

## **CHAPTER III**

### **RESEARCH METHODS**

#### **3.1 Scope of the study**

This research focuses on the significance of NTFPs, especially wild plants, which are used in daily life in Karen communities. This study mainly emphasises wild plant utilisation by Karen women for household consumption and other purposes such as decoration and sale. This study is also concerned about men's role in wild plant utilisation compared with that of women.

#### **3.2 Data collection**

##### **3.2.1 Secondary data collection**

Physical conditions and demographic data were gathered from Wat Chan Highland Agricultural Development Centre, Department of Agricultural Extension, Ministry of Agriculture and Agricultural Cooperatives and also from other past research. The Wat Chan topographic map was from the Multiple Cropping Center, Faculty of Agriculture, Chiang Mai University. Plant identification was done by J. F. Maxwell, curator of the Chiang Mai University Herbarium, Biology Department, Chiang Mai University.

##### **3.2.2 Primary data collection**

Primary data collection was done by having three villages separated into two ecological zones. Chan village is predominantly a paddy rice-based village, whereas Den and Nong Jet Nuai villages are paddy-rice plus upland cash crop-based communities. Groups of people were selected from these two sectors, which the first

zones came from Chan village while the second come from Den and Nong Jet Nuai villages, each of which had six people, three of them being women.

Each group would go to collect wild plants from their preferred places in the forest. Personal observations, group interviews, and transect walks were made to obtain wild plant species and data about their uses and local names.

### **Wealth ranking**

Wealth ranking was assessed by villagers to classify the households into different economic groups. The households were characterised into two economic groups, *viz.* rich and poor in Den, Chan and Nong Jet Nuai villages. The definitions of “rich” and “poor” here are not of absolute richness or poverty but refer to relatively wealthy group versus relatively poor group. Thus the villagers who are termed as “rich” and “poor” in the texts that follow may not be rich or poor when using other communities standard. In each village, six villagers, including the headman, were chosen as informants and were asked how they assess wealth and poverty. A list of households was shown to the villagers and they were asked to put each household into these two different groups based on social and economic status. The three villages were categorised into high economic status groups and low economic status groups. The high economic status (“rich”) groups consisted of 75, 36, and 38 percent of the total population in Chan, Den, and Nong Jet Nuai villages, respectively. The low economic status (“poor”) groups were 25, 64, and 62 percent of the total population in those villages, respectively. The criteria for high economic status and low economic status listed by villagers are as follows:

***High economic status (rich)***

1. Rice is sufficient with some surplus
2. Large piece of land for the house and area for cultivation
3. Owning animals such as cows, buffaloes, and pigs
4. Working as an official, staff, merchant, and farm labour (their own farm)

***Low economic status (poor)***

1. Rice is insufficient and have to borrow from other households
2. Own a small piece of land for their house and area for cultivation
3. Few animals
4. Working as farm labour (not their own farm) or wage labour such as preparing land for cultivation

**Semi-structured questionnaires**

Data were collected from both men and women with a greater emphasis on women's roles and preferences. Individuals were interviewed using semi-structured questionnaires on the following questions:

- Roles in their household
- Roles in households' food production and consumption
- Income
- Wild plants utilisation
  - Types of wild plants
  - Collection areas
  - Collection period (hours or days)

- Patterns of wild plant utilisation
- Quantities consumed and sold per year
- Sale value per year (*baht*)
- Collection labour input (persons)
- Total gathering (days)
- Collection period (months)
- Distance from their house to collection areas (kilometres)
- Gathering cost (*baht*)
- Wild plants propagation

#### **Mapping of wild plants collection areas**

Four males and four females from each village were requested to draw collection area maps by stones, rice husks and leaves on the ground and also gave the name of each area. This map was then copied on paper. A topographic map was used to recheck the collection areas from the map done by these informants.

After that, two people were requested to show the places, which were identified on the map, in the forest. The distance to the collection areas was estimated by using the temple in Chan village as a reference point.

#### **Specimen collection**

Specimen collection was separated into two parts *viz.* wild plants in the forests and fields, and cultivated plants in home gardens. Every wild plant used by interviewees was collected from their own popular collection area provided with relevant data. Cultivated plants and home garden were collected, with data about local names and use.

### 3.3 Data analysis

Women's roles in Karen households for food production and consumption were analysed using descriptive analysis. This analysis was used to identify wild plant species used for domestic consumption and utilisation. It was also applied to identify patterns and sources of wild plants and described the effects of wild plant species collection on household consumption and income. Opportunity cost of labor was used to value wild plants gathering cost.