



# Mekong River Commission

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## TERMS OF REFERENCE

### 1. Consultancy Summary:

<b>Title</b>	International Expert on Wetland Ecosystem Assessment and Management
<b>Consultancy type</b>	Special Service Agreement (SSA)
<b>Division</b>	Environmental Management Division (ED)
<b>Duration</b>	Starting from 1 <sup>st</sup> April 2017 – 31 <sup>st</sup> December 2020
<b>Duty station</b>	Home based and at the MRC Secretariat in Vientiane, Lao PDR with the possibility to travel to other MRC Member Countries
<b>Reporting to</b>	ED's Ecosystem and Wetland Specialist
<b>Total number of days</b>	81 working days
<b>Required deliverables</b>	<p>12 main deliverables as follows;</p> <ul style="list-style-type: none"> <li>• A summary report on basin-wide assessment of status and trends of wetlands and ecosystems, including ecological significant areas and economic values;</li> <li>• Refined inventory methodology</li> <li>• Field testing report of the inventory methodology at 4 selected wetland sites (one site in each MC);</li> <li>• Final technical notes and guidelines for wetland inventory and prioritization;</li> <li>• A list of prioritized wetlands in the LMB, including wetlands of regional significance for transboundary biodiversity protection;</li> <li>• Draft report on the methodology and tools for WEFASAM (including WBIA) in LMB;</li> <li>• Presentation of the draft methodology and tools for WEFASAM (including WBIA) in LMB;</li> <li>• The outline of training package and training manual and proceedings related to the application of WI and WEFASAM (including WBIA) methodologies and tools;</li> <li>• Field testing report on WI and WEFASAM (including WBIA) at 10 selected sites in 4 MCs;</li> <li>• The revised and finalized WI and WEFASAM (including</li> </ul>

	<p>WBIA) methodologies and tools based on the results of testing and feedback from Member Countries;</p> <ul style="list-style-type: none"> <li>• Lessons learned report on the capacity strengthening through exchange of experiences and study visits on wetland assessment and management practices; and</li> <li>• Final synthesis report covering the development and application of the above methodologies, training and field testing activities and recommendations, wetland database system management, and wetland prioritisation.</li> </ul>
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## 2. Background

The Mekong River Commission (MRC) was established by the 1995 Agreement on Co-operation for the Sustainable Development of the Mekong River Basin, between the governments of Cambodia, Laos, Thailand and Viet Nam. In accordance with this Agreement, the Mission of MRC is: “To promote and coordinate sustainable management and development of water and related resources for the countries’ mutual benefit and the people’s well-being by implementing strategic programmes and activities and providing scientific information and policy advice”.

The Lower Mekong Basin (LMB) contains a great number and diversity of wetlands which support a wealth of biodiversity and provide a wide range of ecological service functions and natural resources that support food security, livelihoods and a range of other important social, economic and cultural values. Wetlands and their associated biodiversity are becoming increasingly threatened and the loss of wetlands in the LMB has been enormous. Increasing local population numbers, resulting in more intensive use of wetlands and ultimately drainage and conversion to agricultural lands or urban settlements, combined with increasing flood protection, further threaten these valuable ecosystems.

To prevent further loss or degradation of the Mekong wetlands, policy makers, wetland managers and local populations will be supported in managing their wetlands by providing tools and capacity development for wetland inventory and the assessment of wetland ecological functions and ecosystem services.

The former MRC Environment Programme and the current MRC Environmental Management Division) have been generating data, information and knowledge for decision making in order to balance economic development and environmental conservation. In addition to establishing systems for monitoring the Basin’s environmental health, improving policies and legislation, and encouraging co-operation among the riparian countries, the implementation is also charged with increasing environmental awareness amongst the public.

The Mekong River Commission Secretariat (MRCS) has undertaken LMB wetland activities since before the establishment of the 1995 Mekong Agreement. For instance, MRCS developed the MRC wetland classification system in 1993 and the LMB Wetland GIS data set in 2003. This data set was further updated in 2009, by MRCS Basin Development Programme (BDP), and has been used to varying degrees by the Member Countries. MRCS organized a number of wetlands related training events at the national and regional level to

build the capacity of MCs. To ensure the aquatic ecological health of the region, the former MRC Environment Programme and the current Environmental Management Division undertakes in every second year the Ecological Health Monitoring on 41 locations in the LMB. The former MRC EP supported the initiative of developing a Wetland Inventory Methodology Framework (WIMF) for the purposes of inventorying wetlands in the LMB Countries. Since 2011, EP has worked with KfW Development Bank to establish the LMB Wetlands Management and Conservation Programme which is a Joint MRC & German Development Cooperation Initiative on Wetland Ecosystem Services Delivery in the Lower Mekong Region.

This task directly contributes to the achievement of MRC Annual Work Plan 2017 and MRC Strategic Plan (2016-2020) particularly Outcome 3 “Guidance for the development and management of water and related projects and resources shared and applied by national planning and implementing agencies”; Output 3.9 “Methodologies for sustainable use and management of wetlands developed and implementation supported” and Activity 3.9.1 “Project preparation, inception and kick-off”. This Output 3.9 is linked to Output 2.8 “Strategy for basin-wide environmental management for prioritised environmental assets developed and approved”.

The MRC ED is now looking for the International Expert on Wetland Ecosystem Assessment and Management to work closely with national executing agencies, riparian and national specialists and ED staff to strengthen knowledge and capacity of the LMB Countries with regard to wetland assessment and management. S/he will be involved in the development of appropriate approaches and methodologies for wetland, ecosystem and ecosystem service inventory, assessment and management to improve LMB wetland resources management.

### **3. Objectives of the Consultancy:**

- To prepare a summary report on basin-wide assessment of status and trends of wetlands and ecosystems, including ecological significant areas and economic values;
- To refine or update wetland inventory approaches and methodologies;
- To prepare and develop methodologies for wetland inventory (WI) and wetland ecosystem function and ecosystem services assessment and management (WEFASAM) including wetland biodiversity indicator assessment (WBIA);
- To design approaches and procedures for testing and applying these methodologies, including the preparation of field data collection forms and questionnaires and supervise the conduct of the field testing and report writing with assistance from the respective riparian specialists;
- To provide inputs for the development of the LMB wetland database system and maps under the overall guidance of ED/MRCS;
- To prepare, develop and deliver training and field testing of the wetland inventory and wetland ecosystem, function, asset and services assessment and management (including WBIA) methodology; and
- To initiate and prepare the development of a training package and training manual related to the application of the developed methodologies and tools.

#### 4. Responsibilities and Tasks:

**The key responsibilities and tasks of the incumbent are as follows:**

- Review literatures and prepare a summary report of wetland, ecosystem and ecosystem service inventory, assessment and management in the LMB as well as other regions;
- Provides technical advice and support on wetland inventory, assessment and prioritisation; and wetland database system development and mapping.
- Designs and provides training courses on the wetland inventory methodology.
- Develops technical notes and the guideline for conducting wetland inventory and wetland assessment and prioritisation.
- Develops an appropriate methodology and tool for wetland ecosystem, function, asset and services assessment and management (WEFASAM) (including WBIA) in the Lower Mekong Basin, and presents to MCs at national and regional consultation workshops.
- Designs and provides training courses on methodologies for wetland ecosystem, function, asset and services assessment and management (WEFASAM) (including WBIA) for strengthening and building capacity in Member Countries.
- Identifies and develops appropriate criteria and procedures for the selection of pilot sites and the recording of expected outputs for the testing of methodologies and tools, taking into account the transboundary and multi-management context.
- Provides guidance to the National Wetland Consultants and Regional (Riparian) GIS/Database Consultant, supervises the field testing and application of the above methodologies, and assists in data analyzing and report writing.
- Ensures that during the development, training and field testing of the above methodologies and tool, the representatives of local communities and line agencies as well as national consultants are involved in these processes in a participatory manner.
- Prepares the synthesis report<sup>1</sup>, results and outputs (methodologies and tools for wetland inventory, reports on field testing of wetland ecosystem, function, asset and services assessment and management (WEFASAM) (including WBIA), and training documents such as presentations handouts, discussion questionnaires, group discussion and presentation flipcharts, training reports, etc.) in a user-friendly and accessible format, facilitate the organization of the national and regional consultation workshops, and presents those results and outputs, as required.
- Identifies appropriate guidelines on how to use the results of the wetland inventory and wetland ecosystem, function, asset and services assessment and management (WEFASAM) (including WBIA), and monitor/minimize the identified threats to wetlands.
- Develops the outline of the training package and training manual related to the application of the developed methodologies and tools within the component timeframe.
- Submits and provides responses to ED's Ecosystem and Wetland Specialist comments and makes necessary revision to the results and outputs.
- Work closely with ED staff and national and international experts for development of Strategy for Basin-wide Environment Management for prioritized environment assets, including regional significant biodiversity or environment hotspots.
- Works closely with ED/MRCS, the National ED Coordinators, national wetland consultants and Riparian GIS/Database Specialists to achieve the required outputs.

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<sup>1</sup> The National Experts on Wetland (from all MCs) and the Regional (Riparian) GIS and Database Consultant will prepare and send their reviewing reports on country wetland management and database system, and work closely with the incumbent to prepare a synthesis report.

## 5. Required Deliverables:

The following required deliverables are expected:

- A summary report on basin-wide assessment of status and trends of wetlands and ecosystems, including ecological significant areas and economic values;
- Refined inventory methodology
- Field testing report of the inventory methodology at 4 selected wetland sites (one site in each MC);
- Final technical notes and guidelines for wetland inventory and prioritization;
- A list of prioritized wetlands in the LMB, including wetlands of regional significance for transboundary biodiversity protection;
- Draft report on the methodology and tools for WEFASAM (including WBIA) in LMB;
- Presentation of the draft methodology and tools for WEFASAM (including WBIA) in LMB;
- The outline of training package and training manual and proceedings related to the application of WI and WEFASAM (including WBIA) methodologies and tools;
- Field testing report on WI and WEFASAM (including WBIA) at 10 selected sites in 4 MCs;
- The revised and finalized WI and WEFASAM (including WBIA) methodologies and tools based on the results of testing and feedback from Member Countries;
- Lessons learned report on the capacity strengthening through exchange of experiences and study visits on wetland assessment and management practices; and
- Final synthesis report covering the development and application of the above methodologies, training and field testing activities and recommendations, wetland database system management, and wetland prioritisation.

## 6. Required Deliverables and Timelines:

A tentative schedule is provided below. The exact schedule will depend on the timing of the contracting of the consultant, but it is anticipated that the assignment will commence in 1<sup>st</sup> April 2017 until 31<sup>st</sup> December 2020.

No.	Task	Required Deliverables	Number of Working Days	Deadline
1	Develop a summary report on basin-wide assessment of status and trends of wetlands and ecosystems, including ecological significant areas and economic values	<ul style="list-style-type: none"> <li>• A summary report on basin-wide assessment of status and trends of wetlands and ecosystems, including ecological significant areas and economic values</li> </ul>	<ul style="list-style-type: none"> <li>- Developing a summary report on basin-wide assessment of status and trends of wetlands and ecosystems, including ecological significant areas and economic values: 7 days</li> <li>- <b>Total: 7 days</b></li> </ul>	Apr-Jun 2017
2	Develop the methodology and tool for wetland ecosystem functions, assets and services assessment and management (WEFASAM) (including WBIA) in LMB and present at national and regional consultation workshops	<ul style="list-style-type: none"> <li>• Draft report on the methodology and tool for WEFASAM (including WBIA) in LMB</li> <li>• Presentation of the methodology and tool for WEFASAM</li> </ul>	<ul style="list-style-type: none"> <li>- WEFASAM (including WBIA) methodology and tool development: 6 days</li> <li>- Presenting the developed methodologies at national and regional</li> </ul>	Apr-Jun 2017

No.	Task	Required Deliverables	Number of Working Days	Deadline
		(including WBIA) in LMB	consultation workshops: 2 days - <b>Total: 8 days</b>	
3	Conduct field testing of the inventory methodology at 4 selected wetland sites (one site in each MC)	<ul style="list-style-type: none"> <li>Field testing report of the inventory methodology at 4 selected wetland sites (one site in each MC)</li> </ul>	<ul style="list-style-type: none"> <li>Field testing: 4 days</li> <li>Reporting: 1 day</li> <li>- <b>Total: 5 days</b></li> </ul>	Apr-Jun 2017
4	Develop a list of prioritized wetland in the LMB established, and technical notes and guideline for wetland inventory and prioritization.	<ul style="list-style-type: none"> <li>A list of prioritized wetlands in the LMB, including wetlands regional significance for transboundary biodiversity protection</li> <li>Final technical notes and guideline for wetland inventory and prioritization</li> <li>Refined inventory methodology</li> </ul>	<ul style="list-style-type: none"> <li>Develop a list of prioritised wetland sites in the LMB including wetlands regional significance for transboundary biodiversity protection: 1 day</li> <li>Develop technical notes and guideline for wetland inventory and prioritization and refined inventory methodology: 1 day</li> <li>- <b>Total: 2 days</b></li> </ul>	Sep-Oct 2017
5	Conduct field testing on WEFASAM (including WBIA) at 10 selected sites in 4 MCs	<ul style="list-style-type: none"> <li>Field testing report on WEFASAM (including WBIA) at 10 selected sites in 4 MCs</li> </ul>	<ul style="list-style-type: none"> <li>Supervise field works in 4 MCs on WEFASAM: 12 days</li> <li>Developing field testing report on WEFASAM (including WBIA) at 10 selected sites in 4 MCs: 1 day</li> <li>- <b>Total: 13 days</b></li> </ul>	Apr 2017- Dec 2018 and Jan-Jun 2020
6	Design, organise and deliver the training course on WI and WEFASAM (including WBIA) methodologies and tools	<ul style="list-style-type: none"> <li>The outline of training package and training manual and proceedings related to the application of WI and WEFASAM (including WBIA) methodologies and tools</li> <li>The revised and finalized WI and WEFASAM (including WBIA) methodologies and tools based on the results of testing and feedback from Member Countries</li> </ul>	<ul style="list-style-type: none"> <li>Developing, revising and finalizing the outline of the training package and training manual: 4 days (1 day for presenting workplan at regional technical meeting)</li> <li>Training: 16 days</li> <li>- <b>Total: 20 days</b></li> </ul>	Apr 2017-Dec 2018 and Jan- Dec 2020
7	Conduct the capacity strengthening through exchange of experiences and study visits on wetland assessment and management practices	<ul style="list-style-type: none"> <li>Lessons learned report on the capacity strengthening through exchange of experiences and study visits on wetland assessment and management practices</li> </ul>	<ul style="list-style-type: none"> <li>Supervise the capacity strengthening: 10 days</li> <li>Reporting: 3 days</li> <li>- <b>Total: 13 days</b></li> </ul>	Jan-Dec 2019

No.	Task	Required Deliverables	Number of Working Days	Deadline
8	Develop, review and finalise the synthesis reports covering the development and application of the above methodologies, training and field testing activities and recommendations, wetland database system management, and wetland prioritisation	<ul style="list-style-type: none"> <li>Final synthesis report covering the development and application of the above methodologies, training and field testing activities and recommendations, wetland database system management, and wetland prioritisation</li> </ul>	Report writing: 13 days  <b>Total: 13 days</b>	Nov-Dec 2020
<b>Total</b>			<b>81 working days</b>	<b>Apr 2017- Dec 2020</b>

## 7. Working Arrangement:

The consultant will be working under the overall supervision of the Director of the Environmental Management Division (ED) and in close consultation with the Chief of Environmental Management Officer and ED's Ecosystem and Wetland Specialist. The work station will be home-based and at the MRC Secretariat in Vientiane, Lao PDR with the possibility to travel to other MRC Member Countries.

## 8. Qualifications and Requirements:

- Must be the nationality of non-four member countries (Cambodia, Lao PDR, Thailand and Viet Nam);
- Master degree or higher in wetland and aquatic science, biology, ecology, natural science, environmental and natural resource management or similar with focus on wetland and aquatic ecosystem service studies, research, development, management and conservation;
- At least 12 years of relevant experience in wetland management and governance, wetland restoration and conservation, especially with proven experience in the LMB region (Cambodia, Lao PDR, Thailand and Viet Nam) or internationally, preferably on both practical field experiences and academic research;
- Knowledge and skills on wetland inventory and prioritisation, wetland functions and ecosystem services assessment and management, economic valuation of wetlands, wetland biodiversity indicators assessment and monitoring methodologies, livelihood assessment, wetland classification and database system development and management, GIS and mapping techniques;
- Experience in preparation and organizing of training courses on wetland ecosystem inventory, prioritisation, assessment, restoration, conservation and management;
- Knowledge and skills on training package and training manual development;
- Experience with and good knowledge of the Mekong riparian countries or similar tropical regions;
- Experience in working in a multicultural and international multiple partner environment; and
- Fluency in written and spoken English and at least one of Mekong riparian languages is essential.

**9. Condition of Payment:**

Payment will be made based on the actual number of working days with the MRC’s daily timesheet template provided by the consultant. Travel and subsistence costs will be included in the working day rate of the consultant. Tasks will be assessed and technically endorsed and approved by the ED’s Ecosystem and Wetland Specialist prior to payment.

<b>Main Tasks and Required Deliverables</b>	<b>Percent of payment</b>
After signing of the contract and upon submitted of original invoice.	10 %
After the completion and submission of related deliverables of task from 1 to 4 and ED/MRCS reviewed and approved.	40 %
After the completion and submission of related deliverables of task from 5 to 7 and ED/MRCS reviewed and approved.	30 %
After the completion and submission of related deliverables of task 8 and ED/MRCS reviewed and approved.	20 %

**10. Intellectual Property Rights (IPR):**

Information, data, database, knowledge resources in the forms of briefings, reports, proceedings, articles, essays, etc. issued by and for the MRCS will be the MRCS property. Any utility, announcement and disclosure that are without MRCS highest levels of authority permission is considered illegal and will be charged by relevant local and international legal procedures.

**11. Signature Block:**

Incumbent : ..... Date: \_\_\_\_\_  
Name :

Chief of Environmental Management Officer: ..... Date: \_\_\_\_\_  
Name : So Nam

Director, ED : ..... Date: \_\_\_\_\_  
Name : Tien Truong Hong

**Remark:** This job description subjects to further revision based on the development of the project.