

Joint Actions, Joint Solutions



TRANSBOUNDARY DIALOGUE

under

Mekong Integrated Water Resources
Management Project



Mekong Basin

Transboundary Projects

- 1 Xe Bang Hieng and Nam Kam River Basins Wetland Management Project
- 2 Mekong and Sekong Rivers Fisheries Management Project
- 3 Sesan and Srepok River Basins Water Resources Management Project
- 4 Mekong Delta Water Resources Management Project
- 5 Tonle Sap Lake and Songkhla Lake Basins Communication Outreach Project



Mekong Transboundary Dialogue

The Mekong River flows 4,900 km across six countries in Asia from China to Vietnam before emptying into the sea. It is one of the largest and most bio-diverse rivers in the world, providing rich ecosystems and abundant natural resources to the riverine countries and their people. It is important to manage the resources beyond national boundaries as water, fish and sediment, all flow from one country to another. However, governing the river across borders has been a challenge for the Mekong countries due to differing national interests and priorities.

Transboundary dialogue can help reduce tension and increase cooperation among countries. The Mekong River Commission (MRC) supports its four member countries in the Lower Mekong Basin – Cambodia, Lao PDR, Thailand and Viet Nam – to enhance transboundary cooperation through the Mekong Integrated Water Resources Management Project (M-IWRMP). The project promotes IWRM practices of coordinated planning and management with the application of MRC's procedural rules, known as Procedures, and technical tools on water use planning, data sharing and flow monitoring.

The project originally began in 2009 with three inter-linked regional, transboundary and national components to increase IWRM-based water cooperation among the four countries at both basin-wide and local levels. The regional component, funded by the Australian government, was completed in 2015 after it advanced the application of the MRC Procedures and their technical guidelines and developed a package of modeling tools for basin-scale water utilisation.

While the transboundary component focuses on bilateral water cooperation, the national component supports each member country to improve governance mechanisms and build technical capacity to carry out coordinated planning and utilisation of water within the national boundaries. The World Bank finances both the transboundary and national components.

What is MRC?

The Mekong River Commission (MRC), established by a 1995 agreement between Cambodia, Lao PDR, Thailand and Viet Nam, works for sustainable development of water resources in the region through dialogue and cooperation. It provides a platform for water diplomacy for the four governments to negotiate and share the benefits of common water resources, and serves as a knowledge hub on basin management with technical guidelines, tools and scientific data.



What is IWRM?

Integrated Water Resources Management (IWRM) is a universal concept of coordinated planning and utilisation of water resources, aiming to balance the needs for social and economic development and environmental protection along the riverine communities. It takes a multi-sectoral approach to coordinate conflicting demands for resources, instead of a single sectoral approach that considers only needs of one sector such as infrastructural development, food security and healthy ecosystems. In the Lower Mekong Basin, this approach is promoted within each territory, between countries and across the basin.



What are MRC Procedures?

The MRC Procedures are five sets of procedural rules to govern the utilisation of shared water resources among the member countries, in support of the implementation of the 1995 Mekong Agreement on water cooperation. The rules include:

- Procedures for Data, Information Exchange and Sharing (PDIES)
- Procedures for Water Use Monitoring (PWUM)
- Procedures for Notification, Prior Consultation and Agreement (PNPCA)
- Procedures for the Maintenance of Flows on the Mainstream (PMFM)
- Procedures for Water Quality (PWQ)

These rules, together with MRC's research data, technical guidelines and modeling tools, are expected to facilitate IWRM practices in the region.

Enhancing Bilateral Cooperation

Under the transboundary component, the four Mekong countries have set up five bilateral projects focusing on fisheries, wetland, delta, lake and river basin management to tackle transboundary water issues such as pressures from urbanisation, infrastructural development and climate change that affect riverine communities across borders.

Through transboundary dialogue, the four countries build a common understanding of key cross-border water issues, find durable solutions to work together, and share best practices in water resources management. Altogether, these projects are designed to strengthen national and provincial capacities for coordinated water utilisation, and create a better institutional framework for IWRM-based joint management of water resources beyond borders.

Launched in 2013 and 2014, these bilateral projects are slated for completion in March 2018. It is expected that IWRM-based bilateral collaboration continue beyond the projects' completion with new national development plans that incorporate lessons from the projects. It will bring benefits to the livelihoods of the riparian communities and foster more sustainable development in the region.



The five projects are:

- **Mekong and Sekong Rivers Fisheries Management Project** between Cambodia and Lao PDR that addresses the issue of declining migratory whitefish species to improve transboundary management
- **Sesan and Srepok River Basins Water Resources Management Project** to improve transboundary cooperation between Cambodia and Viet Nam in the face of hydropower development
- **Mekong Delta Water Resources Management Project** in the bordering provinces of Cambodia and Viet Nam to address challenges from upstream development and climate change
- **Xe Bang Hieng and Nam Kam River Basins Wetland Management Project** between Lao PDR and Thailand to strengthen wetland resources management through knowledge sharing
- **Tonle Sap Lake and Songkhla Lake Basins Communication Outreach Project** between Cambodia and Thailand that promotes healthy lake governance through communication activities



Mekong and Sekong Rivers Fisheries Management Project

Cooperating to Restore Fish Stocks

Originating in the Central Highlands of Viet Nam, the Sekong River flows through southern Lao PDR and northeastern Cambodia to join the mighty Mekong River.

Both rivers provide rich aquatic resources, with more than 210 species including the endemic Irrawaddy dolphin and over 60 migratory fish varieties counted in the Sekong River and an estimate of 800 species including 580 freshwater ones in the Mekong River. Fisheries are the backbone of the local economy, providing a major source of income and protein for people in the Lao-Cambodia border provinces where the two rivers meet.

Yet, both rivers face many threats from exploitative fishing practices and accelerated infrastructure developments, such as hydropower and agricultural irrigation, leading to deterioration in fish habitats. This requires collaborative actions from the both riverine communities across borders.

Cambodia and Lao PDR have taken some measures to mitigate the impacts, but a more coordinated approach is needed for the two countries to maximise the efforts to improve the sustainability of the rivers' ecosystems and fisheries resources.

Mekong and Sekong Rivers Fisheries Management Project

Country:
Cambodia, Lao PDR

Budget:
US\$ 535,200

Duration:
Jul 2014 - Mar 2018

Joint Actions for Durable Solutions

The Mekong and Sekong Rivers Fisheries Management Project supports the two countries to develop appropriate mechanisms for better management of fisheries resources of the two rivers in the border provinces of Kratie and Stung Treng in Cambodia and Attapeu and Champassak in Lao PDR.

The project has identified common issues affecting both rivers, in particular a decline of migratory whitefish species due to over fishing, deterioration of watershed and impacts from hydropower projects. The bilateral team has jointly selected five migratory whitefish species that are valuable for food security as a monitoring target.

The countries are working together to develop a joint fishery monitoring system and a fishery management plan for addressing the transboundary issues. These efforts will further strengthen the bilateral cooperation and help restore fisheries resources that support food security and recreational fishing opportunities.



The project will bring the following results:

- Transboundary fisheries management issues facing the Mekong and Sekong Rivers are identified.
- Cross-border coordination mechanisms for addressing those issues are developed.
- A bilateral action plan for implementing the coordination mechanisms is in place.





Sesan and Srepok River Basins Water Resources Management Project

Collaborating for Sustainable Use of Shared Water

The Sesan and Srepok rivers are the Mekong's major tributaries flowing through central Viet Nam and northeastern Cambodia. Both are known for their prominent fish diversity and vast protected areas that support the livelihoods of almost 4 million people and a variety of bird species of global significance.

The upper streams of these rivers are highly developed, primarily for hydropower production and agricultural irrigation, while the lower streams are beginning to see large-scale development. These infrastructure projects put the rivers' systems under increasing pressure, causing more flash floods and droughts, soil erosion, deterioration of watershed and degradation of water quality beyond borders.

Future hydropower and extensive irrigation developments would further disrupt the water quality and health of the aquatic ecosystems, leading to a decline in fishery resources and a loss of biodiversity that would affect the quality of life in the riverine communities. This requires the two countries to coordinate their development priorities to mitigate adverse effects.

Cambodia and Viet Nam have been working to optimise the situation through bilateral collaboration. However, closer cross-border cooperation is necessary for better management of the shared water resources.

Sesan and Srepok River Basins Water Resources Management Project

Country:
Cambodia, Viet Nam

Budget:
US\$ 354,000

Duration:
May 2014 - Mar 2018

Joint Actions for Durable Solutions

Building on existing mechanisms, the Sesan and Srepok River Basins Water Resources Management Project assists Cambodia and Viet Nam in establishing a joint framework to take the bilateral cooperation further, both at national and basin levels.

The countries have identified priority issues that hinder the management of water resources, including lack of transboundary cooperation mechanisms, deficient sharing of information and data on water flows and flood control and warning systems, and limited capacity to manage the resources.

The two national teams are working together to develop bilateral coordination mechanisms and an action plan for jointly addressing the water issues and enhancing sharing of data on water utilisation and development. This will minimise impacts and promote sustainable management of the shared water.



The project will bring the following results:

- Transboundary water management issues are identified.
- Cross-border coordination mechanisms for addressing the joint issues are developed.
- A bilateral action plan for implementing the mechanisms is in place.





Mekong Delta Water Resources Management Project

Enhancing Water Utilisation to Sustain Growth

The Mekong Delta is the world's third largest delta, covering approximately 55,000 km² of fertile plain expanding from central Cambodia to southern Viet Nam. It is renowned for its vast natural resources including marshes, flooded forests and paddy fields. Viet Nam makes up a large portion of the delta, making it one of the Asia's major food baskets.

However, as it lies at the end of the Mekong River system, the region is highly vulnerable to adverse impacts from upstream hydropower projects, water extraction for irrigation and flood control, and climate change.

These pressures cause severe floods and droughts, acid sulfate soils and saltwater intrusion, as well as increased water pollution, degradation of the flood plains and reduction of sediment movement. Uncoordinated development of infrastructure and disharmonised management of delta resources between the two territories would aggravate these situations.

The governments of Cambodia and Viet Nam have given attention to cooperation for water utilisation in the delta. Nevertheless, more needs to be done to effectively address these complex challenges.

Mekong Delta Water Resources Management Project

Country:
Cambodia, Viet Nam

Budget:
US\$ 354,000

Duration:
May 2014 - Mar 2018

Joint Actions for Durable Solutions

The Mekong Delta Water Resources Management Project complements existing governments' measures to minimise impacts on the delta. It assists the countries in developing proper planning and mechanisms for harmonized water resources management and future development in the region.

It has helped outline significant issues that created barriers to water management, including lack of joint planning for better infrastructure development and a lack of coordination mechanism for data sharing and management.

The project is now facilitating bilateral dialogue for the development of a coordinated approach and joint activities for addressing those transboundary issues. It will also support the establishment of data and information sharing mechanisms and basin monitoring strategies to ensure sustainable use of the shared water resources.

All these actions combined can support the sustainability of the delta's ecosystems, helping to achieve sustainable socio-economic development and improved livelihoods in the region.



The project will bring the following results:

- Transboundary water management issues are identified.
- Cross-border cooperation mechanisms to address the transboundary issues are developed.
- A bilateral action plan to implement the coordination mechanisms is in place.





Xe Bang Hieng and Nam Kam River Basins Wetland Management Project

Promoting Knowledge Exchange for Sustainable Wetlands

Wetlands in Lao PDR's Xe Bang Hieng and Thailand's Nam Kam river basins support the livelihoods of local populations, providing dynamic environments for rice cultivation, freshwater fisheries and tourism.

Xe Champhone in the Xe Bang Hieng basin is one of the country's most important wetlands site, considered internationally significant by the Ramsar Convention for its rich ecosystems. With many channels, freshwater marshes and paddy fields, it provides a vital source of sustenance.

Across the border, Nong Han wetlands in the Nam Kam basin also offer a haven for fauna and flora with more than 40 fish species, unique aquatic plants and extended paddy fields, contributing to the local economy and social development of northeastern Thailand.

Both basins face similar challenges threatening their wetland resources, such as climate change and competing demands for water utilisation, although the levels of economic development and conservation of natural resources remain different. This makes the two basins ideal for sharing experiences and knowledge to promote better wetland management that supports pro-poor development.

Xe Bang Hieng and Nam Kam River Basins Wetland Management Project

Country:
Lao PDR, Thailand

Budget:
US\$ 354,000

Duration:
Dec 2013 - Mar 2018

Joint Actions for Durable Solutions

The Xe Bang Hieng and Nam Kam River Basins Wetland Management Project provides a platform for peer-to-peer learning between Lao PDR and Thailand on healthy preservation and development of wetland resources.

It enhances IWRM-based management practices to support river basin planning, flood management, and sustainable use of reservoirs for irrigation, fisheries and water supply.

The bilateral team has designed six specific targets for cooperation and exchange, such as resources management, data sharing and climate change adaptation, and conducted exchange visits for mutual learning on wetlands management.

The project team has begun joint learning activities, including the development of geographic information system (GIS) maps, to prepare community-based wetland management plans for selected areas.



The project will bring the following results:

- Community-based river basin groups are established and their capacity in IWRM-based basin planning is improved.
- Wetland issues and management practices in Xe Champhone and Nong Han wetlands are mutually learned through study visits.
- Knowledge in community-based water management is shared between the two wetlands through the development of management plans for selected areas.





Tonle Sap Lake and Songkhla Lake Basins Communication Outreach Project

Sharing Experiences to Build Healthy Lakes

Cambodia's Tonle Sap Lake is a vital source of livelihood for millions of people, so is Thailand's Songkhla Lake for its surrounding populations. Community-based lake resources management is a key for both lakes to support sustainable development of the Lower Mekong Basin and beyond.

Tonle Sap is the largest freshwater lake in Southeast Asia, expanding six times to 15,000 km² during the peak of the flood season. While the lake drains into the Mekong River during the dry season, it reverses its flow during the wet season to make the lake flooded. This remarkable hydrological cycle supports the lake's high productivity of fish, plants and wildlife – life-sustaining resources for Cambodian people.

Outside the basin, Songkhla Lake is Thailand's largest natural lake where freshwater mixes with seawater. The lake covers an area of 1,040 km² in the southern part of the country, and provides a wide variety of resource-based livelihoods, from agriculture to fisheries to tourism. It is renowned for the lake community's strong commitment to leading the preservation and management of their shared resources.

These unique features make the two lakes a great match to share their experiences to build healthy lakes in the face of common challenges such as unsustainable fisheries and effects of global warming.

Tonle Sap Lake and Songkhla Lake Basins Communication Outreach Project

Country:
Cambodia, Thailand

Budget:
US\$ 457,000

Duration:
Oct 2013 - Mar 2018

Joint Actions for Durable Solutions

The Tonle Sap Lake and Songkhla Lake Basins Communication Outreach Project provides an opportunity for Cambodia and Thailand to discuss and share good practices in managing their natural resources.

It raises awareness on IWRM-based lake management to preserve healthy lakes through communication activities within own communities and between the two lakes. This will strengthen community-based lake management to address major challenges facing both lakes.

Exchange visits have been carried out for learning and sharing of good practices on lake governance, including community-based fisheries management, women's empowerment and climate change adaptation. A participatory video exchange initiative has also facilitated mutual learning through joint video production and community video screening. The two lakes will further produce a report on joint learning and a handbook on lake governance.



The project will bring the following results:

- IWRM-based lake governance is strengthened.
- Understanding of policy options to support sustainable resource-based livelihoods is improved.
- Public awareness of the development and preservation of healthy lakes is increased.





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