

January, 2025

A1-HRD 17th Meeting

Asian Waterworks Utilities Network of Human Resource Development

The 17th Meeting was held in Seoul, South Korea

The 17th A1-HRD Conference was held in Ansan, South Korea, on October 30, 2024. There was active information and opinion exchange on the conference theme of "Human Resource Development."



Schedule : October 30 (Wed) to 31 (Thu), 2024

Place : Songsan Global Education Center,
K-water, South Korea

Participating organizations :

Korea	K-water
	Seoul Water
Taiwan	Taiwan Water Corporation
Thailand	Metropolitan Waterworks Authority
Japan	Bureau of Waterworks, Tokyo Metropolitan Government

Outline of program

October 30 :

Discussion
Presentations

Theme 1

HRD in order to achieve compatibility of
environmental conservation and sound
business management

Theme 2

Devising Human Resources Development for
Digital Transformation in Waterworks

October 31 :

Visit to K-water facilities

- Hwaseong AI Water Treatment Plant
- Han River Basin Integrated Water
Management Center

Discussions

●The following matters have been resolved.

- 1) Ho Chi Minh City College of Construction (HCC) will withdraw from A1-HRD.
- 2) A1-HRD Membership Policy will be revised.
 - Seoul Water Authority changed its name to Seoul Water.
- 3) Theme of the 18th Meeting will be
Theme 1 :
Talent Management : Unleash and Utilize the Potential of Talent in Waterworks Utilities"
Theme 2 :
Human Resource Development in Various Crisis Preparedness
- 4) Host of the 19th Meeting will be the Taiwan Water Corporation (TWC).



Summary of Presentations (Theme 1)

In the first session, three organizations made presentations on the **HRD in order to achieve compatibility of environmental conservation and sound business management.**



● K-water

“K-water’s HRD Strategy for Sustainable Water Supply”

- K-water’s Water Resources and Management
- Human Resource Development for Sustainable Water Supply
- Structured Educational Curriculum focusing on Leadership and Management at Various Levels, including Technical Management, Water Resources, and Environmental Management



● Bureau of Waterworks, Tokyo Metropolitan Government

“Water Utility, Environmental Conservation, and Environmental Initiatives”

- Case 1: Protection of Tokyo’s Water Conservation Forests
- Preservation of the Tamagawajosui Headrace
- Environmental Initiatives at the Higashimurayama Water Purification Plant



Summary of Presentations (Theme 2)

In the second session, four organizations made presentations on the **Devising Human Resources Development for Digital Transformation in Waterworks**.



● Metropolitan Waterworks Authority

"Human Resource Development Strategies for Digital Transformation in Waterworks"

- Digital Disruption
- MWA Digital Master Plan
- MWA Development Roadmap (Digital)
- MWA Digital Competency Development Program
- Challenges of Digital Transformation
- Best Practice : Knowledge Application in Waterworks



● Taiwan Water Corporation

"A new ICT architecture of smart water network platform for improving management performance: maintenance, security, and deployment cost "

- Developed a Smart Water Management Platform for Improving the Accuracy of Leakage Detection in Water Distribution Networks
- Enable rapid detection of leaks and malfunctions, saving a significant amount of time, effort, and water resources.
- Aim to improve system stability and maintenance efficiency through these of AI diagnostic technology and cloud systems.



● Seoul Water

"Seoul Water's HRD Plans for Digital Transformation "

- Introduction to Seoul Water (SW)
- Computer Systems in SW
- Big Data Analytics Examples and Challenges in SW
- Why does SW strengthen Digital Education
- SW's HRD Plans for Digital Transformation



● Bureau of Waterworks, Tokyo Metropolitan Government

"Utilizing New Technologies and Human Resource Development"

- Disaster Response and ICT
Support for the Noto Peninsula Earthquake Recovery and Utilization of ICT (SNS, Google Maps, Remote Meetings, GIS)
- DX through New Technology Implementation and Human Resource Development
DX of the Tokyo Metropolitan Waterworks Bureau



● K-water

"Devising HRD for Digital Transformation In Waterworks"

- K-water's digital transformation plan(DX) for waterworks
- Smart(AI) Water Treatment Plant
- Smart Water Network Management
- Linking digital transformation and education

Facility Visits (K-water)

● Hwaseong AI Water Treatment Plant



● Facility Overview

- ✓ Facility Capacity: 260,000m³/day (serving approximately 7,000 people)
- ✓ Number of Employees: 25 (2-shift system, 4-person teams)
- ✓ Sedimentation Basin: Equipped with solar panels on top for power generation
- ✓ Filtration Basin: Fully enclosed structure
- ✓ AI Project led by the Korean Government: From January 2021 to April 2022, a pilot project for technology verification and AI customization for water purification plants (currently in full operation)

● AI Water Purification System

- ✓ Keywords: ①Autonomous Operation ②Energy Management ③Preventive Maintenance ④Effective Use of CCTV Cameras
- ✓ Human involvement is minimal in the AI-calculated chemical injection rates
- ✓ Efficient operation using big data and AI technology aims to reduce energy consumption, prevent human errors, and avoid accidents
- ✓ To be introduced in 43 water purification plants managed by K-water by 2024



● Han River Basin Integrated Water Management Center



● Han River Basin Integrated Water Center

- ✓ One of the four basin headquarters in South Korea
- ✓ Integrated management of 8 dams, 3 weirs, and 1 aqueduct in the Seoul metropolitan area and its surrounding regions
- ✓ Covers 32% of South Korea's land area and 54% of its population
- ✓ Monitors and responds to unexpected discharges from North Korea, which shares the river

● Integrated Water Management Center

- ✓ Manages water facilities (intake and conveyance facilities) in the three areas of the Han River Basin
- ✓ Main roles:
 - Determining the number of conveyance pumps based on demand forecasts

Controlling flow rates through pressure and flow monitoring (valve operations, etc.)

Emergency response (utilizing bypass pipes, supporting recovery with GIS systems)

18th Meeting in Bangkok, Thailand

The 18th Meeting will be held in Bangkok, Thailand, hosted by Metropolitan Waterworks Authority (MWA), on 29-30, October 2025.

Let's meet everyone in Bangkok !



DHAKA WATER
SUPPLY AND
SEWERAGE
AUTHORITY

