CASE STUDY
HYDROELECTRIC PLANT

K-Water, South Korea

K-water is one of the world's largest water utility company responsible for bulk supply of water to most of South Korea including treated water to 25 million people and raw water for industrial use.

PROBLEM

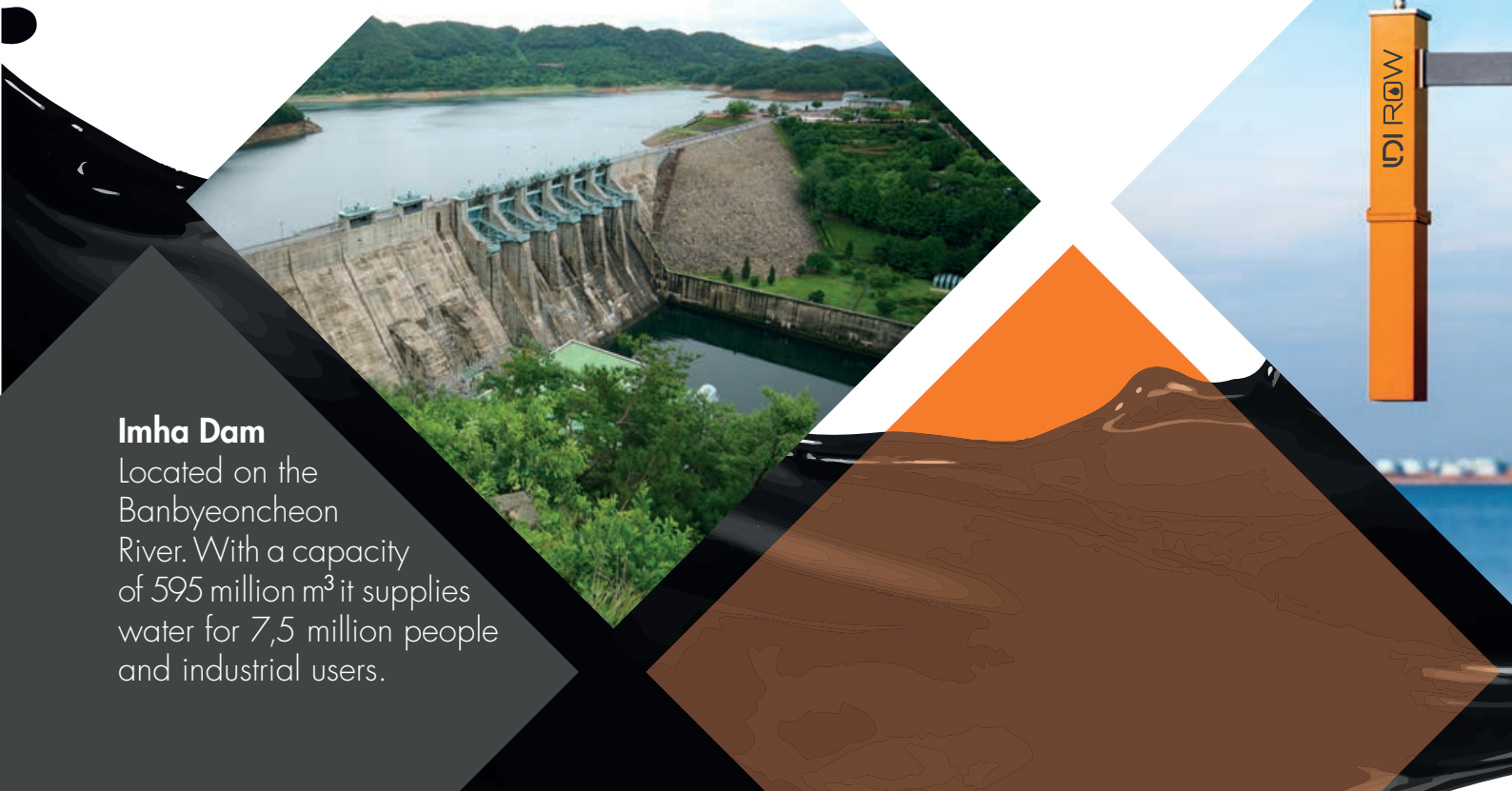
Operated and managed by K-Water, Imha Dam and Daecheong Dam have 50 MW and 90 MW generating capacity, with two generators in each facility. The generators have oil filled bearings which, when not operating correctly, release oil into an overflow pit inside the plant.

Oil overflow is an early indication that generators are not operating at full efficiency and that maintenance is required.

Inability of detecting this overflow leads to reduced lifetime of components, increased downtime and so reduced productivity of the plant.

"We are very satisfied with ROW stable performance against water level change, flow rate change and foreign object. Besides ROW can support to connect effectively to our PLC allowing for our system compatibly with ROW"

Changhyun Yoon,
Korea Water Resources Corporation



Imha Dam
Located on the Banbyeoncheon River. With a capacity of 595 million m^3 it supplies water for 7,5 million people and industrial users.

FIRST INSTALATION IN 2013

ROW O-2200A

WIRED COMMUNICATION RELAY OUTPUT, RS 485

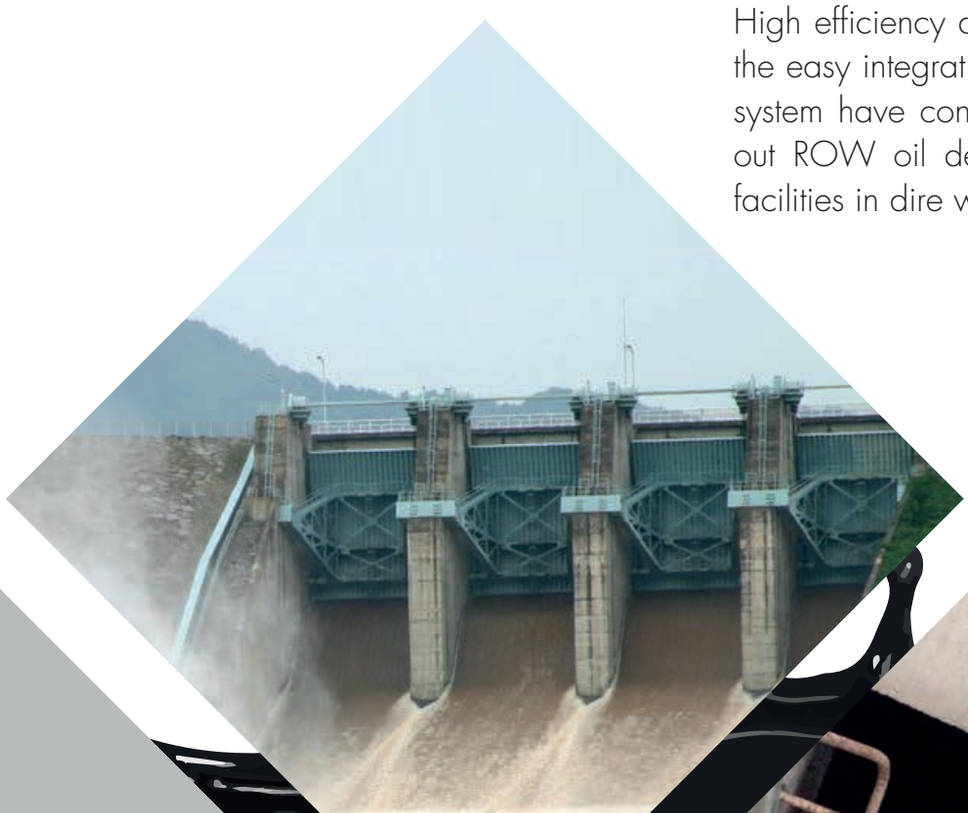
SYSTEM EMBEDDED INTO EXISTING MONITORING SOFTWARE

SOLUTION

ROW was selected by K-Water and installed in Imha Dam and Daecheong Dam. Operators requested continuous monitoring of the plant that would alert them immediately of any potential incidents.

Enabling real-time monitoring and data analysis, the ROW system is part of K-Water's drive towards continuous improvement in its operations and implementation of innovation in ensuring high level of safety standards.

High efficiency and reliability alongside the easy integration into existing security system have convinced K-Water to role out ROW oil detectors into their other facilities in dire with their upgrade plan.





Daecheong Dam
Located on the on the Geum River, it withholds a reservoir of 1,490 million m^3 and has a generating capacity of 90 MW.