

WHAT IS AGROFORESTRY?

Agroforestry is a land management system that combines woody perennials (e.g., trees, shrubs, palms, etc.) with agricultural crops and/or animals on the same piece of land. Its sustainability is attributed to the significant interactions among its components.

The goal of agroforestry is to **increase farmer's income** and provide basic needs while **improving environmental conditions**.



BENEFITS OF AGROFORESTRY



Efficient use of water and other soil nutrients

The systematic planting and management of woody and non-woody perennials, and other agricultural crops in agroforestry help to use the water and soil nutrients efficiently.



Increases soil fertility

Different components of agroforestry especially those that are nitrogen fixers can help to improve soil fertility



Provides income to the farmer

By producing a variety of products, agroforestry systems reduce the risk associated with price fluctuations and crop failures.



Improves biodiversity

Trees and other woody perennials in agroforestry create a complex structure that serves as niches for various animals.



Reduces soil erosion

On sloping areas, trees and shrubs typically have deep and extensive root systems that help bind the soil, making it more resistant to erosion.



EXAMPLES OF AGROFORESTRY SYSTEMS

Multistorey System

An agroforestry system characterized by having of at least two layers of canopy , in which trees are mixed with annual and other perennial crops. Tall trees serve as shade for the plants underneath and can also source of fruit, animal feed or firewood. The understory of this system is composed of other woody and non-woody, and/or agricultural crops.



This system produces good interactions between the soil, trees and vegetables, and the environment. This is the type of agroforestry that is widespread in the Philippines such as Barangay San Cristobal, San Pablo and Barangay Tala, Rizal in the province of Laguna.

Live Trellis System

This can be considered agroforestry which uses a plant or tree as a trellis for vegetables such as tomato, bitter gourd, cucumber and others. Often, what is used as a trellis is the kakauate or madre de cacao tree. This tree is rich in nitrogen which helps to improve soil fertility.

Leaves and other materials from this system serve as green manure that provides additional nutrients and improves soil structure.

