Thursday, 18 June 2020
(11.00 ~ 12.00 hrs Beijing time)

Webinar on Impact of Covid-19 on Agriculture in the Asia-Pacific and Role of Mechanization

Building resilience to future crisis through sustainable mechanization

(ICT enabled mechanization)

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1. Effects of Covid-19 on Agriculture in Korea

- **The government provides emergency disaster relief funds to all citizens**
- **Students did not go to school ⇒ no serving of the school meals ⇒ no consumption of agricultural products**
- International trade stops ⇒ failure to consume agricultural produce
- Canceled various local festivals ⇒ failure to consume agricultural produce

2. Changes in farming site (agricultural Machinery sector)

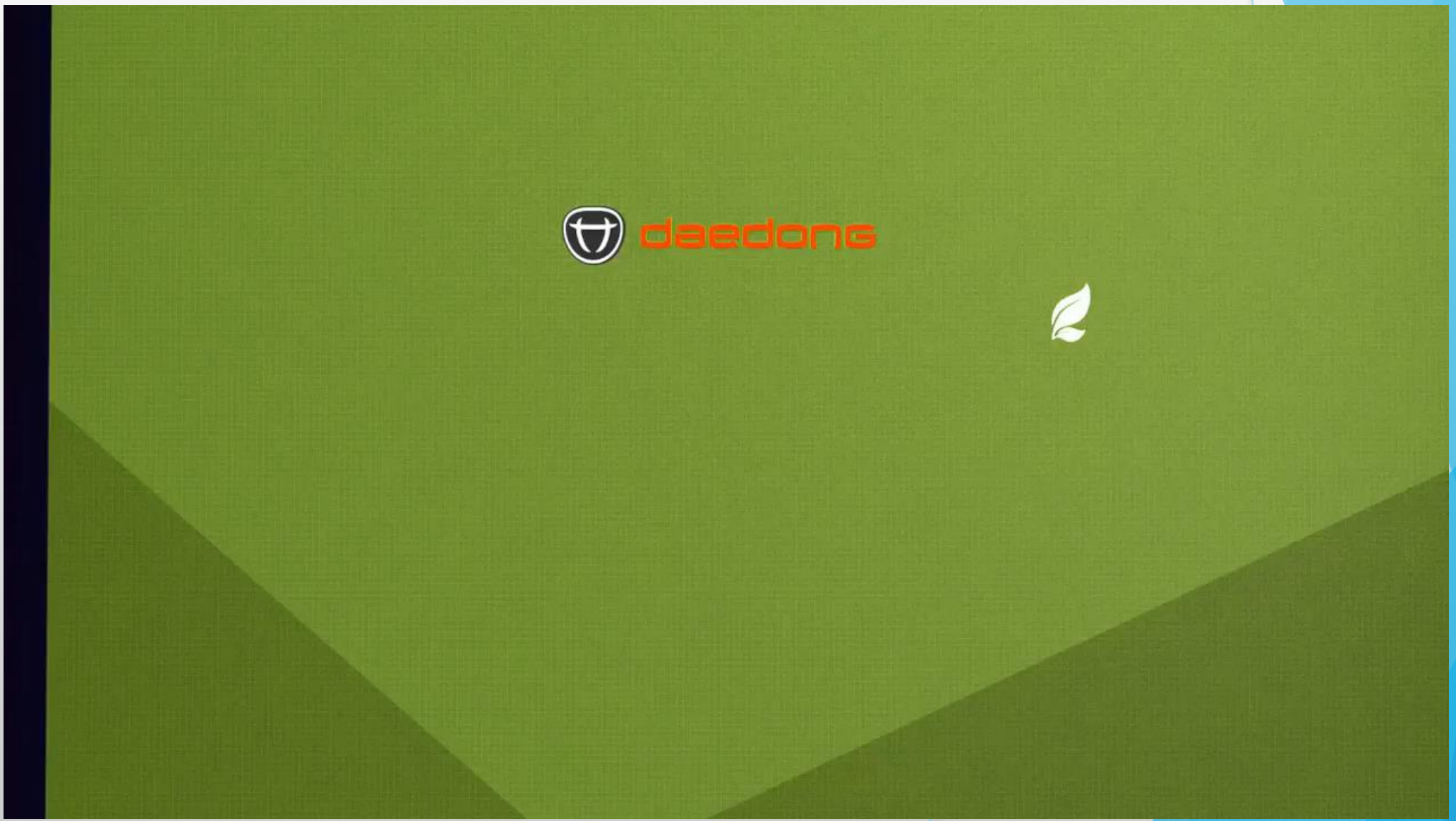
- Reinforcement of non-face-to-face services

Guide to pre-checking of ag. machine use of YouTube
https://www.youtube.com/watch?v=qv_ub-5Qgfl

Promote newly developed rice transplanter use of YouTube
https://www.youtube.com/watch?v=GfYOp2_StXU

Sales of non-contact agricultural products
https://www.youtube.com/watch?v=yx8MZ0-Jeyg

2. Changes in farming site (agricultural Machinery sector)



3. Government policy (Agricultural sector) (1/3)

- **RDA, “Agricultural Technology Support Team cope with Covid-19”**
- **Active distribution of smart farm technology**
- Developing and distribution of various growth models
- Identifying trends in the supply and demand of badges
- **VR system for learning how to manage crops in the greenhouse**
- **Digital twin technology**

3. Government policy (Agricultural sector) (2/3)

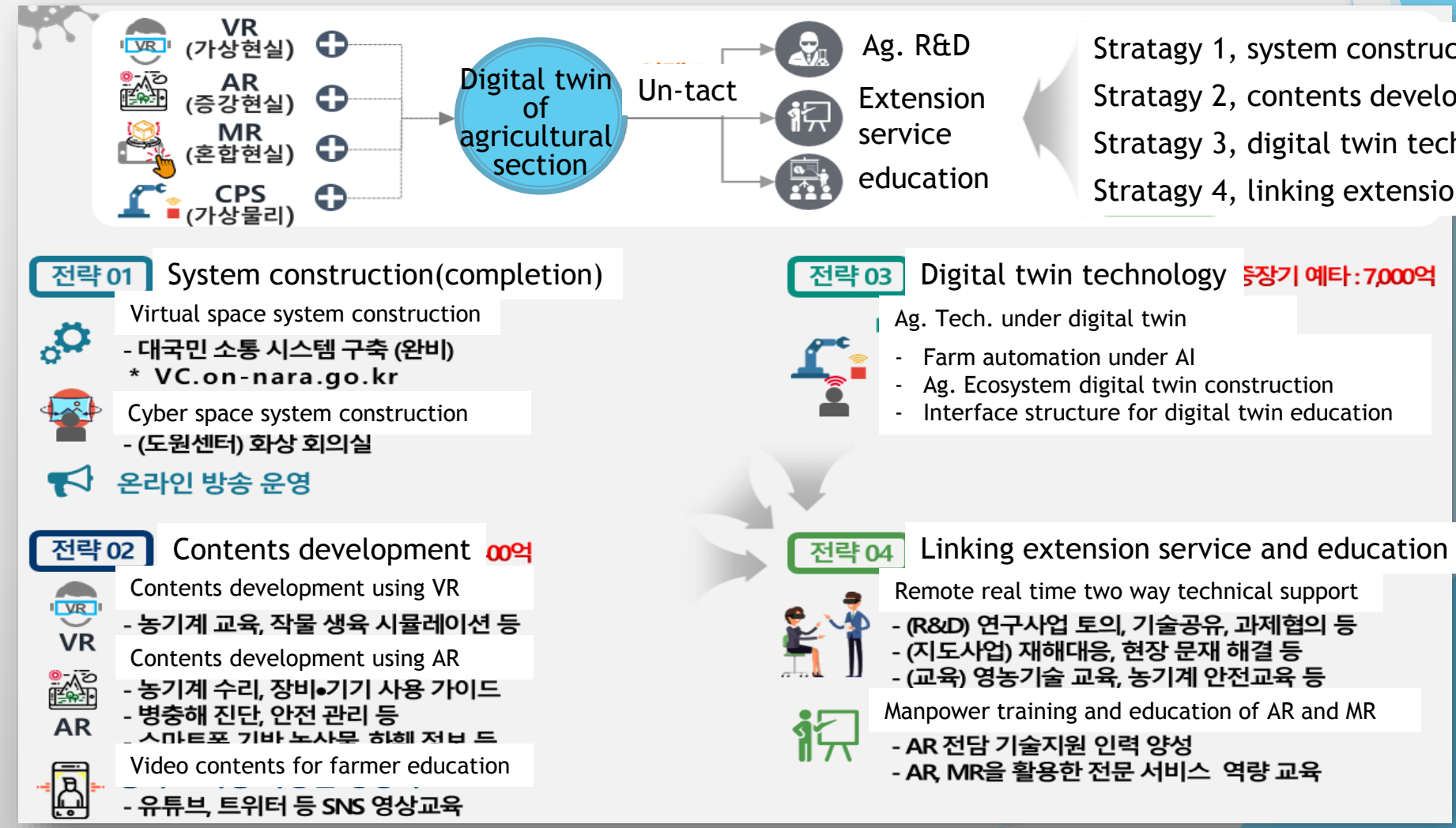
- Digital transformation of agriculture
  1. **Digital insect trap**
  2. prevent frost damage
  3. Big data (analyze demand for workers), link with urban workers
  4. **flowering time by region, prevent the concentration of workers**
- **Demonstration of digital farming in Uiseong-gun**

4. Agricultural Research Approach

- **AI-based video analysis technology**
- **Bridging the digital divide**
- Agricultural R&D approach after Covid-19 of the RDA
  1. **electronic commerce, non-face-to-face business**
  2. **digitization of agriculture to replace the labor force**
  3. **Development of health functional crop foods in the bio-industry**
  4. climate change in the agricultural sector
  5. multi-dimensional concept linking common infectious diseases
  6. paradigm shift, from crop-oriented to rural-oriented research
  7. digitalization of research information, and expansion of sharing

4. Agricultural Research Approach

- Agricultural R&D approach after Covid-19 of the RDA



5. Others

- Public awareness of food security
- Increased interest in immunity, simple food, and safe food
- Home-delivered food without going to restaurants

6. Outgoing

- Not expected to return from a non-face-to-face society. Thus, agricultural machinery technology developed so far must be reviewed thoroughly.
- **It should be changed from a structure that makes money by developing and selling machines, to a structure that generates revenue by servicing data analysis results.**
- It should be changed from manpower-dependent technology to AI-dependent technology.
- The distribution method of the developed machine should also be changed.
- **Most importantly, we need to cultivate experts who can incorporate technologies from various fields into the agricultural sector.**

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