DIGITAL TECHNOLOGIES FOR AGRICULTURE

EUCORD
european cooperative for rural development

Even though agriculture is the mainstay in several African countries, many smallholder farmers continue to face serious challenges accessing agricultural inputs, knowledge and markets.
This often results in limited use of inputs (e.g. improved seed, fertilizer and crop protection), weak capacity building (extension) programs, and poor access to markets and investments.
The main challenge is to develop more competitive and sustainable local value chains that will increase farmers' income as well as improve food nutrition and security, while simultaneously contributing to climate resilience and expanding job creation.

DIGITAL SOLUTIONS

Recent studies have shown the important role digital technologies can play in addressing these challenges (FAO, OECD, World Bank,...).
While there are clearly multiple interconnecting factors to consider, digital technologies provide a helpful tool that can support smallholder farmers to grow their businesses.
To begin with, the adoption of digital platforms helps to bridge information gaps, reducing asymmetries in market information and facilitating agricultural value chain linkages. Connections between smallholder farmers, agro-processors, input suppliers, and financial institutions are made easier by digital tools, leading to an increased value chain performance and to the creation of jobs.
By improving the diffusion of information, digital technologies can help to increase farm productivity and profitability and to reduce food losses (e.g. weather forecast systems aid farmers optimizing the timing of their planting and harvest plans).
As a result, positive outcomes are also reflected on farmers' income, in thanks to a wider access to financial services.

Who we are

EUCORD is a non-profit organization registered as a cooperative in the Netherlands, whose mission is to increase farmers' capacity to sustainably grow quality crops matched to the commercial needs of the agribusiness sector and in doing so, increase food security, develop the private sector and improve the livelihoods of rural communities. Working since 2003, EUCORD has four fulltime staff in Brussels and over 60 in-country staff based in Africa.

Different types of digital services can be mobilized for this purpose:

- Integrated financial services, including access to savings and credit, ordering and payments for inputs, market transactions with agro processors.
- Digital advisory services on good agricultural practices, post-harvest handling and marketing (training and coaching advice, including voice or video advice to watch off-line, etc.).
- Weather services: local and reliable weather forecasts, essential for planting dates, smart irrigation decisions, timing of fertilizer use and pest control, leading to optimized resource use and protecting crops.
- Precision agriculture and precision irrigation, using digital tools such as GPS guidance, control systems, or drones for the tele-detection of target areas.

CURRENT EXPERIENCE

EUCORD (in partnership with IFC and Microsoft Africa) is piloting a new mobile learning platform called Agri ChatBot, as part of its barley value chain development project in Ethiopia. The platform provides farmers the possibility to access, through their mobile phones, agronomic advisory support, and weather information, while also generating surveys and offering farmer organizations a messaging system. The platform will contribute towards enhancing malt barley production and productivity, due to improved access to inputs and market information. The Agri ChatBot is complementary to the technical support provided by the project through in-person training, demonstrations, and field days. By the end of the 12-month period, the Agri ChatBot is expected to be successfully rolled out to an estimated 15,000 farmers.

WAY FORWARD

Based on its experience working with outgrowers, supporting them on the field and providing (online) training curricula, and learning from this first digital experience, EUCORD is ready to partner with:

- Digital technology service providers to pilot and scale up their platforms to a large number of farmers in countries where EUCORD has an active presence.
- Agro-processors looking to enhance digital technology access to smallholder farmers involved in their outgrower programs.
- Public and private donors aiming to use digital platforms to support the introduction of agricultural technologies to the benefit of all players in a value chain.
- Other entities looking for public donor support and links to digital technology service providers. As a grant-seeking organization, EUCORD has a long history in setting up successful public-private partnerships.

"Digital communication technologies help to automate, centralize and simplify information for agricultural stakeholders"

Elias Nure, Project Leader ATA, 2019