

Smart Water Management

Smart Non-revenue water management and resilience (\$500,000)

The grant aims to strengthen the service delivery capacity and climate resilience of UzSuvtaminot, Uzbekistan's national water and sanitation utility. It supports the broader parent project goal of improving water supply and sanitation coverage, quality, and efficiency, while enhancing the sector's planning and regulatory capacity.



Uzbekistan is modernizing its water and sanitation utilities to control high non-revenue water (NRW) losses across urban and rural supply systems. The World Bank is supporting these reforms through capacity building and technical assistance to UzSuvtaminot, the national water and sanitation utility.

This Young Professional Program follows a five-step pathway - online training, self-paced learning, an immersive three-week program in Korea, an exchange visit to Uzbekistan, and a final wrap-up.

Taken together, the Step 3. Invitational Program represents the central, culminating experience of the Young Professional Program — the point at which knowledge, mentorship, and teamwork converge into a cohesive, action-oriented outcome.



South Korea

UZ

Uzbekistan

COUNTRY	WHEN	NUMBER OF DELEGATES
Uzbekistan	June 8–27, 2026	16

HOSTING ENTITIES

K-water Academy

PARTICIPATING ORGANIZATIONS

Uzsuvtaminot JSC (UJSC)

Knowledge Exchange Objectives

Uzbekistan wants to build smart non-revenue water (NRW) management capacity - including SCADA, DMA design, IoT-based leak detection, and water balance analysis - to improve UzSuvtaminot's operational efficiency and climate resilience.

Korea is globally recognized for smart water management, with K-water's digitalized, AI-driven operations achieving among the world's highest water-supply efficiency. K-water shares this expertise through hands-on, internship-style training and structured mentoring.



"I found this training program highly valuable because its objectives and content were aimed at advancing the water supply sector, improving the provision of safe and high-quality drinking water services to consumers, and strengthening approaches for the efficient and sustainable management of water resources."

Sojida Tohirova, Head of Department, Fergana Water Supply JSC

What Were the Key Insights and Learnings?

INSTITUTIONAL FRAMEWORKS AND SMART INFRASTRUCTURE – AN INTEGRATED APPROACH

- **Institutional planning and integrated governance**—national water policy, tariffs and IWRM link dams, treatment and distribution under unified oversight
- **Investment in smart infrastructure**—SCADA, and IoT sensors give real-time visibility, enabling water-balance analysis to cut non-revenue water
- **AI-driven, preemptive operation**—at Gosan Water Treatment Plant, the iWater system auto-adjusts dosing and backwash cycles, shifting operations from reactive to preemptive

IMMERSIVE FIELD LEARNING — FROM CLASSROOM TO FACILITY

- **Multi-day internship-style field visits**—one to two full days site visits to K-water facilities. As part of immersive field experience, trainees engaged in-depth briefing, hands-on tours covering facilities and organizational structures, process operations, mechanical and electrical systems, communication and SCADA systems, and water treatment processes
- **Direct engagement with field staff**—networking sessions paired trainees with branch engineers for open Q&A on daily operations and managements, etc.
- **Mentoring and collaboration**—four K-water experts, one per group, mentored trainees from Step 2 through the final presentation

All lectures and site visits were very useful and informative. I plan to apply the knowledge and practical skills gained during this program to improve the SCADA system and digital water management in my organization.

Ilhom Xudayberdiyev,

Head of Department, Tashkent City Water Supply JSC



“The program marks a shift from short study tours to a modern, immersive capacity-building model — pairing multi-day facility internships with coached proposal writing and expert mentoring to turn field learning directly into actionable NRW reduction plans for Uzbekistan.”

Dr. Kyungjin Shin,

General Manager, K-water Academy



Which Good Practices Did Participants See and Learn About?

- **K-water Academy**—water policy and tariffs, integrated water resources management, smart water networks, non-revenue water management, SCADA, IoT-based leak detection, crisis response, and PCP writing workshops
- **K-water Headquarters**—Water Management Operations Center, Groundwater Exhibition Center, Regional Water Support Center, and smart water management technology
- **Daecheong Multi-purpose Dam**—control room, dam crest, and power plant operations
- **Asan New City Sewage Treatment & Reuse Center**—facility and organizational management, mechanical and electrical systems, water treatment processes, and communication facilities
- **Gosan Water Treatment Plant**—facility operations, AI-driven autonomous operation, energy and process management, and communication systems
- **Seosan Water Supply Center**—tariff systems, integrated operations, microfiltration, water quality monitoring, and automatic drainage



How Will the Learnings Be Applied?

- Four groups turned field learning into PCPs: SCADA-based monitoring for Tashkent's Kadiriya facility, water-quality monitoring for Nukus, a digital platform for 10,696 rural supply sites, and an HR system for Fergana.
- Under Step 4 (Oct 2026), trainees present finalized action plans in Uzbekistan, seeding follow-on NRW and smart water projects.

“The exchange strengthened UzSuvtaminot's smart NRW management and digitalization capacity while building a durable network between K-water field staff and Uzbekistan's next generation of water-sector leaders — a foundation for continued technical cooperation.”

*Dr. Kyungjin Shin,
General Manager, K-water Academy*

RESOURCES

Program document: WB Uzbekistan Young Professional Program
– Step 3: Invitational Program

KEY PARTNERS

K-water

Knowledge Exchange Focal Point:

This knowledge exchange was supported by **the Korea Green Growth Trust Fund (KGGTF)**.
wbkggtf.org