



ASEAN Hydroinformatics and Climate Data Center (AHC)

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Outline

1 **NHC** (National
Hydroinformatics and
Climate Data Center)

2 **AHC** (ASEAN
Hydroinformatics and
Climate Data Center)

3 **Collaboration
within ASEAN**

Workshop on
4 **“SMART
Informatics for
Sustainability”**

► Background of National Hydroinformatics and Climate Data Center (NHC)



Thailand 2011 Flood Leads to the Establishment of NHC

Early warning and real time decision making

Flood
sensorweb

Forecast &
modeling

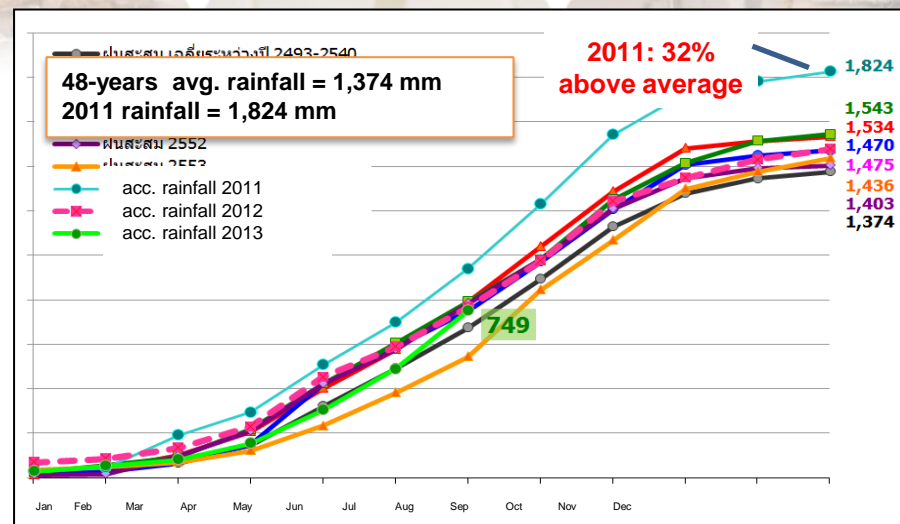
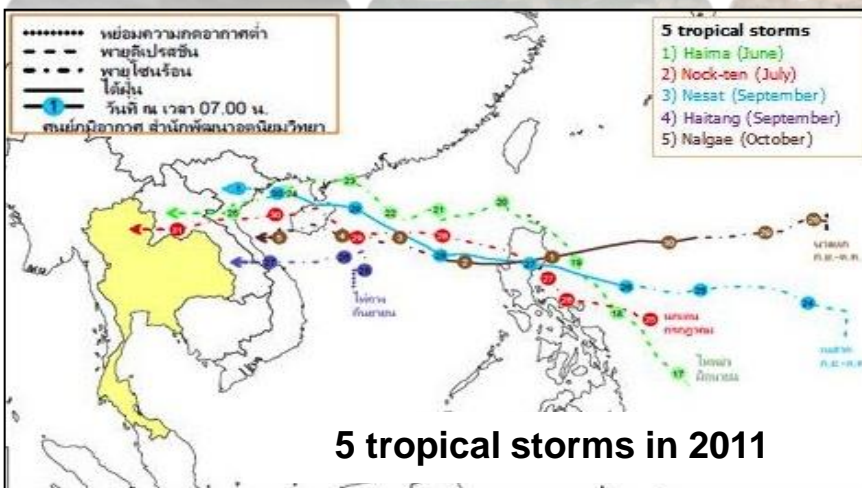
Networking
& cluster

Flash flood &
landslide warning

Reservoir
networking

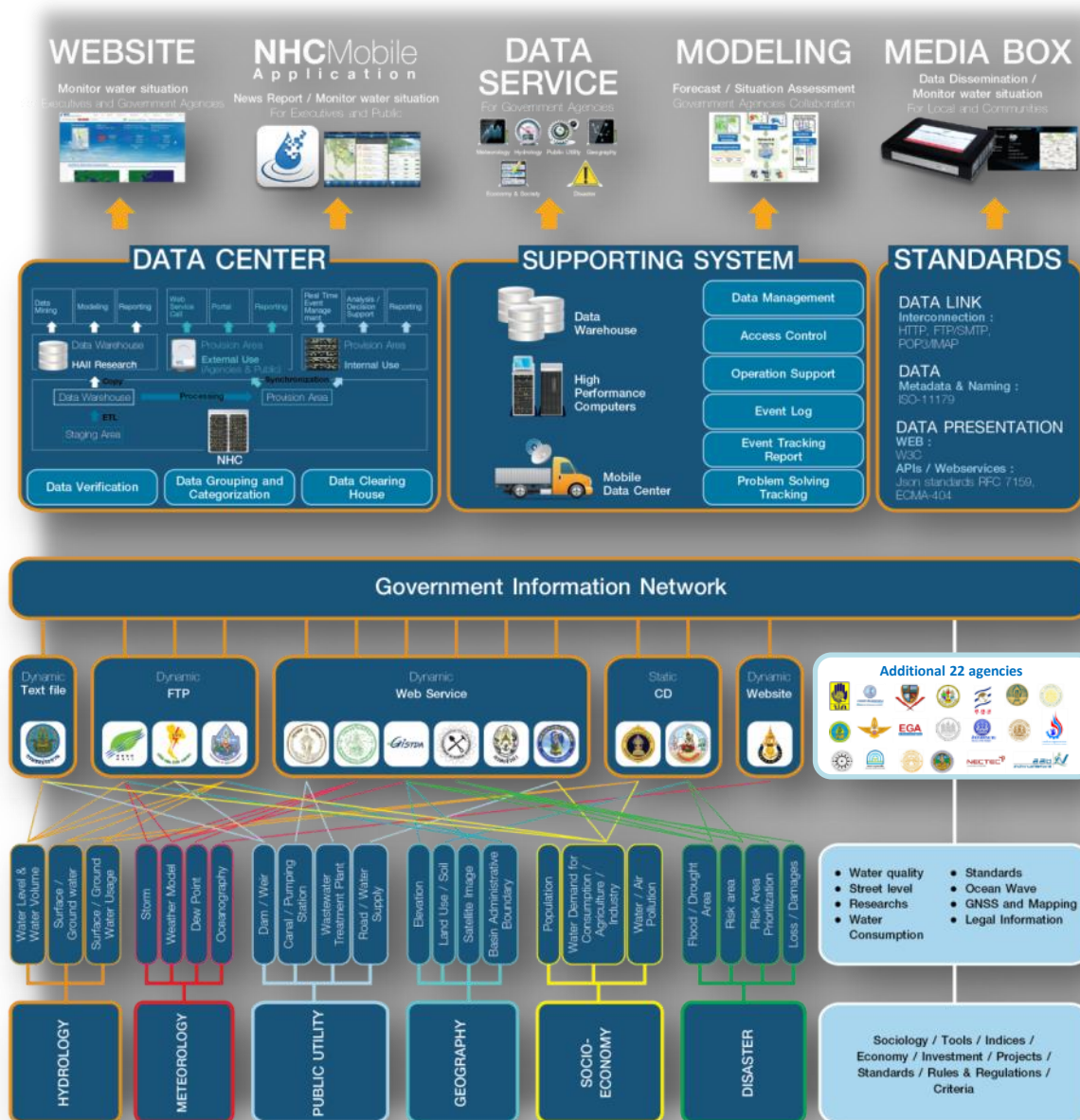
Data
warehouse

Integration of technology for data analysis and flood management



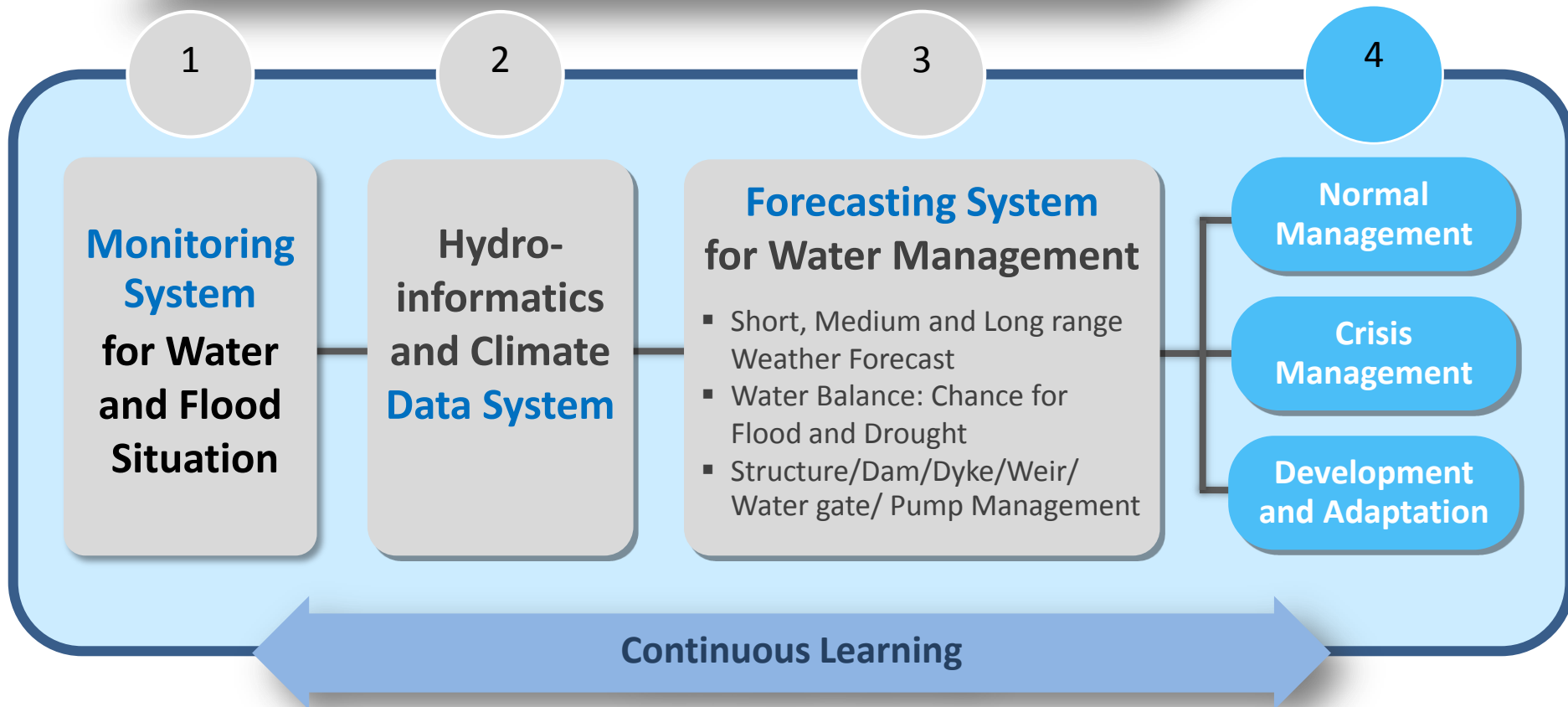
NHC = National Hydroinformatics and Climate Data Center

National Hydroinformatics and Climate Data Center (NHC)



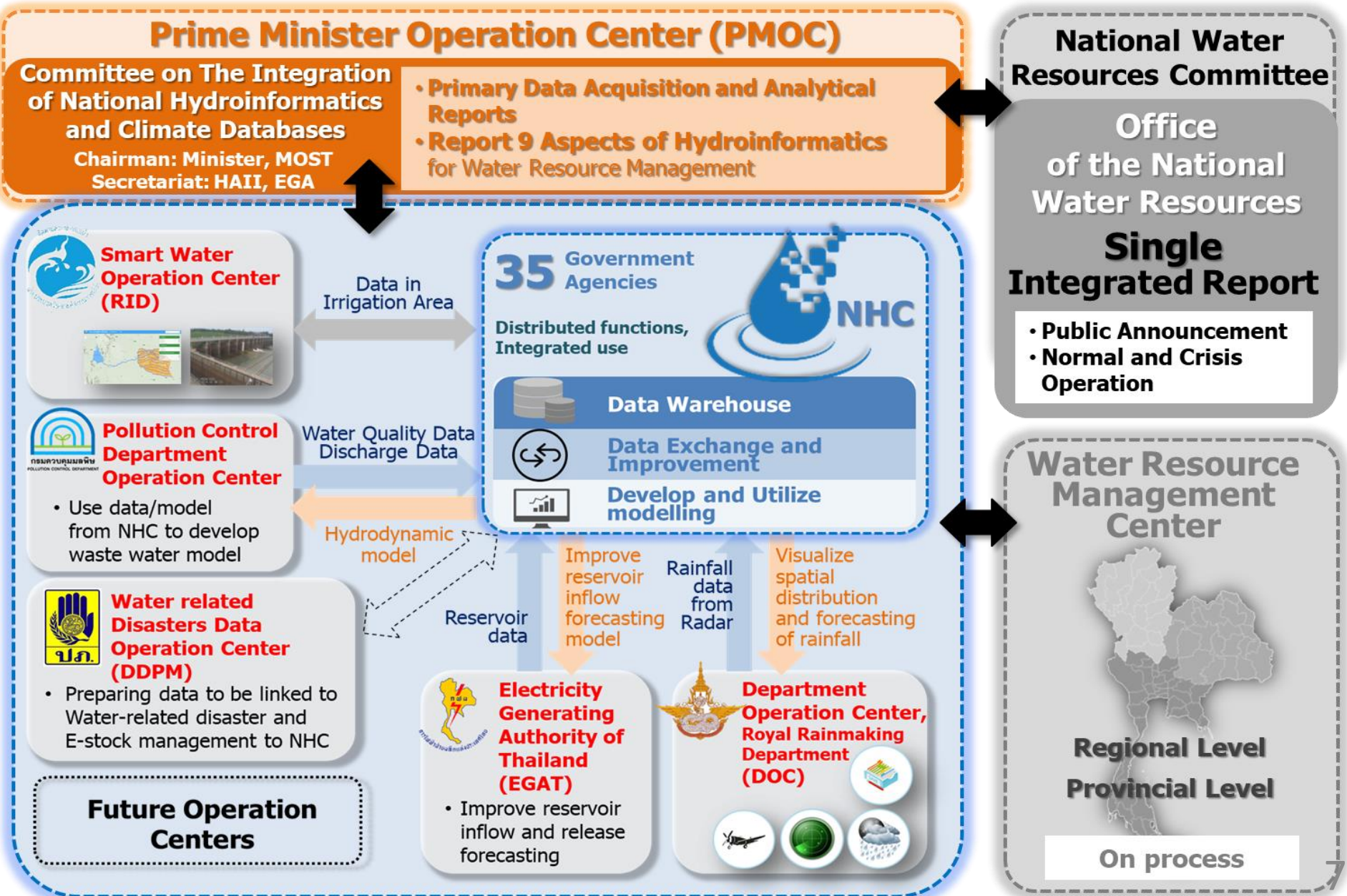
- **Decision Support** Information System
- **Processing and analysis** of water management information
- **Data integration** and exchange among water related agencies
- **De Facto Standard** flexible data format for monitoring, analysis and forecast of water situation
- Unified water management system for both **normal and crisis situation**

S&T for Hydroinformatics





The process and integrated function chart of NHC with the collaboration of the Government Operation Centers to support National Water Resources Management



► From National to Regional

ASEAN Hydroinformatics and Climate Data Center



Structure of STI Cooperation in ASEAN

ASEAN Summit



ASEAN Summit

APSC



ASEAN Political
Security Community Council

AEC



ASEAN Economic
Community Council

ASCC



ASEAN Socio-Cultural
Community Council

AHC

- new initiative project
under the Sub-Committee on
Microelectronics Information
Technology (SCMIT) of
ASEAN Committee on
Science and Technology
(COST).

AMMST/IAMMST

ASEAN Ministerial Meeting on
Science and Technology

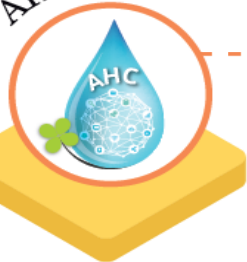
COST



ASEAN Committee on
Science and Technology

Sub-Committees

AHC



ASEAN
Hydroinformatics and
Climate Data Center

SCMIT



Microelectronics and
Information Technology

SCB



Biotechnology

SCMG



Meteorology
and Geophysics

SCMSAT



Marine Science
and Technology

SCNER



Sustainable
Energy Research

SCIRD



S&T Infrastructure and
Resources Development

SCMST



Material Science
and Technology

SCFST



Food Science
and Technology

SCOSA



Space Technology
and Applications

ASEAN Hydroinformatics Center (AHC)

a first step to NEXUS ready



AHC

is an ASEAN Center of hydroinformatics and related technologies for water and disaster risk management.



From:

- Climate Change
- Water-related disasters
- Losses in environmental, economy and society

By:

- Information Technology
- Data integration
- Decentralized Information
- Hydroinformatics

To:

- Awareness
- Preparedness
- Implementation
- Actionable Learnings and Practices
- Development

ASEAN Hydroinformatics Center (AHC)

a first step to NEXUS ready



Aims

Platform for information and knowledge sharing, strengthening ASEAN capacity collaboration in water and disaster risk management, and climate change adaptation



Do

- To promote S&T implementation for water management and DRR in ASEAN
- To share experiences and good practices
- To strengthen capacity in applying hydroinformatics among ASEAN

URL

www.aseanwater.net



Connectivity of IT tools

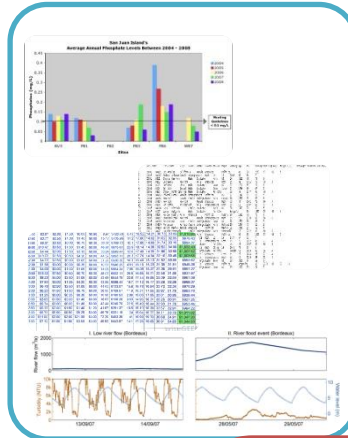
for Water and Disaster Risk Management



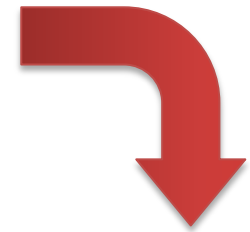
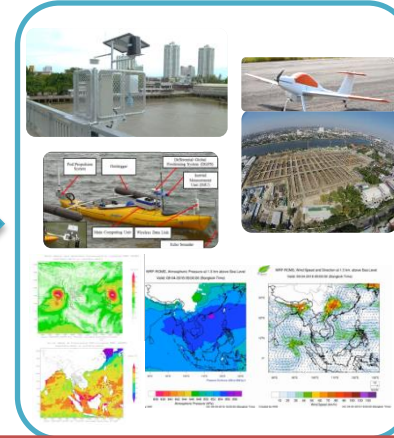
Water-related Challenges



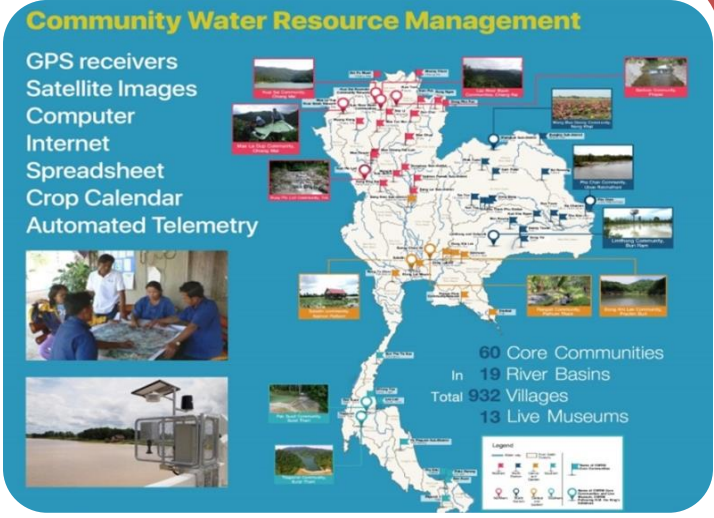
Variety of Information



Information Technology Tools



Information technologies are essential to enhance efficiency of holistic WDRM.



Beneficial to all ASEAN community



ASEAN

- Support the work of cross - sectoral of ASEAN related to WDRM.
- Active web-based information system for sustainable ASEAN WDRM.

SOCIAL

- Provide time-relevant information to users in easily understood manner for daily decision-making process
- Community-based organization and learning network

ECONOMIC

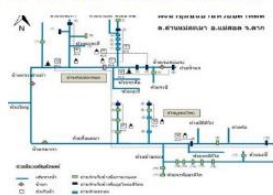
- Cost-effective usage to reduce losses in water and disaster recovery
- Overcome WDRM challenges faced in Agriculture and optimize food production
- Ensure water and food security

ENVIRONMENTAL

- Solve the future water scarcity issue
- Sustainability



TOOLS AND TECHNOLOGIES



WATER DIAGRAM

Water Diagram A graphic representing the direction of water flow ...

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MOBILE APPLICATION

ThaiWater Mobile Application A mobile application that provide water and ...

[READ MORE](#)

GOOD PRACTICES



PATTANI RIVER BASIN NETWORK

Pattani River Basin Network Background: Pattani river basin covers 3,805.65 ...

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APPLICATION OF SCIENCE AND TECHNOLOGY FOR COMMUNITY WATER-RELATED DISASTER RISK REDUCTION

Application of Science and Technology for Community Water-Related Disaster Risk ...

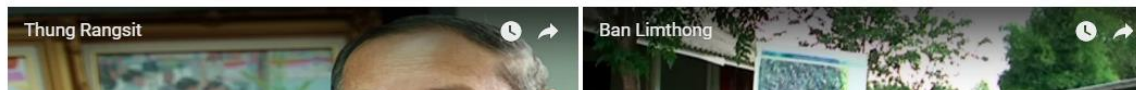
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OUR MEMBERS



Science and Technology for Future Sustainability

AHC also focus on the implementation and dissemination of the outcome by generating actionable learnings and promoting practical use of IT at community level to raise community action on disaster awareness and preparedness. This will also contributes to the inspiring UN's Sustainable Development Goals and ensure a safer forthcoming for ASEAN.



- ➔ About AHC
- ➔ Journey for One ASEAN
- ➔ Information
- ➔ Tools & Technologies
- ➔ Good Practices

► Collaboration within ASEAN



Connectivity in 2017: Lao PDR



Date: 8 – 11 August 2017

Venue: Vientiane, Lao PDR



Objectives

- Introduce AHC Concept
- Expand the collaboration for AHC project with the government and private agencies in Lao PDR



Outcomes

- Lao PDR is willing to join AHC and interested to create a website www.laowater.net

Connectivity in 2017: Lao PDR



JOINT RESEARCH AND DEVELOPMENT PROJECT

on Science and Technology usage for Water Resource Management

You are here: Home

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- Objectives
- Project Details
- NEWS-Activities

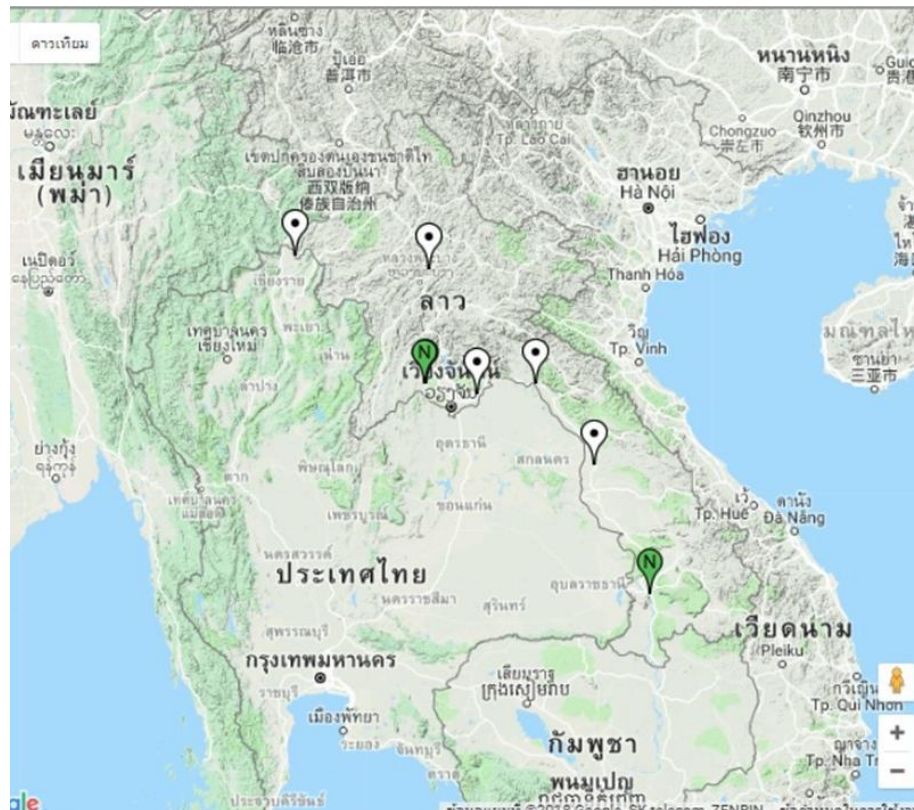
Login Form

User Name

Password

Remember Me ☐

[Forgot your password?](#)
[Forgot your username?](#)
[Create an account](#)



8 telemetry stations along the main rivers in Lao PDR

- Nam Ngum
- Nam Ou
- Nam Kading
- Xe Bangfai
- Bo Keo
- Pakse
- Ban Nathiam (2 stations)

<http://job.haii.or.th/LAOS/>

Connectivity in 2017: Vietnam



Date: 4 – 6 September 2017

Venue: Hanoi, Vietnam



Objectives

- Introduce AHC Concept
- Expand the collaboration for AHC project with the academia, government and private agencies, in Vietnam

Outcomes

- 3 Ministries in Vietnam: MOST, MONRE (IMHEN, NHMS), and MARD are agreed to collaborate in **Data integration, Modelling, Community Water Resource Management: CWRM, Capacity Building**
- MOST, Vietnam is a main contact organization.

Connectivity in 2017: Myanmar



Date: 10 - 11 September 2017

Venue: Yangon, Myanmar



Objectives

- Introduce AHC Concept
- Expand the collaboration for AHC project with the government and private agencies in Myanmar

Outcomes

- Statement of Cooperation on Technology for Water Resource Management between HAIL and DWIR
- Community Water Resource Management: CWRM

► Workshop on SMART Informatics for Sustainability





Workshop on

SMART Informatics for Sustainability

21-23 March 2018

Royal Orchid Sheraton Hotel, Bangkok, Thailand



Objectives

- Promote hydroinformatics implementation for efficient water management reduction within ASEAN
- Strengthen ASEAN connectivity
- Informatics implementation and application towards sustainability

Expected Outcomes

- Technology matching, knowledge sharing and capacity building among ASEAN
- Connectivity for new AHC member

THANK YOU



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