



Creating fertile ground for digital extension services

December 2019

What works where for which farmer Policy brief No. 3

In summary

- **Extension officers need digital literacy training to make good use of new digital tools**
- **Public institutions should increase cooperation with the private sector**
- **Policy-makers should ensure low-cost mobile communication so farmers will fully use existing services**



Many new digital services for agricultural extension are now available. But why do they rarely grow beyond the initial testing phase? Establishing new digital agro-advisory services to the national level creates challenges. Our project showed that policy-makers can make a big difference for enabling successful scaling and a sustainable digital transformation of agricultural extension.

Our project tested “Ushauri”, an automated hotline where farmers ask questions about agriculture. It is linked to an online platform, where extension officers sent answers back to farmers’ phones. We found that multiple challenges hinder the scaling of digital tools in public agricultural extension. If decision-makers believe in a digital future including smallholder farmers, these challenges can be overcome by political measures.

Extension officers need stronger digital skills

Adoption of promising digital tools in agricultural extension has been difficult due to a widespread lack of digital capacity among extension officers. Our new “Ushauri” information service was designed for simple uptake by farmers, but extension officers first needed to get familiar with a new online tool.

We found that many officers lacked basic knowledge about computers, smartphones, and the internet. At agricultural colleges and vocational training centers, extension officers acquire the knowledge and skills they need for supporting farmers. This training should also cover basic digital literacy skills.





Public-private partnerships for digital extension

In many countries, public organizations, such as the Ministry of Agriculture, are the primary providers of agricultural extension. Private companies, offering digital solutions, often work alongside the public system.

Working with both public extension providers and private tech companies, our project highlighted a lack of coordination. There is great potential, however, in combining the large reach of the public sector with the innovative capacity of the private sector. Modern public-private partnership regulations allow software companies to develop digital services together with the government.

Private extension providers need simpler content clearance

By law, messages developed by private extension providers, such as NGOs and agricultural aggregators, must obtain public clearance. But slow and cumbersome procedures dis-incentivize private stakeholders from providing useful information to farmers.

There is a need for transparent and efficient procedures for the validation of extension messages, to support the efforts by private extension providers. Governments need to create clear access points for cooperation.

Digital communication is a modern agricultural input

Tightly protected telecommunication markets created challenges for our project. In Tanzania and Ethiopia, a dearth of international VoIP providers caused the “Ushauri” service to be very costly for smallholder farmers. Opening the telecommunication market will fuel competition and bring down prices for mobile communication services.

Because digital information can help farmers to improve their production, governments should treat it in similar ways as other inputs, such as fertilizer and seed. Policy-makers need to ensure farmers have low-cost access to digital communication. This way, private initiatives can offer affordable information services to farmers, developing sustainable business models.

Different digital solutions for different contexts

No single service will be useful to all farmers, or applicable in all regions. Public extension providers at regional level need to be enabled to identify the digital solutions that fit their local needs. This can require increased de-centralization of the public extension system.

The project

The “What Works Where for Which Farmer” project is funded by UK Aid from the UK government through the Sustainable Agricultural Intensification and Learning in Africa (SAIRLA) programme. The project has generated evidence about how digital tools can help smallholder farmers, especially women and youth, to access information that can support the implementation of sustainable agricultural intensification (SAI). Over the course of the project, novel concepts for digitally improving advisory services were tested in Ethiopia, Kenya, and Tanzania. Researchers, farmers, and extension agents specified the design of a new digital information service for SAI through a participatory design process.

Alliance



The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT) delivers research-based solutions that harness agricultural biodiversity and sustainably transform food systems to improve people's lives.

Bioversity International and CIAT are CGIAR Research Centres.



Bioversity International
Via dei Tre Denari, 472/a
00054 Maccarese (Fiumicino), Italy
Tel. (+39) 06 61181
Fax. (+39) 06 6118402
bioversity@cgiar.org
www.bioversityinternational.org