

Rai Community and Shifting Cultivation Practices in Eastern Nepal: A Study of Balakhu, Okhaldhunga.

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Abstract

Shifting cultivation is a form of land use pattern among poor and indigenous communities with a rotation of cultivation and follow in the same unit of land. Thousands of indigenous people, with majority households for subsistence living, are depending on shifting cultivation practices. Shifting cultivation in Nepal, locally called as Khoriya or Bhasme, is a land use practice in which indigenous communities clear and cultivate secondary forests in plots of different sizes, leave these plots to regenerate naturally through fallows of medium to long duration. This practices is in transition these days with rising population of shifting cultivators and demand of more food stuff. This case study demonstrates the relationship among land use practices, people livelihood and health issues of Rai community who have involved in shifting cultivation practices in Balakhu Village of Okhaldhunga.

Keywords : Fallow, Khoriya Land, Livelihood, Shifting Cultivation & Transition.

Introduction

Shifting cultivation is a dominant form of farming in the eastern Himalayas, practiced by a diverse group of Indigenous people from the most marginalized social and economic groups. The survival of these indigenous people and the survival of their forests are intimately linked. However, policy makers and natural resource managers perceive shifting cultivation to be wasteful, destructive to forests, and unsustainable. Although policies have tried to ban shifting cultivators away from the practice by incentivizing them to take up alternative options, shifting cultivation persists. Others argue that shifting cultivation should be permitted as it is not only steeped in culture and tradition, but constitutes the main source of livelihood for many shifting cultivators.

Shifting cultivation is a form of land use among resource poor communities with a rotation of cultivation and fallow in the same unit of land. It involves the clearing of certain patches of forests by slashing and burning, followed by short span of crop cultivation and long span of fallow period. It involves the cyclical shifting of cultivation sites. In general, the shifting cultivation plots are cultivated for shorter periods than they are fallowed. In later years, more dynamic approach has been followed to define and characterize shifting cultivation. Mc Grath (1987) defined shifting cultivation as “a strategy of resource management in which fields' arc shifted in order to exploit the energy and nutrient capital of

the vegetation-soil complex of the future site". Shifting cultivation is an adaptive forest management practice predicated on sound scientific principles that productively uses hill and mountain lands, conserves forest, soil, water resources, and is ecologically preferable to alternative agricultural and forestry activities. Shifting cultivation in Nepal, locally called as Khoriya and Bhasme, is a land use practice in which indigenous communities clear and cultivate secondary forests in plots of different sizes, leave these plots to regenerate naturally through fallows of medium to long duration, as defined by Fujisaka et al. (1996).

The principal characteristics of shifting cultivation in the tropics as the shift between fields rather than between crops on the same field, short cropping periods, one to three years, alternating with longer fallow periods, four to sixty years, cutting and burning of the fallow vegetation at the beginning of each cropping period, and the almost exclusive use of human energy in land management operations. Shifting cultivation creates unique landscapes composed of a dynamic patchwork of crop fields, fallows of various ages, secondary forest derived from fallows, and remnants of the original vegetation (Watters, 1971). Shifting cultivation practice in Nepal in many cases is characterized by 2 to 4 years of cultivation and 4 to 9 years of fallow. There seems to be a marked tendency of prolonging cultivation and shortening the fallow as the population pressure is increasing with a corresponding decrease in the cultivatable land. In some cases, shifting cultivated lands are also being gradually converted to settled farms and regular cropping in some areas. In case of study area, most of the people of Rai Community apply shifting cultivation as characterized by 2 to 3 years of cultivation and 3 to 5 years of fallow. The cultivation practice is their livelihood source when they do not have another option. Now a days, they start to go to golf countries or cities for a labor work that's why the practices of shifting cultivation has been decreasing. The practices of shifting cultivation have to be understood holistically within the domain of social and cultural analysis. However, their relationship to their khoriya land and the agricultural practice cannot be understood only in measurable indicators and specific manners. For Rai, shifting cultivation is a good ecological adaptation to their surrounding environmental settings based on indigenous knowledge and skills developed in the particular geographical setting on basis of trial and error.

Objectives

- To analyze the practices of shifting cultivation in Rai community,
- To opine the relationship of Rai people to their traditional khoriya land,
- To understand socio-economic importance of shifting cultivation in Rai community.

Methodological Mapping

The study is structured to analyze the practices of shifting cultivation in Rai community. It is descriptive research design since it describes and then concludes all of the socio-economic perspective of shifting cultivation that take place in the studied area. The study considers all the Rai who are engaged in shift in cultivation and live in Balakhu, Okhaldhunga as universe of the study. Likewise, 25 households were chosen using non-probability sampling method and under its judgment or purposeful sampling was used. A sort of non-probability

sampling known as a "purposive sample" is one in which the subject is chosen so that it appears to fit the needs of the study for the sampling purpose. Individual respondents were considered as sample unit for the study.

In addition to being primary and secondary, the data are qualitative in nature. In-depth interview with the respondents were used and the research area is directly observed, to get primary data. The secondary data was also gathered from other journals, publications, newspapers, etc.

Collected data were at first coded and categories was developed according to similarity. On the basis of categories theme was developed and present according to theme.

Locality at a Glance

The Rai are an ethnolinguistic group belonging to the Kirat and primarily Tibeto-Burman linguistic ethnicity. They mainly reside in the eastern parts of Nepal, the Indian states of Sikkim, Darjeeling and Kalimpong and south western Bhutan. The Rais are a set of groups, one of the cultivating tribes of Nepal. They inhabited the area between the Dudh Koshi and Tamur River in Nepal. They claim that their country alone is called (Kiratdesh), and they call themselves Rai. (<https://www.britannica.com/topic/Rai-people>).

Sunkoshi Rural Municipality -1, Balakhu village belongs to Rai's community, is located in Okhaldhunga of eastern Nepal. It is situated about 160 kilometres and 4 hours driving from Kathmandu. It is going via Dhulikhel, Nepalthok, Khurkot, Nawalpur and Thulme Ghat. When we reach Thulme Ghat, need to cross sacred river Sunkoshi and go up 3 Kilometers hill area from the river. This region belongs to the majority of Rai. Out of 448 households in ward number one of Sunkoshi Rural Municipality, there are 195 households belong to Rai. The Rai people's primary occupation is farming. Maize, millet, wheat, and mustard are mostly grown in dry terraces, while rice was grown in wet areas. The grains farmed are primarily for their own everyday requirements, such as festival food and animal fodder. They also utilize it to produce spirits and local alcohol (Raksi), which they sell at the local market. Women raise buffalo, pigs, and chickens practically in every household, and they run small provision stores for extra money, primarily to sell homemade alcohol. They used to weave their own garments out of Bhangra to wear in the past because their profession was hunting and they liked to use bow and arrows. Young women, particularly girls, are responsible for daily tasks such as cooking. They are more likely to gather firewood from the forests and transport water from communal water sources, where as males are more likely to engage in agricultural pursuits. Kirati people use the land inherently under the Kipat system, which gives them communal rights over land that is tax-free and includes sovereignty over all agricultural areas, forests, streams, and rivers within its boundaries. However, it is the law that if other organizations utilize the Kipat, they must pay certain amount of tax to the landowner. People used to grow their own property but now, fields are rarely rented. Rai women used to weave home spent clothes from the Kadi, Cotton and Allo Nettle Plant. Mostly male people of Rai Community engage in shifting cultivation and produce several types of grains and crops for their subsistence.

Nepal has not formulated any specific policy on shifting cultivation. Shifting cultivation 'terminology or word' is not recognized by Government of Nepal in any land use policies and it has raised conscious conflicts among indigenous shifting cultivators and government authorities in resource management and benefit sharing. Current agriculture, forestry and natural resources policies have not recognized shifting cultivation as a land use practice; hence policy ignorance is prevalent dimension to hinder shifting cultivation practice in the study area.

Discussion and Results

Practices of Shifting Cultivation in Rai Community

Shifting cultivation is an agricultural system in which plots of land are cultivated temporarily, then abandoned while post-disturbance fallow vegetation is allowed to freely grow while the cultivator moves on to another plot. In the practice of "slash and burn", farmers would cut the native vegetation and burn it, then plant crops in the exposed, ash-fertilized soil for two or three seasons in succession. As the original organic matter reserve in the topsoil decomposed and as the high rainfall would leach out the nutrients from the root zone, the farmers would abandon the cleared plot and move to an adjacent patch of forest.

The Rai of Balakhu practice an extensive rotation (forest-crop-forest) that is sustainable for many generations. Population pressure has forced Rai to return to the same plots earlier before the soil had been given the time to be completely revitalized. Soil fertility then begins to decline, owing to the extraction of nutrients without replacement and to progressive erosion of the bared soil. Lands available for shifting cultivation are shrinking in Balakhu. A natural process of agricultural intensification under population pressure with increased frequency of land use in the community that supposed to be breaking down the shifting cultivation practices. Traditional shifting cultivation in Balakhu integrates a relatively short cropping phase and a relatively long forest fallowing phase as a rotational system. The land productivity capacity is constant but population growth rate would require extension of the cropping phase and shortening of forest fallow phase. This extension would eventually transform the shifting cultivation into the continuous cropping without fallow or sedentary cultivation in the Rai community. Now, because of rapid population growth rate, farming in shifting cultivation lands are quite unsustainable and are unable to support livelihood systems within the Rai communities in Balakhu.

Unfortunately, serious misconceptions about shifting cultivation have persisted for many years. Early misunderstandings led researchers to conclude that cultivators simply abandon their fields after one or two harvests. This made it appear that the practice was destructive and economically unviable, and that it was contributing to deforestation and soil erosion.

Relation between Rai Community and Shifting Cultivation

Shifting cultivation system or khoriya system of Rai has spiritual and religious relation. They feel the shifting cultivation is their ancestral gift. According to them, Khoriya is the land conserved by their ancestors so that they pay great respect and value to it. They believe that their ancestors and gods reside around it. Therefore, they organize Bhumi puja (worshiping of land) once a year in order to make their ancestors and gods happy. Rai also celebrate a number of ceremonies. The Rai of the study area celebrate Udhauli (worshiping the ancestors) in the Month of Mansir and offer new crops production, usually done after the harvest of paddy, maize, to their ancestors in this festival. They pay great respect to nature like rivers, lands, forests, pastures, stones and consider them as the symbol of god and goddess. The Rai are worshiper of nature that's why a Rai household must have at least a Khoriya land. The household that doesn't have Khoriya is considered as incomplete. It reveals that Rai have special relationship and special attachment to their lands and territories.

Shifting cultivation has played a great role on food security in the months when Rai don't have food to eat. They collect wild food such as githa-vyakur (*doiscorea bulbifera*) and other edible plants from fallow kept fields. The wild foods have been an important source of emergency food in the food shortage season. This practice is very crucial in that it provides food during seasonal and emergency food deficit. Most of the respondents said that Rai are well known for eating wild food and products from shifting cultivation. Wild food including roots, crops, herbs and fruits are collected from their own fallow land and nearby jungle.

Shifting cultivators are often seen as the primary cause of deforestation in the study region. Higher rate of deforestation is caused by over utilization of forest for agriculture, settlement and shifting cultivation. Researcher's observation shows that shifting cultivators do not go to community and national forest for a type of cultivation. They only use and shift to the lands where they have been conducting agricultural activities for generations. Now a days, Rai are facing shortage of land for the cultivation since the government policy of community forest and leasehold forest is encroaching their Khoriya or shifting cultivation land. Thus, the Rai of study area are searching alternative of shifting cultivation practices.

In the study area, it found that the shifting cultivation may turn maladaptive or means of environmental problems in at least three ways: by increase in population which causes old plots to be re-cultivated very soon; by wasteful or maladroit agricultural practices which sacrifice future prospects to present convenience; and by an extension into an insufficiently humid environment. In this regards local government need to take serious steps to manage and nurture the practice of shifting cultivation which is really religious property of the community.

Socio-economic Importance of Shifting Cultivation

Land Fallow is happened because of dominance of wild plants and build up ecosystem fertility. The following phase is essential to help restore soil fertility lost during the preceding cropping phase. Many studies have demonstrated that wild plants become

more problematic when the fallow is short. When the fallow period goes below 3 to 4 years, soil fertility is not renewed, and erosion and wild plants competition increase dramatically.

Production or output levels in shifting cultivation is influenced by wide range of bio-physical, socio-economic and cultural factors and it is difficult to isolate fallow length as a single determining factor. Products decline in shifting cultivation system when fields are cropped successfully. The declining rate of products are characterized to wild plants plague and soil nutrient deficiencies. Mertz (2002) questioned a theory that a correlation between shortened fallow periods and yield decline in shifting cultivation exists in his review paper. Although most of the empirical studies support the theory, the data sets are often ambiguous and important parameters are insufficiently taken into account.

As per the reviewed of several literatures and empirical study in the study area, it found that there are no relationship between fallow length and crops production. The study concluded that empirical studies focusing on this problem are fully understand this relationship and develop feasible steps for sustaining shifting cultivation practices. The study discloses that production and harvest of the principal crops grow under shifting cultivation has decreased during the last 20 years whereas, there is a slight increase in area spread. It further shows that although, a large group of Rai are practicing shifting cultivation and growing subsistence cereals, yet, their economic viability is significantly less than cash crops. As a result, a large section of indigenous people in rural areas is living below the poverty line. The study suggests that for sustainable livelihood, cash crops can replace subsistence crops and shifting cultivation can be converted into permanent cultivation through terracing the Khoriya plots.

Finding

Rai people have special and intimate relationship to the Khoriya Land that is source of belief and value system for the people of their territory where they have been living for generations. The shifting cultivation is not only their income source but also belief of ancestral forgive or special gift. The major findings of the study are noted as below:

- Traditional shifting cultivation in Balakhu integrates a relatively short cropping phase and a relatively long forest fallowing phase as a rotational system.
- Because of rapid population growth rate, farming in shifting cultivation land is quite unsustainable and is unable to support livelihood systems within the Rai community in Balakhu.
- Shifting cultivation system or khoriya system of Rai has spiritual and religious relation
- Shifting cultivation is an important source of food security of Rai Community.
- Higher rate of deforestation is caused by over utilization of forest for agriculture, settlement and shifting cultivation.
- Shifting cultivation is a form of land use among resource poor communities with a rotation of cultivation and fallow in the same unit of land

- Production or output levels in shifting cultivation is influenced by wide range of bio-physical, socio-economic and cultural factors and it is difficult to isolate fallow length as a single determining factor
- It found that the shifting cultivation may turn maladaptive or means of environmental problems
- The study discloses that production and harvest of the principal crops grow under shifting cultivation has decreased and also reveals that Rai have special relationship and special attachment to their lands and territories.
- Nepal has not formulated any specific policy on shifting cultivation

Conclusion

The practices of land utilization is different in different communities which is guided by socio-cultural framework. Only after knowing the cultural value and meaning of land, it would be easier to understand the harmonious relationship of Rai people their land. Shifting cultivation is characterized as one of the primitive and traditional mode of production practices. But this study shows that it is best ecological and cultural adaptation to their natural environment of The Rai. Rai not only harvest grains from their Khoriya but also pay great cultural and religious respect to the land and their ancestral practices.

Shifting (Khoriya) cultivation is important components of Rai and their daily life. Rai's value system, ancestral history and identity are attached to the Khoriya cultivation. Most of the respondents in the study area said that cultivate Khoriya because they are Rai and it is gift of their ancestors. It discloses that being Rai Khoriya cultivation is significant for their food security and cultural identity. This practices is in transition these days with rising population of shifting cultivators and demand of more food stuff. This case study demonstrates the relationship among land use practices, people livelihood and health issues of Rai community who have involved in shifting cultivation.

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