

# Leveraging Mobile 2.0 for Agricultural Market Access

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Mobile 2.0 Applications and Conditions  
Islamabad, 27<sup>th</sup> April 2010



This work was carried out with the aid of a grant from the International Development Research Centre, Canada and the Department for International Development, UK.

**IDRC**  
International Development  
Research Centre



**CRDI**  
Centre de recherches pour le  
développement international

**DFID** Department for  
International  
Development

# Study Background

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- ❑ Part of LIRNEasia Mobile 2.0 Paper series
- ❑ What is Mobile 2.0?
  - Mobile 2.0 is used to refer to the use of mobiles for “more-than-voice” applications and services. The ability of phones to send/process/ receive voice, text, images and video and utilized for a variety of services including payments, information access and retrieval, etc. all come under this broad definition of the term

# Agricultural sector in South Asia

	Bangladesh	India	Pakistan	Sri Lanka
Share of GDP (2009)	18.7%	17.5%	20.8%	12.8%
Labor employed by sector (2009)	45%	52%	43%	32.7%

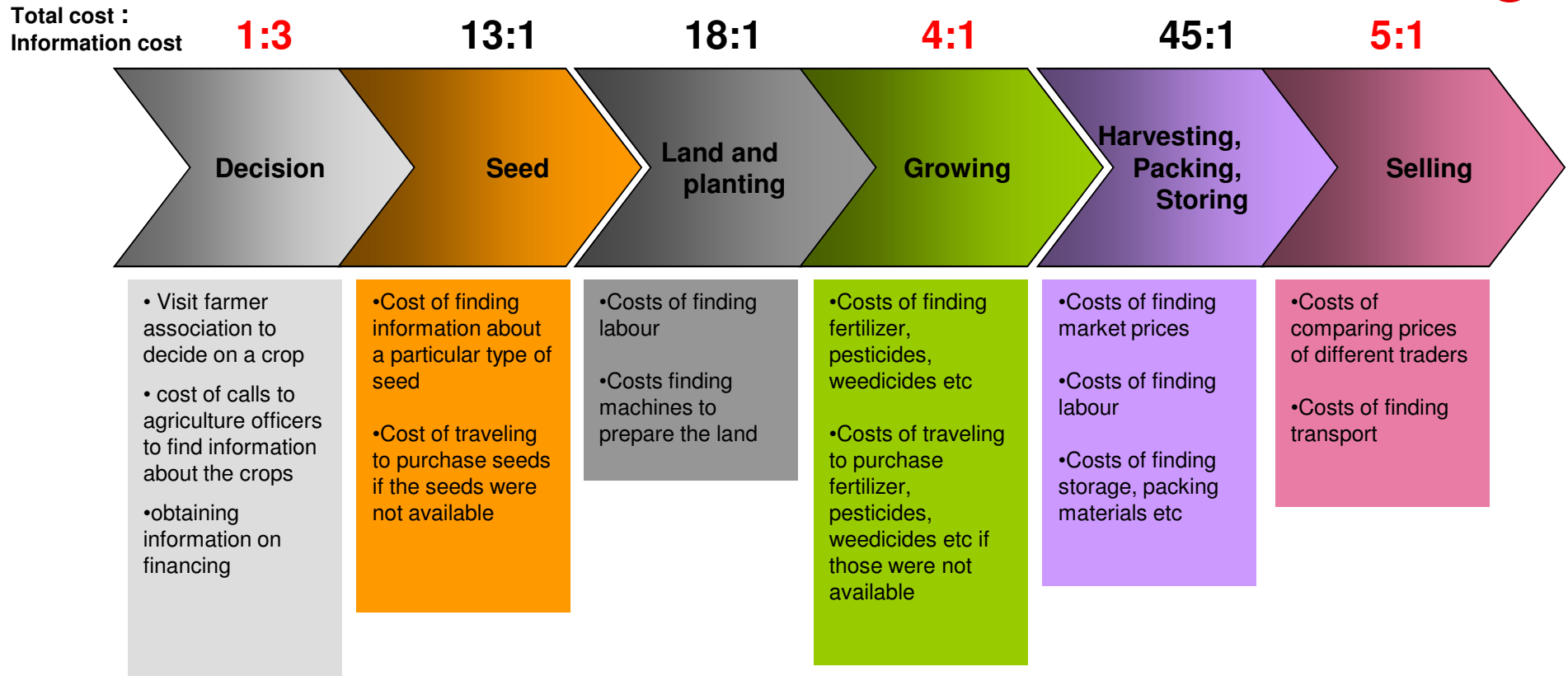
- ❑ The sector has the lowest share of GDP but highest share of labor (except Sri Lanka)
- ❑ The sector is generally characterized by various problems:
  - Land related issues (ownership as well as use)
  - Large numbers of small poor farmers who are mostly not land owners
  - Low productivity
  - Inefficient markets
  - High information asymmetry

# Agricultural & ICTs

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- ❑ ICTs can't solve all the problems
  - E.g. land reforms
- ❑ ICTs can however reduce information search costs
  - reduce information search costs → lower transaction costs  
→ increase efficiencies in agricultural markets → increase welfare and improve livelihoods of farmers [and consumers]

# Demand for information [sample survey of 300 small scale vegetable farmers in Sri Lanka]



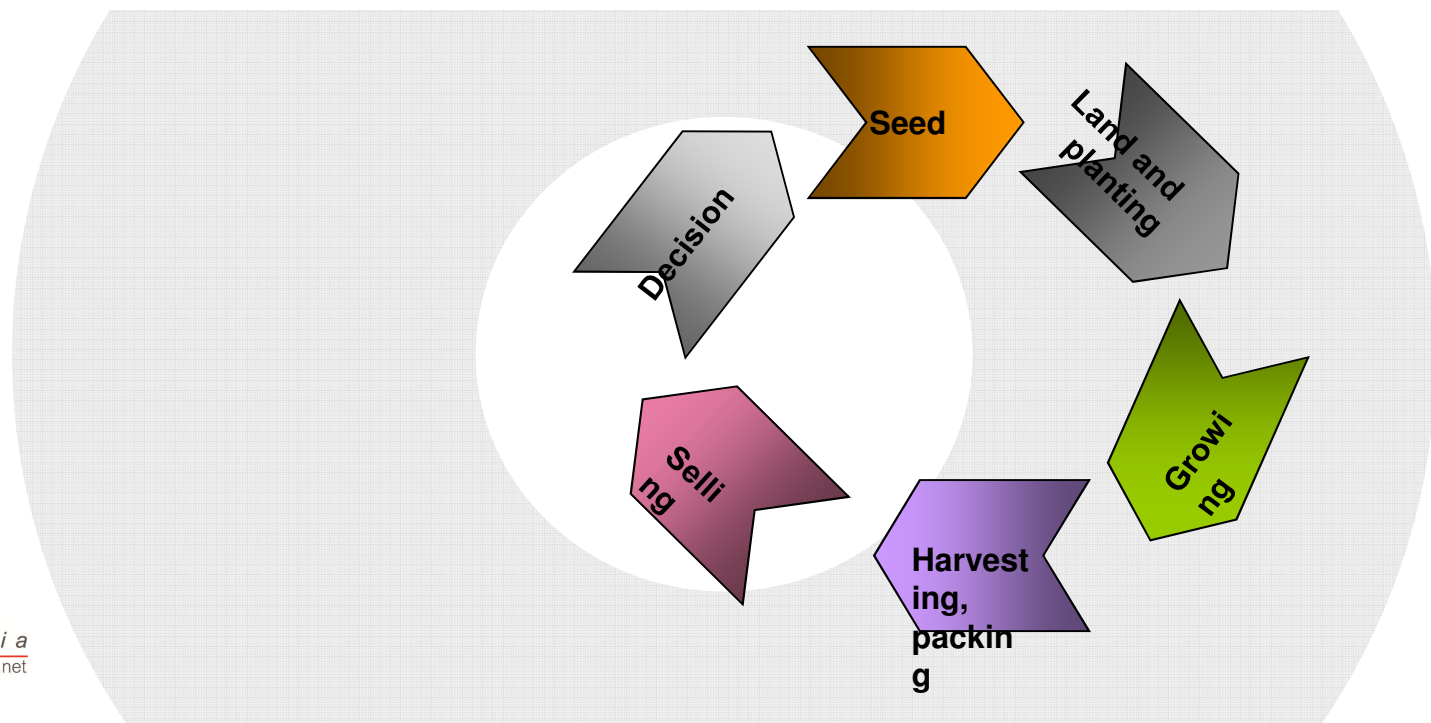
De Silva, H., and Ratnadiwakara, D. (2008).  
Using ICT to Reduce Transaction Costs in Agriculture through Better Communication, Working Paper, LIRNEasia

# Role of ICT in agriculture

relevant, accurate & timely information

▣ Integrated systems that address individual information needs from Decision to Selling

- Closing the loop: Decision  $\leftrightarrow$  Selling
- Forward sales contracts [FSC]



# Current state of play in India of agricultural VAS through mobiles

# Services

	Market price information	Crop Advisory	Weather forecasts
RML (2007)	√	√	√
IKSL (2008)	√	√	√
Mandi on Mobile (2008)	√		
KRIBHCO Reliance Kisan Ltd. (2009)	√	?	?
Mani Bhav (2009)	√		
Idea Krishi (2010)	√	√	√
BSNL & NFL Venture (2010)	√	√	√
RCOM Grameen VAS (2010??)	√	√	√

# Technology

	SMS	WAP	IVR	USSD	Application
RML (2007)	√				
IKSL (2008)			√		
Mandi on Mobile (2008)			√		
KRIBHCO Reliance Kisan Ltd. (2009)					
Mani Bhav (2009)	√	√			√
Idea Krishi (2010)					
BSNL & NFL Venture (2010)	√		√		
RCOM Grameen VAS (2010??)	√	√		√	

- ▣ Interfaces in upto 9 local languages, including Hindi (but not for all)

## Lets take a closer look: IKSL & RML

	<b>IFFCO Kissan Sanchar Ltd. (IKSL)</b>	<b>Reuters Market Light (RML)</b>
<b>Began Service</b>	June 2007	October 2007
<b>Partners</b>	Bharti Airtel + Indian Farmers Fertiliser Cooperative Limited (IFFCO)	none
<b>Cost</b>	Free Voice messages Helpline service: INR 1/ min	Maharashtra: Rs. 175 for three months Rs. 350 for six months Rs. 650 for an year
<b>Technology</b>	Voice message	SMS
<b>Subscribers</b>	1.5 million (Oct 2009)	170,000 (Oct 2009)
<b>Comments</b>	<ul style="list-style-type: none"> <li>• Adhoc message delivery</li> <li>• Message can also be retrieved later for INR 1/ minute</li> <li>• Revenues are made from the sale of SIM cards</li> </ul>	<ul style="list-style-type: none"> <li>• Messages delivered at preset times</li> <li>• Message can be retrieved/saved</li> <li>• Subscription is the only revenue source</li> </ul>

# Business Models

	Joint Venture				Direct selling
	Telco + Farmer Org	Telco + VAS company	Telco + VAS + Govt. Bodies	Telco + NGO	
RML (2007)					√
IKSL (2008)	√				
Mandi on Mobile (2008)			√		
KRIBHCO Reliance Kisan Ltd. (2009)	√				
Mani Bhav (2009)		√			
Idea Krishi (2010)		√			
BSNL & NFL Venture (2010??)	√				
RCOM Grameen VAS				√	



# Pricing Models

	Subscription	Usage Based	Free
RML (2007)	√		
IKSL (2008)		√	√
Mandi on Mobile (2008)		√	
KRIBHCO Reliance Kisan Ltd. (2009)			
Mani Bhav (2009)	√		
Idea Krishi (2010)	√		
BSNL & NFL Venture (2010)			√
RCOM Grameen VAS (2010??)	√		

# Why are companies getting into agricultural VAS?

## □ Telcos:

- Primarily using it to increase the number of rural customers:
  - E.g. Airtel sells a KSL branded SIM (1.5million customers already)
  - Decrease churn
- Might be a new source of revenue but is a secondary consideration ..... but maybe not in the near future
  - Voice is very commoditized in the budget telecom network model of South Asia

## □ Agricultural VAS companies see a business case.

- Is it proven?

# How are farmers reacting to these services?

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- Use at BOP very low
  - Does not necessarily mean that it doesn't filter to the BOP through others such as larger farmers who do use these services more regularly
- Poor value-for-money on some services
  - E.g. IFFCO Kisan Sanchar Ltd VAS services is deemed less valuable than RML especially for crop advisory (linked to Telco's priorities)
  - Farmers need relevant (i.e. localized), accurate and timely information
- Prefer voice
  - Lower literacy levels mean they prefer voice to text

# Policy implications

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- ❑ Leverage demand driven technology choice(s)
  - Voice is still King
    - IVR: better (requires less literacy) but costs are greater
  - If it's a text based solution local language is key
    - Plus text can be stored for later use
    - Use of unicode supported phones
- ❑ Awareness building and training
  - Youth are faster adopters and serve as gateways for their less tech savvy parents
  - Proactive awareness building by companies

# Policy Implications – Telco / VAS provider relationship

- ❑ Telcos are better off partnering with organizations specialized in providing information that farmers want
  - RML is cited as giving more relevant and timely information
- ❑ VAS companies may not have the resources (advertising, marketing) necessary for going solo
- ❑ Agricultural VAS can be a more complicated service than other Mobile 2.0 VAS services
  - Localized content (e.g. crop advice for growing cabbage in Sialkot) Verses generic content (e.g. ring tunes)
- ❑ Possible business models?
  - Too soon to say what works (maybe an Apple App Store model?)
  - Best to let market decide (spurs innovation)