



DEPARTMENT OF IRRIGATION
AND DRAINAGE MALAYSIA

Minutes of Meeting

**The 36th Meeting of Thailand – Malaysia
Joint Evaluation Team**

On Golok River Mouth Improvement Project

01 September 2021

Online Conference

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on The Golok River Mouth Improvement Project
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AGENDA 1: OPENING ADDRESS

Mr. Surachart Malasri, the leader of Thai delegates, welcomed the Malaysian delegates to the 36th Meeting of Thailand – Malaysia Joint Evaluation Team (JET) on Golok River Mouth Improvement Project on 1st September 2021. After that, Mr. Surachart assigned Mr. Prinya Kamolsin, Expert on Irrigation (Hydraulic Engineering) to be the co-chairman of Thai side due to his urgent mission.

Mr. Hj. Zainalfikry Bin Hj. Daud, the leader of the Malaysian 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**.

AGENDA 2: ADOPTION OF AGENDA

The Thai side presented the proposed agenda for the Meeting. The Meeting agreed to proceed according to the proposed agenda as shown in **APPENDIX B**.

AGENDA 3: MATTERS FOR CONSIDERATION

3.1 Report on Monitoring and Evaluation of Golok River Mouth

The Thai side reported the pre and post-monsoon surveys, which were done by the Malaysian side and found that the shallowest sea bed level at Malaysian breakwater tip is changed from -2.1m MSL (Pre-Monsoon in November 2020) to -3.0m MSL (Post-Monsoon in March 2021). While the deepest river bed level at Transit Point B is changed from -6.2m MSL to -6.5m MSL.

The Malaysian side proposed to adjust the design channel level to be -4.0m instead of -3.0m while maintain the stability of river banks and their engineering protection works, for the purpose of larger ship and low tide navigation. The Meeting considered it should be further studied and presented in the next JTWG and JSC meetings.

The Thai side presented an alternative method of survey work in case that surveyor was unable to cross the boundary to the other side due to the COVID-19 Pandemic. Each side will survey in own boundary area and share the result of survey to the other side. The meeting agreed the proposed method and the results of the survey work will be combined together.

3.2 Maintenance Dredging of Golok River Mouth

As agreed in the JET 25, JTWG 32 and JSC 14, the maintenance dredging is required based on the following criteria:

- i. When the cross-section area of the river mouth between Thailand and Malaysia breakwater tip is blocked up to 30% (for drainage purpose); or
- ii. When the bed level of the river mouth is at -2.0 m MSL or shallower (for navigation purpose);

The sediment patterns are to be monitored for at least 2 consecutive monsoon seasons in order to identify the need of maintenance dredging.

The meeting agreed that based on the results of the pre-monsoon (Nov 2020) and post-monsoon (Mar 2021) surveys that no need for the maintenance dredging of Golok River Mouth at the time being.

3.3 Protection Work of Transit Point B

The Meeting acknowledged the agenda 3.1 of the JSC 16th Meeting took note that:

- i. Based on the presentation of the detailed design, the Malaysian side observed that the proposed protection works involve new specifications and components which need to be further deliberated since it is not in line with the provisions in the 1997 Agreement. Hence, Malaysia proposed that a new agreement to be drafted and negotiated between both sides; and

- ii. The Thai side confirmed that the 1997 Agreement includes the proposed protection works which is stated as protection works to transit point B under ANNEX 1 Paragraph 3.0 (b) of the 1997 Agreement.

The JSC meeting on April 2019 agreed that the JET and JTWG meetings to discuss the matter.

As at The JET meeting on September 2019, the Malaysian side proposes to classify the works to be done as an upgrading of the existing facility of Transit Point B. Afterward, at the 37th JTWG meeting on March 2020, the Malaysian side requested Thai side to consider adding a landing point or jetty for maintenance works for Transit Point B. The Thai side agreed to consider the matters and will be present in the next JET meeting.

The Meeting agreed the revised design of landing point presented by the Thai team as shown in **APPENDIX D**.

3.4 Rehabilitation and Protection Works at Golok River Mouth

The Thai side informed that the EIA was approved in August 2021. The project is now in the budget request process, and the construction is expected to begin in the second quarter of 2023 to avoid the monsoon season. The revised implementation schedule as shown in **APPENDIX E**.

The Malaysian side suggested that the Malaysian side could start the construction in the Malaysian part first. The Thai side suggested both sides to begin their construction simultaneously or report this matter to JTWG and JSC meeting beforehand.

3.5 Mutual Calibration of Rating Curve at Cableway Station

The Thai side reported cross-section survey at cableway station was done by Thai on March 2021. The result showed that river bank at the Thai side is slightly higher (0.698m MSL) compared to Malaysia as shown in APPENDIX F. The pattern of Golok River geomorphological between year 2019, 2020 and 2021 showed that Malaysia side bank has been eroded and sedimentation has been occurred on the Thai side as shown in APPENDIX G.

Malaysian side presented the 2020 rating curve. The rating curve has been developed by both sides using 2020 mutual gauging data. Both rating curves showed the similar curve

as shown in **APPENDIX H**. The Malaysian side also reported that the maximum discharge is recorded at 418.85 cms. and the highest water level is 10.21 m. MSL. on 19th December 2020. However, the Malaysian side requested Thai side to recheck the gauging result as the result showed that the highest water level is higher than Malaysia side river bank. The Meeting agreed.

The Meeting accepted the cross-section done by Thai side and been informed with the river morphology pattern. The meeting also agreed to adopt Thai 2020 rating curve.

3.6 Real Time Monitoring System and Joint Website for Golok River Basin

The Thai side reported that the fifteen (15) telemetry hydrological data has been shared together since 2019. Currently, there are six (6) telemetry stations on Thai side and two (2) telemetry stations on Malaysian side are offline due to equipment failure.

The meeting acknowledged that eight (8) stations are offline due to equipment failure. Both sides acknowledged this matter and would solve it as soon as possible.

Referring to JSC 16th meeting, both sides have agreed that JET to form a task force. Subsequently, the task force revised its members and had the first technical meeting on February 2020. Further details are shown in **APPENDIX C**.

AGENDA 4: OTHER MATTERS

4.1 Integrated River Basin Management (IRBM) Plan for Golok River

The Thai side informed that Office of the National Water Resources (ONWR) is a new member of JSC Thai committee according to the new order of JSC THAI Committee signed in 2020.

About the progress of Golok River IRBM plan, the Thai side reported that the MOU on Integrated River Basin Management of Golok River is on developing. The Meeting acknowledged.

4.2 Flood Problems in Golok River Basin

The Malaysian side referred to Minutes of the 37th JTWG Meeting that:

- i. The Malaysian side has been informed that Tumpat district in Kelantan suffered severe flooding on 2nd December 2019 which lasted for 2 weeks. THAI side also informed that they also experienced severe flooding on Sungai Kolok and Tak Bai district.
- ii. The Malaysian side informed that they have initiated a flood bund project and this project is now at the construction stage.
- iii. The Malaysian side requested for data sharing regarding flood bund level and flood mitigation planning by both sides. The THAI side informed that Narathiwat province will call for a meeting with relevant agencies and the outcome will be discussed further at the next JTWG meeting.

The Thai side acknowledged and would send necessary information belonged Joint Hydraulic model study (2012) to the Malaysian side. Meanwhile, the information belonged to Narathiwat Province must be inquired for to the concerned department. The Meeting accepted.

4.3 Date and venue for next JET meeting

The meeting proposed the date and venue for the next JET meeting is as follows:

Date: April - May 2022
Venue: Kuching, Malaysia or online conference

AGENDA 5: MATTERS TO BE REFERRED TO THE JTWG

Matters for information

1. Report of Monitoring and Evaluation of Golok River Mouth
2. Rehabilitation and Protection Works at Golok River Mouth
3. Mutual Calibration of Rating Curve at Cableway Station
4. Real Time Monitoring System and the Joint Websites for Golok River Basin

Matters for Consideration

1. Protection Work at Transit Point B
2. Integrated River Basin Management (IRBM) Plan for Golok River
3. Maintenance Dredging of Golok River Mouth
- 4.

AGENDA 6: CLOSING SESSION

6.1 Site Visit

The Malaysian side shared a video presentation of the Paka Rivermouth, Terengganu groyne project. The project is expected to be completed in 2022. The co-chairman of Thai side was interested in and would like to visit the project site.

The Thai side shared Phuket tourism video presentation. The co-chairman of Malaysian side indicated his interest for visiting tourist destination in Phuket.

6.2 Closing Ceremony

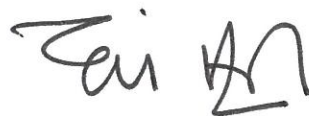
The co-chairman of both sides presented their closing speeches and thank you for all delegates.

AGENDA 7: ADOPTION OF MINUTES OF THE MEETING

The Meeting agreed to adopt the minutes of meeting of the 36th Meeting of Thailand - Malaysia Joint Evaluation Team on the Golok River Mouth Improvement Project.



(Mr. Surachart Malasri)
Co-Chairman
Joint Evaluation Team, Thailand



(Mr. Hj. Zainalfikri Bin Hj. Daud)
Co-Chairman
Joint Evaluation Team, Malaysia

APPENDIX A

THE 36th MEETING OF THAILAND - MALAYSIA JOINT EVALUATION TEAM (JET) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT

LIST OF THAI DELEGATES



Name Mr. Surachat Malasri
Designation Director
Department Bureau of Project Management,
Royal Irrigation Department
Contact no. +668 1871 9703
Email surachatmalasri39@gmail.com



Name Mr. Prinya Kamolsin
Designation Expert on Irrigation (Hydraulic Engineering)
Department Royal Irrigation Department
Contact no. +668 6074 4874
Email p_kamolsin@mail.rid.go.th



Name Mr. Apiwat Chanasongkram
Designation Director
Department Narathiwat Provincial Irrigation Office,
Regional Irrigation Office 17,
Royal Irrigation Department
Contact no. +66485 511 73
Email miwmiwiemiw@gmail.com



Name Mr. Rut InnuPat
Designation Director
Department Construction Project for Large Scale Irrigation
11, Bureau of large scale water resources
development, Royal Irrigation Department
Contact no. +66 7459 8463
Email rutw50@yahoo.com



Name
Designation
Department
Contact no.
Email

Mr. Kanchadin Srapratoom
Senior Advisor on Foreign Irrigation Program
Royal Irrigation Department
+662 241 2688
kanchadin@yahoo.com



Name
Designation

Department
Contact no.
Email

Miss Kanokporn Boochabun
Director, Hydrology Irrigation Center (Southern
Region),
Royal Irrigation Department
+6681 695 0743
kboochabun@gmail.com



Name
Designation
Department

Contact no.
Email

Mr. Chinnawat Prommanop
Director,
Golok River Basin Operation and Maintenance
Project, Regional Irrigation Office 17
Royal Irrigation Department
+6681 542 6501
chinnawat_n@hotmail.com



Name
Designation
Department

Contact no.
Email

Mr. Arthon Suttigarn
Director, Project Planning Division 4
Bureau of Project Management,
Royal Irrigation Department
+668 3115 7774
asut999@gmail.com



Name
Designation
Department

Contact no.
Email

Mr. Tawat Seenual
Civil Engineer
Survey and Engineering Bureau
Marine Department

+668 1597 5487
gawat49@hotmail.com



Name
Designation
Department

Mr Uckrawud Intarapanich
Director
Foreign Project Management and International
Affairs Division, Bureau of Project Management,
Royal Irrigation Department
+668 9209 0550
uck_uck1@hotmail.com



Name
Designation
Department

Contact no.
Email

Mr. Attapan Diloksopon
Civil Engineer, Professional Level
Bureau of Research and Development,
Royal Irrigation Department
+668 0270 9997
atdplk@gmail.com



Name
Designation

Department

Contact no.
Email

Mrs. Janjira Buddhawong
Chief of Foreign Programing Branch
Bureau of Project Management,
Royal Irrigation Department
+668 6397 7873
janjirab@yahoo.com

APPENDIX A

THE 36th MEETING OF THAILAND - MALAYSIA JOINT EVALUATION TEAM (JET) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT

LIST OF MALAYSIA DELEGATES



Name Haji Zainalfikry Bin Haji Daud
Designation Director
Department Division of Coastal Zone Management
Department of Irrigation and Drainage
Contact no. +60135868559
Email zainalfikry@water.gov.my



Name Mr. Kamal Bin Mustapha
Designation Director
Department Department of Irrigation and Drainage
Kelantan
Contact no. +6097419624
Email mkamal@water.gov.my



Name Ir. Roslina Binti Yusop
Designation Deputy Director
Department Division of Water Resources Management
and Hydrology
Contact no. +60193555149
Email lina@water.gov.my



Name Mr. Mohamad Radzi Bin Abdul Talib
Designation Deputy Director
Department Division of River Basin Management
Department of Irrigation and Drainage
Contact no. +60123870299
Email radzi@water.gov.my



Name
Designation
Department

Mr. Marinamarican Bin Abdullah
Deputy Director
Department of Irrigation and Drainage
Kelantan

Contact no.
Email

+6097419625
marinamarican@water.gov.my



Name
Designation
Department

Mrs. Kalsom binti Mean
Senior Engineer
Division of Coastal Zone Management
Department of Irrigation and Drainage

Contact no.
Email

+6019 3034624
kalsom@water.gov.my



Name
Designation
Department

Mrs. Noor Hanisah Binti Wok
Project Engineer
Kelantan Federal Project Implementation
Unit

Contact no.
Email

+60139337786
noorhanisah@water.gov.my



Name
Designation
Department

Ir. Louis Ho Yeng Gee
Senior Engineer
Division of Flood Management
Department of Irrigation and Drainage

Contact no.
Email

+6018 2332035
louiseho@water.gov.my



Name
Designation
Department

Ir. Ahmad Tarmizi Bin Mat Taib
Senior Engineer
Department of Irrigation and Drainage
Kelantan

Contact no.
Email

+6097419760
a_tarmizi@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Epyzul Akmal Bin Mohd Shahali
Senior Engineer
Division of Coastal Zone Management
Department of Irrigation and Drainage
+6012-255 0318
epyzul@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Azril Fitri Bin Zaabah
Engineer
Division of River Basin Management
Department of Irrigation and Drainage
+60127022500
azrilfitri@water.gov.my



Name
Designation
Department

Contact no.
Email

Mrs. Norasimah Binti Mat Nor
Engineer
Department of Irrigation and Drainage
Kelantan
+60199822066
norasimah@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Zaidi Bin Deraman
Engineer
Department of Irrigation and Drainage
Kelantan
+6097257608
zaidi.deraman@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Muhammad Khairil Izwan
Engineer
Department of Irrigation and Drainage
Kelantan
+60135190291
khairilizwan@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Wan Shanusi Bin Wan Daud
Technical Assistant
Department of Irrigation and Drainage
Kelantan
+60148084343
shanusi@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Mohd Eizam Bin Yusof
Engineer
Division of Water Resources Management
and Hydrology
+6016 4844359
eizam@water.gov.my



Name
Designation
Department

Contact no.
Email

Mr. Khairulnizam Bin Md Yasin
Engineer
Division of Coastal Zone Management
Department of Irrigation and Drainage
+60122426919
khairulnizam@water.gov.my

APPENDIX B

THE 36th MEETING OF THAILAND - MALAYSIA JOINT EVALUATION TEAM (JET) ON THE GOLOK RIVER MOUTH IMPROVEMENT PROJECT

PROPOSED AGENDA

Agenda 1: Opening Session

Agenda 2: Adoption of Agenda

Agenda 3: Matters for Consideration

- 3.1 Monitoring and Evaluation of Golok River Mouth
- 3.2 Maintenance Dredging of Golok River Mouth
- 3.3 Protection Work at Transit Point B
- 3.4 Rehabilitation and Protection Works at Golok River Mouth
- 3.5 Mutual Calibration of Rating Curve at Cableway Station
- 3.6 Real Time Monitoring System and the Joint Website for Golok River Basin

Agenda 4: Other matters

- 4.1 Integrated River Basin Management (IRBM) Plan for Golok River Basin
- 4.2 Flood Problem in Golok River Basin
- 4.3 Date and venue for next meeting

Agenda 5: Matters To Be Referred To JTWG

Agenda 6: Closing Session

Agenda 7: Adoption Of Minutes Of Meeting

Revised of Task Force Team

THAILAND TEAM



Miss Kanokporn Boochabun
Director, Hydrology Irrigation Center
(Southern Region), Royal Irrigation
Department



Mr. Chinnawat Prommanop
Director,
Golok River Basin Operation and
Maintenance Project
Regional Irrigation Office 17



Mr. Tawat Seenual
Civil Engineer
Survey and Engineering Bureau, Marine
Department



Mr. Attapan Diloksoyon
Civil Engineer, Professional Level
Royal Irrigation Department

MALAYSIA TEAM



Ir. Roslina binti Yusop
Deputy Director
Water Resources Management and
Hydrology Division, Department of
Irrigation and Drainage Malaysia



Mr. Marinamarican bin Abdullah
Deputy Director
Department of Irrigation and Drainage
Kelantan



Mrs. Kalsom binti Mean
Engineer
Coastal Zone Management Division,
Department of Irrigation and Drainage
Malaysia



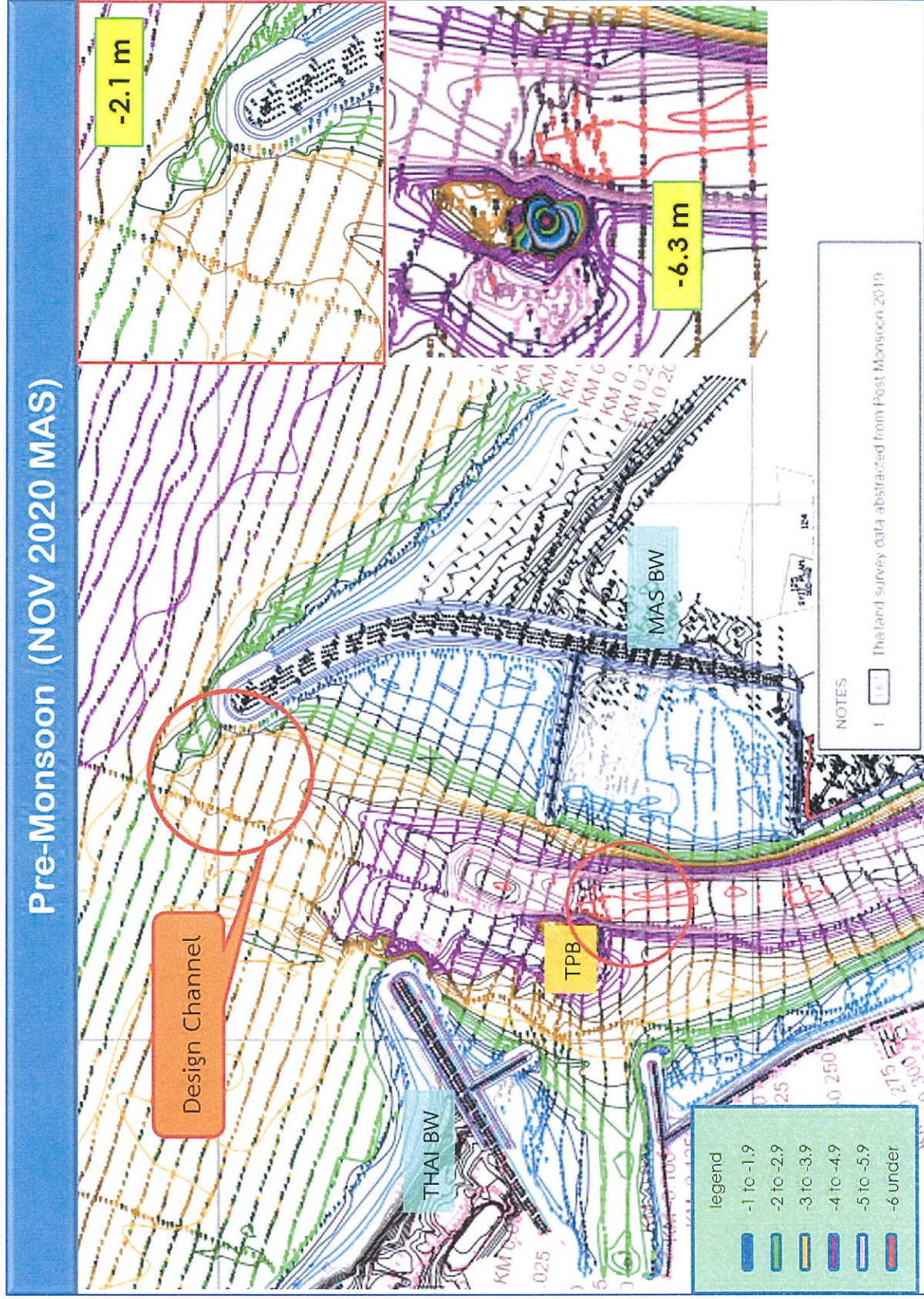
Mr. Mohd Eizam bin Yusof
Engineer
Division of Water Resources
Management and Hydrology,
Department of Irrigation and Drainage
Malaysia (Secretariat)

1st TECHNICAL MEETING (FEB 2020)

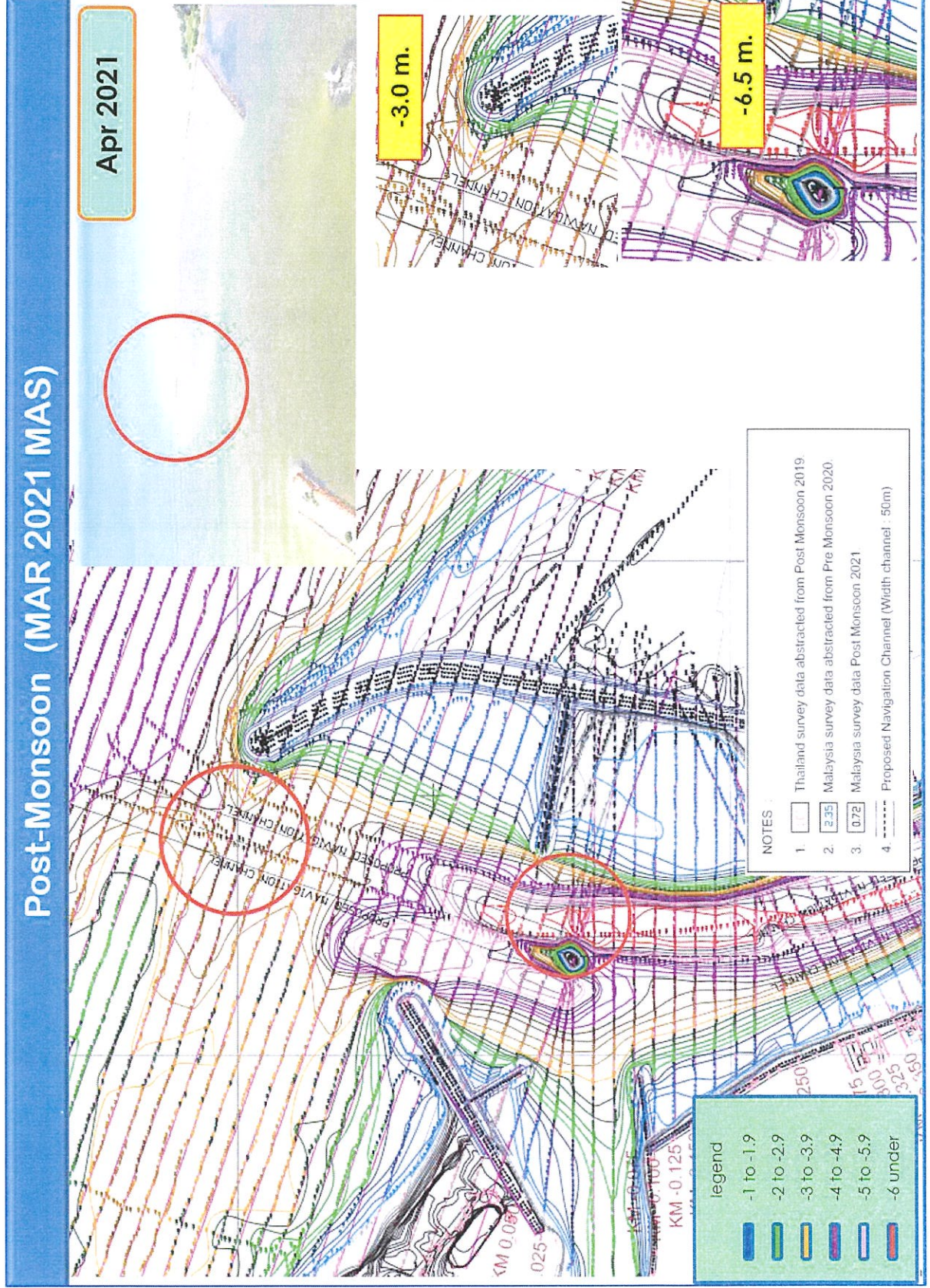
TASK FORCE TEAM

1. 1st Technical meeting and site visit of Task Force Team (TFT) was been held at Tumpat, Malaysia and Narathiwat, Thailand on 26 until 27 February 2020.
2. The meeting was held to discuss on both hydrological stations, previous studies, roadmap (project timeline) and site visit to the site.
3. Together, TFT agreed to **share** twenty-seven (27) rainfall, twelve (12) water level, six (6) stream flow and two (2) evaporation stations to be included in this study. TFT also agreed to share non hydraulic data such as river cross section survey, topographical maps, schematic diagram, land use, study and etc.
4. TFT also agreed to use existing **hydrological and hydraulic model** from the previous study.
5. Next, TFT will hold a Technical Meeting on 3 September 2021 (Friday). This meeting is to discuss for realign and adjustment to the roadmap (project timeline) because of movement control order/lockdown/curfew due to Covid 19 pandemic.

PRE-MONSOON (NOV 2020 MAS)



POST-MONSOON (MAR 2021 MAS)



REVISÉ DESIGN OF PROTECTION WORK AT TRANSIT POINT B



EIA road map (THAI)

DETAILS	2017	2018	2019	2020	2021				2022				2023				2024			
					1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Feasibility and EIA study																				
Physical Model (3D)																				
Detailed Design																				
EIA approval																				
Construction																				

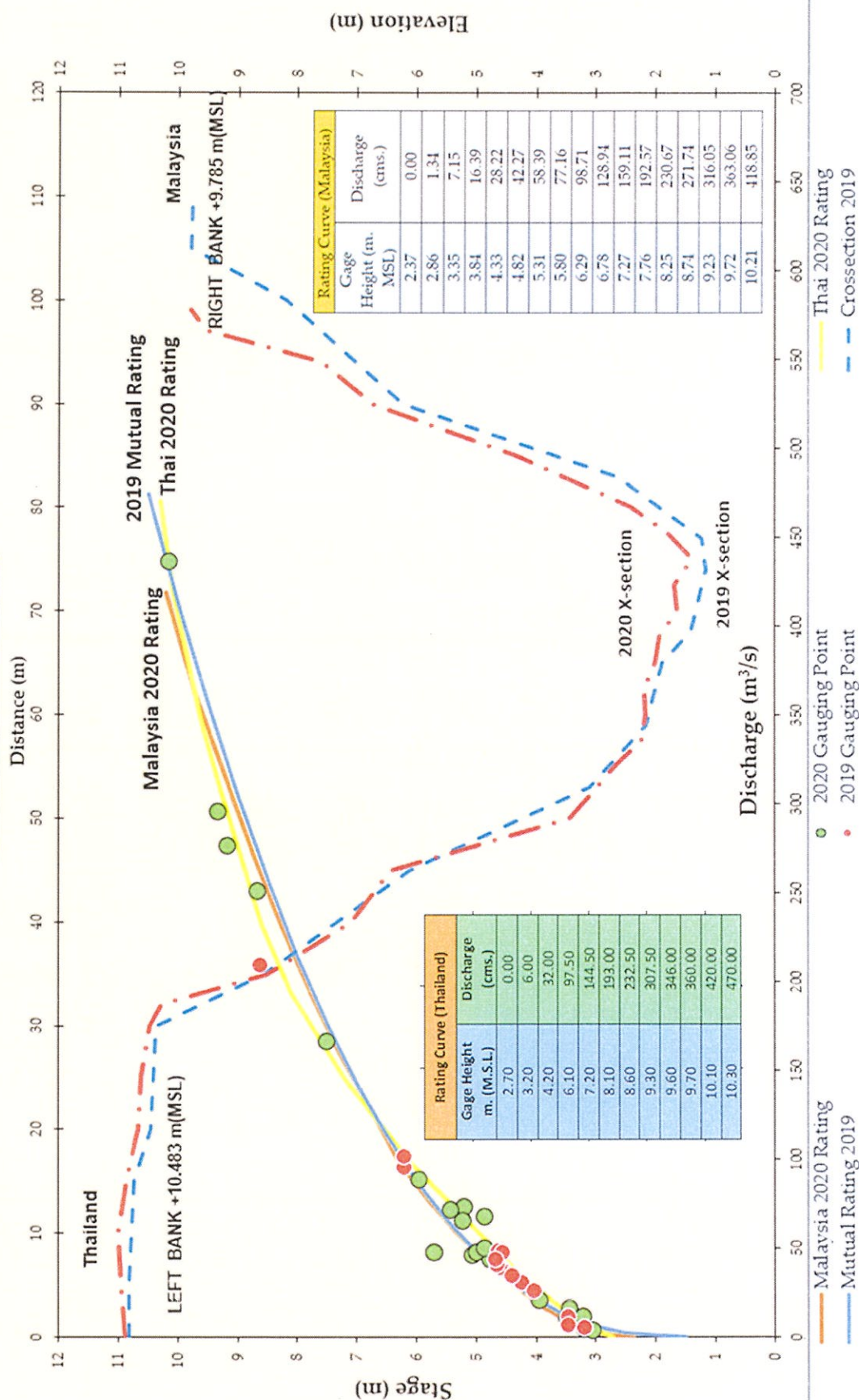
Complete APR 2017
Complete MAR 2018
Complete APR 2017
Just Approve AUG 2021
Budget Request Process
Tender
Monsoon Season Oct-Mar
24 months (2023-2024)

Detailed design & EIA road map (MAS)

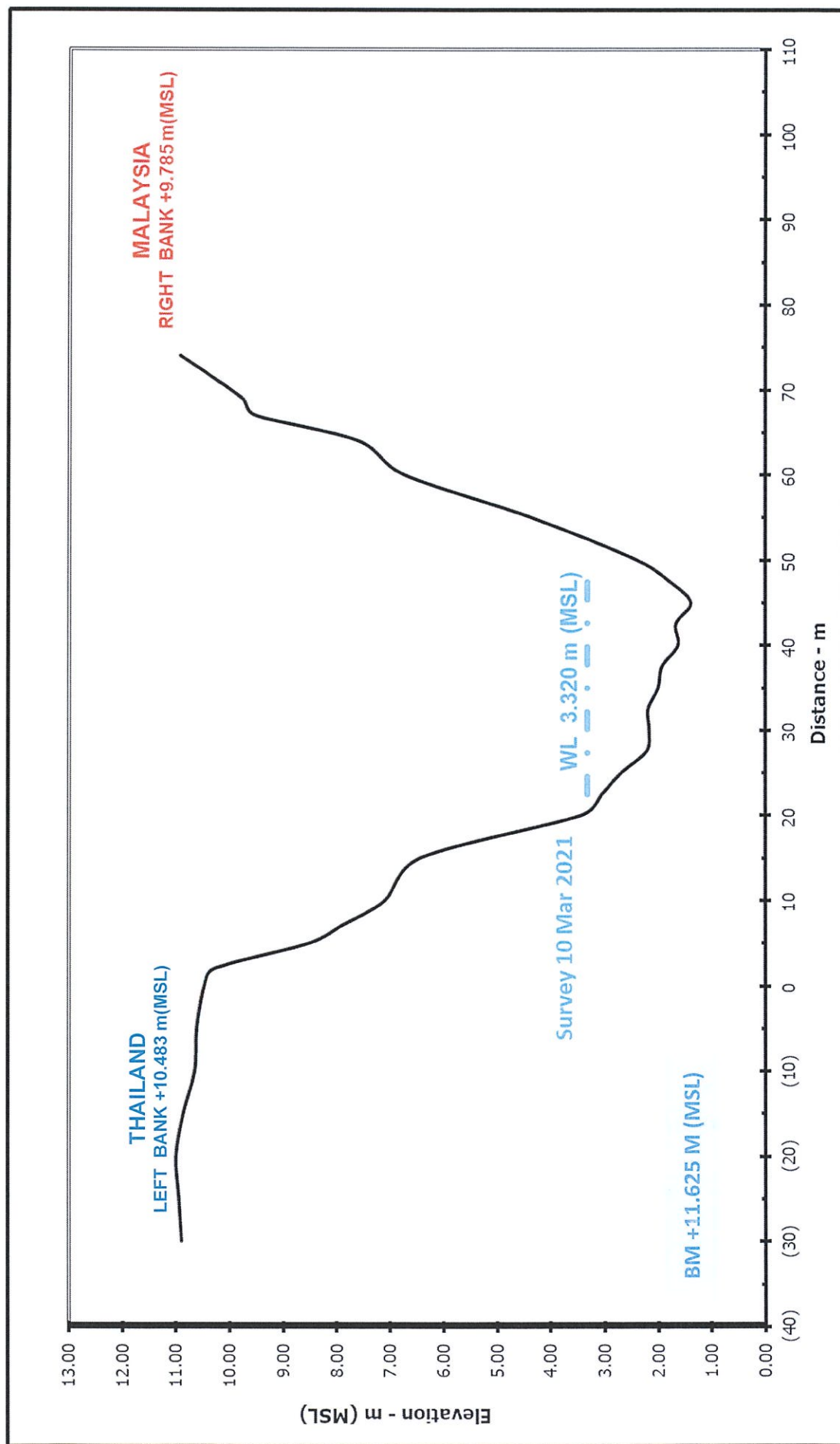
DETAILS	2017	2018				2019				2021-2022	2023				2024			
	Q1-4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q1-4	1	2	3	4	1	2	3	4
Detailed Design						~12 months												
EIA approval						6 months				3 months								
Construction											Monsoon Season	24 months (2023-2024)						

APPENDIX F

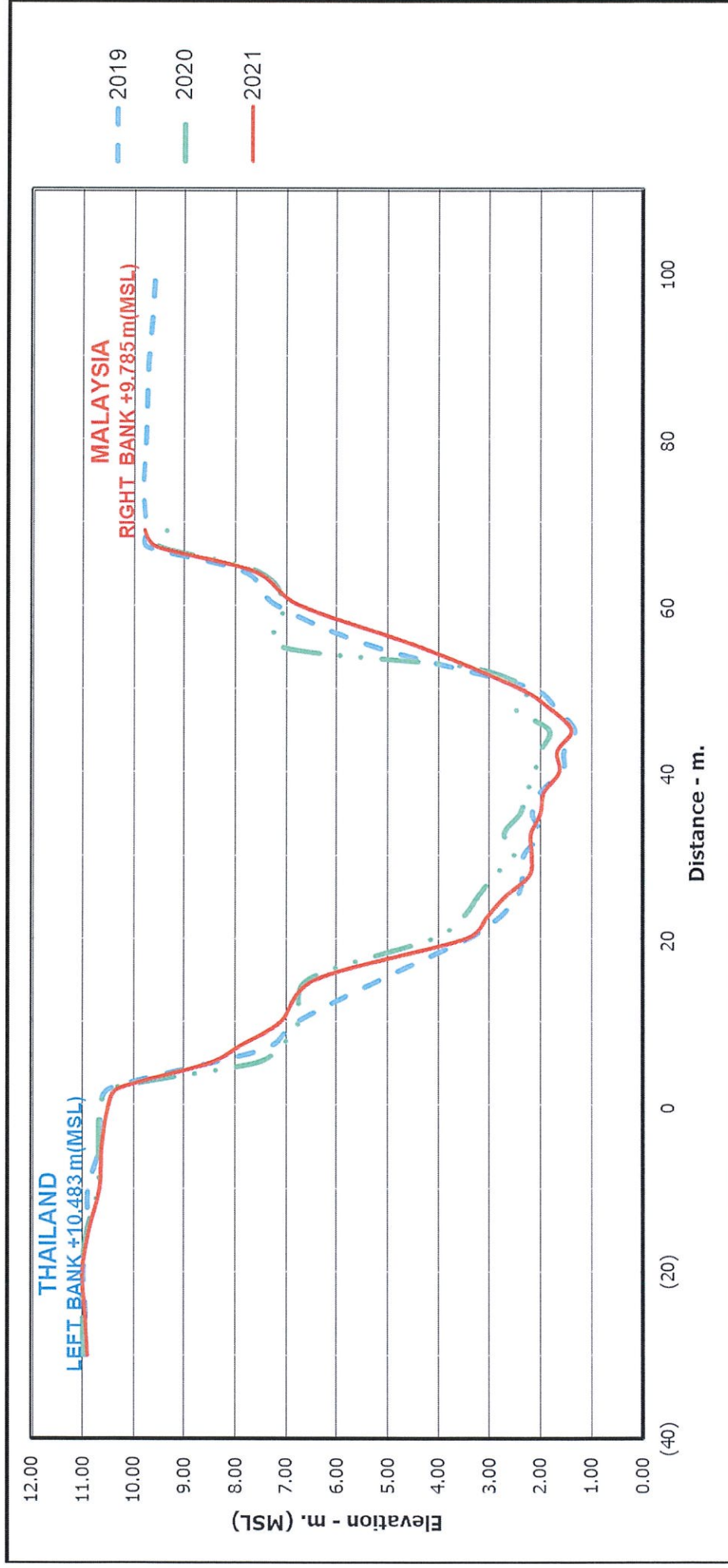
Station ID 6019411
Sg. Golok @ Rantau Panjang
Rating 2020



APPENDIX F



APPENDIX G



APPENDIX H

TABLE 3.5.2: Mutual Gauging 2020

No.	Date	Level (m)	Discharge (m3/s)	Area, A (m2)	Velocity (m/s)
1	16-Jan-20	3.95	20.719	66.177	0.313
2	30-Jan-20	3.68 (M)	16.35	4.805	3.644
3	17-Mar-20	3.43 (M)	4.575	40.602	0.097
4	17-Apr-20	3.05	3.816	30.911	0.123
5	19-May-20	3.45 (M)	11.802	50.309	0.235
6	19-May-20	3.48	10.659	51.568	0.207
7	16-Jun-20	5.43 (M)	73.306	119.106	0.615
8	16-Jun-20	5.44	71.594	121.418	0.59
9	16-Jul-20	5.00 (M)	44.023	102.054	0.431
10	16-Jul-20	5.07	46.055	105.500	0.437
11	18-Aug-20	5.10 (M)	67.691	104.637	0.647
12	18-Aug-20	5.22	65.091	104.900	0.621
13	15-Sep-20	5.95 (M)	88.604	135.800	0.653
14	20-Oct-20	5.95	47.576	100.78	0.472
15	20-Oct-20	5.00	47.967	100.30	0.478
16	17-Nov-20	4.85 (M)	48.637	91.457	0.532
17	17-Nov-20	4.85	50.180	94.300	0.532
18	25-Nov-20	7.51	165.975	201.659	0.823
19	29-Nov-20	9.17	276.393	294.404	0.939
20	5-Dec-20	9.340	295.578	305.988	0.966
21	18-Dec-20	8.670	250.537	273.03	0.918
22	19-Dec-20	10.170	435.999	372.29	1.171

APPENDIX H

TABLE 3.5.2: Mutual Gauging 2021

No	Date	Level (m)	Discharge (m ³ /s)	Area, A (m ²)	Velocity (m/s)
1	6 Jan 2021	10.1	433.342	363.300	1.193
2	12 Jan 2021	8.28	205.999	252.711	0.815
3	18 Feb 2021	4.00 (M)	13.343	58.042	0.230
4	10 Mac 2021	3.60 (M)	8.053	48.8	0.165
5	9 Apr 2021	4.190	28.747	72.248	0.398
6	22 Apr 2021	3.940	26.597	69.724	0.381
7	20 Mei 2021	5.60 (M)	78.226	111.7	0.700
8	23 Mei 2021	5.72	83.211	124.095	0.610
9	25 Mei 2021	4.790	46.634	91.056	0.512
10	24 Jun 2021	5.35 (M)	51.128	89.9	0.569
11	30 July 2021	3.730	17.534	42.2	0.415
12	30 August 2021	6.100 (M)	49.442	87.425	0.566