Role of ICT to Improve Productivity, Sustainability, and Competitiveness in Agriculture Sector

Center For Agricultural Data and Information System
Ministry of Agriculture, Republic of Indonesia
Jakarta, January 27, 2022
Agricultural development shift: Millennial farmers and digital farming

From old farmers to young farmers

Foto: Kridanto Priyo
Foto: BBPP Ketindan

From Traditional Farming to Modern/Digital Farming

Foto: Antara
Foto: GenAgraris

https://www.stratfor.com/analysis/us-future-farmers-will-use-technology-improve-agriculture
Role of Information and Communication Technology To Shorten Supply Chains
Barrier for Farmers to Use Information and Communication Technology

- Small Farmer
- Lack access to ICT
- Low level of education
Need Initiative to Break Through the Barrier

Farmer

Information and Communication Technology

Consolidating the agricultural/farmers community

Development of Telecommunications Infrastructure in rural areas

Build and increase awareness of technology and digital literacy for the farmers community
# ICT Utilization in the Agricultural Sector

## Upstream
- Digital Soil Testing
- Fertilization with Drone

## Onfarm
- Watering and Fertilizing with IoT
- Pest Control using AI

## Downstream
- Harvesting by Using Robot
- Grading and Packaging automatically
- Marketing by using e-commerce

## Supporting
- Data Collection
- Policy Formulation
Implementation of the use of ICT in the agricultural sector must be carried out in the form of a community involving all stakeholders.
Several MoA’s Websites for Knowledge Sharing
Several MoA’s Mobile Applications
Thank You

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