

FAMINE EARLY WARNING SYSTEMS NETWORK

Democratic Republic of Congo

Monthly Climate and Weather

17 April 2025

Highlights

- In March 2025, the **El Niño Southern Oscillation (ENSO)** returned to neutral conditions. Below-average sea surface temperatures (SSTs) weakened in the central and east-central equatorial Pacific, while near- to above-average SSTs persisted in the eastern and far western Pacific. According to the latest ENSO outlook, ENSO-neutral conditions are expected during the Northern Hemisphere summer, with over 50% chance continuing through August to October 2025.
- In March 2025, much of the Democratic Republic of Congo (DRC) saw above-average **rainfall** (50-100 mm), especially in the western and central provinces. Equateur province recorded the highest rainfall surplus of 100-300 mm. In contrast, the east, and some localized areas in the south experienced 50-100 mm deficits, while the northeast reported 100-200 mm below-average rainfall. In May, above-average rainfall is expected in parts of the west, central, and eastern provinces, while below-average rainfall is anticipated in parts of the west and northeast.
- The DRC saw above-average **maximum temperatures** of 1-2°C in many regions, with Kasai-Central, Lomami, Tanganika, Haut-Lomami, Lualaba, and Haut-Katanga having anomalies of 3°C. **Minimum temperatures** were near-average to slightly above-average throughout much of the country. Bas-Uele, Haut-Uele, and Lualaba reported mean minimum temperatures of 2°C above the average. In May 2025, above-average temperatures are expected in parts of the west, central, and eastern provinces, while near- to below-average temperatures may occur in the north and southern provinces.
- The **Standardized Precipitation Index (SPI)** analysis for March 2025 shows that much of the DRC experienced drier-than-average conditions, while northern, eastern, and southern regions saw near- to wetter-than-average conditions. The SPI forecast indicates wetter-than-average conditions in parts of the north, central, and southern DRC provinces, with northwestern areas experiencing an SPI of 1.2 – 2.0 standard deviations above the mean. In contrast, drier-than-average conditions are expected in the west-central, eastern, and pocket areas in the south, while near-average conditions will occur in the west and some localized areas in the central and east.

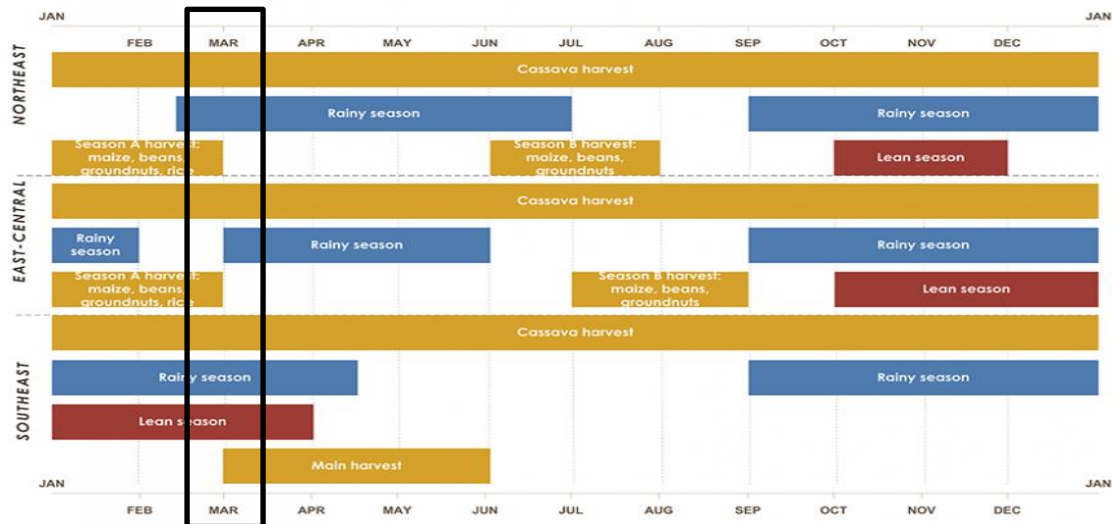


Figure 1: Seasonal calendar for DR Congo. Source: FEWS NET

Current Climate Modes and Teleconnections

- During March 2025, ENSO-neutral conditions returned over the equatorial Pacific Ocean, with weakening below-average SSTs in the central and east-central Pacific and persisting near to above-average SSTs in the eastern and far western Pacific.
- The ENSO outlook anticipates ENSO-neutral conditions during the Northern Hemisphere summer, with over 50% chance through August – October 2025 (Fig. 2). The latest update of the NOAA Climate Prediction Center's ENSO diagnostic discussion can be found [here](#).

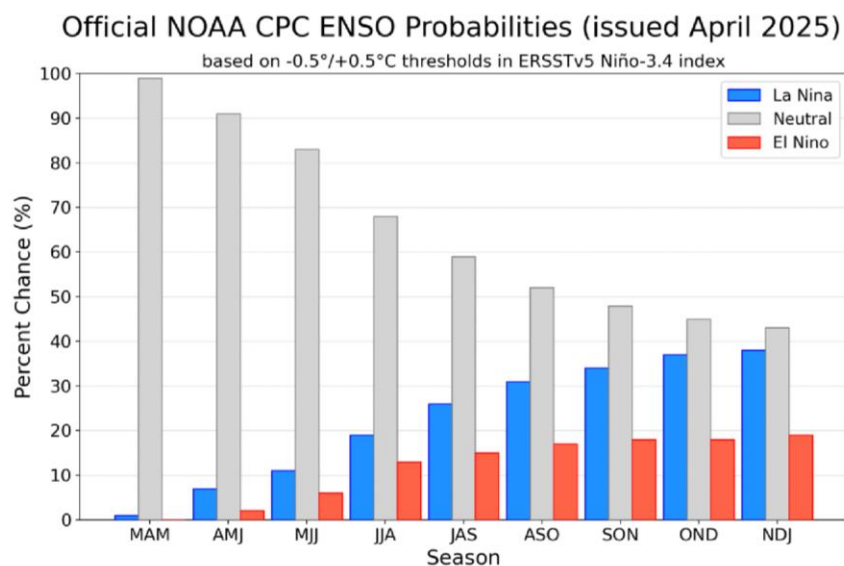


Figure 2: Official CPC ENSO probabilities outlook. Source: NOAA/NCEP

Extreme Events

- In the Democratic Republic of the Congo, [11,159 high-confidence fire alerts](#) have been reported by VIIRS so far in 2025. In the last 4 weeks, the region with the most significant number of fire alerts was Nord-Kivu, with 84 fire alerts. This accounts for 5.0% of all alerts detected in the Democratic Republic of the Congo and is unusually high compared to the number of fires recorded during the same period since 2012.

Rainfall/Precipitation

Past 3 months (January 2025 to March 2025):

- **Total:** The DRC has recorded extremely heavy precipitation (300-750 mm) over much of the country for the past three months. Nord Kivu province and parts of the northern provinces, including Sud-Ubangi, Nord-Ubangi, Bas-Uele, Haut-Uele, and Ituri, received rainfall between 75-300 mm. The heaviest rainfall (>750 mm) was recorded over western and northern parts of Equateur, northern Maniema and northwestern Sud-Kivu provinces (**Fig. 3a**).
- **Anomalies:** Rainfall was above-average by 25 to 200 mm in many areas of the DRC. Significant rainfall surpluses reaching 200-300 mm were registered in localized places in north-central, central, and southeastern regions, whereas rainfall surpluses of 300-500 mm were experienced at Equateur's western and northern parts. In contrast, parts of the north, central and southern regions experienced below-average rainfall (25-100 mm). Severe rainfall deficits were noted in provinces such as northern Bas-Uele, Sud-Kivu, Haut-Katanga, and isolated areas in the eastern region, recording 100 to 200 mm below-average rainfall (**Fig. 3b**).

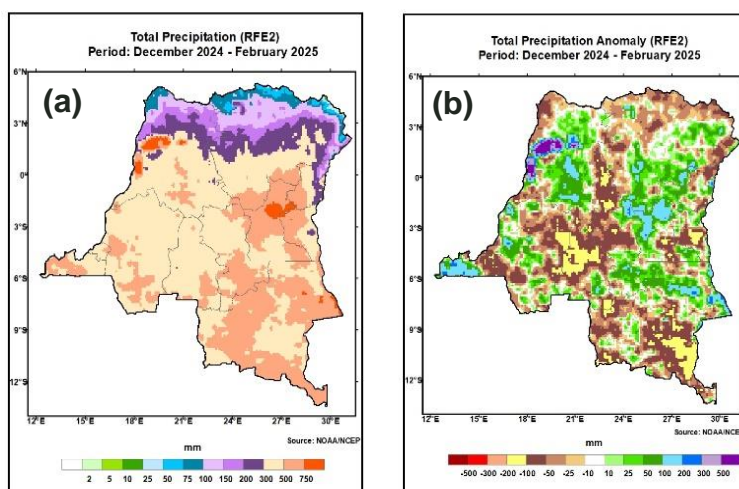


Figure 3: Spatial distribution for January 2025 – March 2025 (a) total precipitation and (b) total precipitation anomaly. **Source: NOAA/NCEP**

Past 1 Month (March 2025):

- **Totals:** Much of the DRC experienced heavy rainfall, reaching between 100 and 300 mm and exceeding 300 mm in pocket areas over Equateur, Sankuru, and Kasai-Central provinces. The southern part of Haut-Katanga and parts of the northern region, including Nord-Ubangi, Bas-Uele, and Haut-Uele provinces, received 50-75 mm of rainfall (**Fig. 4a**).
- **Anomalies:** Much of the DRC, particularly the western and central provinces, experienced above-average rainfall (50-100 mm). Equateur province received the highest rainfall of 100-300 mm above-average. In contrast, parts of the east and some local areas in the south saw a deficit of 50-100 mm, while pockets areas in the northeast recorded 100-200 mm below-average rainfall (**Fig. 4b**).

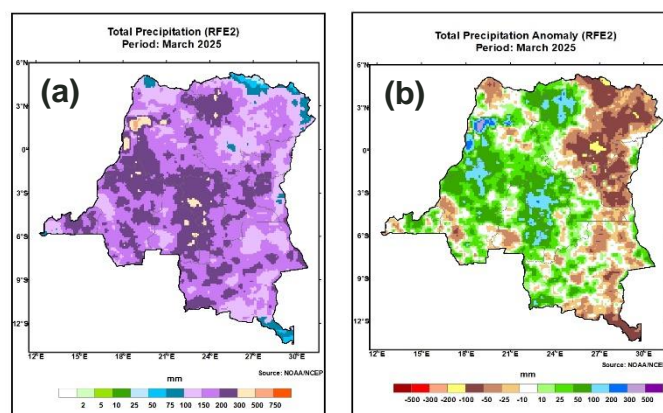


Figure 4: Spatial distribution for March 2025 (a) total precipitation and (b) total precipitation anomaly. **Source:** NOAA/NCEP

Monthly (May 2025) and Seasonal (May 2025 – July 2025) Forecasts:

- **Monthly:** In May, above-average rainfall is favored in parts of the west, central, and eastern provinces of the DRC, with a probability exceeding 50% in Maniema, Nord-Kivu, and Sud-Kivu provinces. In contrast, below-average rainfall is expected in northern and central Bas-Uele, western Haut-Uele, southwestern Equateur, and northwestern Mai-Ndombe provinces, with a probability greater than 40% in parts of the Bas-Uele and Haut-Uele provinces (**Fig. 5a**).
- **Seasonal:** Above-average rainfall is expected in eastern Maniema, Nord-Kivu, Sud-Kivu, eastern part of Haut-Uele and Ituri provinces, and pocket areas of the central and western provinces, with a greater than 50% probability in pocket areas of Nord-Kivu and Sud-Kivu provinces. In contrast, pocket areas of Equateur and Mai-Ndombe are expected to experience below-average rainfall (**Fig. 5b**).

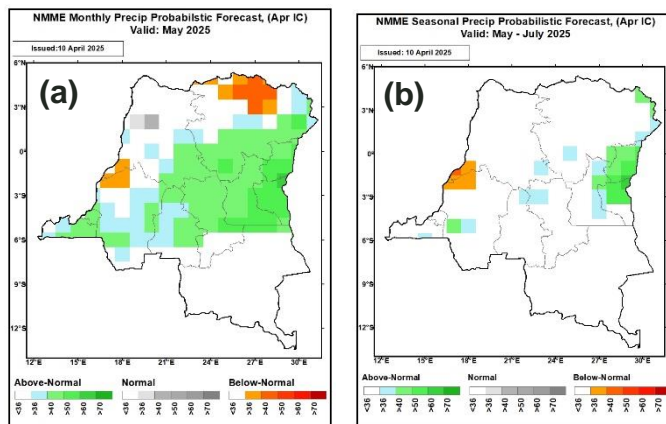


Figure 5: Rainfall forecast for (a) May 2025 and (b) May 2025 - July 2025. **Source:** NOAA/NCEP

Temperature

Past 3 months (January 2025 to March 2025):

- Maximums:** Over the last three months, the DRC has experienced maximum temperatures ranging from 20 to 35°C. The highest temperature recorded exceeded 35 °C in parts of the northern provinces, including Sud-Ubangi, Nord-Ubangi, and Bas-Uele. Most areas of the DRC recorded above-average maximum temperatures, although some regions in the west-central and northeastern areas experienced near-average maximum temperatures. The northern part of Bas-Uele, southern Tanganyika, and the eastern and southern parts of Haut-Katanga provinces saw significant maximum temperatures that were 3°C above average (**Fig. 6a**).
- Minimums:** The mean minimum temperatures in the DRC over the past three months were 20°C in most areas of the country and 15°C along the northern and eastern borders and parts of the southern region. Near-average minimum temperatures were recorded in much of the DRC, except in the northeastern region, and parts of the central and southern regions, which experienced slightly above-average minimum temperatures of 1-2°C (**Fig. 6b**).

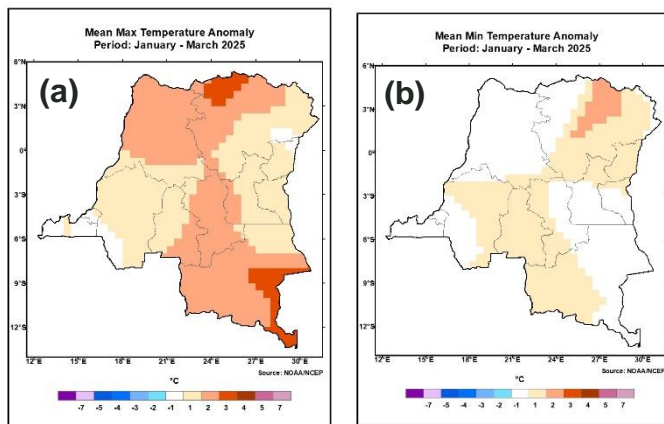


Figure 6: Spatial distribution for January 2025 – March 2025 (a) mean maximum temperature anomaly and (b) mean minimum temperature anomaly. **Source:** NOAA/NCEP

Past 1 Month (March 2025):

- **Maximums:** Mean maximum temperatures in the DRC ranged from 20°C to 35°C. The highest maximum temperatures exceeding 35°C occurred in the Sud-Ubangi, Nord-Ubangi, and northern Bas-Uele provinces. The country experienced above-average maximum temperatures (1-2°C) in many areas in the country. Parts of Kasai-Central, Lomami, Tanganika, Haut-Lomami, Lualaba, and Haut-Katanga provinces experienced anomalies of 3°C above-average. In contrast, near-average conditions occurred in parts of west-central and northeastern regions of the country (**Fig. 7a**).
- **Minimums:** The mean minimum temperature over the last month in the DRC ranged from 15°C to 20°C. Along the eastern borders and parts of the southern regions experienced minimum temperatures of 15°C. Parts of the north, central, and eastern regions of the country experienced near-normal conditions. Meanwhile, above-average mean minimum temperatures (1-2°C) were recorded in parts of the northeastern, central, and southern regions. Areas in Bas-Uele, Haut-Uele, and Lualaba provinces reported mean minimum temperatures that were above-average by 2°C (**Fig. 7b**).

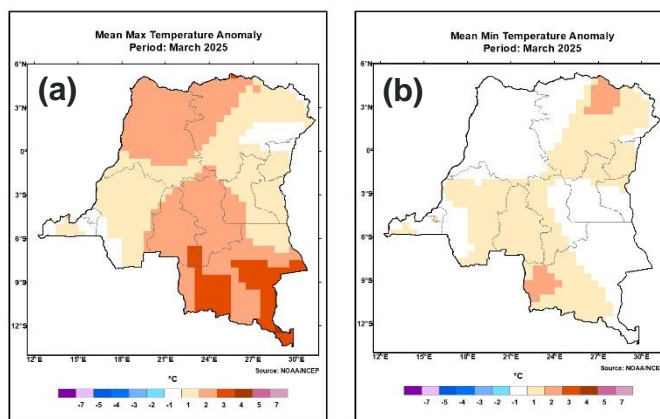


Figure 7: Spatial map for March 2025 (a) mean maximum temperature anomaly and (b) mean minimum temperature anomaly. **Source:** NOAA/NCEP

Monthly (May 2025) and Seasonal (May 2025 – July 2025) Forecasts:

- **Monthly:** In May 2025, DRC is expected to have above-average temperatures in parts of the western, central, and eastern provinces. Pocket areas in Tshopo, Nord-Kivu, Sud-Kivu, Maniema, Lomami, and Tanganika provinces are favored to have a greater than 50% probability for above-average mean temperatures (**Fig. 8a**).
- **Seasonal:** Above-average mean temperatures are expected in the DRC from May to July 2025. The northern parts of the central and pocket areas in the south are favored to have a greater than 50% probability of above-average mean temperatures (**Fig. 8b**).

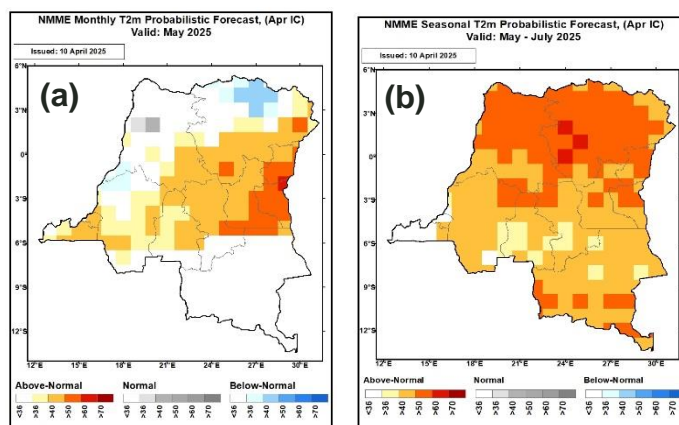


Figure 8: Spatial map for (a) May 2025 mean temperatures forecast and (b) May 2025 – July 2025 mean temperatures forecast. **Source:** NOAA/NCEP

Flooding and Areas of Inundation

- There have been no reports of flooding in the past month.

Drought and Dryness

The Standardized Precipitation Index (SPI) is used to characterize meteorological drought. SPI compares the precipitation over a specific period of time with the climatology from that same period. Therefore, the SPI values can be thought of as the number of standard deviations the observed anomaly deviates from the climatology. The 1-month SPI values are a good representation of the monthly precipitation anomaly as well as the soil moisture and vegetation health. The 3-month SPI values are a good representation of seasonal precipitation anomalies. The Standardized Precipitation Evapotranspiration Index (SPEI) is similar to the SPI, but it also takes evapotranspiration into account (and therefore the impact of temperatures on water demand).

Past 3 Months (January 2025 to March 2025):

- From January 2025 to March 2025, much of the DRC experienced drier-than-average conditions. Regions with an SPI greater than 2 standard deviations below the mean were observed in pocket areas in the central and southern provinces. In contrast, near-average to wetter-than-average conditions were noted in localized areas in the north-central region, along the eastern border and in southern parts of the country (**Fig. 9a**).

Past 1 Month (March 2025):

- In March 2025, much of the DRC experienced drier-than-average conditions. Near-normal to wetter-than-average conditions were observed in parts of the northern, eastern, and southern regions (**Fig. 9b**).

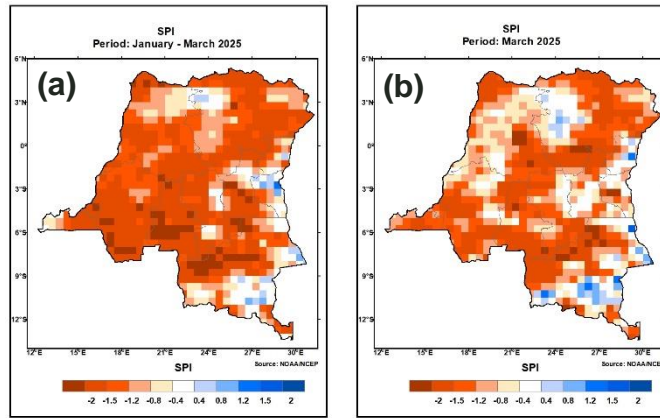


Figure 9: Spatial structure of Standardized Precipitation Index (SPI) (a) January 2025 – March 2025 (b) March 2025. Source: NOAA/NCEP. **Source: NOAA/NCEP**

Current/Forecast (29 January 2025 to 28 April 2025):

- The SPI forecast suggests that wetter-than-average conditions will occur over parts of the north, central, and southern provinces of the DRC. Northwestern provinces will likely record an SPI of 1.2 – 2.0 standard deviation above the mean. In contrast, drier-than-average conditions will likely occur in the west-central, eastern, and pocket areas in the southern provinces. Near-average conditions are likely to occur in the west and at few places in the central parts of the country (**Fig. 10**).

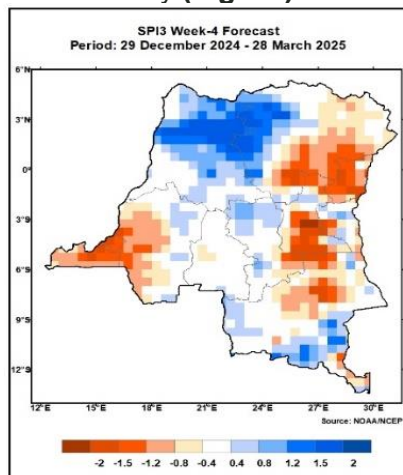


Figure 10: Spatial structure of SPI constructed from observations for 29 January 2025 to 31 March 2025 and 4 weeks forecast ending on 28 April 2025. **Source: NOAA/NCEP**

Water Requirement Satisfaction Index (WRSI)

- Not Available

GEOGLAM Crop Monitor

In the Democratic Republic of the Congo, harvesting main season sorghum and second season maize is currently underway, and agro-climatic conditions remain favorable. However, since January, escalating conflict in the Kivu region, located in the central-east, is expected to negatively impact crop production, particularly for second season maize. The conflict may also impact domestic trade with other regions.

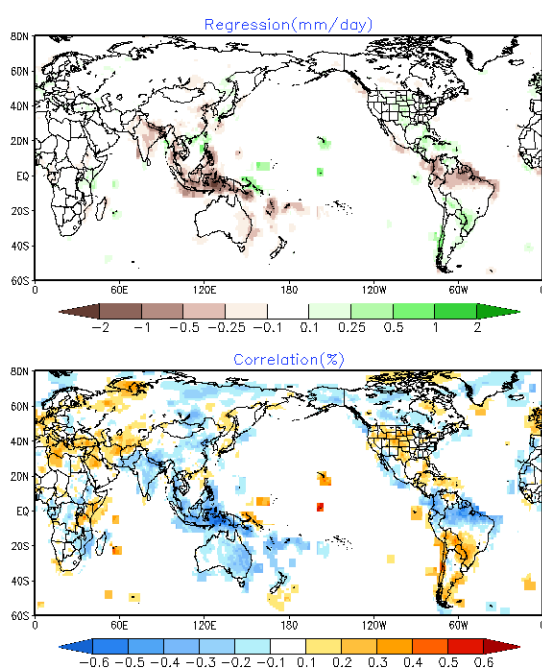
Additional Resources

<https://www.sadc.int/pillars/meteorology>

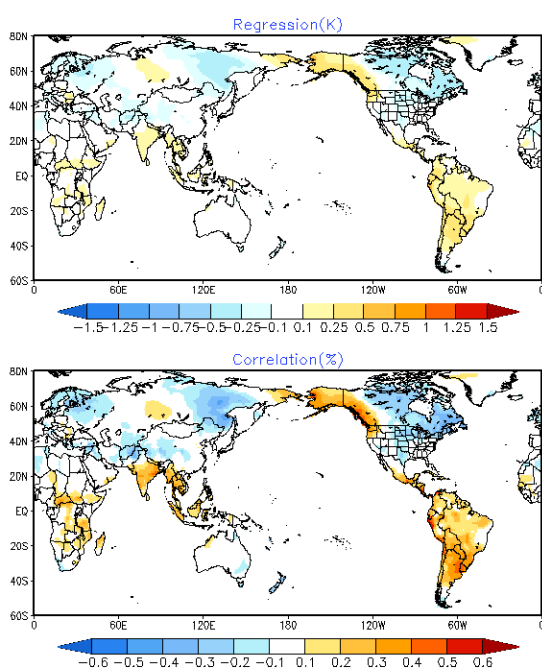
<https://fews.net/node/32023/print/download>

Annex

ENSO Teleconnection: MJJ Precip



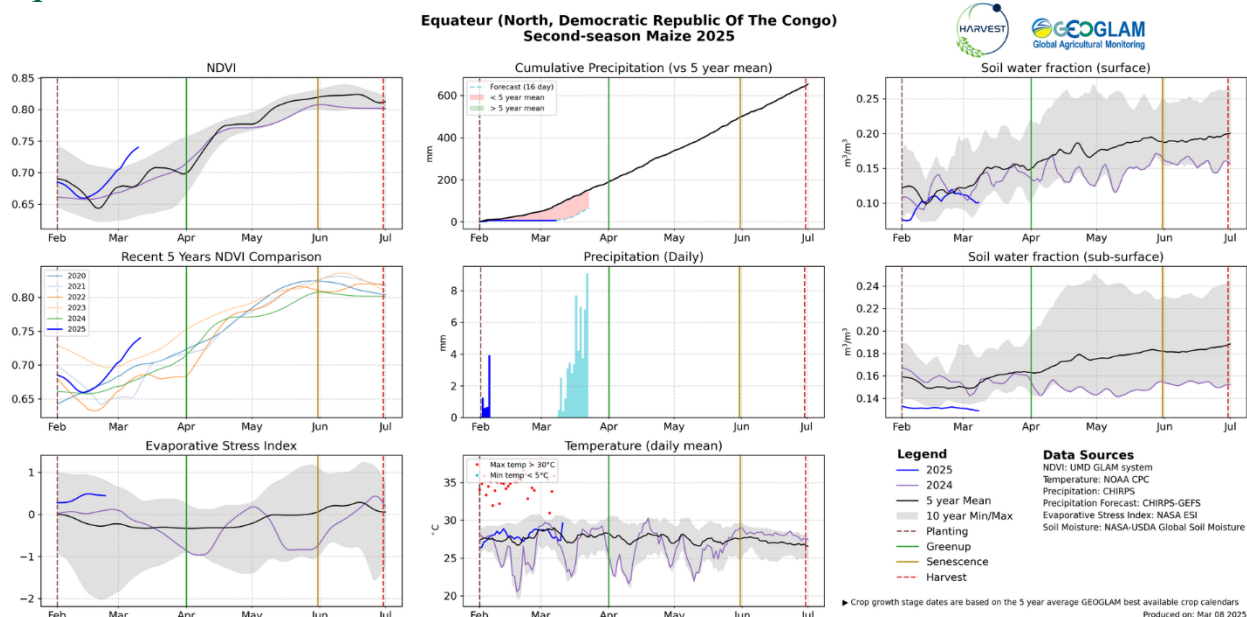
ENSO Teleconnection: MJJ Temp



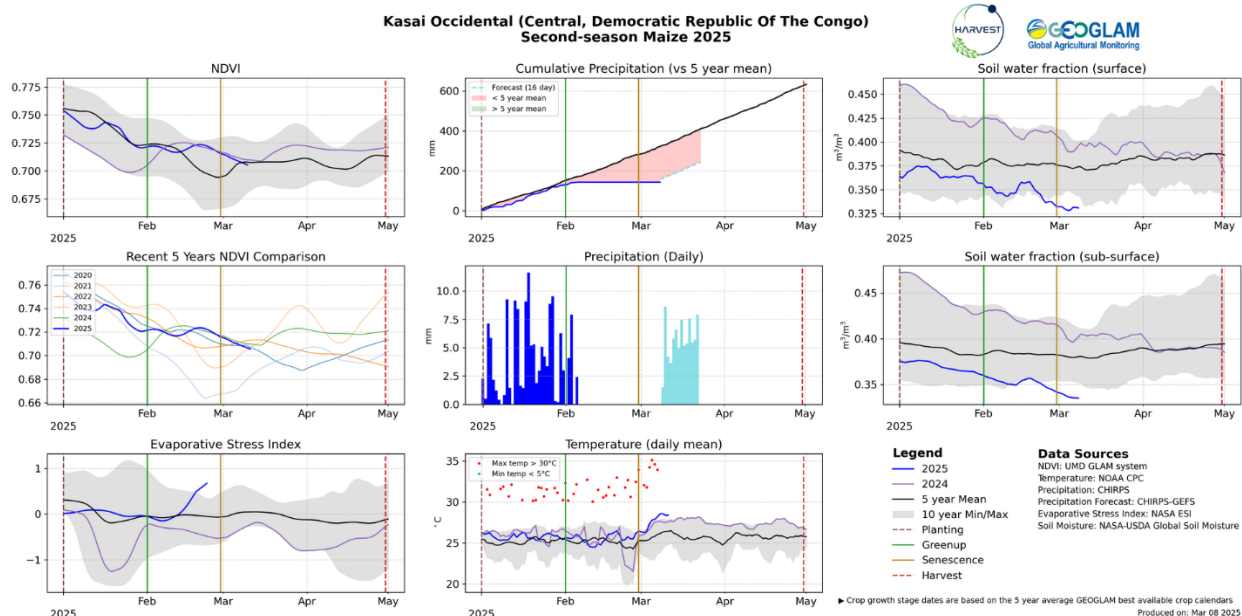
GEOGLAM Agro-meteorological Earth Observation Indicators:

Second-Season Maize

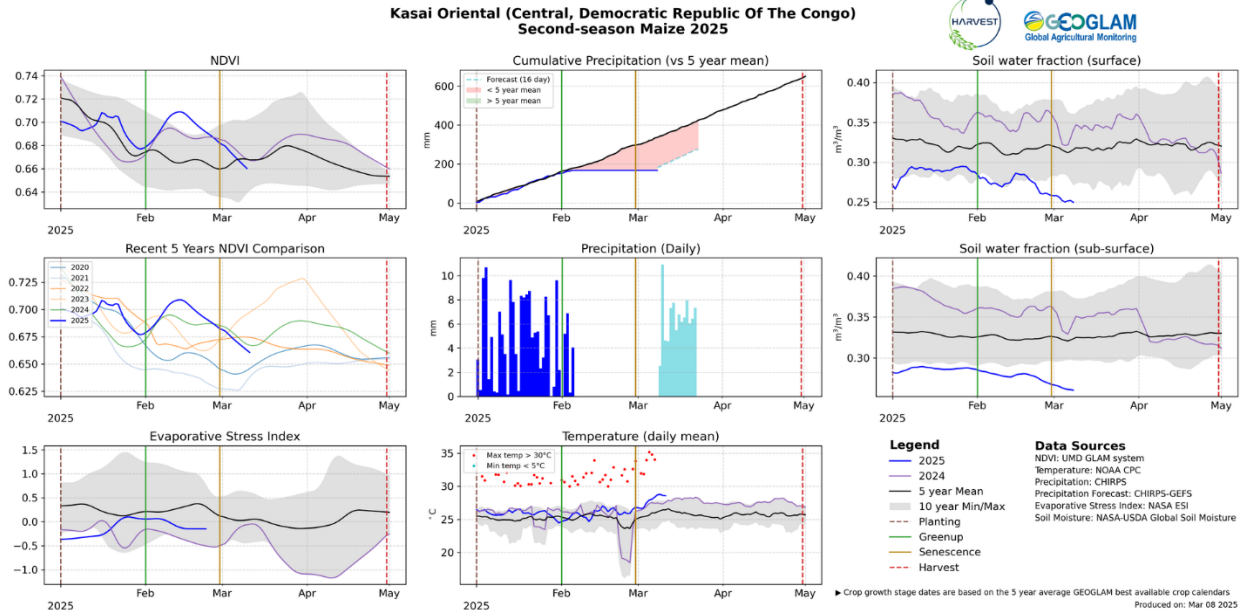
Equateur:



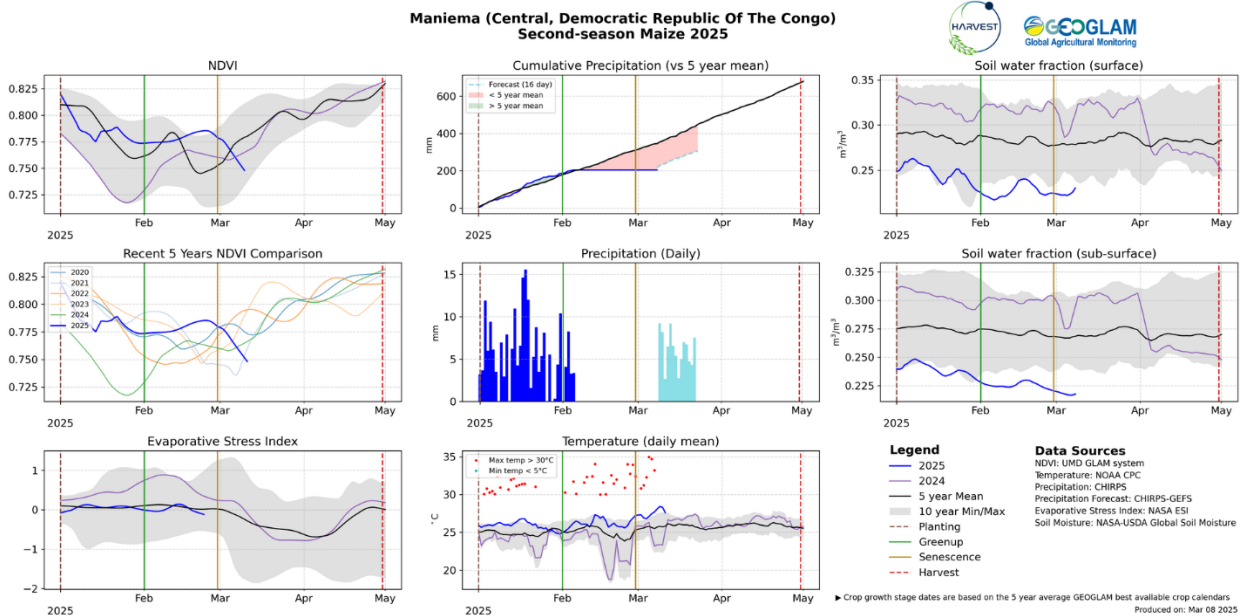
Kasai Occidental:



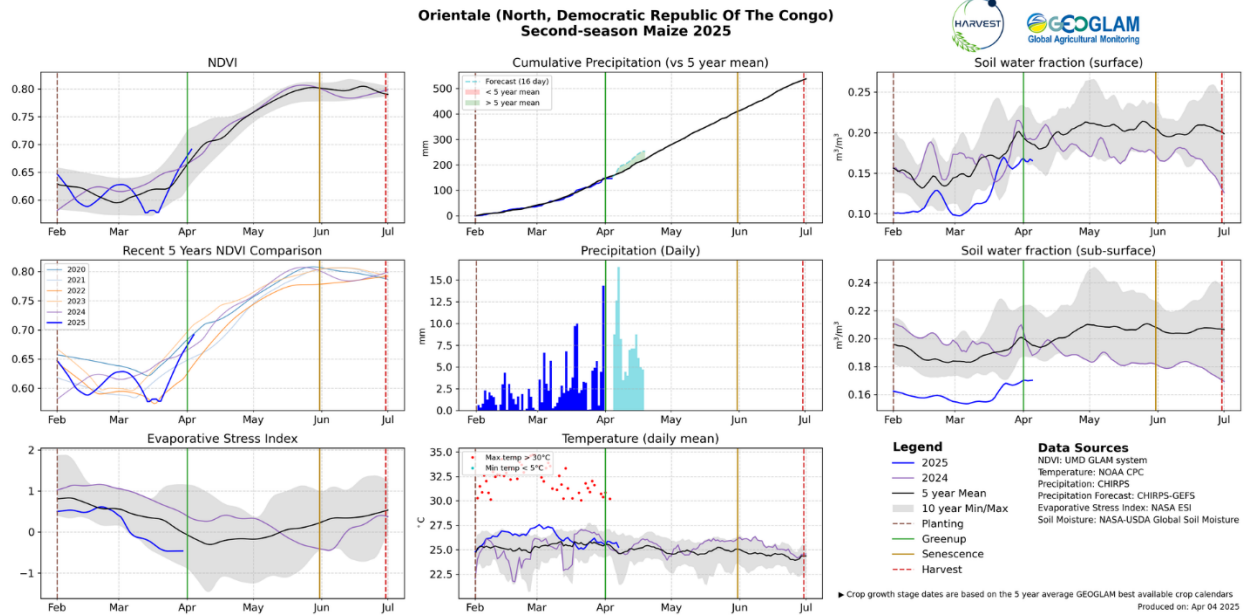
Kasai Oriental:



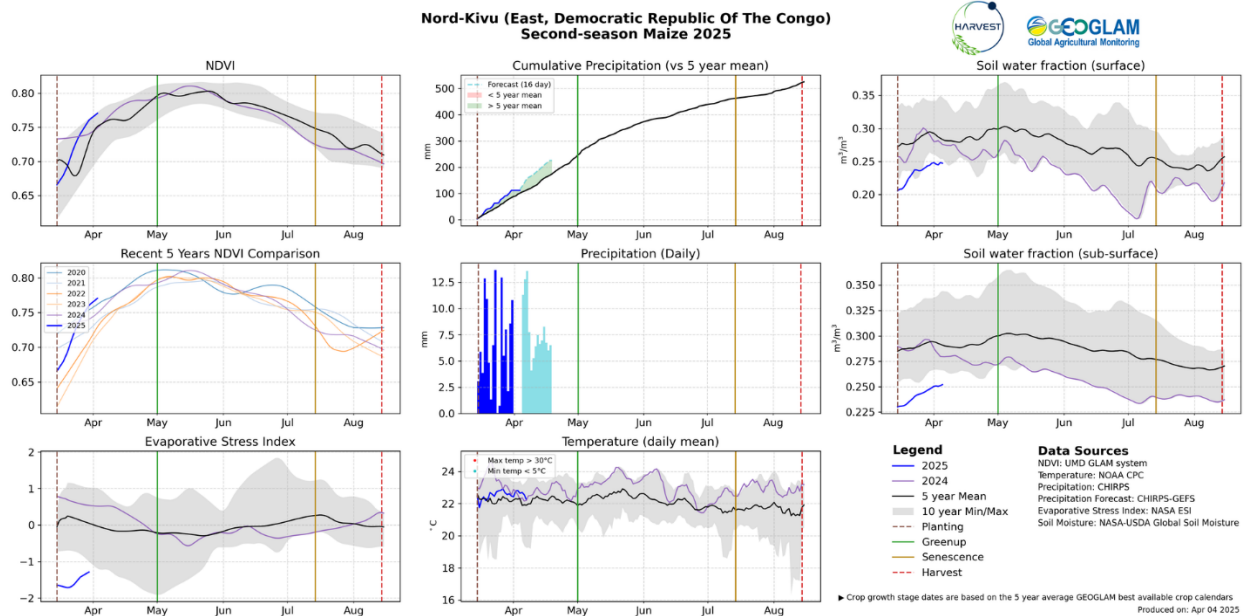
Maniema:



Orientele:



Nord-Kivu:



Sud-Kivu:

