

  
**KGID  
2025****Green Growth:  
The Path to  
Sustainable Jobs**

# Scaling Up A Global Learning Platform

## In Alignment With KGGTF Goals

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# Contents

**01** K-water & K-water HRD Institute (Academy)

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**02** World Bank KGGTF Partnership Cases

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**03** Scaling Up Through Strategic Collaboration

---

**04** Conclusion

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# 01 K water & HRD Institute

Introduction & Overview

# K-water Overview

K-water, established in 1967 as a water-specialized public company, has played a leading role for securing safe and stable water nationwide.

Furthermore, we transform to digital water management for responding to climate change proactively using 4<sup>th</sup> industrial revolution technology such as big data, AI and IoT.



## Major Business (as of 2024)

### 01 Water Resources Management

#### 55 Integrated Water Management Facilities

20 multipurpose dam, 3 flood control dam, 14 water supply dam, 16 multipurpose weir, estuary bank, and Ara waterway



Water supply Capacity

**12.5** billion m<sup>3</sup>/year

\* 61% of the national capacity



Flood control Capacity

**5.3** billion m<sup>3</sup>

\* 94% of the national capacity

### 03 Clean Energy Production



Renewable Energy Capacity

**1,417** MW

\* 1,093MW(HPP), 254 MW(Tidal), 62MW(Solar), and 8MW(Wind)

Annual Renewable Energy Production

**2,431** GWH

\* No. 1 Renewable energy producer in Korea

### 02 Water Supply & Sewerage Treatment



Water supply Capacity

**18.56** million m<sup>3</sup>/day

50 multi-regional waterworks, 23 regional waterworks, 16 sewage, and 4 industrial waterworks

\* 49% of the national capacity

### 04 Smart Water City

Development of environment-friendly cities resilient to water disasters by applying ICT-based urban water management and smart water circulation technology

Sihwa Multi Techno Valley (MTV), Songsan Green City, and Busan Eco Delta City (EDC), etc.



# The Journey of Digital Transformation

“Driving step-by-step innovation, from R&D to standardization”

## ☑ AI Water Treatment Pilot

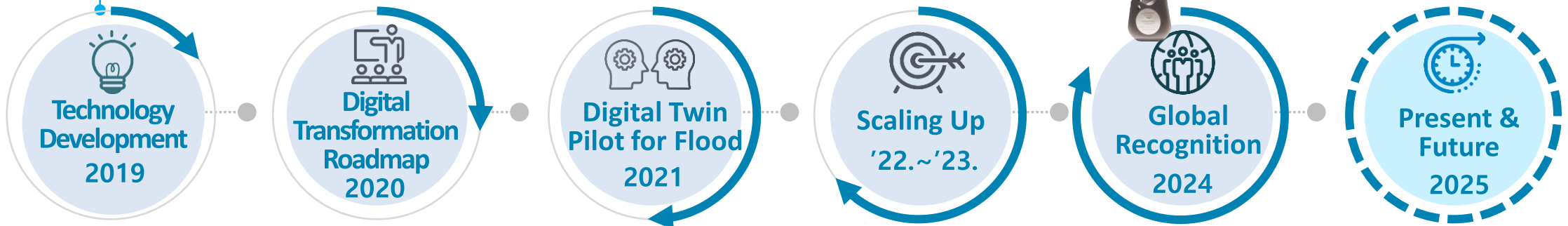
- (Open) The first AI-driven water purification plant in Hwaseong
- (Effect) Chemical reduction 4%

## ☑ Digital GARAM+ for Flood Mgmt.

- Simulates Sumjin Basin disasters; enables proactive water control.

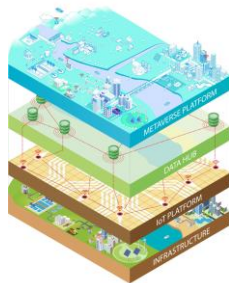
## ☑ Global Lighthouse

- K-water AI Water Treatment Plant: World's 1st water utility recognition



## ☑ DX Roadmap

- Formal Strategy launched focusing on AI, DT, SWNM



## ☑ 5 River Basin DT

Digital Twin, AI, SWN rolled out nationwide.



## ☑ Global Collaborations

Jeddah Saudi Arabia: Phase 1 completion of DT Platform (Feb '25).  
Valley Water CA, USA: MOA of Guadalupe Basin DT Pilot (Oct '25~)  
AI WTP Building Tech ISO International Std Drft Finalized (June '25)

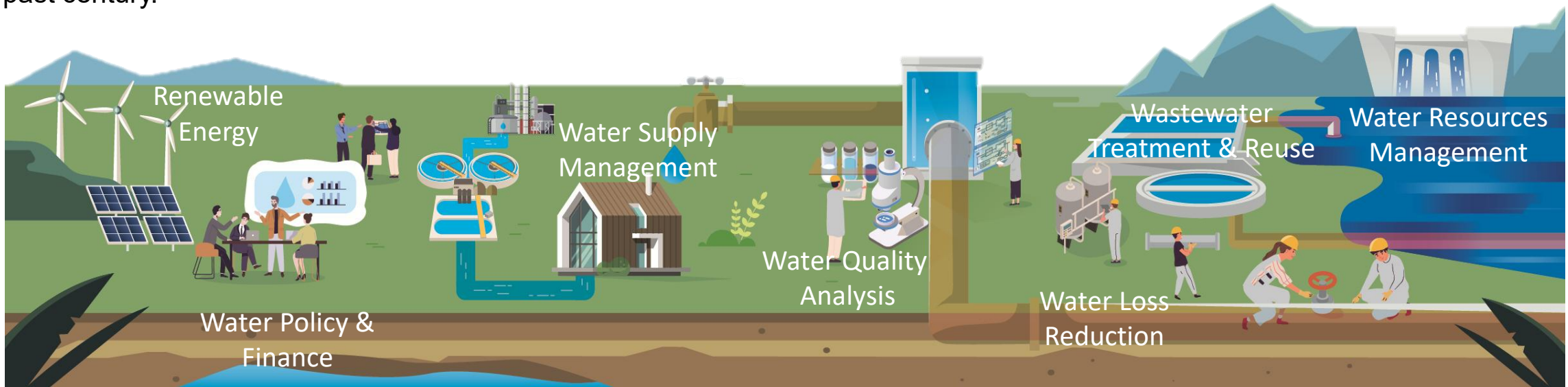


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# K-water HRD Institute (Academy)

It was established in 1982, as a hub where its water experts provide professional learning courses not only for in-house staffs but also for related government officials, private corporate employees and international participants.

We offer high quality educational contents based on the tech & know-how that we have accumulated over more than half the past century.



## Educational Features

- ✓ Comprehensive Learning Modules from Source to Tap
- ✓ Excellent Infrastructure for Training
- ✓ Hands-on Learning, Combining Theory and Practice
- ✓ World-class Faculty Members

**02**

## **WB KGGTF Partnership Cases**

Contribution to Partner Countries



# Consulting & Capacity Building (Completed)

## Uganda's Climate Resilience in Water Resources Management

- ✓ Partner: WB Uganda (completed)
- ✓ Client: Uganda Ministry of Water Environment /Water Resources Institute
- ✓ Term: March '20 - 'Dec. '22 (34 months)
- ✓ Objectives: Training modules development and Training of Trainers



Hybrid Training



Training (up: KOR, down: UGA)



Training modules

Cyber materials by WB

\* Image Source: K-water (2022)

## Lake-wide Water Quality Improvement in Lake Victoria Basin

- ✓ Partner: WB Water GP (completed)
- ✓ Client: East Africa Community – Lake Victoria Basin Commission
- ✓ Term: 30 May – 2 June, 2023
- ✓ Objectives: Firsthand learning for lake-wise WQ improvement, Discussions with diverse stakeholders



Forum with Korea WSS SMEs



Visit to KECO (WWTPs Tele. Monitoring System)



Workshop with GCF

\* K-water (2023)



# Knowledge Exchange & Capacity Building (ongoing)

## Water Utility Digitalization

WB Water Digital Team



- ✓ Knowledge exchange and discussions on WSS sector digitalization
- ✓ Government officers, Enterprises & WB staffs of Interest in developing countries (Asia-Pacific, '24-)

## Expert Exchange for WSS & WRM

WB Jordan, WB Kenya, WB Angola



- ✓ Knowledge exchange on river basin rehabilitation (Jordan, '25.10)
- ✓ Knowledge exchange on small WSS facilities (Kenya, '25.11)
- ✓ Knowledge exchange on water resources management (Angola, '26)

# Consultation Case : Uzbekistan & Central Asia

## 1<sup>st</sup> Phrase : Uzbek Capacity Building & Water Academy ('22~24)



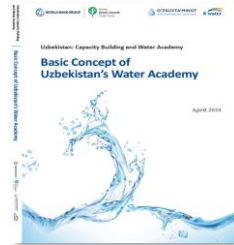
Dispatch of Experts T/F Team  
and Current Status Investigation



Academy Concept Designing,  
Local Training System & Modules Outlining



Implementing Invitational, Local training and  
ToT(Training of Trainers)

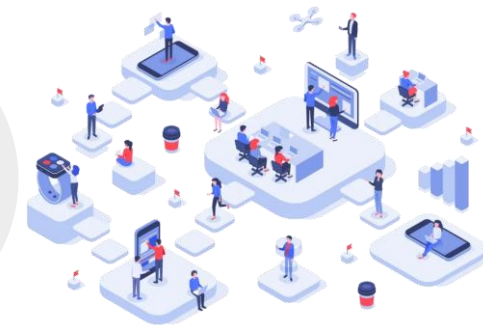


## 2<sup>nd</sup> Phrase : Consulting Project based on the 1<sup>st</sup> Project Perform. ('25.8)

[ Local Training Center Strengthening – Modul Develop ]

[ Young Professional Internship - Mentoring Program ]

[ Private Sector Partnership Facilitation ]



## Establishing Central Asia Regional Learning Platform

New Proposal for Learning Platform Expansion to Central Asia Countries ('26)

# Active Collaboration & Friendly Cooperation



**Optimal Performance of the Project**

**03**

# **Scaling Up Through Strategic Collaboration**

Green Growth: The Path to Sustainable Jobs

# From Fund to Bank: Evolving Broader Collaboration

## KGGTF Grant Projects

Innovation & Pivotal Role

## WB GP Engagement

Strategic Alignment with Global Practices

## Global Scaling

Mainstreaming into Global Operations

## Water Digitalization Collaboration

- ✓ May. 2025, LOI between K-water & Water GP Digital Team
- ✓ Nov. 2025 1<sup>st</sup> Program Launched
- ✓ 1<sup>st</sup> quarter of 2026, 2<sup>nd</sup> Program (in discussion)

## “Water GP + Digital GP + KGGTF KGID” Collaboration

- ✓ Special Session on Water Digitalization with Water GP
- ✓ Bilateral Meeting with Local Lead Teams (India, Mongolia, etc)
- ✓ Special Meetings with Digital GP

## Physical Infra Development & Human Capital Enhancement

- ✓ (Infra) Water – Project Expected
- \* ex) Energy Infra – Ongoing Project : Solomon Island Hydro Power
- ✓ (Human) Expansion of Knowledge Exchange & Capacity Building

*KGGTF has evolved from a catalytic fund to a strategic enabler, fostering cross-GP collaboration and global impact.*

# 04 Conclusion

Words for Wrap-up



# Partnership & more

More Comprehensive & Sustainable Service  
Authenticity & Unwavering Commitment

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“ Embark on the Journey, Together ! ”