Received Date: July 2020 Revised: Oct. 2020 Accepted: Dec.2020

https://doi.org/10.3126/pragya.v7i1.35209

Thiti as an Institution for Sustainable Management of the Resources in the Himalaya

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Abstract

Himalayan communities still have traditional ecological knowledge with a strong social mechanism for the management of resources to live in a harsh environment. This paper mainly discusses two thematic issues; how the Himalayan people optimize the use of limited resources to thrive in a harsh environment, and what the key socio-cultural factors which help them to survive in the rugged environment sustainably. The paper is based on nine months of ethnographic study from 2012-2018 among Gurungs, agro-pastoral communities in Nhāson Valley of Manang. The findings reveal that thiti is a socio-cultural institution to Himalayan dwellers that controls the behavior of the people in a society; the source of the awareness and recognition of the fragile resources for living in rugged terrain; means of defining rights on resources. In the Himalayan region, indigenous ecological knowledge does not work in isolation; it is intertwined with a socio-cultural institution that unfolds in a social context.

Keywords: *thiti*, Himalaya, environment, sustainable, resource management

Introduction

On 25 September 2012, it was about 7:15 am; my host family members and I were taking Tibetan tea. Suddenly, a neighboring woman entered in kitchen and gave notice to the head of my host family about the damage of growing wheat of her field by his horses including the other three neighbors. Soon after, the horse-owners and wheat-field owner and two knowledgeable persons (executive members of father group) gathered at square and went out to observe and monitor the wheat-fields at Yumda and Samjhe. They observed the fields by looking everywhere where horses were grazed (see Figure 1). Thereafter, the owners of the wheat-fields and the horses dialogued to each other and agreed to pay 10.5 *pathi*s (approximately 42 kg) wheat to the wheat-field owner.

That event could not make me hard to understand how local socio-political institution, here *thiti* (customary law), is effectively functioning in the Himalayan region of Nepal for the management of resources to live in a harsh environment. Thrive in the harsh environment has forced them to develop a strong mechanism for the management of resources (Stevens 1996; Bauer 2004; Sherpa 2015; Basnet and Chaudhary 2017; Poudel 2020a, 2020b). The case presented above shows that the mountain dwellers have been still giving continuities to their traditional resource management

institutions even the expansion of state mechanisms. Why do they feel the necessity of such institutions to them? And how such institutions are effectively working in a society? These are really important questions for an investigation to me as a scholar.

As many trans-Himalayan dwelling communities, the people of Nhāson, a small valley located in the northern part of the Annapurna range of Nepal, have been practicing agro-pastoralism through managing the limited agro-pastoral lands for the centuries through a well-developed mechanism i.e., *thiti* system[5]. These institutions are the functions of the scarcity of these resources in the hill and mountain regions of Nepal (Uprety 2008). Such a mechanism regulates the behaviors of the members of the community for the protection of crops, forest resources, and meadows (Sherpa 2015; Basnet and Chaudhary, 2017). This is known as *thiti* (customary rules), what Gurung (1996, p. 88) terms the 'adaptive behavior'. It has been transmitted from generation to generation, like a 'relay-game' in athlete passes a stick to the next one and then the next. It becomes a 'way of life' to thrive in their environments. It is a highly respected customary practice and plays a crucial role in the local-level decision-making process on resource management (Gentle & Thwaites, 2016).

In this paper, *thihi* is taken as an institution. Institutions are the rules, norms, and strategies adopted by individuals operating within or across organizations for governing the common pool resources (Ostrom, 1990), and sometimes private resources too. Moreover, the concept of sustainability is used about agro-pastoral land-use practices by the people of Nhāson. Exploring the functions of indigenous mechanisms to sustainable use of resources is crucial to further policy formation on adaptation to the Himalayan region. This paper mainly discusses two thematic issues; how the local farmers optimize the use of the limited space (through crop rotations and livestock movements) to thrive in an unproductive rugged terrain, and what are the key socio-cultural factors that help them to thrive in that environment sustainably?

Methods and Materials

This study was conducted in the Nhāson Valley selected purposively. The name of the valley is derived from the Gurung's two words 'nhā' (villages) and 'son' (three), literary meaning 'three villages'. Nhāson, therefore, traditionally denotes the three villages, namely Tache, Nache, and Tilche. In 2018, there were 16 settlements. Geographically, the valley is located in the southeast of the Manang district of Nepal. It covers a wide vertical zone from 1,645 meters (Tal) to 8,125 meters (Manasulu) from the sea level reflects steep topography. Agricultural land is limited by 0.46% (Government of Nepal 2001). The limited agricultural

[5]Only 0.46% land is agricultural.

lands with a harsh climate in the Himalayan region have forced the local people to adopt other livelihood options including pastoralism and trade. Grasses on meadows are also limited due to cold weather. They develop the complex socio-political institution to govern an individual's behaviors in a society for the sustainable management of the resources' especially grasses.

The paper was based on nine months of ethnographic research carried out from 2012 to 2018. I did informal conversations with villagers, members of *thiti* committee, leader of *bau-samuha* (main body of socio-political institution) and observed the field. As the ethnographic study, I collected detailed information about the social-political institutions including customary rules (*thiti*) that local people develop to use and manage resources to govern an individual's behaviors. I collected the information on the traditional village council and the role of *thiti* to know how it governed an individual's behaviors.

Results and Discussion

Economic Pattern of the Nhāson Valley

Agriculture, animal husbandry, and trade/business are the main pillars of livelihood for the people of the Nhāson Valley. These activities are fundamentally interrelated to each other. Every household raises livestock of one kind or another, including yaks, *cho*/*choamma* (yak-cow crossbreeds), cows, oxen, sheep, goats, and horses. Families move their livestock to meadows at different altitudes according to the seasons which is strongly governed by *thiti* systems (Poudel, 2020b). In the summer, they move their livestock to high-altitude meadows and in the winter they move them back to villages and their surroundings and to the low altitude lands located in a lower adjacent district, however, when to move and where to move is determined by *Bau-samuh (*Father-Group) and regulate by *thiti* committee. Since 2016, the low altitude movement of livestock in the winter season has nearly been halted due to the planting of cash crops within community forests and on private agricultural lands. This has brought challenges to herding, especially to sheep and goats.

The animal products consumed locally include meat, milk and milk products, dung, wool, and animals' draft power. Yaks, sheep, and goats are for meat. Sheep wool is used as the basic raw material for blankets and clothes. Sometimes, people gift woolen items to their kin who reside outside the valley. This is gradually displacing by ready-made imported products (Poudel 2020b). Draft power (of oxen) is necessary for crop production. Crossbreeds are raised for the cash earned by selling the animals to highlanders. However, animal husbandry is under a threat in the Nhāson Valley due to climate change, state policy, international policy (control over of Nepal and Tibet broader), the market economy, and development intervention (Poudel 2019). Recently, yak herding has flourished in the valley when

Gurungs began to eat yak meat, keeping yaks as separate, Tibetan, cattle rather than as Hindu cattle.

The main crops grown in the valley are maize, naked barley, buckwheat, wheat, and potatoes. Besides, *kolo* (Himalayan bean) and green vegetables are also grown. However, the growth of green vegetables has been difficult due to the climate in the past. The agricultural calendar allows for a thrice in two years rotation based on seasons and agricultural lands. The rotational growth of crops on different agricultural lands in different seasons is essential to managing livestock in the winter in which *thiti* system plays a vital role.

Until the end of the 1950s, salt and grain trade was common between Nepal and Tibet. It was closed when Tibet became a part of China and increased easy access to Indian salt (Fisher, 1987). During that time, the Nhāson Valley was one of the centers of the salt-grain trade in the Himalayan region of Nepal. Until 1976, Manang was closed to foreigners. I977 it was opened to outsiders. Aftermath, tourism-based businesses were adopted for livelihood with the continuation of agro-pastoralism[6]. Also, the collecting of medicinal herbs is a source of economic gain. Today, most households collect *yarshgumba* (*Ophiocordyceps sinensis*, caterpillar fungus), *satuwa* (*Paris polyphylla*, uncertain English name), and (*Allium ursinum*, wild garlic) to sell. Besides, some of the youth have gone abroad to the US, Europe, Korea, Japan, the Middle East, and India to earn their livelihood.

Traditional Village Council in the Nhāson Valley

Before the introduction of government institutions in Manang, the villages were governed by traditional councils (Gurung and McVeigh 2002; Poudel 2016a). In the Nhāson Valley, it was called *Jimmawal* system which was introduced in the mid-18th century and dismissed in the early 1980s. In the discussion with the villagers at Tache, four successive generations hold the position hereditary during that period. *Jimmawal* was intertwined with a patriarchal and caste-based value system. The eldest son inherited the father's position after his death. Moreover, *Jimmawal* would be selected from the high caste group (Pignède, 1993)[7].

Jimmawal, as a village council, used to set, administered, and enforced rules and regulations about communities' affairs. Available resources including forests, agricultural lands, and meadows were traditionally under the control of *Jimmawal* and that continued until the early 1980s. He used to collect tax (known as *sirto*) from the villagers and also exercised local level administrative authority on natural resources management and judiciary within his

[6] Tourism has highly flourished in the late 1990s when Nepal celebrated the year 1998 as the 'Visit Nepal 1998'.

[7] Gurungs are divided into two broad social groups i.e., *Char-thare* and *Sohra-thare*. The first one is considered the high caste than later one.

command area which was legalized by the government (Regmi 1972). The villagers used to offer ahead of slaughter sheep in Dashain, a great Hindu festival generally occur in September and October, and receive *tika* (a mixture of rice, yogurt, and red power) from his hand, and provide one-day free labor to work in his agricultural field by each household for his service.

Observing and monitoring the damaged wheat-field by horses at Yumda by crop owner (white-shirt), horse owners (blue jacket with Nepali cap, the man with stick), and member of *bau-samuha* (black jacket with hat) in 2012

There were three members in *Jimmawal*'s council i.e., *Jimmawal* (village head), *Kraba* (assistant), and *Syarphu* (messenger). The position of *Jimmawal* and *Kraba* were hereditary and gained as members of specific clans, and later the families. At Tache village, for example, the positions generally came from the Sapri Ghale, a sub-clan of Ghale, and succeeded from father to the oldest son. At Gyalanchok, the position was held by Lamchhane clan and at Nache and Unash by the clans of sixteen due to the absence of the Sapri Ghale in those villages. The *syarphus* came from the sixteen clans. They are called the *tharmai*, the lower social group in Gurung community. The position was passed from one household to another through an annual rotation.

After the dissolution of the *Jimmawal* system, the villagers felt the absence of a strong socio-political institution to govern an individual's behavior in a society, especially to regulate the use of resources. They have reorganized themselves under a *Bau-samuh* in the early 1990s[8]. In each village, there is a *Bau-samuh*. Each household head of the village spontaneously becomes a member of the *Bau-samuh*. President, secretary, and treasurer are selected by community consensus[9] rather than heredity. In 2012, for example, at Tache and Tilche the heads of the *Bau-samuh* were selected from Krome (Lamchhane Gurung) and non-Gurung[10] respectively. In this way, the *Bau-samuh* became the main socio-political organization of the village for regulating socio-cultural and economic activities in the village.

In each village, there was a *thiti* committee, a law implementing committee. It works under the *Bau-samuh*. Members were not fixed in the committee. In 2012, there were six to nine members which were selected based on consensus for a year. Efficiency and commitment to work were the criteria for the selection. The committee is worked for the management of the

[8] *Bau-samuh* is a father group in which each household head can be a member.

[9] Women normally do not participate in the process of forming father group in village.

[10] Kamaljung Gurung and Ngima Ungagel were the presidents of the father group at Tache and Tilche, respectively in 2012.

crops and grazing land by controlling the unintended entrance of livestock. In the Nhāson Valley, grazing zones, especially fallow farmlands, could be closed to livestock at different times. The days for the opening and the closing of the fallow farmlands to livestock were varied in different villages. It was fixed at Nache village, but not to others. At Nache village, for instance, the farmland opens to livestock on 1st Kartik (generally fifteen of October) each year and closes on 20th Chaitra (generally on fifth of April).

Rotational Land Use Practices and *Thiti* system

There is a complex and functional strategy for resource use including fallow lands and ground grasses and crop residues in the Nhāson Valley. The people have been using agricultural lands on a rotational basis. The rotational exploitation of agricultural lands not only reveals their ways of surviving but also gives more complex information on how they optimize the use of available farmlands in short agricultural time in a harmonious way. It is only possible through the indigenous cultural knowledge about local micro-environment, climate, vegetation, and the fitness and performance of particular crops. Moreover, the shared cultural values, i.e., *thiti*, about the plantation of crops within a defined period, fixed days for opening and closing for grazing-lands are also responsible for thriving in rugged terrain.

In the valley, each village has three types of agricultural lands – uplands, mid-uplands, and lowlands. In the uplands, they grow once in a year, but they do not grow the same crop each year. If they grow maize on the field this year, they will grow wheat and naked barley in the alternative year. It is based on the principle of crop rotation in an alternative year. On Retuphant, for example, Tache villagers planted winter crops (wheat and naked barley) in December 2011 and harvested them in June and July 2012. They grazed livestock there in mid-September to mid-October and then left the land fallow till March 2013. They planted spring crops (maize, potato, and beans) in March 2013.

The villagers cultivate the mid-uplands and the lowlands twice in a year. They, however, do not grow the same crops at a single given season in both fields. They also rotate with crops grown in one year in the fields not grown in the next year. In the mid-uplands, for example, the 'X' year they grow maize, potatoes, and beans in spring season and wheat and naked barley in the winter season, and the 'Y' year they grow buckwheat, wheat, and naked barley in the summer season. They again grow wheat and naked barley in the winter season. In the lowlands, in the 'X' year they plant wheat, naked barley, and buckwheat in summer season and wheat and naked barley again in the winter season, and the 'Y' year, they grow maize, potatoes, and beans in spring season and wheat and naked barley in the winter season. For example, in 2012, the farmers of Tache village planted maize, beans, and potato as spring

crops on the lowlands like Ghyocha, Nasku, and Lo. They harvested these crops in mid-August and September. The land remained fallow till the end of November and the first of December. During that fallow period, they grazed to livestock there. Then, they again planted winter crops such as wheat, naked barley, and potatoes (in a small amount) in the same field. In the summer, 2013, they harvested winter crops and immediately planted summer crops, such as *karu* (naked barley), wheat, buckwheat, and *pachhu* (summer) maize on the lands. They harvested summer crops in the first week of December and left the lands fallow until the plantation of spring crops in 2014. During that fallow time, they grazed their cattle, *zopa*, horse, sheep, and goat on the lands.

In the midlands like Gaun, Yumda, Maichu, in the same year (2012), the farmers of Tache village planted naked barley, wheat, buckwheat, and *pachhu* (summer) maize as summer crops. They harvested them at the end of November and the first week of December. Then, they left the lands fallow till March 2013 and then planted maize, beans, and potatoes in March and April. They harvested to them in August and September. That year, the land again remained fallow from September to the first week of December. In the fallow period, they again graze to cattle, horses, goats, and sheep on fallow farmlands[11] and then cultivated winter crops (wheat and naked barley) in November and December 2013. In 2018, after six years of my first visit to the Nhāson Valley, I did not see any change in their rotational use of different farmlands to grow crops.

This shows a unique system of cultivation of croplands i.e., to grow the same crops in the same farmland and different crops in different farmlands. This is based on the principle of crop rotation. The indigenous practice of crop rotation can improve soil structure and organic matter which increases farm system resilience through regenerating soil productivity.

In the valley, all households plant the same crops in particular cropland in a given season. The selection of specific land for the planting of specific crops in definite seasons is both complex and functional. It is a rationale for their 'survival value' (the term used by Berkes, 2008). The selection of a specific land for specific crops is spun with herding. They cannot keep their livestock in high meadows from September to March due to cold weather and lack of ground grasses to graze. Thus, they have to keep the livestock in the villages and their surroundings to protect from cold. If they cultivate all their croplands (midlands and lowlands) in the same pattern at a single given time, then they cannot manage their livestock by limited hays and fodders. If they exploit all their agricultural lands at a single given time,

[11] There are two fallow periods in a year. The first fallow starts after harvesting of spring crops in August and September and it ends with the sowing of winter crops (wheat and naked barley) in November and December. The second fallow starts after the harvesting of winter crops and ends with the sowing of spring crops in April. However, there is only one fallow period in each field in a year.

they also cannot grow maize. If they cannot grow maize, there is no more hey to their cattle. Thus, the people of the Nhāson Valley have been keeping a balance between farming and herding through rotational exploitation of their highlands, midlands, and lowlands. The villagers' knowledge and practices apply for the exploitation of the limited resources show immense indigenous ecological knowledge through which they have been optimized use of both limited resources in a short growing season. Knowledge of the people of the Nhāson Valley on the exploitation of lands on rotation is based on experience rather than theoretical. Indeed, such ecological knowledge cannot be transmitted as a set of customary prescriptions or formulae; it accumulates from a lifetime experience inhabiting well-known places and is embodied in tacit knowledge (Ingold and Kurtilla 2001; Cruickshank 2014).

Thiti as Social Sanction

In the Nhāson Valley, each village has *thiti*, customary laws. *Thiti* are to be found as mechanisms to regulate the villagers' behaviors to use pasturelands and fallow lands for grazing livestock. The days for opening and closing areas to graze livestock are announced publicly a few days before the opening and the closing days. The day for opening the area for grazing to livestock is called *narcha-piba*. *Bau-samiti* (core members of the father group) gives an order to *syarphu* to notify the villagers about the days for the opening. After receiving the order, the *syarphu* gives the notice to the villagers by shouting in a loud voice. The committee also informs the *kuriya* (village members) by sticking written notice on publicly noticed places (it might be individual houses, shops, and public buildings). If any livestock enters the farmlands and fallow lands before the day of opening and after the day of closing, the livestock owners will be the subject to the penalty. The amounts of the fine vary by livestock species, as well as villages (see Table 1). For example, the fine was Rs. 30 for horse and mule, Rs 20 for cattle and Rs 10 for sheep and goat in Nache village whereas Rs 300 for horse and mule, Rs. 100 for cattle and Rs. 50 to sheep and goat for entering in the fallow lands or farmlands at a time. The same amount will be charged if it repeats.

Table 1: Penalty rates for violation of local rules on trespassing by villages in 2012

Livestock	Rates of penalty (per day)					
	Tache	Tilche	Nache	Unash	Ghyalanchok	Thanchok
Horse & Mule	200/300	-	30	10/20	20	20
Cattle	100	-	20	10/20	20	10
Sheep & goat	50	-	10	5/10	10	5

Source: Poudel, 2016

It was found that the amount of penalty for breaking the rules of the community is not static; they can change whenever members of a society feel to change. By 2011, the penalty was only Rs. 5, 10, and 20 for goat/sheep, cattle, and mule/horse respectively. Tache villagers felt that the violation of the *thiti* has increased in the village due to the nominal fine to the wrongdoers. *Bau-samuh* decided to increase the rate of penalty ten times in the year 2012 to stop the violence of community rule. In the year, the penalty rates were Rs. 50, 100, and 200 for goat/sheep, cattle, and horse/mule respectively to each time the unintended entrance of livestock in restricted areas.

Thiti Defines Rights to Resources

In the Nhāson Valley, the *thiti* system does not only regulate the behavior of the members of the village, but it also defines the rights to use resources which is common in trans-Himalayan regions of Nepal (Stevens, 1996; Bauer, 2004; Basnet and Chaudhary; 2017). It defines the territorial boundaries among the villages within Nhāson. The members of each territory are known as *kuriya*. The *kuriya* has the rights to graze their livestock, collect timbers, and plant crops in one's own village's territory. For example, Tache villagers can only use resources like timbers, pasturelands, and farmlands within their own territories for their livelihoods. They have no right to use other villages' resources like Nache and Tilche and vice verse. If someone does, he/she will be subject to a fine or penalty. The non-*kuriya* members do not have the right to use the resources. Therefore being a *kuriya* is crucial to use local resources. The territorial boundaries were formally legalized in 1961 through the written document in which a *talukdar* (government functionary)[12], six *Jimmawals*, and the villagers signed (Poudel 2016a). This was the first written document prepared by the villagers to regulate the rights to the use of resources in the Nhāson Valley. This written document leads to community-specific concepts and systems on the right of access to resources.

In the valley, the rights of individuals or groups on the resources of the particular geographical territory are legitimized through the participation in the village's ritual(s) or making contributions in the ritual(s). Participation in ritual is, of course, one of the main criteria to delineating one's own territory (Poudel 2016b). It defines the rights to resources to its member on the one hand, and, it also, on the other, limits the rights of outsiders to resources. Each village has its own village main ritual such as *Tön* deity at Tache, *Aankhekutun* at Nache, *Praprapro* at Unash, *Toten* at Tilche, and *Nopro-deity* at Ghyalanchok. Each household of each village participates in the ritual. The people who reside outside also return to the village to participate in the ritual. The household must also contribute cash, grain, and local brew to perform the ritual if it cannot participate in the

[12]Narendra Jung Gurung was the representative and functionary of the government.

ritual physically[13]. The contributions made by each household are not just financial support to arrange rituals; it also symbolizes their connection to the land and membership in the groups that give social legitimization of his/her claim on the land (Rappaport, 1984) including the resources. In other words, it is a way of constructing territorial boundaries which are themselves largely constituted by the interaction of people (Cohen, 1985, p. 12). It is largely expressed ritually (Rappaport, 1984; Cohen, 1985, Poudel 2016b).

Besides, indigenous ecological knowledge, I found that the cultivation of crops on uplands and lowlands in a rotational rhythm is governed by local resource management institutions, that is, social institutions (*Jimmawal* in the past, and now the *Bau-samuh*), customary law, and codes of social relationship which the people of the Nhāson Valley have developed to regulate some aspects of individual household's land use. In the village, no one has the right to start to plant crops even one's own land until the village political authority does decide on the date for broadcasting seeds. Indeed, the authority's decisions on the date for broadcasting seeds spontaneously signify 'stop grazing on that land'. Likewise, no one has the right to graze one's one livestock on own fallow lands until the village political authority does not make a decision on the date for opening the field for grazing. It is done through reading Hindu and Tibetan calendars and indigenous weather calendar. Restriction on grazing on one's own fallow land reveals that the community's decisions or rules are more powerful, strong and rationale over individual rights in the traditional society. If an individual has given the freedom to graze their livestock on one's own private land, they cannot survive. The restriction on grazing on one's own fallow land is rest on communal interest than individual interest. Bauer (2004) states that communal rather than private ownership and management is practiced in the trans-Himalayan region because of low productivity, extensive in area, and spatially diverse.

Conclusions

*Thiti*s is customary laws or practices that exist throughout the Himalayan regions of Nepal. But, they are area-specific with closely intertwined with an indigenous religious system, resources, productivity, local ecology, etc. Therefore, we cannot understand *thiti* system in separation. It gives us a holistic picture of the relationship between society, culture, resources, local ecology, economy, politics, belief, etc. Similarly, *thiti* is not simply a social mechanism to control the behavior of the people who might break the rules; it is the source of the awareness and recognition of the fragile resources on which livelihoods depend as Agrawal (2005) said. *Thiti*, as a human practice of the Himalaya region, is also unfolded in a

[13] On May 2013, the people of Tache village decided to arrange Langri deity ritual, a community ritual. Raj Ghale was not at the village at that time, but he contributed cash, grain and local brew to the ritual through one of his relatives.

local social context (a concept borrowed from Bourdieu 1977) i.e., low productivity, harsh climate, and communal survival.

The data presented in the text reveals that the people of the Nhāson Valley have rich ecological knowledge. However, ecological knowledge does not function in isolation; it is embedded in institutions and local social norms (North, 1990; cited in Berkes, Colding & Folke, 2000) and culture and belief (Chhetri, 2008). They are critical for the implementation of management practices based on ecological understanding in any society (Berkes, Colding & Folke, 2000). Thus, *thiti* and ecological indigenous knowledge are embedded in each other. *Thiti*, both as an institution and a social norm, has been functionally operated in the Nhāson Valley for the sustainable management of limited resources including lands and grasses in the harsh topographic and climatic environment in a dynamic form. Indigenous ecological knowledge about the management of resources in particular farmlands is like a relay-game; one activity ends and another starts immediately after that does not function in isolation but intertwined with *thiti.*

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