditional claim. Given this situation, the users of the pastures in Yamphudin VDC asked me, "whom should we pay the grazing levy, the *Kipatiyas* or the forest office?". This issue of controversy was indicative of the fact of dual ownership on the traditional pastureland.

In Lelep VDC area, a slightly different system of pasture management had been found to have existed. There almost all high pastures were considered to be that of the government. In most cases, the local people had the free access to the pasture resources but outsiders (people/herders of another VDC) were charged the grazing levy by the VDC office. Generally, the ward representative (who was democratically elected) used to collect the grazing levy or was paid by the herders. For instance, in Ghaiyabari and Amjilasa village areas of Lelep VDC, the herders used to pay Rs.3.25 as the grazing levy per each cattle and sheep, respectively. And the money collected in this way used to be spent on the rehabilitation of the existing foot-trails within the boundary of the ward of the VDC. Similar pasture resource management system was reported in Gunsa area of the same VDC. There were eight high pastures in Gunsa area, namely, Ronak area, Tangchera, Ramdang, Lungrin, Chuser, Laphak, Duphkhari and Nagphinda. The local herders of Gunsa had free access to these pastures but shepherds of the lower part of Tamar Valley used to take their sheep to these high pastures and pay Rs.1 per sheep to the ward representative for the whole period of grazing. Previously, the *Gova* (traditional headman of the *Bhotia*) used to collect such grazing levy from the outside herders. The local '*Chauri*' (yaks/naks) herders used to decide when to take their herds for grazing in the pastures. In Walangchung Gola area, there were four summer pastures, namely, Mauma, Signema, Samla and Nurak where local herders used to make the decisions to charge the grazing levy to the herders of another VDC.

Conclusively, the use of high pastures in the study area was regulated by the community norms. The use had also shown the distinction of "we feeling" and "they feeling". Outsiders ('they') were always forbidden to have the free access to the pasture resource and this practice worked as the factor discouraging the concept of "free riding" in the use of other people's communal resources.

5.3 Portorage

Seddon, Blaikie and Camereon (1981) in their classic study "Peasants and Workers in Nepal" have noted that one of the most important characteristics of portering of Nepal is that it is overwhelmingly an activity which men undertake only as one part of earning their subsistence. It is likely that wage portering has existed for a long time in Nepal since medium and long distance trade between India and Tibet had been established. Grain and cotton goods used to move north from the plains of Nepal and India, and wool, salt and medicinal herbs from the plateaus of Tibet, and merchants employed porters to carry them. However, long distance trade has gradually declined. In summary, the five factors affecting the demand for portering as a whole are: the decline of the domestic economy and the financing of imports by the export of labor; the virtual extinction of long-distance trade between Tibet and India; rapid population growth leading to a greater aggregate demand for imports and portering; the rise of the numbers of administrative staff and construction centers of demand both on and off roads, and the construction of motorable roads. There is no professional portering, only portering as a part-time activity. There are three inter-related reasons for this, viz, the domestic economy has been under severe pressure from declining yields, stagnant technology and increasing population pressure. All this means that the increasing numbers of men are seeking outside employment to supplement their income. There is a super-abundance of labour for most portering jobs, which means that the demand for porters is usually met at once. Portering is extremely strenuous work. Conclusively, the phenomenon of paid portering is an expression of the inability of hill population to produce for itself and the export of labourers from the declining hill economy. The population pressure which is one of the manifestations of such stagnation in the productive capacity of the hill economy, also provides the supply porters by progressively creating for greater numbers who are unable to support themselves from their own land, and who are chasing fewer and fewer jobs in the regions. Paid portering in this context has a special irony – the outcome of a collapsing economy, but also an infinitesimal contribution to the employment problem, which such a collapse causes (Seddon, Blaikie and Camereon, 1981: 90-104). This above review succinctly presents the introduction of the sociological phenomenon of portering in the hill and mountain region of Nepal.

The fieldwork in the study area also gave the impression that the declining peasant economy due to the stagnation of productive capacity, fragmentation of land due to the growth of population (mainly among the sons of the households) and lack of other alternative employment had been fully responsible in the causation of the phenomenon of portering. As stated by Seddon, Blaikie and Cameron, portering had been a part-time activity in this area also. Amongst all the households engaged in paid portering were food deficit households and portering had been adopted by them as a coping mechanism for survival. However, one must not forget the fact of the existence of the owner-carrier portering also in this area. But here the analysis has been riveted on paid portering.

Key informants of ward no. 2 of Mahamangkhe VDC and Yamphudin village of Yamphudin VDC furnished the information that the food deficit households of this area used to get mainly engaged in paid portering from the month of Kartik (October-November) to Chaitra (March-April). This was slack agricultural season. The local rate of portering was Rs. 5 per kilogram from Mahamangkhe and Yamphudin to Gopetar, a small bazaar on the roadside of Panchthar district. They used to carry "*Churpi*" (dry cheese) and carpets to Gopetar. On the way back to Mahamangkhe and Yamphudin VDCs, they used to bring sugar, salt, soaps, matches, sweets, stationeries, kerosene, clothes, spices and some other commodities of household use. The porters were paid the same Rs. 5 per kilogram of load of commodities of from Gopetar to Mahamangkhe and Yamphudin. A few relatively poor households also used to porter the food occasionally in the summer season because they did not have much work to do in their limited farmlands. Porters had to eat their meals from their own rate of wages.

Paid portering was reported to be practiced by the poor/food deficit households of Hellok and Tapethok villages of Tapethok VDC. The poor porters of Hellok used to work as porters for the people of Gunsa, Walangchung Gola and Taplejung areas/villages. They used to bring 'Chamal' (husked rice) from Gopetar and carry up to Gunsa and sometimes to Walangchung Gola. They used to carry 'Ghieu' and 'Churpi' to the district capital of Taplejung and Gopetar from Gunsa and Walangchung Gola. It was reported in the field that they used to earn the wage, which ranged from Rs. 50 to Rs.70 per day. The porters of Tapethok village also used to transport similar commodities. They used to carry rice from Siwa, ward no. 9 of Lingkhim VDC where there was small food depot of Nepal Food Corporation. It was reported that these porters used to earn Rs. 6 at most per kilogram and one could carry 50-60 kilogram of weight.

On the way to Gunsa valley of Lelelep VDC, a group of *Bhotia* porters from Sandam VDC were met by me at Sekathom, Lelep VDC. They reported that they had been carrying 'Churpi' from Gunsa to the district capital of Taplejung. They reported that they could carry 70 kilograms of 'Churpi' (per person) and for which Rs. 12 was paid per kilogram 'Churpi' transported on the back of the porters. And it used to take six days to reach the district capital from Gunsa. Thus, a porter could get Rs. 840 in total which divided by six days would come to be Rs.140 per day. This shows that it was relatively profitable for the porters. Poor/food deficit households of Amjilasa, Yangjuwa and Gypla villages of Lelep VDC also used to practice the paid portering during the slack agricultural season. They used to mainly transport rice from Gopetar of Panchthar district and lower belt of Tamar valley of Taplejung district. They were paid Rs.40 as wage per 'Pathi' (2.5 kg) of rice and could carry 16 to 20 'Pathis' of rice depending upon his physical strength/capacity. It normally used to take six days (one way) to arrive at these villages from Gopetar and other villages of lower part of Tamar Valley. People of Yangjuwa and Gypla of Lelelep VDC also reported that sometimes they used to get Rs.60-70 per day for carrying or transporting the commodities in a relatively shorter distance.

Portering was also practiced by the relatively poor and marginalized households (all households being non-agricultural) who had yaks/crossbreeds. These pack animals were used for transporting goods/commodities from Walangchung Gola to Tibet and from Tibet to Walangchung Gola. Such portering by pack animals used to take two days to reach Tibet from Walangchung Gola and the similar amount of time was required for getting back to Walangchung Gola from Tibet. Thus, poorer/food deficit households have practiced portering as supplementary source of household income.

5.4 Forest-based Livelihood Activities

Hunting and collection of fuel wood and its sale were also the economic activities for the subsistence but they were of lesser importance. Now the study area is under conservation with high degree of community participation and hunting and poaching has been under control. But in 1994, the situation was different. Hunting was occasionally practiced by the inhabitants. Households of ward no.2 of Mahamangkhe VDC and Hellok of Tapethok VDC shared that the inhabitants used to hunt ghoral, deers and pheasants for domestic consumption. In the workshop held in the district capital of Taplejung on October 3rd, 1994, a participant, who was politician frankly exposed the fact that some people of Hellok always used to practice poaching snow leopards, musk deers, and the black bears living in the higher mountain forest areas. The skin and bones of snow leopard and the fur of black bear were clandestinely smuggled into India. In so doing, these poachers used to earn high amount of money. While I was in Hellok, the key informants kept silent despite the repeated request about the information on poaching.

Very few poor households of Walangchung Gola used to extract fuel wood from the forest for sale. They used to extract both fallen/dead wood and green trees (because of the lack of forest office). Basically, relatively wealthy households which were always engaged in trade had no time to collect fuel wood which was perennially required for cooking and heating purposes at home and such households used to buy fuel- wood. Generally, the *Thaks* (heaps or piles) of fuel wood were sold. One *Thak* could have seven *Bharis* which was sold at Rs.200. Fuel wood sale was the primary occupation of these poor households.

5.5 Service

Gurkha recruitment was also a major source of cash income for some *Limbu* households living in the lower belt of the study area. The annual remittance from the British army service was higher than the Indian army service. It was reported in the field that the *Limbus* of Hellok area of Tapethok VDC could earn substantial amount of remittance from the Gurkha recruitment. Those joining these army services were from both relatively better off and poor households. In Hellok area, there were six British army pensioners and one Indian army pensioner and four and two persons were also serving in the British army and Indian army, respectively. In another nearby village of the same VDC, there were five British army pensioners, 10 Indian army pensioners and some were still in army service (however, the number could not be specified by the key informants). The pension income for the retired British army ranged from Rs. 1,200 to 1,500 per month during the time of the fieldwork in 1994. In the case of the Indian army, the monthly pension was reported to be Rs. 1,100. The remittance particularly while in British army service had helped some households to ameliorate their economic conditions. For example, a *Limbu* household of Hellok had one son in the British army service. It was almost five years that he had been working. His father had already used this remittance to construct a house in the district capital of Taplejung and buy homestead land in Dharan municipality of Sunsari district. The household head was thinking of building a house in Dharan in the year 1995. However, the relatively poor households used the remittance for buying foodstuff. Considerable amount of remittance was also used for buying productive agricultural land.

5.6 Traditional Handicraft

Carpet weaving as a traditional handicraft occupation had been found as an important source of cash income among the people of Walangchung Gola and Gunsa and Pholey of Lelep VDC. In Walangchung Gola, about 20 households were reported to be engaged in carpet weaving in 1994. Wool was procured from Tibet. It used to take 12 kilograms of wool to prepare one carpet, which used to cost approximately Rs. 100 per kilogram. Approximately, 15 man-days were required to weave a carpet. One man-day was also required for carpet dying. The labor wage rate was Rs. 30 (excluding the provision of three meals a day). If all the material and labor cost was added, it would come to be around Rs. 2,130 for the preparation of a carpet during the time of the fieldwork. The people of Walangchung Gola would sell carpets in the district capital of Taplejung, Kathmandu and sometimes they were also locally sold to the businessmen. According to one key informant, the minimum price for one carpet was Rs. 3,200 and the maximum Rs 4,000. This was indicative of the fact that carpet weaving was a lucrative profession. However, the price of the carpet hinged on the international demand/market.

Almost all households of Gunsa valley of Lelep VDC used to weave carpet although the size of production varied from one household to another household. The cost of production was more or less similar to that of Walangchung Gola. And the destination of the sale of carpet was the district capital of Taplejung and Kathmandu. Sometimes, tourists used to buy carpets. The maximum price they had got so far from the sale of a prepared carpet was Rs. 4,500 till the period of fieldwork in 1994.

Carpet weaving was the principal source of income of livelihood for the 20 Tibetan refugee households at Pholey of Lelep VDC. Carpet weaving for these Tibetan refugees was initially supported by the Swiss government in the early 1960s. Dalai Lama had also given some financial support to the refugees for the carpet weaving. The Tibetans had revived their traditional communal organization called '*Kiduk*' which worked as a communal co-operative. The headman of the refugees appointed by the office of the Dalai Lama reported that '*Kiduk*' had some revolving fund for the promotion of carpet weaving enterprise among the refugee households. He further added that '*Kiduk*' was given the role to buy wool both from Tibet and local traders. This wool was distributed among the refugee households for the preparation of carpet. The prepared carpets were sold locally (to the tourists) in Taplejung, Basantpur of Terathum and Kathmandu also. Deducting the expenses for transportation to sell, the money earned through the sale was given to the '*Kiduk*' which then paid all the labor cost to the respective carpet weaving households. Then '*Kiduk*' always used to keep the profit earned from the sale of carpets. The refugee households who needed money for buying foodstuff during the critical period of time or for the other household contingency expenses could borrow loan at 15 percent interest per annum. Thus, '*Kiduk*' had played a significant role in promoting the carpet weaving, on the one hand and in helping the refugees during the critical period of time through the provision of necessary loan at the relatively lower interest, on the other hand. There was also the tendency of the people to go to Kathmandu for carpet weaving. For example, 15 people from ward no 3 of Lelep VDC were reported to have gone to Kathmandu for carpet weaving. Thus, carpet weaving was an important source of household income in the upper part of Gunsa and Tamar Valleys in the study area.

5.7 Seasonal Labor Migration

Seasonal migration is usually necessary in order for people to be able to take advantage of complementarities in the timing of production and income-earning opportunities at the macro-environmental level (Gill, 1991:132). Normally surplus labor from the rural areas would migrate

towards the relatively labor scarce areas in search of greater economic opportunity. This also holds true in the case of some villages of study area.

Some poor/food deficit households of Mahamangkhe and Yamphudin VDCs used to migrate to Sikkim of India seasonally in search of employment. They used to go to Sikkim from Bhadra (August-September) to Mangsir (November-December). This period was slack agricultural season in the provenance and they could find no or little opportunity for the absorption of their labor. And this period/season in Sikkim was an opportunity for the poorer people to work as the agricultural labourers for harvesting cardamom, and this labor requirement used to be, to some extent, fulfilled by the Nepali seasonal migrants. In so doing, they could also earn some income. It was reported in the field that one seasonal labourer could earn income ranging from Rs. 1200 to Rs. 1500 per month in Sikkim in 1994. Sometimes, some poor people also worked as porters and wood sawyers. By and large, such seasonal migration to Sikkim had been a coping mechanism for the poor/food deficit households of study area.

5.8 Trade

Trade was one of the most important sources of livelihood for the people of Walangchung VDC, Gunsu village settlement and the Tibetan refugees living at Pholey, near Gunsu of Lelep VDC. Trade relations of the people of Walangchung were much more stronger prior to the annexation of Tibet to mainland China in 1959. Therefore, a brief historical review of the traditional trade with Tibet is worthwhile in this context. C. V. F. Haimendorf, in his book 'Himalayan Traders' (1975), describes the trade relationships of Walangchung people with Tibet. According to Haimendorf, the trade route through Walangchung lay clearly within the Sikkimese sphere in the past. Prithivi Narayan Shah, the founder of modern Nepal, launched a campaign in 1770-71 against the *Limbu* region and the area then controlled by Sikkim. By 1775, much of the *Limbu* region was brought under the Gorkhali control. Nepal and Sikkim concluded an agreement, which gave Nepal control of territory east of the Arun. Thus, the Gorkhali ruler attained this objective (i.e. to capture the greater part of the trade between India and Tibet and develop Kathmandu as the main center of trans-himalayan trade) and the route from the Terai through the *Limbu* country to Walangchung came under his control (Haimendorf, 1975:122).

Trading, in Walangchung, used to be the principal occupation of nearly all the villagers prior to 1959. Many of the men of Walangchung were long-distance traders who drew large profits from their businesses, and had contacts in Tibetan Villages such as Kudo, Sar Shigatse and Lhasa. Their southern trade connections were strongest along the route through Taplejung, Tehrathum, Dhankuta, Dharan and Biratnagar and the bigger merchants sometimes even visited Calcutta, Delhi and Bombay. The affluence of the richest Walangchung traders showed that the trade through Walangchung must have been even more profitable than that through Khumbe. And this might be attributable to the fact that the route along the Tamur Valley and across the Tipta La is easier. Walangchung traders exported to Tibet such as grain, textiles, sugar, cigarettes, matches and a variety of commodities from overseas countries in demand among wealthy Tibetans (such as Danish sweetened milk as luxury food). The goods brought from Tibet were mainly salt, wool and woolen cloth (Haimendorf, 1975:124-125). This anthropological description of Haimendorf clearly shows that the livelihood and prosperity of Walangchung Gola people entirely depended on the trans-himalayan trade in the pre-1959 Nepal.

Analogously, Sir John Dalton Hooker, a British traveler, who visited Walangchung in 1850 also made a few remarks of the trans-himalayan trade. Dor Bahadur Bista (1967) also made a brief mention about the trade of Walangchung Gola. He writes, "Holung (local name of Walangchung) is a trading center of just over one hundred houses; no field cultivation is practiced. Many

successful and rich traders are in residence here. Holung houses a government customs office controlling the export and import of goods to and from Tibet include grain, cotton thread material, sugar, gur (a crude brown sugar), cigarettes, matches and other such goods generally of Indian origin, in exchange for wood, woolen carpets and Tibetan salt. Until a few years ago, several hundred yaks and ponies were imported yearly into Nepal. But this trading of livestock has ceased (Bista, 1967:173).

The political event of Tibet in 1959 and the subsequent restrictions on trade had adversely affected the local economy of Walangchung people for few years. But gradually, trade relations with Tibet were reported to be improved considerably. It followed as a corollary that even during the time of fieldwork in 1994, a large number of people of Walangchung Gola and Gunsa and Poley of Lelep VDC were practicing traditional trade with Tibet to eke out their livelihood in the absence of agricultural economy.

In 1994, it was observed that traditional trade with Tibet was still the principal source of income for the majority of the households of Walangchung Gola. As reported by the key informants, the traders used to go across the Tipta pass to Riu village of Tinge district in Tibet. It used to take two days to reach Nepal-Tibet border from Walangchung from where the traders could obtain trade permit from the Chinese border administration and proceed to their destination by trucks. The Chinese border government had built a special house to stay for the Nepali traders while in Tibet. The Nepali traders used to rent rooms according to their needs. One room rent was equivalent to Rs. 14 per day whereas for two rooms, it was equivalent to Rs. 21. This system of lodging of Riu Village had been continuing since 1989. Prior to that, the Nepali traders of Walangchung used to rent rooms from the landlords known 'Nezang' in Tibetan language. The traders of Walangchung used to go to Tibet with cotton threads, sweater, printed clothes, dyes of different colors, ghieu, yaks, naks and crossbreeds, socks, etc. The local traders of Walangchung reported that they, first of all, used to sell their commodities and earn Chinese Yuan currency and buy the Tibetan commodities using that currency. The commodities imported by the traders from Tibet were Tibetan salt and tea, wool, woolen clothes, carpets, wheat flour, soap, kerosene, batteries, milk powder, biscuits, chocolates, Tibetan goats, Tibetan dry cheese, etc. There was a border customs office at Walangchung where the traders had to pay customs. The wheat flour was locally consumed due to the lack of cultivation. Other commodities were brought down to the district headquarters of Taplejung, and the lower belt of the Tamar valley for sale. Then, they also used to buy all the necessary foodstuff there and transport to Walangchung.

The people of Gunsa of Lelep VDC also used to practice trade as an important occupation. The people of Gunsa used to go to Tibet with 'ghieu' and cross-breeds of yak. They used to go to Tibet through Yangma Village. The key informants reported that it used to take seven days to reach Tibet from Gunsa with the pack animals. They also complained about the closing of the Chabuk pass by the government in early 1970s, which was relatively short one to travel to reach Tibet. They used to barter the 'ghieu' with salt, shoes, tea, wool, woolen clothes, etc.

The income they derived from the sale of crossbreeds of yak was also spent on buying the similar commodities. These Tibetan commodities such as wool was used for carpet weaving and some quantity of salt and tea were locally consumed. But the surplus commodities were brought down to the lower region of Tamar valley for sale and also used to buy all the necessary food-grains for the food deficit months (because they used to grow some crops in their agricultural lands).

In a similar fashion, the Tibetan refugees of Pholey of Lelep VDC also used to practice the trade similar commodities as in Gunsa with Tibet. These Tibetan refugees used to sell some commodities such as Chinese towels, vicks, liquor, etc to the trekkers whenever they used to find

them passing through the village or camp there. They also used to buy their foodstuff from the lower region of the Tamar valley.

5.9 Tourism

Now the tourism has been promoted under the conservation scheme with the collaborative support of World Wildlife Fund (WWF), the government of Nepal and the local community. To a large extent, this has also been adversely affected by the on-going insurgency in the region. And I am not going to discuss the current practices either. I basically shed light on the trend of tourism in 1994 when the fieldwork was conducted. Tourism during that time was gradually increasing in the remote villages of study area. However, tourism was still practiced in a limited way because of relatively few trekkers and groups of mountaineering expeditions in this area in comparison to Annapurna and Mt. Everest (Solokhumbu) regions. This was attributable to the ruggedness, and poor transportation network and virtual lack of tourist accommodation facilities. But the area had the immense potential for trekking, mountaineering and eco-tourism because of the ethnic, cultural and scenic richness of the terrain.

Key informants of ward no. 2 of Mahamangkhe VDC reported that approximately 100-150 tourists (trekkers and members of mountaineering expeditions) used to pass through this village from Aswin (September-October) to Mangsir (November-December) and from Chaitra (March-April) to Jeshtha (May-June). A *Bhattari Chettri* had a small teashop and a camping site above his house for the shelter of the tourists and used to earn some cash income every year. It also came to be known that locals had difficulty in getting the paid portering of tourists because the trekking agencies used to bring their porters from their own place of origin (i.e. Kahtmandu). In rare cases, the locals were employed as paid porters. In such cases, the daily wage rate ranged from Rs. 80 to Rs. 120. Tourists also used to pass through Yamphudin village. There all the tourists were required to register in the police post. According to the data furnished by the police post of Yamphudin, a total of 146 tourists visited this village in the whole fiscal year of 1992-93. With respect to the seasonality dimension, Baishak (April-May) received the highest number of tourists followed by Aswin (September-October), Falgun (February-March) and Chaitra (March-April). In fiscal year 1993-94, the number of tourists registered in the police post for 3 months totaled 57. Baishak received 24, Jeshtha 19 and Shrawan (July-August) 14 tourists. There were two small hotel-cum-shops, which used to sell grocery, food, tea, and alcohol to the visitors. Tourists could also camp in the playground of the school. Like in Mahamangkhe, the local farmers used to get benefit from the tourists by selling their commodities such as vegetables and chicken (which the trekking agencies used to buy depending upon their needs).

Key informants of Hellok village of Tapethok VDC reported that more than 300 tourists used to go to Kanchenjunga area via Sekhathum, a camping site of Lelep VDC across the Gusna Khola. Most of these tourists either first used to come to Suketar by plane from Kathmandu and proceed towards Kanchenjunga or used to come to Basantapur of Terathum by buses and walk through 'Dovan' (confluence) of Tamar and Phewa Kola and then used to proceed towards this direction. There was a good campsite on the side of Gusna Khola at Sekhathum. A *Bhotia* had a shop where a few groceries including salt and local alcohol were available. He had also raised many chickens, which were mainly consumed by the tourists. He had also managed the drinking water for the tourists and other visitors. Two separate huts were also built by him for the Nepali passers-by and the tourists. For the tourists, Rs. 50 had to be paid for the use of the hut kitchen per night. In the case of Nepali, mainly the porters used to spend nights over there. They were charged Rs. 3 per person for the use of firewood, which automatically included the charge for lodging also. By and large, this single *Bhotia* household of Sekhathum used to earn its major income from the tourist management service. These tourists then used to reach Amjilasa of Lelep VDC. There was also a

small campsite with a kitchen hut. A *Bhotia* had a small shop filled with Nepali noodles and '*Thangba*' (locally prepared beer from millet and maize drunk with the help of small bamboo pipe from a wooden utensil). Tourists and Nepali passers-by used to stop there and drink '*Tongba*'. One '*Tongba*' used to cost Rs. 10. Occasionally, the *Bhotia* youths also used to get the paid portering from the trekking agency and the daily wage rate ranged from Rs. 80 to Rs. 120. It was also reported that three *Bhotia* youths were already associated with the trekking agencies in Kahtmandu. Similarly, at Yangjuwa/Gypla of Lelep VDC also, a camping site had been managed for the tourists. The key informants reported that the porters were paid better rate from this village onwards because it was relatively difficult to do the portering in the higher altitude. The local porters were paid as high as Rs. 170 per day.

There was a very good tourist management service in Gunsa settlement of Lelep VDC. In September, 1994, a two-storyed lodge with stonewall single roof had been constructed by a *Bhotia* household. It had a wide camping ground also. Most tourists used to stay in the lodge. The kitchen facility was also available for the tourists. Tourists used to buy potatoes and chicken from the villagers, which were abundantly available. According to Gunsa police post, the number of tourists registered there during the period in 1991, 1992, and 1993 was 1,290 and this was found to be increasing in 1994.

In 1994, Walangchung Gola was a restricted area for the foreigners and therefore, no foreign tourists could visit this village. Nonetheless, some foreigners mistakenly or knowingly used to visit this village. For instance, only 10 tourists had visited Walangchung in 1991, 1992 and 1993. The data of tourist visit to Walangchung were provided by the border police post of Walangchung. Since tourists were not allowed to visit, tourist management facilities were virtually lacking. Those who visited there had to ask the shelter in the houses of the permanent dweller. It was evidently clear that households of Walangchung did not earn income from tourists during the time of the fieldwork in 1994.

Tourist management service was available in a limited way at Chirawa, ward no.5 of Tapethok VDC. There was a camping site close to the village. Tourists were charged Rs. 15 per tent and for the kitchen hut Rs. 40 was charged per night. At the village cluster also, there were four hotels managed by *Lama* and *Limbu* households. Each of these hotels had eight ordinary beds, which were mostly used by the Nepali passers-by. But as reported by the key informants, foreigners also used to stay in these hotels. The hotel owners used to charge Rs. 15 per bed. Food was also available in these hotels. One ordinary meal would cost Rs. 15-20, which would include rice, vegetables and pulse. But the meal with meat would cost Rs. 30. Thus, tourism management was still limited and hence, had provided employment opportunities to fewer people only.

5.10 Traditional Organizations and Institutions for Ensuring Community Welfare and Social Equity

Some traditional community organizations and institutions were reported to be existent and operational among the *Sherpas/ Bhotias*. Notable among them was the '*Kiduk*', the community organization for the welfare among the most Tibetan speaking communities. For example, in Walangchung Gola, there were two types of '*Kiduk*' viz, '*Gaun*' '*Kiduk*' (village *Kiduk*) and '*Gothala Kiduk*' (herders' '*Kiduk*'). In '*Gaun Kiduk*', the members of the community used to contribute Rs. 10 per month to the '*Kiduk*' fund with the objective of utilizing this money during the critical periods of households such as illness, deaths, indebtedness, etc. This '*Gaun Kiduk*' also used to function for the construction and the repair of roads and the performance of religious ceremonies at the community level. The '*Gotala Kiduk*' used to function for the collective welfare of the herders. It used to make decisions regarding the timing of herd movement from one

pasture to the other and grass collection. Non-conformity with the community norm of the 'Gothala Kiduk' used to result in the punishment as decided by the 'Kiduk' members.

The Tibetan refugee community of Pholey of Lelep VDC had also evolved the 'Kiduk' organization as a strong communal co-operative for the promotion of carpet weaving (see carpet weaving section for detail). The people of Gunsu of Lelep VDC had also developed an institution called 'Grass cutting Day' as analyzed in the pastoral economy. According to this institution, community members could cut grass for hay making only on fixed few days (3-4 days) once a year. This institution had arisen due to the fodder/grass scarcity in the local environment. It also ensured equity among the community members with respect to the fodder/grass resource utilization (see animal husbandry section for detail).

Surprisingly, the *Sherpa/ Bhotia* community of ward no.3 of Lelep VDC had also included the non-*Sherpa* or non-*Bhotia* as the member of the community 'Kiduk'. For example, the local *Rais* had also been the members of the 'Kiduk', which was not the part of their culture. A key informant reported that the 'Kiduk' of Lelep had amassed Rs. 15,000 as the principal amount in its fund and the members of the 'Kiduk' at critical junctures could take loans at 18 percent per year.

These were the few exemplifications of community welfare system. Conclusively, the *Sherpa/ Bhotia* community of the Tamar Khola valley of the Kanchenjunga area had organization/institution exclusively evolved for the welfare and equity of the community members. And these traditional organizations and institutions had the potential of being successfully used for the community development. In fact, these had been evolved to cope with the harsh mountain ecology for the livelihood.

6. Conclusions

The above analysis has shown that the "culture core" of the highland communities of eastern Nepal has been the function of the ecological adaptation in the harsh mountain ecology. Adoption of one economic and subsistence activity in such ecological setting does not support the communities for their livelihood. Therefore, the communities studied were found to have practiced a myriad of economic and subsistence activities as the coping strategies for the survival. In other words, a strong interrelationship between environment and exploitative or productive technology (i.e. material culture) was observed. Stated in other words, the material culture used to generate the resources for the livelihood was evolved by the communities by considering its suitability in the immediate environment. Similarly, the interrelationship between the cultural behavior of the communities and exploitative technology was also observed. More specifically, the communities used the local productive or exploitative technology with the full knowledge of its sole indispensability in the given circumstance. The "behavior" patterns of the communities to exploit the environment by using the available local productive technology had also affected other sectors of culture such as disperse settlements, strong joint family system to pull the resources from different ecological belts and economic activities, community organizations for the mutual benefit of the members, institutions for ensuring the equitable distribution of the communal resources, worship of nature (because it provided the bulk of the resources for the livelihood), belief in supernatural forces (because of the harsh ecological setting and its unpredictability), etc. However, I have not been able to provide the dynamic picture of the ecological-cultural adaptations. Similarly, I have not been able to analyze the functions of the rituals and ideology in the environmental regulation. In fact, both lacunae have been the weaknesses of cultural ecology framework.

I thank my son Mr. Dikshant Uprety, a freshman, for providing me the secretarial support to finalize this paper.

Bibliography

- Anderson, J.N. 1973, "*Ecological Anthropology and Anthropological Ecology*" in J.H. Honingmann (ed.) : A Handbook of Social and Cultural Anthropology. Chapel Hill: University of North Carolina
- Bista, D.B.1967, *People of Nepal*. Kathmandu: Ratna Pustak Bhandar, Nepal
- Haimendorf, C.V.F.1975, *Himalayan Traders*. New Delhi: Time Book International, India
- Hooker, J.D.1905, *Himalyan Journals or Notes of Naturalist in Bengal, the Sikkim and Nepal Himalayas, the Khasia Mountains, etc.* 11 edition, London: United Kingdom.
- Gill, G.J. 1991, *Seasonality and Agriculture in the Developing World*. New Delhi: Cambridge University Press, India
- Hardesty, D.L.1977, *Ecological Anthropology*. Reno: University of Nevada, U.S.A
- New ERA, 1992, *Arun-III-EIA. Update of Access Road and Transmission Line*. Kathmandu: Nepal
- Odum, E.P 1971, *Fundamentals of Ecology*, Third Edition, Philadelphia: W.B Saunders Company, U.S.A
- Seddon, D, Blaikie P. and Cameron, J. 1981, *Peasants and Workers in Nepal*. New Delhi: Vikas Publishing House.
- Rambo, A T. *Development of Conceptual Framework for Human Ecology*. Working Paper No.4, Kualalumpur: Department of Sociology and Anthropology, University of Malaya.
- Steward, J.H. 1955, *Theory of Culture Change: The Methodology of Multilinear Evolution*. University of Illinois Press.
- Steward, J.H and Murphy, R. 1977, *Evolution and Ecology*. Urbana: University of Illinois Press
- Uprety, Laya Prasad 1994, *Social, Cultural and Economic Condition of Proposed Kanchenjunga Conservation Area*. A Final Report Submitted to World Wildlife Fund. Kathmandu: Nepal.
- Vermillian, D.L.1986, *Rules and Processes: Dividing Water and Negotiating Order in Two New Irrigation Systems in North Sulawesi, Indonesia*. Ph. D. Dissertation, Cornell University