

## Digital agriculture and the rural poor: Challenges and opportunities in delivering results

A dialogue about digital agriculture and its potential to reduce rural poverty, featuring: Professor Michael Kremer, 2019 winner of the Nobel Memorial Prize in Economic Sciences, Owen Barder, CEO of [Precision Agriculture for Development \(PAD\)](#), and panelists from the public sector, development organizations, academia and IFAD (see box below right for full list).

On Wednesday 5 May 2021, [IFAD's Change, Delivery and Innovation Unit \(CDI\)](#) hosted the fourth IFAD Innovation Talk to engage in a dialogue about progress and key challenges and opportunities in the implementation of digital agricultural advisory services for smallholder farmers.

Opening the session, **Meike Van Ginneken** underlined that digital agriculture extension, innovation and technology can seriously boost agricultural productivity, thereby improving the lives of the rural poor. However, IFAD is also aware of the challenges related to the introduction of technology and digitalization.

In his [keynote speech](#), **Professor Kremer** stated that expanding in-person extension may be challenging for many low- and middle-income countries, but digital technology has the potential to improve existing extension services. The cost of reaching more farmers with digital extension is low, and there are several other benefits too. Moreover, there are many opportunities for innovation and improvement of digital extension services in the future. **Owen Barder** talked about PAD's collaboration with IFAD, and illustrated PAD's projects and initiatives, with a focus on Kenya, Pakistan and Nigeria, and attention on reaching women and livestock farmers in some of these areas. Putting in place systems to spread knowledge that are cost-effective, and targeted to those who would otherwise be left behind, is key for building back better.

### Speakers and panellists (as per running order)

*Meike Van Ginneken*, Associate Vice-President, Strategy and Knowledge Department, IFAD.

*Professor Michael Kremer*, Co-Founder and Board Member, PAD. 2019 Nobel Prize in Economics. University of Chicago.

*Owen Barder*, CEO, PAD.

*Patrick Habamenshi*, Country Programme Manager, Nigeria, IFAD.

*Zahoor-Ul-Hassan*, Project Director, Digital Extension, Agriculture Department, Government of Punjab, Pakistan.

*Uzoamaka Ugochukwu*, Country Launch Manager, Nigeria, PAD.

*Vivian Hoffman*, Senior Research Fellow, International Food Policy Research Institute.

*Donal Brown*, Associate Vice-President, Programme Management Department, IFAD.

Moderation: *Gladys H. Morales*, Senior Innovation Adviser at CDI, IFAD; and *Nigel Brett*, Regional Director, Asia and the Pacific Division, IFAD.

**“Many governments and international institutions show increased interest in complementing overburdened in-person agricultural extension services with digital services: there is a tremendous potential for this to address long-term and short-term challenges.”**

*Professor Michael Kremer*

During the [panel discussion](#), panellists **Vivian Hoffman, Zahoor-Ul-Hassan, Patrick Habamenshi and Uzoamaka Ugochukwu** offered their thoughts and reflections on two questions:

**Question 1:** *As we rapidly adopt new digital tools, how do we ensure that poor and vulnerable households who may lack connectivity and digital skills are not left behind?*

**Question 2:** *What advantages do mobile phone-based agricultural services present in terms of user-centricity, affordability and sustainability? And how can we leverage the pandemic response to invest in more accessible extension systems?*

In response to question 1, **Patrick Habamenshi** stated that in Nigeria IFAD targeted the parts of the country with the poorest populations, and stressed that since not all smallholder farmers have an active phone, relying on automated systems on the phone is not enough – it is necessary to combine

different solutions. **Zahoor-UI-Hassan** talked about the importance of diverse local contexts, and of having simple technology and simple solutions to ensure scale and impact. **Uzoamaka Ugochukwu** highlighted the need for effective policies to close the digital divide, as well as the importance of tailoring messages for women and other vulnerable groups. And **Vivian Hoffman** discussed the need for hybrid approaches in certain contexts and the benefits of being able to operate at scale.

For question 2, **Patrick Habamenshi** spoke about the relevance of customizing services according to local contexts and languages, the role of youth, and endorsed building skills to ensure scale up; whilst **Zahoor-UI-Hassan** highlighted the potential of digital tools to solve issues at scale. **Uzoamaka Ugochukwu** discussed the deployment of human centric design focusing on low-income households; and **Vivian Hoffman** highlighted how phone services can be tailored to better serve women and other marginalized groups

In the Q&A session that followed, all speakers gave their views on the potential of digital services to interlock extension with market platforms and access to financial services. Speakers also discussed the digital gender gap. (A Q&A report is available on the events page [here](#) addressing questions that were not answered live.)

In his closing remarks, **Donal Brown** stressed the importance of simplicity, the role of literacy and local languages, and reflected on the future of national extension systems, in relation to the increasing development of IT solutions.

### Digital agriculture – the background

*The COVID-19 pandemic has fast-tracked the adoption of digital technologies and reshaped our societies. The rapid penetration and development of digital technologies has the potential to revolutionise the ways in which poor farmers receive and exercise information to improve their livelihoods and advance their resilience to shocks.*

*Digital agriculture extension can provide smallholder farmers with timely and accurate information capable of shifting their behaviours to be more productive and profitable; furthermore, it is extremely cost-effective and can be implemented for \$1-2 per farmer per year. COVID-19 presents a catalytic opportunity to invest in digital agricultural extension to help farmers weather short-term shocks associated with the pandemic and to build more accessible extension systems in the longer term.*

*In 2020, IFAD and PAD established a partnership that aims to deliver personalised agricultural advice to farmers through their mobile phones, establishing a two-way information channel by which farmers can receive low cost, customised advice to improve on-farm practices, input utilisation, pest and disease management, environmental sustainability, and access to markets.*

**CDI would like to thank the participants for taking part and for making the event such a success and showing how digital agriculture and extension services still need improvement, but have a tremendous potential to advance productivity and contrast rural poverty.**

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### Missed the event? Watch it online!

Click [here](#) for a recording of the event. If you would like to skip directly to a particular section, the times are listed below:

Section	Participant(s)	Time (minutes)
Welcome	Gladys H. Morales	00.00–01.35
Opening remarks	Meike Van Ginneken	01.36–06.06
Keynote speakers	Michael Kremer and Owen Barder	06.07–17.37
Panel discussion	Nigel Brett / Patrick Habamenshi / Zahoor-UI-Hassan / Uzoamaka Ugochukwu / Vivian Hoffman	17.38–35.33
Q&A	All participants	35.34–52.07
Closing remarks	Donal Brown	52.08–57.45
Farewell and thanks	Gladys H. Morales	57.46–59.02