

Use of Satellite information for Water Resources Management

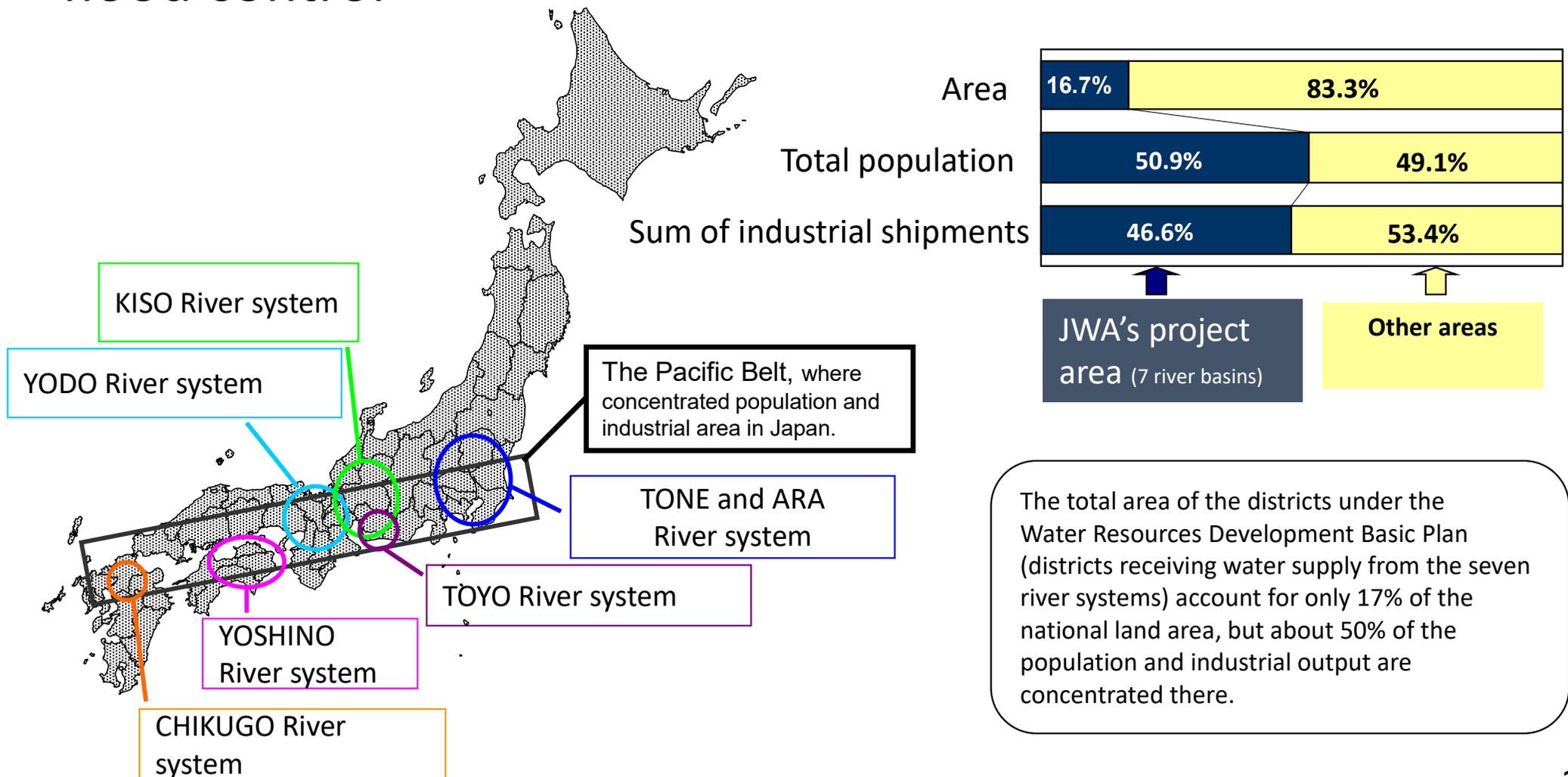


10th February 2026
Millennium Airport Hotel Dubai, UAE
TSUDA Morimasa
 **Japan Water Agency (JWA)**

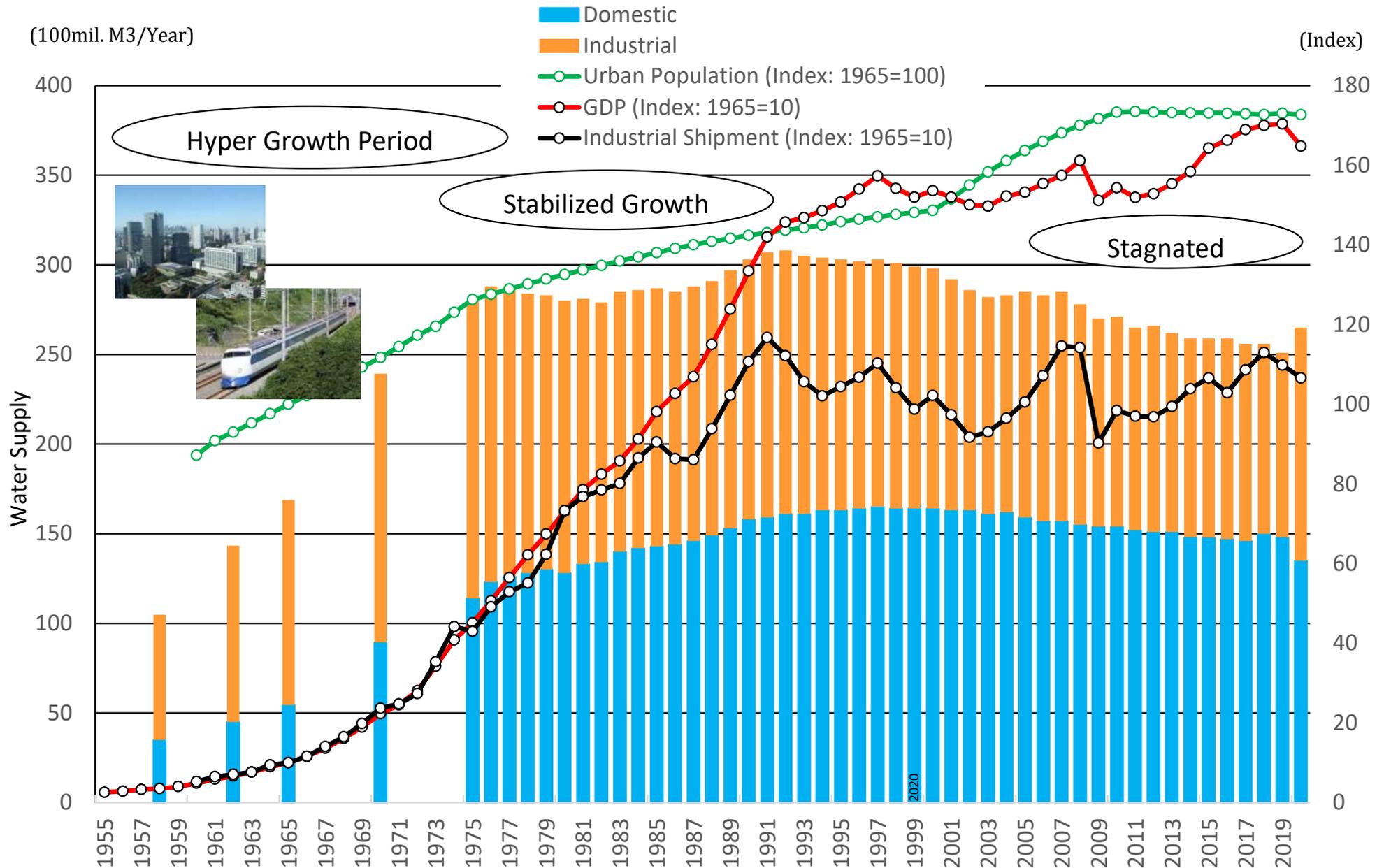


JWA's activity

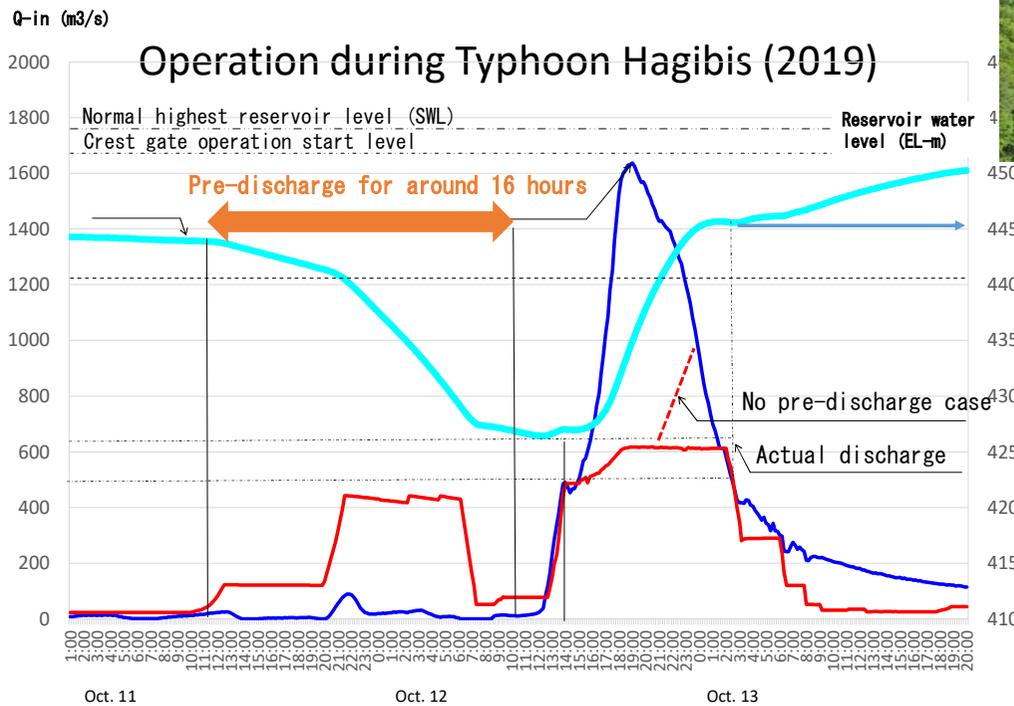
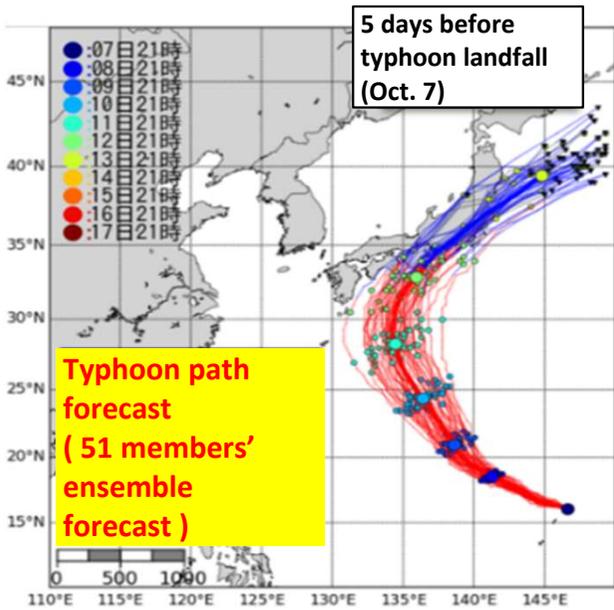
JWA constructs and operates dams and canals, and provides water for drinking, agriculture and industry with flood control



Establishment of JWA to Meet the Water Demand in 1961



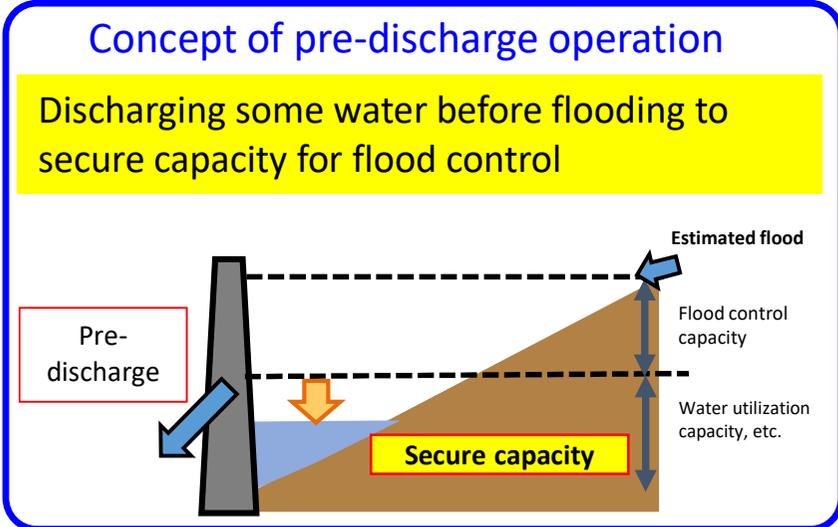
Pre-flood drawdown operation using advanced rainfall forecasting



Kusaki Dam



Award by JSCE 2020



Downstream flooding was prevented !!



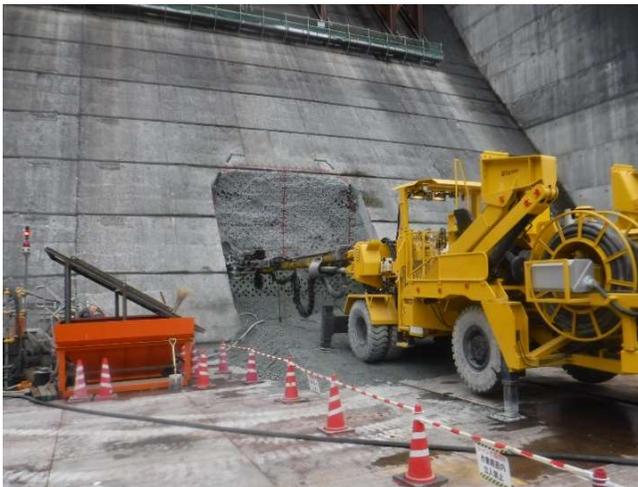
Sameura Dam upgrading project (2018 – 2028)



Image of completion



Excavation of dam body for installing new spillways

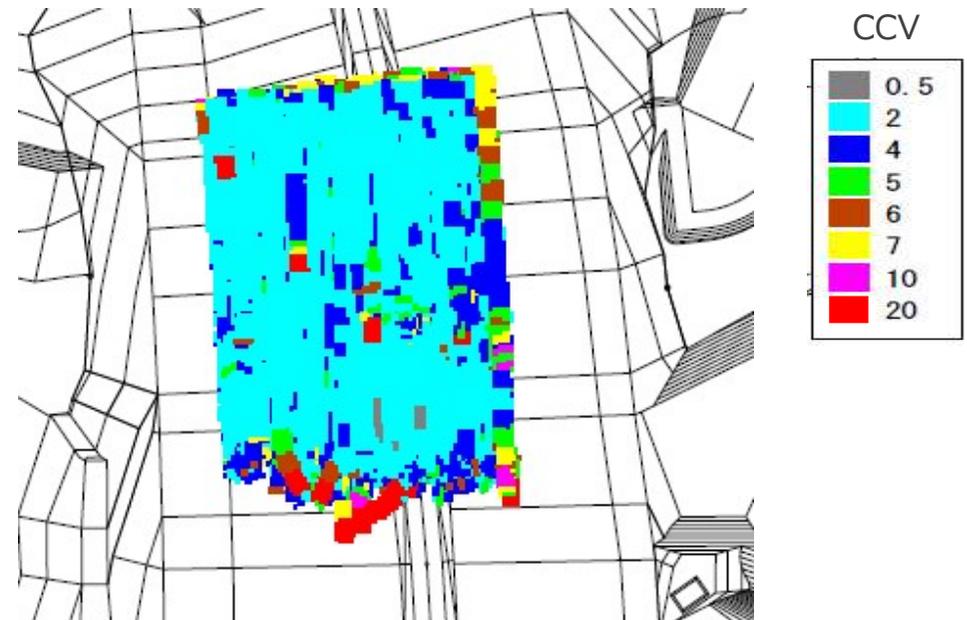


Application of satellite technologies in construction of the rock fill dam

Koishiwara Dam
(Constructed in 2019)



Real-time monitoring of
Compaction Control value (CCV)



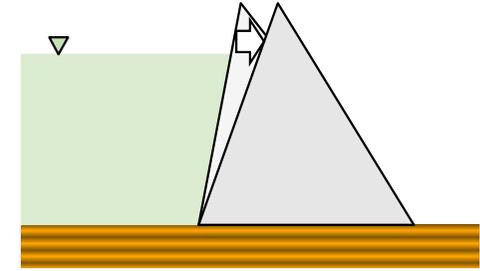
Compaction Roller with GNSS



Monitoring of deflection of Concrete dams without Plumb line



Yanase Dam

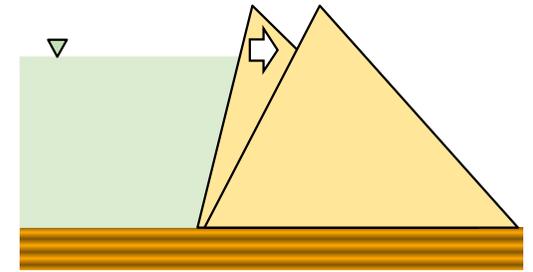


Yanase Dam is owned by MLIT, managed by JWA

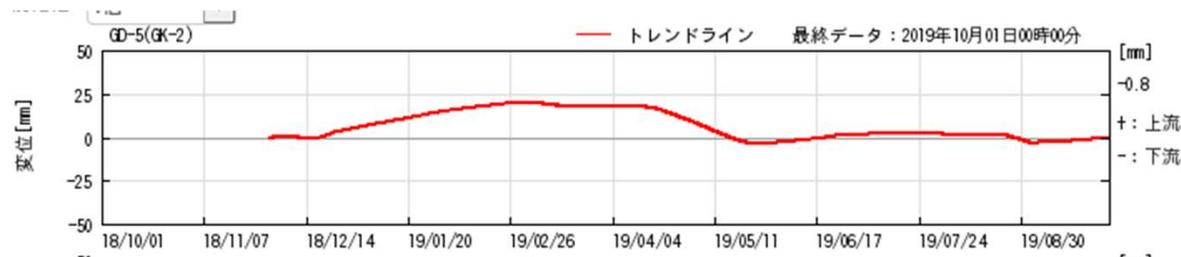
Deflection of concrete dam is generally observed by Plumb line

Real-time monitoring of deformation of Rockfill dams with GNSS

Rockfill dam deformation is monitored even during heavy snow season



Naramata Dam



NARBO (Network of Asian River Basin Organizations)



NARBO is the Network of Asian River Basin Organizations. Established in February 2004 to promote Integrated Water Resources Management (IWRM) in monsoon Asia.

Objective

to strengthen the capacity and effectiveness of river basin organizations (RBOs) in promoting IWRM and improving water governance, through training and exchange of information and experiences among RBOs and their associated water sector agencies and knowledge partner organizations.

Goal

to help achieve IWRM in river basins throughout Asia.

Membership

94 organizations from 19 countries have already joined as members of NARBO.

The first chairman of NARBO was Dr. Mochamad Basuki Hadimuljono

Japan Water Agency (JWA)

JWA has experiences in the construction and management of multi-purpose dams and waterways for flood control and water utilization on seven major rivers in Japan.

Training and workshop



NARBO's activities include training and workshops. Training activities include conducting IWRM training in member countries and supporting training for members in Japan. Workshops have also been held on a variety of themes, and in recent years have also been held via webinars and other methods.



NARBO 5th Webinar in April 2025



Participants of Webinar

Lecture by Sentinel Asia Secretariat

NARBO 5th WEBINAR
Network of Asian River Basin Organizations

“Exploring What The Future NARBO Activities Should Be and Promoting New IWRM Using Advanced Information on New Technology and Socio-Economy in River Basins”

Monday, April 21st 2025

Jakarta 1 pm
Dhaka 12 pm
Naypyidaw 12.30 pm
Beijing & Manila 2 pm
Tokyo 3 pm
Wellington 7 pm

OPEN FOR PUBLIC
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Youtube Live Streaming
Water and Renewable Energy Learning Center

ZOOM

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Opening Remarks
Dr. IMAM SANTOSO
Chairperson of NARBO

Keynote Speaker
Dr. SHAHBAZ KHAN
Director and UNESCO Representative

SPEAKERS
Dr. LANCE WILLIAM GORE
Principal Water Resources Specialist, Portfolio Management Specialist, Asian Development Bank (ADB), Vice Secretary General NARBO
“Shaping NARBO’s Future to Meet this Region’s Water Challenge”

Eng. NILANTHA DHANAPALA
Director, Water Management Secretariat, Mahaweli Authority
“Water Management and Future Water Resources Development in Mahaweli Area in Sri Lanka”

YUKI TANAKA
Administrator, Sentinel Asia Secretariat / JAXA
“Overview Sentinel Asia”

Prof. Dr. KHIN NI NI THEIN
Vice Chairperson of NARBO, Myanmar Water

Summary

- Japan Water Agency (JWA) has long term experiences developing and operating multi-purpose dams and water infrastructures
- JWA is very much interested in further application of satellite technology for water resources management
- JWA as a secretariat of NARBO (Network of Asian River Basin Organizations) would like to extend collaboration with Sentinel Asia