

## Need Assessment Workshop on Trans-boundary water allocation and monitoring tools in Vietnam

### Hội thảo giới thiệu công cụ giám sát và phân bổ nguồn nước liên tỉnh liên quốc gia ở Việt nam

Monday 02 July 2018, NAWAPI, Hanoi

#### Background

Water resource availability in Viet Nam is heavily concentrated within transboundary basins. The sustainable management of this resource has direct implication for economic growth and the provisioning of ecosystem services. Agriculture accounts for almost 80 % of available surface water use. Rapid economic development brings with it changes in land-use, increasing urbanization, infrastructure development, migration patterns and climate risk, which are increasing other sectoral water demand. Increasing demands on water from different sectors, growing water scarcity and climate variability have necessitated improved allocation strategies. Allocation of water resources between and within different sectors and for different uses, is one of the biggest challenges confronting planners of water resource management. The complexities are further increased when considering the water-food-energy-ecosystems interdependencies. Tools and approaches to create a common baseline in terms of understanding current water availability, use and tradeoffs as well as future scenarios are needed to support decision making on appropriate policies, strategies and planning for sustainable water resource management.

Water resource models have been used for planning purposes to assess the impacts of various decisions, policy and scenarios on wide ranging components of water management that include water availability, allocation, ecological restoration, managing complex regional systems to name a few. However, much of the technical complexity associated with the application of these models are largely confined to skilled personnel in the field of water management who are required to communicate these impacts to a diversity of stakeholders of varying technical capacity higher and lower in the administrative hierarchy (from decision makers to the field professional). The commercial nature of some of these models restrict their availability and usage for planning purposes owing to the expense of licensing the software platforms. The era of cloud-based platforms opens new avenues for water professionals to create simplified scenario assessment platforms linking with the modelling system embedded in web servers that provides easy accessibility and use. In addition, the web interface can be customized to suit the needs of different stakeholders in the modelled area to access relevant information of varying complexity.

The SERVIR-Mekong project, a regional initiative supported by USAID and NASA, implemented by the Asian Disaster Preparedness Center (ADPC) is developing geospatial and modelling tools to support national agencies. As a part of its effort to support water management efforts in the Lower Mekong region, SERVIR-Mekong in collaboration Vietnam International Water Week VACI2019, an International water partnership initiative at NAWAPI/ Ministry of MONRE is organizing this workshop to scope the need for a potential integrated water allocation and

scenario assessment tool in Vietnam. The tool will support key agencies involved in water resources management to understand and explore the complexity of river basin under a wide range of scenarios. This workshop will discuss currently used tools for assessing water allocation practices in Viet Nam and explore the need for introducing web-based water allocation platforms in key pilot catchments. Case studies of existing model tools in Vietnam catchments will be presented, collaborative model studies will be explored and a prototype tool from SERVIR-Mekong proposed for water allocation strategies will be demonstrated. Participants will be invited to share experiences, identify good practices and lessons learned, and formulate questions and needs thereby informing likely future work on water allocation.

**Time & Venue:** Monday 02 July 2018, Room 205, NAWAPI Headquarter, No 93 Lane 95 Vu Xuan Thieu, Sai Dong Long Bien Hanoi

### The workshop objectives are to

- Understand the mechanisms and tools for trans-boundary water resources monitoring and allocation planning tools in Viet Nam.
- Present case studies from Viet Nam catchments involving complementary approaches/ tools for trans-boundary water resources monitoring and allocation tools.
- Identify good practices, lessons learned and formulate future scenarios for trans-boundary water resources monitoring and allocation.
- Demonstrate a prototype tools to stakeholders and receive feedback for collaborative case studies and improvements

### Expected outputs

- Sharing currently-used tools at agencies for water resources monitoring and allocation.
- User feedback on current prototype interface and future improvements of the tool developed by SERVIR Mekong (SEI)
- Identify needs and utility of the proposed tool to support decision making process and exploring opportunities for possible collaboration related to the tools in Vietnam basins.

### Target participants

- Regulators and officials for related Ministries and associations e.g. MONRE, MoC, MARD, Provincial offices.
- Public and private enterprises and Industry experts- Water Suppliers, EPC's, Heavy Industry, financing etc.
- Academia and researchers
- Others – i.e. Diplomatic corps, Companies other than the ones mentioned in article

## Draft agenda (Language: English +Vietnam)

Time	Activity	Remark
<b>02 July 2018</b>		
08:30 – 09:00	Registration	
09:00 – 09:10	Opening Remarks	NAWAPI
09:10 – 09:20	Introduction to SERVIR Mekong	Nguyen Hanh Quyen, SERVIR-Mekong
09:20 – 09:40	Workshop objectives; Agenda; Self introductions of participants <ul style="list-style-type: none"> <li>• Scope of the workshop</li> <li>• Water allocation overview</li> <li>• Need for water allocation tools</li> <li>• Expected outputs and outcomes</li> </ul>	Karthi Matheswaran SERVIR Mekong (SEI)
09:40 – 10:10	Session 1: Presentation Water Resources Planning and management issues in Viet Nam: Challenges and way forward	By Mr. Do Truong Sinh/ Head of WR Planning, NAWAPI/MONRE 20-min presentation followed by 10-min Q/A
10:10 – 10:30	Group photo and coffee break	
10:30 – 12:00	Session 2: <ul style="list-style-type: none"> <li>- WebGIS-based WEAP modeling platform for Water allocation in Ca river basin (TBC)</li> <li>- Decision support system for water resources planning with medium-term forecast to control saline intrusion in Vu Gia- Thu Bon river basin</li> </ul>	Karthi Matheswaran SERVIR Mekong (SEI)  Mr. Nguyen Xuan Lam Vietnam Academy for Water Resources, MARD  20-min presentation followed by 10-min Q/A
12:00 – 13:00	Lunch break	
13:00 – 14:00	Session 3: <ul style="list-style-type: none"> <li>- Water Res. Monitoring and Prediction in Vietnam: Development and opportunities for cooperation</li> <li>- Demonstration of the prototype water allocation</li> </ul>	Dr. Bui Du Duong, Head of WR Monitoring, NAWAPI/MONRE  Manish Shrestha, SERVIR

Time	Activity	Remark
	tool developed by SERVIR Mekong (SEI)	Mekong (SEI) 20-min presentation followed by 10-min Q/A
14:00 – 14:15	Coffee break	
15:30 – 16:15	Session 4: Facilitated discussion on water resources management and allocation tools in Viet Nam <ul style="list-style-type: none"> <li>• What are the priority river basin water allocation issues that need to be addressed using modelling tools?</li> <li>• What are the important climate and non-climate factors contributing to problems?</li> <li>• How can the tool support decision making process?</li> <li>• What are the capabilities you would expect from a water allocation tool?</li> <li>• What are the challenges/difficulties you expect to encounter while using the tool?</li> <li>• What are the possible options which need to be undertaken for successful utilization of the tool?</li> <li>• Are there potential opportunities to use the tool in other basins?</li> </ul>	Divide into groups. The groups will be facilitated by Bui Du Duong, Nguyen Hanh Quyen, Manish Shrestha and Karthi Matheswaran
16:15 – 16:30	Conclusion	

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