

Opening AWCI Session

Briefing on the Kumamoto Initiative for Water

1. Our outputs at the previous meeting, Oct. 2021.
2. The 4th Asia-Pacific Water Summit in Kumamoto, Apr. 2022.
3. The Kumamoto Initiative for Water.

Asia-Oceania Group on Earth Observations(AOGEO) TG1:GEOSS ASIAN WATER CYCLE INITIATIVE (AWCI)

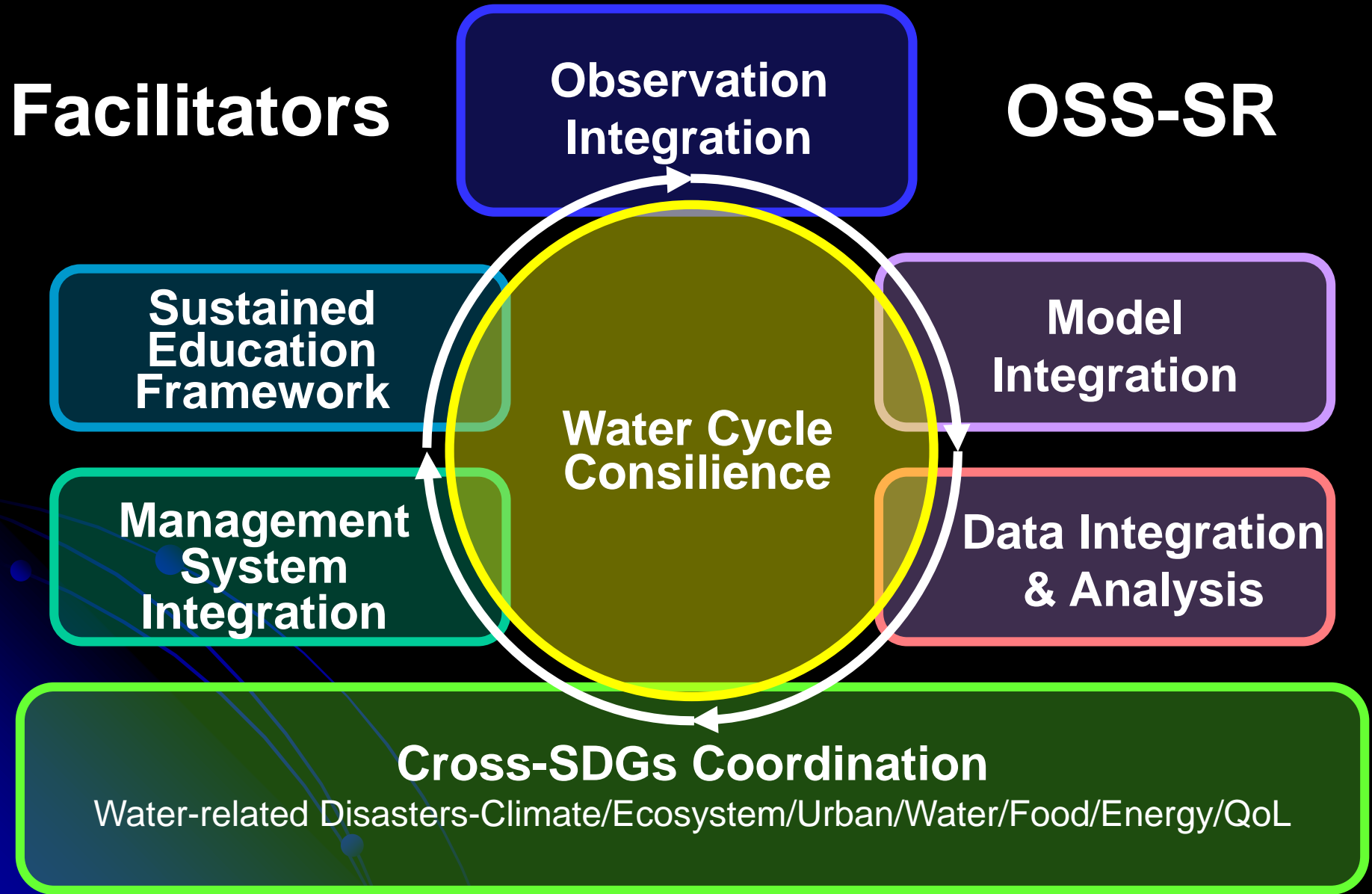
Friday, 29 Oct. 2021, Online

1. Opening Remark
2. Country Reports
3. Thematic Presentations
4. Discussion
5. Briefing from ADBI
6. Closing Remark

- More than 50 people participated, including director generals and directors from related organizations in the Philippines, Sri Lanka, and Indonesia.
- Country reports on development of OSS-SR and facilitator training using an e-learning system.
- Cutting-edge research and development on agriculture and food, climate change and water use, ecosystem-based disaster risk reduction, and floods and poverty.



Integrated & Coordinated Approach



Asia-Oceania Group on Earth Observations(AOGEO) TG1:GEOSS ASIAN WATER CYCLE INITIATIVE (AWCI)

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- The preamble of the 2030 Agenda says, "We are determined to take the bold and transformative steps which are urgently needed to shift the world onto a sustainable and resilient path."
- Throughout the Covid-19 pandemic, the world has learned that complex, cascading, and systemic risks that are usually implicit in social, economic, and environmental systems can suddenly emerge and threaten humanity beyond boundaries in space and time.
- Water-related disasters intensified by climate change affect natural and artificial environment components directly, and their impacts propagate to the water-food-energy-nexus and the Quality of Life (QoL), including poverty, health, education and labor. Moreover, once society falls into such circumstances, more problems arise in such areas as gender, equality, and peace, to a great degree.

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- Then, the fundamental question is: How should humanity survive such risks due to COVID-19 and climate change and live with them in a sustainable way?
- AWCI continues to integrate the "Online Synthesis System for Sustainability and Resilience (OSS-SR)" as a key knowledge base of each Platform and foster "Facilitators" as trustable human resources by making effective use of e-learning.
- AWCI promotes "Water Cycle Consilience" in cooperation with various socio benefit areas, especially the fields of urban, ecosystem, food, energy, and QoL.

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The Fourth Asia Pacific Water Summit

Kumamoto, Japan, April 23-24, 2022



Yoshiro Mori, President of the APWF and former Prime Minister, Japan



Emperor and Empress of JAPAN



Antonio Guterres, UNSG



Fumio Kishida, Prime Minister, Japan

17 Heads of State and Government, including Presidents, Prime Ministers and Deputy Presidents, as well as **19 government ministers**, who attended either in person, virtually, or via video message.

Kumamoto Declaration

- Require transformation into **quality-oriented societies** that are **resilient, sustainable, and inclusive**.
- Improve **governance**, close the **financial** gap and appeal to the **science and technology** community.
- Explore what role science and technology should play in the **cross-sectoral decision-making of leaders**.

Parallel
Session | 1

End to End Approach on Climate Change Adaptation

Science & Technology

Governance

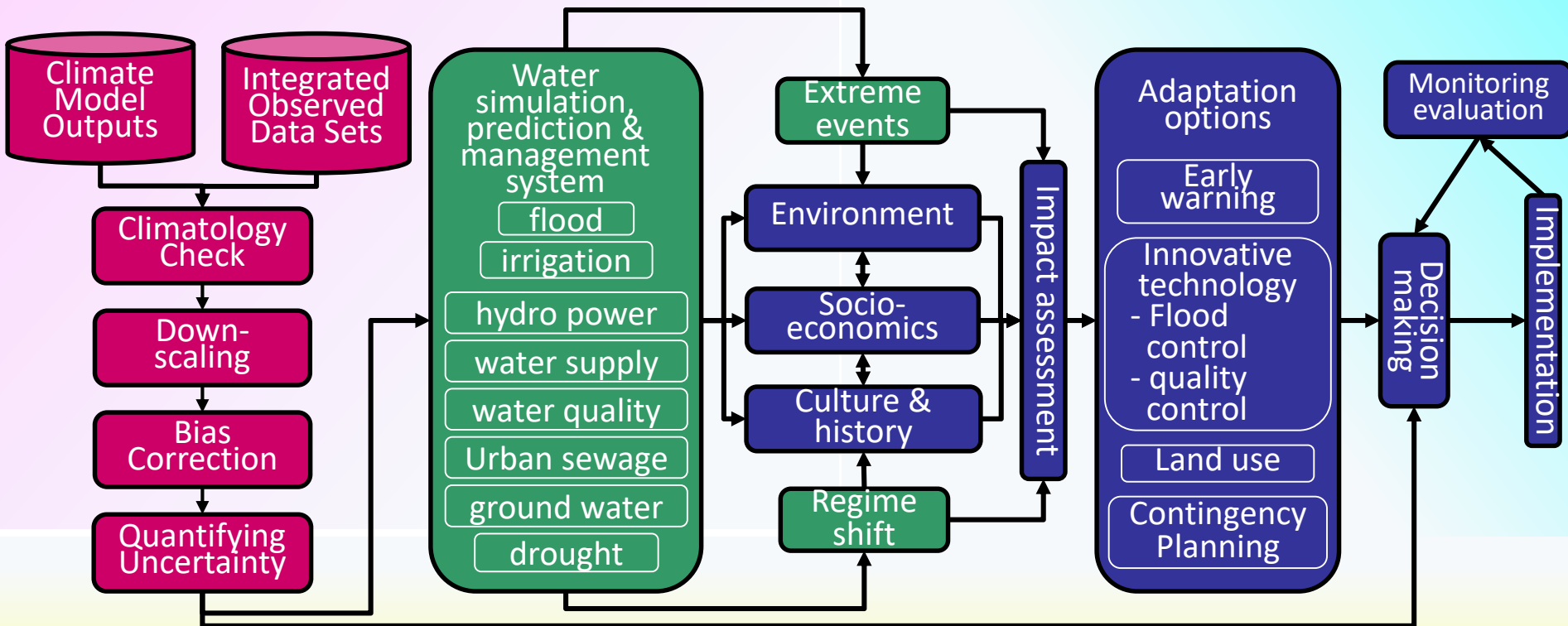
- EO: Disaster Management, In-situ + Satellite, Satellite + Model, Climate Monitoring
- WCC: Global Water Information System
- GWP Toolbox
- Citizen science and youth innovation

- CAS2021: Adaptation Action Cycle
- Living with uncertainties
- Water and Climate Coalition
- Key inclusion: youth, gender, vulnerable groups, source to sea approach

Scientific Approach

Engineering Approach

Socio-economical Approach



- Crowding-in Private Sector Financing
- Digital Technologies and Innovations
- Nature-Based Solutions

- Cost responsibilities sharing with community
- Social business and social entrepreneurship

Finance

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Parallel

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Session 9

Special Session: SIDS

Special Session: Showcase

Special Session

Showcase of Efforts toward Sustainable and Resilient High-Quality Society

hosted by

Ministry of Land, Infrastructure, Transport and Tourism (MLIT)

co-hosted by

Kumamoto City and ICHARM.



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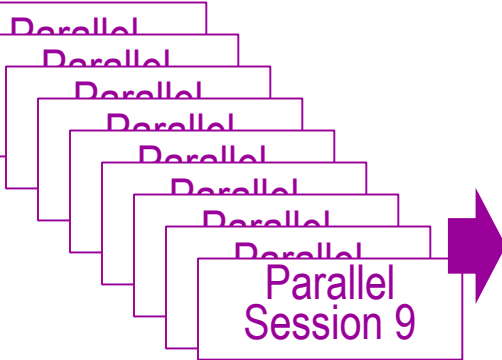
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Integration Sessions: Governance, Finance, Science and Technology

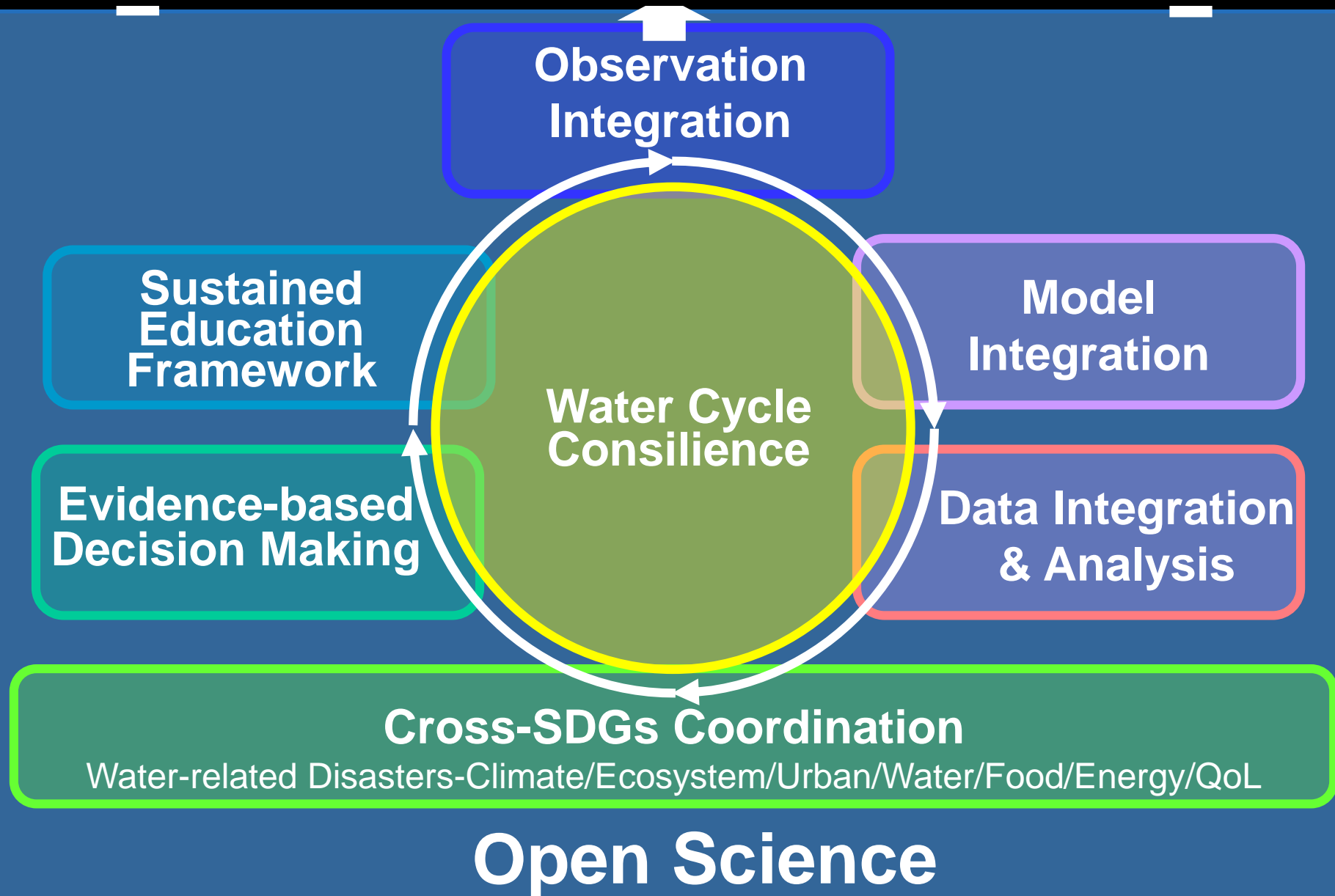


Special Session: SIDS

Special Session: Showcase

Summary Report

Integration Session 1: Science and Technology



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Integration Sessions: Governance, Finance, Science and Technology



Overall Integration Session

Chair's Summary

Parallel Session 9

Special Session: SIDS
Special Session: Showcase

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Chair's Summary



Overall Integration Session
Co-Chaired by Dr. Dr. Han
and Ms. Kamikawa

- Promote water cycle **consilience** by accelerating the Open Science policy, particularly focusing on observation, modeling and data integration;
- Foster "**Facilitators**," that is, catalytic beings who can lead the way toward resolving problems by providing professional advice on-site using a broad range of scientific and indigenous knowledge; and
- Work together beyond disciplines and sectors among different levels while taking an **end-to-end approach**.

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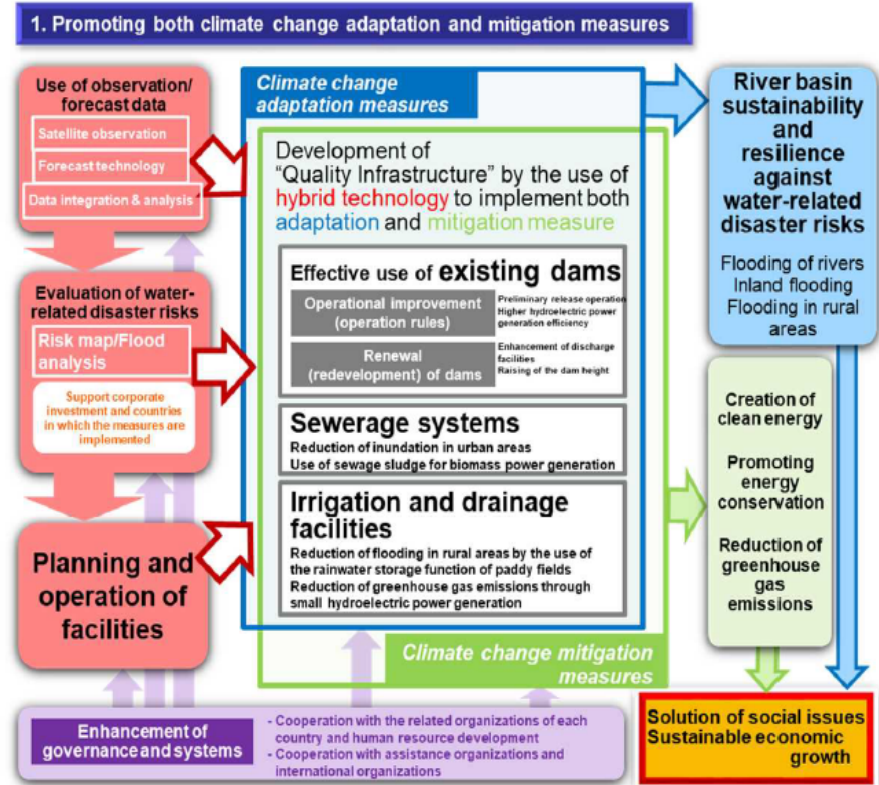
[4th Asia-Pacific Water Summit] Kumamoto Initiative for Water (Outline)

- Proactive Contribution to the Development of “Quality Infrastructure” based on a “New Form of Capitalism” -

Japan will proactively contribute to the solution of water-related social issues faced by the Asia-Pacific region by developing “Quality Infrastructure” capitalizing on Japan’s advanced technologies, and based on a “New Form of Capitalism”, which means promoting public-private partnerships and fostering digitization and innovation to solve social issues as a growth engine for sustainable development and the formation of a resilient society and economy.

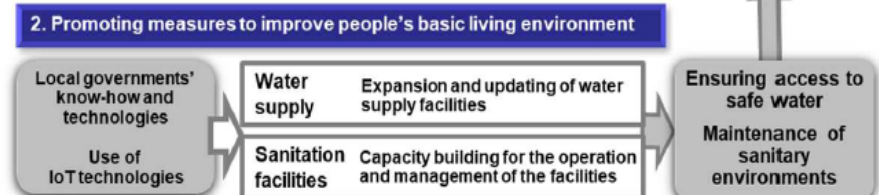
1. Promoting both climate change adaptation and mitigation measures

- (1) Promoting the development of “Quality Infrastructure”
 - Develop and provide hybrid technology to develop dams, sewerage systems and agricultural facilities to reduce the damage caused by flooding for river basin sustainability and resilience against water-related disaster risks for climate change adaptation and also to reduce greenhouse gas emissions for climate change mitigation (Improve and renew existing dams to bring about the effects more speedily)
 - Propose the introduction of “Quality Infrastructure” through public-private partnership
- (2) Contribution to fill gaps of observation data
 - Provide satellite data obtained from the meteorological satellite “Himawari” and Advanced Land Observing Satellite-2 (ALOS-2) “Daichi-2” as well as from the core satellite of the Global Precipitation Measurement (GPM) mission
- (3) Contribution to governance (systems, human resources and capacity)
 - Sophisticate the evaluation of water-related disaster risks by the use of AI/IoT-based forecast and analysis technologies
 - Support human resource development through the Asia-Pacific Climate Change Adaptation Information Platform (AP-PLAT) and the Data Integration and Analysis System (DIAS)
- (4) Utilization and expansion of the Joint Crediting Mechanism (JCM)



2. Promoting measures to improve people’s basic living environment

- (1) Promoting the development of “Quality Water Supply Systems”
 - Introduce advanced technologies, including IoT technologies for the development of water supply facilities
- (2) Promoting the development of “Quality Sanitation Facilities”
 - Develop sewerage systems and on-site treatment facilities and enhance abilities to operate comprehensive treatment facilities



Providing financial assistance worth approximately 500 billion yen over the next five years