Applications of e-agriculture

Video

https://www.dropbox.com/s/jge84e7wwjskl64/e-agriculture%203min%20ru%20FINAL%202.mp4?dl=0









Why a national e-agriculture strategy or digital strategy for agriculture

FAO Regional Office for Europe and Central Asia

Sophie Treinen
Information and Knowledge Management Officer





www.itu.int/ICT4SDG

The 2030 Agenda for Sustainable
Development recognizes the great potential
of global connectivity to spur human
progress. It challenges us to ensure universal
and affordable Internet access for all

António Guterres Secretary-General, UN

fast forward together #ICT4SDG

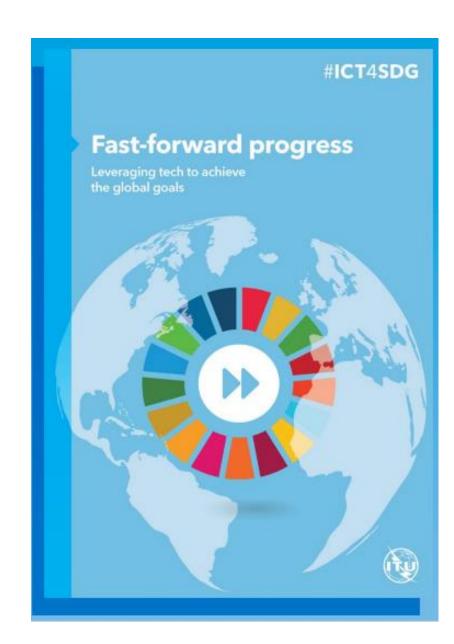


Zero Hunger - IFAD, FAO

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Gilbert Houngbo, IFAD José Graziano da Silva, FAO

www.itu.int/ict4sdg

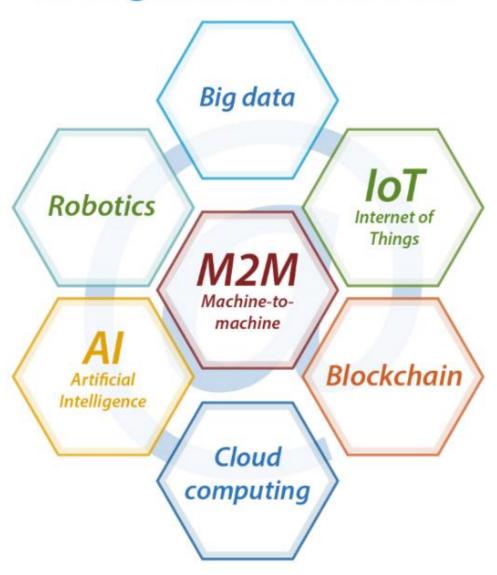


ICTs for agriculture + capacity development + enabling environment = e-agriculture



Source: FAO - ITU

New generation of ICTs





Regulatory frameworks

ICTs assist with implementing regulatory policies, frameworks and ways to monitor progress

Capacity development and empowerment

ICTs widen the reach of local communities (including women, youth and elders) and provide newer business opportunities, thereby enhancing livelihoods

Financial services and insurance

ICTs increase access to financial services for rural communities, helping people secure savings, find affordable insurance and find tools to better manage risks

Food safety and traceability

ICTs help deliver more efficient and reliable data to comply with international traceability standards and food nutrition aspects

Agricultural innovations systems

ICTs bridge the gap among agricultural researchers, academia, extension agents, various market players and farmers

Sustainable farming

ICTs offer improved access to and knowledge of sustainable farming practices, plant protection, animal health, and climate-smart solutions

Disaster risk management and early warning system

ICTs provide actionable information to communities and government on disaster prevention, in real time, such as agrometeorological information, while also providing advice on risk mitigation

Enhanced market access

ICTs facilitate market access for inputs and products as well as trade

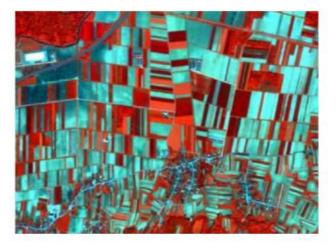
Role of ICTs in Agriculture

Source: FAO - ITU



Smallholders' challenges with digital agriculture

- Farm size and diversity
- Technologies often not adequate for smallholder realities
- Low capacities to generate, use and manage data and information – at level of farmers, service providers, regulators
- Ownership and privacy issues on-farm data
- Exclusion of smallholders from policy incentives and rural services
- Access to and control of data in agri-food systems: limited integration in market chains and limited decision power





A's questions – Are technologies ...

Available

Appropriate

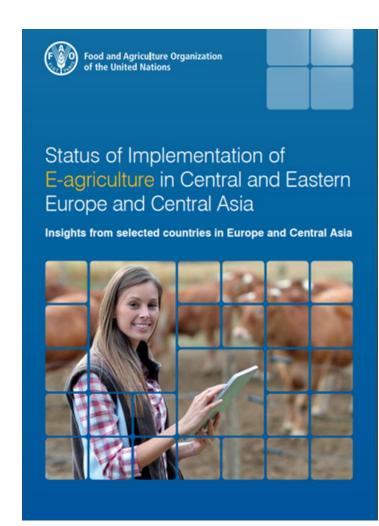
Accessible

Adapted

Affordable

Ability

e-AGRI Index



Key indicators

- World Bank: Population, GDP per capita, Agriculture, value added (% of GDP)
- FAO: Labor force in agriculture %, Land use %

Information and communication technologies key indicators

• ITU: Mobile phone subscriptions/100 pop, Individuals using Internet %, Households with Internet access at home, Fixed broadband Internet subs, Mobile broadband subs,

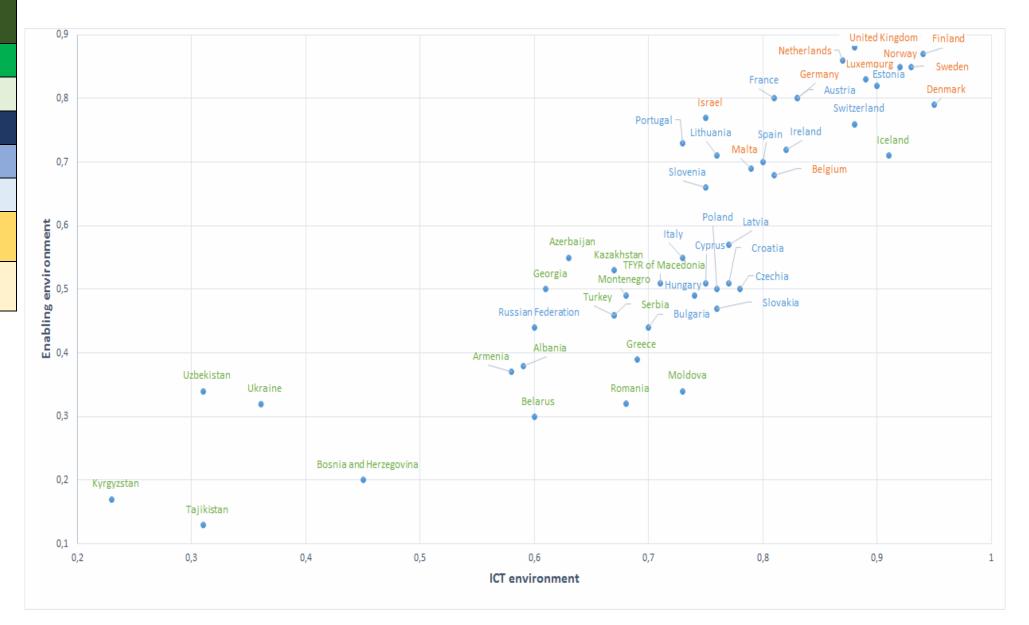
•ICT environment / government – ICT environment / business

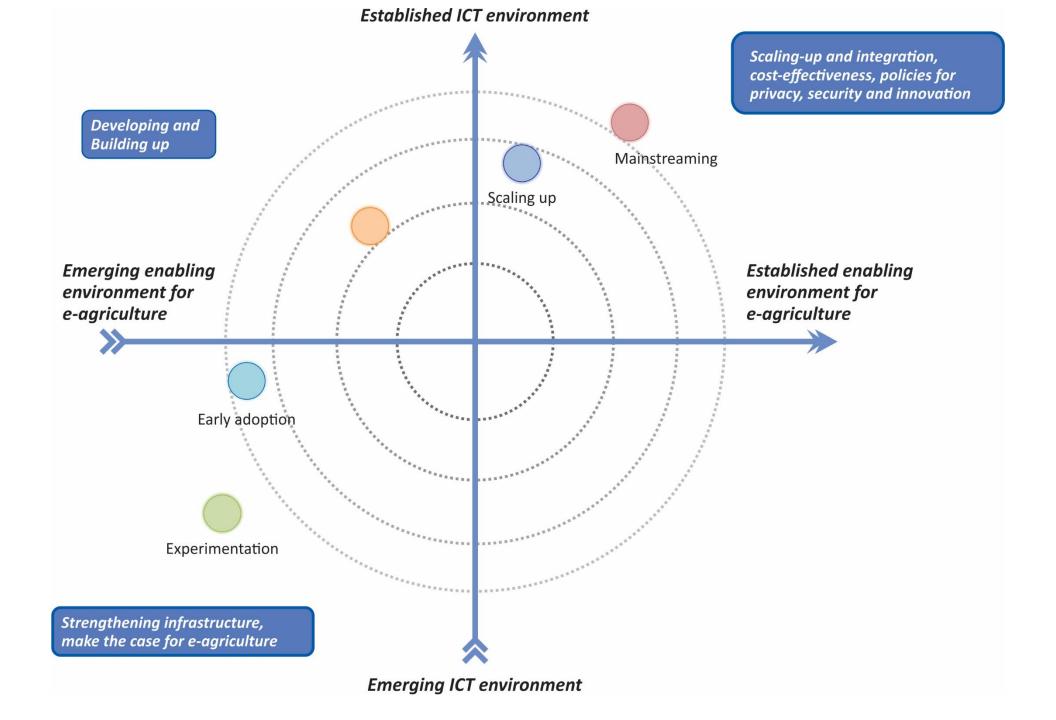
- WEF Government Online Service Index, Importance of ICTs to government vision,
- WEF Network Readiness Index
- WS Participant Rank by WEF NRI Index

Demand and preparedness for e-agriculture strategy in Europe and Central Asia (59 countries)

Mapping of ECA countries according ICT environment, enabling environment and share of agriculture

- 1 High level of worker productivity and/or TFP
- 2. High or medium level of TFP
- 3. Low worker productivity and TFP
- 4. High productivity and TFP
- 5. Average productivity and high TFP
- 6. Average or low productivity and TFP
- 7. High and medium level of worker productivity and TFP
- 8. High and medium level of worker productivity and low level of TFP





Country requesting assistance

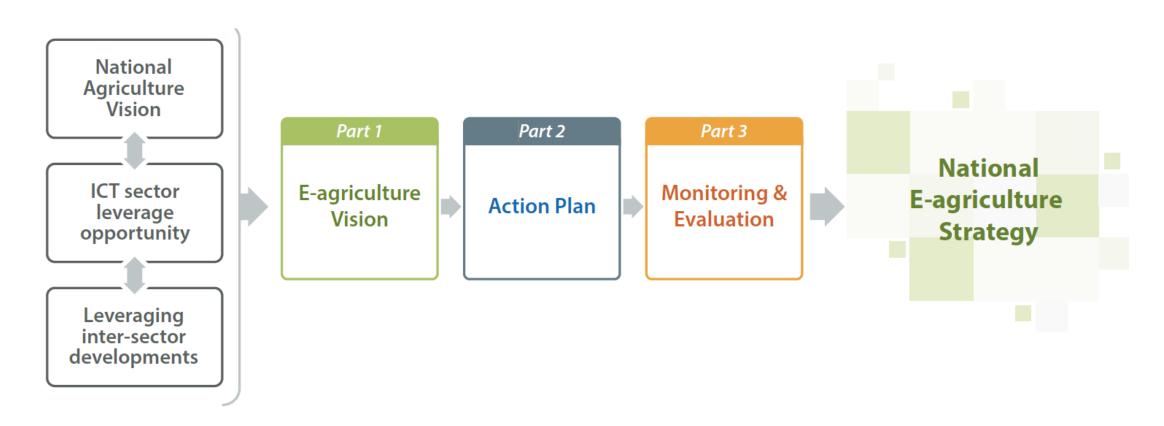
- Albania
- Armenia
- Bosnia-Herzegovina
- Kyyrgyzstan
- Kosovo* (KPF)
- North Macedonia
- Kazakhstan
- Tajikistan
- Turkey
- Uzbekistan



NATIONAL E-AGRICULTURE STRATEGY



Approach to Develop a National e-Agriculture Strategy



The final outcome is a National Strategy on e-Agriculture comprising of three parts.

Addressing key building blocks





- Infrastructure
- Interoperability
- Reliable Data
- Data sharing/ privacy
- Policies & Regulations

- Digital Literacy
- Gender-Digital Divide
- Data Analytics
- Capacity Development
- Support to Innovations

Ministry of Agriculture (MoA)

Agriculture Policy

Department of Agriculture, Livestock, Fisheries, Forestry Developing national e-agriculture strategy

Ministry of
Communication
and Information
Technology (MCIT)

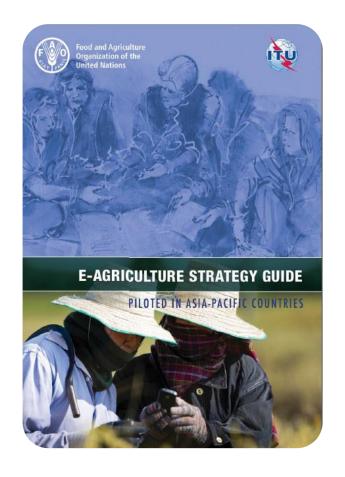
IT/Digital or e-governance policy

National e-agriculture strategy Department of Telecom, IT, telecom regulator, e-Gov agency

National e-agriculture strategy

is a comprehensive framework to develop sustainable e-agriculture services and solutions

E-agriculture strategy guide









This framework is used to assist countries to identify, design and develop sustainable ICT solutions/services to overcome challenges faced in agriculture or to accelerate achieving national agricultural goals.











English: www.fao.org/3/a-i5564e.pdf

Russian: www.fao.org/3/19515RU/i9515ru.pdf

Thank you

For more information

www.fao.org/europe/resources/e-agriculture/en/

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