

State of the Basin Report 2023 (SOBR 2023) – DRAFT

Summary of conclusions, challenges, and recommended priority areas for basin stakeholders to refine the implementation of the Basin Development Strategy 2021–2030 (BDS 2021–2030)

Strategic indicators	Strategic questions	Challenges	Recommended priority actions to refine BDS implementation [<i>Relevant BDS Output</i>]
Environment			
Water flow conditions	Is the water flow in the Mekong mainstream adequate for maintaining the ecological function of the Mekong River Basin?	Balancing objectives implicit in the different PMFM (Procedures for the Maintenance of Flows on the Mainstream) thresholds, especially between lower flood season flows and reduced Tonle Sap Reverse flows	Regional planning must identify supplementary measures and alternative pathways to help minimise further changes to Tonle Sap reverse flows [3.1.1]
		Development impacts not readily reversible or mitigated and potentially compounded by climatic variability and climate change	Additional flow thresholds are needed to help countries minimise the environmental impacts of an increase in dry season flows and reduction in flood season flows [1.2.1]
		Mitigating impacts on basin fisheries, wetland areas and salinity intrusion from changed Tonle Sap flow regime	Develop and implement a holistic Tonle Sap management plan that addresses both local and transboundary threats and challenges [1.3.1]
Water quality and sediment conditions	Is the water quality and sediment transport in the Mekong mainstream adequate for maintaining the ecological function of the Mekong River Basin?	Identifying causes of water quality issues and implementing coordinated national policies and strategies to address issues, where necessary	Regional planning must identify supplementary measures that minimise further loss of sediment from Mekong tributaries and mitigate current impacts [3.1.1]
		Development impacts on sediment transport not readily reversible or mitigated, once caused	Investigate causes of concerning water quality changes in relevant parts of the basin and undertake a regional study on heavy metals in sediment, water column, and biota [1.1.1]

Status of environmental assets	Are key environmental assets in the Mekong River Basin adequately protected and conserved to maintain the provision of ecosystem services?	Floodplain development and flow regime changes continue to reduce wetland areas Instream barriers to fish migration continue to be constructed with mitigation measures of likely limited effectiveness	Investigate the reported reduction in tree cover within protected areas in the basin and support the application of improved management guidance for priority regional assets at other important sites [1.3.1 and 1.3.2] Identify and implement investment measures and alternative development pathways that minimise the need for further instream barriers especially on any remaining free flowing rivers, and that promote synergies between wetland conservation and floodplain storage and flood flow, especially in the delta [3.1.1]
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Social

Living conditions and well-being	Is the utilisation of the Mekong’s water and related resources strengthening the water, food and energy security of basin communities?	Data collection at appropriate scale and level of disaggregation to identify inequalities between groups, potential chronic problems in some vulnerable communities, and to target national policies appropriately Identifying the causes and identifying solutions for stagnating or slowing of progress in some countries	Develop and implement a plan to improve the collection and analysis of gender and vulnerability disaggregated data based on MRC’s review of current data availability [2.1.4] Investigate causes of slowing or stagnating progress in some indicators of water, food and energy security and develop appropriate national policy responses [2.1.1]
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Livelihoods and employment in water-related sectors	Are the livelihoods and employment conditions of basin communities helping increase economic security and reduce poverty among vulnerable people?	Managing the transition from employment in water-related sectors to more productive economic activities Supporting vulnerable groups access employment opportunities in growth sectors	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]
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Economic

Contribution to basin economy	How important are the basin's water-related sectors to the basin, national, and regional economies?	Managing the change in economic structure to facilitate new opportunities and support community transition, especially for vulnerability groups dependent on natural resources	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 water-related sectors	To what extent are water-related sectors contributing to optimal and sustainable development of the Mekong River Basin?	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	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]
Climate change			
Greenhouse gas emissions	To what extent are greenhouse gas emissions from the Mekong River Basin contributing to global emissions?	Decarbonising a fossil-fuel heavy electricity grid and decoupling greenhouse gas emissions from economic growth Watershed management for improved carbon sequestration	Increased investment in renewable energy and supporting grid infrastructure is needed based on optimising water-energy solutions that take sustainable development objectives into account [3.1.1]
Climate change trends and extremes	What is the evidence of climate change within the basin and has there been a change in the frequency and severity of floods and droughts?	Temperatures and sea-levels will almost certainly continue to rise throughout the century. Climate change impacts on flood and droughts remains less clear, but nevertheless require action for increased resilience under conditions of deep uncertainty	Undertake a comprehensive scientific assessment of the impact of climate change to-date on floods and droughts in the basin, distinguishing between climate change, normal climate variability and short-term trends [4.2.2] Continue to enhance monitoring and forecasting of floods and droughts at multiple scales and strengthen links with national monitoring and early warning systems [4.1.4]
Adaptation to climate change	Are basin communities adequately informed and prepared for changing river	Moving from planning and priority setting to implementation	Embed the redesigned MRC Core River Monitoring Network into business-as-usual operations and ensure ongoing funding for

<p>conditions and are they adapting to climate risks?</p>	<p>Financing for adaptation given the scale of the problem and increasingly likely and significant impacts</p> <p>Capacity building, policy coherence and coordination between sectors and countries</p>	<p>core monitoring activities is ring-fenced and secure for the foreseeable future [4.1.5]</p> <p>Prioritise flood and drought solutions (including nature-based solutions) in regional planning to identify supplementary investment options under potential future climatic conditions and cooperate on large scale regional projects that contribute to climate resilience with the support of a Mekong Fund and in coordination with enhanced access to global funds [4.2.2 and 5.2.3]</p> <p>Emphasise mangrove protection and restoration as a cost-effective measure to buffer against rising sea levels and storm-surge risks at the delta coast [4.2.2]</p>
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Cooperation

<p>Self-finance of the MRC</p>	<p>Is the strengthening of the MRC on track according to the commitments made by its Member Countries?</p>	<p>Ongoing pressures on public finances post-COVID 19 with significant increases in contributions still to come</p>	<p>Demonstrating value by implementing the MRC’s contribution to the BDS 2021–2030 in full and facilitating, coordinating and encouraging others to align effort and work towards common objectives throughout the Mekong River Basin [5.2.3]</p>
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<p>Benefits derived from cooperation</p>	<p>What are the benefits derived from cooperation between basin countries?</p>	<p>Lack of any significant joint investment projects that bind countries together in joint efforts to maximise benefits and minimise costs of development</p> <p>Challenges in evaluating and communicating the benefits of cooperation and joint investment projects</p>	<p>Develop improved approaches to evaluate the benefits of cooperation so that effort can be targeted where it is most effective [5.2.1] Regional planning must identify joint investment projects that ensure mutual interests and a common stake in sustainable development pathways for all countries [3.1.1 and 5.2.2]</p>
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Equity of benefits from the Mekong River system	Do the basin countries derive equitable benefits from the utilisation of the basin's water and related resources?	Downstream areas more adversely effected by cumulative development impacts with varying opportunities to maximise economic and social welfare	Benefit sharing models are needed to facilitate joint investments between countries in economic activities including to share the benefits from downstream wetlands and their ecosystem services (e.g., through Payments for Ecosystem Services) [5.2.2]

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