



## Report of Meeting

# **The 34<sup>th</sup> Meeting of Malaysia – Thailand Joint Technical Working Group on the Golok River Mouth Improvement Project**

**29 July 2016  
Genting Highlands, Pahang, Malaysia**

## TABLE OF CONTENT

Agenda 1: Opening address

Agenda 2: Matters for Information

- 2.1 Monitoring and evaluation of Golok river mouth
- 2.2 Maintenance dredging of Golok river mouth
- 2.3 Protection work at Transit Point B
- 2.4 Rehabilitation and protection works at Golok river mouth
- 2.5 Mutual calibration of rating curve at cableway station
- 2.6 Real time monitoring system and the joint website for Golok river basin

Agenda 3: Other matters

- 3.1 Integrated River Basin Management (IRBM) plan for Golok river
- 3.2 Date and venue for next meeting

Agenda 4: Matters to be referred to JSC

Agenda 5: Adoption of minutes of meeting

Appendix A List of delegates

Appendix B Agenda

Appendix C Post-monsoon survey (April 2016)

Appendix D The bed level and section across tip of Thai breakwater and Malaysian breakwater

Appendix E Revised schedule of rehabilitation and protection works at Golok river mouth

Appendix F The mutual rating curve (2015)

Appendix G Revised schedule for new telemetering stations

**Report on the 34<sup>th</sup> Meeting of  
Malaysia – Thailand Joint Technical Working Group  
On The Golok River Mouth Improvement Project  
29 July 2016  
Genting Highlands, Pahang, Malaysia**

**AGENDA 1: OPENING ADDRESS**

Dato' Ir. Mohd Abdul Nassir Bin Bidin, the leader of the Malaysian delegates, welcomed the Thai delegates to the 34<sup>th</sup> Meeting of Malaysia – Thailand Joint Technical Working Group (JTWG) on the Golok River Mouth Improvement Project on 29 July 2016. He also congratulated Dr. Somkiat Prajamwong upon his appointment as Deputy Director General for Engineering, Royal Irrigation Department Thailand.

Dr. 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 and the list of delegates is as shown in APPENDIX A. The Meeting adopted the agenda as shown in APPENDIX B.

**AGENDA 2: MATTERS FOR INFORMATION**

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

**Report by JET**

- (1) The 2016 post-monsoon survey was carried out by the Thai side in April 2016, as shown in APPENDIX C. It was observed that sedimentation area on the Malaysian side has increased and erosion area on the Thai side has decreased compared to the pre-monsoon survey (September 2015).

- (2) The sedimentation area (where bed level is shallower than -3m MSL) was observed to have increased by 169% which increased from 9,168m<sup>2</sup> (September 2015) to 24,644m<sup>2</sup> (April 2016). The total sedimentation volume was observed to have increased by 390% which increased from 2,686m<sup>3</sup> (September 2015) to 13,173m<sup>3</sup> (April 2016).
- (3) The deepest bed level at the river mouth was observed to be -2.6m MSL, located at the navigation channel; the observed bed level was deeper than previous survey which was observed to be -2.3m MSL (September 2015) and -2.1m MSL (March 2015).
- (4) The deepest bed level around tip of Thai breakwater is observed to be -6.2m MSL which may lead to instability of Thai breakwater; the level is shallower compared to the previous survey.

### **Discussion by JTWG**

The Meeting acknowledged the needs to continue the monitoring survey and for JET to continue analyzing the dynamic phenomenon at the river mouth and the erosion at the tip of Thai breakwater.

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

### **Criteria for Maintenance Dredging**

As agreed in JET25, JTWG32 and JSC14, the maintenance dredging is required based on the following criteria:

- (1) When the cross section area of the river mouth between Thailand and Malaysia breakwater tip is blocked up to 30% (based on Thai study); or
- (2) When the bed level of the river mouth is at -2.0 m MSL or shallower (based on Malaysian study);
- (3) The sediment patterns are to be monitored for at least 2 consecutive monsoon seasons in order to identify the need of maintenance dredging.

### **Report by JET**

The post-monsoon survey (April 2016) is as shown in APPENDIX D. The section across Thai breakwater and Malaysian breakwater showed that:

- (a) The sedimentation area was approximately 11.2%, which is less than the dredging criteria (30% of area blockage).
- (b) It is observed that part of the river mouth is shallower than -2m MSL on the Malaysian side. However, the average sea bed level at the river mouth is at -2.6m MSL, which is deeper than the dredging criteria (-2.0m MSL).
- (c) Erosion at the tip of Thai breakwater about -6.2m MSL.
- (d) Maintenance dredging is not required based on the post-monsoon survey.

### **Discussion by JTWG**

The Meeting agreed that:

- (i) At present, there is no need to carry out maintenance dredging according to the maintenance dredging criteria;
- (ii) The maintenance dredging criteria are to be maintained as common criteria for drainage purpose (Thai side) and for navigation purpose (Malaysian side);
- (iii) The criteria for navigation purpose shall be reviewed so that maintenance dredging shall be considered when the bed level throughout or part of the navigation channel referring to the reference cross sections is shallower than -2m MSL.

## **2.3 Protection Work of Transit Point B**

### **Report by JET**

The Thai side informed that Feasibility study, Environment Impact Assessment (EIA) study, and detailed design have been started since October 2015 and is expected to complete by December 2016.

Referring to the Joint Hydraulic Model Study (2013), Thai side proposed two options of Transit Point B protection work in oval shape and hexagonal shape. The optimum design for protection work of Transit Point B will be clarify by physical model.

The Meeting is informed that the physical model works will start from mid-August 2016 and the Malaysian team is invited to participate in discussion to decide the design parameters used for the physical model.

### **Discussion by JTWG**

The Meeting agreed that:

- (i) Based on pre and post-monsoon monitoring survey, it is necessary to protect the Transit Point B.
- (ii) The suitable shape of protection work of Transit Point B shall be determined by the Physical model.
- (iii) Thai side has secured the budget for physical model for Golok river mouth rehabilitation works including protection works at Transit Point B.
- (iv) Both sides shall agree with the design parameters for the Physical model.
- (v) Malaysian team agrees to participate in the discussion to decide on the design parameters used for the Physical model, and to witness the simulation of the Physical model in RID's hydraulic laboratory.
- (vi) Both sides must implement the Physical model immediately to suit the budget planning.
- (vii) The Physical model will start by mid-August 2016.

## **2.4 Rehabilitation and Protection Works at Golok River Mouth**

### **Report by JET**

The Thai side informed that they have been conducting Feasibility Study (FS), Environmental Impact Assessment (EIA) study, and detailed design since October 2015 and is expected to complete by December 2016. The detailed design for the breakwater extension will be commenced in the second half of 2016.

The Thai side informed that they have obtained budget to perform the physical model for rehabilitation and protection works at Golok River Mouth including protection work for Transit Point B. Besides, the Thai side informed that the EIA approval process would take at least 6 months in 2017.

Both sides agreed that the detailed design for rehabilitation works at Golok River Mouth (breakwater extension, training wall and groyne) should be based on the results of the physical model. Hence, the Malaysian side informed that the detailed design (for groyne) may start 2 months before the completion of the physical model study and will take approximately 1 year to complete. The revised schedule of work for both sides is as shown in APPENDIX E.

### **Discussion by JTWG**

The Meeting agreed that:

- (i) Both sides to proceed feasibility study, Environmental Impact Assessment (EIA) study, detailed design and physical model with the revised schedule of work as shown in APPENDIX E.
- (ii) Once detailed design and EIA approval completed, the proposed rehabilitation works will be presented to JSC for endorsement for implementation.

## **2.5 Mutual Calibration of Rating Curve at Cableway Station**

### **Report by JET**

In 2016, seven mutual gauging measurements were done monthly except in January 2016 measurements were done on two occasion. The mutual rating curves of 2015 as shown in APPENDIX F will be used until a new mutual rating curves is developed by the end of 2016.

The Malaysian side reported that there are differences in the discharge readings i.e. on 28 April 2016, the discharge measured by the Malaysian side is reported to be 1.097 m<sup>3</sup>/s where the Thai side is reported to be 0 m<sup>3</sup>/s. The 29<sup>th</sup> JET Meeting agreed that the officer in charge from both sides shall discuss and clarify further on the matter.

### **Discussion by JTWG**

The Meeting agreed that:

- (i) Any data to be published on the Joint web site or any publication shall be an agreed value.
- (ii) The officers in charge from both sides shall check and clarify further on the differences of data within one month.

## **2.6 Real Time Monitoring System and Joint Website for Golok River Basin**

### **Report by JET**

#### **Existing Telemetering stations and joint web site**

The Thai side informed that a new link for the Joint web site is created (<http://hydro-8.com/Golok>) and it is ready for data viewing and data assessing.

The Malaysian side observed that the online data and the backup data on Thai Joint web site does not tally. Hence, the 29<sup>th</sup> JET Meeting agreed to check and rectify the shared data on the Thai Joint web site.

The Malaysian side observed that there is approximately 1m differences of daily water level readings at Rantau Bridge, Sg Golok station (X.119A) – Rantau Panjang station (6019411). The the 29<sup>th</sup> JET Meeting agreed that both sides shall discuss and clarify further on this matter.

#### **New Telemetering stations and joint website**

The Meeting is informed that the setup for 6 new telemetering stations in Thailand and 3 new telemetering stations in Malaysia is completed. The revised schedule for new telemetering stations is as shown in APPENDIX G.

### **Discussion by JTWG**

- (i) The Meeting acknowledged the report by JET regarding the status of existing and new Telemetering stations and the Joint web site.
- (ii) The Meeting agreed that both sides to proceed with the revised schedule of work for new telemetering stations as shown in APPENDIX G.



## **AGENDA 3: OTHER MATTERS**

### **3.1 Integrated River Basin Management Plan (IRBM) for Golok River Basin**

#### **Report by JET**

##### Amendment to the Agreement on The Golok River Mouth Improvement Project

Pertaining to the 15<sup>th</sup> JSC Meeting held in March 2016 at Bangkok, both sides has seek consultation with relevant agencies and the feedback from each side is as follows:

(i) Input from Thai side

The Thai side informed that referring to the Agreement signed on 8 March 1997, the scope of work for JSC and JTWG are limited to Golok River Mouth Improvement Works. Hence, JSC (Thai) does not have an authority to expand the scope of work for JTWG and JET to work on IRBM. As well, JSC (Thai) does not have an authority to appoint a new working group to work on IRBM plan according to the same above reason. The IRBM plan can be launched by only two (2) options that (a) both sides agree to conclude a new agreement, or (b) both sides agree to make amendment / supplementary to the Agreement signed 8 March 1997, to expand the scope of work of JTWG / JET to cover the development of Golok River Basin. The name of JTWG / JET shall be changed to conform to the scope of work.

(ii) Input from Malaysian side

The Malaysian side informed that JSC (Malaysia) agreed to make amendment to the Agreement signed on 8 March 1997 and Malaysian side has formed a sub-committee to work on the amendment. Hence, Malaysia seeks to propose that the draft provisions reflecting the expanded scope of work be prepared accordingly. The draft provisions could be in the form of an amendment to the 'Agreement between the Government of the Kingdom of Thailand and the Government of Malaysia on the Golok River Mouth Improvement Project' which was signed on 8 March 1997 or in the form of a new and specific agreement by

itself. Malaysia offers to provide the first draft of the said amendment or new agreement for consideration and further discussion in the upcoming JET and JTWG meetings.

#### Summary of joint assessment

In order to initiate a short term assessment for IRBM focusing on flood mitigation, therefore a hydrodynamic modelling need to be carried out. Thus, the data collection assessment shall comprise as follows:-

- 1) Hydrological Data
- 2) Hydraulic Data
- 3) GIS

Data required for Hydrodynamic Modelling is as follows:

- Hydrological Data (rainfall, water level, discharge)
- Existing and future schematic diagram for flood mitigation
- Historical Flood map
- Existing and future land use map
- Existing Hydraulic structures (Bridges, weirs, pump, culvert, ponds, etc.)
- Survey data (river cross sections)
- Ground model (Lidar, Ifsar, GIS)
- Tidal Data
- Soil Properties and etc.

#### **Discussion by JTWG**

- (i) The Meeting acknowledged that the amendments to the principal Agreement shall be by way of a supplementary Agreement or a new Agreement.
- (ii) Both sides agreed that a working committee to be formed to collaborate with each other on the amendments to the principal Agreement.
- (iii) Both sides to obtain the relevant and necessary approval for the entry into force of the resulting legal instrument which shall be endorsed at the Ministerial level.

### **3.2 Date and venue for the next JTWG meeting**

The Meeting agreed to convene the 35<sup>th</sup> JTWG Meeting as follows:

Host:	Thailand
Proposed date:	June 2017
Proposed venue:	1) Loei, Thailand 2) Koh Samui, Thailand 3) Chiang Mai, Thailand

### **AGENDA 4: MATTERS TO BE REFERRED TO THE JSC**

#### **Matters for Information**

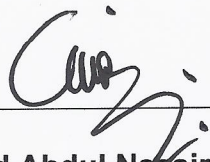
1. Report of Monitoring and Evaluation of Golok River Mouth
2. Maintenance Dredging of Golok River Mouth
3. Protection Work at Transit Point B
4. Rehabilitation and Protection Works at Golok River Mouth
5. Mutual Calibration of Rating Curve at Cableway Station
6. Real Time Monitoring System and the Joint Websites for Golok River Basin

#### **Matters for Consideration**

Integrated River Basin Management (IRBM) Plan for Golok River

## **AGENDA 5: ADOPTION OF MINUTES OF THE MEETING**

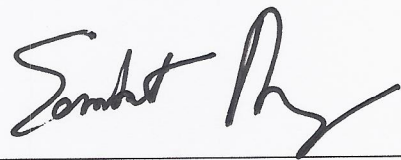
The Meeting agreed to adopt the report of meeting of the Thirty-fourth Meeting of Malaysia – Thailand Joint Technical Working Group (JTWG) on the Golok River Mouth Improvement Project.



---

**(Dato' Ir. Mohd Abdul Nassir Bin Bidin)**  
Co-Chairman  
Joint Technical Working Group, Malaysia

Deputy Director General  
(Business Sector)  
Department of Irrigation and Drainage  
Malaysia



---

**(Dr. Somkiat Prajamwong)**  
Co-Chairman  
Joint Technical Working Group, Thailand

Deputy Director General  
for Engineering  
Royal Irrigation Department  
Thailand

## APPENDIX A

### THE 34<sup>TH</sup> MEETING OF MALAYSIA – THAILAND JOINT TECHNICAL WORKING GROUP (JTWG) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT

#### LIST OF MALAYSIAN DELEGATES

1.		Name Designation Department Contact no. Email	Dato' Ir. Mohd Abdul Nassir Bin Bidin Deputy Director General Department of Irrigation and Drainage Malaysia +6012 4702712 <a href="mailto:nasirbidin@water.gov.my">nasirbidin@water.gov.my</a>
2.		Name Designation Department Contact no. Email	Kapt. (B) Ir. Hj. Anuar Bin Hj. Yahya Director Division of Coastal Zone Management Department of Irrigation and Drainage Malaysia +6019 5741574 <a href="mailto:iranuar@water.gov.my">iranuar@water.gov.my</a>
3.		Name Designation Department Contact no. Email	Madam Azizah Binti Ariffin Under Secretary Division of Water Resources, Drainage & Hydrology Ministry of natural Resources and Environment Malaysia +603 8886 1147 <a href="mailto:azizah@nre.gov.my">azizah@nre.gov.my</a>
4.		Name Designation Department Contact no. Email	Ir. Hj. Ab. Qahar Bin Osman Director Division of Water Resources Management and Hydrology Department of Irrigation and Drainage Malaysia +6013 2221000 <a href="mailto:ab.qahar@water.gov.my">ab.qahar@water.gov.my</a>
5.		Name Designation Department Contact no. Email	Ir. Mohd Said bin Dikon Director Division of River Basin Management Department of Irrigation and Drainage Malaysia +6019 2333671 <a href="mailto:mohdsaid.water@1govuc.gov.my">mohdsaid.water@1govuc.gov.my</a>

## APPENDIX A

### THE 34<sup>TH</sup> MEETING OF MALAYSIA – THAILAND JOINT TECHNICAL WORKING GROUP (JTWG) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT



#### LIST OF MALAYSIAN DELEGATES

6.		Name Designation Department Contact no. Email	Ir. Hj. Shahimi Bin Sharif Director Department of Irrigation and Drainage Kelantan +6019 2616823 <a href="mailto:shahimis@water.gov.my">shahimis@water.gov.my</a>
7.		Name Designation Department  Contact no. Email	Mr. Mohamad Razif Haji Abd Mubin Director Environment and Natural Resources Section Economic Planning Unit Prime Minister's Department Malaysia +6013 3946457 <a href="mailto:razif.mubin@epu.gov.my">razif.mubin@epu.gov.my</a>
8.		Name Designation Department  Contact no. Email	Madam Norizan binti Abdul Aziz Deputy Director Division of Water Resources Management and Hydrology Department of Irrigation and Drainage Malaysia +6019 2333712 <a href="mailto:norizan_aziz@water.gov.my">norizan_aziz@water.gov.my</a>
9.		Name Designation Department Contact no. Email	Mr. Rusydee Bin Abdullah Deputy Director (Sectoral) Kelantan State Economic Planning Unit +6019 9384366 <a href="mailto:rusydee@kelantan.gov.my">rusydee@kelantan.gov.my</a>
10.		Name Designation Department  Contact no. Email	Mr. Shaari Bin Mustapha Principal Assistant Director Federal Development Department of Kelantan Implementation Coordination Unit Prime Minister's Department Malaysia +6019 9378268 <a href="mailto:shaari.mustapha@kel.icu.gov.my">shaari.mustapha@kel.icu.gov.my</a>

## APPENDIX A

### THE 34<sup>TH</sup> MEETING OF MALAYSIA – THAILAND JOINT TECHNICAL WORKING GROUP (JTWG) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT

#### LIST OF MALAYSIAN DELEGATES

11.		Name Designation Department Contact no. Email	Mr. Arumugam Subramaniam Principal Assistant Director Marine Department Malaysia +6012 2962444 <a href="mailto:arumugam@marine.gov.my">arumugam@marine.gov.my</a>
12.		Name Designation Department Contact no. Email	Madam Irni Mazlina Binti Mat Isa Principal Assistant Secretary National Security Council +603 89447132 (ext 8847) <a href="mailto:irnimazlina@mkn.gov.my">irnimazlina@mkn.gov.my</a>
13.		Name Designation Department Contact no. Email	Mr. Mohd Taufik Bin Mohd @Mohd Yusoff Senior Federal Counsel Attorney General's Chambers of Malaysia +6019 4857071 <a href="mailto:m_taufik@agc.goc.my">m_taufik@agc.goc.my</a>
14.		Name Designation Department Contact no. Email	Madam Nivaashni Devi Dharmalingam Senior Federal Counsel Attorney General's Chambers of Malaysia +6019 3580578 <a href="mailto:nivaashni@agc.gov.my">nivaashni@agc.gov.my</a>
15.		Name Designation Department Contact no. Email	Ms. Ainaa Lutfiah Bt Mohamed Zulkali Federal Counsel Attorney General's Chambers of Malaysia +6017 4839288 <a href="mailto:ainaa.zulkali@agc.gov.my">ainaa.zulkali@agc.gov.my</a>
16.		Name Designation Department  Contact no. Email	Madam Syahirah Bt Mohamad Ashahari Senior Federal Counsel Legal Advisory Unit Ministry of natural Resources and Environment +6013 3694682 <a href="mailto:syahirah@nre.gov.my">syahirah@nre.gov.my</a>

## APPENDIX A

### THE 34<sup>TH</sup> MEETING OF MALAYSIA – THAILAND JOINT TECHNICAL WORKING GROUP (JTWG) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT

#### LIST OF MALAYSIAN DELEGATES



17.		Name Designation Department  Contact no. Email	Mr. Mohd Hafiz Bin Mat Aripin Assistant Director of Survey Boundary Affair Division Survey and Mapping Department Malaysia +6013 3766263 <a href="mailto:mohdhafiz@jupem.gov.my">mohdhafiz@jupem.gov.my</a>
18.		Name Designation Department  Contact no. Email	Madam Noor Aida Bt Mohd Adam Assistant Secretary Division of South East Asia Department of Bilateral Affairs Ministry of Foreign Affair Malaysia +6016 441 9454 <a href="mailto:noor.aida@kln.gov.my">noor.aida@kln.gov.my</a>
19.		Name Designation Department  Contact no. Email	Mr. Abd Khadir bin Abd Aziz Senior Engineer Division of Coastal Zone Management Department of Irrigation and Drainage Malaysia +6012 5121134 <a href="mailto:abdkhadir@water.gov.my">abdkhadir@water.gov.my</a>
20.		Name Designation Department  Contact no. Email	Ms. Carine Wong Koh Yin Engineer Division of Coastal Zone Management Department of Irrigation and Drainage Malaysia +6012 2198032 <a href="mailto:carine@water.gov.my">carine@water.gov.my</a>
21.		Name Designation Department  Contact no. Email	Mr. Ahmad Ikhwan bin Abdul Wahid Engineer Division of Coastal Zone Management Department of Irrigation and Drainage Malaysia +6013 6093085 <a href="mailto:ahmadikhwan@water.gov.my">ahmadikhwan@water.gov.my</a>



## APPENDIX A

### THE 34<sup>TH</sup> MEETING OF MALAYSIA – THAILAND JOINT TECHNICAL WORKING GROUP (JTWG) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT






#### IN ATTENDANCE

1.		Name Designation Department Contact no. Email	Haji Abdul Najib bin Abdullah Director Department of Irrigation and Drainage Perlis +6012 4258308 <a href="mailto:abdulnajib@water.gov.my">abdulnajib@water.gov.my</a>
2.		Name Designation Department Contact no. Email	Ir. Baharuddin Bin Abdullah Deputy Director Department of Irrigation and Drainage Kedah +6019 5592212 <a href="mailto:baharuddin_a@water.gov.my">baharuddin_a@water.gov.my</a>

## APPENDIX A

### THE 34<sup>TH</sup> MEETING OF MALAYSIA – THAILAND JOINT TECHNICAL WORKING GROUP (JTWG) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT

#### SECRETARIAT

1.		Name Designation Department  Contact no. Email	Madam A'isah Binti Abdul Malek Engineer Division of Coastal Zone Management Department of Irrigation and Drainage Malaysia +6019 9831407 <a href="mailto:aisah@water.gov.my">aisah@water.gov.my</a>
2.		Name Designation Department  Contact no. Email	Ms. Intirani A/P Suppramaniam Engineer Division of Coastal Zone Management Department of Irrigation and Drainage Malaysia +6012 6141200 <a href="mailto:intirani@water.gov.my">intirani@water.gov.my</a>
3.		Name Designation Department  Contact no. Email	Mr. Mohd. Khairil Annuar bin Mohd. Isa Assistant Engineer Division of Coastal Zone Management Department of Irrigation and Drainage Malaysia +6017 7577746 <a href="mailto:khairil@water.gov.my">khairil@water.gov.my</a>
4.		Name Designation Department  Contact no. Email	Madam Noorisah binti Mohd. Isa Assistant Engineer Division of Coastal Zone Management Department of Irrigation and Drainage Malaysia +6019 8208137 <a href="mailto:noorisah@water.gov.my">noorisah@water.gov.my</a>
5.		Name Designation Department  Contact no. Email	Mr. Mohammed Hairey bin Md Salih Assistant Engineer Division of Coastal Zone Management Department of Irrigation and Drainage Malaysia +6019 7026646 <a href="mailto:hairey@water.gov.my">hairey@water.gov.my</a>

## APPENDIX A

### THE 34<sup>TH</sup> MEETING OF MALAYSIA – THAILAND JOINT TECHNICAL WORKING GROUP (JTWG) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT

#### LIST OF THAI DELEGATES

1.		Name Designation Department Contact no. Email	Dr. Somkiat Prajamwong Deputy Director General for Engineering Royal Irrigation Department Thailand +6684 700 0540 <a href="mailto:somkiat_pa09@yahoo.com">somkiat_pa09@yahoo.com</a>
2.		Name Designation Department Contact no. Email	Mr. Lertchai Srianant Director, Bureau of Water Management and Hydrology Royal Irrigation Department Thailand +662241-3348
3.		Name Designation Department Contact no. Email	Mr. Pradab Kradkhempetch Director Bureau of Research and Development Royal Irrigation Department Thailand +662 583 5011 <a href="mailto:pradab_kla@hotmail.com">pradab_kla@hotmail.com</a>
4.		Name Designation Department Contact no. Email	Mr. Pichate Suprarerk Director Bureau of Engineering and Architecture Design Royal irrigation Department Thailand +662241-2685
5.		Name Designation Department Contact no. Email	Mr. Thanar Suwattana Director Bureau of Project Management Royal Irrigation Department Thailand +668-1820-0647 <a href="mailto:suwattana2810@gmail.com">suwattana2810@gmail.com</a>

## APPENDIX A

### THE 34<sup>TH</sup> MEETING OF MALAYSIA – THAILAND JOINT TECHNICAL WORKING GROUP (JTWG) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT


#### LIST OF THAI DELEGATES

6.		Name Designation Department  Contact no. Email	Mr. Chalermchai Treenarin Director Narathiwat Provincial Irrigation Project Royal Irrigation Department Thailand +667 351-1485 <a href="mailto:clc_treenarin@yahoo.com">clc_treenarin@yahoo.com</a>
7.		Name Designation Department  Contact no. Email	Captain Chaiyoth Kongkwan Deputy Director Oceanographic Division Hydrographic Department Royal Thai Navy +662 475 7017
8.		Name Designation Department Contact no. Email	Lt. Colonel Chutitthep Rajchaseeha 4th Army Area Royal Thai Army +6687 717 9333
9.		Name Designation Department  Contact no. Email	Dr. Kraijakr Thiratayakinant First Secretary Department of Treaties and Legal Affairs Ministry of Foreign Affairs Thailand +662 203 5000 ext. 11027
10.		Name Designation Department Contact no. Email	Mr. Attaporn Wonglimaswat Senior Surveyor Marine Department Thailand +662 2331311 ext 291 <a href="mailto:atta6940410@yahoo.com">atta6940410@yahoo.com</a>

## APPENDIX A

### THE 34<sup>TH</sup> MEETING OF MALAYSIA – THAILAND JOINT TECHNICAL WORKING GROUP (JTWG) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT

#### LIST OF THAI DELEGATES

11.		Name Designation Department Contact no. Email	Ms. Surang Chuensamran Policy and Plan Analyst Ministry of Agriculture and Cooperatives Thailand +662 281 9308 <a href="mailto:surangn@gmail.com">surangn@gmail.com</a>
12.		Name Designation Department Contact no. Email	Mrs. Thayida Siritreeratormong Van Corstanje Foreign Relations Officer, Professional level, Foreign Activity Coordinating Branch Bureau of Project Management Royal Irrigation Department Thailand +66 85137 0212 <a href="mailto:thayida@gmail.com">thayida@gmail.com</a>
13.		Name Designation Department Contact no. Email	Mr. Chumlap Tejasen Director Project Planning Division 4 Bureau of Project Management Royal Irrigation Department Thailand +66 2241-2680 <a href="mailto:ctejasen@yahoo.com">ctejasen@yahoo.com</a>
14.		Name Designation Department Contact no. Email	Mr. Attapan Diloksopon Civil Engineer, Professional Level Bureau of Project Management Royal Irrigation Department Thailand +66 80 270 9997 <a href="mailto:atdplk@gmail.com">atdplk@gmail.com</a>
15.		Name Designation Department Contact no. Email	Mr. Piriya Thumyago Foreign Relation Officer, Practitioner Level Bureau of Project Management Royal Irrigation Department Thailand +6690 527 5545 <a href="mailto:piriya_rid@yahoo.com">piriya_rid@yahoo.com</a>

**THE 34TH MEETING OF MALAYSIA – THAILAND  
JOINT TECHNICAL WORKING GROUP (JTWG)  
ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT**

**AGENDA**

---

**AGENDA 1: OPENING SESSION**

**AGENDA 2: MATTERS FOR INFORMATION**

- 2.1 MONITORING AND EVALUATION OF GOLOK RIVER MOUTH
- 2.2 MAINTENANCE DREDGING OF GOLOK RIVER MOUTH
- 2.3 PROTECTION WORK AT TRANSIT POINT B
- 2.4 REHABILITATION AND PROTECTION WORKS AT GOLOK RIVER MOUTH
- 2.5 MUTUAL CALIBRATION OF RATING CURVE AT CABLEWAY STATION
- 2.6 REAL TIME MONITORING SYSTEM AND THE JOINT WEBSITE FOR GOLOK RIVER BASIN

**AGENDA 3: OTHER MATTERS**

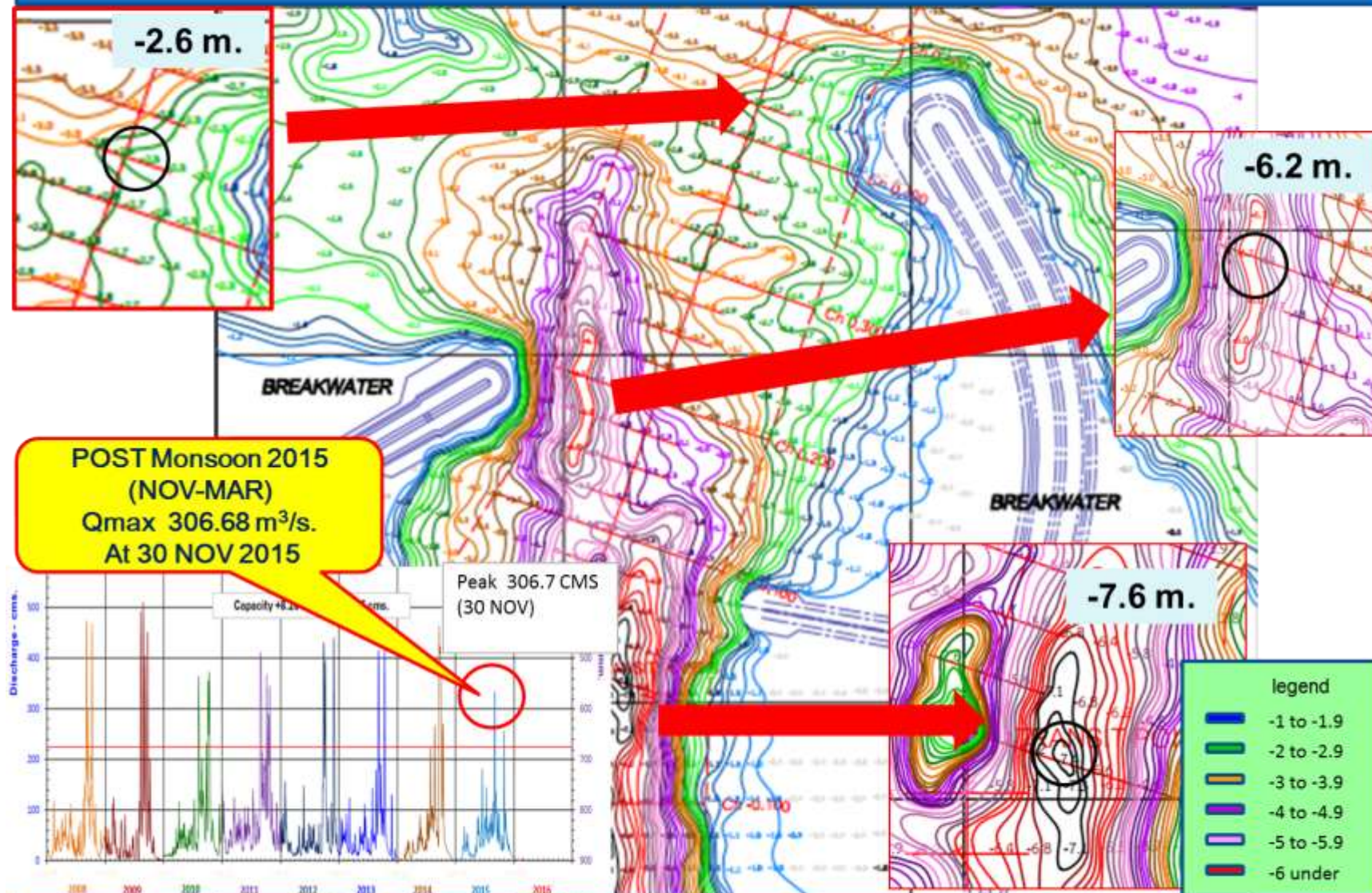
- 3.1 INTEGRATED RIVER BASIN MANAGEMENT (IRBM) PLAN FOR GOLOK RIVER
- 3.2 DATE AND VENUE FOR NEXT MEETING

**AGENDA 4: MATTERS TO BE REFERRED TO JTWG**

**AGENDA 5: ADOPTION OF MINUTES OF MEETING**



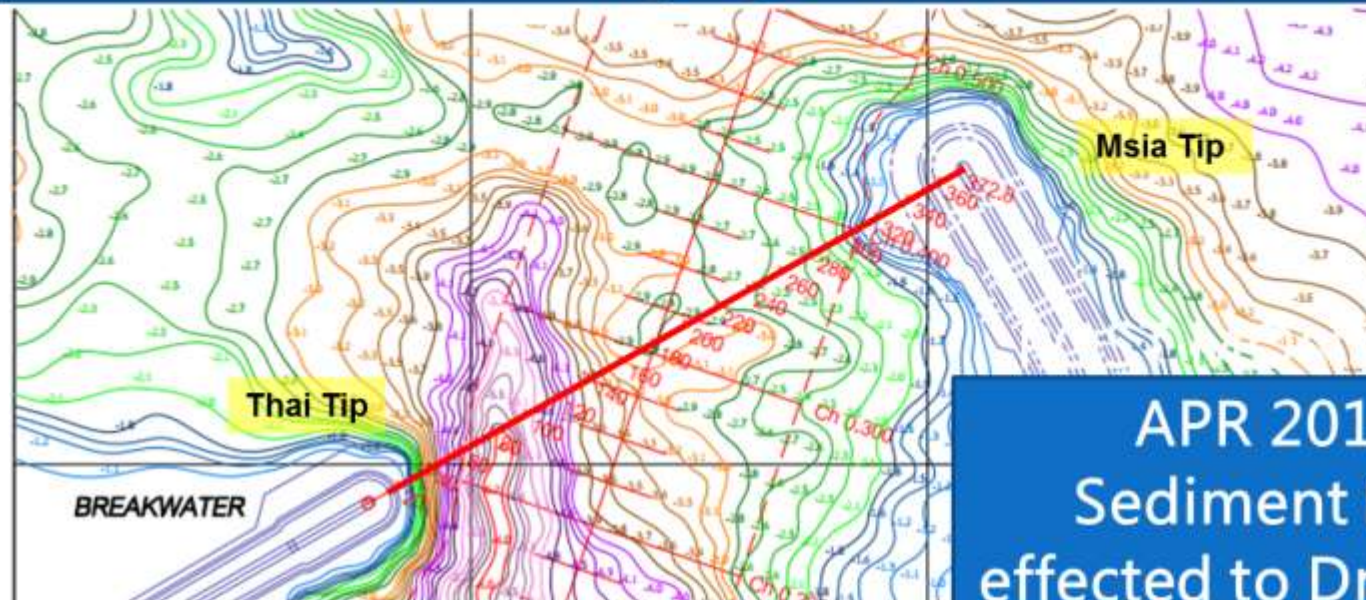
# Post-Monsoon (20-27 APR 2016 THAI)



$Q_{max}$  306.68 m<sup>3</sup>/s @ Cableway station 30 NOV 2015; Design bed level: -3m Thai MSL



# Maintenance Dredging of Golok River Mouth



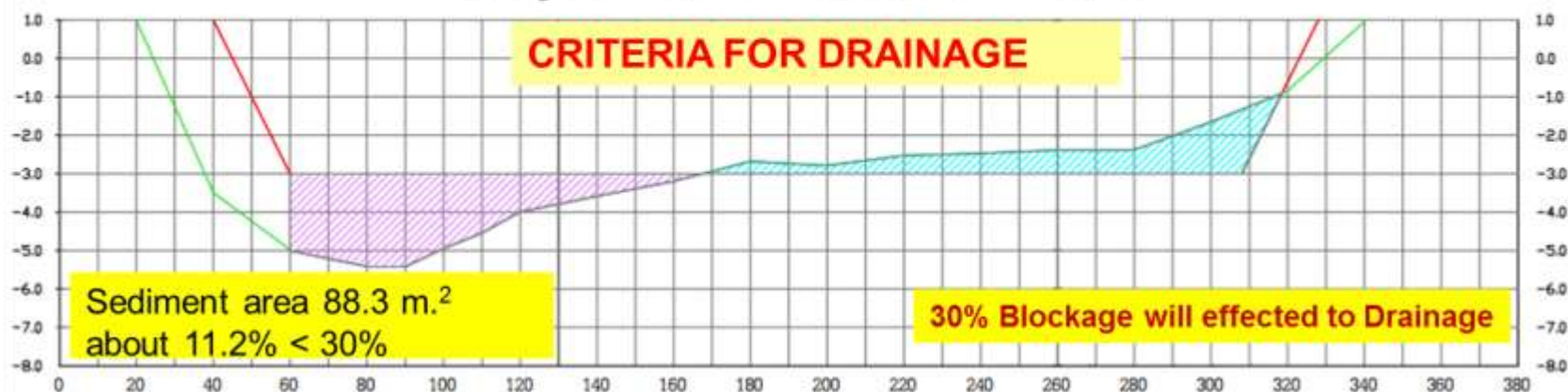
**APR 2016**  
Sediment Not  
effected to Drainage

Cross-section between Thai Brake water to Malaysia Brake wa p:

Cutting Area 88.32 m<sup>2</sup> Erosion Area = 114.9 m<sup>2</sup>

Thailand

Malaysia

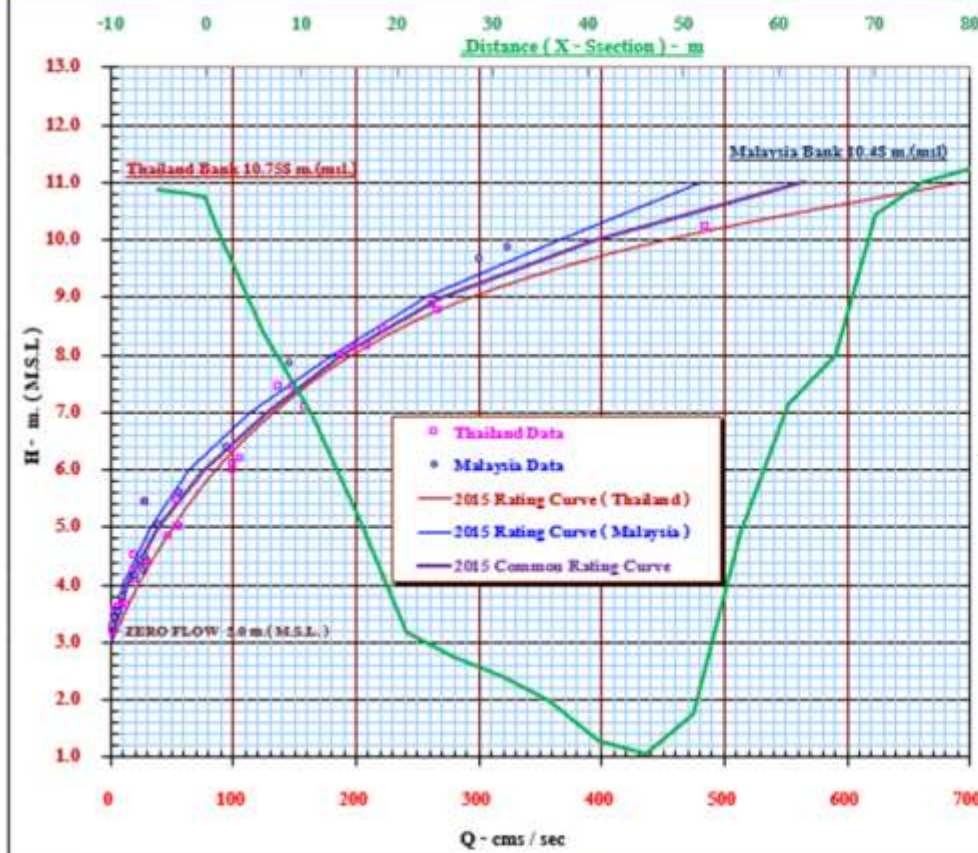




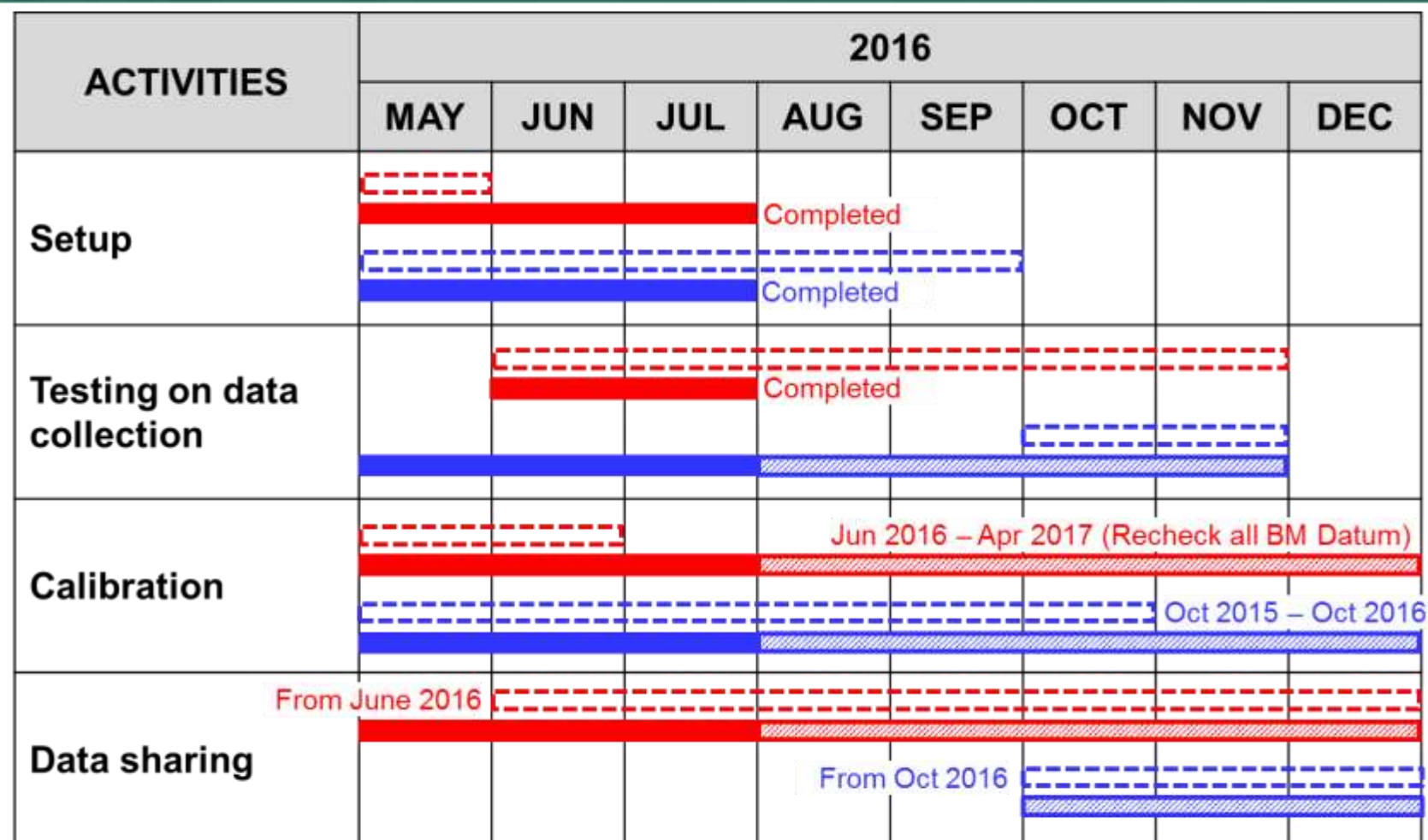
### Detailed design road map (MALAYSIAN side)

[illegible]




# Rating Curve at Cableway station 2015 (Mutual)






# Progress of new telemetering station



Note:

-  Proposed road map (presented in JSC15, March 2016)
-  Progress (Thailand)
-  Planning (Thailand)

Note:

-  Proposed road map (presented in JSC15, March 2016)
-  Progress (Malaysia)
-  Planning (Malaysia)