



Developing Appropriate Logistics for Perishable Goods and the Integration of Smallholders Farmers

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Challenges of the Small and Rural Farms

- Being small farms
 - Lack of financial capital and small production below threshold capacity
 - Poor costs and operation efficiency
 - Low product quality
- Locality
 - Distance from the collection centers, market and exit port
 - Poor access to reliable information
 - Physical inaccessibility due to terrains, poor transport infrastructure
 - Incur higher transportation costs in produce delivery
- Production decisions
 - Lack of knowledge and information result in the inability to decide what, when, how and how much to grow?
 - What capacities of the small farms able to engage into the Supply Chain System
 - What motivations are needed to want to engage into the Supply Chain System
 - What competencies are needed of small farmers to enable them into the System

Opportunities of the Small and Rural Farms

Advantages of small farms

- Direct and precise control of farm operations
- Detect crop problems quickly
- Personal attention to crop care

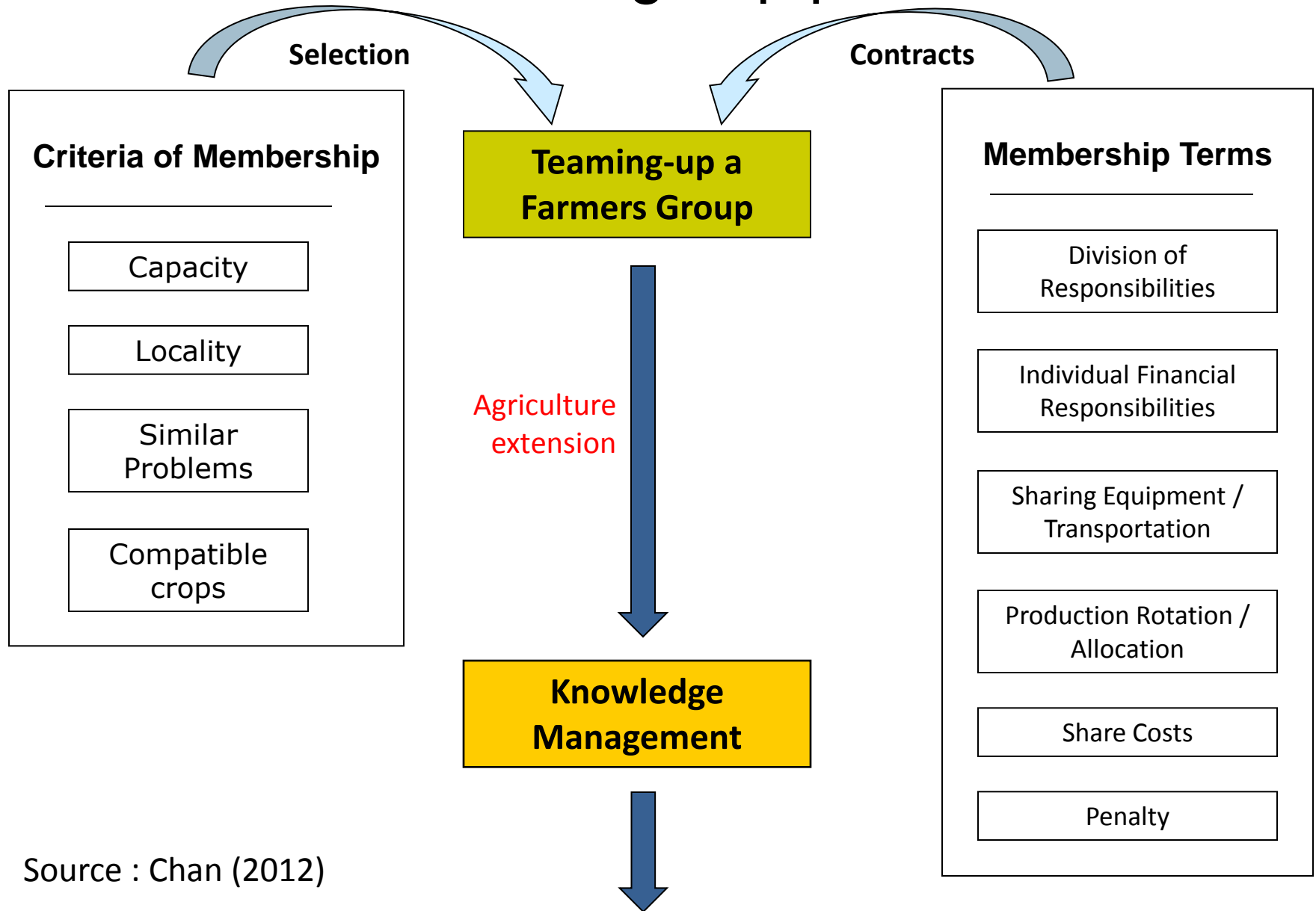
Opportunities available to small farms

- With global changes, new markets become available and accessible
- Niche marketing
 - Innovate farm techniques
 - Innovate marketing approaches
- Add value to products
 - Safe food
 - Rare cultivars / varieties
 - Differentiated produce
 - Quality Certification
- Develop supply chain networks

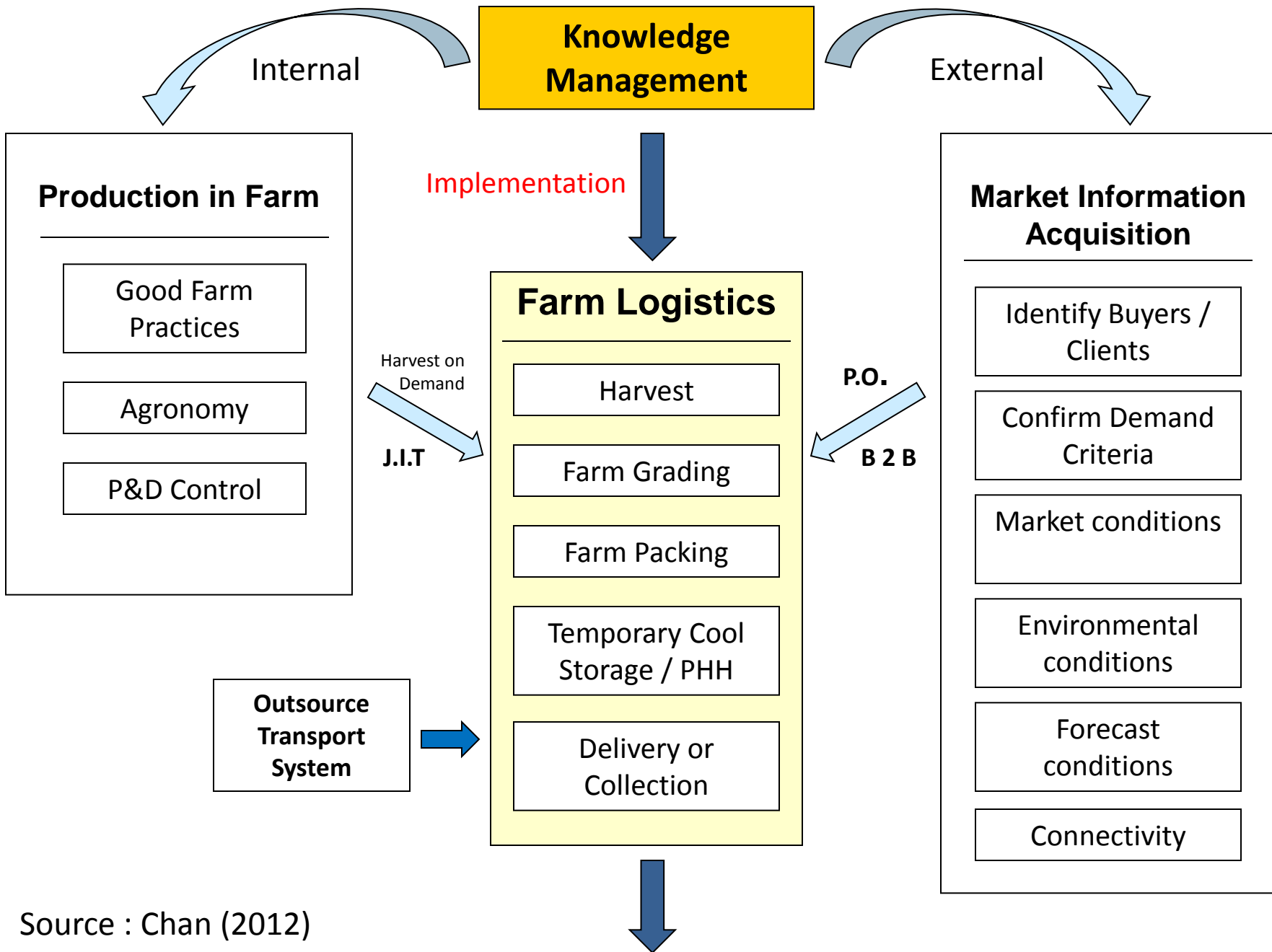
Determinants of an Efficient Logistics Management Program

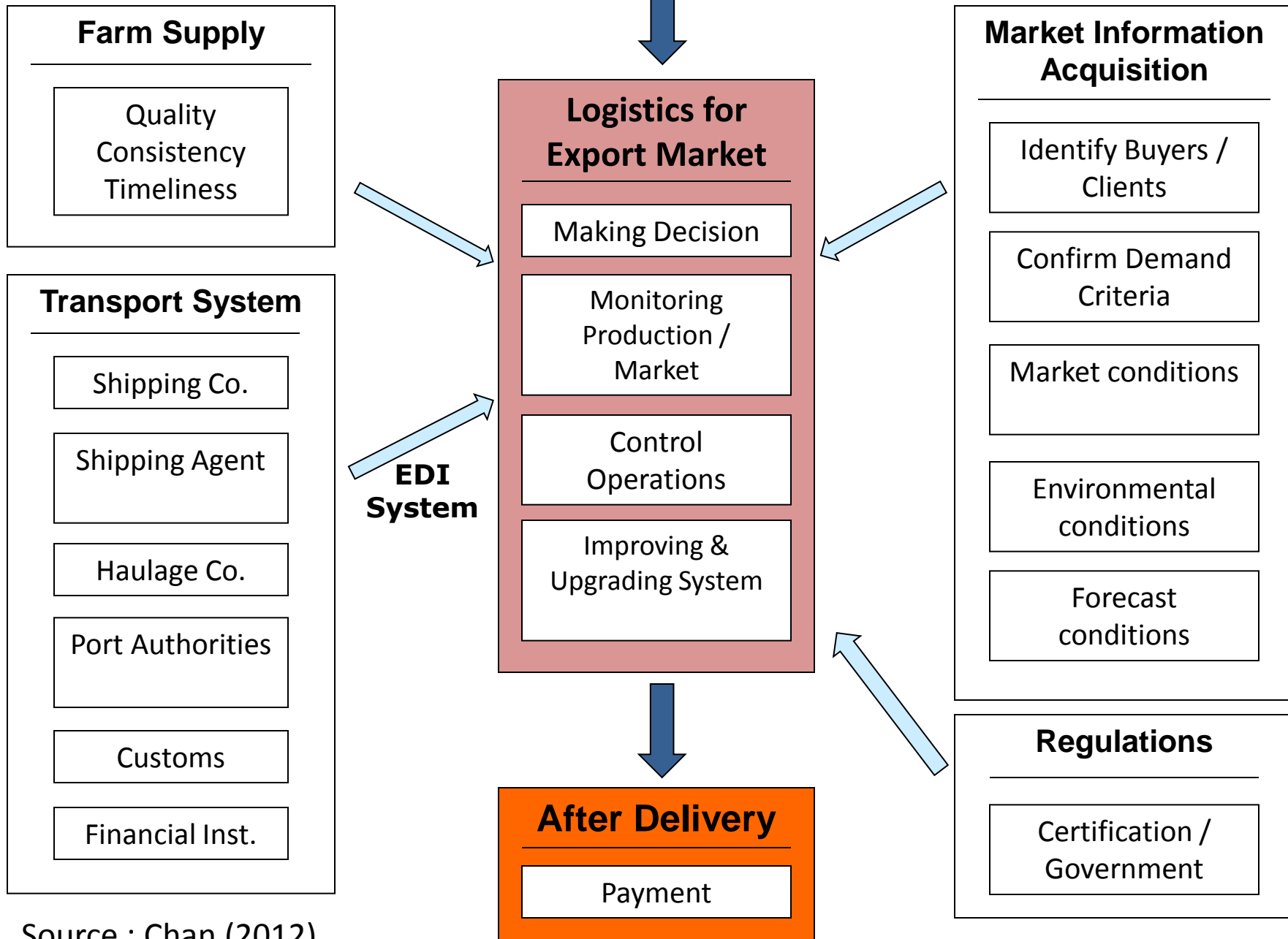
- Timing – correct time of implementation, shortest transit route
- Reliability – right time of departure / arrival
- Consistency – doing it again and again
- Quality – best quality condition
- Performance – full satisfaction of the customer
- Cost – most efficient logistics cost, economies of scales, inventory
- Price – most competitive price
- Sustainable logistics system – fuel resources, transport mode, etc
- Others – Security, Highest capacity utilization, Responsiveness, etc.

Developing a logistics model for the small & rural farmers group production



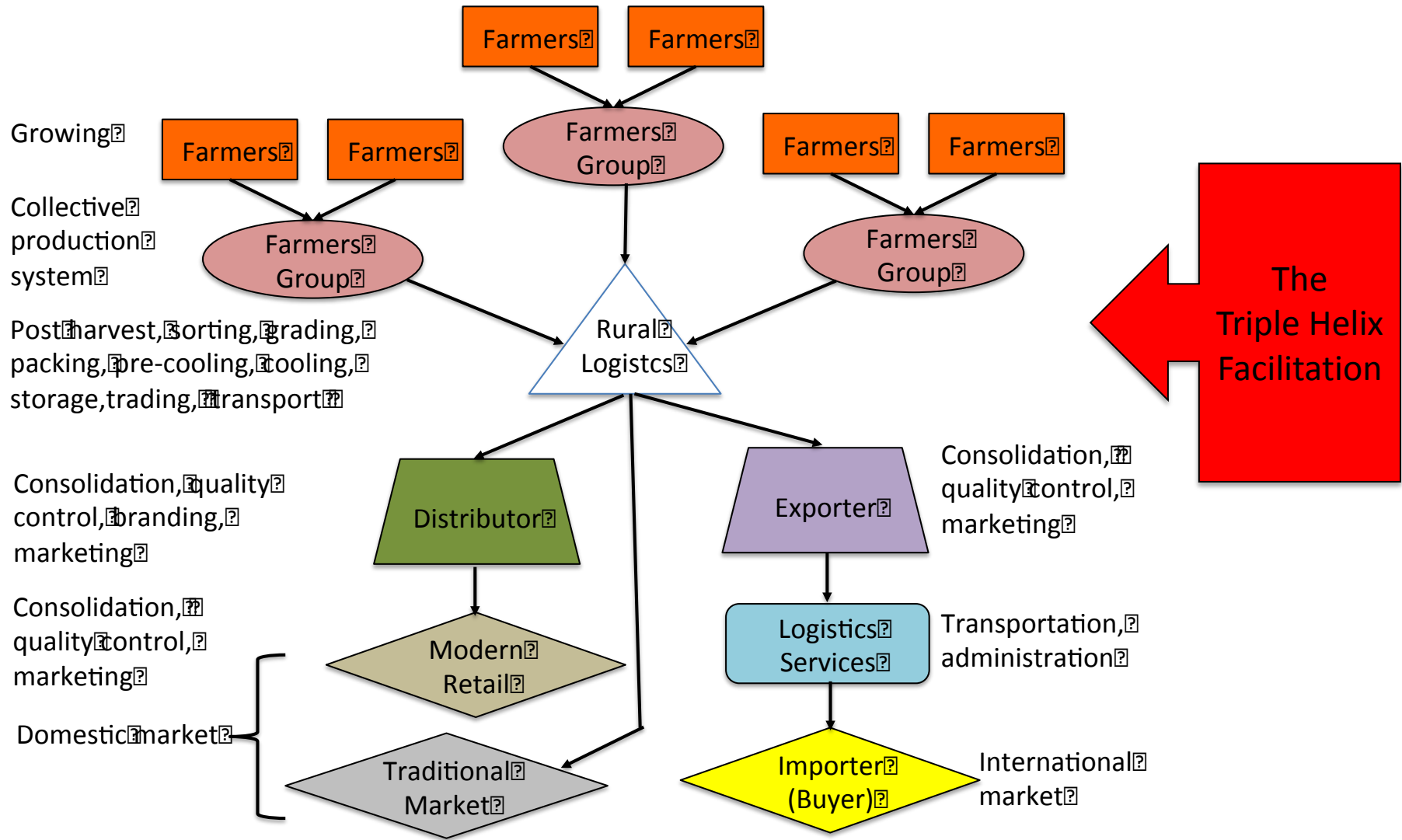
Source : Chan (2012)



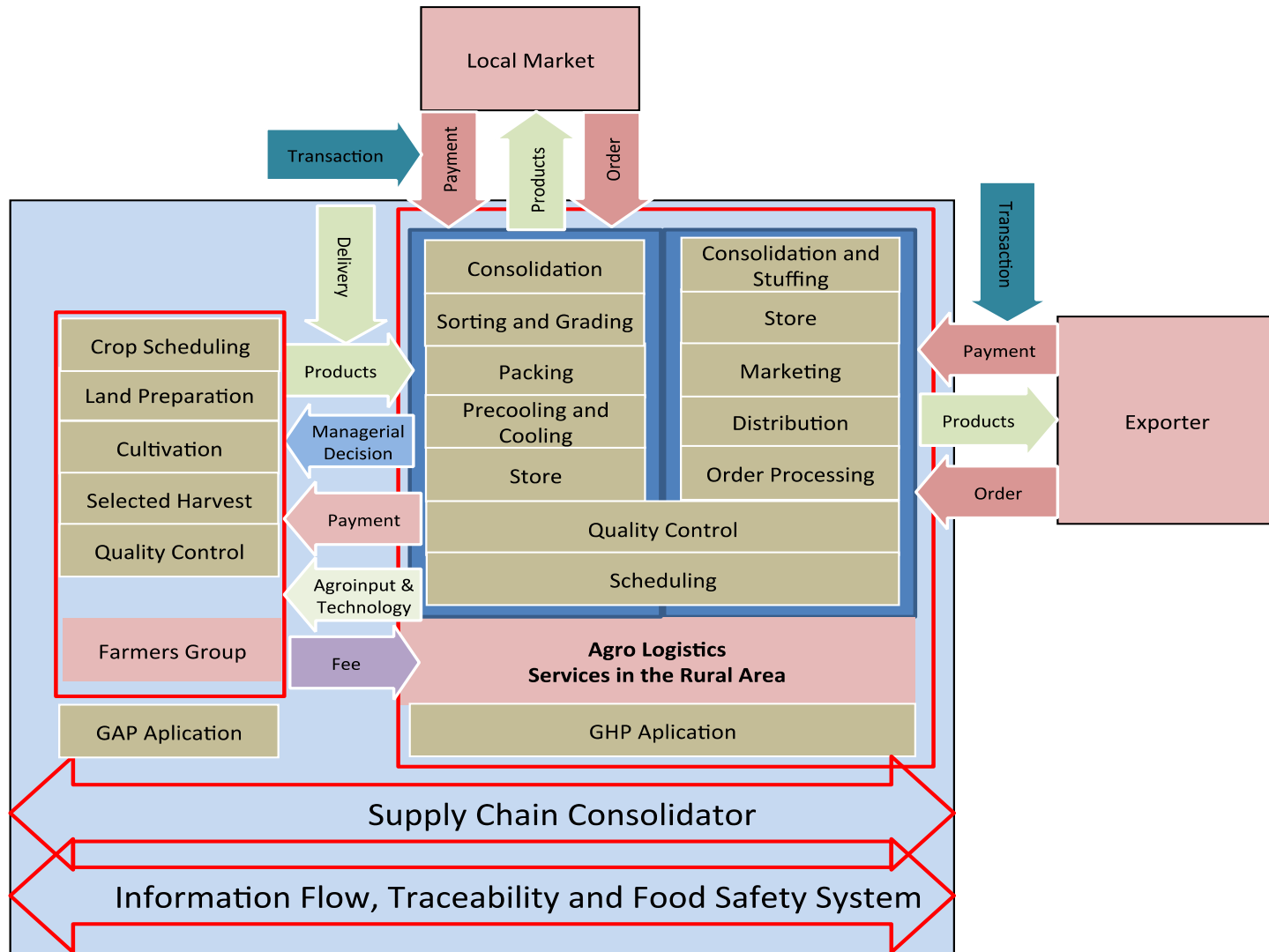


Source : Chan (2012)

Facilitating Trade and Developing Appropriate Logistics of Small Farmers



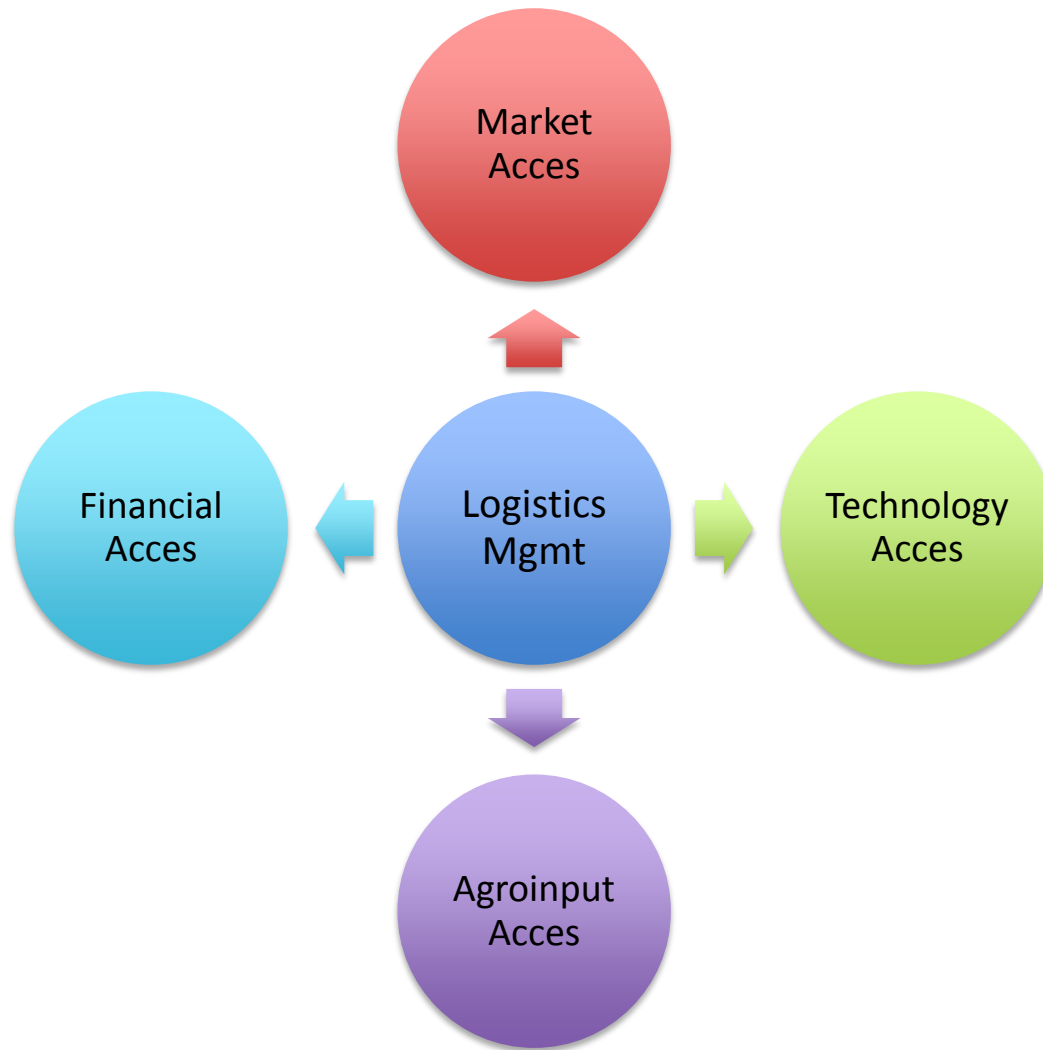
Agro logistics management in the rural area



Agro logistics management in the rural area



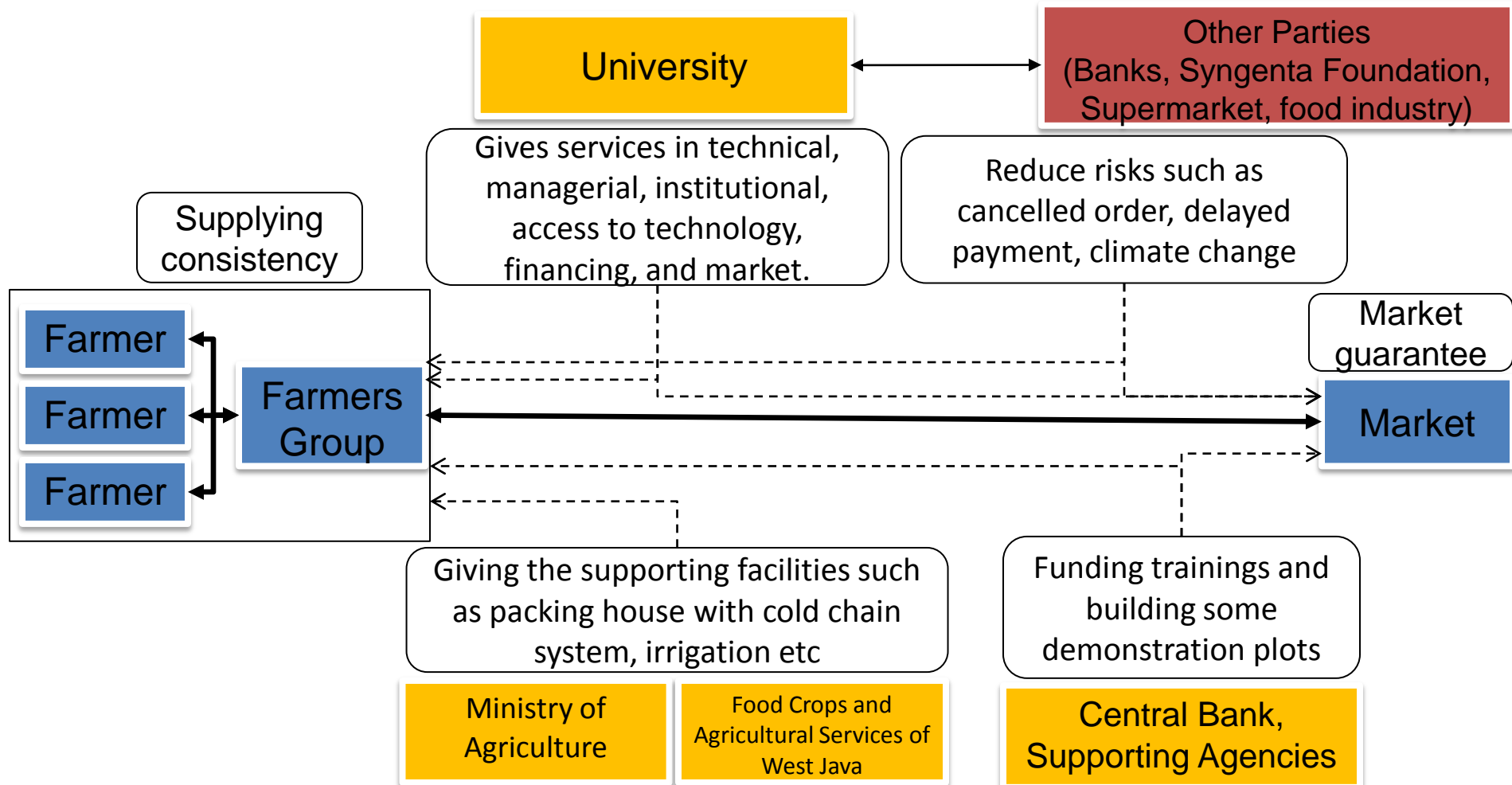
Agro logistics services in the rural area



The Triple Helix Model in facilitating trade and developing appropriate logistics of small farmers



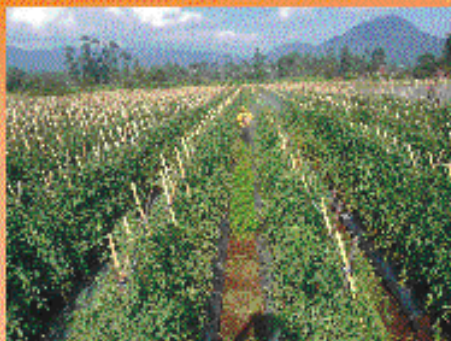
The Role of Each Actor in Facilitating Small Farmers and Developing Appropriate Logistics of Small Farmers



Facilitating Trade of Small Farmers in Modern Agricultural Supply Chain



Developing appropriate Logistics for Small Farmers : from farm to market



Developing appropriate Logistics for Small Farmers : from farm to market



Developing appropriate Logistics for Small Farmers : from farm to market



Developing appropriate Logistics for Small Farmers : from farm to market





Thank You

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