

E-agriculture Strategy

- Sustainable ICTs to accelerate achieving SDGs-



Food and Agriculture
Organization of the
United Nations





One nine people on the planet still suffer from hunger

Every year, the world loses or waste about a third of the food it produces

Women make up almost half the agricultural labour force in developing countries, but they own less land and lack access to resources.

There is more than enough food produced today to feed everyone in the world, yet close to 800 million are chronically hungry.

A third of farmland is degraded, up to 75 percent of crop genetic diversity has been lost and 22 percent of animal breeds are at risk.



Challenges facing agriculture

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A world without hunger

Access to nutritious food – no malnutrition

Sustainable Farming

Crop Intensification



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food loss and waste

Safe food

Drought

More crop per drop

Climate smart agriculture

Disaster preparedness

Sustainable Livelihoods



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Loss of arable land

Pest & Disease

Floods

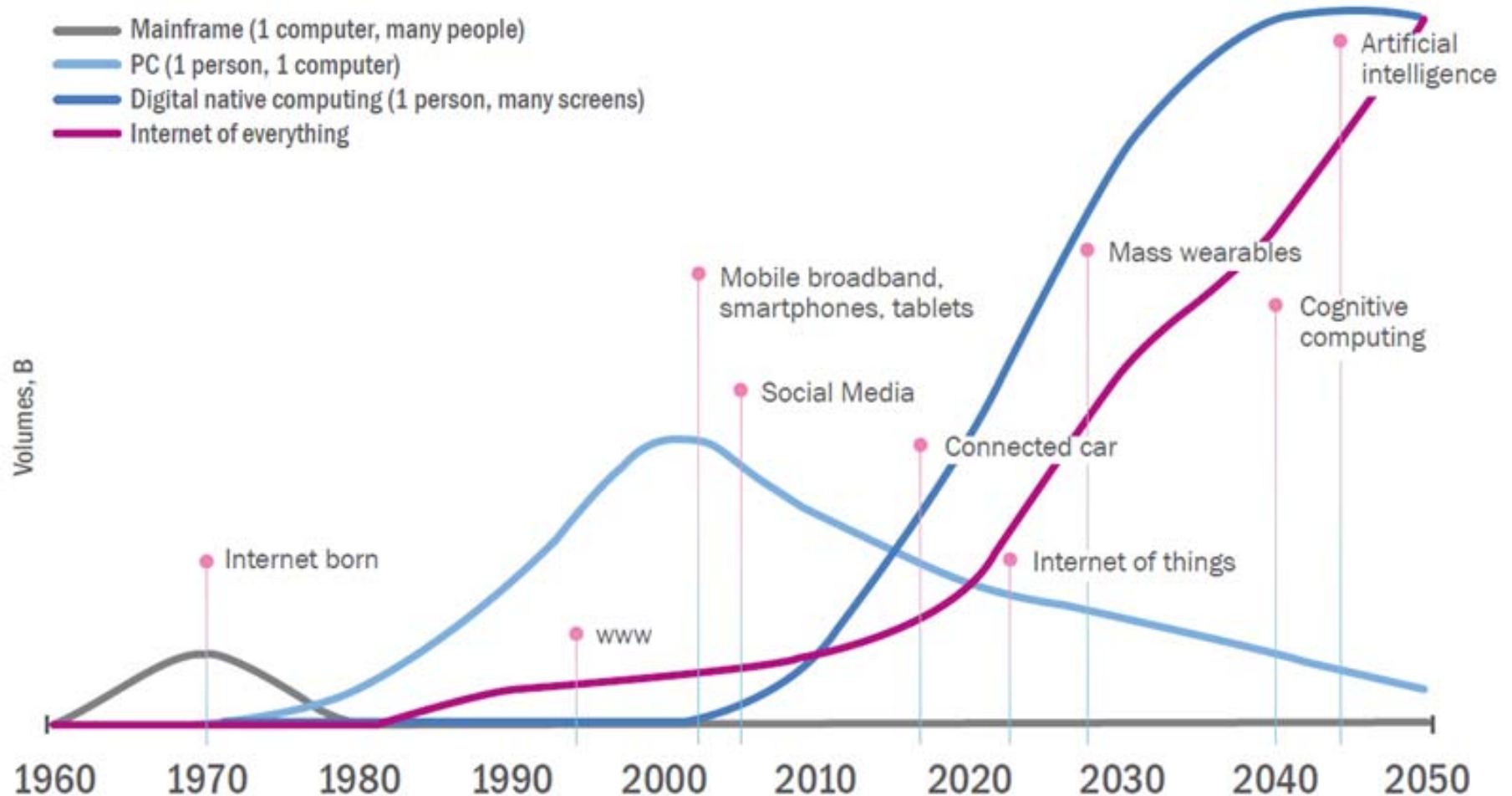
Loss of biodiversity



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A more connected future....

One to many to any: ICTs from happy few to the masses



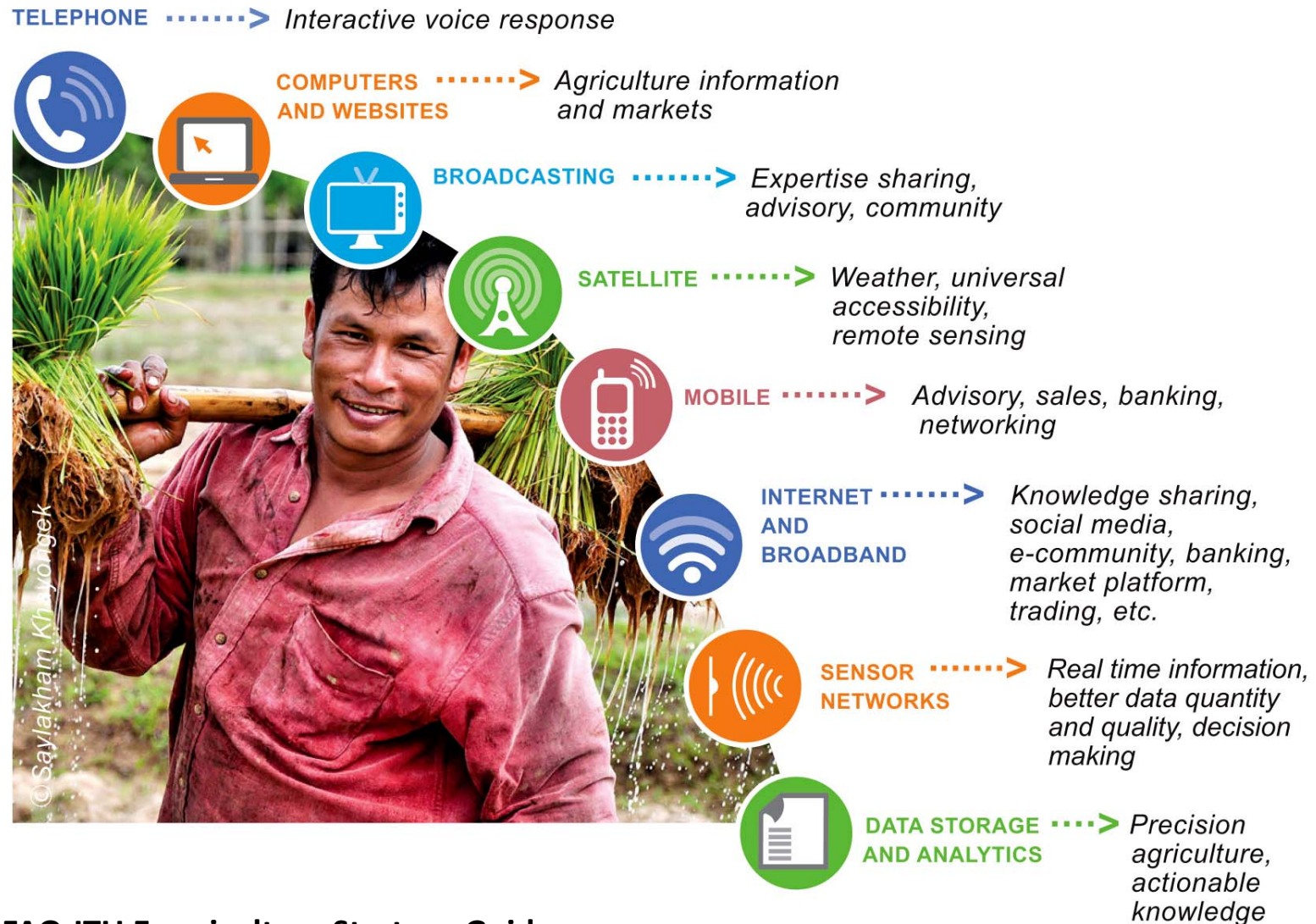
Source: ITU

What is e-agriculture?

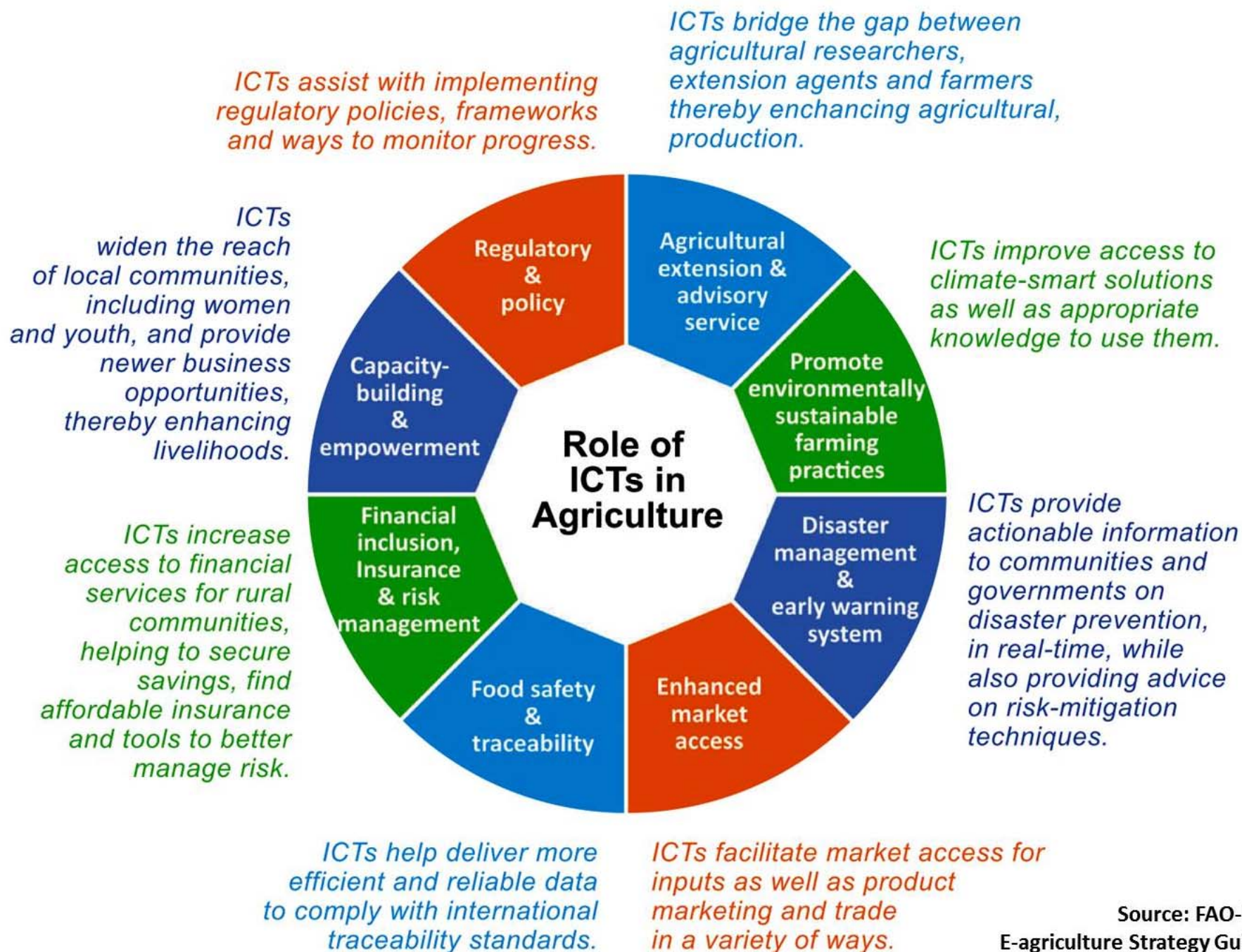
- an emerging field focusing on the **enhancement of agricultural and rural development** through improved information and communication processes.
 - involves the conceptualization, design, development, evaluation and application of **innovative ways to use ICT in the rural domain**, with a primary focus on agriculture.
- Includes standards, norms, methodologies, tools, development of individual and institutional capacities, and policy support are all key components



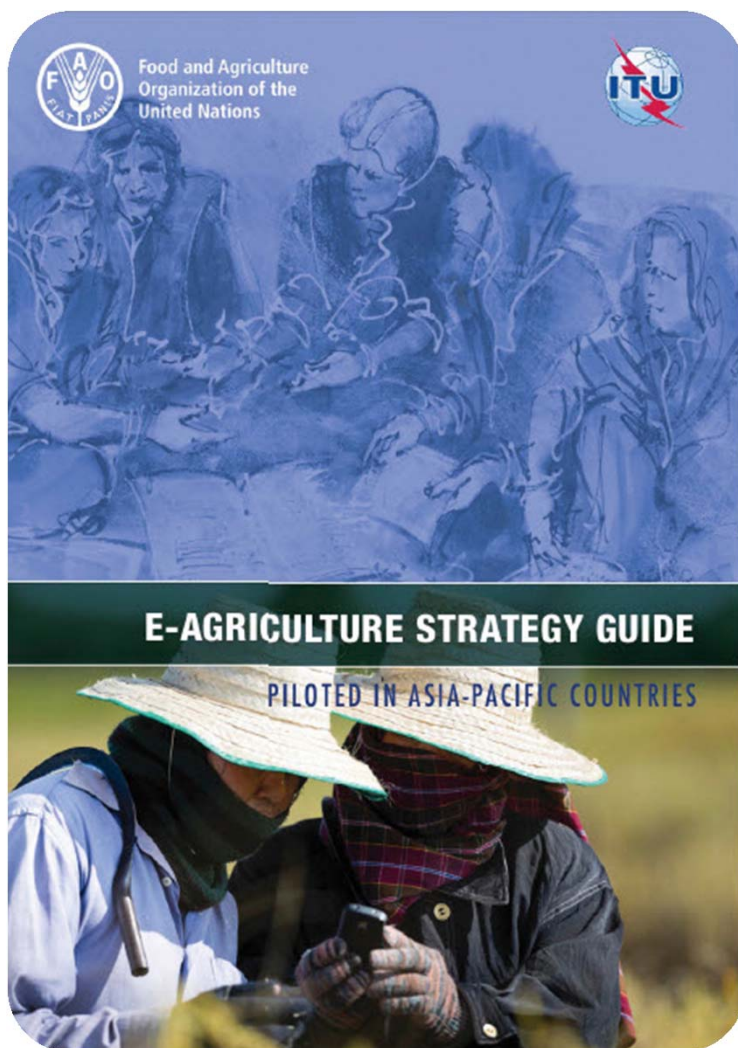
ICT and agriculture application trends



Source: FAO-ITU E-agriculture Strategy Guide



Source: FAO-ITU
E-agriculture Strategy Guide



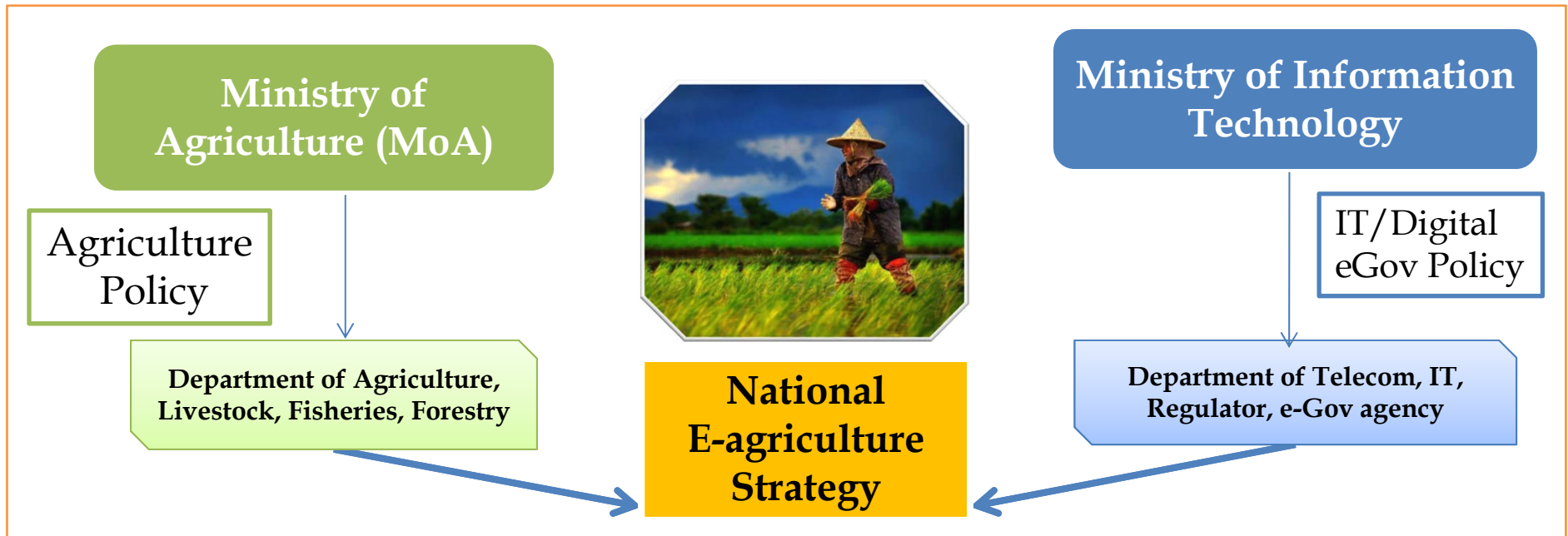
FAO-ITU

E-agriculture Strategy Guide

Download from -

<http://www.fao.org/3/a-i5564e.pdf>

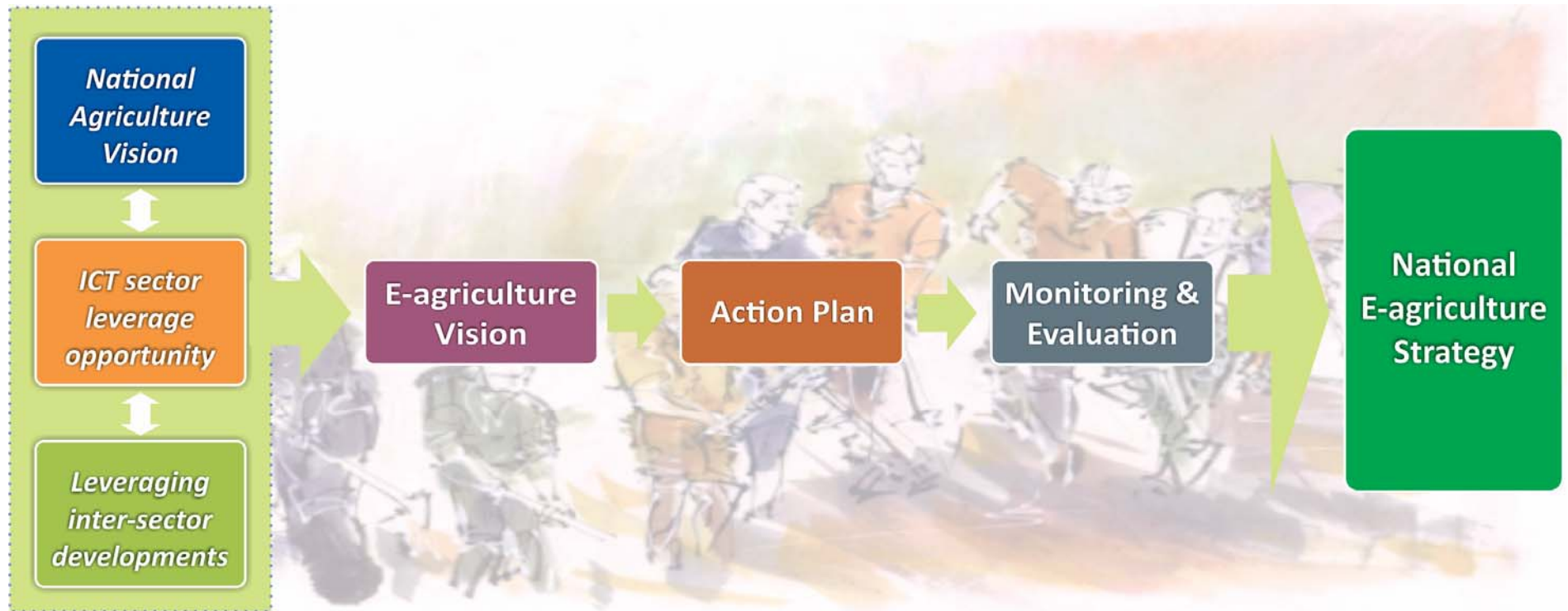
Why an E-agriculture Strategy



National E-agriculture Strategy

Is a comprehensive framework to develop sustainable e-agriculture services/solutions

Developing the National E-Agriculture Strategy



The National E-agriculture Strategy is an output of a comprehensive multi-stakeholder consultative process.

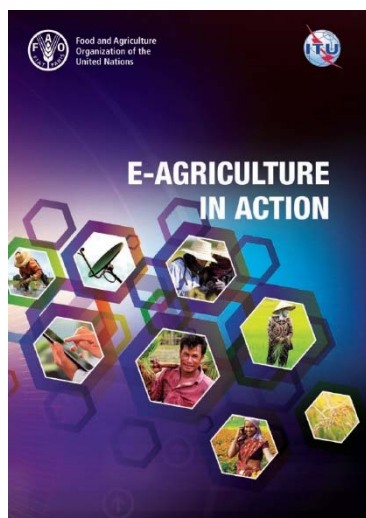
Example Action Plan

Table 2.4.2. Sample e-agriculture action plan

Action Plan in Phases (Outputs and Activities)	Year 0		Year 1		Year 2	Year 3	Year 4
Examples (Non-exhaustive) of Outputs							
Interconnection of databases critical for agriculture (e.g. GIS data, Land use, Soil map /land fertility, Forest resources, Irrigation and water management, Bio-diversity, Weather forecasting, Fire history etc.)		Activities	Activities	Activities	Activities	Activities	Activities
E-market place and information system for agriculture (Creation of e/m-market place, market information and scalable payment systems for national and international, promotion and awareness raising on use of e/m-services;)	Activities	Activities	Activities	Activities			
Agriculture e-advisory services (Advisory services offered by extension workers, consultants, researchers in country or abroad through electronic media (phone, Internet, email, video chat), face to face meetings or paper reports)	Activities	Activities	Activities	Activities	Activities		
Farm mechanization information and service (Creation of online machine and equipment information system linked with machine availability and rentals)				Activities	Activities		
Universal mobile broadband connectivity	Activities	Activities	Activities	Activities			
Logistics management concerning storage and transport (Information management linking agriculture service providers and markets)				Activities			
Electronic pest surveillance system		Activities					
Traceability of agro-chemical movement through value chain				Activities	Activities		
Weather Information Services and alerts		Activities					
Guideline on data sharing, data classification, data formats, secure e-documents	Activities						
Credible GAP content aggregation and packaging (Creation of Agriculture content and packaging for information delivery on ICT channels (video, audio, website, text), streamlining interoperability of future content creation, capacity building, awareness raising)	Activities	Activities	Activities	Activities			
Certified higher yielding seeds, planting, breeding materials verification and traceability				Activities	Activities		
	PHASE 1 FOCUS (example) Strengthening existing services, Launch of high impact feasible services, Creating enabling environment for advanced services, Content creation and alignment, Capacity building, Partnerships development, Digital Literacy.		PHASE 2 FOCUS (example) Launch advanced services, Interoperability of databases and application platform, Promote take up of existing services, Enhance integration with existing e-services, Increase private sector engagement, Digital literacy		PHASE 3 FOCUS (example)		

Technical assistance to countries in developing their **National E-Agriculture Strategy**

- **2015-2016:** Bhutan and Sri Lanka
- *ICT strategy* Lao PDR
- **2016-2017:** Philippines, Papua New Guinea, Fiji and Vanuatu



To be published in April 2017



www.fao.org/asiapacific/events/detail-events/en/c/1343/



<http://www.fao.org/3/a-i6733e.pdf>

ICT Solutions Identified (*examples*)



Online Content



Capacity Building



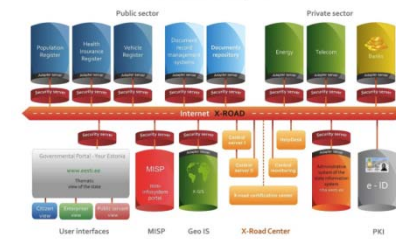
Disaster Management



Communication
ICT Infrastructure
Connectivity



Banking, Trading, Insurance



Data Collection, Data Bases,
Data Analytics, Modeling



Services, Logistics,
Climate Change and
Monitoring



Major challenges



- Infrastructure
- Interoperability
- Platforms
- Data sharing/ privacy
- Connectivity
- Support to Innovations

- Unavailability of reliable data
- Linkages
- Data analytics
- Capacity Development



Thank you

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