

# OIL PALM AGROFORESTRY

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**AGROFORESTRY** – a set of specific practices that combine trees, crops and/or livestock at different scales:



**Plot scale**, a practice that combines woody perennials (trees, shrubs, palms, bamboos, etc), agricultural crops and/or animals on the same land management unit in some form of spatial arrangement or temporal sequence to obtain income, food, fodder, fuel, building materials, etc.



**Landscape scale**, the intersection of farmers and forest and all trees in agricultural land and multi-functional landscapes produce and provide ecosystem services locally, regionally and globally.

## Oil Palm Agroforestry

A mixture of oil palm, perennial crops, annual crops and or livestock/fisheries, with oil palm population varying from 30-80% of the oil palm population in a monoculture system.

## The Benefits and Advantages of Agroforestry

### At plot level

- **Efficiency in land uses:** Land Equivalent Ratio, i.e., the sum of relative yields of all components compared to a 'current practice' monocultural production mode, is higher than 1.
- **Efficiency in the use of labour:** Return to Labour is higher than the daily wage rate indicating that agroforestry is profitable.
- **Efficiency in the use of capital:** Net Present Value (discounted flow of financial equivalents of all inputs and outputs of a land-use system; dependent on the discount rate used) is higher.
- **Increased livelihood resilience and food security** through diversified income and food sources along the year.
- **Flexibility and risk management (high adaptability to the local context):** maintenance of multiple options in the face of variations in weather, prices, labour availability, pests and diseases e.g Ganoderma.
- Maintained and improved soil fertility and biodiversity of soil macrofauna.
- Increased aboveground (agro)biodiversity.

### At the landscape level

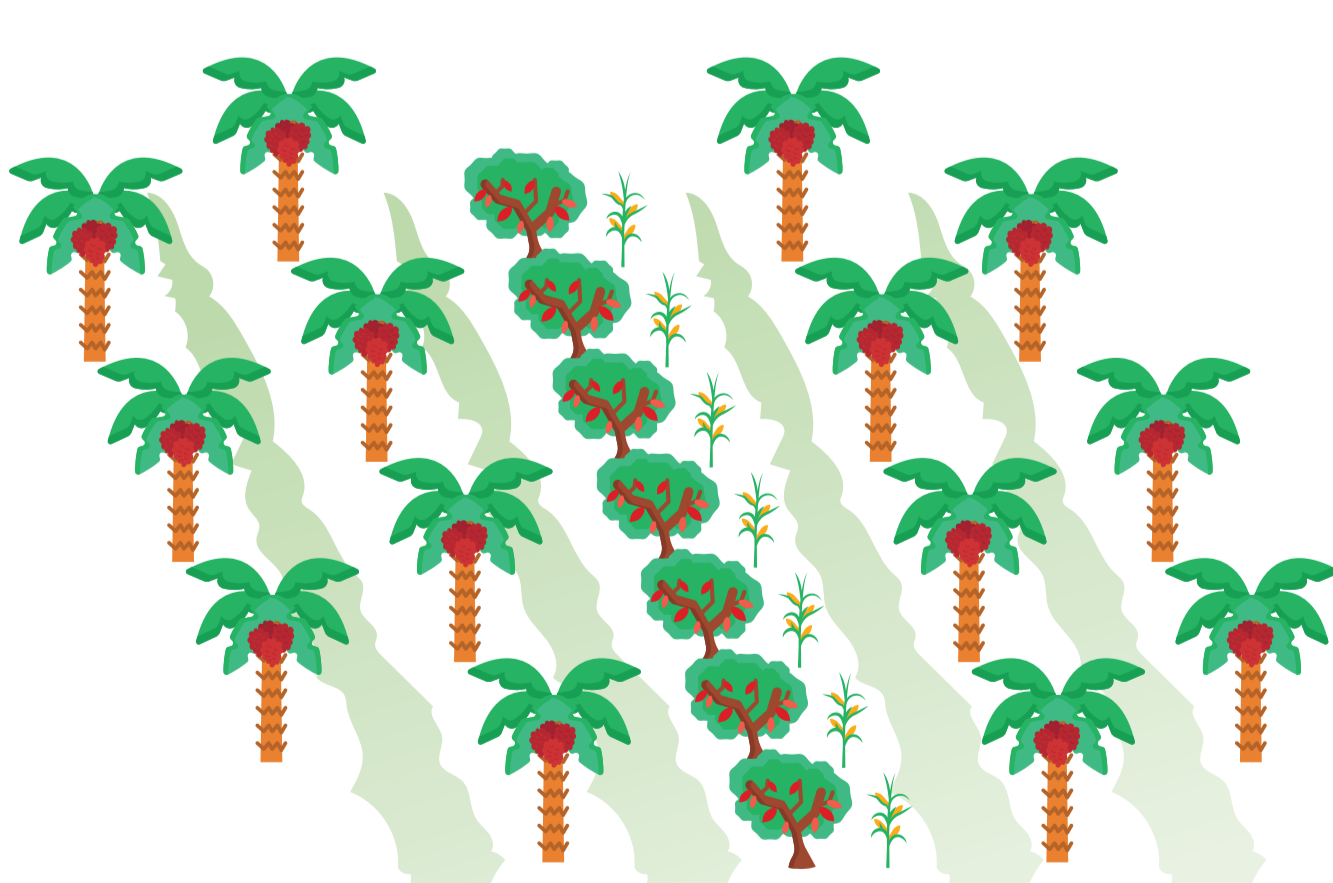
agroforestry enhances ecosystem functioning and multifunctionality

## Raise Awareness, Change Behaviour, and Increase Adoption of Oil Palm Agroforestry

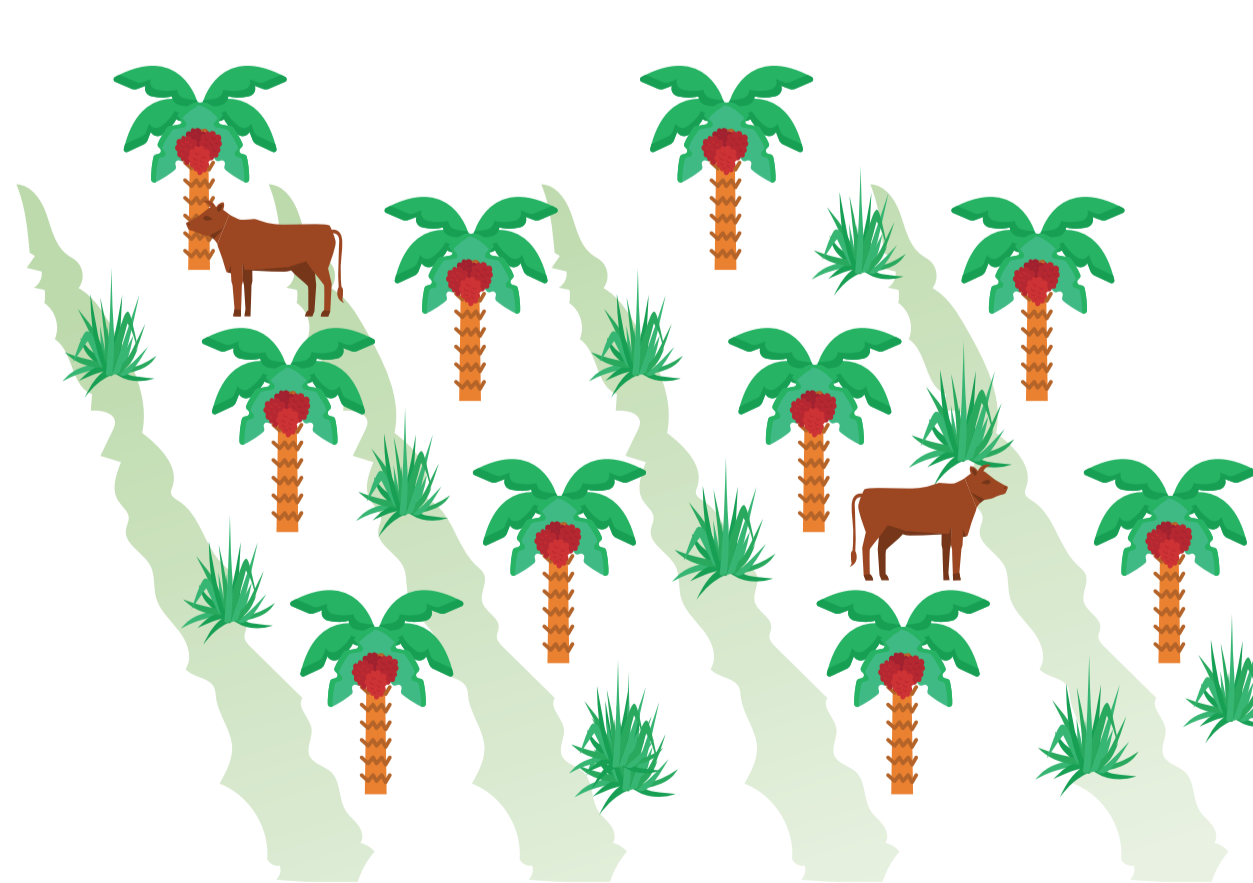
- ✓ **Awareness:** communicating and creating awareness about oil palm agroforestry through training on designing and establishing oil palm agroforestry, managing oil palm agroforestry with the principles of Best Management Practices-Regenerative Agriculture (BMP-RegAg), extension program to increase adoption.
- ✓ **Desire:** establishing demonstration plots to foster changing from oil palm monoculture into oil palm agroforestry
- ✓ **Knowledge:** inclusive designing process of oil palm agroforestry, including the farmer's benefit.
- ✓ **Ability:** establishing nurseries of non-oil palm commodities to support the implementation of oil agroforestry.
- ✓ **Reinforcement:** Regular coaching and monitoring for the farmers who implement/ adopt oil palm agroforestry.

## Options of Oil Palm Agroforestry Designs

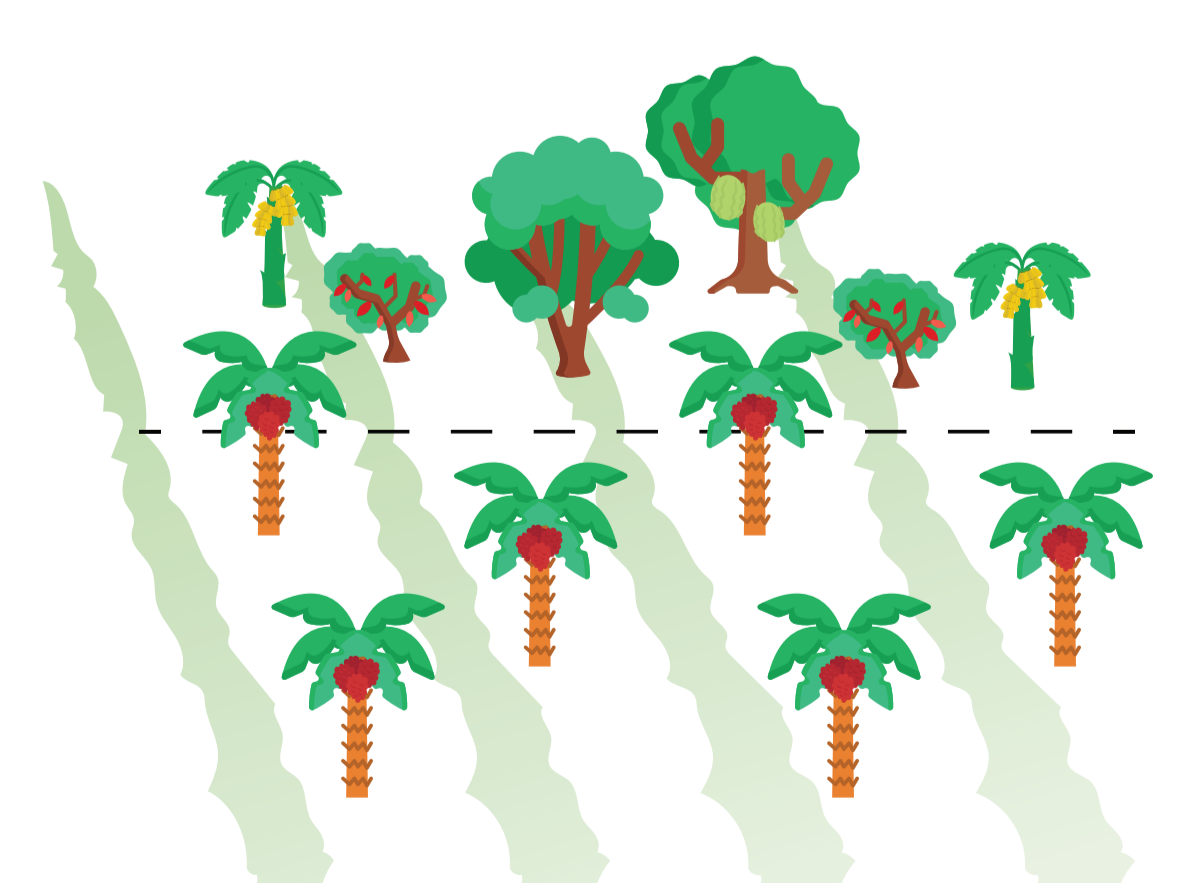
- 1** Single or double row with annual or perennial crops



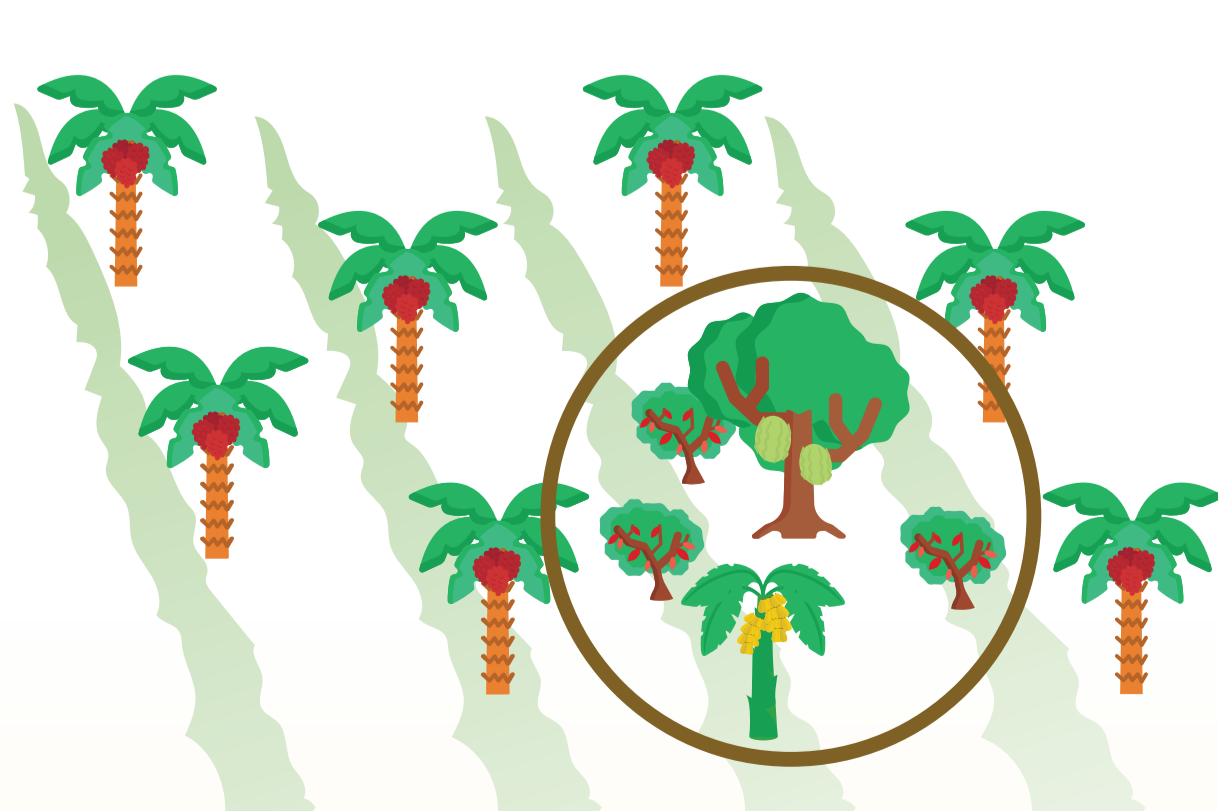
- 2** Agrosilvopastoral: livestock and fodder



- 3** Split plot with perennial crops (fruits or timber)



- 4** Sisipan with annual or perennial crops



- 5** Border with perennial crops (fruits or timber)

