



Leveraging Contract Farming for Improving Supply Chain Efficiency in India: Some Innovative and Successful Models

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Contract Farming

- An arrangement for the production and supply of agril./allied produce under advance contracts, with a commitment to provide a commodity of a type, at a time, place and a price, and in the quantity required by a known buyer.
- Five aspects - pre-agreed price, quality, quantity/acreage (mini./maxi.), place, and time.
- Procurement/marketing, Resource provision, and Production mgt. contracts



Reasons for CF

- Flexible for both parties
- Less resource demands on integrator
- Sharing of risk
- Non-availability/-viability of corporate farming option
- Access to market/technology/credit for farmers



Rationale for Contract Farming

- Input and output market failure for farmers
- Procurement failure for agro-industry (Cost and Quality Competitiveness reasons)
- ✓ Promoting high-value new crops
- ✓ Lowering cost of production (either by raising productivity or cutting costs directly)
- ✓ Raise returns by value addition
- ✓ Lowering transaction costs



Growing Rationale for CF in India

- supermarket chain growth including FDI in retail
- international trade and quality issues like SPS measures, organic trade/fair trade/ethical trade
- banking and input industry push for CF
- farming crisis
- failure of traditional cooperatives, and
- withdrawal of state from agricultural space



Dampeners for CF in India

- ✓ APMC regulation including Gujarat's tripartite arrangement
- ✓ Improving open market efficiency
- ✓ MSP policy, and
- ✓ Corporate Farming including leasing of wastelands



Understanding CF

- ✓ There is **so much diversity** in the type of firms, farmers, nature of contracts, crops, and socio-economic environment that it is better to focus on **specific situation than the generic institution of contract farming.**
- ✓ **The context of the contract is important** as many contextual factors and actors influence the working and outcome of a contract system.



Indian Experience of CF

Different Models across regions, agencies and crops:

- Bi-partite,
- Tri-partite (with Bank or Agri-facilitator)
- Quad-partite (processor, agril. input co., bank, and farmer),
- Intermediary (public/private (agent/franchisee) model

Role of state- direct and indirect



Cases of CF success in India

- Frito Lay India (FLI/Pepsi) in Potato in Mah/Karnataka
- AM Todd in Mint in Punjab
- Agrocel in Basmati paddy in Haryana



Objectives of Study

- Profile of agencies and their contracts
- Design of contracts and models of coordination
- Problems and policy issues
- Lessons



Profile of Contracts

- Individual, bi-partite, acreage contracts
- Two direct (Agrocel and AM Todd) and one thru' middleman (Frito Lay India/Pepsi)
- Fixed price generally but pricing option in case of FLI/Pepsi- fixed contract price and market price based flexible price



Profile of Contracts

- Limited input/Post-harvest material supply on credit and free extension
- Very specific quality parameters
- Purchase of lower quality produce at lower price
- Delivery at specified point at farmer cost
- Payment within specified time period after delivery of produce
- No compensation for crop failure



Centralised (Bi-partite) model

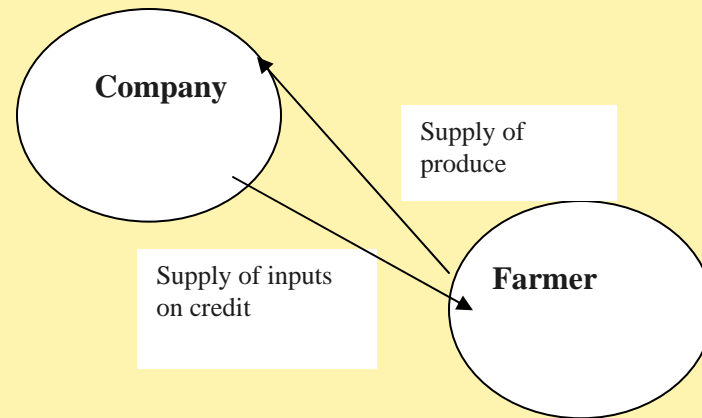
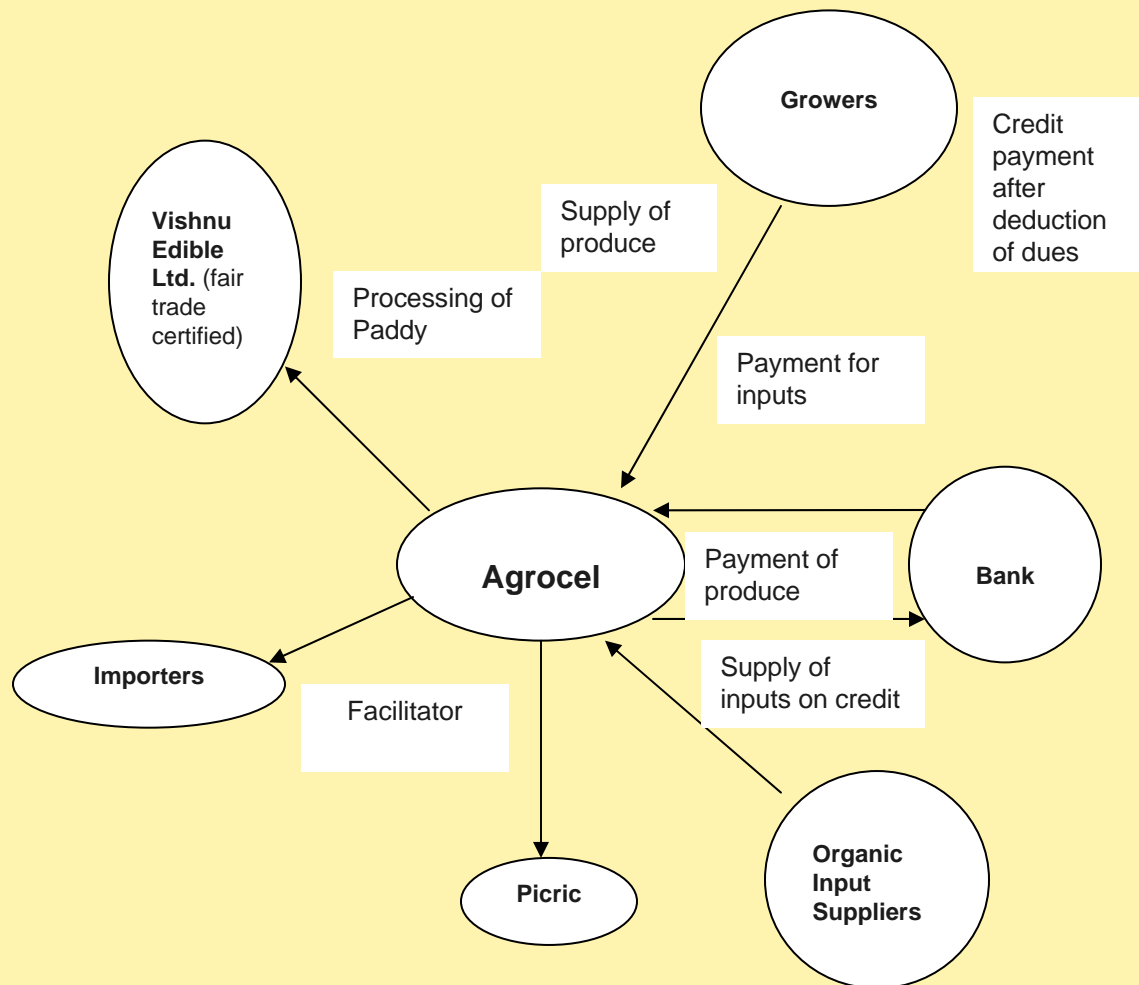


Fig.1: Bi-partite CF model of AM Todd and Agrocel



Fig. 1,1: Agrocel Supply Chain for Organic Basmati Paddy and Rice



Intermediary Model

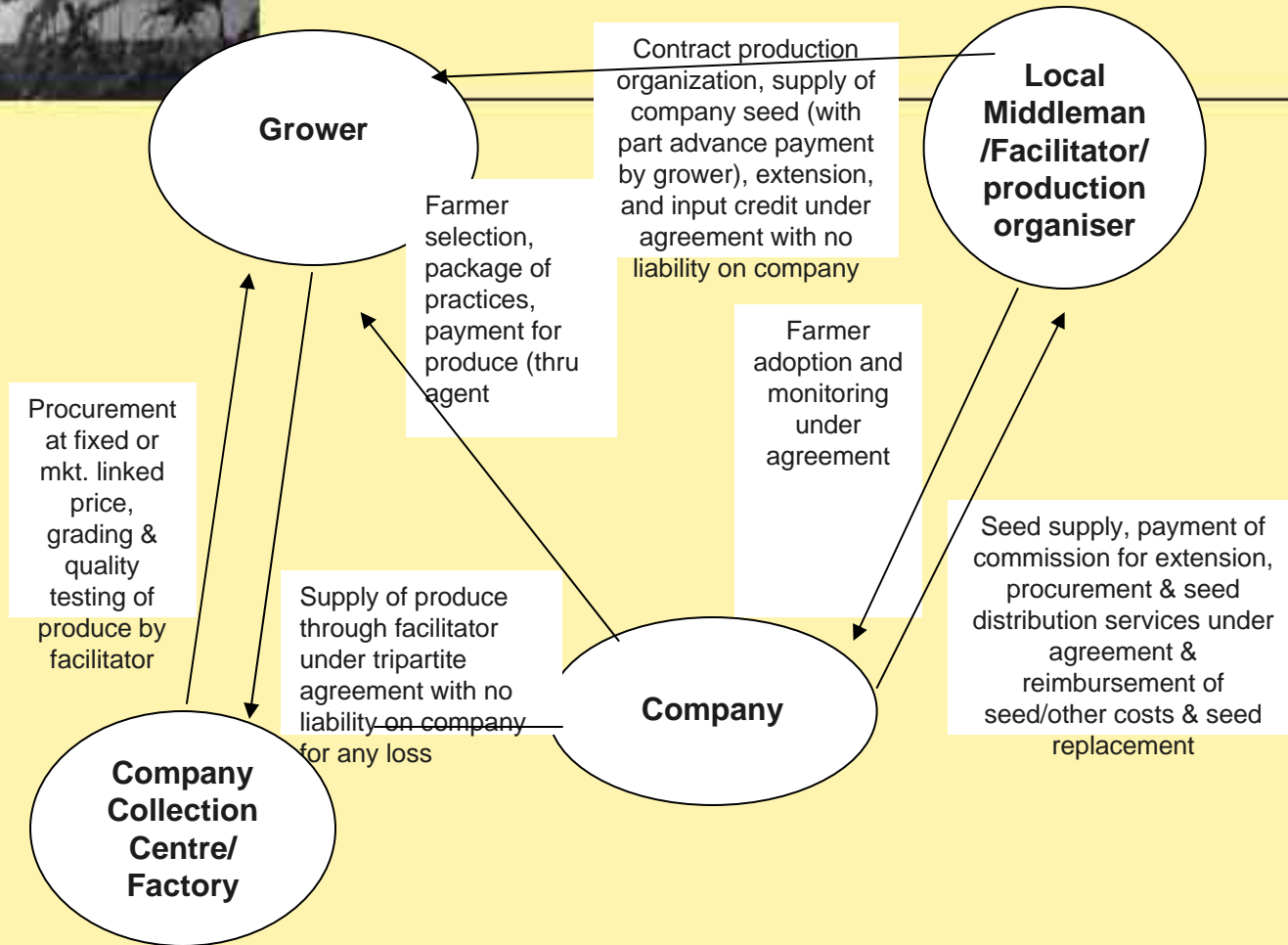


Fig. 2: Intermediary model of contract farming- FLI/Pepsi



Emerging Model of CF

Intermediary model due to the **transactions cost logic** and **competitive national and international food/fibre markets** where **cost and quality will determine success**. Already being practiced by some CF agencies.

Also, Nucleus–Outgrower model (Captive farming and CF both simultaneously) likely to grow due to liberalisation of land laws

❖ **Movement from acreage to quantity contracts**



Farmer Logic of Contracting

- Better and more reliable income due to assured market and better prices
- Better quality inputs, on credit
- New technology and seeds



Experience of Mint in Punjab

- Cost of production and transaction cost under contracts lower than that for non-contract production
- Yields under contract lower by 35% due to new varieties but higher prices than under non-contract
- Net income 60% higher than under non-contract



Contract Design for Success

- Minimize production costs and lower production risk (insurance by FLI and intercropping by AM Todd)
- Minimize or share risk and uncertainty (insurance and flexible pricing by FLI)
- Reduce the costs of pre- and post contractual opportunism (adverse selection and moral hazard) thru contract allocation and monitoring mechanisms like *social pressure*, *incentive structure*, or *group contract/incentives* (moral hazard) and by *rationing* i.e. offer a contract suited only for some 'good' farmers; '*menu of contracts*' for screening farmers so that they reveal their true type by choosing certain contracts; *group contracts*, and *individual risk rating/information collection* before contract is signed (adverse selection)



Contract Design for Success

- Encourage group or co-operative action among producers to lower transaction costs and ensure better compliance (Agrocel),
- Motivate long term contracts to reduce hold up problem (Agrocel),
- Design Clear terms contracts (AM Todd and FLI)
- Reduce direct costs of contracting (FLI) and
- Use transparent contracts



THANKS