# MEETING REPORT

## ON WATER DATA ROUND TABLE MEETING

**11th Lower Mekong Initiative Working Group Meeting**
May 2, 2018, Nay Pyi Taw, Myanmar

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# Water Data Round Table Meeting, 11th Lower Mekong Initiative Working Group Meeting

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## Background/Overview

*1.* At the 10th LMI Ministerial Meeting, the LMI Country Members agreed that improvement of water resources and data management is a priority for the Mekong region. As a next step, and on the sidelines of the 10th LMI Working Group meeting in Vientiane in November 2017, the United States and the Mekong River Commission hosted a Meeting on Improving Data for Water Resources Management. Participants engaged in discussions that identified a scope around key challenges and opportunities as well as topics to be explored in follow up discussions. The Water Data Round Table special session, held on the sidelines of the 11th LMI Working Group meeting, was continuation of the dialogue to identify what are the critical data and information service gaps, why we should prioritize addressing those gaps, and how to take action within a common vision.

*2.* Opening: Participants were welcomed and the meeting facilitator provided background information. The goal of the meeting was stated, namely to identify concrete actions to strengthen water-related data management in the Mekong region.

*3.* The agenda was introduced, outlining the four consecutive sessions:

*Session 1. The Data Vision: Keynote presentations (the What);*
*Session 2. Making the Case: Technical expert panel (the Why);*
*Session 3. Developing an Action Plan: Small group exercise (the How);* and
*Session 4. Discussion Session: Formalizing an Action Plan (Moving forward).*

## Session I. The Data Vision; "What type of data do we need?"

*4.* Overview of Mekong River Commission (MRC) and Member Countries Perspectives on Data and Data Services: An operational overview of Mekong water resources data and data services in connection with the MRC was presented. Under the MRC's core function in river basin management, the organization is mandated to provide five core data services to its Members (excluding Myanmar) including:

*a. Data acquisition, exchange and monitoring;*
*b. Analysis, modeling and assessment;*
*c. Planning support;*
*d. Forecasting, warning and emergency response; and*
*e. Implementing MRC procedures.*

*5.* In terms of data availability on flood and drought forecasting and reporting, the MRC utilizes its own data from Mekong HYCOS (Hydrological Cycle Observing System) and AHNIP (Appropriate Hydrological Network Improvement) projects, and near real-time daily rainfall data derived from 136 automatic and manual hydro-met stations located across the region. The data is analyzed and integrated with daily estimated rainfall satellite data from the U.S. National Oceanic and Atmospheric Administration (NOAA) and regional GTS (Global Telecommunication System). Challenges in forecasting and reporting mentioned include low resolution and inaccurate satellite data, non-functioning hydro-met stations, and lack of hydro-met stations installed across the region.

6. The MRC databases that display and share data in both public and restricted fora include the MRC data portal (www.mrcmekong.org), MekongInfo.org, geospatial database, and socioeconomic database. To enhance data sharing, analysis and coordination, specific data and equipment was deemed a priority including higher resolution satellite rainfall data and additional telemetry and water level/ rainfall monitoring stations along the Mekong mainstream and its tributaries. To modernizing the sharing of data there is a need to revisit MRC's data accessibility guidance and guidelines i.e. Procedures for Data and Information Exchange and Sharing (PDIES), and to find better ways to collect and integrate data into global data sets.

7. Setting the scene-Interim findings from the Rapid Needs Assessment (RNA) 'Improving Mekong Water Data Management' study: Over 25 governmental and non-governmental stakeholders across the Mekong region have been interviewed and provided inputs and insights for the ongoing study, conducted by the LMI Sustainable Infrastructure Partnership.

8. Key messages that came out of the RNA included:

a. *There are increasing demands from stakeholders to better understand the Mekong River and threats it faces*
b. *There was consensus among stakeholders about the need for another initiative that builds capacity and fills gaps in water-related data management, and can work in collaboration with existing initiatives*
c. *It is essential to understand the water data users and their demands*
d. *Local stakeholders are still in need of timely information on flood and drought risks, as well as data on usual/average flows*
e. *Water data does not only refer to of hydrometeorlogical data, but also other associated resource and development areas such as ecosystem, social/livelihood, water quality, and development policies and projects, etc.*

9. At least eight opportunities have been identified through the RNA including:

a. *Expand accessibility of regional hydrological and flood forecast data,*
b. *Modernize hydro-met data collection and monitoring methodology*
c. *Update and share regional land-use and spatial data*
d. *Increase regional water quality monitoring stations through participation of local communities*
e. *Design an efficient methodology for water resources-based socioeconomic and livelihood survey and database development*
f. *Develop an early warning mobile application tool*
g. *Develop a web-based data sharing platform and impact assessment tool*
h. *Build national capacity in groundwater and water quality monitoring*

10. Additional comments and questions from round table participants are summarized below.

a. *Capacity and financial support at country level for data collection and management is needed*
b. *The issue of standard format for regional data is still unclear among technical teams*
c. *Data and analysis on gender, socioeconomic and ethnicity is still missing*
d. *The question "why do we need water data?" could be a perfect entry point for political buy-in and how the data management process can be designed to meet stakeholders' needs*
e. *Dimensions of water data such as timing, location, quality, and quantity must be clearly articulated*
f. *How can water data from the upstream or non-member country, such as China, be shared andintegrated?*
g. *How can we ensure that all relevant sectoral data is integrated and that critical information is conveyed to data users and communities whose livelihoods depend on such information?*

## Session 2. Making the Case: Technical expert panel; "Why do we need data and why does it matter to us?"

*11.* Modernizing data access: Data has value and ownership but needs to be used (i.e. converted into information) to realize that value. Data use becomes is a value proposition between data producers and data users where mutual trust matters. There must be a direct connection between the data producer/owner and user whereby data is not necessarily shared openly, but rather the owner provides controlled access to the data to authorized collaborators and users.

Data owners and users can also interact with analysis and computing. Participants were introduced to the data sharing product tool "Global File System" (GFS). It is a new tool or platform for data collaboration. The GFS – free of charge for non-specific use – gives users read-only access to various repositories i.e. regional, institutional, individuals, etc., and allows users to interrogate the sources of data.

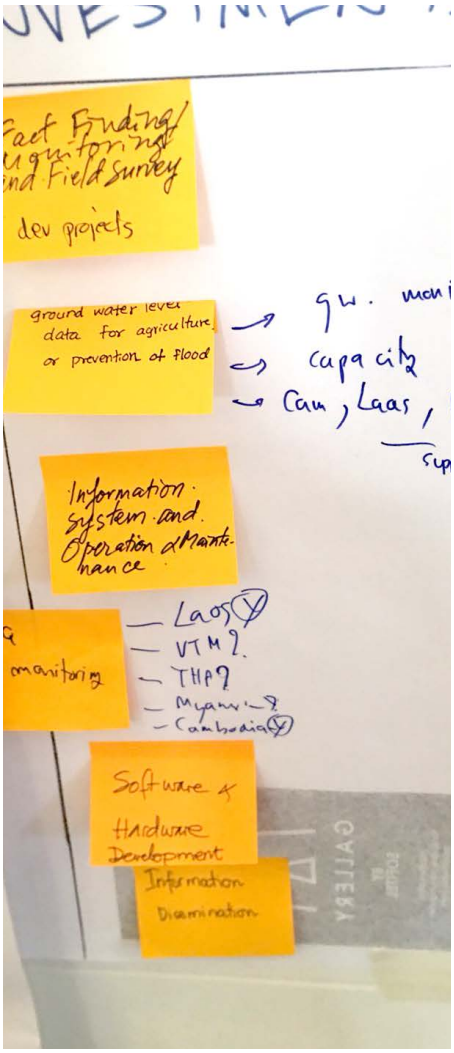
The goal of a Mekong-specialized system would be to meet everyone's data collection needs while also controlling data access and reducing low quality data and "data graveyards." In the Lower Mekong, data repositories already exist but there is an opportunity for the GFS tool – or something similar - to further catalyze data collection and grow a data collaboration ecosystem.

*12.* Participants discussed the needs and significant uses of water data for the Mekong, including but not limited to:

*a. The sedimentation study and cumulative impact assessment, conducted as part of the MRC Council Study, should be conducted routinely*
*b. The MRC could host a data platform between the five Lower Mekong Countries and China*
*c. Mekong climate and flow data are important and could help stakeholders to assess whether upstream flow management is a main cause of unusual flows*
*d. Flow modeling efforts should be expanded as much as possible and with more dimensions such as water quality, sedimentation, and salinity. Only flow models are being assessed downstream from Cambodia to Viet Nam, but not from Laos to Thailand*
*e. Each country has different needs and demands for different services and products*
*f. Disaster warnings might be more efficiently prepared at national level, not at the MRC level*
*g. There may be opportunities to better organize the MRC website by "use" functions, as currently it is organized by alphabetical order.*

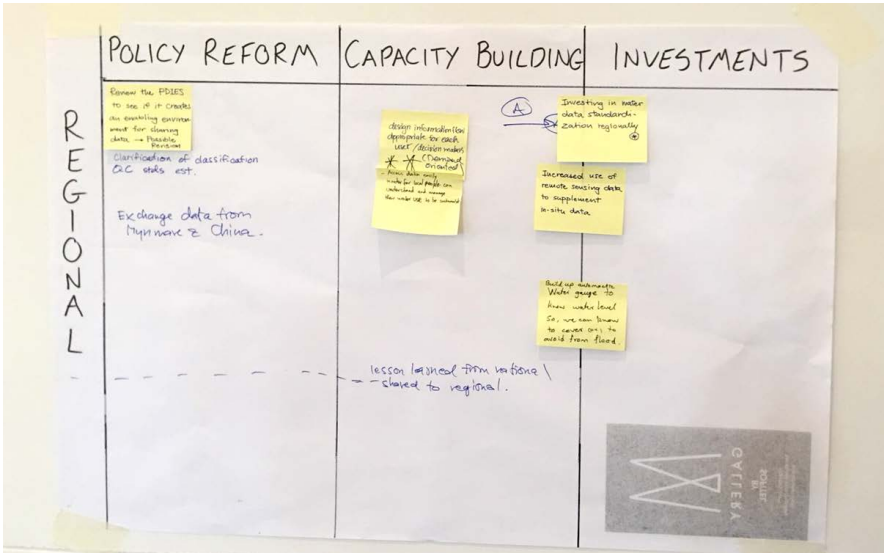
*13.* The question, "how can we make better decisions to reach our goals?" was agreed to be an appropriate starting point to help reach consensus about data priorities for the region. For the Mekong, there is an opportunity to "leapfrog" some challenges, based on experiences from many other countries that have gone through a stepwise process. A model can be designed to be people-centered; e.g., we can demonstrate how changes in river flows will impact women and children in particular areas. It is important to take into account that surface water and groundwater are intrinsically linked across borders, especially in Vietnam and Cambodia, where the water resources are very much shared, and data would highlight this link. What data will bring high value returns, and how do we make that assessment? This is also an important question to answer.

*14.* What happens after the data is shared? Without identifying the problem before collecting or selecting the data, the data may not be used appropriately or cannot be utilized by the users. An example from USAID-Mekong SERVIR showed that the information that was produced by the project was too scientific for local farmers and the data had too many gaps. In this case, the project team learned to directly engage data users to assess the information demand before identifying the data and outputs. There is a need to translate data/information and present it in a simple format so that it is accessible to, and can be used by, a variety of stakeholders. Once the data has been put to use, governments will be more interested and willing to invest in data acquisition and dissemination frameworks and tools.




# Session 3. Developing an Action Plan: Small group exercise, "How can we turn these into actions?"

*15.* Participants were divided into four small groups to conduct an action plan brainstorming exercise, breaking down potential action into national and regional level and the areas of "policy reform", "capacity building", and "investment." The summary from each group is presented below:




## *16. Group 1*

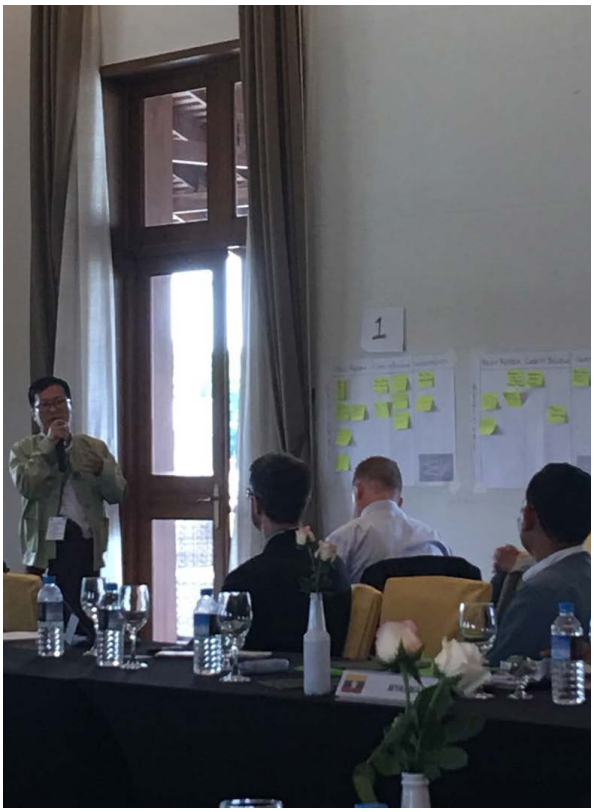
| | Policy Reform | Capacity Building | Investment |
|---|---|---|---|
| National | • Decision making-based priority for data<br>• Revisiting existing policies<br>• Form an implementing body/agency | • Local capacity in making use of data and information<br>• Standard format and guidelines<br>• Set up a technical working group | • Human resources, particularly data experts |
| Regional | • Empower the MRC and its mandates<br>• Continued research and basin scenario planning<br>• Decision making-based priority for data<br>• Inclusive stakeholder policy | • Multidisciplinary trainings<br>• Inclusiveness and shared views | • More stations and updated software for HYCOS |

## 17. Group 2

| | Policy Reform | Capacity Building | Investment |
|---|---|---|---|
| National | • Law and regulation enforcement<br>• Conduct national data needs assessment<br>• Nexus assessment and planning<br>• Water tax<br>• Structural reform. | • Improved data collection methodologies<br>• Basic knowledge on water resources and hydrology<br>• Number of staff<br>• Data accessibility for local communities for sustainable water management. | • Public private partnership<br>• National and sub-national pilot projects<br>• Additional telemetry stations but ensure they are used and well maintained<br>• Automatic water gauge to warn of flood risk. |
| Regional | • Revisiting PDIES<br>• Exchange of data between Myanmar and China<br>• Quality assurance standard. | • User and decision making-oriented trainings<br>• Share lessons learnt from national to regional. | • Regional standard format<br>• Remote sensing data. |

## 18. Group 3

| | Policy Reform | Capacity Building | Investment |
|---|---|---|---|
| National | • Decentralized policy<br>• Promote security and peace<br>• Coordination across sectors. | • Build capacity of local actors to access and comprehend MRC data<br>• Public participation, awareness program, and knowledge sharing. | • User-friendly software and applications<br>• Hydro-met monitoring system. |
| Regional | • More open shared data, and networking<br>• Lessons learnt and revisit existing policies<br>• EU transboundary river policies. | • Use of technical data<br>• National and regional integration<br>• Mekong Institution of technology<br>• Exchange visits between countries, joint research and studies<br>• Training programs. | • Infrastructure water monitoring stations along the basins<br>• University (Myanmar)<br>• Fund for research and assessment studies<br>• Update Mekong cross-section data<br>• New models and tools. |




## 19. Group 4

| | Policy Reform | Capacity Building | Investment |
|---|---|---|---|
| National | • Strengthen national data and centralized platform. | • Strengthening data collection and sharing<br>• Assessing data gaps<br>• Improving the use of data for EIA, modeling projects and development. | • Data collection in field survey, water quality, and groundwater<br>• Data maintenance on hardware and software<br>• Transforming data into actionable information<br>• Data web portal. |
| Regional | • Improve communication, bilaterally and regionally<br>• Data collaboration and sharing. | • Study tours to USA and EU<br>• Technical assistance<br>• Water data monitoring and forecast | • Improve reporting and stakeholder participation<br>• Incentives for private sector investment<br>• Regional datasets<br>• Times series data<br>• IWRM<br>• Water quality<br>• Satellite<br>• Discharged sediment monitoring. |

# Session 4. Discussion Session: "Formalizing an Action Plan"

*20.* As a result of the consensus reached around water data needs and opportunities during the meeting, there was a proposition to prepare a draft Memorandum of Understanding (MoU) to be presented at the next Ministerial meeting. The draft MoU could promulgate a collaborative effort around water resources data between the LMI Member Countries, FLM, the MRC and possibly other stakeholders. A formal statement could put political momentum behind the actions that were discussed, and to get senior leadership on board.


*21.* There was a recommendation that 'softer' agreements such as a Letters of Intent could a more productive way forward. The substance should be broad and structured only by principles. An MoU could be used in terms of a project framework. A direct MoU between the MRC and LMI was also discussed, though it was pointed out the MRC would not be the sole focus of data management efforts.

*22.* Participants requested further details on types of collaboration between the MRC Member Countries and LMI. Participants wished to bring attention to this at other national government levels and individual MoFAs before a formal commitment is made.

*23.* It was agreed that a draft MoU would be provided by the United States in advance of the next LMI Senior Officials' Meeting (SOM) in June.

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