

CHAPTER III

THUONG QUANG COMMUNE, A RANG VILLAGE AND A KA VILLAGE: RESOURCES, LIVELIHOOD STRATEGIES, AND LAND AND FOREST MANAGEMENT OF CÔ TU ETHNIC COMMUNITY

3.1 Geographical and Socio-economic Conditions of Thuong Quang Commune

3.1.1 Geographical Conditions

Thuong Quang is a mountainous commune. It is located in the Southwest of Nam Dong district, Thua Thien Hue province, about 15 km from Nam Dong district center, and 65 km from Hue city. Thuong Quang commune is bounded on the north by Huong Son commune and Huong Thuy district, on the south by Quang Nam province, on the east by Thuong Long commune, and on the west by A Luoi district (see figure 3.1). This commune was formally established in 1975 as part of the Government's "Fixed Cultivation and Permanent Settlement Program" (Sedentarization) and "New Economic Zone Program". It consists of four Cờ Tu villages settled at the forest edge, namely, Cha Rau, A Rang, A Ka, and A Ro; and three Kinh villages, which migrated, namely, Vinh Giang, Vinh Hung, and Vinh My.

Thuong Quang commune is in the tropical climate area, which is characterized by two distinct seasons: hot and cold. The hot season is usually from April to August and goes with the southwest monsoon wind that raises the temperature to 37⁰-40⁰C. The cold season is from September to March and goes with the northeast monsoon wind, which brings down the temperature to 12⁰-13⁰C. There is less rain in the summer when the temperature is high and the humidity is low, resulting in a prolonged period of drought. During this period, crops usually have low yield if the people do not take the initiative in watering them. Sometimes there are heavy rains during April and May which causes floods, locally called "Lụt Tiểu Mãn" that affect the harvest of winter-spring rice and the transplant of summer-autumn rice.

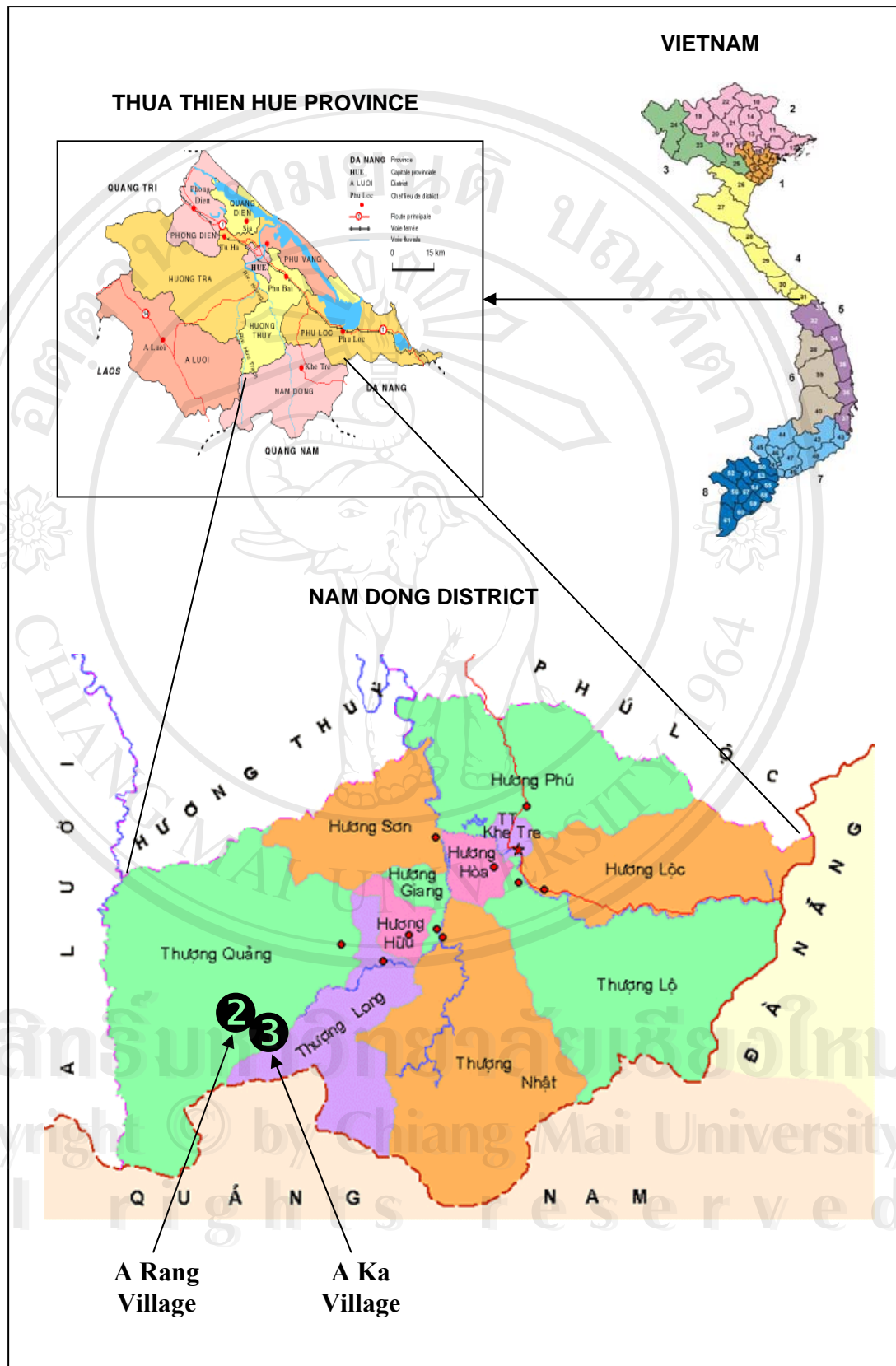


Figure 3.1 Location of Research Site.

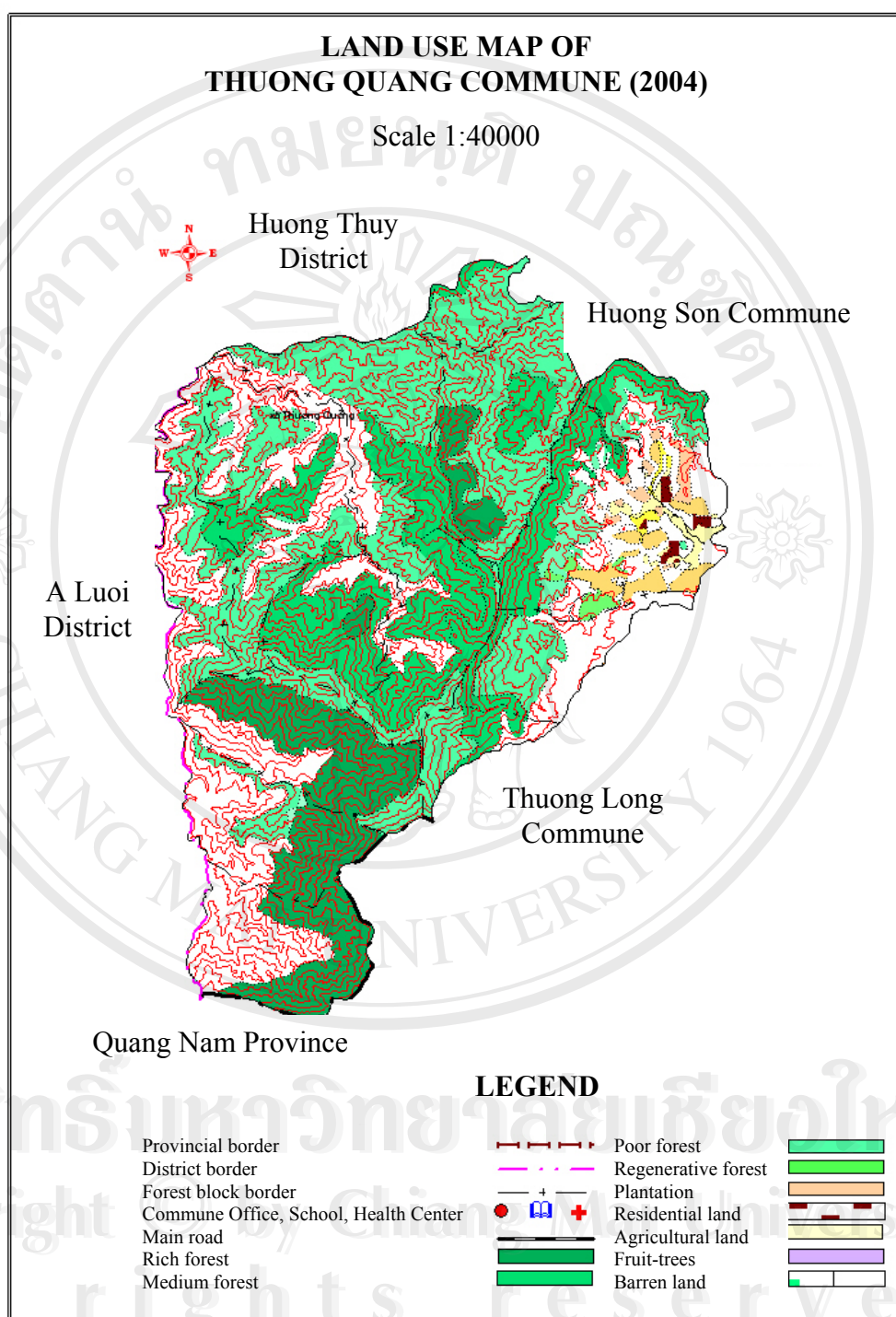


Figure 3.2 Land Use Map of Thuong Quang Commune.

Source: Thua Thien Hue FDD, 2004.

The total natural area of the commune is 15,630 ha. Approximately 1.64% is used for agriculture, 65.96% is forestry land, 0.03% is residential land, 0.17% is land for specialized use, and 32.20% is unused land (see table 3.1 and figure 3.2).

Table 3.1 Land Use Situation of Thuong Quang Commune

| No | Kinds of land | Total (ha) | Percentage |
|----|---------------------------------------|------------|------------|
| 1 | Agricultural land | 255.50 | 1.64 |
| 2 | Forestry land | 10,301.80 | 65.96 |
| | - Land with natural forest | 10,105.50 | |
| | - Land under afforestation | 196.30 | |
| 3 | Residential land | 5.30 | 0.03 |
| 4 | Land for specialized use ² | 27.32 | 0.17 |
| 5 | Unused land ³ | 5,029.08 | 32.20 |
| | Total of natural area | 15,630.00 | 100.00 |

Source: Thuong Quang CPC, 2004

3.1.2. Socio-economic Conditions

Population size is 1,514 people, consisting of 283 households, among which Co Tu people number 859 persons (163 households), representing 56.74 percent of the population. There are 638 persons involved in labor, approximately 42% (see table 3.2).

Generally, the per capita income (approximately 68 USD/person/year) of the commune is very low in comparison with the district per capita income (approximately 112 USD/person/year). The proportion of poor households is approximately 35.79% (see table 3.3).

² Land for specialized use is land designated for purposes other than agriculture, forestry and residential purposes. It includes land used for the construction of projects in the fields of industry, science and technology, transport, irrigation system, dykes, socio-culture, education, health, sports, public services; land for national defense and security; land for exploration and exploitation of mineral resources, rock, sand; land for salt production, land for the production of porcelain, bricks, tiles and other building materials; land of historical heritage, cultural relics and picturesque landscapes; land for cemeteries, and land with water surface used for purposes other than agriculture (Article 62, Land Law of Vietnam, 1993).

³ Unused land is land lacking sufficient conditions or that which has not yet been designated for the purpose of agriculture, aquaculture and forestry production, or not yet designated as land for rural residential, urban, or other specialized purposes, or not yet allocated by the state to any organization, household or individual for stable and long-term use (Article 72, Land Law of Vietnam, 1993).

Table 3.2 Population and Labor Division of Thuong Quang Commune

| No | Village | Household | | | Population | | | Labor ⁴ |
|----|------------|-----------|-------|------|------------|-------|------|--------------------|
| | | Total | Cơ Tu | Kinh | Total | Cơ Tu | Kinh | |
| 1 | Cha Rau | 59 | 49 | 10 | 310 | 257 | 53 | 142 |
| 2 | A Rang | 34 | 34 | - | 162 | 162 | - | 69 |
| 3 | A Ka | 52 | 52 | - | 286 | 286 | - | 123 |
| 4 | A Ro | 28 | 28 | - | 154 | 154 | - | 63 |
| 5 | Vinh Giang | 34 | - | 34 | 173 | - | 173 | 67 |
| 6 | Vinh Hung | 43 | - | 43 | 235 | - | 235 | 89 |
| 7 | Vinh My | 33 | - | 33 | 194 | - | 194 | 85 |
| | Total | 283 | 163 | 120 | 1514 | 859 | 655 | 638 |

Source: Thuong Quang CPC, 2004.

Table 3.3 Household Classification Based on Income.

| No | Village | Total of house-holds | Classification | | | | | |
|----|------------|----------------------|-------------------|-------|--------|-------|------------|---|
| | | | Poor ⁵ | | Medium | | Better-off | |
| | | | HHs | % | HHs | % | HHs | % |
| 1 | Cha Rau | 59 | 33 | 55.93 | 26 | 44.07 | - | - |
| 2 | A - Rang | 34 | 11 | 32.35 | 23 | 67.65 | - | - |
| 3 | A - Ka | 52 | 31 | 59.61 | 21 | 40.39 | - | - |
| 4 | A - Ro | 28 | 16 | 57.14 | 12 | 42.86 | - | - |
| 5 | Vinh Giang | 34 | 4 | 11.76 | 30 | 88.24 | - | - |
| 6 | Vinh Hung | 43 | 5 | 11.62 | 38 | 88.38 | - | - |
| 7 | Vinh My | 33 | 1 | 3.03 | 32 | 96.97 | - | - |
| | Total | 283 | 101 | 35.79 | 182 | 64.21 | - | - |

Source: Thuong Quang CPC, 2004.

The livelihood of the local people is based mainly on agricultural production, particularly that of the Cơ Tu people. Due to the limited amount of flat land, most agricultural systems are based on swidden fields (shifting cultivation) on steep slopes. On these steep slopes, they usually plant cassava or dry rice (hill rice). The main food supply is cassava and dry rice coming from these fields.

⁴ Labor here means a person 18-60 years old, able to engage in on-farm or off-farm work to help the family.

⁵ *: According to Government of Vietnam, poor household is a household where per capita income is under 60 USD/person/year; Medium household is a household where per capita income is from 60 to 114 USD/person/year; Better-off household is a household where per capita income is over 114 USD/person/year.

3.1.3 Forest Management

Forest and forestland management can be divided into three periods as follows:

(1) Before 1975: The Cờ Tu people lived in the natural forest. Natural resources (forest, land, water) belonged to the village, and each villager was an owner. Institutions of land and forest tenure included three levels: village, clan, and household. Such institutions will be concretely presented in the last section of the chapter.

(2) Between April 1975 to 2002: Natural forest belonged to Khe Tre SFE. Conflicts emerged between villagers and the Khe Tre SFE regarding benefits from the forest. Although Khe Tre had signed contracts for natural forest protection with villagers/village, the contracted forests continued to be destroyed.

(3) From 2003 to present: In order to solve the above problems, in 2003, Thua Thien Hue provincial People Committee withdrew one part of the natural forest, which was allocated to the Khe Tre SFE to allocate it to household groups and the commune (see table 3.4).

Table 3.4 Forest Management by Units in Thuong Quang Commune.

| Kind of forest | Total (2002) | Management Unit (2002) | | | Total (2003) | Management Unit (2003) | | |
|----------------|--------------|------------------------|-----------|---------|--------------|------------------------|-----------|---------|
| | | Khe Tre SFE | Household | Commune | | Khe Tre SFE | Household | Commune |
| Total | 10,301.8 | 10,105.5 | 196.3 | - | 10,301.8 | 8,658.6 | 1,374.3 | 72.4 |
| Natural forest | 10,105.5 | 10,105.5 | - | - | 10,105.5 | 8,658.6 | 1,374.3 | 72.4 |
| Plantation | 196.3 | - | 196.3 | - | 196.3 | - | 196.3 | - |

Source: Nam Dong FPU, 2003.

3.2 Basic Information about the Research Site: A Rang Village and A Ka Village

As mentioned in chapter I, A Rang and A Ka villages were chosen for this study. Both villages are situated in flat land surrounded by mountains which is covered with tropical rainforest. Generally, the socio-economic conditions, historical and cultural factors, and ethnic identity of both villages are similar. However, A Rang village was selected to represent a village with a majority of forest recipients, while A Ka village was selected to represent a village with few forest recipients.

The population of A Rang village is 162 people, consisting of 34 households, in which 32 households received forest. The population of A Ka village is 286 people consisting of 52 households, in which 6 households received forest. Basic information about A Rang and A Ka villages is presented in table 3.5 below.

Table 3.5 Basic Information about A Rang and A Ka Villages

| Criteria | A Rang Village | A Ka Village |
|-------------------------------------|----------------|--------------|
| 1. Founded in* (**) | 1975 | 1975 |
| 2. Demography* (**) | | |
| - Number of households | 34 | 52 |
| - Population | 162 | 286 |
| - Labor | 69 | 123 |
| - Average family size (person) | 5 | 6 |
| 3. Agricultural land use patterns** | | |
| - Shifting cultivation (ha) | 2.5 | 5.5 |
| - Home garden (ha) | 1.3 | 2.5 |
| - Rice field/Wet rice (ha) | 2.2 | 2.8 |
| 4. Allocated forest* | | |
| - Recipient (household (group)) | 30 (3) | 6 (1) |
| - Allocated forest area (ha) | 156.6 | 112.1 |
| 5. Rubber (ha)* | 35.7 | 46.9 |

Source: *: Thuong Quang CPC, 2004; **: Field survey in 2005

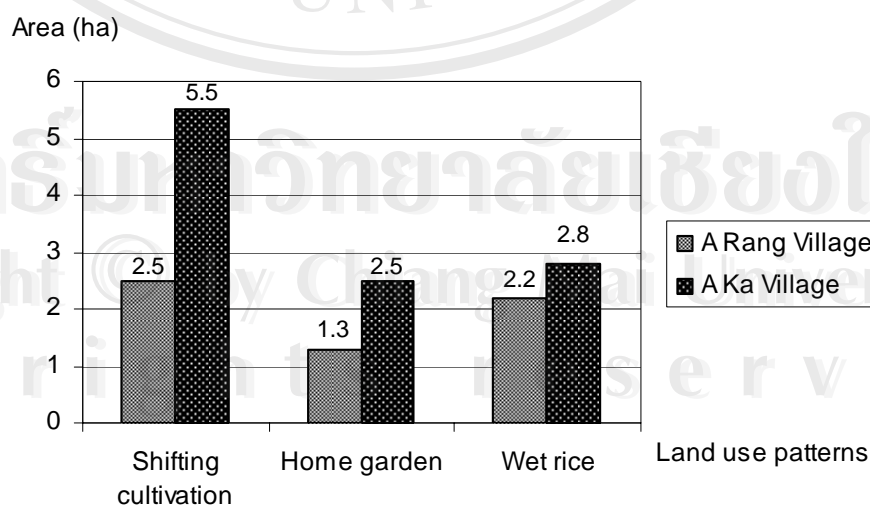


Figure 3.3 The Size of Agricultural Land Use Patterns of A Rang and A Ka Villages

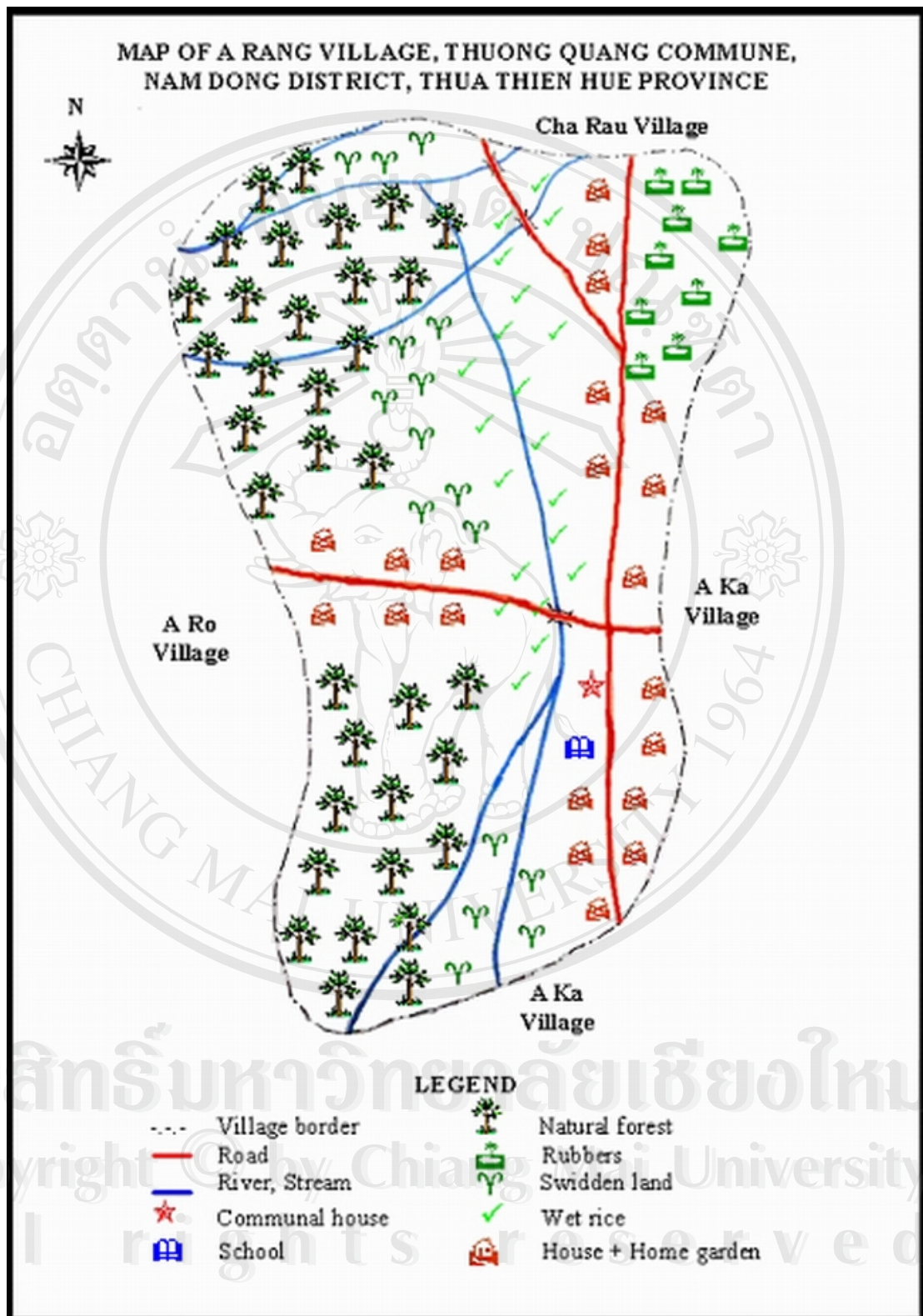


Figure 3.4 Map of A Rang Village

Source: Field survey, 2004

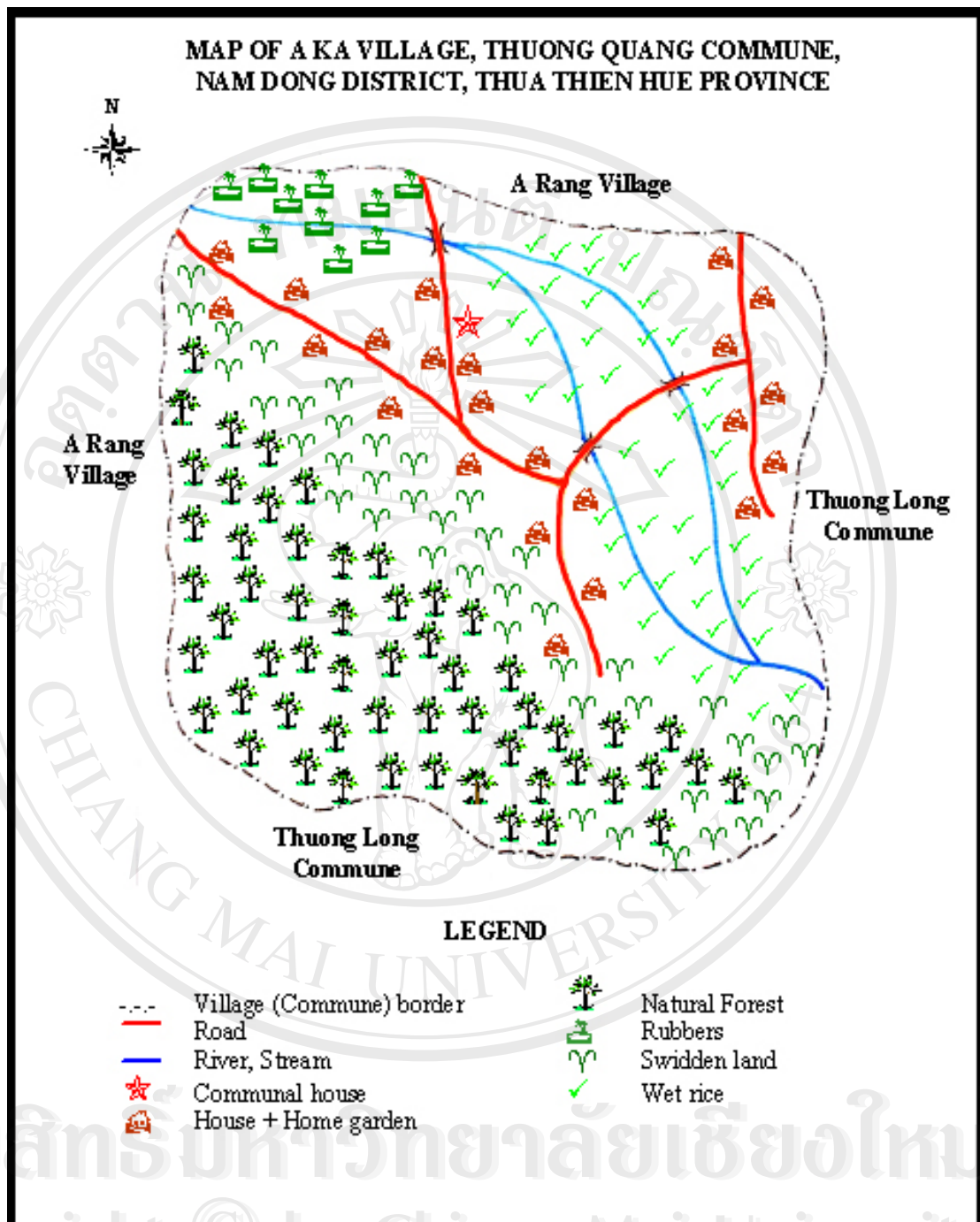


Figure 3.5 Map of A Ka Village

Source: Field survey, 2004

3.2.1 The Ethnic Identity of the Cờ Tu and the History of A Rang and A Ka Villages

Cờ Tu is one of the oldest ethnic groups in Vietnam. They are related to the Cham and Kinh ethnic groups as well as others residing in the Truong Son-Tay Nguyen mountainous region (Tuan, et al., 1984; and Van, Son and Hung, 2000). According to Manh, Hong, and Thong (2001) and Hong (2002), most of the Cờ Tu people live in Hien and Giang districts of Quang Nam province (neighboring province). The rest spreads out in the western mountainous areas of Nam Dong districts, the southwest of A Luoi district in Thua Thien Hue province and others.

The Cờ Tu have many names, such as Kha Tu, Ka Tu, Ca Tu, K'tu, Tou, Cao, Ha, A Sap, and A Pang. However, Cờ Tu is the official name that is recognized by themselves and the Vietnamese government. According to the Cờ Tu people, in their language, "Tu" from "Cờ Tu" means "high." Cờ Tu is a person, who lives in the head-waters and the top of the high mountain (Manh, Hong, and Thong, 2001; and Hong, 2002). This characteristic corresponds with their residential areas in Nam Dong, A Luoi districts of Thua Thien Hue province, and Hien, Giang districts of Quang Nam province. Manh, Hong and Thong (2001), and Hong (2002) also pointed out that Kha Tu, Ka Tu, K'tu and Tou names are transcriptions of word only. The rest are named according to their place-names (residence); these names originally distinguished between the different places where the Cờ Tu people lived (Manh, Hong, and Thong, 2001; and Hong, 2002).

In traditional Cờ Tu society, the village (*Vel or Vil*) is the grassroots administrative unit. The Cờ Tu village has well-defined boundaries. Boundaries among villages are defined by traditional institutions (Van, Son and Hung, 2000). Each village has a village patriarch (*Takoor Vel/Vil*), who is elected from among the elders by villagers. The village patriarch has much experience in cultivation, worship, and social aspects and is in charge of management and solving problems related to natural resources and social issues as well. All villagers consider the village patriarch the pillar of the communal house (*Guol*). If such a pillar is broken, the communal

house will collapse. As a result, the village would disappear (Manh, Hong, and Thong, 2001).



Figure 3.6 Cờ Tu Woman



Figure 3.7 Cờ Tu Man

The Cờ Tu have an abundant store of folktales, folk-songs, folk-dances, and folk poetry that are handed down from generation to generation among the broad masses of the people. The Cờ Tu are particularly famous for folk festivals, such as the hunting and the “Đâm Trâu” (buffalo-stabbing) festivals.

Being nomadic, the Cờ Tu tribe mainly practice shifting cultivation. Besides hill rice (the staple food), they plant corn, beans, sweet potatoes, cassava, melons, other vegetables and banana. Hunting and gathering also play important roles in their daily activities.

According to elders in two villages, their ancestors originated from Hien and Giang districts of Quang Nam province. After 1968 they migrated to the high mountainous area near the boundary between Quang Nam and Thua Thien Hue provinces. In 1975, when the Thuong Quang commune was established, they were separated into two small groups and settled at the forest edge in order to found two

new villages that are presently A Rang and A Ka villages under the lead of the Communist Party.



Figure 3.8 A Rang Village's Communal House

3.2.2 Village Structure

A Rang village is formally divided into three groups and A Ka village is divided into four groups. Each group has a leader to assist the village headman in implementing the policies of the local governments and the Communist Party. Like in many other areas, the village has some existing social and official political organizations such as the Farmers' Association, Women's Association, Communist Youth League, and so on (see table 3.6). All of these organizations are administratively managed by the CPC and led by the Communist Party. The Farmers' Association and Women's Association play the most active and important roles in the village's economic development. They help the local farmers in gaining access to credit systems and extension activities. However, the role of the group leaders is unclear and they are not active, because most activities of the village are implemented from the CPC directly.

Table 3.6 Social Organizations and Their Functions

| No | Social Organizations | Functions |
|----|--------------------------|---|
| 1 | The Front of Fatherland. | Collecting and unifying the whole commune in order to ensure political and social security; help local people in developing the economy in order to increase the number of rich households and decrease the number of poor households. |
| 2 | Young Communist League | Being a right hand of the Communist Party and the motive force in every activity of the commune. Collecting young people in the commune to participate in activities from social to family and public welfare, such as irrigation, making green, clean, and nice environment. |
| 3 | Women's Association | Encouraging the local women in production, business, family planning, bringing up healthy and well-behaved children. |
| 4 | Farmers' Association | Relating to production, application of modern techniques on agricultural production. Attending to activities for economic development animal husbandry activities, intensive wet rice, transmuting structure of cultivated crops and livestock. |
| 5 | Veterans' Association | Preserving patriotic traditions, to be exemplary in building new life, to encourage young men to join the army, participate in keeping law and order in the area. |
| 6 | Elders' Association | Clueing the elders in the community, and encouraging posterity in executing the policies of Communist Party and Government. |

Source: Field survey in 2004

In each village, besides the village headman who is nominated by CPC as a representative of the local authority at the grassroots level, the village patriarch is still elected and respected by villagers. However, the role of the village patriarch currently has weakened because many traditional activities and customs are not practiced anymore. As a result, the Co Tu has lost the habit of consulting the village patriarch regarding production experiences, or when they have problems and they are involved in conflicts. Nowadays, most conflicts or problems are resolved by the local government, which hands down decisions from the top. Hence, it is difficult to avoid the bias that sometimes leads to conflicts.

3.2.3 Household Wealth

Households in both villages are divided into three categories. The criteria for wealth ranking are similar (see table 3.7). Households of all three categories in two

villages have insufficient rice to eat. Food security, therefore, is very important for local people. A Rang village consists of 6 better-off households (category 1), representing 18 percent; 11 medium households (category 2), representing 32 percent; and 17 poor households (category 3), representing 50 percent. In A Ka village, there are 13 better-off households, making up approximately 25 percent; 16 medium households, making up approximately 31 percent; and the rest, 23 households, comprise the remaining 44 percent.

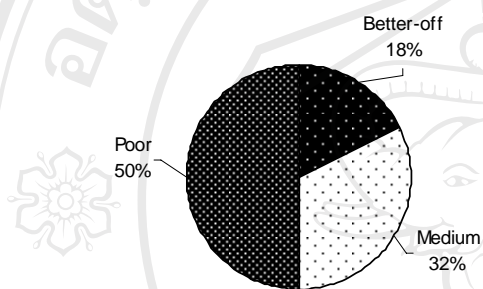


Figure 3.9 Result of Household Wealth Ranking in A Rang Village

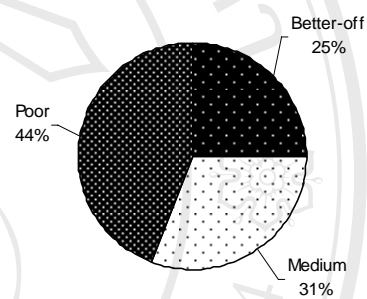


Figure 3.10 Result of Household Wealth Ranking in A Ka Village



Figure 3.11 House of Poor Household in A Rang Village

Table 3.7 Criteria for Household Wealth Ranking of A Rang and A Ka Villages

| | Wealth ranking criteria | A Rang Village | A Ka Village |
|------------|--|--|--|
| Better-off | Rice field | 1.0 - 1.5 sào ⁶ | 1.0 - 1.5 sào |
| | Shifting cultivation | 1.5 - 2.0 sào | 2.0 - 2.5 sào |
| | Home garden | 0.5 - 1.0 sào | 1.0 - 1.5 sào |
| | Animal | Buffalo, pig, and chicken | Buffalo, pig, and chicken |
| | Food security (Lack of food) | Not enough rice for 3 months, but have cassava | Not enough rice for 3 months, but have cassava |
| | Houses | Tiled roof or well-constructed | Tiled roof or well-constructed |
| | Furniture (Motorbike, television) | Motorbike and television | Motorbike and television |
| | Income (VND per year) | Approximately 1,000,000 | Approximately 1,200,000 |
| | Salary from commune and retirement pension | Receive salary or retirement pension | Receive salary or retirement pension |
| Medium | Rice field | 0.5 - 1.0 sào | 0.5 - 1.0 sào |
| | Shifting cultivation | 1.0 - 1.5 sào | 1.5 - 2.0 sào |
| | Home garden | Approximately 0.5 sào | Approximately 0.5 sào |
| | Animal | Pig and chicken or chicken only | Pig and chicken |
| | Food security | Not enough rice for 3 months | Not enough rice for 3 months |
| | Houses | Wooden | Wooden |
| | Furniture (Motorbike, television) | None | None |
| | Income (VND per year) | Very low | Very low |
| | Salary from commune and retirement pension | None | None |
| Poor | Rice field | Under 0.5 sào | Under 0.5 sào |
| | Shifting cultivation | Under 1.0 sào | Under 2.0 sào |
| | Home garden | Under 0.5 sào | Under 0.5 sào |
| | Animal | Non | Chicken or non |
| | Food security | Not enough rice more than 6 months | Not enough rice 3 - 6 months |
| | Houses | Small and bad or constructed by government | Small and bad or constructed by government |
| | Furniture (Motorbike, television) | None | None |
| | Income (VND per year) | None | None |
| | Salary from commune and retirement pension | None | None |

Source: Field survey in 2005

⁶ 1 sào = 500m²

3.3. The Cờ Tu's Livelihood Activities in A Rang and A Ka Villages

Formerly, the Cờ Tu's livelihood strategies depended mainly on natural resource-based activities (on-farm and off-farm activities) for their subsistence. However, their livelihood strategies have changed in accordance with changes in environment over time and place. Nowadays, the Cờ Tu people in A Rang and A Ka villages not only depend on natural resource-based activities, but also non-natural resource-based activities to ensure food security and cash income.

3.3.1. On-Farm Activities

The on-farm activities of the Cờ Tu concentrate on activities such as swidden cultivation (shifting cultivation), cultivation of wet rice, crop plants, home gardening, and animal husbandry—all of which have created a farming system in the two villages. This farming system is also determined by the human-ecology situation of the Cờ Tu people in the mountainous area of Nam Dong.

Swidden Activity: The Cờ Tu people carry out their swidden activities in forest areas that formerly belonged to the Khe Tre SFE. For most of the local people, swidden activity contributes to ensuring food security for the households all year round. Formerly (1968-1975), the Cờ Tu people in two villages lived together inside the forest in the high mountainous area near the border of Quang Nam province (a neighboring province). In the swidden areas, they had permanent huts made from small timber, bamboo, and rattan and also raised livestock such as chicken, pig, buffalo, and duck. The climate in these areas is favorable for breeding animals, especially swine. “The animals here never get sick and I could always ask my neighbors to look after them when I go back to the village”, one elder said. Most of the Cờ Tu people stay in their huts, going back to their main houses in the village only during special occasions such as festivals, wedding, offerings, and worship, or when someone is sick. Since 1975, they have resettled in the A Rang and A Ka villages, Thuong Quang commune. The swidden land area has been reduced, and the Cờ Tu people are allowed to implement shifting cultivation in areas that are stipulated by government. The huts are no longer their abode. However, they still carry out swidden

activity in the forest areas, which belong to the government, in order to meet food demands of the family's daily consumption. Given the environmental conditions in Thuong Quang commune, the selection of crops for shifting cultivation is one way by which the Co Tu people are able to adapt to the poor soil condition and limited arable land area. The traditional varieties planted in swidden areas include various types of local rice, cassava, maize, beans, and other crops. The characteristic of shifting cultivation is to cultivate the plants without the use of fertilizers and depend entirely on rain water. Although the mode of intercropping or overlapping crops seems adequate, the productivity is still low.



Figure 3.12 A Patch of Swidden Land in A Rang Village

Wet Rice and Crop Farming: The rice field area is distributed along the streams and the lowest area of the village. This land is used for sowing and transplanting two rice crops per year, winter-spring and summer-autumn. The sowing and transplanting time of winter-spring rice is from December to May while for the summer-autumn crop it is from June to October. Cultivating wet rice and other crops is an activity which the Co Tu people spend little time to practicing and adapting to.

Local people harvest many kinds of products from these lands but the yield is very low because of the poor soil and the long period of cultivation without fertilization. In addition, they also lack knowledge of wet-land agricultural production. Most of the households have very small paddy-fields and wet rice provides for the households for only three to four months per year. The wet rice areas in the two villages are hardly sustainable as these are dependent on and are located near streams. Hence, during the summer when the streams are dry, the paddies are also dry. During the rainy season, these streams are often flooded and the water flows and carries away the plants.



Figure 3.13 Cultivating Wet Rice-Soil Preparation (A Ka Village)

Home Garden Activities: The home gardens of the Cờ Tu people characterize the traditional home-garden with various species such as banana, orange, lemon, and others, although only banana is easy to plant, and therefore easily available. Some food crops, such as arrowroot, corn, sweet-potatoes, cassava and beans are planted in the garden. Generally, the Cờ Tu people still lack knowledge in home-garden management, thus the income from home-garden is not much and is focused mainly on banana production.



Figure 3.14 A Home Garden in A Rang Village

Animal Husbandry: Today, many households expand by raising livestock such as hogs, buffaloes, cows and poultry such as chickens, and ducks. Animal husbandry is one inevitable activity within the community. The Co Tu people desire income from breeding animals. Pig raising requires a lot of fuel-wood and investment in pig food and veterinary services. Most of the households have no money for animal vaccination or medicine when the animals are sick. Although the local people are aware that animal husbandry provides substantial income for the household, their income is still low because of their lack of experience and capital, inadequate investment and lack of access to veterinary services.

3.3.2 Off-Farm Activities

Hunting or trapping activities are carried out simultaneously with the shifting cultivation cycle. The shifting cultivators use traps around their fields to lure game, protect the plants and improve their meals. At present, the hunting and gathering have become difficult because some species of wild animals and plants have been placed

on the protected list. Some people in A Rang and A Ka consider hunting as a source of income. They set up many traps in the forest, and once in a while they go to the forest to check on them. Wild animals, such as snakes, wild pigs, and weasels, provide high income and nutrition for the villagers. The gathering activities are focused on NTFPs. The Cờ Tu people also collect rattan, conical hat leaves, mushrooms, honey and other forest products. Honey is a source of high income, but it is more difficult to find than rattan which provides a regular income for them. Generally, men are in charge of gathering forest products for cash income. Women and children cut and collect dry branches and trees for the purpose of providing fuel-wood for household use. Logging timber is an illegal activity, but some people in both villages still undertake this activity because of the relatively high income it provides. They learned this from the Kinh, who migrated to Nam Dong District. Mostly it is young men, who carry out this activity.

3.3.3 Non-Farm Activities

Because of the difficulties associated with the environmental condition and the limited land available, some households cannot devote all of their labor force and productive time to farming. About 18 percent of households in A Rang village and 25 percent of households in A Ra village rely on non-farm earnings, such as employment in government agencies and self-employment. These households are placed in category 1 (better-off) by villagers. Employment is fast becoming a popular option among the Cờ Tu people as many of them begin to consider it as a sustainable source of income. However, only a few households have members who are employed. Those who are employed are often educated and usually work for the government. Some have previously fought in the war and joined the Communist Party. As a result, they occupy high positions in the district and the commune. In addition, some households make rice wine (local alcohol), which they sell in the village, and use the brewer's gains for hog breeding, particularly in the A Ka village. Others operate small stores selling candies, instant noodles, wine, and cigarettes. The income from these activities is not much, but they provide partial cash earnings to meet the subsistence demands of some families.

3.4 The Cờ Tu's Indigenous Knowledge on Land and Forest Utilization

The Cờ Tu people in Thuong Quang have much experience on land use and management. They utilize physical and fertility characteristics to classify land, select cropping patterns in accordance with each land type, and have experiences on preservation of soil fertility and prevention of soil erosion. In addition, the Cờ Tu's indigenous knowledge adapts to the changing environment by planting crops to meet the market demands, transforming shifting cultivation to rotational cultivation/rotational cropping with a fallow period for only one to two years.

3.4.1 Cờ Tu Perceptions of Land

The Cờ Tu call land "*Katiec*". They believe that people are most important, followed by land, trees/forests, animals, and other natural resources. According to their beliefs, to have land is to have everything, including a place to live, raise crops and livestock, and so forth. The land is the source of life for all people. Beyond this fundamental attitude about the value of land, the Cờ Tu people also have the spiritual belief that the land holds mysterious forces. For example, before building a house they find a patch of land and take to the spot some beautiful grains of uncooked rice (corresponding to the number of people to live in the planned house). The rice is placed in a section of bamboo and then buried. The villagers then pray to the Earth Spirit for permission to build on the land. After a period of thirty minutes to an hour, they exhume the section of bamboo. If the rice is intact they build the house, if it is chipped or broken they choose another spot to build on.

When they choose a piece of land to burn in order to farm on it, it is usually a small one. They bury the point of a plough in the earth, place a piece of packed earth on the plough blade, and then pray for permission to clear the land. If they dream of green landscape that night, or of flowers, or if they dream of people saying to go ahead with the work, then they carry out the clearing of the land the next day. But if they dream of snakes, or of cattle or water buffalo butting each other, or of people saying to not go ahead with the work, they don't clear the area. There are also cases where people do not dream of anything, but if within three days of beginning to clear

the land someone breaks an axe, then they leave that patch of land and find another. Most people do not choose a particular direction for the burning but there are some who chose a direction away from the sunrise, thinking that the fire will burn faster. It is clear from this information that when the Cờ Tu people deal with land, they try to keep the balance of man and nature in harmony through spiritual methods.

3.4.2 Soil Classification

Cờ Tu people in Thuong Quang live in a very complex environment, which has various types of soil. Drawing from their experience, the Cờ Tu people divide the land into different categories according to physical properties or fertility of the soil. Based on the soil's physical characteristics such as agglutinate level, the color, and the sponginess, Cờ Tu people divide soil into five categories and plant on it accordingly (see table 3.8).

Scientific knowledge categorizes the soil according to its physical and chemical properties, while the Cờ Tu people distinguish soil based on its visible characteristics. That is, they make distinctions based on whether the grains of soil stick together or separate, on the soil's color, and whether it is dry or damp. Their criteria for different types of soil are based on sight and memory. Yet it is evident from our soil tests that they also correspond to distinctions of scientific knowledge. In addition, the Cờ Tu also divide the soil into two different fertility types. The first type is good soil (“Katiec liem”) and the second ones is poor soil (“Katiec mop”) (see table 3.9). Although soil classification among the Cờ Tu is simple, when compared with scientific knowledge, they share many characteristics. In particular, they both rely on the growth of vegetation, plants, and some physical features of the soil. The Cờ Tu people consider the growth of plants as the most important factor in categorizing the soil because plants reflect the type of soil.

The Cờ Tu people clearly possess indigenous knowledge with regard to categorizing land based on their accumulated knowledge from daily experiences. This indigenous knowledge makes it possible for them to distinguish between categories of soil without the need to analyze it in the laboratory. It is evident that this capacity to

categorize types of soil is based on obvious physical characteristics (soil color, life above and below the soil) and the relationship between the land and the trees.

Table 3.8 The Classification of Soil Based on the Physical Characteristics

| Group | Name | Characteristic | Comparative scientific knowledge |
|-------|-------------------------------|--|----------------------------------|
| 1 | Katiec ruarua or Katiec chouk | Soil mixed with pebble and rock; brown or white color; dry and tough | Soil mixed with rock |
| 2 | Katiec thoong or Katiec chua | Loose texture; white or yellow color; water withdraws quickly | Sandy soil |
| 3 | Katiec no or Katiec bloc | Sticky; yellow or white color; humid soil | Clay soil |
| 4 | Katiec ngot or Katiec tam | Spongy, loose texture; dark (black) or gray color; damp soil | Humic soil |
| 5 | Katiec rang | Spongy, loose texture; reddish-brown; absorbent soil | Bazan soil |

Source: Field survey, 2004

Table 3.9 The Classification of Soil Based on the Fertility Characteristics

| Characteristic | Good soil (Katiec liem) | Poor soil (Katiec mop) |
|---------------------------|---|---|
| Soil color | Black soil | Reddish-brown soil |
| Vegetation (natural tree) | Many big trees, perennially green, leaves falling on the ground | Very low trees or only shrubs and stunted trees |
| Land properties | Spongy and loose texture, humid, no mixed stone and a lot of earthworm residue. | Hard, dry soil, many stones and pebbles, no earth-worm residue. |
| Growth of trees | Trees grow well | Trees grow poorly |

Source: Field survey, 2004

3.4.3 Indigenous Knowledge Concerning Land Use

The types of crops grown on the usable portions of land depend on the characteristics of the land and are arranged by the Co Tu with the following system:

Good soil was previously set aside for the planting of rice, corn and cassava, because these plants solved the main issue of creating ready food supplies for the villagers. At present, such land is mainly used to plant many types of beans,

bananas, onions, and so on. These days crops such as bananas and black and green beans are given more priority, because of their fairly short growing seasons, stable productivity, and their market values, which outdo rice. For this reason, if certain types of beans are not mixed with bananas, they are mixed with corn or rice. Besides knowing how to intersperse different types of crops on a single piece of land in order to have more types of products or to take advantage of the growth-promoting interaction of leguminous plants upon other crops, the villagers also know how to plant to meet the demands of the market.

Bad soil is where shifting cultivation is usually carried out. Formerly, when slash-and-burn was the principal farming technique, land that was not planted with a crop was allowed to lie uncultivated. After seven to ten years people came back and cut it down once again, burned the site and planted for a season, went through a cycle of crop rotation for a second time, and then the third. In recent years, as a result of population growth on one hand, and government prohibitions of slash-and-burn on other hand, the villagers have used all kinds of bad land to plant forest trees like *Acacia* species mixed with pineapple crops.

In addition, topography also plays a role in what types of crops are planted. On sloping land, the Cờ Tu plant different types of local rice varieties after burning to clear the land, or sometimes plant rice mixed with corn. In recent years the villagers have also tried planting cinnamon. Villagers have already learned that a mixture of cassava and cinnamon does not work, because the harsh sunlight kills the cinnamon when the cassava is harvested. Traditionally, a good patch of land would be cultivated for three consecutive years, and after that farmers moved on to a second spot. The farmers often went on to a third spot before returning to farm the first plot once again. Patches of bad land were only farmed for two consecutive years before moving on to the next place. It is evident from the cycle above that the Cờ Tu in Thuong Quang know how to use their space in an appropriate way. The cycle's fallow period lasted for five to seven years, allowing the soil to recover and return to its original state. However, this indigenous knowledge is no longer used in the same way due to a decrease in forest areas and government prohibitions on shifting cultivation. With environmental and policy changes, the fallow period has been shortened to one or two years, and the Cờ Tu's

traditional shifting cultivation is not appropriate for new circumstances. In order to adapt to those changes, they have transformed shifting cultivation to rotational cultivation (rotational cropping), in which they cultivate an ordered succession of rice-rice-cassava.

Flat land is normally found on stream and river banks. For the summer-fall crop, the Co Tu normally plant these areas with local and purchased dry rice varieties such as Acan and Radu as well as glutinous rice varieties including Adip and Along. Corn is grown twice a year, once for the spring crop and once for the summer-fall crop. The corn planted is principally the local strain called Aam. Planting is usually carried out by interspersing different plants. For example, in the winter-spring crop, corn is mixed with sweet potato; in the summer-fall crop, corn is interspersed with rice.

3.4.4 Preserving Soil Fertility and Preventing Erosion

The Co Tu people see the land as the most valuable natural resource and consider it their most important property. Besides their knowledge of soil classification and crop system arrangement according to different categories of land (good and poor soil), they have experience in preserving soil fertility and preventing erosion.

The Co Tu practice traditional slash-and-burn farming with periods of leaving the land in fallow. According to their experiences, in order to preserve soil fertility it is necessary to cultivate a piece of land for only one to two harvests before moving on to a different spot. The previous piece of land must be fallow for seven years, or in some cases, up to ten years. After such a period the land should have recovered and the fertility of the soil restored by the forest foliage. At that point the farmers can return and clear the land once again knowing that the soil will not be exhausted. The farmers also mix leguminous plants with other crops. Although the villagers do not have a clear grasp of the specifics of the bacteria nodules among the roots of the leguminous trees, they do know to plant green beans interspersed with corn or rice and black beans with corn.

To preserve soil fertility, the Co Tu people spread waste products on the planting spot. When growing on burnt-over fields, they have the custom of piling up

and drying foliage, burning it and scattering the ashes over the whole area. After harvesting a peanut crop, they leave the vines to rot, replenishing lost soil nutrients. In addition, they also gather waste products from other places to spread on the field. At times they bring grass from another area, pile it up to dry, burn it, and spread the ashes around the burnt-over field. In order to prevent soil from being eroded or washed away, they plant trees in holes. At the same time they pile up earth on the tree roots, then plant small trees in-between to prevent the soil from being washed away and to preserve the dampness of the earth. In addition, they also carry out contour cropping or make banks along contour lines by heaping up stones.

3.5. The Co' Tu's Customary Law on Land and Forest Management

Land and forest are the natural resources most tightly linked to the interests of each individual, community, and nation. Especially in the upland areas, land and forest have an intrinsic ecological value that goes beyond its obvious economic value. Normally, in areas where ethnic minorities live and work, the matter of managing land and forest resources must take into account both government goals and policies and the special characteristics of each locality.

Living in a mountainous area, forest has cemented the Co' Tu way of life. It closely connects their livelihood strategies that formerly depended on shifting cultivation and a gathering and hunting mode of life. The Co' Tu people divide forest into four kinds of forest: (1) ghost forest (2) spirit forest; (3) headwater forest; and (4) forest for exploitation.

The ghost forests are formed by oral transmittance of strange phenomenon relating to their manner and custom, and spirit life as well. The spirit forests are where gods such as forest, water, and genii live. The Co' Tu people assume that if you outrage genii, it not only disturbs the personal but also community safety. The Co' Tu's customary law strictly prohibits destroying ghost forest. Headwater forests are used to protect water sources, and cutting timber is allowed for communal interests such as building communal houses, making poles for the buffalo-stabbing festival, or making sculptures for folk festivals. The exploitation forest is used for cutting firewood and making coffins.

In the Co Tu's traditional society, land and forest tenure consists of two regimes: common property and private property. Common property is understood at three levels: community, clan/family and family branch levels. The ghost forests, spirit forest, headwater forests, and grass land belong to the village. The land for shifting cultivation and the forests for exploitation are distributed by the village. Normally, the village patriarch takes charge of distributing land and forests to clans, while the head of clan in turn distributes to branches of clan or directly distributes to households. These distributions are based on negotiations among clans within the village, among clan branches within clan, and among households within clan branch or clan. The exchange, inheritance, and transfer usually take place within clan. The recognition on restriction of individual interests over forest has reflected the sustainability of common property. All villagers, therefore, equally benefit from the forest area within the village (Manh, Hong, and Thong, 2001). In addition, according to the elders, NTFPs sites are claimed as the property of the people who find them. For instance, if you detect a beehive on a tree, you just thrust at that tree and stick a branch of tree towards that beehive. In that case, although you have not exploited it yet, anyone would recognize that you are the beehive's owner. Therefore, they are not allowed to exploit it.

Concerning the village border, between two villages there usually is a "buffer zone" (Co Tu people call *Ghê non Krung*). Both villages agree to strictly prohibit exploiting that area in any way. Conflicts within village or between villager and neighboring villagers are resolved by village patriarch(s) through negotiation and applying punishment. Conflicts between villages are resolved by negotiation between village patriarchs, village elders' council and village diplomats (*Koanh P'roah*). The resolution of those conflicts is illustrated by figure 3.15

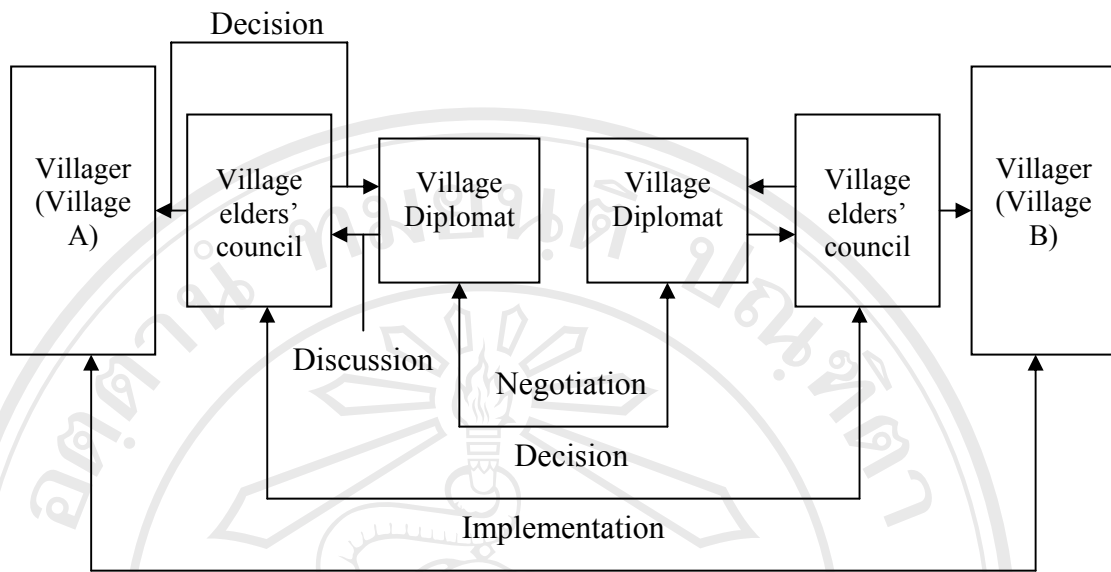


Figure 3.15 Process of Conflict Resolution between Villages

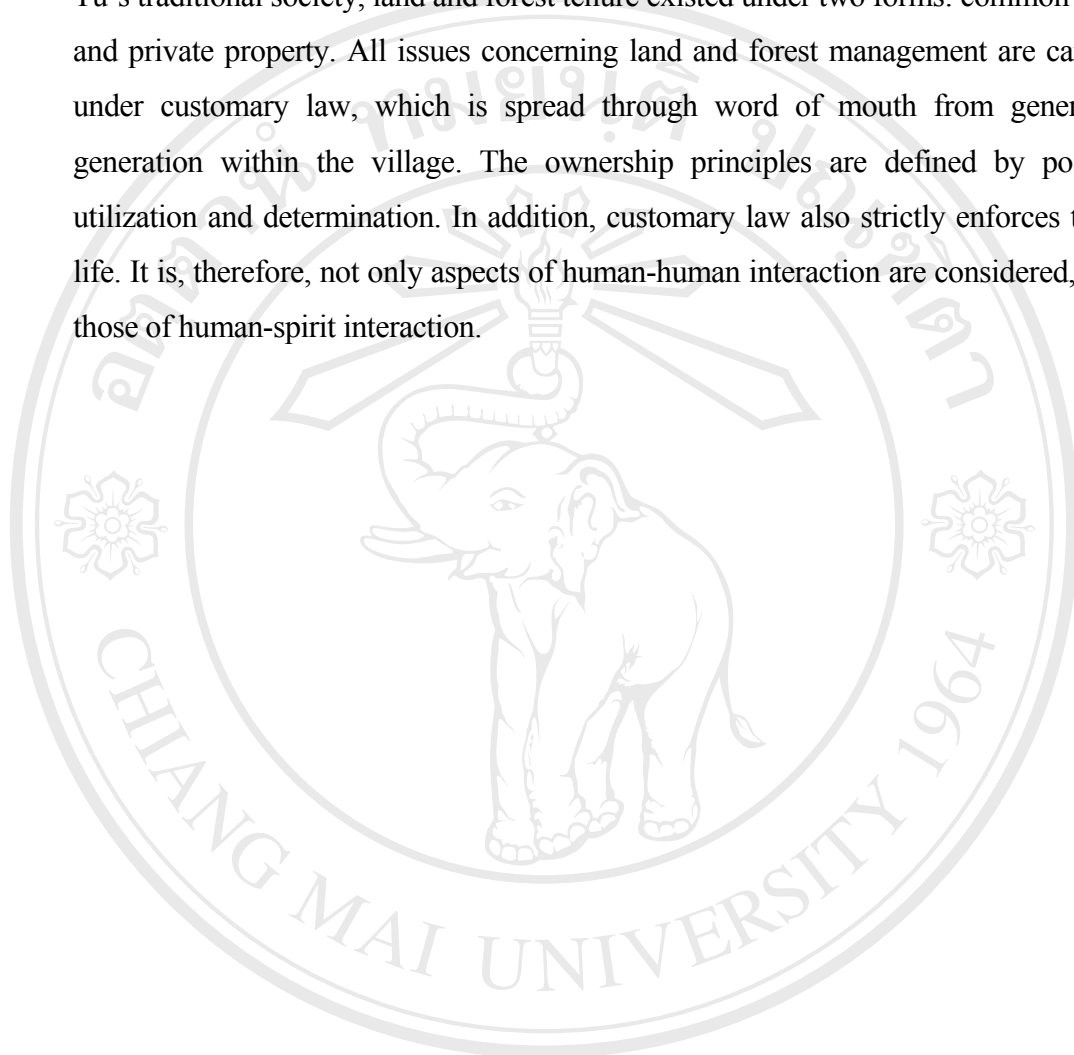
3.6 Summary

In summary, this chapter has described briefly the profile of Thuong Quang commune (study area), and A Rang and A Ka villages (research site). The focus was on household wealth, livelihood activities as well as indigenous knowledge and customary law on the land and the forest management of Co Tu people in those two villages.

In terms of household wealth, both villages consist of three categories with similar criteria. All households in both villages have insufficient staple food (rice), due to the paddy-field area being too small and of low productivity. Current livelihood activities of villagers are the result of a combination of indigenous knowledge and new knowledge (scientific knowledge). They encompass on-farm, off-farm and non-farm activities. Wet-rice cultivation and shifting cultivation are two major sources to provide food for a household's daily consumption, while hunting and gathering are the main sources of most household's income. All the above activities are based on the land and forest tenure arrangements between villagers, and between the state and villagers as well.

The Co Tu's indigenous knowledge on land use is related to many aspects. They have distinguished soil by its given physical and fertility properties and have

many experiences of land use that are appropriate for certain types of land, and enhancing the preservation of soil fertility and preventing erosion as well. In the Co Tu's traditional society, land and forest tenure existed under two forms: common property and private property. All issues concerning land and forest management are carried out under customary law, which is spread through word of mouth from generation to generation within the village. The ownership principles are defined by possession, utilization and determination. In addition, customary law also strictly enforces the spirit life. It is, therefore, not only aspects of human-human interaction are considered, but also those of human-spirit interaction.



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