Towards National e-Agriculture Strategies

> " Information and Communication Technologies are not the solution but the enablers for those who come up with the solutions. As such, e-agriculture strategies should promote empowerment, training and education as a segue to the requisite cultural shift, from top-down prescriptive government directives to knowledge sharing, trust and transparency. "
>
> Lee H. Babcock - USA

Summary

While the importance of better coordination and better policies regarding the use of Information and Communication Technologies (ICTs) for sustainable agriculture and rural development have been recognized for some time, to date very few countries have put in place a holistic national e-agriculture strategy.

National e-Agriculture strategies could offer critical support to rationale the use of resources (financial and human), to better harness ICT opportunities and to address challenges in the agricultural sector. The existence of a comprehensive national e-Agriculture strategy could prevent e-agriculture projects from being implemented in isolation and increase efficiency gains from intra-sector and cross-sector synergies.

Participants in the latest e-Agriculture online forum concluded unanimously that there is a strong need for national e-Agriculture strategies.

This policy brief summarizes key observations and recommendations for policymakers, made through the online forum by participants and subject matter experts.

Participants underscored the need for strong national e-Agriculture strategies that will:

- increase efficiency and coordination
- be based on good practices on the use of ICTs for agricultural and rural development
- guide investments in the use of ICTs for agricultural and rural development
- create strategic alliances on the use of ICTs among different sectors
- be developed through a meaningful multi-stakeholder process
- open up silos between different sectors involved
- put key actors of the agricultural sector and smallholder farmers at the center of the strategy

Introduction

The e-Agriculture Community of Practice, in collaboration with the Food and Agriculture Organization of the United Nations (FAO), the International Telecommunication Union (ITU) and the Technical Centre for Agriculture and Rural Cooperation (CTA) organized its 25th e-Agriculture forum entitled "**Towards National e-Agriculture Strategies**" from 29 April to 15 May 2015.

FAO and ITU , in collaboration with CTA, are currently in the process of developing a "National e-Agriculture Strategy Guide". This guide is based on technical inputs from several stakeholders collected during regional workshops, country visits and this online forum. FAO and ITU also support countries in developing their national e-Agriculture strategy and assist in streamlining the use of ICTs in agriculture and rural development in the member countries.

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About FAO

The Food and Agriculture Organization of the United Nations (FAO) is the UN agency facilitating the e-Agriculture Action Line of the World Summit on the Information Society (WSIS). www.fao.org

About ITU

The International Telecommunication Union (ITU) is the United Nations specialized agency for information and communication technologies (ICTs). ITU is the lead agency for implementation of the World Summit on the Information Society (WSIS) www.itu.org

About CTA

The Technical Centre for Agriculture and Rural Cooperation (CTA) is a joint international institution of the African, Caribbean and Pacific (ACP) Group of States and the European Union (EU). Its mission is to advance food and nutritional security, increase prosperity and encourage sound natural resource management in ACP countries. www.cta.int

About e-Agriculture

The e-Agriculture community of practice looks at how ICTs can improve agriculture and contribute to rural development. www.e-agriculture.org

Making a case for the development of national e-Agriculture strategies

The phenomenal growth in the use of ICTs in rural areas over the last decade implies a tremendous potential to improve the livelihoods of smallholder farmers and rural communities. Nevertheless many e-agriculture pilot projects are not implemented in a coordinated way and are not sustainable. Mainstreaming e-agriculture initiatives has been challenging in many countries because of the lack of a clear strategy, and a failure to create synergies with other sectors and linkages between parallel initiatives.

The growing impact of e-agriculture and the use of ICTs for the global agricultural and rural sector need to be supported by the development of national e-Agriculture strategies. These strategies will help to make agricultural and rural development more effective and responsive to the farmers' needs and expectations.

A national e-Agriculture strategy is essential to create the **enabling environment** in which discussions and collaboration among different stakeholders and different sectors can take place. The strategies need to respond to the key issues that impede the adoption and the mainstreaming of ICTs in agriculture. Therefore the process of developing an e-Agriculture Strategy should be a **meaningful process** where stakeholders of the different sectors involved meet, exchange and discuss.

A national e-Agriculture strategy should be based upon a shared vision of all stakeholders on the topic of ICTs in agricultural and rural development. The strategy should increase **efficiency and coordination**. In order to be efficient the strategy should be developed based on **good practice principles**.

Various government ministries and their departments, as well as private sector actors, non-governmental organizations and development institutions already work closely with farmers. They all offer their services and support, but too often work in **silos**. A national strategy would aim to bring all stakeholders together to work towards common goals, which would increase the efficiency of the support offered to farmers by realizing potential synergies, avoiding duplication of interventions and increasing cost effectiveness of the services and support.

A national e-Agriculture strategy needs to accommodate **ICT strategic alliances,** for example with the financial sector to promote mobile finance. These strategic alliances need to be identified and good practices in the related fields documented and shared for better uptake within the field of ICTs for agriculture. For the development of national e-Agriculture strategies, lessons should be learned from **ICT for development policies** and strategies in general.

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Key components and messages for a national e-Agriculture strategy

A series of questions need to be addressed before a country can start developing a national e-Agriculture strategy:

- Who is supposed to adopt the strategy?
- Who should pay for the process of developing and implementing it?
- Who should decide on how the investments are going to be made?
- How can we evaluate the impact of a strategy?
- How can we ensure consistency and consolidation of efforts, rather than competing or duplicating?
- What are the priorities of all stakeholders?
- What overall policies must already in place if we are to be able to implement an e-agriculture strategy?
- What is the roadmap of the process?
- Who should steer and govern the process?
- How can we make sure that the proposed strategy addresses the challenges?

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Based on the contributions of the forum, a national e-Agriculture strategy should consider how to:

- Put farmer trust up front and in the centre of the strategy
- Provide the framework for inviting potential partners, negotiating each partner's role and responsibilities and subsequently forming committed e-Agriculture partnerships
- Focus on farmers' access to markets, and define how farmers can make use of ICTs throughout the whole value chain
- Bring holistic efficiency in the flows of information of an agri-food system. There are three information networks/flows:
  For food/commodities production at input, farm, processor and consumer levels
  For transport, storage, wholesale, retail and shelf marketing
  For flow of money

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- Create the enabling environment for ICT/mobile money commercial solutions that capture aggregated volume activity
- Promote empowerment, training and education of farmers

The recommendations of the forum participants were that a national e-Agriculture strategy should also address the following topics:

- Infrastructure development (Hardware, Software, Connectivity, Storage/Cloud, Human Skills)
- Content generation and management
- Integration of information and information systems (Intellectual Property rights/copyright, Systems Security and management)
- Enabling effective use of data and information including developing capacities at various levels for systems management to actual user
- Applications and services tailored to agriculture
- The national legal and institutional framework
- ICT capacity development
- Agricultural information systems
- Private and public sector institutional linkages
- Technical constraints faced by key actors
- Delineation of roles and expected activities

Recommended process of the development of a national e-Agriculture strategy

The process of the development of a national e-Agriculture strategy should be meaningful in itself. It needs to be a **collaborative process**, in which all stakeholders are engaged, and not based upon a top down approach or driven by only one party. The collaborative process needs to include a broad consultation phase, and include engagement via both online forums and face-to-face meetings.

The experiences of Ghana, where a national e-agriculture strategy has already been developed, supports this need for a clear process leader, without it being a top down process. A clear lead for the process increases ownership and ensures sustainability. In Ghana, the Ministry of Agriculture leads the process with strong support from the Ministry of ICTs and they are both responsible for including all stakeholders in an appropriate way.

The goals of the strategy should be aligned with the goals of the agricultural sector itself. Roles and responsibilities need to be spelled out explicitly to ensure success.

A national e-Agriculture strategy should emphasize that ICTs are not direct **solutions** to agricultural and rural development challenges, but instead are **enablers** for those people who will create the solutions. The strategy should promote empowerment and capacity development and contribute to a **cultural shift** – from top down and prescriptive to bottom up and participative.

The strategy also needs to take into account that the pace of technological changes outstrips our capacity to keep up with those changes. Any type of overly prescriptive e-Agriculture strategy will quickly become obsolete. It should focus on knowledge sharing, trust and transparency and equip individuals to better and more rapidly respond to changes in ICT technologies.

Resources and references

The full view of contributions from the 29 April – 15 May 2015 e-Agriculture forum can be accessed online in the e-Agriculture forum archive:
www.e-agriculture.org/fr/forums/forum-archive

More information on the progress of the development of the '**National e-Agriculture Strategy Guide**' and e-Agriculture strategies in general can be found on the thematic page of the platform:
http://www.e-agriculture.org/e-agriculture-strategies

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