



CSAM

Centre for Sustainable
Agricultural Mechanization

Opportunities & Challenges in Adopting AI/Smart technology

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Opportunities & Challenges

■ (O) Rising social, political concerns about sustainability of agriculture

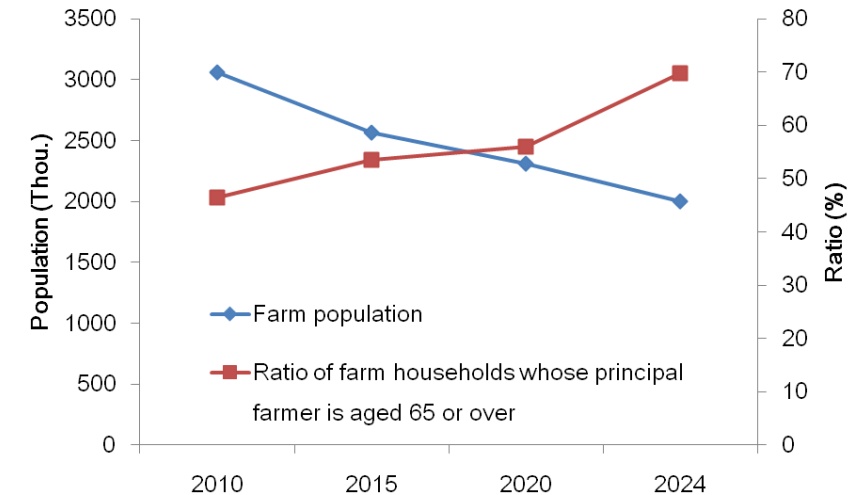
- Korean agriculture are threatened by **decrease of rural population and aging of labor**
- Seeking to **overcome** agricultural labor shortages by **adopting smart technologies**

■ (O) Development of ICT

→ **Possibility of application to agriculture** ↑

■ (C) Challenges to adopting AI & smart technology

- **Additional cost** to farmers. Will the production increase exceed it?
- **Insufficient infrastructure** for telecommunications and electricity supply especially in open field
- Equipment requires **more precise sensing and durability** because agricultural environments is harsher than indoor conditions
- **Elderly people are not accustomed** to using modern technology like cellular phone apps



Role of CSAM & RDA's Possible Cooperation

■ Suggestion of CSAM's role

- Supporting establishment of **AI adoption strategies and action plans** through analysis of the agricultural status and rural structure of each member state
- **Sharing the leading technologies** and identifying challenges for adoption
- **Sharing progress and key insights** from (pilot) projects conducted in each state
- **Maintaining chronological records** of each state's progress and **analyzing success or failure factors**
- **Serving as a central hub** for human, technical, and information exchanges to facilitate these initiatives

■ RDA's possible cooperation

- **KOPIA**: Develop, validate, and disseminate country-specific agricultural technologies in collaboration with local agricultural research institutes
- **AFACI**: Consultative body for agricultural technology cooperation among 12 Asian countries
- Joint research, training program, etc
 - Development of an AI-based control system for optimizing agricultural machinery utilization

THANK YOU



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