

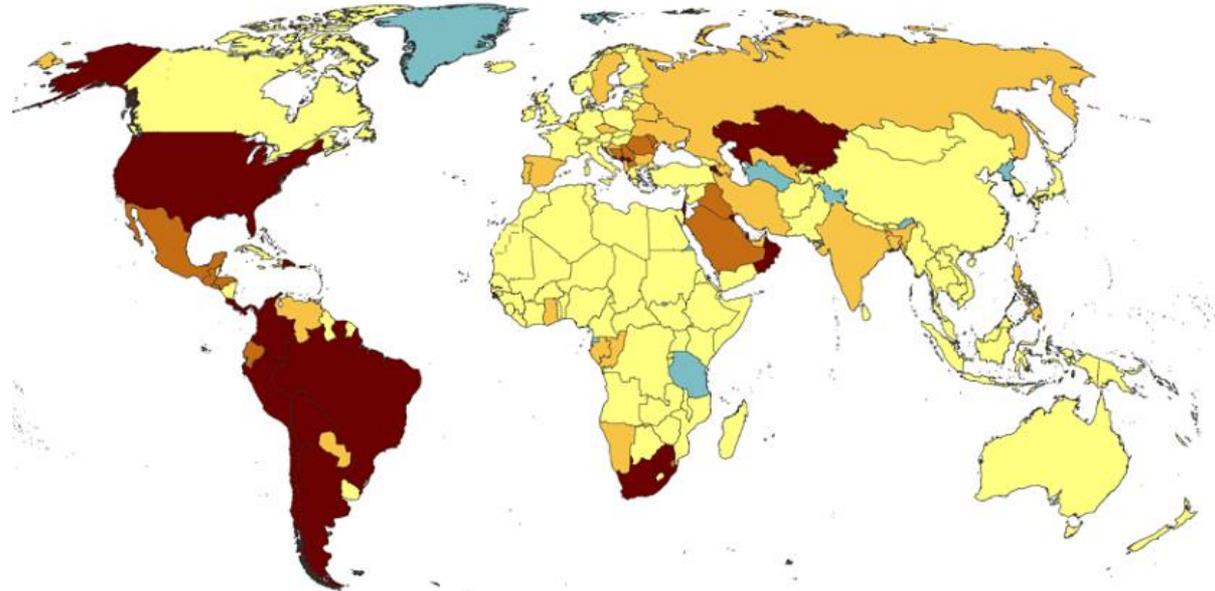


Promoting digital agriculture in response to COVID-19

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The COVID-19 impetus



14-day COVID-19 case notification rate per 100 000, as of 28 of July, 2020

 < 20.0  20.0 - 59.9  60.0 - 119.9  ≥ 120.0  No new cases reported

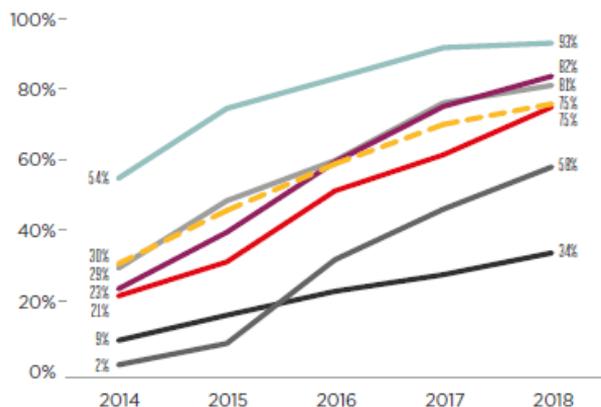


Connectivity constraint

- Low Mobile Connectivity Index (MCI) figures in developing countries
- 3G at 70% in SSA in 2018 up from 63% in 2017
- 4G at 34%

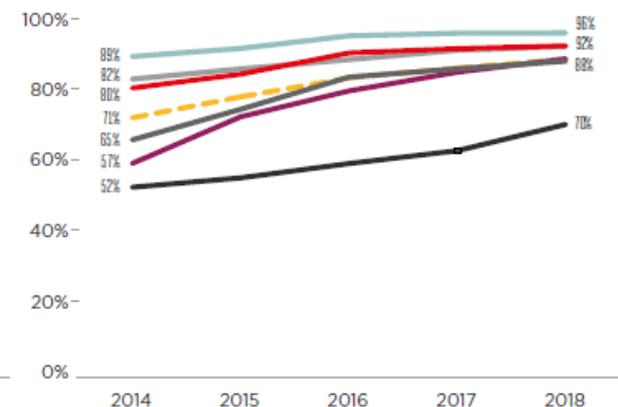
4G network coverage in LMICs

Base: Total population



3G network coverage in LMICs

Base: Total population



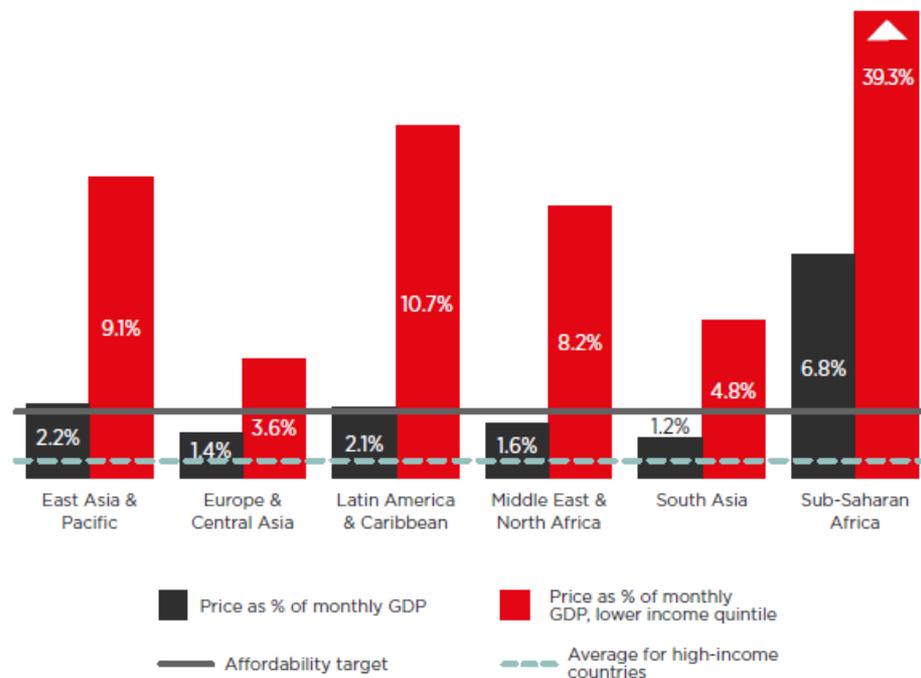
— East Asia & Pacific
 — Latin America & Caribbean
 — South Asia
 — Europe & Central Asia
— Middle East & North Africa
 — Sub-Saharan Africa
- - - LMIC overall



Cost of data

- Higher cost of data in SSA and Middle East and LAC
 - Cost of data (even at 3G levels) is prohibitive
- East Asia & Pacific as well as Europe are paying for better speeds (4G)

Affordability of 1 GB of data in low- and middle-income countries, by region (2018)



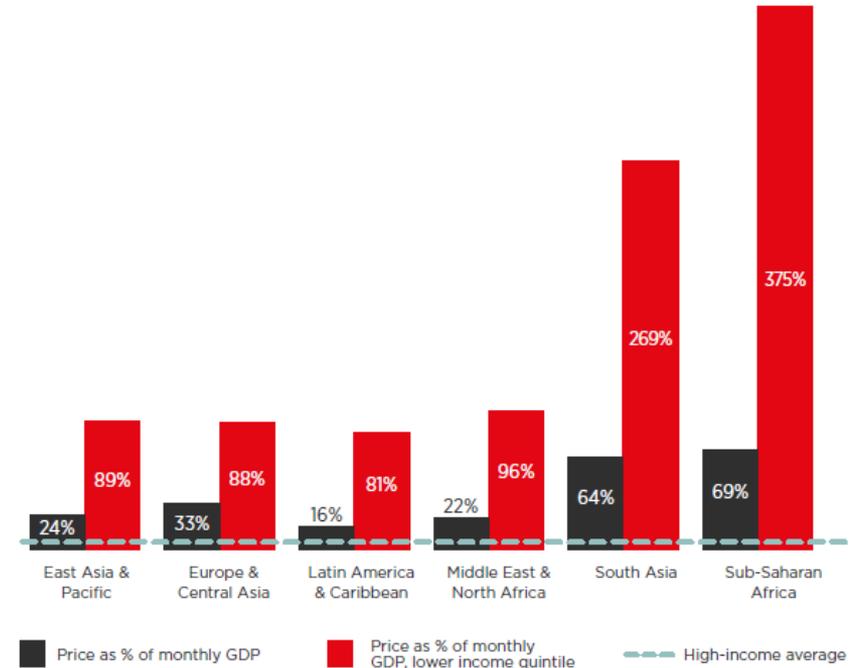
Source: GSMA (2019)



Cost of mobile device

- SSA & South Asia pay more for lower quality entry-level mobile devices

Affordability of entry-level device in low- and middle-income countries, by region (2018)

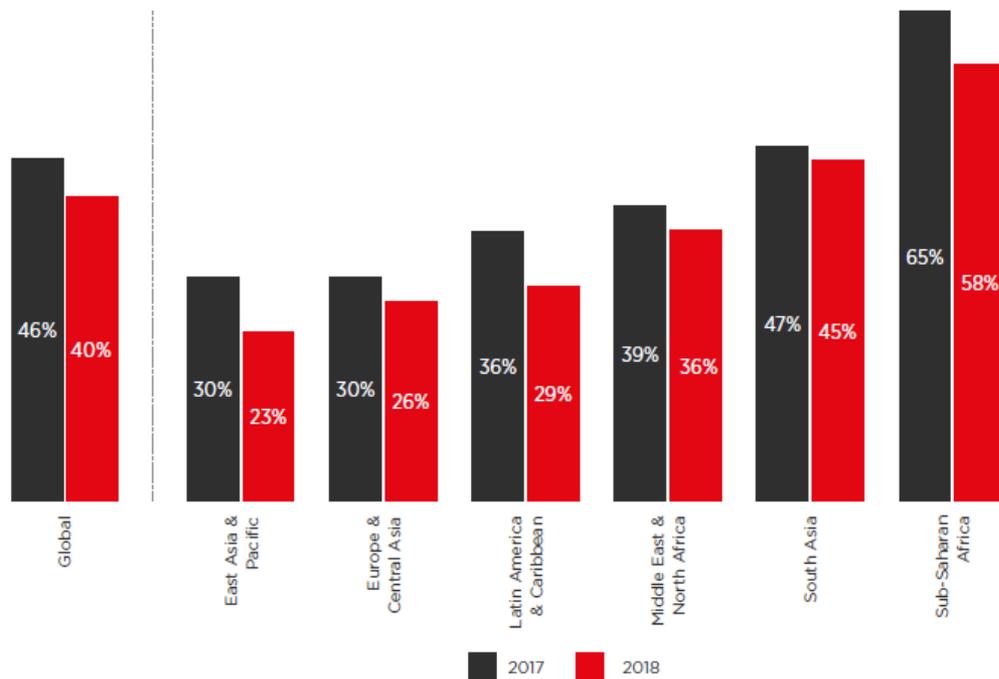


The urban-rural digital divide

- On top of everything, rural areas (where most agricultural activity is) are the least served by digital solutions
- Rural populations in LMICs are 40% less likely to use mobile internet than urban populations.

Rural gap in mobile internet use in low- and middle-income countries

Base: Total population



Digital Agriculture (DA) Entry Points

Media	Requirements
Short Message Service (SMS)/text message*	Low digital literacy, low data cost, low connectivity, basic mobile device
Voice call & Interactive Voice Response (IVR)*	Low digital literacy, low connectivity, moderate data cost, basic mobile device
Unstructured Supplementary Service Data (USSD)*	Moderate digital literacy, low data cost, low connectivity, basic mobile device
Video messaging	Low digital literacy, but high data cost, high connectivity, smart phone
Apps, Web (Social media platforms)	High digital literacy, high data cost, high connectivity, smart phone

* Bare minimum media

Promising areas but...

- GIS and Remote Sensing
- Artificial Intelligence (especially applied in digital marketing and finance)
- Internet of Things (IoT), e.g. terrestrial sensors
- Distributed Ledger (Blockchain)
- Cryptocurrencies (e.g. Bitcoin)





Accelerating Digital Agriculture for rural transformation at IFAD

What are we doing?

How we are accelerating DA

DA in the field	Behind the scene
Repurposing existing project financing	Remote Project Designs and Supervision
Rural Poor Stimulus Facility (RPSF)	50 x 2030 Initiative
ICT4D Strategy and Private Sector Strategy	Innovation Challenges



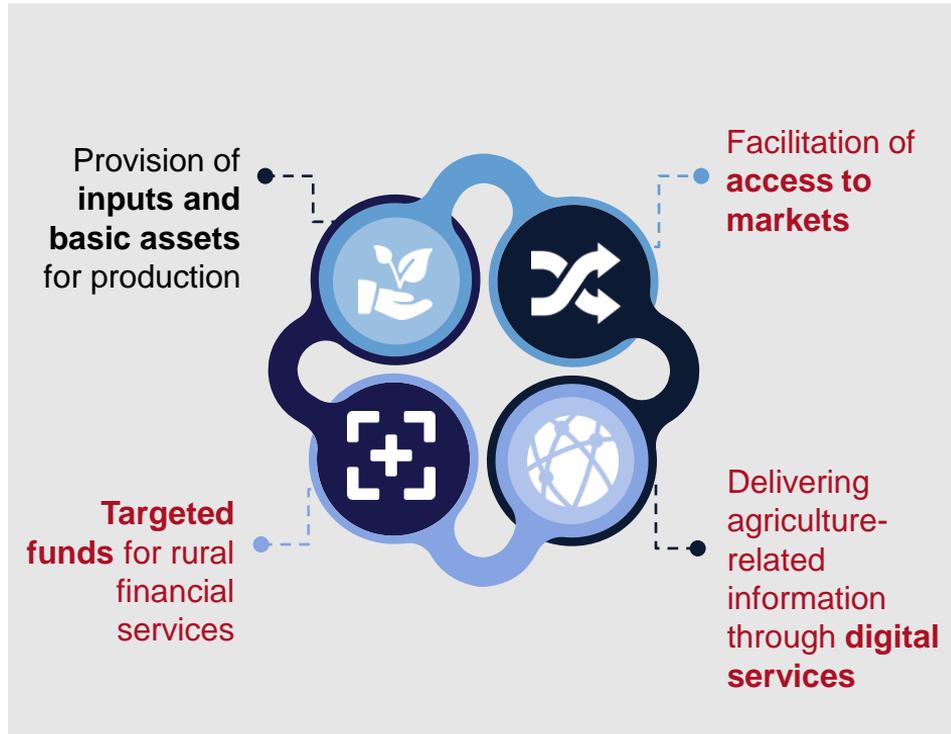
Repurposing the Enhanced Smallholder Livestock Investment Programme (ESLIP)

- Main components of ESLIP in Zambia:
 - Key cattle disease control
 - Improved forage production and use
 - Restocking of cattle for poor HHs
- \$233,693 from ESLIP has been repurposed to provide **digital extension services**



Program sites in Zambia

The Rural Poor Stimulus Facility (RPSF)



Initiatives under RPSF include:

- **Precision Agriculture for Development (PAD) in Kenya and Nigeria, and Pakistan**
 - Will establish a two-way information service (via SMS & interactive voice response) with farmers to improve their on-farm practices and access to markets
 - Will target 1.7 million smallholder farmers, including women (30%) and youth (25%) living in poverty.
- **Strengthen farmers' financial and information inclusion in Nepal**
 - Farmers will own a debit card and will have access to e-wallet payment & credit card services, payment service over ATMs, and seamless crediting of remittances.
 - 160,000 households will get access to up-to-date information on production, weather, & market prices through an app



50 x 2030 Initiative

- 50x2030 aims to fill huge gaps in agricultural and rural data and greatly improve data quality
- Promote data use, including through digital tools
- Technical assistance and guidance to improve data governance and sharing practices
- Training for data producers, users, and intermediaries via digital tools and platforms



And much more!

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