World Food Programme

SAVING LIVES
CHANGING LIVES

Seasonal Monitoring in Cambodia

August 2025

KEY MESSAGES

August 2025 featured variable rainfall patterns, with **early-month dry conditions** in northern and eastern provinces, and **significant late-month rainfall** in southern and western areas that led to flash floods in at least five provinces.

During the first ten days of August, **heat stress** was observed, while no similar events occurred during the remainder of the month.

Water levels at major river and lake—including the Mekong, Tonle Sap, and Bassac—**remained below both flood alert thresholds and the long-term average**, primarily due to upstream rainfall deficits.

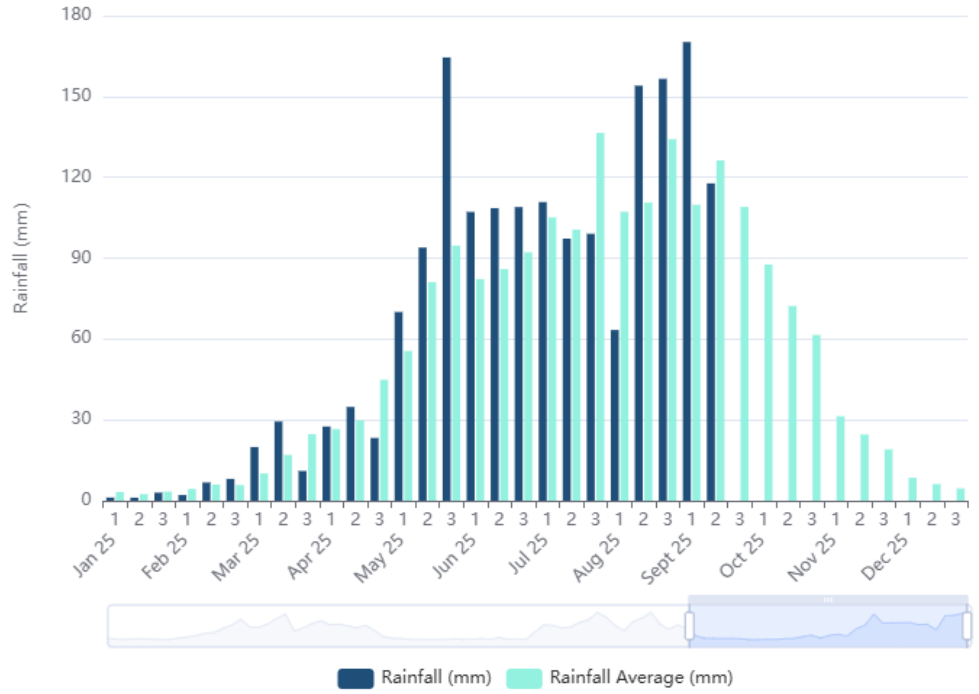
Soil moisture generally supported wet-season crop growth; however, some vegetation stress occurred in parts of the eastern, northern, and western provinces due to early-month low rainfall and elevated temperatures.

Seasonal forecasts indicate **above-average rainfall** for Cambodia from September to December, which may increase the **risk of flash and/or riverine flooding, and waterlogging in lowland areas**. **Localized heat stress** could occur between September and October, followed by **cooler-than-normal conditions** expected from November to December. Regular monitoring of **MoWRAM's daily weather and river water level updates** is advised to help manage upcoming heat stress and flood risks.

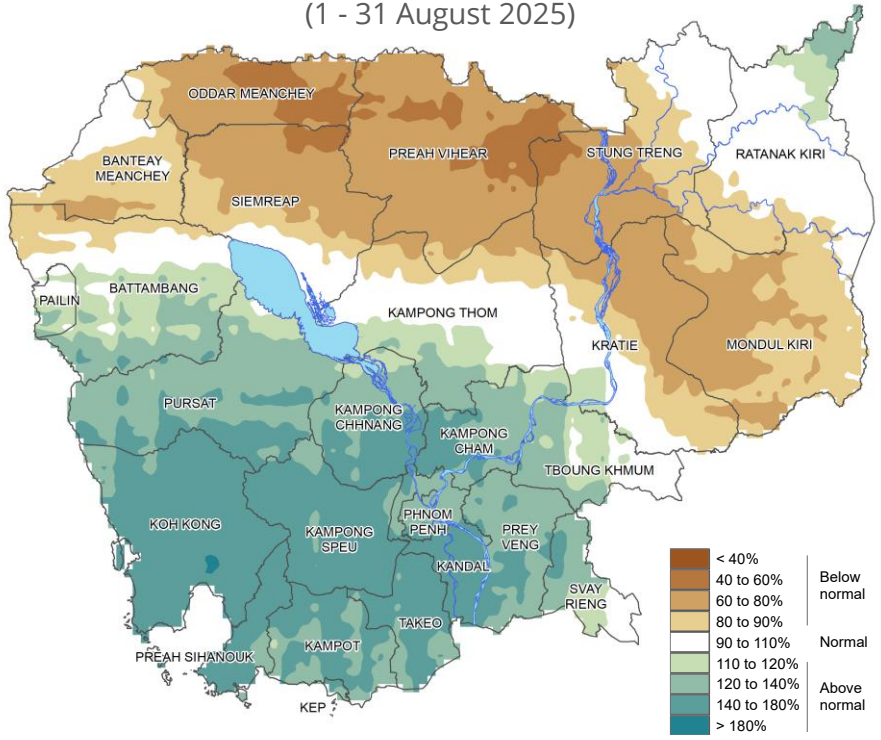
RAINFALL DISTRIBUTION

Throughout August 2025, Cambodia experienced extreme rainfall variations *(see chart and map below)*. During the first 10 days, significant below-average rainfall led to dry spell conditions, particularly in the northern and eastern provinces. In contrast, the southern and western provinces received exceptionally higher-than-usual rainfall during the latter part of the month. These heavy rains resulted in flash flooding incidents in at least five provinces: Battambang, Pailin, Siem Reap, Kampong Thom, and Kratie, with reported impacts on people and cropland.

National-Average Rainfall Distribution
(From 1 January to 20 September 2025)



1-Month Rainfall Anomaly
(1 - 31 August 2025)



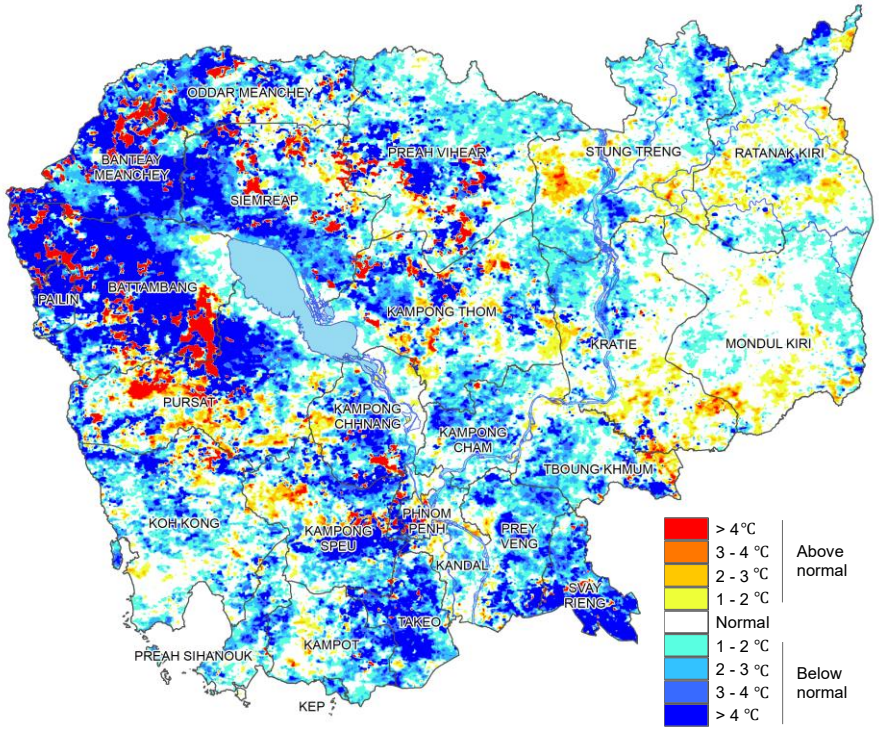
Source: Rainfall from CHIRPS and analysis by WFP.

TEMPERATURE PATTERN

August's land surface temperatures (LST) were generally cooler than average across most of provinces *(see map below, left)*. However, during the first 10 days of the month, heat stress conditions (≥35°C) were remarkably pronounced in Phnom Penh, Kampong Speu, Kampong Chhnang, Pursat, Battambang, Banteay Meanchey, Oddar Meanchey, Preah Vihear, Kampong Thom, Stung Treng, and Kratie *(see maps below, right)*. No significant heat stress was recorded during the remainder of the month.

1-Month Land Surface Temperature (LST) Anomaly

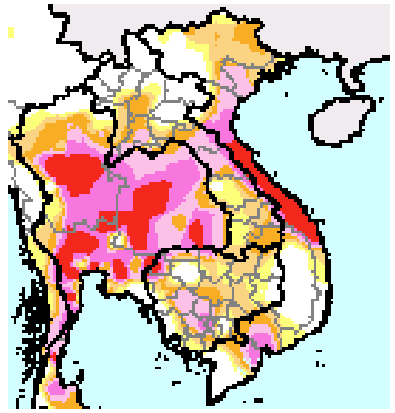
(1 - 31 August 2025)



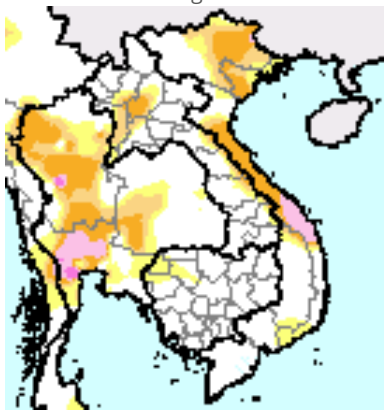
Source: LST from MODIS and analysis by WFP

Heat Stress Days (>= 35 °C)

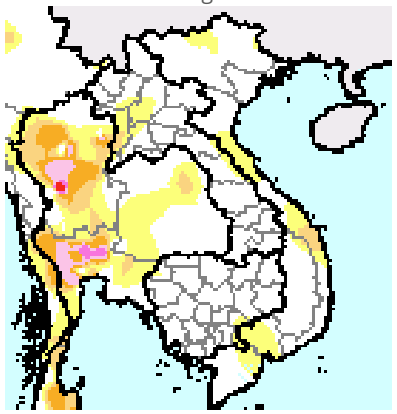
4 - 10 August 2025



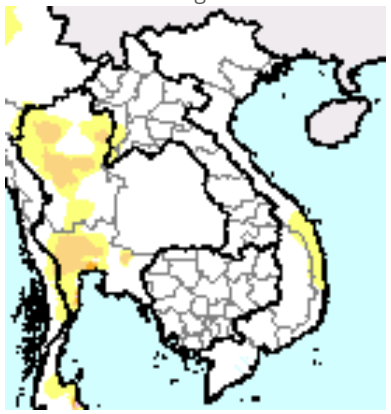
11 – 17 August 2025



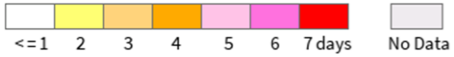
18 – 24 August 2025



25 - 31 August 2025



Source: USDA (WMO)



RIVER WATER LEVELS

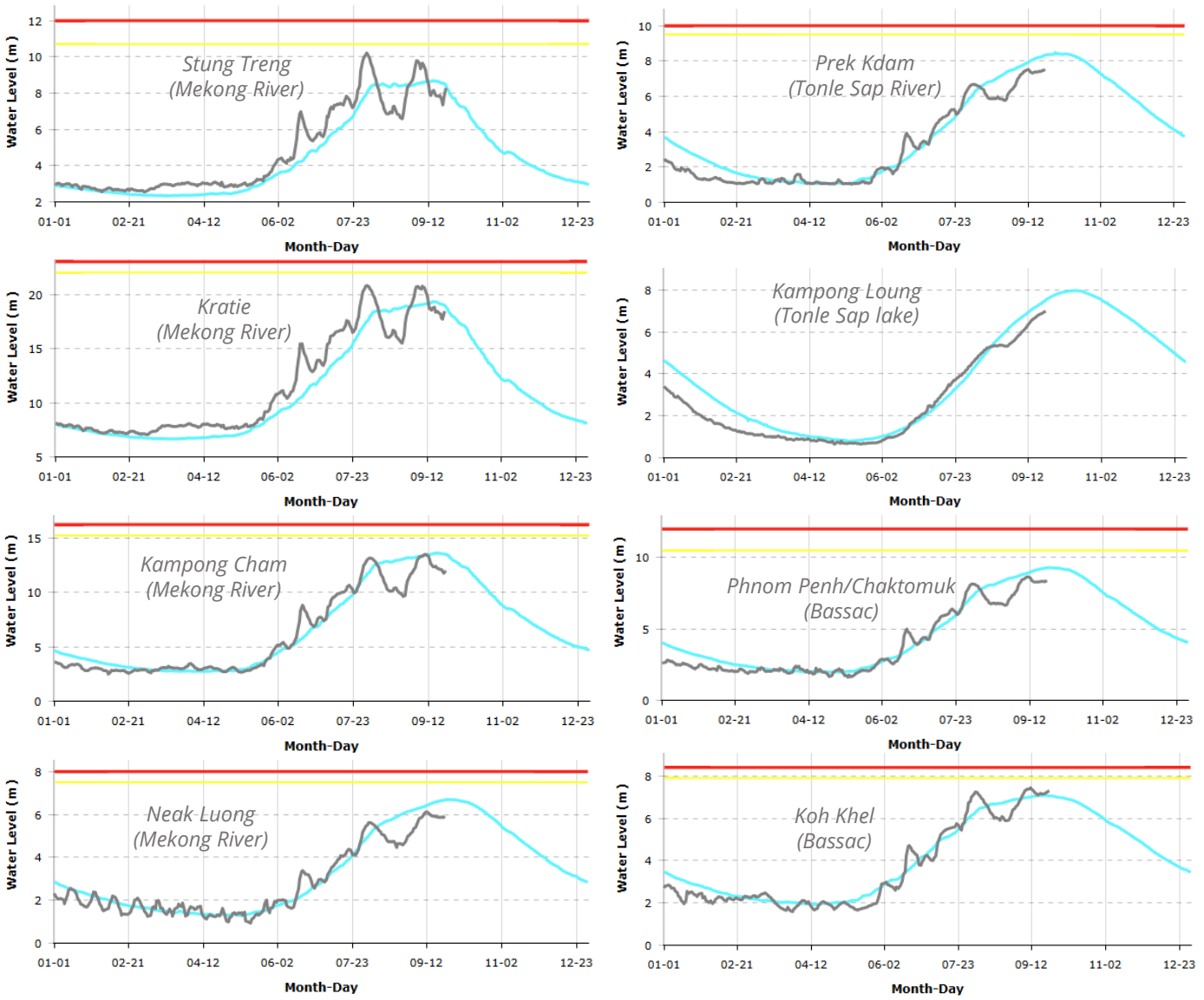
Water levels at all eight river monitoring stations remained below flood alert thresholds and below the long-term average throughout August. This was likely influenced by below-normal rainfall in upstream catchment areas during late July and early August.

At Mekong River stations (Stung Treng, Kratie, Kampong Cham, and Neak Luong), water levels declined and remained moderately below average.

Stations at Kampong Loung and Prek Kdam recorded lower-than-average water levels in the Tonle Sap Lake/River, resulting in the lake's overall volume being approximately 1.7% below its long-term average.

Bassac River stations (Phnom Penh and Koh Khel) also reported below-average water levels during August.

River water level observed in 8 monitoring stations in Cambodia
(by 24 September 2025)



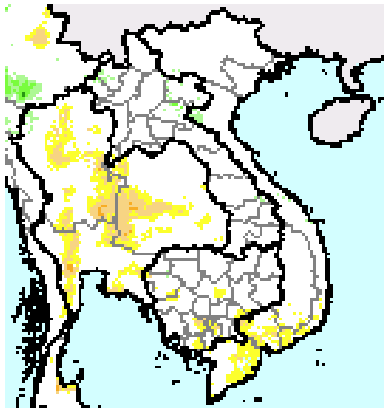
Source: MoWRAM's Department of Hydrology and River Works

SOIL MOISTURE CONDITIONS

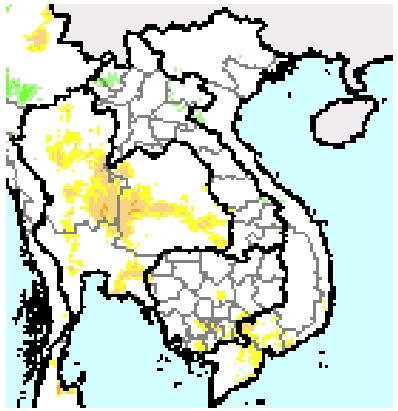
Despite the early-month rainfall deficits and heat stress, root-zone soil moisture (0–100 cm depth) remained marginally below-normal to normal across most of Cambodia during August *(see maps below).* These conditions were generally favorable for wet-season crop growth.

Soil Moisture (Root zone: 0-100 cm) Anomaly

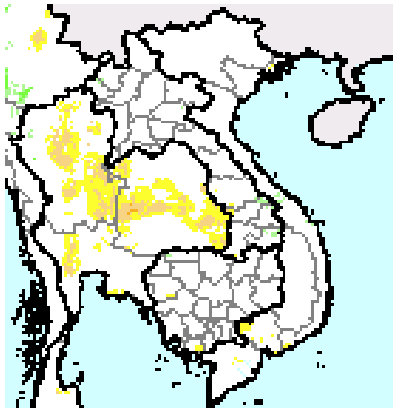
5 August 2025



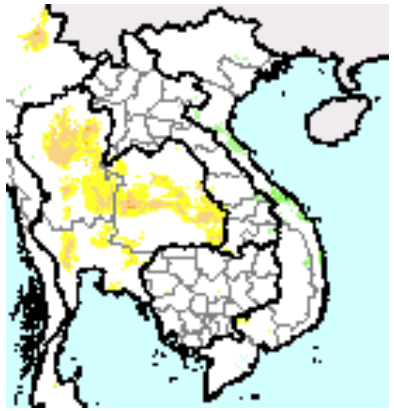
10 August 2025



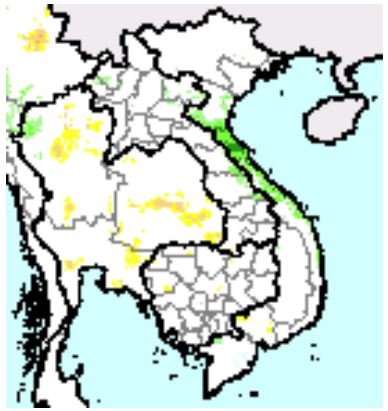
15 August 2025



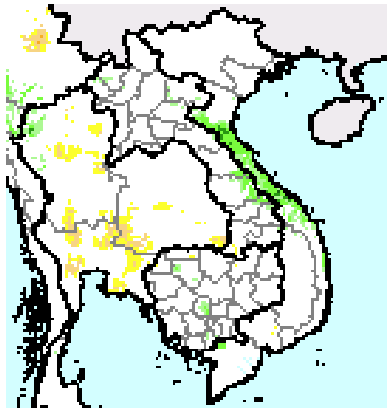
20 August 2025



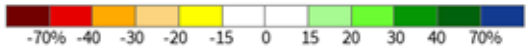
25 August 2025



31 August 2025



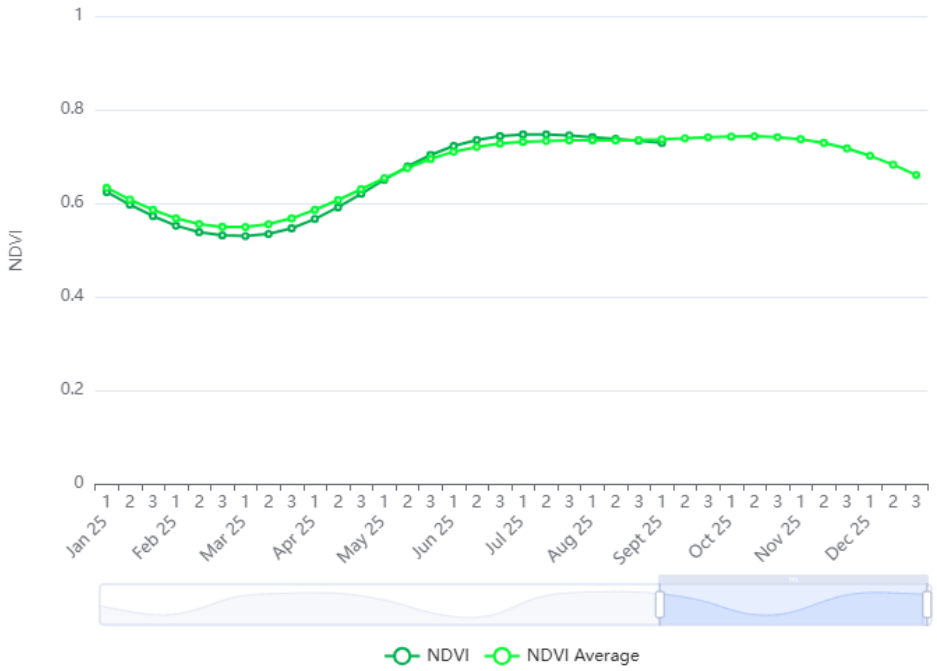
Source: USDA (NASA/GMAO SMAP)



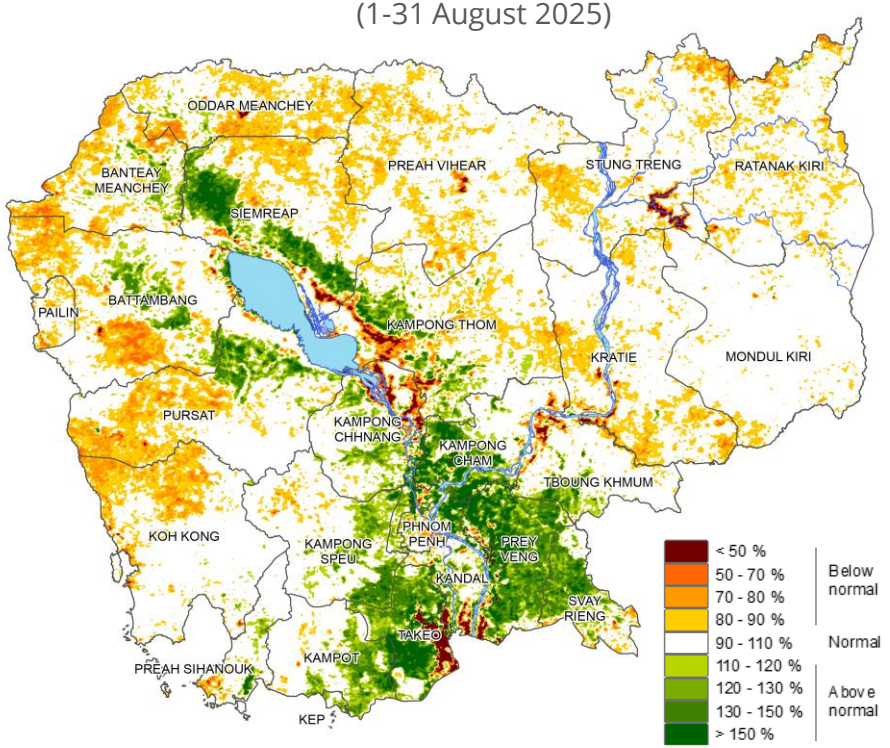
VEGETATION AND CROP CONDITIONS

The advantageous soil moisture conditions continued to support vegetation growth across most of Cambodia in August, largely consistent with the long-term average *(see chart below, left).* Healthy vegetation was observed in most provinces, particularly in wet-season paddy cultivation areas surrounding the Tonle Sap Lake and across the southern plains *(see map below, right).* However, below-average vegetation conditions were noted in parts of the eastern, northern, and western provinces, likely attributable to the combined effects of early-month insufficient rainfall and higher temperatures in those areas.

National-Average NDVI
(From 1 January to 31 August 2025)



1-Month NDVI Anomaly
(1-31 August 2025)



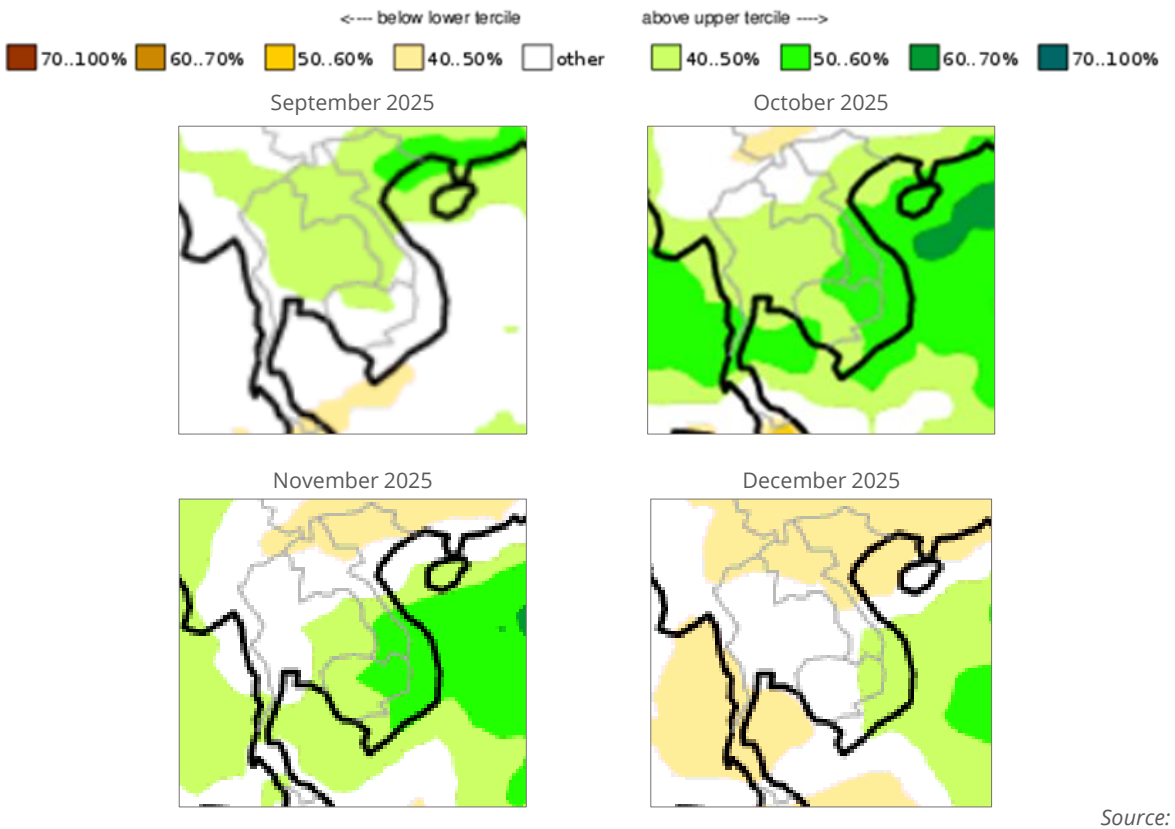
Source: NDVI from MODIS and analysis by WFP

SEASONAL OUTLOOK

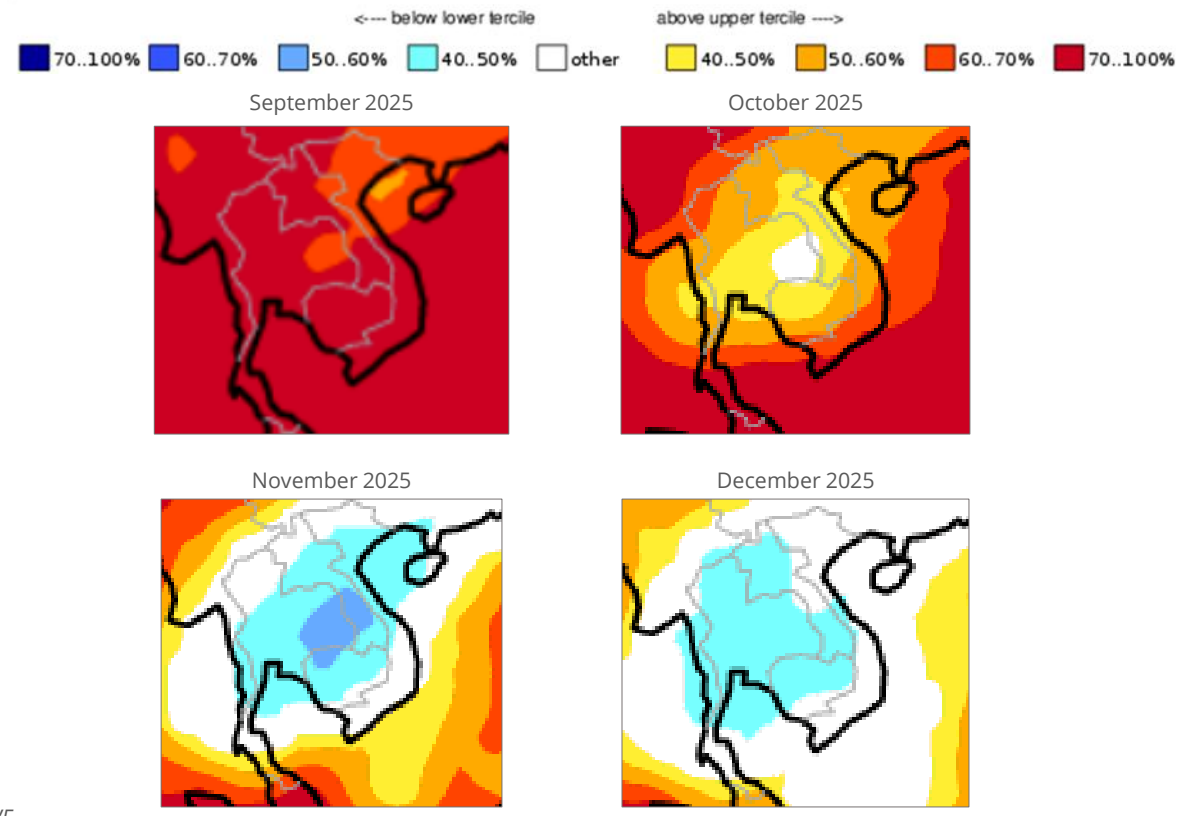
The seasonal forecast indicates a low to moderate likelihood of above-normal rainfall in most provinces from September to December 2025 *(see maps below, left)*. At the same time, there is a high probability of above-average temperatures during September and October, while the chances of below-average temperatures increases slightly in November and December *(see maps below, right).*

These outlooks suggest that Cambodia is likely to experience wetter-than-normal conditions during this period, which could lead to increased flash/riverine floods, and waterlogging, particularly in lowland areas of western and northern and eastern provinces. Localized heat stress conditions may still occur between September and October, followed by a transition to cooler-than-normal conditions from November to December.

Seasonal Rainfall Forecast



Seasonal Temperature Forecast



Source: ECMWF

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Vulnerability Analysis and Mapping (VAM) Team

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