

# Innovation for inclusive & efficient agriculture supply chains

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# Our mission

*To improve the lives of the people of the emerging Asia-Pacific by facilitating their use of ICTs and related infrastructures; by catalyzing the reform of laws, policies and regulations to enable those uses through the conduct of policy-relevant research, training and advocacy with emphasis on building in-situ expertise*

**LIRNEasia is a think tank active in 11 countries of Asia & the South Pacific. Its principal funding comes from the International Development Research Centre of Canada & UK Aid.**

# Innovation for inclusive development: 2010-12 research program

- Inclusive development occurs when
  - the necessary condition of high, sustained growth above 7 percent year-on-year
  - the sufficient condition of a majority of the country's work force being engaged in high-growth sectors are satisfied
- Innovations we seek to identify:
  - Those that contribute to bringing more of the work force into high-growth activities
    - ICTs as complements; rather than “silver bullets”

# Agriculture in South Asia – lowest share of GDP but often highest share of labor

		Bangladesh (%)	India (%)	Pakistan (%)	Sri Lanka (%)
Share of GDP (2009)	Agriculture	19	18	22	
	Industry	29	27		30
	Services	52		54	58
Share of labour (year)	Agriculture (2005)		52 (2008)	44(2007)	32 (2007)
	Industry	14.5 (2005)	N/a	21 (2007)	28 (2007)
	Services	37.4 (2005)	N/a	35 (2007)	40 (2007)

**AGRICULTURE = LOW PRODUCTIVITY**

- By 2009, the Agriculture sector’s contribution as a % share of the GDP was about 18% in South Asia (World Bank, 2011)

# Most agriculture producers are smallholders

	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% ( $\leq 1$ ha)	81.8% ( $\leq 2$ ha)	70.5% ( $< 2$ ha)	64.5% ( $\leq 3.2$ ha)

- 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

# Research on inclusive knowledge-based economies 2010-12

- Seeks to understand smallholders' terms of integration to export-oriented agricultural supply chains in
  - Bangladesh (Jute & Potato)
  - India (Mango & Pomegranate)
  - Sri Lanka (Pineapple & Rubber)
  - Thailand (Meta analysis of existing studies)
- Explicitly focused on inclusion but also efficiency
- Field work completed; synthesis paper ongoing; communication campaigns underway

## Value chain research results shared with Vegetable & Fruit Producers, Processor & Exporters Association

Written by Rohan Samarajiva on **October 14, 2011** - 1 Comment [edit]



Reducing the quality penalty suffered by smallholder growers of fruits and vegetables was a main theme at the dissemination seminar conducted by LIRNEasia in collaboration with the [Sri Lanka Vegetable and Fruit Producers, Processors and Exporters Association](#). The discussion also addressed the value of smallholders organizing themselves into cooperative associations somewhat like what had been done in Ghana with [Farmapine](#). The importance of knowledge was recognized

by all. Sujata Gamage's presentation on knowledge networks in solid-waste management pointed to the need to shift from outmoded models that placed universities as the sole sources of new knowledge, to new thinking that places suppliers, buyers and even competitors as key sources of knowledge.

The presentations by Rohan Samarajiva, Sriganesh Lokanathan, Nilusha Kapugama, Harsha de Silva and Sujata Gamage are given below, along with the policy brief on recommendations to improve the performance of the Sri Lanka pineapple value chain in Sinhala and English.

For the presentation done by Rohan Samarajiva, click [here](#).

For the presentation done by Sriganesh Lokanathan, click [here](#).

For the presentations done by Nilusha Kapugama, click [here](#) and [here](#).

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## Talk at FAO on the role of mobiles in rural development

Written by Sriganesh Lokanathan on **December 7, 2011** — 3 Comments [edit]



Yesterday, I was in an [FAO panel](#) at the Global South-South Development Expo 2011, speaking on the role of mobiles in rural development using case studies from Sri Lanka and India. When I mentioned that one should have some concerns about the quality of information and the lack of accountability in the plethora of mobile based agriculture crop advisory services, I was asked a pertinent question by an official from the Ministry of Agriculture in China: Does this mean a greater role for

government?

What we think is that the basic information collection (for example market prices) should be collected by government or an agent of government and made available as a public good. The private sector can then be free to process it, add value and disseminate, potentially for a few to ensure sustainability.

But the heart of the problem that we are concerned with is whether a one way transmission of generic crop “advice” to Farmer X will solve his problems or aggravate them. Diagnosis of farmer’s agriculture problems is no different from me going to the doctor to understand why I was having a fever that wouldn’t go away (when this happened earlier this year it turned out it was because of dengue which was only confirmed by a test). We do not as yet have a well defined solution. But the answer may be a two-track solution. The first can be the standard one way dissemination of generic



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## Regional FAO Workshop on the use of Mobile Technologies in Agriculture



Written by [Sriganesh Lokanathan](#) on [April 8, 2012](#) — [Leave a Comment](#)



At the invitation of FAO, our CEO, Rohan Samarajiva, Research Manager, Nilusha Kapugama and I spent two days (April 3-4, 2012) in Bangkok participating in a regional FAO/ NECTEC workshop on the use of mobile technologies for food security, agriculture and rural development. The workshop brought together representatives from the agriculture ministries/ departments of 10 countries in Asia (Bangladesh, Cambodia, China, India, Indonesia, Malaysia, Philippines, Sri Lanka, Thailand and Vietnam), FAO personnel as well as the private sector, including operators of Mobile Agricultural Information Services (MAIS).

LIRNEasia research on the use of mobiles by the poor as well as in rural development set the stage for most of the sessions. Rohan, presented the [latest findings from the Teleuse@BOP surveys](#); Nilusha presented some [findings from the agricultural micro-enterprise survey \(growers & non-growers\)](#); and I talked about [the lessons and challenges of the current crop of MAIS in the region](#). The workshop interactions, especially the working group discussions facilitated by Rohan and myself, were eye-opening.

Rohan has [blogged about some of his first impressions](#). Some of my key take-aways are below:

**Creating an enabling environment in telecom:** There is still some work to be done in creating the right conditions on the telecom side, to encourage mobile agricultural information services. In India for example, telecom operators still charge about 70% of the revenue from mobile applications. This

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# Some problems faced by smallholders, and possible solutions . . .

- Findings of the potato supply chains study
  - Khairul Islam will talk about some of issues identified particularly pertaining to the smallholders of the potato supply chain and possible solutions
- Results of a non-representative micro enterprise survey
  - Nilusha Kapugama will share some of the findings of a non representative grower and non-grower survey on information needs and the use of ICTs.

# Some problems faced by smallholders, and possible solutions . . .

- Smallholder Quality Penalty in value chains
  - Harsha de Silva will speak about the problem faced by smallholders in ascertaining the quality of their produce and possible solutions