



MEKONG  
INSTITUTE



K water



FUNDED BY THE MEKONG-REPUBLIC OF KOREA COOPERATION FUND  
& MEKONG-U.S. PARTNERSHIP

## PROJECT SNAPSHOT

# Water Data Utilization and Capacity Building in the Mekong Region

## BACKGROUND

The Mekong region has achieved an economic growth rate close to of 7% annually, and continues to drive the high growth of ASEAN. However, due to climate change and rapid urbanization, the frequency and intensity of water-related disasters such as droughts and floods are increasing every year. In addition, water disputes between upstream and downstream countries have hampered the sustainable development of the Mekong region.

To this end, South Korea and the United States are monitoring real-time water resource changes and are conducting the capacity building on water data utilization in the Mekong basin through the joint statement (August, 2018) of "Water Management and Information Strengthening in the Lower Mekong" from the Friends of the Lower Mekong (FLM), and maximizing the synergy effect between South Korea and United States. Furthermore, we would like to contribute to enhancing safety from disasters through systematic water resources management by combining K-water's water management capabilities in South Korea with NASA and USACE satellite utilization and water resources analysis capabilities.

**DURATION**      October 2019 to October 2022

## PROJECT COMPONENTS

- Produce **Satellite-based Water Resource Data and Water Disaster Monitoring Capability**
- Secure **Hydraulic/Hydrological Modeling Capabilities** in Test Areas of the Mekong with Satellite and in Site Data
- **Training and Seminars for Strengthening Capacity Building** for Countries in the Mekong Region

## PROJECT SUPPORT



Capacity  
Building



Tailored  
Trainings



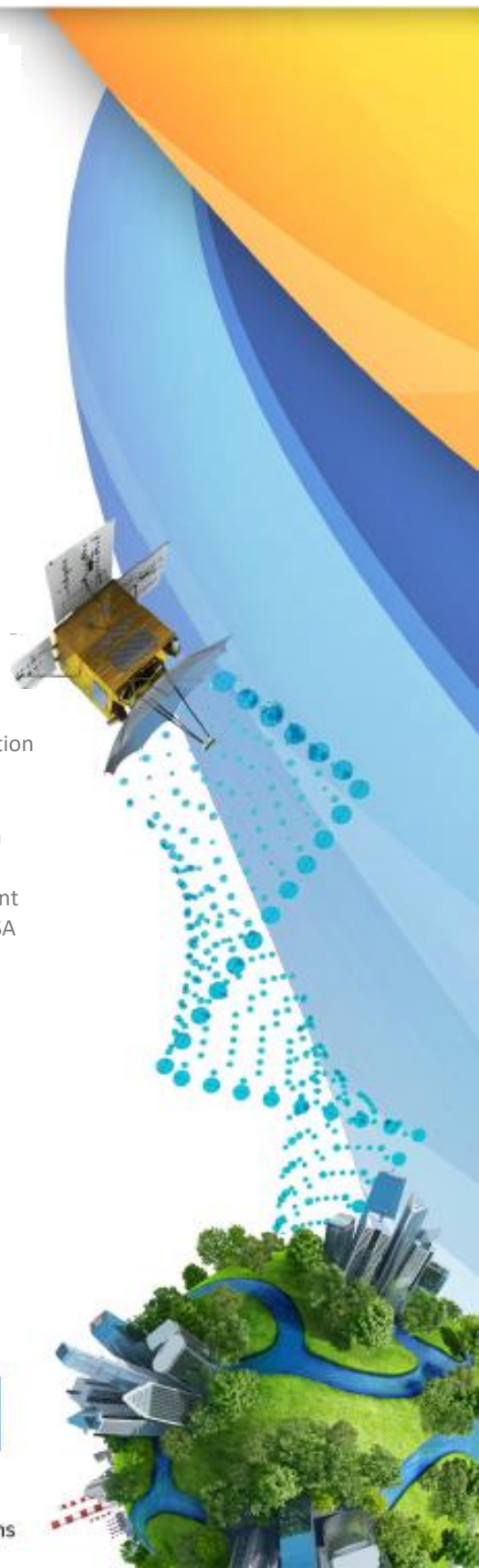
Technical  
Exchanges



Seminar  
or Forum



Pilot  
Applications



## OBJECTIVES

To develop and provide a satellite-based disaster analysis capability that produces and utilizes hydrological data to mitigate the water-related disasters such as floods and drought, and build capacity on water data utilization in the Mekong region.

These objectives have been prioritized by Mekong countries and the MRC and communicated to us through various engagements with these parties and institutions, including through multilateral dialogues under the Lower Mekong Initiative, Mekong Water Data Experts Meetings and Roundtables, various trainings held by NASA and USACE in the region, and other engagements with the MRC.

## EXPECTED OUTCOMES

**SYNERGY EFFECT:** Production and sharing of hydrographic factors in the Mekong area using satellite information, satellite data linkage and hydraulic/hydrological model analysis capability for vulnerable areas, and developing measures to improve the performance of students participating in Mekong Capacity Building

**REDUCTION EFFECT:** Reduce damage to Mekong country by water disaster (e.g. drought and flood), resolve water resources disputes in Mekong, and resolving water resources imbalance between Mekong countries

## PROJECT ACTIVITIES



### Production of satellite-based water resource data and water disaster monitoring capability

- Introduction to hydrological data generation software for the entire Mekong region using satellite data (**NASA**)
- Explore monitoring plan options using satellite data for test areas of the Mekong to prevent water disasters (**K-water**)



### Securing the capabilities to analyze the hydraulic/hydrological situation in test areas of the Mekong by linking hydrological models with satellite and in site data

- Research middleware for linking satellite-based tools and hydraulic/hydrologic analysis systems (**K-water/USACE**)
- Upstream simulation and downstream flood analyses as well as reservoir simulations on an as needed basis using HEC-series / support modeling capabilities in the Mekong Delta area (**USACE**)
- Applying K-water's own technology software (K-series) to the Mekong Basin (**K-water**)



### Training and seminars for strengthening capacity building for countries in the Mekong region

- Promotion of education programs for the Mekong region and MRC – 3 invitation <ROK>, 2 local <Mekong country>, and exploring advanced country <U.S.> (**K-water/USACE/NASA**)
- Seminars of sharing lessons learned and strengthening technological capabilities – annually <ROK and Mekong country> (**K-water**)

## TARGET PARTICIPANTS

Government officials and practitioners from Mekong region (Myanmar, Lao PDR, Thailand, Cambodia, and Vietnam) and MRC

## PROJECT CONTACTS

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