



Farming Practices

Intercropping in coffee plantations

Farmer Group Educator (FGE) training sessions

FGE training sessions



Farming practices



Farm group



Gender
& ESS



Financial literacy



Content

- What is intercropping / crop diversification
 - Benefits of intercropping
 - Criteria for intercropping
- Case studies on intercropping in coffee
- Intercropping methods
 - In young coffee
 - In established coffee
- Things to remember



Intercropping – definition, benefits & criteria



Intercropping / crop diversification

- Growing one or more compatible crops along with the main crop to obtain additional revenue
- The intercrops will have different growth characteristics like canopy height, canopy spread, root depth and root distribution
- Maximum utilisation of natural resources
- Do not compete with the main crop (coffee)



Benefits of intercropping in coffee

- Increases the overall productivity of the available land
- Provides additional income in staggered manner throughout the year
- Acts as an insurance against crop failures and low prices for coffee
- Intercropped farms are more climate resilient compared to mono crop
- Perennial fruit trees / spices grown as intercrops act as shade plants, reduce the risk of erosion and improve soil health
- Provide healthy food to farming families
- Provide regular employment throughout the year



Criteria for intercropping in coffee

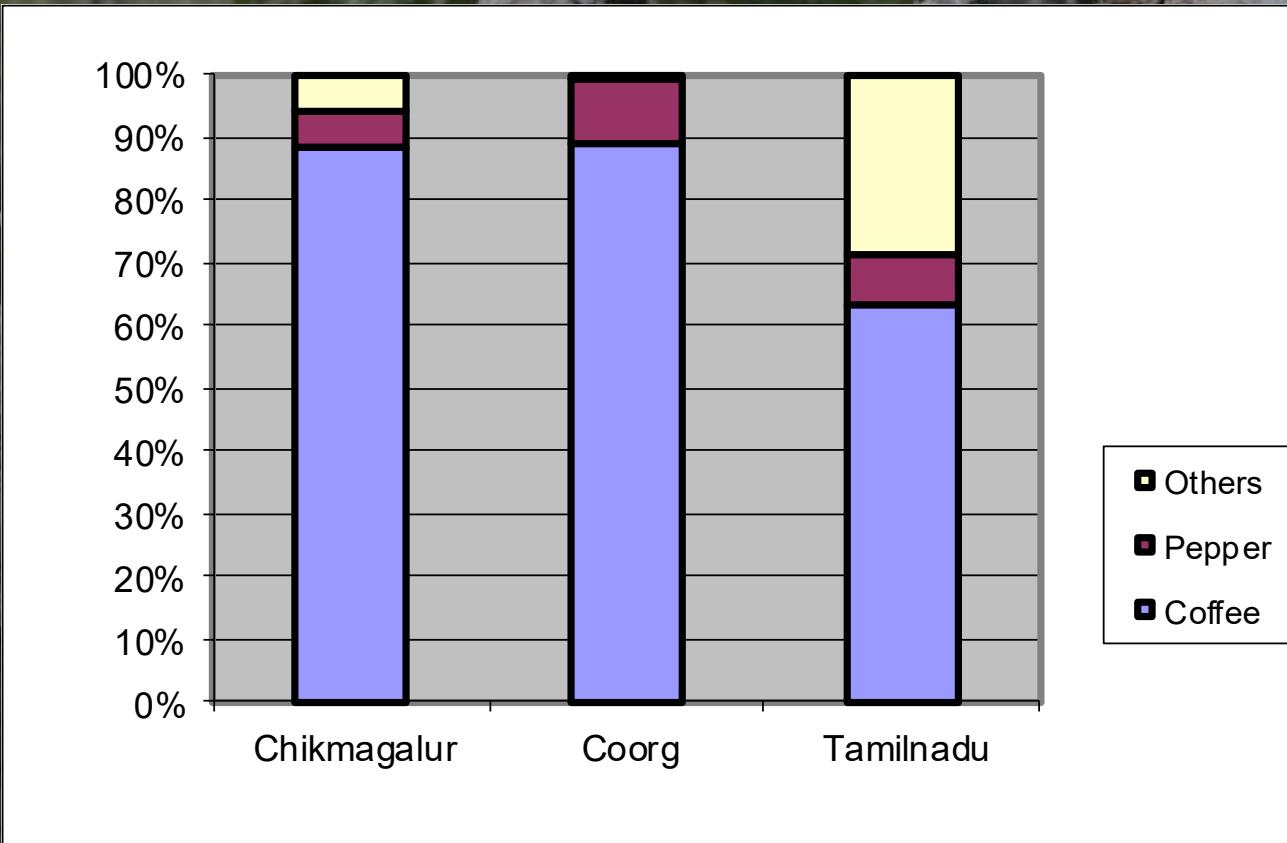
- Effective utilisation of inter-row space in coffee plantation
- Intercrops should have different growth characteristics, so that they do not compete with coffee for light, nutrients and water
- Maintain optimum plant population
- Adopt separate management practices
- They should not harbour pests and diseases of coffee



Case studies on intercropping - India



% share of intercrops in total income of Arabica holdings

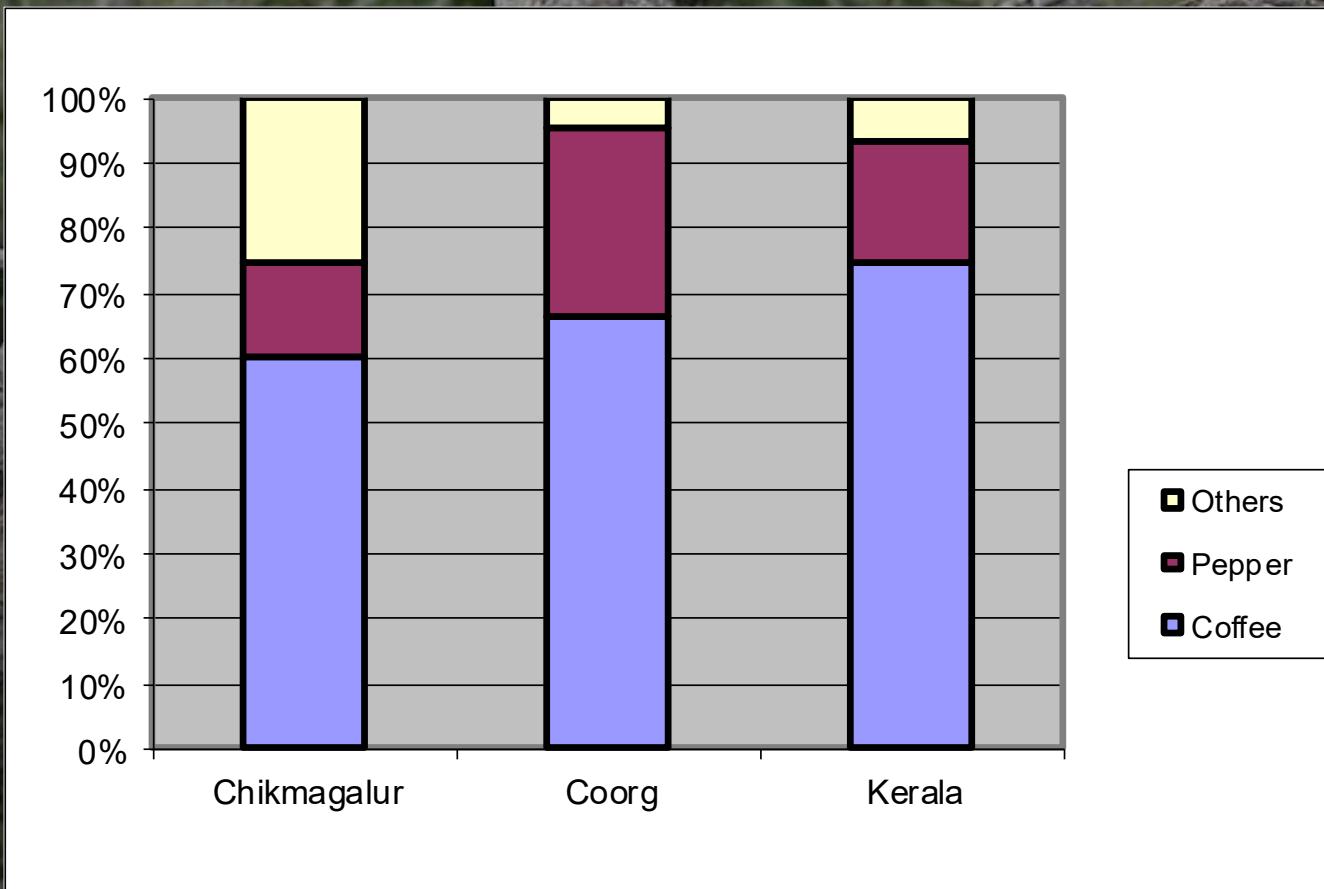


Others: Mandarin
orange, Banana,
Avocado, Areca
nut etc.

Courtesy: Coffee Board of India



% share of intercrops in total income of Robusta holdings



Others: Areca nut

Courtesy: Coffee Board of India



Intercropping in young coffee

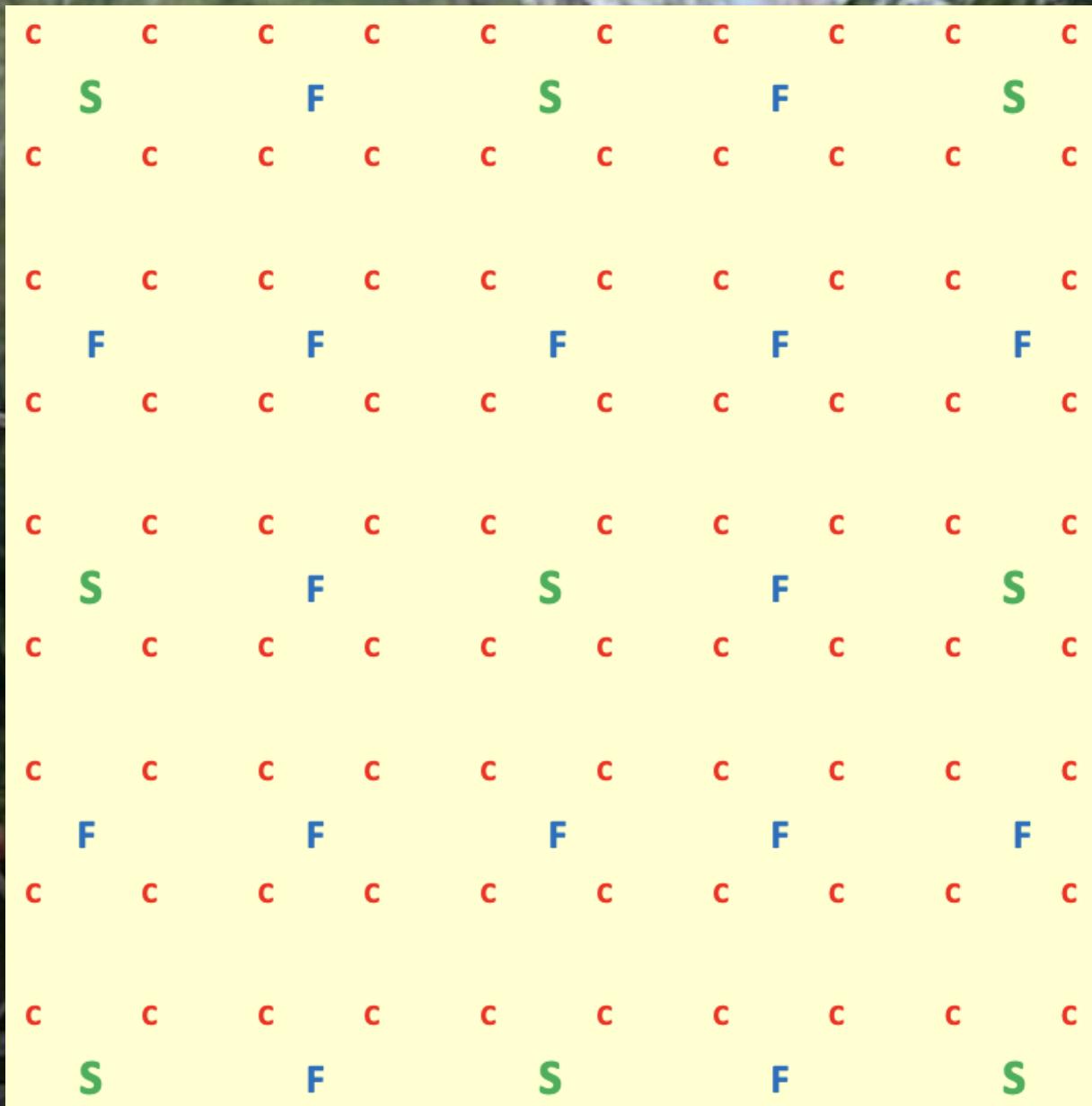
- Short duration crops
 - Vegetables – Beans, Yams, Melons
 - Biennial crops – Ginger, Pineapple, Banana etc.
- Benefits
 - Effective utilization of vacant spaces in between coffee rows
 - Helps in effective weed control
 - Helps in erosion control
 - Biomass can be used as mulch and compost
 - Provide additional income when coffee is not yielding





Intercropping in grown up coffee

- Suitable crops
 - Perennial spice crops – Black pepper, Clove, Nutmeg, Cinnamon etc.
 - Fruit crops – Mandarin orange, Avocado, Jack Fruit etc.
 - Others: Areca nut, Cardamom in valleys
- Benefits
 - Improve micro-climate
 - Provide additional income round the year
 - Biomass can be used for composting / biochar preparation



Model Planting Design for Intercropping



C – Coffee 10x10ft

F – Fruit trees 20x20ft

PS – Permanent Shade Tree 40x40ft





Arabica + Pepper + Jackfruit + Arecanut (India)



Arabica + Banana + Orange + Pepper + Bee Keeping (India)



Arabica + Clove (India)



Arabica + Pepper + Orange (India)

Robusta + Pepper (India)



Robusta + Arecanut + Pepper (India)



Things to remember

- During early years
 - Intercropping only in interspaces with clear gap of at least 1 ft from base of coffee plants
 - Separate nutrition and plant protection measures to be undertaken
 - Avoid intercropping once coffee starts yielding
- In grown up coffee
 - Maintain optimum planting density / planting design
 - Separate nutrient and plant protection measures to be adopted

شکرا جزپلا
 Merci شُكْرِيَا
 شکریے
 obrigado
 efharistó
 شکریے
 thank you
 zikomo xie-xie gracias
 gracias
 danke
 urakoze ke itumetse asante
 terima kasih tak dhanyawaad
 kiitos
 ありがとう
 Amesegnalehu

CABI as an international intergovernmental not-for-profit organization, gratefully acknowledges the generous support received from our many donors, sponsors and partners. In particular we thank our Member Countries for their vital financial and strategic contributions.