PLATFORMS
ON
WATER RESILIENCE AND DISASTERS
FOR
SOCIAL SUSTAINABILITY

Noriyuki MORI

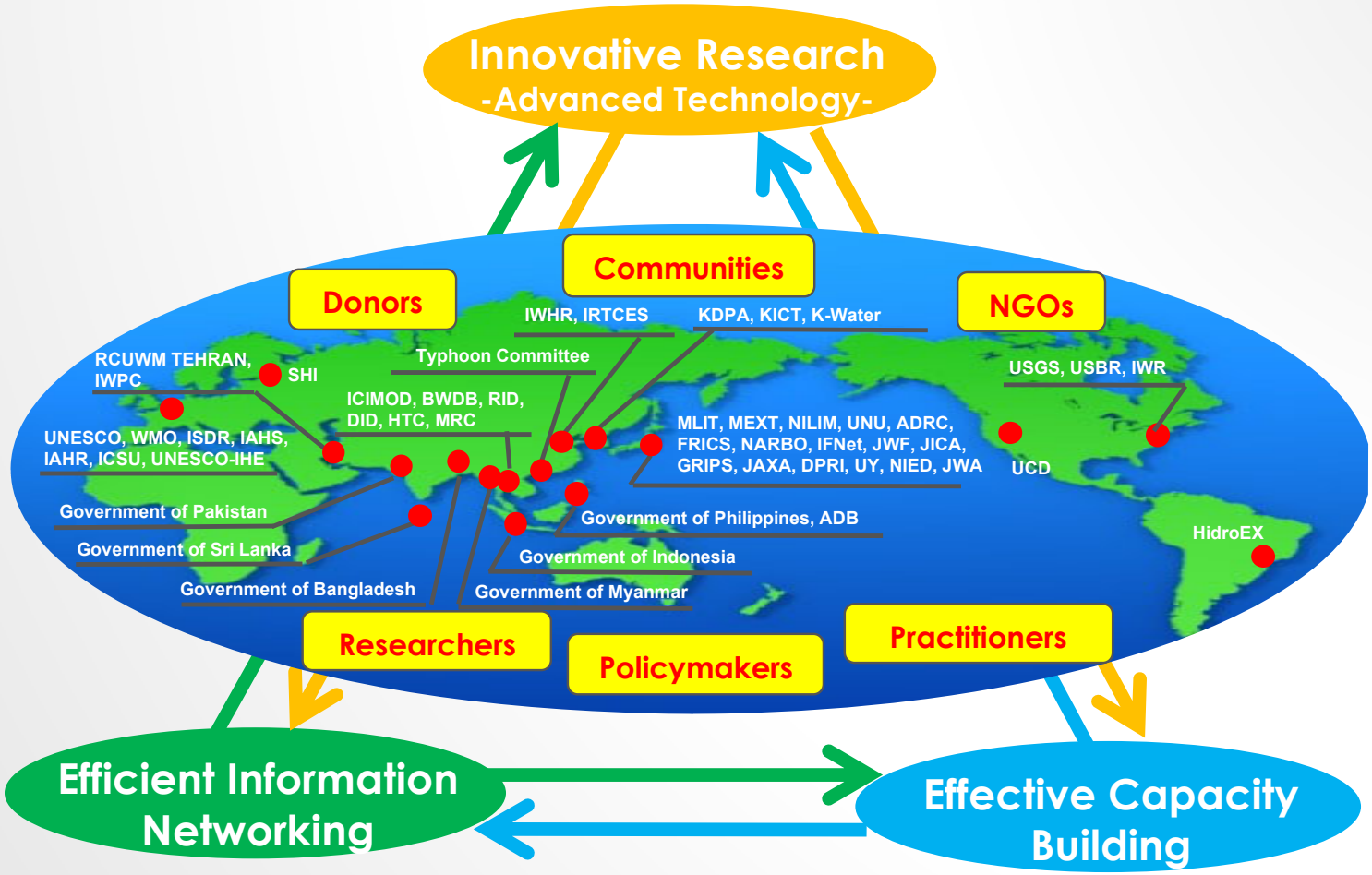
International Centre for Water Hazard and Risk Management (ICHARM),
Public Works Research Institute (PWRI) -Japan

Public Works Research Institute,
National Research and Development
Agency, Japan

unesco
Centre
Under the auspices
of UNESCO

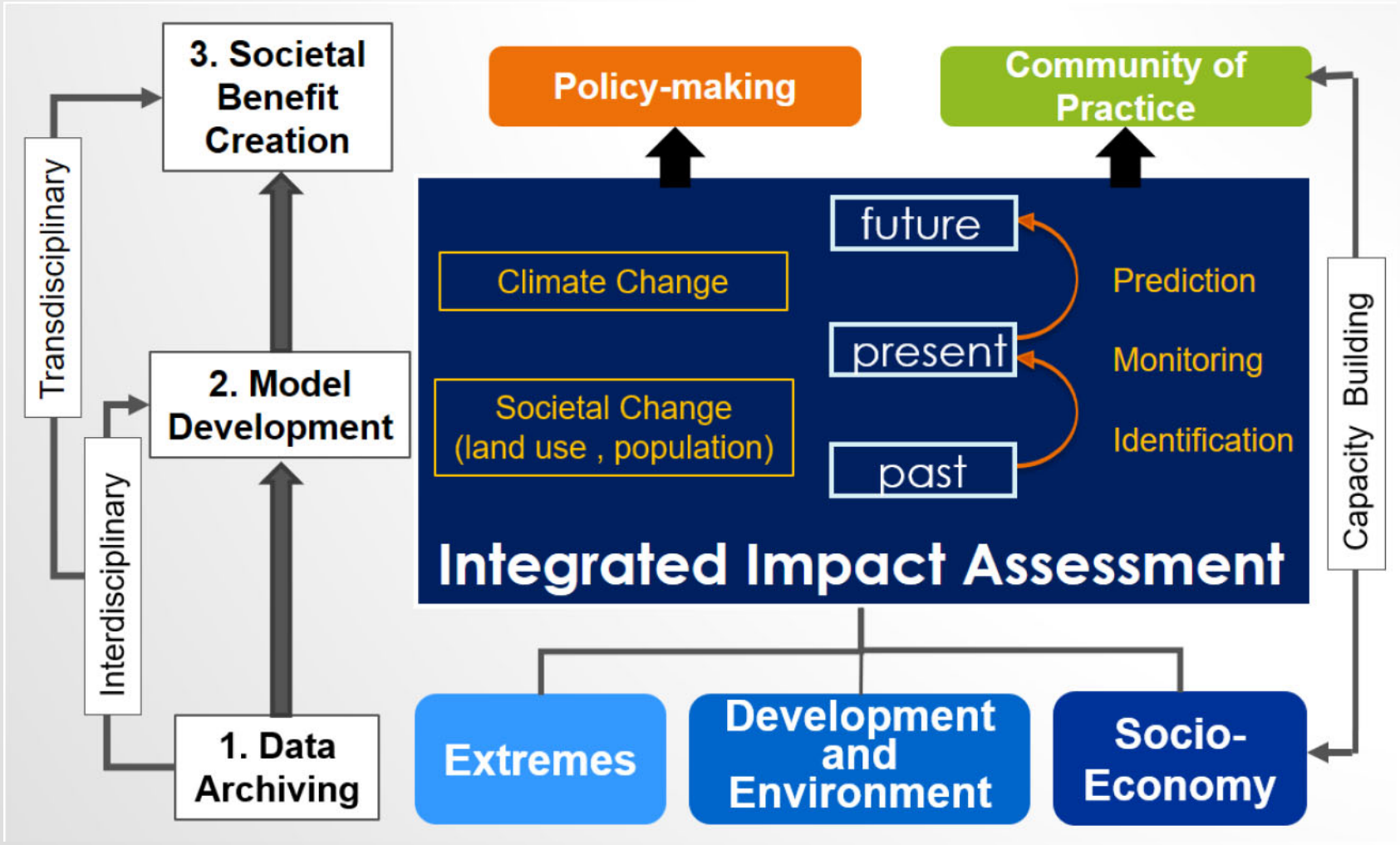
ICHARM
International Centre for Water
Hazard and Risk Management
under the auspices of UNESCO

ICHARM 3 missions



Implementing projects by practicing localism through Online Synthesis System for Sustainability and Resilience (OSS-SR)

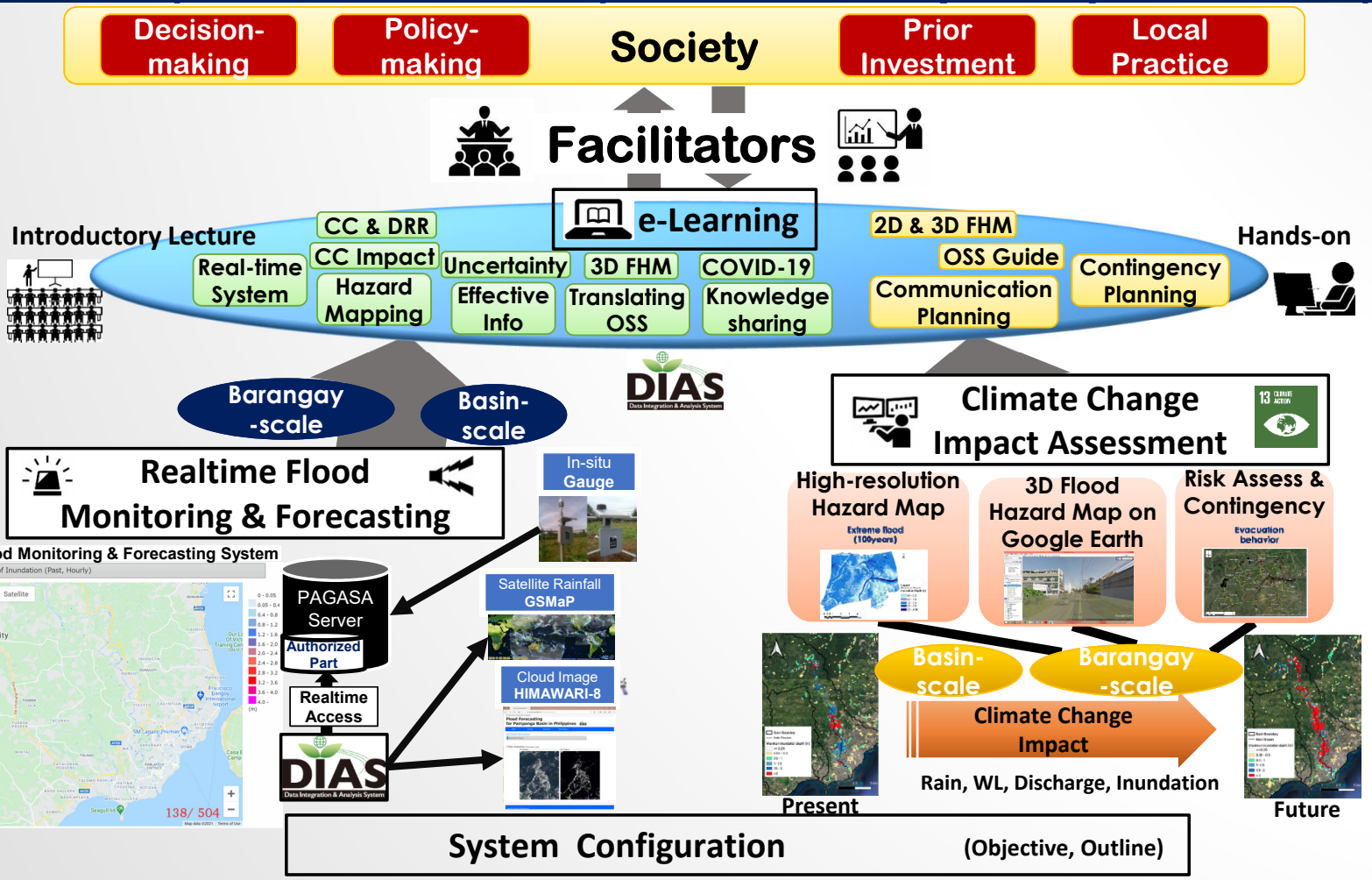
OSS-SR FUNCTIONS



PLATFORM IN THE PHILIPPINES

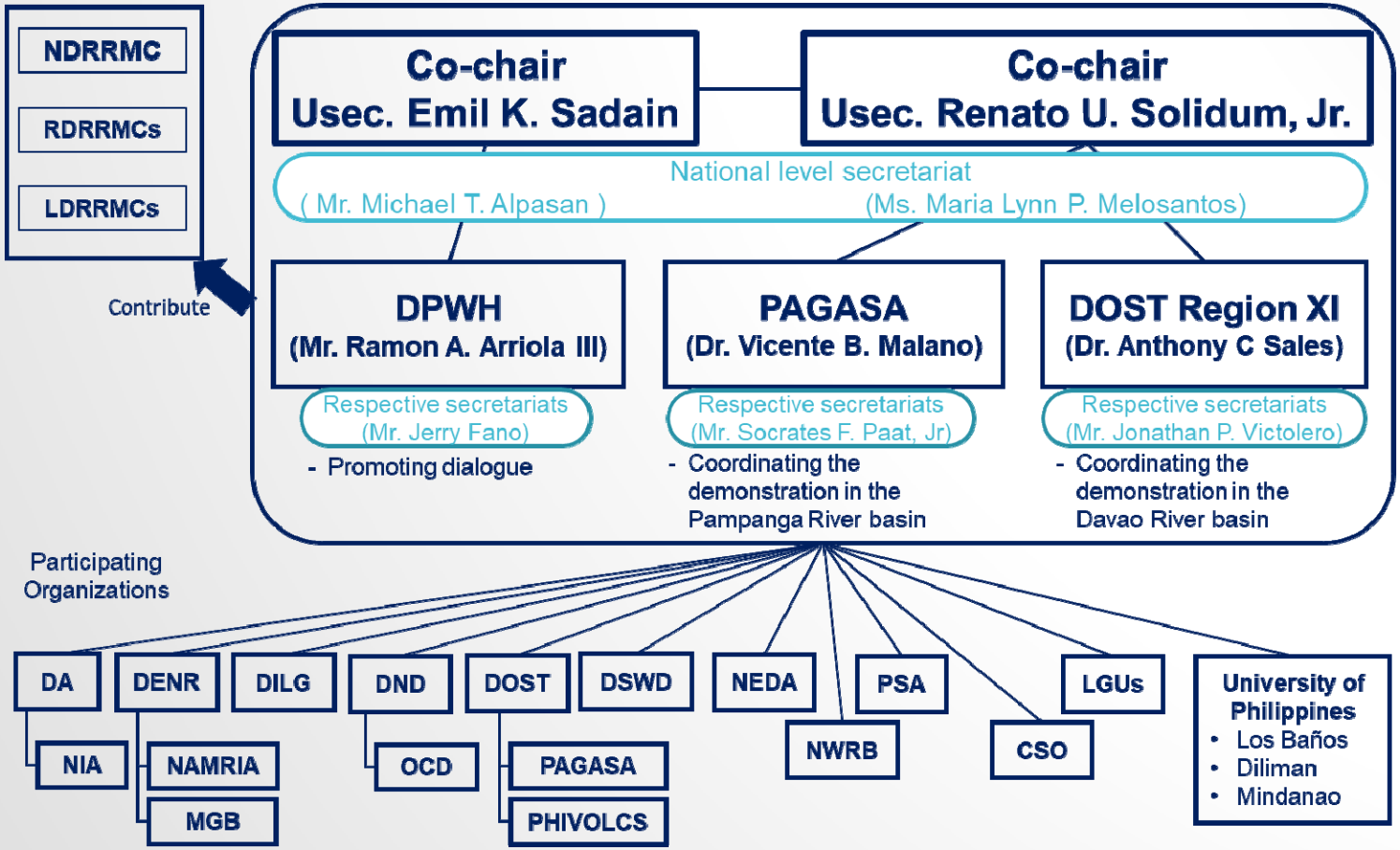
PLATFORM IN THE PHILIPPINES

Online Synthesis System for Sustainability and Resilience (OSS-SR) in Davao City, Philippines

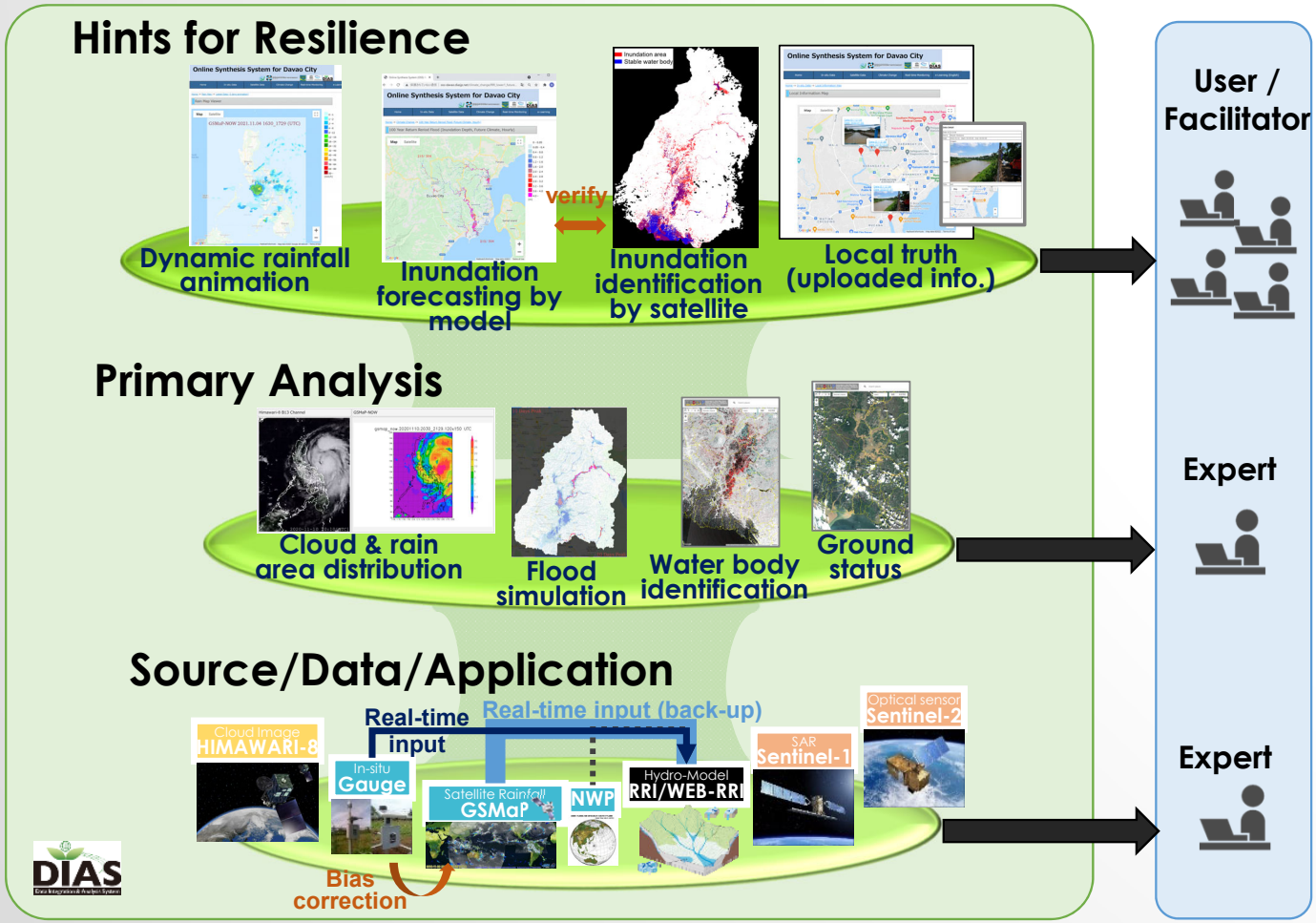


PLATFORM IN THE PHILIPPINES

Institutional Platform

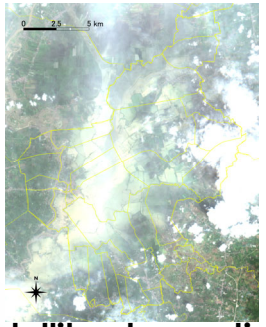


PHILIPPINE OSS: FLOOD FORECASTING FOR OPERATIONAL EWS

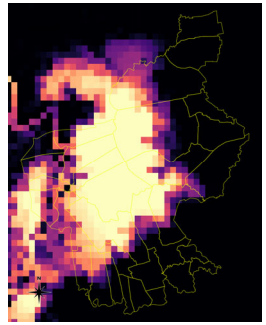


A robust flood forecasting system by the mobilization of all available data/input has been developed in OSS-SR.

The information provision mechanism consists of 3 layers as illustrated in the figure. GSMaP, a satellite-based rainfall, serves as a **backup input** to sustain flood forecasting even if ground gauge rainfall is not available.



Satellite observation (Sentinel-2)



Simulation

Comparison of inundation during Ty. Noru, 2022

TRAINING WS AND DELIVERABLE

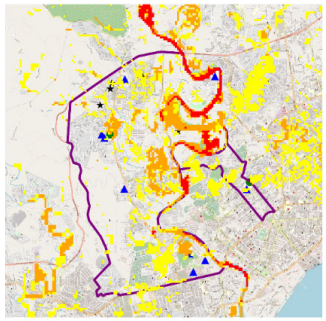
Participants from Different Disciplines

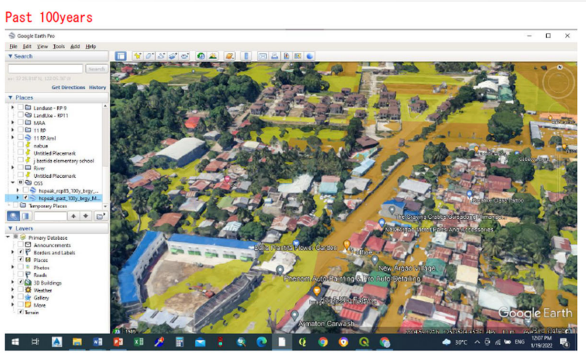
Discipline	1st WS	2nd WS
National Government	11	10
Local Government	2	4
Academe	11	13
Civil Society Organization	1	2
Private Sector	2	1
Media	2	1
TOTAL	29	31

Participants in the Q & A Session

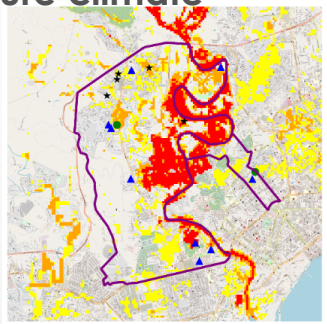
Deliverables of Training

Present climate

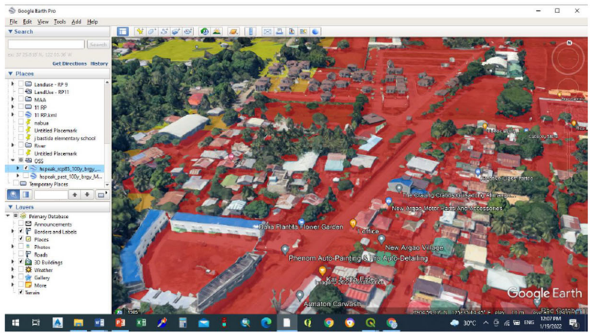




Future climate

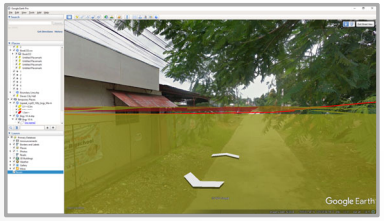


Fine Resolution Hazard Map

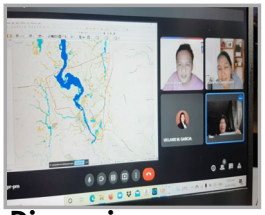


3D Hazard Map

Birds-eye view hazard map



Inundation depth with their houses

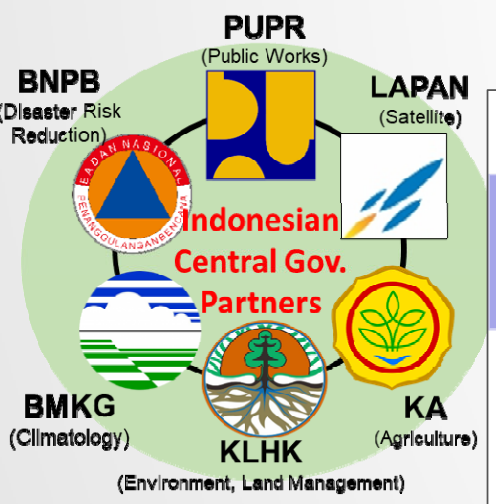


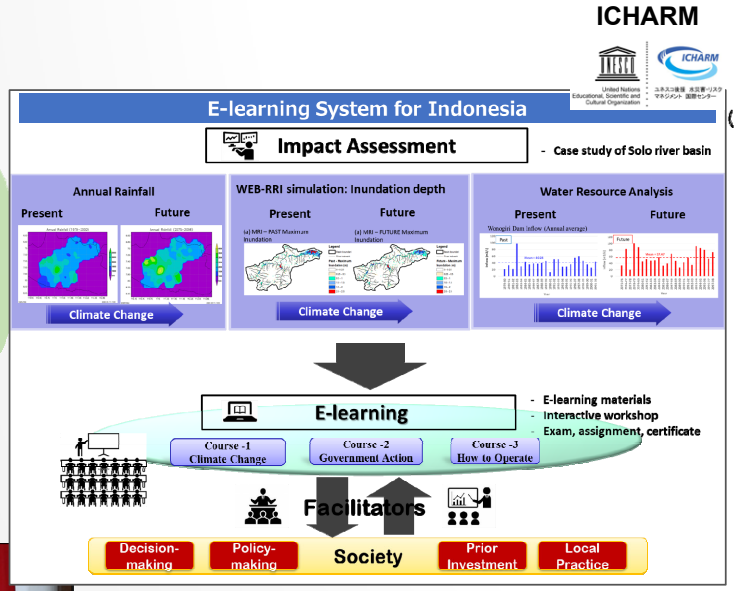
Discussion among participants

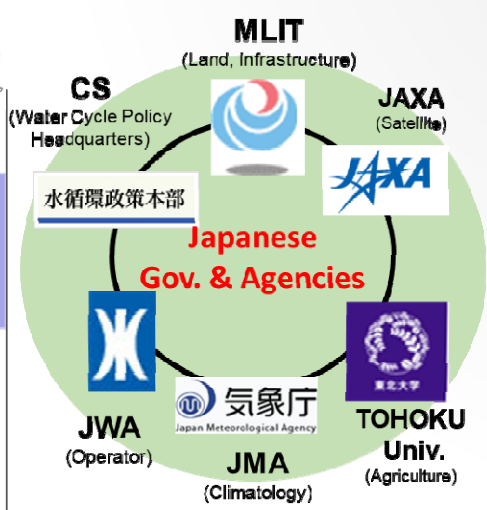
PLATFORM IN INDONESIA

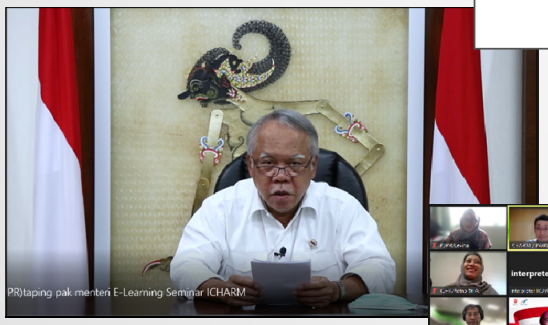
E-LEARNING & WORKSHOPS IN INDONESIA

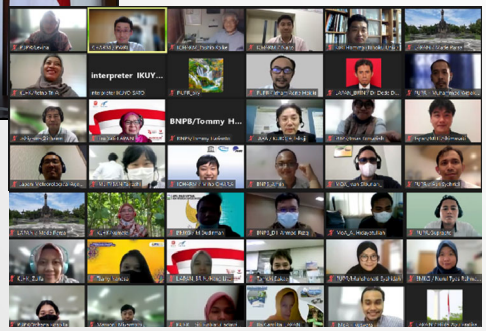
✓ In order to strengthening disaster resilience and achieving sustainable development under climate change in Indonesia, ICHARM with Japanese government agencies implemented e-learning & workshops.











-Opening Session-
Video message from the Minister Basuki, PUPR

Curriculum

- Four (4) lectures on Climate Change (CC)
- Five (5) lectures on Government Action (GOV)
- Four (4) lectures on Operation (OP)

Schedule

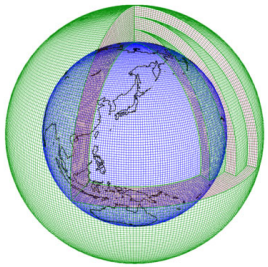
- October 5, Opening Session & CC introduction
- October 12, Workshop Session-1 & GOV introduction
- October 19, Workshop Session-2 & OP introduction
- October 26, Workshop Session-3 & Assignment
- November 5, Closing Session

The one-month e-learning course completed on Nov. 5.
32 experts from 6 organizations successfully got the certificate

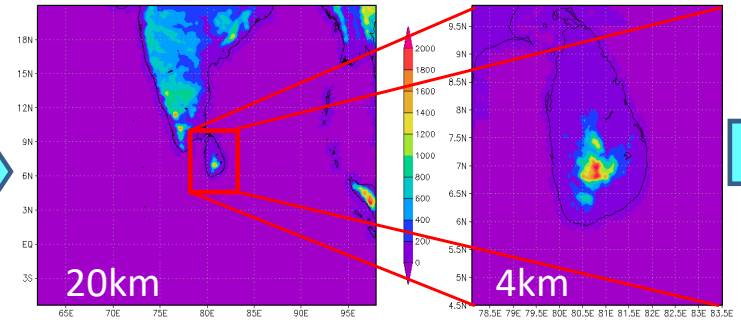
PLATFORM IN SRI LANKA

Sri Lanka OSS: Numerical Model setting

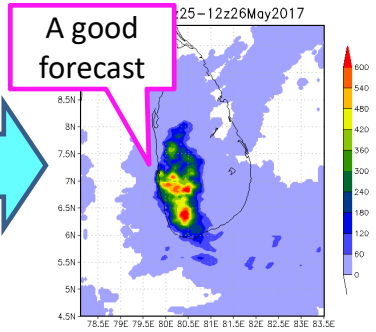
NCEP Global Forecast System (GFS)



Regional NWP model (WRF)

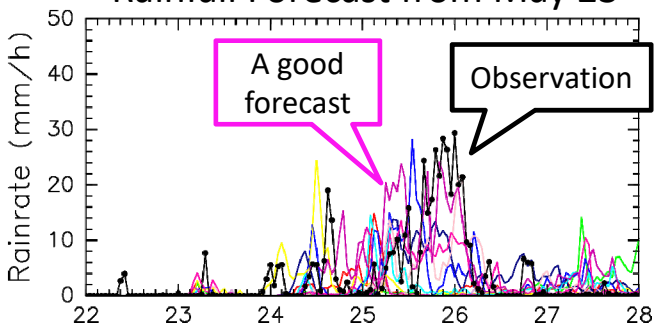


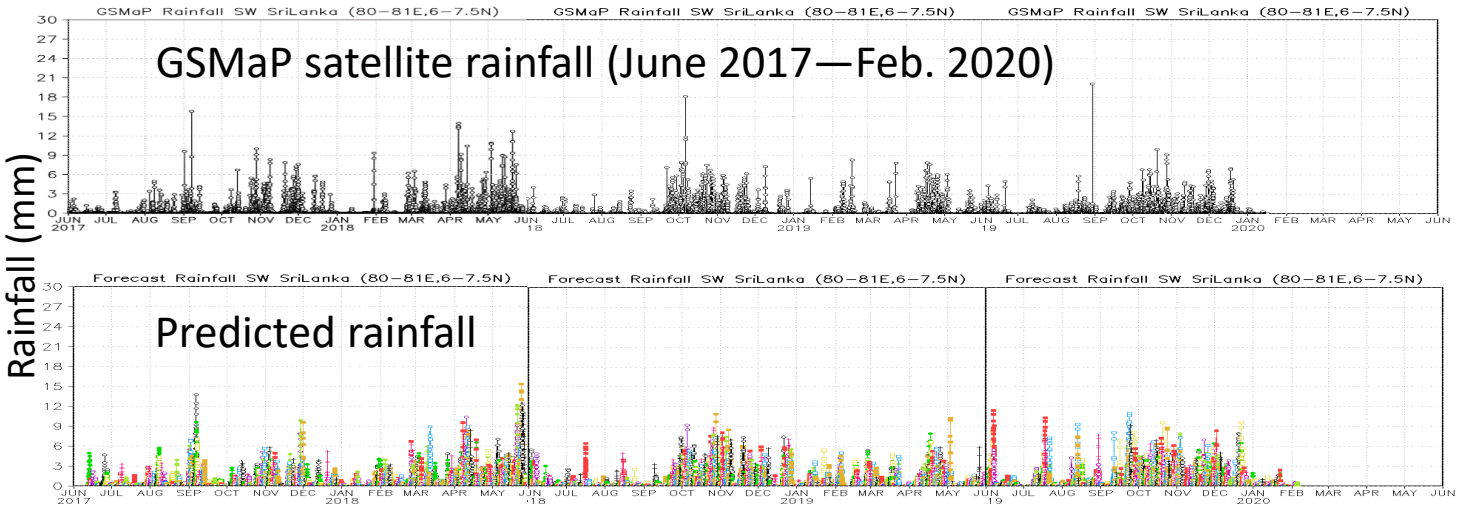
Rainfall distribution



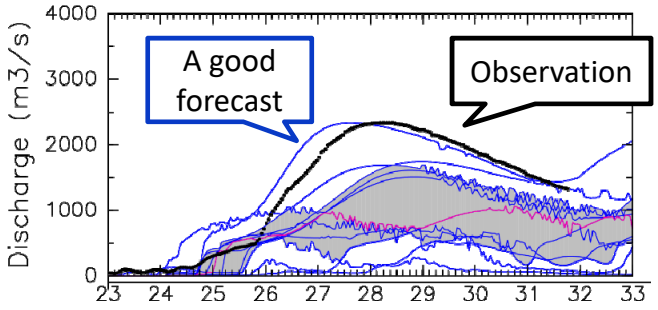
Forecast from 18UTC for 72hours is available at around 01UTC next day.

Rainfall Forecast from May 23

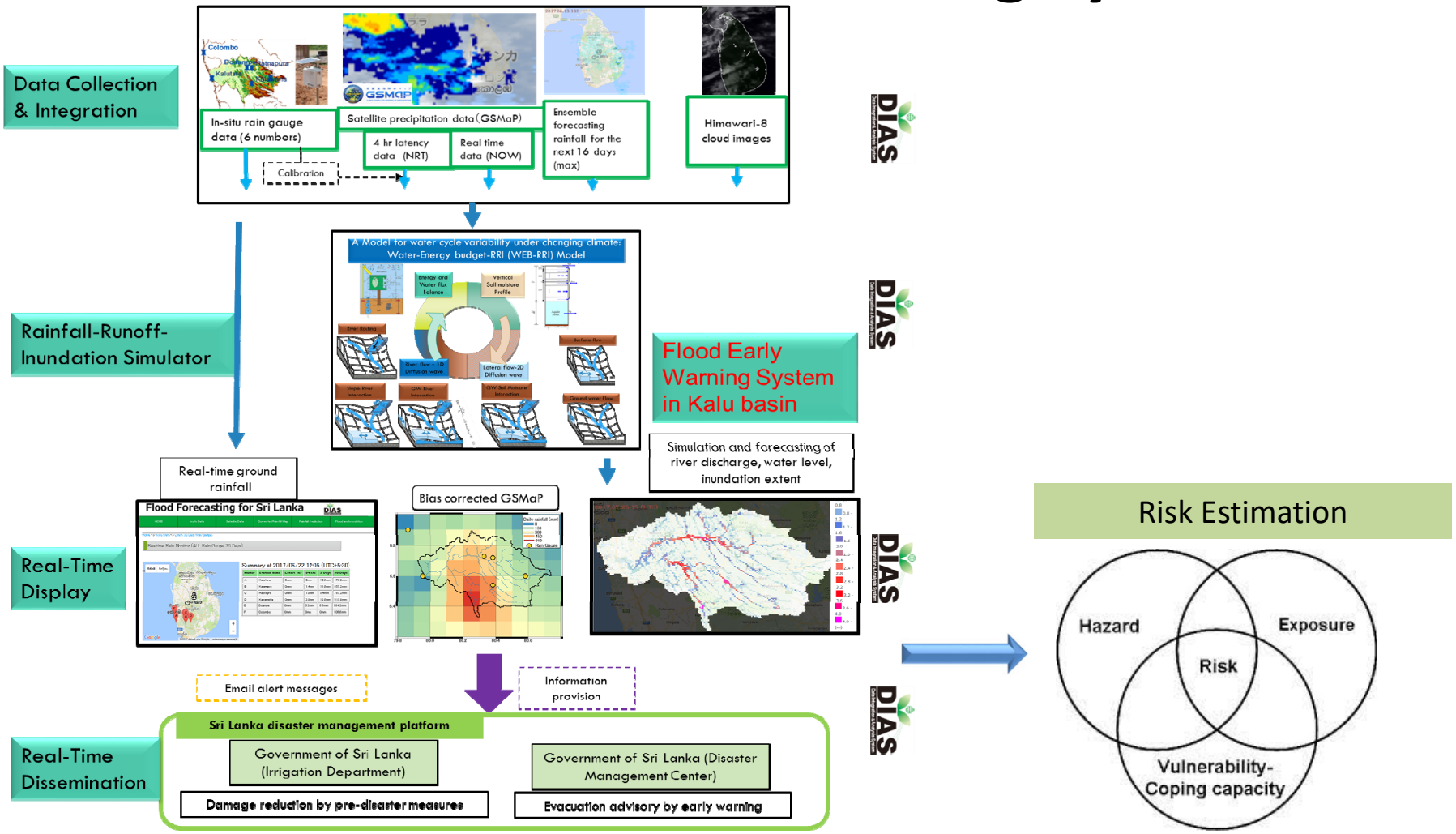




Discharge Forecast from May 23, Putu



Sri Lanka OSS: Flood Forecasting System



http://ff-srilanka.diasjp.net

PLATFORM IN SRI LANKA

2nd Plenary Session of the Platform on Water Resilience and Disasters under IFI

2nd Plenary Session of the Platform on Water Resilience and Disasters under IFI

Participating Stakeholders

- Irrigation Department
- Disaster Management Center
- Meteorological Department
- National Building Research Organization
- Mahaweli Authority

3rd Plenary Session of the Platform on Water Resilience and Disasters under IFI

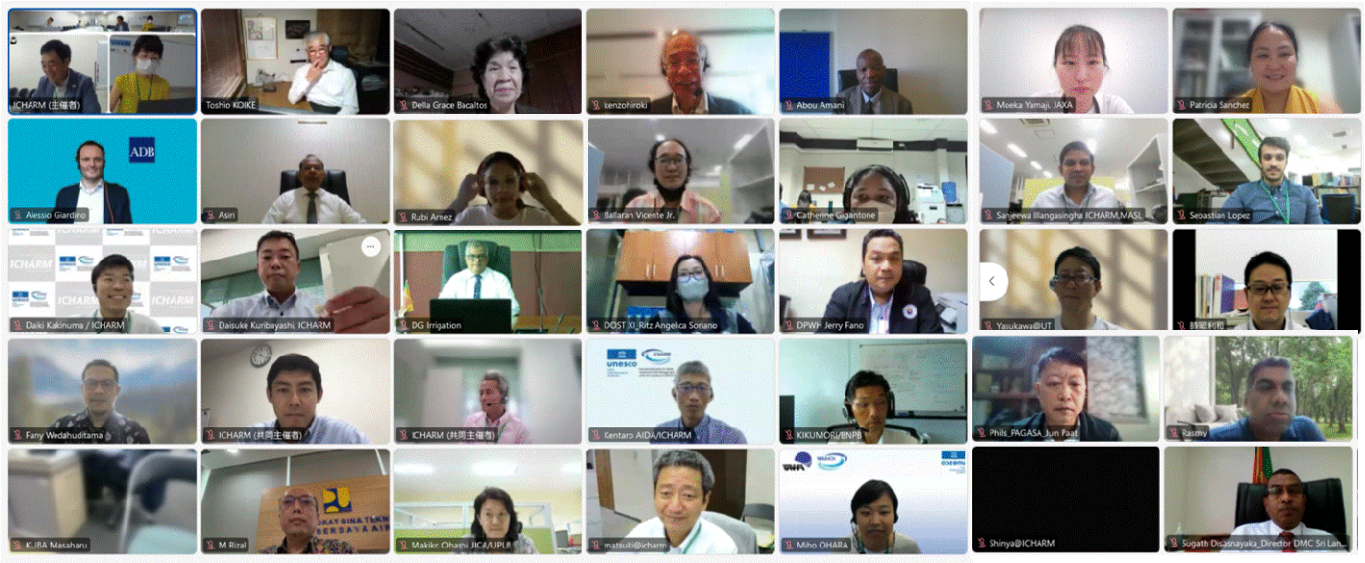
4th Plenary Session of the Platform on Water Resilience and Disasters under IFI

REGIONAL COOPERATION AMONG PLATFORMS

Regional Cooperation through AOGEO

(Asia-Oceania Group on Earth Observations)

September 21 2022, ONLINE



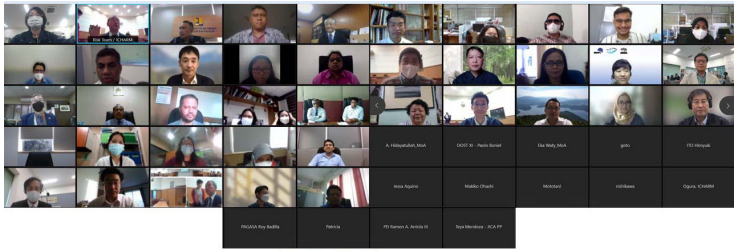
October 24-26, 2018, Kyoto, JAPAN

November 3, 2019, Canberra, Australia,

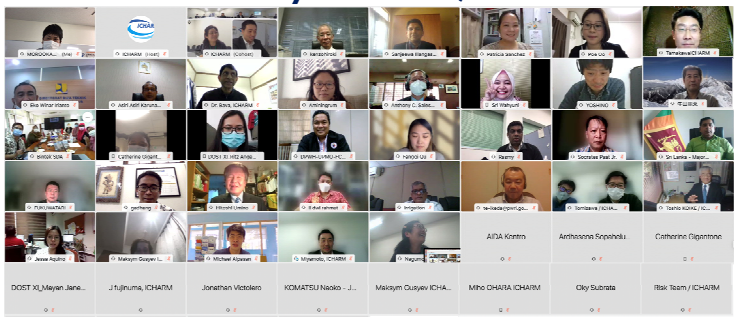
2022 AOGEO Statement (excerpted)

By enhancing the functions of the OSS-SR and the Facilitators and promoting water cycle consilience, Asian Water Cycle Initiative (AWCI) will continue to support the Platforms and their cross-sectoral decision making at local to national levels in order to promote transformation into quality-oriented societies that are resilient, sustainable, and inclusive.

October 29 2021, ONLINE



February 26 2021, ONLINE




Thank you so much
for your kind attentions!
Davao City, Philippines, 2019