

Project Title: *Participatory Assessment of Land Capability for Agroforestry in Selected Upland Farming Communities in the Province of Laguna, Philippines using Agroforestry Land Capability Assessment and Mapping Schemes (ALCAMS)*

ACTIVITY REPORT

TRAINING ON SUSTAINABLE UPLAND DEVELOPMENT THROUGH AGROFORESTRY: ESTBALISHING AND ENHANCING FARMS USING ALCAMS

Rationale

San Pablo and Rizal are among the municipalities in Laguna that have a large tract of land devoted to agricultural production. However, these two municipalities are facing problems in the agricultural sector, particularly in upland farming areas, due to the impact of climate change and various anthropogenic activities. Soil erosion, extreme weather conditions, and pests and diseases are among the serious concerns in the areas that severely affect the food production, and economic welfare of the upland farmers. In light with the current environmental conditions, the upland farmers' traditional farming methods may no longer be effective. Therefore, there is a need for strategies to enhance the farming systems in the upland for sustainability.

One of the known strategies that addresses the problems of environmental stability and crop production is agroforestry. It is considered as a sustainable farming system that combines the production of agricultural crops and perennials on the same piece of land. Assessing the capability of land to support agroforestry can be done through the use of Agroforestry land capability assessment and mapping schemes (ALCAMS). It is a low-cost and easy-to-learn tool that determines the capability of land to support agroforestry. With this tool, it can dictate the kind of agroforestry system suitable for a certain land.

The training was designed to allow upland farmers and field technicians to enhance their knowledge and attitude toward agroforestry as a sustainable farming system. This training will focus on lectures and discussions about the basic concept of agroforestry, different soil and water conservation measures, and the use of ALCAMS as a tool for assessing land capability for agroforestry.

Learning Objectives

1. To explain the basic concepts of agroforestry and its role in sustainable upland communities;
2. To discuss some of the agroforestry systems being practiced in the Philippines;
3. To discuss the different soil and water conservation measures as supportive technologies for agroforestry;

4. To discuss and demonstrate ALCAMS as a tool for assessing land capability for agroforestry

On-site Activity

The project team organized two (2) on-site trainings on sustainable upland development through agroforestry held on 27 February 2024 and 5 March 2025 in Barangay Tala, Rizal, Laguna and Barangay San Cristobal, San Pablo, Laguna, respectively. Among the participants were local farmers and staff from local government units.



Figure 1-2. Participants of the training held in Barangay Tala, Rizal (*left photo*) and in Barangay San Cristobal, San Pablo (*right photo*) in the province of Laguna, Philippines.

The morning session of the training was allotted to the lecture-discussions about agroforestry. The first lecture on agroforestry concepts and its role in a climate-resilient and sustainable upland community was delivered Assistant Professor Romnick Baliton from the Institute of Renewable and Natural Resources, College of Forestry and Natural Resources, University of the Philippines, Los Banos (IRNR-UPLB). This was followed by a lecture on agroforestry systems in the Philippines provided by Ms. Maria Therese Nemesis Ocampo from the Institute of Agroforestry (IAF-UPLB). Dr. Jose Nestor Garcia, former Director of IAF and a retired Professor from UPLB, served as the resource person on the topic titled soil and water conservation measures as supportive technologies in agroforestry.



Figure 3-4. Asst. Prof. Romnick Baliton providing lecture on climate change and agroforestry (*left photo*) and Ms. Maria Theresa Nemesio Ocampo discussing the agroforestry systems in the Philippines (*right photo*).

The afternoon session of the training was used for the lecture-discussion and practical sessions on the use of agroforestry land capability assessment and mapping scheme (ALCAMS) as a tool for assessing the capability of land for agroforestry. The project leader, Forester Ma. Armie Janica Ramirez facilitated the lecture and hands-on exercise on ALCAMS. The last activity which was a practical session on constructing A-frame and contour line determination in a farm was done and it was facilitated by Asst. Prof. Romnick Baliton.



Figure 5-6. Practical exercise on use of ALCAMS as a tool for land capability for agroforestry in Barangay Tala (*left photo*) and Barangay SanCristobal (*right photo*).



Figure 5-6. Participants from Barangay Tala (*left photo*) and Barangay San Cristobal (*right photo*) conducting contour line determination using A-frame.