IWRA and SWM

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IWRA Smart Water Management webinar
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• Republic of Korea 韩国 has championed Smart Water Management since 2008

• Korea is a leader and model in clearly integrating SWM into its policies and infrastructure significantly more than most countries.

• Last year, IWRA produced a 500-page report of case studies in SWM

• This report discusses the opportunities, challenges and lessons learned from 10 diverse in-depth studies of applied SWM and 9 short cases of upcoming and potential SWM projects.

www.iwra.org/swm-2
What is Smart Water Management?

- The application of information and communication technology (ICT) to provide real-time, automated, often integrated data to address water challenges through Integrated Water Resources Management (IWRM). (K-Water report)
Smart Water Management Project

10 case studies
9 upcoming projects
29 countries
Over 40 organisations

Addressing:
- Water quality
- Water access
- Efficient irrigation
- Leak detection
- Ecosystem protection
- Groundwater management
- Stormwater management
- Floods and droughts
- Energy optimisation
- Community engagement
- Data sharing and transparency
- Governance

Household
City
Basin level
National
Transboundary

Developed and developing regions
## Lessons

**Key enablers:**
- Long-term investment
- Political support
- Two-pronged approach
- Local stakeholder engagement and knowledge sharing
- Cross-sector approach (multidisciplinary)
- Integrating smart tools with traditional infrastructure

**Key barriers:**
- Initial support/investment
- Evolving technology/upgrades
- Unstable electricity/internet connections or infrastructure
- Lack of standardisation across technology
- Water utilities and governments locked to traditional infrastructure

**Key benefits:**
- Job creation
- Increased trust
- Improved decision-making opportunities
- Capacity building and further education opportunities
- Increased social, economic and environmental resilience to climate change
Followups

• This webinar

• A forthcoming special issue of *Water International* exploring SWM in a wider context

• IWRA’s Question of the Year 2019
  – Is SWM really a smart idea? If not, why not? Or is it smart in some ways and not in others? What could make it smarter (institutions, policy, other)

• www.iwra.org/discussion-topics/questionoftheyear2019
Distillation of the 18 responses received so far

• Yes, a smart idea
  – Improved efficiency, reduced losses in distribution systems
  – Can help upgrade infrastructure, operations and institutions (e.g., performance assessment and incentives, tariff revision, monitoring contracting) in utilities in developing countries

• Disagreement whether it is smart (jury out)
  – Affordability, access
Hesitations

• Privacy and social acceptability
• Limited capacity of human resources, especially in developing countries
• To apply to developing countries, it needs to become understandable, cost-effective, easy-to-use and sustainable
• Water administrators often not really committed to sustainable water resource management
More hesitations

• Transboundary basins may present problems
  – Getting access to data
  – Hard for laws, regulations and institutions to keep pace

• Smart water management (no caps, acronyms) needs to include groundwater, farmers

• SWM cannot answer core questions of priorities and values
Don’t hesitate

- Add your voice to the conversation:
  - www.iwra.org/discussion-topics/questionoftheyear2019