



# **Sustainable Agricultural Mechanization: Partnership Models**

**Alliance for a Green Revolution in Africa (AGRA)**

By

Dr Hans Balyamujura

# Broad Segmentation of Farmers ...

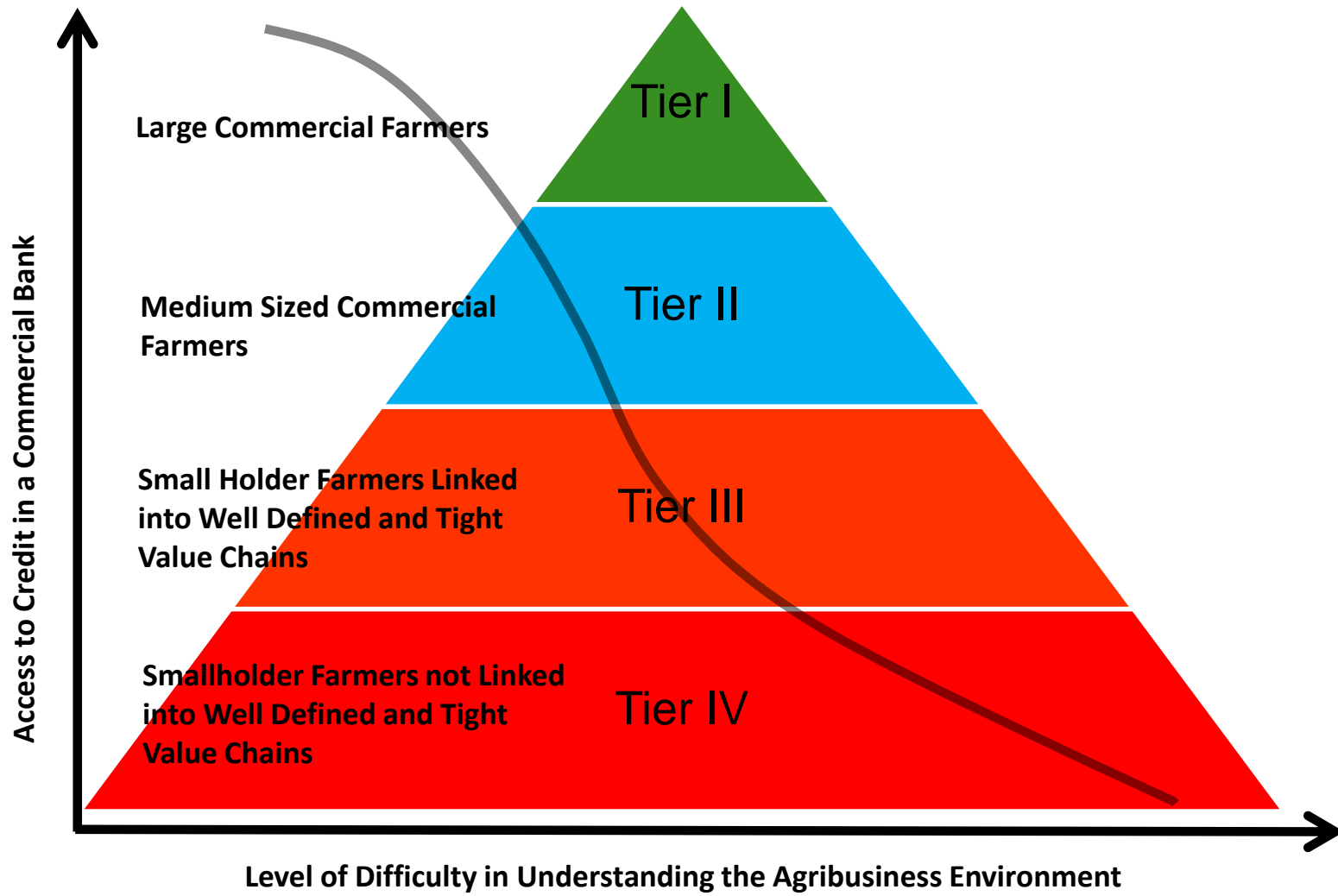


Figure 1: Broad Segmentation of Farmers

# 1. Tier II Business Models ...

## 1.1 Farmer Organisation Business Model (IKURU) ...

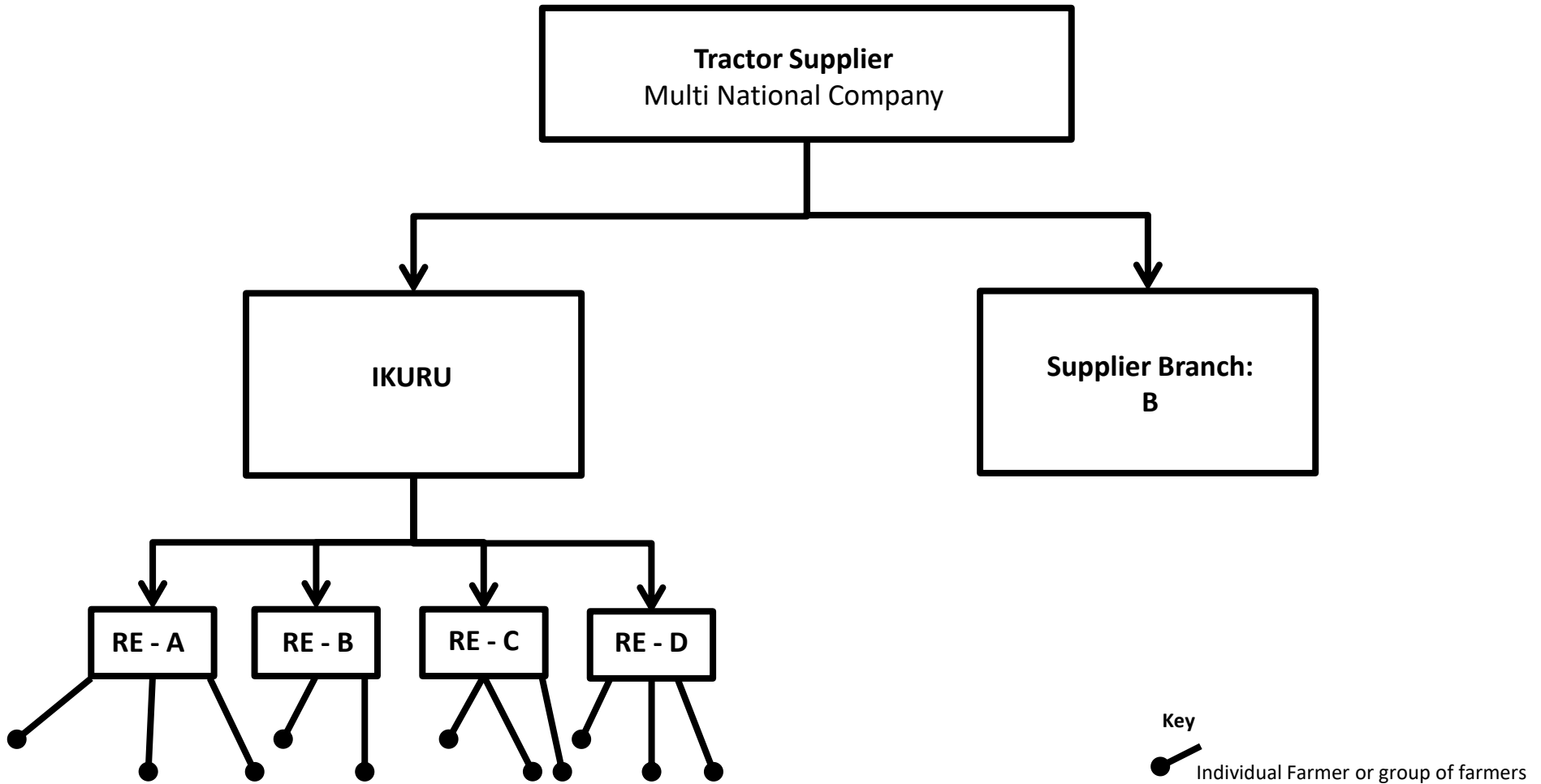
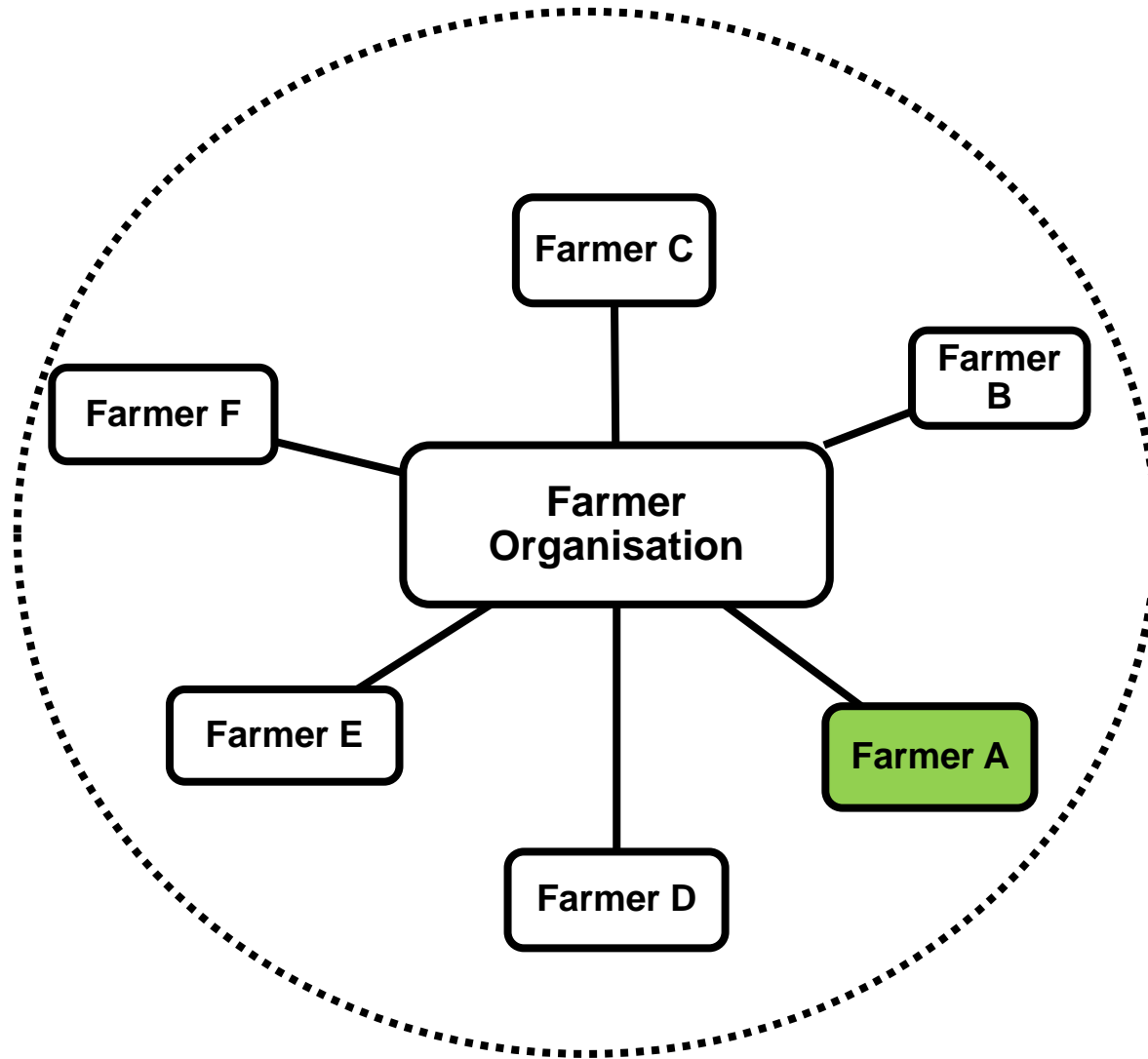


Figure 1: Tier II Mechanization Business Model

## 1.1.1 Operational Structure ...



### Key Characteristics

- Seed multiplication
- Rental service

Figure 2: Rural Entrepreneur Structure

## Operational Structure Cont'd ...

- Farmer Organisation/Supplier Branch
  - Total cost structure (Personnel and operations)
  - Cost of normal commercial maintenance service (Sales service)
    - Mechanization service as a marketing tool (sales promotion)
    - Supplier branch sets up an efficient use of demo units
  - The service delivered in partnership with the Farmer Organisation and the Multi National/National company
  - Commercial maintenance service
    - Maintenance team supports the Farmer Organisation's repair work to ensure efficient utilization of the team of mechanics at the supplier branch

## 1.2 Tier IV Business Model ...

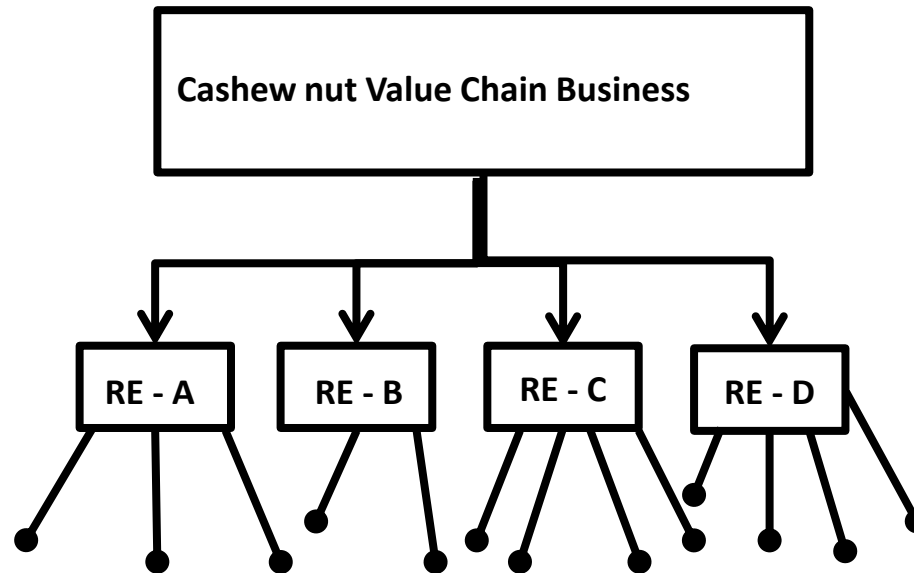


Figure 5: Cashew Nut Spraying Contractor

Key  
● Individual Farmer or group of farmers

## 1.2.1 Rural Entrepreneur ...

### Cashew nut Tree Spraying Service

### Farmer Spraying Services

- Spraying cashew nut trees
- 400 trees per season
- 17 to 25 farmers
- Charges 1 to 2 US\$ per tree or 1 to 2Kg per tree
- Yield is between 3 and 6kg per tree

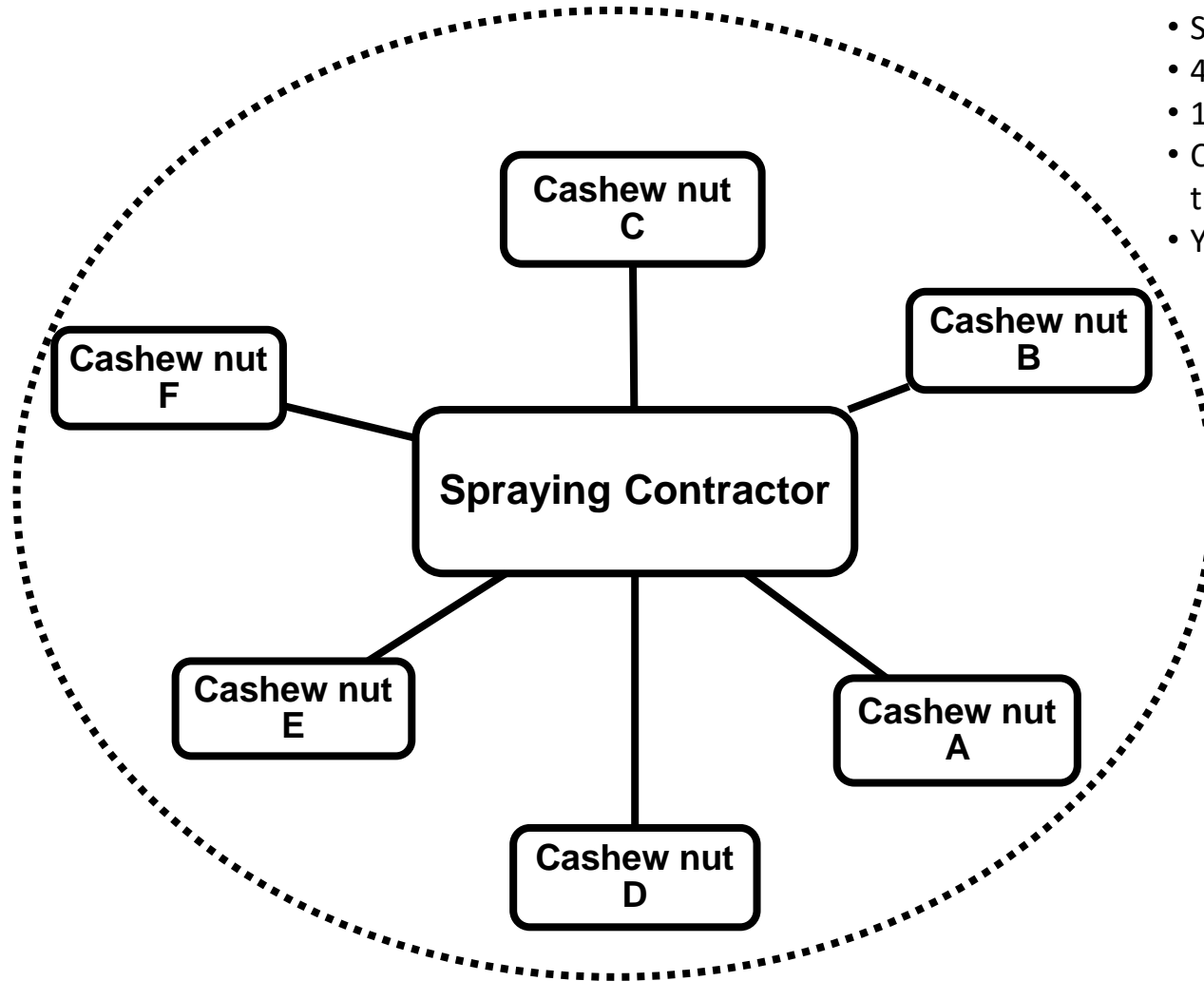


Figure 6: Rural Entrepreneur Structure

## 1.2.2 Design ...



Average revenue of US\$ 800.00 per season



- The Value chain business/FO trains the contractor
- Spraying contractor understands the needs of the value chain
- Individual contracted by FO/Value chain business
- Farmers contracted under a FO/Value chain business
- Standards set and managed by FO/Value chain business
- All chemicals supplied by the FO/Value chain business
- Good husbandry/spraying results in between 2 and 4 kg increase in yield per tree.
  - In the long term, this can increase to 11Kg per tree of raw cashew nuts.
- Spraying contractor can spray other crops during peak spraying demand.
- All maintenance and technical support provided by FO/Value chain business.
  - Investment includes 2-year maintenance and start up chemicals (approximately 60 trees)



**End**