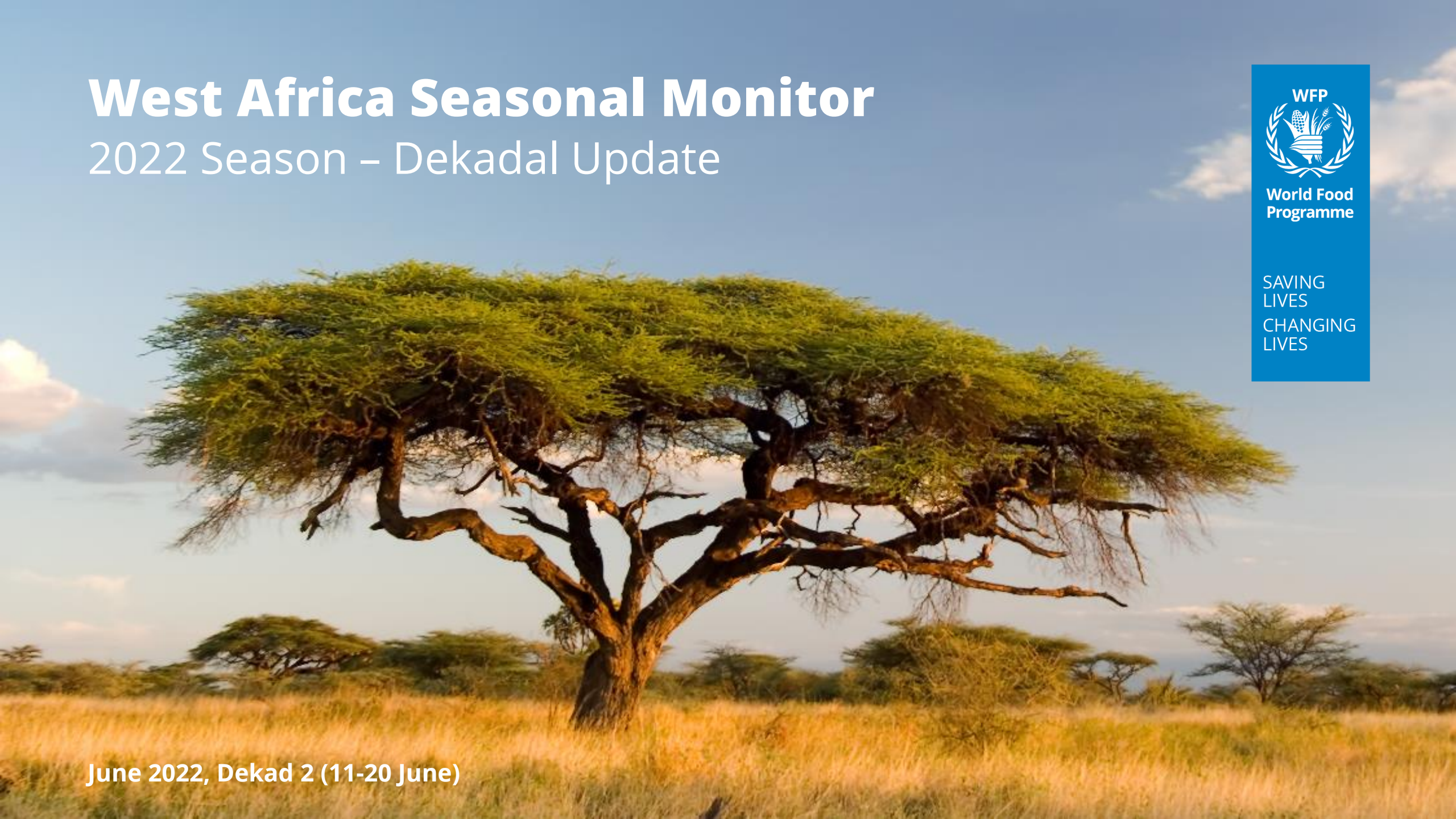
West Africa Seasonal Monitor

2022 Season – Dekadal Update



World Food Programme

SAVING LIVES
CHANGING LIVES

June 2022, Dekad 2 (11-20 June)

Key Highlights

- During the first two dekads of June seasonal rainfall moved further northwards of West Africa Region reaching the Sahel. The heaviest rainfall totals were recorded in southern areas over southern Chad, CAR, Nigeria, Benin, Togo, Ghana, Cote d'Ivoire, Liberia, Guinea and western Mali. In the southern Sahel moderate seasonal rainfall (up to 50 mm and above) was recorded over southern Senegal, central Mali, Burkina Faso, southern Niger and central Chad while areas further north received little to no rains.
- Since the second dekad of June monsoon conditions are favourable for seasonal rainfall, leading normal to above normal rains in the western parts of the region (Senegal, Mali, Guinea, as well as north-eastern Burkina Faso, western Niger, Sierra Leone, Liberia, southern Chad and CAR).
- According to the short range forecast favorable conditions are expected in the western parts of the region with well above average conditions in Senegal, Mauritania, western Niger while the rest of the Sahel will be likely experience below average seasonal rainfall in late June and early 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.

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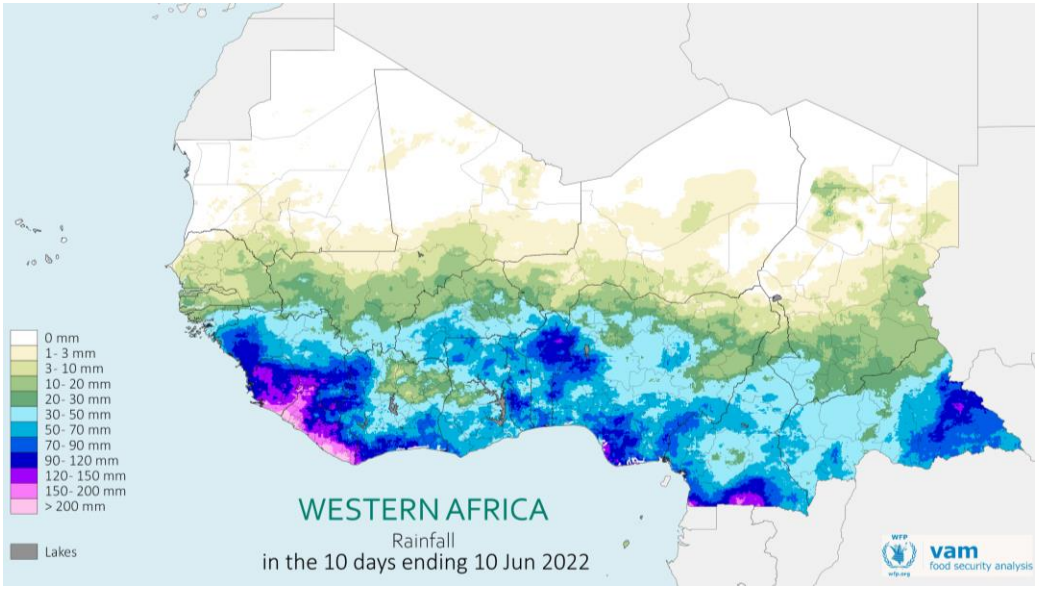
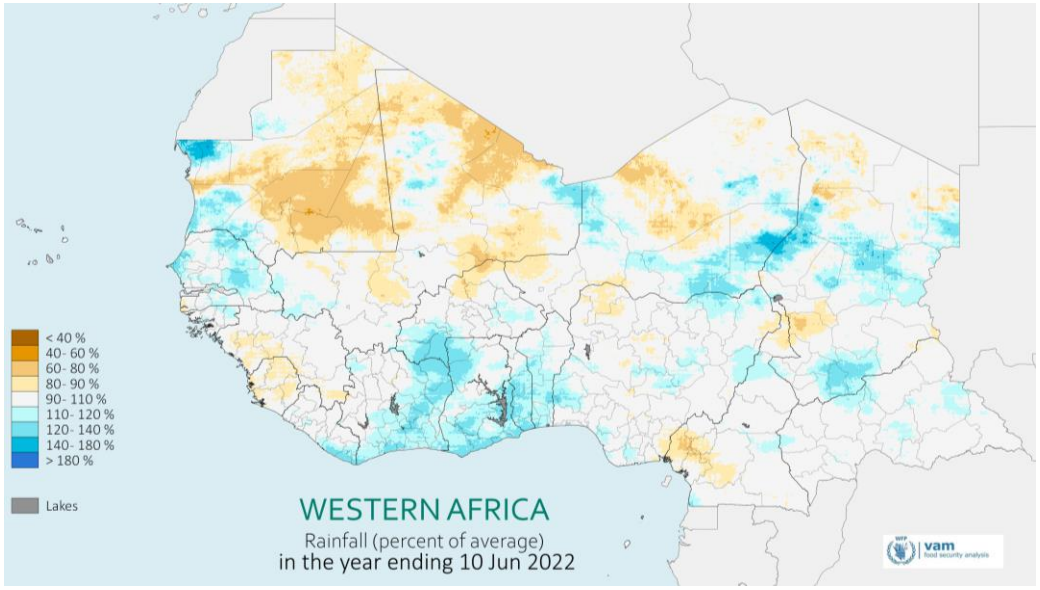
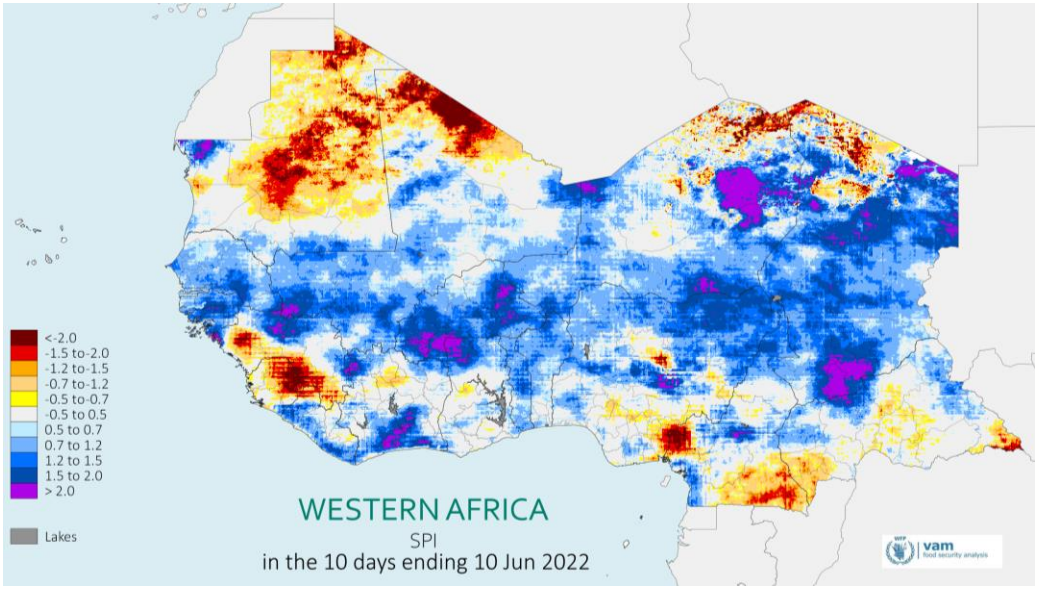
Rainfall patterns: 1-10 June 2022



*The **map to the left** shows the **total rainfall received** over the first dekad (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.*

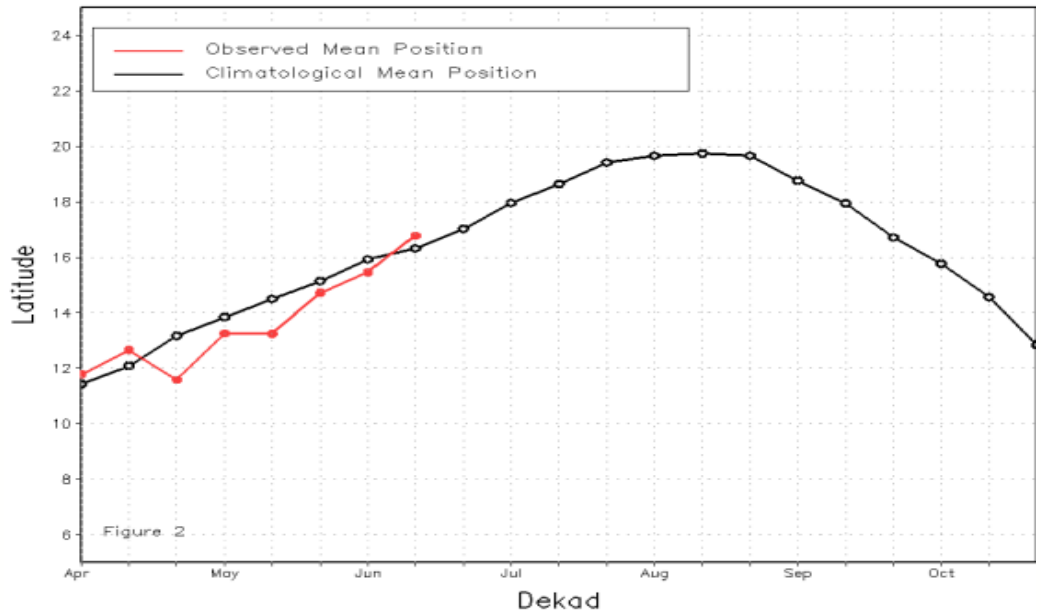
*The **map to the right** shows the **rainfall anomaly** over the first dekad, expressed in percentage of the long-term average, based on CHIRPS satellite rainfall estimates. Areas in light to dark brown have received below average rains, while areas in dark blue have experienced above normal rainfall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



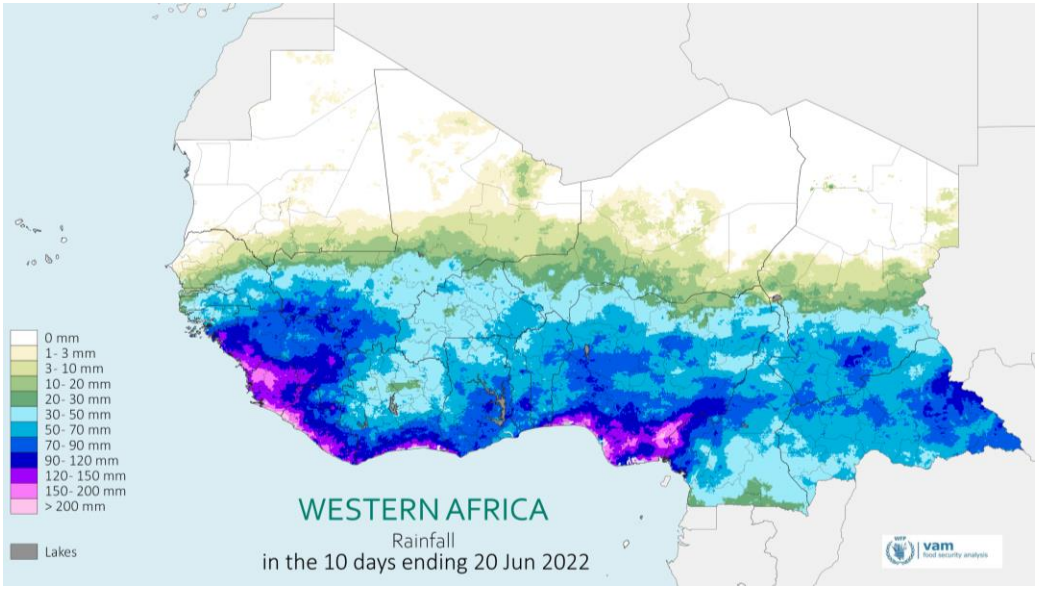


*The **map to the left** shows the **Standard Precipitation Index (SPI)** for the first dekad, based on CHIRPS satellite rainfall estimates. This simultaneously shows the experience of wet conditions on one or more time scales, and dry conditions on other time scales. Blues - dark purple for wetter conditions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



Rainfall patterns: The last dekad (11 – 20 June 2022)



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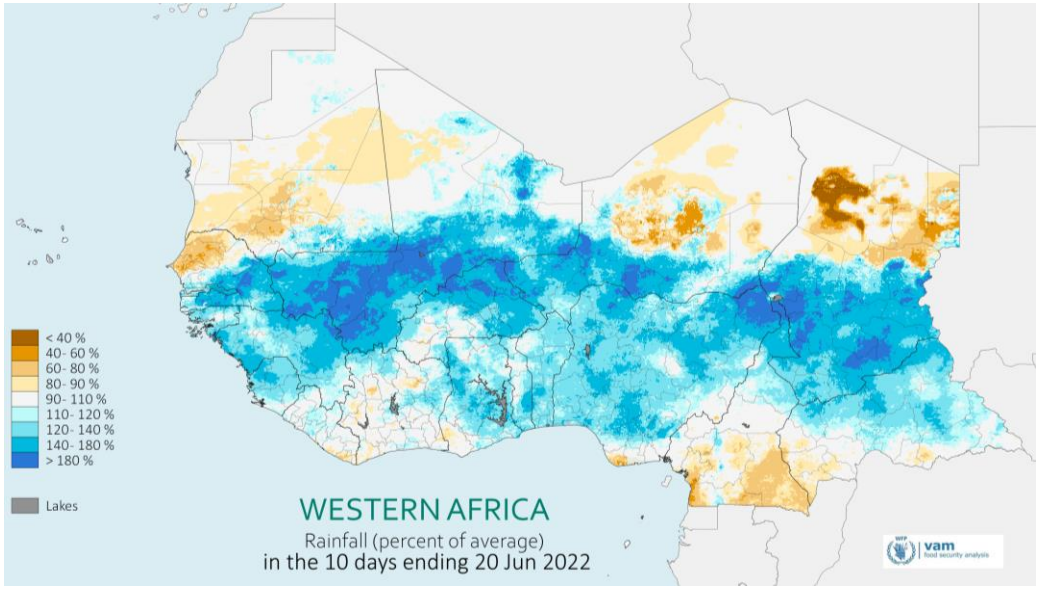

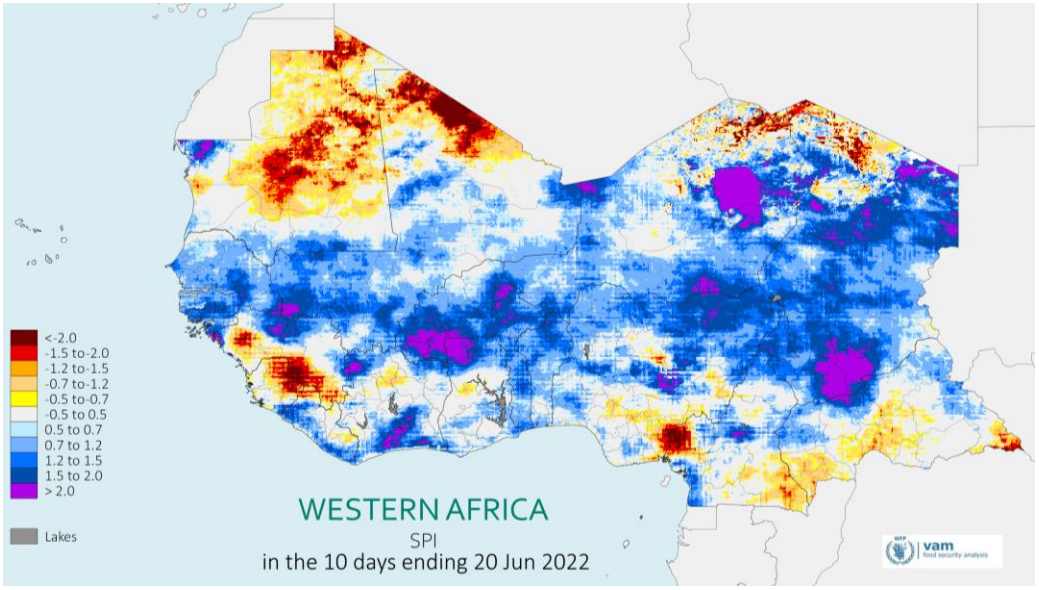

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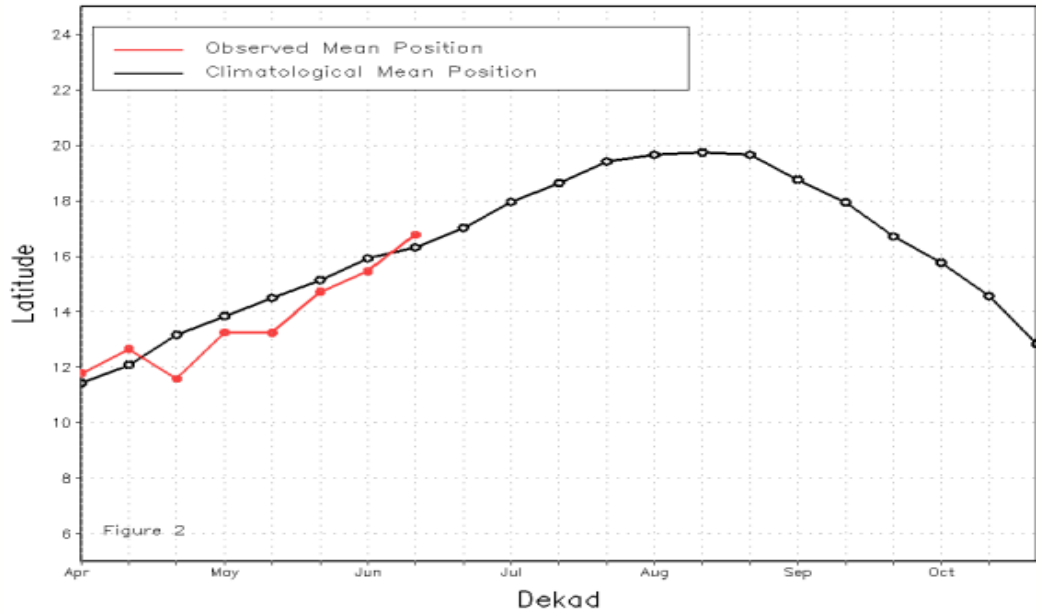
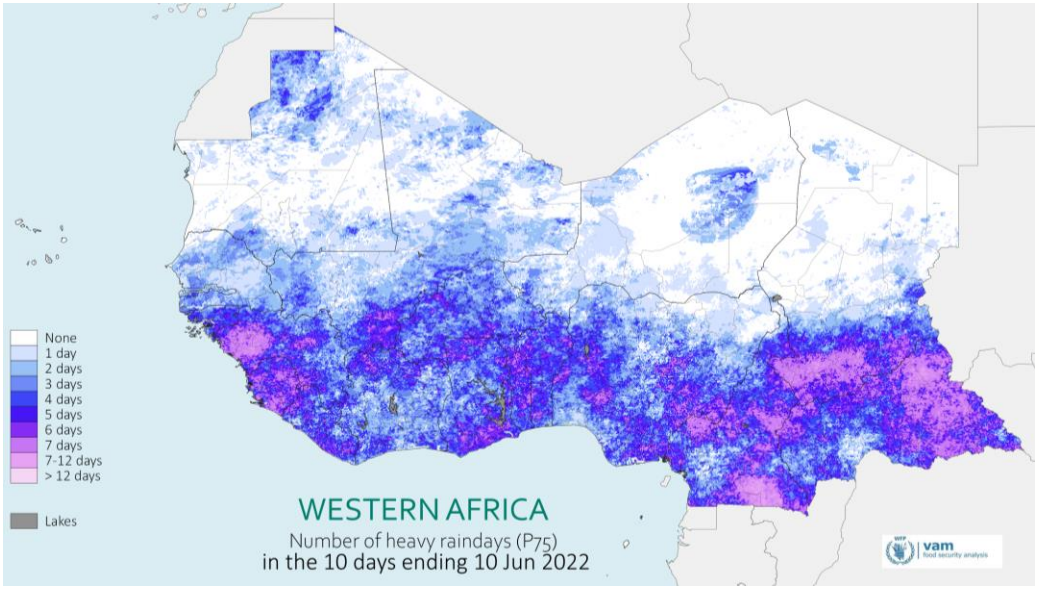
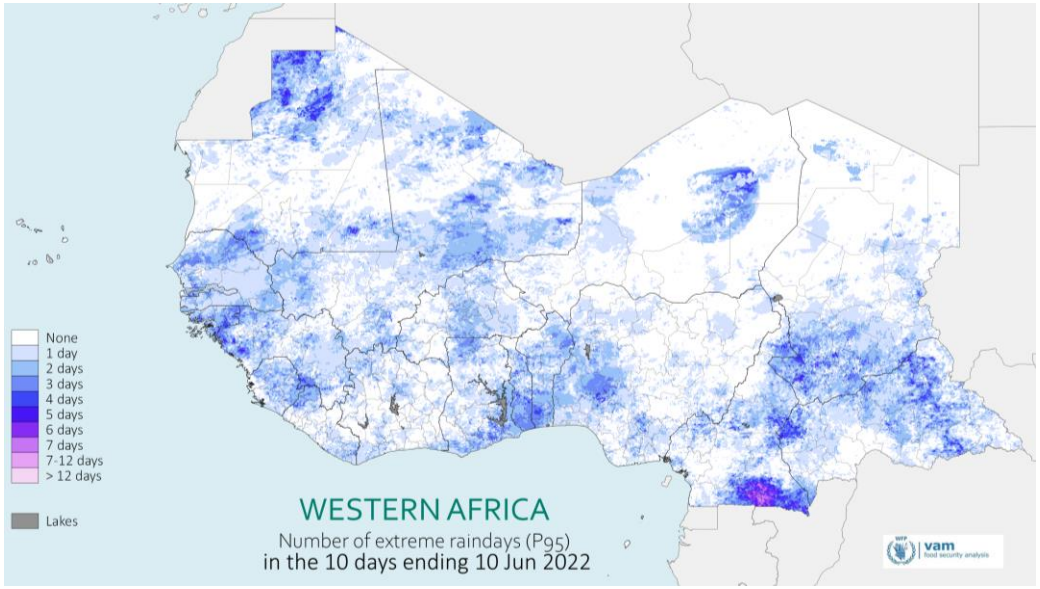


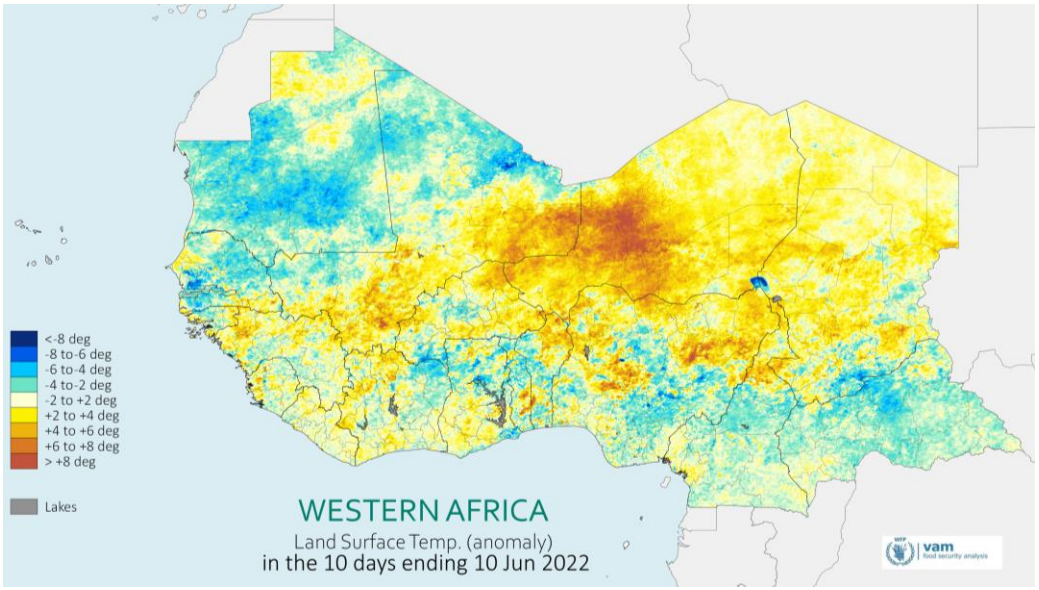
Extreme rainfall & temperature: 1-10 June 2022



*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 75th 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 95th 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.*

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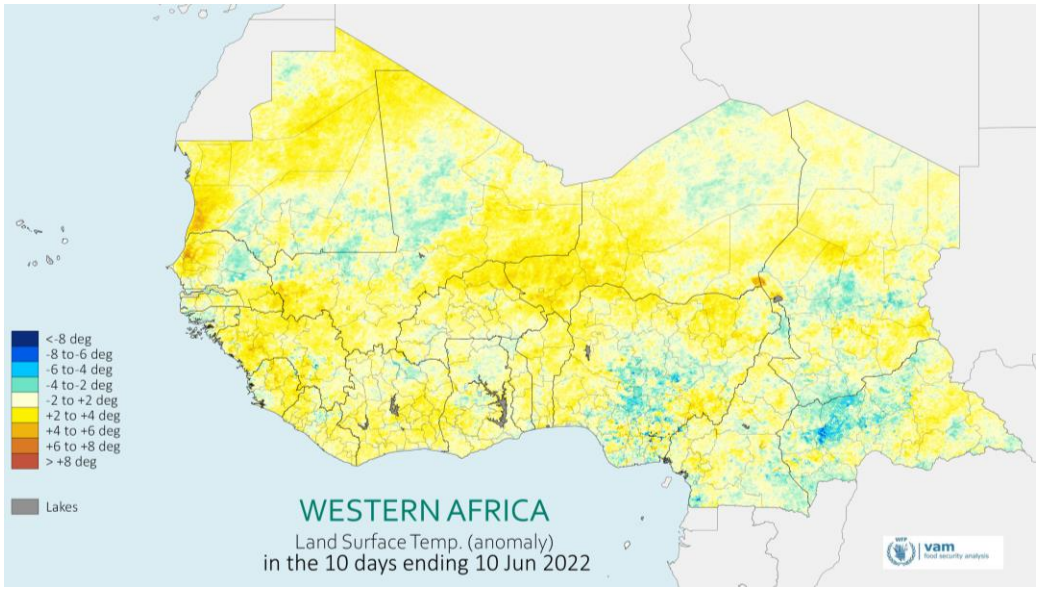

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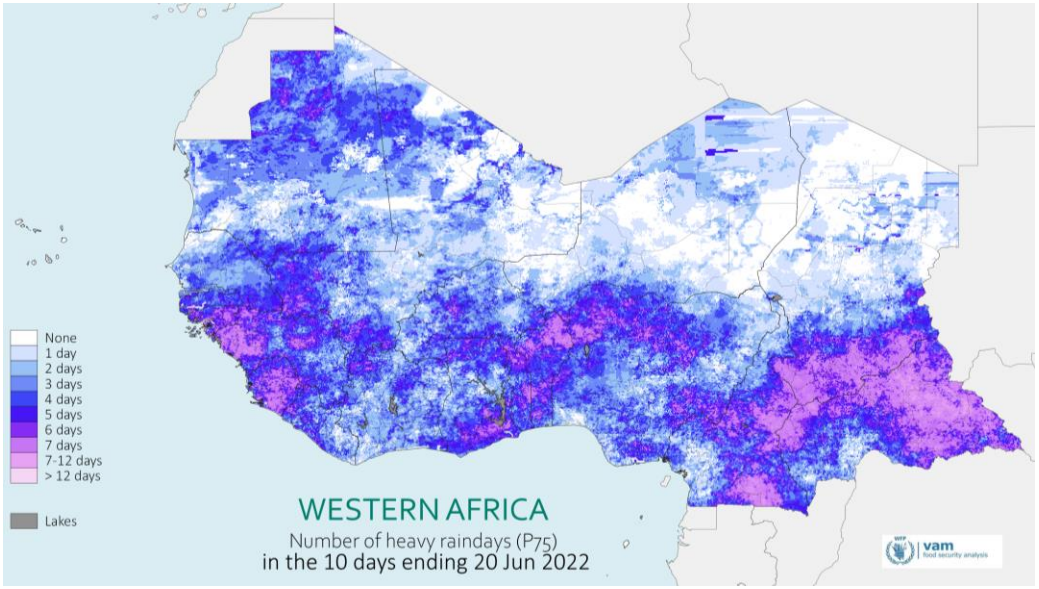

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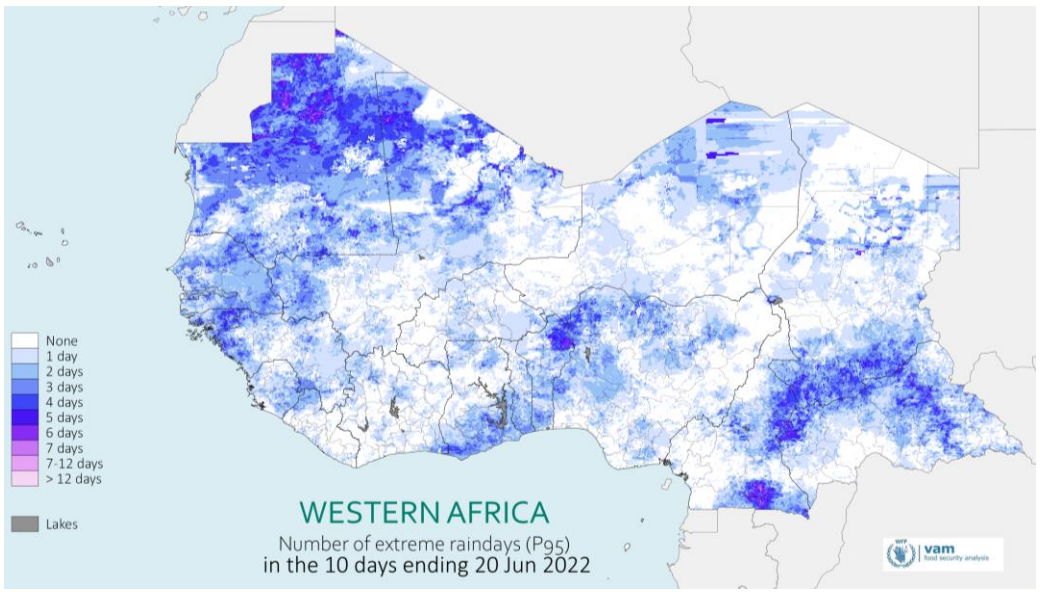

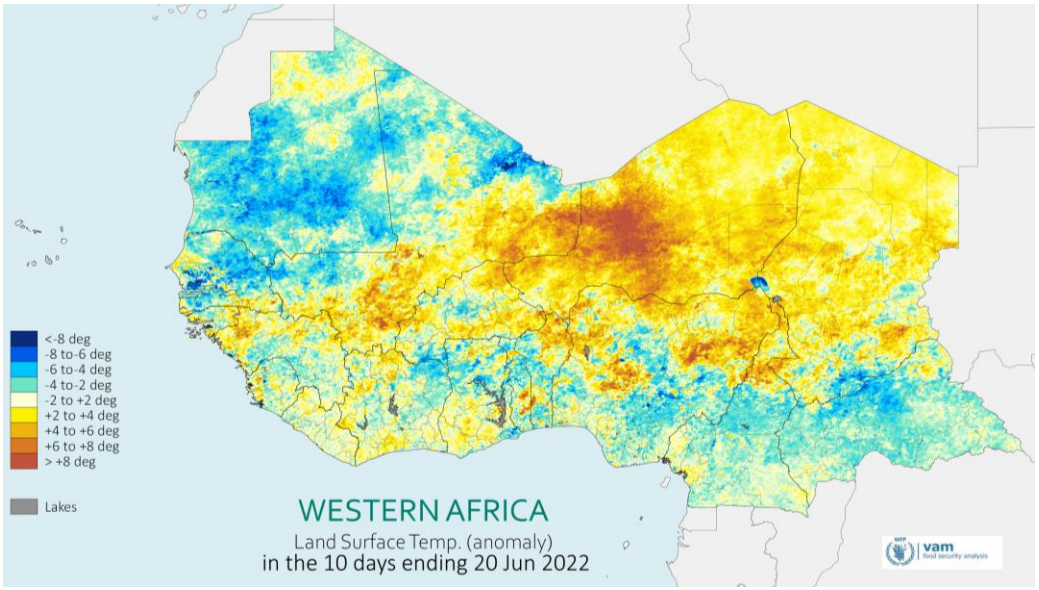

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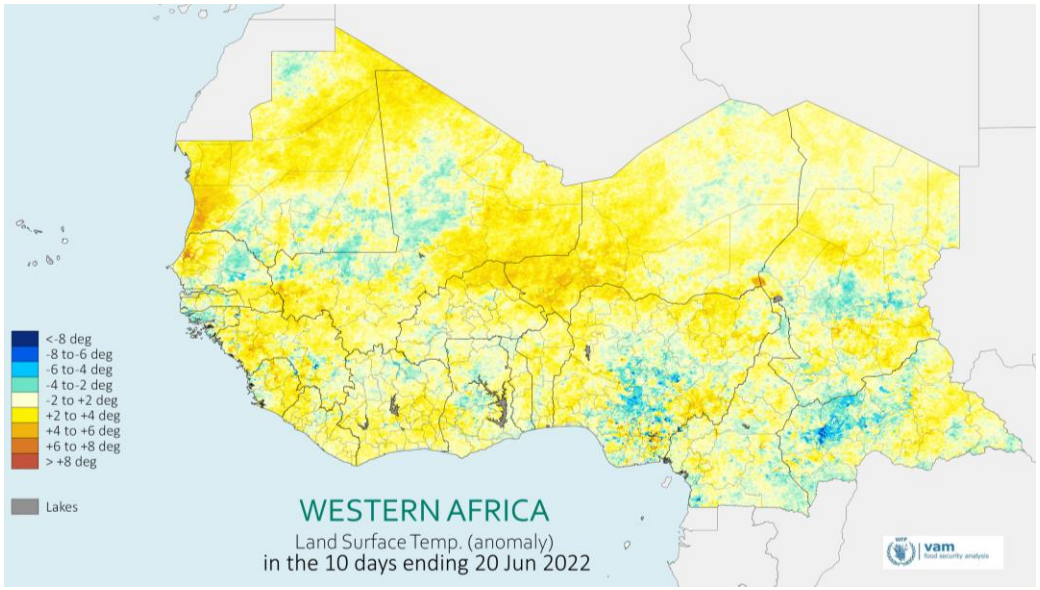
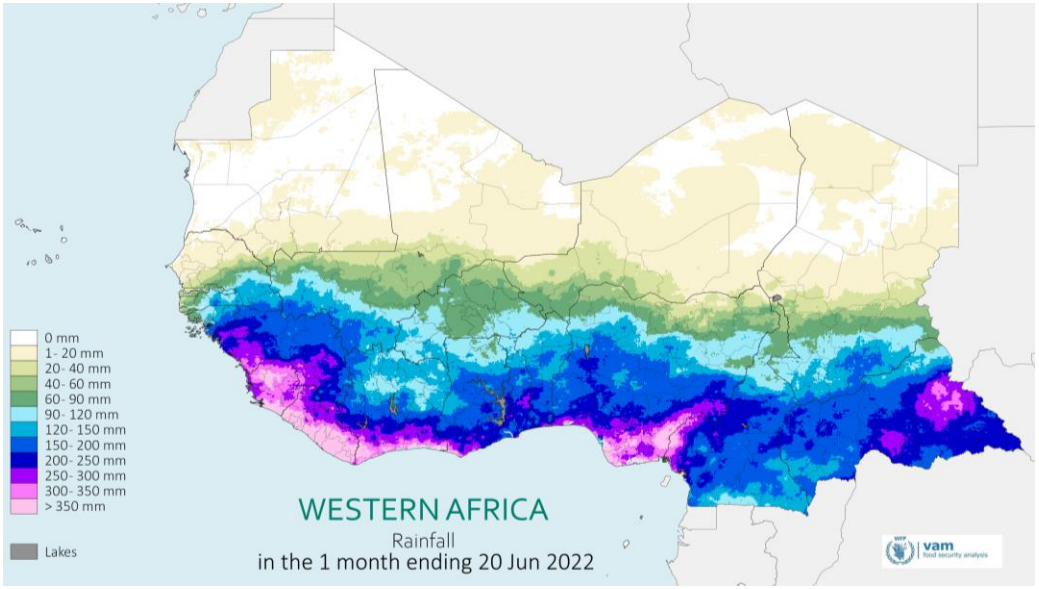


Rainfall patterns: The last month



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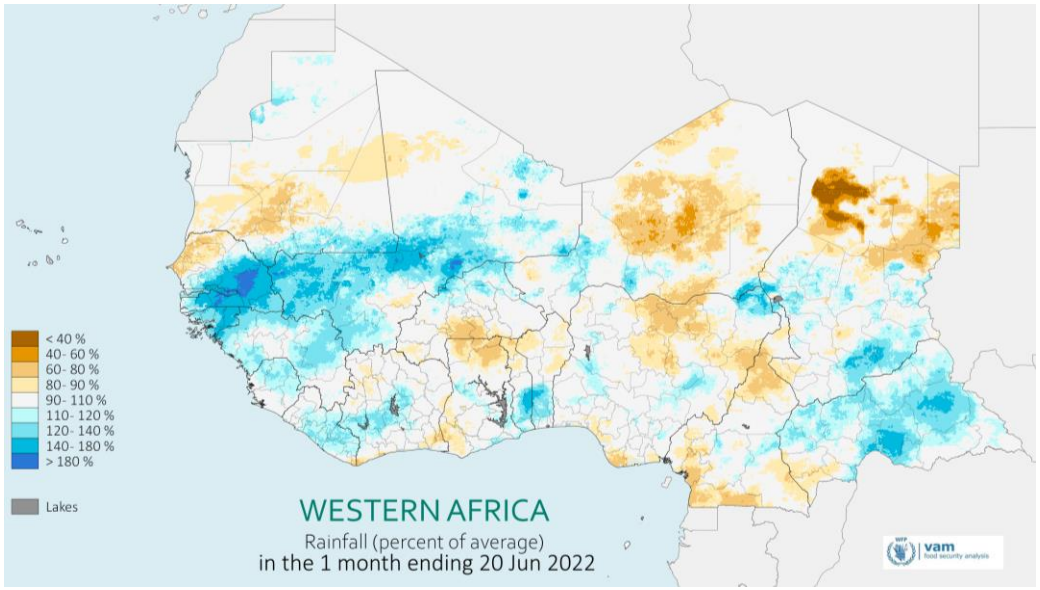

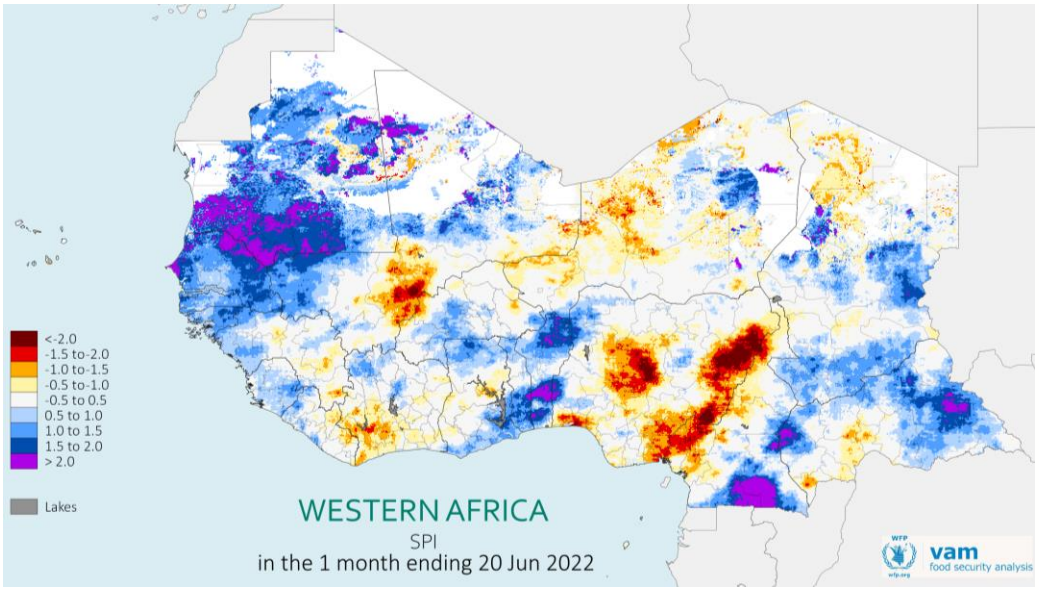

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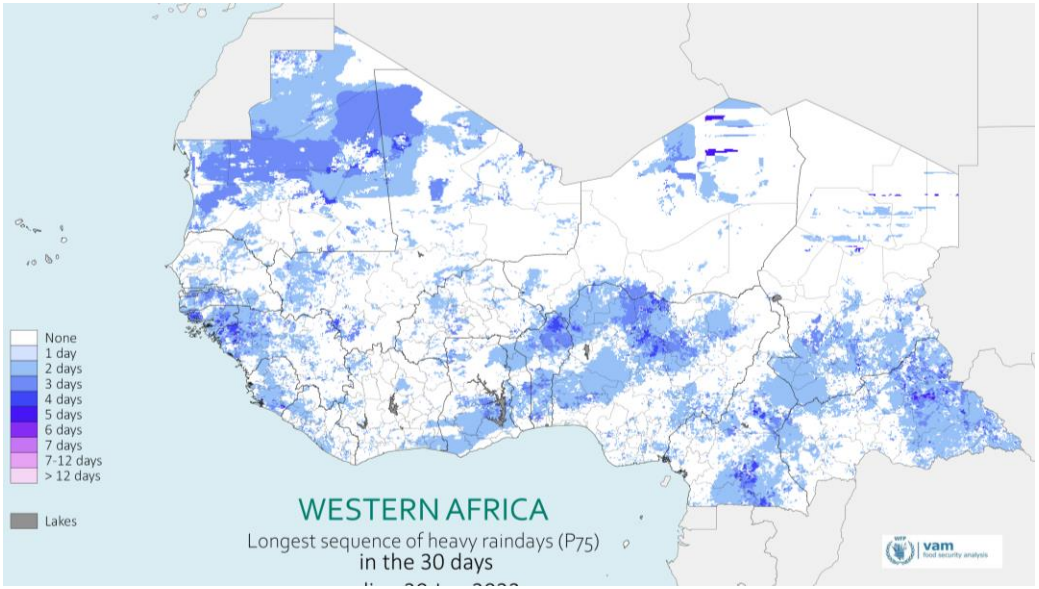
Rainfall extremes and temporal distribution: The last month



*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 75th percentile of rain received) over the last 30 days.*

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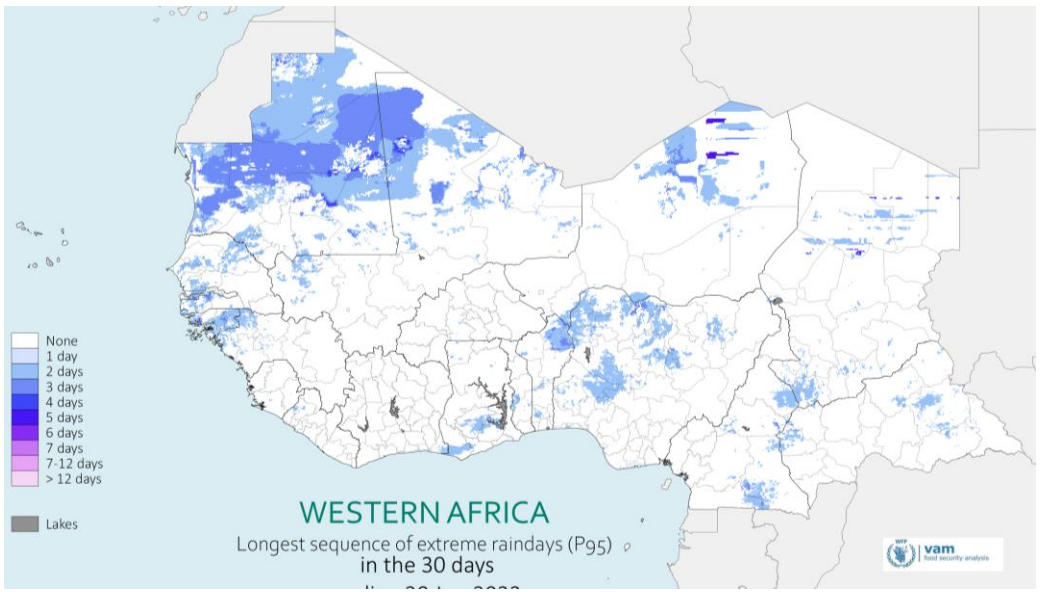
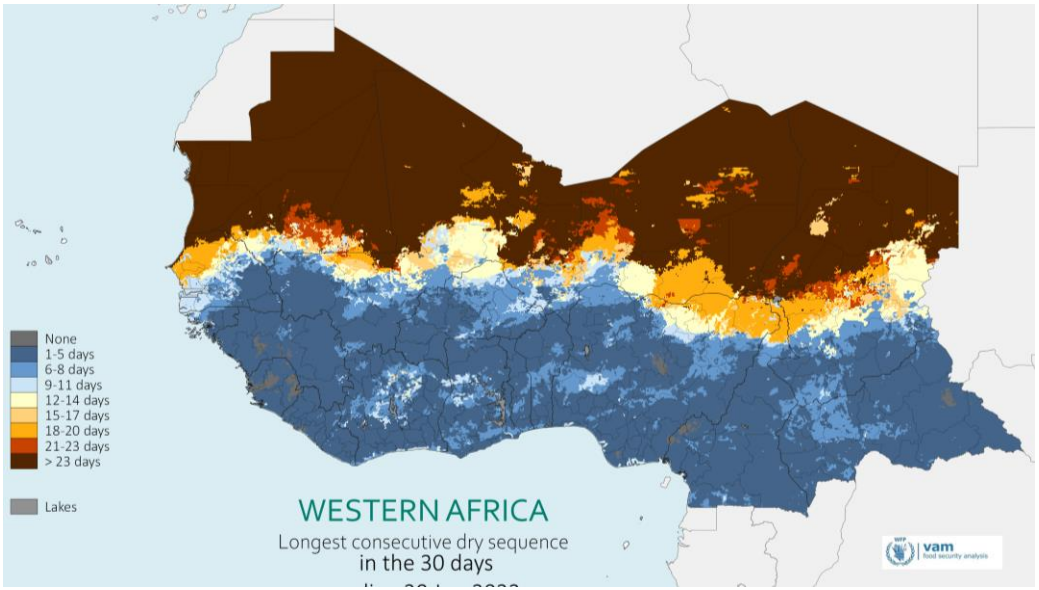
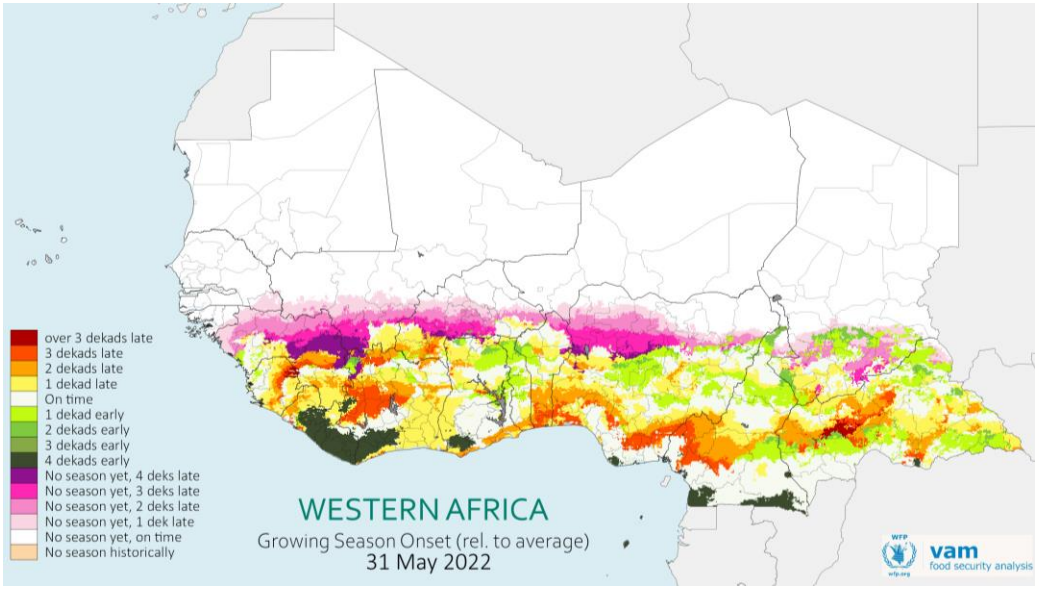




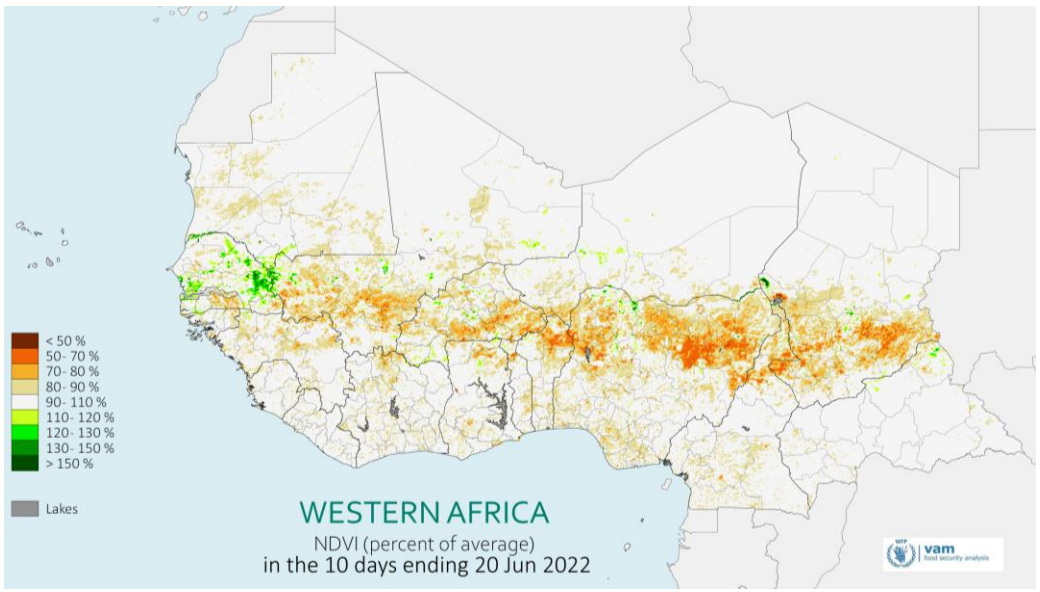
*The **map to the right** shows the **longest sequence dry sequence** over the past month, based on CHIRPS satellite rainfall estimates. Araes in blue have experienced shorter dry sequences, while areas in brown have experienced longer ones. Note that in some areas, this is linked to the fact that the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

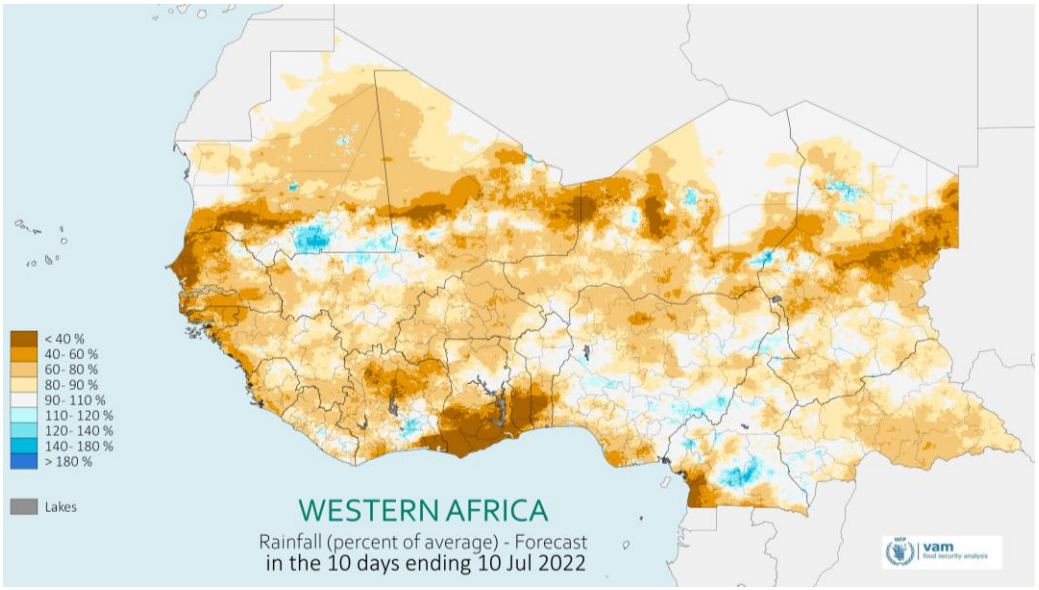
The progression of the season so far & the short-term outlook



*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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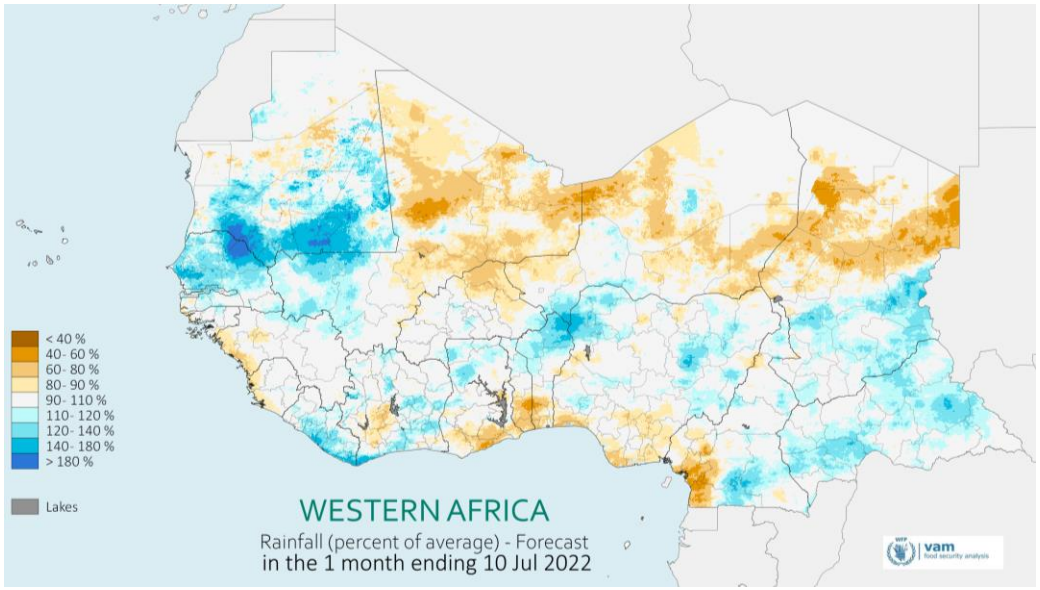
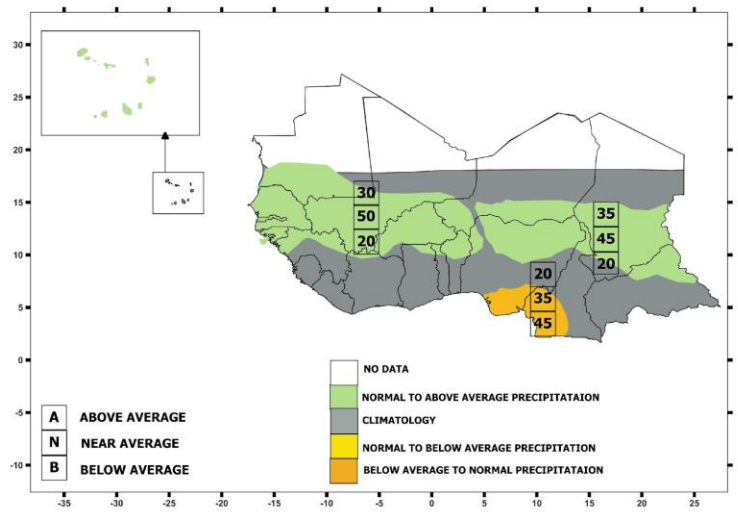
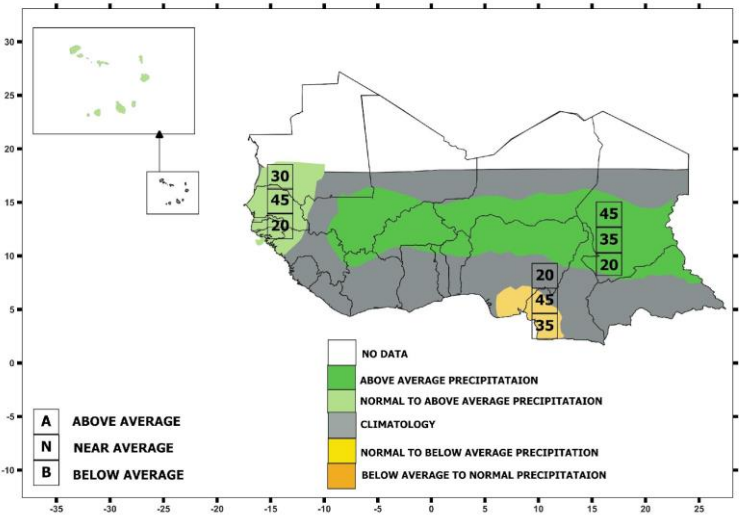
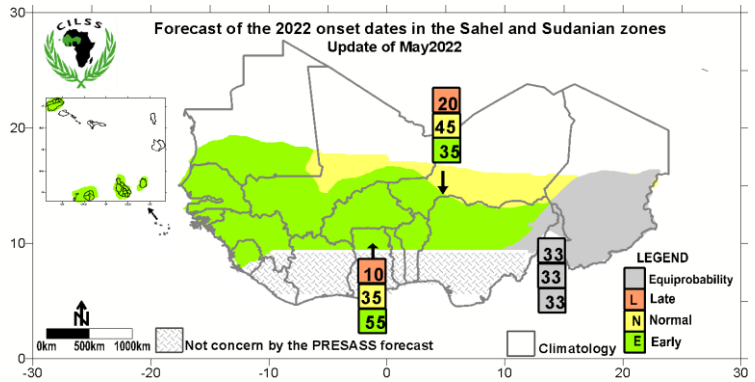


The medium-term outlook: the May 2022 PRESASS seasonal forecast Updated



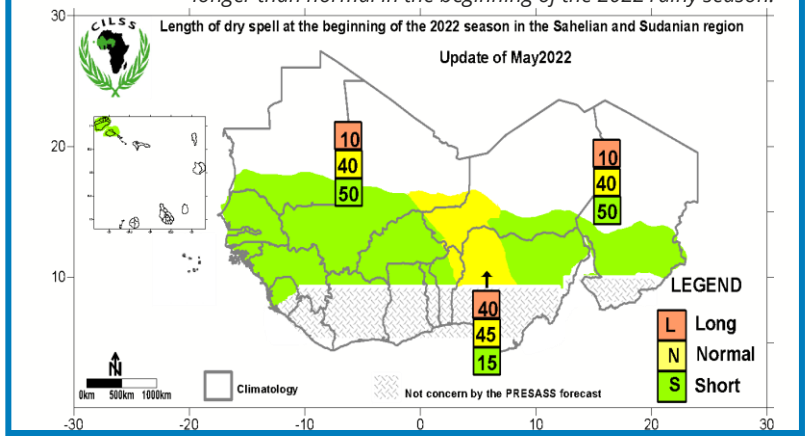
*The **map above** shows the **seasonal forecast for the Jun-Aug 2022 period**, while the **map below** shows the **forecast for the second part of the season** (Jul-Sep). Areas in green are expected to receive above average rains, areas in yellow below normal rainfall.*

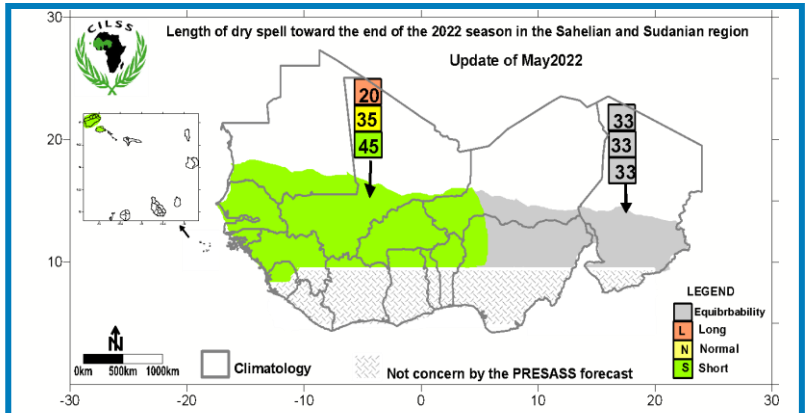




*The **map above** shows the **forecast for the onset dates** of the 2022 rainy season. Areas in green are likely to experience an early start of the season, while the start of season is expected to be normal in areas highlighted in grey.*

*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.*

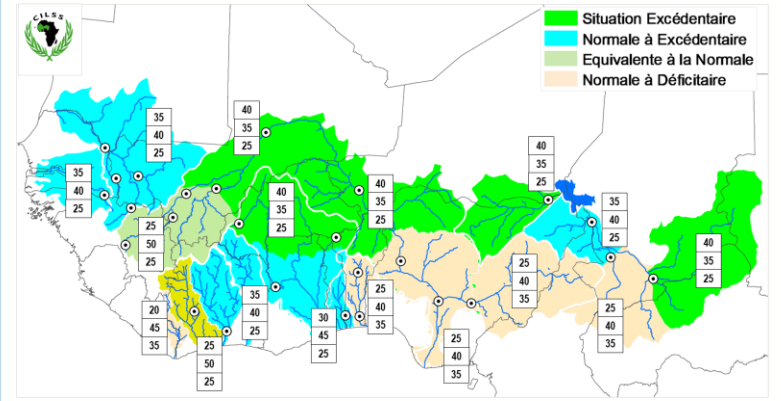




*The **map above** shows the **likelihood of dry-spells** in the latter stages of the 2022 rainy season. Areas in green are likely to experience shorter than normal dry-spells, while the dry sequences in areas highlighted in yellow might be longer than normal towards the end of the 2022 rainy season.*

*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.*

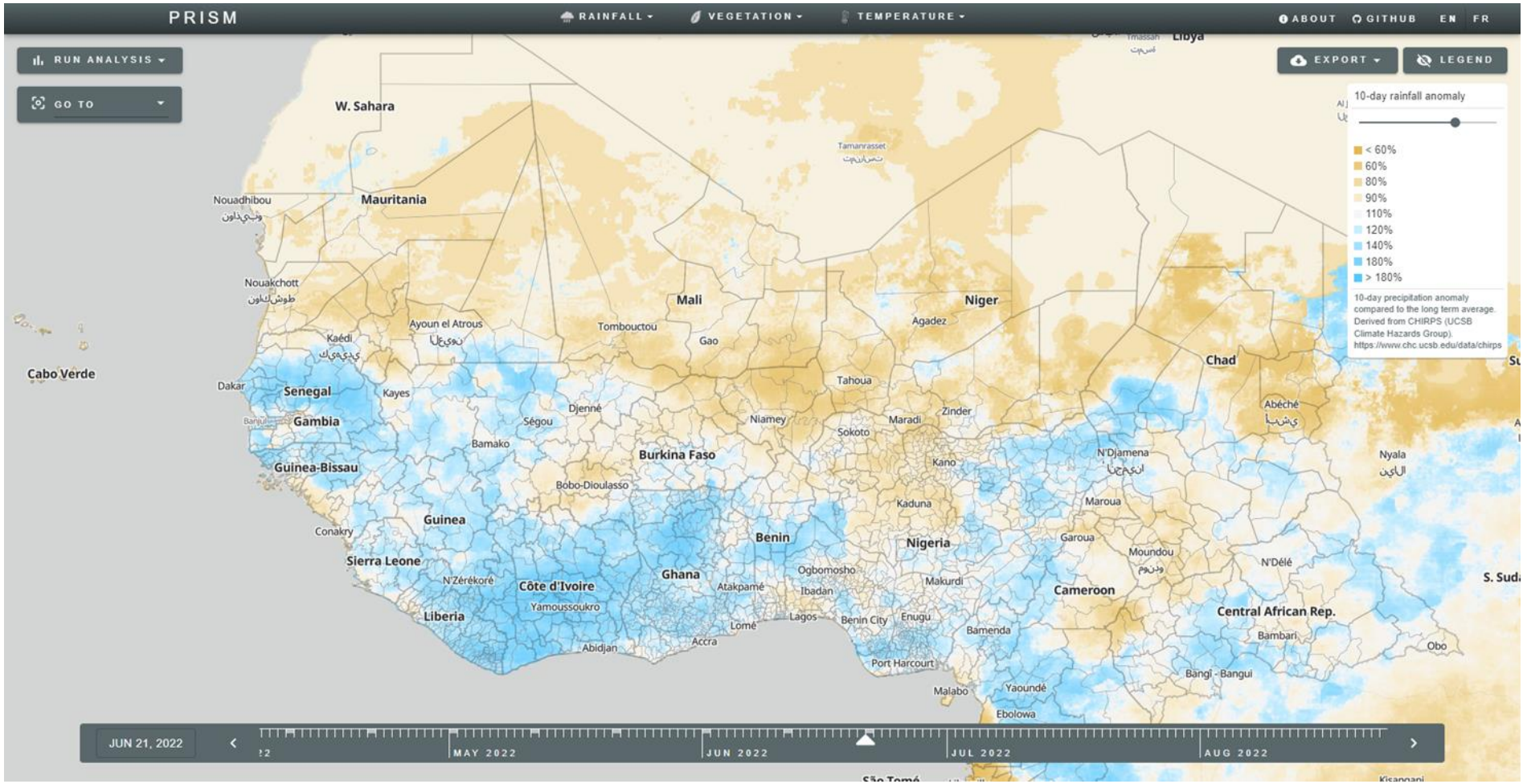
Perspectives des écoulements de la saison 2022 dans les bassins de l'espace CILSS/CEDEAO



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 the 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 Platfom** (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).*

WFP World Food Programme

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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