Chapter VI

Utilization of Non-timber Forest Products

There is no doubt that forests play a very important role in the daily life and well-being of local population, especially of the ethnic minorities, who live in and nearby the forest areas. In particular, these local population depend on NTFPs as sources of food, fuelwood, fodder, medicines, and construction materials. Forests also contribute many more intangible benefits with cultural and ritual significance. In addition to local consumption, NTFPs are also important as traded products. Traded NTFPs contribute to the fulfillment of daily needs and provide cash income as well. However, the level of dependence on NTFPs as well as the ways of using them varies among groups of villagers who are different ethnically and economically.

This chapter will focus on the utilization of NTFPs by the local population in Tat hamlet. Before looking at how people utilize NTFPs, we will first look at how the local people perceive forest benefits, as they are the ones whose life have long been associated with and benefited from the forests. Their perception somehow would influence the utilization of forest resources in general, and NTFPs resources in particular.

6.1 Perception of the forests

Based on the results of the questionnaire survey of 60 household, 83% perceived the forest as a very important source of NTFPs and timber forest products; 53% perceived forests as a place for animal grazing; 48% thought forests were beneficial for water supplies, 32% perceived forests as land that could be converted for agriculture, and 17% thought forests were culturally important. Only 2% stated that the forests could be used for hunting (Table 11). Thus most of the respondents were well aware of the direct benefits of the forests (from NTFPs and TFPs), but less than half valued the 'services' benefits of the forests such as the possible beneficial impact upon timing of water flow.

Table 11: Benefits of the forest perceived by the villagers

	Very important	Important	Less important
	---------- % ----------		
Source of timber/non-timber	83	15	2
Potential land to be converted to agriculture	32	63	5
Areas for enjoyment	3	22	75
Important for water sources	48	45	7
Culturally important	17	53	30
Areas that can be used for hunting	2	30	68
Areas that can be used for animal grazing	53	37	10

Source: Survey, 2002

6.2 Non-timber forest products utilization

6.2.1 Types of NTFPs collected

Presently, all households in the hamlet engage in NTFPs extraction. Most of them collected a range of NTFPs. The most commonly collected products included wild vegetables, medicinal plants, bamboo shoots, and fuelwood. Several of the respondents also hunted. The most commonly caught forest animals were mole rat, squirrel, birds, and wild chickens. A species list and outlined the harvesting periods for NTFPs that could be collected locally throughout the year was identified. There are 25 species of wild vegetables (Appendix A); 14 species of fruits (Appendix B); 8 species of mushrooms (Appendix C); 11 species of bamboo (Appendix D); 26 species of medicinal plants (Appendix E) not included 42 species of medicinal plants used for postpartum decoction[1]; and 11 animal species (Appendix F). The most commonly eaten parts of the plant were young shoots, young leaves, fruits and finally stems.

6.2.2 Objectives of NTFPs collection

People gather NTFPs for a variety of reasons. The relative importance of value may change throughout an individual's lifetime, but often they are interrelated and complementary. Thus, gathering can be a way of obtaining critical livelihood resources, maintaining valuable skills, passing on important knowledge, and

[1] 42 medicinal plants used for the postpartum decoction were listed in Sarah Miller research, she studied about the use of plants for the treatment of postpartum ailments amongst Tay females in the highlands of northern Vietnam: A case study of the Tay people in Tat hamlet, Hoa Binh province, Vietnam (Miller, 2001).

preserving cultural heritage. The collection of NTFPs however, can be divided into sale and household use. Traditionally the Tay livelihood system is mainly subsistence and trade in commodities is very limited. The collection of NTFPs is therefore mainly for household use. However, the purpose of the collection of NTFPs is changing nowadays. Besides the main objective of collection of NTFPs for household consumption, the collection of NTFPs for sale is increasing and is considered as a significant source of cash income for the households. This is also due to better transportation in the area which has been constructed, creating more opportunities for the local access to the market which "encourages" the locals to exploit the forest more in order to meet the market demand as well as their cash income needs. Similarly, Rambo *et al.* (2000) have also found that in years past bamboo, fungus, and mushrooms were collected mostly for home consumption, but now are mainly sold to traders.

However, it should be noted that the objectives of collection depend on the types of NTFPs. Some products are mainly collected for sale but some are for use and some are for both use and sale. Table 12 presents the objectives of NTFPs collection in the study area. A hundred percent of respondents collected fuelwood mainly for use. The collection for sale is rare because of low market price. On the other hand, the collection of broom grass is mainly for sale as indicated by 83 percent of the respondents, whereas only 4 percent collected only for use and 10 percent for both use and sale. Traditional medicinal plants are collected by 98 percent of the respondents, with 55 percent collecting only for sale and the remainder for both use and sale. Bamboo shoots are the most commonly eaten products as well as the most

valuable cash products. The survey shows that more than 82% of the respondents collected bamboo shoot both for use and sale while none of the respondents collected for sale only.

Table 12: Objectives of households in NTFPs collection (n=60)

Types of NTFPs	Number of households collecting		Percentage of households collecting NTFPs for different purposes		
	n	%	For sale only	For use only	Both for sale & use
Fuel wood	60	100	0	66.67	33.33
Bamboo	53	88	24.53	37.74	37.74
Bamboo shoot	58	97	0	17.24	82.76
Mushroom	25	42	24.00	64.00	12.00
Medicinal plants	59	98	55.08	0	44.92
Wild animals	17	28	0	64.71	35.29
Broom grass	52	87	82.69	7.69	9.62

Source: *Survey, 2002*

6.2.3 NTFPs and uses

The Tay collected a wide rang of NTFPs for their own consumption including firewood, medicinal plants, bamboo, bamboo shoots, mushrooms, wild bananas, yams and various wild fruits and vegetables. The collected NTFPs can be used in many ways dependant largely upon the types of collected NTFPs as well as individual circumstances. Many species can be used as food. Some species can be used as fodder to feed livestock and some others can be used as green manure for crops. A wide range of medicinal plants are used as home-remedies in prevention and treatment of common health problems. Fuelwood from the forest is the only source of

energy for household cooking and heating. Moreover, forest trees like bamboo and palm are traditionally used as construction and implement materials by the locals. More details will be described as in the following:

Food

Whether commonly eaten, sought after as a rare delicacy, or consumed only after complicated processing in times of scarcity, various NTFPs in the forest are a source of food for people under certain conditions.

A number of vegetables, fruits and roots are collected from the forest and prepared as vegetables, sauces, condiments and flavorings. The study found that although villagers can buy vegetables from a middleman, 100% of the households still consume and use many NTFPs. As food from the forest is important in providing household daily food but it is more important in easing household budgets because less food needs to be bought. It is particularly important in the periods of food shortages between harvests. The study also found that, even during the period of peak workload in agriculture, the locals still need to have green vegetables, which are usually collected from the forest when farmers travel to and from the fields. Food from the forest is especially important to the farmers when they stay in the temporary shelters while they tend their fields and during this period they totally rely upon NTFPs for fresh foods. Some of correspondents mentioned that they sometimes stayed in their temporary house for almost ten months in the year and only came home in the time of lunar New Year. During their stay there, they visited home about once a month to bring back rice and salt to eat at their temporary shelters.

When accompanying the farmers to the fields, I have seen that vegetables from forest around the fields are usually collected for the farmer's meal at lunch when their fields are too far from home.

From the study it was found that at least 32 wild species were gathered for food. For example, bamboo shoots are one of the products commonly eaten as a vegetable throughout the year and could be used in many ways such as fresh-boiled, dried, or preserved in salt. Bitter bamboo shoots are a favorite food of the locals as the survey also found that 96.7% of the respondents consumed this bitter bamboo in their daily meals. Only two better-off households (3.3%) do not consume bitter bamboo shoots as they do not like them but instead they consume another kind of bamboo shoot and wild vegetables. During the harvesting season (from February to early May), bitter bamboo is usually collected at least twice a week, sometimes four to five times, with a total of about 10 kg to 25 kg of shoots for a whole week. In the peak period (March) bitter bamboo is consumed in every meal as vegetables. Other bamboo species like *Neohouzeaua dullooa. var.1 & Neohouzeaua dullooa var. 2,* however, are not only consumed when fresh, but are also dried to eat during times of shortages or to sometimes sell for cash when prices are high.

Some species of yam are the most common food collected from the forest. Traditionally yams play a very important role in providing stable food to the households, especially in providing subsistence during shortages. Recently, however, populations of wild yams have declined so that farmers no longer make special trips just to collect them. Instead, yams are collected during the collection of other

products or when they go to the field. Yams like *Dioscorea persimilis* (Cu tu*)* and *Dioscorea chingii* (Cu mai) are commonly used in soups and sometimes steamed or boiled. *Dioscorea cirrhosa* (Cu nau) is mentioned as being less common than before. It is only used when they have a serious shortage of food or there is no other alternative for them to choose.

Besides that, many other wild plants and fruits are also collected in Tat and consumed in many ways. Fruits like *Garcinia mutiflora* can be used to make sour soup, while forest litchis, figs, and bananas are used as dessert after meal, and banana flowers can be eaten as a favorable vegetable, especially in dry seasons while other vegetables are less available. Table 13 is a list of preferred wild species in Tat hamlet.

Table 13: The most common vegetables and fruits collected in the study area

Scientific name	Common English name/local name	Collection time	Part used
Neohouzeaua dullooa	Bamboo shoots	Feb. – Oct.	Shoots
Musa coccinea	Wild banana	All year	Flower/fruits
Dioscorea persimilis	Yam	All year	Tuber
Dioscorea chingii	Edible yam	All year	Tuber
Gynura crepidioides	Rau tau bay (make soup)	Feb. – June	Leaves
Polygonum aviculare	Rau dang (make soup)	Feb. – June	Leaves
?	Rau chuoi (make soup)	Apr.- July	Leaves
Fagopyrum cymosum	Rau chua (sour soup)	All year	Leaves
Garcinia mutiflora	Qua doc (make sour soup)	Jun. – Aug.	Fruits
Diplazium esculentum	Rau don (make soup)	All year	Leaves
Ficus glomerata	Forest fig	All year	Fruits

Source: *Survey, 2002*

Besides gathering wild plants for food, people also catch wild animals for their protein. In contrary to gathering wild plants, hunting animals is a favorite activity of men. The number of people who still hunt in the forest is small as only 8% of the interviewed households (5 households) sometimes go to hunt. Most animals that are caught are smaller animals such as rats, squirrels, and wild chickens. Bigger animals like monkeys are quite rare. One hunter reported that last year he was lucky that he trapped two monkeys. The hunted monkey is usually used to make jelly then sold to others in the commune and to the Kinh in the town. The price of one monkey, after processing is about one million VND (66$). Small animals are usually consumed by the households. Other small animals like crab, snake, and fish are caught in the wet rice fields and streams and provide an additional source of protein for the locals

Medicines

There is a quite common knowledge of the medicinal uses of a wide range of bark, fruit, root, flower or root from trees or herbs growing in the area. The Tay in Tat have a long history of using medicinal herbs as home-remedies, both in prevention and treatment of common health problems or using in their daily life as drinking water (e.g. common sagebrush - *Ngai* cuu, liquorice – Cam thao, Chinese medicinal herb – Cay thuoc bac, etc.). These medicines are especially important for the treatment of postpartum ailments amongst Tay females. The study by Miller (2001) reported that all Tay women follow a number of traditional practices after they give birth, such as drinking a mixture of medicinal plants for at least one month to restore strength and health for nursing their baby. As shown in table 14, common species are multiple-use plants that are collected and used by the Tay.

Table 14: The most common medicinal plants used by the Tay in the study area

Scientific name	Common local name	Part used	Pattern of use	Symptoms
Adenosma glutinosum	Nhan tran	Stem	Boil & drink	To cool down body
?	Thuoc bac	Stem	Boil & drink (mixed with other medicines plants)	? (Chinese medicine)
?	Cay chan vit	Whole plants	Soak with wine & drink	Improve appetive
Scoparia dulcis L.	Cam thao	Stem	Boil & drink	To cool down body
Artemisia vulgaris	Ngai cuu	Leaves	Eat as food & medicines	Headache
Smilax glabra	Khuc khac	Tuber	Mixed with other medicine plants then boil & drink	Stomachache
Fallopia multiflora	Ha thu o	Whole plants	Boil & drink	Black hair

Source: *Survey, 2002*

Fodder and green manure

Popularly raised domestic animals among the Tay besides dogs and chickens are pigs, cattle and fish. The study found about 72% of respondent households raised pigs, 58% of households has buffalo and 55% has cattle while 51% of households has fish pond. With such diversified livestock in Tat hamlet, wild plants in the forests have also been used as feed.

Traditionally, cattle are often allowed to roam freely in the forests. Pigs are also allowed to roam freely around the house. Recently, pigs have been in pigsties and are fed daily. Cattle however, usually stay on their own in the forest for a long period, and only fed sait sometime when the locals train them the ways to go home. Although, buffalo are kept at the house at least twice a year during land preparation and some family keep their cattle at night to collect manure for crops. The animals are also let to graze freely in the forest around the house. Since pigs are kept in the

house, they are fed vegetables, banana stem, cassava and a mash of wild vegetables like *Colocasia esculenta, Alccasia macrorrhiza, Musa coccinea,* etc., which are mainly collected from the forests. A hundred percent of respondents who have pigs reported that they depended mostly on forest food. Only some of them sometimes collect pig feed from their homegardens. The result from the extreme cases moreover, shows that on the average the household spent about one hour a day to collect about 14kg of wild vegetables for pigs and fish. No cultivated vegetables were used as pig food.

In terms of economic groups, there is a difference among them as only 50% of the poor respondent households raised pigs, compared to 75% of average households and 90% of the better-off ones. Households raising more pigs have a greater dependency on the forest for pig fodder. Results show that the average number of pigs in the better-off group is nearly 3 fold compared to the poor and nearly 2 fold compared to that of the medium. Thus, the poor were less involved in collecting wild vegetables for pigs compared with other groups. The percentages are similar for households with cattle, which strongly reflect the importance of wild plants in the forest for livestock production. Thus, the less developed or less involved in livestock production, the less or the lower income they get. This would force the poor to find for other living by exploring other forest products if not in agricultural production to fulfill their needs.

The collection of fodder is normally done by women on their way home from the fields. A sixteen-year old girl with whom I accompanied during my fieldwork there, usually went to gather fodder for livestock after school. She's usually spent

about one and a haft hours to get a basket of about 10kg to 15kg mix of wild plants from surrounding forest for two pigs of her family. Men in the households sometimes also get some banana leaves, on their way home to feed their fish.

Wild plants from forest are also used in paddy fields as green manure. The farmers usually gather green manure twice a year, once in July and again in December. The green manure is then mixed with manure from animals to make compost before adding it to crops. Thus, the locals in Tat strongly rely on wild plants from the forests not only for livestock production but also for crop production.

Fuelwood

Fuelwood is one of the most important NTFPs for daily life of the local population as it is the only source of energy used for household cooking and heating. The study shows that 100% of households collected fuelwood for home consumption. The amount of fuelwood used by each family is estimated to be about 20-45kg/day The amount used depends on whether the households are involved in small or large scale pig production. In this system, the typical diet fed to fatten pigs is mainly based on a cooked mix of cassava tuber, bran and wild vegetables from the forest, which increases the daily demands for firewood. Thus, the better-off and the medium households, who have a large number of pigs, have a higher demand for firewood than the poor.

Fuelwood is gathered from forests on a routine basis, generally as fallen branches, litter and dead wood. Fuelwood is also gathered from swidden fields

among the wood left after slash and burn. The estimated daily firewood demand was about 20 to 45kg. Extrapolating these figures to the 105 households living in Tat hamlet reveals a total daily consumption of between 2,100 kg and 4,800 kg of fuelwood. This large quantity is not exclusively the quantity of fuelwood extracted for sale. However, because of its low market value, collected firewood for sale is not high. And also because of the low income from selling fuelwood, the poorer households tend to collect for sale while the better-off do not. Figure 10 indicates that the better-off collected fuelwood mainly for use (80%) while half of the poor households gathered both for use and sale. This portion of the medium group is 40%. None of respondents collected for sale only.

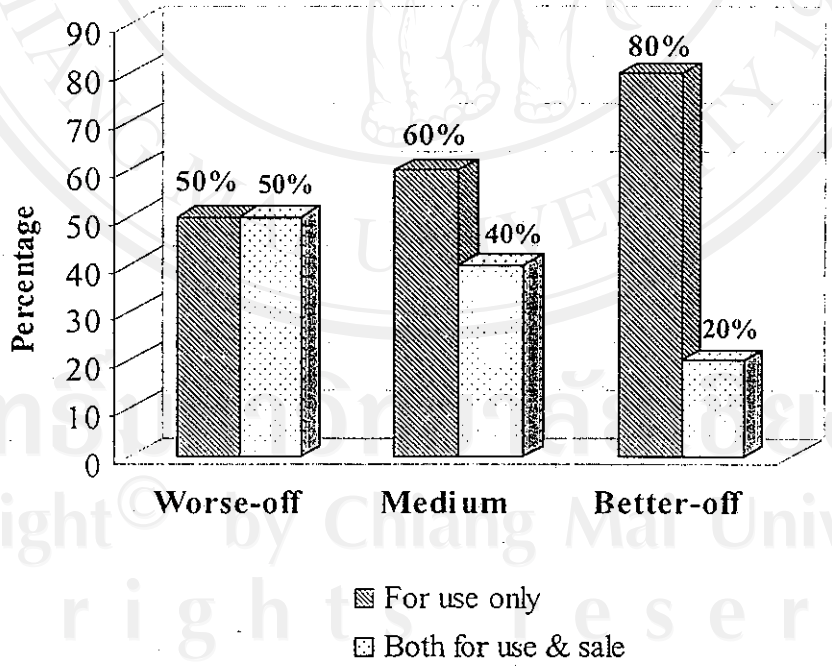

Figure 10: Purposes of utilizing fuelwood by household groups

Source: *Survey, 2002*

The collection of fuelwood is mainly done by women and children while men sometimes bring in bigger pieces home on the way back from the fields or forests. This work is a burden on the women especially, since the demand of fuelwood has risen due to the increase in population. The available fuelwood in the forest nearby the village was not sufficient to cater to the number of collectors forcing them to travel further to collect fuelwood.

Household buildings and implements

Non-timber forest products are important sources of materials used for construction of housing and implements, both for direct household use and use in support of other productive functions, like hunting as well as making households and agricultural implements.

On the domestic level, different species of bamboo and palms are the most heavily used materials. Palm leaves are used by most families in Tat to cover the roof of their houses and sheds. Climbing palms are used for binding, basketry, weaving, and traps. Stalks are commonly used as salvage products for building fences and walls along the home garden and agriculture fields.

Bamboo is a traditional building material in Vietnam, especially in the Tat hamlet. Houses are sometimes made exclusively from bamboo, as well as the furniture in them. The larger culms are used for the piles, stilts and the major framework. Smaller sized pieces are used for floors, windows and door-frames. The bamboo can be slit into slats for weaving into mat walls. Households having walls

made from bamboo are quite common in Tat hamlet. This is especially true for the poor, who are not be able to exploit wood or they cannot afford to hire labor to get wood and rely instead on bamboo from the forest as building materials. However, most of the better-off groups also preferred to have their kitchen walls made from bamboo as it is more comfortable (cooler). The same ingenious application of bamboo is also carried through for furniture, fences, cages, mats, farming implements, ladders and blinds. Pipes for irrigation is also fabricated from bamboo, much used as material for the construction of houses, fences and a great variety of implements.

6.2.4 NTFPs for sale

The various NTFPs used by the locals, together with a number of products which do not enter the household directly, provide an important source of cash income for the locals in Tat hamlet. Sometimes it is the only source available to them. Even subsistence economies that are basically self-sufficient need to purchase goods from outside. Where there are few alternative sources of income at hand, the relatively small amounts of money derived from NTFPs become particularly valuable, especially to the poor group. This cash income can be used to buy additional stable food during shortage between harvest, or to purchase farm inputs and other expenses as well.

Non-timber forest products that are extracted for sale include medicinal plants, broom grass, bamboo products, ferns, and sometimes fuelwood. Other food collected from the forest also provides extra cash. It is sold if there is a surplus or if it is considered to have a high market value or market available, as well as when cash is

needed for other expenses. However, bamboo and bamboo shoots are considered as the most valuable products in Tat, with medicinal plants coming in second. The most traded NTFPs products in terms of potential to generate income are listed in Table 15.

Table 15 : The most traded NTFPs products at the study site.

Scientific name	Common English name	Collecting time	Usage
Neohouzeaua dullooa	Bamboo shoots	May – Sep.	Food
Dendrocalamus patellaris	Bamboo	All year	Cords/string
Cibotium barometz	Fern root (Culi)	All year	Medicine
Smilax glabra	Khuc khac	All year	Medicine
Adenosma glutinosum	Thuoc bac	May – Aug.	Medicine
Thysanoleana maxima	Broom grass	Dec. – Mar.	Household tool
Heminthostachys sp.	Ferns	All year	Hat/bag
Livistona	Palm leaves	All year	Roofing
Phrynium sp.	Green leaves	Dec. – Mar.	(to wrap cakes)
Alpinia conchigera	Galigale	All-year	Seasoning/ Flavorings

Source: *Survey, 2002*

Regarding the location for sale, it is dependent upon the species and the amount of NTFPs to be traded. Wild animals and/or small quantities of NTFPs were sold at the village. Seasonal products such as broom grass, bamboo shoot, and others which were collected and sold either to the middleman in the village, or were brought directly to the market. Some products are derived throughout the year such as medicinal plants, fern root, ferns, bamboo cords/string, etc. The collection of these for sale sometimes depends on outside traders demanding the goods before villagers go to collect them.

6.3 Forest product locations

Different kinds of forest products are located in different places. Today, such kinds of forest products have become scarce around the hamlet and local people therefore have to travel further afield to find sufficient quantities of certain forest products.

The most popular area for collecting all the different types of NTFP was Suoi Muong, followed by Co Nom. The most popular area for collecting wild vegetable, bamboo shoots is in Co Nom. Besides Co Nom area, people also go outside the boundaries of the village to Yen, Dieu Huong, Enh and Vinh Phu to collect these species. The most popular area to collect fuelwood was Co Nom, on the swidden and the nearby forest. Some also reported that fuelwood is collected in Suoi Muong area. Wild vegetables were mainly collected in the forests and streams nearby the hamlet or in the fallow fields. Figure 11 shows the main locations which different types of NTFPs were collected by the respondents.

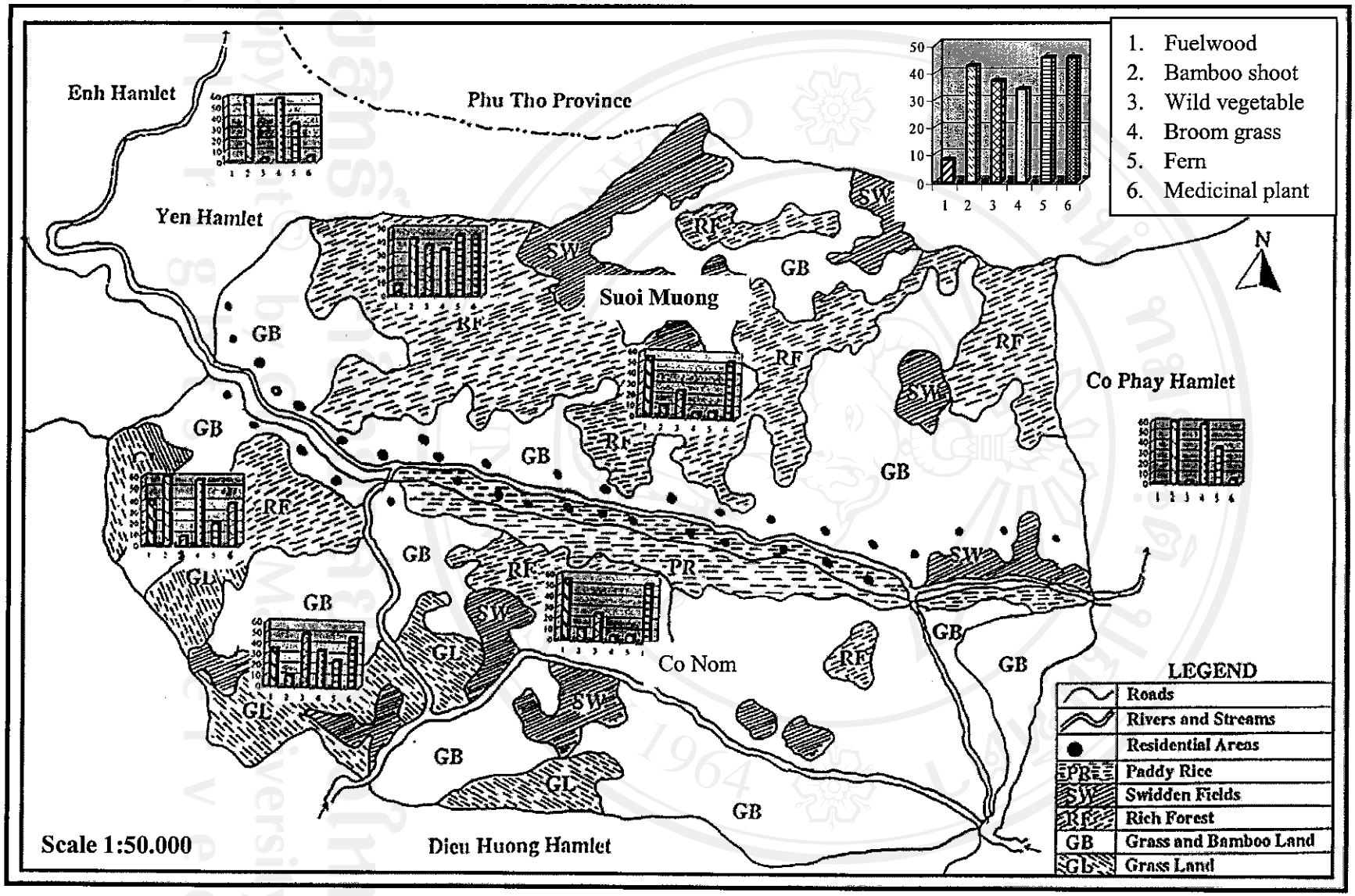

Figure 11: Map of NTFP types and collection locations in Tat hamlet

Source: *Survey, 2002*

6.4 Seasonality of NTFPs collection

It has been shown that NTFPs make a major contribution to the household economy. Moreover, seasons play a key role in the collection of NTFPs. The harvesting period and peak harvesting periods were determined as the best time for collection most of the NTFPs. There are 16 species of vegetables and fruits that can be harvested throughout the year and six species that can be harvested during April and June (Appendices A & B). There are eleven species of bamboo shoots that are harvested and the total harvesting time for all species ranges from February to October, however the peak season are May and June as seven of the eleven species are available (Appendix D). Bamboo shoots moreover, can be used during the remaining months if they are dried or pickled. Mushrooms (eight species) are available mainly in the rainy season, from May to September. However, according to farmers, there are fewer mushrooms nowadays due to the decreased area of the primary forest. Most species of animals are hunted throughout the year including wild chicken, bird, pig, squirrel, rat, porcupine, fox, and snake. Certain species are only hunted or trapped in the rainy season from May to September e.g. frog, fish and eel. Most of the households collect medicinal plants that are available throughout the year. Some products such as *Cibotium baromets (*fern root) and *Smilax glabra* (Khuc khac*)*, are only gathered when requested by traders. Some are collected in the summer for use to flavor drinking water during the hot season. Medicines which are used for the postpartum decoction are usually collected when there is a pregnant woman in their family.

Together with bamboo products which provide a valuable income throughout the year, other seasonal products which can only be gathered at certain of time of the year also contribute considerably to household income. For example broom grass (Chit), is available for about three months from December to March. Green leaves (La dong) are collected for sale in about January and February, and are used to wrap cakes at the New Year festival. This is supported by the previous research of Ireson & Ireson (1996) on Cultivating the Forest in Northern Vietnam. These authors also pointed out that in addition to bamboo, broom grass is important for household cash income. Especially, the periods that broom grass available (from December to March) are the time that the locals need cash to pay for their expenses during the lunar new year or initial days of the new year. Figure 12 shows the flows of some NTFPs available in the study area.

It should be noted that the timing or seasonality of NTFPs gathering activities are somehow governed by seasonally induced cash needs or food needs, such as the need for income to buy food during the "hunger period" between harvest, or to purchase farm inputs. The fluctuation in timing of collecting other forest products is indicated by the seasonality of other activities, such as demand for baskets needed at harvest time, and the surge in demand for many items as agricultural incomes peak.

The "timing" of NTFPs can be considered both in terms of the availability products and the availability of labour to gather the products (Arnold, 1995). The main occupation of the local households is agriculture thus, the timing of labor availability is determined by agricultural activities. Although the agricultural

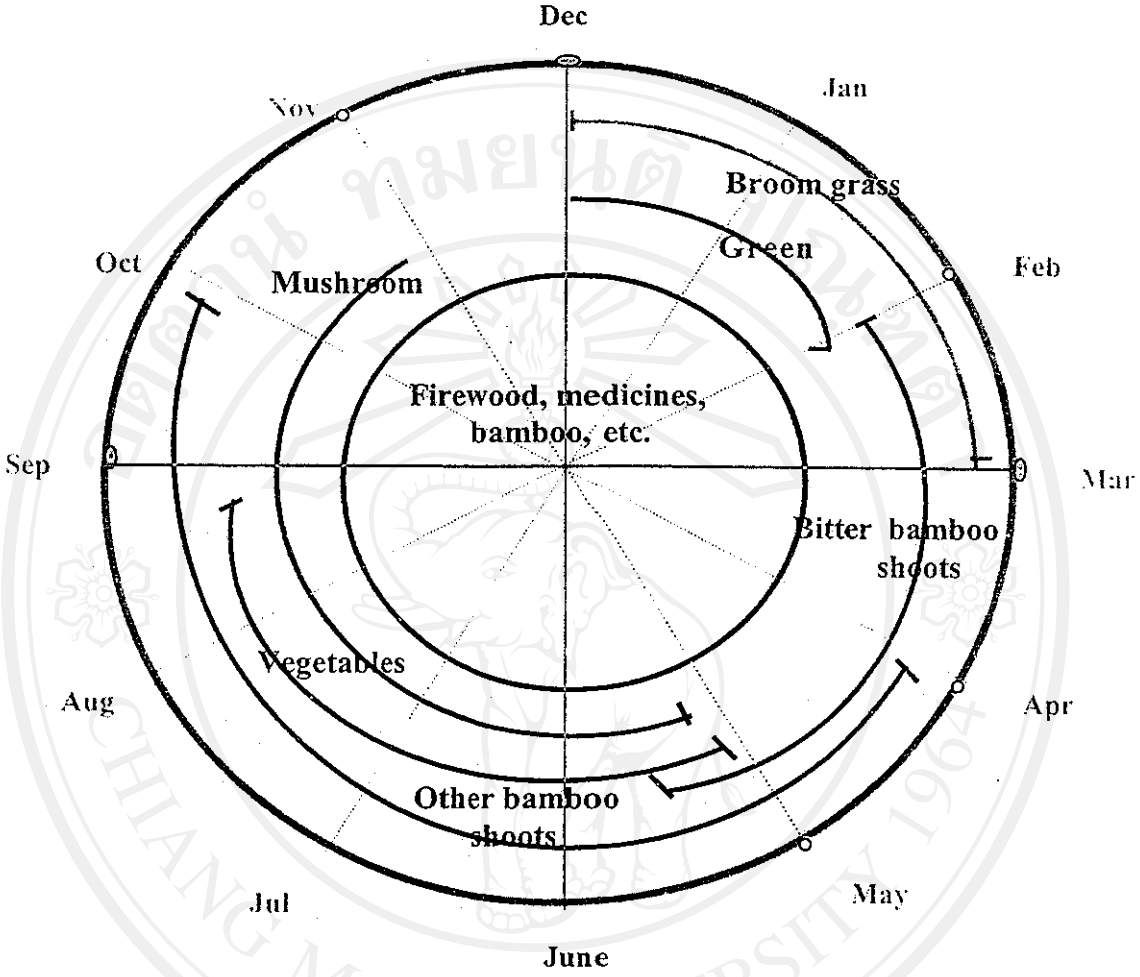

Figure 12: Seasonality of some main NTFPs in the study area

activities are carried out through the year in the region, farmers manage their farm labor at the same time with NTFPs gathering activities, especially during the declining of labor need in agricultural and planting seasons, or are phased to take advantage of slack periods. Even during the period of peak workload in agriculture, the farmers still can spend some time to gather NTFPs when traveling to and from the fields. During my fieldwork, I accompanied a group of farmers (eight to twelve persons) several times to their fields. I observed that the villagers shared flexibly in

their time to do both farming and collecting NTFPs. For example in the morning, on the way to the field for weeding, they stopped by forest along the path to collect fuelwood. After about one hour, the basket was filled with fuelwood (about 20kg to 45kg), people left the baskets there and continued to go the fields. Then fuelwood baskets were then taken home in the evening when they came back from the fields.

6.5 Legal status of NTFPs collection

Traditionally, forestlands and forest products were considered as community property. All members of community had equal rights to access to forest products for making their living. Forest product collection was governed by their customary laws and under rule of the community chief. Since their community was integrated into the Vietnamese State, their forests were defined as state property. Thus, the collection of forest products have been regulated by state law. In fact, people still freely collect NTFPs in the forest. By 1991, the Vietnamese Assembly passed the Law on forest development and forest protection. According to this law, people are not allowed to access to both forestland and forest production. Any activities in forest without permission of the authority is considered a violation of law. Recently, the government allocated forest to individual household to protect and develop. Ideally, local people are limited in exploiting products in their allocated forest area and other forest, as well. However, in practice local people still freely exploit forest products to fulfill their daily needs.