

AGRICONNECTIONS:

***A new approach to enhance ICT-
based agricultural services through
Smallholders Producers
Organizations in Africa***

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ICTs for Agriculture



- The use of ICT in facilitating all transactions related to agriculture has long been recognized
- Widespread ICT applications/ services in many African countries
- The three most important ICT-based agricultural services are
 - Agricultural finance
 - Agricultural Markets
 - Agricultural extension/technology transfer
- Unfortunately impact studies showed that the impact of these services is generally weak but varies across type of services, outcomes and commodities
 - Mobile based financial services have stronger impact than marketing and technology transfer services
 - While the impact on market participation and market efficiency is significant, the impact on productivity is very limited
 - But the impact on perishable commodities is stronger than the impact on other commodities

Why the growing expansion of ICT services fail to significantly help African Agr?



- Many question the ability to own and use mobile phones by poor farmers (*mostly practitioners*)
- Fail to target services
 - All agricultural services/information may not need ICT
 - Private vs public information/service
- The apps fails to scale up and sustain
 - They are piecemeal; single purpose, less integrated as system/
..difficult to invest on them by donors or Governments
- Many pilots lack structured ***business models***
 - Farmers don't know where to call, how to access information, etc..
 - ICT-based services are not properly institutionalized in to provide private information/service the agricultural extension system

Potential business models for ICT-based ag services

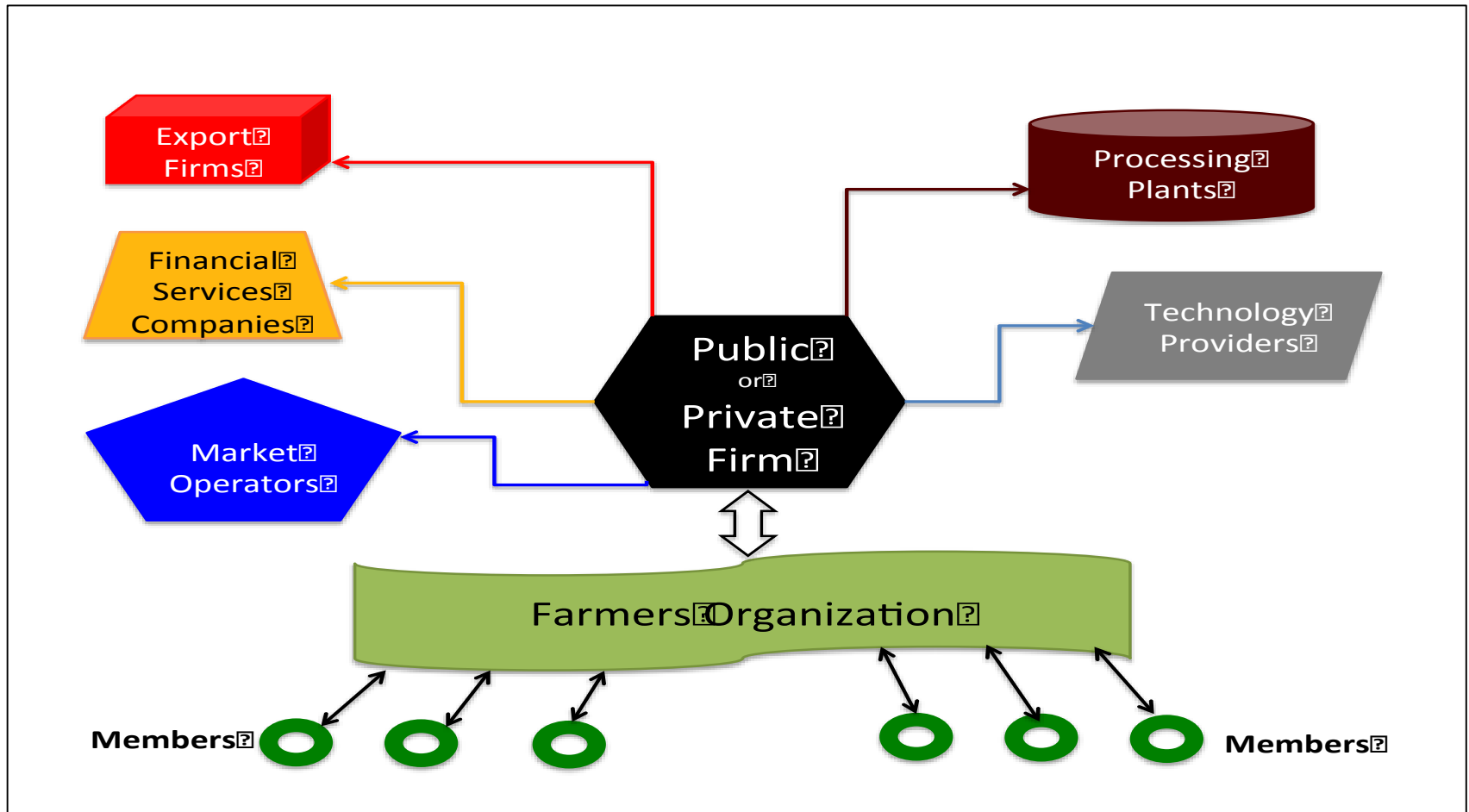


- Government and its parastatals
 - But mostly less efficient usually fail to catchup the ICT growth
- Private service providers
 - are not interested in doing business with dispersed smallholders
- Smallholder Producers Organization
 - Reasonable and realistic choice to institutionalize ICT-based ag services in Africa
 - How do they provide ICT based services?

Why are SPOs the realistic choice?

- Smallholder Producer Organizations (SPOs) are widespread throughout rural Africa
- SPOs are patron-driven organizations or cooperatives
- Cooperatives have been important for agricultural development in most developed countries
- Crucial for agricultural growth in Africa where smallholders are spread out and face diseconomies of scale and disadvantageous bargaining positions vis-à-vis buyers and input suppliers
- SPOs can potentially play significant role in Business Credibility Intermediation(BCI)-signal to other value chain actors that smallholders are viable business partners

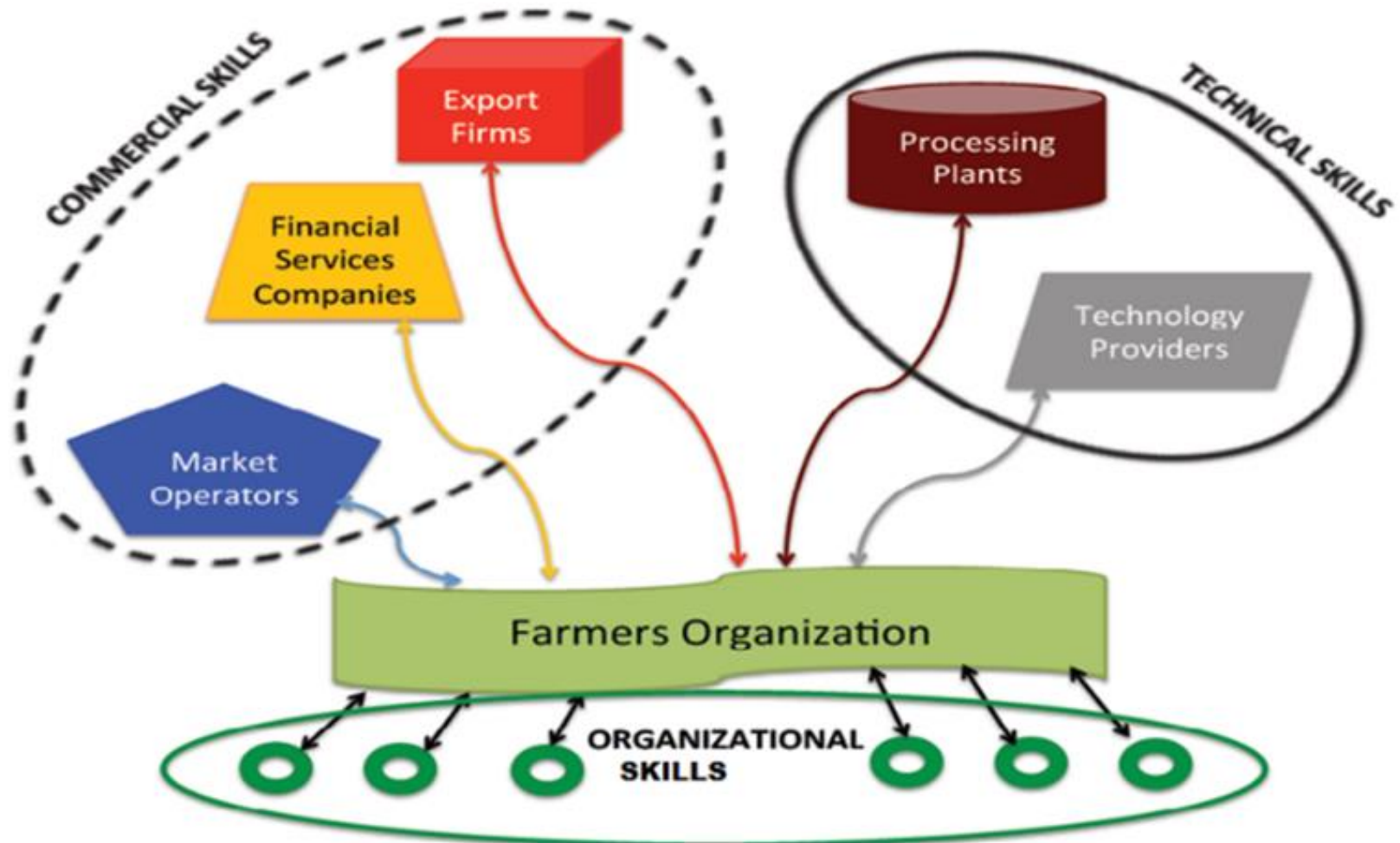
How SPOs can play BCI role?



Challenges of African SPOs

- However, SPOs are often ‘dormant’ or ‘empty shells’ involved in no or only limited service delivery (e.g. used as government channels for inputs or engaging in advocacy)
- Donors and NGOs have often shied away from working with SPOs to develop agriculture
- Many instances where farmers are asked to form new groups to benefit from interventions
- Or SPOs have been used only as channels for interventions (e.g. distribution of inputs to their smallholder members) and not considered as institutions in their own right
- To serve as BCI agent SPOs should transform into mature, business oriented organizations that deliver services to their members and help them integrate in value chains

Skills required for SPOs to play BCI effectively



What does **AGRICONNEXIONS**?



- The **AGRICONNEXIONS** project will digitize all major interfaces between SPOs and the rest of the value chain
- The **AGRICONNEXIONS** project will investigate the scope for enabling SPOs to play the BCI role for member farmers through a comprehensive suite of ICT-based services
- **AGRICONNEXIONS** brings together ICT and SPOs and would increase the impact of ICT and improve the performance of SPOs, which independently may not have an impact on the ability of smallholders to participate in value chains significantly.
- **AGRICONNEXIONS** is expected to encourage smallholder value chain integration by equipping user-owned and managed SPOs with a low-cost and easy to use web application for service provision

*What makes **AGRICONNEXIONS** different ?*

- Ensure sustainability of ICT
 - SPOs take care of the services after the project
- Ensure scalability of ICT applications
 - Apps will be piloted in a randomized control experimental design to ensure replicability
- Ensure integration of SPOs at regional /sub regional level
 - Regional farmers organizations will serve as umbrella and maintain integrated services

Work plan

- Conduct organizational diagnostics in grassroots SPOs (cooperative life cycle tool)
- Develop e-platforms, wireframe and web applications
- Experimental design: randomized treatments: different modules
- Equip SPOs with hardware and software (Raspberry Pi, web application and internet connection)
 - Hard + software: used to connect to and interact with services providers (banks, extension agents, buyers etc.) and member base
 - Hard + software: used for organizational training (cooperative management services)
 - Hard + software: used to record data – SPO characteristics, member business information, transaction data

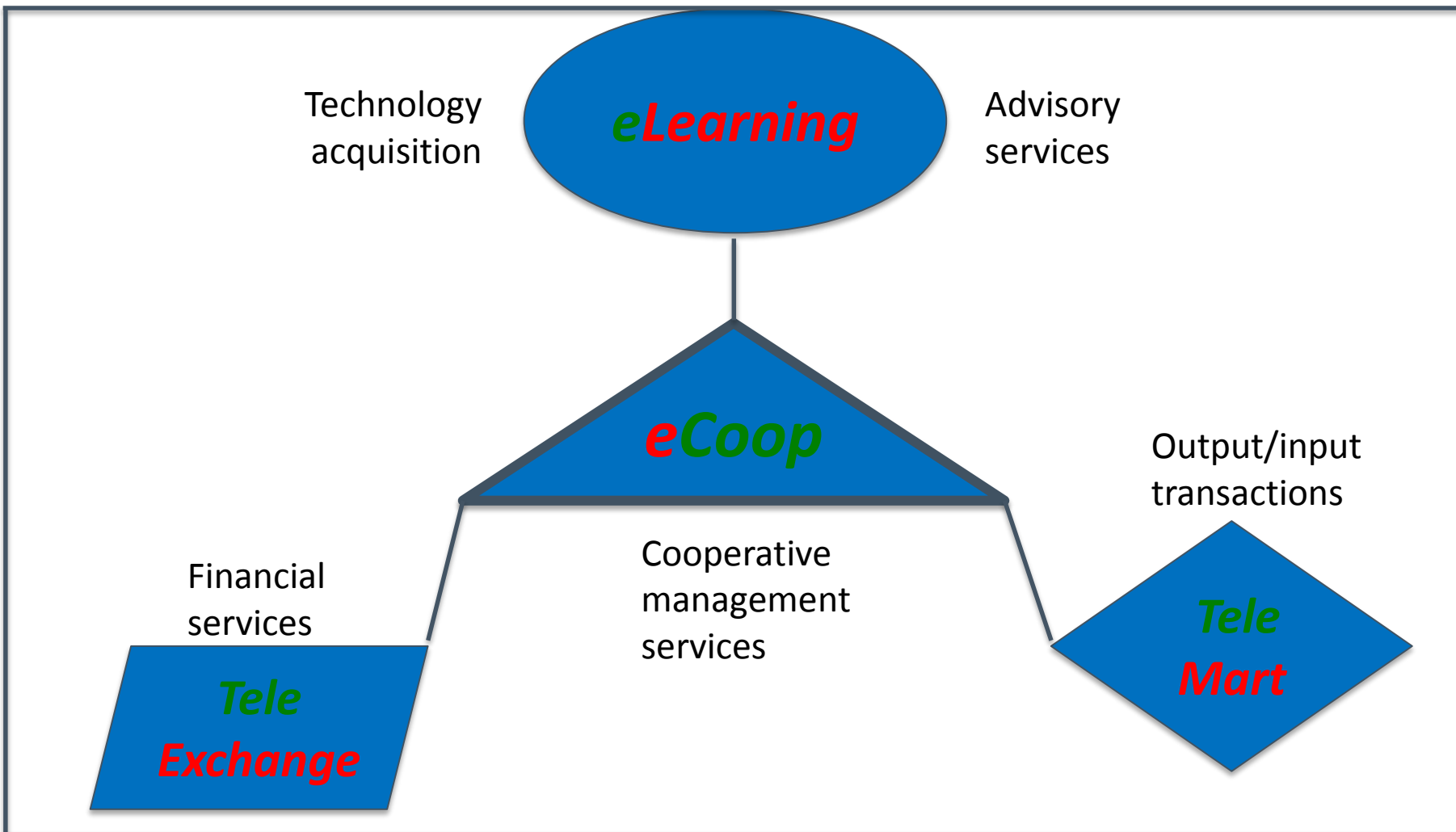
- Data base for impact evaluation and understanding of impact pathways
- End-beneficiaries of the project are smallholder members affected by the extent and the quality of service delivery by the SPO.
- Measuring final impact in terms of
 - changes in member-level yields
 - the share of the yield sold through the SPO
 - the value of yield sold through the SPO
- All registered through the tracking module of the web application!

Progress made so far



- Organizational diagnostic studies were conducted In Ethiopia, Malawi and Senegal
- Results indicated that
 - SPOs engage in multiple activities/services
 - But their service delivery and capital formation is very weak
 - Governance challenges are widespread
 - Access and us of ICTs by SPOs is very limited
 - Telephone 12% in Ethiopia , 4% in Malawi
 - Computer 5% in Ethiopia and 7% in Malawi
 - internet none in Ethiopia, 5% in Malawi

E-platforms are developed



SCREENSHOT OF SAMPLE PAGES FROM eCOOP MODULE PROTOTYPE



Advanced Information

INSURANCE PLATFORM

Member Contact No: 0000000000

Member Name: John Peter John Peter

Member Profile: 0000000000

Membership Type: 0000000000

Bank Statement: 0000000000

Insurance No: 0000000000

Household: \$1000

Gender: \$1000

Program Amount: \$1000

Payment/Payment Mode: 0000000000

Monthly Amount: \$1000

Insurance Term & Condition: 0000000000



Create Input Quotation Order (IQO)

TRANSACTION PLATFORM

Order Type: Self-Service

Self-Service (Optional): 0000000000

IQO Number Date: 0000000000

Supplier: 0000000000

Supplier No 01: 0000000000

Supplier Address: 0000000000

Supplier Payment Mode: Self-Service

Sl No	Item	Description	Quality Grade	Quantity	Unit Price	Date	Subtotal	Action
1	Item 1	Item Description	0000000000	2	\$100	00-00-00	\$200	
2	Item 2	Item Description	0000000000	4	\$100	00-00-00	\$400	

Conclusion



- Despite significant expansion of ICT-based agricultural services, their impact on smallholders is very weak
- A renewed and innovative approach is required to integrate ICT-based services with agriculture
- **AGRICONNEXIONS** brings new insights by integrating ICT services with users-owned and managed organizations
- So far, the approach has been well conceptualized and stakeholders are identified
- We invite partners for funding and experimenting the concept

Thanks!!