

Smallholders and Micro-enterprises in Agriculture: *Information needs and communication patterns*

EXECUTIVE SUMMARY

Agriculture in developing economies often employ the largest share of the workforce yet contribute the least to GDP when compared to the Industry and Services sectors. The reasons for this low productivity are numerous: land fragmentation; lack of post-harvest infrastructure; low technology utilization; weak market linkages; absent or inefficient markets; information and knowledge asymmetries (or lack thereof). This is further exacerbated by overall socio-economic structural deficiencies such as lack of access to finance and crop insurance.

Smallholder agriculture often constitutes the largest segment of agricultural producers in developing countries. Increased performance of agricultural smallholders is sine-qua-non for inclusive development not just in agriculture but also at a more broad-based level. The 2010 Growth Report by the Commission on Growth and Development mentions utilization of knowledge and integration into global value chains as two of the characteristics of high growth countries. Given this context, the information and knowledge needs as well as the communication patterns (specifically the use of ICTs) were investigated using an exploratory non-representative survey of smallholders and agricultural micro-enterprises (only collectors, traders, commission agents and retailers of agricultural produce) in Bangladesh, India, Sri Lanka and Thailand.

Information needs

Amongst smallholders, the main information needs over an entire crop cycle were information on fertilizers, market prices and pesticides. However informational priorities varied depending on the stage of crop cycle and to a lesser extent across countries. The overall informational priorities differed for agricultural micro-enterprises, where the main information needs were market prices, sources and costs of inputs and information on transport.

In a majority of the cases (by stage or by country), for both the smallholder and micro-enterprise samples, the most important sources of information and advice were self-knowledge, family and friends, and peers (other farmers in the case of smallholders and traders/ collectors/ buyers in the case of the micro-enterprises). This was true even amongst the Sri Lankan and Thai sample, which were most likely to make farming related decisions by themselves.

What was striking in the survey results was the lower ranking of agricultural extension and input suppliers, even with regards to information related to the more well known functions of these sources, i.e. information related to best practices, inputs, etc.

Communication patterns and ICT usage

Face-to-face communication trumped all other modes of communication amongst the smallholder, as well as the micro-enterprise samples. Calling people using phones was however the second most used communication mode with information sources. Furthermore, the micro-enterprise sample displayed consistently higher mobile phone usage than the smallholder sample. The use of SMS, Internet or computers was virtually non-existent. Mobile phone ownership was high amongst both the smallholder and micro-enterprise samples, with the latter sample showing consistently higher ownership levels in all four countries.

When it came to the usage of different phone functionalities, both the smallholder and micro-enterprise samples used the phone virtually for only three functions: Making phone calls, receiving phone calls and sending/ receiving missed calls. SMS usage was very low.

Finally when it came to the perceptions of the smallholders (Table 42) and micro-enterprises (Table 43) regarding the benefits of phone access, they were mostly similar, with the main benefits being the ability to contact others in an emergency, maintaining relationships and reduction in travel costs.

Key Takeaways

1. Fertilizer information clearly ranks as smallholders' highest information need, even more so than market price information.
2. The variability in the information priorities amongst the smallholder sample could be attributed to a variety of reasons that warrant further investigation in future studies. These include, amongst others, natural environmental variations, infrastructure and market structures, and the capacities and incentives of smallholders to transform information into knowledge that can be leveraged for higher economic returns.
3. Agricultural extension and input suppliers play a lesser role as information and knowledge sources than expected, even though the sample sizes prevent generalizability. However the overwhelming dependence on self-knowledge for most information, merits further investigation of the efficacy of agricultural extension as a system of knowledge transfer.
4. The preference for face-to-face communication and the use of phones primarily just for voice calls, raises some issues pertinent to the design of mobile-based agricultural information services. At the very least this tempers the optimism of quick transformational changes through the use of such services.