

## **TRAINING OF TRAINERS ON INTEGRATED SOIL FERTILITY AND PEST MANAGEMENT IN CORN-BASED AGROFORESTRY SYSTEM**

**Project: Resilience-Building Among Smallholder Farmers of Selected Upland Farming  
Communities in the Province of Isabela, Philippines (CBA2021-01MY-Ocampo)**

**Bulwagan ng Sierra Madre, Environmental Information Center Building,  
ISU Cabagan Campus, Isabela  
25 November 2022**

### **RATIONALE**

The smallholder upland farmers in Isabela, Philippines are one of the most vulnerable sectors to external shocks such as pandemic, climate change and natural calamities particularly typhoon. As external shocks are inevitable, there is need to build the resilience of agricultural sector specially in developing nations such as the Philippines particularly the vulnerable farmers in the uplands farming communities in the country through redesigning of their agricultural production systems that are based on the sustainable use of natural resources such as agroforestry system.

In the Philippines, there are various types agroforestry system that exist. The type of agroforestry system adopted by the farmers depend generally on the primary intentions of the farmers, capability of the land and the farmers, and institutional influences as well. Corn-based agroforestry system is one variant where corn serve as the dominant crop component of an agroforestry system. Primarily, the corn crop serve as the cash crop of the farmer while the perennial component provide economic as well as ecological services. In order for the corn-based agroforestry system to realized its full potential, soil fertility in the said system must be maintained and enhanced. Moreover, pests and diseases of the components within the system must be managed in an integrated approach. Hence, this training on integrated soil fertility and pest management will be conducted.

This module is designed to enhance the knowledge of the upland smallholder farmers on integrated soil fertility and pest management in corn-based agroforestry system. This module will highlight the basic concepts and principles of soil fertility and pest management, approaches to integrated soil fertility and pest management and coconut pest management in corn-based agroforestry system.

## OBJECTIVES

The training generally aims to enhance the knowledge of the upland smallholder farmers on integrated soil fertility and pest management. Specifically the training aims to:

1. Explain the basic concepts and principles of integrated soil fertility management and pest management;
2. Discuss soil fertility management approaches;
3. Discuss integrated pest management approaches; and
4. Discuss coconut pest management in corn-based agroforestry system.

The Training of Trainers in Integrated Soil Fertility and Pest Management in Corn-based Agroforestry System was conducted on 25 November 2022 in Bulwagan ng Sierra Madre, Environmental Information Center Building, ISU Cabagan Campus, Isabela. The said training was attended by 52 representatives from City Environment and Natural Resources Office (CENRO) and Provincial Environment and Natural Resources Office (PENRO) of the Department of Environment and Natural Resources (DENR), Office of the Provincial Agriculturist (OPA), Environment and Natural Resources Office (ENRO) and Provincial Planning Department Office (PPDO) of the Provincial Local Government Unit (LGU), representatives from the Office of the Municipal Agriculturist (OMA), Municipal Environment and Natural Resource Office (MENRO), Barangay LGU Officers, and officers and members of partner farmer organizations (**Figure 1**).

The participants were welcomed by Dr. Emerson V. Barcallano, Dean of the College of Forestry and Environmental Resources (CFEM), Isabela State University (ISU) Cabagan Campus and project collaborator (**Figure 2**). This was followed by discussion of various topics by three (3) resource persons from different institutions and government agency. Topics covered during the training are soil fertility management by Dr. Jose Nestor M. Garcia, Director of the Institute of Agroforestry, College of Forestry and Natural Resources, University of the Philippines and project collaborator (**Figure 3**), Integrated Pest Management by Mr. Saderi G. Ramel, Instructor at the College of Agricultural Sciences and Technology (CAST) ISU-Cabagan Campus (**Figure 4**) and Coconut Pest Management in Corn-based Agroforestry System by Dr. Chricept T. Vilorio, Project Development Officer IV of Philippine Coconut Authority (PCA) (**Figure 5**).



**Figure 1. Participants and speakers during the Training of Trainers in Integrated Soil Fertility and Pest Management in Corn-based Agroforestry System**



**Figure 2. Welcome remarks delivered by Dr. Emerson V. Barcellano (ISU)**



**Figure 3. Soil fertility management topic discussed by Dr. Jose Nestor Garcia (UPLB)**





**Figure 4. Integrated pest management by Mr. Saderi G. Rame (ISU)**



**Figure 5. Coconut pest management in corn-based agroforestry system by Dr. Chricept T. Viloría (PCA)**