

Building forward with digital agriculture in NEN and ESA

Panellists:

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A successful response to COVID-19 involves mitigating the threats that it poses to rural livelihoods, while also taking advantage of new opportunities. Chief among these opportunities is the increased demand for digital technologies, with development agencies, governments, the private sector and civil society recognizing their value as powerful and cost-effective COVID-19 response tools. Leveraging this demand and goodwill to increase investment in key infrastructure and services can accelerate adoption of digital technologies among small-scale producers. In turn, this can help to drive inclusive rural transformation in the long term through increased efficiency and market integration.

Digital interventions in the East and Southern Africa (ESA) and the Near East, North Africa and Europe (NEN) regions represent fruitful opportunities for further adoption and scalability, as shown in the examples box. In ESA, this is spurred by the explosion of mobile money services, to the point that, in Kenya for example, the number of mobile money accounts is now larger than the population of adults. In NEN, a key driver has been the renewed interest of governments in digital technologies, with a shift towards increasing connectivity for the sake of the economy and for fighting COVID-19.

Key examples

Short-term COVID19 response

Kenya Tailored agricultural advice through a digital platform, to be financed by the Rural Poor Stimulus Facility.

Yemen Remote project design required due to conflict and COVID-19. Used remote sensing and GIS technology to inform targeting by identifying most vulnerable areas.

Zambia Digital training and extension on adapted practices financed with repurposed project funds.

Longer-term solutions

Egypt STAR¹ programme aims for increased access to digital extension services in areas of production, marketing & finance, and capacity & value chains.

Egypt/Jordan/Tunisia/Yemen Grant to IFPRI to develop the AIDA tool to help prioritise agricultural investments by demonstrating potential impacts to governments.

Kenya Input subsidy package delivered through e-wallets. Efficient and allows for producers to connect to financial service providers, as well as for agri-businesses to connect with their smallholder suppliers.

Malawi/Uganda/Zambia Digital platform for community-based savings. Groups can save in a digital wallet, which is linked to a financial service provider who deposits the funds into formal savings account.

Morocco An E-commerce site for selling sheep has resulted in a ten-fold increase in income for users.

Turkey IFAD is working with FAO and UNDP to set up a platform for price information, including direct linkages and digital transactions between buyers and suppliers.

As the ESA and NEN examples demonstrate, digital technologies can help to mitigate the threats of COVID-19 in several ways. First, in the face of restrictions on movement and gatherings, they can be used to link farmers with input suppliers, as well as to buyers for their produce. They can also be used to move money when it is not possible to make physical transactions, and to connect rural households to financial services. This is even more important now that the COVID-19 crisis is threatening their cash flow (see [Learning Note 4](#)). These examples also show that digital tools can help producers to increase their financial inclusion, with positive effects on financially excluded (“unbanked”) women and other vulnerable groups.

Taking advantage of the short- and longer-term benefits requires support both in improving connectivity, and in developing and ensuring uptake of digital services. In the least developed countries, 81 per cent of people are not connected to the internet, and for those who are connected, 5GB of data can cost up to 20 per cent of their monthly income². Lack of competition is often a key driver of this lack of coverage and high costs. In terms of services, while highly innovative and effective solutions are constantly being developed, these rarely reach the level of poor rural households. This is partly due to the lack of connectivity, but also to a lack of financial incentives by providers, lack of awareness by potential users, and a lack of the skills or complementary resources needed to take advantage of innovative solutions. In view of these challenges, it is clear that effectively engaging the private sector is key to progress in utilizing digital agriculture to fight COVID-19, and to stimulate longer-term development.

1. STAR project is entitled: Sustainable Transformation for Agricultural Resilience in Upper Egypt.

2. International Telecommunication Union, 2020. Measuring digital development: Facts and figures 2019. <https://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx>

Related Knowledge Resources

1. Taking advantage of established e-commerce channels, governments could deliver extension services at scale to small-scale producers even during a pandemic. Voutier, P. 2020. Driving AgriTech adoption: Insights from Southeast Asia's farmers. IFAD, Rome.
2. Agricultural innovation systems and site-specific technologies and practices can be used to provide targeted support to rural communities, especially women and youth, in the wake of the COVID-19 pandemic. FAO. 2020. Enabling agricultural innovation systems to promote appropriate technologies and practices for farmers, rural youth, and women during COVID-19. FAO, Rome.
3. In rural areas of Kenya and Tanzania, a 24-hour online extension platform was created to provide pre-recorded agricultural advice, which could be scaled up during a pandemic. Smith, G. 2020. Investing in better bang for the extension buck. CGIAR Platform for Big Data in Agriculture, Montpellier.
4. During the COVID-19 pandemic, providing secure, low-cost, and contactless financial services is essential to help the poor increase income and become more resilient. Pazarbasioglu, C., and Garcia Mora, A. 2020. Expanding digital financial services can help developing economies cope with crisis now and boost growth later. World Bank, Washington, DC.
5. How to Do Note on Digital Financial Services for Smallholder Households.
6. The Agricultural Investment Data Analyzer – AIDA: An Innovative Tool for Evidence-based Planning.

Actionable recommendations

1. **Integrated and coordinated approach.** Beyond identifying the right digital agriculture activities, a key emphasis of the UN Roadmap for Digital Cooperation is to ensure the alignment of activities and efforts to avoid duplication³. This requires that all initiatives are preceded by an in-depth scoping of ongoing activities and exploration of opportunities for collaboration. Digital services related to banking, marketing and information should also be integrated to increase uptake and efficiency. Finally, solutions aimed at addressing the threats of COVID-19 should

designed to feed into longer-term development objectives.

2. **Emphasise value for money.** Compared to other project types, the cost per beneficiary of digital agriculture projects is very low. For instance, an initiative that provides tailored farming advice through a mobile phone application - recently approved for financing from the Rural Poor Stimulus Facility (RPSF) - has a cost per expected beneficiary of just USD 1.71. To build the case for investment, IFAD must work to break misconceptions about the cost of digital agriculture projects and focus on capturing and sharing widely the cost-benefit ratio of projects as they progress.
3. **Align incentives for providers to increase coverage and affordability.** It is costly to implement digital infrastructure, and rural households are often perceived to have insufficient purchasing power to justify these costs. Those providers who do take the leap often hold a monopoly and thus charge a high price. Keyways to address this are to lobby for an enabling regulatory environment for smaller providers to promote coverage and competition, covering some of the risks of implementation, and investing in new innovations that allow for cheaper delivery.
4. **Scaling up.** There are several examples of where a digital service has performed well during a pilot but has been unsuccessful when taken to scale. This is often because the marginal benefits in terms of both service providers and users, chiefly in terms of profits, have been insufficient. Where such services are piloted in the future, in-depth analysis (including an initial market assessment) must be conducted to ensure that incentives for all stakeholders are aligned to ensure sustainable use of the service when taken to scale.
5. **Capture lessons learned.** Repurposing and financing through the RPSF offer the opportunity to test innovative digital solutions for rural development. IFAD must rigorously capture the insights generated through this process and integrate them into longer-term digital strategies.
6. **Using digital technologies in project design.** During project design, use of remote sensing and GIS technologies are an accurate and efficient way to compile targeting strategies, and to identify most vulnerable project areas. IFAD should encourage and provide support and incentives for teams to use these technologies whenever possible for future project designs.

3. UN, 2020. Road map for digital cooperation: implementation of the recommendations of the High-level Panel on Digital Cooperation. <https://undocs.org/A/74/821>