

Role of Institutions and Organizations for the Sustainable Management of Forest and Pasture as Common Property Resources in Nepal: An Overview of the Indigenous and Traditional Practices

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Abstract

This is an overview paper based on the contemporary literature available in the regime of forest and pasture as common property resources. The analysis has underscored the role of local institutions and organizations for the sustainable management of forest and pasture as common property resources. The paper concludes that farmers of Nepal have developed and used the organizational and institutional mechanisms for the sustained management of these resources by ensuring social equity. Understanding the ingredients of indigenous resource management systems can have a bearing on developing appropriate national policies aiming at ensuring the sustainability of the future programs of Nepal.

Key Words: Institution, organization, indigenous, traditional, common property, sustainable, social equity, participation, etc.

1. Prelude

The principal objective of this paper is to furnish an overview of the contemporary literature on the indigenous and traditional practices with a view of analyzing the role of

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institutions and organizations for sustainable management of forest and pasture as the common property resources (CPR) in Nepal. Both anthropologists and non-anthropologists have made tremendous contributions to the studies of the institutional and organizational arrangements in the CPR regime. 'Institution' and 'organization', in this paper, have been treated as 'rules-in-use' and 'patterns of human interactions', respectively. It follows as a corollary that these studies have important implications for new interventions in the regime of natural resources management because they have shown with ample evidences how the forms of social capital (institutions and organizations) have led to the sustainable management.

2. Role of Institutions and Organizations for the Sustainable Management of Forest and Pasture as Common Property Resources

Gilmour and Fisher (1991) held the opinion that there are many places in the hills of Nepal where local people have, without outside guidance, made arrangements to protect and regulate access to forest resources for which there is no single owner. Such systems of protection, regulated access, utilization and distribution of forest products can be described as 'indigenous forest management'. They also argue that such management includes both the technical silvicultural practices of forest management, however simple, and the social arrangements by which they are regulated. They have also analyzed the characteristics of indigenous systems of forest management. In so doing, they also put forward the views that many accounts of local forest management refer to 'traditional systems'. There are arguments that the 'traditional systems' may not be the 'local initiatives' because they might be imposed or supported by the external agencies. But they argue that indigenous implies the local initiatives. At one end of the continuum are indigenous. At the other end are sponsored systems. Both of

these can operate at the local level. In practice, most local forest management systems fall somewhere along the continuum. They have also discussed that it is useful to think of indigenous forest management systems in terms of two broad types. Informal forest management systems are simply sets of agreed rules and practices that regulate the way people use forests. Formal forest management systems have organizations, which help to do the same thing. These organizations may involve elements such as committees of forest or water. In the case of forest management systems, it is clear that informal systems can operate without formal structure. They have also focused on the membership of user groups and use rights. They argue that indigenous forest management is based on user groups, defined as groups of people with mutually acknowledged rights of use and access. Analysis of user group composition shows that politico-administrative boundaries do not often coincide with user group membership. Use-rights usually depend on residential proximity to a forest and user groups usually consist of people from a small number of settlements. They have also argued that use-rights are usually based on residence, that is, all people in a given location have use-rights. Sometimes use-rights are restricted, on the basis of clan or lineage membership (kinship), to a sub-group of the people resident near a forest. When kinship is involved (membership of clan or lineage being a requirement for use-right), this seems usually to operate in combination with a residence requirement.

Gilmour and Fisher (1991) have also focused on the consensus and conflict vis-à-vis the forest management. They argue that high degree of consensus is necessary for effective common property management. Sanctions are used for disputes/breaches. Matters related to the disputes are usually handled informally within the user group in small communities with extensive face to face contact and complex

webs of social ties and obligations. They also argue that social ostracism can, at times, be powerful force for compliance. Disputes are handled internally in many communities. They have analyzed indigenous forest management as a response to need. In other words, villagers respond to shortages of forest products by developing rules and organizations to protect forests. In this context, they (1991:49) write:

“It is important to stress that indigenous systems of forest management are not mere remnants of old systems. They are dynamic responses to changing situations... the likelihood of communities becoming interested in management and development, and the probability of the existence of indigenous forest management systems, are directly related to the difficulties people face in obtaining forest products. Where products are relatively accessible, it is unlikely that they will form organizations to protect and manage forests. Where there is a perceived need, villagers have proved themselves to be quite capable of positive response”.

They conclude that indigenous systems of forest management are not always effective in terms of protection of regeneration or sustainability of production because some indigenous forest management systems are aimed at limiting access rights to particular products rather achieving any specific biological (silvicultural) objectives. Nonetheless, based on their research, they assert that indigenous systems are reasonably equitable.

Gilmour and Fisher (1991) have also analyzed the sponsored community forestry as a social process. They are of the opinion that the notion of ‘interest’ group is helpful if the forest user group is a heterogeneous one. The concept refers

to 'a group of people who have similar sets of interests with respect to a particular situation'. They cite an example stating that people who own large numbers of livestock which are grazed on a patch of common land have different interests from people who have only a few stall fed animals. For them, identification of various interest groups (women, the poor, lower castes, any group of people specializing in distinct economic activities, etc) is fundamental to any project activity. On one level, they argue that the notion of use-rights refers to legally defined rights to use specified forest products. However, in the hills of Nepal, a separate set of use-rights may exist. These are locally recognized rights to specified forest products. Such use-rights are supra-legal; they do not necessarily coincide with legal ownership as defined by the legal systems. They have discussed the locally recognized use rights as 'indigenous use rights'. In fact, they recognize indigenous use rights as claims to rights to use specified forest resources which are regarded as legitimate by people (in the same area). An important aspect of this view of use-rights is that they are not fixed for all time, but rather, represent a process of making claims and recognizing other people's claims. Under the present community forestry program, the concept of a 'user group' is derived from the concept of use-rights. It refers to a specified group of people who share mutually recognized claims to specified use-rights. They also analyze that there is equity in the community forestry because the institutional mechanisms help for collecting and using forest products from management arrangements, having effective local control over decision-making and recognizing the say of various interest groups--participation of interest groups in the broad-base decision-making.

Dahal (1994), in his study on the forest management in eastern Nepal, studied seven case studies of forest user group (FUGs) located in three hill districts, namely,

Sankhuwasabha, Dhankuta, and Ilam in eastern Nepal. He examined how various biophysical, socio-cultural economic and institutional attributes are related to the performance of FUGs and their long-term sustainability. He has also made extensive review of resource-related available studies. Referring to Regmi (1963), he views that although land and forest resources were managed in the form of *Kipat* (communal landownership), *Raikar* (state landlordism), *Guthi* (lands used for temples and charity), and *Birta* (state land grants to priests, military personnel, and the nobility) before 1964, there existed primarily *Kipat* and *Raikar* systems of land tenure in the eastern hill region. Whether *kipat* system or the *Raikar*, both land and forest resources were under the control of *Subba*, *Jimawal*, *Pagari*, and *Thari*, who were not only the land revenue collectors of the government but also used to maintain law and order at the local level. They were responsible for both the sustainable use of the resource in question as well as its allocation. Dahal argues that although the *Kipat* system was abolished in 1968, it remained an important social institution for preserving the cultural and natural environment in the eastern hill region. *Kipat* was a communal system of land tenure, basically followed by the *Limbus* and *Rais*. *Kipat* included all cultivated lands as well as uncultivated forests, streams, and rivers within its boundaries. A *Kipat* owner derived its rights over *Kipat* land by virtue of its membership in a particular lineage of that ethnic group and its location in a particular area. In the local context of eastern Nepal, both *Subba* and *Thari* used to protect the forests themselves, either by sending their own household members occasionally to watch the forests or by hiring a *Chaukidar* (forest watcher) on annual contract basis, paying a fixed amount of grain. Dahal's review shows that in brief, this traditional forest management system helped to protect the forest resources in two ways. Firstly, as the forest was constantly watched under the jurisdiction of *Subba* and *Thari*, nobody was allowed to cut timber or use other

products indiscriminately. Secondly, both *Subba* and *Thari* kept land records of all *Raiti* virtually dependent on them for everything. Nobody was allowed to do anything without consensus and every villager watched another closely to check the use of natural resources. This process worked as a safety valve to protect the forest in the area.

By delving into the sponsored community forestry in the eastern Nepal, he found that socio-cultural and economic attributes play key roles in the effective management of FUGs. In FUGs in which people are better educated, or where there are many government employees, the community forestry is progressing gradually; users hold discussions and sometimes seriously disagree on issues. He also discusses the issue of social equity. He is of the opinion that the resource poor and untouchable groups are not disadvantaged in terms of access to forest products or participation in the general assembly. In other words, there is no discrimination regarding the access to forest products- whether rich or poor, high or low caste. Low caste users are found in all FUGs and they are not considered to be obstacles/hindrances to the effective management of FUGs. Even though there is relative economic inequality among various cultural groups and the hierarchical Hindu caste model is the basis of social structure, there is no discrimination at all regarding benefit-sharing among groups. In other words, the traditional cultural and economic structures are not barriers to ensuring an equitable share of benefits and forest products among users. He also concludes that the extent of the users' dependence on forests also affects collective action participation in forest management.

Khattri-Chettri (1993) studied the indigenous management of forest resources in Jomsom VDC in the remote mountain Mustang district. He discusses the formation of a committee to manage the equitable distribution of natural resources-

mainly water and forests- among people residing within the VDC. The committees included two *Mukhiyas* (village headmen) representing both Thini and Jomsom villages and nine *Bhaladmis* (representatives) from each ward. The committee thus formed was assisted by eight other people, known as *Katwals*. The *Mukhiya* and *Bhaladmi* were normally elected for two years but could be re-elected based on their performance. The primary responsibility of the *Mukhiya* was the management of the irrigation system, community forests, and drinking water supply and that of the *Bhaladmis* was to assist the *Mukhiya* in his work. These were selected by the general consensus at the village general meetings. They used to be usually senior and influential people of the villages.

He further discusses that the *Katwals* were selected from each household in turn for a period of one year. Every household in the village was required to provide one economically active male household member to work as a *Katwal* in their turn or pay enough money to find a substitute person for replacement, unless a particular household did not have such as household member. One *Katwal* used to be designated as head *Katwal*. The *Katwals* were responsible for maintaining the irrigation systems, informing villagers about important events such as village level general meetings, and watching forests and croplands. While the *Mukhiyas* and *Bhaladmis* did not receive remuneration for their services, the *Katwals* were compensated from the fines levied for the abuse of forest, irrigation and livestock grazing regulations and from half of the user fees received from two public water-powered grinding mills in the VDC. *Katwals* were also paid by a system known as *mana-pathi*, in which they used to receive four *Manas* (about 2 kgs) of naked barley and eight *Manas* (3kgs) of buckwheat annually from each household in their corresponding ward at harvest time.

He also shares that the committee used to meet regularly one to two times a year to discuss forest and water management and other issues, and it also used to meet as deemed necessary to resolve conflicts or discuss issues that periodically used to arise. Attempts used to be made first to resolve conflict at the committee meeting. If this failed, they used to be taken to the general village meeting. With respect to the management practice, all forests used to be perceived as community forests by the villagers, even though in the legal sense they were all owned by the government. Cutting alive trees and branches for fodder, fuel-wood or timber without a permit was prohibited, but collection of leaf litter, dead branches, and short dry logs was allowed in all the forests. Villagers could obtain the timber cutting permission for private construction or repair work. To obtain permits, the villagers needed to approach the committee at specified times of the year, explaining their needs and the quality of timber required. The committee used to review the applications and send its recommendations to the forest office before the latter used to issue a permit.

Chhetri (1993) studied the eight indigenous systems of forest protection and management from Baitadi and Achham in the far-western region of Nepal and he has demonstrated the ability and willingness of local communities to undertake the responsibility of forest management. He has further argued that by recognizing and working through indigenous systems, it is possible to identify viable approaches to promote and speed up the implementation of community forestry in Nepal. Scholastically, he has analyzed the concept of *Hamro Paleko Ban* (our protected forest): a farmers' sense of ownership on the forest as the community property. He has argued that this concept is crucial for successful user group forestry. Though forest had been nationalized in 1957, he found that the users of eight indigenously managed forests were protecting the forest patches as *de facto* owners – exercising extra-legal

ownership rights over the forests. He found different experiences with respect to the organizational aspect. In some cases, all the users were directly involved in protection and management. He found people ready to manage their forest with equal opportunity. He also found people not having a formal committee which eliminated the chances of abuse of power by a few people acting as committee members. In other cases, people had committees without chairman. According to the local people, such an arrangement was intended to avoid the development of unequal authority and hierarchy among the members. He analyzes that in Accham, the forest guard was paid either on *Manapathi* or by the government, whereas in Baitadi, no user group had *Ban Pale* (forest guard). By studying these indigenous forest management systems, he has further raised a pertinent and timely question, that is: whether community forestry is a viable approach for the development of forestry? Based on the empirical studies, he has concluded that the principle behind community forestry is certainly valid. But during the time of the study, he also found the problem in the government approach of implementation of the community forestry which often had undesirable results. Given the fact that use rights and ownership issues were not properly addressed, people lost interest in protection and management activities or conflicts emerged with regard to use rights and ownership. Such events resulted in depletion of the forest resources, even though the intervention originally aimed to facilitate the sustainable use of forest resources. At times, such intervention also resulted in the breakdown of the indigenous systems of protection and management.

He concludes that people's participation is the best way to achieve the objective of effective protection and management of forest resources to ensure sustainability and thereby avert an ecological crisis. In order to ensure popular participation in the forestry, he emphasizes the need to give due attention

to the following conditions: (i) recognition should be accorded to the existing local practices, institutions and organizational structures by including cultural norms and values and other related institutions, and (ii) the local user groups should be recognized as the owners as well as the protectors and managers. He has also drawn the implications for the up-scaling of community forestry. He argues that the rules and regulations prevalent in the indigenous systems for protection and management, including the provisions for user group membership, are the results of long-term practices and traditions. There are, therefore, certain advantages in using existing user groups of forests to advance community forestry works. These comprise: (i) there is the advantage of saving time in identifying the genuine user groups, (ii) such users are already exposed to the idea of protection and management, and they are used to such obligations as paying for a watcher and abiding by rules and regulations, and (iii) such systems provide opportunities to learn how forest protection and management can run in its own without any investment or involvement from outside. Given the major emphasis of the government's community forestry policy on handing over all accessible hill forests to the local people, the knowledge of indigenous systems in promoting locally sustainable protection and management systems of forest is evident.

Tamang (1993) wrote on the challenges and opportunities in farm and community resource management in Nepal. She argued that the indigenous management systems of both individually and collectively owned resources are initiated by rural people in responses to shortages of natural resources at the farm and community level. It needs to be emphasized that the shortage of and therefore need to manage resources is perceived by the rural people who are the resource users themselves. It is no way imposed or prompted by others. She argues that all indigenous management systems, whether individually or collectively owned, are designed, operated,

maintained, expanded and improved by the users themselves. Accommodation of the needs of the majority of the resource users is the main tenet of these systems.

She has also analyzed the participatory process of decision-making. She argues that decisions concerning the management of natural resources are made by the users themselves. She also considers that indigenous management systems, which exist in farms and villages, are dynamic, as users are continually examining prospective alternatives and improvements to the existing systems. She has also considered that such systems are also flexible which are capable of addressing the needs and preferences of the users of an area. Similarly, she has also analyzed the sanctions and accountability under such systems. In indigenous management systems, formal and informal leaders can be and are replaced if the members are not satisfied with them. Users are accountable not only to the leaders but also to one another. Because both leaders and users are long-term familiar residents, there is no easy escape for defaulters or wronged ones.

Fisher and Gilmour (1999) have analyzed the possibility of symbiosis of anthropology and biophysical sciences in common property resource management in Nepal. They have critically analyzed the researches conducted by anthropologists and other social scientists in the regime of forest as a 'commons' and have analyzed a number of key points emerged from the researches. Firstly, in effective indigenous systems, the recognized users tend to be people living in proximity to a forest and are generally not identified by residence in officially recognized administrative units. There is usually a fairly clear-cut group of people with mutually recognized use-rights (which exist outside the system of legal tenure). There may be other people with recognized secondary (restricted) rights. The view that

“effective” systems involve clear-cut user group does not mean that rights are not contested, but without a reasonable level of consensus about use rights, it is unlikely that any system of regulated use will exist. Secondly, indigenous systems are characterized by a variety of organizational and institutional arrangements. They are not always, or even often, managing committees. The institutional arrangements include the employment of forest watchers through the *manapathi* system (payment of grain, or, more recently, cash, collected from user households), systems of sanctions (including fines) for breach of rules about forest use or, quite often, the existence of a set of locally recognized rules which seem to be followed in the absence of formal structure. Thirdly, indigenous systems may utilize traditional practices (such as the *manapathi* system), but they are not always old systems. In fact, research suggests that many systems have been established since the 19960s, perhaps in response to a perceived vacuum in forest management. The point is that indigenous systems are capable of dynamic responses to changing situation.

They have also critically analyzed the anthropological contributions to the forestry studies. They have argued that anthropological research has contributed substantially to the recognition of land and, more recently, the improved understanding of local systems of forest use and management. This has been a major influence in the evolution of the current approach to community forestry with its emphasis on existing user groups. But they have criticized that the researches of anthropologists and like-minded foresters are anecdotal/ descriptive and are not conceptually sophisticated. It follows as a corollary that they have failed to explore in a critical way the workings of common property forest management systems. As far as forests in Nepal are concerned, anthropologists have documented the existence of common property systems, but, where they have attempted to

discuss the way these systems work, they have failed to question the notion that people act primarily out of narrow economic self-interest- forgotten the notion that economic activities are embedded in social relationships, religious beliefs and ritual behaviors- failure to address the embedded nature of common property systems. Finally, they have concluded that there has been less focus on the power issues within the local communities, between the Department of Forests and local people and at the national and international level.

Anthropologist Haimendorf (1979) has demonstrated that the *Sherpas* of Solo Khumbu are highly aware of the sustained use of the common property resources in their ecosystem. They have established some institutions to regulate men’s relations with nature. Haimendorf argues that the officials who deal with the husbandry of the community’s wood and timber resources are referred to as ‘*Shingo Naua*’. They used to derive their rights from an assembly of villagers. But generally speaking, their appointment used to be the consequence of consultations within a very small group of influential people of village locality. They used to be annually appointed. He shares that in practice, if a ‘*Shingo Naua*’ who could enjoy the confidence of villagers might hold his office as long as 12 years. Discussing the role of the institution of ‘*Shingo Naua*’ for the sustained management of the common property resources such as the forest, Haimendorf (1979:14) aptly writes:

“The *Shingo Nauas* are responsible for the protection of the reserved forest close to the village, and three to four men are appointed to serve simultaneously because vigilance is needed to prevent wood-cutters from encroaching on forest growth in the prohibited areas. It is within the *Shingo Naua* power to permit the limited fellings in the protected forest for special

purposes such as house building, and they do not interfere with the cutting of the wood required for funeral pyres. Their mandate is not confined to the punishment of the offenders in the act of cutting wood in a reserved area or of carrying such wood to the village, but they also inspect the stocks of wood in people's houses and demand an explanation for the unusual quantity. The maximum fine for felling a tree in the protected forest (Keapshing) is Rs. 15, but such fines are imposed only in extreme cases."

Haimendorf (1979) argues that trees in *Sherpa* area grow very slowly, and therefore, when forests are harvested, they take long time to regenerate. The *Sherpas* have been aware of this fact, and therefore, they have banned the arbitrary extraction of timber. Permission to cut timber required for the construction purposes or even for replacing wood shingles must be obtained from the forest wardens, the *Shingo Nauas*. They call the villagers to a meeting in the public assembly place, and the person committing forest offence has to bring a bottle of beer and confess his or her offence in public to the *Naua*. If the offence is of minor nature such as cutting of a green branch in an area where only dead wood may be collected, the beer is accepted as an adequate fine, but cash fines are imposed only for more serious breaches of law. The beer brought on this occasion is known as *Shingina-chaua* (wood fine). It is at once consumed by the assembled villagers.

Discussing the forests and their destruction in the Himalayas of Nepal, ecologist Martens (1983) argues that the Thakalis of Thakkhola have practiced the protection of forests to a lesser extent. He shares his observations by saying that the region is sparsely populated and even today is covered with coniferous forests. Despite the great number of timber

available, it is not extracted in a disorderly manner. Directly at the eastern edge of Ghosa in southern Thakkhola, there are protected areas of pine which are left untouched, and right along side them are old dominant species which obviously represent forest generation. He saw similar protected areas near Lethe, just a few kilometers to the north. He is of the opinion that this conservation is the function of the local laws crafted by the villagers.

Uprety (2005) shares that he found out an interesting social institution created for governing the behavior of the appropriators of the communal grass resources in Pholey and Gunsa of Leplep VDC of Taplejung district in 1994. He observed that these two villages used to lie within the boundary of ward number no. nine and hence, used to constitute a single territorial community with respect to the public land resource utilization. Given the fact that the grasses are grown in the public land as the common property resources, the communities had 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) and the community intention of ensuring the equity in the distribution of communal grass resources. Every year, the "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 grasses and fetch at homes. In so doing, each household could have the equitable share of the communal grass resources. Indeed, the communities crafted this institution to control the perennial over-exploitative attitude of some members of the communities and thereby establish egalitarianism with respect to the communal resource use. Stated somewhat differently, had there been the

cornucopia of the fodder/grass resources, it would not have arisen in the communities.

Uprety (2005) also shares that in the Walangchung village settlement of the same district, he found a traditional communal organization of herders, which was called “*Gothala Kiduk*”, in the local parlance. It used to work for the promotion of the interest and welfare of the herders. Similarly, it also used to decide when to cut the grass from the common land and when to move herds of cattle/yaks to the pastureland.

Referring to the research of Acharya (1990) on the Jirels of Dolkha district, Gurung (2005) shares that they own the natural resources in different ways such as joint ownership and co-operative ownership. Their property rights depend upon the local perception of the resources. Their cognitive categorization of resources such as ground, fodder trees, non-fodder trees, renewable and non-renewable resources have made them easier to partition forest resources. According to this arrangement, several people own different kinds of resources within the same forest areas. Thus, the ground/land is owned jointly, but trees are owned individually by number, species, age and size. Each individual gets a share of forest resources. Those who do not own animals or graze lesser animals than others receive their proportional share of pasture rent from those who graze more animals. Those who do not have ownership rights of forest resources due to non-providing communal obligations or patrilineal inheritance problems or late migration in the village enjoy usufruct rights. Despite existing inequalities in ownership rights, the usufruct rights help Jirel households meet the needs of fodder and fuel-wood. It has protected and redistributed resources in the community.

Discussing the implications of common property resource management in Nepal, Acharya (1990) writes that the diversified and differentiated property arrangements practiced by the local people have several positive effects in managing the use patterns, availability, distribution and conflicts associated with forest and pasture resources and hence, should be supported and strengthened rather than replaced with a monolithic or exclusively private system of ownership.

Colfer (2004) shares that the action research on the adaptive collaborative management of forest as a common property in Nepal showed that the user communities, with little external institutional support, can play an instrumental role in the communities for ensuring the equity by encouraging the disadvantaged members of the communities-women and lower castes- to participate in the decision-making processes through the election of the representatives from each of these groups, which can lead to the sustainability of the forest management.

Thapa (1999) has also studied and analyzed the indigenous management systems of natural resources in Nepal. He has argued that indigenous knowledge on management of natural resources has existed in Nepal for centuries. The survival of people in the hills and mountains of the country were primarily based on indigenous management of natural resources. The successful practice of crop production and animal husbandry has to-date depended on the “indigenous natural resources management systems”. He has further argued that farmers in many parts of Nepal has developed and has been practicing effective indigenous natural resource management systems according to their needs, condition and management of the natural resources, which play a significant role in their daily life. Indigenous natural resources management systems are complex and deep-rooted within the social structure. Elaborate organizational measures and

regulatory social control mechanisms have evolved to minimize the risk and maximize the benefit of agricultural and livestock production and local resource management.

Contextually, he cites one example of the indigenous rangeland management where the seasonal restrictions are imposed on certain rangeland. Another example is the practice of rotational grazing, whereby the animals are regularly moved from one rangeland to another. Calculation of the carrying capacity of the rangeland is also part of an indigenous management system. In the Dolpa area, the herding households maintain only the number of animals that the quantity of winter fodder can feed. Another example of indigenous rangeland management is the setting of the fire to rangeland areas during the dry season. Herders believe that burning clears dead organic matter, promotes the re-growth of green matter, and eradicates parasites. The grass that sprouts afterwards make a good creep feed to lambs and kids.

Gurung (1999) studied the local institutions, cultural practices and resource management in a mountain village of west Nepal. His analysis has been based on the etho-historical data collected from several mountain villages, particularly Tara Khola in West Nepal. He argues that local institutions are effective and legitimate means of controlling and regulating local natural resources. He examines various socio-cultural practices commonly known as *riti-thiti* systems among the *Tarami Magars*. He concludes that these socio-cultural practices are still effective and appropriate for managing local resources even in the changing context of contemporary local societies. He argues that *Tarami rithi-thiti* systems are dynamic and these dynamic systems are responses to the changing environmental condition of *Tarami* society.

By examining the traditional local institution of *Tarami Magars*, Gurung (1999) writes that until the introduction of Panchayat (non-party) system in 1961, natural resources were controlled and regulated through the council of village heads called *Satthari*. The village head assisted by the members of the *Satthari* was a powerful authority at the local level and played the key regulatory role in controlling and distributing natural resources in the village. In fact, the village head derived his authority from the council of *Satthari*, and his authority was legitimized on the basis of land allocation to the individual households. The 255 village head called the meeting of *Satthari* to frame the community rules with regard to resource distribution, utilization, and management. In addition to the members of *Satthari*, the head of each household participated in the meeting to give his/her sanction to community rules. The participants discussed various rules, such as when to open and close the fence of grazing lands, where to send cattle for grazing, where to clear forests for shifting cultivation, and where to go for fuelwood and fodder collection. After the elaborate discussion in the meeting, the village head gave the final decision on the community rule of resource use for the year. This ceremonial meeting was called *Chhape Basne*, literally meaning “to sit to put seal on the community rules”. He has analyzed that the *Tarami Magars* distributed their land and forest resources among their kin or clans in accordance with the institutional arrangements based on customary rules. The main customary rules included ideas about shifting cultivation, rotational grazing, and seasonal use of natural resources. He has also analyzed the ritual regulation and resource management.

He sums up by saying that *Tarami* people did historically demonstrate considerable ingenuity in organizing various management systems to conserve and sustain natural resources on which their subsistence and survival depended.

Their management systems were effective and efficient. These systems were also equitable and sustainable. The institutional arrangement of resource distribution had a broader basis and it served diverse social interests including those of disadvantaged elements, such as the poor and women. The communal ownership and clan-wise distribution of land and forest resources in an early *Tarmai* society provides a obvious example of equitable distribution of available resources. The communal form of land ownership not only guaranteed a continuous supply of resources according to the family requirements, it also protected the resources from being fragmented at the hands of individual beneficiaries. Similarly, the clan-wise distribution and collective use of available resources on a rotational and seasonal basis were important mechanisms of equitable and sustainable use of local resources.

Chhetri (1992) has reviewed the weaknesses of the indigenous and community forestry management systems. He has identified a number of weaknesses of indigenous forest management as follows: (i) conservativeness among the users in using the forest products, that is, using less forest products in comparison to community forestry users group and meeting their requirements of forest products throughout the year from the government forests, and (ii) lack of detailed and systematic management plan (their management may be limited to enforcing sanctions, opening the forest at certain time intervals for the collection of certain products only). From the technical point of view, there is an absence of silvicultural treatment aimed at achieving certain biophysical goals which is a concern for the protection and production of some favored or desirable species. The users of indigenous systems generally have no such practices as pruning the branches of trees, thinning, removal diseased trees and establishing or maintaining plantations); (iii) the practice of raising user-group funds through the sale and distribution of

forest products and managing such funds is not common under indigenous systems of management; (iv) undertaking plantation work, whether new or enrichment, is not necessarily a part of indigenous system practice; and (v) the user groups of indigenous systems generally do not possess a written operational plan. However, as he has stated in another article above, there is a strong sense of *Hamro Ban* (‘our forest’; ownership) and users are clearly defined on the basis of locally recognized use rights.

Analogously, he has also identified the problems of community forestry as follows: (i) identification of the users along the lines of political boundaries (e.g wards and VDC) are often used to define user groups. Notwithstanding, it is now commonly agreed that villages, settlements or *Toles* are better suited criteria in defining user groups; (ii) forest officials have to live with the dual and incompatible roles of policing the forests as well as promoting community forestry; (iii) while the community forestry program in Nepal may be a progressive approach to rural development, the implementation activities are still heavily dependent on external funding. However, he recognizes that community forestry has the potential to relieve the government of a lot of responsibilities of protecting and managing the forests by employing forest guards, watchers, etc. More importantly, the local communities (the user groups) will gradually gather funds through the sale and distribution of products. This could be used by them with minimal external support in some local projects.

Daniggelis (1992) studied the *Jangal* (meaning forest) resource use with focus on the adaptive strategies of *Rais* and *Sherpas* in the Upper Arun Valley. He argues that the *Sherpas* and *Rais* have their own indigenous management of resources, including those identified as *Jangal*. Whenever there is a problem regarding management of the communal

Jangal and its resources, a meeting is called. A few years ago, *Malingo* became scarce. Because young *Malingo* is a source of cow fodder, there was the general consensus that all cows must graze elsewhere. Once the *Malingo* became mature enough and was no longer edible, the prohibition on the use of *Jangal* was removed. The *Rais*, who are very dependent on *Malingo* for making *Bhakari*, were asked not to collect in this area. A *Ban Pale* (forest watchman) was chosen to impose fines on whoever would break the agreement. Only men are in attendance at these meetings.

Fisher (1992), discussing the indigenous forest management in Nepal, argues that common property is not a problem in Nepal. In his studies, he has explored the implications of the emerging knowledge of indigenous systems of locally-initiated forest management systems to theories about the management of natural resources as common property. He also discusses Nepal's community forestry program which has its deep roots in the indigenous forest management. He argues that Nepal's community forestry program involves the transfer of responsibility for management of forest resources to local people. As these resources are to be managed collectively by the 'community', the program can be thought of state-sponsored common property regimes. Understanding of the dynamics of existing locally initiated forest management systems is of obvious practical importance, either in terms of building sponsored institutions around existing ones or in terms of applying the principles behind successful old institutions to building completely new ones.

Fisher (1992) also presents the highlights of the main features the empirical researches on indigenous forest management conducted in the 1980s by the bio-physical and social scientists, including anthropologists. These comprise: (i) the systems were not necessarily old (traditional), but were often relatively recent innovations, which developed as dynamic

responses to changing situations; (ii) there is considerable variation in the form of systems because formal roles (committees, forest watchers) are not always present, and (iii) all effective systems, whether they have a formal structure or not, have an institutional base which comprises at least some agreed practices for regulating forest use.

For him, the institutional bases comprise: (i) rules with sanctions are sometimes involved, but these are not always applied in practice; (ii) there is usually a fairly clear group of users, that is, use rights are clearly specified and recognized; (iii) the functions of the systems range from simple protection (limited or no use of products from designated forest) to rotational harvesting systems; (iv) systems, even when they are present, are not always highly effective in foresters' terms, but they have often led to the regeneration of forests on previously bare land. In other words, local efforts at common property management of forests often work, despite the conventional wisdom. With the exception of a few studies (1990) on Jirel forest management in Dolakha district, he passes strictures on the forest-related studies by articulating that there has been little concern with organization, decision-making or with equity and the distribution of resources. Much of the material in Nepal seems to treat co-operation as if it were unproblematic and largely ignores social heterogeneity and inequality.

Gurung (1992) has elaborately discussed the historical dynamics of resource degradation in the western Nepal Himalayas. He has analyzed the role of local cultural systems and socio-political institutions that control resource management in village communities.

Messerschmidt (1992) has written that the impetus for anthropological forestry in Nepal dates to the late 1970s and 1980s, with the national legislation promoting the 'handover'

of local forests to the people as 'community' forests. He argues that forestry is described as no longer the private professional domain of the technical forests; there is now room for social foresters, i.e social scientists, especially anthropologists, to become involved in the researches and sustained promotion of the forest resources. He argues that community forestry is a fundamentally sociological notion that is inextricably linked to the biophysical and the technical fields. It is neither one nor the other, but both. He also emphasizes on the critical need to document and use the rich indigenous knowledge that exists about local ecosystems for locally appropriate operational planning and forest management. He argues that because we are not in the business of 'mining knowledge, it is critically important that we return local knowledge to the people to help enable and empower them to adapt and respond to change.

Messerschmidt (1992) further writes that ethno-science or indigenous knowledge (IK) is one of the most promising fields for anthropological forestry in Nepal, in all regions: the high mountains, mid-hill and mid montane valleys, in the Mahabharat and Churia and across the entire *Tarai* and Inner *Tarai* (Dun valleys). He argues that it too remains virtually untapped in Nepal. He has also elaborately discussed the traditional systems of organization (TSOs) for resource management. For him, one strong rationale for documenting TSOs in society in relation to the natural resources management is the potential payoff that the knowledge and understandings of them have for incorporating local people, and using their familiar social structures in resource management planning. Referring to the Barnett's theory of innovation in socio-cultural change (1953), he argues that where people see something of themselves, their ideas, and their needs incorporated into development and management plans, they are more likely to take an active interest in the action and to be accountable for the results. The

understanding and incorporation of local systems into development is one of basic tenets of people's participation.

Nesheim (1992) has studied the management of common property resources among the *Kulange Rai* of eastern Nepal. He explored the issues of the management of common property resources among the *Kulunge Rai* of eastern Nepal. In the past, these used to exploit the resources under the particular *Kipat* tenure. Under it, rights to land were obtained by membership in a kin group. Land could be used by members of other ethnic groups/castes but not sold to them. Ever since the last areas of *Kipat* land were converted to *Raikar* tenure, cultivated land has been privately owned. Pasture and forest are still, to a large extent, considered common property (as if the *Kipat*-system still existed). Regarding rights to communal resources, like forest, it is particularly membership in a clan, and also to some extent membership in a sub-tribe, that is relevant in the natural resource management. He concludes that all of the *Kulunge Rai* clans have their own forest resources and until no more than a decades ago, clan members controlled access to such resources.

McDougal (1979) had studied the kinship and marriage exchange among the *Kulange Rais*. He writes that the *Kulange Rais* have their own indigenous system of forest conservation. The indiscriminate felling of the trees is not permitted. Although anyone resident in the locality may collect dry wood for fuel on land held by any local clan group in order to fell a living tree—either for the construction timber or to cut and dry for fuel- it is necessary to obtain permission from the headman of the local clan group on whose land the tree stands, and pay a fee of Rs. 2 for each tree.

Saul (1992) studied the indigenous forest knowledge and the factors influencing its social distribution in Nepal in a multi-caste/multi-ethnic society in Kaski district of western Nepal. Given the fact that the 'indigenous technical knowledge system' is a vast body of information, plus the skills, technology, and practices used to harness the environment and is the sum of experience and knowledge of a given ethnic group that forms the basis for decision-making in the face of familiar and unfamiliar problems and challenges (Castro, 1990 and Warren, 1988 cited), he argues that traditional knowledge and resource management practices of rural communities can be an effective basis for conservation and development. He concludes that there has been the emphasis on the prospects of success of innovations brought in from outside which would be enhanced if they build upon indigenous knowledge.

Thapa (1993) also focused on the indigenous practice of pasture management. He has argued that local solutions to pasture management problems derive to a large extent from indigenous knowledge systems. The local solutions are identified and applied by community level organizations designed and traditionally empowered to manage pasture land. The solutions are implemented through definition of tenure and use rights, promulgation of formal as well as informal rules, and enforcement of sanctions. The use of indigenous knowledge for pasture management can be seen in the various management practices among the high altitude herders of Nepal. He has cited one such example of the seasonal restriction imposed on certain pasture areas. For instance, in Solukhumbu, access to certain pasture is restricted during the winter months when large amount of fodder is needed to feed livestock. He has also cited another example of the deployment of indigenous knowledge for pasture management such as rotational grazing of the pasture

lands on a regular basis. This practice ensures the availability of adequate amounts of forage in pastures at different altitudes. Herders claim that such rotational grazing protects pastures from being overgrazed and helps increase forage production.

Thapa (1993) also uses another example of the use of indigenous knowledge and experience of local pasture management which is seen in the traditional practice of animal movement. He argues that the seasonal movement of animals from pasture to pasture is a recurrent feature of indigenous pasture management systems. Such movement is routine but herders operate under complex sets of arrangements and schedules. The transhumance is the most common mode of animal movement followed by Nepalese herders. The herders go to alpine pastures in the monsoon and move down the low altitudes in the winter seasons. The movement from one pasture to another and from village area to grazing lands is usually determined by the general consensus of all villagers.

Thapa (1993) also discusses the existence of indigenous organizations in northern areas of Nepal which are mostly informal. In most instances, the informal indigenous institutions are "councils" represented by all the permanently settled households of a village. The councils promulgate the rules for the management of natural resources, usually by consensus. Often the councils may elect one or several of the households for specified period (usually one year) to act as the "enforcer" of rules meant for the management of natural resources. However, he argues that for last 40 years, they are superseded by the state-sponsored formal organizations. He also discusses the traditional rights, rules and sanctions. He is of the opinion that the indigenous institutions previously acted to ensure the sustainable use of local pasturelands by clearly defining tenure and use rights, formulating rules and

regulations for their management and imposing sanctions on defaulters. The grazing rights were and are guarded by delimiting areas of pasture for exclusive use by particular groups of villagers or villages. In order to apply clearly-defined rights over pastures, the indigenous pasture management systems inculcate a number of well-defined rules. These rules range from formal to informal, depending on the local communities and conditions of the land. The rules, consensually promulgated, are generally imposed to ensure a number of ends. First and foremost, the rules restrict the number of animals per particular pasture area for a specific time period. They are strictly imposed to control the stationing and movement of animals and to discourage overgrazing of local pastures. Second, the rules are set to effect equitable access to pasture resources so that all the members of the herding group, including the weaker and poorer individuals, have equal access to the land. Third, the rules define liabilities such as animal taxes, so they may be borne equitably. Owners of larger herds pay more taxes. Fourth, the rules provide the basis for arbitration in case of disputes.

He has also argued that the indigenous organizations have generally worked out a set of sanctions against the encroachment of territorial or other use rights and against the breaching of the agreed upon rules. The sanctions range from social to economic in nature. The defaulters may have to face social ostracism or pay a penalty fee. In serious instances, the defaulters may lose their use rights for specified periods.

He derives the policy implications from his study of the indigenous practice of the management of pasture. He has stated that the external efforts to bring about the pasture development must recognize and incorporate components of indigenous pasture management systems. These should include learning from indigenous knowledge and experience,

recognizing indigenous pasture organizations as effective intermediaries for pasture management, and incorporating many of the traditional rights, rules and sanctions for present day pasture management.

3. Conclusion

Based on the overview of limited available literature on the forest and pasture as the common property resources, it can be concluded that the farmers of Nepal have developed and used the organizational and institutional mechanisms for the sustained management of these resources by ensuring social equity. Indeed, these organizations and institutions are the functions of the scarcity of these resources in both the hill and mountain regions of Nepal. Understanding the ingredients of indigenous resource management systems can have a bearing on developing appropriate national policies aiming at ensuring the sustainability of the future program of Nepal.

Glossary

<i>Kipat</i>	= communal landownership among the Rais and Limbus
<i>Raikar</i>	= state landlordism
<i>Guthi</i>	= lands used for temples and charity
<i>Birta</i>	= state land grants to priests, military personnel, and the nobility
<i>Subba</i>	= community headman among the Limbus with the authority to collect the tax, and settle disputes
<i>Jimawal</i>	= local revenue collection functionary
<i>Pagari</i>	= local revenue collection functionary
<i>Thari</i>	= local revenue collection functionary
<i>Mukhiyas</i>	= village headmen
<i>Bhaladmis</i>	= representatives from each ward or village notables.

- Katwals* = persons responsible for maintaining the irrigation systems, informing villagers about important events such as village level general meetings, and watching forests and croplands.
- Hamro Paleko Ban Manapathi* = our protected forest = payment of grain, or, more recently, cash, collected from user households,
- Ban Pale* = forest guard.
- Shingo Naua* = persons among the Sherpas of Solo Khumbu responsible for the protection of the reserved forest close to the village or community forest wardens
- Gothala Kiduk* = community organization of the herders
- Riti-thiti* = socio-cultural practices for managing local resources
- Satthari* = the council of village heads among the Tarami Magars of western Nepal

Reference

- Acharya, H.P.(1990).”Jirel Property Arrangements and Management of Forest and Pasture Resources in Highland Nepal” in *Development Anthropology Network*, Vol.7, No.2 (pp.16-25).
- Bromley, D.W and Chapagain, D.P. (1984).” The Village Against the Center: Resource Depletion in South Asia” *American Journal of Agricultural Economics* (November): 868-874
- Centre for International Forestry Research (2004). *Forests for People and the Environment: CIFOR Annual Report*. Bogor: Indonesia.

- Chhetri, R.B. (1992). “Indigenous and Community Forestry Management Systems: Reviewing their Strengths and Weakness” in Michael Allan (ed) *Anthropology of Nepal: Peoples, Problems and Processes*. Mandala Book Point, Kathmandu, Nepal.pp. 19-35
- Chhetri, R.B. (1993). “Indigenous Systems of Forest Protection and Management in Far Western Hills of Nepal” in Tamag, Devika et.al (eds). *Indigenous Management of Natural Resources in Nepal*. Indigenous Management of Natural Resources in Nepal. Kathmandu: HMG, Ministry of Agriculture/ Winrock International.pp.323-342.
- Colfer, C.P. (ed.) (2004). *The Equitable Forest: Diversity, Community and Resource Management*. Bogor: Centre for International Forestry Research, Indonesia.
- Daniggelis, Ephrosine (1992).” Jangal Resource Use: Adaptive Strategies of Rais and Sherpas in the Upper Arun Valley” in Michael Allan (ed) *Anthropology of Nepal: Peoples, Problems and Processes*. Mandala Book Point, Kathmandu, Nepal.pp.49-63
- Fisher, R.J and Gilamour, D.A (1999). “Anthropology and Biophysical Sciences in Natural Resource Management: Is symbiosis Possible”? in Chhetri, R.B and Gurung, Om P. (eds.) *Anthropology and Sociology of Nepal: Cultures, Societies, Ecology and Development*. Kathmandu: SASON, Nepal.pp.169-191
- Fisher, R.J. (1992). “Indigenous Forest Management in Nepal: Why Common Property is not a Problem”? in Michael Allan (ed) *Anthropology of Nepal: Peoples, Problems and Processes*. Mandala Book Point, Kathmandu, Nepal.pp. 64-81
- Gilmour, D.A and Fisher, R.J. (1991). *Villagers, Forests and Foresters: The Philosophy, Process and Practice of Community Forestry in Nepal*. Kathmandu: Sahayogi Press, Nepal
- Gurung, Om (2005). “Concepts and Methods of Common Property Resource Management” in Tika Ram Gautam et.al (eds) *Dhaulagiri Journal of Sociology and Anthropology*. Department of

Sociology and Anthropology, Mahendra Multiple Campus, Baglung, Tribhuvan University, Nepal.

Gurung, Om (1992) "Historical Dynamics of Resource Degradation in the Nepal Himalayas" in Michael Allan (ed) *Anthropology of Nepal: Peoples, Problems and Processes*. Mandala Book Point, Kathmandu, Nepal.pp.82-96

Gurung, Om (1999) "Local institutions, Cultural Practices and Resource Management in a Mountain Village of West Nepal". in Chhetri, R.B and Gurung, Om P. (eds.) *Anthropology and Sociology of Nepal: Cultures, Societies, Ecology and Development*. Kathmandu: SASON, Nepal. Pp251-274

Haimendorf, Christoph-von Furer (1979).*The Sherpas of Nepal: Buddhist Highlanders*. New Delhi: Sterling Publishers Pvt. Ltd. 1979.

Janardan B. Khattri-Chettri (1993) "Indigenous Management of Forest Resources: A Case Study of Jomsom VDC in Mustang District" in Tamag, Devika et.al (eds).*Indigenous Management of Natural Resources in Nepal*. Kathmandu: HMG, Ministry of Agriculture/ Winrock International.pp. 309-322

Martens, Jochens (1983).*Forests and their Destruction in the Himalayas of Nepal*. Kathmandu: Nepal Research Center.

McDougal, C (1979). *The Kulange Rai: A Study in Kinship and Marriage Exchange*. Kathmandu: Ratna Pustak Bhandar.

Messerschmidt, Donald A. (1992). "People and Forests, Anthropologists and Foresters: Recent Research at Nepal's Institute of Forestry" in Michael Allan (ed) *Anthropology of Nepal: Peoples, Problems and Processes*. Mandala Book Point, Kathmandu, Nepal.pp.82-96

Nesheim, Tore (1992). " Management of Natural Resources Among the Kulange Rai of Eastern Nepal" in Michael Allan (ed) *Anthropology of Nepal: Peoples, Problems and Processes*. Mandala Book Point, Kathmandu, Nepal.pp 117-135

Saul, Rebecca (1992). "Indigenous Forest Knowledge : Factors Influencing its Social Distribution" in Michael Allan (ed) *Anthropology of Nepal: Peoples, Problems and Processes*. Mandala Book Point, Kathmandu, Nepal.pp 136-144

Tamang, Devika (1993). "Challenges and Opportunities in Farm and Community Resource Management in Nepal" in Tamang, Devika et. al (eds). *Indigenous Management of Natural Resources in Nepal*. Kathmandu: HMG, Ministry of Agriculture/ Winrock International.pp. 13-23

Tamang, Devika (1993). "Challenges and Opportunities in Farm and Community Resource Management in Nepal" in Tamang, Devika et. al (eds). *Indigenous Management of Natural Resources in Nepal*. Kathmandu: HMG, Ministry of Agriculture/ Winrock International.pp. 13-23.

Thapa, M.B. (1999). "Indigenous Management Systems of Natural Resources in Nepal" in Chhetri, R.B and Gurung, Om P. (eds.) *Anthropology and Sociology of Nepal: Cultures, Societies, Ecology and Development*. Kathmandu: SASON, Nepal. pp.224-233.

Thapa, M.B.(1993). "Indigenous Pasture Management Systems in High Altitude Nepal: A Review" in Tamag, Devika et.al (eds). *Indigenous Management of Natural Resources in Nepal*. Kathmandu: HMG, Ministry of Agriculture/ Winrock International.pp. 290-297.

Uprety, Laya Prasad (2005). "Cultural Ecology of the Highland Communities: Some Anthropological Observations from Eastern Nepal" in Tika Ram Gautam et.al (eds) *Dhaulagiri Journal of Sociology and Anthropology*. Department of Sociology and Anthropology, Mahendra Multiple Campus, Baglung, Tribhuvan University, Nepal.