

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	27
	Industry	29	27	27	30
	Services	52	55	54	58
Share of labour (year)	Agriculture	53.1 (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% (≤ 1 ha)	81.8% (≤ 2 ha)	70.5% (< 2 ha)	64.5% (≤ 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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Some problems faced by smallholders, and possible solutions . . .

- Ascertaining quality of planting material
 - Nilusha Kapugama will describe a mobile-based e-bay type reputational rankings solution that is being developed for pineapple that can also work with other crops
- Smallholder quality penalty, based in part on perception that smallholder quality is low
 - Sriganesh Lokanathan will discuss how cooperatives, outgrower models and hybrids can help
 - But why are these solutions not the rule?
 - Can ICTs help sustain them?

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

- Thailand has been a pioneer in studying agriculture supply chains
 - Deunden Nikomborirak and Nipon Poapongsakorn of TDRI will present lessons that can help make agriculture supply chains more inclusive and efficient