



# Agro Forestry

**Agro forestry** –It is any sustainable land-use system that maintains or increases total yields by combining food crops (annuals) with tree crops (perennials) and/or livestock on the same unit of land.

## Benefits of agro forestry

### 1. Economic benefits

- Reduction in incidence of total crop failure, which is common to single cropping or monoculture systems
- Increment in an outputs of food, fuel wood , fodder, fertiliser and timber

### 2. Environmental benefits

- Better protection of ecological system
- More efficient recycling of nutrients by deep-rooted trees on the site

### 3. Social benefits

- Improvement in nutrition and health due to increased quality and diversity of food outputs
- Improvement in rural living standards from sustained employment and higher income

## Some terminologies related to Agro Forestry

### 1. Farm Forestry

- Farm forestry is the name given to programs which promote commercial tree growing by farmers on their own land.

### 2. Extension Forestry

- Extension forestry is the practice of forestry in areas devoid of tree growth and other vegetation situated in places away from the conventional forest areas with the object of increasing the area under tree growth.
- It includes the following

#### ➤ Mixed forestry

It is the practice of forestry for raising fodder grass with scattered fodder trees, fruit trees and fuel wood trees on suitable wastelands, panchayat lands and village commons

#### ➤ Shelterbelts

It is defined as a belt of trees and or shrubs maintained for the purpose of shelter from wind, sun, snow drift, etc.

#### ➤ Linear Strip plantations

These are the plantations of fast growing species on linear strips of land.



### 3. Rehabilitation of Degraded forests

- The degraded area under forests needs immediate attention for ecological restoration and for meeting the socio economic needs of the communities living in and around such areas.

### 4. Recreation Forestry

- It is the practice of forestry with the object of raising flowering trees and shrubs mainly to serve as recreation forests for the urban and rural population.
- This type of forestry is also known as Aesthetic forestry which is defined as the practice of forestry with the object of developing or maintaining a forest of high scenic value.

## Agro forestry Diagnosis & Design

Agro forestry D & D is a family of procedures for the diagnosis of land management problems and potentials and the design of agro forestry solutions.

#### ➤ Key Features of D & D:

- Flexibility
- Speed
- Repetition

#### ➤ Procedures of AF Diagnosis and Design:

The procedures of AFD & D are usually done of two types:

- 1) Macro D &D
- 2) Micro D &D

## ROLE OF TREES IN SOIL FERTILITY

**Tree Root Patterns:** It is also known as 'nutrient pumping' by trees

*Prosopis chilensis* has a shallow and spreading root system whereas *P. juliflora* is known to have a very deep root system