

Improving agriculture value chains: Win-win solutions

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Export value chains in Sri Lanka today: Stuck in a low-level equilibrium

- Exporters/processors unable to obtain **required quantities** at **acceptable levels of quality** at **predictable prices**
- Smallholders unable to deliver **required quantities** at **acceptable levels of quality** at **predictable prices** because of their
 - Weak market orientation which leads to sub-optimal crop mix since they are unaware of what is needed, when
 - Inability to invest in quality and regular supply because of limited agricultural know-how and weak incentives
 - Inability to use crops as collateral for working-capital loans (either pre harvest, i.e., forward contracts or post-harvest, i.e., warehouse financing) to improve productivity and/or smoothen their incomes

Obvious solution, impractical

- Required quantities at acceptable levels of quality at predictable prices can be supplied best by large, professionally managed agri-businesses
 - But our farmers cannot alienate land; no consolidation possible
 - New land not easy to get despite end of war
 - 18th most densely populated among territories with more than 1 million people → land at premium
- Obvious solution may not be the best solution

Take smallholders as a given

- Could be an advantage in a world that values authenticity



Three approaches for a smallholder-centric world

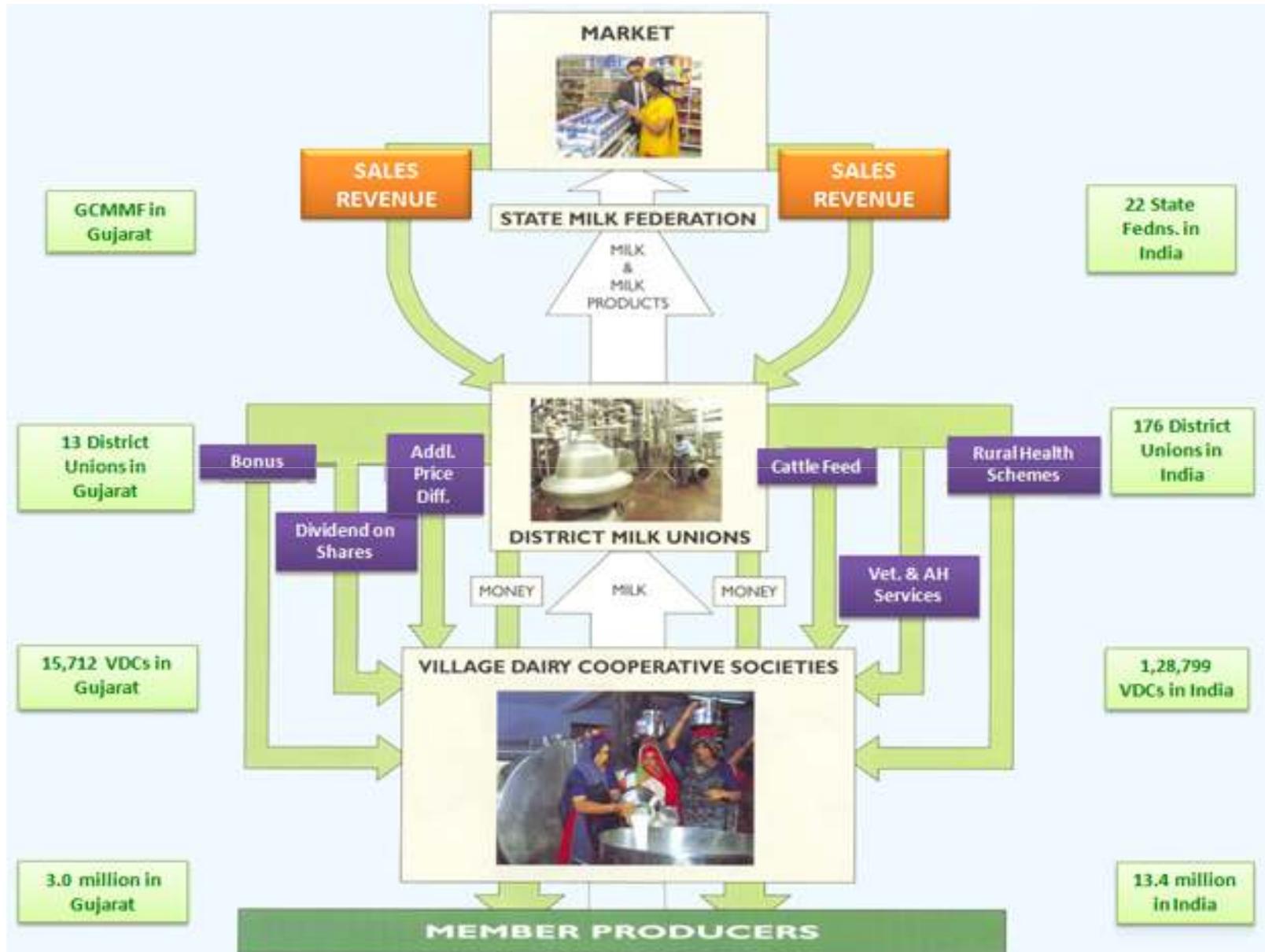
- Outgrower model
 - Virtual consolidation of fragmented land holdings
 - Control in the hands of a company
- Cooperative Associations
 - Could be similar to outgrower model, but collectively owned
- Let smallholders be autonomous
 - Help them invest in quality and reliable supply at less volatile prices by
 - Improving incentives &
 - Bridging information/knowledge gaps

Out-grower model

- Dr Harsha de Silva will discuss a working example from Sri Lanka later
- Here, the quality, supply and price issues are addressed by controlling the value chain from input to purchase
 - Alignment of incentives can be improved to reduce wastage and improve farmer commitment
 - Possible role for increased traceability assisted by ICTs (bar code readers, RFID, even mobiles)

Cooperative Association

- Amul, USD 2 billion company with 25% share of organized milk market in India
 - To the world, is an Indian multinational with export of INR 980 million (USD 19.9 million)
 - To India, a major milk products supplier
 - To 13.4 million Indian dairy farmers, their own cooperative



How ICTs were used to improve incentives for smallholders

- Introduced electronic automatic milk collection system developed by SKEPL in 691 milk collection centers, which reduced time required for collecting milk
- Objectives were to
 - automate milk collection at collection centers to reduce the time taken to collect milk from members
 - use electronic technology to weigh the milk and to measure its fat content
 - automatically calculate the amount payable to each and every milk collector
 - maintain regular records at the Dairy Cooperative Societies (DCS) and
 - integrate data at each primary milk society with District Milk Cooperative through ICT
- The system weighs milk and measures its fat content at time of delivery enabling immediate payments to the farmer
- System reduced
 - waiting time for members from 20 minutes to 50 seconds
 - payment delays from 13-14 days to same-day payment

Every case is special, but lessons can be drawn

- Amul is a massive cooperative
 - But it used incentives and ICTs to effectively integrate smallholders into a global value chain
 - Now SAP based
- Different time and place
 - More sophisticated ICT solutions are available
 - More nuanced understandings of incentives exist

Knowledge flows

- In both out-grower and cooperative models, those who control distribution (people like you) invest in knowledge services for growers
 - Government extension not the norm worldwide
 - Need to consider for export value chains in fruits and vegetables
- Lower cost and more effective: Create platforms for knowledge sharing, rather than extension per se
 - Dealt with in detail by Dr Sujata Gamage

Address the smallholder quality penalty

- Unless incentives are created for smallholders to improve quality, they will not give you quality
 - Addressed by Sriganesh Lokanathan and Nilusha Kapugama

