

Name

International Sustainable Development Studies Institute  
สถาบันการศึกษาการพัฒนาที่ยั่งยืนนานาชาติ

# Experiential Learning Workbook

Northern Thai Village Study

Fall Semester, 2021



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## Northern Thailand Plant Identification

This activity will introduce you to a variety of plants that are utilized by communities in Northern Thailand.

There are many species in Northern Thailand that are used for food, fiber, construction, medicine, or for ceremonial purposes. A number of these also have a market value. Traditionally people would grow these or gather products from the forests and fields surrounding their homes.

In this activity you will identify the species you find and understand their role in the community and ecosystem. Throughout your time you will have opportunities to ask local people about the plants in their surrounding environment. They will help you identify various species and provide information on their usage, and preferred habitat. You will combine this local knowledge with your own illustrations in the Plant ID pages to create a useful catalogue of these plants. You will need to ask a variety of people and make your own observations to complete the Plant ID pages. Cite all sources of information (informant and location).

Complete **8 entries** in the Plant ID pages with as much detail as possible. Pay attention to both cultural and commercial use.

## **Plant Identification Study # 1**

Species name in English \_\_\_\_\_ Thai \_\_\_\_\_

Scientific name \_\_\_\_\_

Use (food, medicinal, other) and specify what is used (leaves, fruit, bark, etc.):

Ecological context / placement in the garden / forest / field:

Propagation:

Care:

Harvest:

Sketch of leaf / flower / fruit (as appropriate) including context if needed

## **Plant Identification Study # 2**

Species name in English \_\_\_\_\_ Thai \_\_\_\_\_

Scientific name \_\_\_\_\_

Use (food, medicinal, other) and specify what is used (leaves, fruit, bark, etc.):

Ecological context / placement in the garden / forest / field:

Propagation:

Care:

Harvest:

Sketch of leaf / flower / fruit (as appropriate) including context if needed

### **Plant Identification Study # 3**

Species name in English \_\_\_\_\_ Thai \_\_\_\_\_

Scientific name \_\_\_\_\_

Use (food, medicinal, other) and specify what is used (leaves, fruit, bark, etc.):

Ecological context / placement in the garden / forest / field:

Propagation:

Care:

Harvest:



Sketch of leaf / flower / fruit (as appropriate) including context if needed

### **Plant Identification Study # 4**

Species name in English \_\_\_\_\_ Thai \_\_\_\_\_

Scientific name \_\_\_\_\_

Use (food, medicinal, other) and specify what is used (leaves, fruit, bark, etc.):

Ecological context / placement in the garden / forest / field:

Propagation:

Care:

Harvest:

Sketch of leaf / flower / fruit (as appropriate) including context if needed

## **Plant Identification Study # 5**

Species name in English \_\_\_\_\_ Thai \_\_\_\_\_

Scientific name \_\_\_\_\_

Use (food, medicinal, other) and specify what is used (leaves, fruit, bark, etc.):

Ecological context / placement in the garden / forest / field:

Propagation:

Care:

Harvest:

Sketch of leaf / flower / fruit (as appropriate) including context if needed

## **Plant Identification Study # 6**

Species name in English \_\_\_\_\_ Thai \_\_\_\_\_

Scientific name \_\_\_\_\_

Use (food, medicinal, other) and specify what is used (leaves, fruit, bark, etc.):

Ecological context / placement in the garden / forest / field:

Propagation:

Care:

Harvest:

Sketch of leaf / flower / fruit (as appropriate) including context if needed

**Plant Identification Study # 7**

Species name in English \_\_\_\_\_ Thai \_\_\_\_\_

Scientific name \_\_\_\_\_

Use (food, medicinal, other) and specify what is used (leaves, fruit, bark, etc.):

Ecological context / placement in the garden / forest / field:

Propagation:

Care:

Harvest:



Sketch of leaf / flower / fruit (as appropriate) including context if needed

### **Plant Identification Study # 8**

Species name in English \_\_\_\_\_ Thai \_\_\_\_\_

Scientific name \_\_\_\_\_

Use (food, medicinal, other) and specify what is used (leaves, fruit, bark, etc.):

Ecological context / placement in the garden / forest / field:

Propagation:

Care:

Harvest:

Sketch of leaf / flower / fruit (as appropriate) including context if needed

## Polyculture Survey

In this activity you will examine the different ways Thai farmers and households utilize polyculture (mixed species farming) in their farms and gardens. The use of polyculture cultivation can have numerous benefits including more efficient use of space, the exploitation of beneficial relationships between organisms, and weed and pest control, to name a few. The activity will show you how polyculture farming and gardening benefits farmers and households.

Identify at least **three examples** of polyculture through observation and interviews with farmers, gardeners, or local experts. Complete an entry for each example of polyculture in the spaces provided below. Include a sketch of relationships and placement as appropriate.

## **Polyculture 1**

Names of the plants or animals

Context (garden, farm, food forest, etc.)

Relationship between organisms

Use/benefits

## **Polyculture 2**

Names of the plants or animals

Context (garden, farm, food forest, etc.)

Relationship between organisms

Use/benefits

### **Polyculture 3**

Names of the plants or animals

Context (garden, farm, food forest, etc.)

Relationship between organisms

Use/benefits

## Field Transect

Farms and fields are very diverse. One good way to capture this diversity is to complete a transect — a study of diversity along a specific line. For this activity you will use a 20 meter transect line to do your survey. Working in groups of 3-4 students:

- Place your transect line to capture maximum diversity
- Record all plants directly along the transect line
- Record any other organisms (insects, etc.) that you observe in and around your transect

Sketch of placement of transect line in context

List of plants along transect line

List of other organisms in/around transect line



Annotated map of transect line



## Seed Origins and Seed Saving

Seeds and their control is a critical part of food sovereignty. Sourcing and saving seeds is an essential part of farming and gardening. Farmers utilize a number of strategies to locate, buy, trade and save seeds. Some seeds are purchased, some traded with others, and some saved either on the farm or from locally managed seed banks. Record at least **3 types of plants** and where the seeds come from.

Plant 1:

Plant 2:

Plant 3:

## **Animal Integration**

Animals have always played a critical role in agriculture including in nutrient cycles, crop waste disposal, up-cycling of inedible waste, labor, pest control, and more.

What animals have you observed in and around the farm?

What are their roles / how are they used?

## **Farm Survey and Map**

Farms, especially for small holders in the tropics, often have a specific layout to aid in crop production and harvest. **Draw and annotate a map of the farm,** noting each area and what it is used for.

## Fresh Market Survey

Fresh markets are a feature of most communities in Asia. The focus of this study is the *origin* and *price* of products in the market. **Choose 4 agricultural products** and list what they are, where they are from, their price, and what they are used for.

Product 1:

Product 2:

Product 3:

Product 4:

## Village Survey

The use of space and the built environment tells us a lot about a community. Use the space below to **draw and describe observations** about the village, including housing (common features), infrastructure (roads), and other observations.

## Organic Fertilizer

On-farm production of fertilizer and compost is a critical part of organic farming and sustainable food production. **Describe and illustrate** the process of organic fertilizer production below.

## **ALTERNATIVE INCOME STUDY**

Not all income in farming communities comes directly from growing crops. You will learn about the production and use of herbal balms and other products.

**Describe one of these in detail.**

What is the product?

What are the ingredients and where are they from?

How is the product produced?

How is the product used?



