

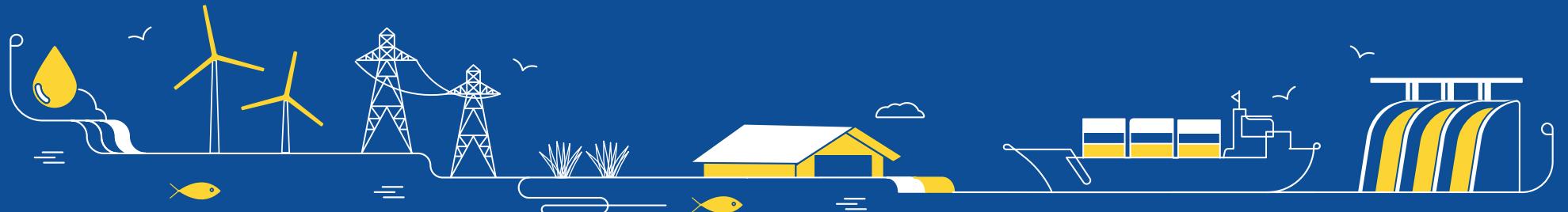


# 14<sup>th</sup> Regional Stakeholder Forum

## Information Sharing for Transparency and Trust

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### Session 1: Current State of the Mekong River Basin



14<sup>th</sup> Regional Stakeholder Forum (RSF)  
12 June 2024, Vientiane Capital, Lao PDR



# State of the Mekong Basin Report 2023

Pinida Leelapanang Kamphaengthong, PhD  
Chief Environment Management Officer, MRCS



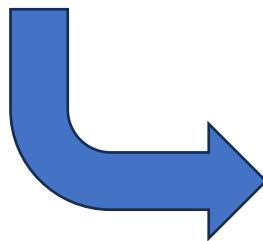
# Structure of SOBR2023

The structure of SOBR2023 assessment follow MRB IF of 5 dimensions, 15 strategic indicators from 53 assessment indicators (referencing 120 monitoring parameters from 4 data sources: MRC routine river monitoring, Periodic regional studies, National monitoring and survey data collection and transmission, Supplementary databases of international and regional organisations).

Environmental	Social	Economic	Climate Change	Cooperation
<ul style="list-style-type: none"> <li>• Water flow conditions</li> <li>• Water quality and sediment conditions</li> <li>• Status of environmental assets</li> <li>• Overall environment condition</li> </ul>	<ul style="list-style-type: none"> <li>• Living conditions and well-being</li> <li>• Livelihoods and employment in water-related sectors</li> <li>• Overall social condition</li> </ul>	<ul style="list-style-type: none"> <li>• Contribution to basin economy</li> <li>• Economic performance of water-related sectors</li> </ul>	<ul style="list-style-type: none"> <li>• Greenhouse gas emissions</li> <li>• Climate change trends and extremes</li> <li>• Adaptation to climate change</li> </ul>	<ul style="list-style-type: none"> <li>• Self-finance of the MRC</li> <li>• Benefits derived from cooperation</li> <li>• Equity of benefits derived from the Mekong River system</li> </ul>

# Assessment Rating

Condition of Strategic Indicator	Progress towards BDS Outcome
 No immediate concerns	↑ On track. Gap to the outcome is decreasing
 Some concerns to address	↗ Moderate improvement, but unlikely to be sufficient
 Significant concerns to address	→ No or only slight improvement, likely well short of requirements
	↓ Gap to the BDS Outcome is increasing, becoming more challenging
	● ● ● Insufficient information on progress to BDS Outcome



## Recommendations for

- **MRC to support achievement of BDS 2021-2030 Outcomes**
- **Other stakeholders to in partnership with MRC and/or basin countries to support achievement of BDS 2021-2030 Outcomes**

# Environment Dimension

BDS Outcomes	Strategic Indicators	Condition	Status and Key Issues	BDS Progress
1.1 Adequate water flow and quality for a healthy environment and productive communities	Water flow conditions	<span style="color: yellow;">●</span>	<p>Dry season flows unstable or severe in some areas for extended periods in the early dry season</p> <p>Reduced Tonle Sap reverse flows</p>	<span style="color: red;">↓</span>
1.2 Sediment transport managed to mitigate bank erosion and maintain wetland and floodplain productivity	Water quality and sediment conditions	<span style="color: red;">●</span>	<p>Declining water quality for some parameters</p> <p>Continued reduction in sediment transport at multiple stations along the river</p>	<span style="color: orange;">→</span>
1.3 Ecosystem services from wetlands and watersheds ensured	Status of environmental assets	<span style="color: red;">●</span>	<p>Significant loss of natural wetlands</p> <p>Risks to wild fish populations with declining total catch in recent years</p>	<span style="color: orange;">→</span>

# Recommendation for other stakeholders in partnership with MRC and/or basin countries to support achievement of BDS 2021-2030 Outcomes of Environment Dimension

## Environment Dimension

**Recommendation 17:** Partners, International Financial Institutions and private sector investors to promote increased investment in renewable energy and supporting grid infrastructure in basin countries based on optimising water-energy solutions that take sustainable development objectives for aquatic ecosystems into account and help basin countries meet the commitments in their Nationally Determined Contributions [BDS Output 3.1.1]

**Recommendation 18:** Partners to provide further technical and financial support and work with basin countries to protect and restore key environmental assets at regional and national levels through ongoing capacity building, systems and tools, and policy development and implementation assistance [BDS Output 1.3.1]

# Social Dimension

BDS Outcomes	Strategic Indicators	Condition	Status and Key Issues	BDS Progress
2.1 Strengthened water, food and energy security for basin community wellbeing	Living conditions and wellbeing		<p>Improved access to water, sanitation, <u>electricity</u> and food in all countries</p> <p>Inequality of access including potential chronic food insecurity in some vulnerable groups</p> <p>Slowing of gains in some countries over recent years and significant gaps remaining between countries</p>	
2.2 Increased employment and reduced poverty among vulnerable people dependent on river and wetland resources	Livelihoods and employment in water-related sectors		<p>Significant poverty reduction in all countries</p> <p>Managing a transition from employment in water-related sectors to more productive economic activities</p> <p>Supporting vulnerable groups to access employment opportunities in growth sectors</p>	• • •

# **Recommendation for other stakeholders in partnership with MRC and/or basin countries to support achievement of BDS 2021-2030 Outcomes of Social Dimension**

## **Social Dimension**

**Recommendation 19:** Partners to provide technical and financial support to national governments to enhance data collection mechanisms that enable disaggregated and spatially explicit data on gender and other aspects of vulnerability to be identified, filling gaps identified in the MRC's review of gender and vulnerability data [BDS Output 2.1.4]

**Recommendation 20:** Partners, International Financial Institutions, private sector investors and CSOs to identify, trial and promote alternative livelihood strategies that are sustainable and resilient to climate change for people affected by changes in river and other aquatic environments [BDS Output 2.2.1]

# Economic Dimension

BDS Outcomes	Strategic Indicators	Condition	Status and Key Issues	BDS Progress
3.1 Increased economic growth of all basin countries from more proactive regional planning	Contribution to basin economy		<p>Strong economic growth, especially hydropower, rice, and tourism</p> <p>Enabling increased basin benefits and reduced costs of development for all countries</p> <p>Identifying net economic benefits within sectors and accounting for externalities</p>	
3.2 Enhanced inclusive growth and sustainability in irrigated agriculture, hydropower, navigation, environment and fisheries sectors	Economic performance of water-related sectors		Ensuring inclusive growth and sustainability considering the impacts of development on the environment and the livelihoods of vulnerable people	• • •

# **Recommendation for other stakeholders in partnership with MRC and/or basin countries to support achievement of BDS 2021-2030 Outcomes of Economic Dimension**

## **Economic Dimension**

**Recommendation 21:** Partners to Contribute technical and financial support to development of joint projects between two or more countries in key transboundary locations including the Mekong Delta, 3S sub-basin, transboundary Tonle Sap tributaries, and other border areas between countries [BDS Outputs 3.1.1, 4.2.2, 5.2.3]

**Recommendation 22:** International Financial Institutions and private sector investors to evaluate projects and measures identified through proactive regional planning and the MRC-MLC Water Joint Study for inclusion in regional and national investment plans and project investment pipelines [BDS Output 5.2.2]

**Recommendation 23:** Financial institutions, lenders and private sector investors, developers and operators to integrate and apply MRC procedures, guidelines, and data in the planning, design, monitoring and operation of water related projects of transboundary significance

# Climate Change Dimension

BDS Outcomes	Strategic Indicators	Condition	Status and Key Issues	BDS Progress
4.1 Better informed and prepared basin communities against changing river conditions, and more frequent and severe floods and droughts	Greenhouse gas emissions	<span style="color: yellow;">●</span>	Emissions are rising even if basin emissions are only a small proportion of the global total	
	Climate change trends and extremes	<span style="color: red;">●</span>	Temperature increases Potential decrease in annual precipitation, but needs further investigation with ground <u>truthing</u> Sea-level rise at the delta Potential for more severe floods and droughts in future	<span style="color: orange;">↗</span>
4.2 Better disaster management and adaptation to water resources development and climate risks	Adaptation to climate change	<span style="color: yellow;">●</span>	More comprehensive and integrated investment in adaptation needed to match the scale of the challenge	• • •

# Recommendation for other stakeholders in partnership with MRC and/or basin countries to support achievement of BDS 2021-2030 Outcomes of Climate Change Dimension

## Climate Change Dimension

**Recommendation 24:** Project developers and operators, and MRC Dialogue Partners to continue to enhance data cooperation and sharing and other parties including to support and supplement the MRC's Core River Monitoring Network [BDS Output 4.1.2]

**Recommendation 25:** Partners to continue to enhance systems and tools for monitoring, forecasting and early warning capabilities for floods and droughts at the national level, and to enhance mechanisms for data and information sharing and dissemination from regional to community levels including by strengthening the links with upgraded MRC/regional monitoring and forecasting systems [BDS Output 4.1.4]

**Recommendation 26:** Partners to identify and support countries for mangrove protection and restoration (and other nature-based climate change solutions) as a cost-effective measure to buffer against rising sea-levels and storm surge risks at the delta coast with co-benefits for fisheries and biodiversity [BDS Output 4.2.2]

**Recommendation 27:** Partners, International Financial Institutions and private sector investors to enhance the identification and support to concrete climate change adaptation investment projects and measures at national and local levels that change conditions on the ground by putting MRC/regional and national policies and strategies into action [BDS Output 4.2.2]

# Cooperation Dimension

BDS Outcomes	Strategic Indicators	Condition	Status and Key Issues	BDS Progress
5.1 Strengthened Mekong River Commission for more effective implementation of the Mekong Agreement	Self-finance of the MRC		<p>Increased financial contribution by MRC member <u>countries</u></p> <p>National budget pressures post covid-19</p>	
5.2 Increased joint efforts and partnerships for more integrated management of the entire river basin	Benefits derived from cooperation		<p>Benefits derived from and high commitment demonstrated for Mekong <u>cooperation</u></p> <p>Challenges in evaluating and communicating the benefits of cooperation and joint <u>projects</u></p> <p>Coordination of project activities across the basin</p>	
	Equity of benefits from the Mekong River system		<p>Identifying, <u>financing</u> and implementing joint investment projects that increase benefits and reduce costs for all basin countries</p>	

# **Recommendation for other stakeholders in partnership with MRC and/or basin countries to support achievement of BDS 2021-2030 Outcomes of Cooperation Dimension**

## **Cooperation Dimension**

**Recommendation 28:** Partners to support the uptake and mainstreaming of MRC strategies, procedures, plans and guidelines in their regional and bilateral development cooperation programmes in countries

**Recommendation 29:** MRC Dialogue Partners, academic institutes, NGOs and CSOs to identify opportunities for collaboration and contribute to joint studies, publications and partnership approaches with MRC and other water-related platforms [BDS Output 5.2.3]

**Recommendation 30:** International Financial Institutions and Accredited Entities to work with the basin countries, MRC and other parties to progress opportunities through global and regional environment and climate change funds in support of transboundary and joint investment projects between two or more countries [BDS Outputs 4.2.2 and 5.2.3]

**Recommendation 31:** Partners, International Financial Institutions and private sector investors to consider opportunities to help capitalise or work in partnership through coordinated investment with the Mekong Fund [BDS Output 5.2.3]

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12 June 2024, MRC Secretariat, Vientiane Capital, Lao PDR



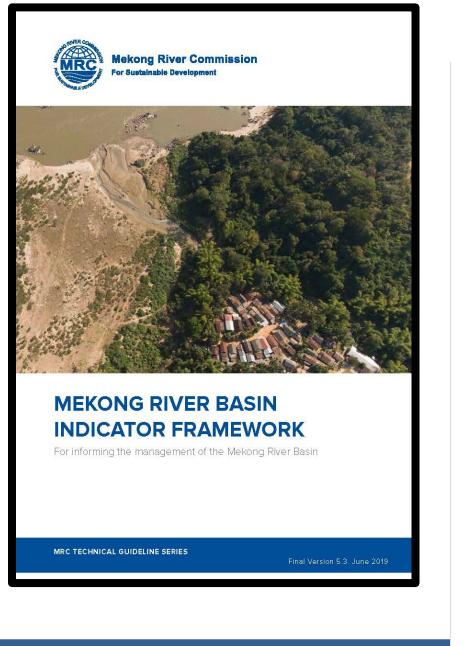
# Socio-Economic Database (2023)

Ms. Phouthamath, Socio-Economic Specialist,  
Planning Division (PD), MRC Secretariat



# Background:

- The **MRC's first Socio-Economic Database** was launched in 2015.
- The **MRB-IF (2019)**, **Technical Guideline for implementing the MRB-IF (2021)** and **DAGAP (2021)** implemented to address the data gaps.
- The MRC SP 2021-2025 internalizes a **‘gender and vulnerability (G&V)’** approach through the Gender Action Plan (2021-2025).
- The **MRC Handbook on Mainstreaming Gender (2023)** implemented through socio-economic data collection, including G&V data.
- A report on **“Gender and Social Vulnerability Assessment Approach” (2024)** provides additional G&V data requirements and tool for the G&V assessment.

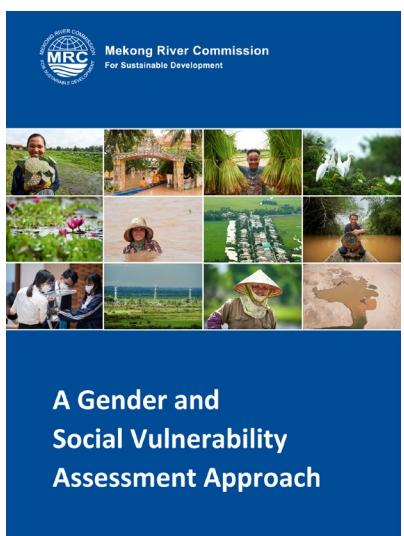
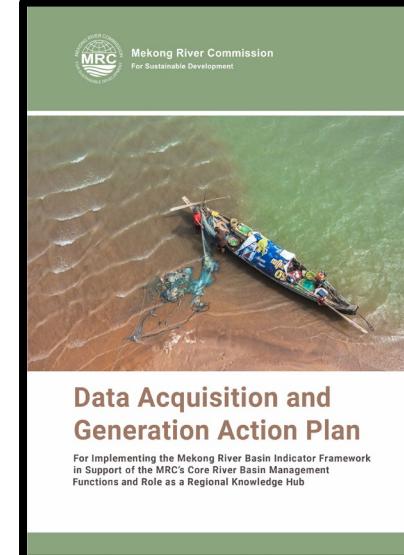
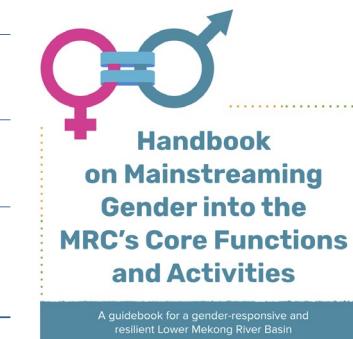
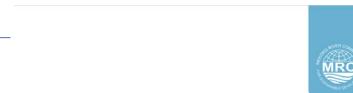


Mekong River Commission

Mekong River Basin Indicator Framework Technical Guidelines  
*Informing the Implementation of the Mekong River Basin Indicator Framework*

March 2021

Dimension	Strategic Indicators
Environment	△ Water flow conditions △ Water quality and sediment conditions △ Status of environmental assets △ Overall environment condition
Social	△ Living conditions and well-being △ Livelihoods and employment in water-related sectors △ Overall social condition
Economic	△ Contribution to basin economy △ Economic performance of water-related sectors
Climate Change	△ Greenhouse gas emissions △ Climate change trends and extremes △ Adaptation to climate change
Cooperation	△ Self-finance of the MRC △ Benefits derived from cooperation △ Equity of benefits derived from the Mekong River system



# Socio-Economic Data Collection within DAGAP (2023)

SE and GV data items, including gender-disaggregated data for 1981-2020

Sectors	Requested (Data Items)		Total Indicators (Data Items)
	National Data	Province Data	
1. Health	7	7	14
2. Household well being	9	9	18
3. Demographic	14	14	24
4. Agriculture	21	21	42
5. Hydropower	4	4	8
6. Navigation	4	4	8
7. Sand mining	2	2	4
8. Tourism	6	6	12
9. Flood and drought	8	8	16
10. Gender and Vulnerabilities	15	15	30
<b>Total</b>	<b>90</b>	<b>90</b>	<b>180</b>

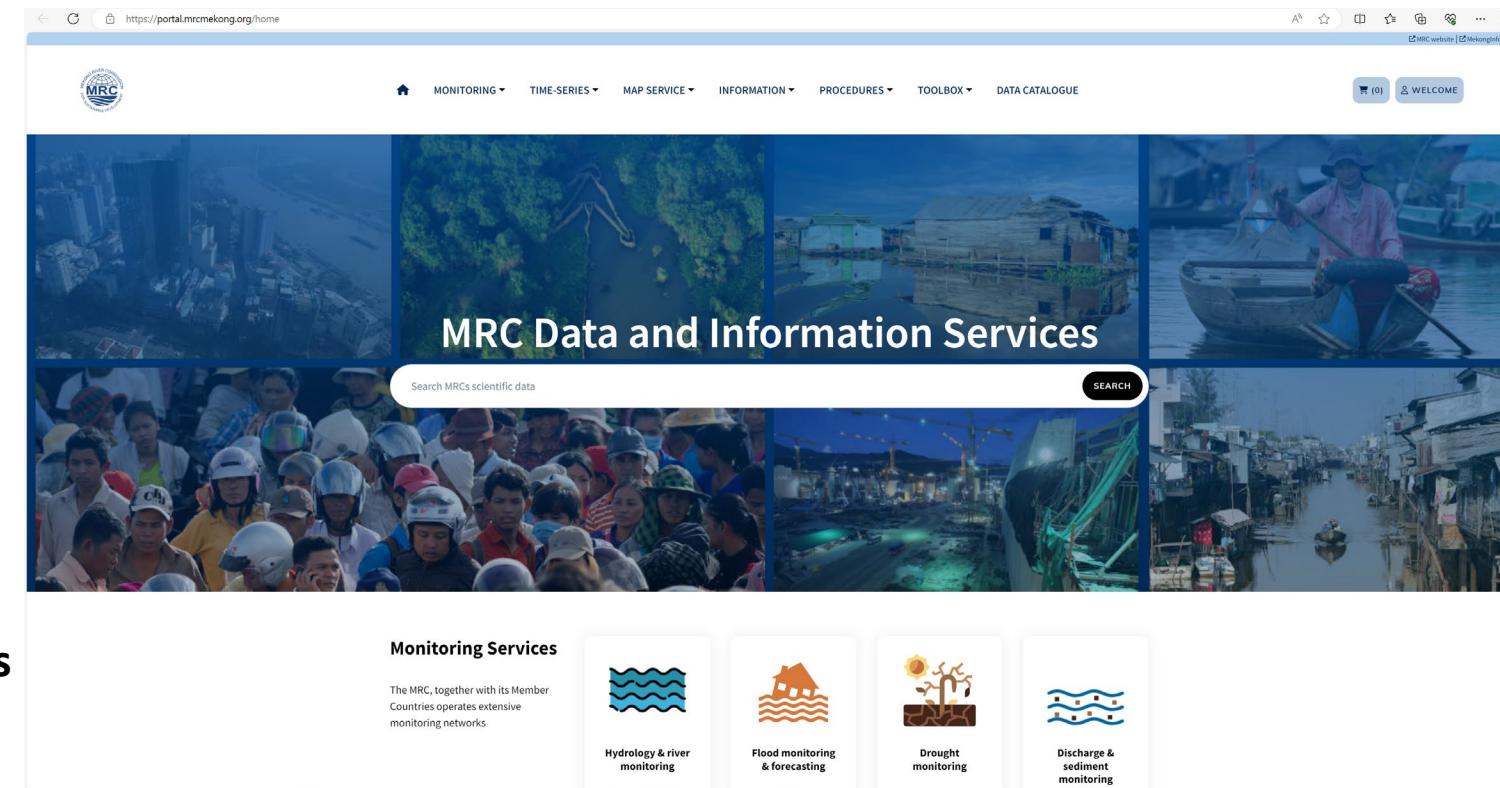
# Example of the Gender and Vulnerability Data

Assessment indicators	Monitoring parameters	Data items	Spatial scale	Temporal scale	Subdivision					
Health security	Maternal mortality	Deaths per 1,000 live births (no.)	National Provincial	Annual	Total Urban Rural					
Economic security	Gender income equality	Average income in LMB water-related sectors (USD/year) <ul style="list-style-type: none"> <li>- Average income of total population in each water-related sector               <ul style="list-style-type: none"> <li>- Average income of males in each water-related sector</li> <li>- Average income of females in each water-related sector</li> </ul> </li> </ul>	National Provincial	Annual	Hydropower Agriculture Navigation Forestry Fisheries Tourism Sand mining	Gender equality in ownership of land	Number of households headed by males and females	National Provincial	Annual	Total Urban Rural
		Average income in non-water-related sectors (USD/year) <ul style="list-style-type: none"> <li>- Average income of total population in each water-related sector               <ul style="list-style-type: none"> <li>- Average income of males in each water-related sector</li> <li>- Average income of females in each water-related sector</li> </ul> </li> </ul>					Number of households that own land by males and females	National Provincial	Annual	Total Urban Rural
	Access to credit and bank	Total population with a bank account (no.) <ul style="list-style-type: none"> <li>- Total number</li> <li>- Number of males with a bank account</li> <li>- Number of females with a bank account</li> </ul>	National Provincial	Annual	Total Urban Rural	Literacy rate by gender	Literacy rate for total population of 15 years or older (%) <ul style="list-style-type: none"> <li>- Literacy rate for males above 15 years (%)</li> <li>- Literacy rate for females above 15 years (%)</li> </ul>	National Provincial	Annual	Total Urban Rural
Learning opportunities						Occupational training by gender	No. of students enrolled in occupational training in water-related sector <ul style="list-style-type: none"> <li>- No. of total students enrolled</li> <li>- No. of male students enrolled</li> <li>- No. of female students enrolled</li> </ul>	National Provincial	Annual	Hydropower Agriculture Navigation Forestry Fisheries Tourism Sand mining
							Number of total students who completed occupational training in water-related sectors <ul style="list-style-type: none"> <li>- No. of male students who completed occupational training in water-related sectors</li> <li>- No. of female students who completed occupational training in water-related sectors</li> </ul>			
						Secondary education enrolment by gender	Number of girls and boys attending secondary education	National Provincial	Annual	Total Urban Rural

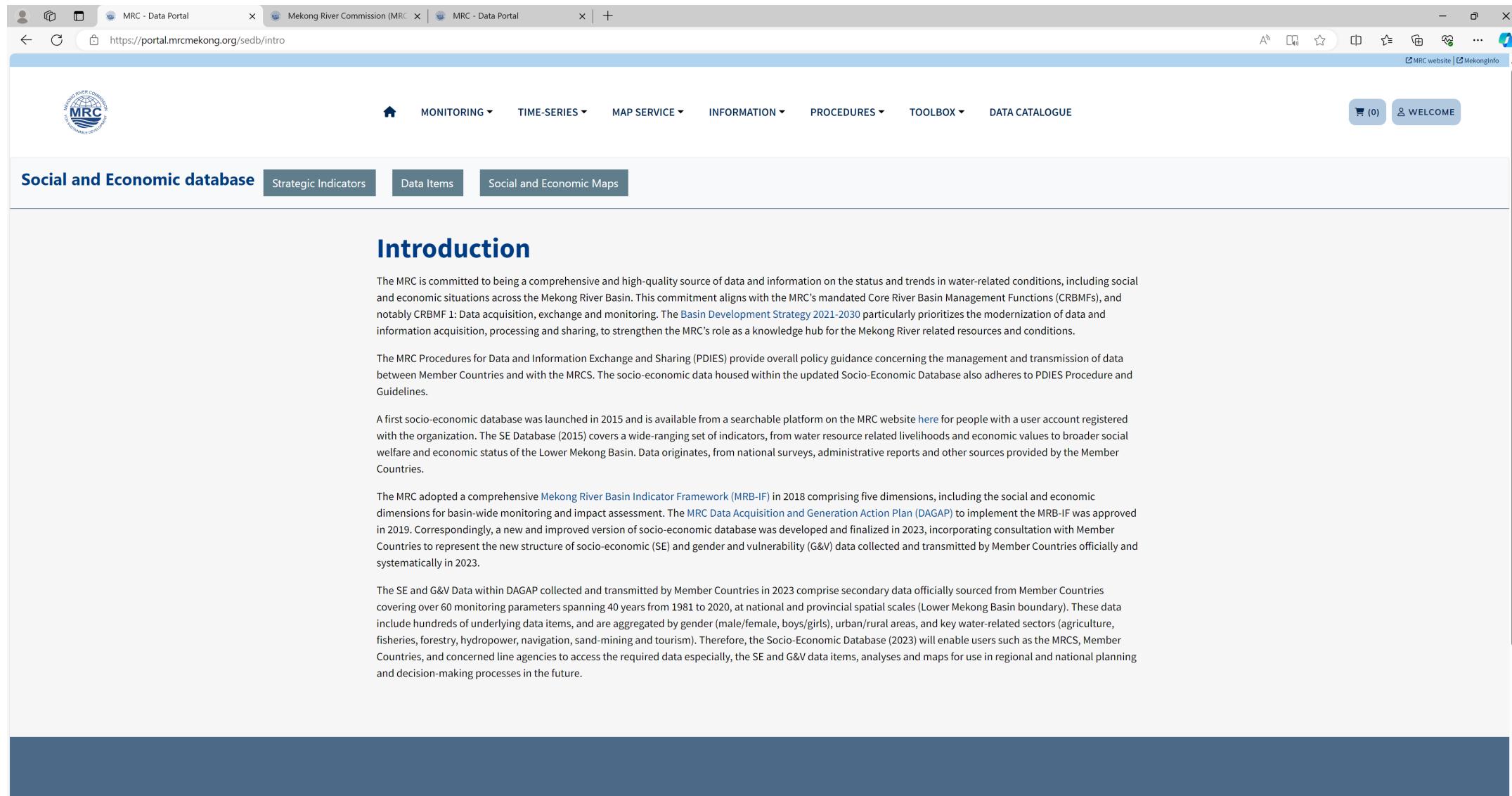
**Note:** Underlined text indicates a new monitoring parameter or an adjustment to the existing MRC Indicator Framework. Shaded boxes highlight monitoring parameters important for gender equality

# Socio-Economic Database (2023)

- The Socio-Economic Database aims to **enable the users such as the MRC and national line agencies** to access the required SE and GV data following the MRC PDIES for their future use in regional and national planning, assessments, reports and decision-making processes.
- It includes the datasets of **social and economic indicators under the MRB-IF**, collected and transmitted by MCs in 2023.
- The socio-economic data items is **secondary data** from national database, national surveys, administrative reports and other sources provided by MCs.
- Some data was used in **the SOBR 2023** (officially launched in June 2024) and the **Mekong Atlas** (officially launched in April 2024).
- The SE Database includes **four main sections** as follows and available  
<https://portal.mrcmekong.org/sedb>



# Section 1: Introductory Page



The screenshot shows a web browser window with three tabs: 'MRC - Data Portal', 'Mekong River Commission (MRC)', and 'MRC - Data Portal'. The main content area is the 'Social and Economic database' section, which includes tabs for 'Strategic Indicators', 'Data Items', and 'Social and Economic Maps'. The 'Data Items' tab is currently selected. The page features a header with the MRC logo, a navigation menu with links like 'MONITORING', 'TIME-SERIES', 'MAP SERVICE', 'INFORMATION', 'PROCEDURES', 'TOOLBOX', and 'DATA CATALOGUE', and a user account section with a shopping cart icon and a 'WELCOME' button. The main content area contains several paragraphs of text describing the MRC's commitment to data acquisition, the introduction of the SE Database in 2015, the adoption of the MRB-IF in 2018, and the comprehensive nature of the SE and G&V Data collected and transmitted by Member Countries in 2023.

## Introduction

The MRC is committed to being a comprehensive and high-quality source of data and information on the status and trends in water-related conditions, including social and economic situations across the Mekong River Basin. This commitment aligns with the MRC's mandated Core River Basin Management Functions (CRBMFs), and notably CRBMF 1: Data acquisition, exchange and monitoring. The [Basin Development Strategy 2021-2030](#) particularly prioritizes the modernization of data and information acquisition, processing and sharing, to strengthen the MRC's role as a knowledge hub for the Mekong River related resources and conditions.

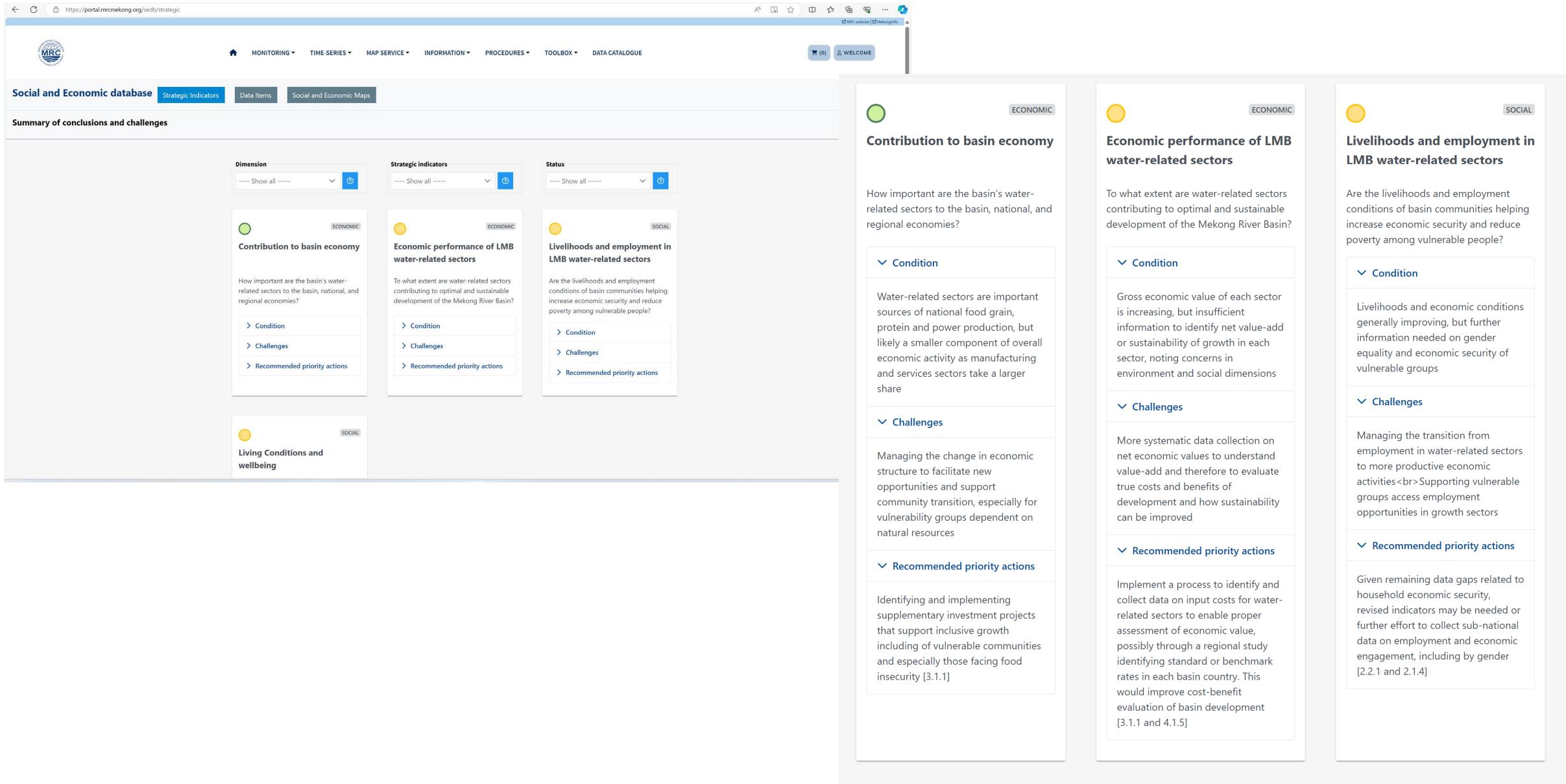
The MRC Procedures for Data and Information Exchange and Sharing (PDIES) provide overall policy guidance concerning the management and transmission of data between Member Countries and with the MRCS. The socio-economic data housed within the updated Socio-Economic Database also adheres to PDIES Procedure and Guidelines.

A first socio-economic database was launched in 2015 and is available from a searchable platform on the MRC website [here](#) for people with a user account registered with the organization. The SE Database (2015) covers a wide-ranging set of indicators, from water resource related livelihoods and economic values to broader social welfare and economic status of the Lower Mekong Basin. Data originates from national surveys, administrative reports and other sources provided by the Member Countries.

The MRC adopted a comprehensive [Mekong River Basin Indicator Framework \(MRB-IF\)](#) in 2018 comprising five dimensions, including the social and economic dimensions for basin-wide monitoring and impact assessment. The [MRC Data Acquisition and Generation Action Plan \(DAGAP\)](#) to implement the MRB-IF was approved in 2019. Correspondingly, a new and improved version of socio-economic database was developed and finalized in 2023, incorporating consultation with Member Countries to represent the new structure of socio-economic (SE) and gender and vulnerability (G&V) data collected and transmitted by Member Countries officially and systematically in 2023.

The SE and G&V Data within DAGAP collected and transmitted by Member Countries in 2023 comprise secondary data officially sourced from Member Countries covering over 60 monitoring parameters spanning 40 years from 1981 to 2020, at national and provincial spatial scales (Lower Mekong Basin boundary). These data include hundreds of underlying data items, and are aggregated by gender (male/female, boys/girls), urban/rural areas, and key water-related sectors (agriculture, fisheries, forestry, hydropower, navigation, sand-mining and tourism). Therefore, the Socio-Economic Database (2023) will enable users such as the MRCS, Member Countries, and concerned line agencies to access the required data especially, the SE and G&V data items, analyses and maps for use in regional and national planning and decision-making processes in the future.

# Section 2: Strategic Indicators from the SOBR 2023



The screenshot displays the MRC Social and Economic database interface, specifically the 'Strategic Indicators' section. The top navigation bar includes links for MONITORING, TIME-SERIES, MAP SERVICE, INFORMATION, PROCEDURES, TOOLBOX, and DATA CATALOGUE. The main content area is titled 'Summary of conclusions and challenges' and features four strategic indicators arranged in a grid:

- Contribution to basin economy (ECONOMIC)**: How important are the basin's water-related sectors to the basin, national, and regional economies? (Condition, Challenges, Recommended priority actions)
- Economic performance of LMB water-related sectors (ECONOMIC)**: To what extent are water-related sectors contributing to optimal and sustainable development of the Mekong River Basin? (Condition, Challenges, Recommended priority actions)
- Livelihoods and employment in LMB water-related sectors (SOCIAL)**: Are the livelihoods and employment conditions of basin communities helping increase economic security and reduce poverty among vulnerable people? (Condition, Challenges, Recommended priority actions)
- Living Conditions and wellbeing (SOCIAL)**: (Condition, Challenges, Recommended priority actions)

On the right side, three detailed views of the indicators are shown:

- Contribution to basin economy (ECONOMIC)**:
  - Condition**: Water-related sectors are important sources of national food grain, protein and power production, but likely a smaller component of overall economic activity as manufacturing and services sectors take a larger share.
  - Challenges**: Managing the change in economic structure to facilitate new opportunities and support community transition, especially for vulnerability groups dependent on natural resources.
  - Recommended priority actions**: Identifying and implementing supplementary investment projects that support inclusive growth including of vulnerable communities and especially those facing food insecurity [3.1.1].
- Economic performance of LMB water-related sectors (ECONOMIC)**:
  - Condition**: Gross economic value of each sector is increasing, but insufficient information to identify net value-add or sustainability of growth in each sector, noting concerns in environment and social dimensions.
  - Challenges**: More systematic data collection on net economic values to understand value-add and therefore to evaluate true costs and benefits of development and how sustainability can be improved.
  - Recommended priority actions**: Implement a process to identify and collect data on input costs for water-related sectors to enable proper assessment of economic value, possibly through a regional study identifying standard or benchmark rates in each basin country. This would improve cost-benefit evaluation of basin development [3.1.1 and 4.1.5].
- Livelihoods and employment in LMB water-related sectors (SOCIAL)**:
  - Condition**: Livelihoods and economic conditions generally improving, but further information needed on gender equality and economic security of vulnerable groups.
  - Challenges**: Managing the transition from employment in water-related sectors to more productive economic activities. Supporting vulnerable groups access employment opportunities in growth sectors.
  - Recommended priority actions**: Given remaining data gaps related to household economic security, revised indicators may be needed or further effort to collect sub-national data on employment and economic engagement, including by gender [2.2.1 and 2.1.4].

# Section 3: Data Items from the Socio-Economic Data Collected and Transmitted by MCs in 2023

https://portal.mrcmekong.org/sedb/data

MRC

Social and Economic database Strategic Indicators Data Items Social and Economic Maps

+ Select Data Item

Administrative Level: Province (2020, 1995, 2004, 2005) | Year (2020, 1995, 2004, 2005) | Subgroup (All sexes) | Subdivision (Total area)

Introduction Map View Chart View Table View

**Households with access to electricity supplies**

Unit: Number | Subgroup: All sexes | Subdivision: Total area

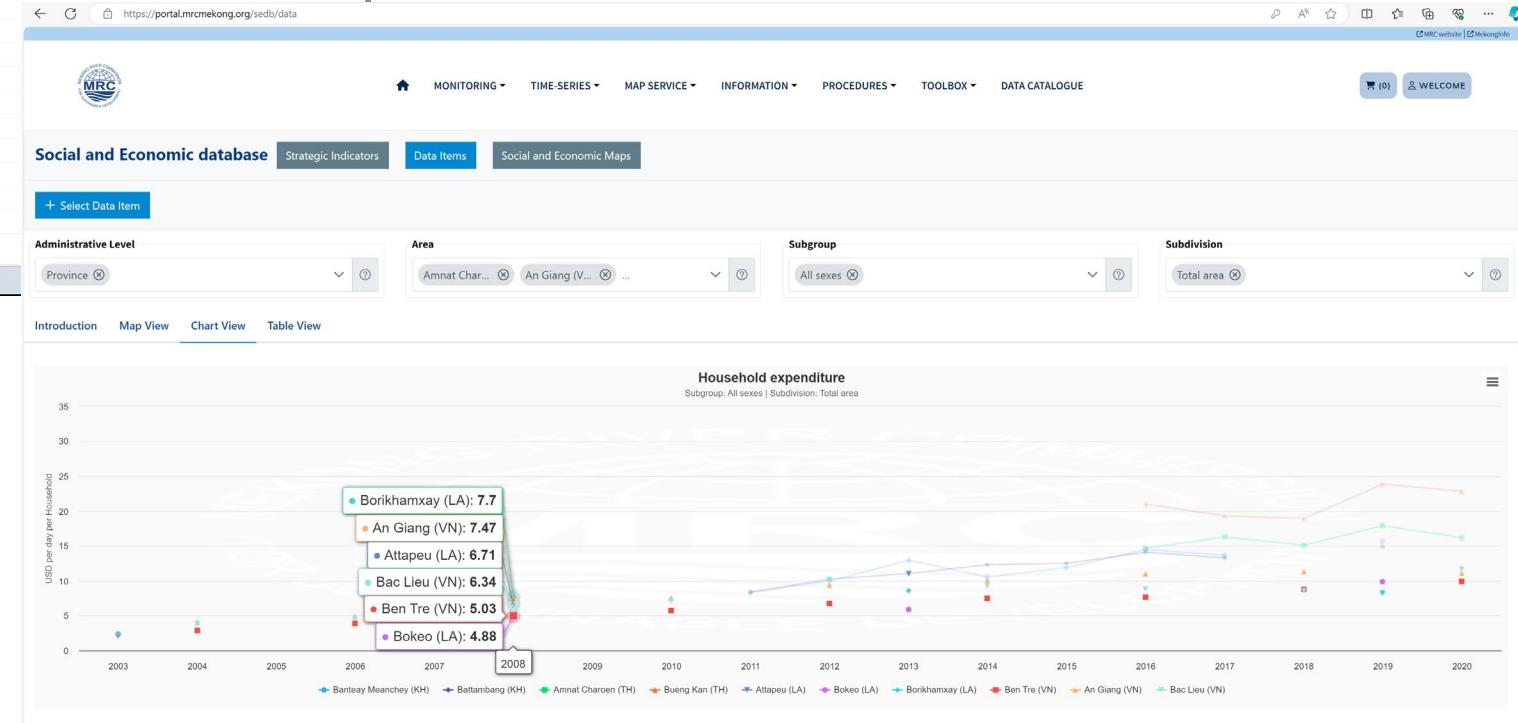
Filter table by keyword | Clear

Name	Time	Value (in Number)
Yasothon (TH)	2016	153,683
Yasothon (TH)	2017	151,506
Yasothon (TH)	2018	152,255
Yasothon (TH)	2019	158,734.9
Yasothon (TH)	2020	159,512
Xiengkuang (LA)	1995	8.26
Xiengkuang (LA)	2005	1,479.35
Xiengkuang (LA)	2015	9,387.9
Xiengkuang (LA)	2020	43,299.32
Xaysomboon (LA)	1995	585.96

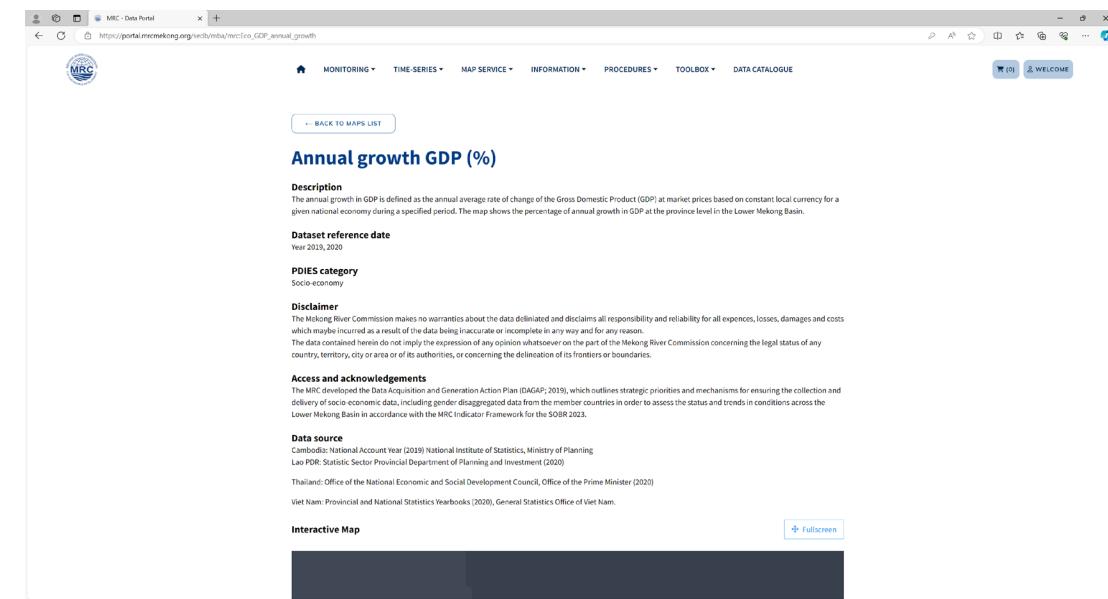
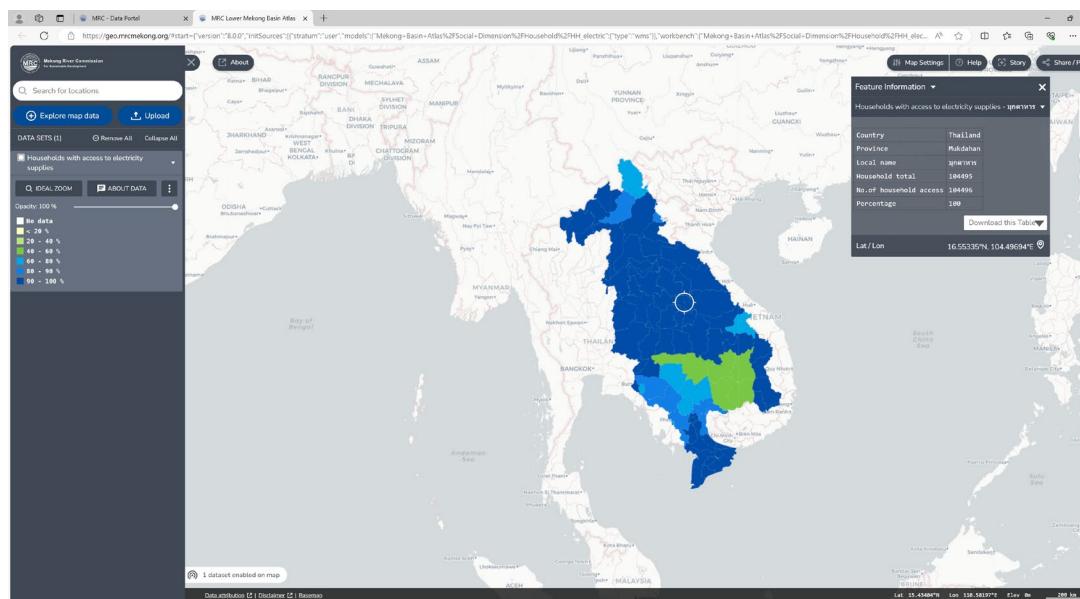
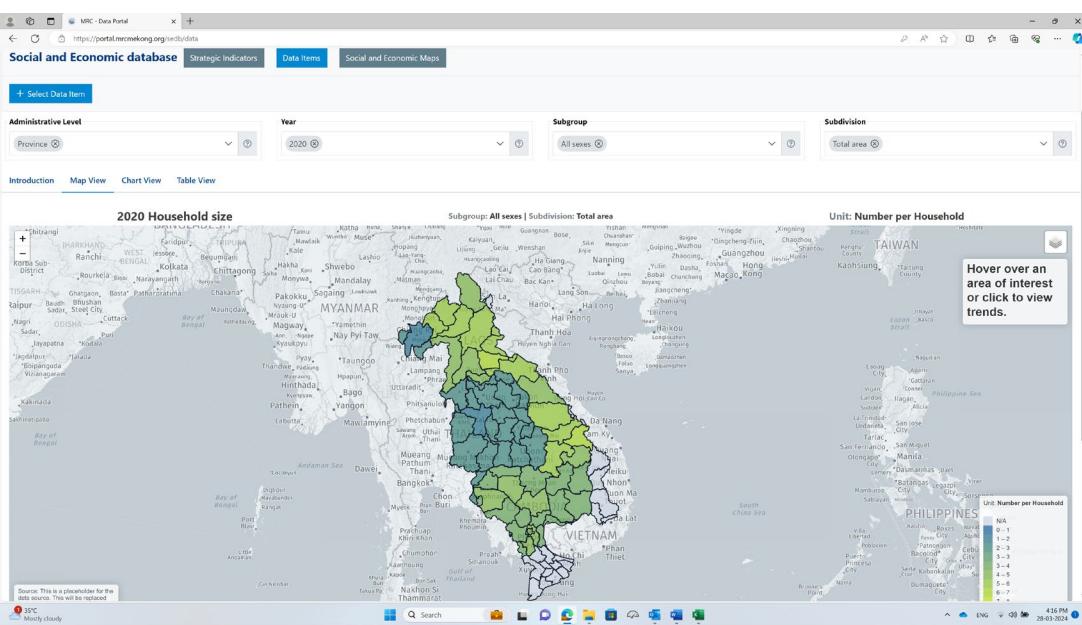
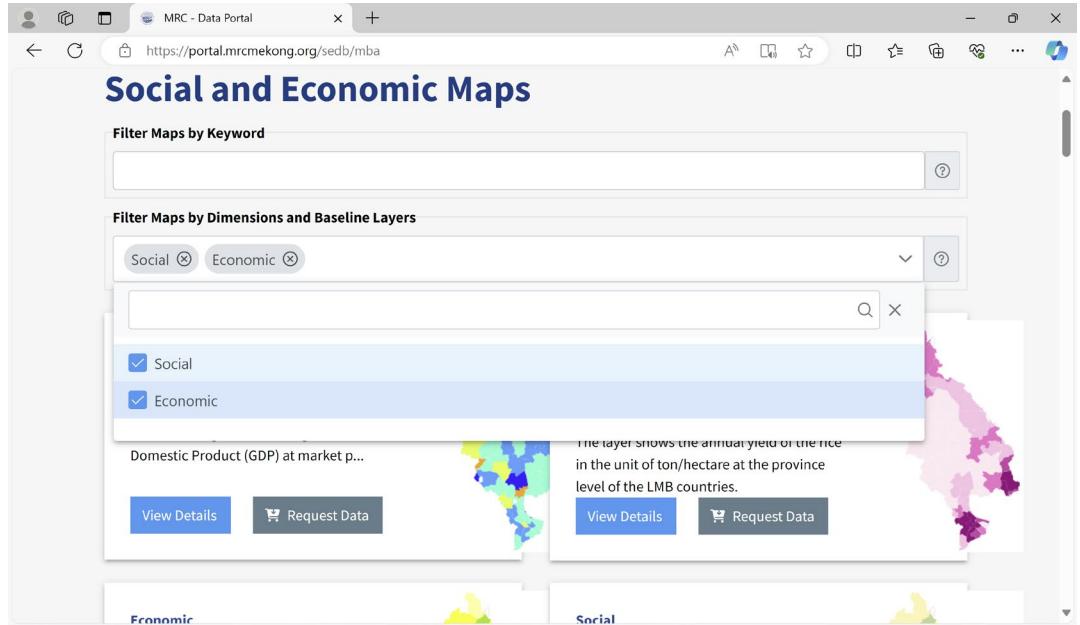
Showing 1 to 10 of 702 entries << 1 2 3 4 5 >> 10 >>

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Search



# Section 4: Social and Economic Maps from the LMB Atlas 2023



# Recommendations:

1. Using the data available from the Socio-Economic Database for **further analysis and assessments to identify the appropriate measures** to address the identified risks/impacts from water resource development and climate change (flood and drought).
2. Developing and implementing a plan to **enhance data collection, including gender and vulnerability data and analysis** at sub-national scales to better understand the conditions, trends, issues and adaptation strategies, particularly data related to livelihoods, well-being, education and employment in water-related sectors.
3. **Mobilising and allocating financial and technical resources** for implementing the recommended measures/initiatives and improved data collection and analysis to support riparian communities' adaptation and improve equity for vulnerable groups in MRB.



# Thank you.

