

Lessons from the supply chain studies in Bangladesh, India and Sri Lanka

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Problems faced by smallholders

	Bangladesh		India		Sri Lanka	
	Jute	Potato	Mango	Pomegranate	Rubber	Pineapple
Inability to identify proper quality planting material	✓	✓				✓
Lack of knowledge of (or interest in) proper harvesting techniques		✓	✓		✓	
Lack of access to post harvest Infrastructure		✓	✓			
Lack of knowledge of (or interest in) post harvest techniques	✓				✓	
How can ICTs help solve some these problems?						
Lack of the growers' knowledge or reluctance to conform with standards (including exports)	✓	✓	✓	✓	✓	✓



Low quality planting material leads to:

- Loss of income or livelihood for growers
- Loss of output and productivity
- Decrease in the quality of output produced
- Increased costs as growers spend more time looking for good planting material



A method for identifying suppliers of quality planting material

- Develop a directory on planting material suppliers
 - Growers already try to find out who sells better quality material
- Use technology to ensure the directory is accessible to growers
 - Mobile is one of the most accessible form of ICTs
- Use reputational ranking system to provide information on who is able to provide good planting material

Efforts underway to develop a directory of pineapple plant suppliers with a reputational ranking...

- Being developed - initial code developed at Random Hacks of Kindness, Montreal
- Reputational ranking system for suppliers of high quality suckers.
- Farmer enters a rating after using a supplier (e.g. 1 *****, or **, etc.)
- Collected rankings available to interested farmers before they buy
- Concept (and open source code) useable in other value chains
 - Could potentially lead to real trades taking place online
 - Because lack of quality standards and signaling mechanisms can be solved

Access to post harvest infrastructure



- Potato growers in Bangladesh lack information on availability of space in cold storage
- Mango smallholders are unable to access post harvest infrastructure due to the high costs

Access to cold storage

- Cold storage operators play an important role in the supply chain
 - Allows farmer to avoid the market gluts during harvest season
 - Some operators even provide financing for farmers during storage.

In the case of Bangladesh:

- Overall capacity is low
 - 340 facilities can store only about 25-30% of total production
- Yet there are inefficiencies in access
 - An average of 10% of storage capacity never being used.

A solution to the information gap...

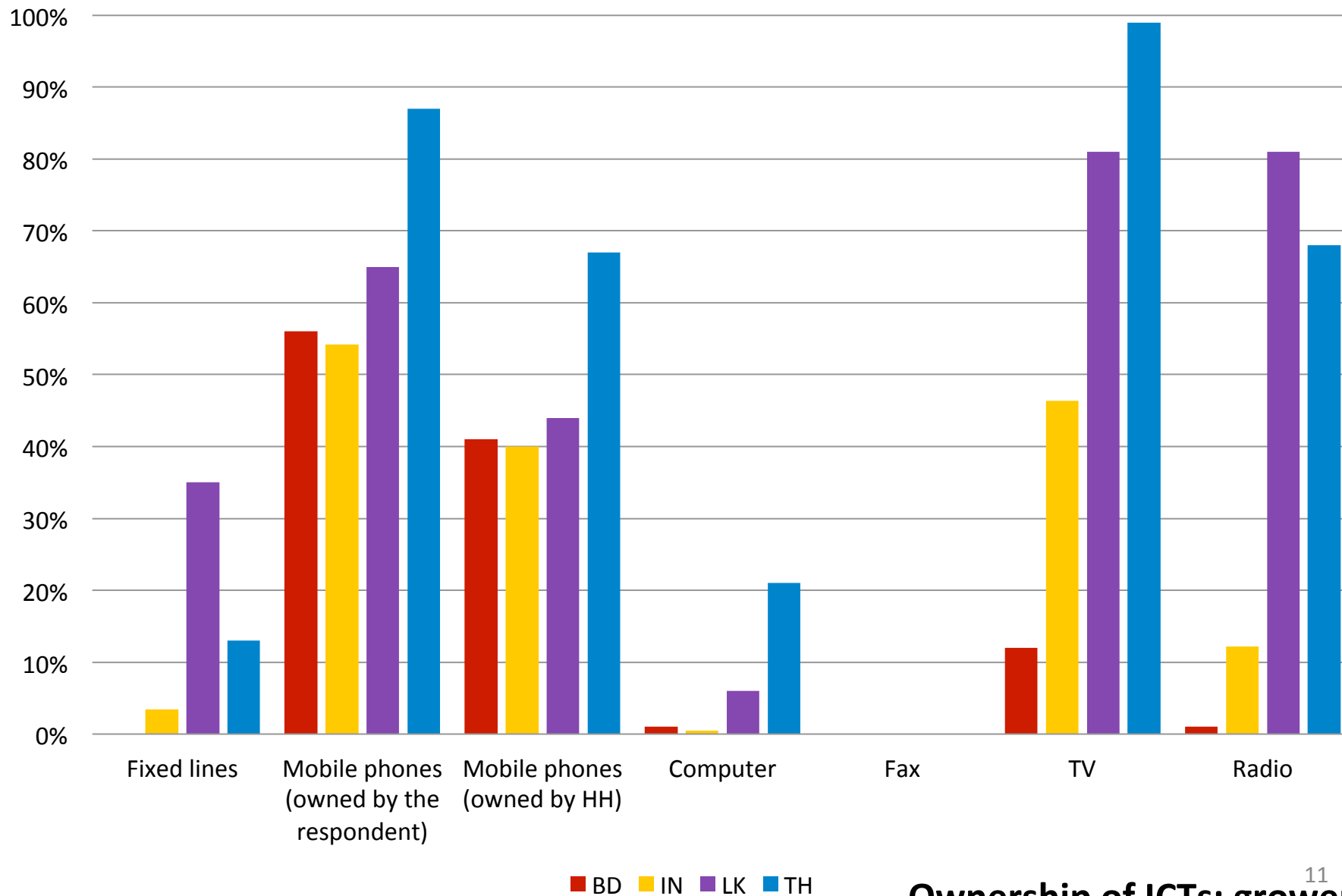
- Bridge the information gap on cold storage availability
 - Devise a system where cold storage owners can update their capacities
 - Enable growers within the area to register for a notification about the availability of storage space.

The case of post harvest facilities for mangoes...

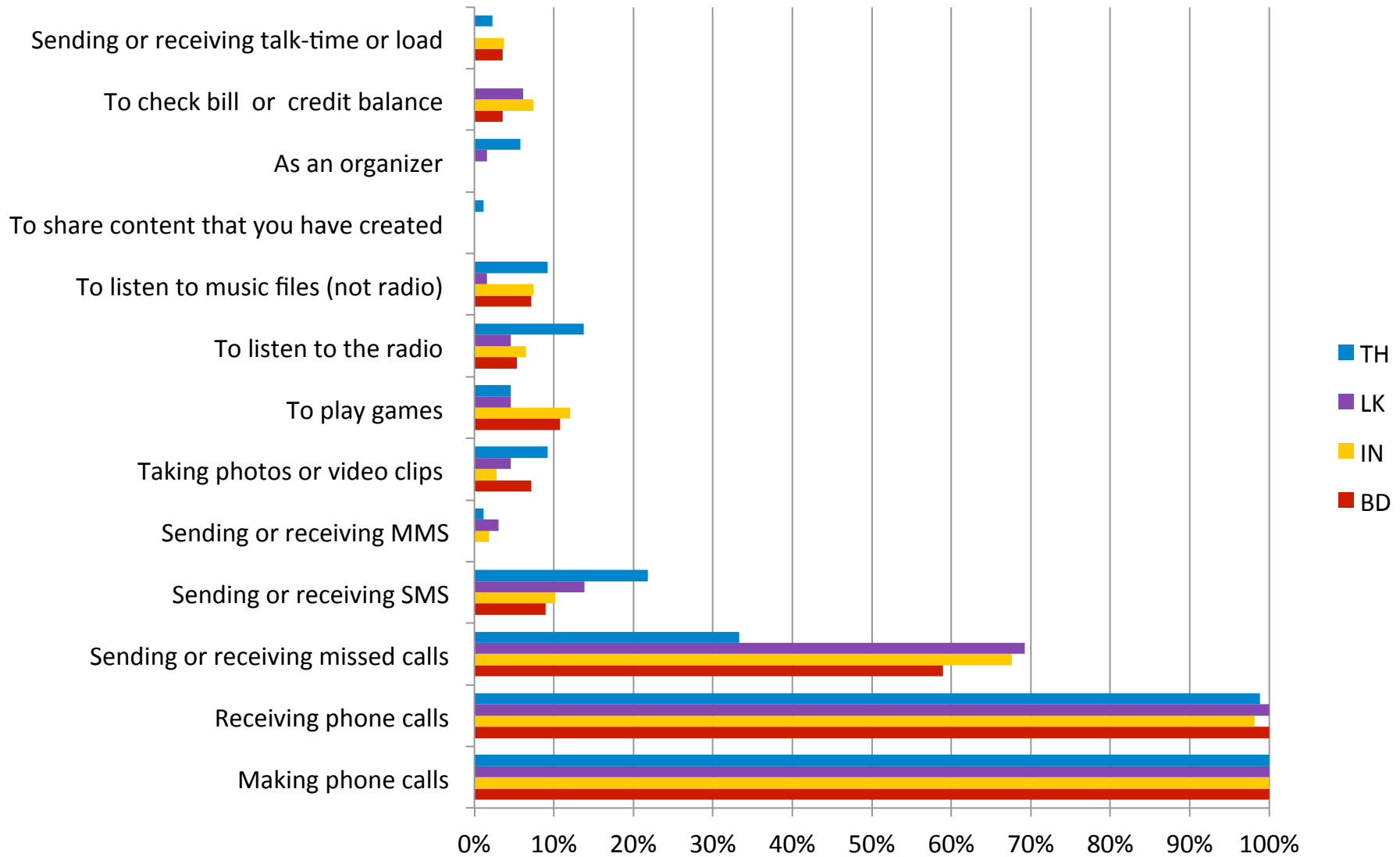
- Growers need access to facilities for de-sapping, washing and drying, grading and packing, HWT/VHT/Irradiation (for exports)
- Taken individually, the costs are too high for individual growers to bear
- Collective action (farmer organisations or cooperatives) may provide a solution
 - Common facilities will help reduce costs for the smallholders

**WHEN PROVIDING ICT BASED
SOLUTIONS FOR SMALLHOLDERS, KEEP
IN MIND...**

Mobile phones: One of the most accessible form of ICTs available to smallholders



IVR may be preferred



For more information:

www.lirneasia.net/projects/agriculture

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