



**12<sup>th</sup> REGIONAL  
STAKEHOLDER FORUM**

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# **MRC Sustainable Hydropower Development Strategy: What's new, and what are we doing for better coordination of dam operations? Why should anyone care?**

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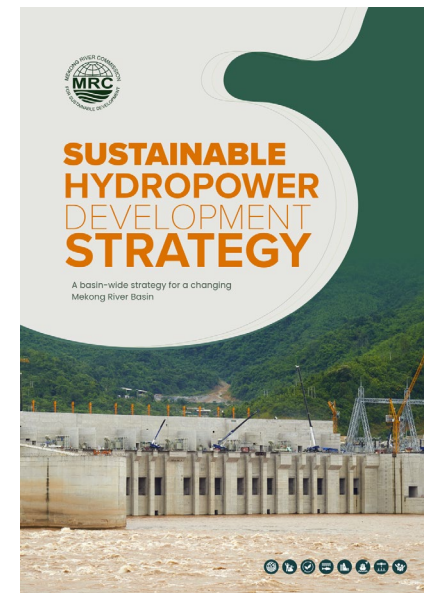
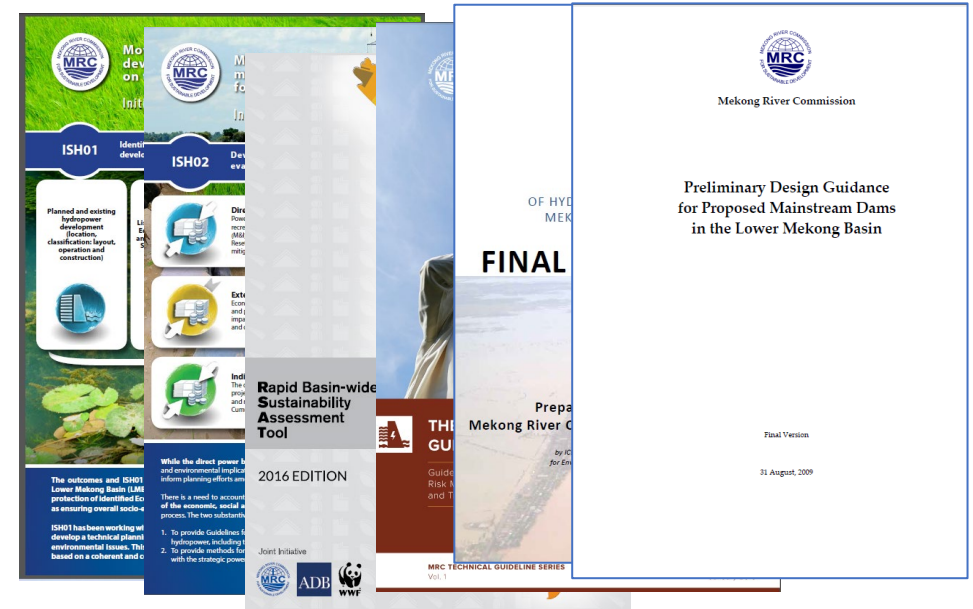
**What's new?**

# From HDS 2001 to SHDS 2021...

- **HDS 2001** 📌 **Knowledge generation and mitigation measures**, as guidance in hydropower development activities.

Over the last 20 years of development

- **SHDS 2021** 📌 **Enhanced knowledge, info sharing, and coordination of operation of cascades of projects**, strengthened basin-wide cooperation and sustainable development.



# Strategic Priorities



## SUSTAINABLE HYDROPOWER DEVELOPMENT STRATEGY

A basin-wide strategy for a changing Mekong River Basin



### AVOID, MINIMISE AND MITIGATE ADVERSE TRANSBOUNDARY IMPACTS / ENHANCE THE PNPCA IMPLEMENTATION FOR HYDROPOWER

**Strategic Priority #1: Integrate sustainable hydropower considerations into project-level planning, preparation, design, implementation and operation activities**

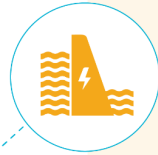
- Outcome 1.1 Improved sustainability of individual hydropower projects in the Mekong basin
- Outcome 1.2 Benefits optimised and potential adverse impacts of hydropower operations minimised through adaptive management of existing hydropower projects and updated designs for Mekong specific impact mitigation
- Outcome 1.3 Improved effectiveness of the PNPCA and related MRC Procedures process and outcomes for hydropower projects



### MANAGEMENT OF HYDROPOWER CASCADE OPERATION

**Strategic Priority #2: Enhance cooperation on processes for operational coordination and management of HP cascades**

- Outcome 2.1 Hydropower project information is shared with MRC for all notified mainstream and tributary projects
- Outcome 2.2 Implementation of cooperation mechanisms for information sharing and coordination of LMB cascade operations support power production management, environmental management, flood and drought mitigation and community safety
- Outcome 2.3 China and Myanmar exchange pertinent information on operational coordination and related scientific studies of hydropower to improve sustainability of UMB/LMB HP



### ENERGY SECURITY AND ECONOMIC BENEFITS / CLIMATE CHANGE OPPORTUNITIES AND RISKS

**Strategic Priority #3: Enhance regional information sharing and cooperation on water and energy plans to capture economic and energy security benefits and reduce transboundary social and environmental risks**

- Outcome 3.1 Net benefits of national hydropower and integrated renewable energy development plans, regional power system integration and hydropower's role in climate change mitigation are maximised and balance basin scale water, energy, food, environment and livelihood security
- Outcome 3.2 Practical and tangible mechanisms/options further developed for equitable sharing of basin resources for hydropower and related developments based on past MRC studies/reports



### SOCIAL IMPACTS

**Strategic Priority #4: Enhance the livelihoods of hydropower project affected river-based communities, particularly women and children and ethnic minorities**

- Outcome 4.1 Improved and gender-equitable local development for riparian communities adversely affected by HP projects in a transboundary context




### INFORMATION GAPS

**Strategic Priority #5: Complete targeted studies to fill knowledge gaps or enhance analysis tools, to support sustainable hydropower development and management**

- Outcome 5.1 Targeted studies fill knowledge gaps and facilitate regional assessment and dialogue on above SP#1 to #4





**What are we doing for  
better coordination of  
dam operations?**

# Need for Operational Coordination...

- The Basin is becoming **more developed and regulated by dams**.
- The Basin is susceptible to **more extreme weather events** (flood and drought) due to climate change.
- 👉 **Increasing need for more data and info sharing and transboundary coordination of operations** regarding:
  - Flow management
  - Sediment management
  - Management of emergencies
  - Design and management of hydropower cascades

## Coordinated Water Infrastructure Operation in the Mekong River Basin

For multiple benefits including gender and vulnerability sensitive disaster mitigation and management



Identify opportunities for coordinated operating rules and cooperation arrangements on dam operations  
**(2021)**



Develop cooperation mechanisms for data and information sharing for existing dams  
**(2023)**



Develop information sharing and communication mechanisms for water-related emergencies  
**(2023)**

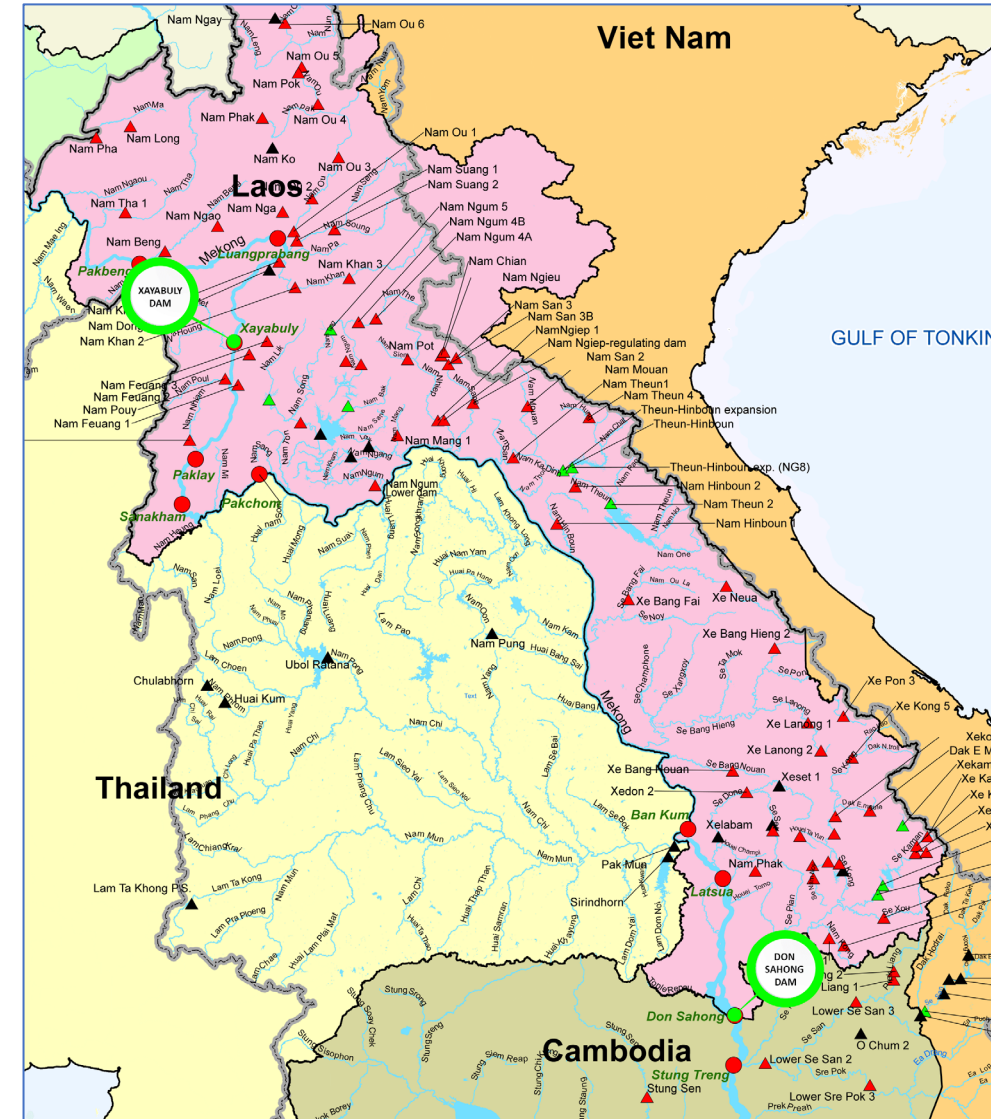


Develop operating and communication mechanisms for existing and newly identified dams and other water infrastructure  
**(2024)**

# Pilot Project 1: Develop Cooperation Mechanisms for Data and Information Sharing for Existing Dams (2022-2023)

## Aims to

- Understand which information is essential for **operational coordination**
- Identify **sources of info** and gaps
- Establish **institutional** and IT arrangements to share info timely
- Create an **operational dashboard**
- Test **cooperation mechanisms** and dashboard
- Gather **lessons learned**

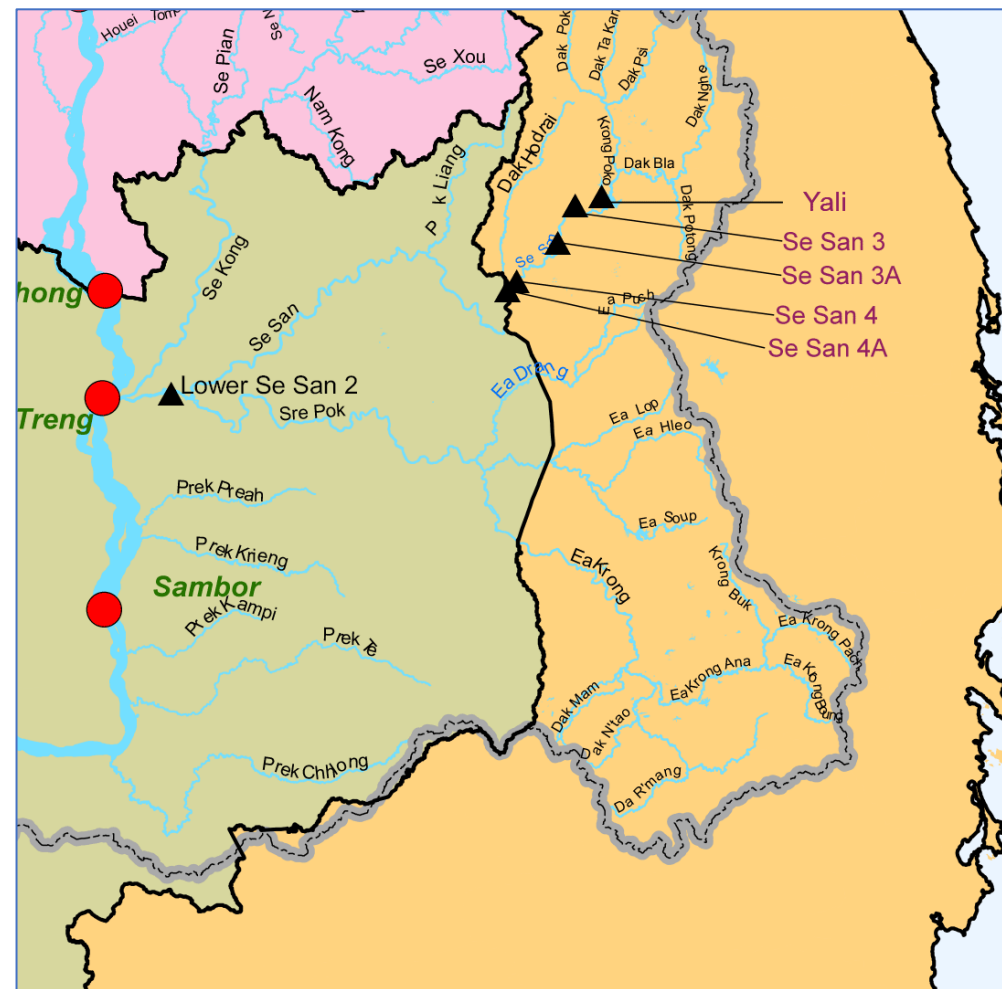




# Pilot Project 2: Develop Information Sharing and Communication Mechanisms for Water-related Emergencies (2022-2023)

## Aims to

- Understand **MRC role** within regional emergency management arrangements
- Establish **links** to regional emergency management agencies
- Conduct **trial** regular water infrastructure emergency management dialogue over the flood season
- Establish **info dashboard**
- Gather **lessons learned**

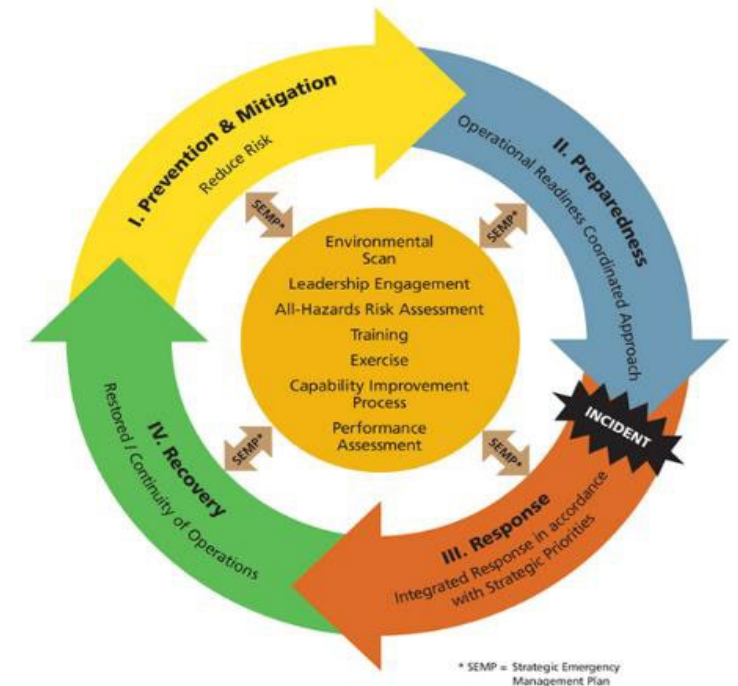
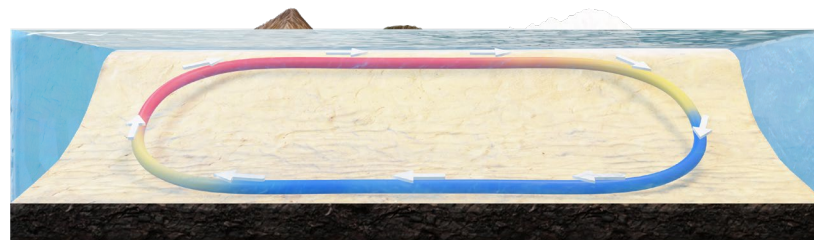




**Why should anyone care?**

# Human life, environmental and economic benefits...

- Notification of **discharge, warning and emergency** action
- Minimization of **environmental impacts**
- Optimization of the **energy production**
- 👉 **Cooperation between ALL stakeholders for SHDS, BDS**





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***THANK YOU***