FAMINE EARLY WARNING SYSTEMS NETWORK

Zimbabwe

Monthly Climate and Weather

15 May 2025

Highlights

- El Niño Southern Oscillation (ENSO)-neutral conditions continued, with near-average sea surface temperatures (SSTs) covering most of the equatorial Pacific Ocean. Subsurface temperatures were mostly near average in the central and eastern Pacific Ocean, with above-average subsurface temperatures remaining at depth in the western Pacific.

- Based on dynamical models, ENSO-neutral is favored through the Northern Hemisphere summer 2025 (74% chance during June-August), with chances exceeding 50% through August-October 2025.

- During April 2025, 25 to 75mm total rainfall was recorded in western, southern, central, northeastern and eastern parts of Zimbabwe, with higher amounts of 75mm to locally up to 150mm occurring in some parts of central and southern Mashonaland East and far-western Matabeleland North.

- Maximum temperatures were 1 to 3^{o}C above-average in many parts of northern, western, southwestern, central, and eastern Zimbabwe in April 2025. Likewise, minimum temperatures were 1 to 3^{o}C above average across much of Zimbabwe.

- The Standardized Precipitation Index (SPI) analysis for April 2025 indicated wetter than average conditions in many parts of Zimbabwe, with the largest SPI values covering northeastern, eastern and southern Zimbabwe.

- Based on the North American Multi-Model Ensemble (NMME) models, there is a slight tilt in the odds to favor below-average rainfall in the far eastern region of Zimbabwe during June 2025.

- Based on the NMME models, there is a slight tilt in the odds to favor above-average temperatures in central, eastern, southern, and northeastern and some parts of northern Zimbabwe during June – August 2025.

The FEWS NET Monthly Climate and Weather information bulletin is based on current weather and climate information and monthly and seasonal outlooks from the NOAA CPC. Information on crops, soil moisture, flooding, and evapotranspiration data were produced by FEWS NET, USGS, NASA and USDA. Various sources were used to assess impacts of extreme conditions. Questions or comments about this product may be directed to Dr. Wassila Thiaw, Head, International Desks/NOAA, wassila.thiaw@noaa.gov. Questions about the USAID FEWS NET activity may be directed to Dr. James Verdin, Program Manager, FEWS NET/USAID, jverdin@usaid.gov.

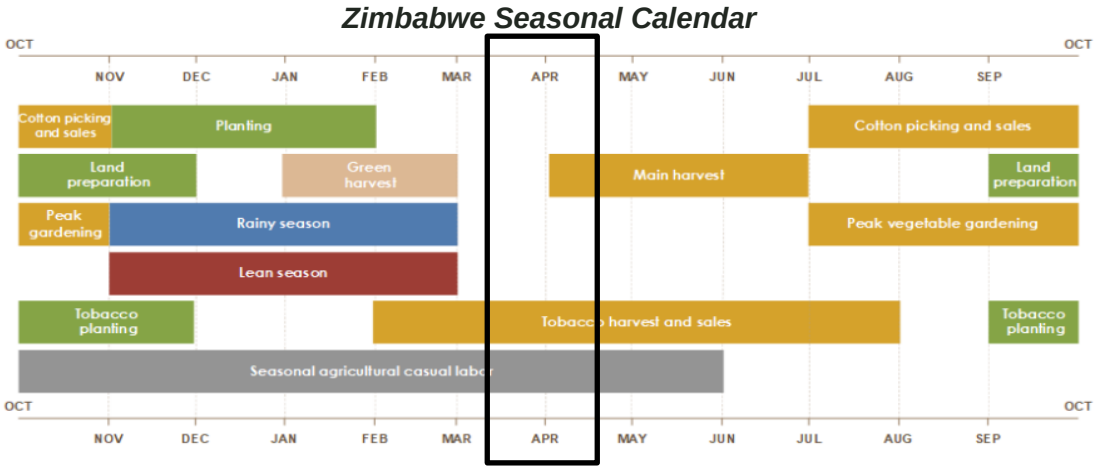

Figure 1: Seasonal calendar for Zimbabwe. **Source: FEWS NET**

Current Climate Modes and Teleconnections

- During the last 4 weeks, SSTs became mostly near average across the equatorial Pacific, with positive SST anomalies dissipating in the far western and eastern Pacific Ocean.

- Based on dynamical models, ENSO-neutral is favored through the Northern Hemisphere summer 2025 (74% chance during June-August), with chances exceeding 50% through August-October 2025.

- Based on historical record, ENSO-neutral conditions are typically associated with near-average precipitation conditions in Zimbabwe during the May-June-July (MJJ) season. ENSO-neutral conditions are also associated with cooler than average conditions across Zimbabwe during the MJJ season (**Figure S1**).

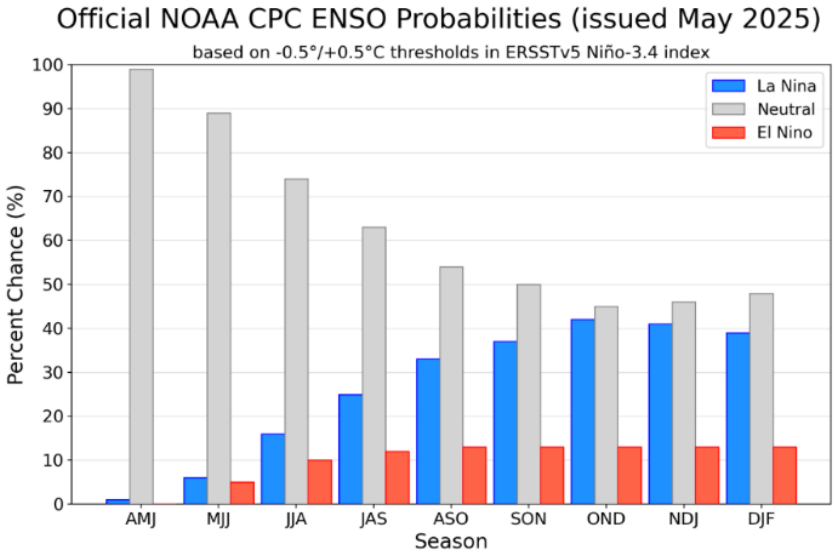

Figure 2: Official ENSO probabilities for the Niño 3.4 Sea surface temperature index (5°N-5°S, 120°W-170°W). **Source: NOAA/NCEP**

Extreme Events

- There were no impacts of tropical storms over the past 30 days across Zimbabwe. Based on available data, no tropical storms are expected in the coming weeks.
- There were 4 notable fire alerts in Mashonaland Central province of Zimbabwe over the past 4 weeks.
- Stronger-than-average westerly winds at lower level were observed in parts of southern and southeastern Zimbabwe over the past 30 days.

Rainfall/Precipitation

Past 3 months (February 2025 – April 2025):

- **Totals:** Most parts of Zimbabwe recorded 150 to 300mm total rainfall (**Fig. 3a**). Higher amounts (300 to 500mm) were observed in parts of northeastern Matabeleland North, southern Mashonaland West, eastern, central and southern Mashonaland East, and far-eastern Manicaland. **Table 1** shows the average rainfall for provinces of Zimbabwe.

- **Anomalies:** The observed rainfall was 25 to 100mm above average in parts of central, northeastern, eastern, southern and far-western Zimbabwe, with the largest surpluses up to 200mm occurring in parts of eastern, central and southern Mashonaland East and northern and southern Manicaland (**Fig. 3b**). Rainfall was below average by 25 to 100mm in northern Zimbabwe, parts of central and eastern Matabeleland North, and southwestern Masvingo.

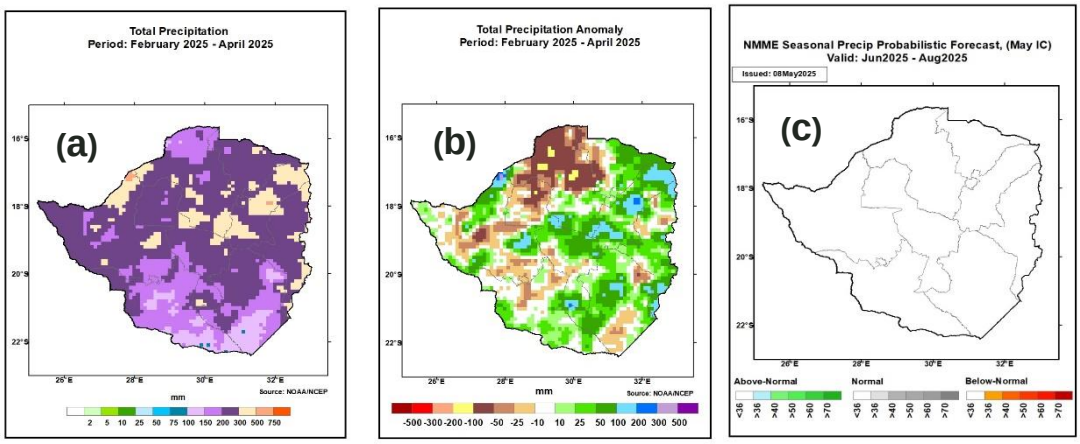

Figure 3: Satellite estimates of rainfall (RFE2) for the past 3 months (February 2025 – April 2025). (**a**) Total accumulation of precipitation and (**b**) rainfall anomaly. (**c**) Seasonal rainfall forecast for June2025 - August2025. **Source: NOAA/NCEP**

Past 1 Month (April 2025):

- **Totals:** During April, 25 to 75mm total rainfall was recorded in western, southern, central, northeastern and eastern parts of Zimbabwe, with higher amounts of 75mm to locally up to 150mm occurring in parts of central and southern Mashonaland East and far-western Matabeleland North **(Fig. 4a**). Most parts of northern and southeastern Zimbabwe received 25 to 50mm rainfall during the past month **(Fig. 4a).**

- **Anomalies:** Rainfall was above average by 10 to 50mm in many parts of Matabeleland North, Matabeleland South, Mashonaland East and Manicaland, southern Midlands, northern and central-eastern Masvingo and central and eastern Mashonaland Central provinces of Zimbabwe, with the largest anomalies up to 100 mm in parts of central and eastern Mashonaland East and the far western Matabeleland North (**Fig. 4b**). Rainfall was below avereage by 10 to 25mm in western and southern Mashonaland West and parts of southern Msvingo.

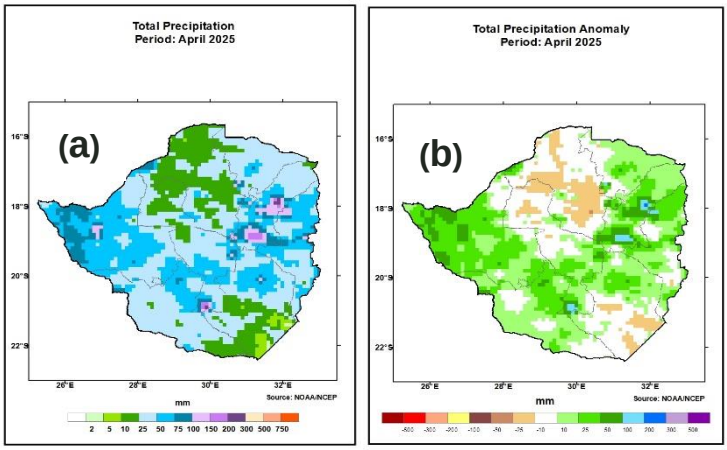

Figure 4: Satellite estimates of rainfall (RFE2) for April 2025. (**a**) Monthly total accumulation of rainfall and (**b**) monthly rainfall anomaly. **Source: NOAA/NCEP**

Monthly and Seasonal Forecasts (June 2025 and June – August 2025):

- **Monthly:** Based on the NMME models, there is a slight tilt in the odds to favor below-average rainfall in some parts of the far eastern region of Zimbabwe during June 2025.

- **Seasonal:** Based on the NMME models, equal chances of below-, near-, and above-normal categories are forecasted across Zimbabwe during June – August 2025 (**Fig. 3c**). **Table 1** gives the total climatological/average accumulation for 3-month forecast period and forecasted rainfall anomaly for the provinces of Zimbabwe.

Table 1: The total observed rainfall and anomalies from climatology for the past 1- and 3-months for the provinces of Zimbabwe. For seasonal forecast, the total climatological accumulation for the 3-month forecast period and forecasted rainfall anomalies are shown.

Location	Past 3-Month		Past 1-Month		Seasonal Forecast	
	Total (mm)	Anomaly (mm)	Total (mm)	Anomaly (mm)	Climatology (mm)	Anomaly (mm)
Mashonaland West	249	-27	27	-3	7	-2
Mashonaland Central	253	19	37	16	11	-2
Mashonaland East	306	69	67	41	21	-3
Matabeleland North	248	14	59	31	4	-2
Midlands	243	16	40	11	12	-3

Manicaland	269	39	56	24	54	-4
Harare	285	24	63	33	14	-2
Masvingo	191	27	34	8	33	-3
Matabeleland South	171	9	41	20	12	-2

Temperature

Past 3 months (February 2025 – April 2025):

- **Maximums:** Maximum temperatures were 1 to 2ºC above average in northern, western, southwestern, central and eastern Zimbabwe, with the largest anomalies of 2 to 3ºC occurring in parts of eastern Mashonaland West and western Mashonaland Central (**Fig. 5a**, **Table 2**). Maximum temperatures were between 25 to 35ºC across Zimbabwe.

- **Minimums:** Minimum temperatures were 1 to 2ºC above average in western, southwestern, northern, central and eastern parts of Zimbabwe **(Fig. 5b)**. Minimum temperatures remained between 15 to 20ºC in many parts of Zimbabwe, with 20 to 25ºC in some parts of northern, northwestern and southeastern Zimbabwe.

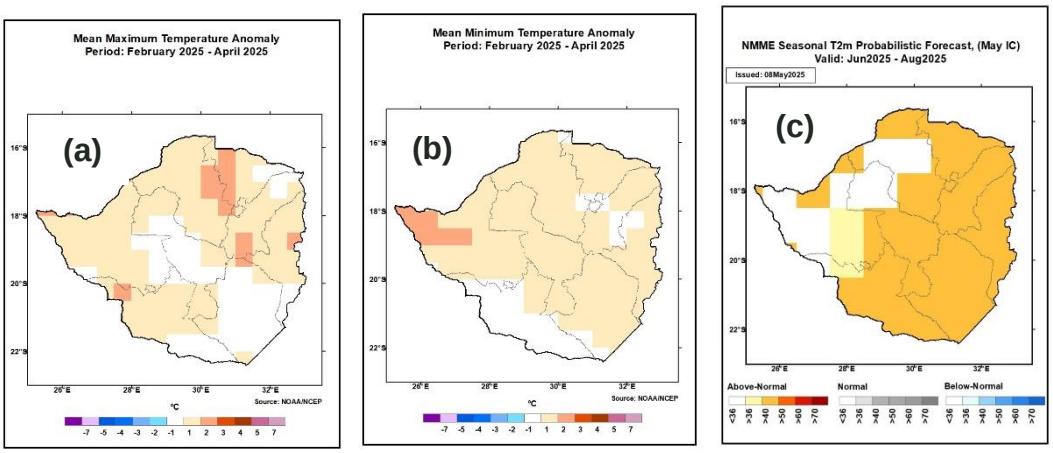

Figure 5: Spatial structure of maximum and minimum temperature anomalies for February 2025 – April 2025: **(a)** maximum temperature anomaly and **(b)** minimum temperatures anomaly. **(c)** Seasonal temperature forecast for June – August 2025. **Source: NOAA/NCEP**

Past 1 Month (April 2025):

- **Maximums:** Maximum temperatures were 1 to 2ºC above average in many parts of northern, western, southwestern, central and eastern Zimbabwe, with the largest anomaly of up to 3ºC in parts of northeastern and central-eastern Zimbabwe (**Fig. 6a; Table 2)**. Maximum temperatures were between 25 to 35ºC in many parts of Zimbabwe.

- **Minimums:** Minimum temperatures were 1 to 3ºC above average in many parts of Zimbabwe, with the largest anomalies up to 4ºC in western Matabeleland North region **(Fig. 6b)**. Minimum temperatures were between 15 to 20ºC in many parts of Zimbabwe.

Monthly and Seasonal Forecasts (June 2025 and June – August 2025):

- **Monthly:** Based on the NMME models, equal chances of below-, near-, and above-normal categories are forecasted across Zimbabwe during June 2025 (**Fig. 6c**).

- **Seasonal:** Based on NMME forecasts, there is a slight tilt in the odds to favor above-average temperatures in central, eastern, southern, and northeastern and some parts of northern Zimbabwe during June – August 2025 (**Fig. 5c, Table 2**).

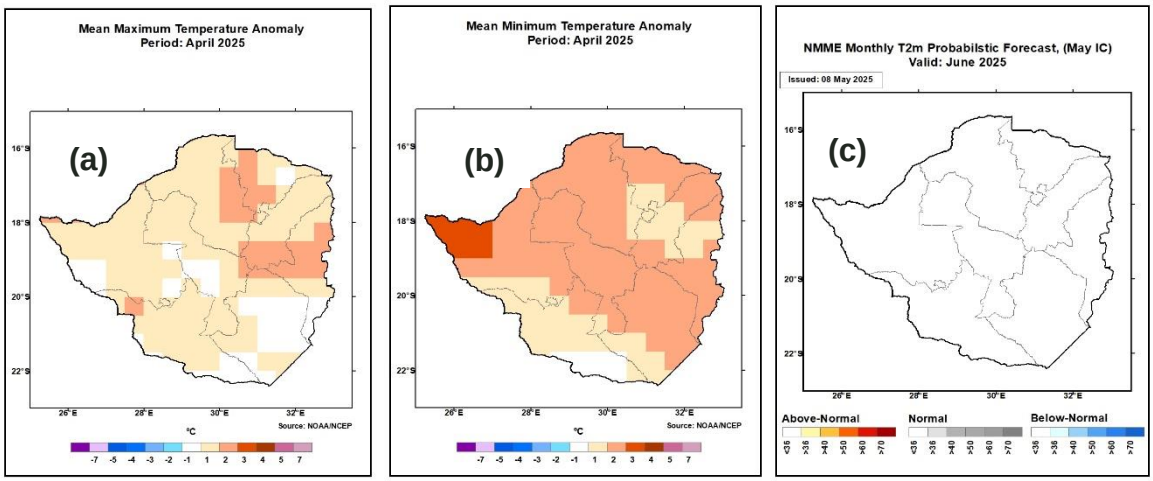

Figure 6: Spatial structure of average April 2025 **(a)** maximum temperature anomaly and **(b)** minimum temperatures anomaly. Monthly temperature forecast for June 2025. **Source: NOAA/NCEP**

Table 2: Average maximum temperatures and deviations from climatology for the past 1- and 3-months for the provinces of Zimbabwe. For seasonal forecast, the climatological/average temperatures values and forecasted temperature anomalies are provided.

Location	Past 3-Month		Past 1-Month		Seasonal Forecast	
	Max/Min Temperature (ºC)	Max/Min Anomaly (ºC)	Max/Min Temperature (ºC)	Max/Min Anomaly (ºC)	Temperature Climatology (ºC)	Above/Below Average
Mashonaland West	29.3/19.1	1.5/1.3	28.9/18.3	1.7/2.4	17.2	0.5
Mashonaland Central	29.2/19.1	1.7/1.1	28.7/18.1	1.8/2.2	15.8	0.4
Mashonaland East	27.5/17.2	1.4/1.2	27.0/16.2	1.7/2.1	15.1	0.4
Matabeleland North	29.4/18.9	1.3/1.6	28.9/17.8	1.4/2.5	17.3	0.5
Midlands	28.6/18.2	1.0/1.4	28.0/17.2	1.3/2.3	15.5	0.4
Manicaland	26.8/17.3	1.6/1.4	26.0/17.2	1.8/2.1	15.5	0.5
Harare	26.4/15.9	1.5/0.9	25.9/14.8	1.8/1.6	14.4	0.4
Masvingo	30.3/19.8	0.9/1.4	29.2/18.4	1.0/2.2	16.5	0.5
Matabeleland South	29.5/17.4	1.3/0.7	28.5/15.8	1.4/1.4	16.0	0.4

Flooding and Areas of Inundation

- Currently there is no flooding in Zimbabwe.
- Flooding is not expected in the next 3 weeks according to climate model forecasts for Zimbabwe.

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.

Past 3 Months (February 2025 – April 2025):

- The SPI analysis for the past 3 months indicated drier than average conditions in western, and parts of central Zimbabwe (**Fig. 7a**). Wetter than average conditions existed in parts of northern, northeastern, eastern and southern Zimbabwe.

Past 1 Month (April 2025):

- The SPI analysis for April 2025 indicated wetter than average conditions in many parts of Zimbabwe, with the largest SPI values in northeastern, eastern, and southern Zimbabwe (**Fig. 7b**).

Current/Forecast (01 May 2025 – 28 May 2025):

- The SPI forecast suggests wetter than average conditions in northeastern, eastern, and some parts of southern Zimbabwe (**Fig. 7c**). The SPI forecast suggests drier than average conditions in western, central and northwestern regions of Zimbabwe.

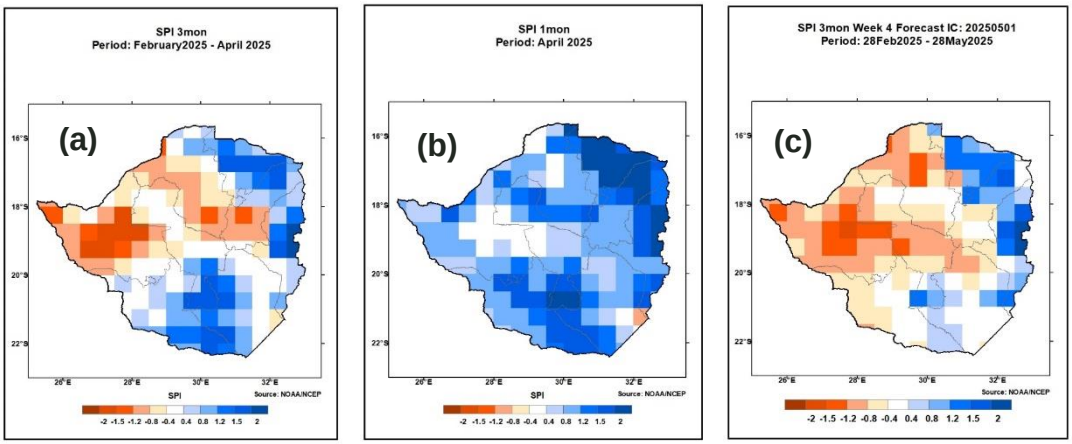

Figure 7: Spatial structure of the Standardized Precipitation Index (SPI) for **(a)** February 2025 – April 2025, **(b)** April 2025, and **(c)** Spatial structure of SPI constructed from observations for 28 February 2025 to 01 May 2025 and 4 weeks forecast ending on 28 May 2025. **Source: NOAA/NCEP**

Normalized Difference Vegetation Index (NDVI)

NDVI is a measure of vegetation health, where high NDVI values are indicative of healthy, dense vegetation, and low NDVI values are indicative of less or no vegetation. Therefore, negative NDVI anomalies suggest deteriorated vegetation health relative to the long-term average.

Past 1 Decadal period (21-30 April2025):

- From 21 – 30 April 2025, the observed NDVI is 80-95% of the long-term average in some parts of western and northern Zimbabwe, and 105 to locally up to 140% of the long-term average in many parts of Matabeleland South, western Masvingo, southern Midlands, eastern Matabeleland North, central and eastern Mashonaland East, and northern, central and southern Manicaland (**Fig. 8**)

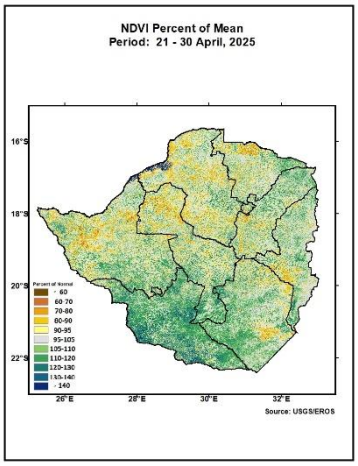

Figure 8: Spatial structure of the Normalized Difference Vegetation Index (NDVI) for period 21-30 April, 2025. **Source: USGS/EROS**

Water Requirement Satisfaction Index (WRSI)

- During the third dekad (10-day period) of April 2025, maize crops conditions were "average to good" in parts of northern, central and eastern regions of Zimbabwe according to the WRSI analysis.

GEOGLAM Crop Monitor

- In Zimbabwe, land preparation and planting for the 2025 wheat season is just beginning with favourable conditions in start of the season.

Additional Resources

- https://www.cpc.ncep.noaa.gov/products/international/africa/africa_hazard.pdf
- https://www.cpc.ncep.noaa.gov/products/international/globalweatherhazard/Current.pdf
- https://www.cpc.ncep.noaa.gov/products/international/africa/expert/week1.jpg
- https://www.cpc.ncep.noaa.gov/products/international/africa/expert/week2.jpg
- https://www.cpc.ncep.noaa.gov/products/international/africa/expert/week34.jpg

Annex

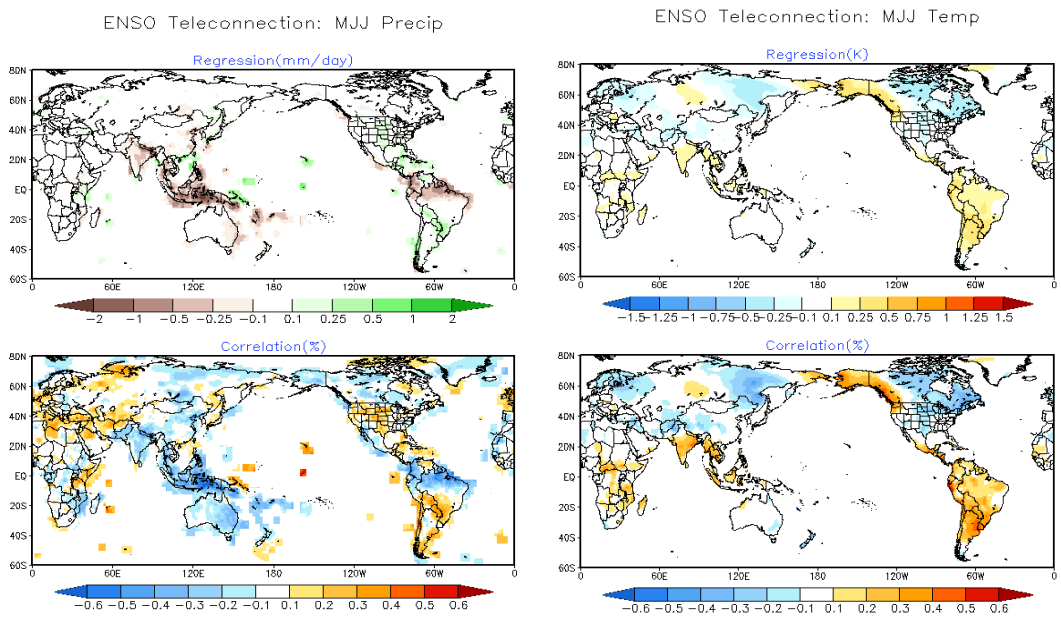

Figure S1: For three month season (May-June-July; MJJ), precipitation and temperature anomalies are regressed onto the standardized Niño-3.4 index (upper panel). In the bottom panel, the correlation is calculated between Nino-3.4 and the anomalies.