CHAPTER V

CHANGING IN SOCIAL STRUCTURES AND LIVELIHOOD STRATEGIES

This chapter focuses on the social structures and livelihood strategies in a Kreung village within the Yak Kaol community. Various views regarding access to natural resources are discussed, particularly concerning the Kreung peoples' responses to the transformations occurring within their local communities. The chapter is divided into six sections, the first providing the historical context of settlement and movement in different periods of Cambodian history. The second section explores Krola village's ecological niche and village utilization of the local natural resources, as well as perceptions of community, including cultural values. The third section examines the belief systems of the Kreung people, their customary laws and taboos for managing and controlling resources. The fourth section shows housing arrangements and their functions. Issues of household economic subsistence based on kinship relations, labor exchanges as a form of reciprocity, and the differentiation of social status within the community are also explored. The fifth section addresses the village structures in which each institution plays an important role within the community. The last section examines the livelihood strategies of villagers in their use of natural resources. There is also an analysis of Kreung social relations, of the ways that Kreung people face hardships and adapt themselves to new environments.

5.1 Village History

The Yak Kaol community's name is associated with the surrounding environment and local social organization, with the streams, lakes, trees, mountains, and the traditional leaders. The community is named after its founder, Yak Kaol. Historically, Yak Kaol was a small Kreung community, but as time passed the community expanded to areas, such as, O'Chum, Taveng, Veunsai, Banlung and Koun Mom Districts. It is evident from the narratives of elders that Yak Kaol participated in ceremonies at Angkor Wat in the thirteenth century. At that time, the

Yak Kaol community was located at O'Rantheul (stream). In the eighteenth century, slave trading by lowland Khmer and neighboring countries of Cambodia (White 1995) caused fear in the community, and the village was relocated deep in the forest near O'Kachouy (stream). After the end of the French protectorate period, the community moved to its current location.

According to Colm (1997) and Fox (1997a), Krola village has been in its current location for five generations. During the French colonial period, the Yak Kaol community was separated into the four villages of Svay, Kameng, La'ak and Krola. This separation was the result of a growth in population that caused community members to travel long distance to their farms. During the Prince Norodom Sihanouk period (1954-1969), some Krola villagers also moved to live in hamlets in different localities, such as, O'Preut (Preut stream) and O'Tong (Tong stream), where they could easily access water and collect plants and herbal medicine. These two streams are situated within the current village boundaries.

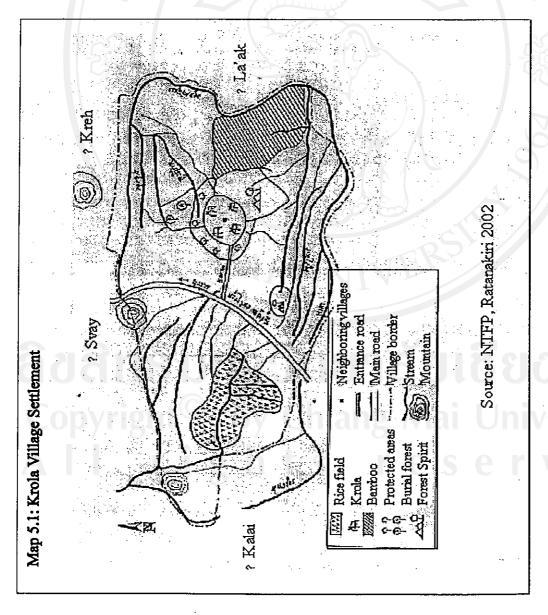
During General Lon Nol's reign (1970-1975), the political situation was unstable, and his soldiers set fire to the Krola settlement, causing villagers to move back to areas the deep in the jungle. Some villagers then joined *Neak Torsur*, but these villagers were unable to practice agriculture or even raise animals because the political situation was so unstable. Under the Pol Pot regime (1975-1979), villagers were forcibly relocated to lowland areas along the Sesan River. Villagers dispersed to live in the Banpong and O'Chnang villages in Chan commune, and others moved to live in the Kachoun commune in Veunsai District. They lived as a *Sahakor* (collective), following orders from the *Angkar* (organization) of Khmer Rouge, because villagers' rights were removed. In early 1979, most of these villagers moved to live along the Cambodia-Laos border for several months to escape the Vietnamese troops that had been fighting with Khmer Rouge in Cambodian territory.

After Vietnamese troops left the area, Krola villagers came back from the Cambodia-Laos border to live in the La'ak commune in 1980. They started working as Krom Samaki (a solidarity group), following the orders of the Central Committee of the Heng Somrin regime (see Chapter III). During this time, villagers resumed shifting cultivation but they had inadequate seeds, and lacked the agricultural techniques and equipment appropriate for this new area and so did not develop much

of fruit trees or cash crops. By early 1984, this group moved back to the Yak Kaol community, which they viewed as their homeland and ancestral domain, and were able to recreate the practice of their traditional culture and shifting cultivation.

5.2 The Ecological Setting of Krola Village

Krola is situated in the Yak Kaol community in the North of the O'Chum District, an open forest, upland area with a beautiful landscape. Traditionally, the settlements were clustered together in villages and ethnic groupings. The settlements are separated by fields for shifting cultivation. The Krola settlement is the largest in the Yak Kaol community, with a total population of 389, made up of 99 families in 2003. Houses are constructed in a circular pattern (Map 5.1).



Krola is located near the provincial road that runs from Banlung to the Taveng District, and is 25 kilometers from Banlung town. The village territory covers an area of 1,200 hectares, a place where villagers have practiced shifting cultivation and subsisted on local natural resource under the management of traditional belief systems for centuries. Secondary forest areas surround the village, protecting the community from strong winds and storms as well as providing habitat for wild and domesticated animals.

The Northeastern part of the village has access to spring water at the head of O'Preut, which is close to the village and available for common use. Next to the spring area is the burial forest. There are many streams within the village boundaries, such as, O'Tong, O'Kachouy, O'Trav, O'Khal, O'Tang that are linked together and provide a source of water for the nearby shifting cultivation plots. The Southern part of the village has two spirit forests the nearby *Bree Arak Tranuk Thom* (Large Tranuk spirit forest), which is believed to be a male spirit, and the *Bree Arak Tranuk Touch* (Small Tranuk spirit forest), a female spirit (see Map 5.4). Elders and spirit mediums have respected and worshiped these deities for generations.

Elders and spirit medium offer food and sacrifices for spirit forests to appease good health and happiness when villagers fall ill (Figure 5.1).

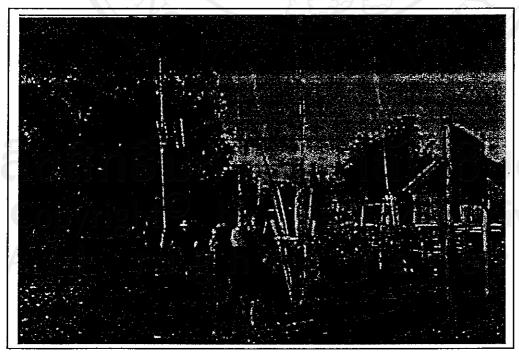


Figure 5.1: The Sacrifice of a Buffalo for a Spiritual Ceremony Photographed by author January 11, 2004

Elders and spirit mediums know that the spirits are unhappy with the villagers, if tigers come close to the village and roar at night. If a woman gets pregnant before marriage, the couples are fined and must appease the spirits by performing ceremonies in the sacred site. In addition, if elder or spirit medium dreams that a strong wind or storm will occur in the next few days and destroy the village, they prepare an offering ceremony by sacrificing a pig or a chicken for the forest spirits. Even when such dreams have proven to be inaccurate, they are considered a bad omen. As an elder in Krola commented:

We had bad experience during the war period. When we dreamt of a bad omen, it meant that someone was coming to disturb our village. Otherwise, it could mean someone breaking the taboos, for example, disturbing sacred sites, or hunting wild animals in the preserved areas.

(An elder in Krola village, April 29, 2003)

Moreover, several traditional leaders and villagers in Krola often narrate cautionary stories about angering these male and female spirits that:

In the Prince Norodom Sihanouk era, the government was building a road between O'Chum and Taveng Districts through the spirit forests. One night, construction workers slept under the spirit trees of *Bree Arak Tranuk Thom*. In the morning, three people died and another two people died after arriving in Banlung town. Since that day, younger generations have solidified their belief in the forest spirits. During that period, the forest spirits would block road construction. Nowadays, the space between the two spirit forests has been regenerated as secondary forest, where the spirits can easily communicate with each other. It is very important for us to preserve the *Bree Arak* and then *Arak* would take care of our community.

(Krola traditional leaders and villagers, April 17 2003)

These two spirits inhabit areas with a wealth of large trees and a variety of plants, such as, malva nut, rambutan, *Khouy*, *Phnhieve*, yam, and so on. Some of these plants can only be collected at the edge of the spirit forest because of taboos against making noise or talking loudly in sacred sites. These areas are also rich in wildlife, particularly the white monitor lizards, white squirrels, and tigers. Many villagers in Krola agree that no one dares to hunt these kinds of animals, and these wild animals are related to the spirits. The wild animals often move between *Bree Arak Tranuk Thom* and *Bree Arak Tranuk Touch*. At times, they present themselves to villagers but no one disturbs them.

The western part of the village is mountainous, and includes the Kayak, Kaung and Treng Mountains. Kayak Mountain has vast agricultural lands, though now villagers are preserving them as secondary forest for utilization by future generations. The other two forest-covered mountains, such as, Kaung and Treng are where villagers hunt wild animals and collect bamboo and other plants, as well as raise cattle. Villagers do not believe the spirits inhabiting these two mountains are as strong as in those two spirit forests *Bree Arak Thom* and *Bree Arak Tranuk Touch*. However, since 1979, villagers have started to acknowledge their strength, because many villagers had fallen sick. The spirit mediums dreamt that their illness was caused by the *Arak* from these areas.

Next to these mountains is the *Bree Romal Khal* (community forest) (see Map 5.2). The management and utilization of this area is shared between many villages including Kalai 3, Krola, Vorng, Svay, Kameng and Santok. Villagers often come to the area for hunting, fishing, collecting plants and herbal medicine, and to cut wood. The community forest boundaries are demarcated by trees, mountains and streams. Land Use Committee members from the villages of Say, Santok and Kameng explained that O'Yav connects to the smaller O'Lang and is recognized as the border between the three villages. In 2000, these committees used Geographical Information System (GIS) for mapping protected areas within their villages. This project was implemented with support from German Technical Assistance (GTZ).

Moreover, several people in the Yak Kaol community know much about the geographical nature of areas, such as, streams, the head of streams and pools. This includes the place where the O'Khal, O'Kador, O'Chreang, O'Lang and O'Thmorda join. In particular, the area where O'Khal, which is the biggest stream, connects with O'Kador is a center of *Bree Romal Khal*. O'Khal is a tributary of the Sesan River (Figure 5.2), and is very important for fish ecology, as well as for the wild animals, birds and plants that villagers rely upon for their livelihoods.

Many streams are not only important for fish ecology but also provide fertile soil for wetland rice fields. This is true of O'Tang, for example, 35 families have had access to this area since 1995, and many villagers have established wetland rice fields in O'Tong and O'Trav. The headwater of the O'Tang acts as the reservoir for the wetland rice fields. In the upper area, the water catchment's zone is close to the main road, and downstream is a small plain covered with wild bamboo forest, where villagers pay respect to the bamboo spirit.



Figure 5.2: The Intersection of Okhal and O'Kador Photographed by author December 27, 2003

At the head of O'Lang, there are *Chroam* (saltlick areas), where birds and other wild animals are attracted to the saline water, and villagers often hunt and trap. During the Pol Pot regime, this area was explored for salt mining, but prospectors could not locate suitable areas. Since then, villagers have believed that the spirit provides salt water only for wildlife to drink.

In Krola, the settlement has changed since the mid-1990s due to population growth. Now elders plan to reorganize and enlarge the village areas to accommodate more people. Kreung settlement patterns often take a circular or rectangle shape. However, villagers in Krola increasingly want to design their settlements following modern styles. Even so, they still have a strong desire to live together with their family and kin, where they feel secure and can look after each other.

Krola elders have commented that if the village separates now, it would be hard to receive official recognition for their settlement and land use from local authorities, as there were the cases in Vorng and Santok villages, which the government has not yet officially recognized. For villages to be recognized the government require at least 200 inhabitants. The government prefers villagers to live together rather than to live dispersed over large areas, which it views as a strategy to reduce forest destruction,

provide public services, and allow communication between government development workers and local communities.

Krola has many paths across the village, leading towards forest areas, streams, Chamkar, the burial forest, and neighboring villages. The main entrance is connected directly to the provincial road. To the rights of the main entrance gate is a small hut for the guardian spirit called 'Kachang'. The Kachang protects the villagers and prevents outside Arak from disturbing them. The guardian spirit makes villagers feel secure and safe, which helps build communal values and a collective consciousness.

Inside the village, there is a Rong (communal hall), Roka trees (sacred trees), sacred banana trees, and a space for sacrifices and spiritual ceremonies. The Rong is located in the center of the village and represents the community's cultural values, solidarity and sense of collective decision-making process. When villagers face natural disasters, enemies or dangerous wild animals, an elder would usually beat a gong to gather everyone for a meeting. The Rong plays an important social function as a secured place, a study area, an area for performing agricultural ceremony, a spiritual site, as well as a place for welcoming guests. Now it has become commonplace for local authorities and development workers to discuss issues and share information in the Rong. A sacred banana grove is also near the Rong and believed to be the home of a guardian spirit who protects the village from evil spirits. There are also Roka trees, usually planted during the sacrifices in the village. The sacred banana and Roka trees (Figure 5.3) are recognized as symbols of wealth and health, especially if the leaves stay green for a long period of time.

Changes in Krola village during the 1990s were also a result of an increase in development projects supported by the government and NGOs. There are now two schools, a rice bank, a ground well, a well pump, a rice mill machine, and a tree nursery in the village. These all belong to the community, and the traditional leaders also made an agreement with development workers and local authorities that they would be not forced to relocate.

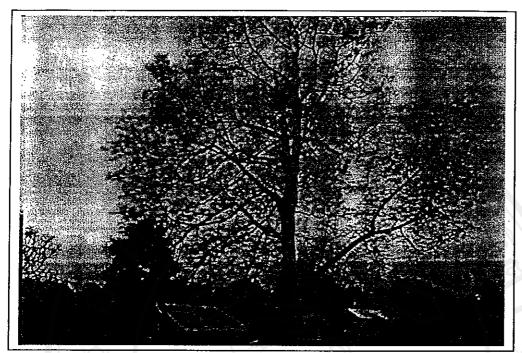


Figure 5.3: A Sacred Roka Tree Photographed by author May 12, 2003

In this respect, Krola village is different from other villages in Ratanakiri province, such as, the villages of Kavet and Brao in Veunsai and Taveng Districts. These villagers were forced to relocate and now live in concentrated settlements along the Sesan River. Kreung in the Teun commune in Koun Mom District were also relocated to an area near the national road. A government development representative explained during the interview on December 5, 2003 "The relocation of settlers to live near roads and rivers could improve their livelihoods, access to schools, markets, transportation and communication." In contrast with this view, Krola villagers did not see these improvements in the relocated villages.

Krola villagers consider that living near a main road would have a serious impact on their tradition and customary laws, which they have followed and respected for centuries. One taboo prohibits going in and out of the village during the ancestor ceremonies. Another taboo prohibits bringing wildlife into the village. Kreung perceive the areas of human settlement and surrounding forests as a very important link for the community members, between the spirit world and the environmental landscape. It is understood that disturbing this link could have damaging results. Villagers from Kachoun commune who were situated in Sesan River now have many health problems, which many attribute to the construction of a road across their burial

forest in 2003. Since the Seila Program built this road, many international and national tourists have visited this sacred site and tourists often take pictures of the graveyard (Figure 5.4).



Figure 5.4: The Graveyard in Kachoun Commune, where a Road was Built Across Photographed by author January 4, 2003

During a workshop on January 6 and 7, 2004 villagers and NTFP staff reflected on the local development outputs of 2003 and the development goals for 2004. The Kachoun commune chief said, "We did not know that tourists would come like this. Before we had only a path our community lands and rarely saw anyone pass by." When health problems in this community increased, staff from the Seila Program built a health-care center for this community, while villagers do not often use health service. Instead, they usually pray to the spirit for better health.

5.3 Customary Laws and Belief Systems

The Kreung have practiced their religious beliefs for centuries, developing a distinctive culture and livelihood practices. Cultural practices are related to the surrounding natural resources including forests, rivers, mountains and agricultural lands. Customary laws and taboos restrict certain activities, such as, collecting plants, hunting wild animals, cutting trees, and fishing.

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Customary laws and taboos are different for different village areas as well as for different individuals, depending on marriage connections or place of residence. There are taboos at the individual and communal level including those against eating and collecting wild taro, wild banana, and wild bamboo. Pythons, for example, are not allowed to be hunted or brought into the village. Krola elders narrate the stories of customary laws and taboos that villagers respect as a part of everyday life. The taboo on collecting or eating wild bamboo comes from a time when villagers were faced with health problems, such as, skin diseases, abscesses and diarrhea. An elder had a pregnant wife and was scared of the spread of disease, so they moved to live in a bamboo forest. The old man dreamt that the spirits told him to pay respect and offer food to the bamboo spirit to ensure happiness and health. The elder's family followed the advice in the dream the family lived well, and his wife gave birth to a healthy baby.

The taboo on wild taro, according the elders, is related to time in the past when villagers were affected by a skin disease. The spirit mediums in Krola dreamt that the spirits told villagers to collect wild taro to put on the roofs of their houses and to hang in front of their doors to protect their families from bad spirits and the spread of the sickness. After some time, the villagers' health recovered, and so they paid gratitude and respect to the wild taro. Since that time, villagers have not eaten or brought wild taro into the village.

The taboo on wild banana started in the war period of the eighteenth century, when a traditional leader was arrested for several days. Later, he had the chance to escape into a wild banana farm, clearing a path to enter. After he entered, the wild banana suddenly grew up again, hiding his path. The enemy thought that the man had gone another way and so kept searching. The wild banana spirit had confused the enemy, and villagers have believed this spirit to be very powerful.

The taboo related to pythons emerged during the same period, before the French came to Cambodia. Krola elders tell of enemies marching into the village planning to arrest or kill the villagers, but that the power of the python created a wide and deep river that blocked the enemy's path. They were not able to reach the village boundaries, and these enemies never came to disturb the villagers again. Villagers in Krola therefore consider the python a powerful spirit, and the taboo on harming or disturbing pythons is one that villagers have respected for hundreds of years.

Eating monkey is also considered a taboo, even though villagers do not consider the monkey as having a spirit. Monkeys usually live in large forest or mountain areas, including in the spirit forest of Krola village. Villagers therefore consider monkey as associated with the spirits, and do not eat them. If someone kills and eats a monkey, it is believed that this would cause illness. Krola villagers also believe that if they eat such things as eel, dog, turtle, pongolin, toad, or owl, it could cause a low agricultural yield, their houses would burn down or cause other dangers. There are also taboos specifically for women, for example, it is believed that eating dove would make a woman sterile. Some villagers have changed their behavior since the time of the Pol Pot regime however. The wild taro, wild bamboo shoot and some kinds of sacred fish were cooked for meals in the *Sahakor* (cooperative). Also during the late 1990s, various taboos on wild animals and plants were increasingly overlooked in Yak Kaol, with many of these sacred species being hunted or collected.

Taboos related to the guardian spirit ceremony in the village are still observed. Once the ceremony has taken place, villagers tie leaves at the village entrance. Tree leaves are used as a symbol that forbids entry or exit from the village. Spirit mediums (Mey Arak) also ban everyone from entering or leaving the village for three to five days. If someone violates or breaks these rules they are fined a chicken, pig, cow or buffalo, as well as a wine jar. Sometimes the offender has to compensate for the violation by performing the ceremony again. This fine is to force villagers to respect customary law and taboo in order to protect them from endanger. If villagers do not believe, they would fall ill or even die, to prove this, the farmers narrated the story of Mr. Bang Ngan's brother-in-law who was a Khmer married to a Kreung girl. In 1999 Krola village prepared communal ceremony. Elders and spirit mediums informed to all villagers to rest for few days at home. But this man had to return back to work in a brick factory as his leave had finished. In this way he broke the customary law and taboo that ultimately led to his death a week later while digging soil.

In Krola, villagers perform ritual ceremonies and respect many taboos to appease the spirits and ensure happiness, health and high-yielding harvests. The spiritual ceremonies can be divided into three main categories; (i) illness ceremonies; (ii) village ceremonies; and (iii) rituals in traditional agriculture. These traditional ceremonies often are performed within families or clans and with neighboring communities. These traditional ceremonies are meaningful not only as religious

activities, but also play a crucial role in terms of social functions and the exchange of gifts, labor and resources.

5.4 Housing and Family Structure

The housing structure used by ethnic groups varies widely. The Kreung, Tampuan, Brao and Kavet live in extended houses with family clans, and the Jarai live in long houses. Traditionally, the housing styles and materials used for construction are similar. The houses are constructed from bamboo, vines, and small wooden columns, with roofing made from bamboo, grass, and *Katna* leaves. The Brao and Kavet prefer to build houses with bamboo. Since 2000, Krola villagers have built many wooden houses with zinc roofing. In late 2003, a communal hall was also built with a zinc roof and wooden walls. These developments are similar to those in other communities, where modern houses have been built with wooden columns and zinc roofs, in particular those located near the national and provincial roads in Koun Mom and O'Chum Districts (Figure 5.5). Thus, villagers have adopted the modern life-style from day-to-day through the process of local community development.

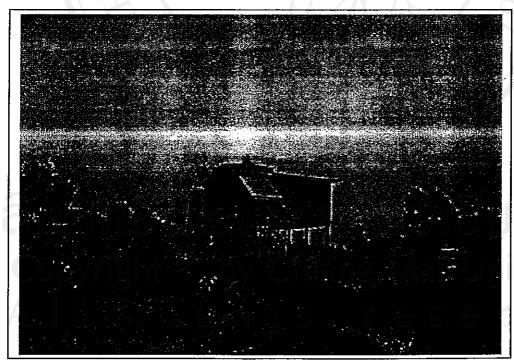


Figure 5.5: Modern Housing Photographed by author May 02, 2003

Traditionally, there were many kinds of Kreung housing structures, all with different functions. Many small houses (*Hnam Mek*) (Figure 5.6) were built surrounding and facing the extended house or main house (*Hnam Tih*), with the main house facing the *Rong*.

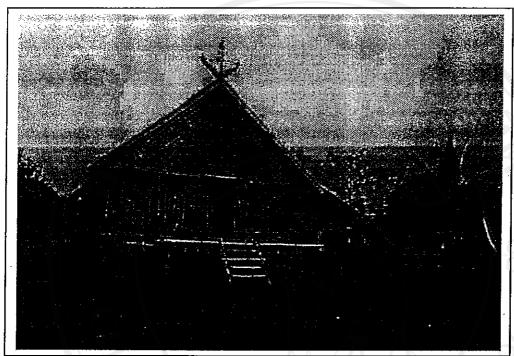


Figure 5.6: Extended House Style Photographed by author May 01, 2003

The main houses and small houses were used by people of different status, as determined by age, marital status, and position in the family group. The type of house also identifies the family's clan. The *Rong*, which the main house face, represents Kreung social and cultural values and supports a sense of community, under the authority of parents and traditional leaders. In this sense, housing structure indicates that young people learn from their parents' and elders' experiences, and their parents learn from traditional leaders, who often transfer their culture and knowledge during meetings or ceremonies in the *Rong*.

Small houses (see Figure 5.7) are inhabited by young women (13 to 18 years of age), or newly-married couples, who are all under the authority of the head of the family. These small houses are for sleeping only. All villagers living in small houses have meals in the main house. Krola traditionally also had tall houses (see Figure 5.7) built close to the *Rong* where young men often stayed during winter.

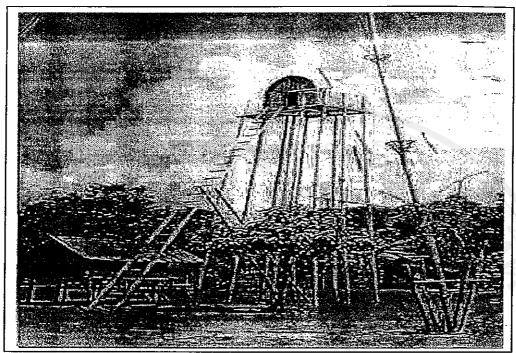


Figure 5.7: Small House and Tall House Style Photographed by author June 02, 2003

The tall houses provided a social space for bachelors to organize their social lives rather than to live in. Young men often went to these tall houses to chat with friends and then visit their girlfriends and sometime, stay the night with them. This type of house no longer exists in Krola community. It shows a significant impoverishment of cultural values and identity. However, young men now stay in the rice storage house, where I stayed during my fieldwork. Overall, the tall houses and small houses are symbols of Kreung community, of the different generations, and differentiation among family clans.

In terms of marital relations, in Kreung society, it is permissible for boys and girls to establish relationships before marriage. Boys and girls are strictly prohibited to wed within the same clan. The marriage system is bi-local with males and females free to marry within and between communities, or between different ethnic groups. The wedding ceremony is usually conducted in the bride's house. After marriage, the new couples live with the family of the bride for two to six years. They then move to live with the groom's parents for the same period of time. There is no fixed period of time that the couples have to stay with their parents. They can move at any time, if necessary. For a while, they stay with their parents or parents-in-law, and help them by working on farm, carrying water, and cooking food.

Couples usually move after the harvest time, when they would have built a small house near their parents' house. If they do not build a house, they stay in the extended house. Before the couples leave for a new settlement, they often prepare a feast with at least two jars of wine and a chicken. Their family clans come from other settlements to assist with the move. As White (1995) commented in her study of 'Of Spirit and Services: Health and Healing among Hill Tribes of Ratanakiri, Cambodia', there is often a tearful send-off from the old home.

Couples often keep moving between houses until they gain enough experience and have learned different agricultural techniques, such as, how to select shifting cultivation plots and appropriate seeds. In this way, their lives are centered on their families' kinship structures and the practice of their traditional culture. This movement of newly-married couples is common in Krola, and the labor input to take care of their cashew farms and fruit trees. Couples may also go to other villages, if necessary, to live with their parents who have health concerns. This mobility within the community helps to build a sense of solidarity, and facilitates the transfer of knowledge and is one expression of their communal culture. White (1995) also found that this kind of mobility could be seen to have wider social importance in terms of affirming and maintaining links between families and communities.

In Krola village, there is great change and diversity in the community. While villagers increased their household income (see Table 5.2), the population also increased because of the returned of soldiers and policemen who resigned from their services, and the return of refugees from the Chayu Mountain camp. These groups of people can be classified into four categories according to socio-economic status. There are seven wealthy families, who have several shifting cultivation plots and cashew farms. Their income sources come from both agriculture and off-farm employment. They sell cashew nuts, sesame seeds, cattle, and pigs and have off-farm employment in small-scale trade or as NGO workers. Family members work for the NTFP, the NNRM, the Khmer Leu Association, CIDSE and CARE, in the role of community officers. This work includes community mobilization, natural resource management, political advocacy, integrated community development, and informal education. Some people also work for government workers, such as, the Commune Council and the Department of Transportation and Communication (see Table 5.1).

These families earn an average of two to three million Riel per year and live in beautiful wooden houses (see Table 5.2).

Table 5.1: Villager Classifications

177 21	Land Use ¹				A T 6	
Family Status	Cashew Swidden Wetlan Rice		Wetland Rice	Housing style	No. of Households	
Wealthy families	3	2-3	1	Wooden house, zinc roof	627	
Medium- income families	1-2	2	0.5	Large house, bamboo roof	25	
Female- headed households	1	1	0.5	Small house, live with family clan	12	
Poorer families	<1	1	<0.5	Small house, or live with family clan	55	

Table 5.2: Household Income Sources

Family Status	Income ²	Income Sources						
Wealthy families	2-3	Cashew nut	Sesame	Cattle	Pig	Rice	Trade	GO, NGO work
Medium- income families	1-2	Cashew nut	Sesame	Cattle	Pig	Fruit		?
Female-headed households	Mb wight	Cashew	Sesame	Vege Table	Wage labor	Ul (ai		Ut
Poorer families	<1	Cashew nut	Sesame	Wage labor	Basket Work	Hunt- ing	e r	V

There are 25 medium-income households and each occupying one to two hectares of land, with an income ranging from one to two million Riel per year. Some female-headed households live in small houses with other family or clan members. These

¹ Unit of Measurement of Land-use is hectare

² Unit of Measurement of Income is million Rie!

households rely on financial, labor and food support from their families and clans. Finally, there are poorer family members that own less than one hectare of land. They often suffer from shortages of rice during the year, are partially dependent on community assistance. They often work as laborers within and outside the community. Villagers who work outside of the community are often absent from traditional social ceremonies. Some of these poorer families have converted to Christianity because they had difficulties maintaining traditional customs that require the sacrifice of a pig or other offerings to the spirits. These families generally do not have a great deal of capital to invest in their farms (Table 5.2).

Wealthier families obviously have more resources to invest in their farms and trade. They also have more household property including buffaloes and cows, which are often inherited from their parents. They have fewer gongs and chickens than medium-income families, but have modern assets, such as, tape recorders, radios, motorcycles and so on. These families have largely adapted to a modern life-style, and are less interested in traditional assets. However, they still keep some wine jars and gongs for traditional ceremonies. In contrast, female-headed families and poorer families cannot afford to buy modern assets or even maintain their traditional assets (Table 5.3 and Table 5.4).

Table 5.3: Traditional Household Assets

Family status		Stock	(average	TNITS	Material		
	Buffalo	Cattle	Pigs	Chickens	Gongs	Wine Jars	
Wealthy families	2	12	10	14	2	8	
Medium- income families	IP:		8	20	4	6	
Female-headed households	18 _# 14	2	3	8	I	5	
Poorer families	#	#	2	6	>1	4	

Table 5.4: Modern Household Assets

	Household Goods and Transport						
Family Status	Videos Tape Recorders		Radios	Motor cycles	Bicycles		
Wealthy families	1	1	1	1	2		
Medium-income families		N31E	I I DO	1	2		
Female-headed households	#	#		#	1		
Poorer families	#	#	#	#	<10		

In general, elders pay much attention to maintaining and preserving their traditional culture, as well as keeping traditional assets, such as, gongs, musical instruments, and weaving equipment, which are displayed proudly in their homes. Certain gongs and a drum have been preserved through communal ownership. Other assets under communal ownership include the school, the *Rong*, rice milling machines, cattle, buffaloes, well, well pump and rice storage hut. Therefore, these facilities changed the community landscapes after running local development projects in 1995. Krola villagers have changed their living conditions, with increased selling of agricultural products and handicraft, and in turn, buying a lot of market products in order to supplement household needs.

5.5 Village Structure

Due to the transformation of local community, Krola village has changed traditional structure through the implementation of government and NGOs programs. In the mean time, the Seila Program initiated the local governance system to reorganize local structures. CIDSE and NTFP put an effort to strengthen traditional leaders and new village leaderships to develop their own community. In the process of development can be seen that local structures were reinforced by the bureaucracy of the state and influenced by NGOs. It can be seen that now there are several social organizations within the Krola village that initiates local development projects.

These organizations range from local administration to health issues. Each of these groups has their own roles and responsibilities in village life.

Table 5.5: Village Structure

Institutions	Roles and Responsibilities					
zustitutions	Functions performed	Comments				
Village chief	- Conflict resolution - Community mobilization - Communication with local authorities and NGOs	 Politically influences villagers Disliked by villagers Involved in government works Appointed by local authority 				
The Traditional leaders or traditional elders	- Conflict resolution - Community mobilization - Transferring knowledge - Promotion of mutual respect - Preparation of spiritual ceremonies - Creation of customary laws or taboos	- No enforcement authority - Informal organization - Lack of contact with government authorities and NGOs - Different views from youth				
Village Development Committee Members	- Project planning - Extension of development policies - Mobilization of human resources and capital - Encouragement of villagers to participate in projects - Works closely with commune councilors and NGOs	- Difficulties collecting fees - Work is time consuming with many meetings - Lack of support from government - Little time to work at home				
Land Use Committee Members	- Natural resource management - Decision making on land use - Resolution of conflicts over land	- Lack of support from government - Lack of means of communication with development workers - Difficulties resolving conflicts				
Sub-Committees	of the Village Development Committee	nσ Mai Univ				
Rice Milling Machine Sub-committee	- Collection of fees for use of machine - Selling of rice - Operation and maintenance	reser				
Well pump Sub-committee	- Collection of fees for use - Maintenance					
Tree nursery Sub-committee	-Distribution of young trees - Care of nursery trees					

Veterinary Agency Sub-committee	- Provision of vaccinations, veterinary services.	- Administer seasonal vaccinations for livestock
Cow and Buffalo Bank Sub-committee	 Distribution of livestock to villagers Communication with veterinary agency Managing sale of livestock 	าลยเชีย ng Mai Univ
Credit Union	- Management of loans for villagers - Collection of interest on loans from villagers	Interest ranges from 1% to 3%: 1% for poorer families, 2% for female-headed households, 3% for village traders.
Rice Bank Sub-committee	-Collection of rice from different groups in community - Management of rice borrowed by villagers	BERSITA
Midwifery Group Sub-committee	- Promotion of health awareness, sanitation and hygiene - Provision of birth control and midwifery assistance	7 / 5
Women's Group Sub-committee	- Extension of women's rights - Motivating women to participate in development projects - Promotion of health awareness, sanitation and hygiene	
Formal and Informal Education Sub-committee	- Teaching and motivating students and parents - Development of curricula including traditional knowledge and cultures	
Agricultural Demonstration Plot Sub-committee	- Transferring technical knowledge - Identification of seeds/crops - Distribution of seeds/crops	- Lack of understanding of agricultural techniques - Lack of support from government - Difficulties selecting seeds/crops - Lack of agricultural equipment
	- Extension of planting techniques - Collection of fees on selling young trees	

5.5.1 Administrative System

The village chief and the traditional leaders are considered very important in Kreung society since they carry out important community and social functions, such as, conflict resolution, and encouraging people to work collectively for the wider interests of the village. Both create sources of social capital and community resources in terms of supporting and mobilizing community members to participate in development processes.

The traditional leaders is composed of seven members who play key roles in promoting the social values and customary practices related to specific ceremonies, or customary laws and taboos for controlling the utilization of natural resources. This group also exchanges views and experiences with younger generations. The village chief and deputy chief are involved closely with NGOs, local authorities and higher levels of government administration. The village chief acts as a local authority and has great influence on villager's livelihoods by encouraging them to participate in communal works, including the construction of rice banks, the *Rong* or schools. In this way the village chief is able to mobilize local contributions and labor for development projects.

These traditional leaders and the village chief sometimes play similar roles in the community promoting participation in the development projects, especially in land use and forest management. They therefore often have to collaborate and also consult knowledgeable younger people who have experience working outside of the community.

5.5.2 Village Development Committee

The Village Development Committee (VDC) in Krola was created in 1994, with members selected through voting by community members. The VDC was comprised of seven members (four men and three women) and was the lowest rung in the government administration system. The VDC holds responsibilities for various development projects, such as, developing work plans, monitoring and evaluating projects, and extending relevant information and knowledge to villagers. They are the key people communicating with NGOs, such as, CIDSE, NTFP, HU, CARE and government agencies include the Seila Program, Department of Rural Development, Department of Agriculture and so on.

Moreover, VDC members strengthened their capacity for development planning by CIDSE and the Seila Program. The capacity-building were provided through training sessions, workshops, meetings and study tours. Therefore, the VDC acted as volunteers serving community development projects, but members had little time for household work and often complained to NGOs and government development workers that they were unable to support their families.

5.5.3 Land Use Committee

The Land Use Committee has five members, consisting of three men and two They initiated work in 1996 to help secure the rights of their local women. community, especially regarding land and forest. In 1997, this committee collaborated with the NTFP to set up rules and regulations for land use and forest The committee initiated the demarcation and mapping of the community boundary in 2000. In the process of demarcation, the committee hosted a workshop at the commune level, and inviting neighboring communities and local government authorities to discuss rules and regulations for land and forest utilization and then disseminate this information. They also work to promote knowledge of community rights in relation to the Forest Law and the Land Law, which the Land Use Committee members and other knowledgeable people working with the NTFP and NNRM often explain during community meetings held at night. In addition, Krola Land Use Committee members have been on study tours to many other provinces, such as, Kompong Thom, Siem Reap and Komport, as well as a study tour to Chiang Mai, Thailand in 1996 and 1997 that was arranged by the Social Research Institute at Chiang Mai University.

The Land Use Committee has been successful in developing community-based rules and regulations, and influenced the creation of national resource management laws (Forest and Land Laws) 1999. In 2002, the provincial authority officially recognized these rules and regulations (see section 5.6.5).

5.6 Changes of Livelihood Strategies and Natural Resource Utilization

Historically, Kreung people believed that Arak Dhak and Arak Bedeh (the water spirit and the land spirit) provided them with a wealth of resources to support their livelihoods. Local livelihoods traditionally relied on shifting cultivation, supplemented by the hunting of wildlife, gathering plants and vegetables, and fishing activities. With development process, villagers have greatly transformed their

livelihood strategies, which they have increasingly raised cows, buffaloes, pigs and chickens in the mid-1990s. Many wealthy villagers also started growing wetland rice and invested in small-scale business, while the poor hired wage labor. Villagers have thus adapted their strategies for maintaining livelihoods in changing conditions, which are illustrated in the following.

Every day the women of the village usually collect water, pound rice (although since 2000, villagers have also used the rice milling machine) and prepare knives and Glouk Dak Teuk (water containers) for use on their farms. Villagers in Krola go to their farms at 6 or 7 in the morning. From 7 or 8 am, women collect vegetables and edible leaves growing on their farms and along streams. Men check the wildlife and fish traps. Everyone eats cold rice for breakfast around 9 am, and then continues their work until mid-day. At lunchtime, if any family does not have enough vegetables, they collect more plants while the rice is steaming. Lunch is then eaten around 1 pm. After lunch, men make Kapha (baskets carried on the back) or chicken pens, while women make rice storage boxes (Figure 5.8) and bamboo mats. Sometimes the women also look for lice in their children's hair. Everyone then works on the farm again until four or five in the afternoon. When they come back, women often carry a basket on their backs with firewood and wild leaves, and men carry the small children, bamboo or crossbows.

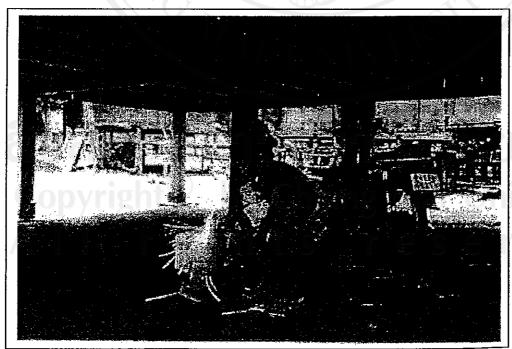


Figure 5.8: A Women Made Rice-Keeping Box Photographed by author December 17, 2003

The majority of farm work is dependent on the seasons, with villagers either working in the fields or the forest, gathering plants, hunting birds and small animals or fishing. At times, people stay in the village to join feasts, or to recover from illness. During February and March, villagers have more free time for work, such as, collecting bamboo, vines and wood for the construction of new houses or house repairs, or looking for agricultural materials. In addition, men gather wild fruit, such as, malva nuts, mangoes, rambutan, *Plai khuy* and *Plai Phnov* and women collect bamboo shoots, mushrooms, weaving materials and *Katna* leaves as roofing for their houses. Traditionally, women spent time weaving cloth or colored blankets and also spun cotton, but weaving is now rarely practiced. During February and March there are many traditional social activities, and ritual ceremonies, such as, weddings, couples moving house, and blacksmith work. Ceremonies related to certain illnesses are often conducted at this time to appease the spirits and ensure good health and a successful agricultural season (see Appendix B). In the following section describes the changes of local community landscapes related to livelihood bases.

5.6.1 Changing in Traditional Land Use

Traditionally, Kreung villagers of Krola village have practiced shifting cultivation, which can be expanded up to the point where they reach the shifting cultivation plots of other villages. There is a taboo against expanding shifting cultivation plots cross village boundaries or extending them across established walkways. Agricultural practices are frequently determined by dreams and the observation of taboos, so that the belief system is highly significant in such things as the selection of shifting cultivation plots. Taboos also guide traditional land use management and the selection of spirit forests, burial forests, and protected forest areas. The most complex and important process is the selection of the village settlement area.

The selection of shifting cultivation plots and spirit forests is carried out by the traditional leaders and spirit mediums through traditional methods including dreams. The traditional demarcation of village boundaries is based on the location of streams, mountains and forests. If necessary, elders negotiate boundaries with neighboring villages. Colm (1997b), in her study of 'Land Rights: The challenge for Ratanakiri's Indigenous Communities' finds that the demarcation of village cultivation boundaries

is not seen as necessary unless agricultural land from one village reaches another village's areas. Generally, the limits of a village's agricultural land in Kreung community is determined by customary laws and taboos rather than formal legislation. In ethnic minority community, shifting cultivation plots are rotated within a certain locality. Land conflicts can happen between communities, because boundaries are unclear.

Krola village has strong institutions to manage land use, with the traditional leaders collaborating with new social organizations, such as, the Land Use Committee. The Land Use Committee is supported by the NTFP to uphold local land tenure systems based on local rules and regulations of land use planning and forest management. The Land Use Committee assists and coordinates work with the traditional leaders and the village chief to manage land and forest resources for sustainable use by the local community.

Each household participates in the system of land and forest resource management. Women play an essential role in land-use decision-making process, including choosing location and size of the family's shifting cultivation plots. Since the emergence of cash crop production in the mid-1990s, men have involved more in choosing the location of fields for perennial crops (*Chamkar* cashew). Therefore, land use and forest tenure involves collective decision making in line with customary practices, granting equal rights to occupy a piece of land. Finally, customary practices are defined by the traditional leaders, who maintain the taboos and spiritual belief system.

Due to population growth within the community, villagers now require more and more agricultural land. The traditional leaders have to manage land use so that each household obtains five hectares. This system can help vulnerable people, such as, widows, giving them adequate access to land, as well as securing community land from competition for individual use among community members.

It should be pointed out here that households occupy cashew farms individually, whereas shifting cultivation plots are considered to be communal land. Cashew farms are inherited by family's children. For shifting cultivation plots, villagers have the right to transfer the land to other community members or share the benefits of the land. As mentioned earlier, if previous users of a piece of land planted fruit trees, the

new family is required to look after the fruit trees and share the harvest. In this way, land-use systems are restricted by customary laws. If a family wants to reuse an old shifting cultivation plot they must ask for permission from the previous landholder.

Customary laws and taboos are traditional rules and regulations, which have been practiced by villagers for generations. However, due to population growth and wealthy families have increasingly invested farmland that led to shortage of land use among community members. Additionally, communal land was transferred the use rights as individual. In the meantime, Traditional leaders and Land Use Committee put an effort to prevent conflicts within and between communities by strengthening the traditional land use system. Thus, the traditional leaders play a crucial role in local natural resource management, overseeing these rules and regulations and facilitating conflict resolution.

5.6.2 Changes of Forest Utilization

The daily diet of Krola villagers in Yak Kaol community has consisted of plants, vegetables and small wild animals for centuries. Traditionally, hunters have used crossbows, slingshots, snares and traps (Figure 5.9).



Figure 5.9: Hunter with the Crossbow Photographed by author December 27, 2003

Crossbows of different sizes are used, depending on the kinds of animals and birds to be hunted. Sometimes hunters also use natural poison on the arrow points to hunt deer or pig. A Krola elder commented that when villagers want to hunt a male wild pig, they often pray to the spirits by sacrificing a chicken and offering locally-made rice wine. Villagers are not always willing to walk for two or three days into the jungle to hunt, they often hunt small wild animals near the spirit forests, offering food, rice wine and sacrificed chickens to the spirits, and waiting until wildlife runs out from the forest to catch it.

Traditional hunting methods can be viewed as cultural practices. Every morning, men check traps they have set near their farms, and hunting in forest areas is usually done in groups. Hunting is often when free from other duties or during important events. To catch birds, hunters usually hide in a small hut covered by tree leaves and built near a water source or Chroam (saltlick), where birds often come to drink. Deer also come to drink in this area. Another method used for hunting in the dry season is for villagers to smear glue on tree branches in order to catch rodents, squirrels and small birds.

In the evening, some young people usually go hunting in the forest with their relatives, and sometimes the older men go hunting and trapping within their *Chamkar*. They often catch squirrels, mongoose, rodents, jungle fowls, wild chickens, small birds and barking deer and wild meat is usually shared among families or clans. Young men sometimes sell wild animals, such as, civet cats, pangolins, wildcats and owls at Banlung market. One former policeman who lives in Krola used to hunt wild animals with his friends, and he has become wealthy through the selling of wildlife, and now that amount of money became the capital for running a small-scale business.

In fact, the traditional hunting methods include taboos that do not allow hunters to exploit forest animals. For instance, hunters cannot set fish and animal traps at the same time and on the same path. A Krola elder said that "If a hunter breaks a rule, he will lose his way, a tiger will bite him, or he will fall in an animal trap" (An elder in Krola interviewed December 27, 2003).

Bourdier (1995 cited in Zweers et al., 2003:18) finds that wildlife constituted only a small proportion of the traditional diet in Tampuon communities of Yak Loam in Banlung District. It is the same true today to ethnic Kreung community in Yak Kaol.

Meat is more commonly supplied by domestic animals, such as, buffaloes, pigs, and chickens, which are often eaten during ceremonies. Thus, villagers consume a minimal amount of wildlife and the use of simple hunting methods helps to ensure that hunting practices remain sustainable.

Wildlife populations have declined in Yak Kaol community, since the civil war of Cambodia in the 1980s and 1990s. This was partly due to the fact that during period, many villagers and soldiers used guns for hunting. More recently, wildlife had drastically declined in 1998 and 1999 due to hunting by Hero Taiwan workers and military guards used gun for hunting.

Since the 1990s, the forest resources and wildlife in Krola of Yak Kaol community have been seriously depleted and villagers have needed to adapt to new environments. Villagers now have more difficulty gathering plants and vegetables for subsistence. A Krola villager stated that:

We are too tired to collect any plants, because they are very far away from the village. Now every morning we have to travel, trying to collect vegetables along the path or near stream. Sometimes, we collect mushrooms, cassava leaves, chili, banana trunks and bamboo shoots within our *Chamkar* and nearby bush. We also collect vines, bamboo, rattan and *Katna* leaves for use in the construction of household materials. But all of these foods and materials are very hard to find in our community.

(Krola villager interviewed December 27, 2003)

Fishing activities take place in family or community groups, who fish along streams, ponds or in small pools early in the dry season. The fishing method used from June to October is the setting of Laiy (barrage traps), which are placed in streams. During February and March, villagers usually block water upstream until the water area empties, making it easier to catch fish. This activity is also often carried out by several family members. Additionally, villagers use Chneang (small bamboo basket) and Snarch to catch fish, crab, shrimp and snail. The catch is shared among groups, for consumption purposes rather than for selling. Fishing activities in Yak Kaol community have reduced in recent years since many streams and lakes have dried up due to timber blocking the streams. There are also fewer fish because of the use of electric shocks and explosives in fishing. Therefore, villagers often have inadequate supplies of fish, a food that was once part of their daily diet. This deficiency is now affecting villagers' health with diets lacking in nutrients and protein. Thus, villagers changed from forest resources bases to farming products,

which they depended upon the vegetables and domestic animal meats for their diet subsistence.

5.6.3 Livestock Production in Household Income

With natural resources were depleted (see Chapter III), Krola villagers adapted new livelihoods strategies for support their household needs. In the meantime, they raise livestock, such as, cattle, buffalo, and pigs. Livestock-rearing systems in the highlands are similar between ethnic groups. Traditionally, raising livestock was not done for income generation or for use as draft animals; instead, livestock served as a dietary supplement during spiritual or wedding ceremonies. During my stay for two months in April and May 2003 at Krola village, one pig and/or one chicken were sacrificed in each house.

In recent years, then, cattle and buffalos have not been used only for food, but also to plough fields. Cattle, buffaloes and pigs are not sold, but exchanged for household property when villagers face food shortages. During the French colonial period and the Prince Norodom Sihanouk era, the Kreung exchanged cattle for bronze gongs and ceramic wine jars with the Lao and Brao from Veunsai District, who also associated with lowlanders from Stung Treng and Laos. The Kreung bought bronze gongs and ceramic wine jars from the Jarai (in the O'Yadao and Andong Meas Districts) who often associated with the Central Highlands of Vietnam for the trade of goods. During the 1980s, cattle and buffaloes were often exchanged for rice, while in the 1990s villagers sometimes sold livestock for cash to buy household goods or gold. Then in 2003, the village chief and traditional leaders in Krola discussed with villagers a plan to sell the communal cattle to raise some money to build a communal hall.

Historically, animals grazed freely in the area surrounding the village. Since 2000, however, each village has been demarcated with a clear village boundary, and cattle and buffaloes are not permitted to move freely across these boundaries. In particular, the owners of cattle, or their children, have to herd their livestock strictly within village boundaries. Wealthy families usually hire people to care for their cattle, and pigs are kept in pens during the agricultural season in order to avoid destroying villagers' farms. Cattle are now kept closer to the village or at the

Chamkar, and sometimes kept in paddy fields or in the village. The cattle of the village chief graze in bush around the village every day. There is usually no problem with cattle theft, but disease has affected the herds in Yak Kaol community.

In Krola, though, many households have had conflicts with the village chief because his cattle and pigs roam freely across the villagers' farms. The villagers were very angry and tried to force the village chief out of his position as a head of VDC in 2000. Eventually, the traditional leaders were able to settle the case. They argued that the village chief was one of the key people leading village works and communicating with NGOs and local authorities, and so decided to maintain one of his positions as village chief until nowadays. However, the village chief was embarrassed by the incident and he lived at his farm for a length of time. Afterwards, he built a new wooden house in late 2003, though and now frequently stays in the village.

In many ways, the basic livelihood structure in Krola village has been transforming. It is evident that the raising of livestock can generate household income and also provide draft animals for agricultural work, reducing villagers' workload. Furthermore, the livestock provides essential nutrition and protein for villagers. However, the demarcation of village boundaries restricting the movement of livestock has sometimes led to conflict between community members.

5.6.4 Diversification of Livelihood Strategies

Villagers depend upon rice farming as a source of income and subsistence in the 1990s. Traditionally, shifting cultivation plots or *Chamkar* are cleared in January and February, but since 2000, some villagers begin this work mostly in February because they weed the cashew nut farms. In March and April, they burn trees that have been cleared from the plots, and planting starts in the beginning of the rainy season in late May (see Appendix B). Villagers grow rice, varieties of vegetable, and fruit trees in the shifting cultivation plots. Vegetables that are grown include corn, sponge gourd, cucumber, eggplant, chili, cassava, and pumpkin. McAndrew (2001) and Fox (1997a) found that at least 35 types of crops are grown together in the plots (see Appendix C) in their studies on 'Indigenous Adaptation to a Rapidly Changing Economy' and

'Customary Land Use Practices and Resources Tenure Systems Among Kreung and Tampuon Communities in Northeastern Cambodia'.

Before choosing shifting cultivation plots, villagers extend cultivation around the edges of the original cultivation field. After using this area for three to five years, villagers shift to another place. Villagers prefer to have shifting cultivation plots close to a stream for irrigation, and within an hour's walk from the village as they usually go back and forth to the village every day. When not in use the shifting cultivation plots are left fallow for 10 to 15 years, allowing trees to regenerate as secondary forest.

The population in Krola increased after 1998, with many people returning from the Khmer Rouge Chayu camp, as well as former soldiers and policemen coming home, and acquiring shifting cultivation plots or wetland rice fields near the village. In 2000, many people also moved from Banlung town to live in Krola in order to obtain a parcel of farmland. Now land is no longer available with equal access for everyone in the local community. Villagers must walk far from their homes if they want to add or extend shifting cultivation plots. This also constrains newly-married couples who have not inherited land from their parents. These families must clear new shifting cultivation plots far from the village.

Since 2000, each family in Krola has occupied a shifting cultivation plot of less than one hectare, which has increased the pressure on soil fertility with shorter fallow periods. Sometimes, they have no choice but to use less fertile land. Some villagers have intensively diversified their crops and have been able to invest heavily in crop production and agricultural equipment, such as, hire laborers and buy grass-cutting machines. Some villagers have also invested in wetland rice production by improving irrigation systems and using more draft animals for ploughing the rice fields. Other families have begun working on rubber plantations in the Banlung and O'Chum Districts and a few people have become motorcycles taxi drivers, transporting agricultural products and villagers to Banlung town. A few families run grocery shops, karaoke parlors and trade cashew nuts in Banlung market.

The members of poorer families increasingly hire their labor both within and outside the community, especially for seasonal work, such as, weeding cashew plantations and making fences. Outside of the agricultural season, the men of poor

families carry wood from the forest for wealthier families to use for building their houses. They also work for construction companies far from the community. Wives and children in poor families have also increased their wage labor, weeding cashew farms in exchange for salt, MSG, kerosene, and rice. These families in Krola are also increasingly selling products, such as, baskets, winnows, gourds, hunting equipments, rice keeping boxes, fruit and vegetables (Figure 5.10).

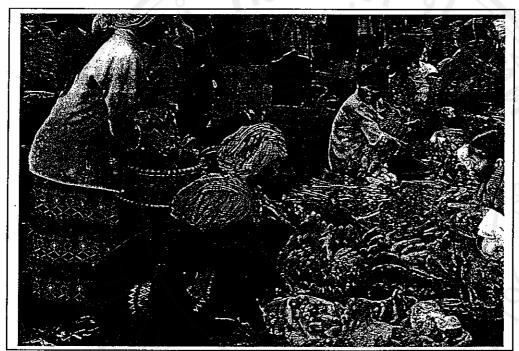


Figure 5.10: Ethnic Minority People Selling Vegetables in Banlung Market Source: CIDSE, Ratanakiri 2003

Recently, Hasselskog et al. (2000:9) found that villager livelihoods in upland communities in Ratanakiri had shifted from a high degree of self-sufficiency to a stronger reliance on market exchanges. I also find her study is similar in Krola villagers frequently have access to markets to buy household necessities. They have increased agricultural and non-agricultural production in order to generate more income, and support an increased need to purchase goods. This means that Krola villagers use intensive labor to increase local products and use farmland for longer periods than they previously did. Villagers have therefore adapted to new livelihood strategies by diversifying their cash-crop production and participating in a range of income-generating off-farm jobs.

5.6.5 Adaptation to New Land Use Systems

Up to the 1990s, there was sufficient land for everyone in Krola village to practice shifting cultivation. Each household had three to five shifting cultivation plots, rotating these within community boundaries. Krola villagers have recently faced serious constraints on their livelihoods because of government largely restricted on forestland and also practice of shifting cultivation in 1995. Further, international and national entrepreneurs become landholders authorized by government to invest in crops productions. At the same time, migrants of lowland also settle in ethnic minority communities and clear farmland, affecting land to be preserved for a secondary forest, and other environmental changes, such as, drought, and the prevalence of weeds that spoiled seeds or caused the seeds to not grow well. These effects livelihoods of ethnic minority people and lead to adapt new way of life can be seen in the following explanation.

In 2000, some wealthier families in Krola began to open up wetland rice fields along stream areas, where are belonging to community, paying laborers to clear these patches. At the same time, some families were interested in developing cashew farms. A member of Krola village commented, "Wetland rice fields are mono-crop productions. We never used to farm wetland rice in our community. We were used to shifting cultivation practices since our ancestral period" (a villager in Krola interviewed January 10, 2004). Other villagers have argued that "Shifting cultivation plots and wetland rice fields could supplement each other. Many families have increased their rice production, with support from the agricultural extension agency program" (Villager in Krola interviewed January 10, 2004). Thus, in 1995, CIDSE sponsored the building of a small irrigation dam in the O'Tang area, where 35 Krola families owned wetland rice fields. Every family received four plots of land, approximately half a hectare, and now farms both upland rice and wetland rice fields.

The development process in the 1990s changed the use and ownership of natural resources in Yak Kaol community. Utilization patterns are increasingly shifting from local use for basic needs to non-local use for commercial purposes. A number of significant events clearly influenced these developments in the Kreung community. In 1992, the provincial road reestablished the connection between the provincial town and the Taveng District. The land along this road including Krola village, was then

posted with many signs staking claim to pieces of land in varying sizes from 5 to 200 hectares (Figure 5.11).

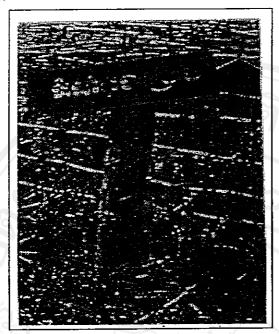
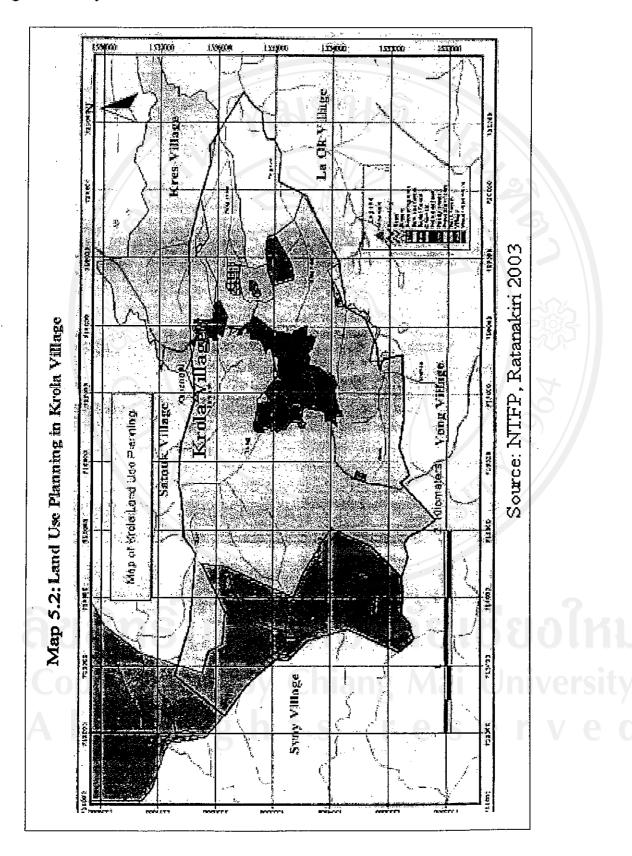


Figure 5.11: Sign Claiming Community Land Source: NTFP Ratanakiri 2002

In 1993, however, villagers collaborated with commune authorities to remove them. In late 1996, villagers took action as a public protest against the loss of their ancestral community, and later many villagers occupying a piece of land along the main road. In 1997, Krola villagers collaborated with the NTFP to identify and map an area covering 1,200 hectares, and classified land-use into several types, such as, paddy fields, shifting cultivation plots, a water reserve forest, a bamboo forest, a burial forest, the spirit forest, the Romal Khal forest in the Yak Kaol community forest, individual plots, village land, and a village protection forest (Map 5.2).

The boundary demarcations for Krola have been made with the agreement of neighboring communities. At the same time, the community developed rules and regulations on how to manage the resources within these boundaries. In addition, in 1998 GTZ assisted with a Land Titling Project, developed a land-use map and land-use rules and regulations in agreement with local community members. In 2002, this land-use plan was recognized by the provincial authority, but has not yet been recognized as a standardized system. The recognition of the provincial authority was granted for temporary purposes only. During the workshop held in Yak Kaol community on December 29, 2003, the provincial authority stated, "Rules and

regulations of land-use planning in Krola village could be changed by the national agencies at any time."



The local community has therefore been living with a great degree of uncertainty and insecurity. Conflicts often occur with neighboring communities due to disagreements over land-use rights. A standardization program for land use for the whole of Ratanakiri province and the nation is under implementation. In 2004 it took effect in the La'En and the La'Eung Kreng village in Ratanakiri province and the Andongpich village in Mondolkiri province. This situation clearly demonstrates that local community rights in terms of established land use patterns have been overlooked, with many development processes also effectively prolonging recognition procedures for community rights, further disadvantaging local people. There have, not surprisingly, been many misunderstandings between local communities and national agencies regarding land use.

For the Krola of Yak Kaol community, land-use planning in local areas is a central part of the community's regulations for land and natural resource management. However, the NTFP (2002) have noted:

Forest clearing for the development of industrial crops, excessive and anarchic exploitation of forest, slash and burn agriculture, land purchasing by elites and migrants from lowlands, and a lack of law enforcement of local authority over natural resources.

Many types of natural resources have been exploited to support the local and national economies and have threatened the natural environment of the region. These issues continue to pose serious challenges for the natural resource utilization, living conditions and cultural maintenance of local communities.

Overall, however, the Krola community aims to guarantee land safety and the sustainable use of natural resources for their community. The rules and regulations of community land use and natural resource management have been set out as follows (translated by the author):

- Shifting cultivation plots belong to the community and are prohibited for sale.
- Each family can access permanent cash crops, not exceeding five hectares.
 They can acquire a new shifting cultivation plot of five hectares in another village but they have to first transfer the existing plot to a parent or relative.
- Shifting cultivation plots shall be regenerated or abandoned within 10 to 15 years, and then become communal property.
- Widows and widowers can access permanent fields for cash crops of five hectares like other villagers. If they remarry, they would then have 10 hectares and must transfer five hectares to their children.

- Villagers who have permanent farms within the village but have been living
 in other places for more than four years will no longer have ownership of
 village land but can transfer user rights to relatives within the village.
- For wetland rice fields, if a villager lives with their parents-in-law in other villages, they have no rights to use land in the village but they can transfer user rights to parents or relatives.
- Owners of wetland rice fields have the right to lease these fields to other members of the village.
- The planting of perennial crops is prohibited in old growth forests.
 Permission from the Land Use Committee or the traditional leaders has to be sought to clear new areas for shifting cultivation. Villagers also have to reach agreement with other community members.

(Rules and Regulations of Land Use Planning in Krola Village 20002)

5.7 Summary

The Krola community relates their livelihood and traditional practices to specific ecological areas, as well as the protection of biodiversity and socio-economic development. The Kreung belief system and customary laws protect the area from the overexploitation of natural resources and also influences livestock and wildlife management, livelihood strategies and ways of live.

Traditional practices support the formation of social networks, creating a sense of solidarity and cultural values. Local institutions are based on collective decision making. Throughout the development process in recent decades traditional leaders have collaborated with local institutions and development workers, which has complicated local networks and relationships. Traditional leaders continue to play a role in religious activities, which supports the exchange of gifts, labor and resources in the community, and during spiritual ceremonies these leaders often transfer traditional knowledge to community members. Strong social relations normally extend among family, kinship and community members. The family relationships play an important role in the social arrangement of labor within the community. Social relations thus create a sense of solidarity and a distinctive community structure.

As upland communities were transformed in the 1990s with increasing influence by the market economy and land became commodity. Additionally, community land was grabbed by outsiders for commercial purpose, while Krola villagers protested. Later, traditional leaders and Land Use Committee mapped communal land. However, due to market economic orientation, which competition emerged among local community members with greater disparity between the rich and the poor in Kreung society. Most families have intensified the use of labor and resources. Wealthier people have had more opportunity to increase their investment in cash-crop productions, while poorer families have increased their income by under-taking waged labor within and outside the community in order to meet their basic needs.

The traditional livelihood structures of the Krola community are dependent on forest resources, many of which have been depleted. Since 1996, villagers have thus concentrated on cash-crop productions and wetland rice cultivation, which require technological equipment and knowledge of new practices. This transformation means that the local community now practices a sedentary farming system under government administrative control rather than being able to set the terms for the development of their own communities.

