May 2025
FEWS NET Seasonal Forecast Review

Prepared by Melissa Breeden
melissa.breeden@noaa.gov

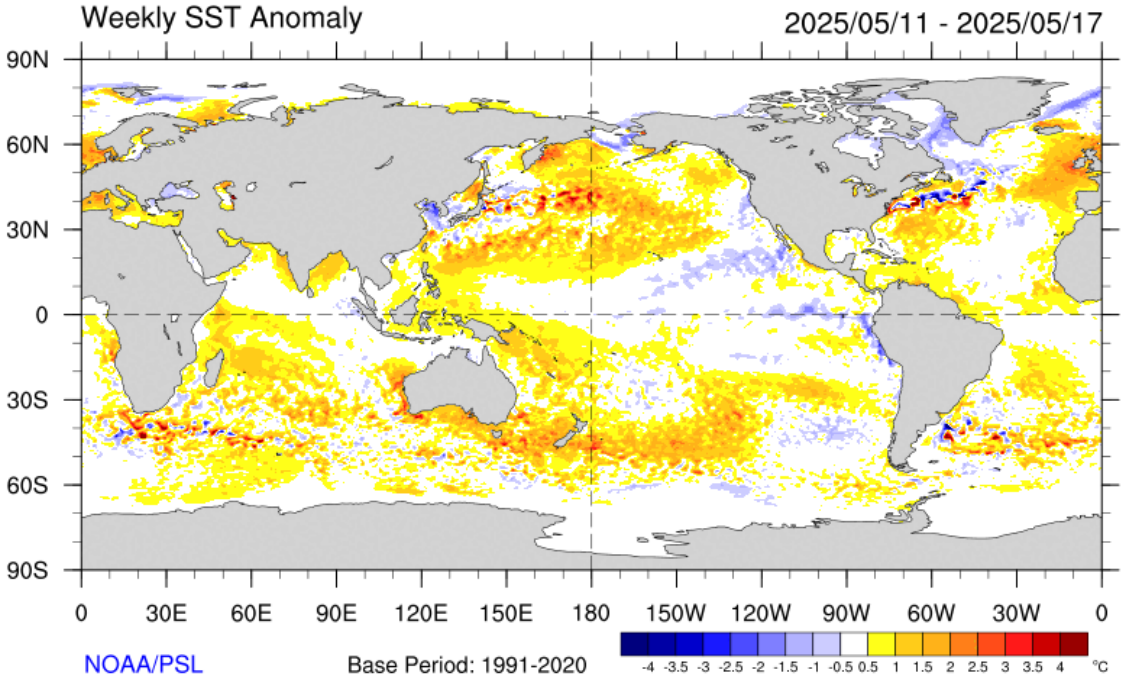
Overview

FEWS NET | USAID FROM THE AMERICAN PEOPLE | NOAA | NASA | USGS science for a changing world | Climate Hazards Center UC SANTA BARBARA

State of the Global Climate

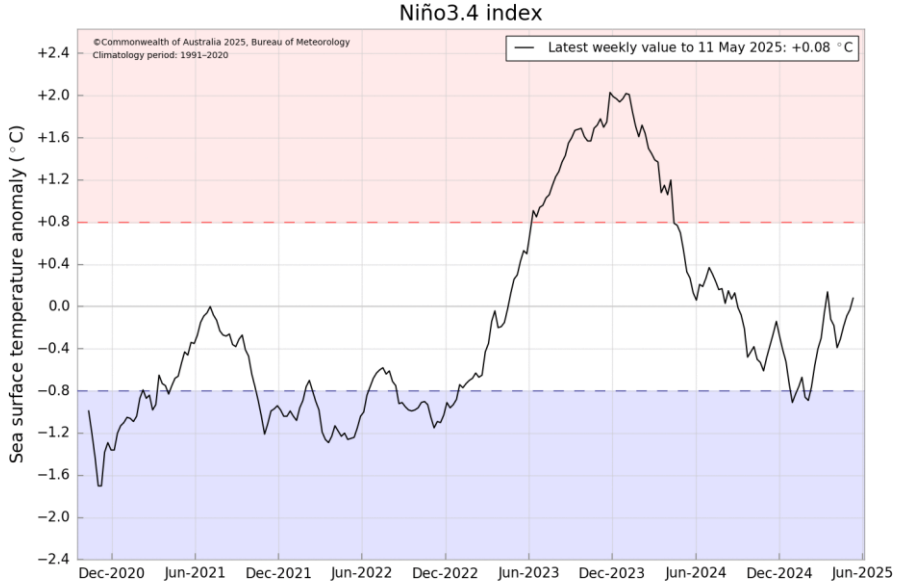
Sea Surface Temperatures and Climate Modes

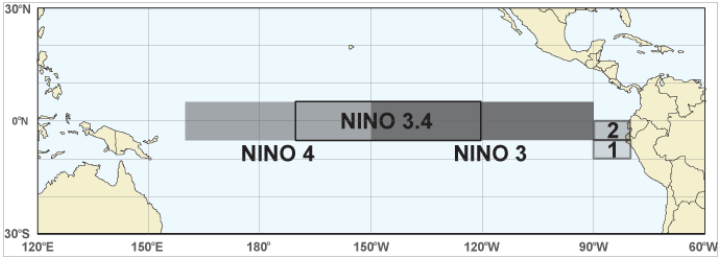
Neutral ENSO, IOD, and SIOD



Current ENSO State

Neutral conditions observed





ENSO Diagnostic Discussion

EL NIÑO/SOUTHERN OSCILLATION (ENSO) DIAGNOSTIC DISCUSSION

issued by

CLIMATE PREDICTION CENTER/NCEP/NWS
8 May 2025

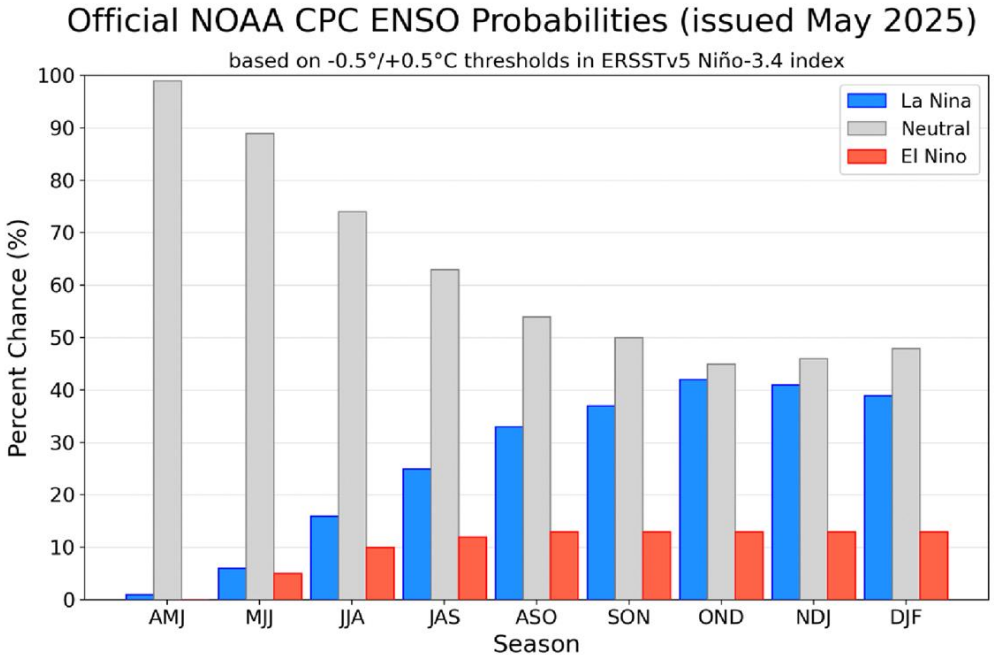
ENSO Alert System Status: Not Active

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

In April 2025, ENSO-neutral continued, with near-average sea surface temperatures (SSTs) covering most of the equatorial Pacific Ocean (Fig. 1). All of the latest weekly Niño index values were near zero, ranging from -0.2°C to +0.1°C (Fig. 2). Subsurface temperatures were mostly near average in the central and eastern Pacific Ocean (Fig. 3), with above-average subsurface temperatures remaining at depth in the western Pacific (Fig. 4). For the month, low-level and upper-level winds were near average across the equatorial Pacific. Convection remained suppressed near and west of the Date Line and was enhanced near Indonesia (Fig. 5). Collectively, the coupled ocean-atmosphere system was ENSO-neutral.

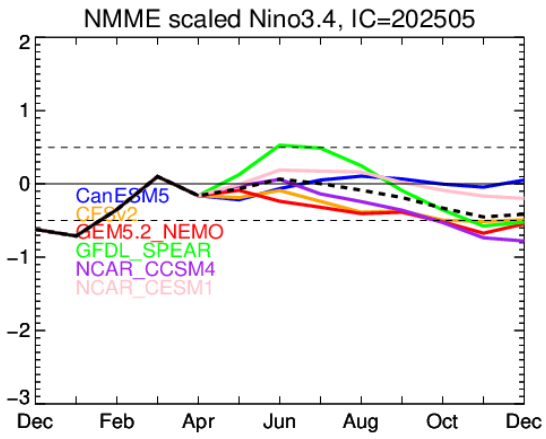
ENSO Forecast

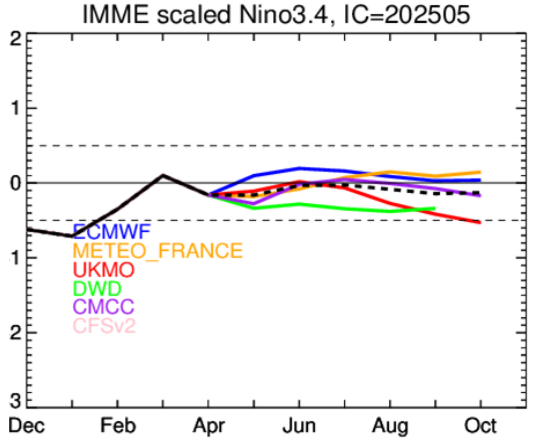
Neutral conditions forecast to persist through at least summer 2025

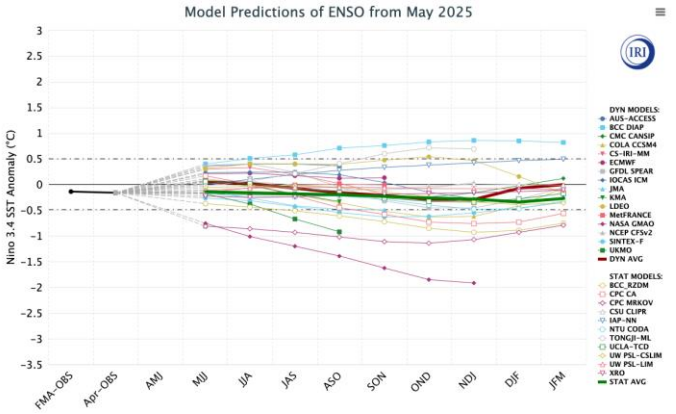


ENSO Forecast

Considerable uncertainty among the forecast models

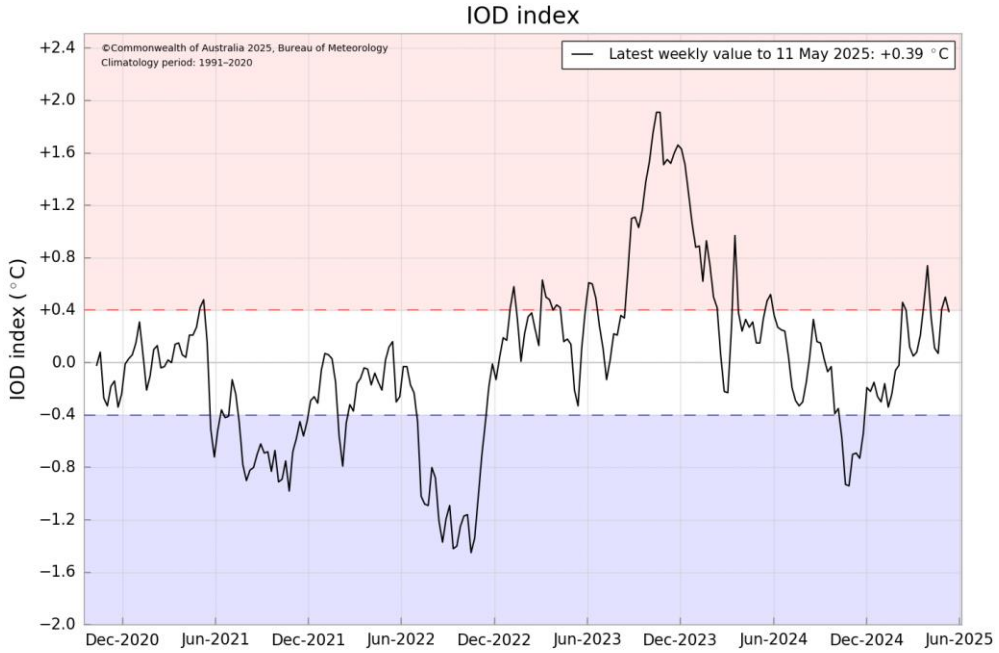






Current IOD State

Neutral conditions observed

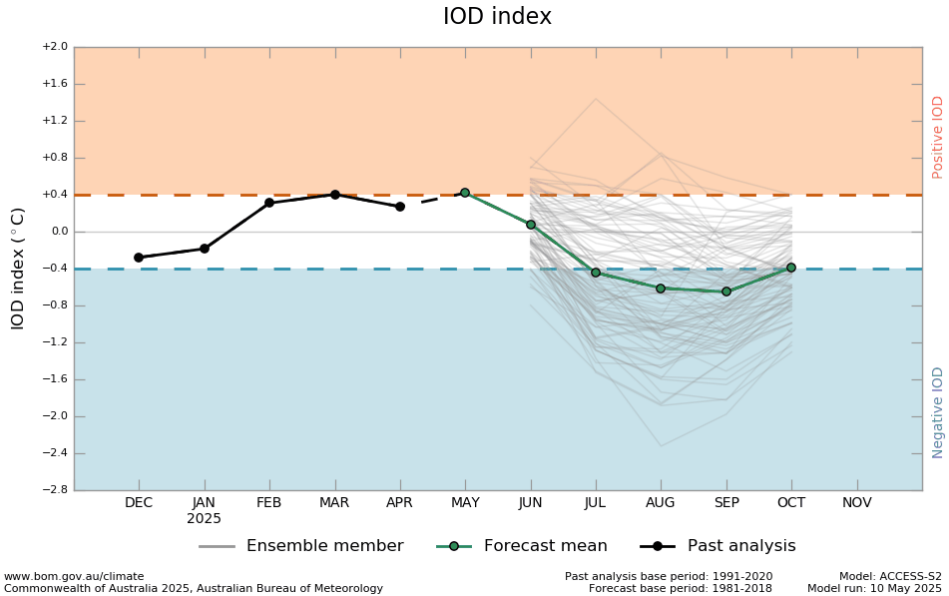


IOD Forecast

IOD forecast to remain neutral through August 2025

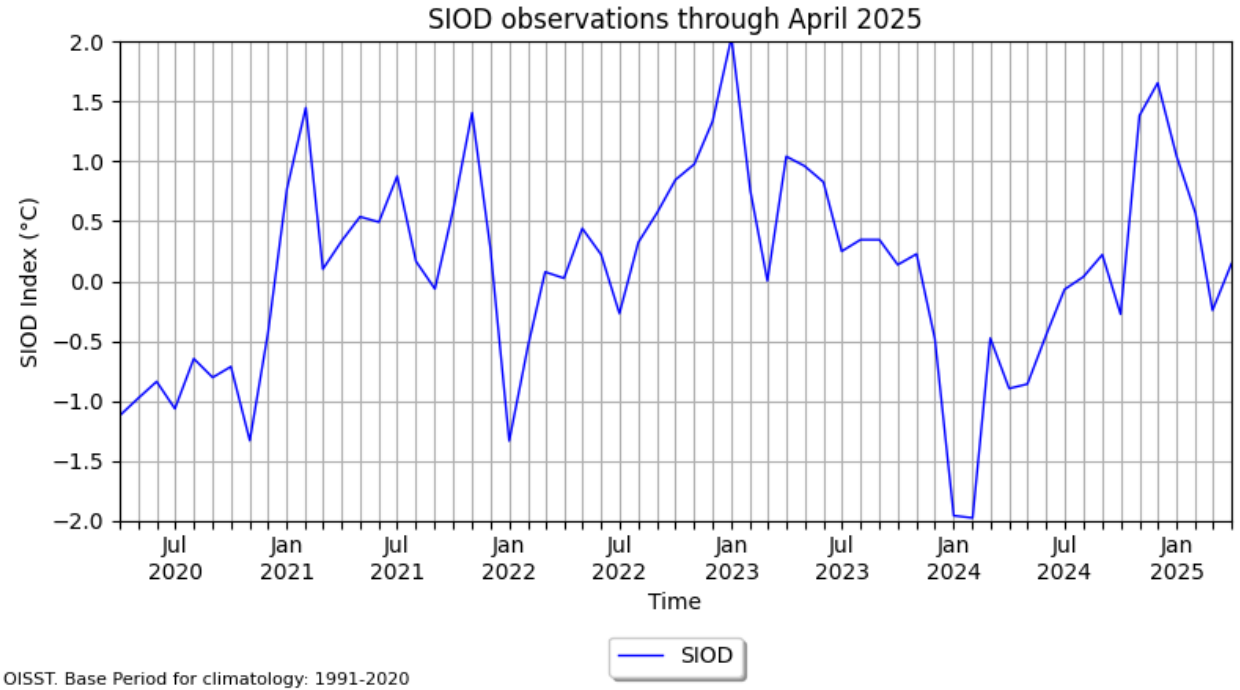
Australia Bureau of Meteorology

Despite recent positive IOD index values, the Bureau's model predicts an overall neutral state of the IOD until at least August. This is consistent with a range of international models that are also predicting neutral IOD for at least the next 2 months. *Skill for IOD forecasts made at this time of the year has historically been low for forecasts beyond a month ahead.*



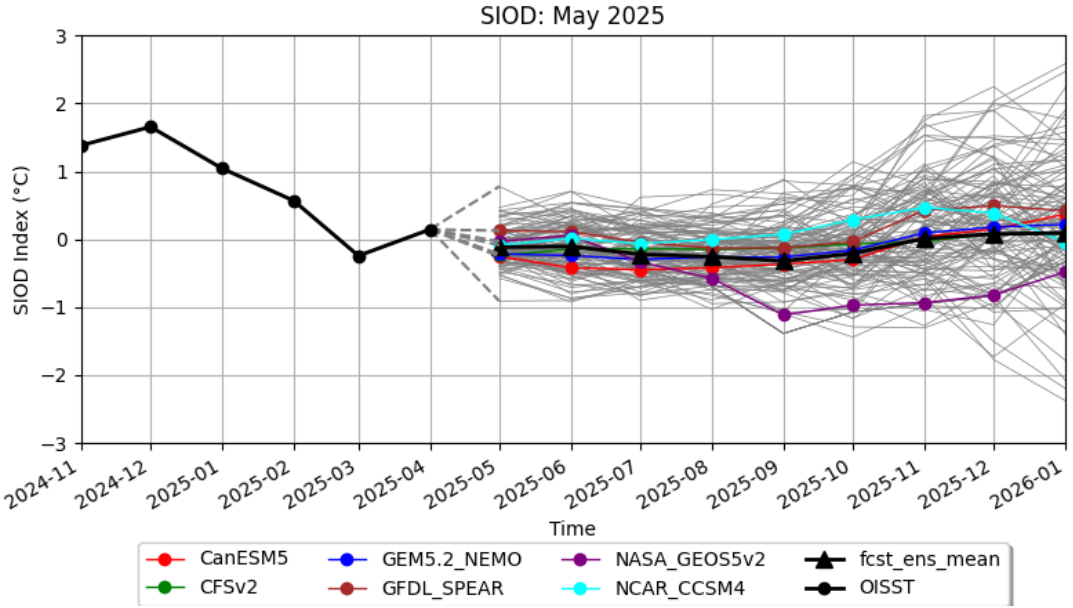
Current SIOD State

Neutral during past couple of months



SIOD

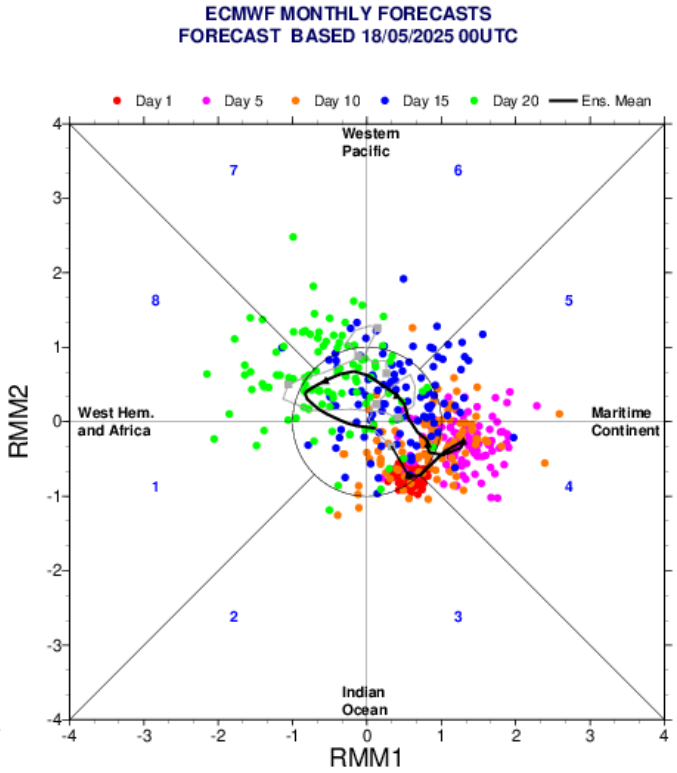
Neutral conditions forecast to persist for next several months



Madden-Julian Oscillation Forecast

The MJO is weak and forecast to remain so for the next couple of weeks

NOAA CPC: Based on dynamical and statistical model guidance, both ENSO and the MJO are favored to remain weak over the next few weeks.



Assumption 1 of 4

El Nino-Southern Oscillation

As of early May, the equatorial Pacific is in an ENSO-neutral state. Based on the AUS BOM ensemble forecast (IRI update not yet available), there is a high probability that of ENSO-neutral conditions until October. Based on IRI forecasts issued in April, the probability of ENSO-neutral declines during the October-December 2025 period, while the probability of La Niña increases, and there is no strong indication that one is more likely than the other. **Accordingly, ENSO-neutral is considered the most likely outcome through October 2025.** ~~while ENSO-neutral is also considered most likely in October-December 2025, there is a credible alternative scenario in which La Niña materializes in October-December 2025.~~

Assumption 2 of 4

Indian Ocean Dipole

Based on the AUS BOM and NMME ensemble forecasts, the Indian Ocean Dipole (IOD) will most likely remain neutral through July. While both models show a slight preference for a negative IOD in August-October, the NMME model reverts to a neutral IOD in November-December. Given the low tilt in the odds toward negative and the low forecast skill of these models at this time of year due to the spring predictability barrier, **a neutral IOD is maintained as the most likely scenario through the end of the year. No Change**

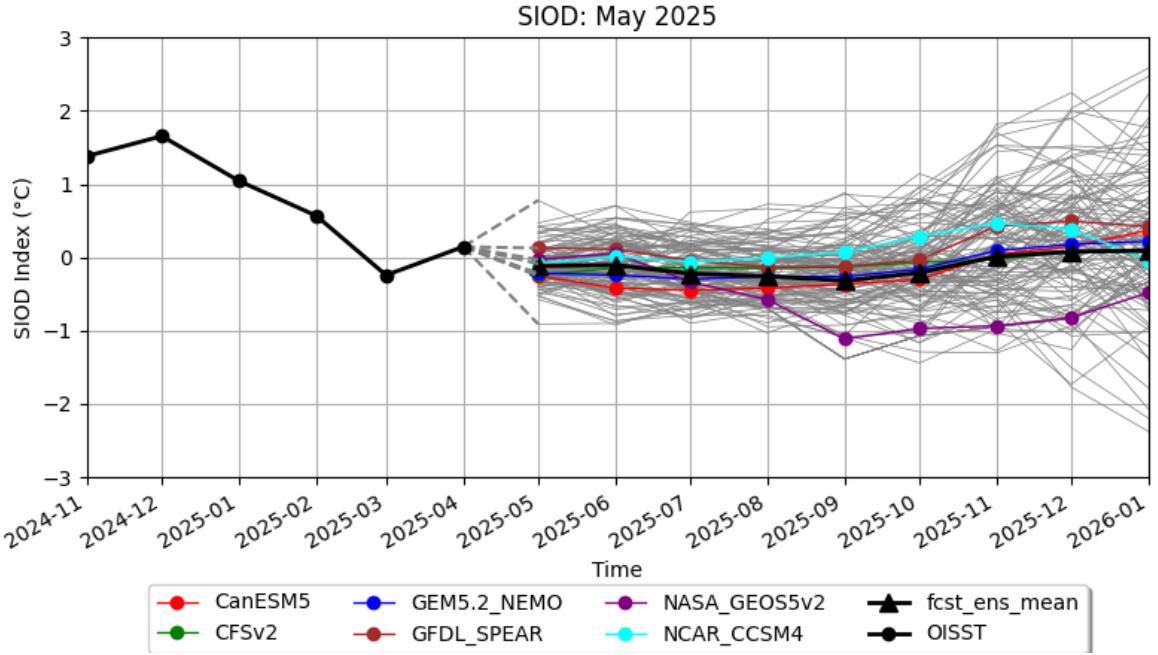
Assumption 3 of 4

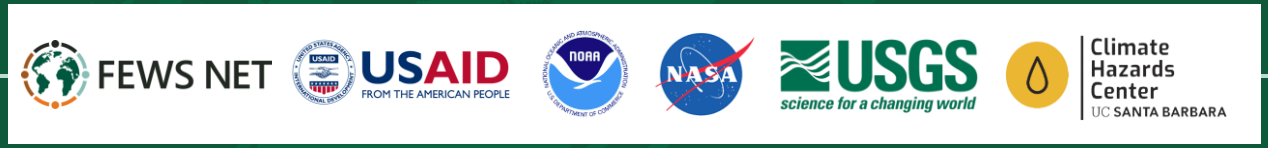
Madden-Julian Oscillation

Based on NOAA's May update and AUS BOM ensemble forecast, the Madden-Julian Oscillation is expected to be weak over the coming month. ~~but is likely a contributing factor to short-term forecasts of negative precipitation anomalies in mid-late May in East Africa.~~

Science Question

What is the outlook for the subtropical IOD during the October-December 2025 start of the rainy season in southern Africa? → **Neutral SIOD most likely**

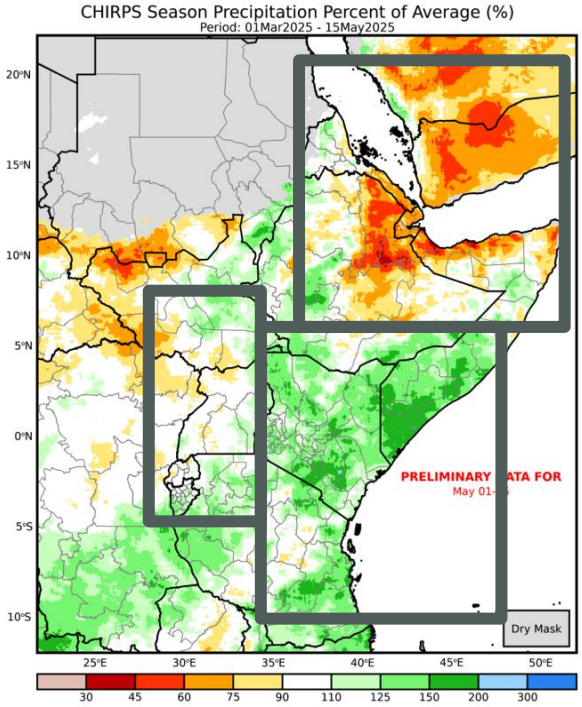


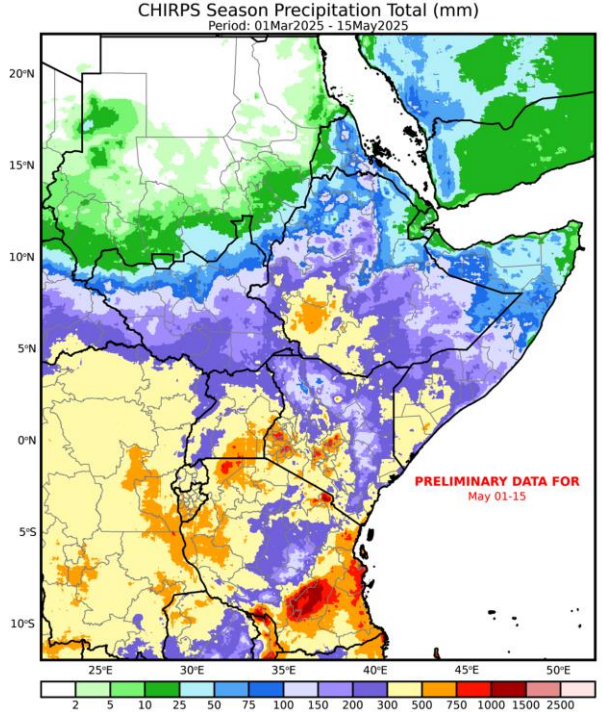

FEWS NET
USAID
FROM THE AMERICAN PEOPLE
NOAA
NASA
USGS
science for a changing world
Climate
Hazards
Center
UC SANTA BARBARA

East Africa

Mixed MAM 2025 rainfall performance across East Africa

- Significant deficits across the Northern sector including Yemen
- Above average conditions across the Eastern sector
- Average conditions in Uganda, Rwanda, Burundi and Bimodal S. Sudan



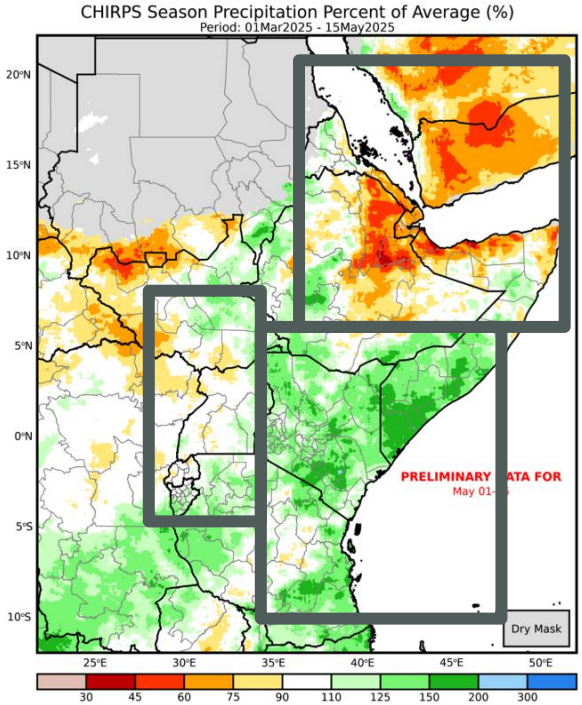


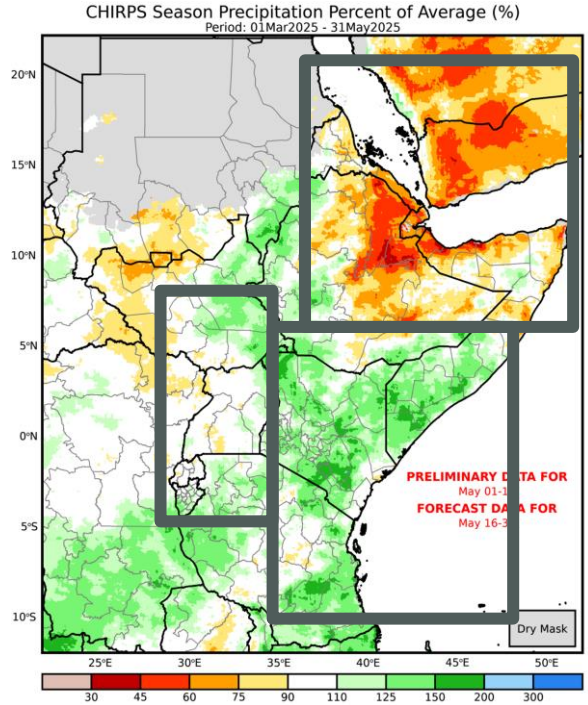
FEWS NET

USAID
FROM THE AMERICAN PEOPLE

Mixed MAM 2025 rainfall performance across East Africa

- Significant deficits across the Northern sector including Yemen
- Above average conditions across the Eastern sector
- Average conditions in Uganda, Rwanda, Burundi and Bimodal S. Sudan

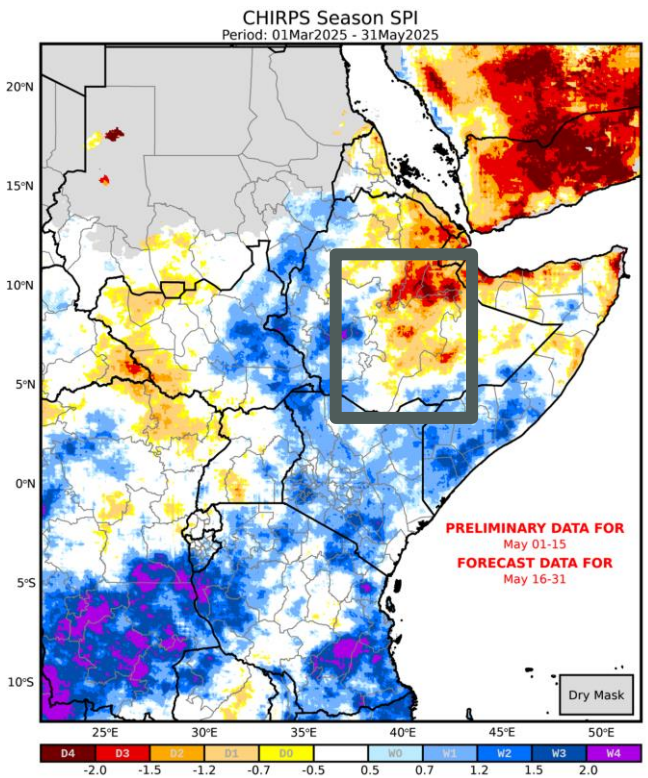


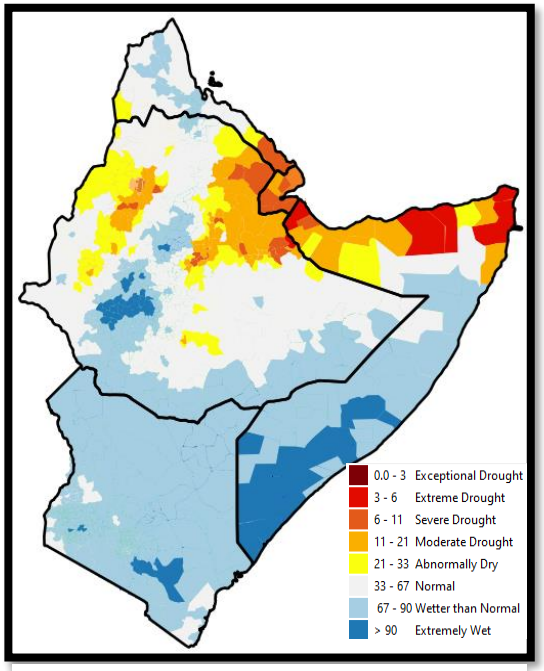


FEWS NET USAID FROM THE AMERICAN PEOPLE

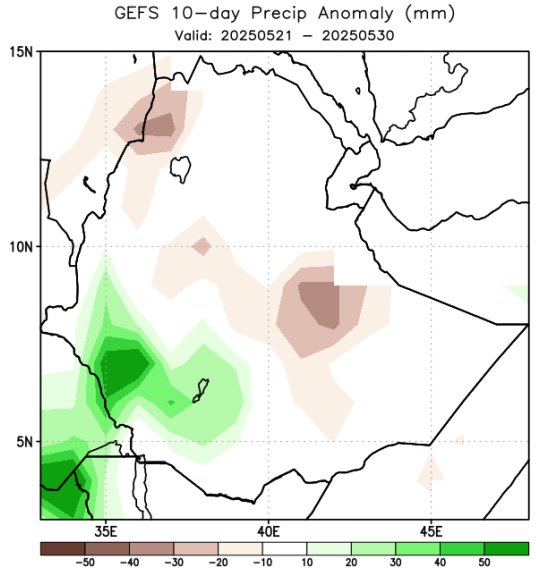
Belg Seasonal Summary

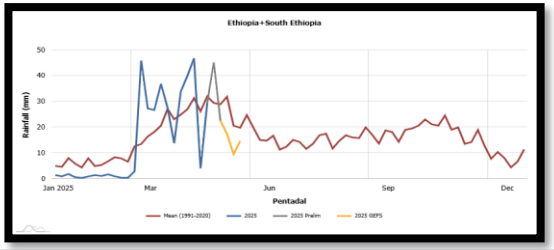
Drought conditions established across Northeastern Ethiopia and Yemen





This map depicts the percentile ranking of the seasonal accumulation of rainfall for the period March 1st to May 10th, 2025.



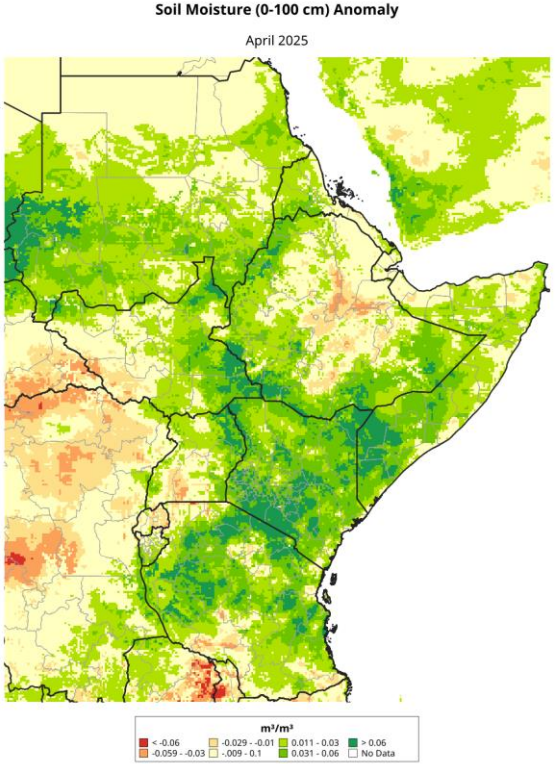


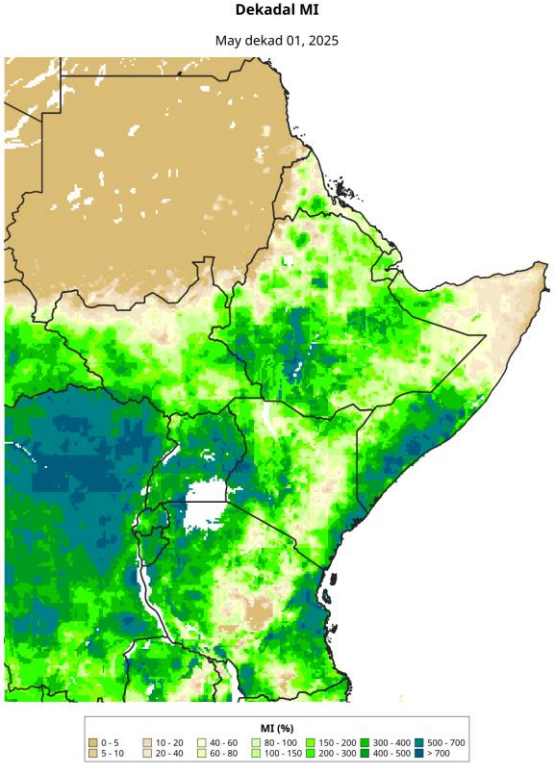
FEWS NET

USAID
FROM THE AMERICAN PEOPLE

Current Rainfall and Temperature Impacts

Generally favorable conditions with some exceptions



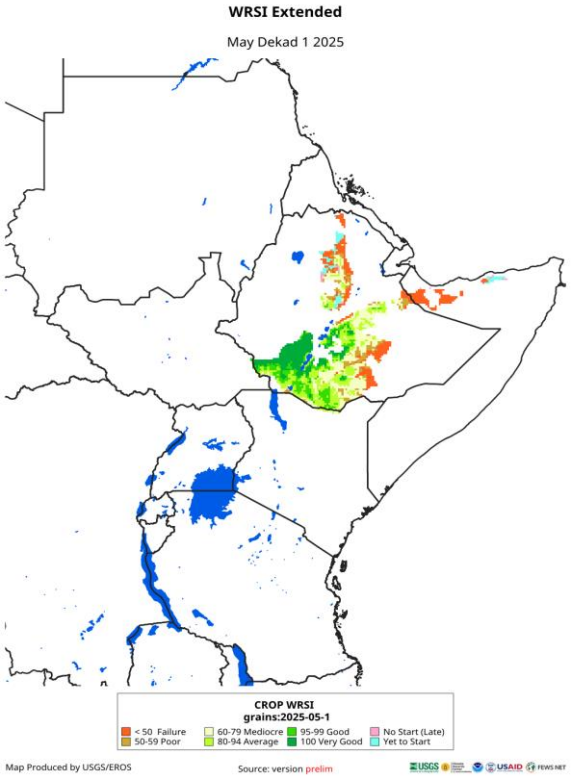


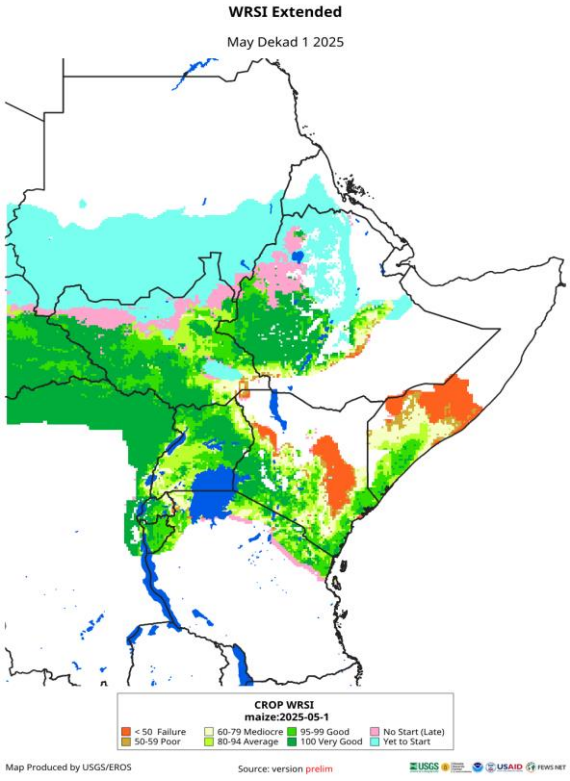
FEWS NET

USAID
FROM THE AMERICAN PEOPLE

Current Rainfall and Temperature Impacts

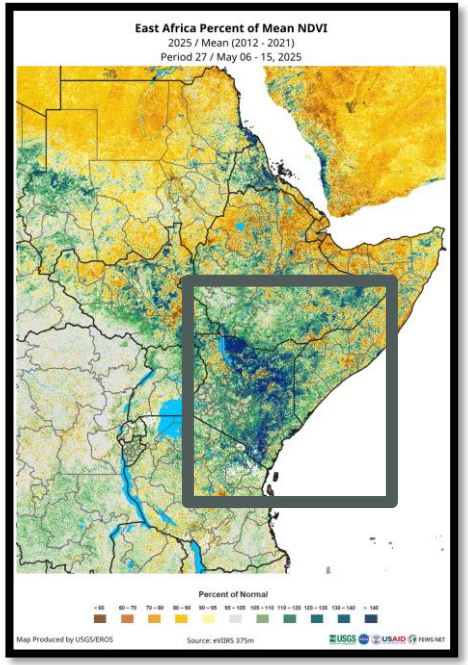
Generally favorable conditions with some exceptions

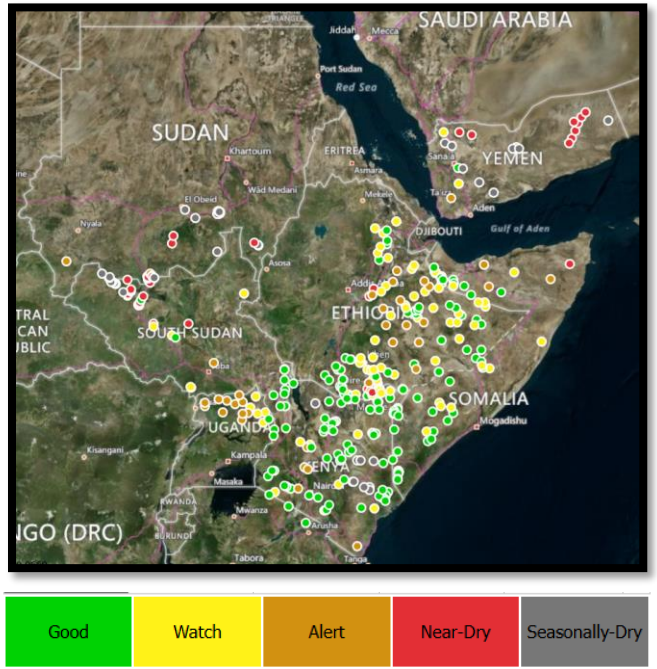




Current Rainfall and Temperature Impacts

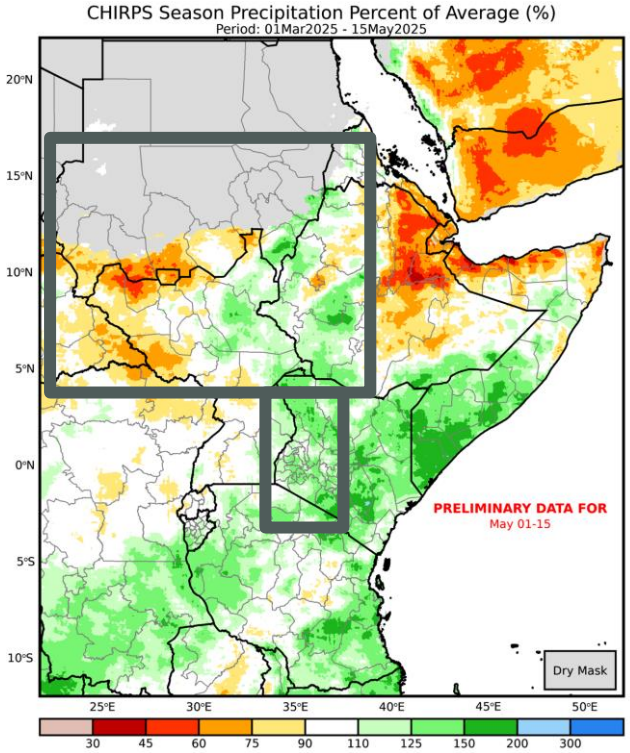
- Significant improvements of pasture and water in the Eastern sector including eastern Kenya and southern Somalia
- Areas of concern in northern Somalia, northern Ethiopia and parts of Uganda, Rwanda, Burundi and Bimodal S. Sudan



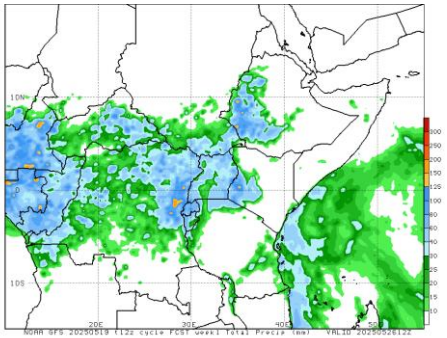


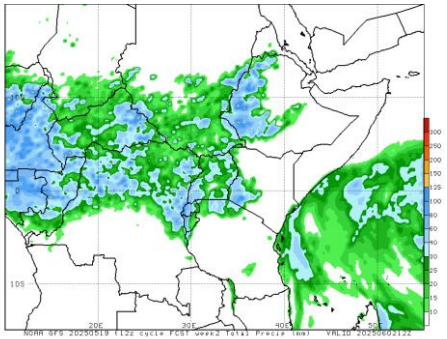
Main season rains in western and northern sectors

Current Conditions

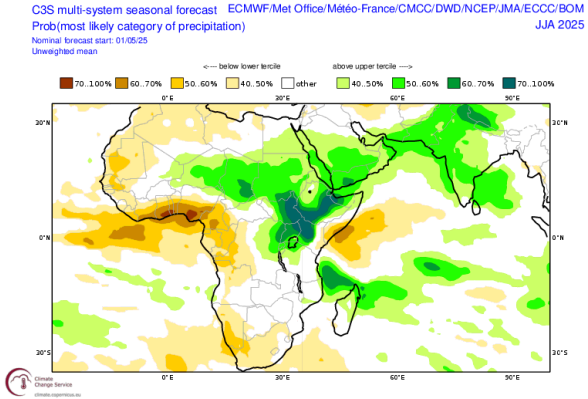


Short Term Forecast





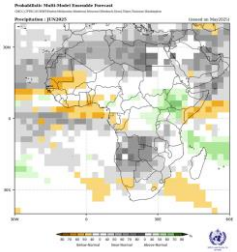
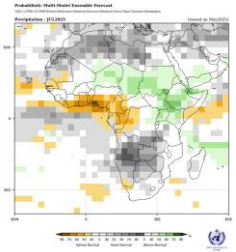
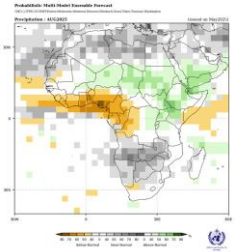
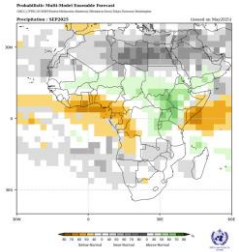
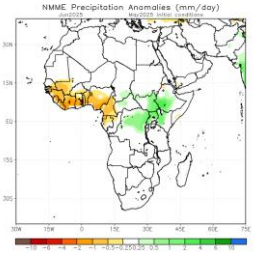
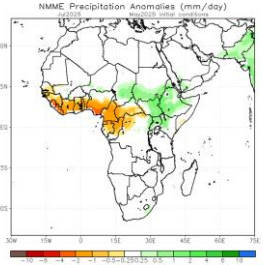
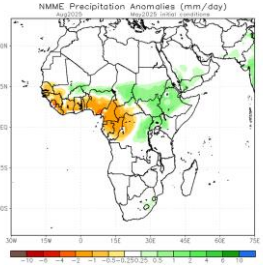
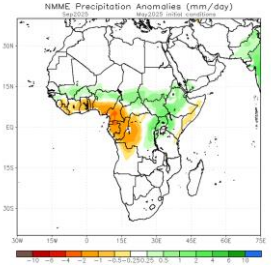
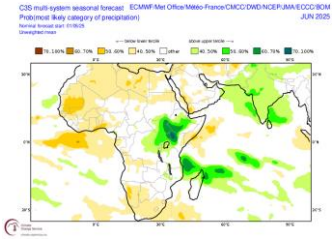
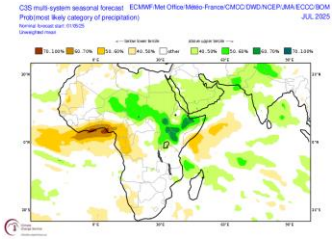
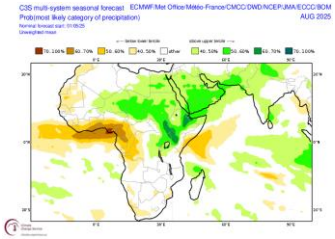
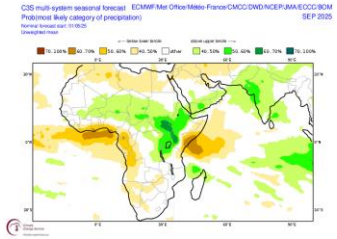
JJA Seasonal Forecast



FEWS NET

USAID
FROM THE AMERICAN PEOPLE

Models consistently predict increased chances of above-normal JJAS rainfall in East Africa

	June, 2025	July,2025	August, 2025	September, 2025
WMO				
NMME				
C3S				

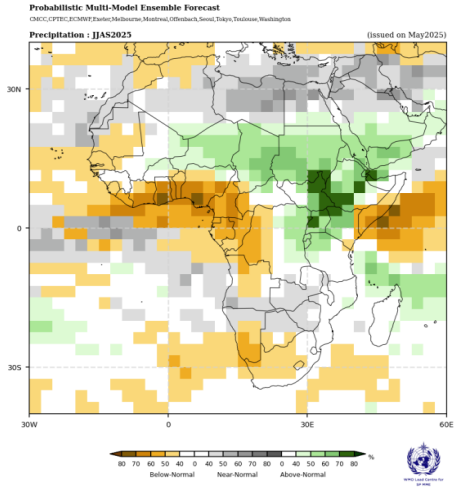
FEWS NET

USAID
FROM THE AMERICAN PEOPLE

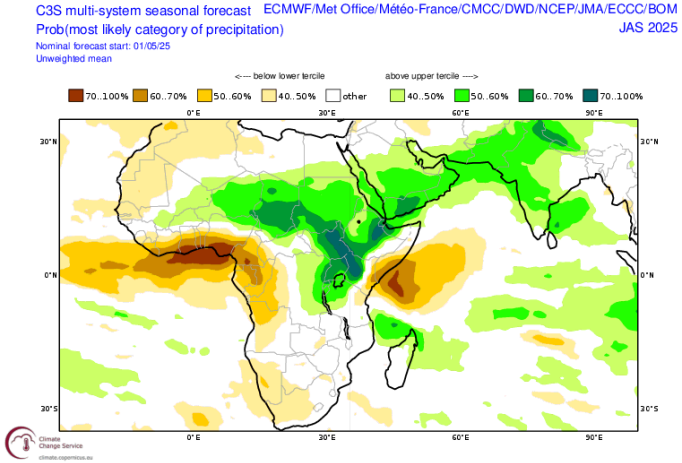
JJAS 2025 Precipitation Forecast

Consistent forecast for above average except southern Somalia

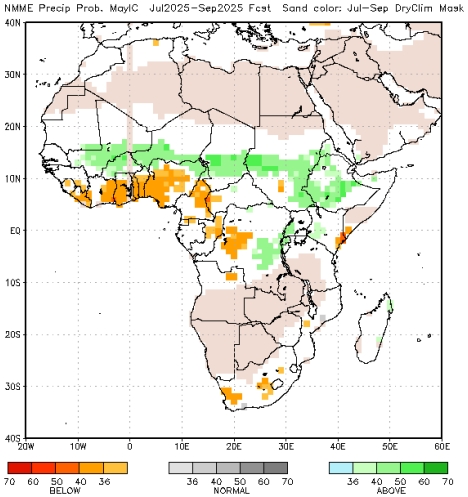
WMO forecast for JJAS 2025



C3S forecast for JAS 2025



NMME forecast for JAS 2025

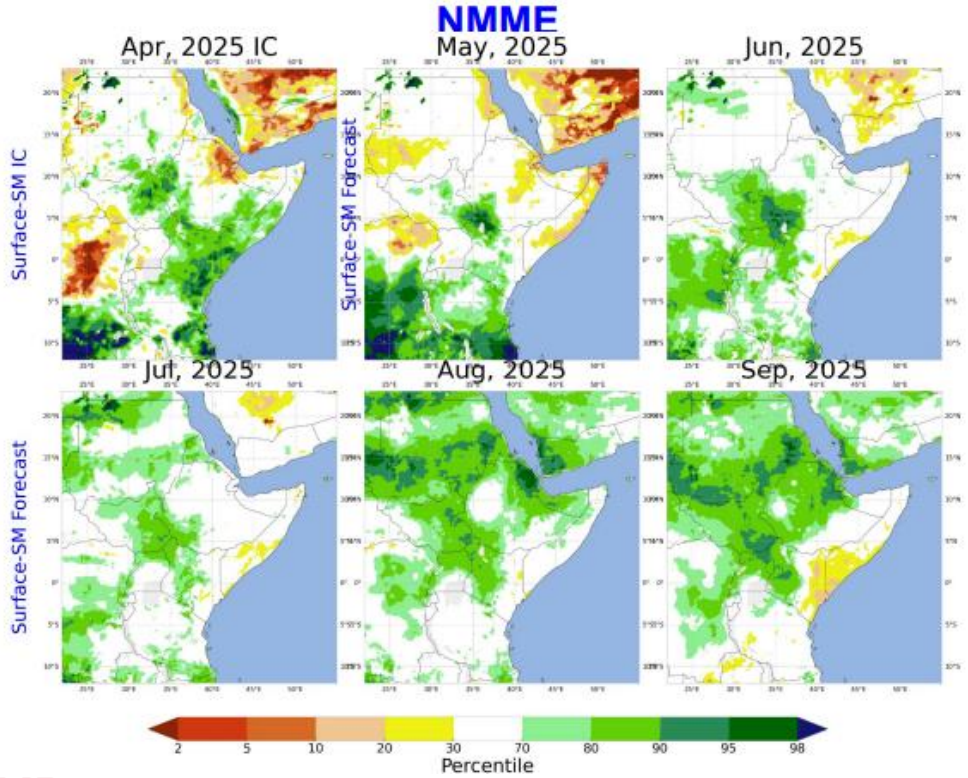


FEWS NET

USAID
FROM THE AMERICAN PEOPLE

Surface Soil Moisture Forecast

Averaged to above-average conditions expected in most areas

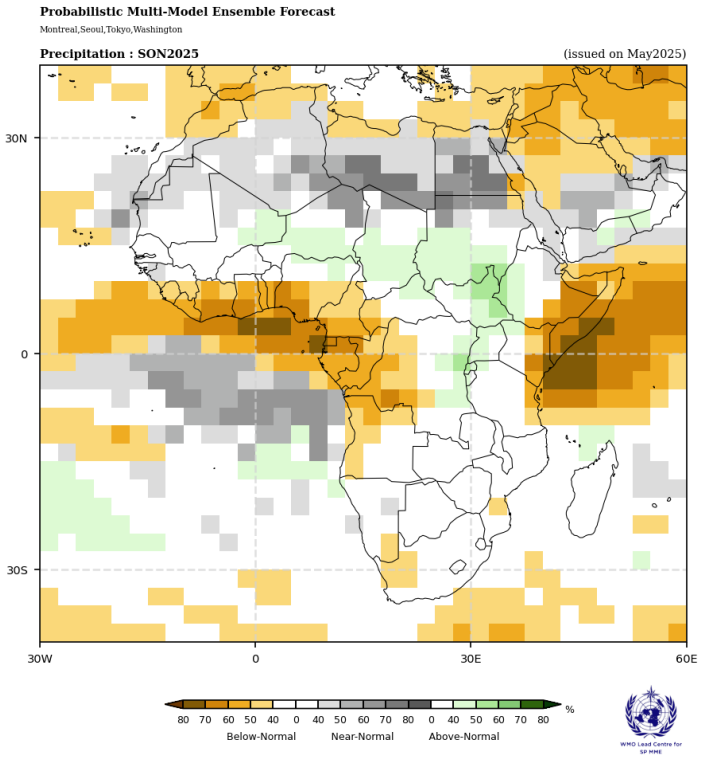


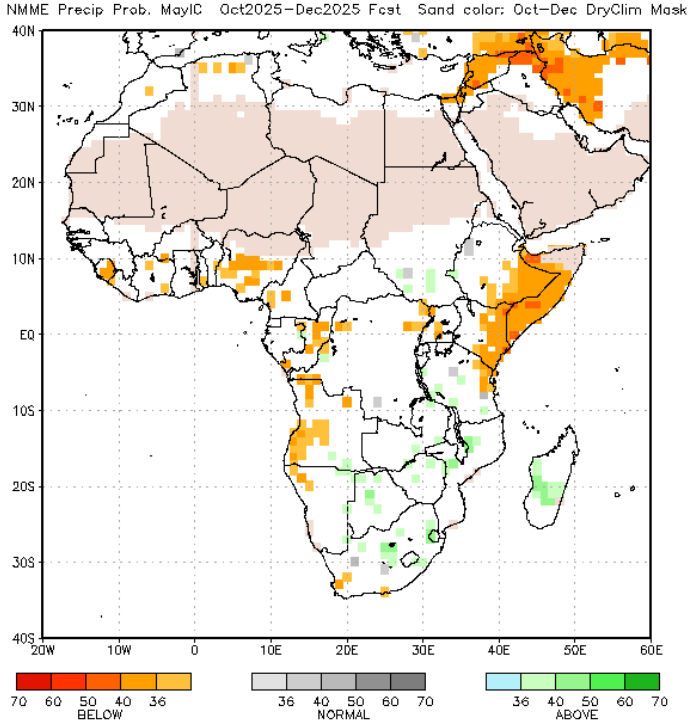
FEWS NET

USAID
FROM THE AMERICAN PEOPLE

OND Precipitation Forecast

Consistent tilt towards below average over Eastern Horn



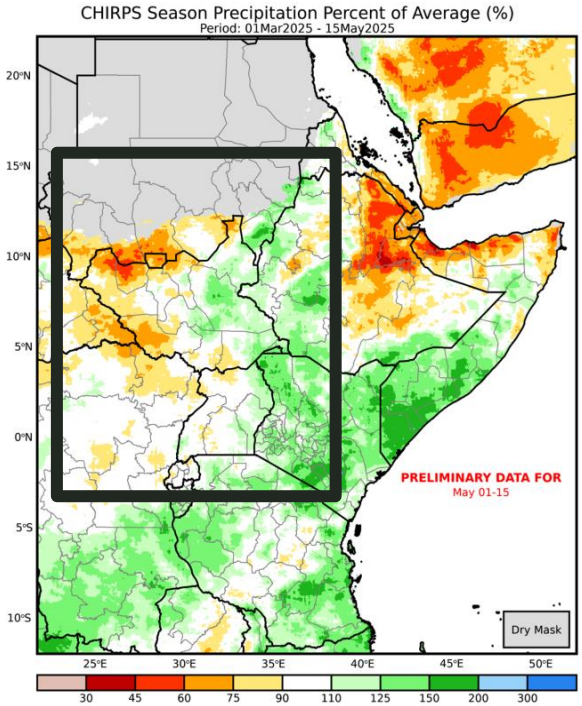


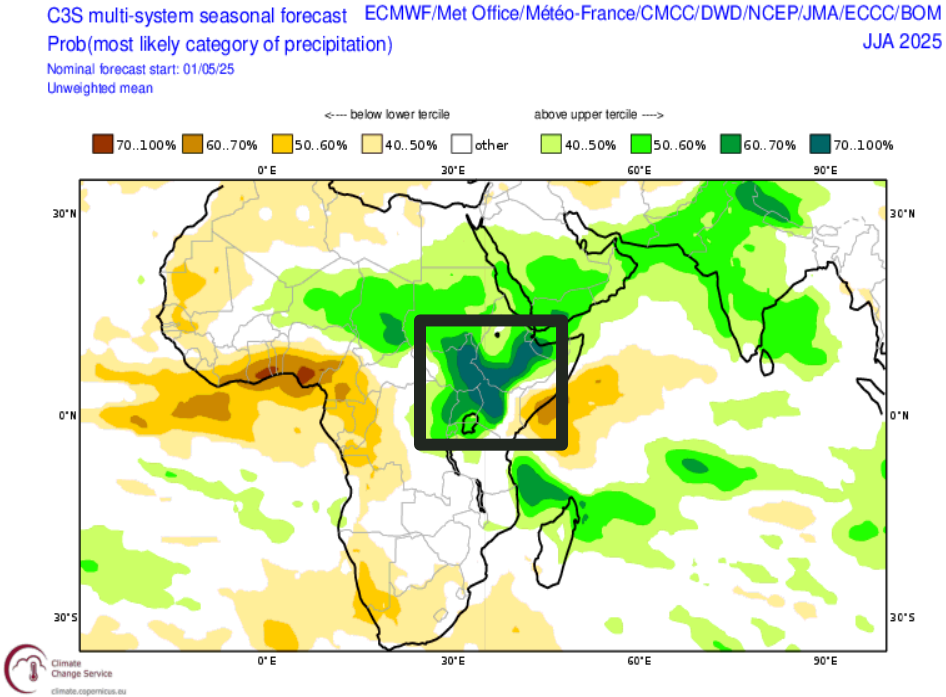
FEWS NET

USAID
FROM THE AMERICAN PEOPLE

Mixed MAM rainfall performance across East Africa

- Above average rainfall expected in the western sector





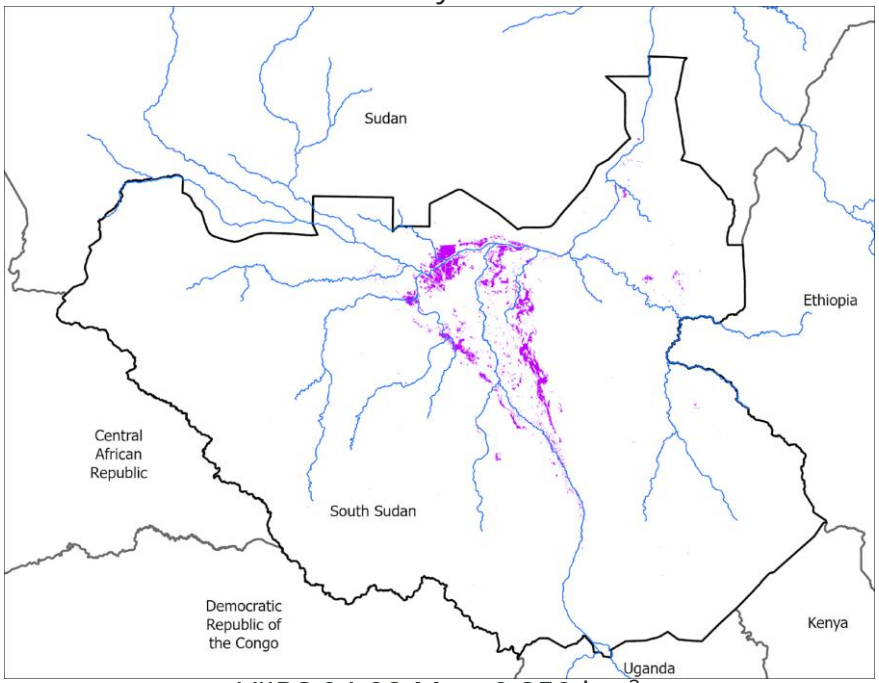
FEWS NET

USAID
FROM THE AMERICAN PEOPLE

Flooding Progression

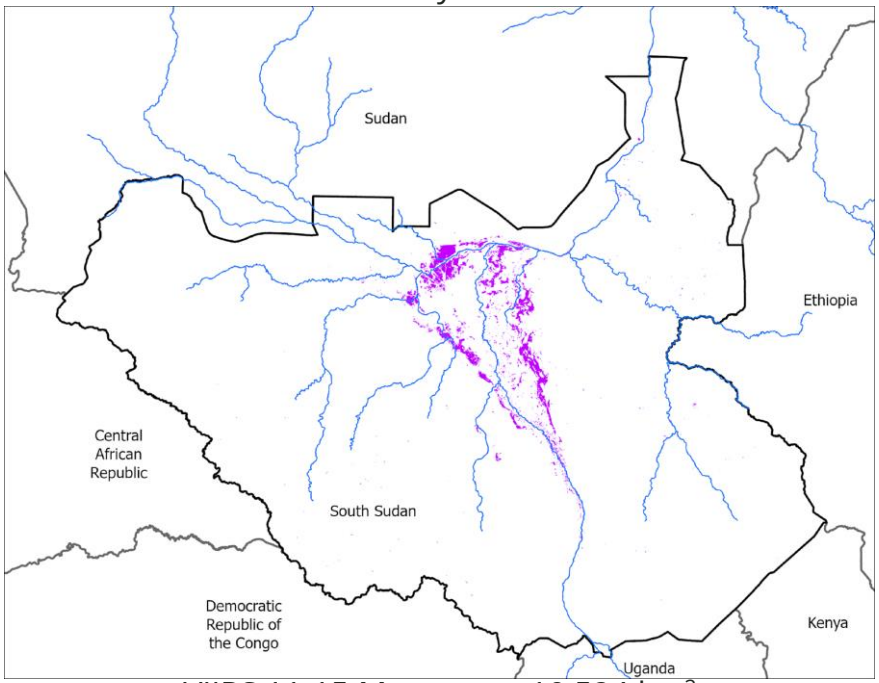
- Marginal increase in inundation

08 May 2025



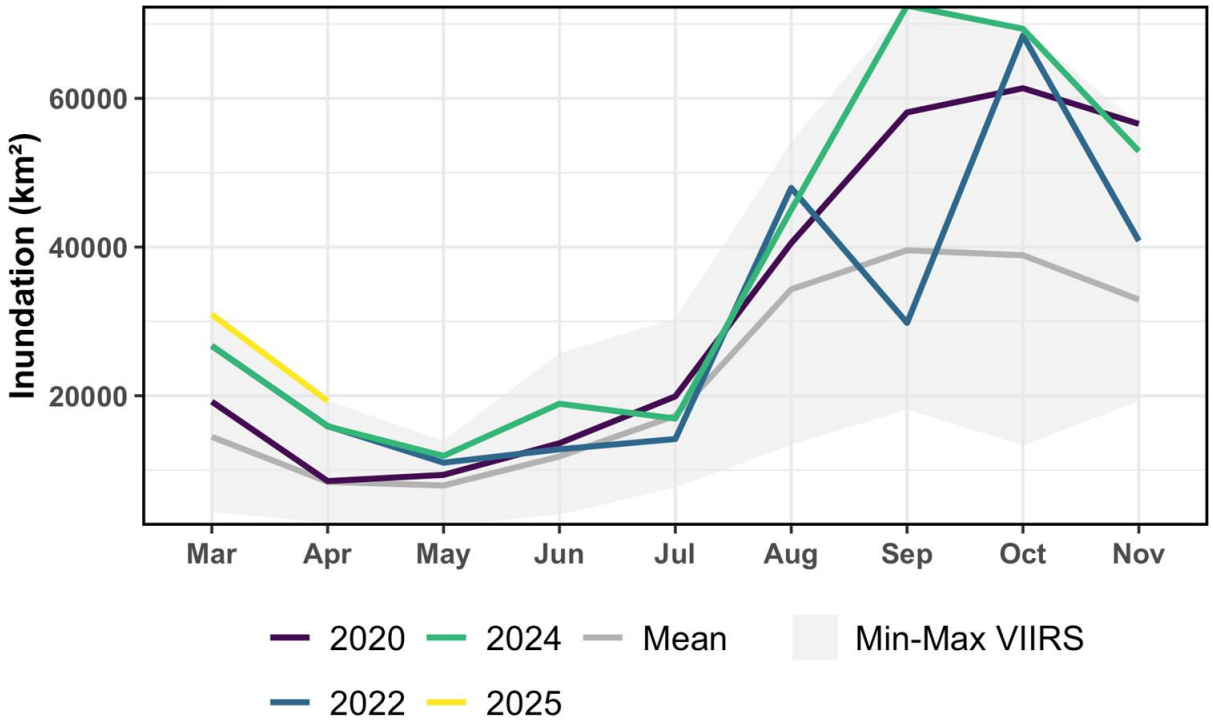
VIIRS 04-08 May: 9,859 km^2

15 May 2025



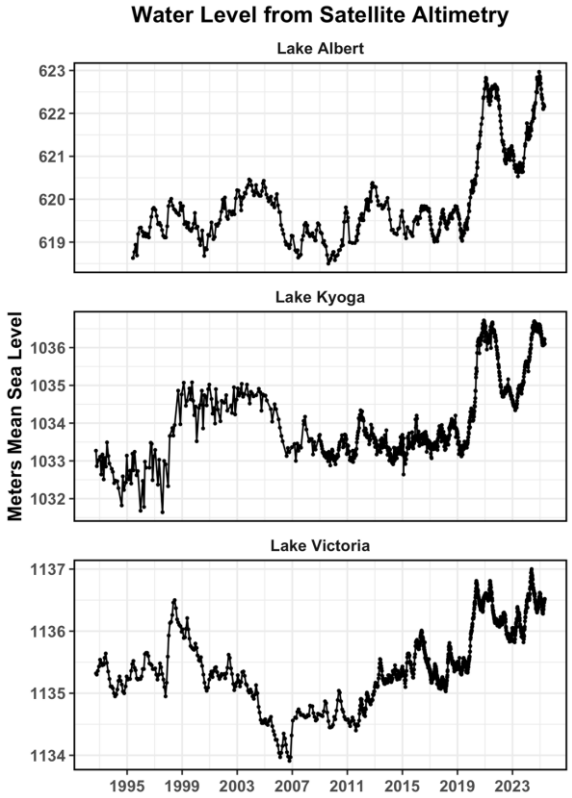
VIIRS 11-15 May comp: 10,524 km^2

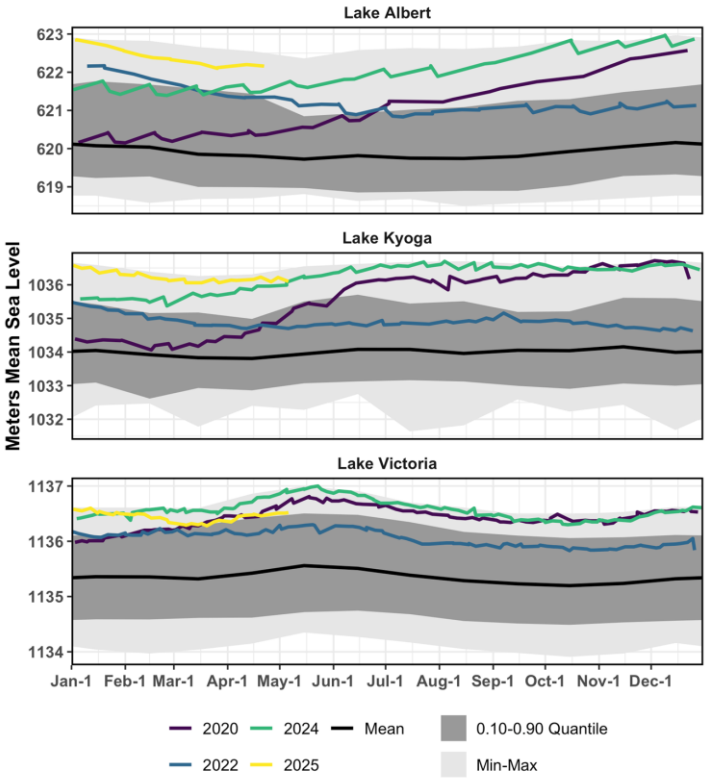
VIIRS Time Series



- Inundation is currently receding, which is typical for the season.
- April 2025 VIIRS inundation (yellow line) is the highest on record.

Uganda Lakes Satellite Altimetry

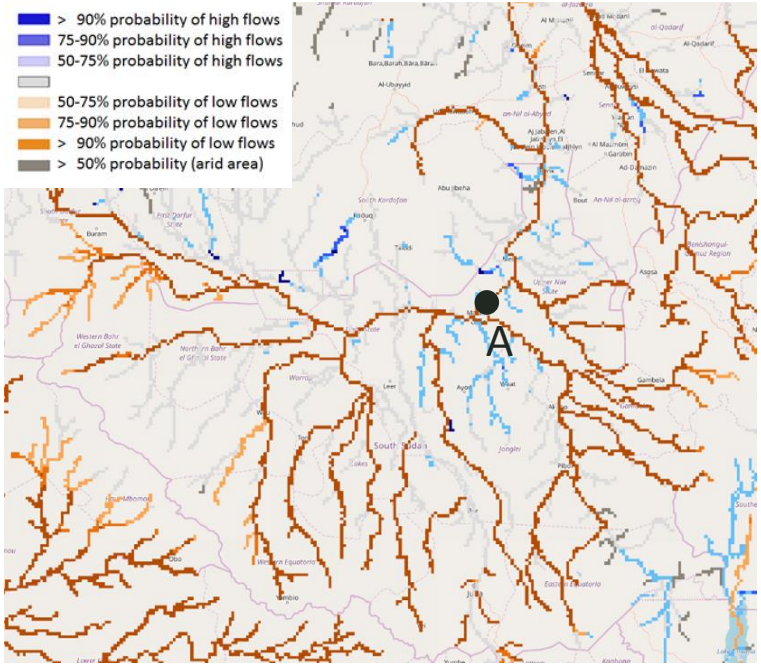




Uganda Lakes remain at historically high levels, though early May2025 (yellow line), though water levels in Lake Victoria are lower than last year.

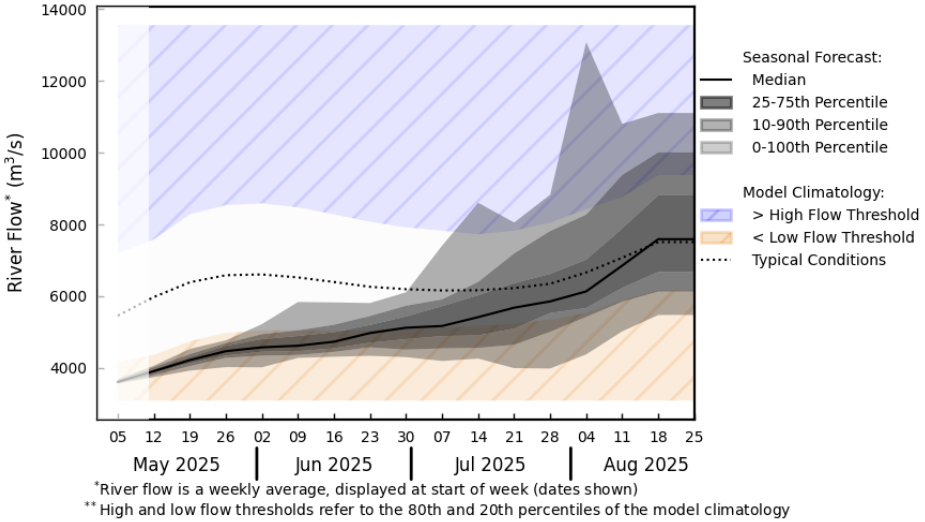
Data from Hydroweb, accessed 9 May 2025.

Streamflow Forecast



GloFAS streamflow forecast: **May – Aug 2025**

@point A on White Nile



GloFAS monthly streamflow forecast: **May – Aug 2025**

- Streamflow expected to increase from June onwards.
- Even at 4 months in advance, above average is the forecast especially in Sobet-Akobo-Pibor region.

Assumption 1a of 4

First-season rainfall in bi-modal zones

The **February-May *belg* rains** in **Ethiopia** will conclude with mixed performance, ranging from above-average in the southwest to below-average in central-northern areas. Rainfall deficits in central-northern areas are expected to strengthen based on end-of-season negative precipitation anomalies in mid-late May. Belg rains have performed well and favored both short and long-cycled crops in central, western, southwestern, and southern Ethiopia.

Assumption 1b of 4

First-season rainfall in bi-modal zones

The **March-May long rains/April-June gu rains** are expected to conclude with mixed performance, ranging from above-average rainfall in **Kenya**, southern **Somalia**, and **Ethiopia**'s southern border region to below-average rainfall in northern Somalia and northern Ethiopia. End-of-season negative precipitation anomalies are expected based on short-term forecasts. **No Change**

Assumption 1c of 4

First-season rainfall in bi-modal zones

Conditions have been consistently favorable for crop development and yields in Kenya and southern Somalia, with the exception of inundation in riverine and low-lying locations. **No Change**

Assumption 1d of 4

First-season rainfall in bi-modal zones

There is concern for strengthening deficits and drought in pastoral areas of northern Somalia and northern Ethiopia. In northern Ethiopia, the **March-May *diraac/sugum* rains** largely failed. Based on NDVI and waterpoint monitoring, deficits are present in many locations prior to the dry season, and above-average heat is expected to exacerbate this trend. **No Change**

Assumption 1e of 4

First-season rainfall in bi-modal zones

Recent rainfall has partially alleviated dry rangeland conditions in central Somalia, but depletion of pasture and water will likely occur at a faster rate than usual during the dry season. **No Change**

Assumption 1f of 4

First-season rainfall in bi-modal zones

The **first-season rains in southwestern South Sudan, Uganda, Rwanda, Burundi** are generally expected to conclude at near-average cumulative totals; however, deficits are expected in localized areas of ~~southw~~Western Uganda and western South Sudan. Based on WRSI and the SWI, cropping conditions are favorable despite these deficits.

Assumption 2a of 4

Main season rains in western and northern sectors

The February-August long rains in **western Kenya** and April-September rains in **Karamoja, Uganda**, will most likely be above-average based on cumulatively above-average rainfall through early May; short-term forecasts of above-average rainfall; and seasonal forecast ensemble models of above-average rainfall from June to August. The main risks to cropping conditions are uneven rainfall distribution and soil saturation, particularly in Karamoja. **No Change**

Assumption 2b of 4

Main season rains in western and northern sectors

The June-September 2025 *kiremt* rains in **Ethiopia** are expected to be above average based on seasonal forecast ensemble models. **No Change**

Assumption 2c of 4

Main season rains in western and northern sectors

The June-September 2025 *karan/karma* rains in **northern Ethiopia and northwestern Somalia** are expected to be above average based on seasonal forecast ensemble models. However, short-term precipitation forecasts suggest an elevated likelihood of a ~~below-average or~~ delayed onset ~~start of season~~ in June.

Assumption 2d of 4

Main season rains in western and northern sectors

The June-September 2025 rains in **Sudan and South Sudan** are expected to be above average based on seasonal forecast ensemble models. ~~Consequently, there is a risk of~~ This enhances the risk of flooding in southern Sudan and central, northern, and eastern South Sudan. In South Sudan, the peak flood extent in September-October 2025 is expected to be comparable to the same period in 2024. based on (a) comparable wetland and flood extent in April 2025 compared to April 2024; (b) historically high levels of upstream lakes in Uganda; and (c) forecasted above-average rainfall.

Assumption 3 of 4

Other mid-year seasonal rains

While there is uncertainty due to current ENSO-neutral conditions, with the variability of the MJO, and the low skill of ensemble forecast models for Somalia's coastal showers, the **July-September *hagaa* showers in southern Somalia** are expected to be below average.

No Change

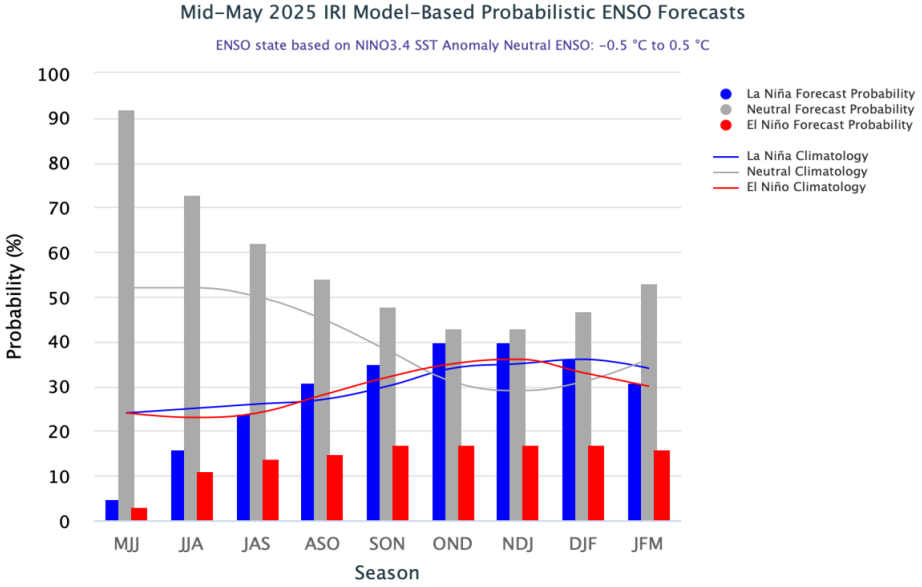
Assumption 4 of 4

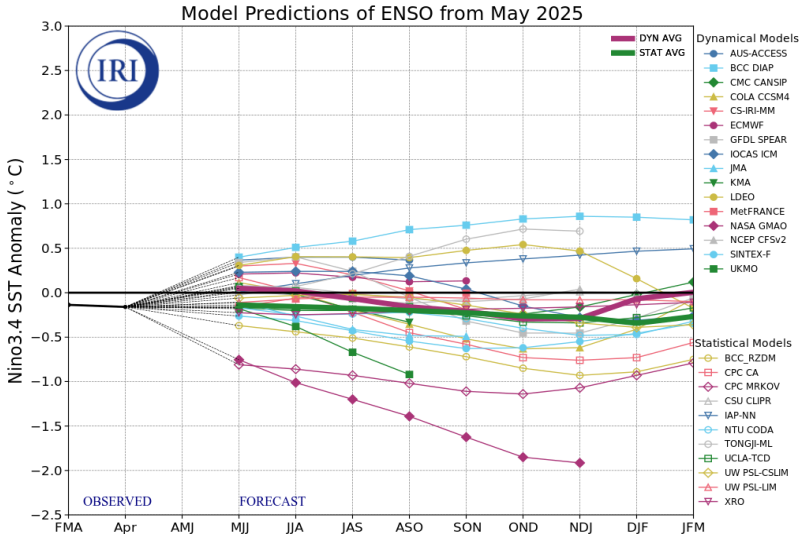
Second-season rainfall in bi-modal zones

There is considerable uncertainty about the October-December short rains/*deyr* rains in **Kenya, Ethiopia, and Somalia** given the weak signals for ENSO and the IOD and the current spring predictability barrier. At this time, the assumption for the most likely scenario is average rainfall. However, seasonal forecast ensemble models converge to a below-average forecast, which points to a credible alternative scenario that would likely materialize if weak signals for La Niña and a negative IOD strengthen in the coming months.

No Change

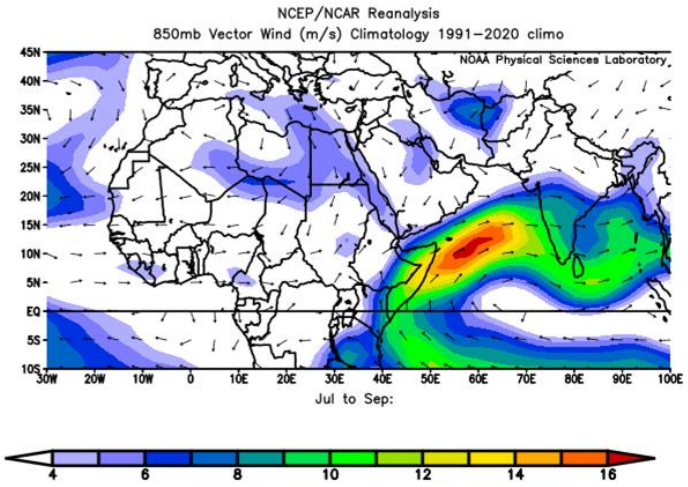
Question for agroclimatology team: *Is there any particular reason re: climate or weather patterns driving the above-average rainfall outlook amid ENSO-neutral conditions? Can that be attributed to a "strengthening" of oceanic and atmospheric patterns associated with La Niña given the rising probability of La Niña as we move into late 2025?*



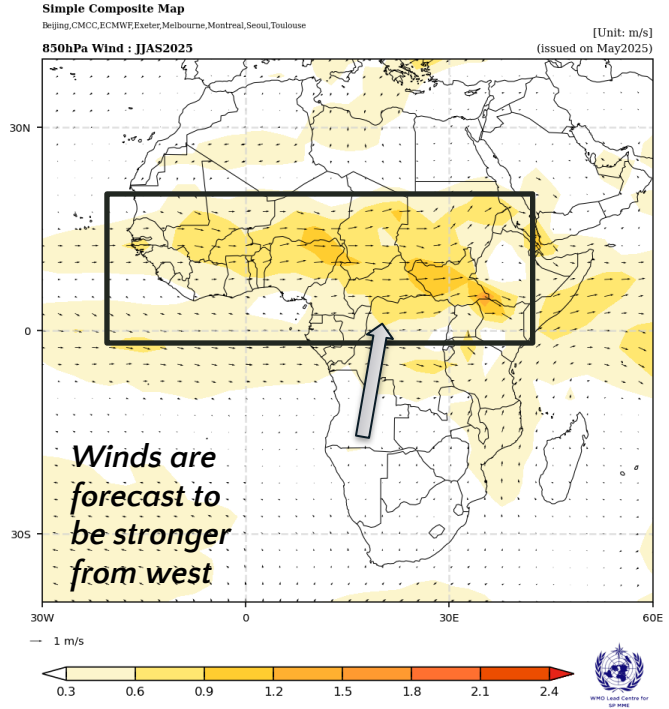


Models forecast a stronger-than-usual westerly component of low-level winds

850 mb JJAS wind speed and direction climatology

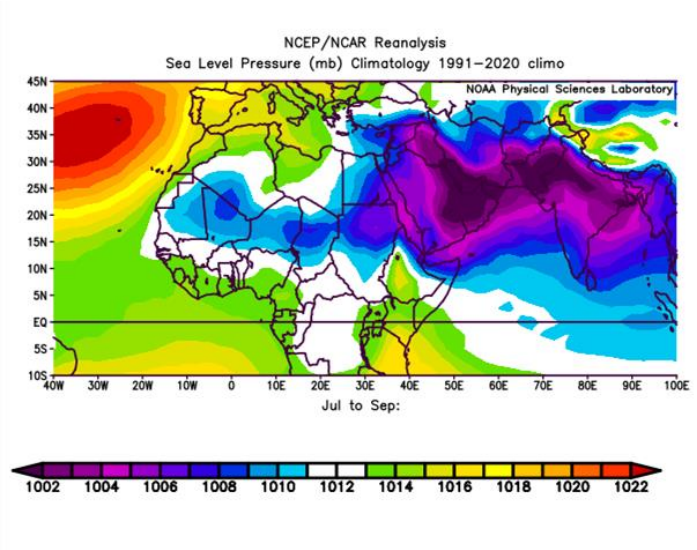


WMO composite forecast JJAS 2025 850 mb wind anomaly

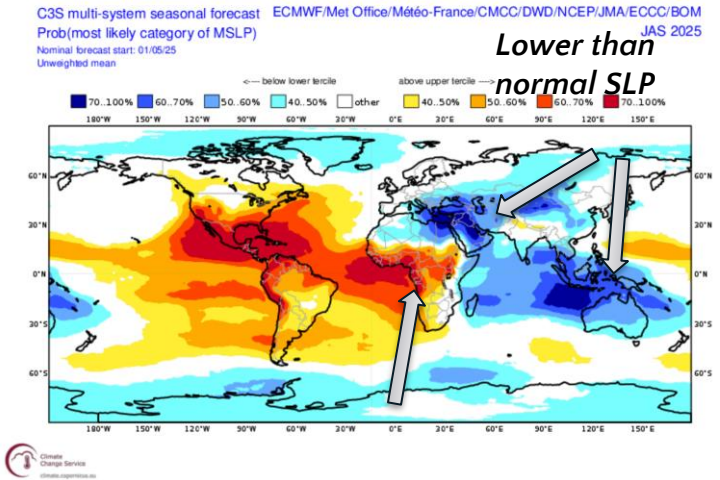


Forecast for stronger westerly component associated with strong sea level pressure gradient:
Higher than usual in western tropical Atlantic
Lower than usual in eastern Mediterranean/Arabian Peninsula

Mean sea level pressure JJAS climatology



C3S probability JAS 2025 mean sea level pressure (SLP)



Lower than normal SLP

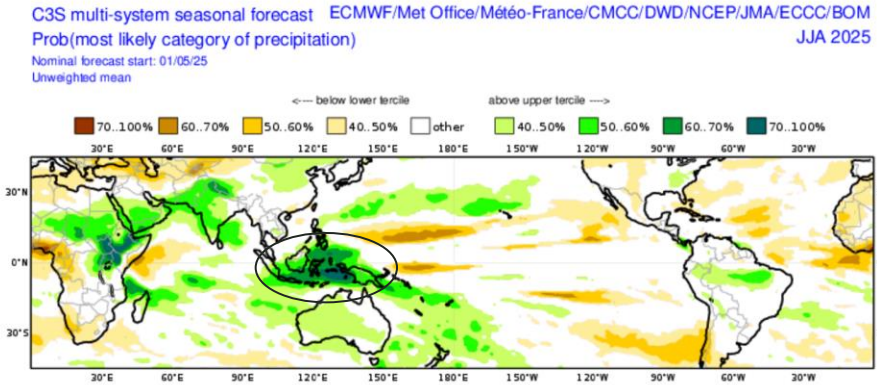
Higher than normal SLP

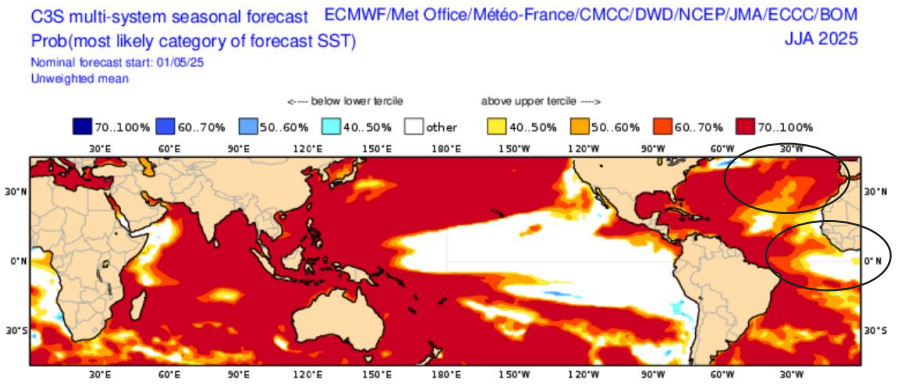
PROGRAMME OF THE EUROPEAN UNION

FEWS NET

USAID FROM THE AMERICAN PEOPLE

Atmospheric features consistent with SST and tropical precipitation forecast



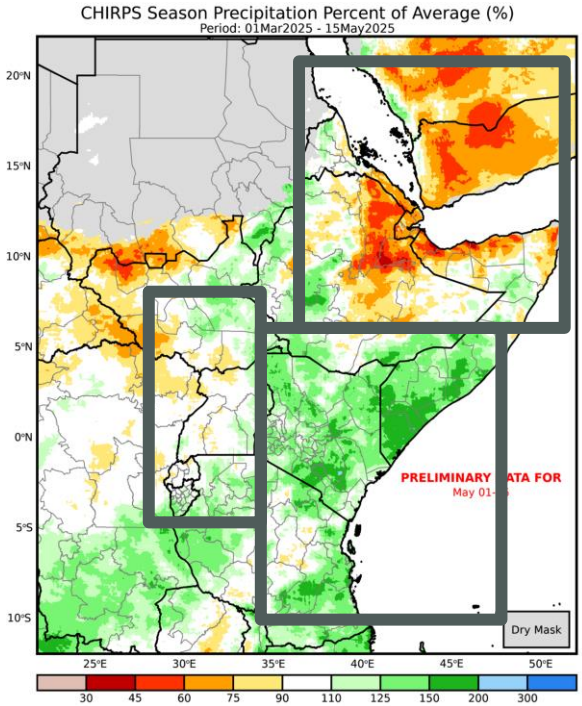


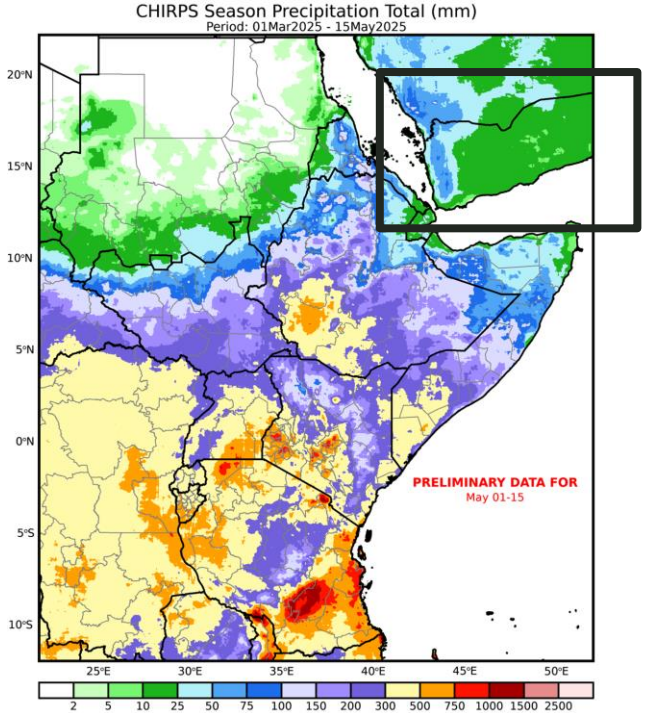
FEWS NET USAID FROM THE AMERICAN PEOPLE NOAA NASA USGS science for a changing world Climate Hazards Center UC SANTA BARBARA

Yemen

MAM 2025 Precipitation

Significant deficits across the Northern sector including Yemen



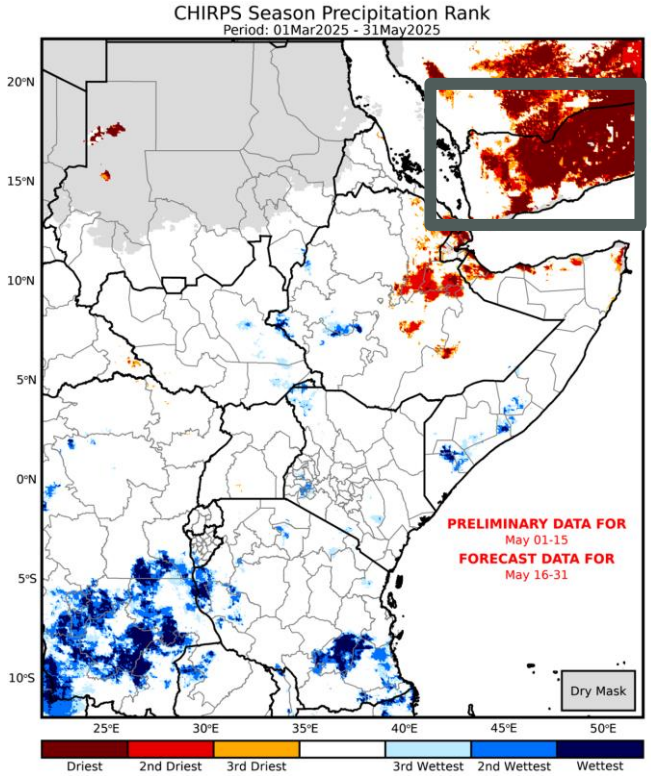


FEWS NET

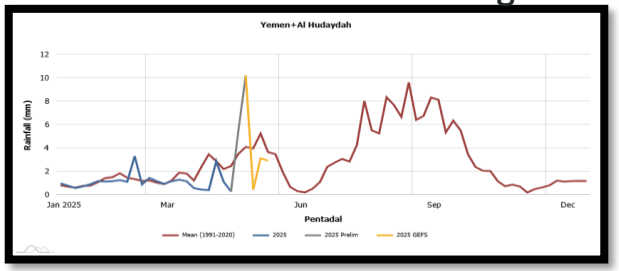
USAID
FROM THE AMERICAN PEOPLE

Yemen MAM 2025 Season Summary

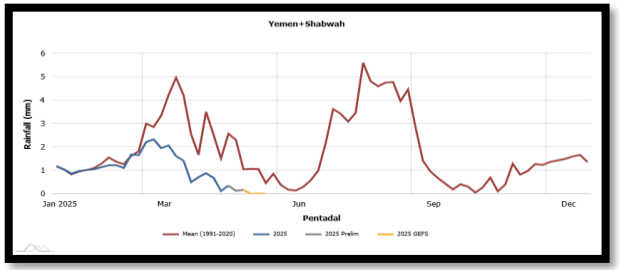
- Extreme rainfall deficits across Yemen
- Driest season on record over much of the country

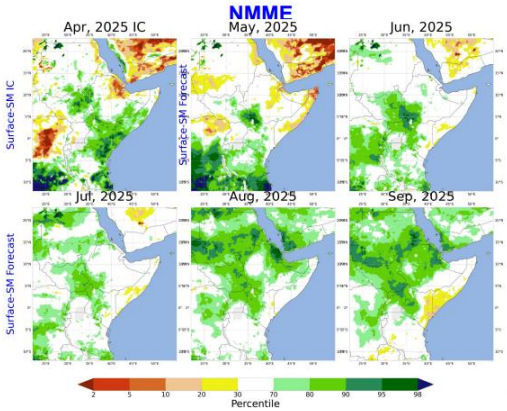


Western/Northern coastal regions



Central/ Eastern regions





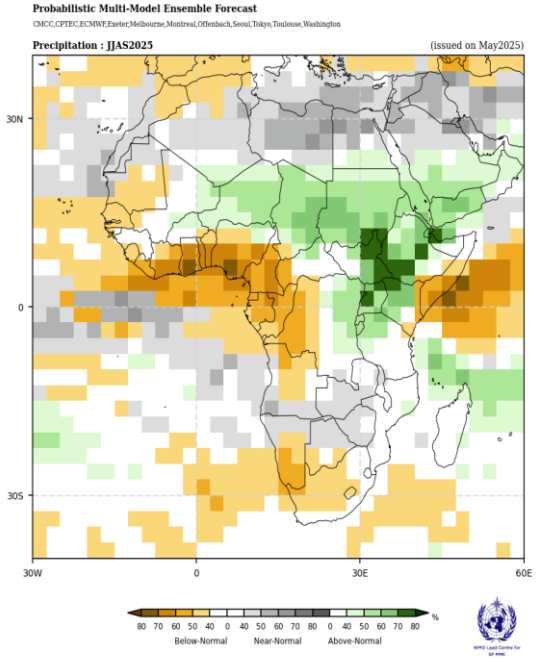
FEWS NET

USAID
FROM THE AMERICAN PEOPLE

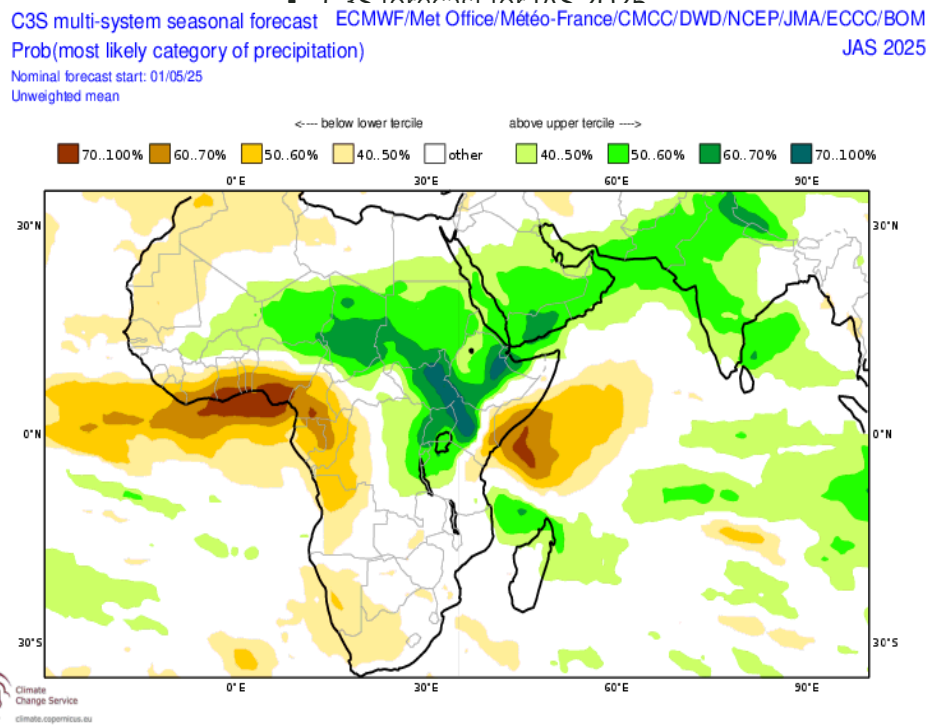
JJAS 2025 Precipitation Forecast

Consistent forecast for above average over Yemen

- WMO forecast for JJAS 2025



- C3S forecast for JAS 2025



FEWS NET

USAID
FROM THE AMERICAN PEOPLE

Assumption 1 of 2

- ~~Despite a temporary increase in rainfall in late April/early May,~~ The **March-May first season rains** across Yemen will conclude at significantly below-average cumulative totals despite a temporary improvement ~~except~~ in localized ~~northern~~ coastal areas. Rainfall is tapering off as the season ends.

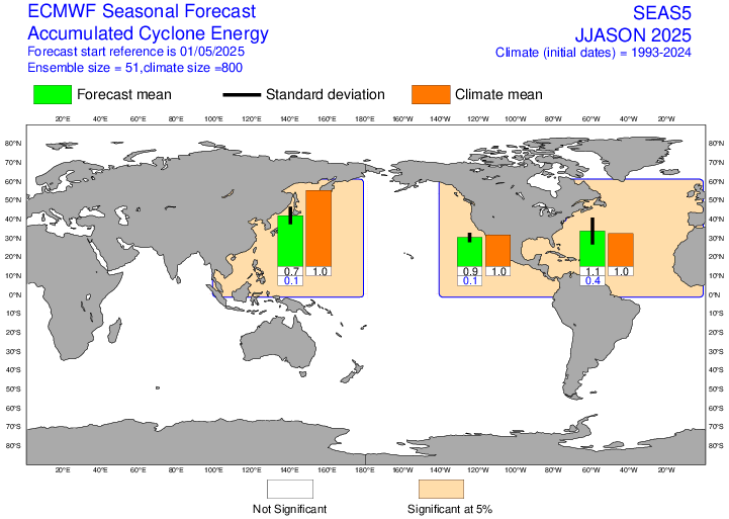
Assumption 2 of 2

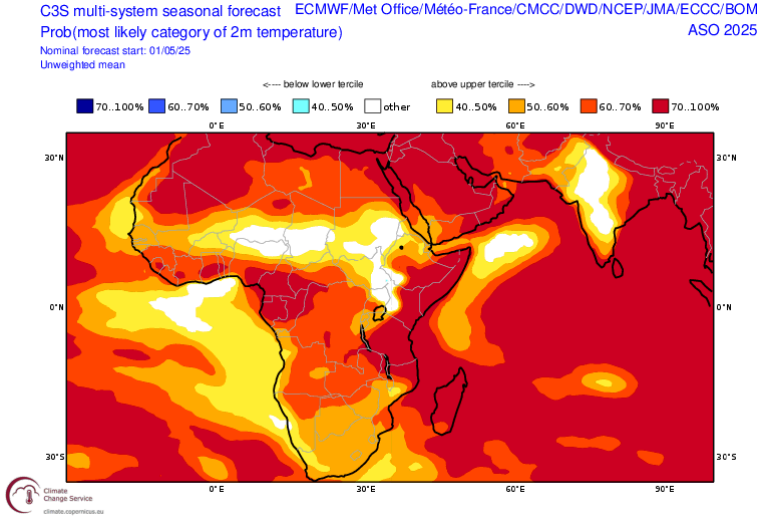
No Change

Yemen's **July-September second season rains** are expected to above-average based on seasonal forecast ensemble models, which would alleviate current drought conditions.

Question for agroclimatology team: *What is the outlook for the cyclone season in the Gulf of Aden through December?*

Despite forecast average to above average temperatures, the Gulf of Aden rarely experiences tropical cyclones, with the last cyclone experienced in 2018.



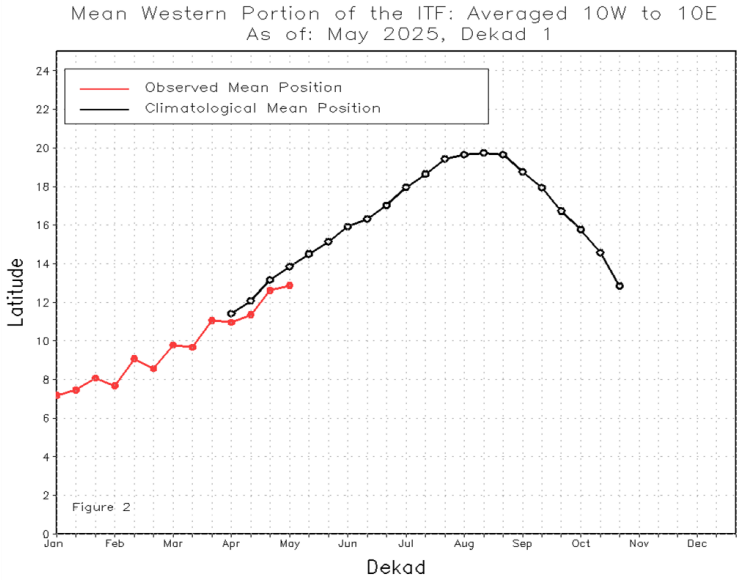


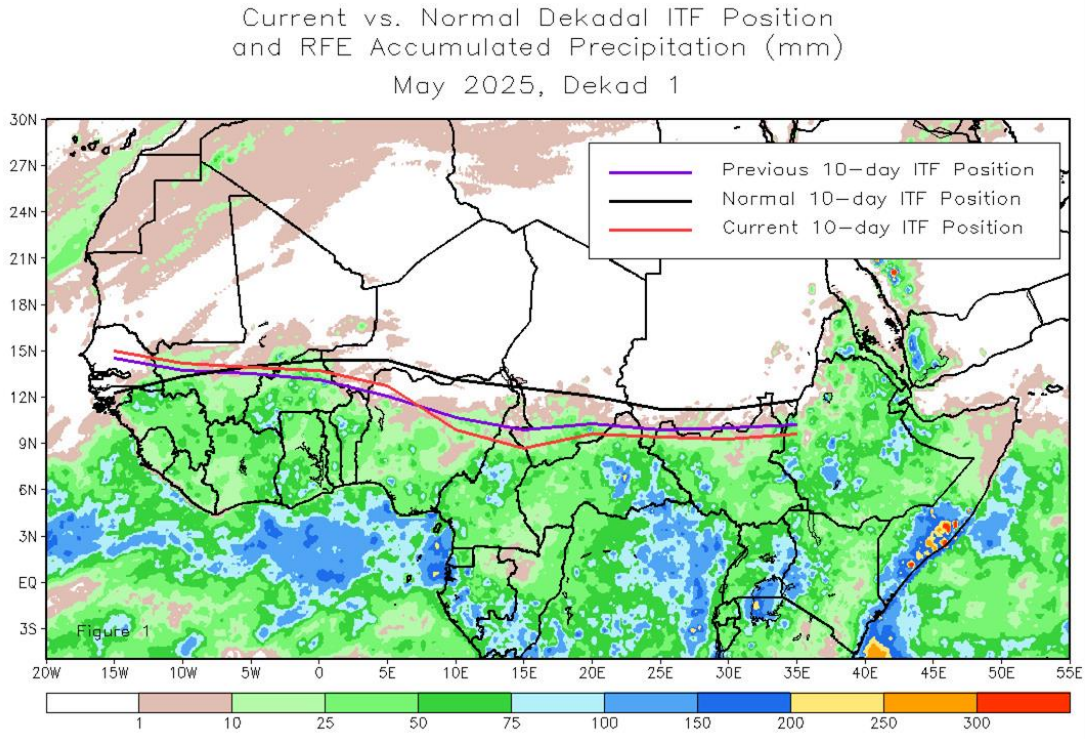
FEWS NET USAID FROM THE AMERICAN PEOPLE NOAA NASA USGS science for a changing world Climate Hazards Center UC SANTA BARBARA

West Africa

Western ITF

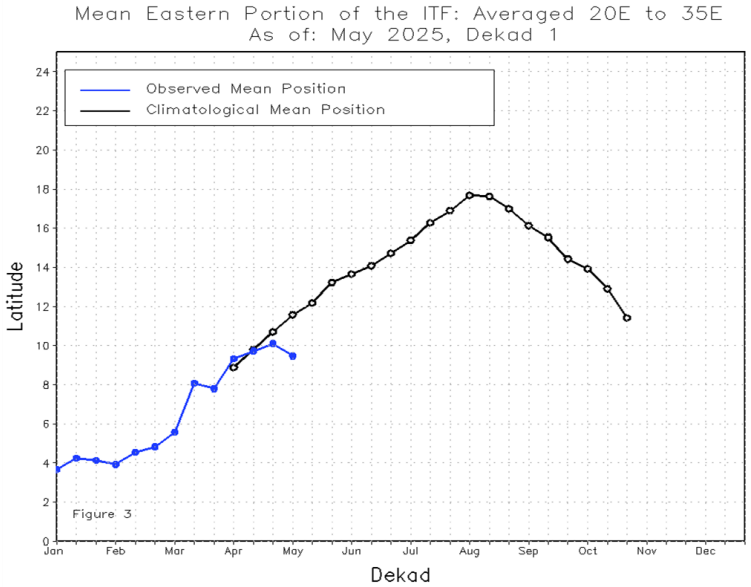
Shifting northward but located south of its climatological position

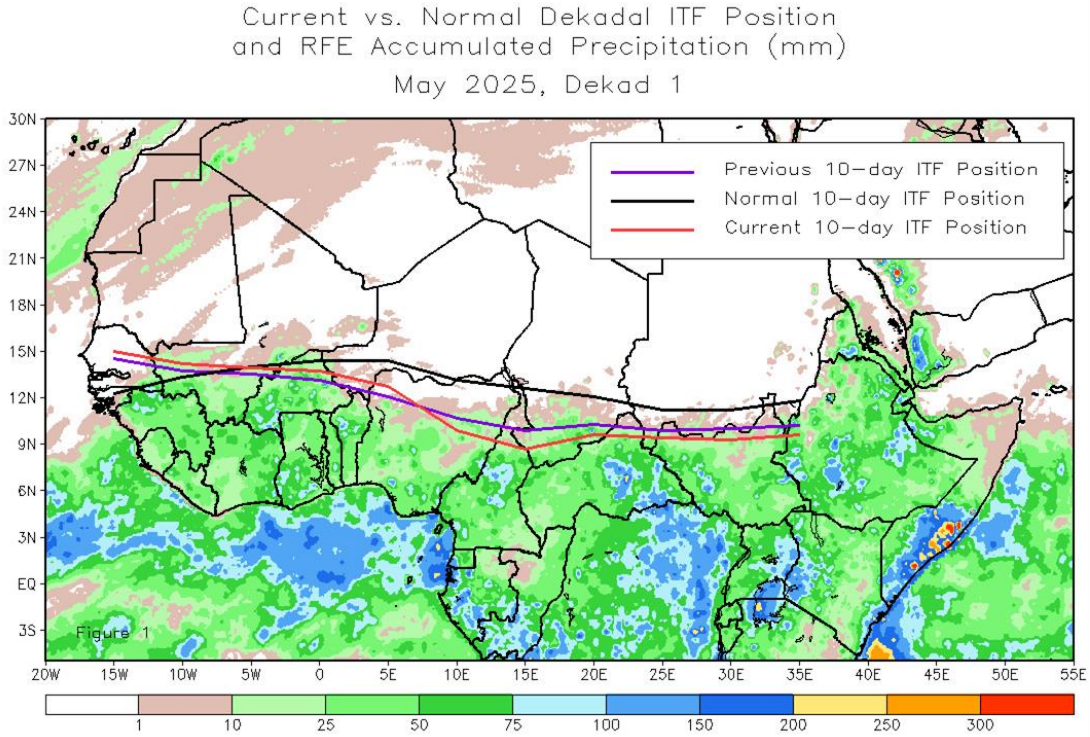




Eastern ITF

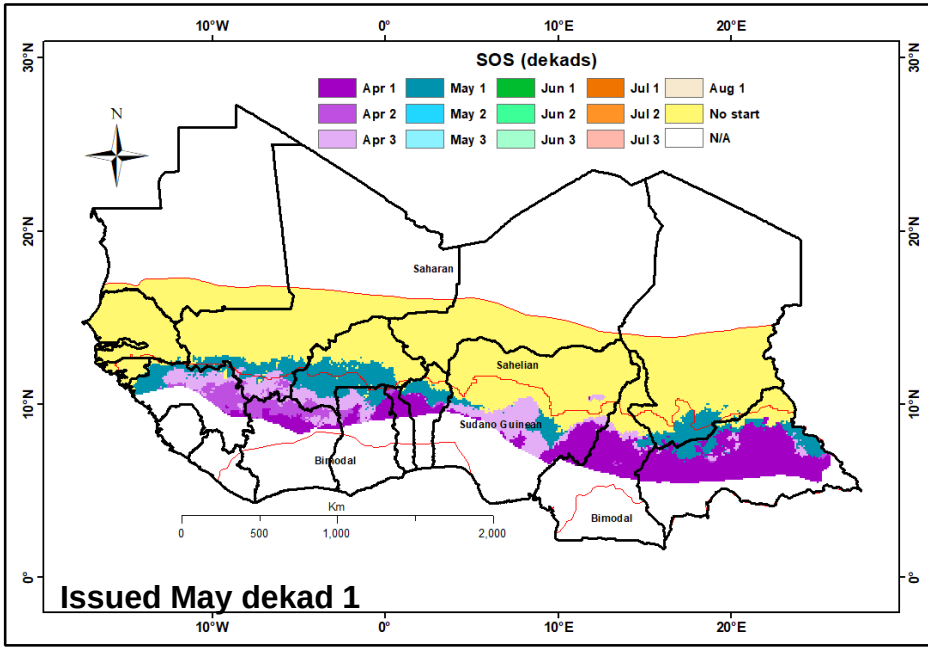
Stalled and located south of its climatological position

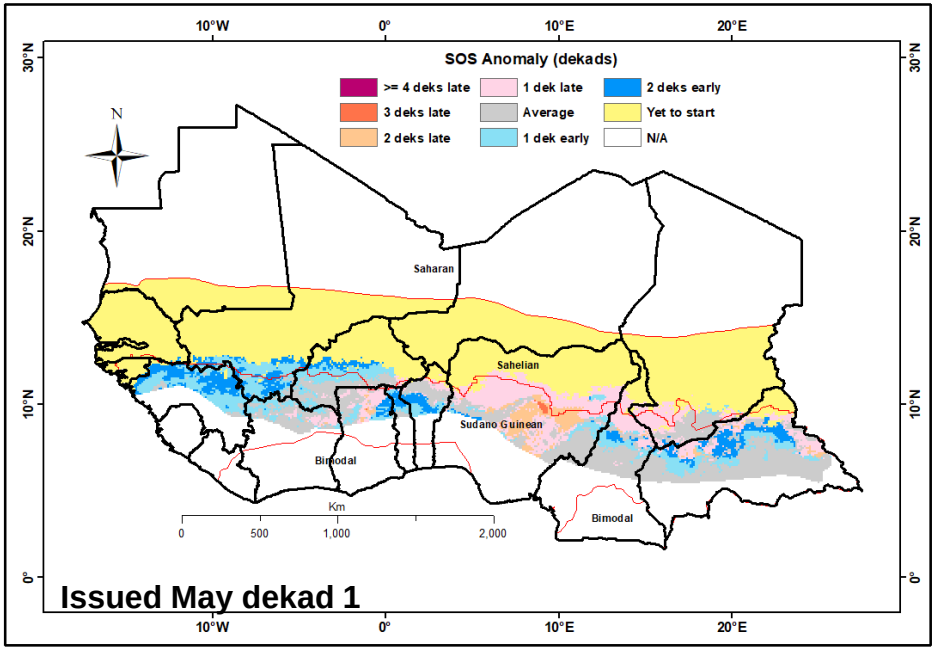




Start of Season, Spring 2025

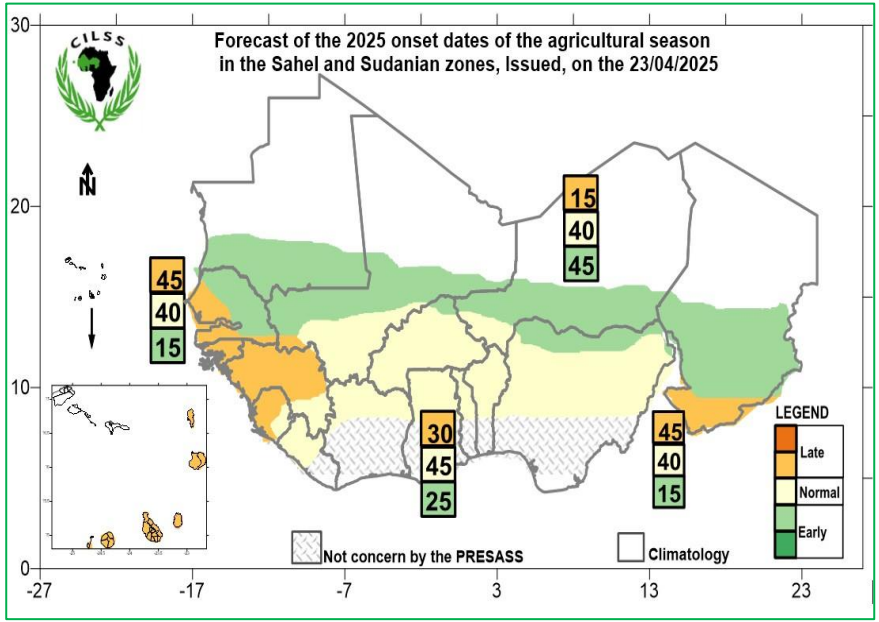
Mixed start in the Sudanian zone with one to two dekad delay in some areas





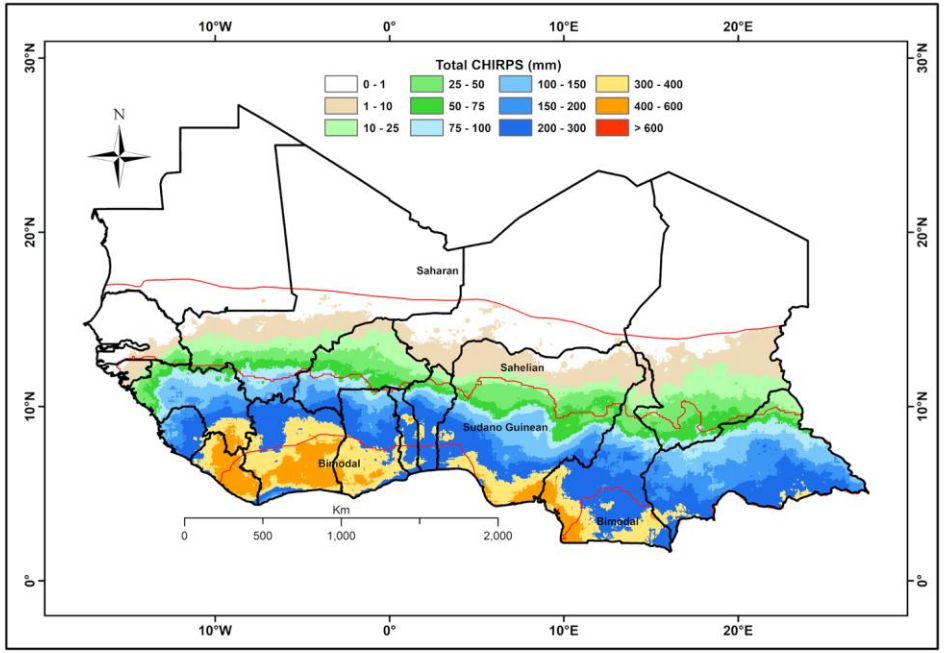
AGRHYMET Seasonal forecast for Sudanian and Sahelian Zones of West Africa: SOS 2025

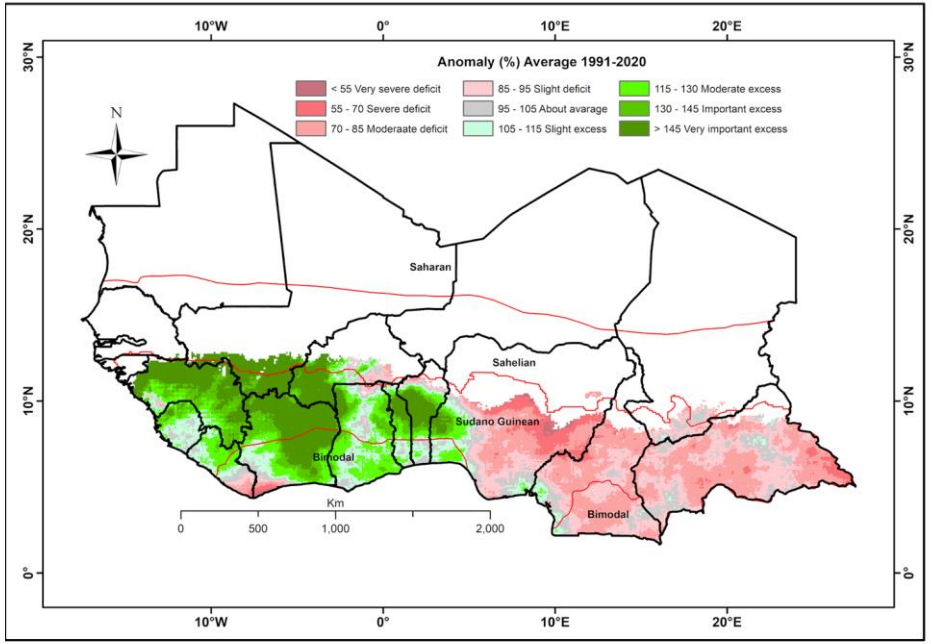
- **Early to normal onset dates are expected on the Sahelian strip except the far west.**
- **The onset of the season is expected to be normal to late in the north-central parts of Nigeria, southwestern Niger, Burkina Faso southern Mali, southern Guinea Easter Sierra Leone, Western Liberia and the northern parts of Benin, Togo, Ghana and Côte d'Ivoire.**
- **Late to normal in the extreme south of Chad, central and northern Guinea, Western Sierra Leone, Guinea Bissau, Cabo-Verde and the coastal parts of The Gambia and Senegal.**



Cumulative rainfall: March dekad 1 to May dekad 1

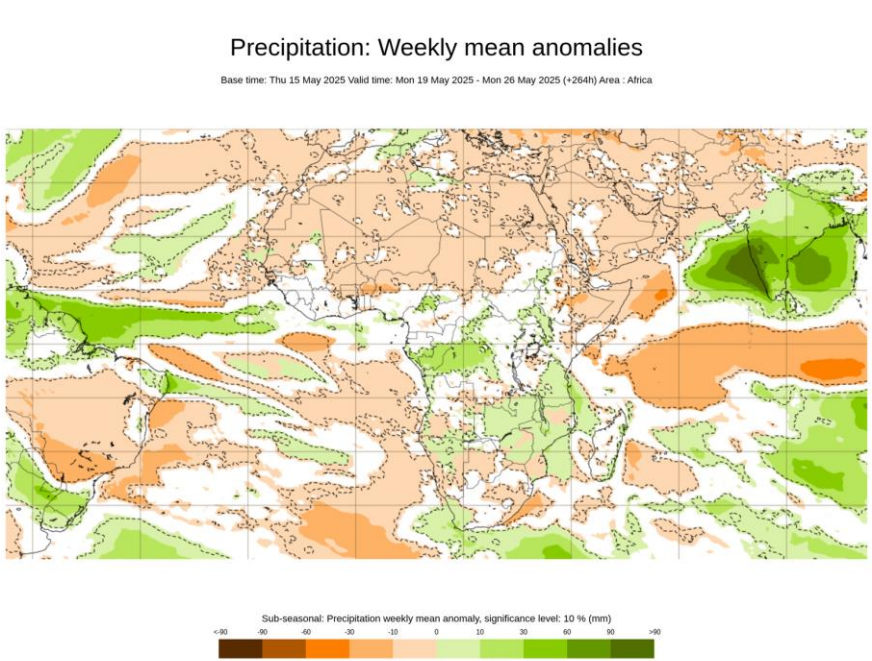
Slight to severe deficits in the east and southwest Côte d'Ivoire



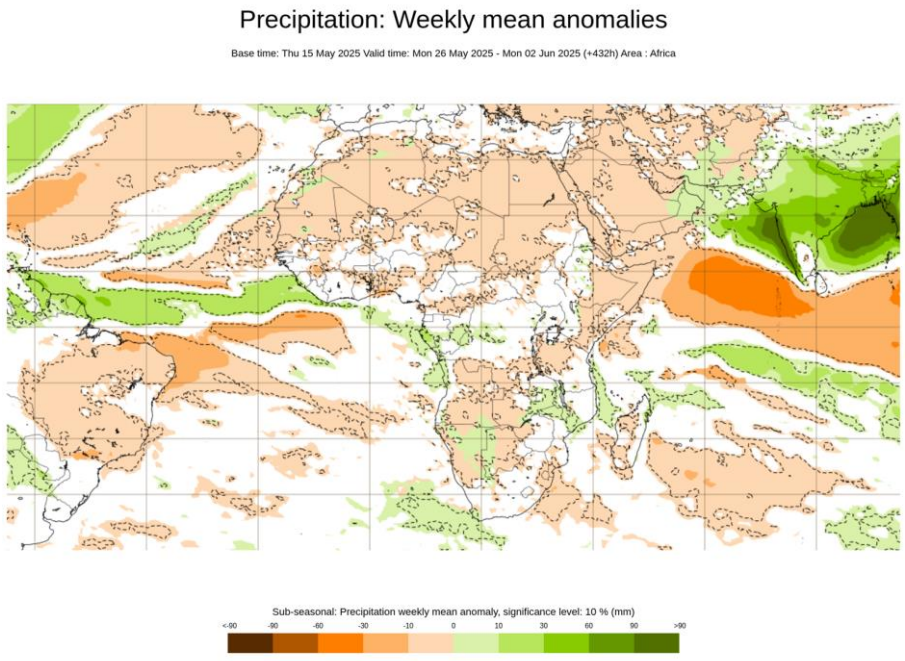


Weekly Precipitation Forecast

Weak tilt towards below average over some of the Sahel and Gulf of Guinea



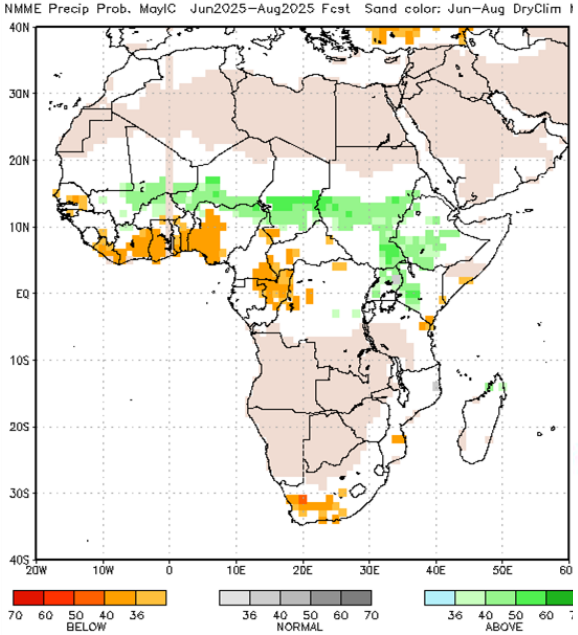
ECMWF

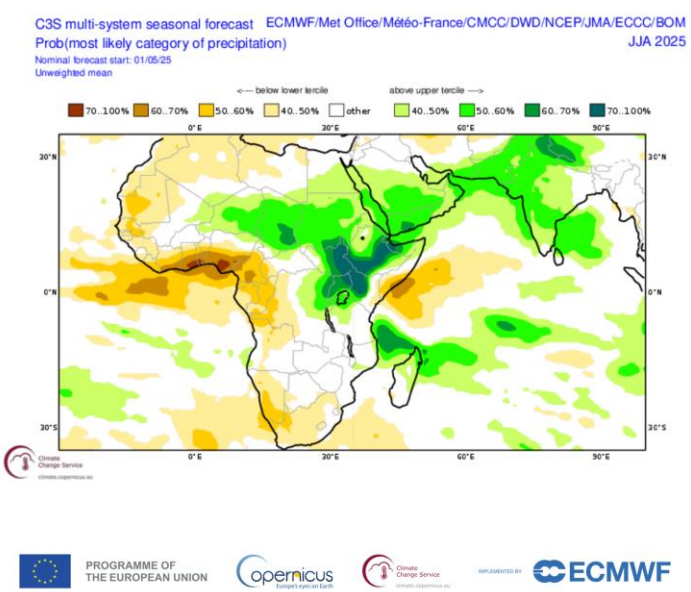


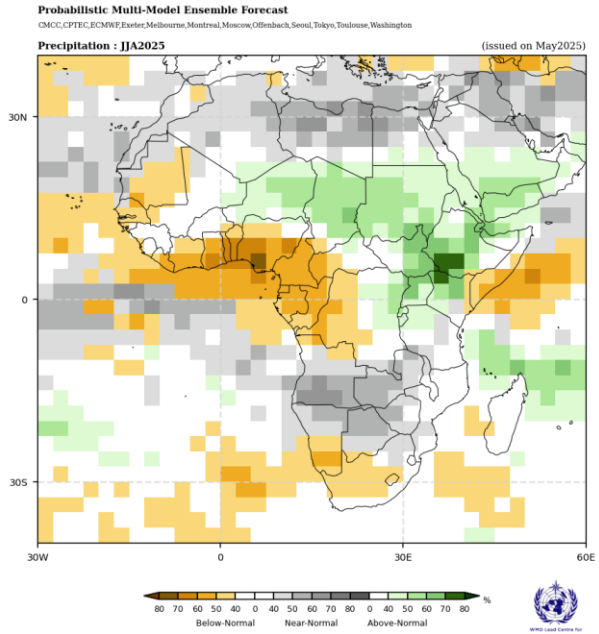
ECMWF

JJA 2025 Precipitation Forecast

Consistent tilt towards below average across Gulf of Guinea and western Sahel, above average in central and eastern Sahel

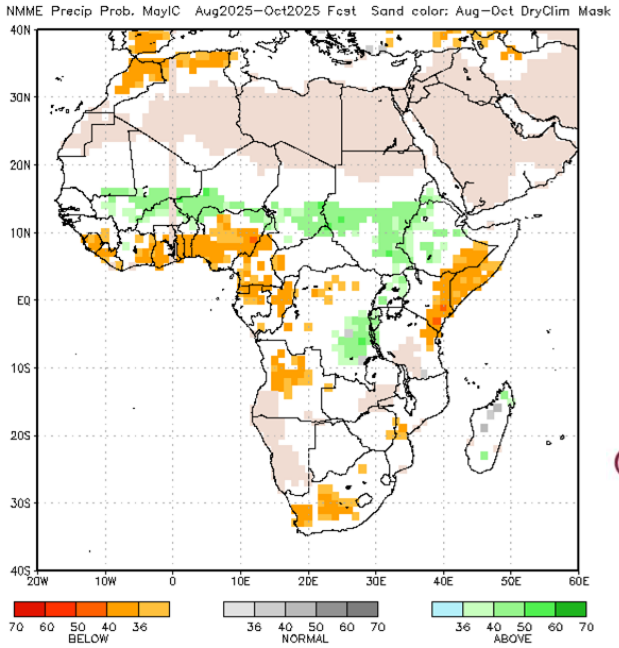


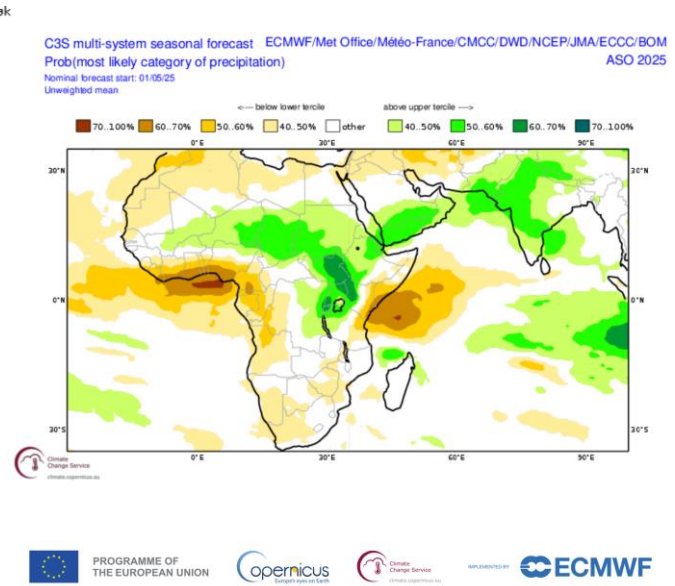


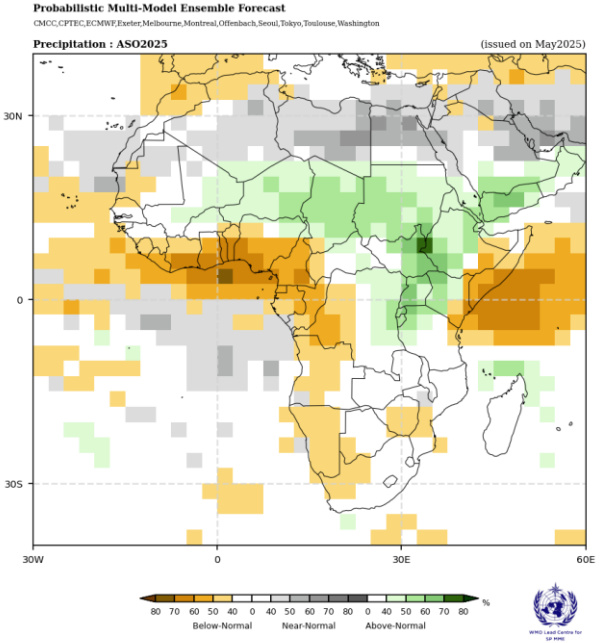


ASO 2025 Precipitation Forecast

Consistent tilt towards below average across Gulf of Guinea and western Sahel, above average in central and eastern Sahel

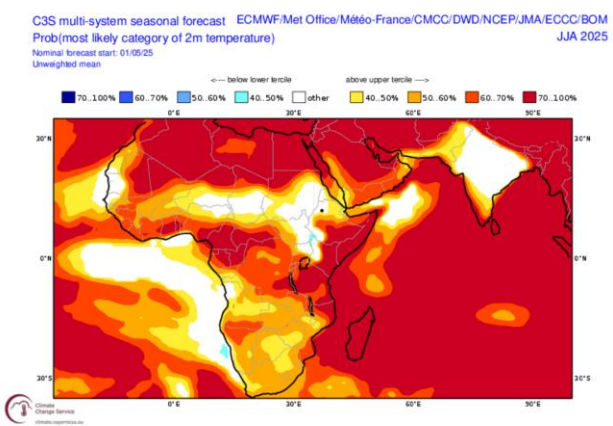


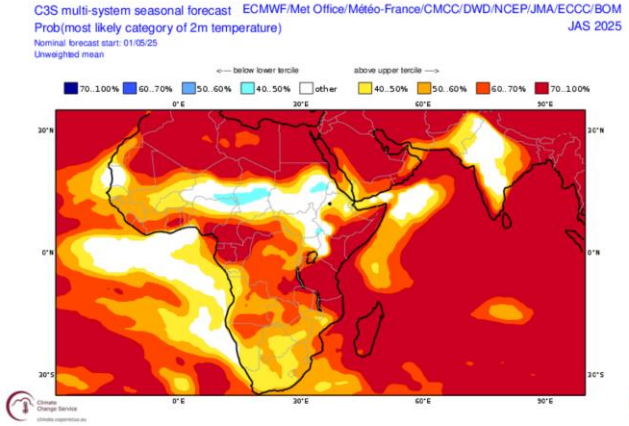


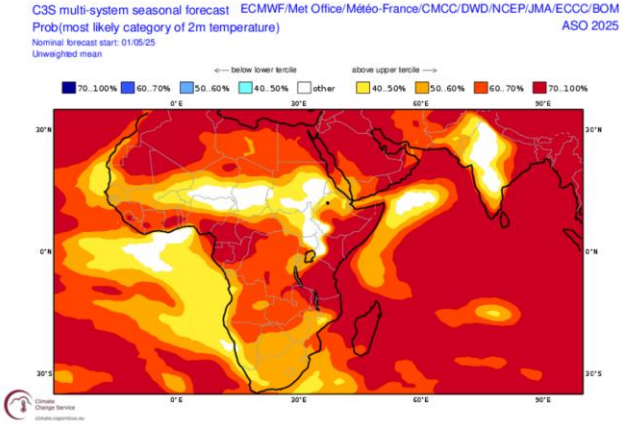


June-Oct. 2025 Temperature Forecasts

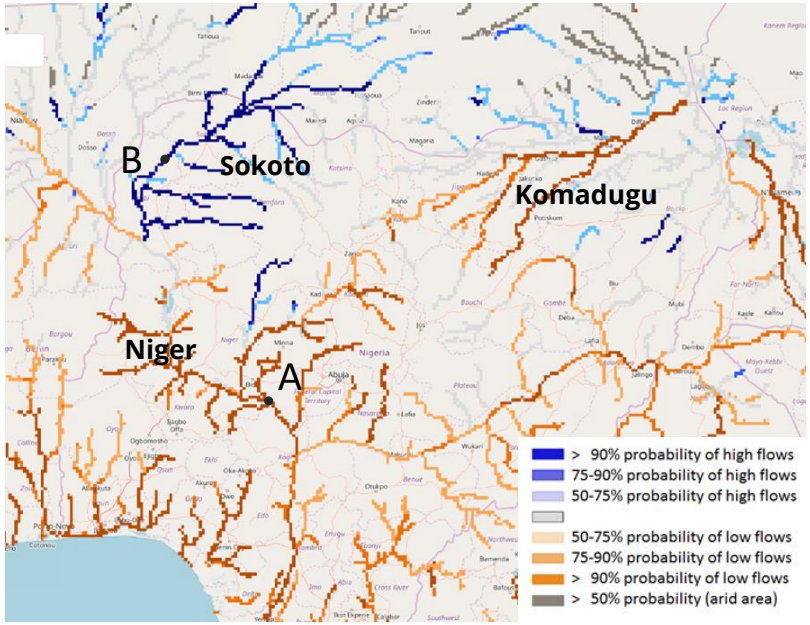
Above average except over central and eastern Sahel where above average precipitation is forecast







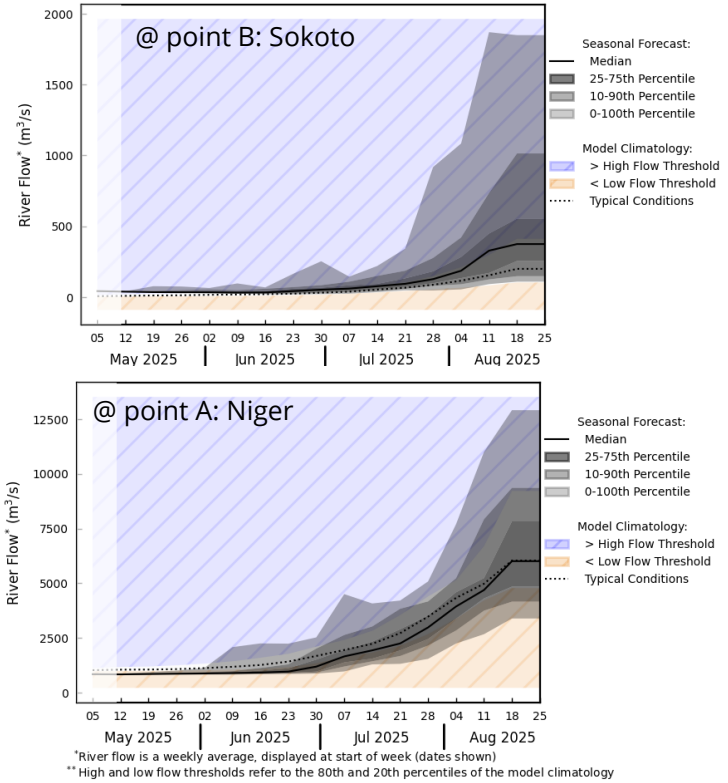
Streamflow Forecast



GloFAS streamflow forecast: **May – Aug 2025**

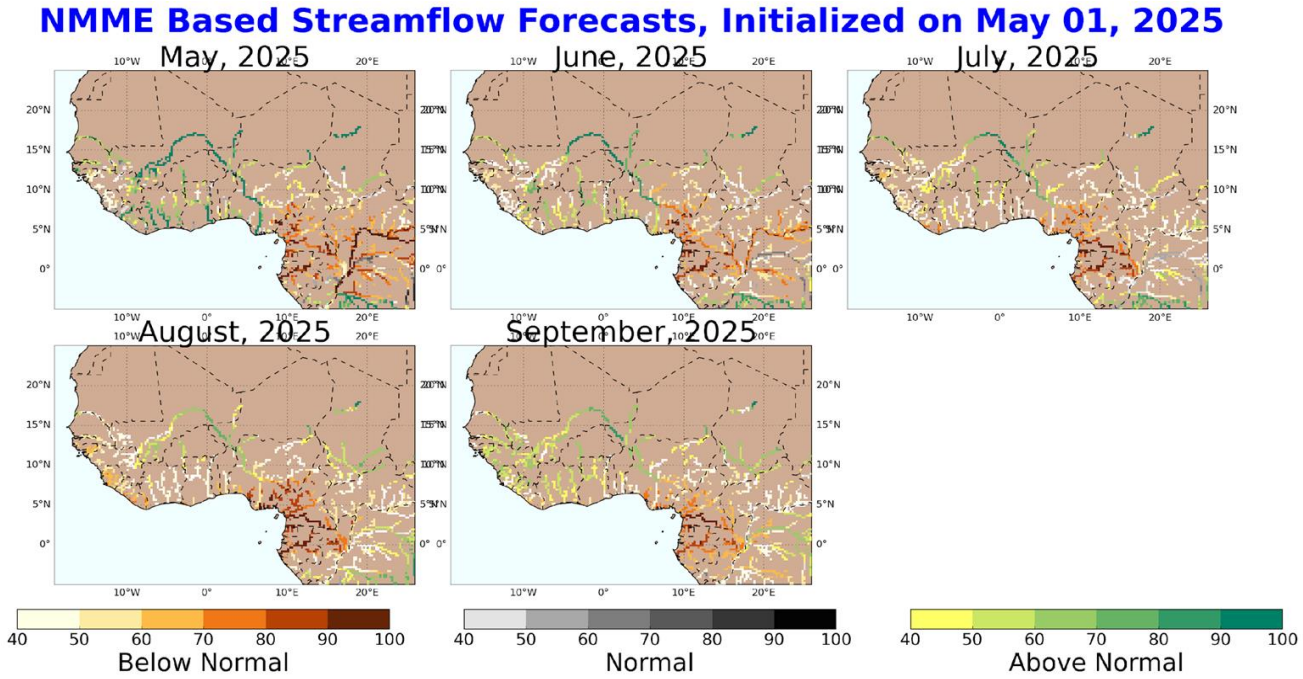
- Above average streamflow is expected in Sokoto River
- However, Niger and Komadugu Rivers are expected to be at average conditions.

GloFAS monthly forecast: **May – Aug 2025**



Streamflow Forecast

- NHyFAS forecast suggest portion of the Niger River with above average forecast early in the season but diminishes to average during the peak season.

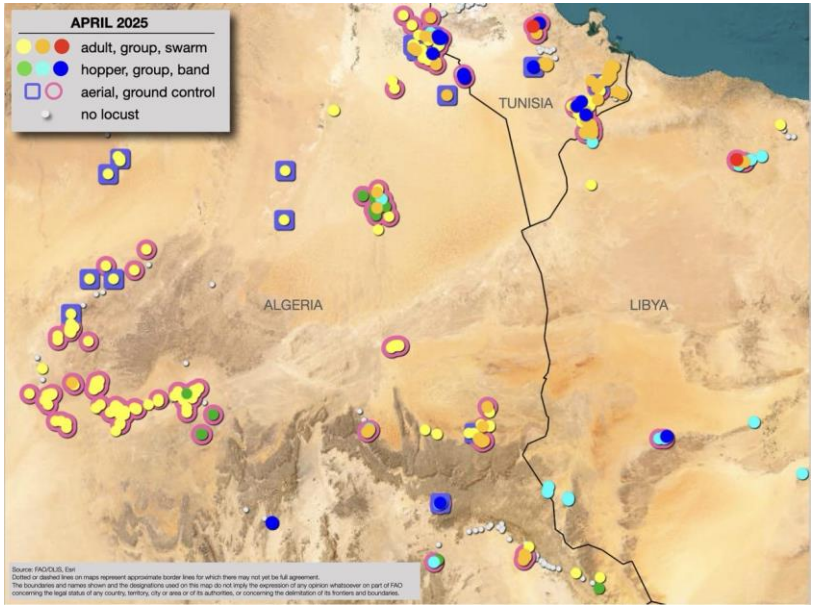


NHyFAS streamflow forecast: **May – Sep 2025**

Desert Locust: general situation during April 2025 Forecast until mid-June 2025 in West Africa

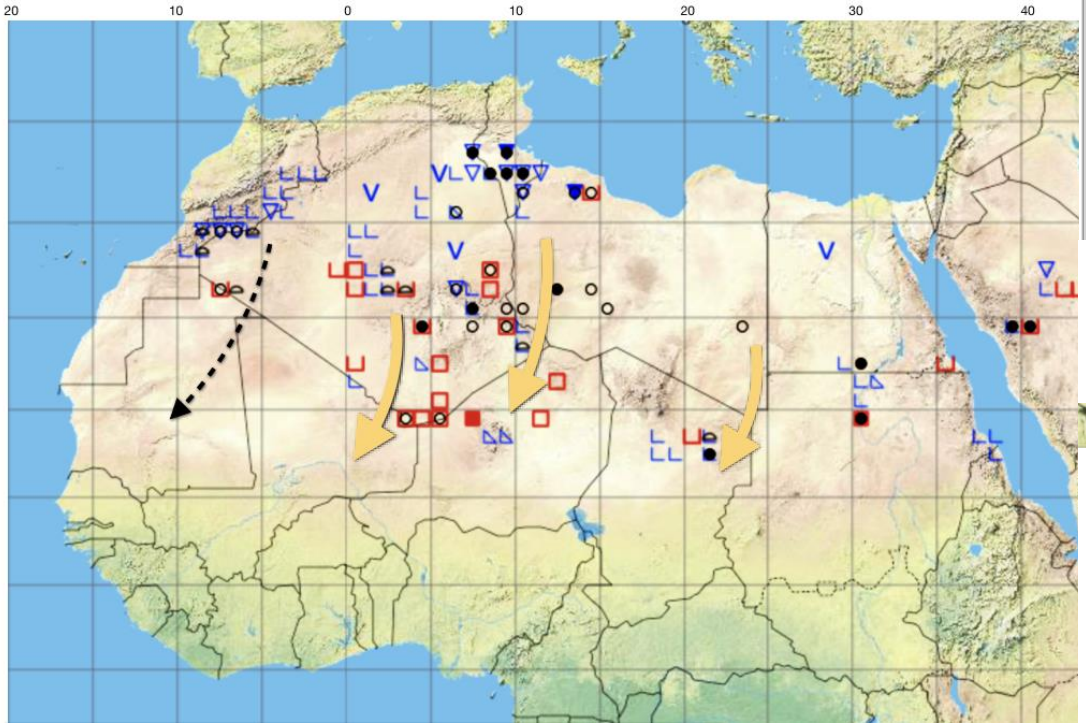
Observations: Groups, breeding, and bands increased in Algeria (30 313 ha treated), Libya (605 ha) and Tunisia (980 ha); breeding groups and solitarious adults with scattered and groups of hoppers appearing in Morocco (1 785 ha); adult groups and a swarm in **Niger**; some adults and a small band in northeastern **Chad**.

Forecast: Spring breeding will continue in Algeria, western Libya, southern Tunisia, and Morocco with new hopper groups and bands in May. New adult groups and small swarms will form in May and may migrate towards **Chad**, **Niger**, and **Mali** where rain should occur in June. Adult groups present in southern Algeria, northern **Niger**, and northern **Chad** may also migrate following rain patterns.



https://www.fao.org/locust-watch/information/news/brief-detail/7-may-2025--desert-locust-outbreaks-persisted-in-southern-sahara-and-northwestern-africa/en

Desert Locust Summary



FORECAST TO : 15.06.25 PREVISION AU :	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favorables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarms(s) essaim(s) limité(s)		
non swarming adults adults non essaimant		

SITUATION: Apr 2025 Avr 2025	swarms or hopper bands essaims ou bandes larvaires	adults / hoppers adultes / larves	
		in groups en groupes	density low/unknown densité faible/inconnue
immature adults adultes immatures			
mature or partially mature adults adultes matures ou partiellement matures			
adults, maturity unknown adultes, maturité inconnue			
egg laying or eggs pontes ou œufs			
hoppers larves			
hoppers & adults (combined example) larves et adultes (symboles combinés)			

https://www.fao.org/locust-watch/information/news/brief-detail/7-may-2025--desert-locust-outbreaks-persisted-in-southern-sahara-and-northwestern-africa/en

Desert Locust: general situation during April 2025 Forecast until mid-June 2025 in Chad, Niger and Mali.

CHAD

- **SITUATION**

During April, isolated immature and mature solitarious adults were still present near **Faya** (1756N/1907E) and **north of the Ennedi Plateau close to Fada** (1714N/2132E), where 4th and 5th instars isolated hoppers and one band of late instars were found. No locusts were seen close to Kalait (1550N/2054E).

- **FORECAST**

Groups of adults as well as small bands and swarms may continue to be present in the southern, eastern and western foothills of the Tibesti Mountains. Mature adults may continue breeding at small scale in green areas. However, as vegetation dries out near the Ennedi Plateau, locusts may wait to mature or move southwards in search of early rains for breeding. Groups and small swarms may also arrive from further north in May and June. Further surveys are needed, and preventive control may be required.

NIGER

- **SITUATION**

During April, locals reported groups of adults near **Timia** (1809N/0846E) in the Aïr Mountains, in the **Ténéré northwest of Dirkou** (1859N/1253E) and in **Djado Plateau north of Chirfa** (2057N/1221E). A swarm was reported **north of Iferouane** (1905N/0824E) flying towards the northwest on the 14th.

- **FORECAST**

Adult groups and small swarms may persist in Ténéré, Aïr, and the Tamesna Plains or move west or southward looking for early summer rains to breed. Groups and small swarms may also arrive from further north in June. Surveys are necessary and preventive control may be required.

MALI

- **SITUATION**

No locusts were reported during April.

- **FORECAST**

Hoppers, adults and perhaps some groups could be present and persist in the Adrar des Iforas and northern Tamesna Plains, and perhaps in parts of Tilemsi Valley and eastern Timetrine. Some adults could move west or southward looking for early summer rains to breed. Groups and small swarms may also arrive from further north in early June onwards. Surveys are needed, and preventive control may be required.

Assumption 1 of 4

In the **Gulf of Guinea** countries with bimodal rainfall seasons, the **first rainy season (April-July)** is expected to be below average based on seasonal forecast ensemble models, which show a high likelihood of below-average rainfall in June-July. However, considerable intraregional and subnational variation is also expected based on accumulated rainfall through mid-May and short-term precipitation anomaly forecasts (here and here), ranging from localized moderate deficits to localized above-average surpluses. Overall, based on cumulative rainfall and soil moisture to date, cropping conditions are favorable for crop development.

Assumption 2 of 4

In the Sahel, the May-September main rainy season is expected to be above-average based on seasonal forecast ensemble models, except Mauritania, Senegal and the Gambia, where the conditions are likely below-average. However, a delayed and below-average start of season (May-June) is expected in the east, including in Niger, Nigeria, northern Cameroon, and Chad, based on accumulated rainfall through mid-May and short-term precipitation anomaly forecasts.

Assumption 3 of 4

Driven by forecasted above-average rainfall, streamflow forecasts show a high likelihood of flooding along ~~the Niger, Komadugu Yobe, and~~ Sokoto river~~s~~, but average conditions along the Niger and Komadugu Yobe Rivers. There is uncertainty about the timing and severity given the delayed start of season and long-range nature of the forecast.

Assumption 4 of 4

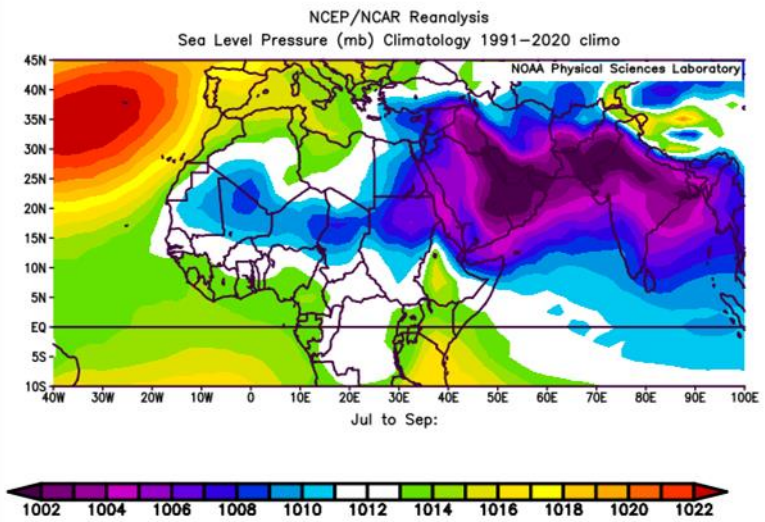
In the **Gulf of Guinea** countries, the **September-November second rainy season** is expected to be below average based on seasonal forecast ensemble models. **No Change**

Question for agroclimatology team: *What is behind the divergent rainfall forecasts for the Gulf of Guinea vs. Sahel given ENSO-neutral conditions? Is it attributed to the transition from La Niña to ENSO-neutral in March/April and the "strengthening" of oceanic and atmospheric patterns associated with La Niña given the rising probability of La Niña as we move into late 2025?*

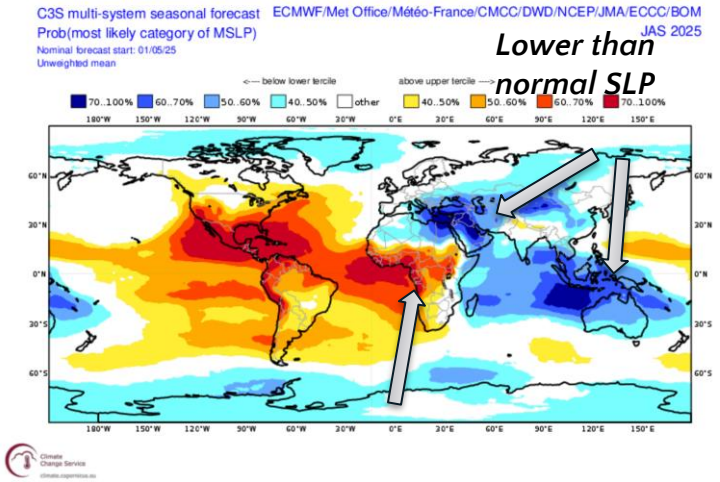
→ Similar forcing from sea surface temperatures and the atmospheric circulation response as East Africa forecast

Forecast for stronger westerly component associated with strong sea level pressure gradient:
Higher than usual in western tropical Atlantic
Lower than usual in eastern Mediterranean/Arabian Peninsula

Mean sea level pressure JJAS climatology



C3S probability JAS 2025 mean sea level pressure (SLP)



Lower than normal SLP

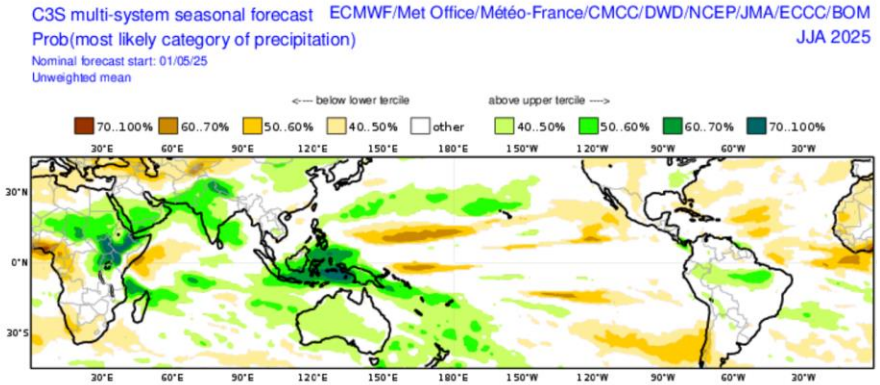
Higher than normal SLP

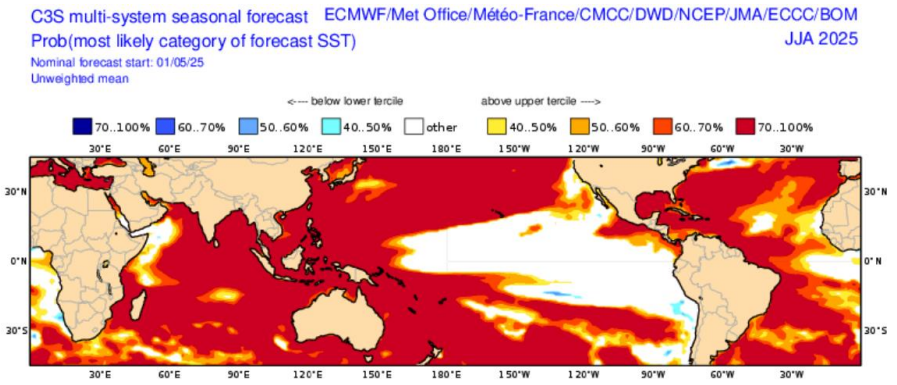
PROGRAMME OF THE EUROPEAN UNION

FEWS NET

USAID FROM THE AMERICAN PEOPLE

Atmospheric features consistent with SST and tropical precipitation forecast

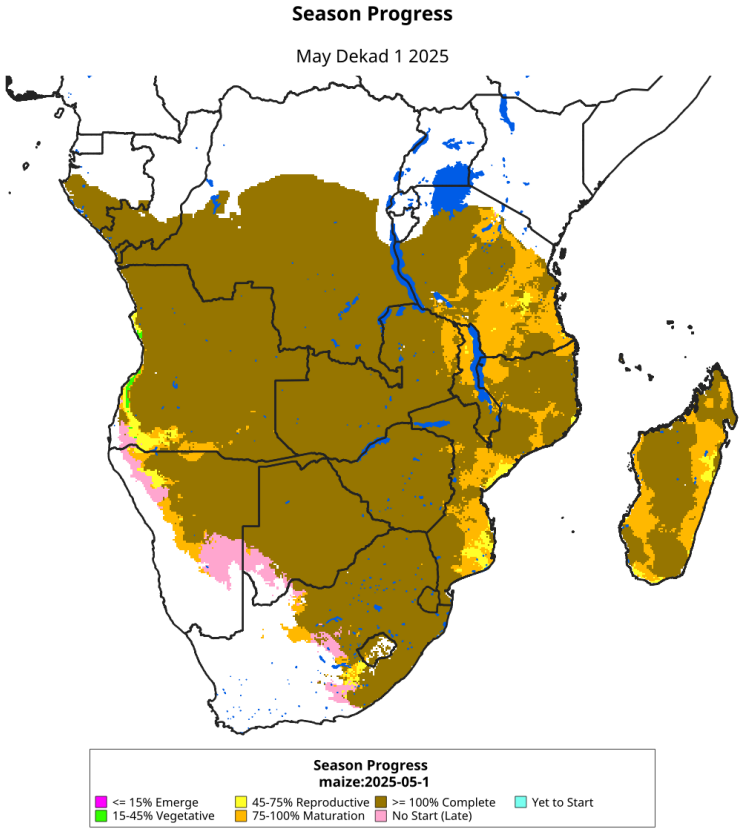




FEWS NET | USAID FROM THE AMERICAN PEOPLE | NOAA | NASA | USGS science for a changing world | Climate Hazards Center UC SANTA BARBARA

Southern Africa

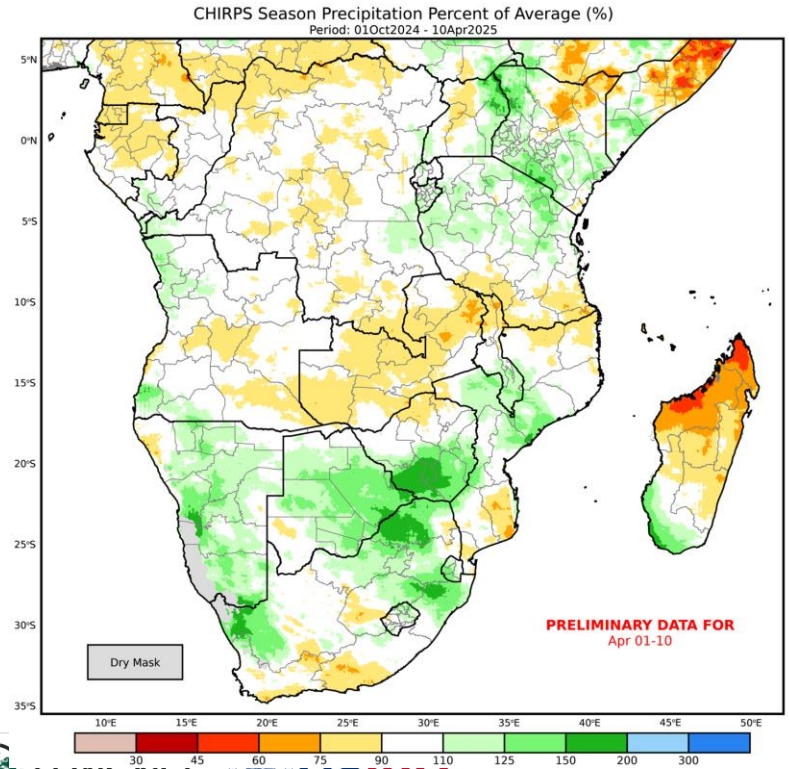
End of season reached in most areas

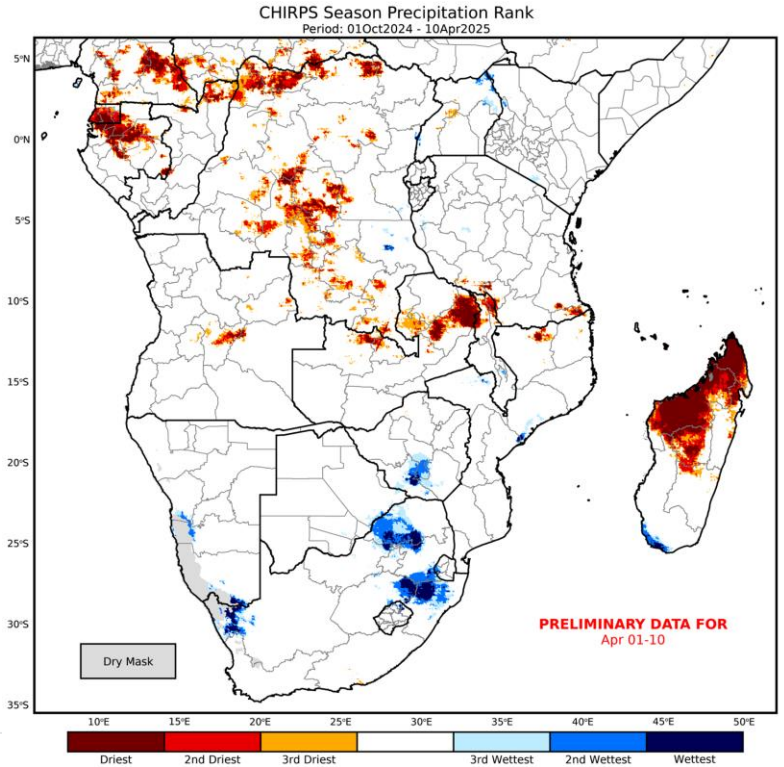


Source: USGS

Quick review of 2024/25 seasonal outcomes

Mixed performance, surplus in s. Zimbabwe and strong deficits in n. Madagascar





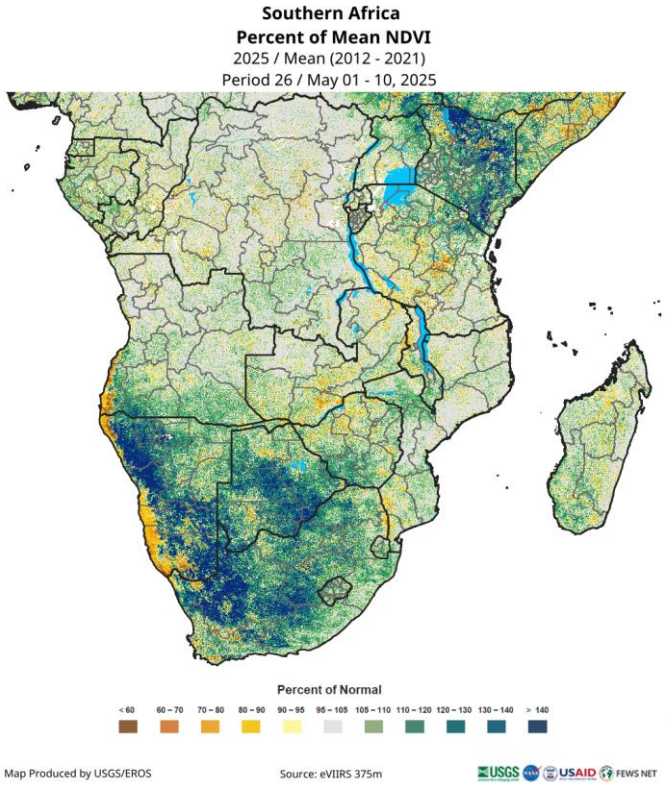
FEWS NET

USAID
FROM THE AMERICAN PEOPLE

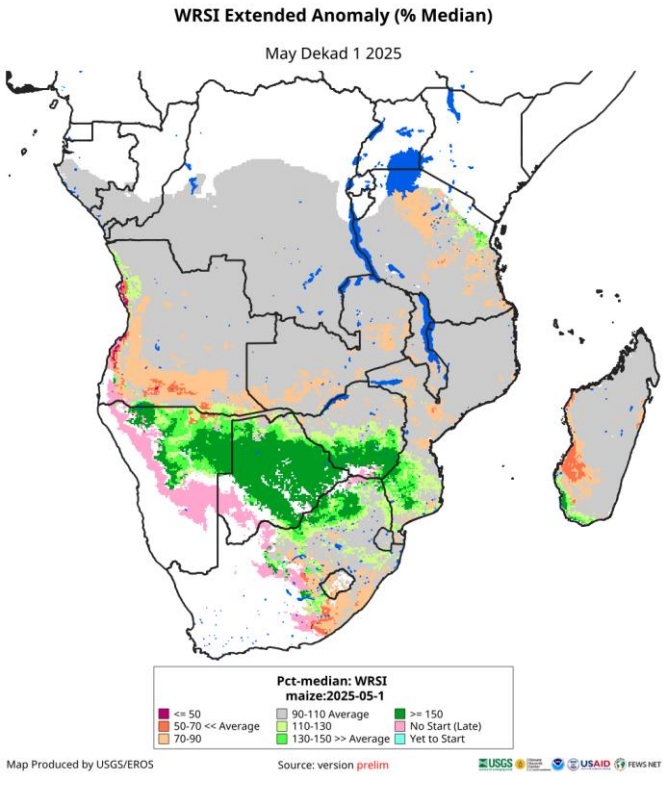
Source: UCSB CHC

Quick review of 2024/25 seasonal outcomes

Average to above-average end-of-season WRSI, NDVI in most areas

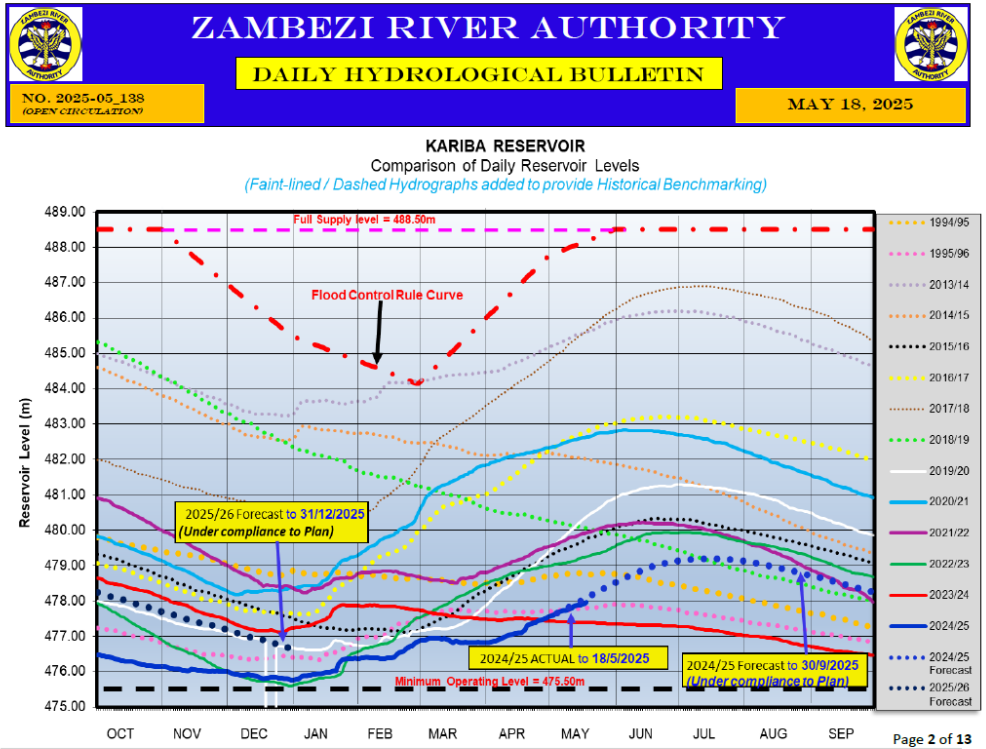


Source: USGS



WRSI Extended Pct of Median, as of 10 May 2025. Source: USGS

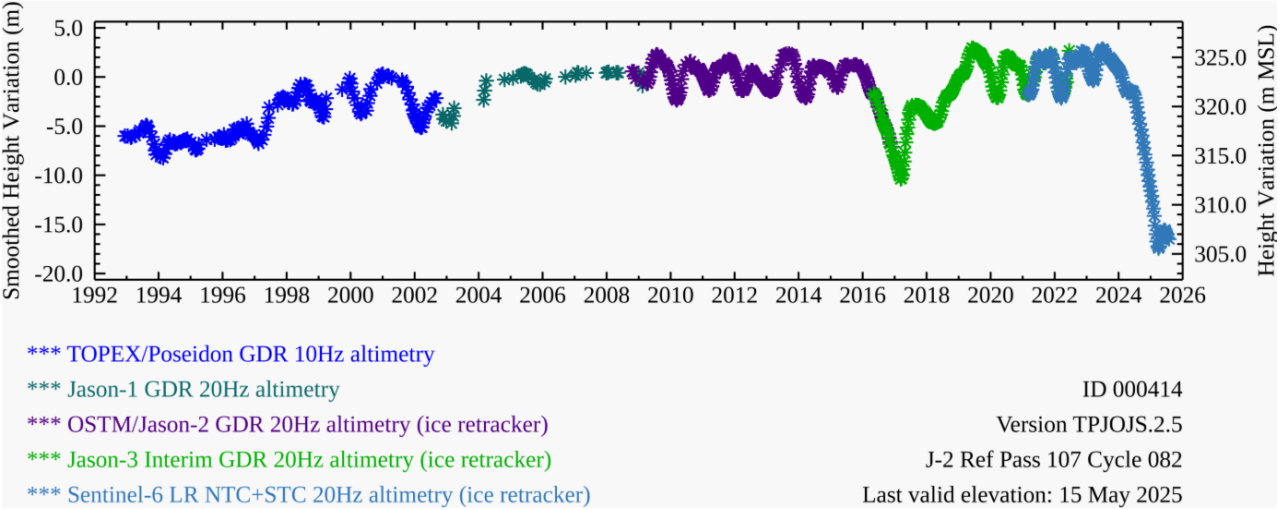
Kariba levels higher, but still close to minimum operating levels



- Significant increases in Lake Kariba levels, though still low, further improvement forecast through July.
- 2025/26 forecast at around 5th lowest levels by Dec 2025

Sou

Cahora Bassa levels remain low

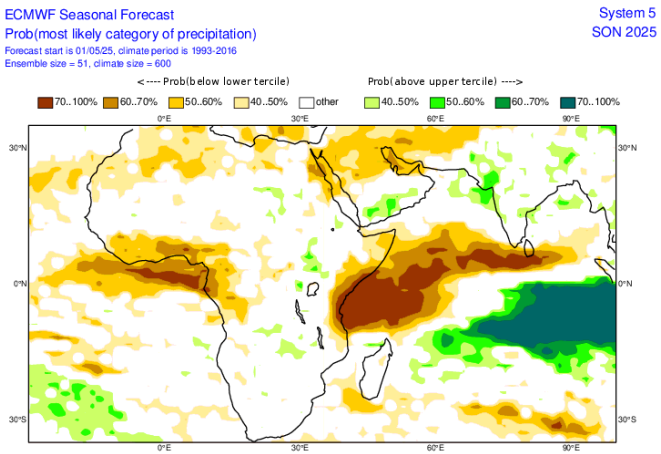


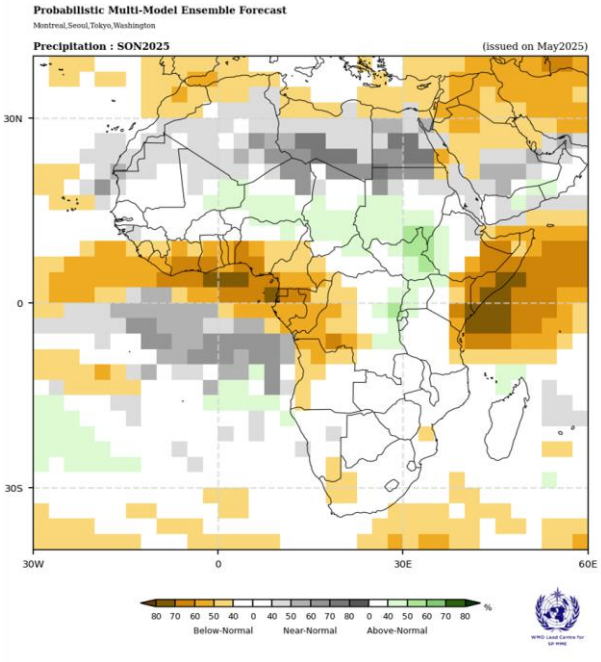
Cahora Bassa major supplier for Mozambique, which exports to 7 countries in southern Africa

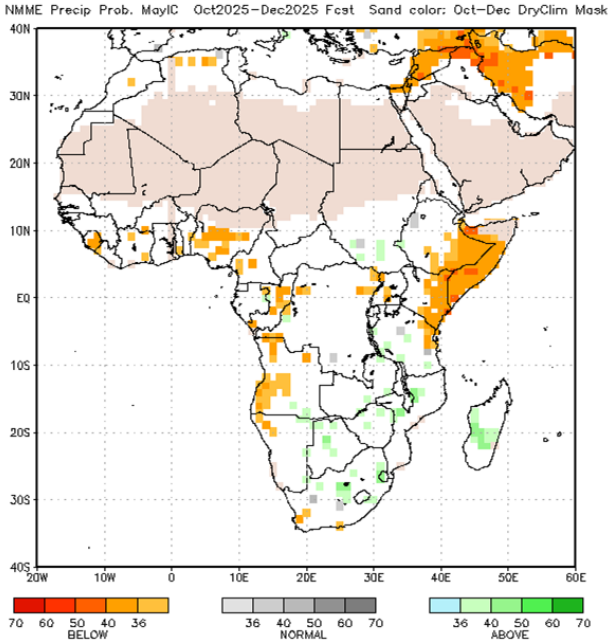
Source: USDA FAS G-REALM

September - December 2025 Precipitation Forecast

High uncertainty - models all show equal chances of any outcome







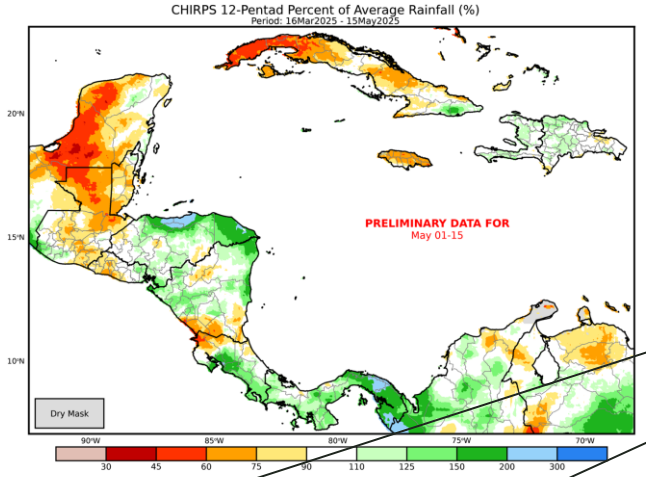
Assumption 1 of 1

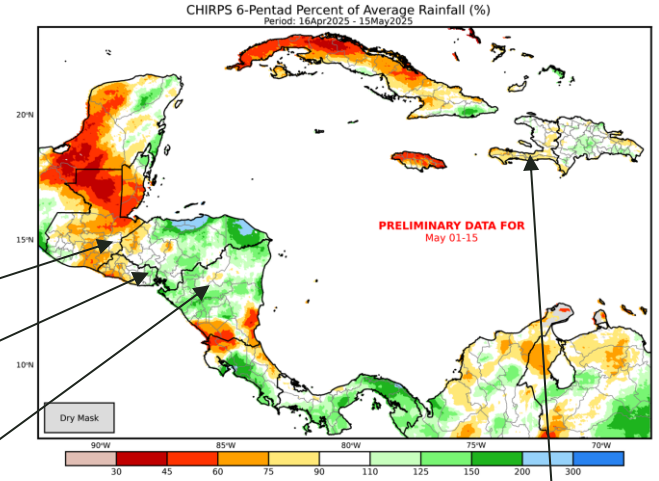
There is considerable uncertainty about the **start (October-December) of the main rainy season** (October-April) in southern Africa given the weak signal for ENSO and the current spring predictability barrier, and a near-neutral forecast for SIOD. At this time, the assumption for the most likely scenario is average rainfall based on available NMME and WMO ensemble forecast models. A key exception is western and northern Angola, where the models forecast below-average rainfall.

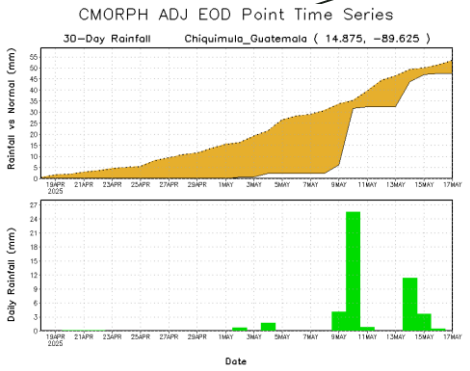
Latin America and the Caribbean

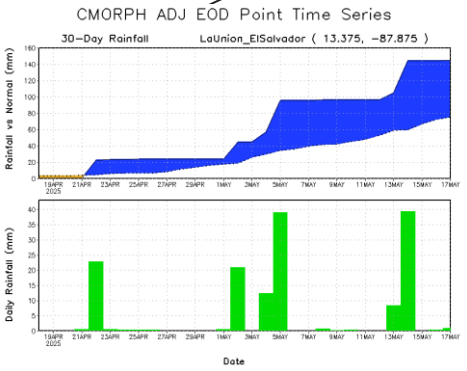
Recent Precipitation

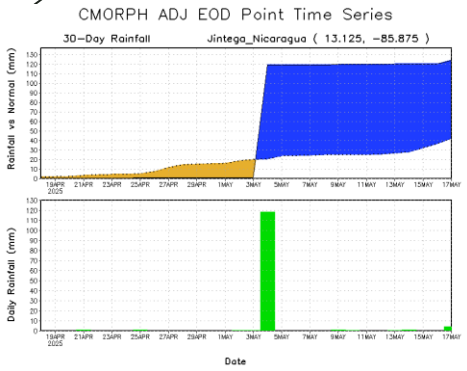
Erratic distribution over Central America

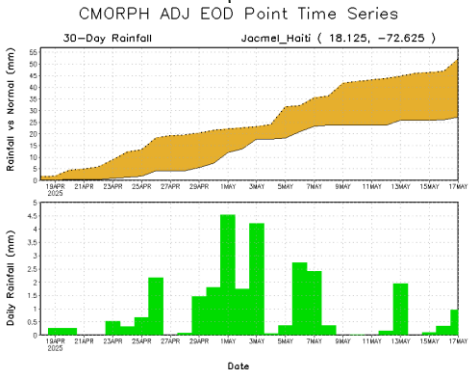






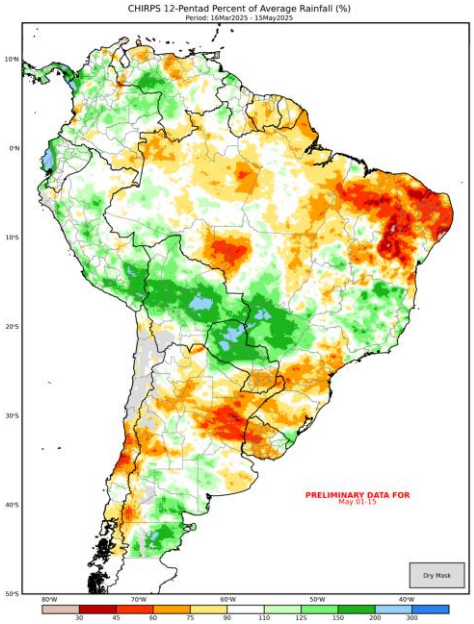


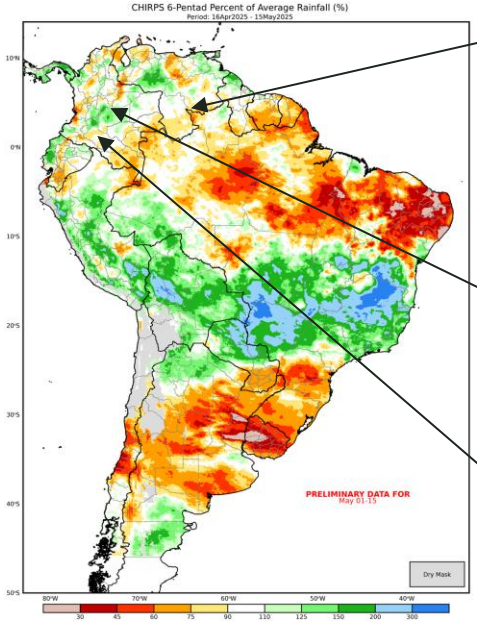


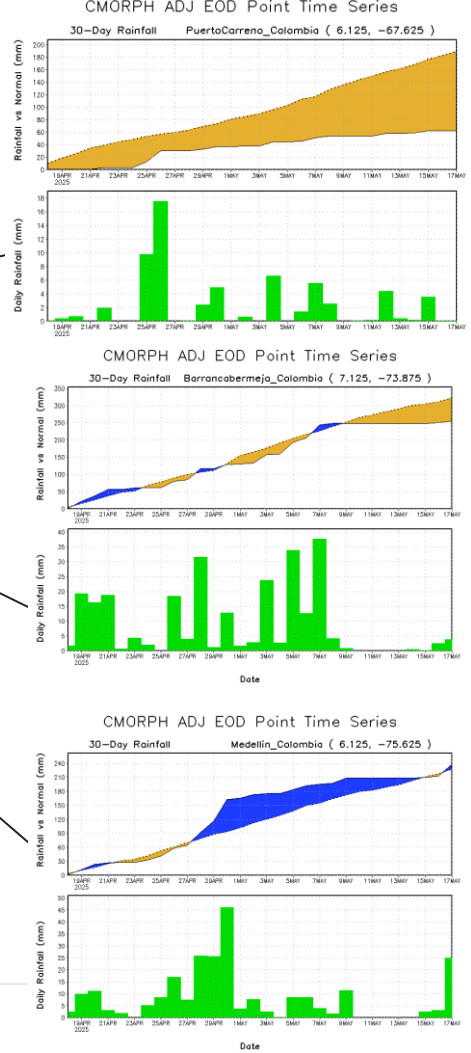


Recent Precipitation

Localized declines over Colombia and Venezuela





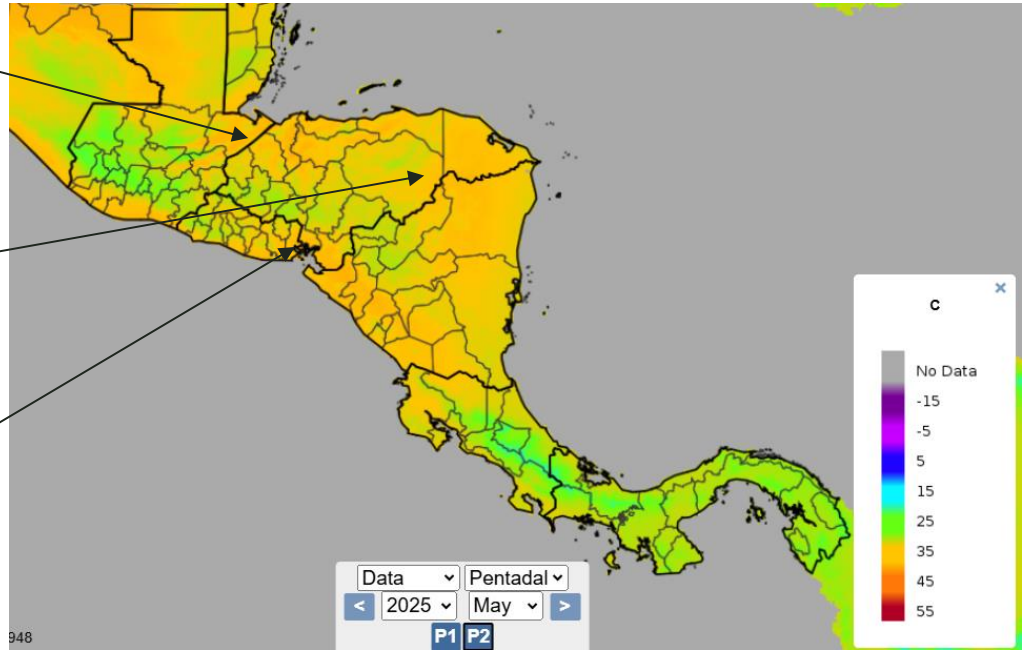


FEWS NET

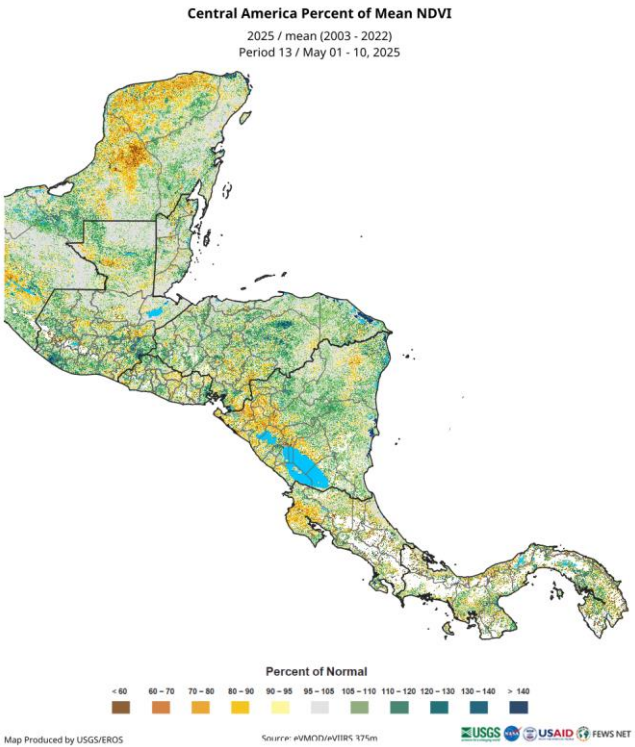
USAID
FROM THE AMERICAN PEOPLE

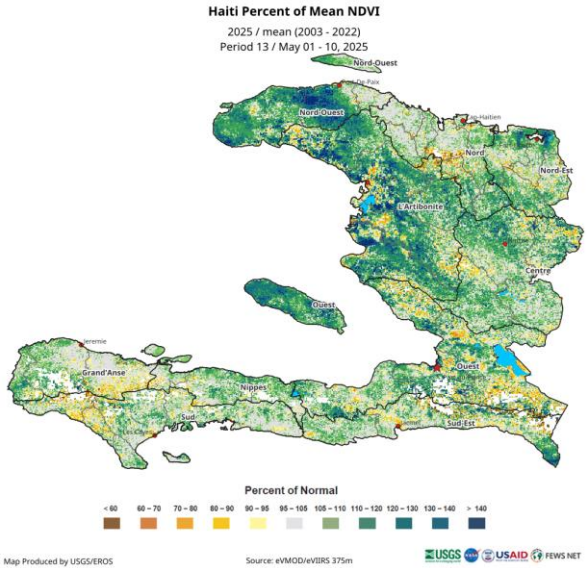
Recent Temperatures

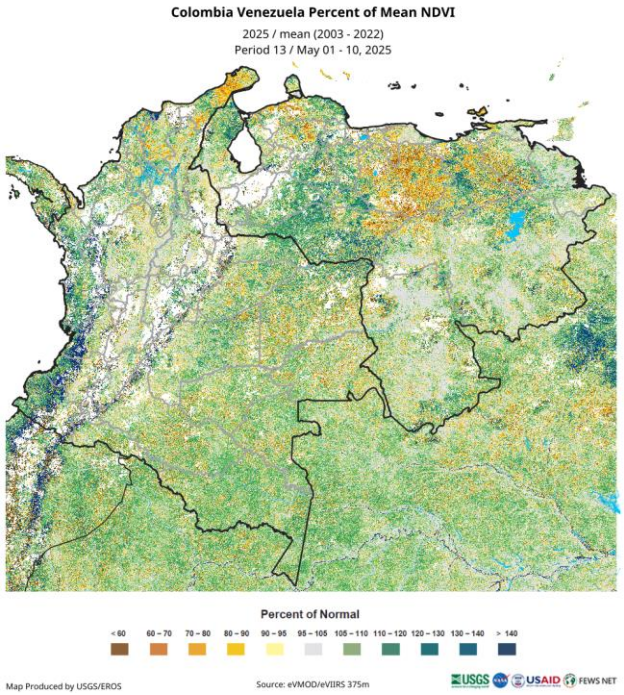
Increases over Central America



NDVI values

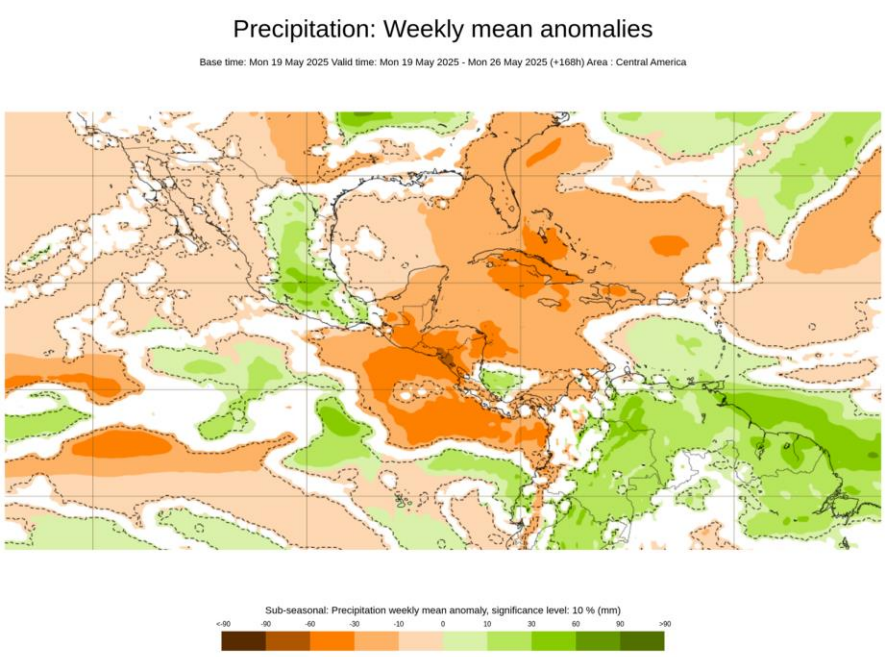

Central America Percent of Mean NDVI
2025 / mean (2003 - 2022)
Period 13 / May 01 - 10, 2025
Percent of Normal
< 60
60 – 70
70 – 80
80 – 90
90 – 95
95 – 105
105 – 110
110 – 120
120 – 130
130 – 140
> 140
Map Produced by USGS/EROS
Source: eVMOD/eVIIRS 375m
USGS
USAID
FEWS NET

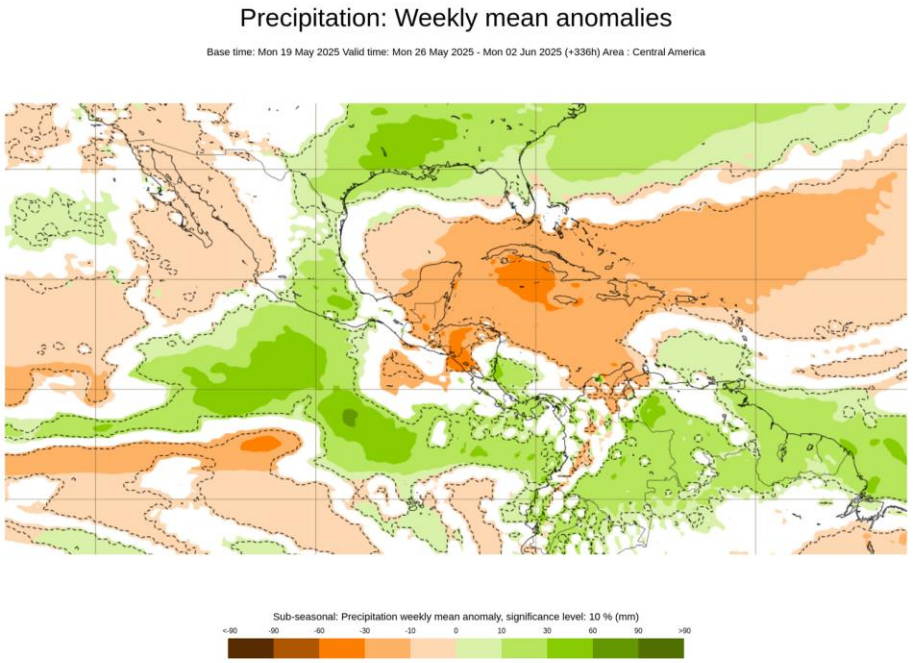

Haiti Percent of Mean NDVI
2025 / mean (2003 - 2022)
Period 13 / May 01 - 10, 2025
Nord-Ouest
Artibonite
Nord
Nord-Est
Centre
Ouest
Grand'Anse
Nippes
Sud
Sud-Est
Percent of Normal
< 60
60 – 70
70 – 80
80 – 90
90 – 95
95 – 105
105 – 110
110 – 120
120 – 130
130 – 140
> 140
Map Produced by USGS/EROS
Source: eVMOD/eVIIRS 375m
USGS
USAID
FEWS NET


Colombia Venezuela Percent of Mean NDVI
2025 / mean (2003 - 2022)
Period 13 / May 01 - 10, 2025
Percent of Normal
< 60
60 – 70
70 – 80
80 – 90
90 – 95
95 – 105
105 – 110
110 – 120
120 – 130
130 – 140
> 140
Map Produced by USGS/EROS
Source: eVMOD/eVIIRS 375m
USGS
USAID
FEWS NET

Weekly Precipitation Forecast

Below average over Haiti and Central America next two weeks





ECMWF

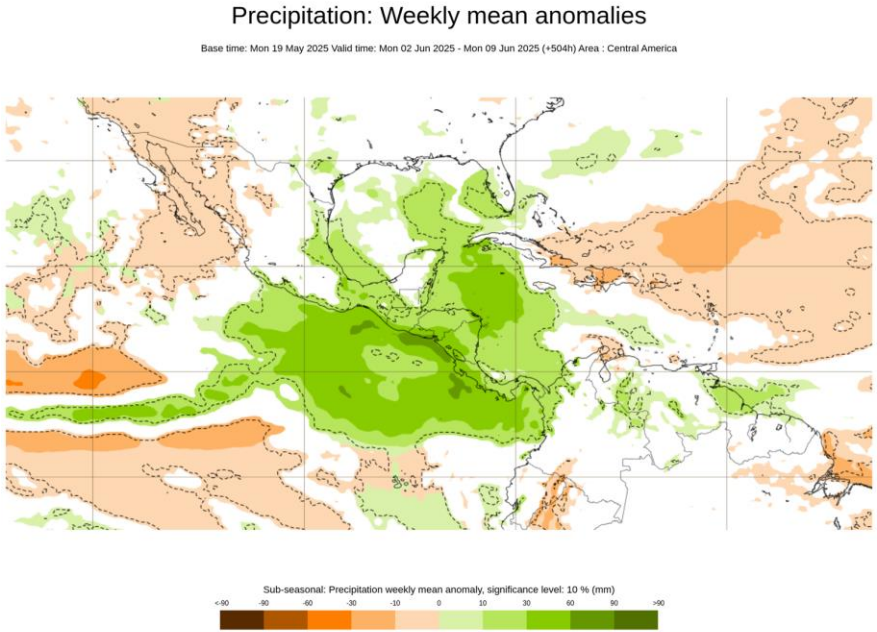
ECMWF

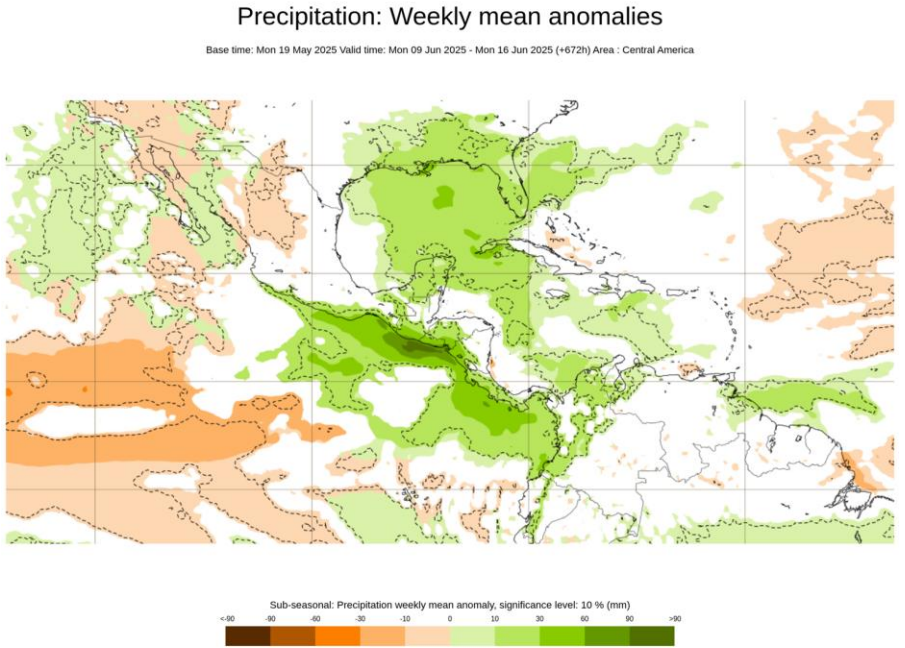
FEWS NET

USAID
FROM THE AMERICAN PEOPLE

Weekly Precipitation Forecast

Transition to a wetter Central America at weeks 3-4 lead times

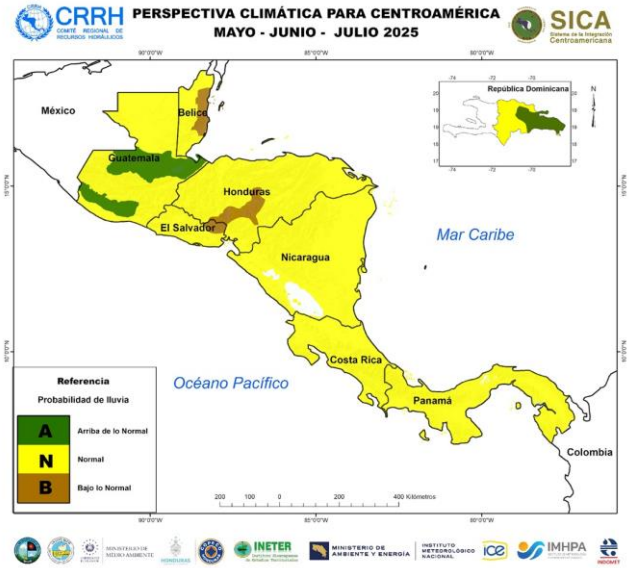


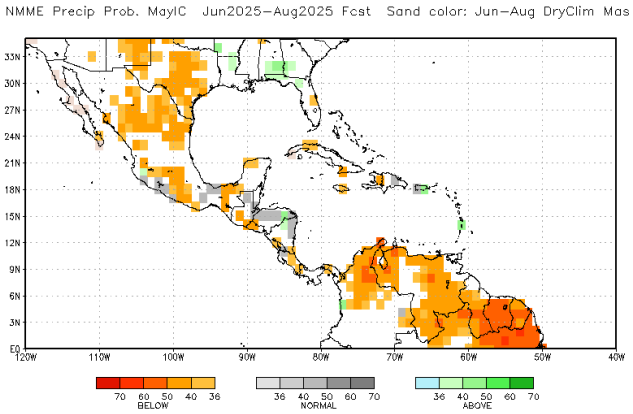


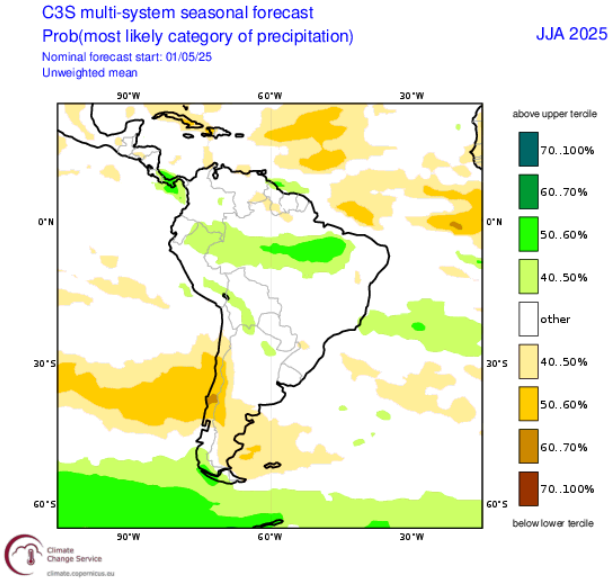
FEWS NET USAID FROM THE AMERICAN PEOPLE

MJJA 2025 Precipitation Forecast

Near-average over Central America, though uncertainty remains

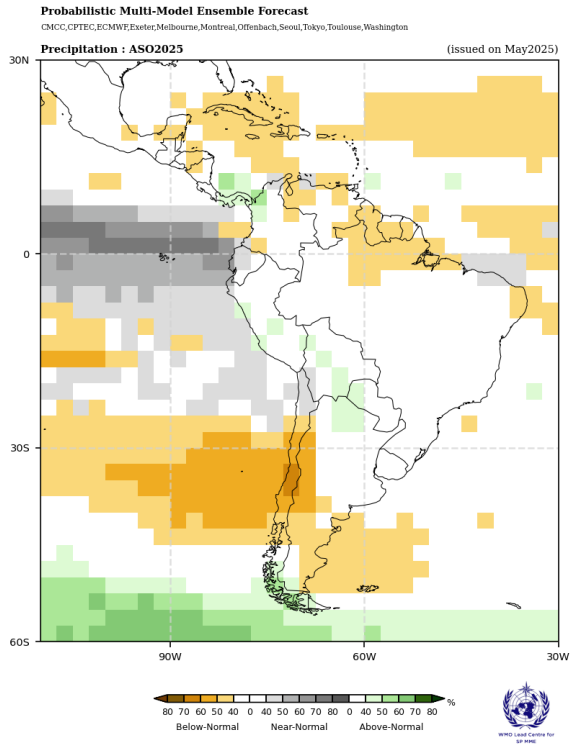


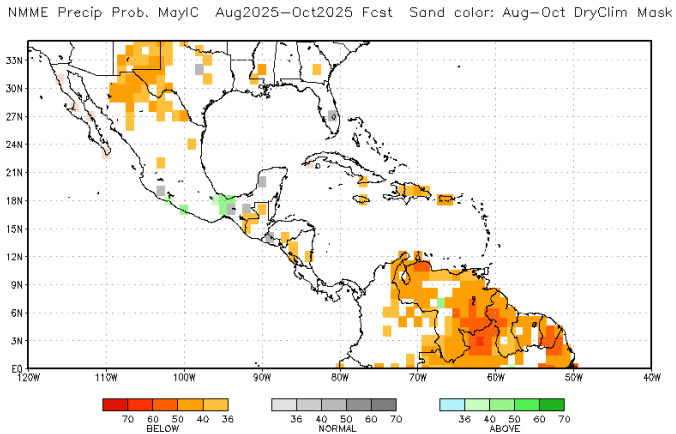


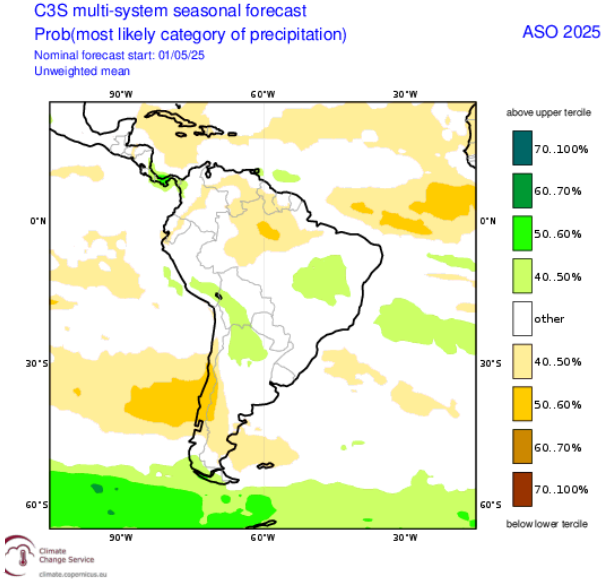


ASO 2025 Precipitation Forecast

High uncertainty over Central America and northern South America







FEWS NET

USAID FROM THE AMERICAN PEOPLE

Atlantic Hurricane Forecast 2025

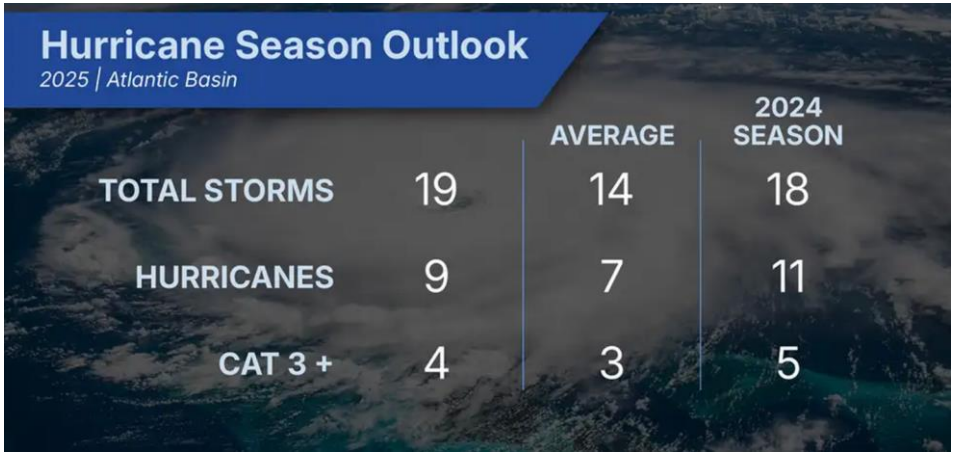
Above average activity expected

ATLANTIC SEASONAL HURRICANE ACTIVITY

Forecast for 2025 Hurricane Activity

Forecast Parameters	CSU Forecast for 2025*	Average for 1991-2020
Named Storms	17	14.4
Named Storm Days	85	69.4
Hurricanes	9	7.2
Hurricane Days	35	27.0
Major Hurricanes	4	3.2
Major Hurricane Days	9	7.4
Accumulated Cyclone Energy (ACE)+	155	123
ACE West of 60 degrees longitude	93	73

*CSU released its first seasonal forecast for 2025 on Thursday, April 3th, with updated forecasts on June 11, July 9th, and Aug 6.



Assumption 1 of 5

No Change

Regionally, the **2025 Atlantic hurricane season** from June to November is expected to have above-normal activity due to warmer-than-normal sea surface temperatures.

Forecasts predict 17 named storms compared to the 1991-2020 average of 14.4.

Assumption 2 of 5

No Change

In **Haiti**, the **March-June first season rains** is expected to include at near-average cumulative rainfall, with a likelihood of moderate deficits emerging in the south. Although rainfall trended toward above-average through early May—causing riverine floods in the North-East—moderate to severe rainfall deficits are expected in late May and June.

Assumption 3 of 5

No Change

In **Central America**, **the May-July first season rains** are expected to be near-average, though there is a lack of agreement between seasonal forecast ensemble models. Short-term precipitation forecasts indicate current deficits will likely be alleviated in the coming 2-4 weeks (here and here). Erratic rainfall distribution is considered highly likely throughout the season.

Assumption 4 of 5

Change

In **Haiti and Central America**, **the August-November second season rains** are expected to be near-average. While some seasonal forecast ensemble models suggest a bias toward below-average, the interpretation of long-range models should be tempered by ENSO-neutral conditions, ~~the rising likelihood of the emergence of La Niña in late 2025 (associated with above-average rains in this region),~~ and the expectation of an above-average storm activity.

Assumption 5 of 5

No Change

In **northern South America**, the main rainy season (broadly May-October) is expected to

near-average.

Question for agroclimatology team: *Any additional elaboration on why we're seeing below-average signals despite expectations of ENSO-neutral through October and rising potential for La Niña in late 2025 would be helpful.*

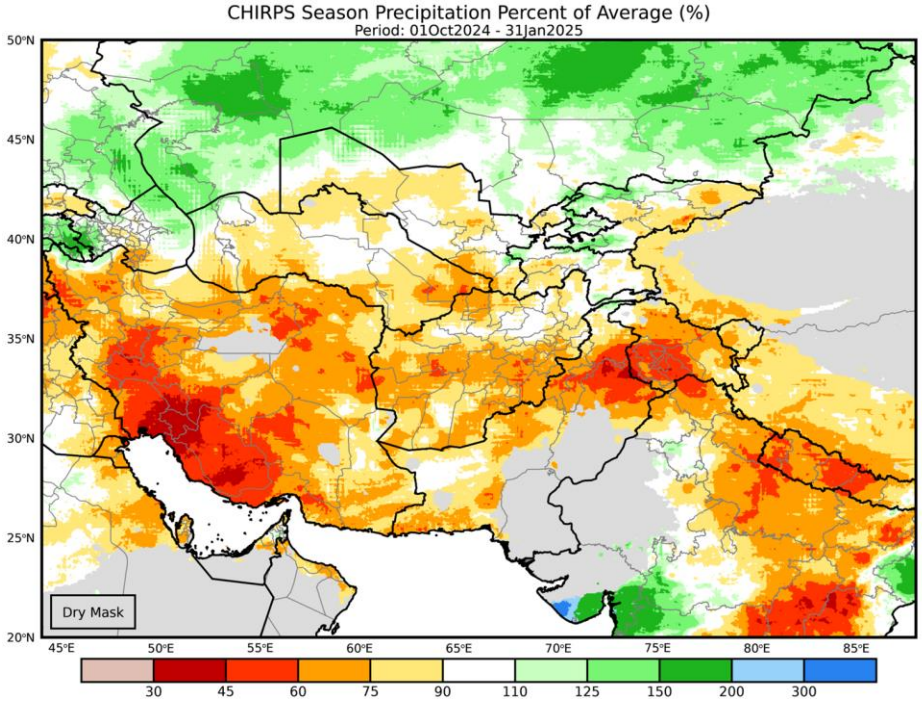
There is high uncertainty in the seasonal forecasts, with differences noted between various forecast models, and the spatial distribution of below average precipitation in the forecast. No clear evidence accounts for the tilt towards below average observed most notably in the NMME, while the high uncertainty is consistent with ENSO neutral conditions which are most likely to persist.

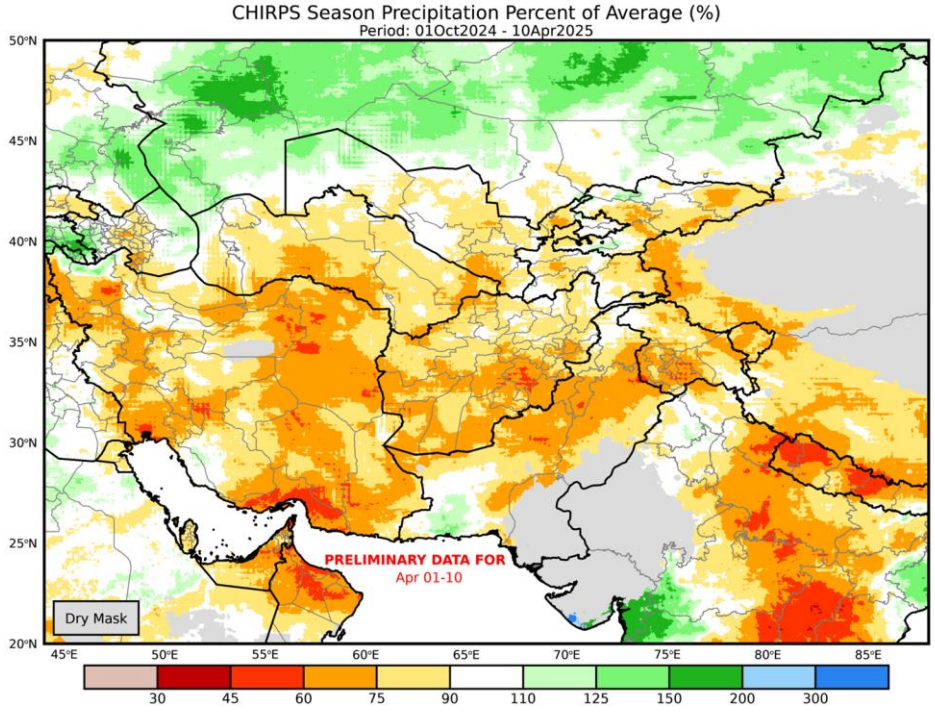
FEWS NET | USAID FROM THE AMERICAN PEOPLE | NOAA | NASA | USGS science for a changing world | Climate Hazards Center UC SANTA BARBARA

Afghanistan and Central Asia

2024-25 Wet Season Precipitation

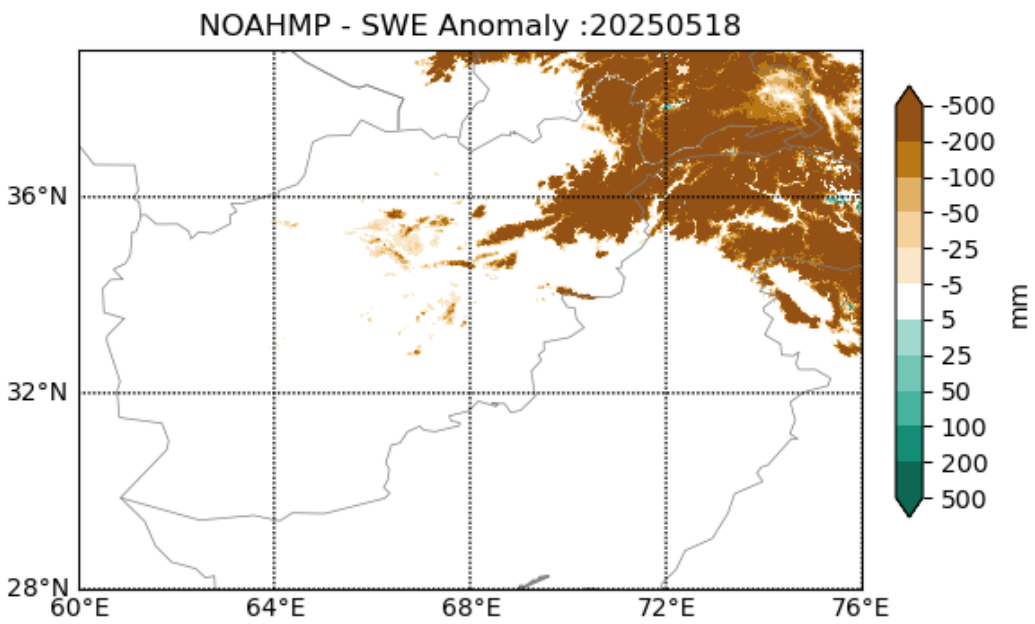
Well below average in both first half and second half of the season

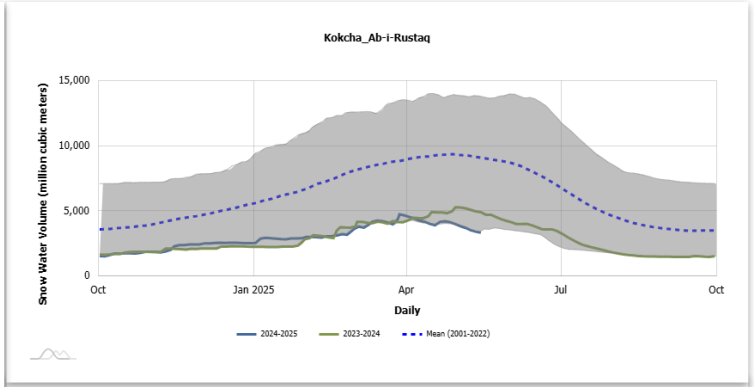


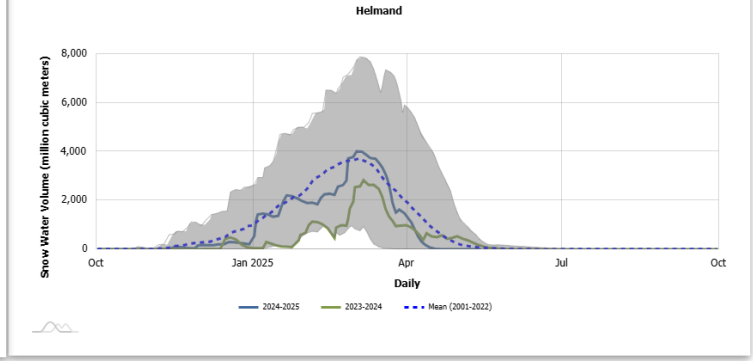


Snow Water Volume

Below average and declining according to the seasonal cycle



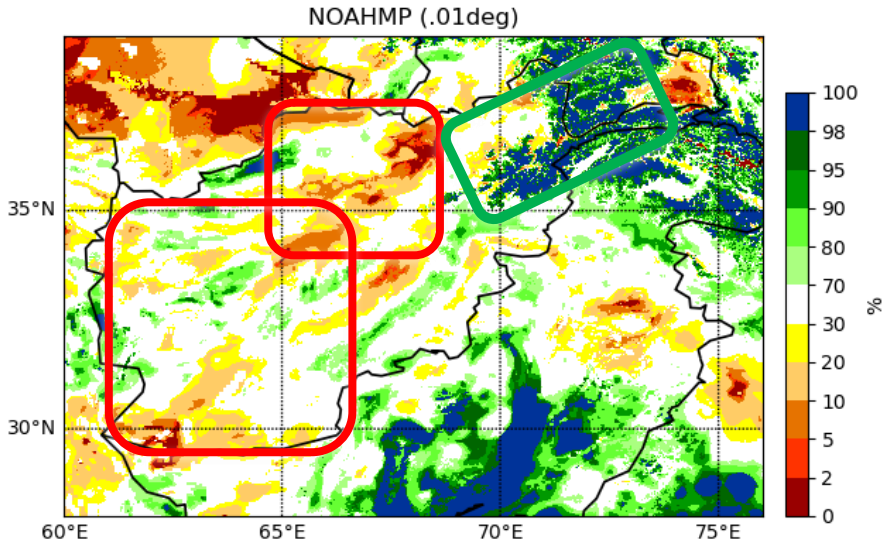




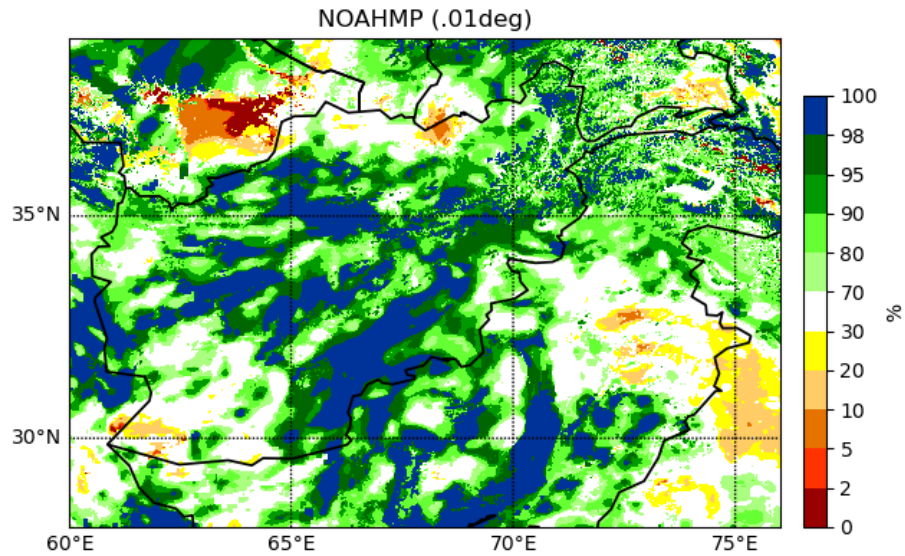
2024-25 Wet Season Precipitation

Lower root zone soil moisture is concerning near harvest time

Rootzone Soil Moisture Percentile : 20250518

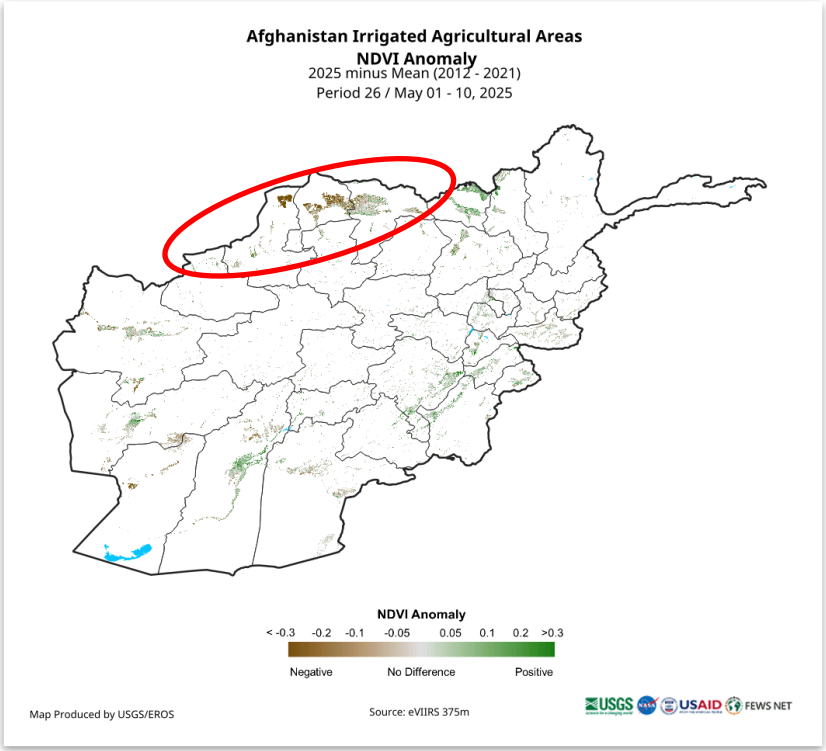


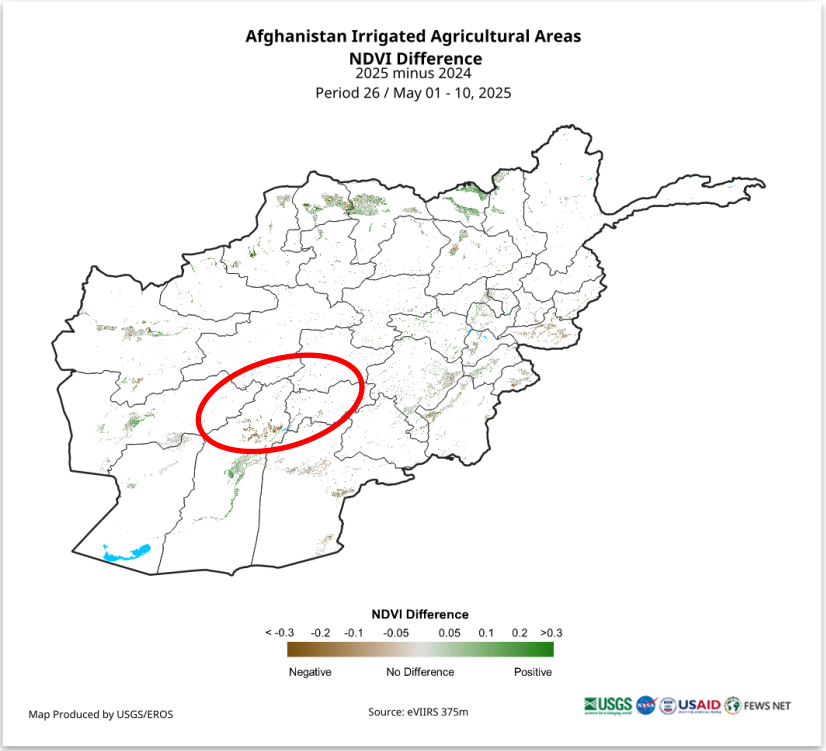
Rootzone Soil Moisture Percentile : 20240518



NDVI-Irrigated

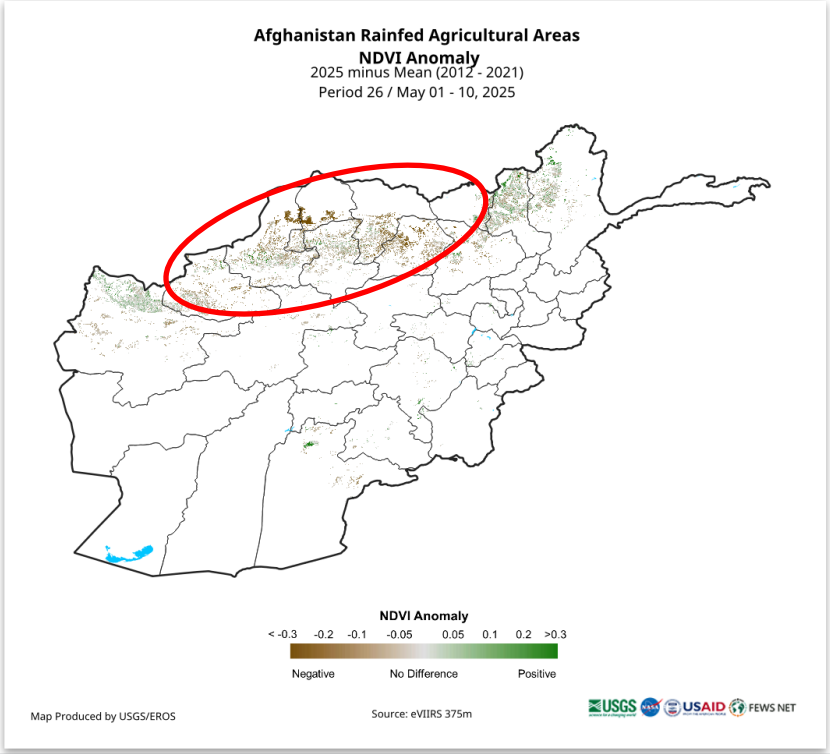
A mix of improvements and deteriorations compared to last year and average conditions

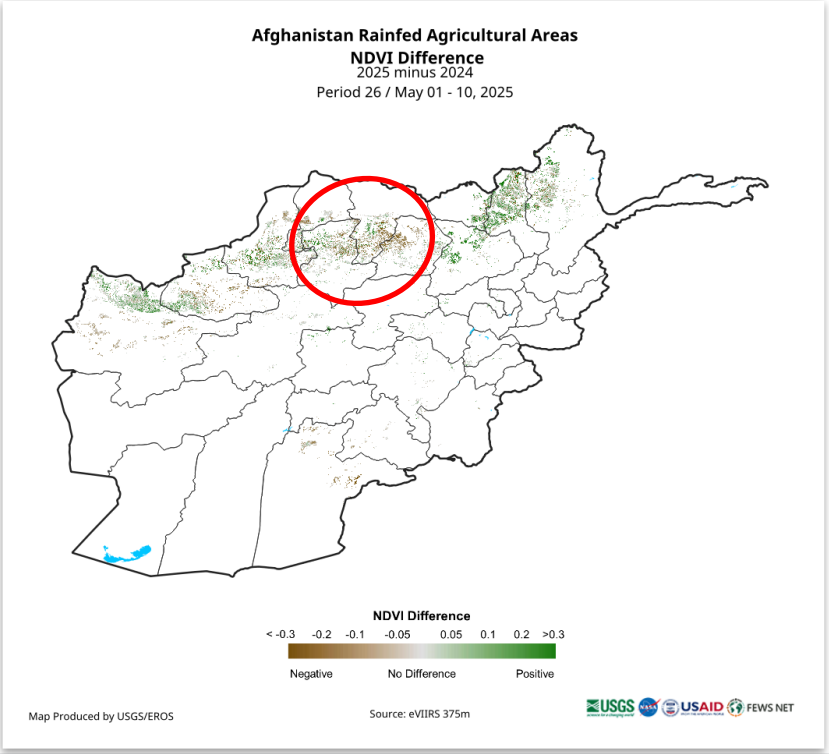




NDVI-Rainfed

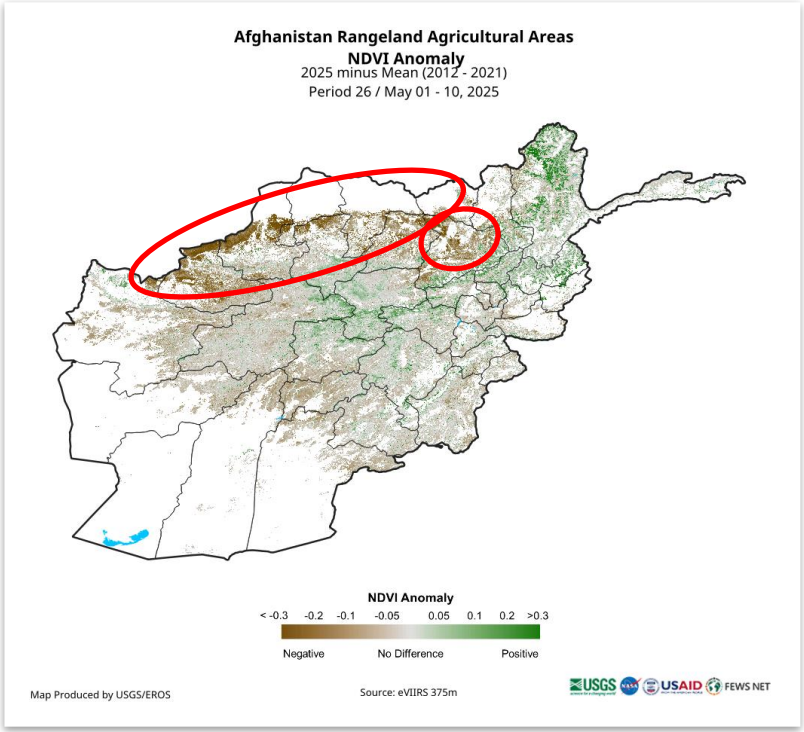
A visible improvement compared to last year while deteriorations compared to average

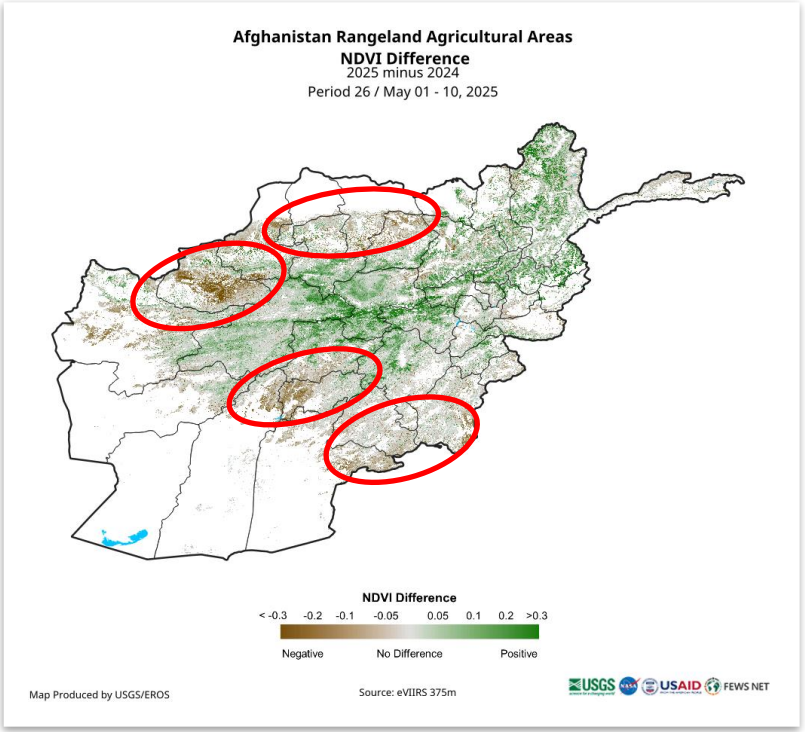




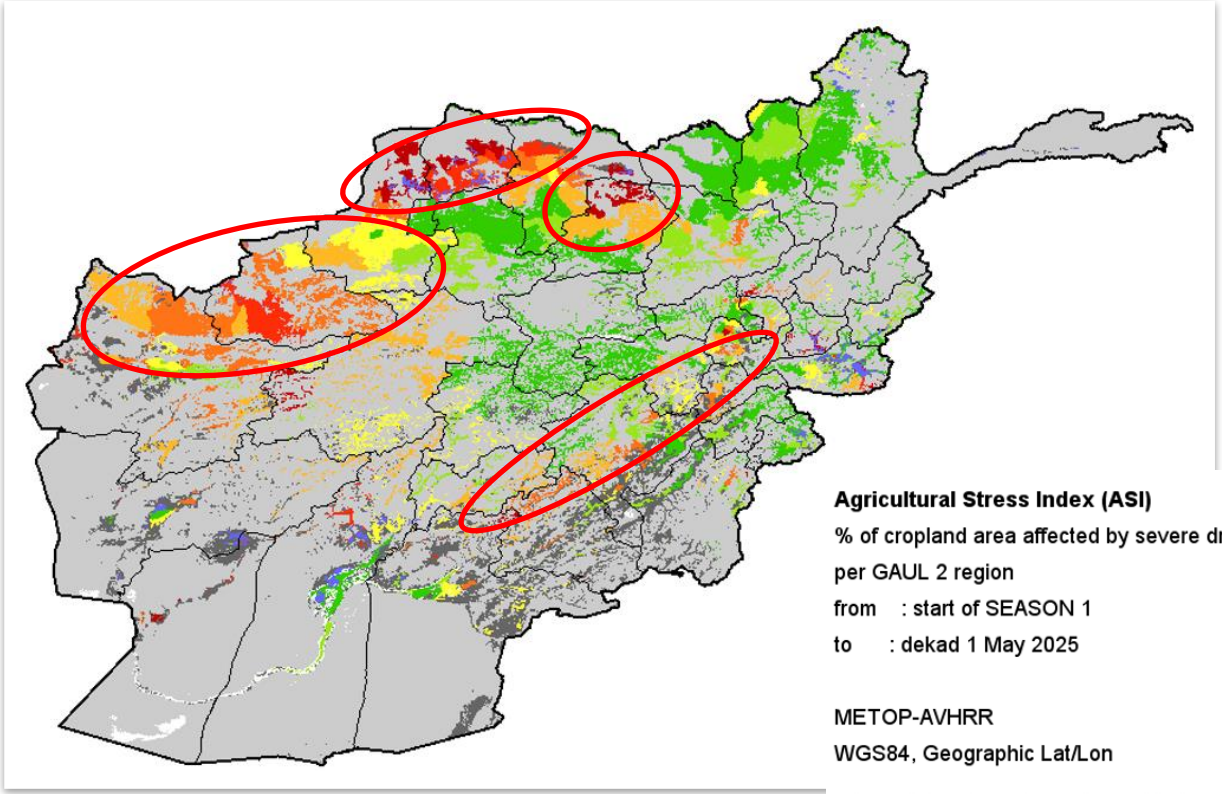
NDVI-Rangeland

A visible improvement compared to last year, while a mix of improvements and deteriorations compared to average





Agricultural Stress Index:



Agricultural Stress Index (ASI)

% of cropland area affected by severe drought

per GAUL 2 region

from : start of SEASON 1

to : dekad 1 May 2025

METOP-AVHRR

WGS84, Geographic Lat/Lon

ASI (%)

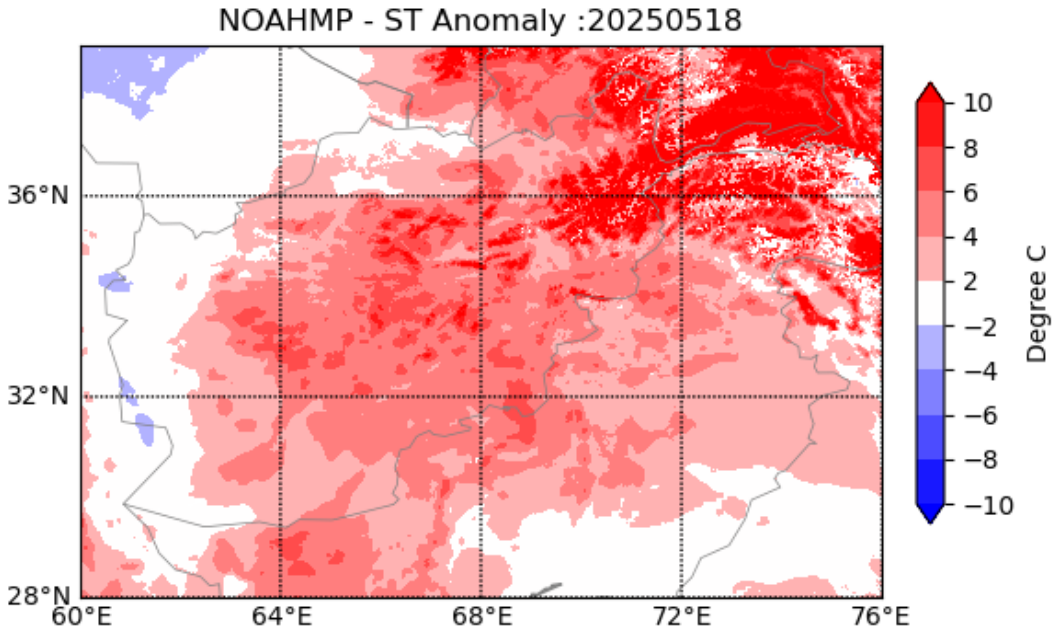
- < 10
- 10 - 25
- 25 - 40
- 40 - 55
- 55 - 70
- 70 - 85
- >= 85
- off season
- no data
- no seasons
- no cropland

Food and Agriculture Organization of the United Nations

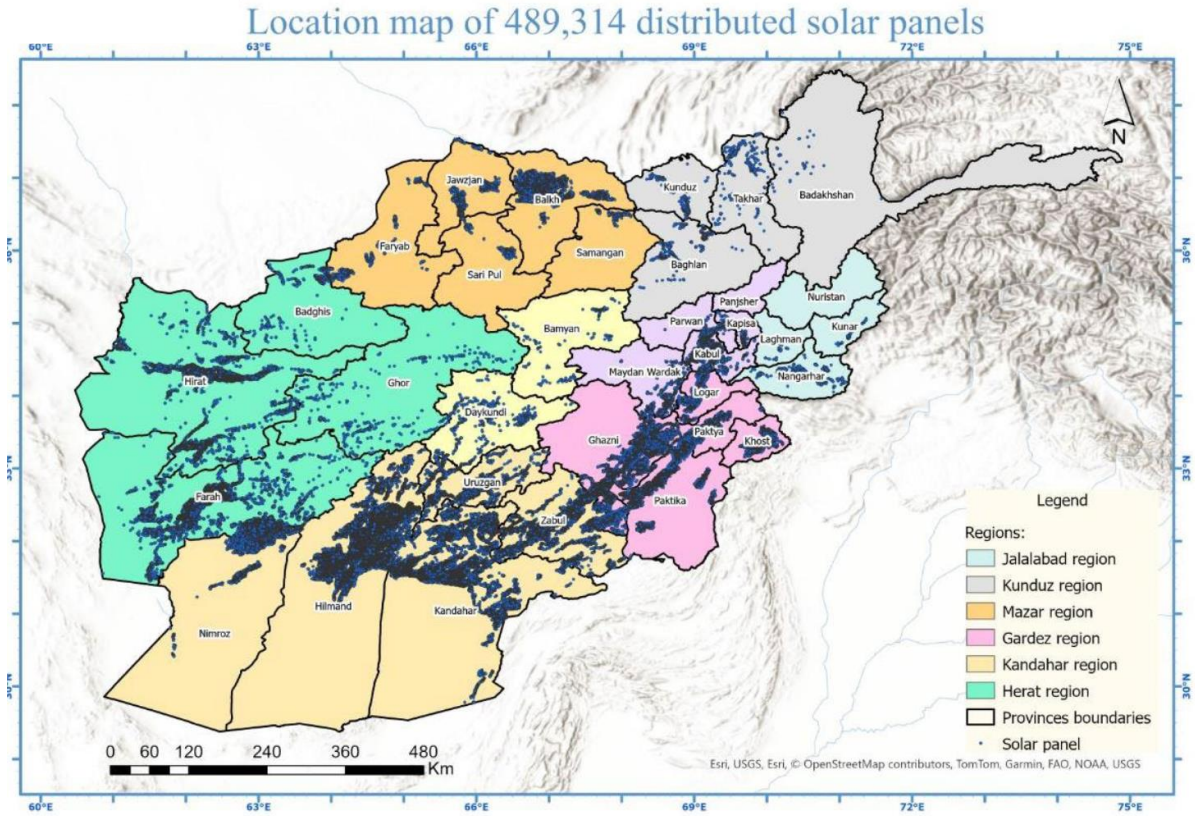
Global Information and Early Warning System – GIEWS

Surface Temperatures

Above-average recently observed



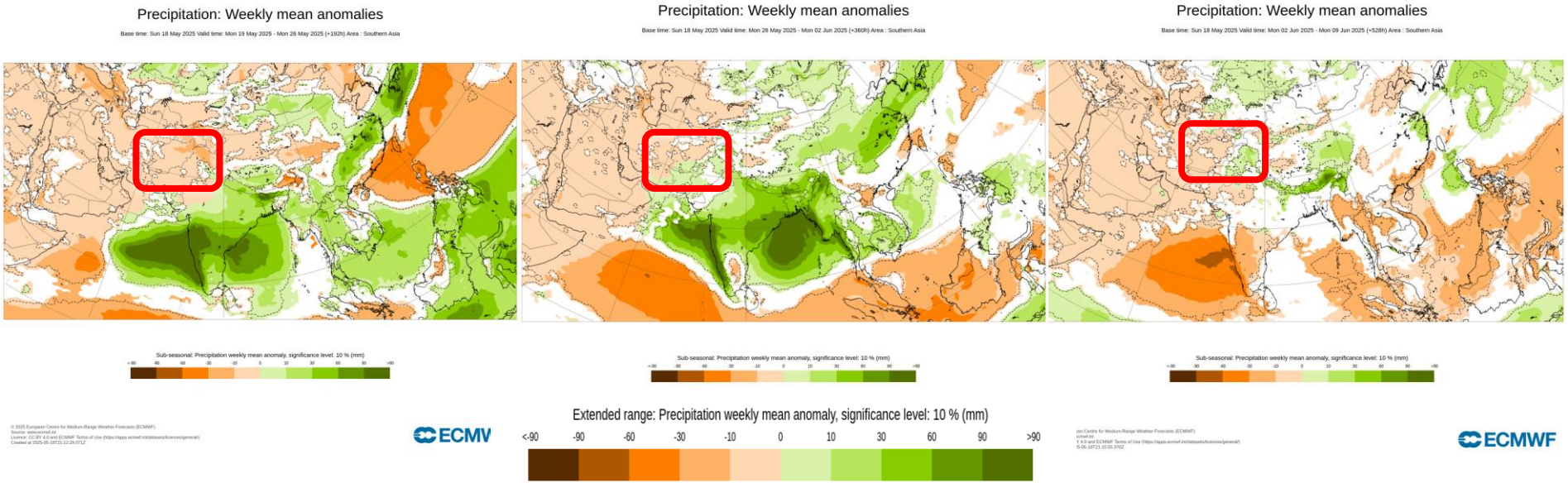
Groundwater Extraction:



Source: FAO

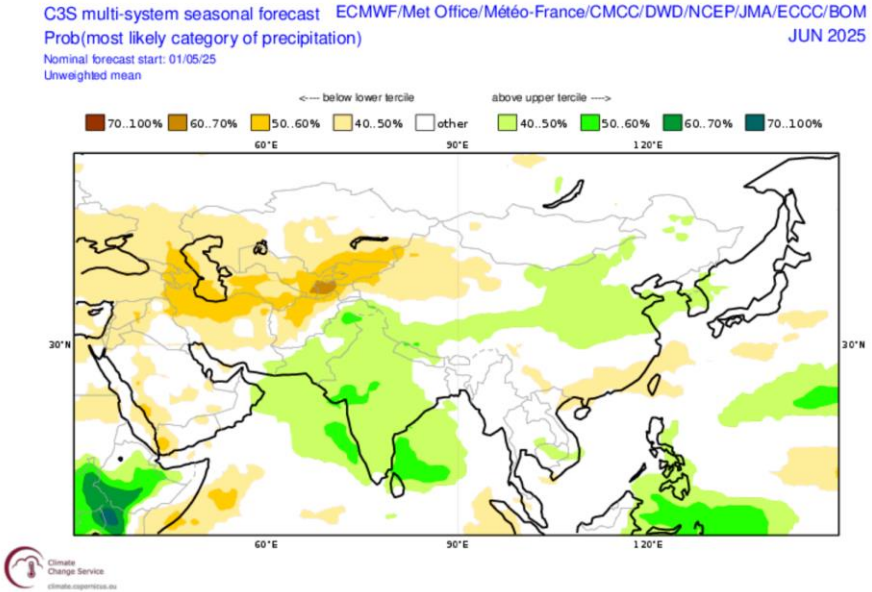
Weekly Precipitation Forecasts

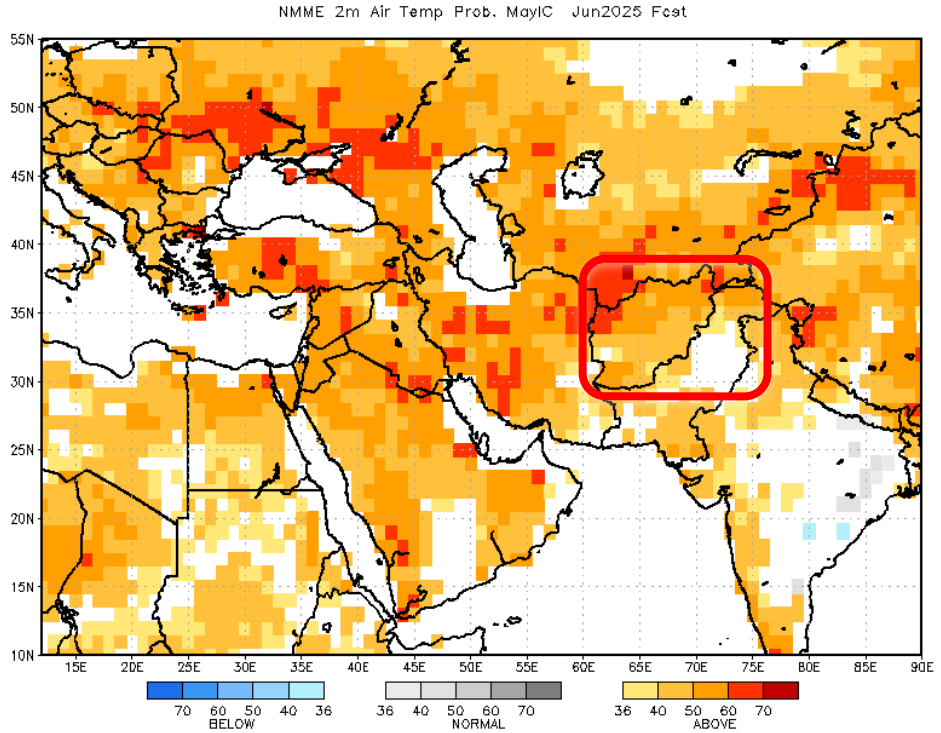
Tilt towards below average



Precipitation and Temperature Forecasts - June

Below-average precipitation and above average temperatures expected in June





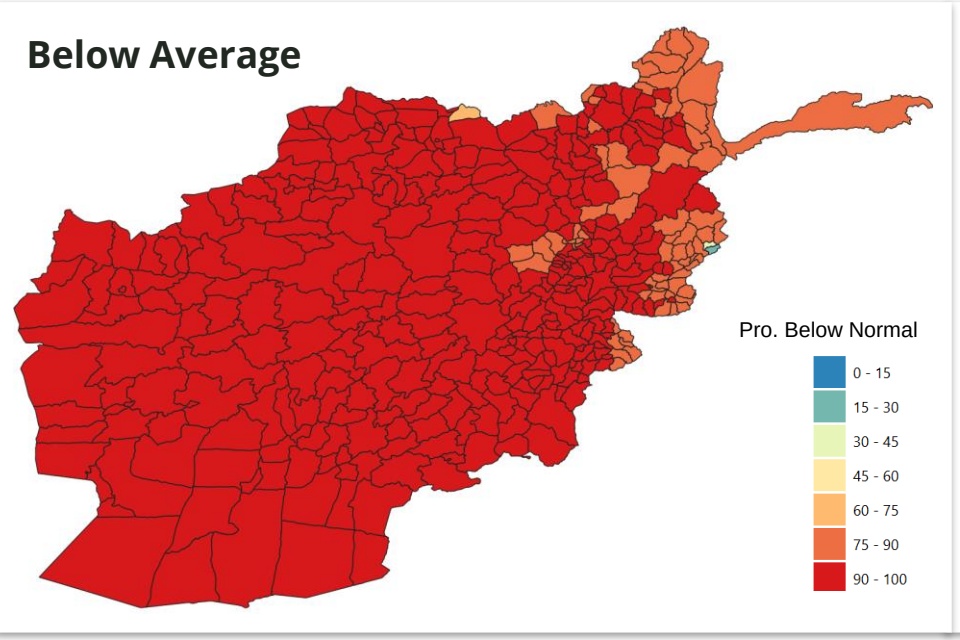
PROGRAMME OF THE EUROPEAN UNION

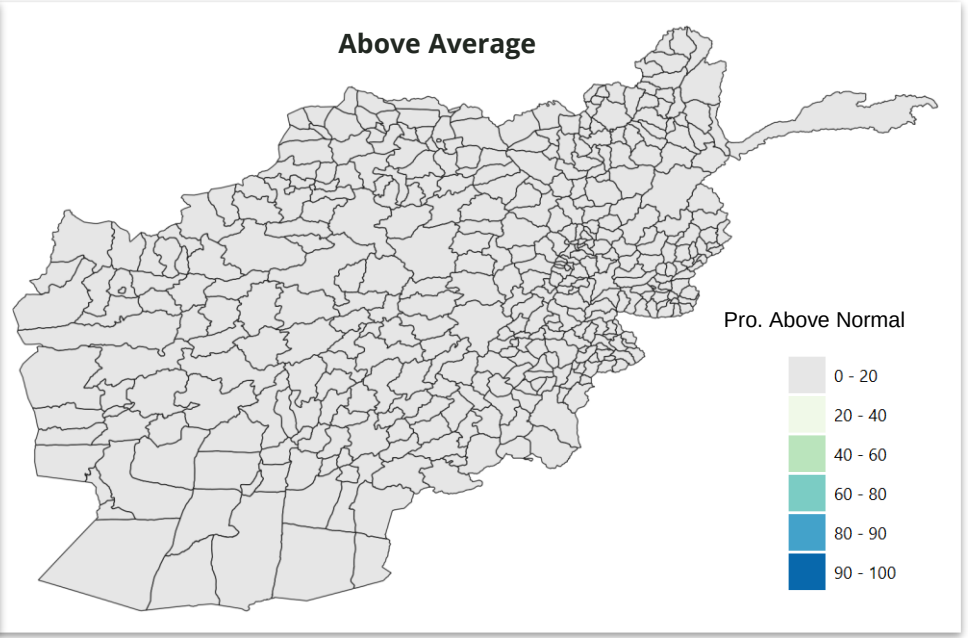
FEWS NET

USAID FROM THE AMERICAN PEOPLE

Precipitation Scenarios – 2024/25 Season

High chances of below-average precipitation by the end of June 2025



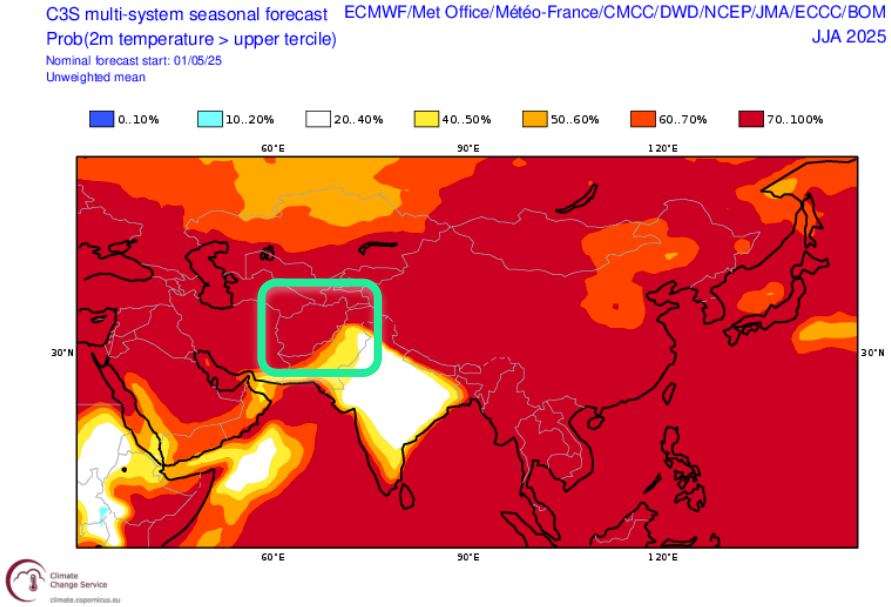


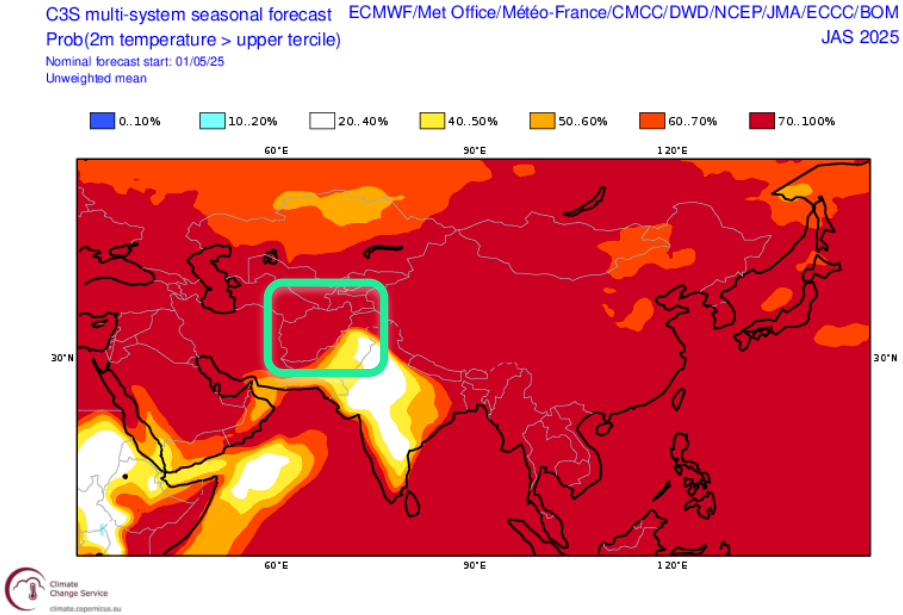
Analog Years: 2000-01, 2003-04, 2005-06, 2007-08, 2010-11, 2017-18, 2020-21, 2021-22, 2022-23, 2023-24

FEWS NET USAID FROM THE AMERICAN PEOPLE

Seasonal Temperature Forecasts

Above average most likely





Assumption 1 of 7 (NEW)

Seasonal cumulative precipitation for the 2024/25 (October to June) is expected to be below average nationwide, lower than last year.

Assumption 2 of 7 (NEW)

Above-average daily mean temperatures are most likely to persist through September 2025, with extreme temperatures expected during May-July and July-September.

Assumption 3 of 7 (NEW)

Given current reservoir and streamflow levels, hydrological drought is likely ongoing across parts of the west, south, and north. Meteorological and agricultural drought conditions have likely re-emerged in many areas and will likely affect an expanding range of areas through at least September 2025.

Assumption 4 of 7 (NEW)

The risk of flooding is below average due to below-average snowpack and below-average precipitation during the spring and summer. However, monsoon precipitation may bring more rainfall to the eastern and southeastern provinces from June to September, potentially causing flash floods in those areas.

Assumption 5 of 7 (NEW)

Due to the above-average temperature, moisture stress in rainfed crops and rangelands, and reduced water availability, mainly in the downstream areas that may experience extended dry spells, which will cause further groundwater extraction throughout the country.

Assumption 6 of 7 (NEW)

Rangeland vegetative conditions during the spring of 2025 (March-May) are expected to improve. They are most likely to be near average in most areas, with some below-average regions due to the persistence of current conditions and above-average temperatures. During the summer (June-September), most areas are expected to turn below average, primarily due to below-average cumulative precipitation in 2024/25, above-average temperatures, or a combination of both.

Assumption 7 of 7 (NEW)

The SWE for water year 2025, through May 15, 2025, remains below average. This is likely to reduce water availability in downstream areas for the main agricultural season and will limit water availability for second-season crops

Science Question 1 of 2

It appears that winter and spring precipitation performed poorly, both from a cumulative perspective (Oct-May) and when we breakdown the stages of the critical spring precipitation season (Feb-May; March-May; April-May). I would usually expect this to lead to concerns for poor cropping conditions but haven't seen this reflected in the April seasonal forecast slides or the May 1 GeoGlam Early Warning report. There are some contradictory statements between them and FAO GIEWS regarding whether the distribution of rainfall was favorable or erratic for crop development.

- Could you elaborate on the assessment of winter wheat performance vs spring wheat performance and any notable differences between lowland and highland areas? The soil moisture maps in the April seasonal forecast would seem to support better conditions in the highlands relative to the lowlands.
- Did early-season precipitation, snowpack, and/or groundwater offset strengthening spring rainfall deficits?
- What explains visible improvement in vegetation (NVDI) in rainfed and rangeland areas compared to last year (when cumulative rainfall was much better and crop production was above-average)?

Science Question 1a of 2

- Could you elaborate on the assessment of winter wheat performance vs spring wheat performance and any notable differences between lowland and highland areas? The soil moisture maps in the April seasonal forecast would seem to support better conditions in the highlands relative to the lowlands.

Response: Currently, it is a matter of irrigated wheat versus rainfed wheat rather than winter wheat versus spring wheat. As mentioned above, irrigated and rainfed wheat in the lower and mid elevations are under severe stress, while in the higher elevations and the shadows of mid elevations, rainfed wheat is still not under stress and can survive for another month.

Science Question 1b of 2

- Did early-season precipitation, snowpack, and/or groundwater offset strengthening spring rainfall deficits?

Response: The 2024/25 season began with uncertainties regarding precipitation amounts and distribution, with most areas experiencing below-average rainfall. However, the timing and distribution were sufficient for winter wheat planting and development. Recent precipitation in February and early March has improved moisture conditions for spring planting, marking a promising start to the season

Groundwater does remain a cheap and viable option to supplement rainfall deficits.

Science Question 1c of 2

- What explains visible improvement in vegetation (NVDI) in rainfed and rangeland areas compared to last year (when cumulative rainfall was much better and crop production was above-average)?

Response: Last year's greenup was delayed relative to this year, contributing to the elevated NDVI compared to 2024. However, 2025 NDVI values are closer to average relative to the 2012-2021 average.

Science Question 2 of 2

The April slides included concern for yellow rust and locusts, but the FAO May locust bullet states there are no recent locust reports. Are these two concerns for pest and disease still relevant?

Response: Although the combination of precipitation and above-average temperatures during April and May of the 2024/25 agricultural season was expected to elevate the risk of yellow Rust affecting wheat yields in the eastern, northern, northeastern, and southern provinces, no widespread reports of yellow rust were made in the mentioned areas.

FAO reported a locust outbreak in 11 provinces, which was addressed with no major impacts on the agricultural regions; however, concerns still exist about the risk of locust infestations in crop and pasture areas in the remaining months of the current agricultural season.

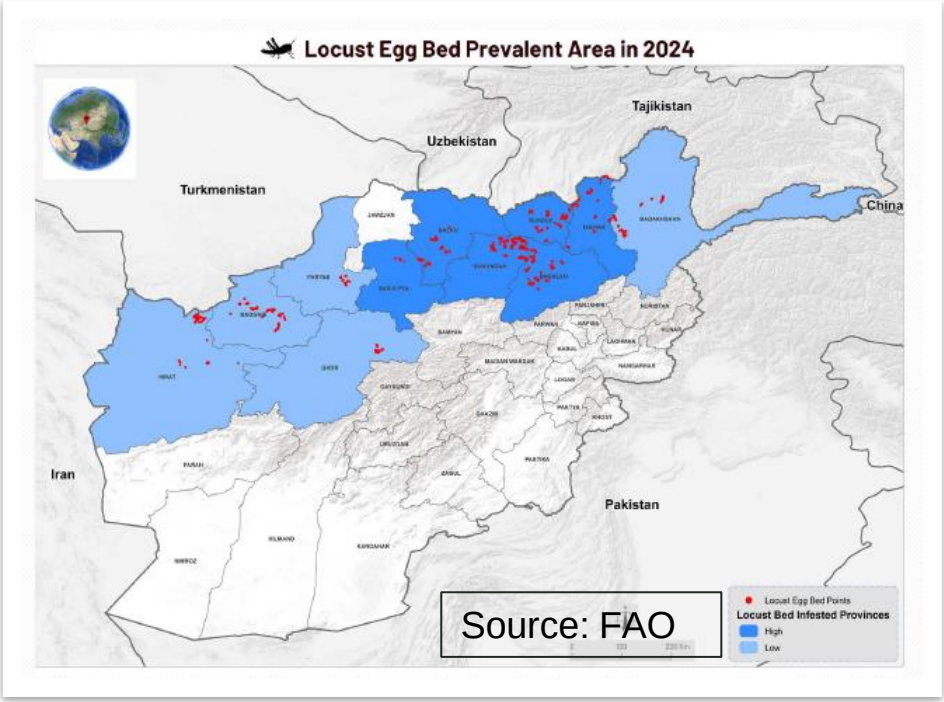
Science Question 2 of 2

Locust outbreak was reported in 11 provinces, but addressed with no damage to the agricultural areas

Locust forecast in 2025

Infested Area: 50,000 – 55,000 Hectares

Regional distribution: A locust outbreak has been reported in 11 provinces (Baghlan, Kunduz, Takhar, Badakhshan, Samangan, Faryab, Sar-i Pul, Balkh, Herat, Ghor, and Badghis), but the issue is addressed.



May 2025
FEWS NET Seasonal Forecast Review

Prepared by Melissa Breeden
melissa.breeden@noaa.gov

FEWS NET USAID FROM THE AMERICAN PEOPLE NOAA NASA USGS science for a changing world Climate Hazards Center UC SANTA BARBARA

Ukraine

JJA 2025 Precipitation and Temperature forecast

Tilt towards below average precipitation and extreme (upper 20%) temperature values