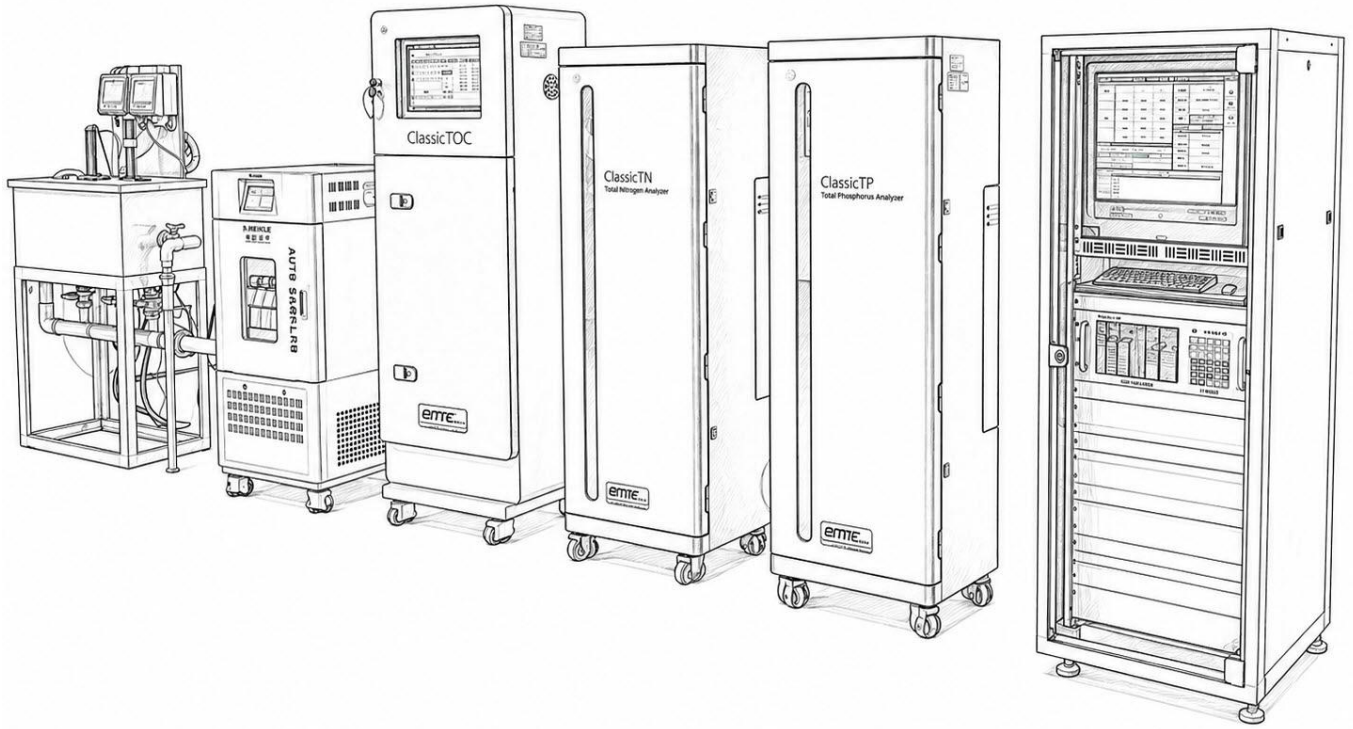
EMC Co., Ltd. Company Profile



environment made command

01 EMC Highlights (2017 ~ 2026)

Establishment

Founded in November 2017 as a venture company specializing in the manufacturing and maintenance of continuous automatic water quality analyzers.

Startup Reference

Continuous Total Organic Carbon (TOC) Analyzer

Core Identity

- 'Imagine Greater.'
- A globally competitive automatic water quality analyzer company
- An engineer-driven technology company.
- Research – Development – Manufacturing – Operation & Maintenance – After-Sales Service.

Started developing globally competitive measurement equipment centered on the company-affiliated research institute.

2017-2020

- 〔2017〕 Founded and incorporated
- 〔2018〕 Established the company-affiliated research institute
- 〔2019〕 Selected for the Startup Growth Technology Development Program by the Ministry of SMEs and Startups
- 〔2019〕 Signed a performance-sharing agreement with Korea Environment Corporation
- 〔2020〕 Received an Encouragement Award in a startup competition
- 〔2020〕 Received a Commendation from the Minister of Environment

Succeeded in developing Korea's first combustion-oxidation type continuous automatic TOC analyzer.

2021-2025

- 〔2021〕 Obtained type approval for the continuous automatic TOC analyzer
- 〔2022〕 Obtained Performance Certification from the Ministry of SMEs and Startups
- 〔2023〕 Received a Commendation from the Minister of SMEs and Startups
- 〔2023〕 Selected as an Innovative Product by the Public Procurement Service
- 〔2024〕 Obtained type approval for continuous automatic TN and TP analyzers
- 〔2025〕 Received a Commendation from the Minister of Climate, Energy and Environment

Main Services

Development, manufacturing, operation and maintenance, and research services for continuous automatic water quality analyzers

1 Main Products

- TOC
- T-N
- T-P
- pH
- DO
- SS / MLSS
- EC
- MicroTMS

2 Major Clients

- K-ECO
- Incheon City
- POSCO
- Korea S-P Co., Ltd
- Pocheon City
- Anseong City
- Hwaseong City
- Ganghwa County

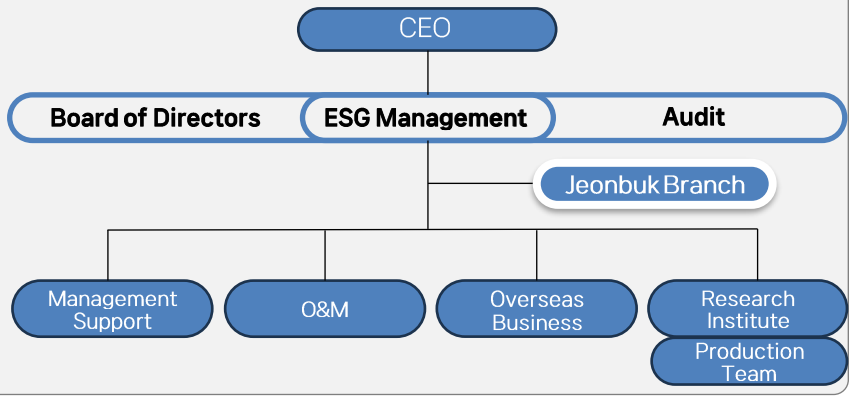
3 O&M Sites

- Seoul Metropolitan Government
- Siheung City
- K-ECO
- Gapyeong County
- Gwangju City
- Seongnam City
- Pocheon City

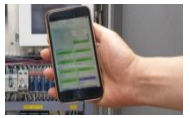
4 Research Services

- Five research projects for K-ECO
- Projects for the Siheung Green Environment Center.

Organization



02 Main Products

		Target users	Growth strategy			
TOC	ClassicTOC	Sewage and wastewater treatment facilities, wastewater discharging facilities, rivers, lakes, laboratories, and demonstration facilities	Performance Certification, Innovative Products, Venture Procurement Innovation	Recognition of technological excellence, innovativeness, and novelty through certifications from the Ministry of SMEs and Startups and the Public Procurement Service	ISO 17025	Type approval based on ISO 17025 procedures helps address certification barriers for overseas market entry
TN	ClassicTN	Sewage and wastewater treatment facilities, wastewater discharging facilities, rivers, lakes, laboratories, and demonstration facilities	Global Top Application of advanced technology	User-friendly design. Expanded user interface.	ISO 17025	Type approval based on ISO 17025 procedures helps address certification barriers for overseas market entry
TP	ClassicTP	Sewage and wastewater treatment facilities, wastewater discharging facilities, rivers, lakes, laboratories, and demonstration facilities	Global Top Application of advanced technology	User-friendly design. Expanded user interface.	ISO 17025	Type approval based on ISO 17025 procedures helps address certification barriers for overseas market entry
IoT sensor	microTMS	Smart sewerage systems. Small-scale wastewater discharge facilities. Sewer pipelines. Tributaries and small streams	Korea's first pilot project. Korean Intellectual Property Office, Incheon Metropolitan City	Planned installation of water quality IoT measuring instruments		AI

Line-up

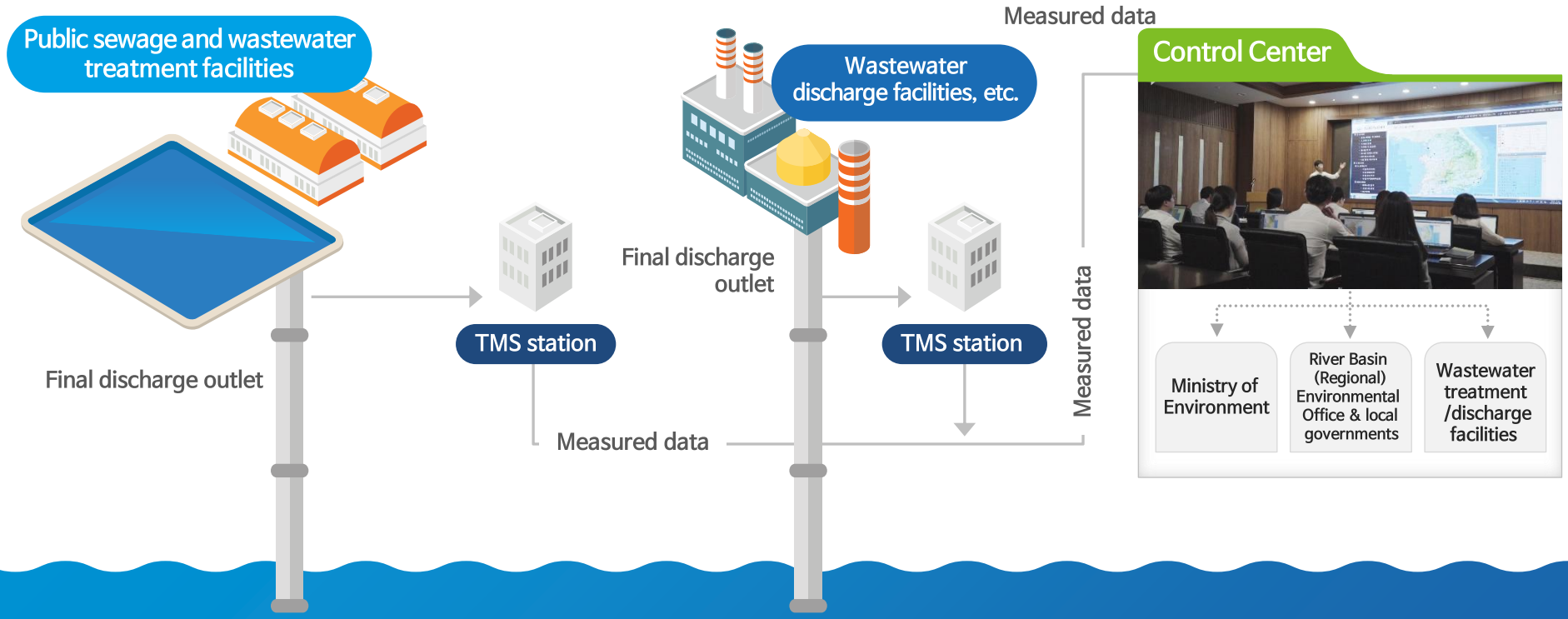


01 Water Quality TMS – Overview

수질원격감시체계 SOOSIRO

24/7 Real-Time Tele Monitoring System

for the surveillance of the discharge of water pollutants from public sewage and wastewater treatment facilities, and wastewater discharge facilities



01 Water Quality TMS – Configuration

Installation Targets

- Public sewage treatment facilities: 700 ㎥/day or more
- Public wastewater treatment facilities: 700 ㎥/day or more
- Wastewater discharging facilities: 200 ㎥/day or more
- Consignment wastewater treatment facilities: 200 ㎥/day or more

Auxiliary Facilities

- Flow meter, power meter, automatic sampler, data logger

Measurement Items

- pH, TOC, SS, T-N, T-P

A Sample collecting tank / pH, SS measuring instruments

B Automatic sampler

C T-N, T-P measuring instruments

D TOC measuring instrument

E Data logger

01 Water Quality TMS – Current Status

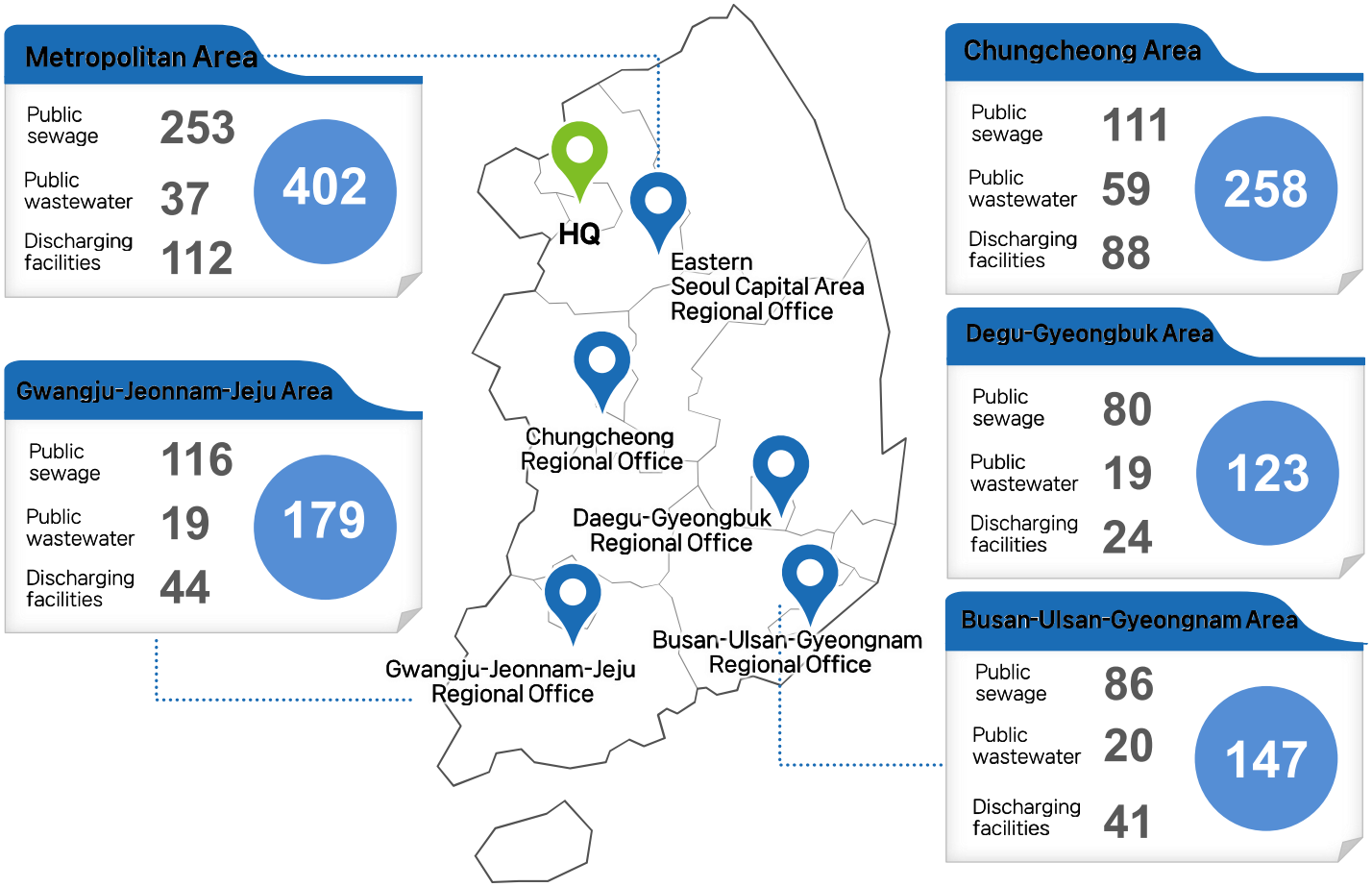
Nationwide

Public sewage treatment facilities
646

Public wastewater treatment facilities
154

Discharging facilities
309

1,109



Metropolitan Area

Public sewage	253
Public wastewater	37
Discharging facilities	112
	402

Chungcheong Area

Public sewage	111
Public wastewater	59
Discharging facilities	88
	258

Gwangju-Jeonnam-Jeju Area

Public sewage	116
Public wastewater	19
Discharging facilities	44
	179

Degu-Gyeongbuk Area

Public sewage	80
Public wastewater	19
Discharging facilities	24
	123

Busan-Ulsan-Gyeongnam Area

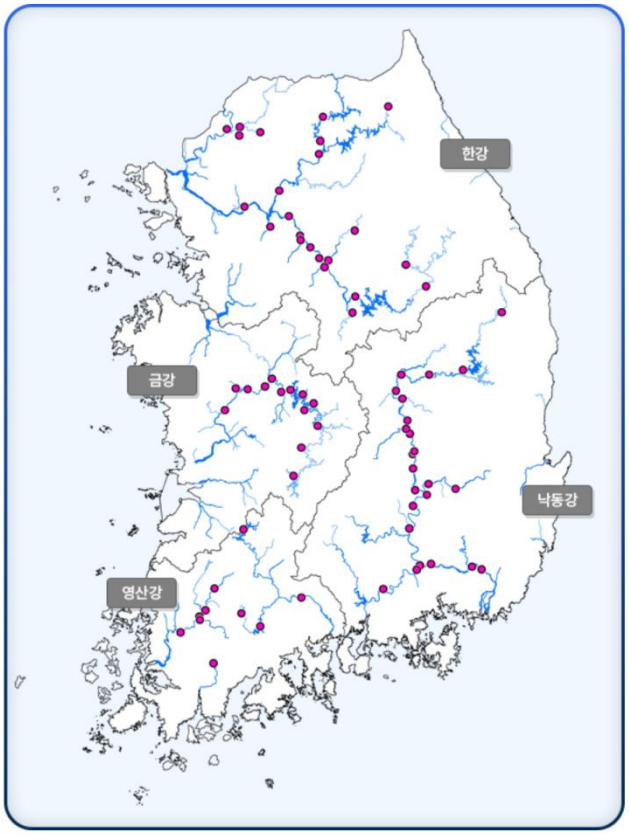
Public sewage	86
Public wastewater	20
Discharging facilities	41
	147

02 National Automatic Water Quality Monitoring – Overview

Water Environment Information System

Early detection of river water pollution and rapid response

Establishment of an intelligent network system to monitor water pollution incidents in real time, protect water sources through drinking-water source response measures, and manage river water quality



Measurement Parameters

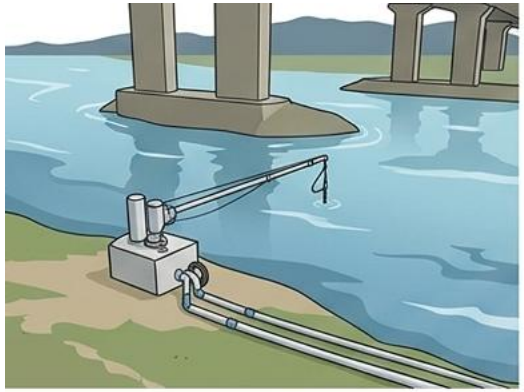
- ○〔Common parameters〕 Water temperature, pH, DO, EC, and TOC.
- ○〔Optional parameters〕 Turbidity, Chl-a, TN, TP, NH4-N, NO3-N, PO4-P, VOCs, phenol, heavy metals, and biological monitoring.

Installation Status

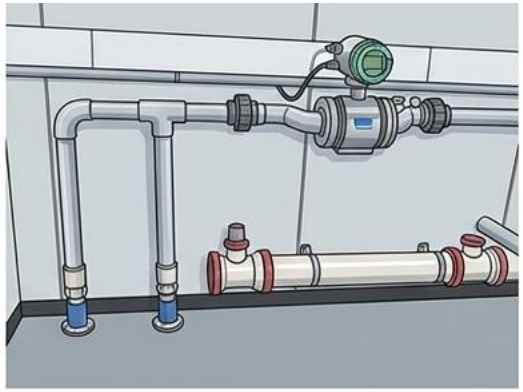
○〔Han River〕 23 sites, 〔Nakdong River〕 31 sites, 〔Geum River〕 13 sites 〔Yeongsan River〕 10 sites

Total: 77 sites

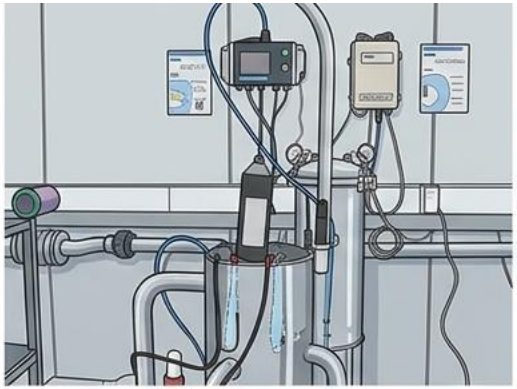
02 National Automatic Water Quality Monitoring – Process



River water is collected using a sampling device

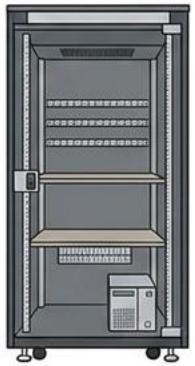


The collected water is transferred to the sampling tank through pipelines



Samples are distributed from the sampling tank to each measuring instrument

River water is automatically measured



Measurement values are collected

INTERNET

Initial values are transmitted

Remote control is performed

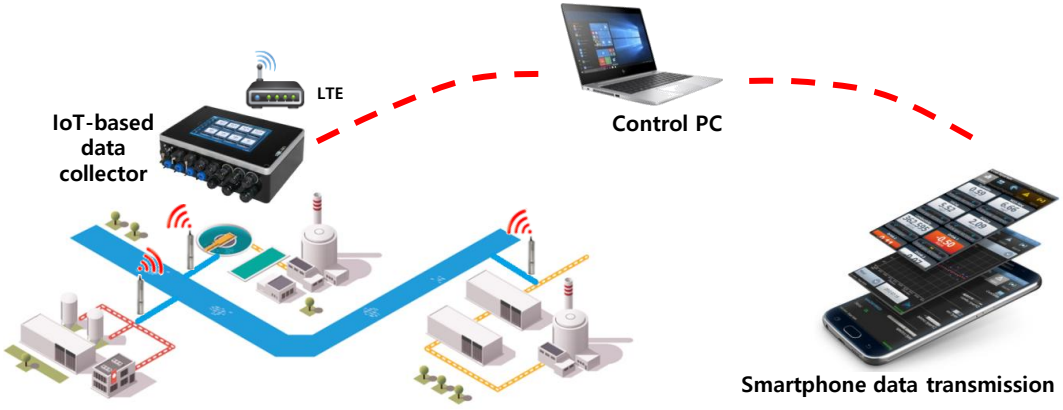
Data is integrated into the central control center

03 Small-Scale Wastewater Discharge Monitoring Using IoT

인천광역시
Incheon Metropolitan City

From post-management to preventive management

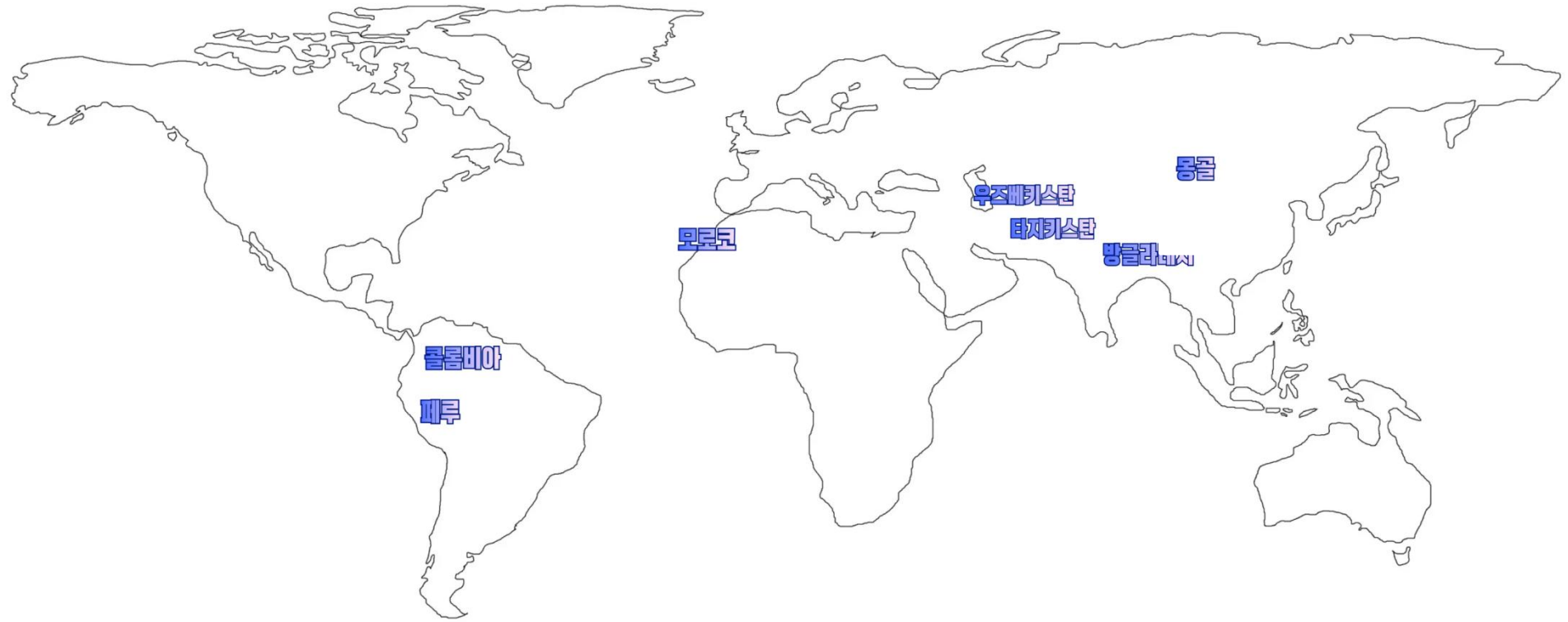
Overcoming the limitations of periodic guidance and inspection
Monitoring and supervision of abnormal wastewater treatment and unauthorized discharge at small-scale wastewater discharge facilities



Measurement Parameters

- TOC
- NO3
- NH4
- pH / temperature
- DO
- Turbidity / Color
- EC

01 Status of Major Overseas Projects



Colombia - 2024 Water Industry Overseas Expansion ODA Support Project by Korea Environment Corporation
KOICA Public-Private Partnership ODA Project: Feasibility Study for Water Quality Monitoring in the Bogotá River, Colombia

Peru - 2025 Water Industry Overseas Expansion ODA Support Project by Korea Environment Corporation

Morocco - 2025 Overseas Local Information Survey Support Project for the Water Industry by Gyeonggi Environmental Energy Promotion Agency

Bangladesh-Project to Improve the Water Quality Monitoring System and Strengthen Capacity in Bangladesh by Korea Environmental Industry&Technology Institute

Uzbekistan - Water Technology Demonstration Project linked to the Central Asia Water Industry Modernization Project by Korea Environment Corporation

02 Colombia – Medellín

Empresas Públicas de Medellín

2024 Field Survey in Colombia

Preliminary planning for a project to establish a real-time water quality monitoring system using IoT in the Medellín River Basin, Antioquia, Colombia

Partner Agency Meetings

Ministry of Environment Meeting

Partner Lead Agency Meeting

Water source site survey

Industrial complex site survey

Water Treatment Plant Site Survey

03 Colombia – Bogotá

CAR, Corporación Autónoma Regional de Cundinamarca
Regional Autonomous Corporation of Cundinamarca

2024–2025 Field Survey in Colombia

Feasibility study for establishing an AI-based real-time tracking and management system for water pollution sources to improve water quality in the Bogotá River, Cundinamarca, Colombia

Partner Agency Meetings

Ministry of Environment Meeting

Training(Capacity Building)

Control Centers site survey

Bogota River site survey

Sewage Treatment Plant Site Survey

04 Morocco

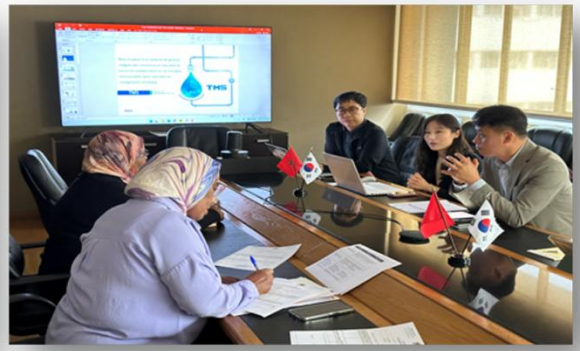
Ministry of Equipment and Water, Morocco

2025 Field Survey in Morocco

Project to establish an integrated water resources management system in the Loukkos River Basin based on renewable energy for climate change response

Partner Agency Meetings

Ministry of Environment Meeting



Wastewater Treatment Plant

Water source site survey

Industrial complex site survey

Water Treatment Plant Site Survey

05 Peru

ANA
Autoridad Nacional del Agua
National Water Authority

2025 Field Survey in Peru

Field survey for establishing an integrated water quality monitoring system for water pollution sources in the Rimac River Basin, Lima, Peru

Partner Agency Meetings

Ministry of Environment Meeting

Wastewater Treatment Plant

On-site Investigation of Mine Discharge Water

Field Survey of Streams

Water Treatment Plant Site Survey

06 Bangladesh

MoEFCC
Ministry of Environment, Forest and Climate Change

2025–2026 Field Survey in Bangladesh

(2025) Project to improve the water quality monitoring system and strengthen capacity in Bangladesh
(2026) Feasibility study: Feasibility study for establishing an automatic river water quality monitoring system in Bangladesh

Partner Agency Meetings

Ministry of Environment Meeting

Field Survey of Streams

Wastewater Treatment Plant

River water sampling

Environmental Agency Laboratory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