In the view of NGO, “Water, and Sustainable Agriculture”

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Secretary General
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1. WATER AND AGRICULTURE

- Agriculture uses 48.8% (half of total amount of water use in Korea)
- Agriculture is the biggest group of consuming water.
- Water does not have any alternatives unlike other resources like fertilizer, energy.
- Water shortage seriously affects on the agriculture as the way of stable food supply.
1. WATER AND AGRICULTURE

✓ The agricultural water is closely related to water circulation, natural view, environment preservation, and local cities, which plays a role of Social Overhead Capital (SOC).

2. THE NEED OF WATER MANAGEMENT FOR SUSTAINABLE AGRICULTURE

✓ Worldwide water shortage gets worse due to abnormal climate, industrialization, and civilization, etc.
✓ Especially, Korea is also categorized as the country with water shortage. 
✓ Korea is ranked 146th out of 180 countries. So, urgent issue is to take measure for stable water supply.
2. THE NEED OF WATER MANAGEMENT FOR SUSTAINABLE AGRICULTURE

- IWMI (International Water Management Institute) insists that Korea develop the water resource over 22% to meet the needs of water in 2025.
- However, the investment in irrigation enterprise sharply drops from 1000 million to 490 million dollar.

![](chart1.png)

3. AGRICULTURAL WATER MANAGEMENT FOR SUSTAINABLE AGRICULTURE

① To increase budget for modernizing agricultural water

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<current state of agricultural water facilities in Korea>

- 95% of facilities have been used over 30 years, and becomes obsolete.
- It would be great danger to local citizen as well as farmers.
- With many collapses of facilities, social interest in those facilities increases.
3. AGRICULTURAL WATER MANAGEMENT FOR SUSTAINABLE AGRICULTURE

① To increase budget for modernizing agricultural water

- The budget for agricultural water facility in Korea fluctuates year by year with unclear standard.
- The amount of budget for repairing facilities is about 700 to 800 million won per a spot although experts asked 1000 to 1400 million for a year. So, the construction is delayed.

3. AGRICULTURAL WATER MANAGEMENT FOR SUSTAINABLE AGRICULTURE

② Farmer-Participatory Irrigation Management (PIM)

- The management system of agricultural water of Korea is dualized.
- In the district of KRC, farmers are allowed to participate in PIM only as advisors. So farmers’ voluntary and direct participation is decreasing.
  ⇒ There are many conflict and complaints between KRC and farmers due to the absence of exclusive communication channel.
3. AGRICULTURAL WATER MANAGEMENT FOR SUSTAINABLE AGRICULTURE

② Farmer-Participatory Irrigation Management (PIM)

- To make exclusive communication channel between authority and farmers.
- Farmers can provide authorities with
  ① current state about use of agricultural water and water facilities,
  ② region-specific information,
  ③ cost efficiency.

3. AGRICULTURAL WATER MANAGEMENT FOR SUSTAINABLE AGRICULTURE

② Farmer-Participatory Irrigation Management (PIM)
3. AGRICULTURAL WATER MANAGEMENT FOR SUSTAINABLE AGRICULTURE

Case of Japan: Land Improvement District

Irrigation Management

• Big and public facility: national and local governments
• Most facilities: Land Improvement District

Operation and Maintenance

• Farmers, as members of Land Improvement District, help to provide agricultural water smoothly by paying the partial cost of operation and maintenance, and supplying with manpower.

Role

• Maintenance: Farmers and members are in charge of major part, and national and local governments take supplementary role.

3. AGRICULTURAL WATER MANAGEMENT FOR SUSTAINABLE AGRICULTURE

Case of Japan: Land Improvement District

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Reference: The analysis of policy network for Korea’s PIM: Compared to Land Improvement District of Japan. (Bora Kim, Sungje Park, Yungun Lee)
3. AGRICULTURAL WATER MANAGEMENT FOR SUSTAINABLE AGRICULTURE

4. Agricultural Water Facilities Coexistent with Local People

<Preservation of natural view>

<Irrigation channel Hydrangea Festival>

<Irrigation channel boating>

4. CONCLUSION

✓ WATER is essential element for sustainable agriculture.
✓ The opportunity should be enhanced for farmers, as users of water, to voluntarily participate in using the water and managing the facilities.
✓ Expansion of budget, and development of both water management system and technology should be done together with positive attitude of government for efficient and stable water storage.
✓ To be sustainable agricultural and water industry in the future, the agricultural water facility would be developed as the place where city and farming community are coexistent.
THANK YOU