

# Overcoming the Smallholder Quality Penalty

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Reducing Friction: Towards Inclusive and Efficient  
Agriculture Supply Chains

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# What do exporters want?

- ***Required quantities***, of a ***set quality*** at a ***stable prices*** on a ***consistent basis***.
- But they are unable to get it
- So the question is why?

# Most producers are smallholders; this leads to a low-quality equilibrium

	Bangladesh (2005)	India (2002)	Sri Lanka (2002)	Thailand (2003)
Average land holding size (ha)	0.6	1.3	0.83	3.2
Percentage of smallholdings	88.5% (<=1 ha)	81.8% (<= 2ha)	70.5% (<2ha)	64.5% (<=3.2ha)

- Smallholders are unable to deliver the **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



## An example: Rubber cultivation in India, Sri Lanka and Thailand is done mainly by smallholdings

	IN (2008/2009)	LK (2002)	TH (2005)
Average land holding size (ha)	0.6	1.3	N/a
Percentage of smallholdings	98.3 ( $\leq 2$ ha)	56.1% ( $< 2$ ha)	93% ( $\leq 8$ ha)

- By 2008, 71.8% of the rubber production in Sri Lanka was by smallholders
- By 2010, there were 127,200 smallholders accounting for 54% of the total rubber extent

Picture: <http://www.jaxquickfit.com.au/blog/2011/02/bridgestone-commits-to-natural-rubber-development/>

# In Sri Lanka, natural rubber is sold mostly as RSS (43% of rubber production)

- Ribbed Smoked Sheet (RSS)
  - Made from processed latex
  - RSS quality grades go from 1 (highest) to 5 (lowest)
  - Grading is visual (based on on level of transparency, amount of blemishes, etc.)



## Distorted incentives:

### *The smallholder quality penalty in RSS*

- Buyers find it costly to inspect each and every sheet
- Buyers **assume** a smallholder will give low quality, hence offer prices in two bands:
  - One for RSS 1 & 2; another for RSS 3,4 & 5
  - Within a band prices differ very little
- Therefore, smallholders often only make RSS 5

# Getting around the smallholder quality penalty in rubber in Sri Lanka

- Pandeniya Thurusaviya farmer society (VIDEO)

# Pandeniya Thurusaviya solved some things....

- Shared access to post-harvest infrastructure
  - Smoke house
  - Warehouse
- Got over the smallholder quality penalty
  - Internal pressure to conform to a specific quality
  - Use of same processing techniques + infrastructure
    - Processing of raw latex done by one person
    - Everyone uses the same smoke house



## .... but not others

- Not scalable (membership static at 34 smallholders)
  - Reason: cannot get enough sellers to the regional auction
- Replicable but with a caveat
  - Not feasible to have too many regional auctions

<http://sundaytimes.lk/110626/BusinessTimes/bt34.html>

Cloning the Padeniya rubber cooperative

http://sundaytimes.lk/110626/BusinessTimes/bt34.html

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### Business Times

#### Cloning the Padeniya rubber cooperative


By Nilusha Kapugama

Having spent the past few months immersed in a study of knowledge and information gaps in the rubber value chain, we were very pleased to read the recent feature in the June 12 edition of the Sunday Times (Plus) headlined "New spring to rubber trade" on the successful cooperative set up in by rubber smallholders in Padeniya.

Our research included conversations with a key mover in the Padeniya Thurusaviya society, Mr Berty Lionel. We agree that Padeniya is a great success. Where we differ is on the likelihood it can easily be replicated across the rubber-growing areas.



Pictures of the Padeniya project



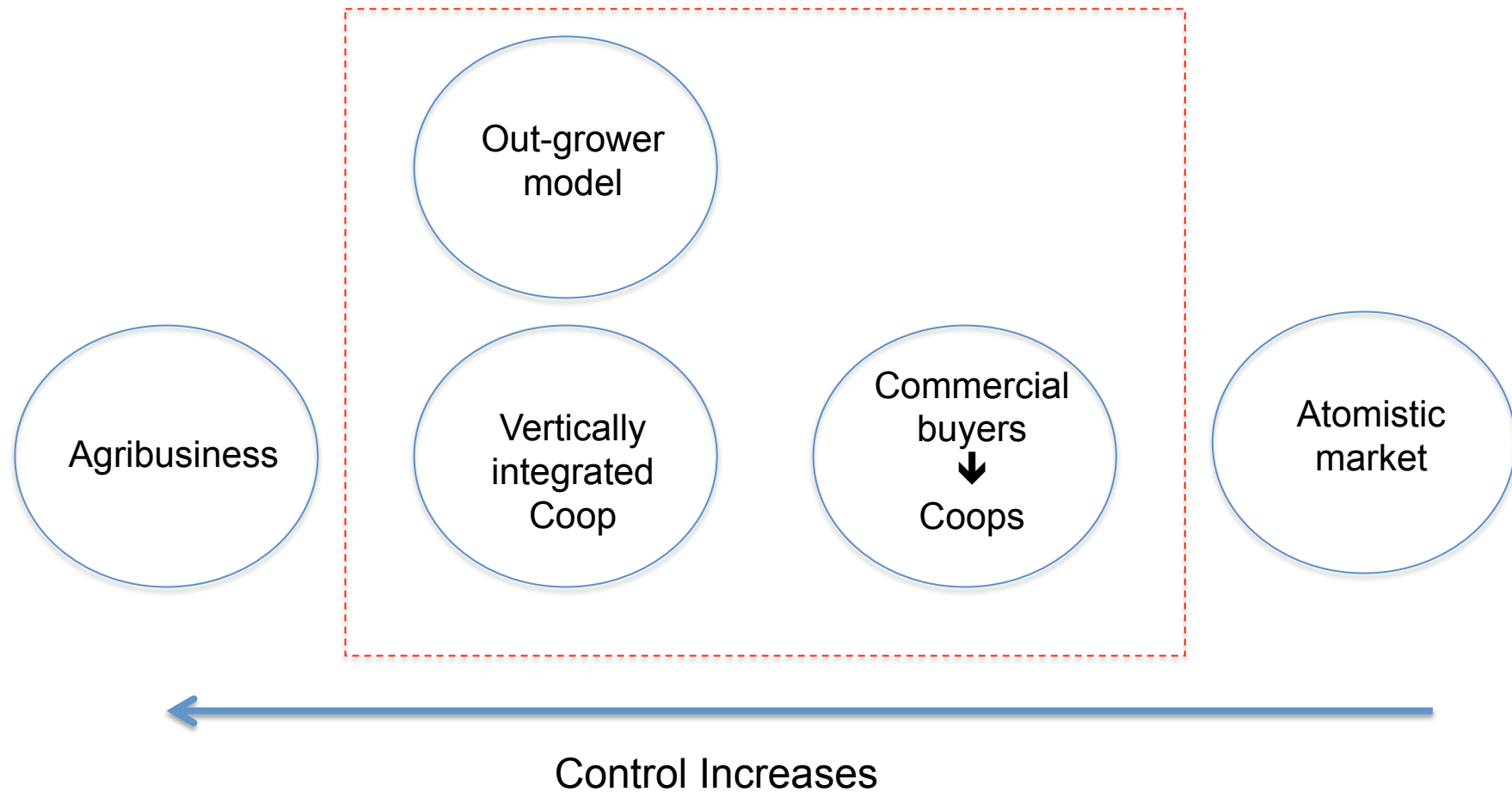
We wish it were so, but as researchers, we know that wishes do not equate with realistic policy recommendations. This article seeks to identify the conditions that will allow more Padeniyas to emerge, helping improve the livelihoods of the smallholders.

As the article well documents, the Padeniya Thurusaviya Society has a long history. The question that troubled us was why it had not been imitated all these years

#### Other Business Times Articles

- On arrival visas to continue till online visa plans mature
- Textured Jersey to expand with aggressive growth
- Sale and no more land leases for foreigners
- Government to abide by Shangri-La agreement
- BT Poll - Most people unhappy with EPF management
- Hasty retreat by Nano cab!
- COMMENT - Online visas could hurt tourism
- FEATURE - Shot-gun regulations come under fire by industry; SEC urged to consult and regulate
- Ceylon Assets Management to launch two more new funds
- Strategic Risk Solutions get vital assignment at Hemas Hospitals Chain
- Pensions debate at the Sunday Times Business Club meeting
- BOI, Labour officials 'save CEO's life'
- Corporate governance message must be taken to every part of the country: SLID President
- International view of key economic drivers for Sri Lanka

# Possible value chain configurations



# How does one get around the quality penalty in a smallholder world?

- Out-grower model
  - Agribusiness retains control over inputs (and thus quality)
  - Provides economies of scale

Or.....

- Enable smallholders to “appear” like large holders i.e. forming farmer organizations, which can
  - Internalize quality conformity; Provide economies of scale; Increase collective bargaining

Or.....

- Have a hybrid model

Despite possible benefits,  
out-grower models and  
farmer cooperatives/ societies  
are not common

# What can ICTs do?

- Traceability
  - Build incentive structure: quality -> traceability -> price incentive structure
  - Farmers are rewarded [+ or -] for quality differences based on traceable information at time of quality determination
- Build trust through more frequent communication
- Improve information/ knowledge flows

# Thank You

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<http://lirneasia.net/projects/agriculture/>