



## Minutes of Meeting

# **The 27<sup>th</sup> Meeting of Malaysia – Thailand Joint Evaluation Team On Golok River Mouth Improvement Project**

28 – 29 April 2015  
Malacca, Malaysia

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#### **AGENDA 1: OPENING ADDRESSES**

Ir. Leong Tak Meng, the leader of the Malaysian Delegation, welcomed the Thai Delegation to the 27<sup>th</sup> Meeting of the Joint Evaluation Team (JET) on the Golok River Mouth Improvement Project on 28–29 April 2015 in Malacca, Malaysia.

Mr. Somkiat Prajamwong, the leader of the Thai Delegates expressed his appreciation for the warm welcome and arrangements for the meeting. Both sides introduced their delegates to the Meeting. The list of delegates is shown in **Appendix A**.

Malaysian side presented the proposed agenda for this meeting as well as the brief content and continuity of each agenda to the meeting. The meeting agreed to the proposed agenda and the adopted agenda is as shown in **Appendix B**.

#### **AGENDA 2: MATTERS FOR CONSIDERATION**

##### **2.1 Report of Monitoring and Evaluation of Golok River Mouth**

The pre and post-monsoon survey for the 2014/2015 monsoon season was carried out by the Malaysian side in October 2014 and March 2015 respectively.

Malaysian side reported from the Joint Hydraulic Study (year 2013), the estimated maximum discharge at the rivermouth for the return period of 100yrs, 20yrs and 10yrs are 1,400m<sup>3</sup>/s, 700m<sup>3</sup>/s and 500m<sup>3</sup>/s respectively. The average net transport along the shoreline is 140,000 m<sup>3</sup>/yr towards Thai side.

The result and the comparison of the bed level at the river mouth during pre- and post- monsoon is shown **Appendix C**. The maximum discharge of Golok River at Cableway (X.119A) during non-monsoon season is below 100m<sup>3</sup>/s meanwhile during monsoon season is between 400 to 460m<sup>3</sup>/s. Based on monitoring survey

from year 2005 to 2015, only when the discharge is above 700 m<sup>3</sup>/s the sediment was able to be flushed out and the rivermouth is fully open. Below than that, the rivermouth is either partially open or totally closed.

The average bed level for pre- and post-monsoon is -2.5m MSL from Ch325 to Ch400. The shallowest point is -2.1m MSL. The design level for the navigation channel is -3m MSL. The affected area (sedimentation) during post-monsoon is slightly lesser (20%) than pre-monsoon. The bed level during post-monsoon near the Malaysian tip is shallower than pre-monsoon. However around Thai breakwater the bed level is deeper during post-monsoon compared to pre-monsoon (-6m MSL in post monsoon survey). The cross section from tip to tip is as shown in **Appendix D**. The deep channel moves to the Thai side and is closer to the breakwater tip.

## **2.2 Maintenance Dredging of Golok River Mouth**

It was agreed during the previous meeting that the maintenance dredging is required base on the following criteria from the Joint Hydraulics Studies:

1. the cross section of the river mouth between Thai and Malaysian breakwater tips is blocked up to 30% (Thai study for upstream flood control) or
2. when the sea bed level at the river mouth is -2m MSL or shallower (Malaysian study for navigation).

The meeting agreed that;

1. The above criteria is only for the purpose to determine the needs for dredging. However, the area to be dredge will be determine later, when there is necessity.
2. There is no needs to carry out a maintenance dredging at present according to the dredging criteria for the purpose of navigation. The phenomena are to be monitored for at least 2 consecutive monsoon seasons.
3. The proposed two (2) dredging criteria are for different purposes i.e. for upstream flood control (Thai side) and navigation (Malaysian side). These criteria are to be maintained as a common criteria.
4. The structure stability at Thai breakwater tip need to be closely monitored due to the bed level is increasingly deep year by year. Thai side proposed the slope stability study need to be done in order to determine the maximum allowable depth at the toe of Thai breakwater to ensure its stability.

## **2.3 Cableway Station Across Golok River**

### **2.3.1. Mutual Calibration of Rating Curves**

Thai side had carried out a survey to link T-11 datum to establish a common BM at the cable way station on Thai side. The TBM Elevation at X.119A is 10.8847m MSL. Malaysian side will use the common BM elevation as a reference in future to produce the rating curve.

Thai side reported that both sides did not use the same cross section to plot the rating curve. This is due to the different survey location by both sides (Malaysian side at the cableway station and Thai side at the bridge, upstream of cableway). The location of the cross section in the rating curve is supposed to be along with the cable line using common BM at the cableway.

The meeting agreed that;

1. Both sides should come out with a common rating curve using the common BM produced by Thai side to be presented in the next JTWG meeting in Hua Hin, Thailand.
2. Both sides should use the same location for the cross section in the rating curve.
3. The location for the survey of the cross section should be at the cableway station using the common BM. A joint survey will be carried by the hydrologist of both sides and to be presented during the next JTWG meeting in Hua Hin, Thailand.

### **2.3.2. The proposed river bank stabilization works**

Malaysian side reported that there is no significant sign of river bank instability at the cableway station at the time being. The meeting agreed that no physical work will be carried out at the moment.



## 2.4 Real Time Monitoring System in the Golok River Basin, the Joint Websites and Flood Forecasting, and Warning System for Golok River Basin

Malaysian side reported that the proposed installing of the three (3) telemetering stations are expected to be completed by June 2015. Thai side had finished the construction of six (6) new telemetering stations and will start to collect data by Jun 2015. The proposed work program 2015 by Thai side is as shown below;

Table 1: Proposed Work Program by Thai side (year 2015)

ACTIVITIES	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Program setup	→							
Collect data		→	→	→	→	→	→	→
calibration			→	→	→	→	→	→
sharing		→	→	→	→	→	→	→

As both sides are expected to start the data collection by June 2015, the meeting agreed that Malaysian side will follow the same work program as Thai side.

Both sides reported that the hydrological data up to April 2015 has been uploaded in the joint website.

## 2.5 Joint Hydraulic Modeling Studies

Thai side reported that the budget for Feasibility and EIA study is already approved and will start in the next few months. The duration of the EIA study is 12 months. The detailed design will be executed after or a few months (if possible) before the completion of Feasibility study. However, the physical modeling works for the proposed modification of the breakwater is still subjected to next fiscal budget approval by Thai side. The physical modeling works by Thai side will include the participation of representative from Malaysian side. Both sides agreed to exchange experiences of a similar projects in order to improve the detailed design and for the benefits of both countries. The proposed program work by Thai side is as shown in Table 2.

Malaysian side will be carried out the detailed design at the same time as Thai side (after completion of Feasibility study). At the moment, Malaysian side still waiting

for the budget approval.

Table 2: Proposed Program Work by Thai

DETAILS	2015												2016												2017													
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D		
Feasibility and EIA study																																						
Detailed Design																																						
Physical Model																																						
Submit for EIA approval																																						

## 2.6 Protection Work at Transit Point B (TPB)

Thai side reported that budget for the physical modelling works for the protection of TPB will be included in the physical model in Agenda 2.5.

Malaysian side reported that during the joint site visit on 17<sup>th</sup> March 2015 to the TPB, the team had noticed that one of the spun pile is likely to be seen differently from the other spun pile. The surface of the spun pile is in blackish brown colour. Both sides will investigate more on the physical condition of TPB in order to ensure the safety of the structure. A joint investigation will be conducted by Mr Waemamu Waehama (Thai side) and Mr Abdul Razak Abdul Rashid (Malaysian side), and to be reported in the next JTWG meeting in Hua Hin, Thailand.

## 2.7 Integrated River Basin Management (IRBM) Plan for Golok River

Both sides reported the objectives and scope of work of the proposed IRBM Plan carried out in the Technical Meeting prior to JET 27<sup>th</sup> Meeting. The agreed objectives and scope of work are as shown in **Appendix E**. These will be reported in the next JTWG meeting in Hua Hin for consideration. Both sides agreed that IRBM Plan for Golok River Basin will be very useful for sustainable water management in the future.

The meeting agreed that the implementation of the IRBM Plan will incurred in budget increase due to the additional meeting days and manpower from other departments and agencies.

### **AGENDA 3 : OTHER MATTERS**

#### **3.1 Proposed date and venue for the 28<sup>th</sup> JET meeting**

The meeting proposed the date and venue for the next JET meeting (28<sup>th</sup> JET meeting) as follows:

Date: November / Disember 2015

Venue: Kanchanaburi, Nan or Khao Yai Province, Thailand.

#### **3.2 Matters to be referred to JTWG**

##### **MATTERS FOR INFORMATION**

1. Monitoring And Evaluation Of Golok River Mouth
2. Maintenance Dredging Of Golok River Mouth
3. Flow Measurement At Cableway Station Across Golok River Real Time Monitoring System, Joint Website And Flood
4. Forecasting And Warning System For Golok River Basin

##### **MATTERS FOR CONSIDERATION**

5. Joint Hydraulic Studies:-
  - Study On Coastal Flooding At Golok Rivermouth (Malaysia)
  - Assessment Of The Golok River Mouth Improvement Works And Adjacent Coastal Areas (Thailand)
6. Protection Work At Transit Point B
7. Integrated River Basin Management (Irbm) Plan For Golok River

#### AGENDA 4 : ADOPTION OF MINUTES OF THE MEETING

The meeting agreed to adopt the minutes of meeting of the Twenty Seventh Meeting of Malaysia – Thailand Joint Evaluation Team on the Golok River Mouth Improvement Project.



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(Ir. Leong Tak Meng)  
Co-Chairman  
Joint Evaluation Team, Malaysia



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(Dr. Somkiat Prajamwong)  
Co-chairman  
Joint Evaluation Team, Thailand



**Attendance List**  
**27<sup>th</sup> Meeting of Malaysia – Thailand Joint Evaluation Team**  
**on the Golok River Mouth Improvement Project**  
 28 – 29 April 2015  
 Malacca, Malaysia

**MALAYSIA DELEGATES**

- |    |                                  |   |
|----|----------------------------------|---|
| 1. | Ir. Leong Tak Meng               | Director<br>Coastal Zone Management Division<br>Department of Irrigation and Drainage Malaysia                            |
| 2. | Ir. Hj. Shahimi bin Sharif       | Director<br>Department of Irrigation and Drainage Kelantan  |
| 3. | Mr. Mohd Said bin Dikon          | Deputy Director<br>River Basin Management Division<br>Department of Irrigation and Drainage Malaysia                      |
| 4. | Mr. Mohd Sor bin Othman          | Deputy Director<br>Coastal Zone Management Division<br>Department of Irrigation and Drainage Malaysia                     |
| 5. | Ir. Gapar bin Asan               | Deputy Director<br>Water Resources Management and Hydrology<br>Division<br>Department of Irrigation and Drainage Malaysia |
| 6. | Mr. Abdul Razak bin Abdul Rashid | Project Engineer<br>Kelantan Federal Project Implementation Unit<br>Department of Irrigation and Drainage Malaysia        |
| 7. | Ms. Aisyah Sakina Ahmad          | Engineer<br>Coastal Zone Management Division<br>Department of Irrigation and Drainage Malaysia                            |
| 8. | Mrs. Hazlina Mohammad Saad       | Engineer<br>Coastal Zone Management Division<br>Department of Irrigation and Drainage Malaysia                            |

**IN ATTENDANCE**

- |    |                            |   |
|----|----------------------------|---|
| 9. | Mdm. Marziah binti Mohamad | Senior Engineer<br>Department of Irrigation and Drainage Kelantan |
|----|----------------------------|---|

### **SECRETARIAT TEAM**

- |     |                                     |  |
|-----|-------------------------------------|--|
| 10. | Mr. Mohd Khairil Anuar bin Mohd Isa | Coastal Zone Management Division<br>Department of Irrigation and Drainage Malaysia |
| 11. | Mdm .Noorisah binti Mohd Isa        | Coastal Zone Management Division<br>Department of Irrigation and Drainage Malaysia |
| 12. | Mr. Mohammed Hairey bin Md Salih    | Coastal Zone Management Division<br>Department of Irrigation and Drainage Malaysia |

### **THAI DELEGATES**

- |    |  |   |
|----|--|---|
| 1. | Mr. Somkiat Prajamwong                       | Director<br>Office of Project Management<br>Royal Irrigation Department , Thailand  |
| 2. | Mr. Prinya Kamolsin                          | Expert on Irrigation,<br>(Hydraulic Engineering)<br>Royal Irrigation Department , Thailand  |
| 3. | Mr. Waemamu Waehama                          | Director,<br>Golok River Basin Operation and Maintenance<br>Project,<br>Office of Regional Irrigation 17,<br>Royal Irrigation Department , Thailand             |
| 4. | Mr. Somchai Imyoo                            | Director,<br>Hydrology and Water Management Center for<br>Southern Region Office of Hydrology and Water<br>Management<br>Royal Irrigation Department , Thailand |
| 5. | Mr. Chumlarp Tejasen                         | Chief of Project Planning Group 1, Office of Project<br>Management,<br>Royal Irrigation Department , Thailand   |
| 6. | Mr. Attaporn Wonglimaswat                    | Senior Surveyor<br>Engineering Bureau,<br>Marine Department,Thailand  |
| 7. | Ms. Chawee Wongprasittiporn                  | Chief of Project Planning Group 2, Office of Project<br>Management,<br>Royal Irrigation Department , Thailand   |
| 8. | Mrs.Thayida Siritreetomrong Van<br>Corstanje | Chief of Foreign Activities Coordinating Branch,<br>Office of Project Management,<br>Royal Irrigation Department, Thailand                                      |
| 9. | Mr. Attapan Diloksopon                       | Civil Engineer, Professional Level, Office of Project<br>Management<br>Royal Irrigation Department , Thailand   |
| 10 | Mr. Piriya Thumyago                          | Foreign Relation Officer,<br>Practitioner Level,<br>Office of Project Management<br>Royal Irrigation Department, Thailand                                       |

**ADOPTED AGENDA**

AGENDA 1: OPENING SESSIONS

AGENDA 2: MATTERS FOR CONSIDERATION

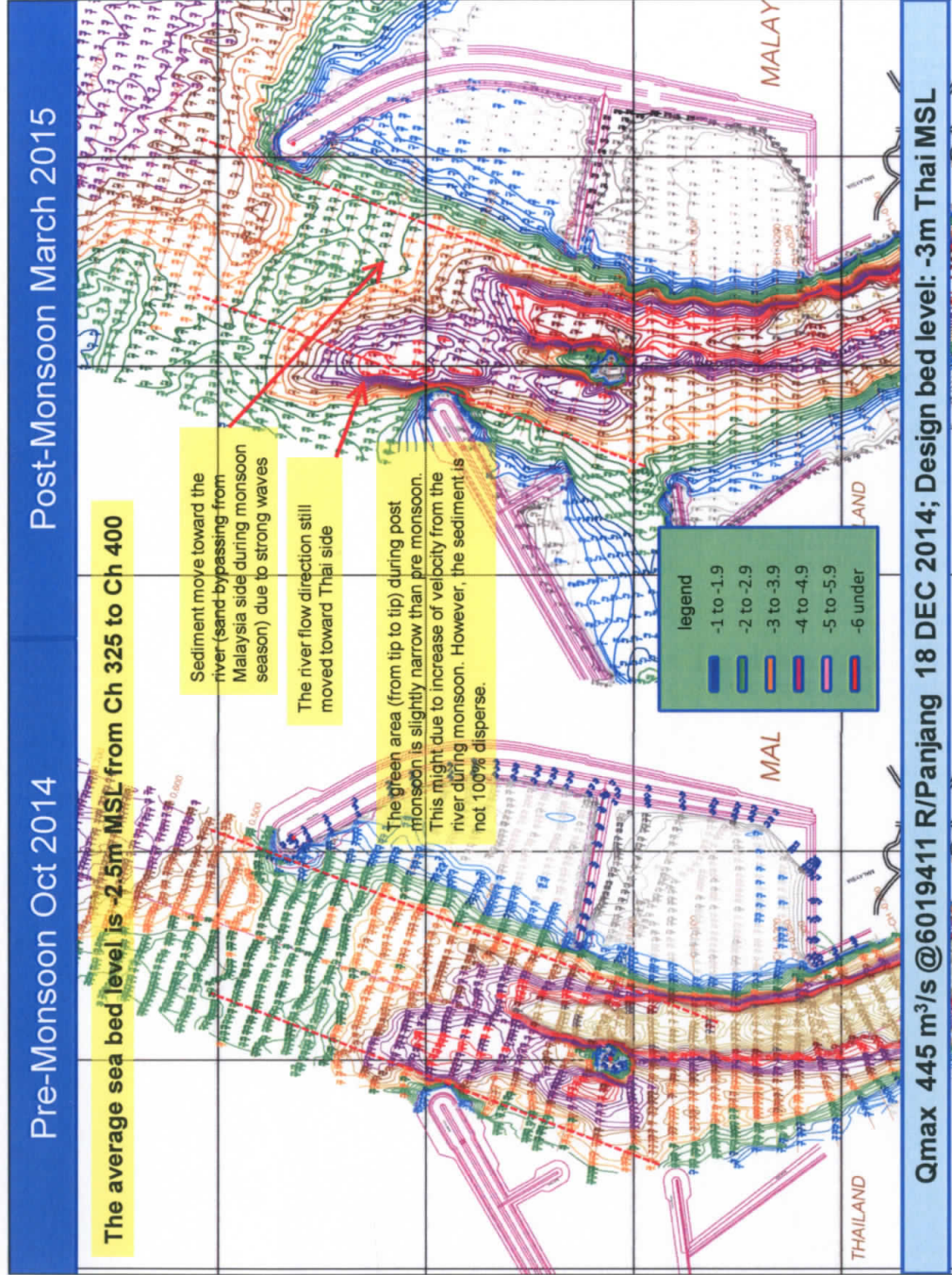
- 2.1 MONITORING AND EVALUATION OF GOLOK RIVER MOUTH
- 2.2 MAINTENANCE DREDGING OF GOLOK RIVER MOUTH
- 2.3 FLOW MEASUREMENT AT CABLEWAY STATION ACROSS GOLOK RIVER
- 2.4 REAL TIME MONITORING SYSTEM, JOINT WEBSITE AND FLOOD
- 2.5 FORECASTING AND WARNING SYSTEM FOR GOLOK RIVER BASIN
- 2.6 JOINT HYDRAULIC STUDIES:-
  - STUDY ON COASTAL FLOODING AT GOLOK RIVERMOUTH (MALAYSIA)
  - ASSESSMENT OF THE GOLOK RIVER MOUTH IMPROVEMENT WORKS AND ADJACENT COASTAL AREAS (THAILAND)
- 2.7 PROTECTION WORK AT TRANSIT POINT B
- 2.8 INTEGRATED RIVER BASIN MANAGEMENT (IRBM) PLAN FOR GOLOK RIVER

AGENDA 3: OTHER MATTERS

AGENDA 4: ADOPTION OF MINUTES OF MEETING

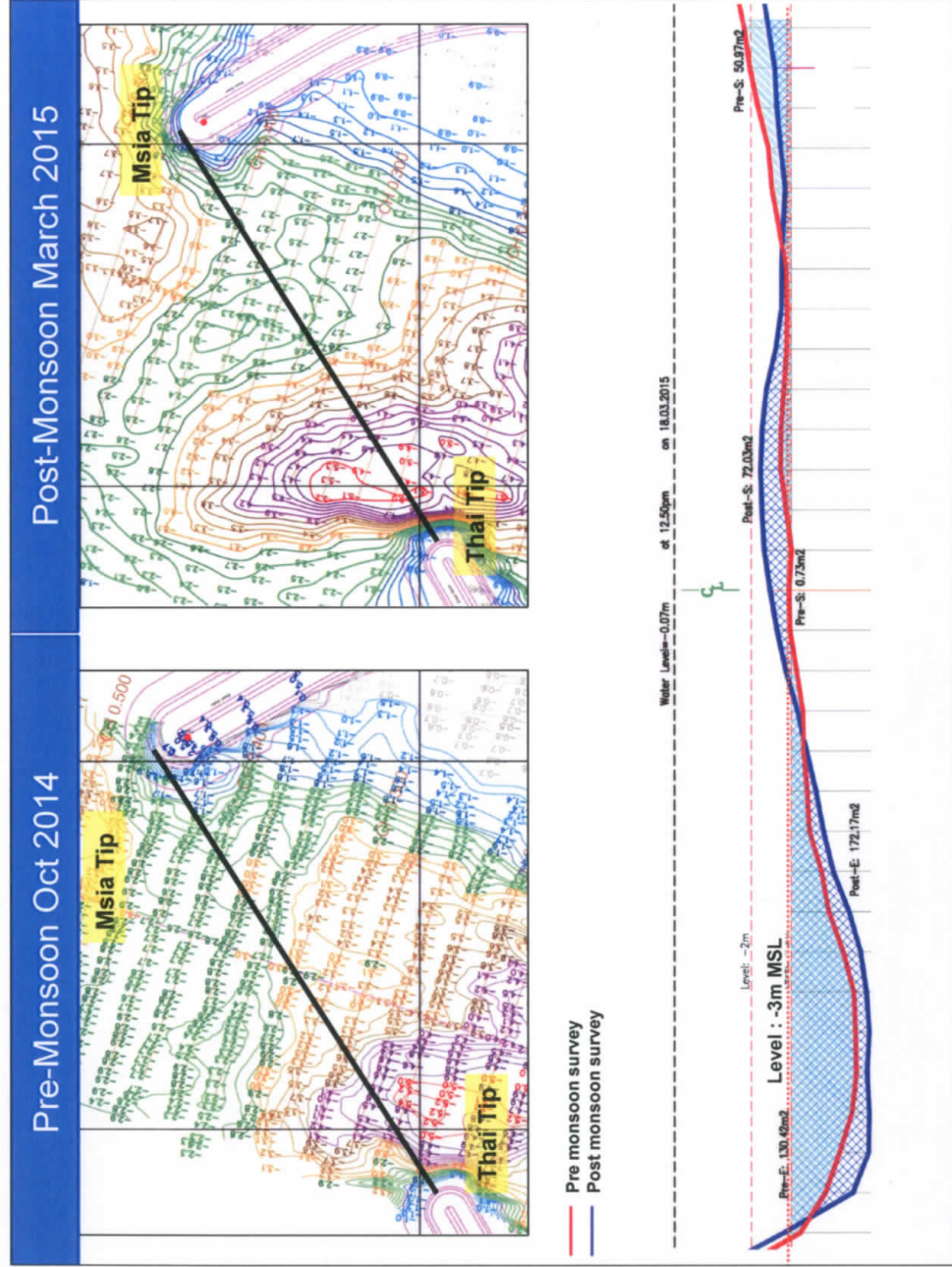


PRE- AND POST-MONSOON SURVEY BY MALYSIAN





# THE BED LEVEL AND CROSS SECTION FROM TIP OF MALAYSIAN AND THAI BREAKWATER



## INTEGRATED RIVER BASIN MANAGEMENT (IRBM) PLAN FOR GOLOK RIVER OBJECTIVES AND SCOPE OF WORK

### GOLOK IRBM Objectives

- Overall Objectives of IRBM Plan
  - To provide **report of the integrated river basin management current situation and identify problems and their possible causes** by reviewing the study of Golok River Master Plan to be updated and covered more essential issues on integrated river basin management
- Specific Objectives of integration
  - To preliminary **assess the relation of rainfall, river discharge, river mouth opening and sea water elevation and flood problem**
  - To assess hydrological and current water resources development from **upstream to downstream**
  - To assess **flood and drought** problems
  - To study the potential of **surface and groundwater** availability and development potential
  - To investigate **sediment** locations in main river and its tributaries (if secondary data is available)
  - To assess current **water resource** uses and **land resource** development
  - To assess **current water uses quantity and the water quality** and their relation
  - To **enhance cooperation, transparency and trans boundary management of stakeholders (Thailand and Malaysia)** by
    - Sharing related data and information of current situation such as sub basin information, hydrological data, existing river structures –irrigation structures, flood forecasting and warning system etc and
    - Carrying out the joint assessments and studies