Regional Workshop for learning and identification of best practices, challenges and way forward to scale up anticipatory action for flood in the Sahel

SEASONAL FORECAST FOR MAM & AMJ 2024 OVER GULF OF GUINEA OVER WEST AFRICA

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ClimSA
INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME

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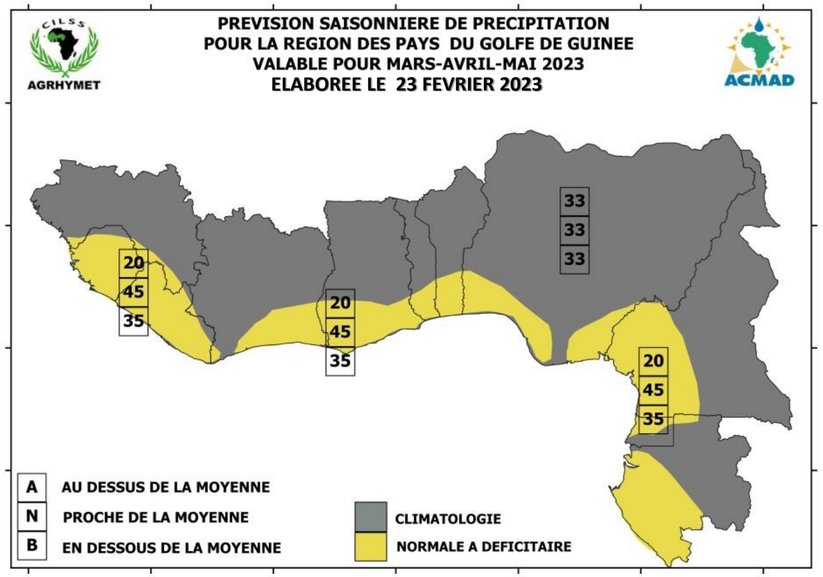
Abuja – Nigeria 27-29 March 2024

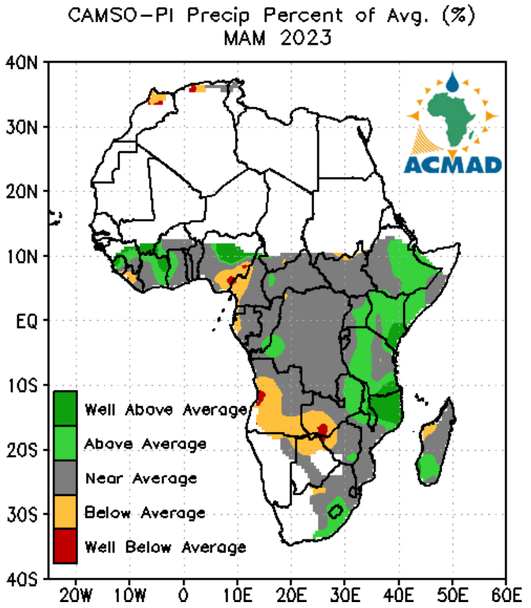
Performance Assessment of Rainfall Outlook MAM & AMJ 2023

MAM 2023 VERIFICATION

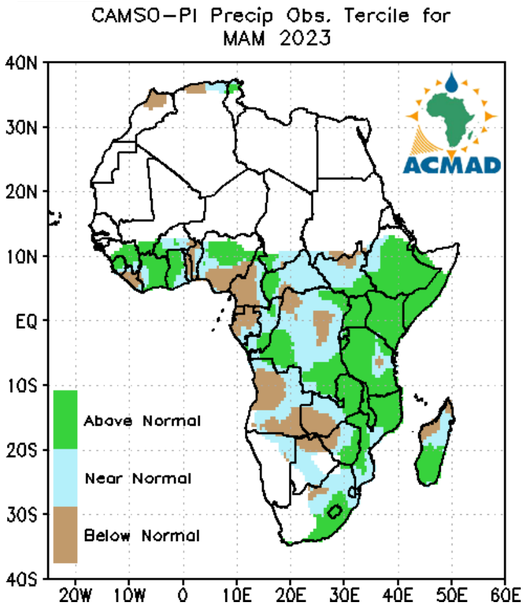
(1) Forecast precip. For MAM 2023

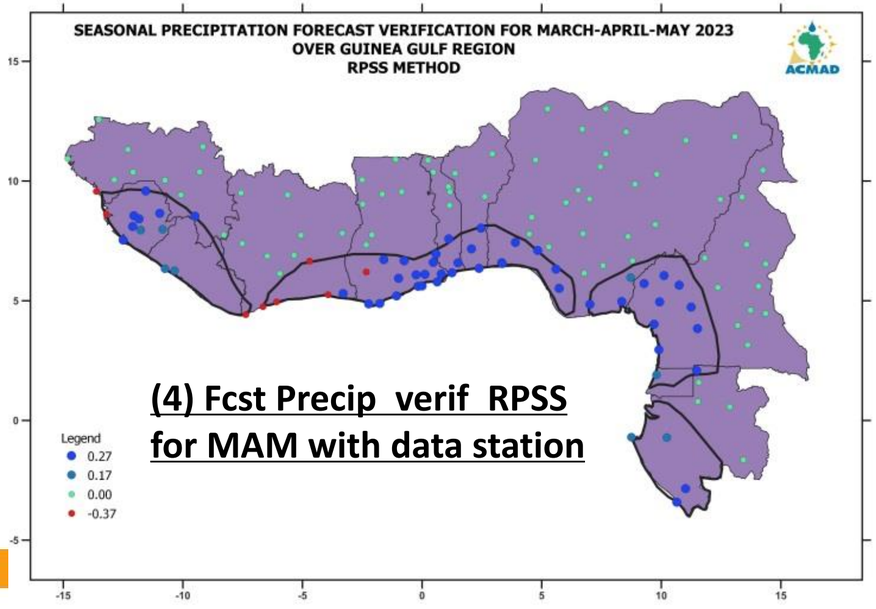


(2) Precip map obs in % for MAM

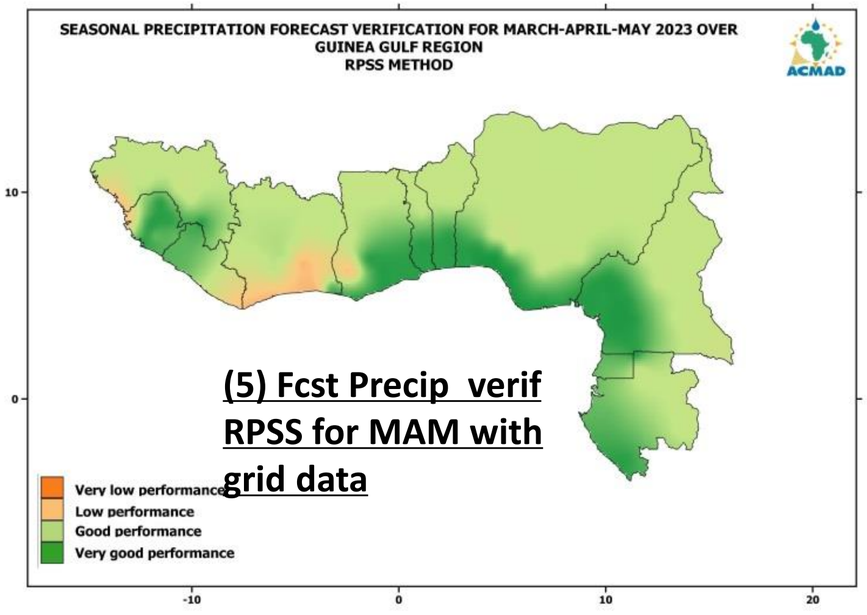


(3) Precip map obs in tercile for MAM



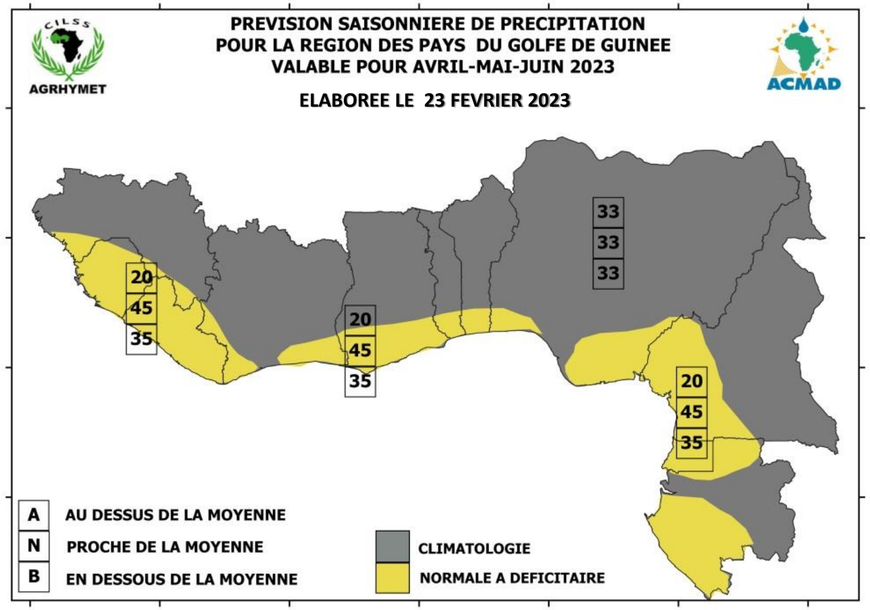


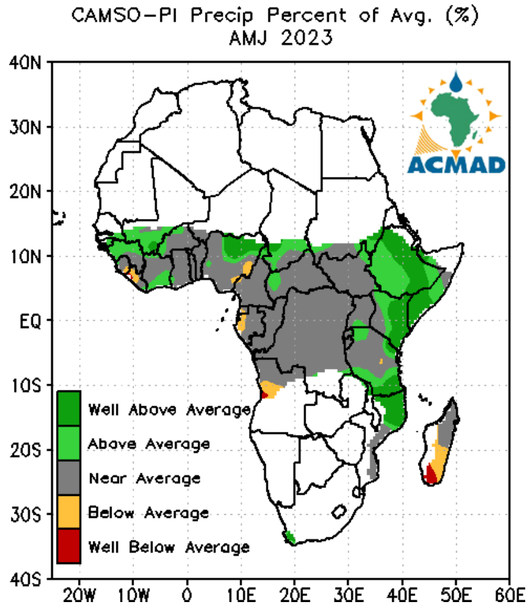
(4) Fcst Precip verif RPSS for MAM with data station

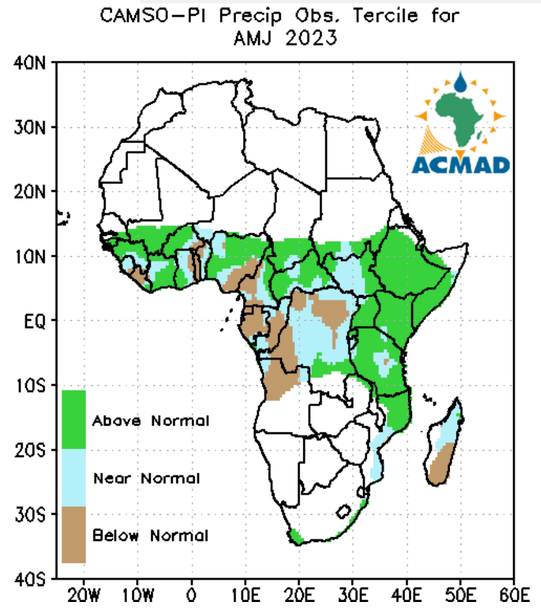


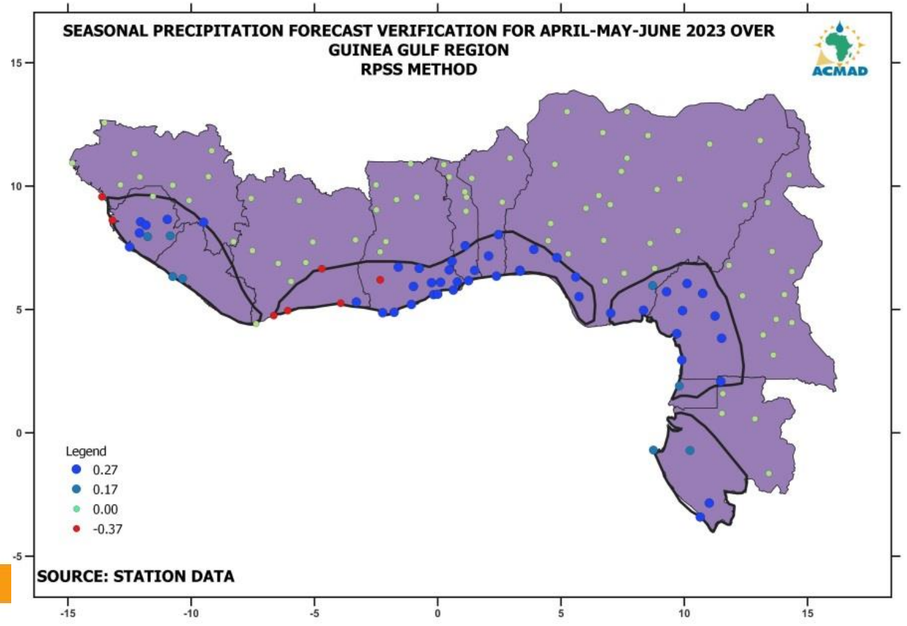
(5) Fcst Precip verif RPSS for MAM with grid data

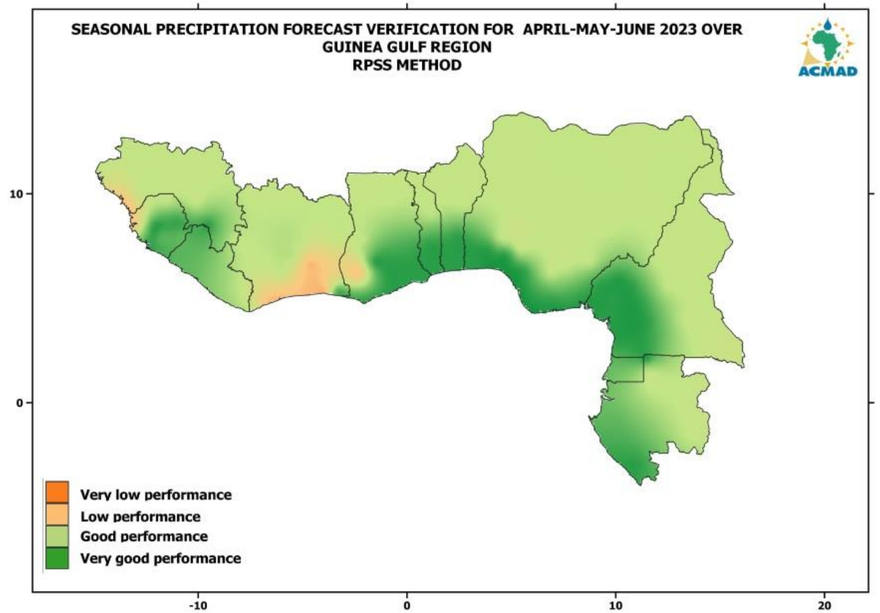
AMJ 2023 VERIFICATION







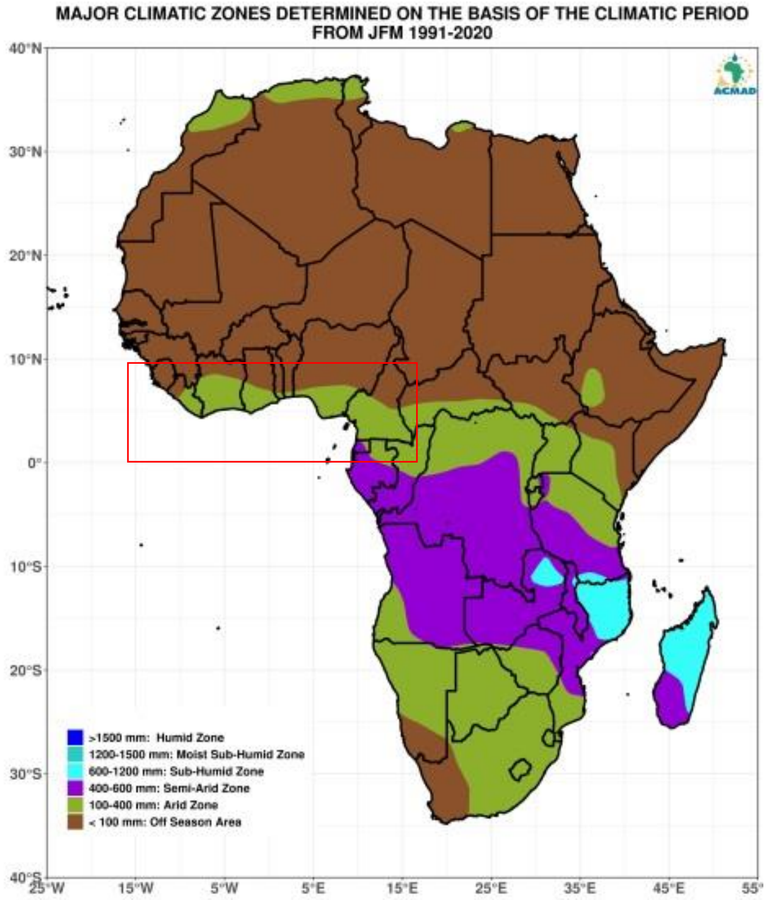




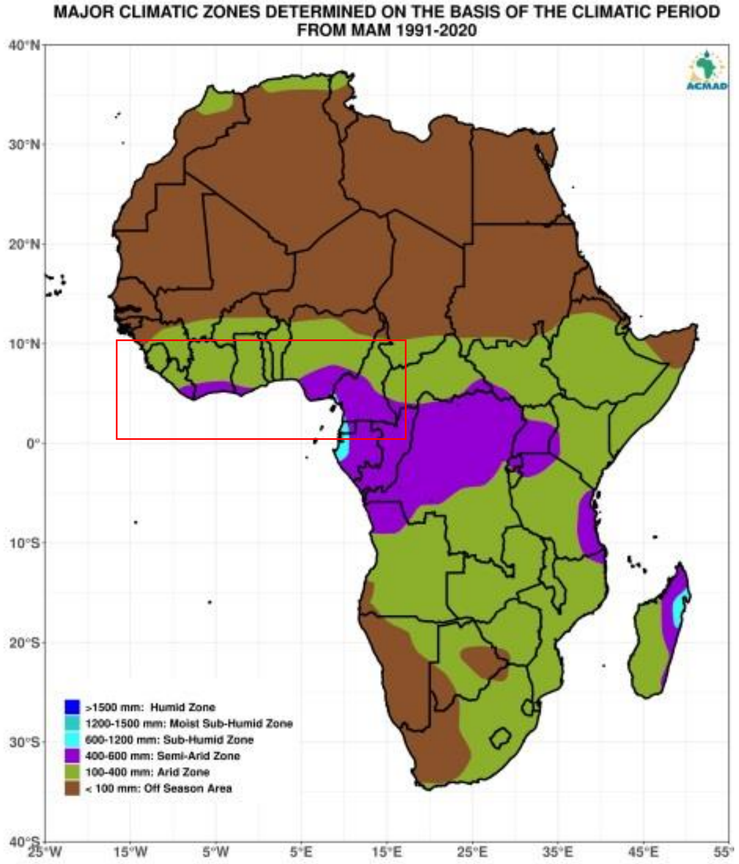
Current State of Climate for the Gulf of Guinea Region

Time series analysis of Climate variability and trends (Climatic zones)

Season 1 = MARCH-APRIL-MAY

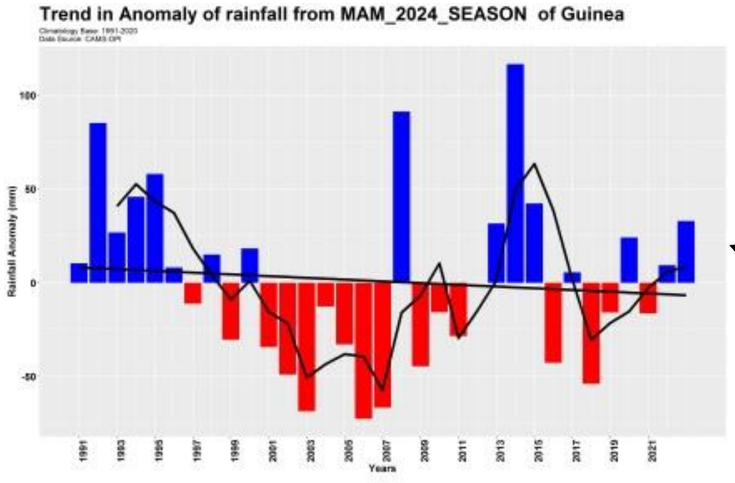


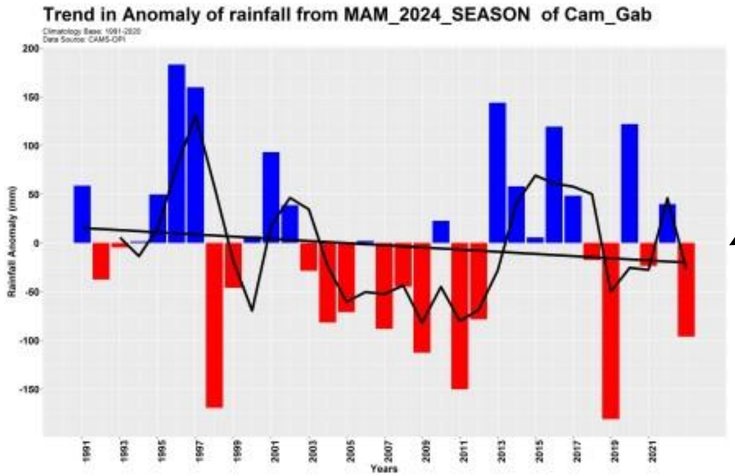
Season 2 = APRIL-MAY-JUNE

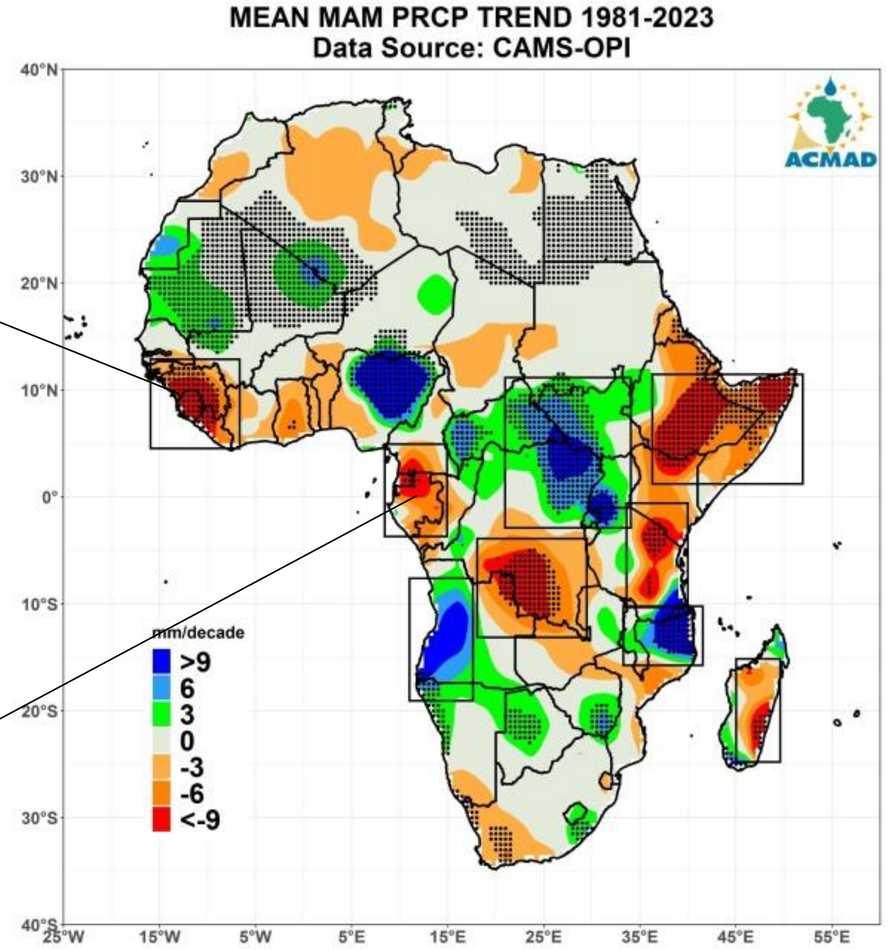


Time series analysis of Climate variability (seasonal and annual cycles, interannual/interdecadal variability) and trends

MAM Season 1



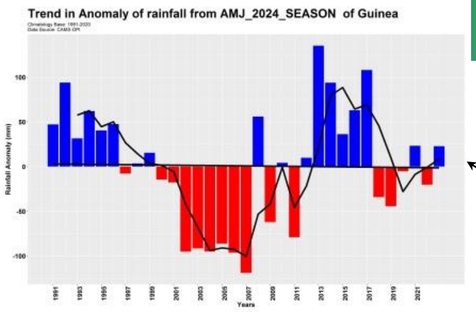


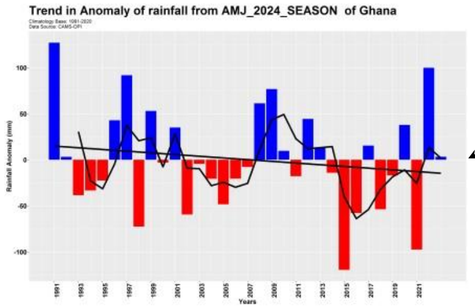


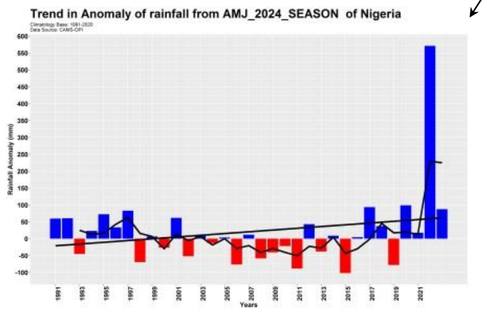
http://sgbd.acmad.org:8080/thredds/fileServer/ACMAD/CDD/climatemonitoringservice/Anomaly_Graphs_Time_Series_Point_Station_Maps/CAMS/Anomaly_Graphs_JAS_CAMS.html

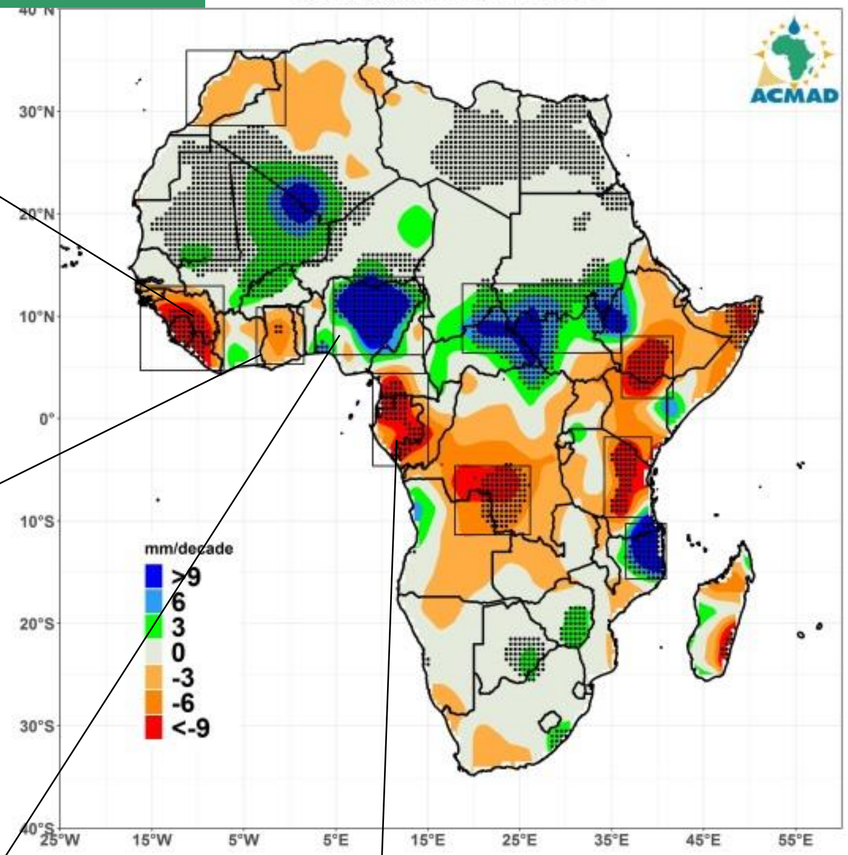
Time series analysis of Climate variability (seasonal and annual cycles, interannual/interdecadal variability) and trends

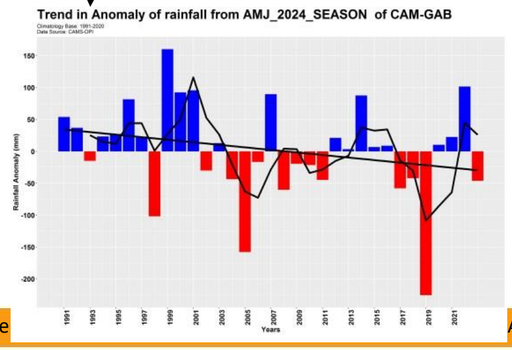
AMJ Season 2



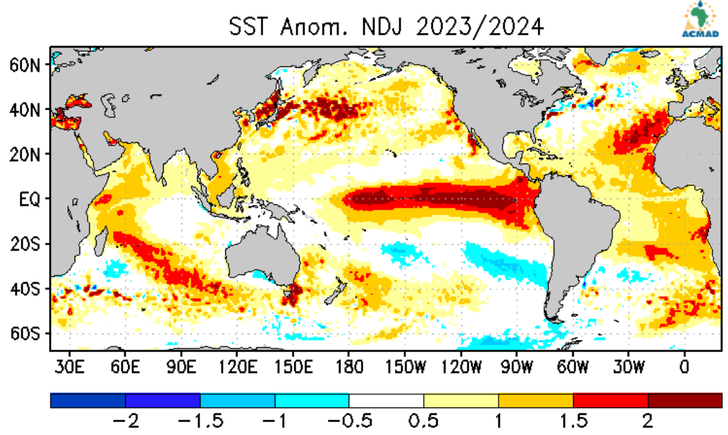


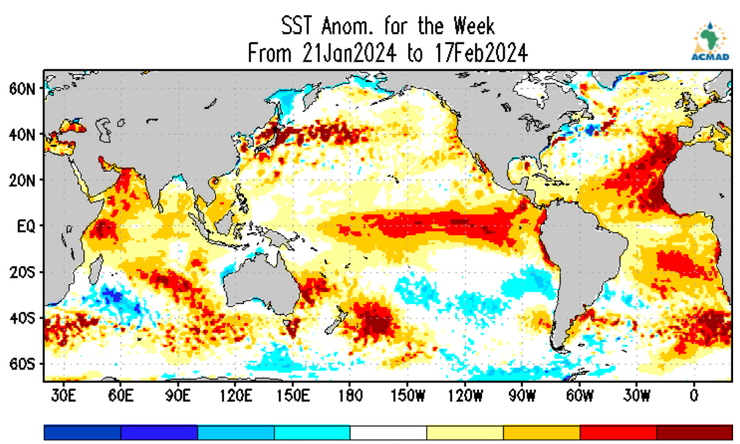


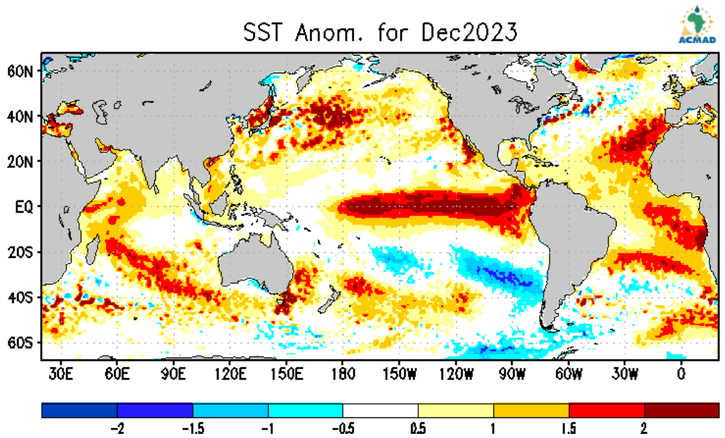


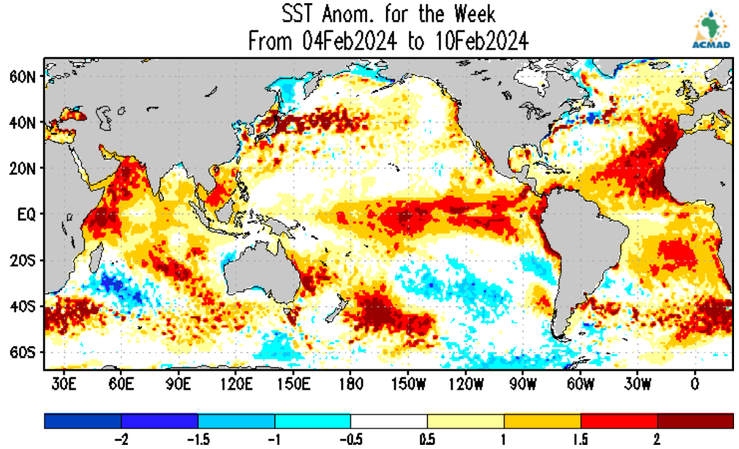


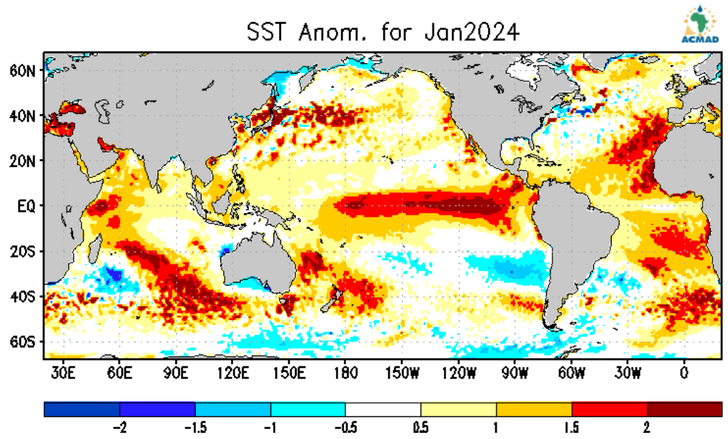
State of the Global Ocean – *Current Status*

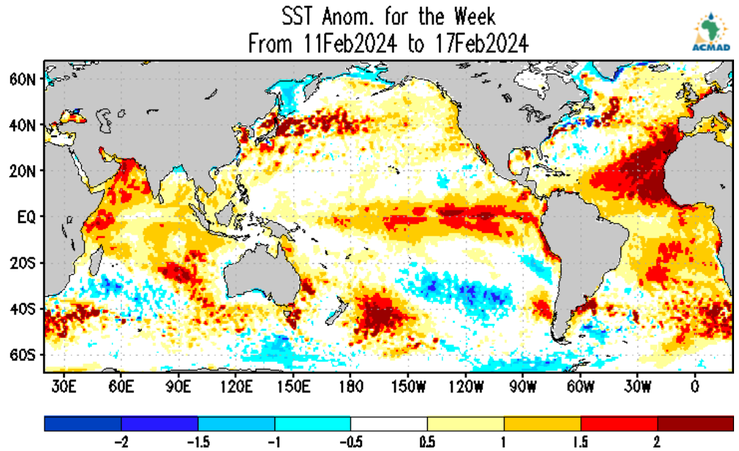




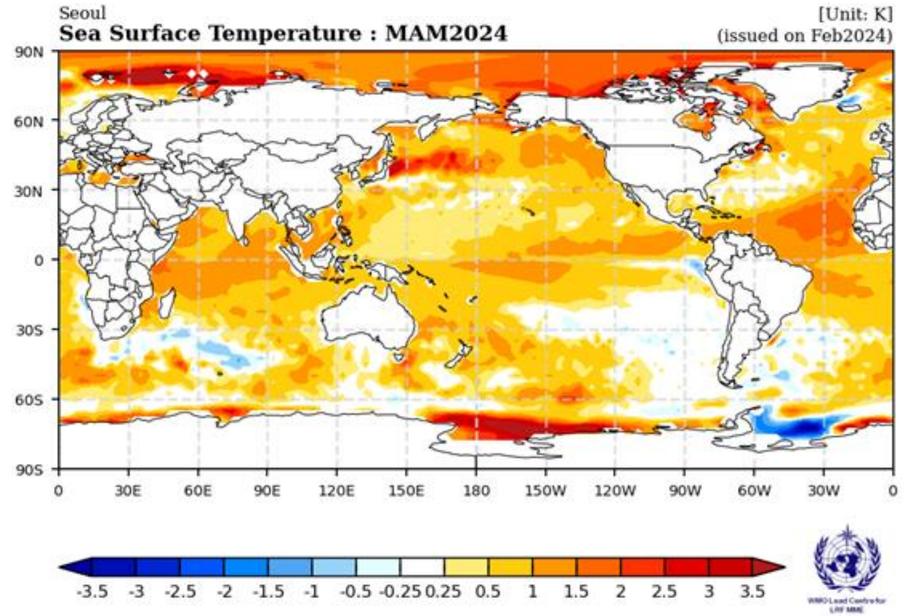


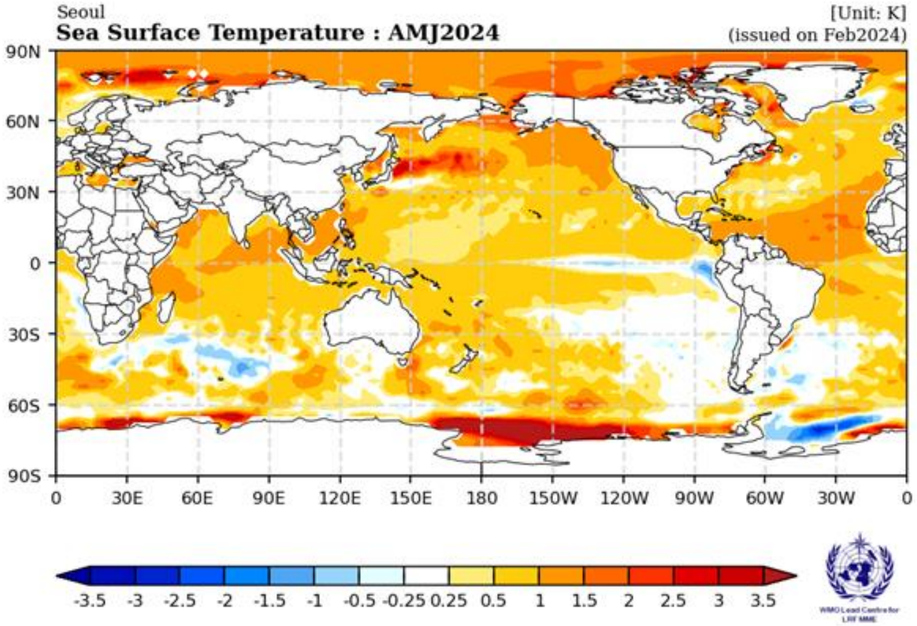


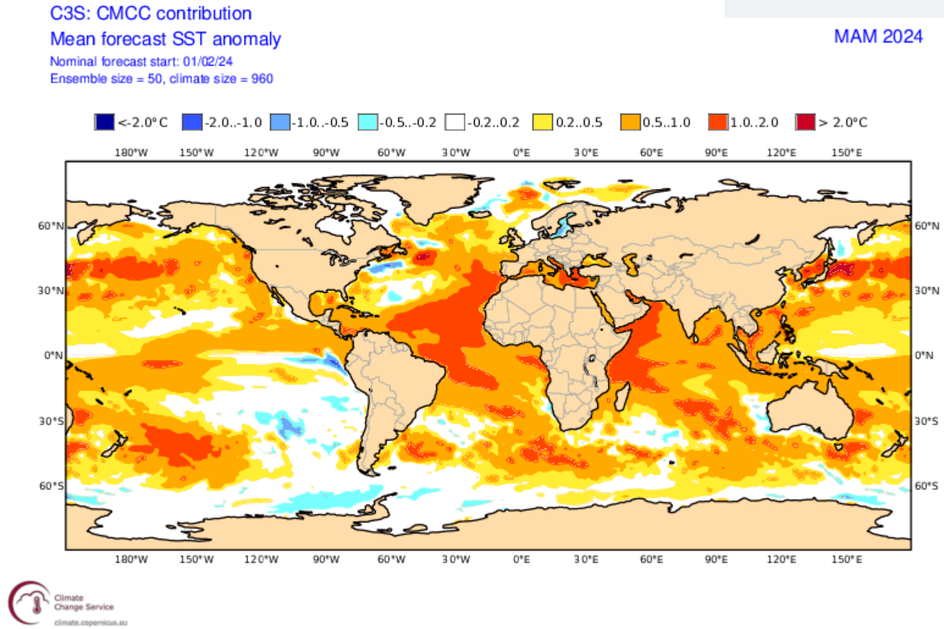


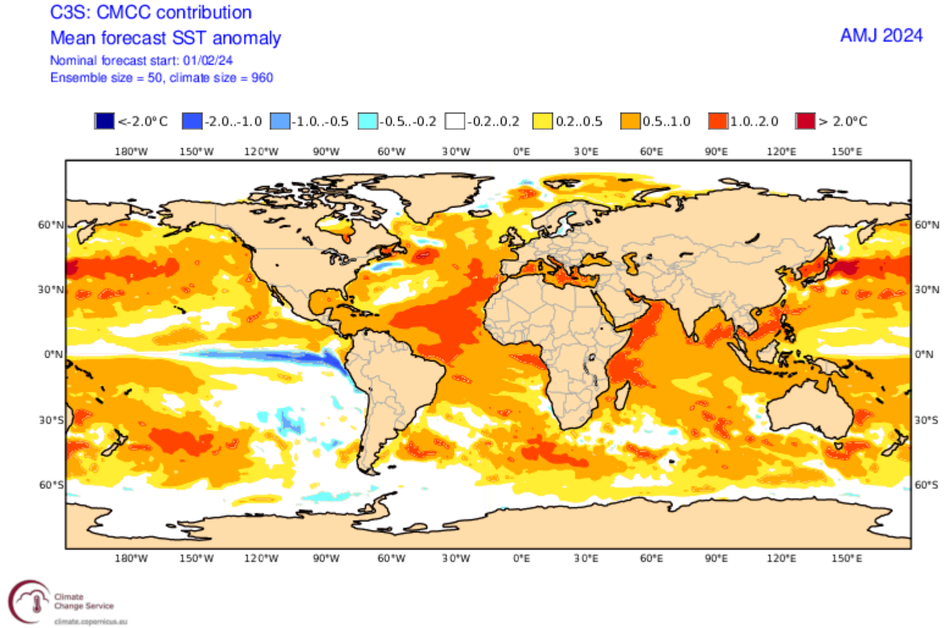


State of the Global Ocean – *Projected Status*





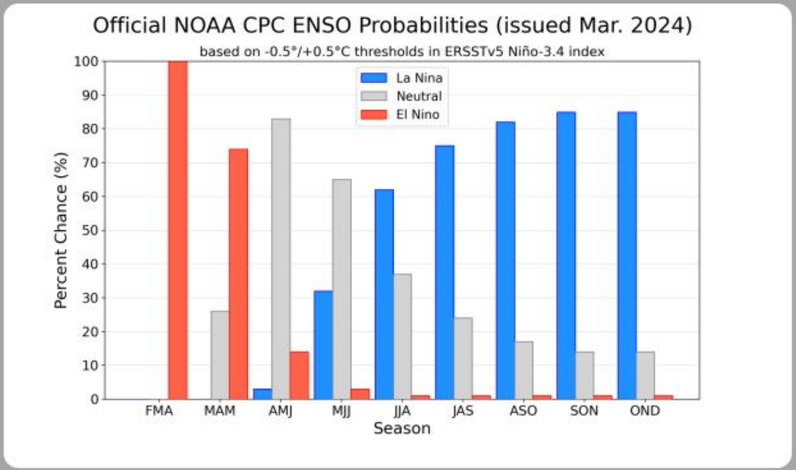




CPC Probabilistic ENSO Outlook

Updated: 14 March 2024

A transition from El Niño to ENSO-neutral is expected by April-June season 2024, with ENSO-neutral persisting through May-July 2024. Thereafter, La Niña is favored in June-August, and chances increase through the October-December season.



The majority of models indicate El Niño will persist through March to May 2024 and then transition to ENSO-neutral during April-June 2024.

After a brief period of ENSO neutral conditions, most models indicate a transition to La Niña around June-August 2024.

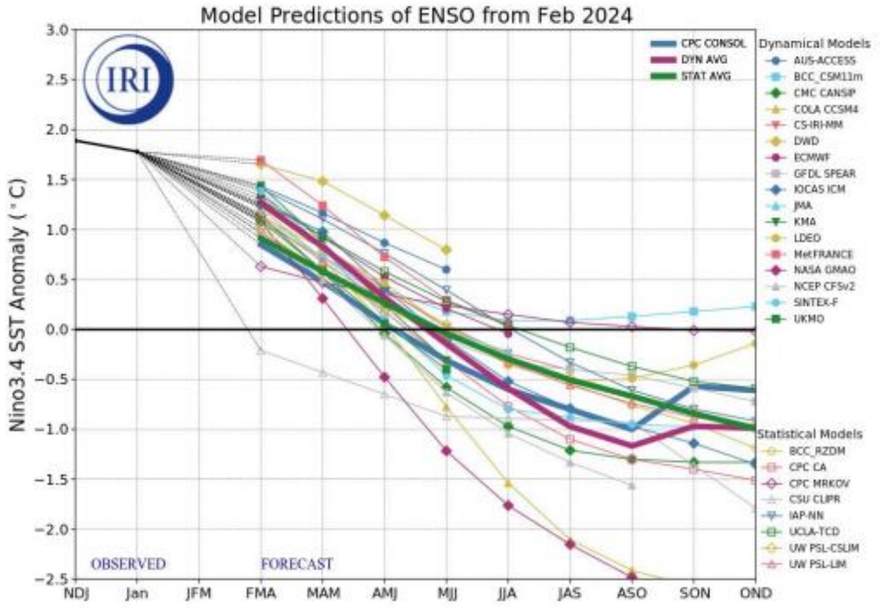
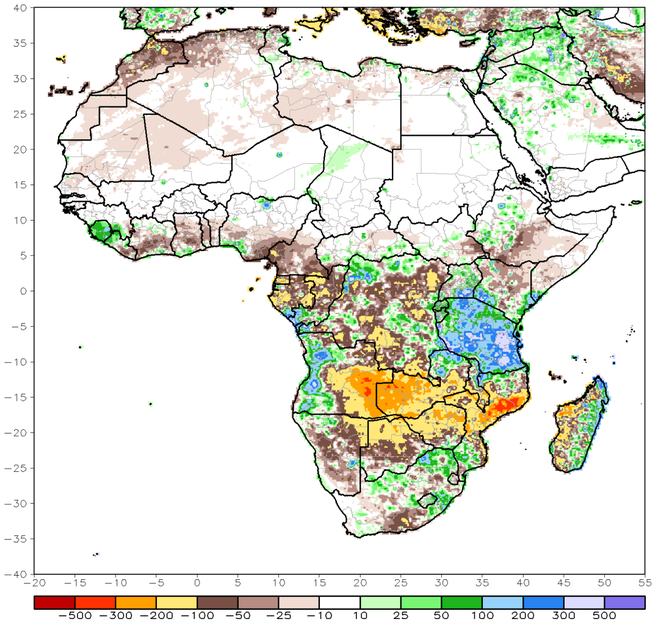


Figure provided by the International Research Institute (IRI) for Climate and Society (updated 19 February 2024).

Seasonal Forecast MAM & AMJ 2024

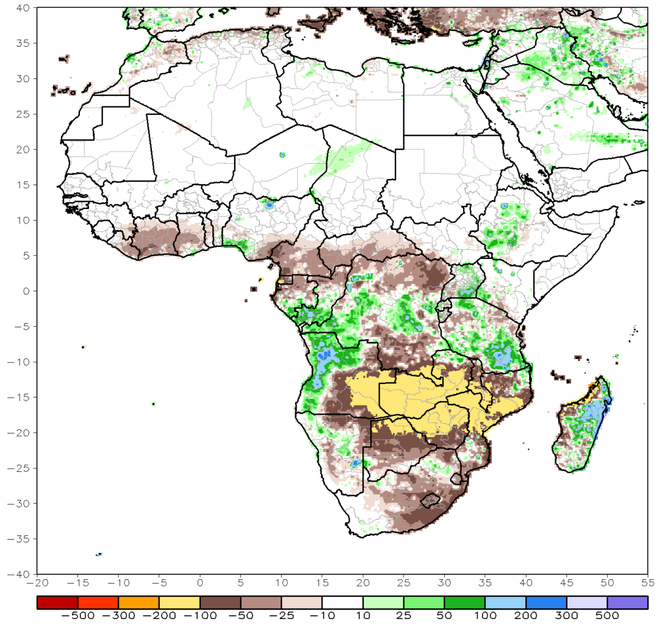
RFE2 90-Day Total Rainfall Anomaly (mm)

Period: 27Nov2023 – 24Feb2024



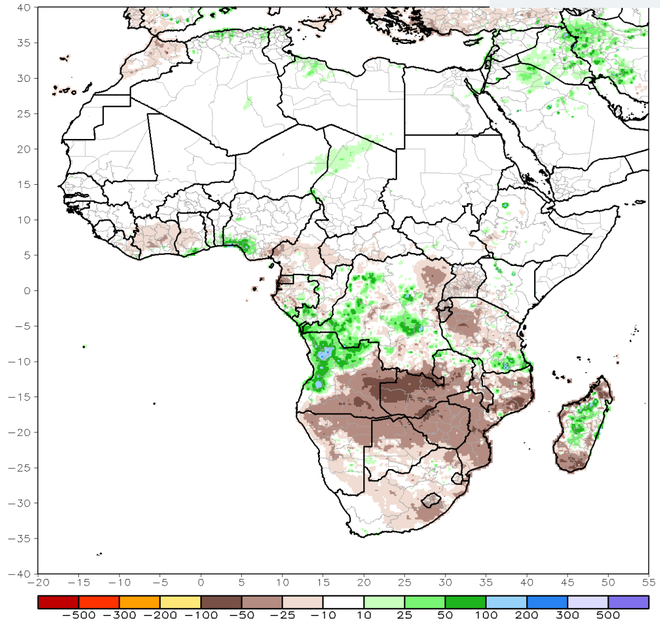
RFE2 30-Day Total Rainfall Anomaly (mm)

Period: 26Jan2024 – 24Feb2024

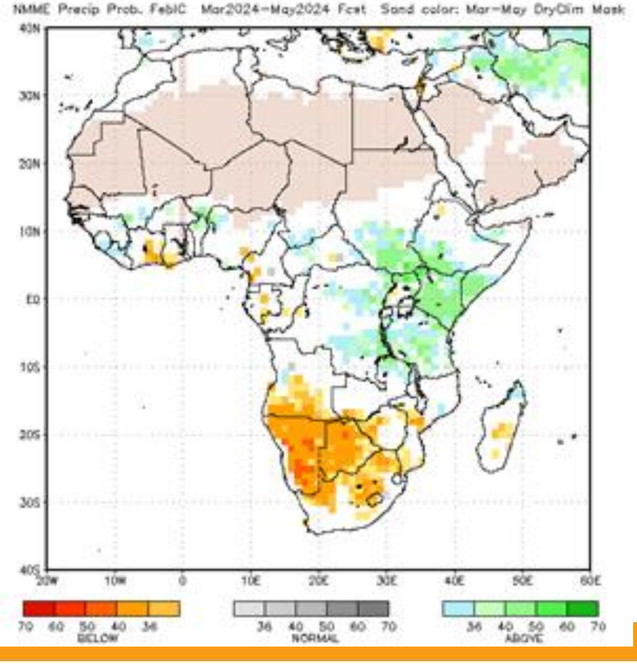


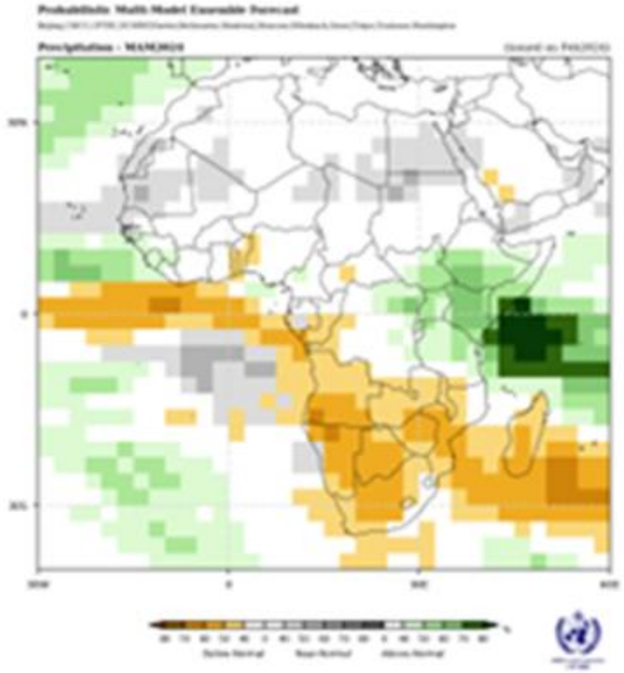
RFE2 10-Day Total Rainfall Anomaly (mm)

Period: 15Feb2024 – 24Feb2024

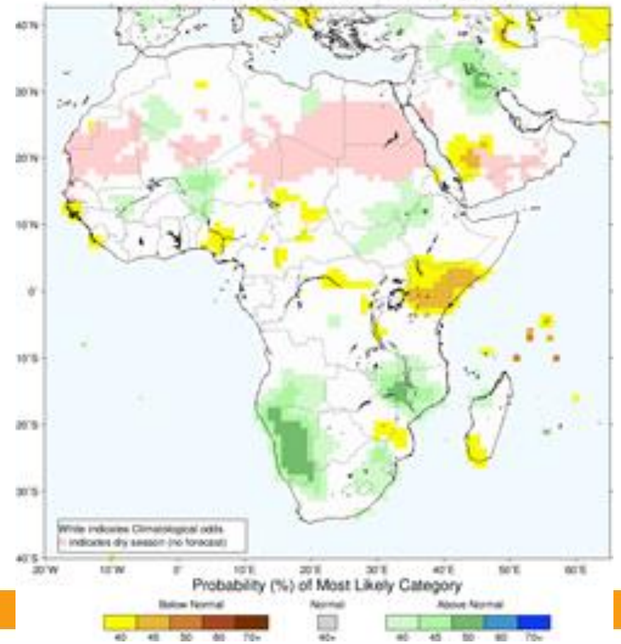


NMME Precip Prob. FebIC Mar2024-May2024 Fcst Sand color: Mar-May DryClim Mask

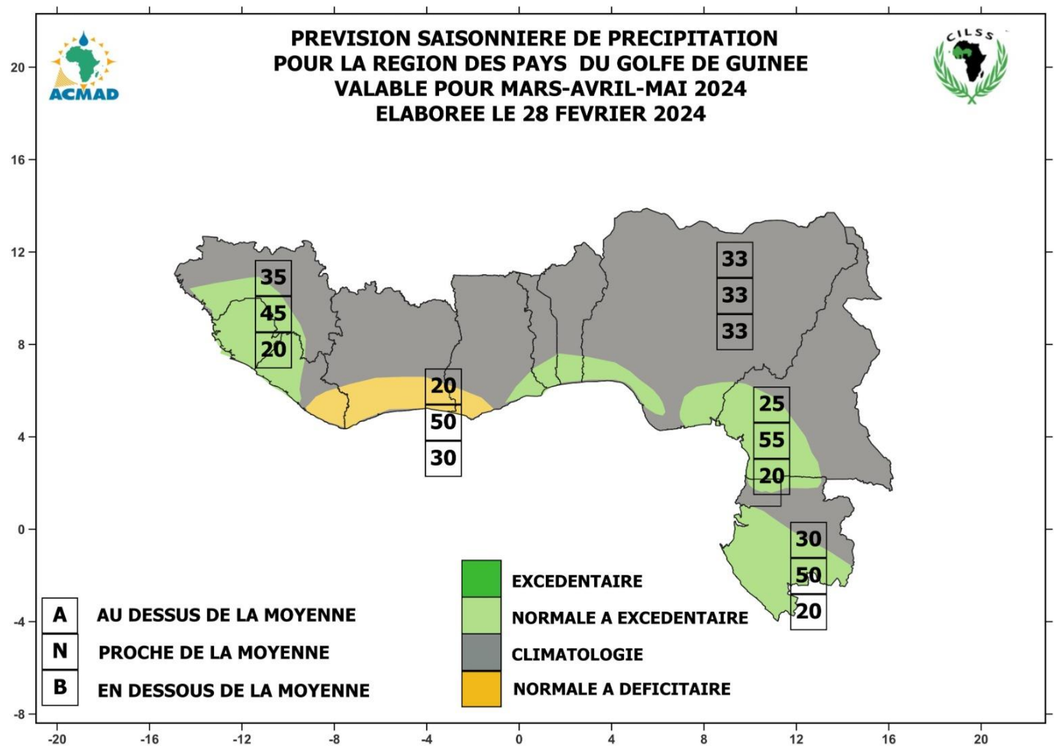


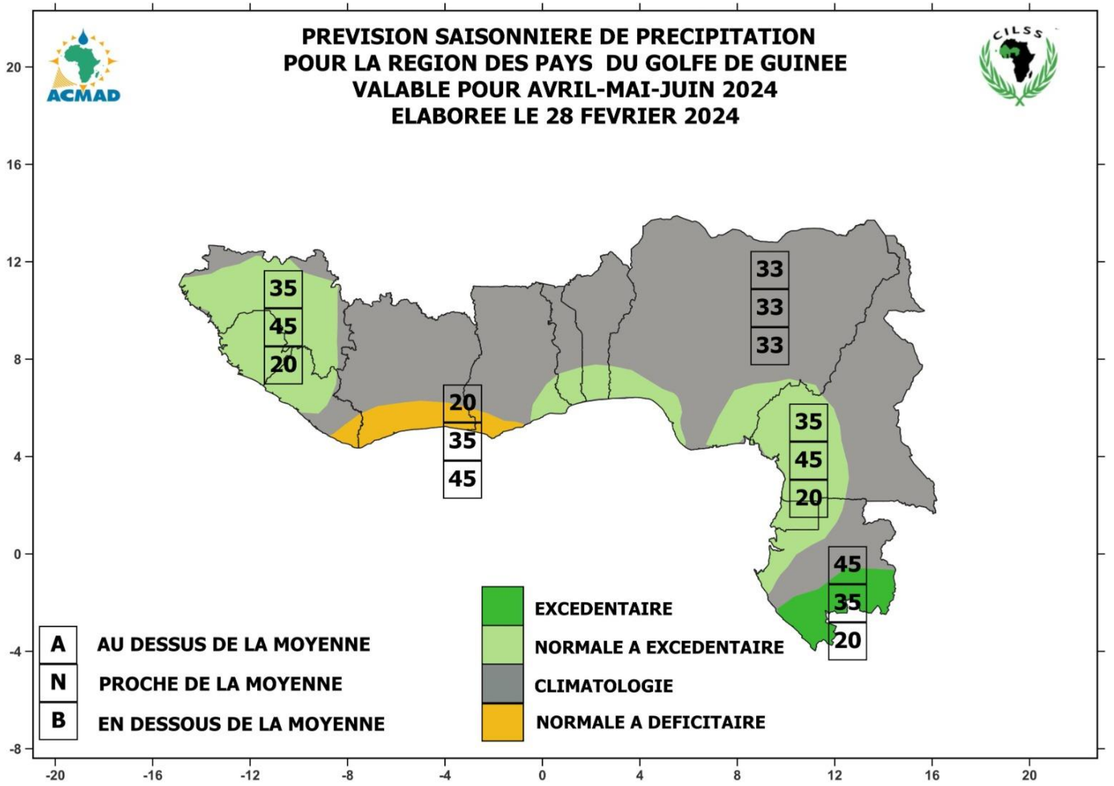


IRI Multi-Model Probability Forecast for Precipitation for March-April-May 2023, Issued February 2023



SEASONAL PRECIPITATION OUTLOOK FOR MAM & AMJ 2024

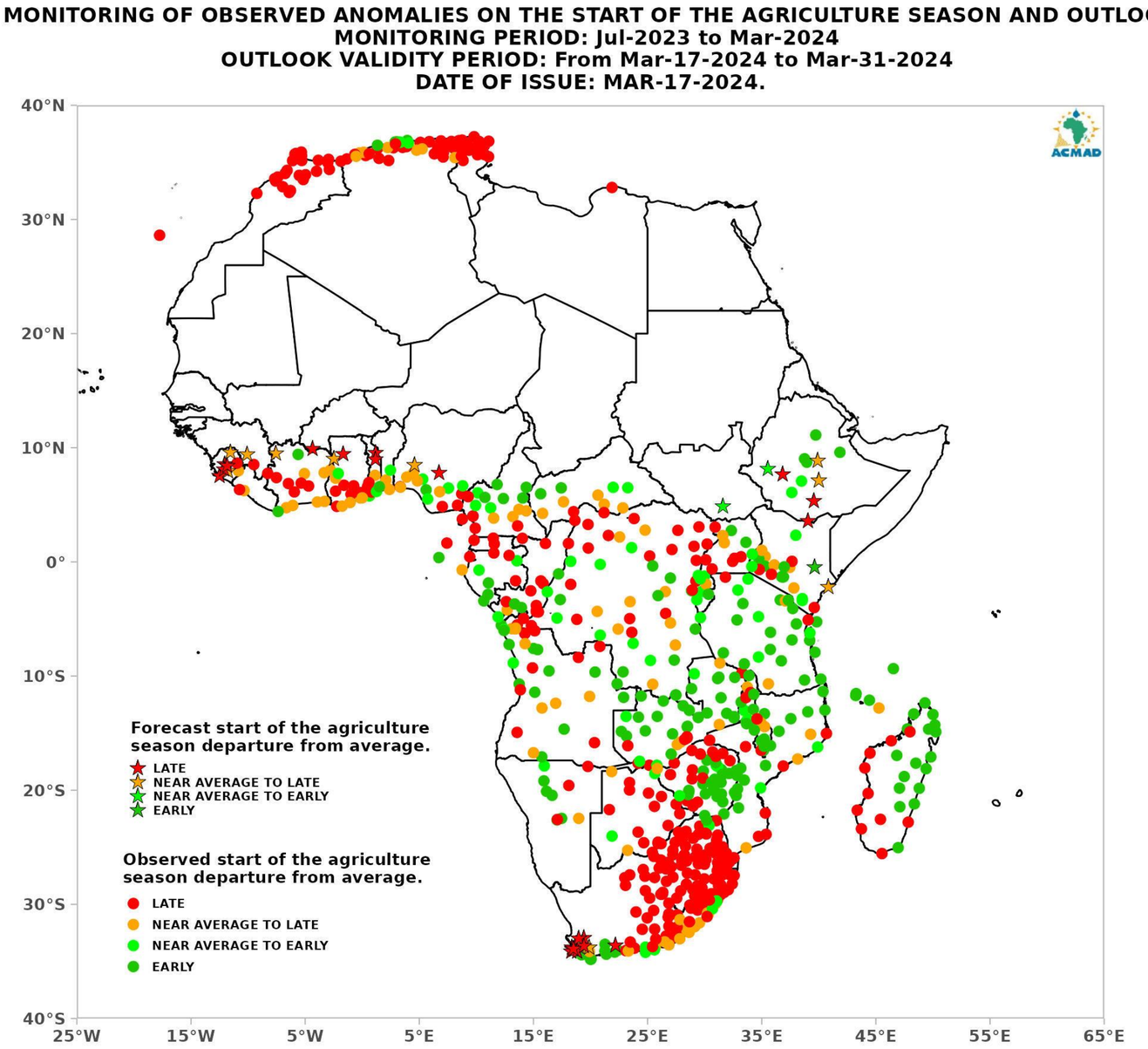




ONSET OUTLOOK

- **Late to normal Onset** for most areas of the Gulf of Guinea countries, from southeast Côte d'Ivoire to south-west Nigeria;
- Early to average ending of season dates in the bimodal zone of eastern Côte d'Ivoire, of Ghana, Togo, Benin, and western Nigeria;
- Long to average dry spell durations are generally expected at the beginning and in the second half of the season over the entire southern strip from southeastern Côte d'Ivoire to southwestern Nigeria.

However, over the southwestern part of Nigeria, average to short dry spells are expected at the beginning of the season;



ADVISORIES OVER THE FLOOD RISK AREAS FOR MAM & AMJ 2024

With Regards to Flooding Coastal basins are areas with a high risk of flooding, due in particular to high levels of human activity, degradation of vegetation cover, rapid soil saturation, non-compliance with buffer zones and lack of maintenance of sewerage networks.

As a result, and despite the late season starting dates, early season ending dates, long dry spell durations expected in the southern parts of the Gulf of Guinea countries, it is not excluded to observe heavy rainfall events that could lead to localized flooding, especially in areas where average to above average runoff is expected. To reduce the risk of flood-related disasters (loss of property and human lives, loss of arable land and crops, water-borne diseases, pollution of water supply systems, etc.), **it is recommended to**:

- **to maintain vigilance and follow the updates of these seasonal forecasts and the short- and medium-term forecasts produced and disseminated by the national meteorological and hydrological services,**
- **strengthen the monitoring and response capacities of agencies in charge of flood monitoring, disaster risk reduction and humanitarian aid;**
- **avoid the occupation of flood-prone areas, for homes and crops;**
- **ensure the cleaning of gutters and the sanitation of built-up areas**
- **Strengthen safety stocks of food and pharmaceutical products**
- **Avoid contact with sewage**

CONTINENTAL

BRIEF FOR POLICY AND DECISION MAKERS BASED ON SIGNIFICANT WEATHER AND CLIMATE EVENTS UPDATE.

VALID FOR: MARCH TO JUNE 2024

CLIMATE ANOMALIES

Drier than average season very likely
Prolonged drought with reported persistent impacts

HAZARDS

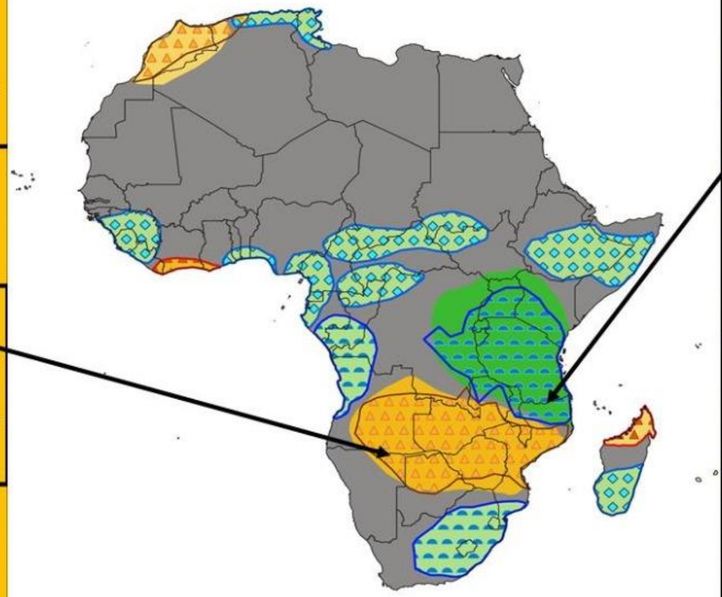
Weak to Moderate drought, dry spells, near average to late onset very likely.

POTENTIAL IMPACTS

Moisture stress, decreased river discharge, reduced rain-fed crop yield prospect, degradation of pastures and high food prices.

MEASURES

Develop and implement policy to support drought tolerant and short cycle crops, soil and water conservation practice, maximize full irrigation farming. Use watershed based in-situ water harvesting structures Developand Implement policy In support of weather based insurance and dam management



LEGEND

- Observed drought hazard
- Observed flood hazard
- Drought hazard outlook
- Flood hazard outlook

CLIMATE ANOMALIES

Wetter than average season very likely
Heavy rainfall with reported flooding events

HAZARDS

Heavy rainfall events may lead to flash flood, riverine flooding, landslides and soil erosion. High chance of lightning, hall formation and stormy weather are expected

POTENTIAL IMPACTS

Waterlogging, pest and diseases Infestation, Outbreak of water borne diseases damage to infrastructures(dams, reservoirs, bridges, roads...) Displacement of people due to floods.

MEASURES

Select excess-water tolerant crops, wide tree planting campaigns Develop new and rehabilitatethe existing drainage structure, Update and implementflood contingency plans improve water management in reservoirs and dams

THANK YOU

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