

# West Africa Seasonal Monitor

## 2022 Season – Dekadal Update



World Food  
Programme

SAVING  
LIVES  
CHANGING  
LIVES

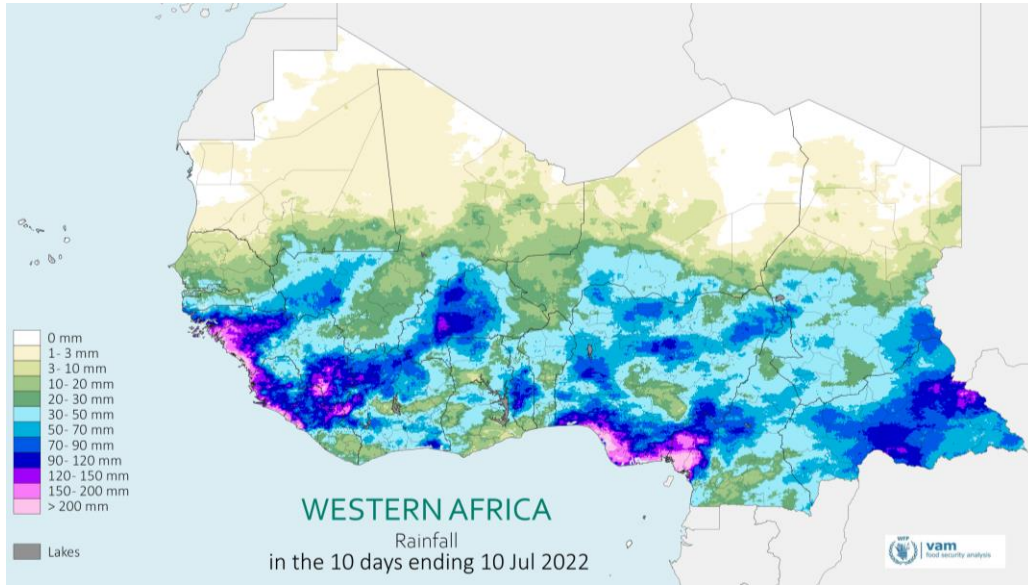
July 2022, Dekad 1 (1-10 July)

## Key Highlights

- During the first dekad of July (1-10 July), West Africa experienced mixed rainfall patterns with moderate to heavy rains recorded in central Burkina Faso, eastern CAR, north-western Cote d'Ivoire, southern Nigeria, western and eastern Guinea, Guinea-Bissau, southern Senegal, Sierra Leone and western Liberia. Meanwhile, light rains were received in most of Senegal, western Niger, Mauritania and central Mali.
- Compared to the long-term average, the rains during this first dekad of the month of July were mixed. Some areas such as central Burkina Faso, northern Cote d'Ivoire, central and eastern Niger, western Chad, western Nigeria and central CAR experienced significantly above normal rainfall. On the other hand, most other areas remained abnormally dry, particularly southern Liberia, southern Ghana and parts of Sierra Leone, Guinea and south-western Mali.
- Over the past month, most areas in West Africa benefitted from normal to above normal rainfall, except for northern Senegal, southern Mauritania, western Niger, central Mali, eastern Burkina Faso, Sierra Leone, central Guinea and south-western Cote d'Ivoire, where drier than normal conditions were recorded.
- According to the short-range forecast, favourable conditions are expected in the western parts of the region with above average conditions in Senegal, Mauritania, Mali, Guinea-Bissau and central Burkina Faso. On the other hand, coastal countries in the Gulf of Guinea are expected to receive below average rainfall until the end of July.
- According to the PRESASS seasonal forecast updated in May 2022, average to above average seasonal rainfall is expected in most of the Sahelian Belt (from Senegal through to Chad), including Cabo Verde. Average to below average rainfall is expected in south-eastern Nigeria and south-western Cameroon. The seasonal forecast also suggests that the start of the season will be early to normal, with shorter than normal dry spells during the first half of the rainy season across the Sahelo-Sudanian zone.

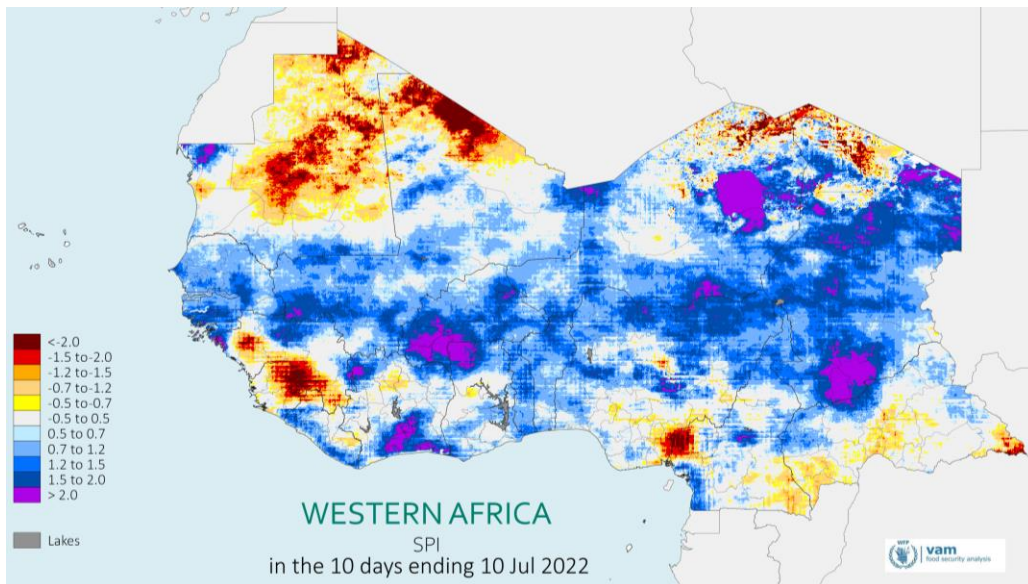
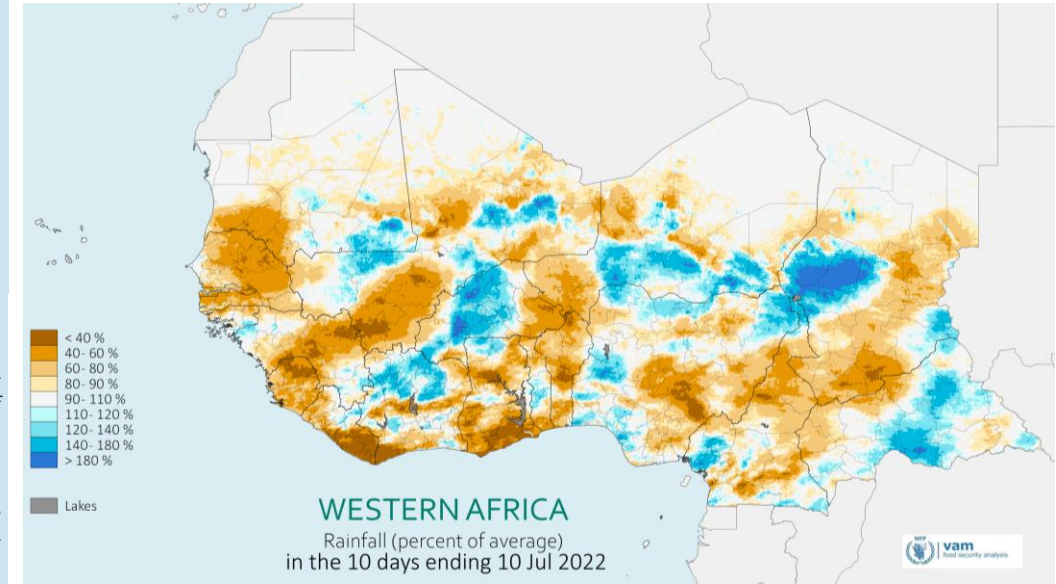


# Rainfall patterns: 1-10 July 2022



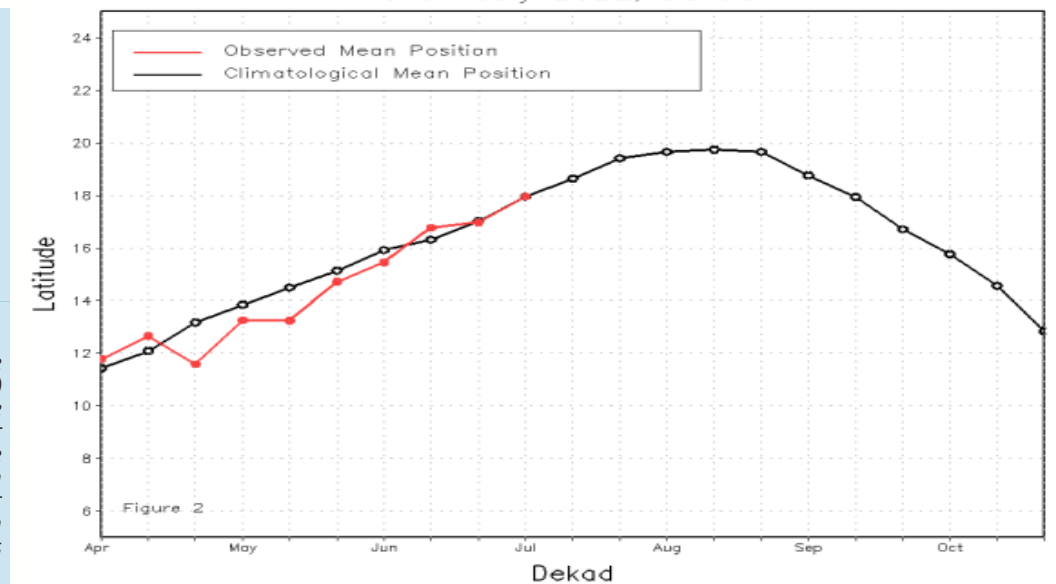
The map to the left shows the **total rainfall received** over the first dekade (10 days), based on CHIRPS satellite rainfall estimates. Areas highlighted in light green have received little rainfall, while areas in dark blue or pink have received moderate to intense rains.

The map to the right shows the **rainfall anomaly** over the first dekade, expressed in percentage of the long-term average, based on CHIRPS satellite rainfall estimates. Areas in light to dark brown have received below average rains, while areas in dark blue have experienced above normal rainfall over the past 10 days.



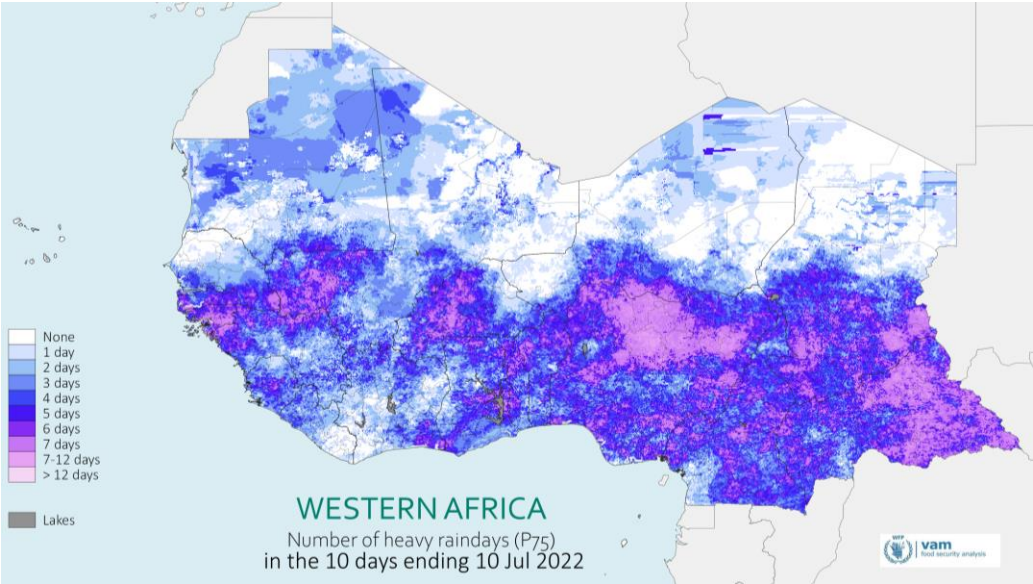
The map to the left shows the **Standard Precipitation Index (SPI)** for the first dekade, based on CHIRPS satellite rainfall estimates. This simultaneously shows the experience of wet conditions on one or more time scales, and dry conditions on other time scales. Blues - dark purple for wetter conditions, Yellow - Browns for drier conditions.

The graph to the right shows the **current ITCZ position** (red) compared to the long-term average (black). The ITCZ is the border between dry areas and areas where the rainy season is ongoing. Delays in the ITCZ progression lead to drier than normal conditions, while an above average ITCZ position is associated with above normal rains.



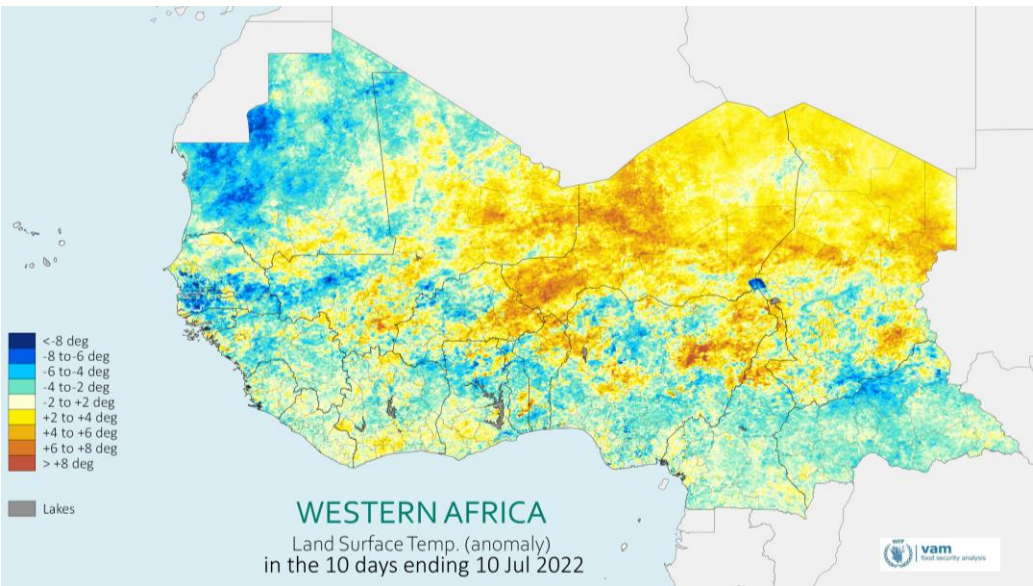
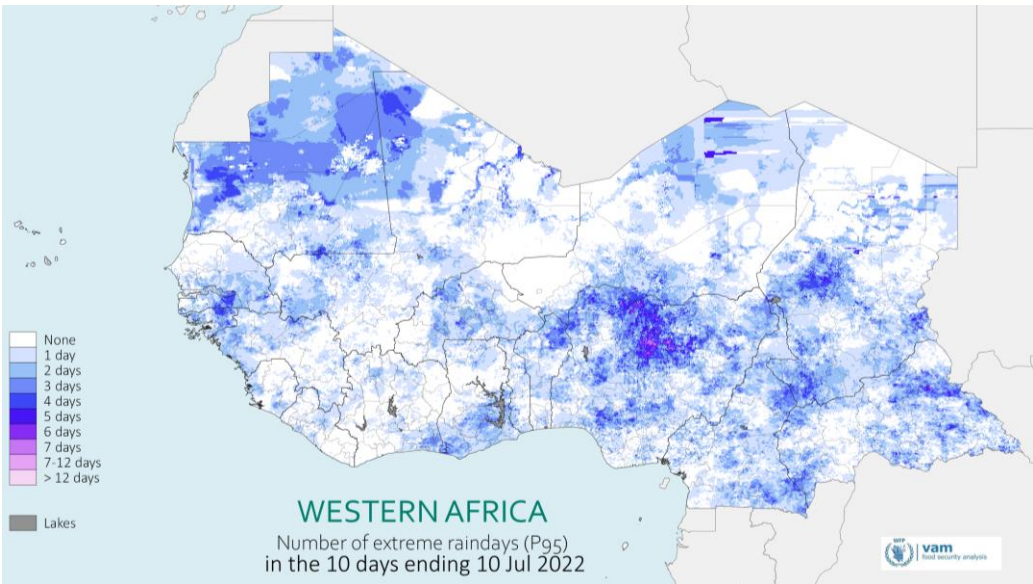


# Extreme rainfall & temperature: 1-10 July 2022



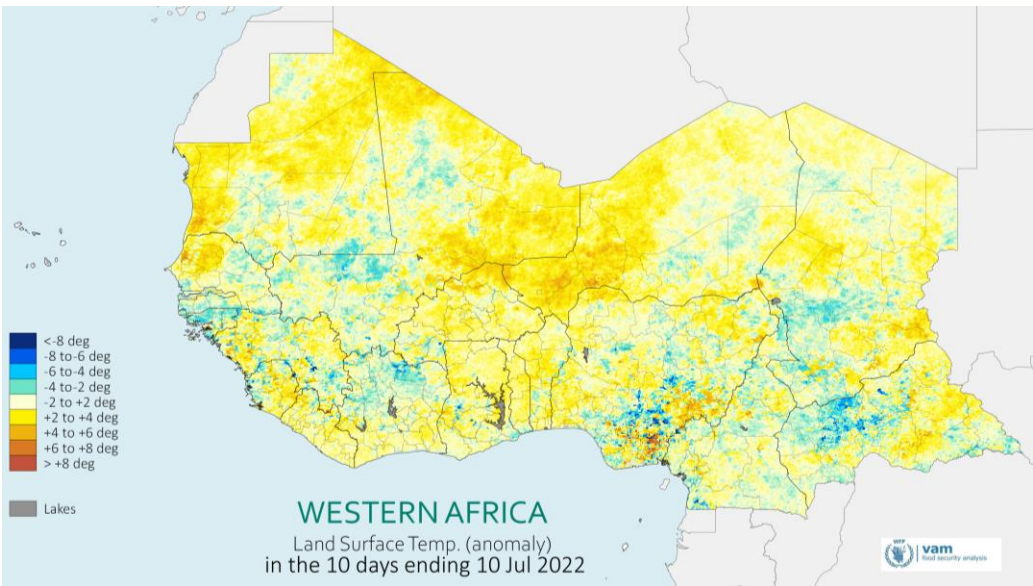
The map to the left shows the number of heavy raindays over the first dekad (10 days), based on CHIRPS satellite rainfall estimates. Areas highlighted in dark blue and purple have experienced a high number of intense raindays (defined as days with a 75<sup>th</sup> percentile of rain received) over the last 10 days.

The map to the right shows the number of extreme raindays over the first dekad (10 days), based on CHIRPS satellite rainfall estimates. Areas highlighted in dark blue and purple have experienced a high number of intense raindays (defined as days with a 95<sup>th</sup> percentile of rain received) over the last 10 days.



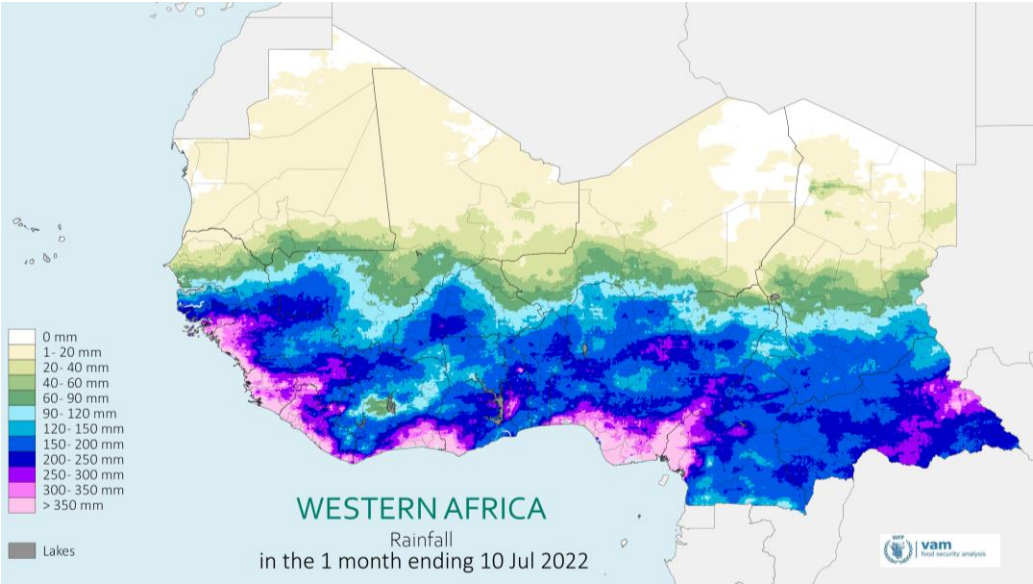
The map to the left shows the daytime land surface temperature anomaly for the first dekad. Areas in blue have experienced colder than normal temperatures, while the temperature in areas in yellow and brown were higher than normal over the last 10 days.

The map to the left shows the nighttime land surface temperature anomaly for the first dekad. Areas in blue have experienced colder than normal temperatures, while the temperature in areas in yellow and brown were higher than normal over the last 10 days.



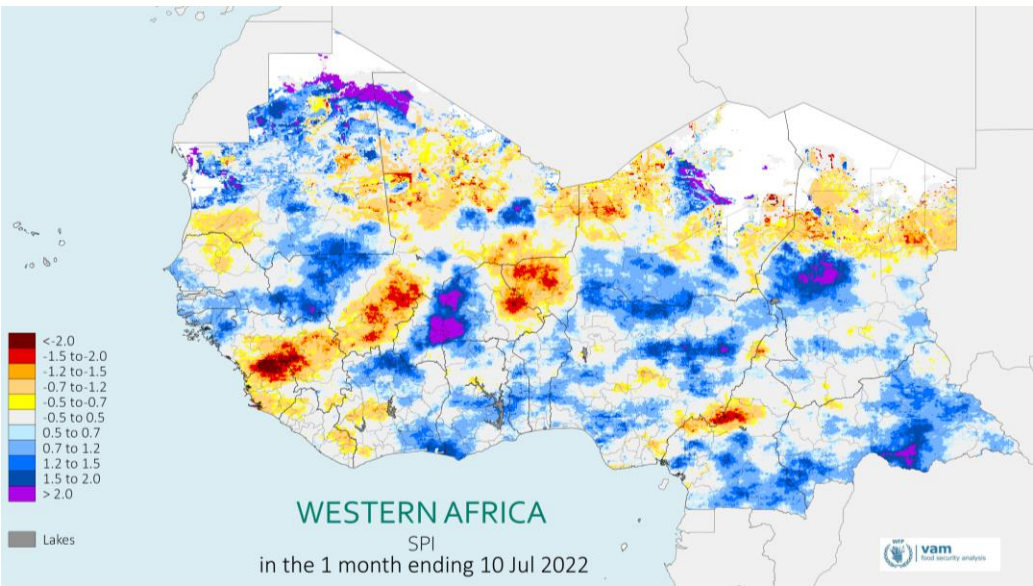
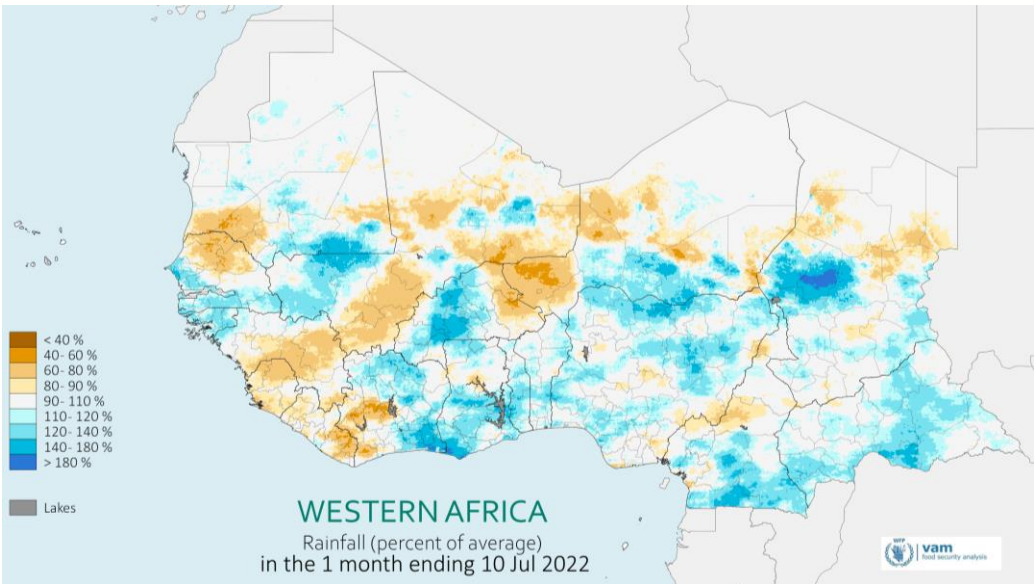


# Rainfall patterns: The last month



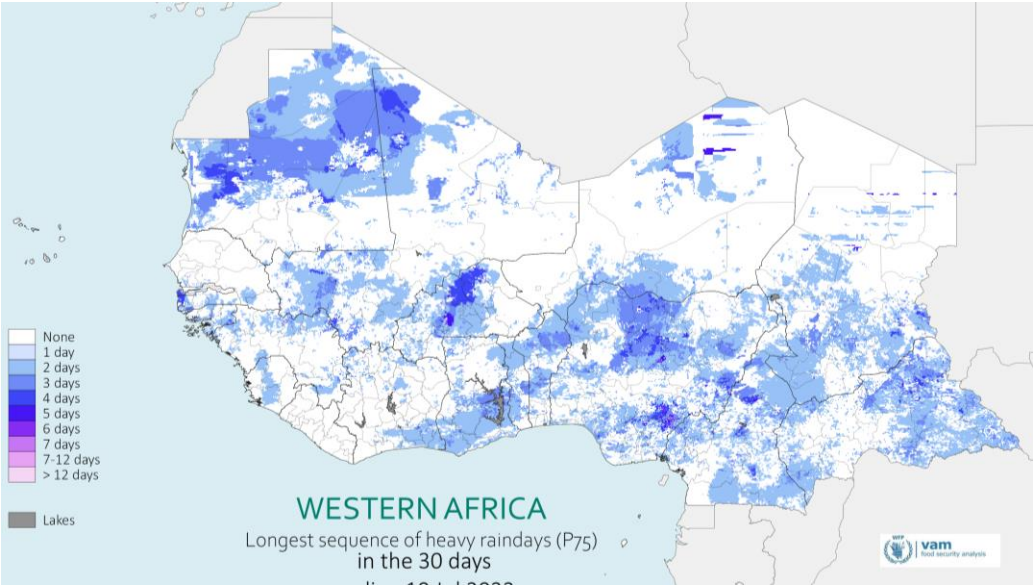
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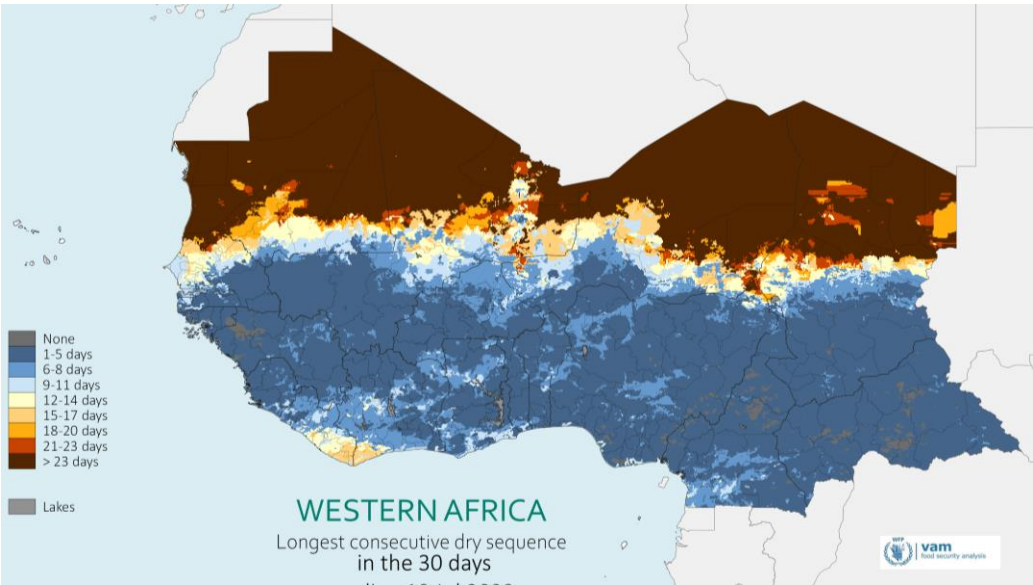
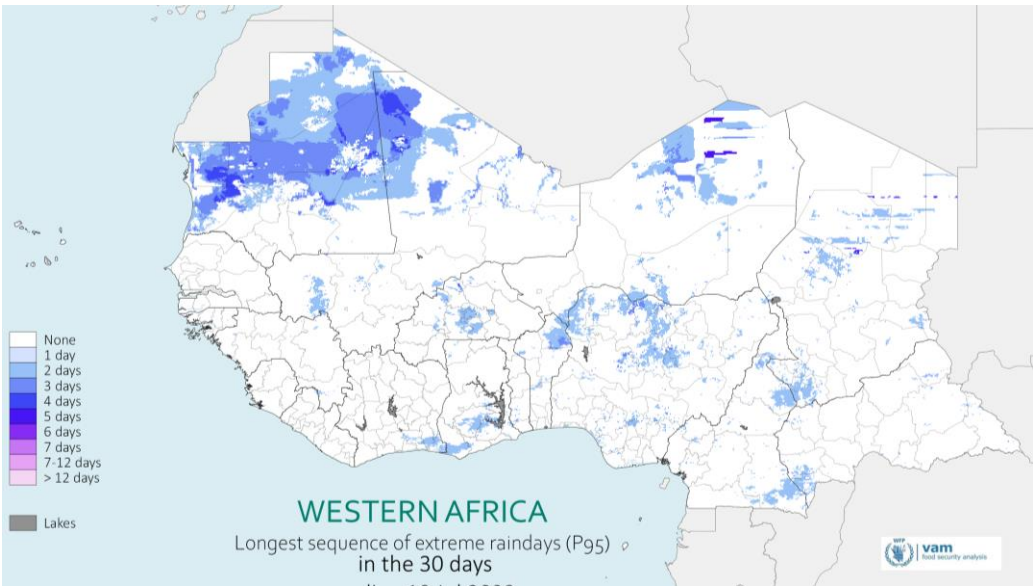
The map to the left shows the **Standard Precipitation Index (SPI)** for the last month, based on CHIRPS satellite rainfall estimates. This simultaneously shows the experience of wet conditions on one or more time scales, and dry conditions on other time scales. Blues - dark purple for wetter conditions, Yellow - Browns for drier conditions.

# Rainfall extremes and temporal distribution: The last month



The map to the left shows the **longest sequence of heavy raindays** over the past month, based on CHIRPS satellite rainfall estimates. Areas highlighted in dark blue and purple have experienced longer sequences of intense raindays (defined as days with a 75<sup>th</sup> percentile of rain received) over the last 30 days.

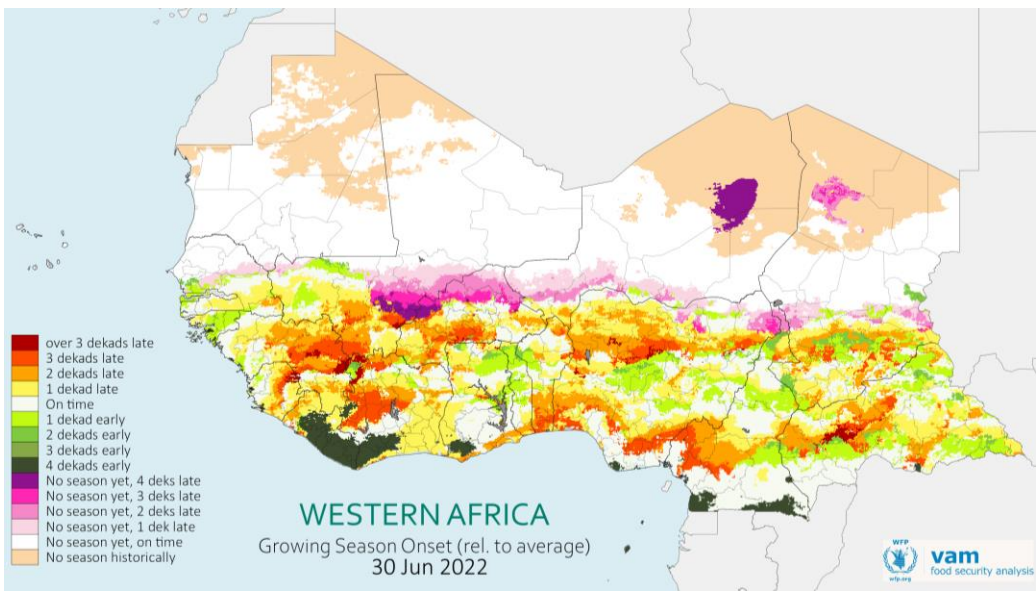
The map to the right shows the **longest sequence of extreme raindays** over the past month, based on CHIRPS satellite rainfall estimates. Areas highlighted in dark blue and purple have experienced longer sequences of intense raindays (defined as days with a 95<sup>th</sup> percentile of rain received) over the last 30 days.



The map to the right shows the **longest sequence dry sequence** over the past month, based on CHIRPS satellite rainfall estimates. Areas in blue have experienced shorter dry sequences, while areas in brown have experienced longer ones. Note that in some areas, this is linked to the fact that the season has not started yet.

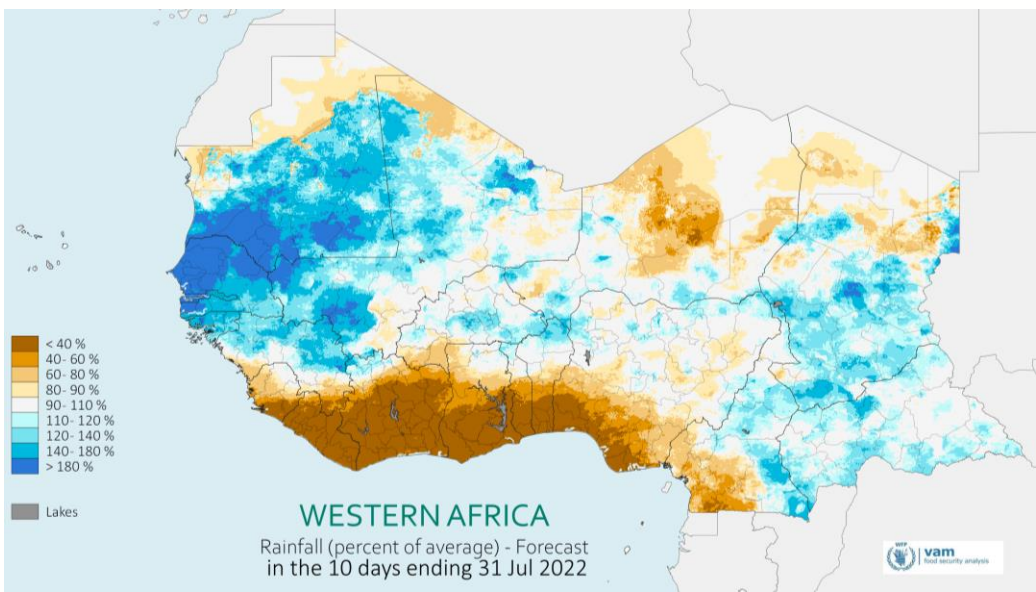
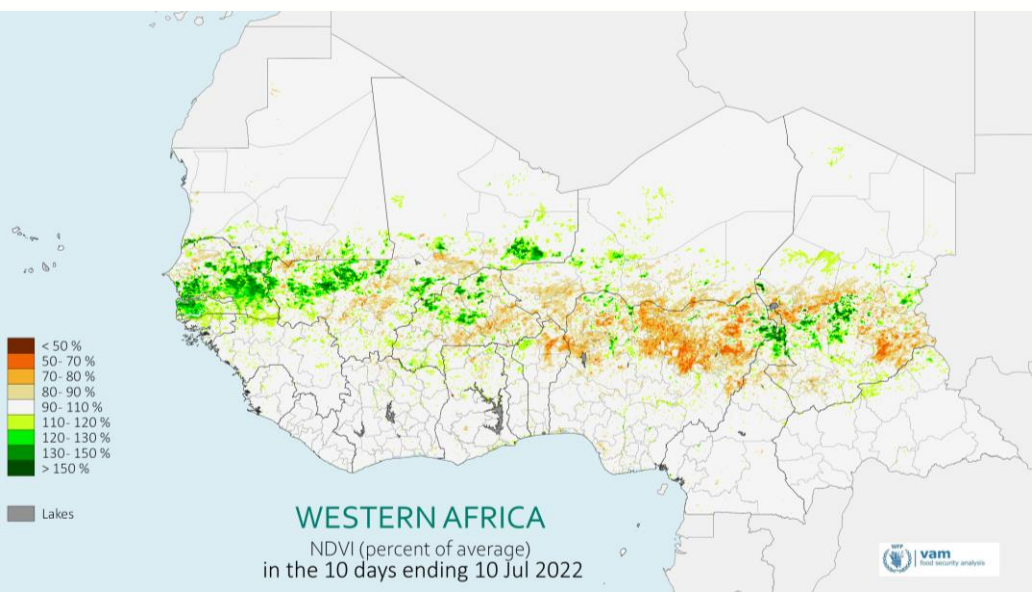


# The progression of the season so far & the short-term outlook



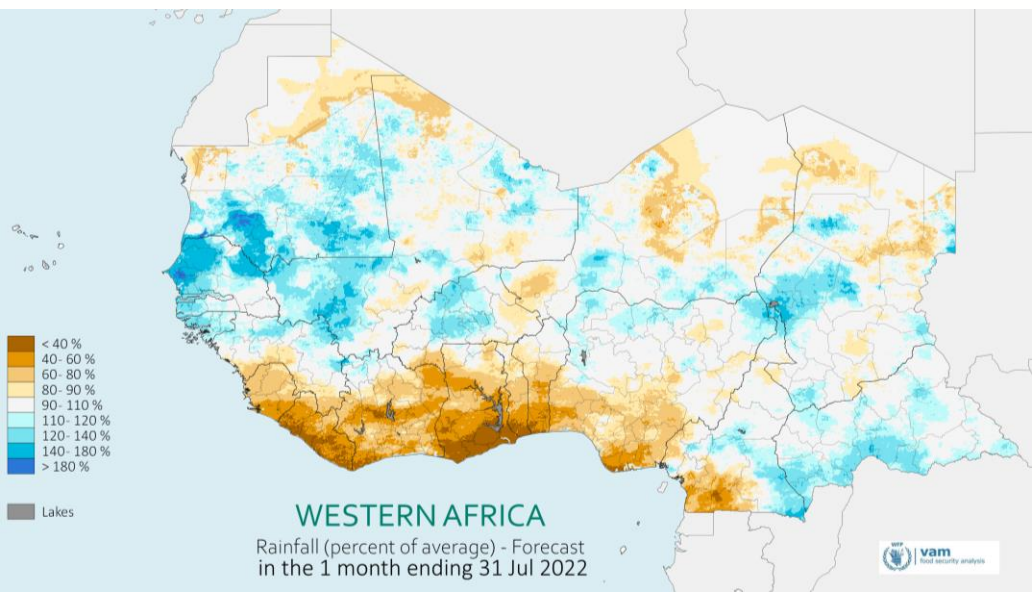
The map on the left shows the **start of the growing season anomaly**, using the vegetation phenological cycle to show the possible start of sowing activities. Areas with delays in the onset of growing season are highlighted in yellow and red, while areas where the season has started earlier than normal are presented in green.

The map on the right shows the vegetation anomaly as a percentage of the average, based on the MODIS NDVI. Green for above normal vegetation, yellows and browns for vegetation production deficit.



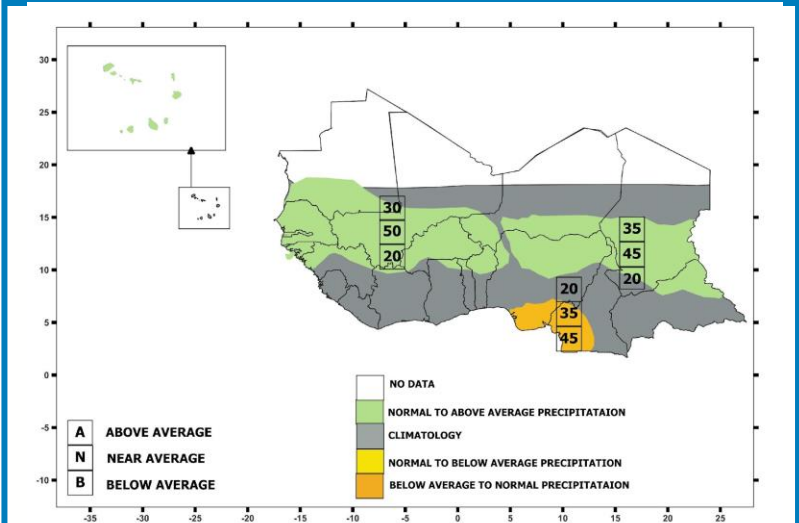
The map to the right shows the **short-range CHIRPS-GEFS forecasts** for the upcoming dekad, expressed in percentage of the long-term average. Blues for wetter than average conditions, browns for drier than average conditions.

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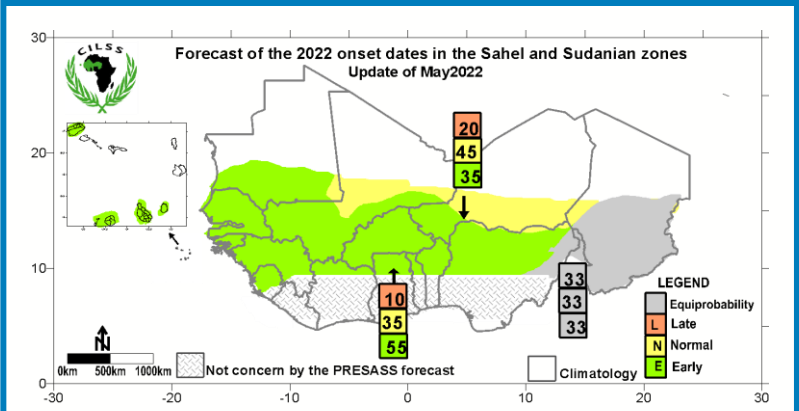
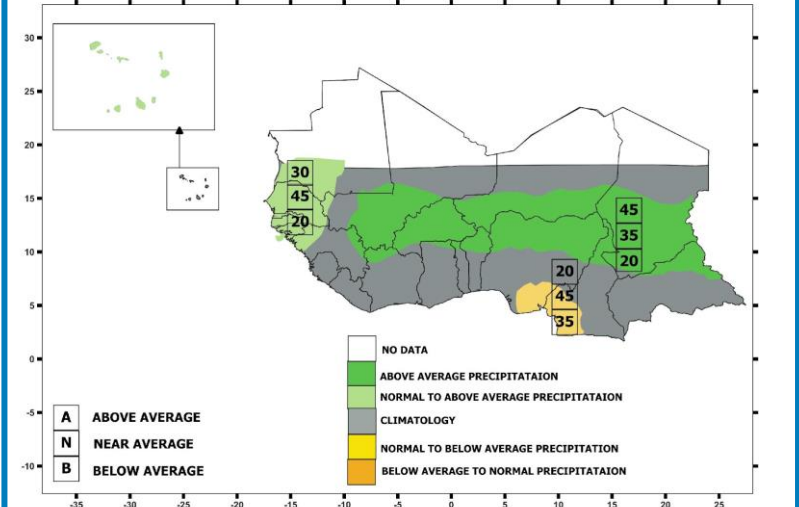


# The medium-term outlook: the May 2022 PRESASS seasonal forecast

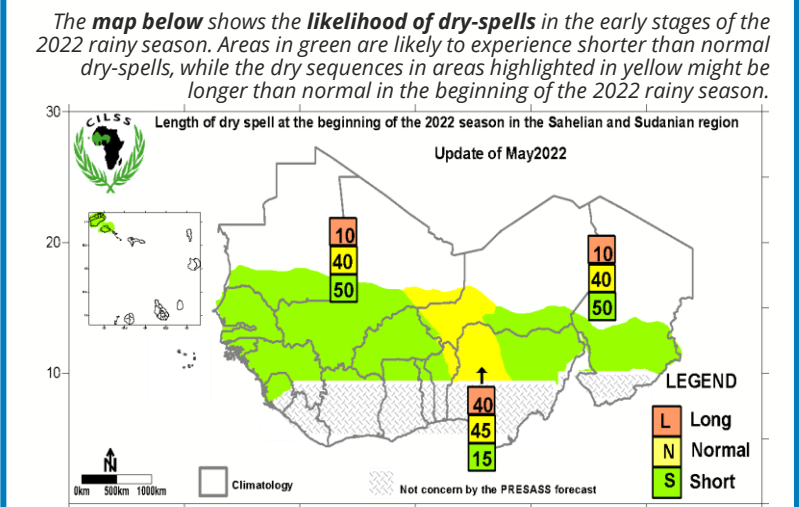
## Updated



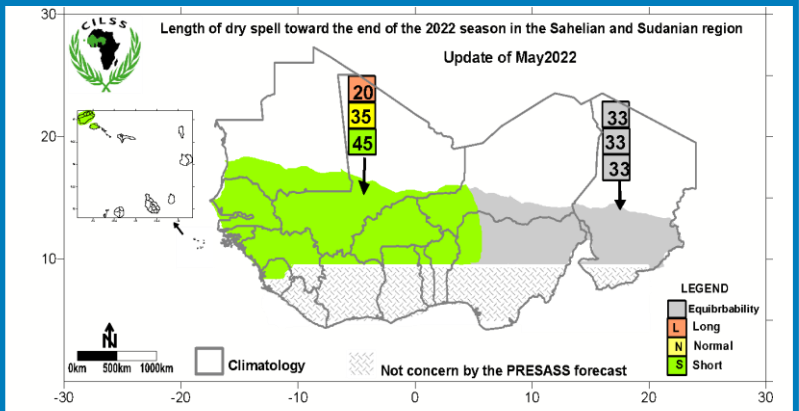
The map above shows the seasonal forecast for the Jun-Aug 2022 period, while the map below shows the forecast for the second part of the season (Jul-Sep). Areas in green are expected to receive above average rains, areas in yellow below normal rainfall.



The map above shows the forecast for the onset dates of the 2022 rainy season. Areas in green are likely to experience an early start of the season, while the start of season is expected to be normal in areas highlighted in grey.

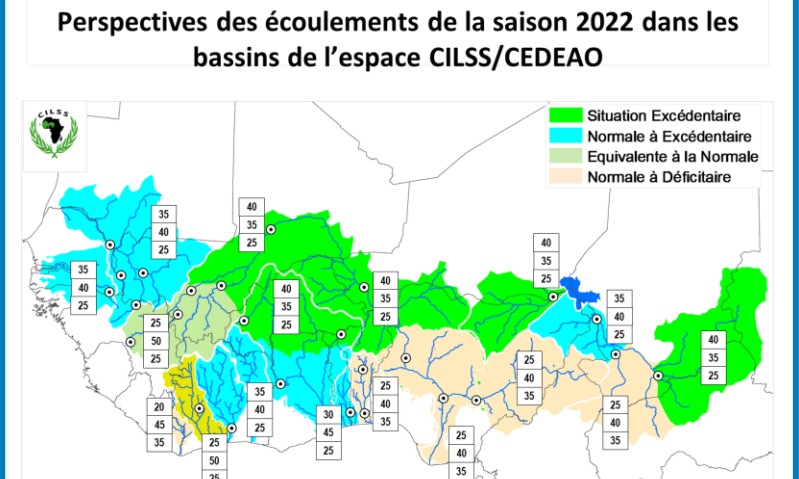


The map below shows the likelihood of dry-spells in the early stages of the 2022 rainy season. Areas in green are likely to experience shorter than normal dry-spells, while the dry sequences in areas highlighted in yellow might be longer than normal in the beginning of the 2022 rainy season.



The map above shows the likelihood of dry-spells in the latter stages of the 2022 rainy season. Areas in green are likely to experience shorter than normal dry-spells, while the dry sequences in areas highlighted in yellow might be longer than normal towards the end of the 2022 rainy season.

The map below shows the river basin levels expected in 2022. Green indicates above normal river levels, blue normal to above normal levels, grey normal levels and pink below normal river levels compared to the long-term average.

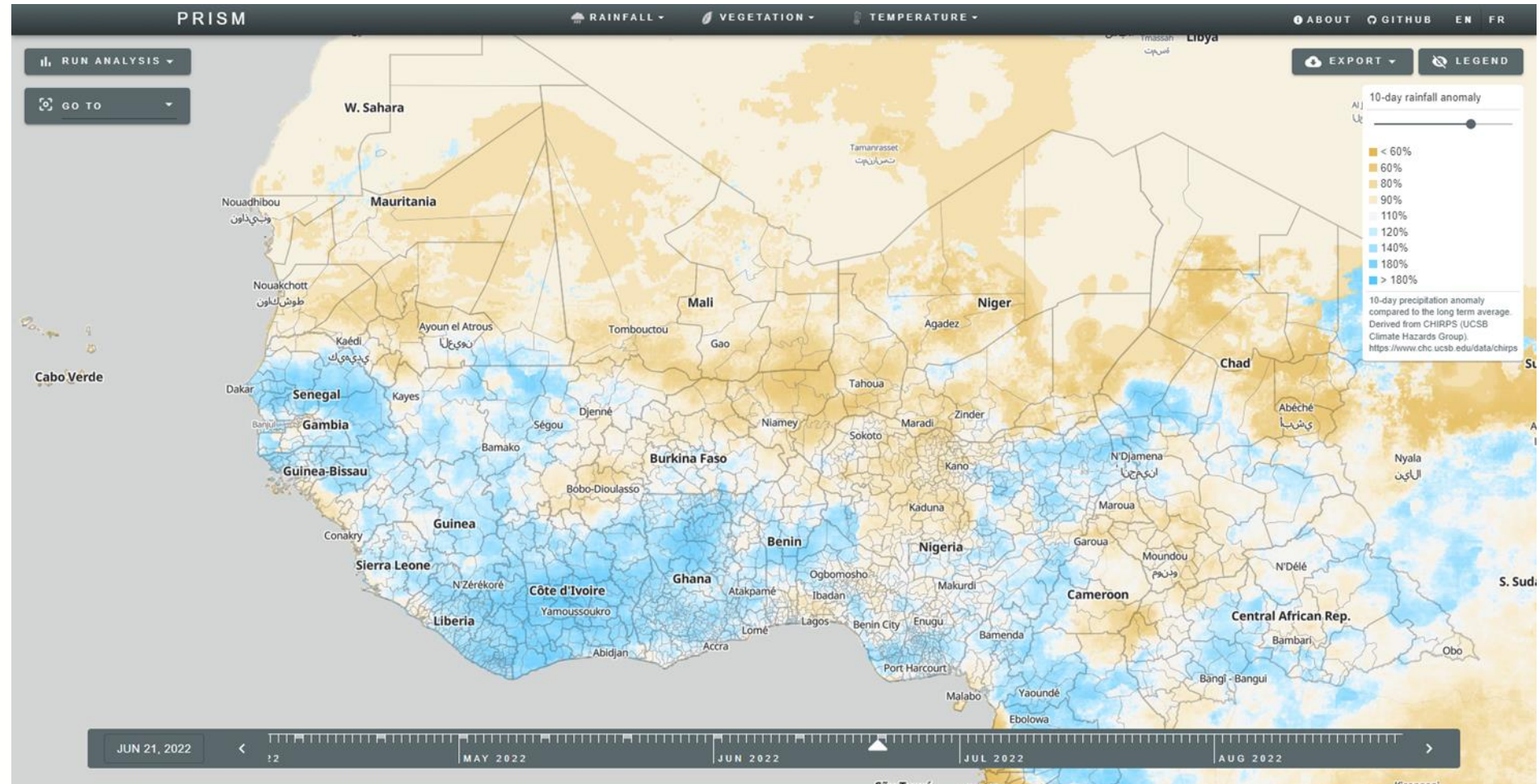




# The Platform for Real-time Impact and Situation Monitoring (PRISM)

RBD RAM is pleased to announce the launch of the **PRISM platform for West Africa**. In its first deployment phase, PRISM will allow users to visualise and download all key climate data used in this seasonal monitor. PRISM allows for near real-time monitoring of the progression of the rainy season, and to explore historical rainfall, vegetation and temperature data.

In the coming months, additional hazards such as conflicts, as well as vulnerability layers including the historical Cadre Harmonisé (CH) and Integrated Food Security Phase Classification (IPC) data will be incorporated into the platform. The integration of these layers will also allow users to run risk impact analyses. Further functionalities and impact analytics will be built into the platform in the future. RBD RAM will also explore the integration of external data generated by national and regional partners.



You can **access the RBD PRISM Platform** (internally and externally) by clicking on the map above, or through the following link: <https://prism.dakar.wfp.org/>.

For **more information on PRISM**, please visit this website: <https://innovation.wfp.org/project/prism>. For any specific enquiries about RBD RAM's Geospatial Analysis workstream and the roll-out of the PRISM Platform in West Africa, please contact the RBD RAM Team ([rbd.ram@wfp.org](mailto:rbd.ram@wfp.org)).



**Data sources:**

Rainfall: CHIRPS, Climate Hazards Group, UCSB  
Vegetation: MODIS NDVI, ESODIS-NASA

**Data Processing:**

RAM software components, ArcGIS, QGIS

**For further information:**

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