

## **CHAPTER III**

### **METHOD OF THE STUDY**

In chapter III, methods of the study will be described. These include the selection of study area, secondary data collection from available documents, and primary data collection from field survey in 2002. Methods of data analysis were also outlined.

#### **3.1. Method of the Study**

##### **3.1.1. Selection of Study Area**

The study area selected was Huay Hoi village, Mae Na Chon Subdistrict (tambon), Mae Chaem District. It is located within the mountainous area around the Mae Hae Royal Project Development Center in Chiang Mai Province. Most of the households make their living from agriculture.

There are 52 households in Huay Hoi village and all households will be subject to data collection covering both women and men in the households.

##### **3.1.2. Data collection**

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

Primary data collection was collected from one village, Huay Hoi village, which was predominantly upland rice - cash crop based communities. Participatory Rural Approach (PRA) will be adopted to get on an overview with regard to demography, agricultural systems, crops and livestock.

Personal observation and group interviews were conducted to obtain knowledge on wild plants species, source of these wild plants, local names and data

about their utilization. The data collected were quite intensive in a household that normally used wild plant in their household and the household's members who had knowledge about medicinal plants, and 52 households were interviewed by using questionnaires.

Data was collected from both of men and women but emphasis was on women's roles in utilization of wild plants. Individual interviews using semi-structured questionnaires were used for main questions about roles in the household, roles in food production and consumption, wild plant utilization, type and pattern of wild plants, and quantities consumed per year.

In depth interview was used among villagers who had knowledge about wild plant utilization both men and women, who would go to collect wild plants from their preferred places in the forest, around their crop fields and their village. Transect walks was made to obtain wild plant species and their uses.

Equipments used in wild plant collection included bamboo sheets and paper sheets to keep collected wild plant species, plastic bags, a notebook, films and a camera, a pair of scissors and a knife for cutting plants, a spade for dig plant roots, and 99% of ethyl alcohol for protecting collected wild plants species from fungus and bacteria. All of the collected wild plants were photographed and recorded in their local names, part of uses, pattern of uses, use quantities per time and estimated quantities per year, and location of collections. After collection, these wild plants were cleaned and then poured by 99 % of ethyl alcohol covered on the bamboo sheets. Later, these wild plants would be specified in their scientific name done by an expert from Chiang Mai Herbarium.

In the same time, the villagers were asked how to transfer wild plant utilization knowledge that was related to their livelihood.

### **Secondary data collection**

Physical data and demographic data were gathered from the Mae Hae Highland Agricultural Development Center, Royal Project Foundation, and from the head of Huay Hoi village. Mae Hae topographic map was from the Multiple Cropping Center, Faculty of Agriculture, Chiang Mai University. The Huay Hoi topographic map was from Mae Hae Highland Agricultural Development Center, Royal Project Foundation. Plant identification was done by J.F. Maxwell, curator of the Chiang Mai University Herbarium, Biology Department, Chiang Mai University.

### **3.1.3. Data Analysis**

Hmong women's role in household for food production and consumption were analyzed by using descriptive analysis. This analysis was used to describe indigenous knowledge of wild plant utilization for domestic consumption. Pattern and sources of wild plants were also identified. Quantification of economic prices and values was used to evaluate the value of gathered wild plant.

For the first to fourth objectives, this study would describe agricultural pattern, crop systems, land use pattern, activity profiles in agricultural production and wild plant utilization, and forest resource utilization of Hmong in the study area. The study would compare the roles of women and men in agricultural system and wild plant utilization, different experience and knowledge about the use of wild plant for household consumption/use of women and men and attitude about the change in natural resource.

The study identified and quantified wild plant species that were used in household, the purposes manners and extent of use of such wild plants. Description of women's indigenous knowledge in wild plant utilization would be make e.g. how to manage the use of these wild plants, how they transfer this indigenous knowledge

to next generation, how women access to and control of forest resources, and how this affects household consumption and production.

For the last objective, economic valuation would be conducted to determine the value of gathered wild plants to the households. Only use value would be emphasized. This research would concentrate on direct use value of wild plants.

The direct use value of gathered wild plants = quantities of wild plants x  
equivalent market price

Where equivalent market prices were not available, opportunity costs incurred e.g. labour costs used in collection of wild plants will be used.