

# Basics of agroforestry

Agroforestry is the agriculture with trees and is essential in having a sustainable ecosystem.

Agroforestry combines agricultural, pastoral and forestry elements in one area. The forest tree element can be different types of woody trees and shrubs, interaction between trees and crops or livestock are important at different scales. The trees in agroforestry can be arranged in rows, grids, as contours or dispersed randomly. Agroforestry can be by combining trees with crops, trees with livestock or a combination of crops, trees and livestock.

## Benefits of agroforestry

Agroforestry conserves biodiversity and provides carbon sequestration leading to resilience and high production.

Agroforestry leads to high land productivity and if arranged well, the different roots in the different soil horizons can use the water efficiently.

Trees improve on the micro climate, reduce water and soil erosion. Leguminous trees fix nitrogen into the soil which can be used by the crops.

Agroforestry also reduces pesticide use as intercropping generally reduces disease and pest incidence

## Demerits of agroforestry

Complex agroforestry systems are difficult to establish because they require much knowledge, skills and manual labour through out the year.

Depending on the types of trees and the agricultural elements and their spacial and temporal arrangements, competition for

light, nutrients and water can become excessive and cause yield reduction of individual components.

Some plants also do not grow well together due to allelopathy and returns to investment can sometimes be long.