



TERMS OF REFERENCE

1. CONSULTANCY SUMMARY

Title	Consultant for preparing regional report of fish larvae in the LMB
Consultancy/Staff Type	Special Service Agreement (SSA), type (a) One-time assignment
Division	Environmental Management Division (ED)
Duration	25 working days from October 2020 to July 2021
Duty Station	Home-based with possible travel to MRC Secretariat and MRC Member Countries (MCs)
Reporting to	Director of ED
Expected Deliverables	Regional report of FLDM

2. INTRODUCTION AND 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, Lao PDR, Thailand and Viet Nam. The role of the MRC is to coordinate and promote cooperation in all fields of sustainable development, utilization, management and conservation of the water and related resources of the Mekong River Basin.

The MRC Secretariat (MRCS) is the operational arm of the MRC. It provides technical and administrative services to the Joint Committee and the Council to achieve the MRC's mission.

The Environmental Management Division (ED) is responsible for environment monitoring, assessment, planning and management to support basin planning management and development for sustainable development of the Mekong River.

Under MRC River Basin Management Core Functions, there are a number of routine monitoring activities, of which Fisheries monitoring is coordinated by MRCS ED. MRC Secretariat has been supporting the fisheries monitoring activities since mid-1990s. Moreover, there are three types of the fisheries monitoring, of which fish larvae drift monitoring (FLDM) has been impleted by three MRC's member countries (Cambodia, Lao PDR and Viet Nam). The main purpose of this monitoring is to assess fish larvae quantity and density, and likely fish spawning ground. Since the start of this monitoring, there was only one regional report published in 2015. Thus, it is necessary to prepare a new one with the updated data for 2020 in order to display the impact of a rapid environmental change in the Lower Mekong Basin (LMB) on fish larvae.

In this connection, the ED team is seeking for a Consultant who has education and professional background in river fish ecology including fish larvae, routine fisheries monitoring, data analyses using up-to-date statistical programmes, and reporting to undertake the following tasks to obtain the following expected outputs and achieve the following specific objectives.

3. OBJECTIVES OF THE CONSULTANCY

To conduct data analyses using advanced statistical tools, interpreted the data analysis results, and prepare a regional report on fish larvae monitoring in the LMB.

4. EXPECTED RESULTS

- The advanced statistical tools using for data analysis and reporting on FLDM in the LMB made available for the future use; and
- The regional report of FLDM drafted, revised and finalized

5. DELIVERABLES AND CONCRETE TIMELINES

Deliverables and Expected Quality	Number of Days	Deadline
National reports reviewed, and suggestion made on how to prepare the regional report, with the suggested outline of a regional report	2	Oct 2020
Deep data analysis plus new advance statistic tools for fish biology and ecology	10	Dec 2020
Output of the analysis presented to ED team	1	Dec 2020
Report drafted, revised and finalised	12	Jul 2021
Total Number of Days	25	Oct 2020-Jul 2021

6. REQUIRED TASKS AND RESPONSIBILITIES

- Review national reports and make suggestion how to prepare the regional report;
- Work with the Fisheries and Aquatic Ecology Officer (FAEO) on data preparation;
- Working closely with FAEO on data analysis and interpretation using new advanced statistic tools for fish biology and ecology (e.g. Principal Components Analysis, Canonical Correspondence Analysis, wavelet power...) with analysis tools (e.g. Python or R);
- After data analysis, present the preliminary outputs and draft outline of the report to all ED staff for comments;
- Prepare a draft regional report of status and trend of fish larvae
- Working closely with FAEO to present the draft report to member countries and finalise the report based on the comments from both ED staff and member countries.

7. PAYMENT MODALITY

Since there will be several milestones to be completed and to avoid many administrative works, payment by instalment will be selected for this assignment and it is shown below.

- The 1st payment upon signing of the Contract (20% of the total budget)
- The 2nd payment upon submission and acceptance by MRCS/ED on the deliverable No. 1, 2 and 3 under this given period (40% of the total budget)
- The final payment upon submission and acceptance by MRCS/ED on the deliverable No. 4 (40% of the total budget).

8. INTELLECTUAL PROPERTY RIGHTS

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.

9. WORKING ARRANGEMENT

The consultant will be working under the overall supervision of the Director of the Environment Management Division and direct supervision of the Chief Environment Management Officer as well as in close consultation with the Fisheries and Aquatic Ecology Officer.

10. QUALIFICATIONS AND REQUIREMENTS

- Ph.D. Degree in river fish biology-ecology including fish larvae or fisheries management with significant knowledge in freshwater or inland fisheries;
- Have at least 7-year experiences in fish larvae or fisheries management ;
- Have a strong knowledge in preparation of technical report, especially international peer review article, on basin-wide fish and hydrology;
- Have a strong knowledge of river fisheries biology and ecology particularly in the Lower Mekong Basin;
- Have good statistical knowledge, including multivariable analysis, and diversity index (including specific software and other update-to-date or advanced programmes (e.g. Python or R)) are preferable;
- Experience in undertaking fisheries or biological assessment;
- Fluency in written and spoken English.

11. SIGNATURE BLOCK

MRCS:

Name and Title: _____ Incumbent's Signature: _____

Date: _____ Date: _____