



Mekong River Commission

Weekly Wet Season Situation Report in the Lower Mekong River Basin

10 – 16 June 2025

Prepared by
The Regional Flood and Drought Management Centre
17 June 2025

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Content

Content.....	i
List of Figures.....	ii
List of Tables.....	iii
Key Messages	iv
1 Introduction.....	1
2 General Weather Patterns	2
3. Rainfall and Water Level Monitoring	3
3.1. Rainfall monitoring	3
3.2. Water level monitoring.....	5
4. Flash Flood in the Lower Mekong Basin.....	9
5. Drought Monitoring in the Lower Mekong Basin	12
5.2. Weekly drought monitoring from 10 to 16 June 2025.....	12
6 Weather and Water Level Forecast and Flash Flood information	15
6.1 Rainfall forecast	15
6.2 Water level forecast.....	17
6.3 Flash Flood Information	20
6.4 Drought forecast	20
7 Summary and Possible Implications.....	21
7.1. Rainfall and its forecast	21
7.2. Water level and its forecast	21
7.3. Flash flood and its trends.....	21
7.4. Drought condition and its forecast	21
Annex A: Weekly water level monitoring at the 22 key stations.....	22
Annex B: Tables for weekly updated water levels and rainfall at the Key Stations.....	25
Annex C: Performance of the weekly flood forecasting	29

List of Figures

Figure 1: Weather conditions over the LMB	2
Figure 2: Outlook of wet and dry conditions over the Asian countries by ASMC.....	3
Figure 3: One tropical storm risk observed on 16 June 2025	3
Figure 4: Weekly rainfall distribution over the LMB during 10 – 16 June 2025	4
Figure 5: The key stations along LMB for river flood forecasting	6
Figure 6. Water level at the Jinghong hydrological station up to 09 June 2025.....	7
Figure 7: Seasonal change of inflows and outflows of Tonle Sap Lake.....	8
Figure 8. The seasonal change in monthly flow volume of Tonle Sap Lake.....	8
Figure 9. Flash Flood Guidance for the next 1-hr, 3-hr and 6-hr on 12 June	12
Figure 10: Weekly standardized precipitation index from 10 – 16 June.	13
Figure 11: Weekly Index of Soil Water Fraction from 10 – 16 June.....	14
Figure 12: Weekly Combined Drought Index from 10 – 16 June.	15
Figure 13: Accumulated rainfall forecast from CHIRP-GFS (17 – 21 June 2025)	16
Figure 14. Monthly forecasts of combined drought indicators for June, July and Augst 2025	20

List of Tables

Table 1. The monthly change in the flow volume of Tonle Sap Lake.	9
Table 2. Detected flash flood in the LMB.....	9
Table 3. River Monitoring and Forecasting Bulletin.....	18

Key Messages

Key messages for this weekly report are presented below.

Rainfall monitoring and forecast

- In the period of 10 - 16 June 2024, there has heavy to very heavy rainfall has been observed over the LMB in the central parts of Lao PDR, the 3S basin, and the northeastern of Cambodia.
- During 17 – 21 June 2024, isolated heavy rain are expected to occur in some areas in the LMB including the northern and central part of Lao PDR, the northeastern part of Thailand, the 3S basin, and southwestern part of Cambodia. The remaining areas are expected to occur no rain to light rain.

Water level monitoring and forecast

- At 22 key monitoring stations along the Mekong mainstream from 10 – 16 June 2025, water levels are significantly increasing, and the flow threshold (PMFM 6C) are under normal conditions. It is also the same condition for Tan Chau and Chau Doc monitoring stations, which are significantly influenced by sea tidal fluctuation.
- In the period of 17 – 21 June 2025, Water levels are forecasted to be slightly decreasing at stations from Chiang Saen to Stung Treng and decreasing from Kratie station downstream. However, the water levels are not expected to reach alarm and flood level thresholds. At Tan Chau and Chau Doc stations, the water levels are predicted to be also fluctuated, resulting from the influence of sea tidal patterns.

Drought condition and forecast

- During 10 – 16 June 2025, the LMB is experiencing normal to wet conditions. The monitored drought is caused primarily by meteorological indicator.
- The next three-month from June to August 2025, the total amount of rainfall in most areas of the LMB will be higher than the LTA by around 5 - 20 mm, except for some areas in the northeastern part of Thailand, the lowland areas of Cambodia, and the Mekong Delta. Overall, in the next 3 months, rainfall will be mainly concentrated in the central part of the LMB and higher than the LTA from 10 - 20mm.
- The forecast indicates that no drought conditions are expected in over the LMB from June to August 2025 using the Combined Drought Indicator (CDI).

1 Introduction

This Weekly Wet Season Situation Report presents a preliminary analysis of the weekly hydrological situation in the Lower Mekong River Basin (LMB) for **10 – 16 June 2025**. The trend and outlook for water levels are also presented.

This analysis is based on the daily hydro-meteorological data provided by the Mekong River Commission (MRC) Member Countries – Cambodia, Lao PDR, Thailand, and Viet Nam – and on satellite data. The water level indicated in this report refers to an above zero gauge of each station.

The report covers the following topics that are updated weekly:

- General weather patterns, including rainfall patterns over the LMB.
- Water levels in the LMB, including in the Tonle Sap Lake.
- Flash flood and drought situation in the LMB.
- Weather, water level and flash flood forecast, and
- Possible implications.

Mekong River water levels are updated daily and can be accessed from:

<http://ffw.mrcmekong.org/bulletin.php>.

Drought monitoring and forecasting information is available at:

<http://droughtforecast.mrcmekong.org>

Flash flood information is accessible at: <http://ffw.mrcmekong.org/ffg.php>

2 General Weather Patterns

From 10 – 16 June, the tropical storm Wutip impacted on the central part of the LMB, While the moderate southwest moon soon prevails over the lower part. Heavy to very rain occurred in the southern part of Lao PDR, the 3S basin, and the northeastern part of Cambodia during this period.

Figure 1 presents mean sea level pressure over the region. It is forecasted that the moderate southwest monsoon will be influenced to the Lower Mekong Basin from 17 – 23 June. Therefore, isolated heavy rain is expected to occur in some areas in the LMB including the northern and central part of Lao PDR, the northeastern part of Thailand, the 3S basin, and southwestern part of Cambodia. The remaining areas are expected to occur no rain to light rain

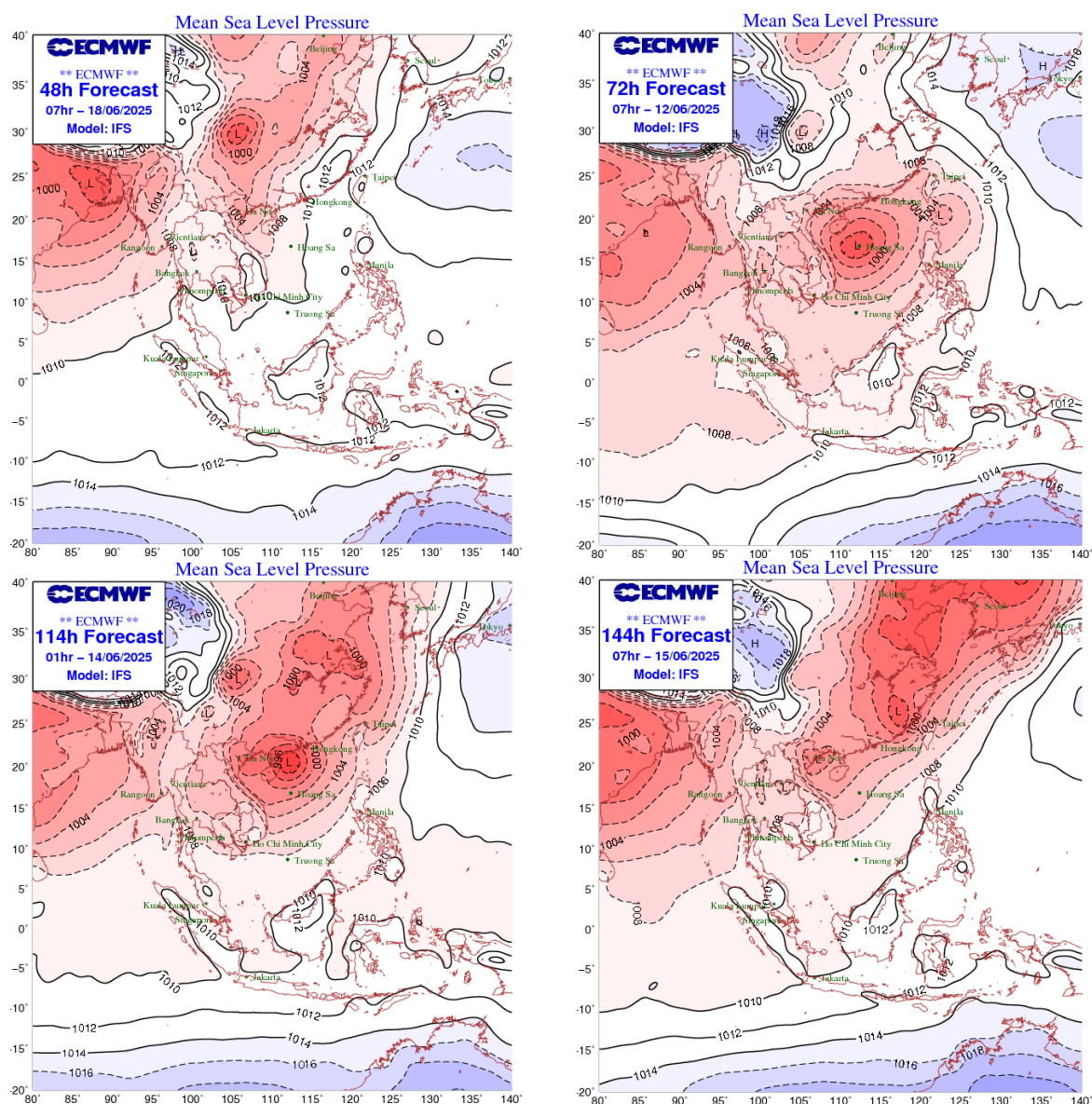


Figure 1: Weather conditions over the LMB

According to the ASEAN Specialised Meteorological Centre (ASMC, <http://asmc.asean.org/home/>), the subseasonal weather outlook (09 – 22 June 2025) indicates that the Lower Mekong Basin (LMB) is likely in in wetter conditions at the central part. **Figure 2** shows the outlook of weather condition from 09 to 22 June 2025 in Southeast Asia based on results from the NCEP model (National Centres for Environmental Prediction).

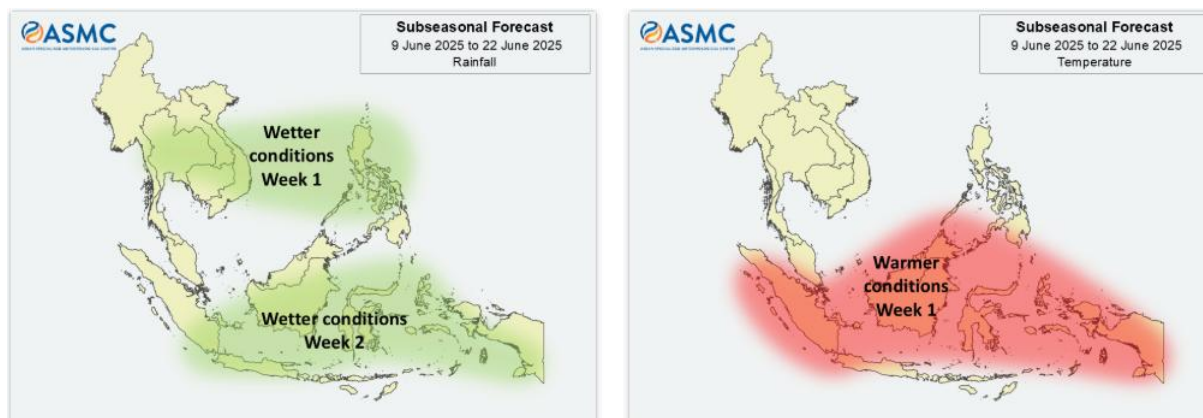


Figure 2: Outlook of wet and dry conditions over the Asian countries by ASMC.

Based on the tropical storm risk (TS) (<https://www.tropicalstormrisk.com/>), there is no active Tropical Depression (TD) at NW pacific system as of 16 June 2025 as displayed in **Figure 3**.

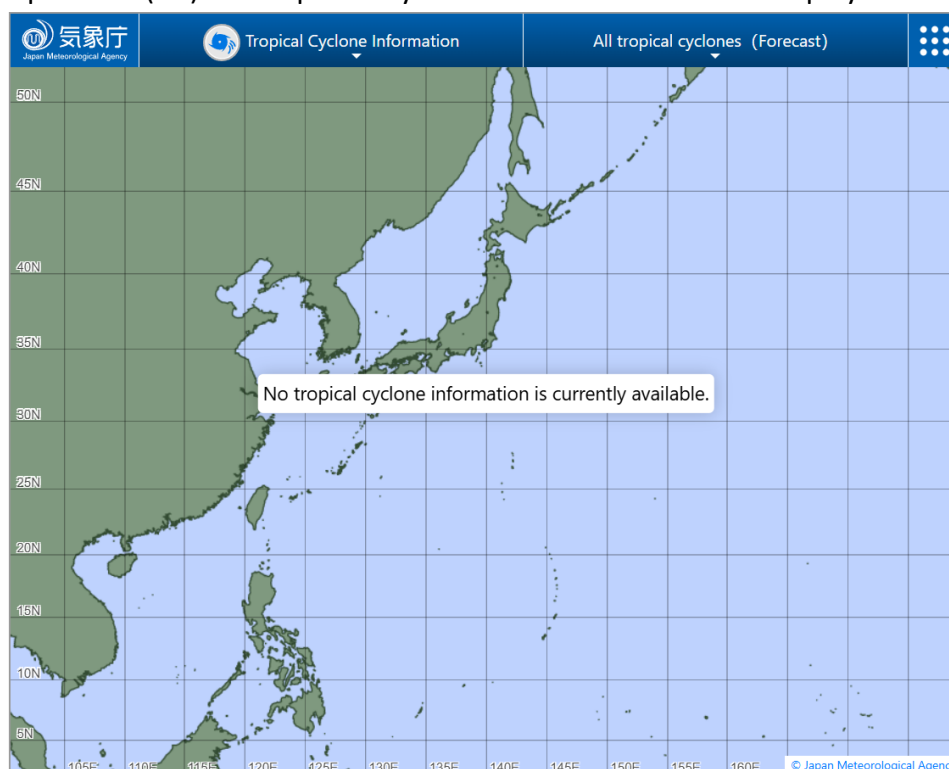


Figure 3: One tropical storm risk observed on 16 June 2025

3. Rainfall and Water Level Monitoring

3.1. Rainfall monitoring

The weekly accumulated rainfall based on the observed data provided by the MRC Member Countries – Cambodia, Lao PDR, Thailand, and Viet Nam – from 10 - 16 June 2024 (**Figure 4**).

The heavy to very heavy rainfall has been observed over the LMB in the central parts of Lao PDR, the 3S basin, and the northeastern of Cambodia.

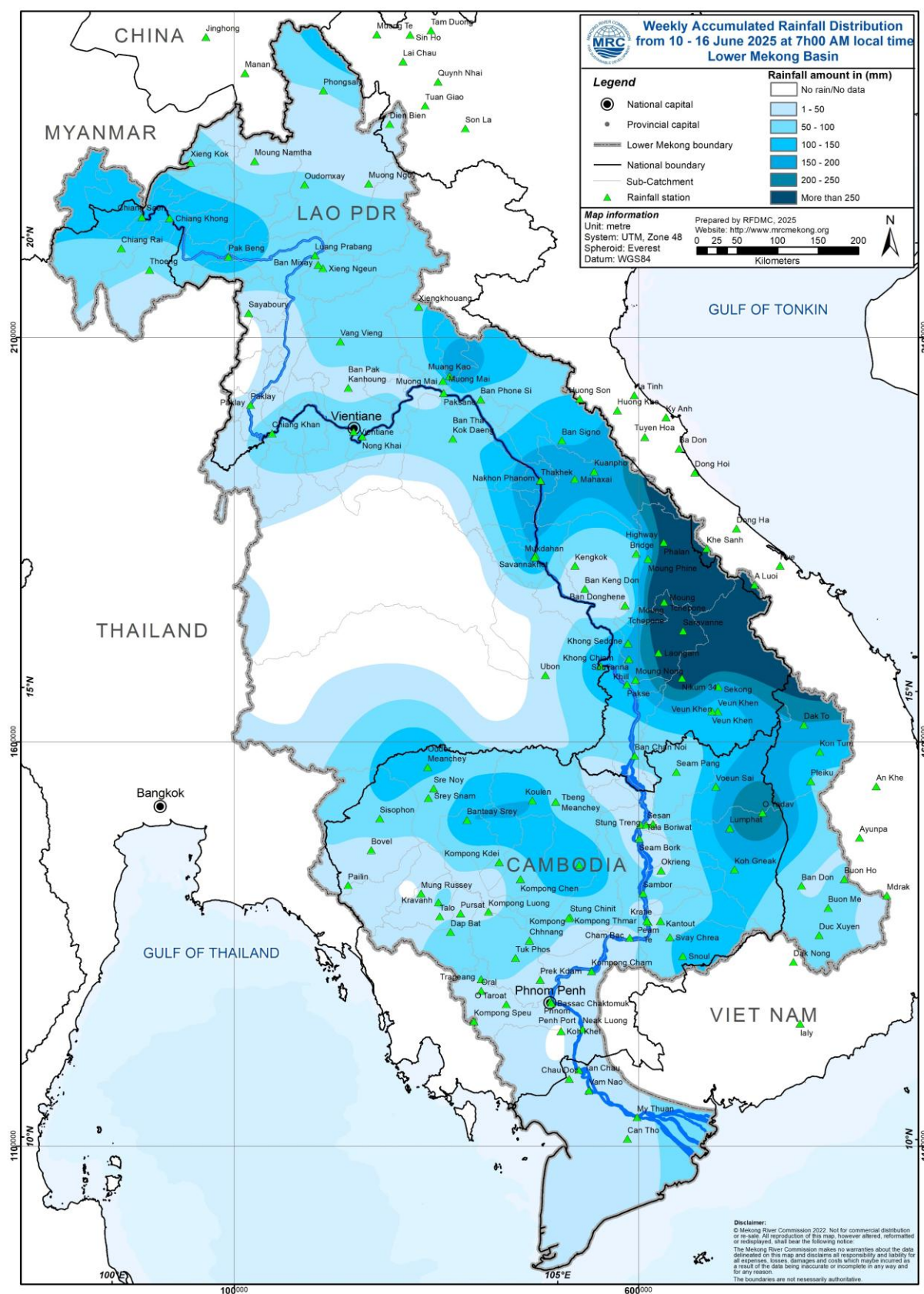


Figure 4: Weekly rainfall distribution over the LMB during 10 – 16 June 2025

3.2. Water level monitoring

The hydrological regimes of the Mekong mainstream are illustrated by recorded water levels and flows at key mainstream stations: at Chiang Saen to capture mainstream flows entering from the Upper Mekong Basin (UMB); at Vientiane to present flows generated by climate conditions in the upper part of the LMB; at Pakse to investigate flows influenced by inflows from the larger Mekong tributaries; at Kratie in Cambodia to capture overall flows of the Mekong Basin; and at Viet Nam's Tan Chau and Chau Doc to monitor flows to the Delta.

The key stations along the LMB and their respective model application for River Flood Forecasting during the wet season from June to October and River Monitoring during the dry season from November to May are presented in **Figure 5**. The hydrograph for each key station is available from the MRC's River Flood Forecasting: <http://ffw.mrcmekong.org/overview.php>.

During 10 – 16 June 2025, the observed water level (WL) at Jinghong hydrological station¹, was almost constant and ranges between 536.72 m and 535.80 m, which are corresponding to the outflow between 1,920.00 m³/s to 1,220.00 m³/s (recorded on 7:00 am), respectively (**Figure 6**). The water level in Chiang Saen Station also indicated a slight fluctuation ranging from 1.96 m to 2.21 m. At the same period, the water level in Luang Prabang Station also slightly increased with an approximate value of 0.83 m from 8.80 m to 9.63 m as compared to the previous week.

During the same period, the water levels observed at upper parts of the basin at Chiang Khan, Vientiane, Nongkhai, Nakhon Phanom, Thakhek, Mukdahan, Savannakhet, Khong Chiam and Pakse have been slightly decreasing from 5.23 m to 6.68 m, 3.99 m to 4.58 m, 2.44 m to 3.16 m, 4.23 m to 4.29 m, 3.33 m to 3.79 m, 4.67 m to 5.16 m, 3.87 m to 4.64 m, 2.18 m to 3.09 m, 4.76 m to 7.79 m, and 3.50 m to 6.64 m, respectively.

Moving down to the floodplain area at Stung Treng, Kratie, Kampong Cham, Phnom Penh (Bassac), and Phnom Penh Port, Koh Khel, Neak Loung and Prek Kdam, the water levels have been increasing from 4.28 m to 6.87 m, 10.60 m to 14.40 m, 4.86 m to 7.30 m, 2.55 m to 3.83 m, 1.55 m to 2.75 m, 2.60 m to 3.49 m, 1.68 m to 2.54 m, and 1.61 m to 2.86 m, respectively.

Similar to the previous week, the water levels from 10 to 16 June 2025 at Viet Nam's Tan Chau and Chau Doc fluctuated between their LTA values due to daily tidal effects from the sea. At the Tan Chau station, the water levels varied between 1.07 m and 0.33 m, while at the Chau Doc station, they ranged from 1.16 m to 0.25 m.

¹ Near-real time data of hydro-meteorological monitoring at the Jinghong hydrological station is available at <https://portal.mrcmekong.org/monitoring/river-monitoring-telemetry>.

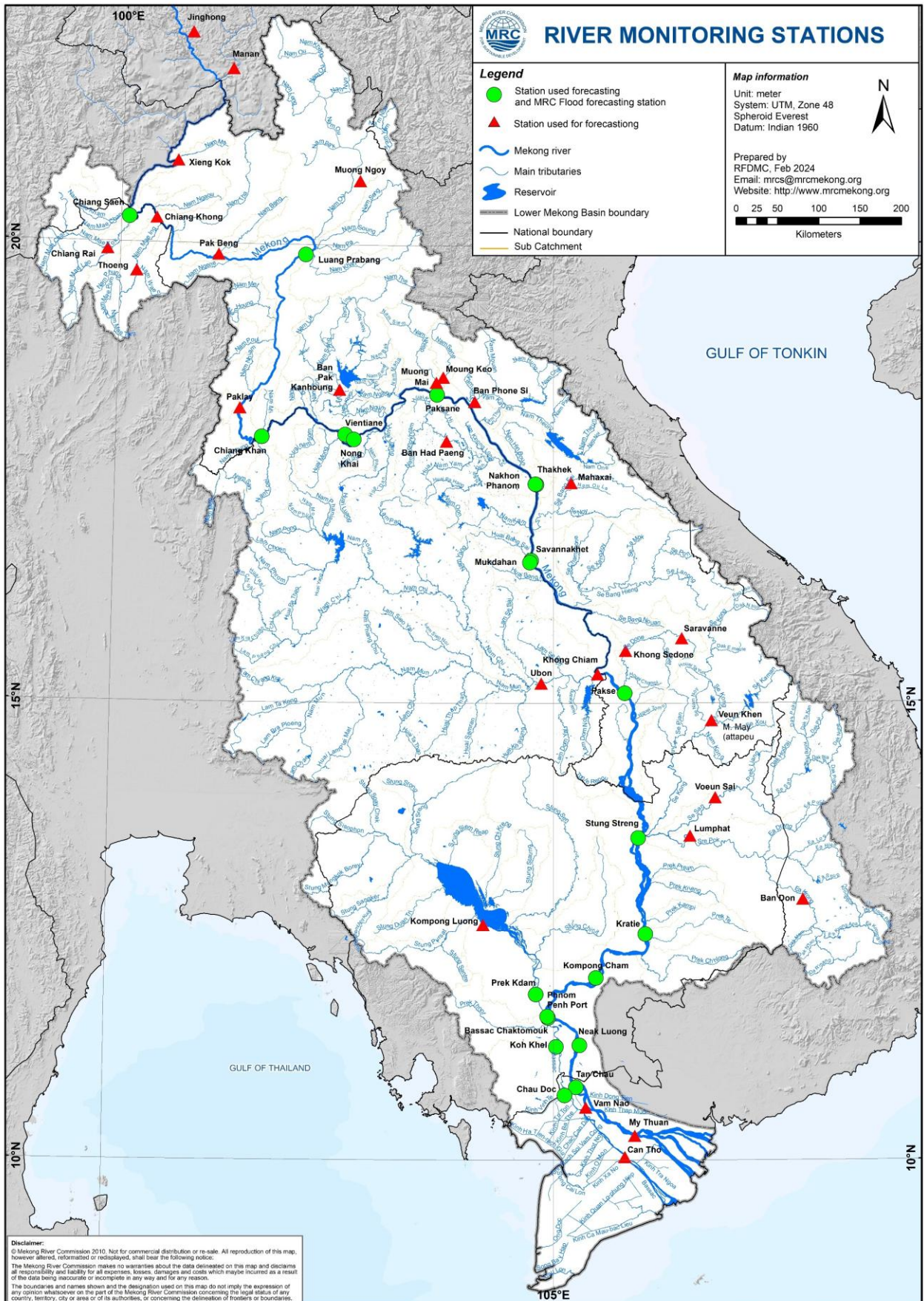


Figure 5: The key stations along LMB for river flood forecasting

The water levels in key monitoring stations on 16 June 2024 are in normal conditions, in which they do not reach alarm and flood levels at all stations. Moreover, all stations with available PMFM thresholds are in normal conditions. The graphics of water level monitoring in all key stations are presented in **Annex A** and the weekly water levels and rainfall at each key station are summarised in **Annex B**.

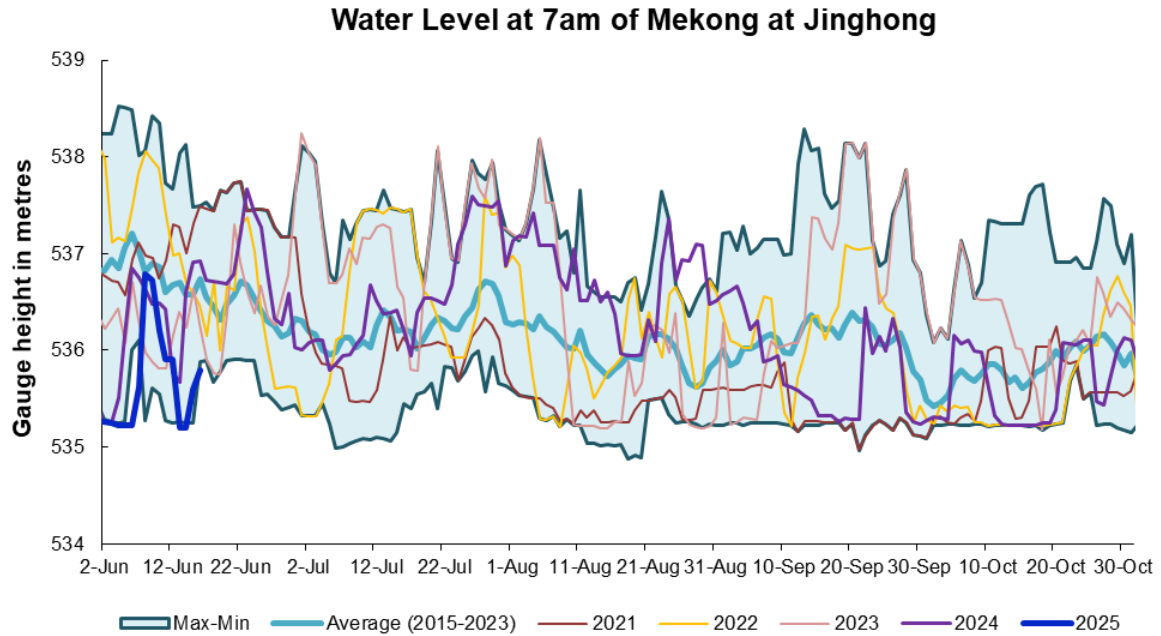


Figure 6. Water level at the Jinghong hydrological station up to 09 June 2025.

At the end of the wet season, when water levels along the Mekong River subside, the outflow of the Tonle Sap Lake (TSL) returns to the Mekong River and then to the Delta. This phenomenon normally takes place between September and October. Based on flow observation at Prek Kdam monitoring station, the inflow (reverse flow) of the Tonle Sap Lake took place since 29 May 2025.

The inflow flow is calculated based on a formula of rating-curves using by difference of water levels at Kompong Luong and Phnom Penh Port stations for slop and Prek Kdam as cross-section of the Lake. The formula of flow is as follows:

$$Flow = WL_{Prek\ Kdam}^{1.2} \times \sqrt{|WL_{Phnom\ Penh\ Port} - WL_{Kompong\ Luong}|}$$

Where, WL is water level in m (msl).

The seasonal changes of the inflow/reverse flow and the outflow of the TSL at Prek Kdam in comparison with the flows of 2020, 2021 and 2022, 2023 and their LTA level (1997-2024) are illustrated in **Figure 7**. Up to 16 June 2025, it was observed that the inflow to Tonle Sap Lake is relatively higher than its LTA due to significant high inflows from upstream, contributing from the tropical storm namely WUTIP (**Figure 7**).

The seasonal changes in monthly flow volumes up to 16 June 2025 for the TSL compared with that in 2020, 2021, 2022, 2023, 2024 and their LTAs, and the fluctuation levels (1997–2024) are presented in **Table 8**. The mean monthly water volume of the Tonle Sap Lake in May 2025 is lower than its LTA (about 82.86 %), 2019, 2022, 2023 and 2024 but higher than that in 2020 and 2021 during the same period (**Figure 8 and Table 1**).

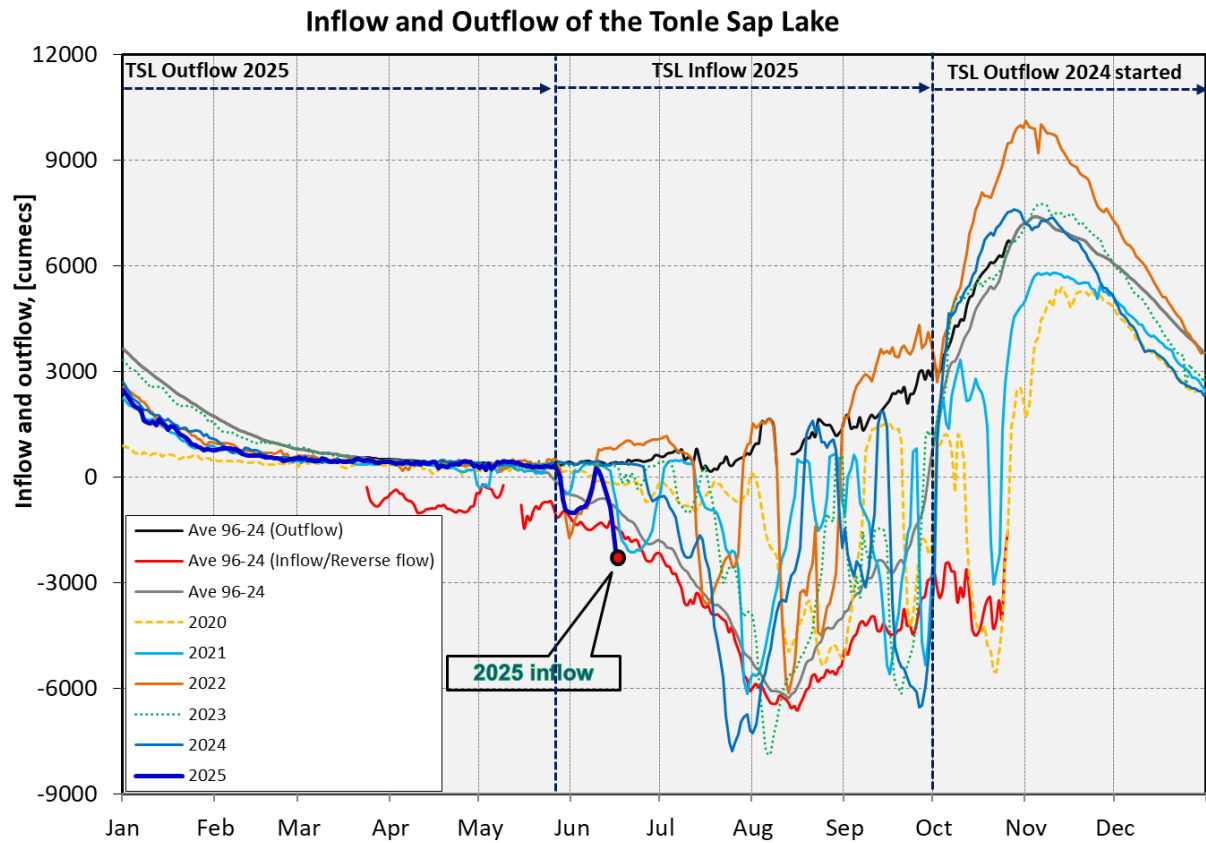


Figure 7: Seasonal change of inflows and outflows of Tonle Sap Lake.

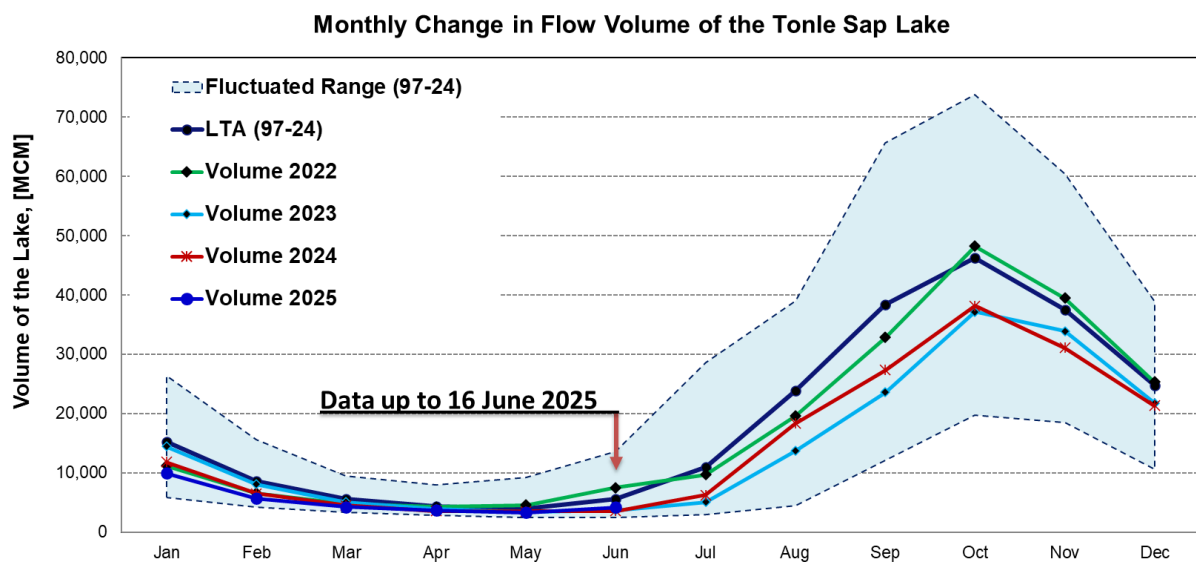


Figure 8. The seasonal change in monthly flow volume of Tonle Sap Lake.

Table 1. The monthly change in the flow volume of Tonle Sap Lake.

Month	LTA (97-24) [MCM]	Max Volume [MCM]	Min Volume [MCM]	Volume 2019 [MCM]	Volume 2020 [MCM]	Volume 2021 [MCM]	Volume 2022 [MCM]	Volume 2023 [MCM]	Volume 2024 [MCM]	Volume 2025 [MCM]	Volume in 2025 [%], compared with its LTA
Jan	15197.93	26357.53	5906.80	13080.39	10285.31	5906.80	9923.80	11214.32	14422.11	10341.91	68.05
Feb	8644.19	15596.22	4198.60	7302.32	6019.30	4264.19	5832.97	6558.79	8069.29	5690.52	65.83
Mar	5564.35	9438.24	3347.07	4852.74	4354.62	3553.99	4264.88	4736.52	5080.64	4256.33	76.49
Apr	4300.28	8009.14	2866.91	4282.78	3667.47	2992.61	3556.68	4288.31	3884.16	3697.92	85.99
May	4009.61	9176.93	2417.81	4356.44	3266.43	2594.92	3240.78	4556.83	3438.66	3322.45	82.86
Jun	5624.02	13635.01	2468.70	8465.20	3517.06	2641.88	3798.29	7489.04	3689.97	4176.94	74.27
Jul	11012.31	28599.56	2925.86	14964.58	4001.99	2925.86	5346.73	9703.79	5062.21		
Aug	23865.05	39015.12	4433.46	23407.37	7622.71	5941.07	10547.80	19554.70	13694.57		
Sep	38377.57	65632.35	12105.31	39654.01	24194.19	12105.31	16382.34	32860.34	23550.60		
Oct	46261.30	73757.23	19705.50	41847.54	30358.38	20799.13	27318.21	48199.12	37141.40		
Nov	37500.63	60367.33	18534.61	33663.58	19112.65	27546.80	28982.93	39452.53	33929.52		
Dec	24795.31	38888.95	10563.49	23079.82	10577.29	18251.65	20170.76	25346.65	21757.70		
	Critical situation: lower than long-term minimum values (LTMIN)										
	Normal condition: within the range of long-term min (LTMIN) and max (LTMAX) values										
	Low volume situation: lower than long-term average (LTA)										
Unit: Million Cubic Meter (1 MCM= 0.001 Km ³)											

Remarks: the volume of Tonle Sap Lake in 2025 is updated until 16 June 2025.

4. Flash Flood in the Lower Mekong Basin

During the weekly monitoring period from 10 - 16 June, the LMB received light to very heavy rain and thunderstorms in some areas.

According to the Southeast Asian Flash Flood Guidance System (SEAFFGS) and analysis, flash flood guidance was detected at low to high level in the next 1, 3 and 6 hours in some areas of Lao PDR and Cambodia during the reporting period as shown in [Figure 14](#) & [Table 2](#).

Table 2. Detected flash flood in the LMB

FLASH FLOOD GUIDANCE IN CAMBODIA 12 JUNE								
In the next 1hrs			In the next 3hrs			In the next 6hrs		
Provinces	Districts	Level	Provinces	Districts	Level	Provinces	Districts	Level
Kampong Cham	Stueng Trang	High	Kampong Cham	Stueng Trang	Moderate	Kampong Cham	Stueng Trang	Moderate
Kampot	Chhuk	Moderate	Kampot	Chum Kiri	Moderate	Kampot	Chum Kiri	Moderate
Kampot	Chum Kiri	Moderate	Mondul Kiri	Kaoh Nheak	High	Mondul Kiri	Kaoh Nheak	High
Kampot	Kampot	Moderate	Mondul Kiri	Ou Reang	Moderate	Mondul Kiri	Ou Reang	Moderate
Kratie	Preaek Prasab	Moderate	Mondul Kiri	Pechr Chenda	High	Mondul Kiri	Pechr Chenda	High
Mondul Kiri	Kaoh Nheak	High	Ratana Kiri	Andoung Meas	Moderate	Ratana Kiri	Andoung Meas	Moderate
Mondul Kiri	Ou Reang	Moderate	Ratana Kiri	Ban Lung	Moderate	Ratana Kiri	Ban Lung	Moderate
Mondul Kiri	Pechr Chenda	High	Ratana Kiri	Koun Mom	High	Ratana Kiri	Koun Mom	High

FLASH FLOOD GUIDANCE IN CAMBODIA 12 JUNE								
In the next 1hrs			In the next 3hrs			In the next 6hrs		
Provinces	Districts	Level	Provinces	Districts	Level	Provinces	Districts	Level
Mondul Kiri	Saen Monourom	Moderate	Ratana Kiri	Ou Chum	Moderate	Ratana Kiri	Ou Chum	Moderate
Preah Vihear	Chhaeb	Moderate	Ratana Kiri	Ta Veang	High	Ratana Kiri	Ta Veang	High
Ratana Kiri	Andoung Meas	High	Ratana Kiri	Veun Sai	Moderate	Ratana Kiri	Veun Sai	Moderate
Ratana Kiri	Ban Lung	Moderate	Stung Treng	Sesan	High	Stung Treng	Sesan	High
Ratana Kiri	Bar Kaev	Moderate	Stung Treng	Siem Bouk	Moderate	Stung Treng	Siem Bouk	Moderate
Ratana Kiri	Koun Mom	High	Stung Treng	Siem Pang	High	Stung Treng	Siem Pang	High
Ratana Kiri	Ou Chum	High	Stung Treng	Thala Barivat	High	Stung Treng	Thala Barivat	High
Ratana Kiri	Ta Veang	High						
Ratana Kiri	Veun Sai	High						
Stung Treng	Sesan	High						
Stung Treng	Siem Bouk	Moderate						
Stung Treng	Siem Pang	High						
Stung Treng	Stueng Traeng	Moderate						
Stung Treng	Thala Barivat	High						

FLASH FLOOD RISK IN CAMBODIA 12 JUNE						
In the next 12hrs				In the next 24hrs		
Provinces	Districts	Level		Provinces	Districts	Level
Ratana Kiri	Andoung Meas	High		Kong Pailin	Khad Pailin	Moderate
Ratana Kiri	Ou Chum	High		Ratana Kiri	Andoung Meas	High
Ratana Kiri	Ta Veang	High		Ratana Kiri	Ou Chum	High
Ratana Kiri	Veun Sai	High		Ratana Kiri	Ta Veang	High
Stung Treng	Siem Pang	High		Ratana Kiri	Veun Sai	High
				Stung Treng	Siem Pang	High

FLASH FLOOD GUIDANCE IN LAO PDR 12 JUNE								
In the next 1hrs			In the next 3hrs			In the next 6hrs		
Provinces	Districts	Level	Provinces	Districts	Level	Provinces	Districts	Level
Champasak	Bachiangc	Moderate	Champasak	Phonthong	Moderate	Savannakhet	Thapangth	Moderate
Champasak	Pathoomph	Moderate	Saravane	Toomlarn	Moderate			
Champasak	Phonthong	Moderate	Savannakhet	Thapangth	Moderate			
Saravane	Lakhoneph	Moderate						
Saravane	Lao ngarm	Moderate						
Saravane	Samuoi	Moderate						

FLASH FLOOD GUIDANCE IN LAO PDR 12 JUNE								
In the next 1hrs			In the next 3hrs			In the next 6hrs		
Provinces	Districts	Level	Provinces	Districts	Level	Provinces	Districts	Level
Saravane	Toomlarn	Moderate						
Savannakhet	Thapangth	High						
Savannakhet	Vilabuly	Moderate						
Sekong	Dakcheung	Moderate						
Sekong	Thateng	Moderate						

FLASH FLOOD RISK IN LAO PDR 12 JUNE					
In the next 12hrs			In the next 24hrs		
Provinces	Districts	Level	Provinces	Districts	Level
Attapeu	Phouvong	High	Attapeu	Phouvong	High
Attapeu	Sanamxay	High	Attapeu	Sanamxay	High
Attapeu	Sanxay	High	Attapeu	Sanxay	High
Bolikhamxay	Khamkheut	Moderate	Bokeo	Pha Oudo	Moderate
Champasak	Bachiangc	Moderate	Bolikhamxay	Khamkheut	Moderate
Champasak	Champasac	Moderate	Bolikhamxay	Thaphabat	Moderate
Champasak	Paksong	High	Champasak	Bachiangc	High
Champasak	Pathoomph	Moderate	Champasak	Champasac	High
Champasak	Phonthong	High	Champasak	Paksong	High
Khammuane	Nakai	Moderate	Champasak	Pathoomph	High
Saravane	Lakhoneph	Moderate	Champasak	Phonthong	Moderate
Saravane	Samuoi	Moderate	Champasak	Sanasombo	Moderate
Saravane	Saravane	Moderate	Khammuane	Bualapha	Moderate
Saravane	Ta oi	High	Khammuane	Mahaxay	Moderate
Saravane	Toomlarn	Moderate	Khammuane	Nakai	High
Saravane	Vapy	Moderate	Khammuane	Nhommalat	Moderate
Savannakhet	Nong	High	Khammuane	Xaybouath	Moderate
Savannakhet	Phine	Moderate	Luangprabang	Phoukhoun	Moderate
Savannakhet	Sepone	Moderate	Saravane	Lakhoneph	High
Savannakhet	Thapangth	Moderate	Saravane	Lao ngarm	Moderate
Sekong	Dakcheung	High	Saravane	Samuoi	High
Sekong	Kaleum	High	Saravane	Saravane	Moderate
Sekong	Lamarm	Moderate	Saravane	Ta oi	High
			Saravane	Toomlarn	Moderate
			Saravane	Vapy	High
			Savannakhet	Atsaphang	Moderate

FLASH FLOOD RISK IN LAO PDR 12 JUNE

In the next 12hrs			In the next 24hrs		
Provinces	Districts	Level	Provinces	Districts	Level
			Savannakhet	Atsaphone	Moderate
			Savannakhet	Nong	High
			Savannakhet	Phine	High
			Savannakhet	Sepone	Moderate
			Savannakhet	Songkhone	Moderate
			Savannakhet	Thapangth	High
			Savannakhet	Vilabuly	Moderate
			Savannakhet	Xonbuly	Moderate
			Sekong	Dakcheung	High
			Sekong	Kaleum	High
			Sekong	Lamarm	High
			Sekong	Thateng	Moderate
			Vientiane	Vangvieng	Moderate
			Xayaboury	Botene	Moderate

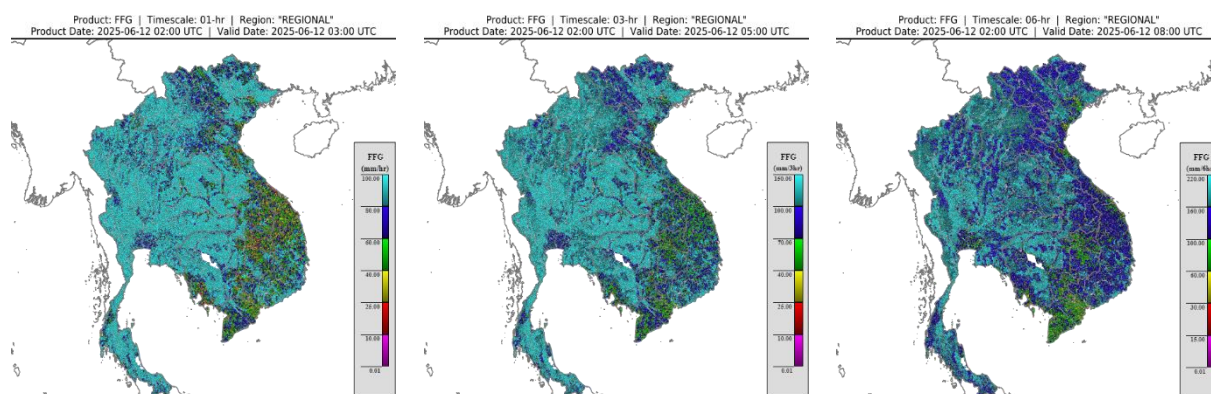


Figure 9. Flash Flood Guidance for the next 1-hr, 3-hr and 6-hr on 12 June

5. Drought Monitoring in the Lower Mekong Basin

5.2. Weekly drought monitoring from 10 to 16 June 2025

Drought monitoring data for 2025 are available from Monday to Sunday every week; thus, the reporting period is normally delayed by one day compared to Flood and Flash Flood reports. We adopt the Index of Soil Water Fraction (ISWF) data obtained from FFGS to represent soil moisture of agricultural indicator for both dry and wet seasons.

- **Weekly Standardised Precipitation Index (SPI1)**

Meteorological indicator shows that from 10 - 16 June 2024, as shown in Figure 9, the LMB was facing normal to wet conditions.

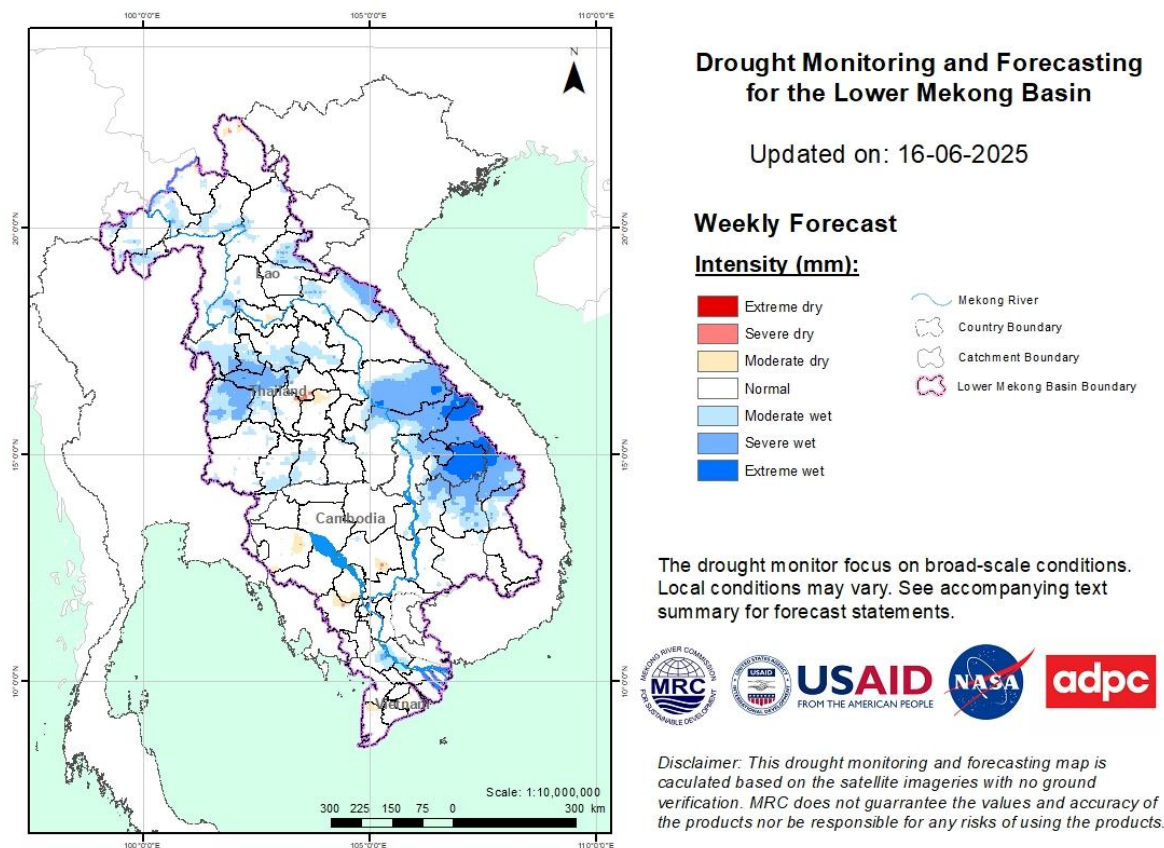


Figure 10: Weekly standardized precipitation index from 10 – 16 June.

- **Weekly Index of Soil Water Fraction (ISWF)**

No drought over the LMB by the Index of Soil Water Fraction, as displayed in **Figure 10**, during the monitoring week from 10 - 16 June. The LMB was facing normal to wet conditions.

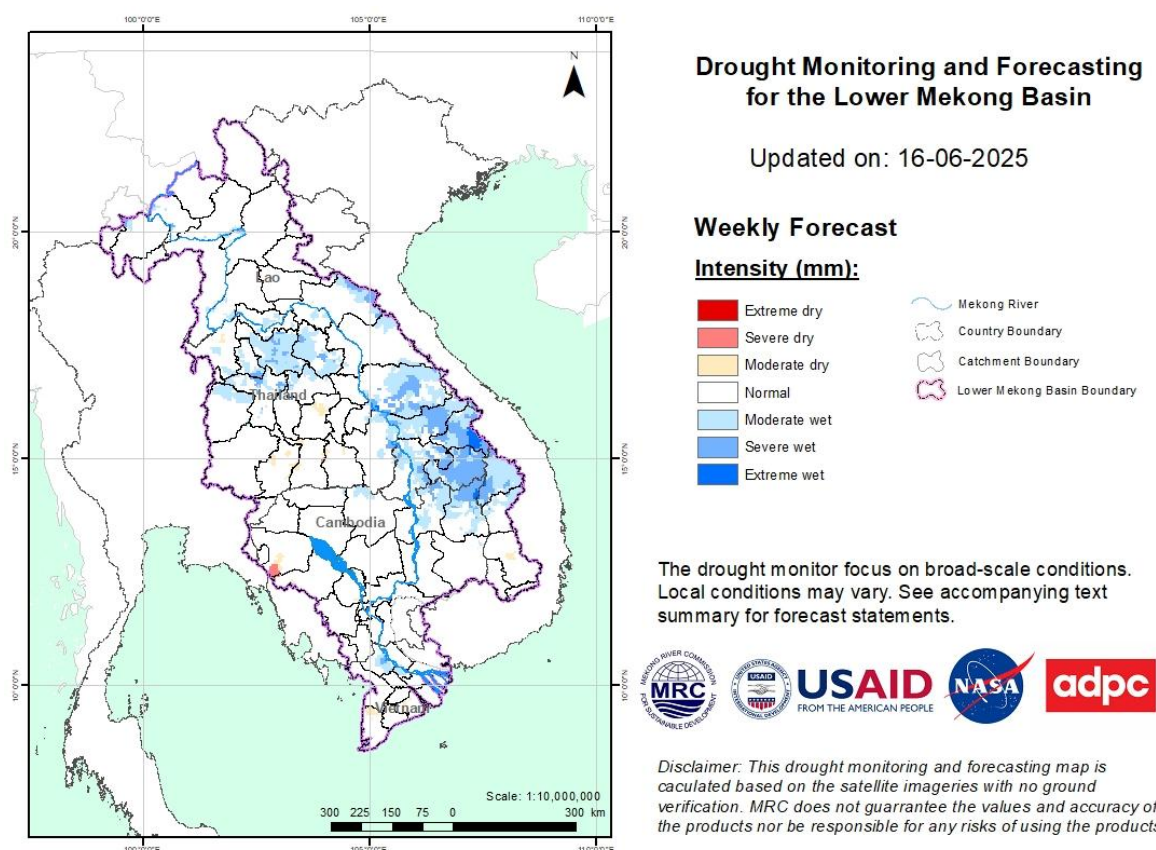


Figure 11: Weekly Index of Soil Water Fraction from 10 – 16 June.

- Weekly Combined Drought Index (CDI)**

The combined drought indicator, **Figure 11**, shows that the LMB was normal in most parts of the region during the monitoring week. Some moderate drought was detected in small areas of the Member Countries but not significant, including: Battambang, Kampong Thom, Pursat (Cambodia); Phongsali (Lao PDR); Kalasin, Roi Et (Thailand).

The impacted areas are listed below:

Number	Country	Province	Mderate	Severe	Extreme	Exceptional	Number	Country	Province	Mderate	Severe	Extreme	Exceptional
1	Cambodia	Battambang					5	Thailand	Kalasin				
2	Cambodia	Kampong Thom					6	Thailand	Roi Et				
3	Cambodia	Pursat											
4	Lao PDR	Phongsali											
								Other provinces of the Mekong Delta of Viet Nam have no data					
									Moderate		Severe		
									Extreme		Exceptional		

Note: S: short-term drought, less than 1 months; L: long-term drought, more than 1 month

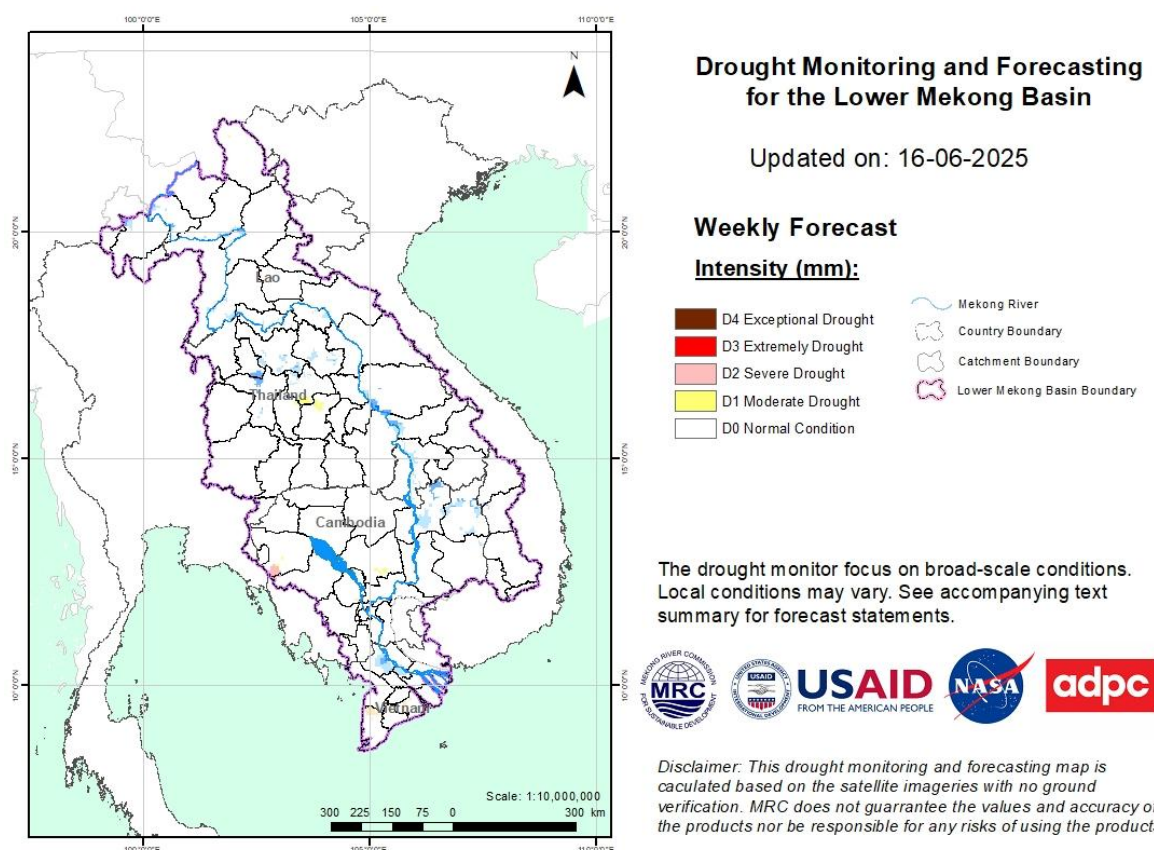


Figure 12: Weekly Combined Drought Index from 10 – 16 June.

More information on Drought Forecasting and Early Warning (DFEW) as well as the explanation is available here: <http://droughtforecast.mrcmekong.org/templates/view/our-product>. DFEW provides not only weekly monitoring and forecasting information but also a three-month forecast of drought indicators with seasonal outlook which are updated every month based on international weather forecast models. Details on drought forecast are described in section 6.4 of this report.

6 Weather and Water Level Forecast and Flash Flood information

6.1 Rainfall forecast

During 17 – 21 June 2024, the accumulated rainfall over the entire Lower Mekong Basin is distributed with light to heavy rain based on CHIRPS-GFS (**Figure 12**). Isolated heavy rain is expected to occur in some areas in the LMB including the northern and central part of Lao PDR, the northeastern part of Thailand, the 3S basin, and southwestern part of Cambodia. The remaining areas are expected to occur no rain to light rain.

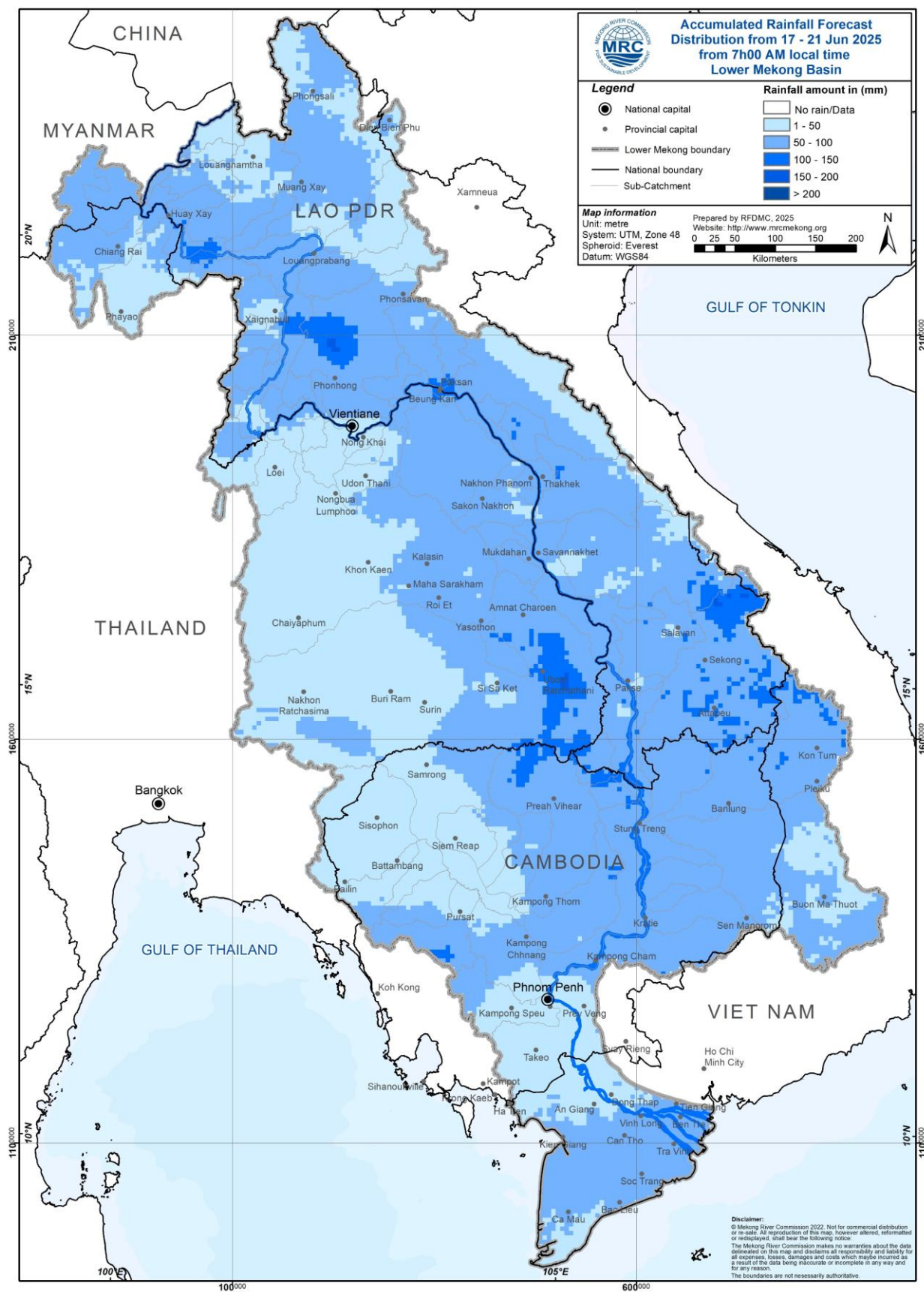


Figure 13: Accumulated rainfall forecast from CHIRP-GFS (17 – 21 June 2025)

6.2 Water level forecast

During the wet season, from June 1st to October 31st each year, daily riverine flood forecasts are conducted for 22 stations along the Mekong mainstream, with a forecast lead time of five days. This report will describe the forecast water level for a period of 17 –21 June 2025. Water levels at all stations are forecasted to be in normal conditions without exceeding the alarm and flood levels thresholds.

In Chiang Saen monitoring station, the water level is expected to be fluctuated over the forecasting period of 17 – 21 June 2025. However, it will be expected to slightly increase from 2.21 m to 3.24 m. The water level in Luang Prabang stations affected by backwater is likely slightly stable within a range from 9.63 m to 9.62 m.

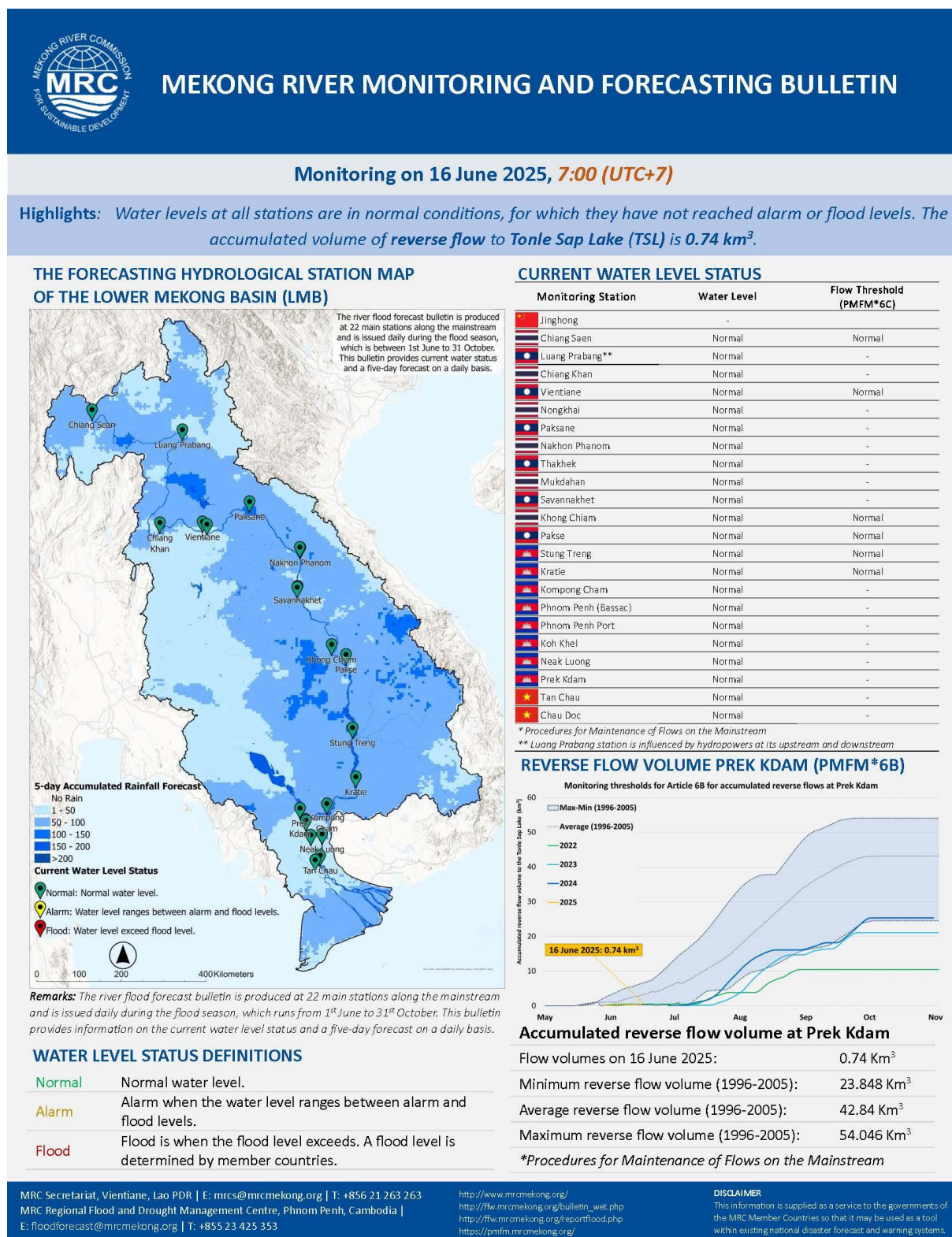
Along the Mekong mainstream from Chiang Khan to Stung Treng stations, the water levels are expected to decrease. At Chiang Khan, Vientiane, Nong Khai, Paksane, Nakhon Phanom, Thakhek, Mukdahan, Savannakhet, Khong Chiam, Pakse, and Stung Treng, the water levels are expected to decrease approximately -0.44 m, -0.45 m, -0.43 m, -0.41 m, -0.24 m, -0.23 m, -1.88 m, -1.82 m, and -0.49 m, respectively.

At the floodplain in Cambodia from Kratie station downstream, the water levels are expected to increase. At Kratie, Kompong Cham, Phnom Penh (Bassac), Phnom Penh Port, Koh Khel, Neak Luong, and Prek Kdam, the water levels are expected to increase approximately 0.34 m, 1.03 m, 1.03 m, 0.74 m, 0.93 m, and 1.00 m, respectively.

For the Tan Chau station on the Mekong River and Chau Doc station on the Bassac River, water levels will be fluctuating approximately ranging from 0.33 to 1.65 m and from 0.25 m to 1.55 m, respectively, following daily tidal effects from the sea.




















The weekly River Monitoring Bulletin and forecasting issued on 16 June 2025 can be found in **Table 2**. Results of the weekly river monitoring and forecasting bulletin are also available at <http://ffw.mrcmekong.org/bulletin.php>

Table 3. River Monitoring and Forecasting Bulletin.



Forecasting from 17 to 21 June 2025

Highlights: *Isolated heavy rainfall are forecast in parts of the LMB. the water levels from Laung Prabang to Stung Treng stations are expected to drop, while from Kratie station downstream, it is expected to rise.*

Forecasting Station	24 h Observed Rainfall (mm)	Zero gauge above M.S.L (m)	Observed Water Level against zero gauge (m)		Forecasted Water Level (m)					Alarm Level (m)	Flood Level (m)	Forecasted Water Levels Change in 5 days (m)	Max. Water levels change within next 5 days (m)	Min. distance to alarm level within next 5 days (m)	Min. distance to flood level within next 5 days (m)
	15-Jun		15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun	21-Jun						
 Jinghong	0.0	-	535.60	↑ 535.80	-	-	-	-	-	-	-	-	-	-	-
 Chiang Saen	0.0	357.110	2.54	↓ 2.21	↓ 2.02	↑ 2.27	↑ 2.71	↑ 3.08	↑ 3.24	11.50	12.80	↑ 1.03	-0.19	8.26	9.56
 Luang Prabang	0.0	267.195	9.79	↓ 9.63	↓ 9.35	↓ 9.12	↑ 9.31	↑ 9.55	→ 9.62	17.50	18.00	→ -0.01	-0.51	7.88	8.38
 Chiang Khan	2.1	194.118	6.56	↑ 6.68	→ 6.60	↓ 6.40	↓ 5.97	↓ 5.79	↑ 6.24	14.50	16.00	↓ -0.44	-0.89	7.90	9.40
 Vientiane	6.3	158.040	3.92	↑ 4.58	↑ 5.02	↓ 4.73	↓ 4.36	↓ 4.07	→ 4.13	11.50	12.50	↓ -0.45	-0.51	6.48	7.48
 Nongkhai	40.0	153.648	2.54	↑ 3.16	↑ 3.46	↓ 3.25	↓ 3.03	↓ 2.69	→ 2.73	11.40	12.20	↓ -0.43	-0.47	7.94	8.74
 Paksane	7.8	142.125	4.13	↑ 4.29	↑ 4.59	↓ 4.38	↓ 4.23	↓ 4.05	↓ 3.86	13.50	14.50	↓ -0.43	-0.43	8.91	9.91
 Nakhon Phanom	11.3	130.961	3.60	↑ 3.79	↑ 3.94	→ 3.94	↓ 3.76	↓ 3.56	↓ 3.38	11.50	12.00	↓ -0.41	-0.41	7.56	8.06
 Thakhek	20.2	129.629	4.96	↑ 5.16	↑ 5.38	↓ 5.27	↓ 5.06	↓ 4.90	↓ 4.72	13.00	14.00	↓ -0.44	-0.44	7.62	8.62
 Mukdahan	0.0	124.219	4.25	↑ 4.64	↑ 4.81	↑ 4.92	↓ 4.80	↓ 4.60	↓ 4.40	12.00	12.50	↓ -0.24	-0.24	7.09	7.59
 Savannakhet	0.0	124.219	2.70	↑ 3.09	↑ 3.22	↑ 3.40	→ 3.32	↓ 3.13	↓ 2.86	12.00	13.00	↓ -0.23	-0.23	8.60	9.60
 Khong Chiam	0.0	89.030	7.52	↑ 7.79	→ 7.81	↑ 7.48	↓ 7.05	↓ 6.51	↓ 5.91	13.50	14.50	↓ -1.88	-1.88	5.69	6.69
 Pakse	15.8	86.490	6.50	↑ 6.64	↓ 6.47	↓ 6.19	↓ 5.85	↓ 5.36	↓ 4.82	11.00	12.00	↓ -1.82	-1.82	4.53	5.53
 Stung Treng	0.0	36.790	6.13	↑ 6.87	↑ 7.07	↑ 7.00	↓ 6.84	↓ 6.64	↓ 6.38	10.70	12.00	↓ -0.49	-0.49	3.63	4.93
 Kratie	0.0	-0.101	13.07	↑ 14.40	↑ 15.53	↓ 15.46	↓ 15.24	↓ 14.95	↓ 14.74	22.00	23.00	↑ 0.34	1.13	6.47	7.47
 Kompong Cham	0.0	-0.930	6.40	↑ 7.30	↑ 8.35	↑ 8.85	↓ 8.80	↓ 8.65	↓ 8.41	15.20	16.20	↑ 1.11	1.55	6.35	7.35
 Phnom Penh (Bassac)	12.0	-1.020	3.40	↑ 3.83	↑ 4.36	↑ 4.86	↑ 4.93	→ 4.94	↓ 4.86	10.50	12.00	↑ 1.03	1.11	5.56	7.06
 Phnom Penh Port	nr	0.070	2.26	↑ 2.75	↑ 3.28	↑ 3.78	↑ 3.85	→ 3.86	↓ 3.78	9.50	11.00	↑ 1.03	1.11	5.64	7.14
 Koh Khel	0.0	-1.000	3.33	↑ 3.49	↑ 3.77	↑ 4.02	↑ 4.16	↑ 4.25	→ 4.23	7.90	8.40	↑ 0.74	0.76	3.65	4.15
 Neak Luong	5.2	-0.330	2.20	↑ 2.54	↑ 2.82	↑ 3.25	↑ 3.46	↑ 3.50	→ 3.47	7.50	8.00	↑ 0.93	0.96	4.00	4.50
 Prek Kdam	0.0	0.080	2.52	↑ 2.86	↑ 3.34	↑ 3.80	↑ 3.92	→ 3.90	↓ 3.86	9.50	10.00	↑ 1.00	1.06	5.58	6.08
 Tan Chau	0.0	0.000	0.18	↑ 0.33	↑ 0.63	↑ 1.03	↑ 1.46	↑ 1.63	→ 1.65	3.50	4.50	↑ 1.32	1.32	1.85	2.85
 Chau Doc	nr	0.000	0.10	↑ 0.25	↑ 0.53	↑ 0.93	↑ 1.36	↑ 1.53	→ 1.55	3.00	4.00	↑ 1.30	1.30	1.45	2.45

WATER LEVEL FORECASTING DEFINITIONS

↑	Rising water level.
→	Stable water level: stable water level is defined as a daily change of less than 10cm from Chaing Saen to Savannakhet; less than 5cm at Pakse and Stung Treng; and no more than 3cm from Kratie downstream.
↓	Falling water level.
X	No data available.
Alarm stage	Alarm stage is when the water level ranges between alarm and flood levels.
Flood stage	Flood stage is when the flood level exceeds. A flood level is determined by member countries.

NOTES

- On **16 June**, the water levels at all monitoring stations remain within **normal ranges**, with **no alarm** or **flood thresholds** exceeded. The water level at Pakse station increased **2.09 m** within 3 days. As of now, the total accumulated reverse flow volume into the TSL is **0.74 km³**.
- In the **next 5 days**, isolated heavy rainfall is expected to occur in some areas in the LMB including the northern and central part of Lao PDR, the northeastern part of Thailand, the 3S Basin and southwestern part of Cambodia.
- For **17- 21 June**, the water levels from Laung Prabang to Stung Treng stations are expected to drop, while from Kratie station downstream, it is expected to rise.

6.3 Flash Flood Information

With light to heavy rainfall for next week, flash floods might be detected in some areas in the LMB. And local heavy rain in a short period of time is possible with unpredictable short flash floods. Further detailed information on Flash Flood Guidance Information, as well as on its explanation, is available for download [here](#).

6.4 Drought forecast

From June to August 2025 (**Figure 13**), the total amount of rainfall in most areas of the LMB will be higher than the LTA by around 5 - 20 mm, except for some areas in the northeastern part of Thailand, the lowland areas of Cambodia, and the Mekong Delta. Overall, in the next 3 months, rainfall will be mainly concentrated in the central part of the LMB and higher than the LTA from 10 - 20mm.

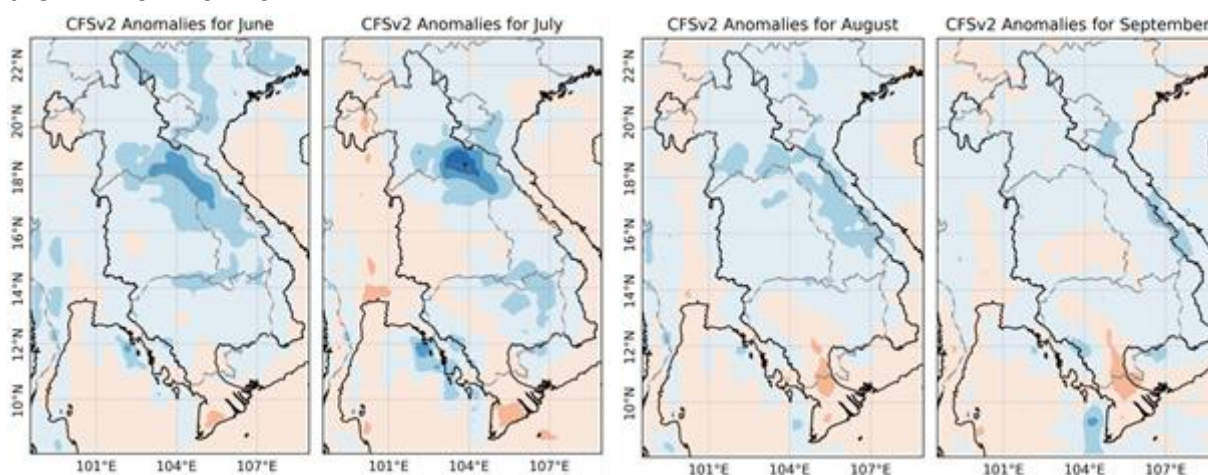


Figure 13 Seasonal forecast of rainfall anomalies for June to Augst 2025 based on CFSv2 (NCEP-NOAA)

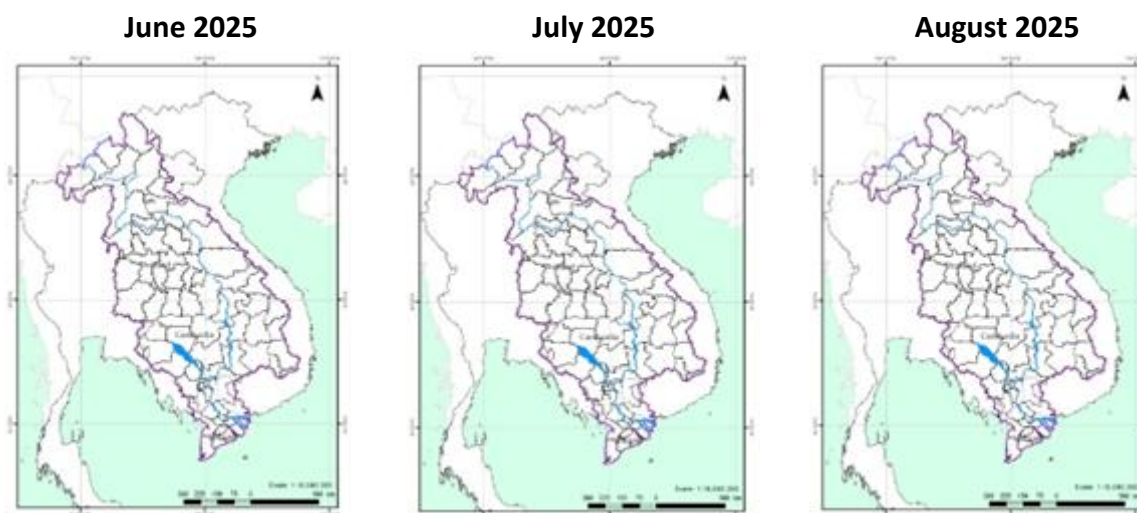


Figure 14. Monthly forecasts of combined drought indicators for June, July and August 2025

Figure 14 indicates that the monthly drought forecast for the upcoming three months (June, July, and August 2025) use the Combined Drought Indicator (CDI). The forecast shows that no drought conditions are expected in over the LMB from June to August 2025.

7 Summary and Possible Implications

7.1. Rainfall and its forecast

In the period of 10 - 16 June 2024, there has heavy to very heavy rainfall has been observed over the LMB in the central parts of Lao PDR, the 3S basin, and the northeastern of Cambodia.

During 17 – 21 June 2024, isolated heavy rain are expected to occur in some areas in the LMB including the northern and central part of Lao PDR, the northeastern part of Thailand, the 3S basin, and southwestern part of Cambodia. The remaining areas are expected to occur no rain to light rain.

7.2. Water level and its forecast

At 22 key monitoring stations along the Mekong mainstream from 10 – 16 June 2025, water levels are significantly increasing, and the flow threshold (PMFM 6C) are under normal conditions. It is also the same condition for Tan Chau and Chau Doc monitoring stations, which are significantly influenced by sea tidal fluctuation.

In the period of 17 – 21 June 2025, Water levels are forecasted to be slightly decreasing at stations from Chiang Saen to Stung Treng and decreasing from Kratie station downstream. However, the water levels are not expected to reach alarm and flood level thresholds. At Tan Chau and Chau Doc stations, the water levels are predicted to be also fluctuated, resulting from the influence of sea tidal patterns.

7.3. Flash flood and its trends

With the predicted of rainfall for the coming week as mentioned earlier in part 2, the flash flood guidance from low to moderate level will likely be detected in some areas of the LMB.

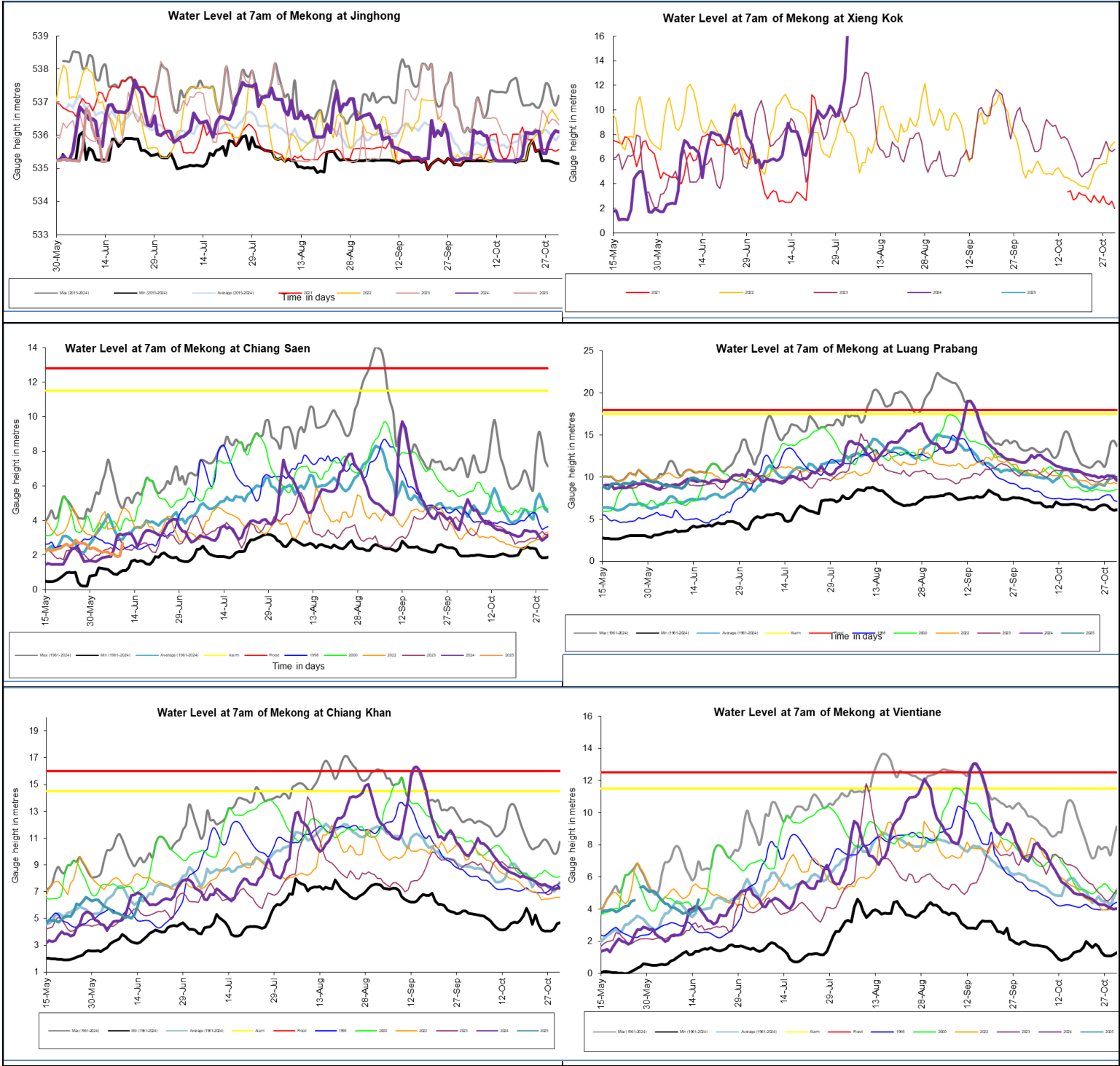
7.4. Drought condition and its forecast

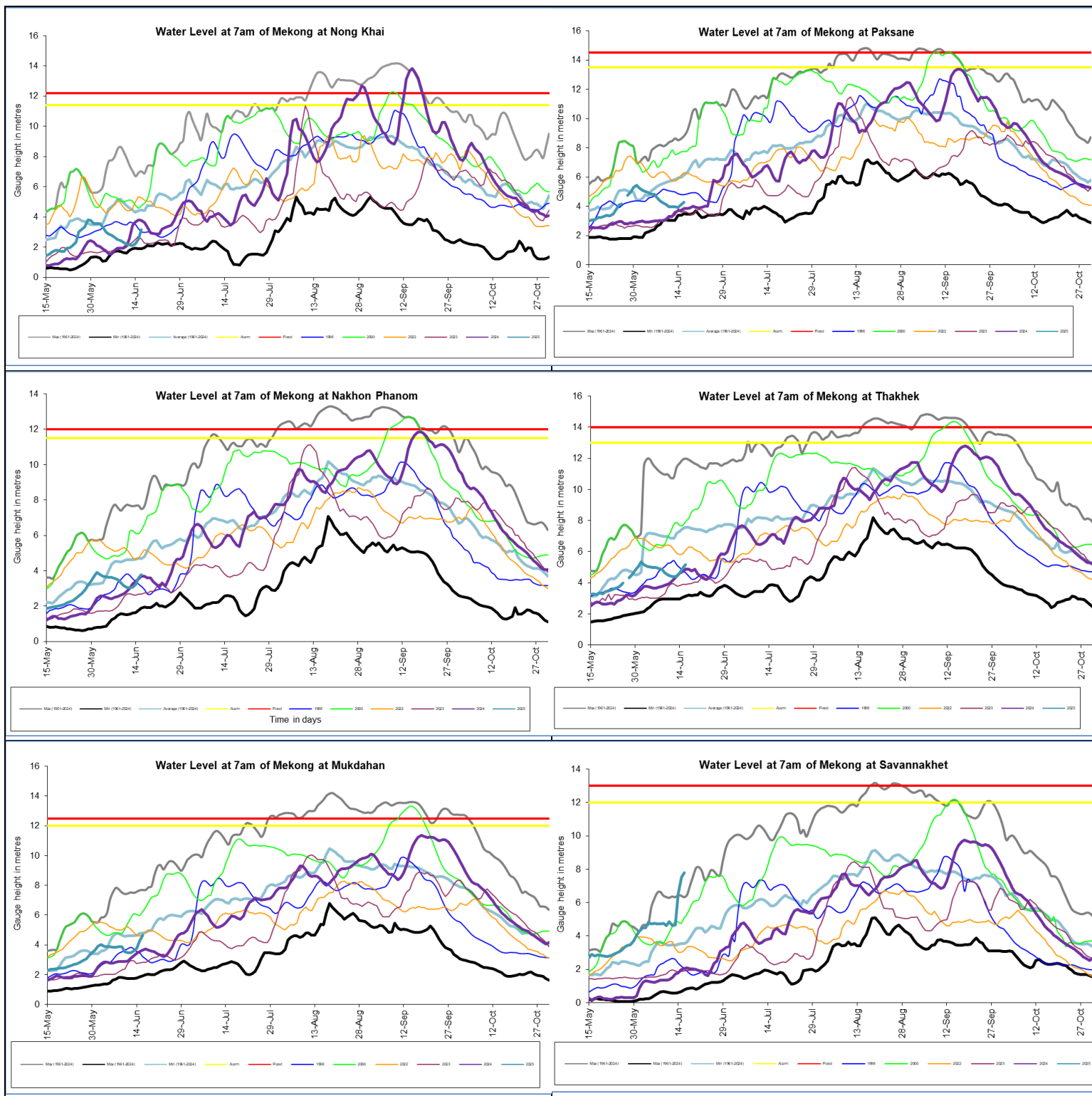
During 10 – 16 June 2025, the LMB is experiencing normal to wet conditions. The monitored drought is caused primarily by meteorological indicator.

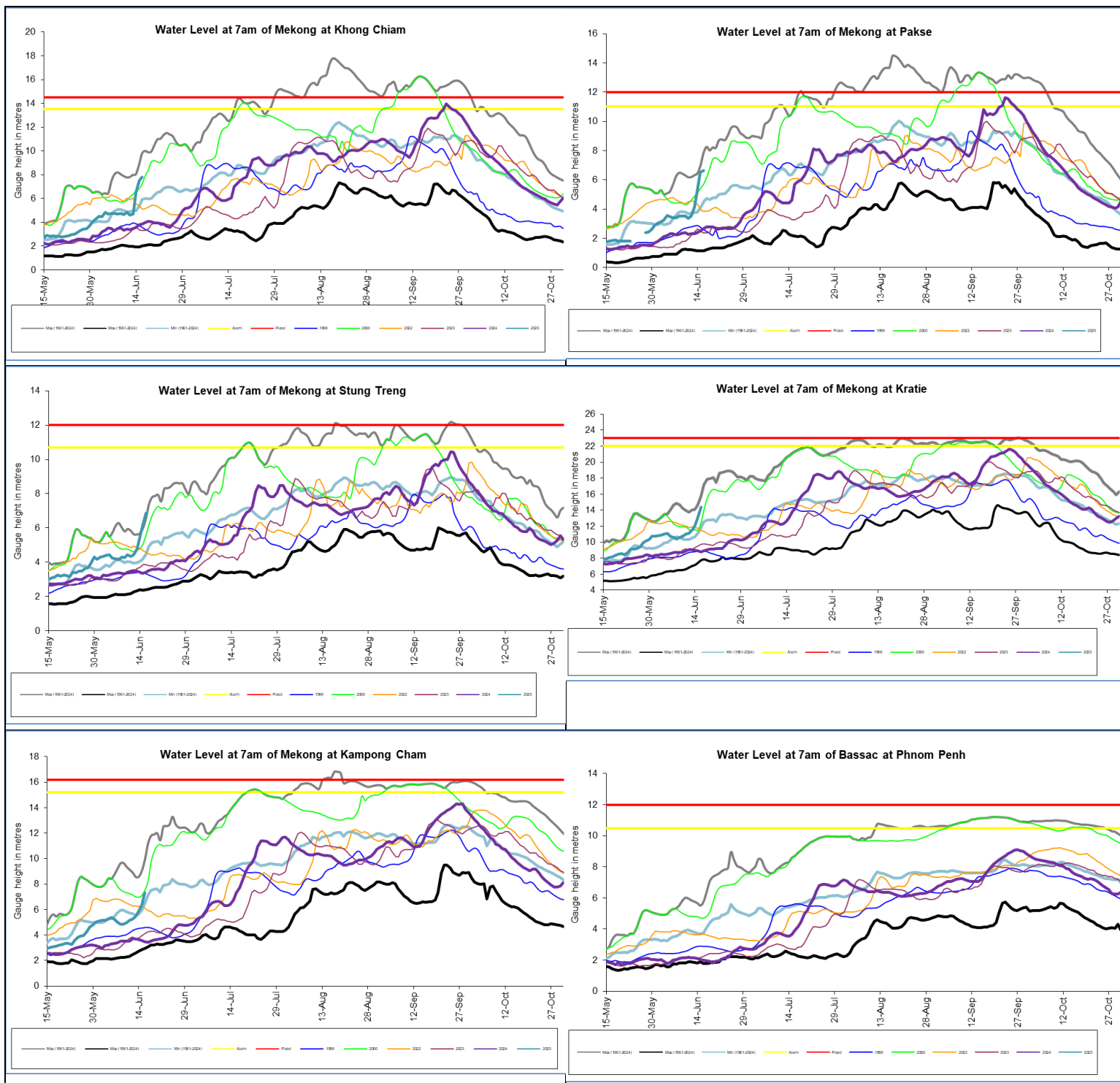
The next three-month from June to August 2025, the total amount of rainfall in most areas of the LMB will be higher than the LTA by around 5 - 20 mm, except for some areas in the northeastern part of Thailand, the lowland areas of Cambodia, and the Mekong Delta. Overall, in the next 3 months, rainfall will be mainly concentrated in the central part of the LMB and higher than the LTA from 10 - 20mm.

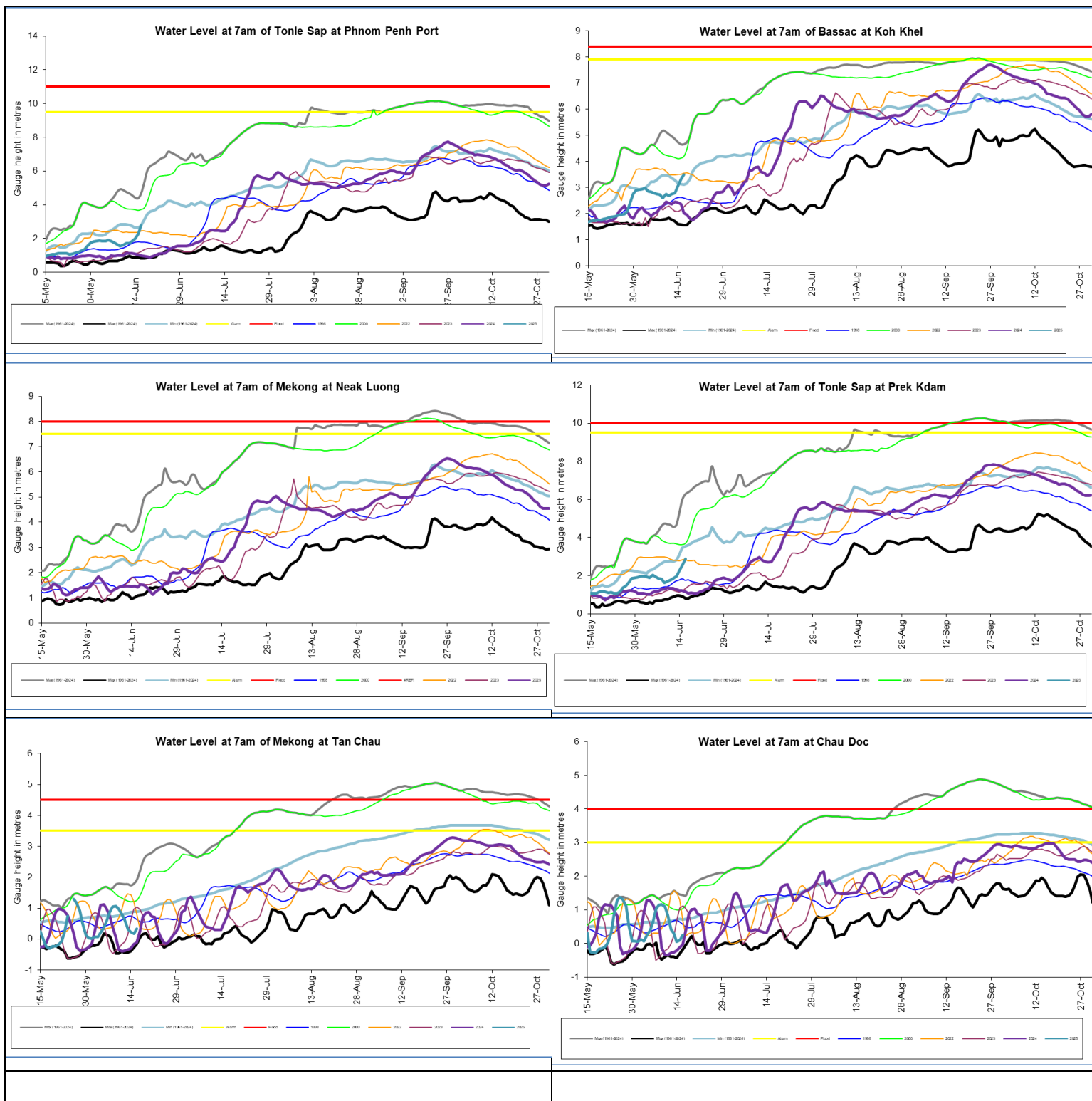
The forecast indicates that no drought conditions are expected in over the LMB from June to August 2025 using the Combined Drought Indicator (CDI)

Annex A: Weekly water level monitoring at the 22 key stations









Annex B: Tables for weekly updated water levels and rainfall at the Key Stations

Table A1: Weekly observed water levels

2025	Jinghong	Chiang Saen	Luang Prabang	Chiang Khan	Vientiane	Nongkhai	Paksane	Nakhon Phanom	Thakhek	Mukdahan	Savannakhet	Khong Chiam	Pakse	Stung Treng	Kratie	Kompong Cham	Phnom Penh (Bassac)	Phnom Penh Port	Koh Khel	Neak Luong	Prek Kdam	Tan Chau	Chau Doc
10-06-2025	536.21	2.68	8.67	5.05	3.85	2.33	4.13	3.16	4.52	3.56	1.99	4.63	3.52	4.44	10.77	4.96	2.59	1.61	2.75	1.66	1.72	0.97	1.10
11-06-2025	535.91	3.29	8.88	5.15	3.73	2.2	3.98	3.06	4.43	3.47	1.91	4.85	3.34	4.34	10.99	5.14	2.69	1.72	2.68	1.62	1.78	0.80	0.84
12-06-2025	535.91	3.41	9.39	5.03	3.78	2.16	3.96	3.03	4.39	3.48	1.92	4.61	3.50	4.42	11.11	5.26	2.75	1.72	2.76	1.65	1.86	0.61	0.41
13-06-2025	535.20	3.08	9.89	5.27	3.69	2.12	3.97	3.08	4.45	3.57	2.00	4.67	4.12	4.78	11.5	5.46	2.85	1.83	2.80	1.68	1.98	0.31	0.30
14-06-2025	535.20	3.01	9.92	5.9	3.87	2.22	3.94	3.23	4.60	3.78	2.22	6.52	5.32	5.47	12.07	5.84	3.09	1.98	3.04	2.02	2.25	0.22	0.05
15-06-2025	535.60	2.54	9.79	6.56	3.92	2.54	4.13	3.6	4.96	4.25	2.72	7.52	6.50	6.13	13.07	6.4	3.40	2.26	3.33	2.20	2.52	0.18	0.10
16-06-2025	535.80	2.21	9.63	6.68	4.58	3.16	4.29	3.79	5.16	4.64	3.09	7.79	6.64	6.87	14.4	7.3	3.83	2.75	3.49	2.54	2.86	0.33	0.25
Flood level		12.80	18.00	16.00	12.50	12.00	14.50	12.50	14.00	12.50	13.00	14.50	12.00	12.00	23.00	16.20	12.00	11.00	7.90	8.00	10.00	4.50	4.00

Table A2: Weekly observed rainfall

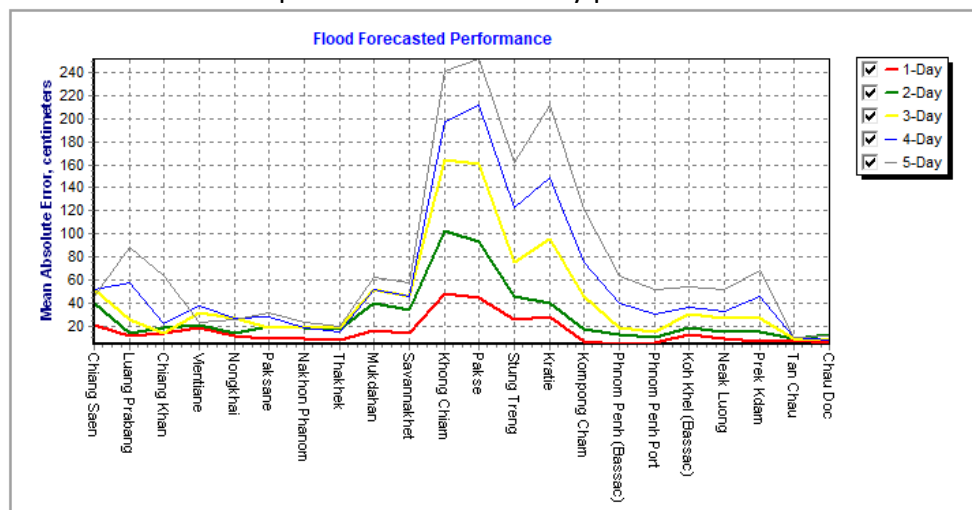
2025	Jinghong	Chiang Saen	Luang Prabang	Chiang Khan	Vientiane	Nongkhai	Paksane	Nakhon Phanom	Thakhek	Mukdahan	Savannakhet	Khong Chiam	Pakse	Stung Treng	Kratie	Kompong Cham	Phnom Penh (Bassac)	Phnom Penh Port	Koh Khel	Neak Luong	Prek Kdam	Tan Chau	Chau Doc
10-06-2025	9	57.8	2.2	4.4	0	0	0	14.8	14.2	4.5	1	0	0	0	19.2	2	0.3	0	0	0	0	1.2	0
11-06-2025	2.5	58	0.8	42.6	72	48	26.1	0	0	60	19.2	82.5	58	0	23.6	12	0	0	0	0	13.4	0	3.5
12-06-2025	0.5	6	45.2	24.5	0	0	9	23	10.6	4.8	9.6	19.4	0	40	31.1	8	0	0	0	0	8.3	0	0
13-06-2025	0	0	0	0	0	0	1.4	127.1	101.7	46	40	24.7	30.2	0	0	0	0.9	0	0	0	5.2	0	0
14-06-2025	0	0	16.4	0	11.8	10.6	12.1	25.6	25.4	60.1	47.4	8.5	0	0	0	0	0	0	0	9.8	0	2.6	0
15-06-2025	0	0	0	4.7	5	2.4	1	0.5	1	0	1.4	0	4	0	5.5	0	0	0	0	6.5	0	0	0
16-06-2025	0	0	0	2.1	6.3	40	7.8	11.3	20.2	0	0	0	15.8	0	0	0	12	0	0	5.2	0	0	0
Sum	12.0	80.8	20.6	20.0	95.1	101.0	57.4	202.3	173.1	175.4	118.6	135.1	108.0	40.0	79.4	22.0	13.2	0.0	0.0	21.5	26.9	3.8	3.5

Annex C: Performance of the weekly flood forecasting

“Accuracy” here refers to the state where data recorded in the MRC’s Mekong River Flood Forecasting System are cleaned and verified.

The adjustment of flood forecasting outcomes from the flood forecasting system requires flood forecasters to have extensive knowledge in hydrology and statistical modelling for estimating the relationships between stations upstream and downstream in the Mekong River Basin. Flood forecasting performance presented in the graph below shows the average flood forecasting accuracy at each key station along the Mekong mainstream from 10 to 16 June 2025.

The forecasting values from 10 to 16 June 2025 show that the overall accuracy is fair for a four-day to five-day forecast in lead time (less than 250 cm) for all of the stations from the upper to the lower parts of the Mekong River with combine information of rainfall and reservoirs' operation in this area during the report period. However, due to WUTIP tropical storm, the forecast at central part of LMB is relatively poor.



Note: The higher percentage of flood forecasting accuracy is due to several key factors as follows:

- Missing rainfall in Cambodia (DOM) data and data input are not sufficient to be used for inputting into the flood forecasting model system.
- Chiang Saen station is influencing by hydropower upstream operation from China.
- Luang Prabang to Chiang Khan and Paksane to Stung Treng to Kratie have been influenced by hydropower operations upstream, tributaries inflows.
- The influence of heavy rainfall caused by storms and hydropower operations from upstream, tributaries inflows and the lower part of the Mekong floodplain, including the 3S (Stung Treng and Kratie).
- Fluctuations of the water levels at Tan Chau and Chau Doc stations were due to daily tidal effects of the sea in the Mekong Delta.
- Satellite rainfall data were not representative of the actual rainfall at ground stations in some areas of the Mekong region.



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