



**Mekong River Commission**

# **Weekly Wet Season Situation Report in the Lower Mekong River Basin**

**24 – 30 June 2025**

Prepared by  
The Regional Flood and Drought Management Centre  
01 July 2025

*The MRC is funded by contributions from its Member Countries and Development Partners, including Australia, Belgium, the European Union, Finland, France, Germany, Japan, Luxembourg, the Netherlands, Sweden, Switzerland, the United States and the World Bank.*

**Copyright © Mekong River Commission, 2025**

First published (2020)

Some rights reserved.

This work is the product of the Mekong River Commission Secretariat. While all efforts are made to present accurate information, the Secretariat does not guarantee the accuracy of the data included in this work. The boundaries, colours, denomination, and other information shown on any map in this work do not imply any judgement on the part of the MRC concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Nothing herein shall constitute or be considered to be a limitation upon or waiver of the privileges and immunities of the MRC, all of which are specifically reserved.

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder, provided acknowledgement of the source is made and notification is sent to the MRC. The MRC would appreciate receiving a copy of any publication that uses this publication as a source. This publication cannot be used for sale or for any other commercial purpose whatsoever without permission in writing from the MRC.

**Title:** Weekly wet season situation report in the Lower Mekong River Basin for 24 – 30 June 2025.

ISSN: 1728-3248

**Keywords:** Monitoring/forecasting/weather/the Mekong/the Tonle Sap Lake

For bibliographic purposes, this volume may be cited as:

Mekong River Commission. (2024). *Weekly wet season situation report in the Lower Mekong River Basin for 24 – 30 June 2025*. Vientiane: MRC Secretariat.

Information on MRC publications and digital products can be found at  
<http://www.mrcmekong.org/publications/>

**All queries on rights and licenses should be addressed to:**

Mekong River Commission

Documentation and Learning Centre

184 Fa Ngoum Road, Unit 18, Ban Sithane Neua, Sikhottabong District, Vientiane 01000, Lao PDR

Telephone: +856-21 263 263 | E-mail: [mrcs@mrcmekong.org](mailto:mrcs@mrcmekong.org) | [www.mrcmekong.org](http://www.mrcmekong.org)

# Content

## Contents

Content .....	i
List of Figures.....	iii
List of Tables.....	iv
Key Messages .....	v
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 24 to 30 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 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: No tropical storm risk observed on 30 June 2025 .....	3
Figure 4: Weekly rainfall distribution over the LMB during 24 – 30 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 30 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 27 June .....	12
Figure 10: Weekly standardized precipitation index from 24 – 30 June. ....	13
Figure 11: Weekly Index of Soil Water Fraction from 24 – 30 June.....	14
Figure 12: Weekly Combined Drought Index from 24 – 30 June. ....	15
Figure 13: Accumulated rainfall forecast from CHIRP-GFS (01 – 05 July 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 24 - 30 June 2025, there has heavy rainfall has been observed over the LMB in the central parts of Lao PDR, the 3S basin, and the southwestern part of Cambodia.
- During 01 – 05 July 2025, isolated thunderstorms and heavy rain are expected over the LMB including the upper and central part of Lao PDR, the northeastern part of Thailand near the Lao PDR border. 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 24 – 30 June 2025, water levels have neither reached alarm nor flood levels, 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 01 – 05 July 2025, the water levels are forecasted to be increasing at stations from Chiang Saen to Pakse and being stable or decreasing from Stung Treng 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 24 – 30 June 2025, the LMB is experiencing normal to wet conditions, except some areas in the lower part of Cambodia. 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 – 20 mm.
- 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 **24 – 30 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:

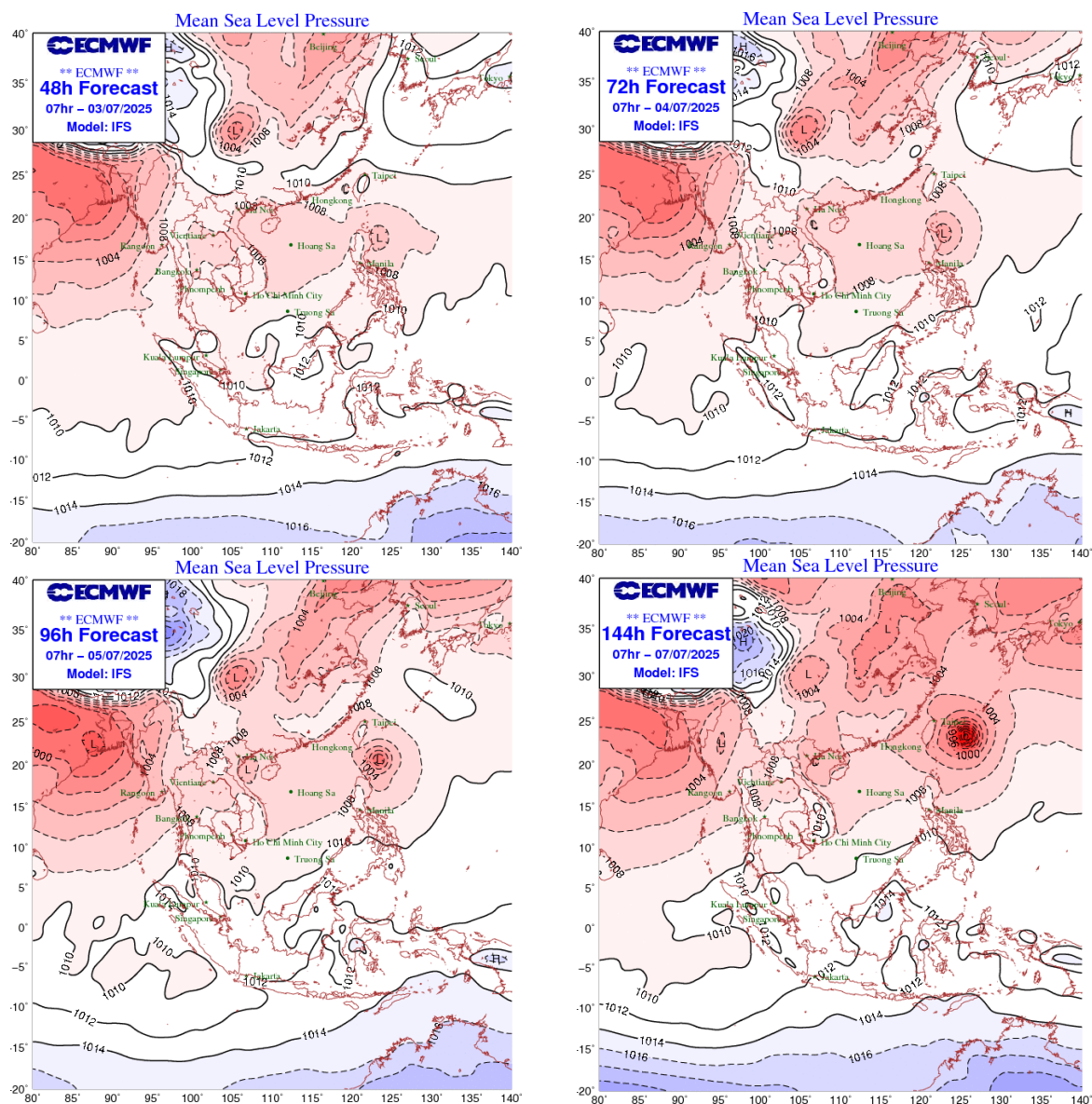
<http://droughtforecast.mrcmekong.org>

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

## 2 General Weather Patterns

Currently, due to the influence of the Intertropical Tropical Convergence Zone (ITCZ) with an axis at about 15-18 degrees North latitude combined with wind convergence up to 5000m, some areas in the northern and central part of Laos; and the north and northeastern part of Thailand (near the border of Lao PDR) has had moderate to heavy rain.

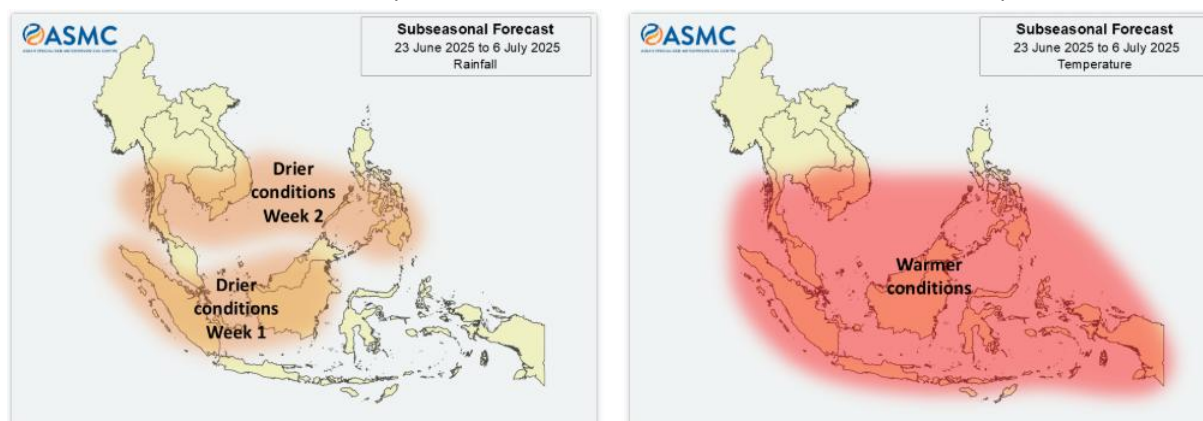
**Figure 1** presents mean sea level pressure over the region. It is forecasted that the ITCZ will be influenced to the upper part of Lower Mekong Basin while the moderate southwest moon soon will be cover over the lower part. Therefore, heavy rain are expected over the LMB including the upper and central part of Lao PDR, the northeastern part of Thailand near the Lao PDR border. The remaining areas are expected to occur no rain to light rain.



**Figure 1: Weather conditions over the LMB**

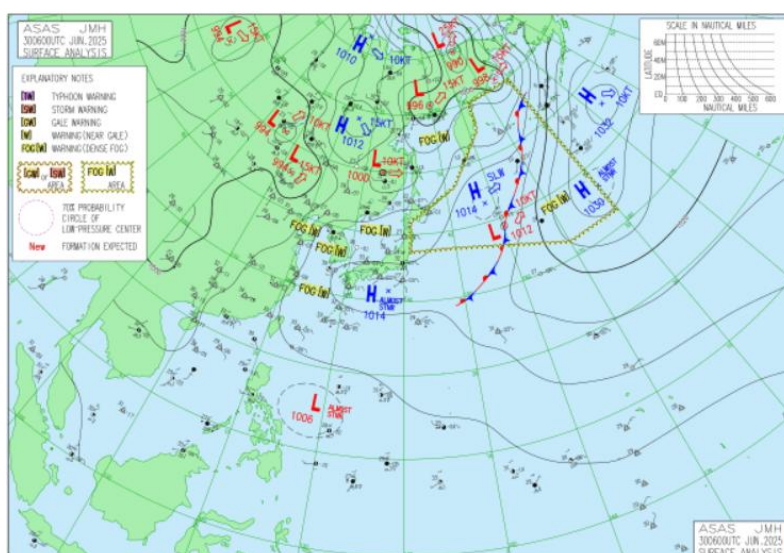
According to the ASEAN Specialised Meteorological Centre (ASMC, <http://asmc.asean.org/home/>), the sub seasonal weather outlook (23 June – 06 July 2025) indicates that the Lower

Mekong Basin (LMB) is likely in drier and warmer conditions at the lower part. **Figure 2** shows the outlook of weather condition from 23 June to 06 July 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.jma.go.jp/bosai/weather\\_map/#lang=en](https://www.jma.go.jp/bosai/weather_map/#lang=en)), there is no active Tropical Depression (TD) at NW pacific system as of 30 June 2025 as displayed in **Figure 3**.



**Figure 3: No tropical storm risk observed on 30 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 24 - 30 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 and northwestern part of Cambodia.



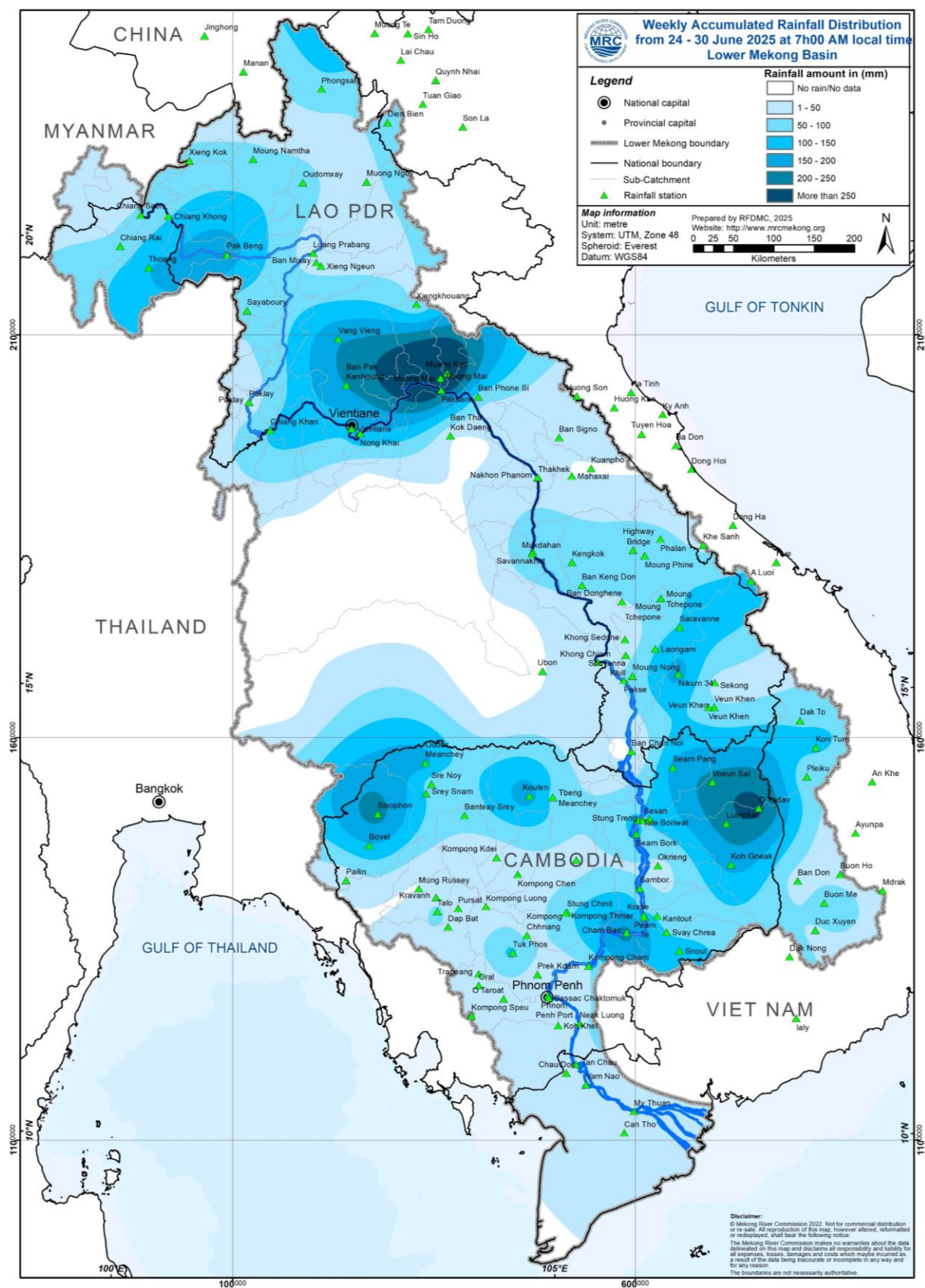


Figure 4: Weekly rainfall distribution over the LMB during 24 – 30 June 2025

### 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 24 – 30 June 2025, the observed water level (WL) at Jinghong hydrological station<sup>1</sup>, was almost constant and ranges between 536.54 m and 536.71 m, which are corresponding to the outflow between 1,780.00 m<sup>3</sup>/s to 1,350.00 m<sup>3</sup>/s (recorded on 7:00 am), respectively (**Figure 6**). The water level in Chiang Saen Station also indicated a slight fluctuation ranging from 3.56 m to 4.28 m. At the same period, the water level in Luang Prabang Station also slightly increased with an approximate value of 1.06 m from 9.92 m to 10.98 m as compared to the previous week.

The water levels at Vientiane, Nongkhai, Paksane, Nakhon Phanom, Thakhek, Mukdahan, Savannakhet, Khong Chiam, and Pakse, have increased from 4.59 m to 6.88 m, 3.16 m to 5.72 m, 5.97 m to 7.75 m, 5.24 m to 6.06 m, 6.59 m to 7.37 m, 5.32 m to 5.91 m, 4.53 m to 5.84 m, 6.65 m to 7.44 m, and 4.86 m to 5.06 m, respectively. In addition, the water levels at Stung Treng, Kratie, Kompong Cham, Phnom Penh (Bassac), Phnom Penh Port, and Prek Kdam also have increased from 5.50 m to 5.82 m, 13.28 m to 13.93 m, 7.42 m to 7.70 m, 4.28 m to 4.38 m, 2.28 m to 3.39 m, and 3.35 m to 3.42 m, respectively. Meanwhile, the water levels at Koh Khel and Neak Luong showed the decreasing trend from the previous week.

Similar to the previous week, the water levels from 24 to 30 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 1.51 m and 0.64 m, while at the Chau Doc station, they ranged from 1.55 m and 0.52 m.

---

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



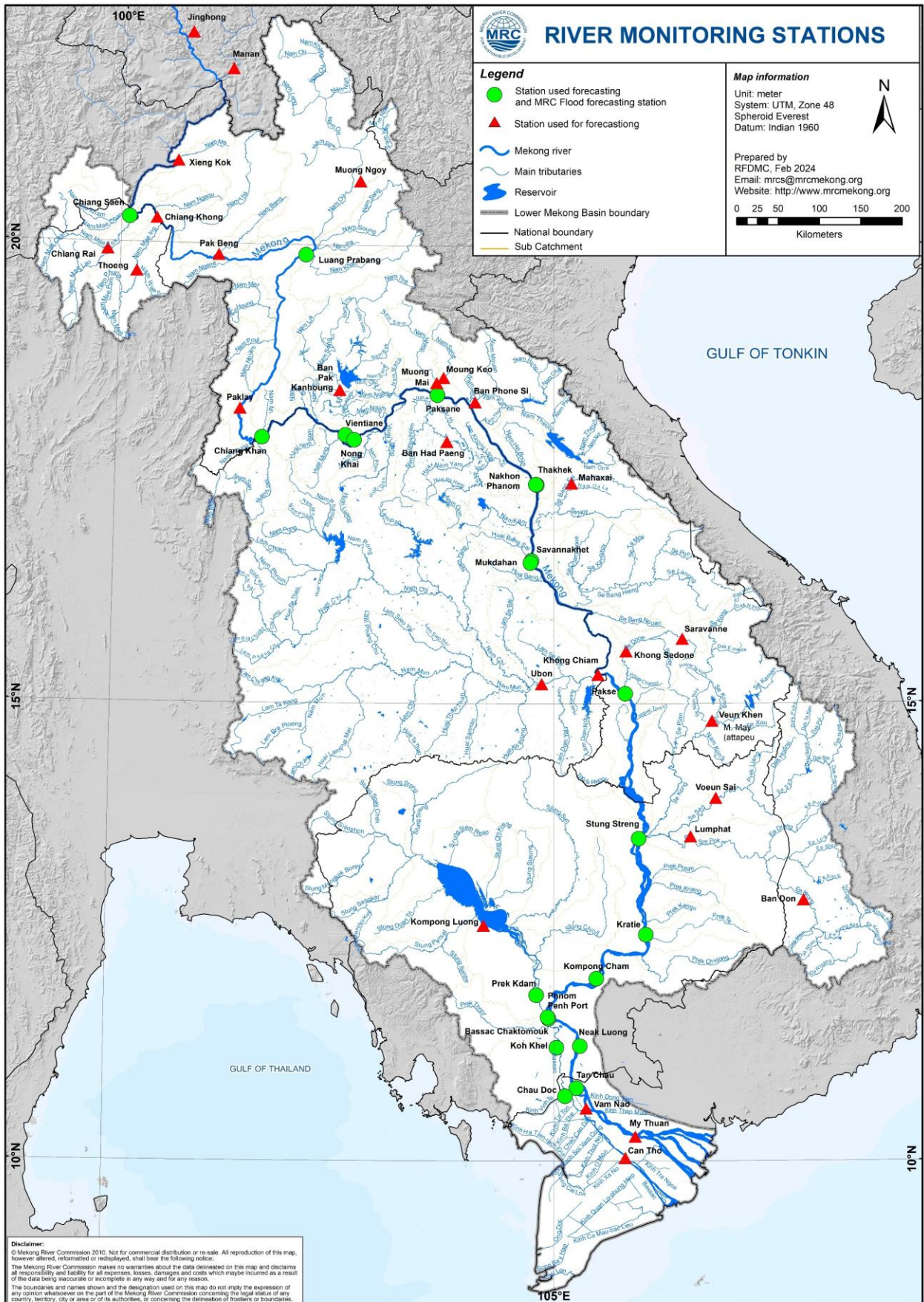
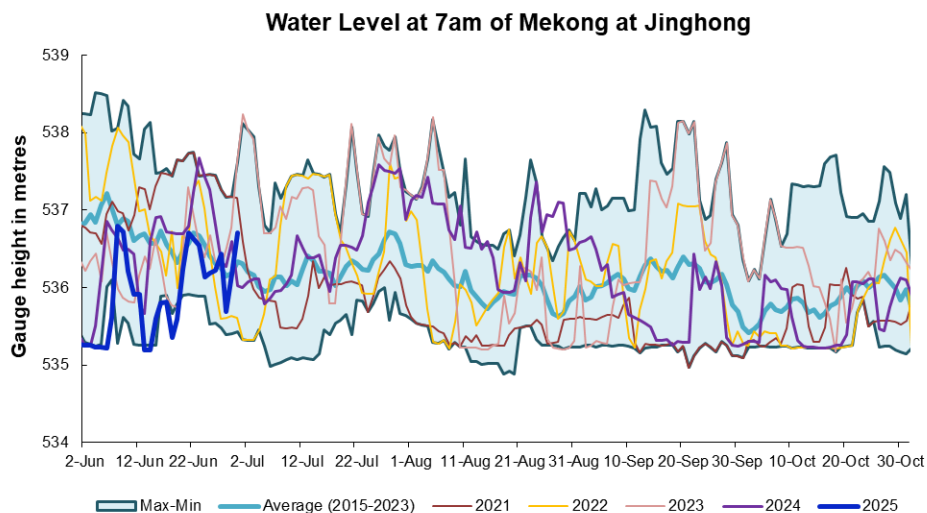


Figure 5: The key stations along LMB for river flood forecasting

The water levels in key monitoring stations on 30 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 30 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:

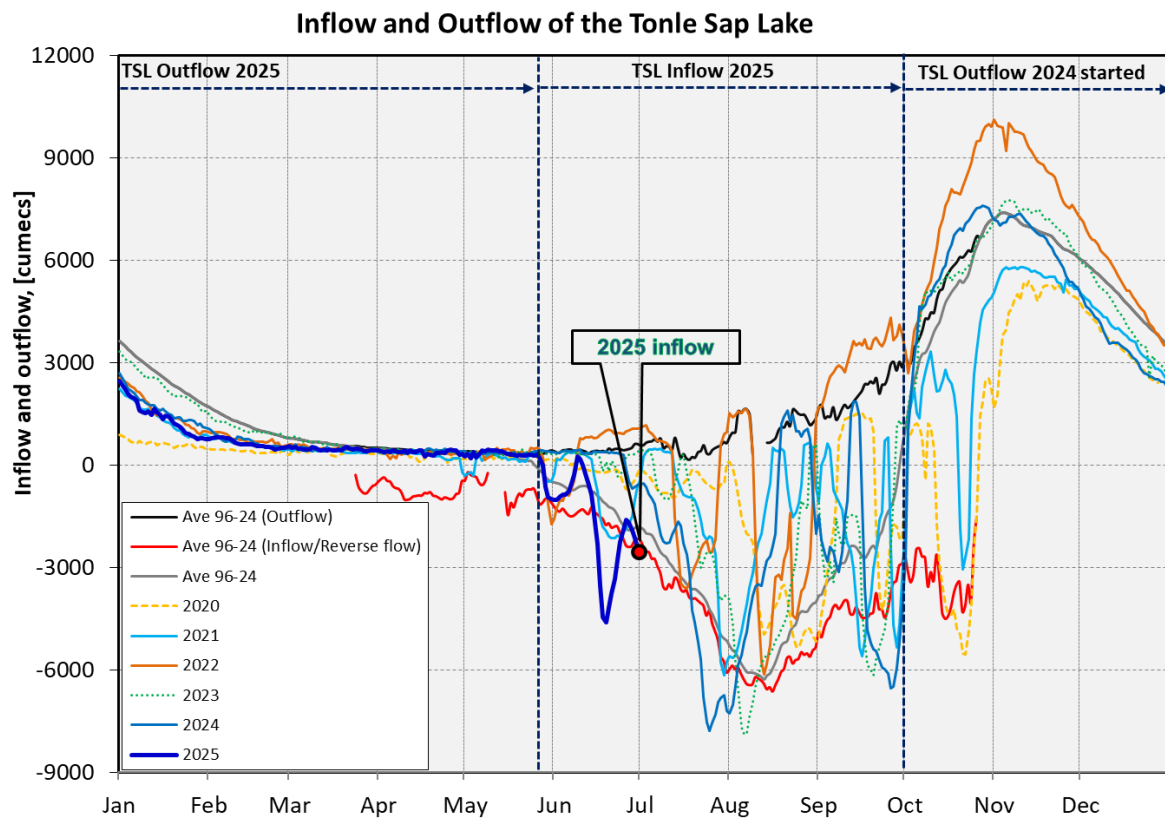
$$Flow = WL_{Prek\ Kdam}^{1.2} \times \sqrt{|WL_{Phnom\ Penh\ Port} - WL_{Kompong\ Luong}|}$$

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

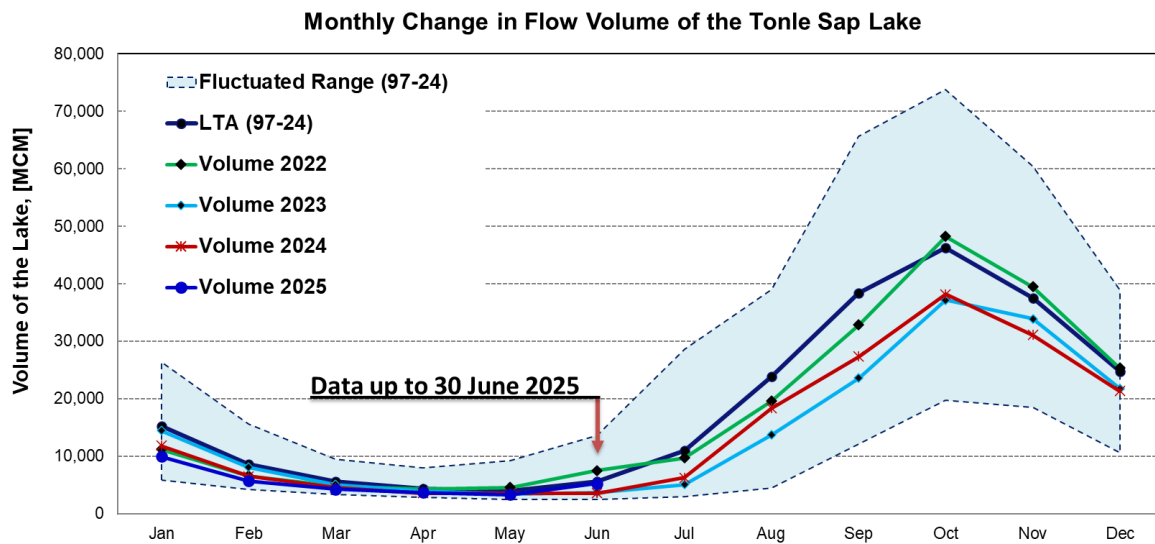
The seasonal changes of the inflow/reverse flow and the outflow of the TSL at Prek Kdam in comparison with the flows of 2020, 2021 and 2022, 2023 and their LTA level (1997-2024) are illustrated in **Figure 7**. Up to 30 June 2025, it was observed that the inflow to Tonle Sap Lake is relatively higher 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 30 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 93.85 %), 2019, and 2023 but higher than that in 2020, 2021, 2022 and 2024 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	5278.20	93.85
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 <sup>3</sup> )											

**Remarks:** the volume of Tonle Sap Lake in 2025 is updated until 30 June 2025.

## 4. Flash Flood in the Lower Mekong Basin

During the weekly monitoring period from 24 - 30 June, the LMB received light to heavy 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 in 27 June**

FLASH FLOOD GUIDANCE IN THE LOWER MEKONG BASIN IN CAMBODIA								
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	Moderate	Kampong Cham	Stueng Trang	Moderate	Kampong Cham	Stueng Trang	Moderate
Kratie	Preaek Prasab	Moderate	Mondul Kiri	Pechr Chenda	Moderate	Mondul Kiri	Pechr Chenda	High
Mondul Kiri	Kaoh Nheak	Moderate	Ratana Kiri	Andoung Meas	Moderate	Ratana Kiri	Andoung Meas	Moderate
Mondul Kiri	Pechr Chenda	High	Ratana Kiri	Koun Mom	Moderate	Ratana Kiri	Koun Mom	Moderate
Ratana Kiri	Andoung Meas	Moderate	Ratana Kiri	Ou Chum	Moderate	Ratana Kiri	Ou Chum	Moderate
Ratana Kiri	Koun Mom	High	Ratana Kiri	Ta Veang	High	Ratana Kiri	Ta Veang	High
Ratana Kiri	Ou Chum	Moderate	Ratana Kiri	Veun Sai	Moderate	Ratana Kiri	Veun Sai	Moderate

### FLASH FLOOD GUIDANCE IN THE LOWER MEKONG BASIN IN CAMBODIA

In the next 1hrs			In the next 3hrs			In the next 6hrs		
Provinces	Districts	Level	Provinces	Districts	Level	Provinces	Districts	Level
Ratana Kiri	Ta Veaeng	High	Stung Treng	Siem Pang	Moderate	Stung Treng	Siem Pang	Moderate
Ratana Kiri	Veun Sai	Moderate						
Stung Treng	Siem Pang	Moderate						

### FLASH FLOOD RISK IN THE LOWER MEKONG BASIN IN CAMBODIA

In the next 12hrs			In the next 24hrs		
Provinces	Districts	Level	Provinces	Districts	Level
			Kratie	Chhloung	Moderate
			Kratie	Kracheh	Moderate
			Kratie	Preaek Prasab	Moderate
			Kratie	Snuol	Moderate
			Mondul Kiri	Kaev Seima	Moderate
			Mondul Kiri	Kaoh Nheaek	Moderate
			Ratana Kiri	Andoung Meas	Moderate
			Ratana Kiri	Ban Lung	Moderate
			Ratana Kiri	Bar Kaev	Moderate
			Ratana Kiri	Koun Mom	Moderate
			Ratana Kiri	Lumphat	Moderate
			Ratana Kiri	Ou Chum	Moderate
			Ratana Kiri	Ou Ya Dav	Moderate
			Ratana Kiri	Ta Veaeng	Moderate
			Ratana Kiri	Veun Sai	Moderate
			Stung Treng	Siem Pang	Moderate
			Stung Treng	Thala Barivat	Moderate

### FLASH FLOOD GUIDANCE IN THE LOWER MEKONG BASIN IN LAO PDR

In the next 1hrs			In the next 3hrs			In the next 6hrs		
Provinces	Districts	Level	Provinces	Districts	Level	Provinces	Districts	Level
Khammuane	Xaybouath	Moderate	Khammuane	Xaybouath	Moderate	Khammuane	Xaybouath	Moderate
Vientiane	Met	Moderate						
Xayaboury	Paklai	Moderate						
Xaysomboun	Longxan	Moderate						

FLASH FLOOD RISK IN THE LOWER MEKONG BASIN IN LAO PDR

In the next 12hrs			In the next 24hrs		
Provinces	Districts	Level	Provinces	Districts	Level
Attapeu	Sanxay	Moderate	Attapeu	Sanamxay	Moderate
Champasak	Paksong	Moderate	Attapeu	Sanxay	Moderate
Khammuane	Nakai	Moderate	Bolikhamxay	Bolikhanh	Moderate
Khammuane	Nhommalat	Moderate	Bolikhamxay	Khamkheut	Moderate
Luangnamtha	Long	High	Bolikhamxay	Pakkading	Moderate
Luangnamtha	Namtha	Moderate	Bolikhamxay	Thaphabat	Moderate
Luangnamtha	Viengphou	High	Bolikhamxay	Viengthon	Moderate
Luangprabang	Viengkham	Moderate	Champasak	Paksong	High
Oudomxay	Hoon	Moderate	Khammuane	Bualapha	Moderate
Phongsaly	May	Moderate	Khammuane	Nakai	High
Phongsaly	Phongsaly	Moderate	Khammuane	Nhommalat	Moderate
Sekong	Dakcheung	Moderate	Luangnamtha	Long	High
Vientiane	Kasy	High	Luangnamtha	Namtha	Moderate
Xayaboury	Hongsa	Moderate	Luangnamtha	Viengphou	High
Xayaboury	Ngeun	Moderate	Luangprabang	Ngoi	Moderate
			Luangprabang	Phonxay	Moderate
			Luangprabang	Viengkham	Moderate
			Oudomxay	Hoon	Moderate
			Oudomxay	Namor	Moderate
			Phongsaly	Bounneua	Moderate
			Phongsaly	Bountay	Moderate
			Phongsaly	May	Moderate
			Phongsaly	Nhot ou	Moderate
			Phongsaly	Phongsaly	Moderate
			Phongsaly	Samphanh	Moderate
			Phongsaly	khua	Moderate
			Saravane	Ta oi	Moderate
			Saravane	Vapy	Moderate
			Savannakhet	Vilabuly	Moderate
			Sekong	Dakcheung	Moderate
			Sekong	Kaleum	Moderate
			Vientiane	Kasy	High
			Vientiane	Vangvieng	Moderate
			Vientiane	Xanakham	Moderate
			Xayaboury	Hongsa	Moderate
			Xayaboury	Ngeun	Moderate
			Xaysomboun	Longxan	Moderate

## FLASH FLOOD RISK IN THE LOWER MEKONG BASIN IN LAO PDR

In the next 12hrs			In the next 24hrs		
Provinces	Districts	Level	Provinces	Districts	Level
			Xaysomboun	Phoun	Moderate
			Xaysomboun	Thathom	Moderate
			Xiengkhuang	Khoune	Moderate

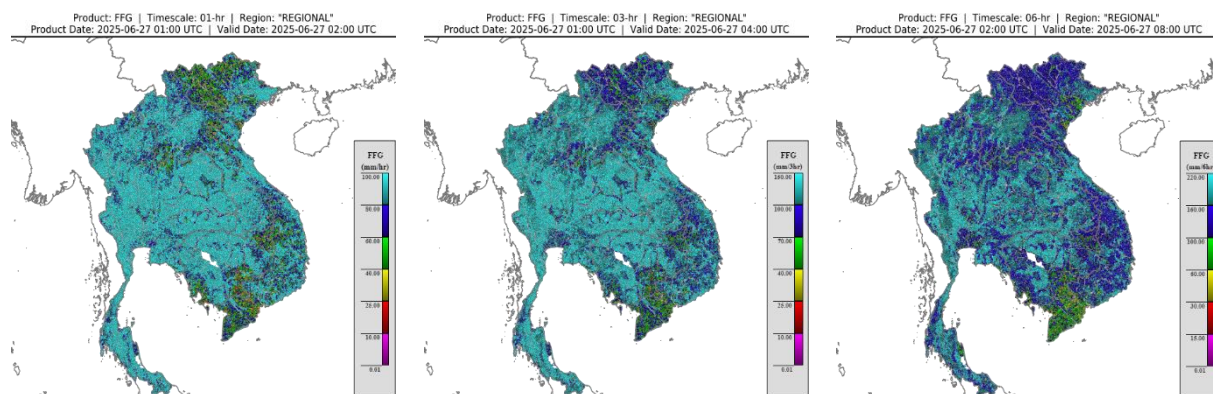


Figure 9. Flash Flood Guidance for the next 1-hr, 3-hr and 6-hr on 27 June

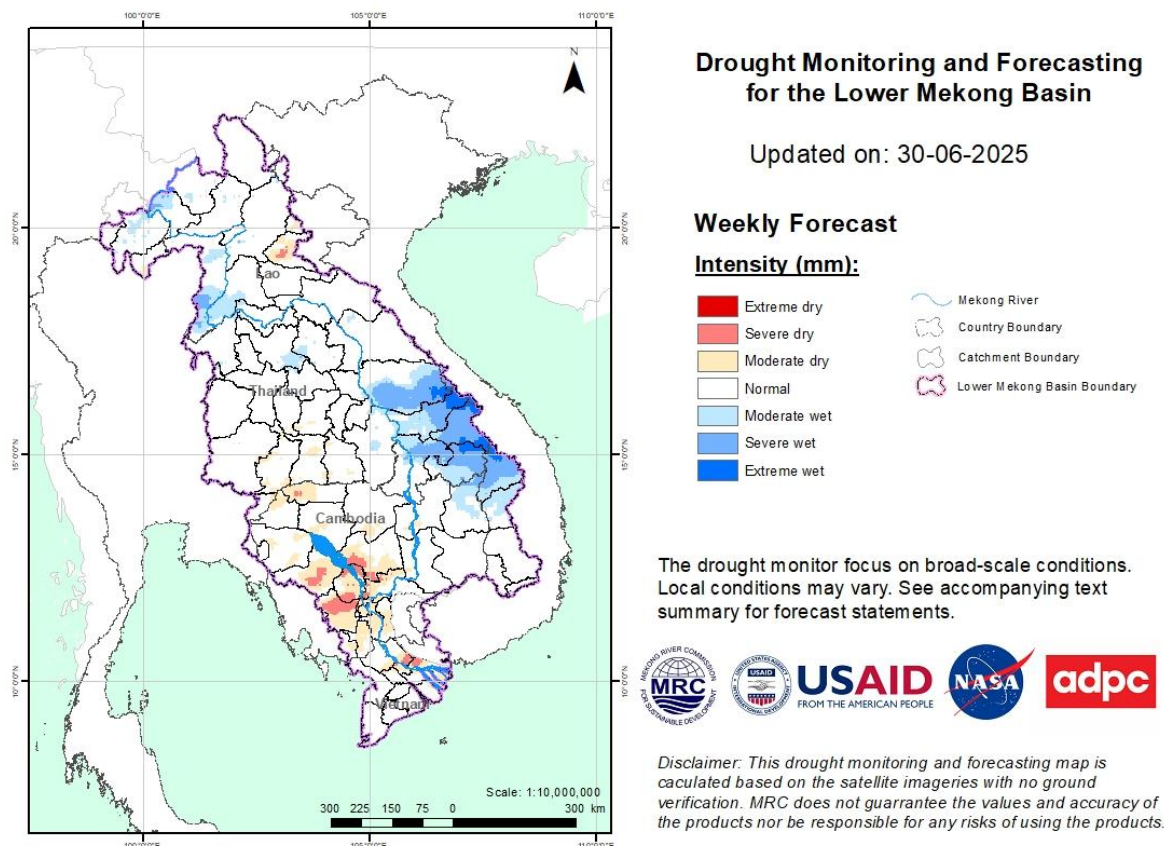
## 5. Drought Monitoring in the Lower Mekong Basin

### 5.2. Weekly drought monitoring from 24 to 30 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)**

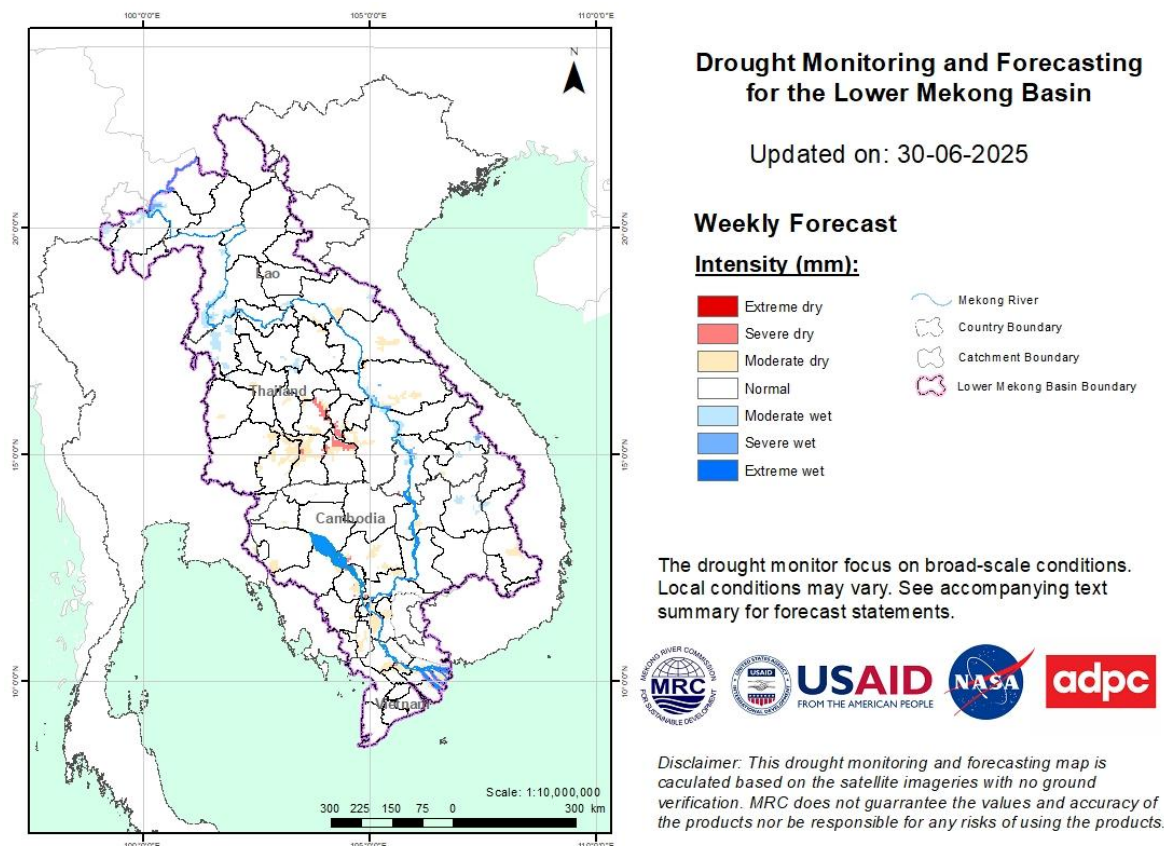
Meteorological indicator shows that from 24 – 30 June 2024, as shown in Figure 9, the LMB was facing normal to wet conditions, except some areas in the lower part of Cambodia.



**Figure 10: Weekly standardized precipitation index from 24 – 30 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 24 - 30 June. The LMB was facing normal to wet conditions, except some areas in the northeastern part of Thailand.



**Figure 11: Weekly Index of Soil Water Fraction from 24 – 30 June.**

- Weekly Combined Drought Index (CDI)**

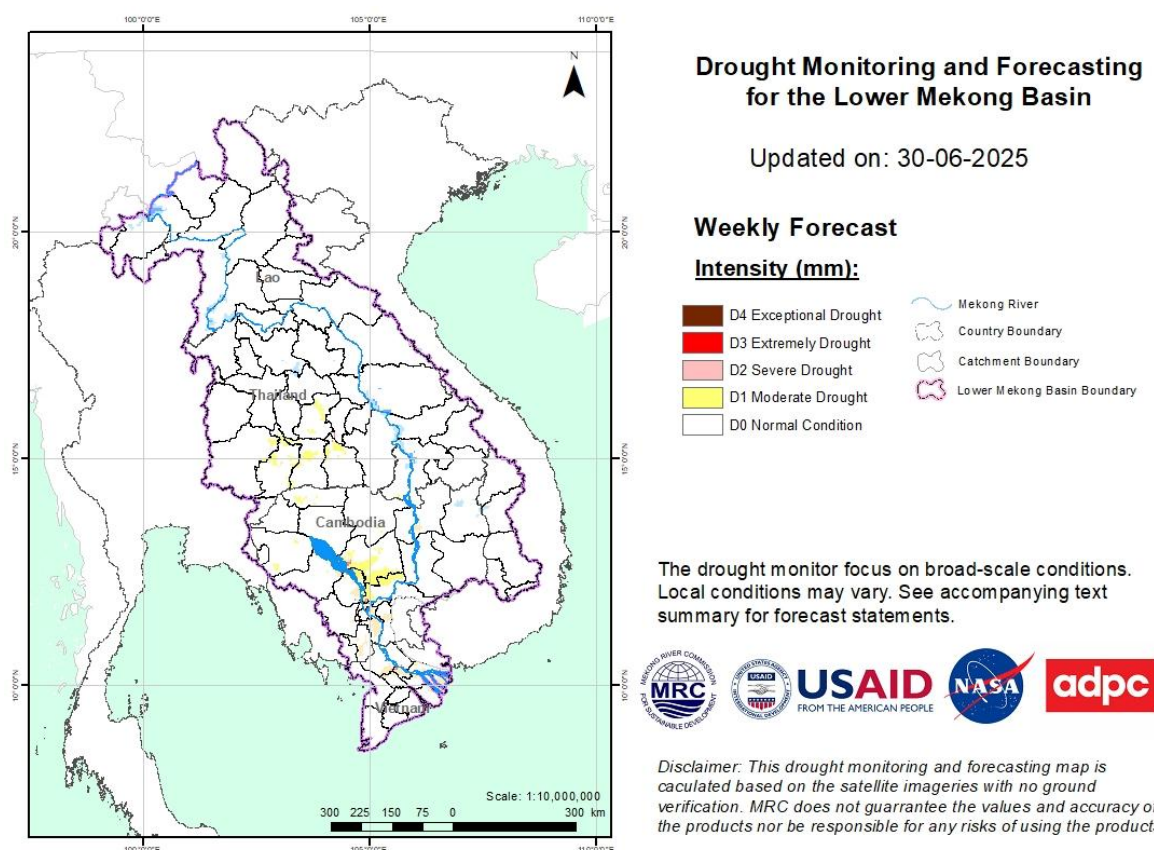
The combined drought indicator, **Figure 11**, that some areas experienced moderate drought in Cambodia (Battambang, Kampong Cham, Kampong Chhnang, Kampong Thom, Kandal, Kratie, Otdar Meanchey, Preah Vihear, Pursat); in Lao PDR (Champasak); in Thailand (Buri Ram, Kalasin, Maha Sarakham, Nakhon Ratchasima, Roi Et, Si Sa Ket, Surin, Yasothon).

The impacted areas are listed below:

Number	Country	Province	Moderate	Severe	Extreme	Exceptional	Number	Country	Province	Moderate	Severe	Extreme	Exceptional	
1	Cambodia	Battambang					10	Lao PDR	Champasak					
2	Cambodia	Kampong Cham					11	Thailand	Buri Ram					
3	Cambodia	Kampong Chhnang					12	Thailand	Kalasin					
4	Cambodia	Kampong Thom					13	Thailand	Maha Sarakham					
5	Cambodia	Kandal					14	Thailand	Nakhon Ratchasima					
6	Cambodia	Kratie					15	Thailand	Roi Et					
7	Cambodia	Otdar Meanchey					16	Thailand	Si Sa Ket					
8	Cambodia	Preah Vihear					17	Thailand	Surin					
9	Cambodia	Pursat					18	Thailand	Yasothon					
								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 24 – 30 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 01 – 05 July 2025, 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.

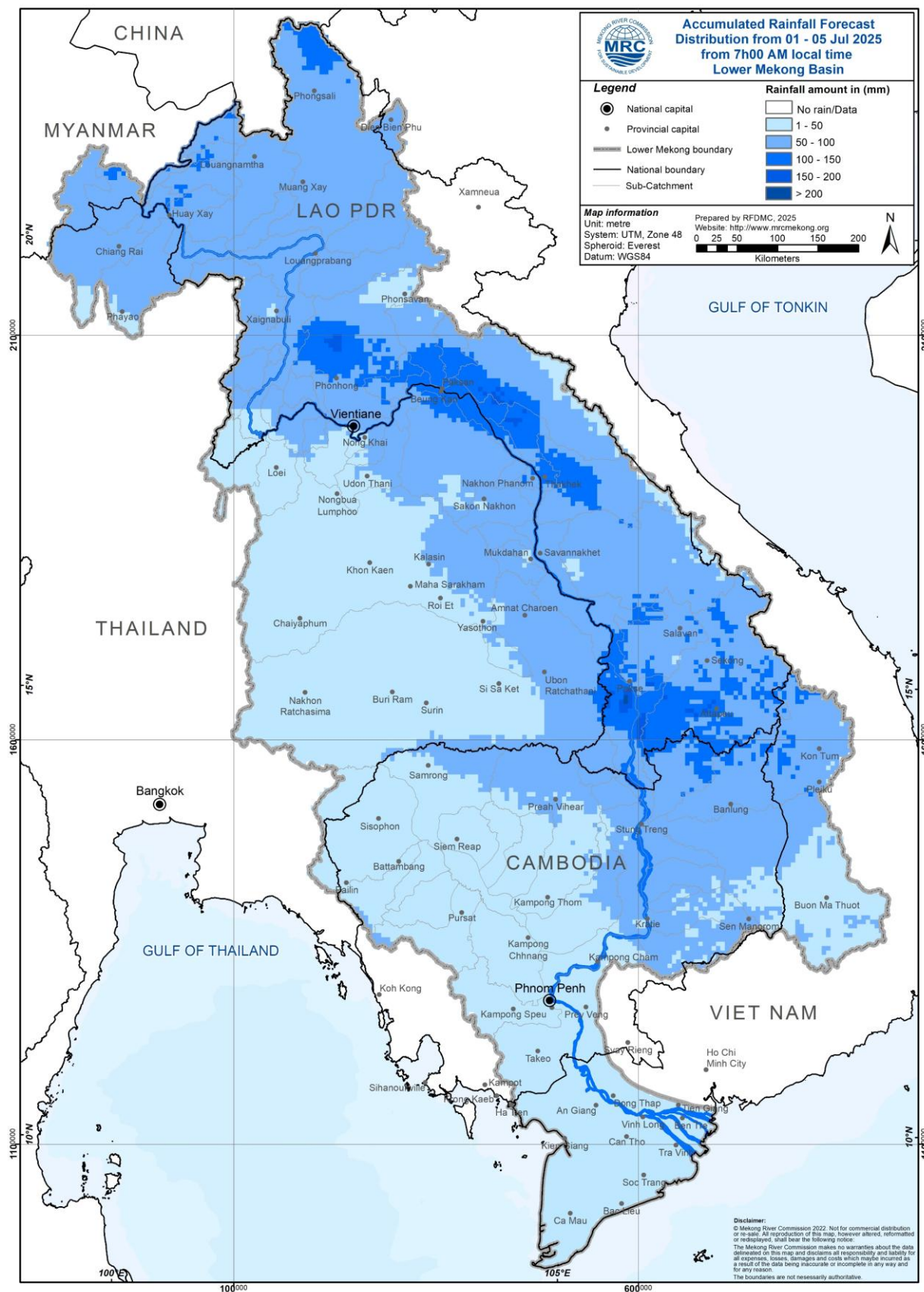


Figure 13: Accumulated rainfall forecast from CHIRP-GFS (01 – 05 July 2025)



## 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 01 – 05 July 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 01 – 05 July 2025. However, it will be expected to slightly increase from 4.28 m to 4.69 m. The water level in Luang Prabang stations affected by backwater is likely slightly stable within a range from 10.98 m and 11.16 m.

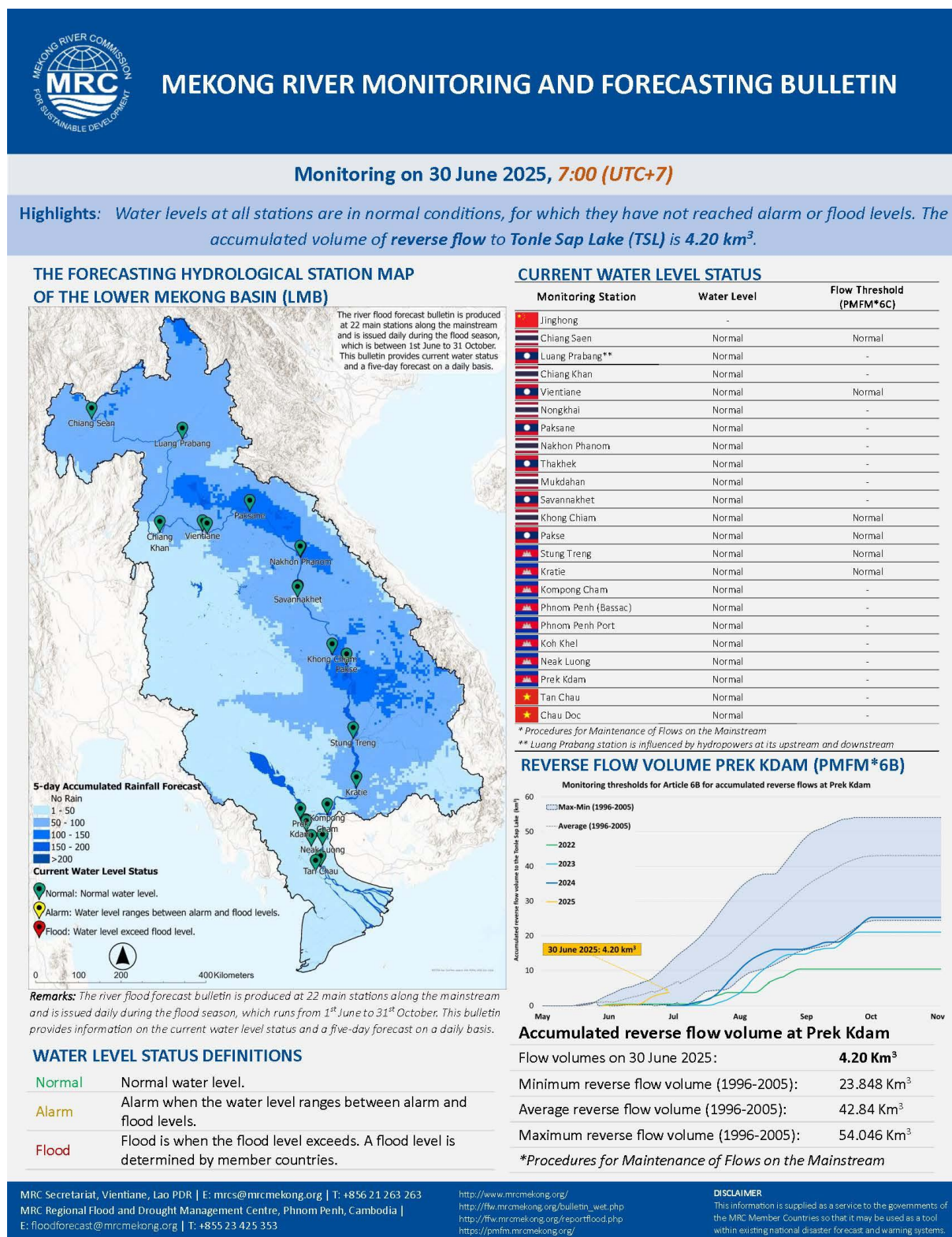
Along the Mekong mainstream from Chiang Khan to Pakse stations, the water levels are expected to increase. At Chiang Khan, Vientiane, Nong Khai, Paksane, Nakhon Phanom, Thakhek, Mukdahan, Savannakhet, Khong Chiam, and Pakse, water levels are expected to decrease approximately 0.65 m, 0.66 mm, 0.67 m, 1.39 m, 1.24 m, 1.25 m, 1.53 m, 1.52 m, 0.80 m, and 0.60 m, respectively.

At the floodplain in Cambodia from Kratie station downstream, the water levels are expected to decrease. At Kratie, Kompong Cham, Phnom Penh (Bassac), Phnom Penh Port, and Koh Khel, the water levels are expected to increase approximately -0.05 m, -0.08 m, -0.04 m, -0.05 m, and -0.03 m, respectively. However, At Stung Tren, Koh Khel and Neak Luong stations, the water levels are expected to be stable.

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 0.64 m and 1.84 m and from 0.52 m and 1.74 m, respectively, following daily tidal effects from the sea.
























The weekly River Monitoring Bulletin and forecasting issued on 30 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 01 to 05 July 2025

**Highlights:** *Isolated thunderstorms and heavy rainfall are forecast in parts of the LMB. The water levels at stations from central to upper part of LMB are expected to rise, while from Kratie station downstream, are expected to drop.*

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)
	29-Jun		29-Jun	30-Jun	01-Jul	02-Jul	03-Jul	04-Jul	05-Jul						
 Jinghong	15.5	-	536.17	↑ 536.71	-	-	-	-	-	-	-	-	-	-	-
 Chiang Saen	0.1	357.110	4.18	↑ 4.28	→ 4.22	→ 4.17	→ 4.23	↑ 4.41	↑ 4.69	11.50	12.80	↑ 0.40	0.40	6.82	8.12
 Luang Prabang	0.0	267.195	10.75	↑ 10.98	↑ 11.26	→ 11.32	→ 11.24	→ 11.15	→ 11.16	17.50	18.00	↑ 0.18	0.34	6.18	6.68
 Chiang Khan	0.0	194.118	8.20	↓ 8.08	↑ 8.20	↑ 8.51	↑ 8.79	→ 8.81	→ 8.73	14.50	16.00	↑ 0.65	0.73	5.69	7.19
 Vientiane	0.0	158.040	7.05	↓ 6.88	→ 6.85	↑ 6.99	↑ 7.22	↑ 7.45	→ 7.54	11.50	12.50	↑ 0.66	0.66	3.96	4.96
 Nongkhai	0.4	153.648	5.58	↑ 5.72	→ 5.65	↑ 5.79	↑ 6.05	↑ 6.33	→ 6.39	11.40	12.20	↑ 0.67	0.67	5.01	5.81
 Paksane	46.5	142.125	7.31	↑ 7.75	↑ 8.11	↑ 8.34	↑ 8.60	↑ 8.89	↑ 9.14	13.50	14.50	↑ 1.39	1.39	4.36	5.36
 Nakhon Phanom	1.7	130.961	5.75	↑ 6.06	↑ 6.33	↑ 6.55	↑ 6.82	↑ 7.02	↑ 7.30	11.50	12.00	↑ 1.24	1.24	4.20	4.70
 Thakhek	1.1	129.629	7.07	↑ 7.37	↑ 7.70	↑ 7.92	↑ 8.19	↑ 8.41	↑ 8.62	13.00	14.00	↑ 1.25	1.25	4.38	5.38
 Mukdahan	0.0	124.219	5.63	↑ 5.91	↑ 6.18	↑ 6.44	↑ 6.69	↑ 7.05	↑ 7.44	12.00	12.50	↑ 1.53	1.53	4.56	5.06
 Savannakhet	0.0	124.219	4.03	↑ 4.32	↑ 4.53	↑ 4.79	↑ 5.05	↑ 5.43	↑ 5.84	12.00	13.00	↑ 1.52	1.52	6.16	7.16
 Khong Chiam	0.0	89.030	6.63	→ 6.64	→ 6.65	→ 6.75	↑ 6.88	↑ 7.07	↑ 7.44	13.50	14.50	↑ 0.80	0.80	6.07	7.07
 Pakse	0.0	86.490	5.10	↓ 5.06	↓ 4.95	→ 4.95	↑ 5.09	↑ 5.29	↑ 5.66	11.00	12.00	↑ 0.60	0.60	5.34	6.34
 Stung Treng	0.0	36.790	5.77	↑ 5.82	→ 5.83	↓ 5.68	→ 5.65	↑ 5.72	↑ 5.85	10.70	12.00	→ 0.03	0.03	4.85	6.15
 Kratie	14.5	-0.101	13.91	→ 13.93	↑ 13.99	↓ 13.84	↓ 13.75	→ 13.73	↑ 13.88	22.00	23.00	↓ -0.05	-0.20	8.01	9.01
 Kompong Cham	6.0	-0.930	7.58	↑ 7.70	↑ 7.78	↓ 7.70	↓ 7.53	↓ 7.50	↑ 7.62	15.20	16.20	↓ -0.08	-0.20	7.42	8.42
 Phnom Penh (Bassac)	0.9	-1.020	4.25	↑ 4.38	↑ 4.42	↓ 4.39	↓ 4.35	→ 4.34	→ 4.34	10.50	12.00	↓ -0.04	-0.04	6.08	7.58
 Phnom Penh Port	nr	0.070	3.25	↑ 3.39	→ 3.42	→ 3.39	↓ 3.35	→ 3.34	→ 3.34	9.50	11.00	↓ -0.05	-0.05	6.08	7.58
 Koh Khel	0.0	-1.000	4.09	↑ 4.19	↑ 4.24	→ 4.27	↓ 4.23	↓ 4.18	→ 4.16	7.90	8.40	↓ -0.03	-0.03	3.63	4.13
 Neak Luong	3.8	-0.330	2.84	↑ 2.95	↑ 3.01	↑ 3.05	→ 3.02	↓ 2.98	→ 2.96	7.50	8.00	→ 0.01	0.01	4.45	4.95
 Prek Kdam	0.0	0.080	3.32	↑ 3.42	↑ 3.46	→ 3.44	→ 3.43	→ 3.42	→ 3.42	9.50	10.00	→ 0.00	0.00	6.04	6.54
 Tan Chau	0.0	0.000	0.59	↑ 0.64	↑ 0.78	↑ 1.05	↑ 1.35	↑ 1.59	↑ 1.84	3.50	4.50	↑ 1.20	0.14	1.66	2.66
 Chau Doc	nr	0.000	0.46	↑ 0.52	↑ 0.68	↑ 0.95	↑ 1.25	↑ 1.49	↑ 1.74	3.00	4.00	↑ 1.22	1.22	1.26	2.26

### 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 **30 June**, the water levels at all monitoring stations remain within **normal ranges**, with **no alarm** or **flood thresholds** exceeded. As of now, the total **accumulated reverse flow** volume into the TSL is **4.20 km<sup>3</sup>**.
- In the **next 5 days**, isolated thunderstorms and heavy rainfall are expected over the LMB including the upper and central part of Lao PDR, the northern and northeastern part of Thailand near the Lao PDR border, the 3S basin; and the southwestern part of Cambodia.
- For **01 - 05 July**, the water levels at stations from central to upper part of LMB are expected to rise, while from Kratie station downstream, are expected to drop.

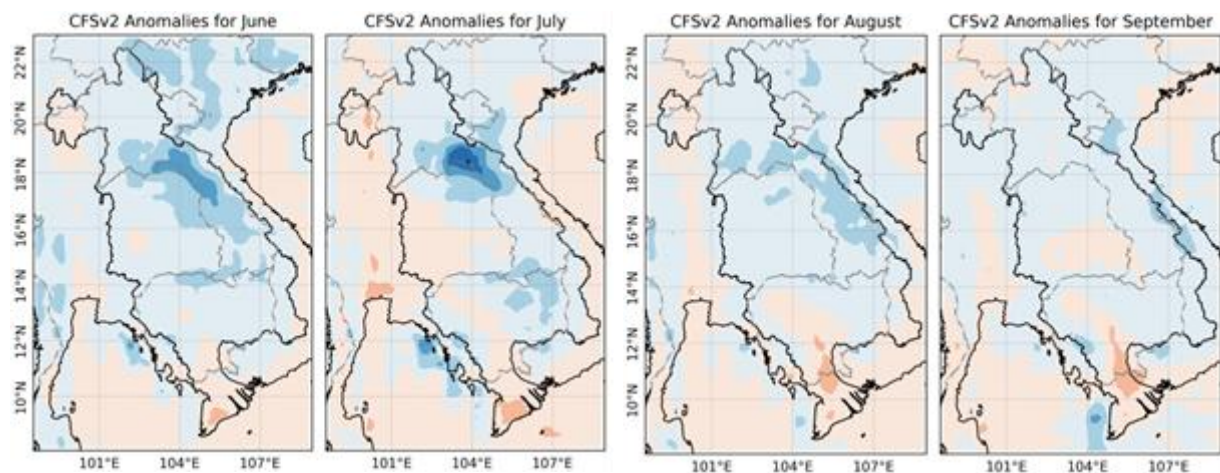


### 6.3 Flash Flood Information

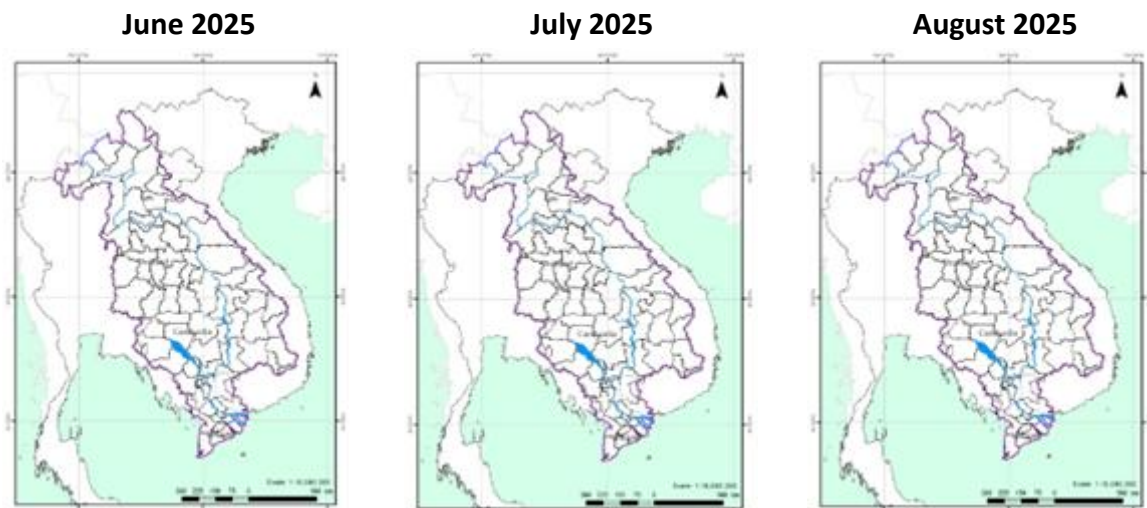
With light to heavy rainfall for next week, flash floods might be detected in some areas in the LMB. And local heavy rain in a short period of time is possible with unpredictable short flash floods. Further detailed information on Flash Flood Guidance Information, as well as on its explanation, is available 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 August 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 24 - 30 June 2025, there has heavy rainfall has been observed over the LMB in the central parts of Lao PDR, the 3S basin, and the southwestern part of Cambodia.

During 01 – 07 July 2025, isolated thunderstorms and heavy rain are expected over the LMB including the upper and central part of Lao PDR, the northeastern part of Thailand near the Lao PDR border. 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 24 – 30 June 2025, water levels have neither reached alarm nor flood levels, 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 01 – 05 July 2025, the water levels are forecasted to be increasing at stations from Chiang Saen to Pakse and being stable or decreasing from Stung Treng 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 high level will likely be detected in some areas of the LMB.

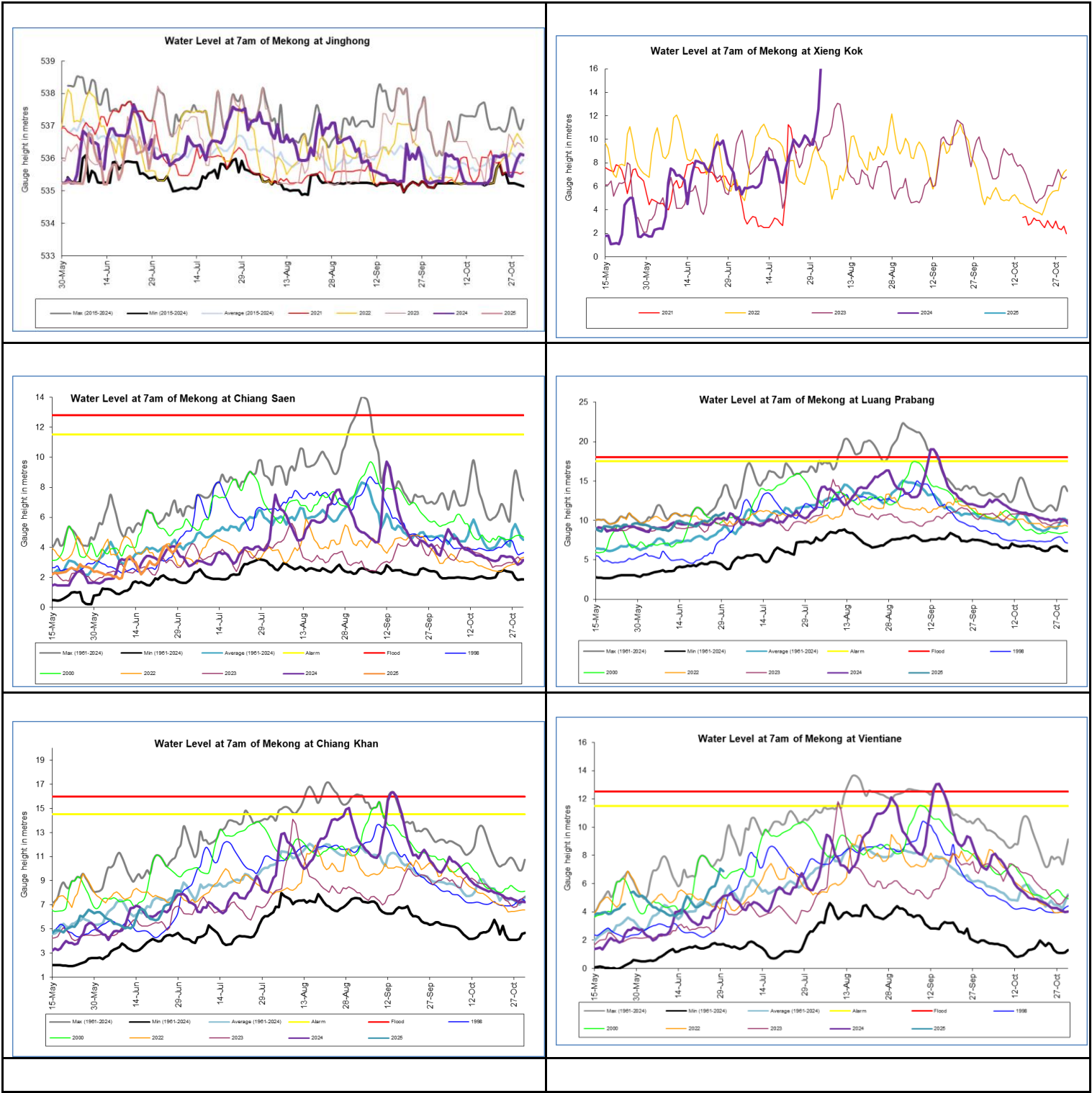
### **7.4. Drought condition and its forecast**

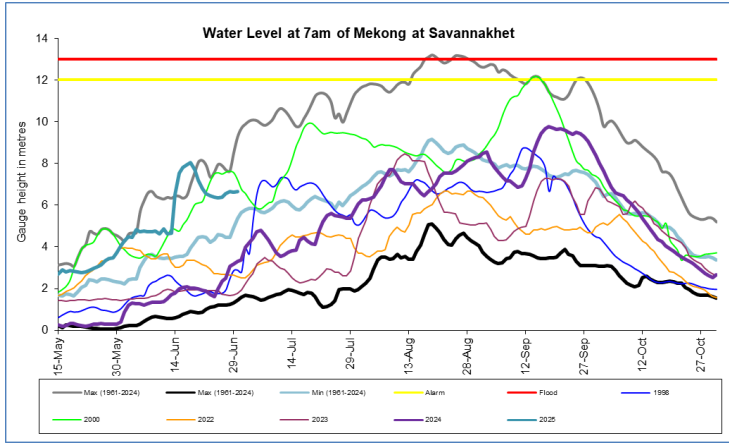
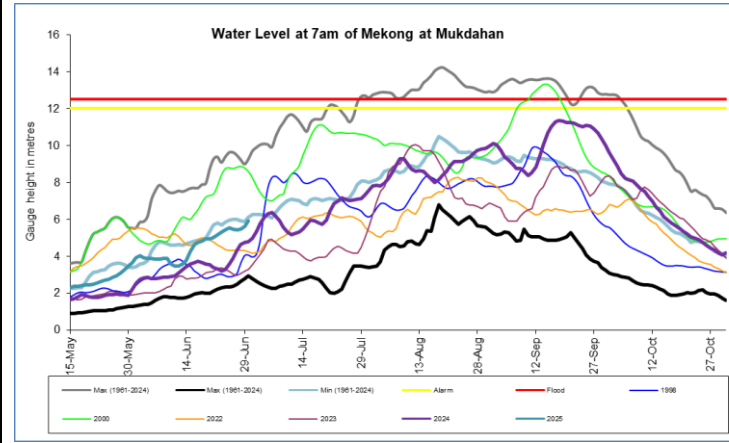
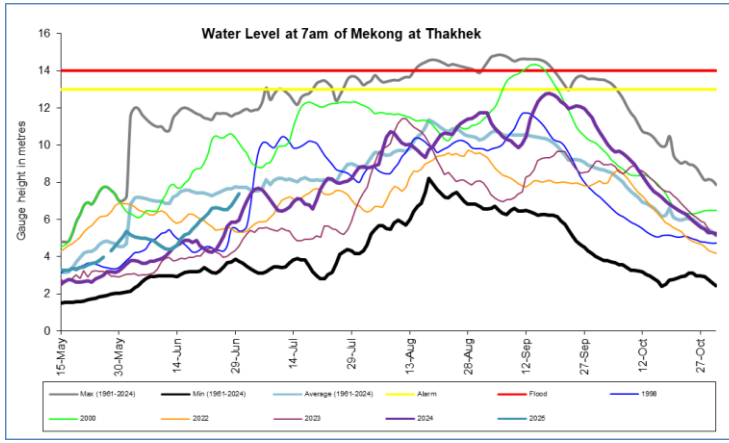
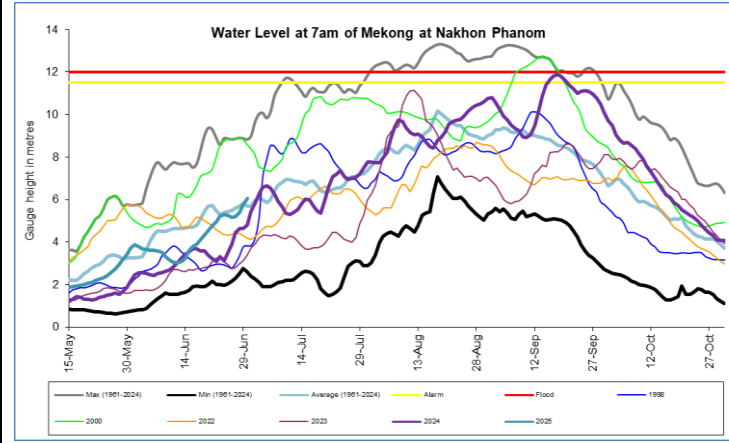
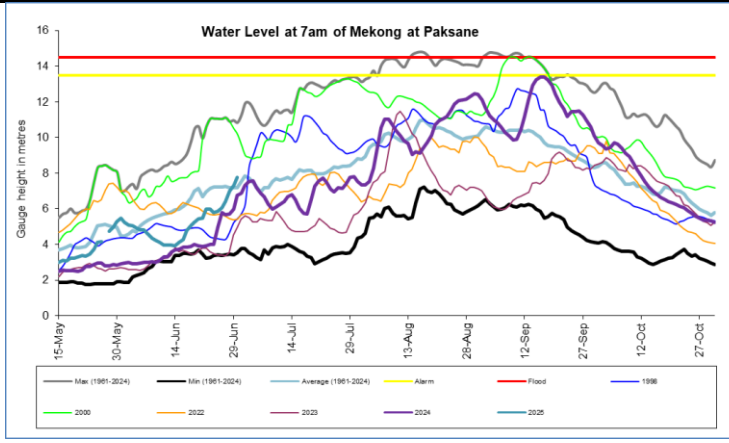
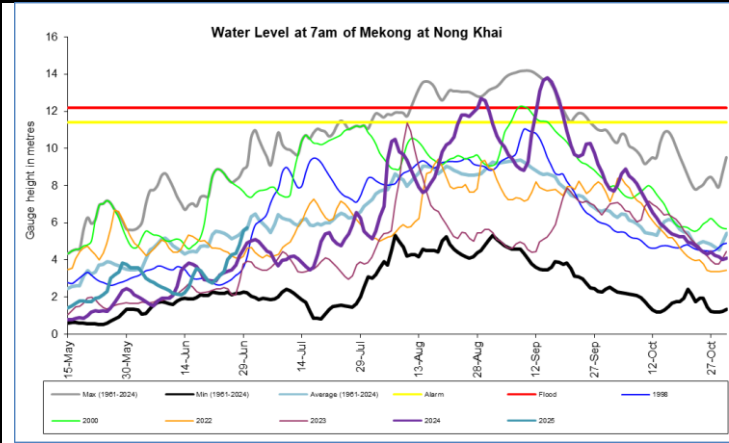
During 24 – 30 June 2025, the LMB is experiencing normal to wet conditions, except some areas in the lower part of Cambodia. The monitored drought is caused primarily by meteorological indicator.

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.

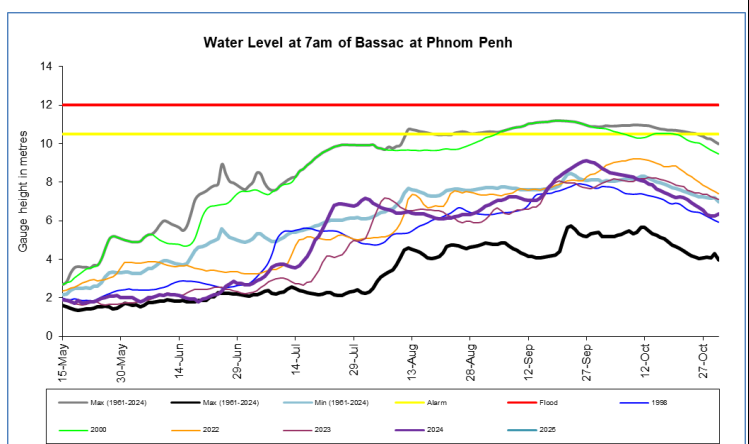
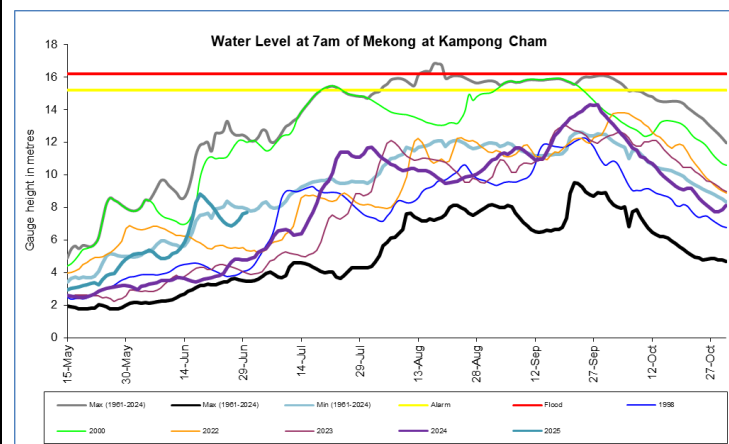
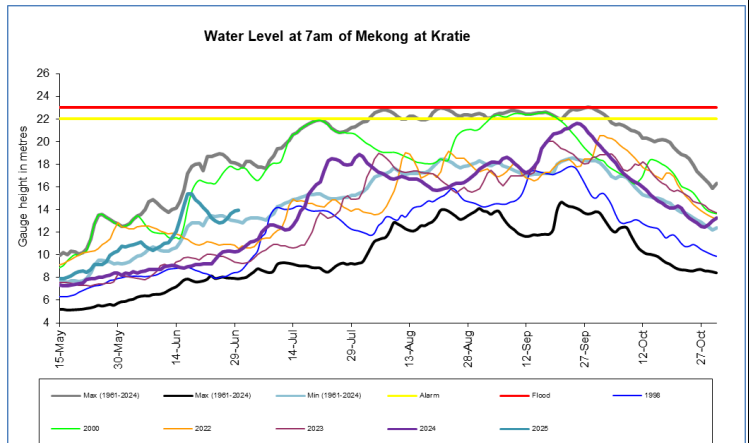
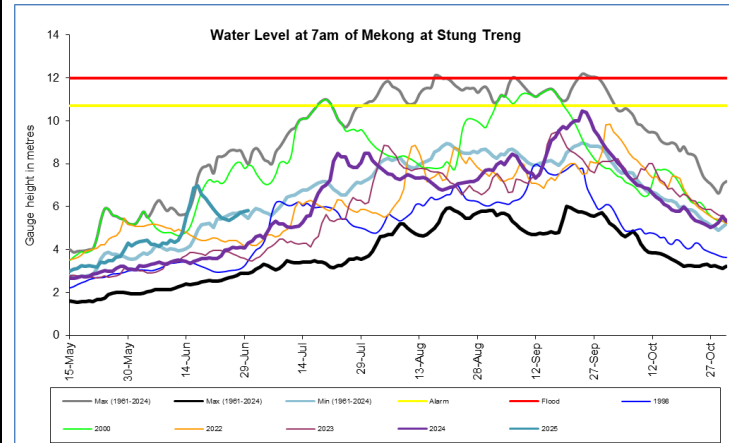
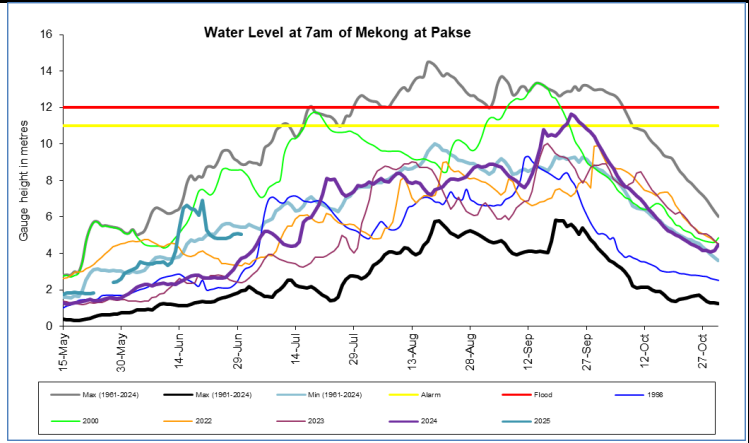
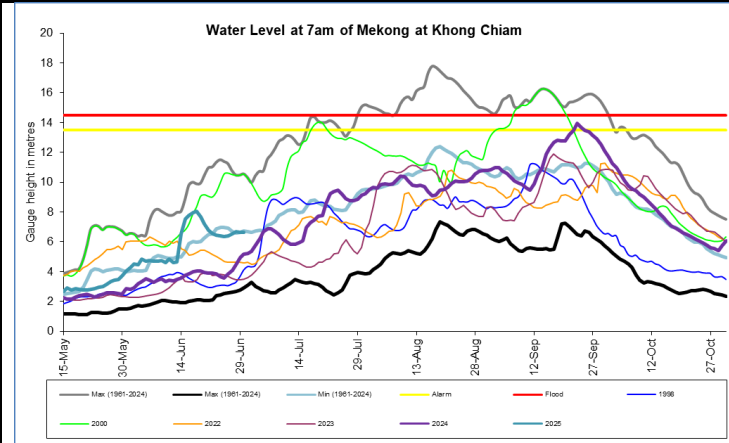
The forecast indicates that no drought conditions are expected in over the LMB from June to August 2025 using the Combined Drought Indicator (CDI)

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

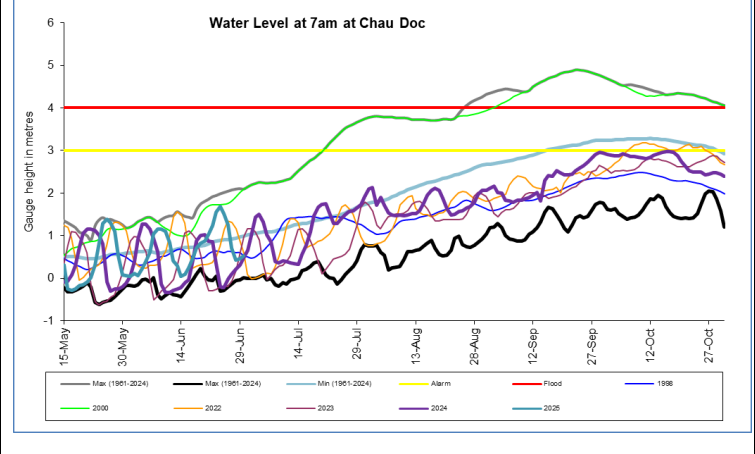
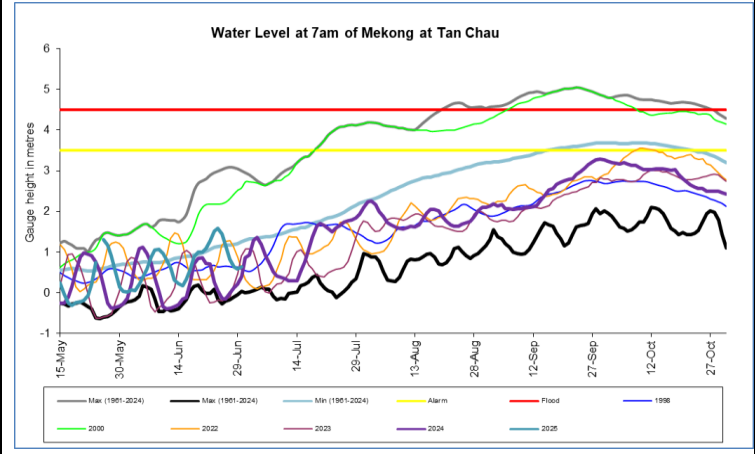
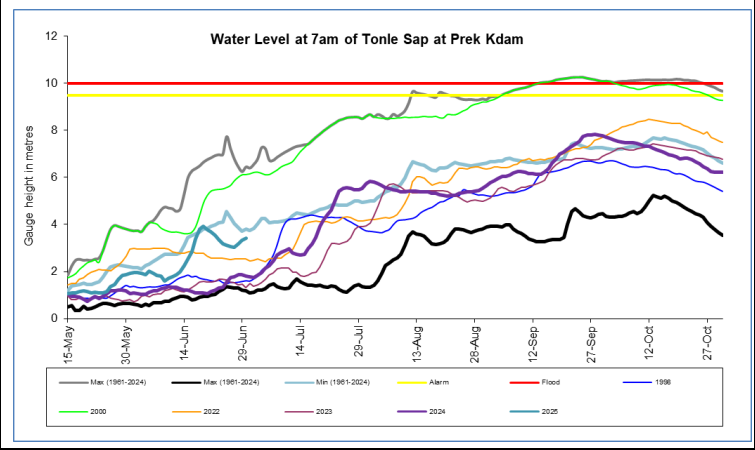
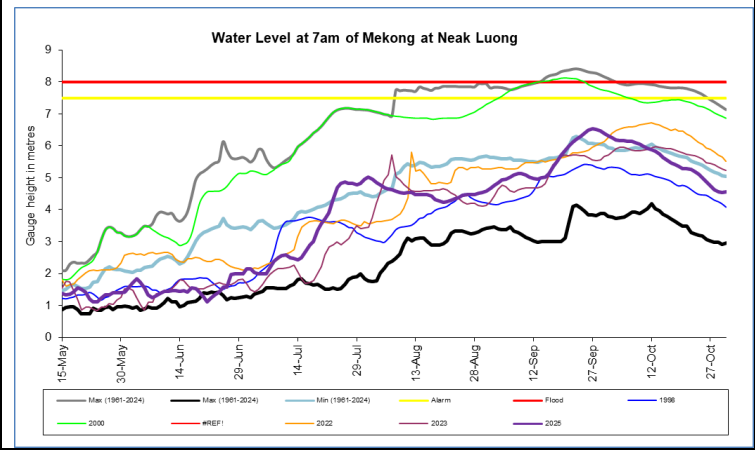
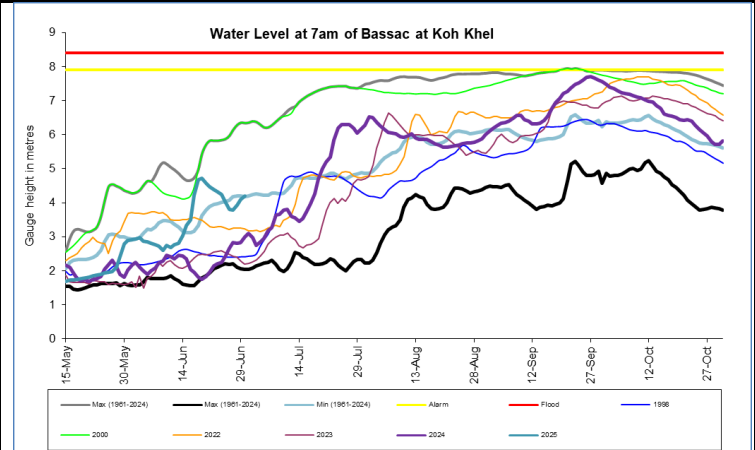
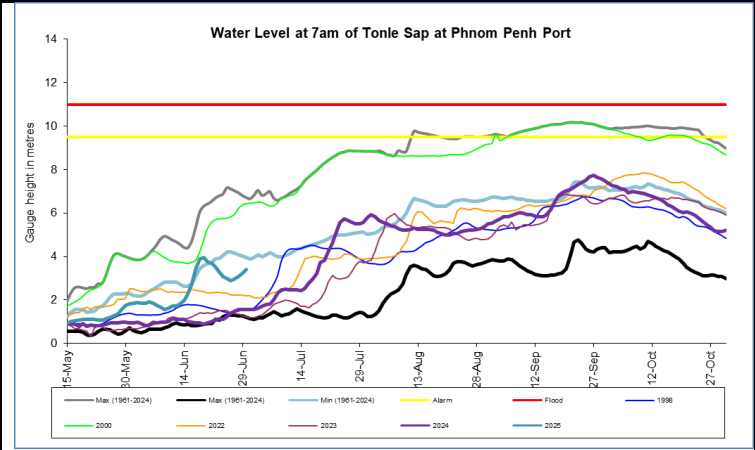












## Annex B: Tables for weekly updated water levels and rainfall at the Key Stations

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
24-06-2025	536.14	4.02	9.79	6.88	5.08	3.4	5.78	5.3	6.65	5.44	3.84	6.4	4.8	5.42	13.04	7.12	4.08	3.08	4.25	3	3.18	1.59	1.68
25-06-2025	536.19	4.12	10.05	7.03	5.59	4.02	5.86	5.25	6.59	5.53	3.92	6.34	4.81	5.37	12.85	6.94	3.98	2.99	4.04	2.84	3.12	1.44	1.51
26-06-2025	536.22	3.86	10.44	7.07	5.75	4.28	6.06	5.17	6.52	5.48	3.89	6.4	4.82	5.45	12.9	6.84	3.9	2.9	3.8	2.67	3.06	1.17	1.25
27-06-2025	536.43	3.67	10.7	7.4	5.83	4.36	6.39	5.19	6.54	5.44	3.87	6.55	4.9	5.57	13.19	7	3.98	2.97	3.78	2.56	3.03	0.83	0.7
28-06-2025	535.69	3.77	10.61	8.17	6.29	4.8	6.97	5.4	6.74	5.45	3.86	6.67	5.06	5.7	13.64	7.26	4.1	3.09	3.92	2.7	3.18	0.63	0.43
29-06-2025	536.17	4.18	10.75	8.2	7.05	5.58	7.31	5.75	7.07	5.63	4.03	6.63	5.1	5.77	13.91	7.58	4.25	3.25	4.09	2.84	3.32	0.59	0.46
30-06-2025	536.71	4.28	10.98	8.08	6.88	5.72	7.75	6.06	7.37	5.91	4.32	6.64	5.06	5.82	13.93	7.7	4.38	3.39	4.19	2.95	3.42	0.64	0.52
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

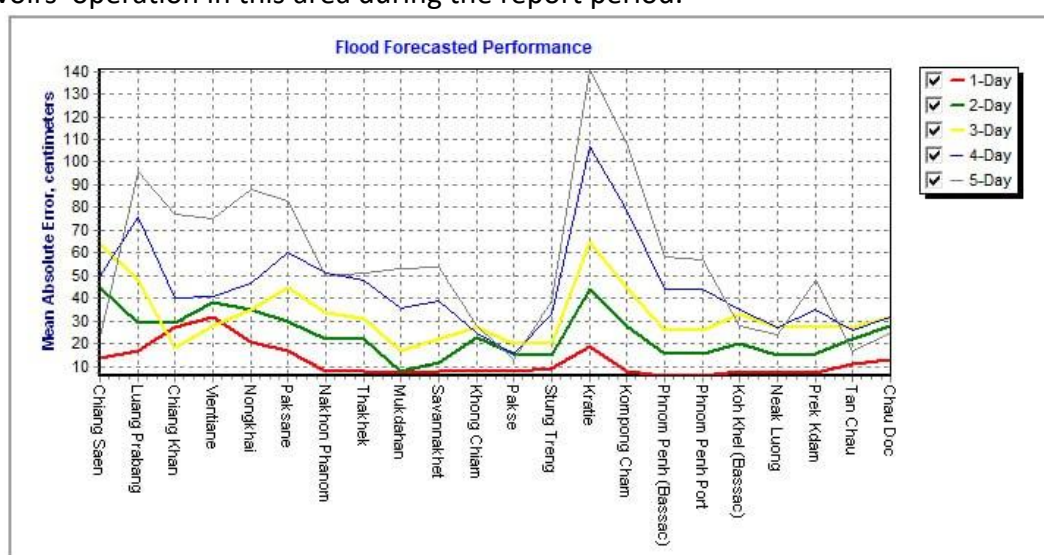
2025	Jinghong	Chiang Saen	Luang Prabang	Chiang Khan	Vientiane	Nongkhai	Paksane	Nakhon Phanom	Thakhek	Mukdahan	Savannakhet	Khong Chiam	Pakse	Stung Treng	Kratie	Kompong Cham	Phnom Penh (Bassac)	Phnom Penh Port	Koh Khel	Neak Luong	Prek Kdam	Tan Chau	Chau Doc
24-06-2025	6.5	8.8	15.4	1.3	0	22	2.2	5.7	4.7	0	0	11.2	11	4	1.3	0	0	0	0	0	0	0	0
25-06-2025	9	0	0	77	0	0	0	0.2	0.4	0.2	0	0	0	37	0	4	1.9	0	0	0	15.3	0	0
26-06-2025	0	0	0	0	0	0.8	0	0	0	21.6	17	4.2	0	43	27.1	1	3.1	0	6.1	37.8	0	0	0
27-06-2025	3.5	8.6	4	9.3	69.8	69.4	56	3.5	4.5	37.1	53.2	5.8	15.4	3	27.9	29	0.4	0	0	1.2	0	13.3	2.1
28-06-2025	1	29.5	10	12.7	38.8	49.2	112.3	10	8	1.2	0	10	14.4	8	13	10	0	0	0	0	0	0	1.9
29-06-2025	4	10.7	0	7.5	7	4.2	12.6	7	8.7	16.3	10	6.5	9.6	0	0	0	0.2	0	0	0	0	25.7	5
30-06-2025	15.5	0.1	0	0	0	0.4	46.5	1.7	1.1	0	0	0	0	0	14.5	6	0.9	0	0	3.8	0	0	0
Sum	39.5	80.8	20.6	20.0	115.6	146.0	229.6	28.1	27.4	76.4	80.2	37.7	50.4	95.0	83.8	50.0	6.5	0.0	6.1	42.8	15.3	39.0	9.0

## 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 24 to 30 June 2025.

The forecasting values from 24 to 30 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.



**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.



## Mekong River Commission Secretariat

P. O. Box 6101, 184 Fa Ngoum Road, Unit 18 Ban Sithane Neua, Sikhottabong District, Vientiane 01000, Lao PDR  
Tel: +856 21 263 263. Fax: +856 21 263 264 [www.mrcmekong.org](http://www.mrcmekong.org)  
© Mekong River Commission 2024