



# PROGRESS OF MAM 2024 AND OUTLOOK FOR MJJ 2024 RAINFALL SEASON OVER THE GREATER HORN OF AFRICA (GHA) REGION

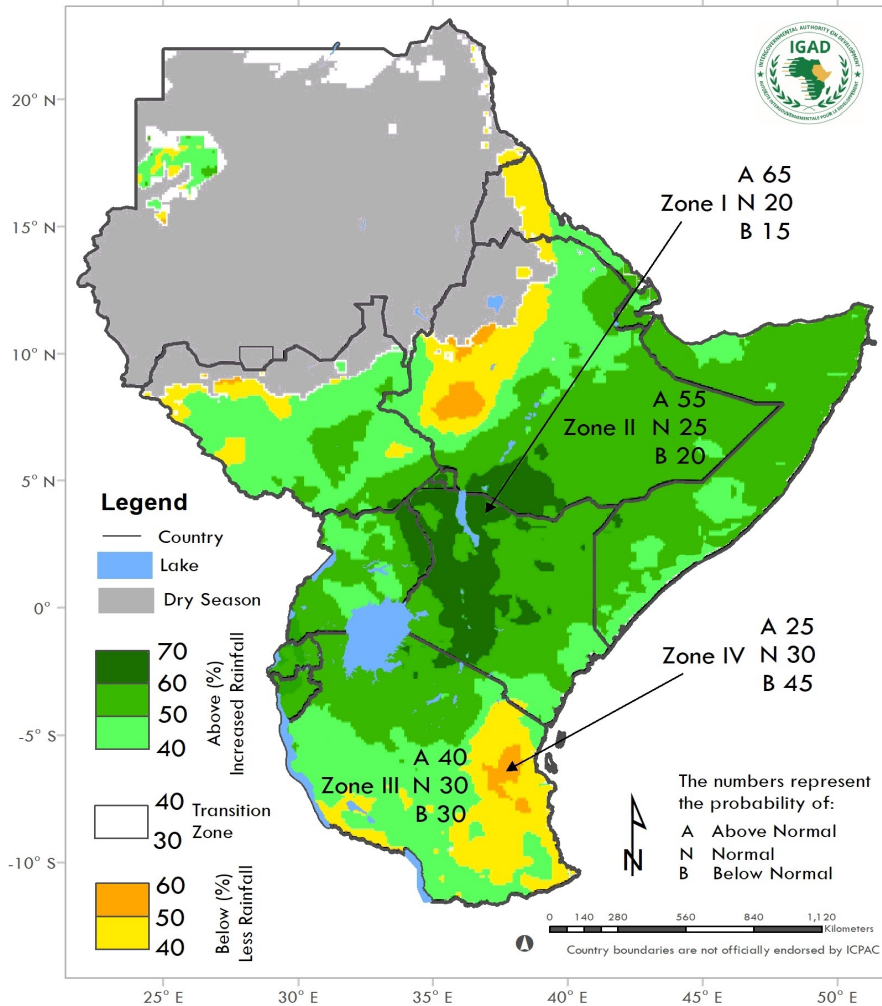
THE SIXTEENTH AFRICAN CONTINENTAL CLIMATE OUTLOOK FORUM (ACCOF-16), 23 APRIL 2024

Hussen Seid  
IGAD Climate Prediction and Applications Centre (ICPAC)

# OUTLINE

- ❖ **Progress of Mar-May (MAM) 2024 Rainfall Season**
- ❖ **State of Global Climate Drivers**
- ❖ **Sub-seasonal to Seasonal Forecasts**

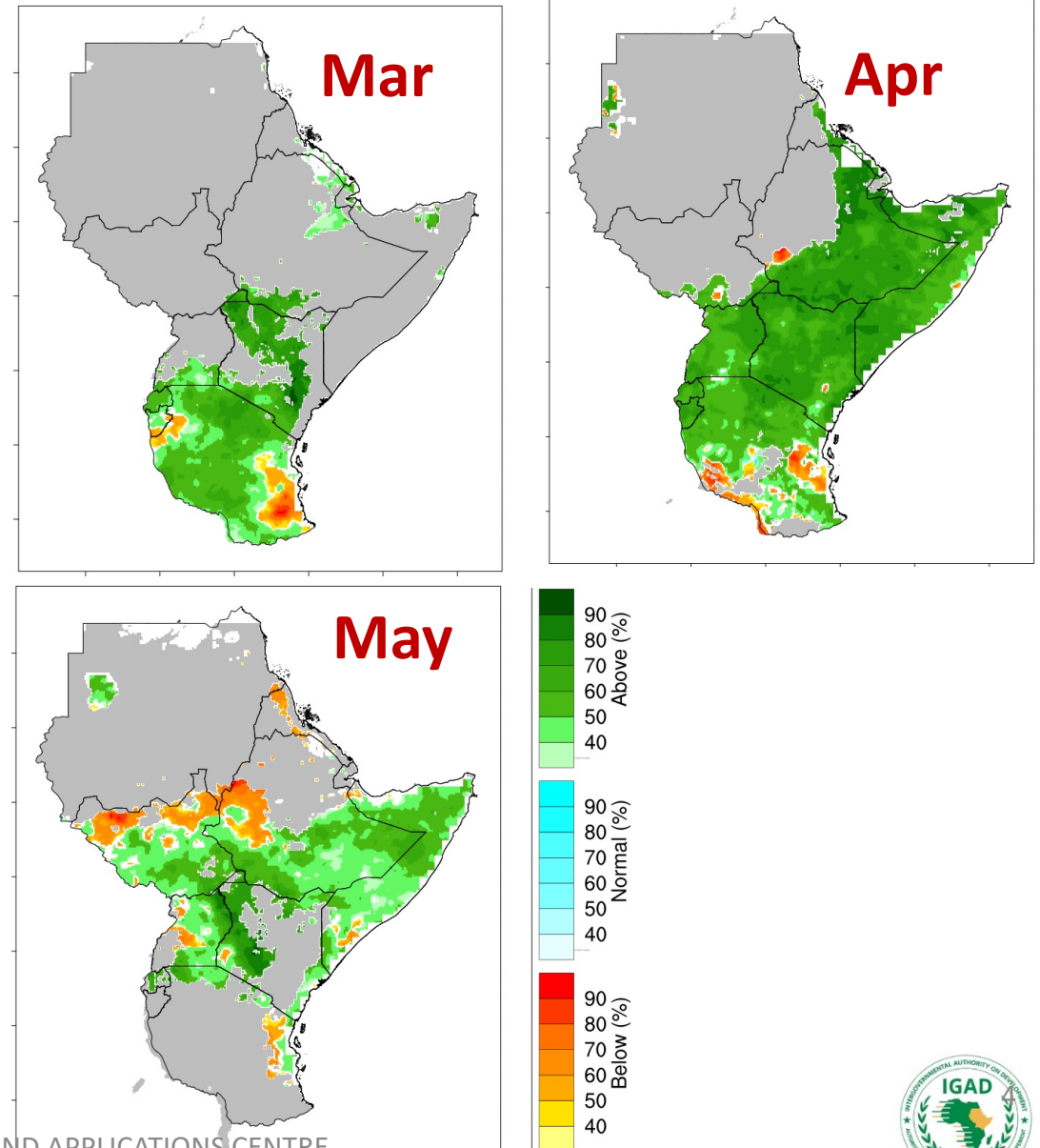
# MAM 2024 RAINFALL OUTLOOK ISSUED IN FEB 2024



- Wetter than normal conditions expected over most parts GHA, specifically over Kenya, Somalia, southern Ethiopia, South Sudan, Uganda, Burundi, Rwanda, and north-western Tanzania.
- Highest probabilities indicated in central to western Kenya and in cross-border areas of Ethiopia, Kenya, and Uganda.
- Drier than normal conditions are expected over parts of eastern Tanzania, western Ethiopia and localized areas in western South Sudan.

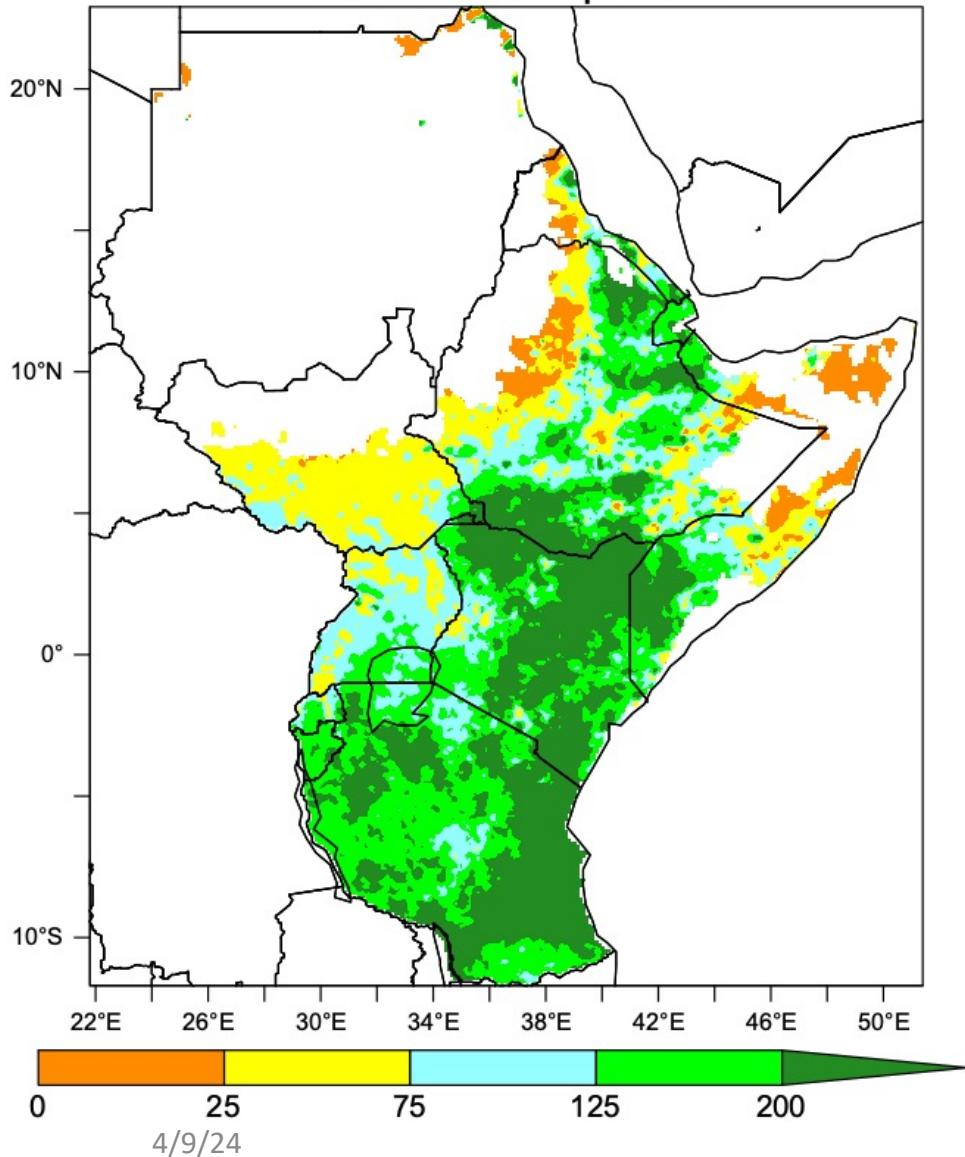
# MONTHLY RAINFALL OUTLOOKS

- March: Wetter-than-normal conditions over the southern GHA & drier-than-normal conditions over southeastern & northwestern Tanzania
- April: Wetter-than-normal conditions over most parts of the equatorial & southern GHA, except for southern Tanzania.
- May: Anticipated drier-than-normal conditions in parts of western Ethiopia, northern South Sudan, and localized areas in Uganda.



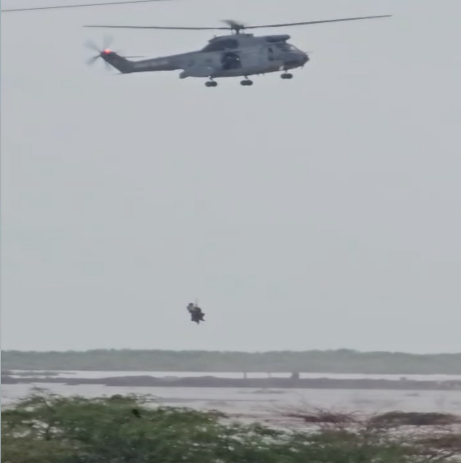
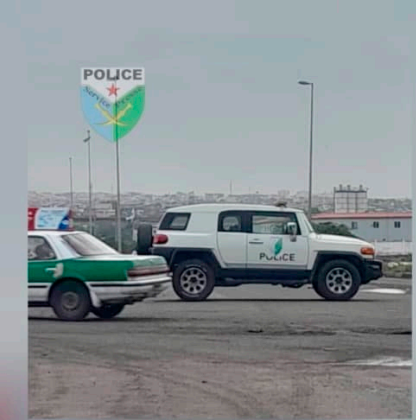
# 01 Mar – 06 Apr 2024 Rainfall Performance

01 Mar - 06 Apr 2024



- **Wetter than normal conditions** were observed in much of Tanzania, Rwanda, Burundi, Kenya, southern Somalia, and parts of southern and north-eastern Ethiopia.
- **Normal conditions** recorded much of Uganda, western Kenya and parts of southern Ethiopia.
- **Dry than normal conditions** were observed in over southern South Sudan, and north-western Ethiopia and central to northern Somalia.

# Heavy Rainfall Led to Extensive Flooding in Djibouti, Ethiopia and Kenya



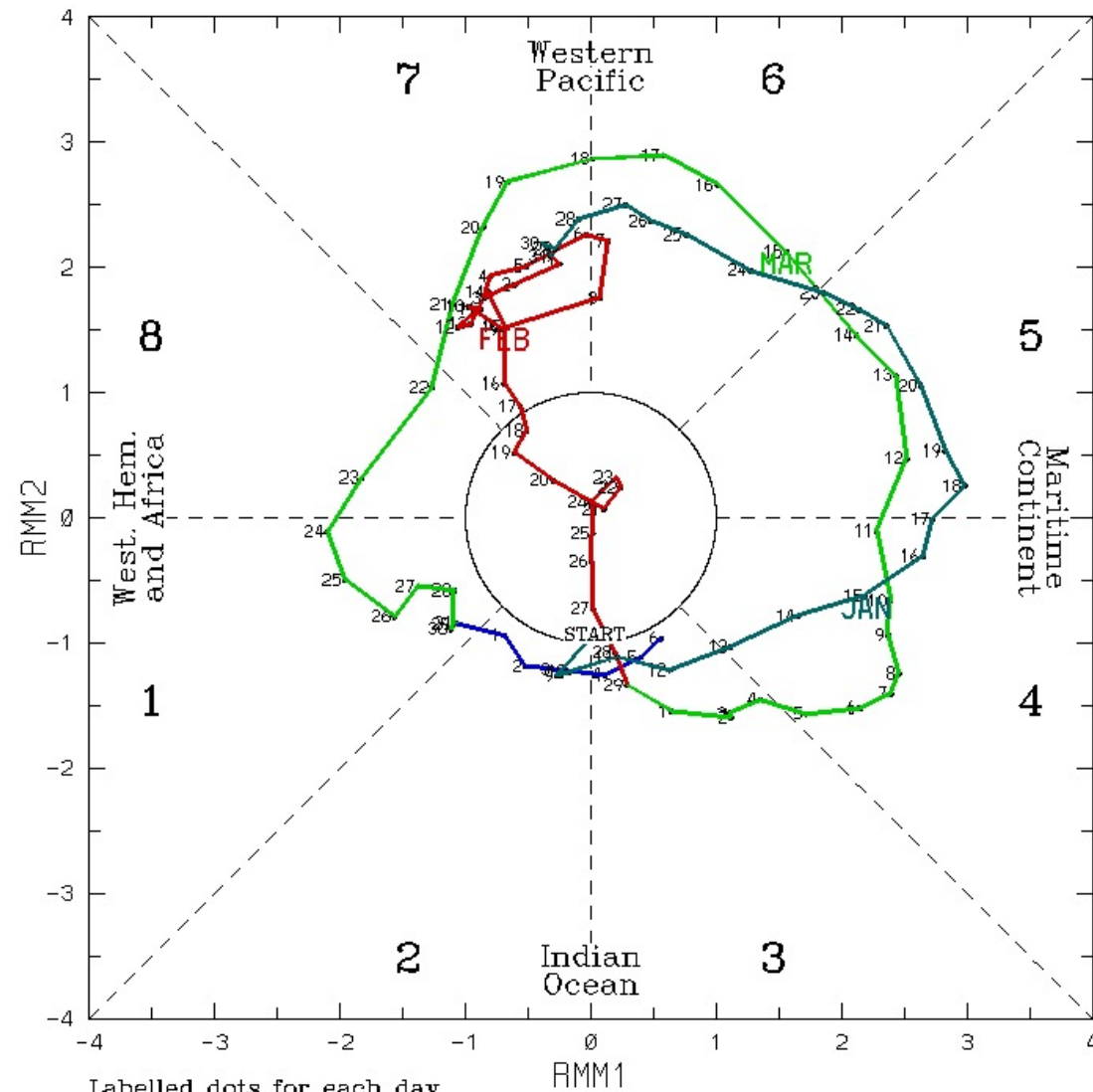
**Djibouti from 26-28 March 2024**

**Dire Dawa city, Ethiopia from 27-28 March 2024**

**Marsabit & North Horr - Kalacha Rd, 04-06 April 2024**

# STRENGTH AND PROGRESSION OF MJO OVER THE LAST 3 MONTHs

(RMM1,RMM2) phase space for 8-Jan-2024 to 6-Apr-2024

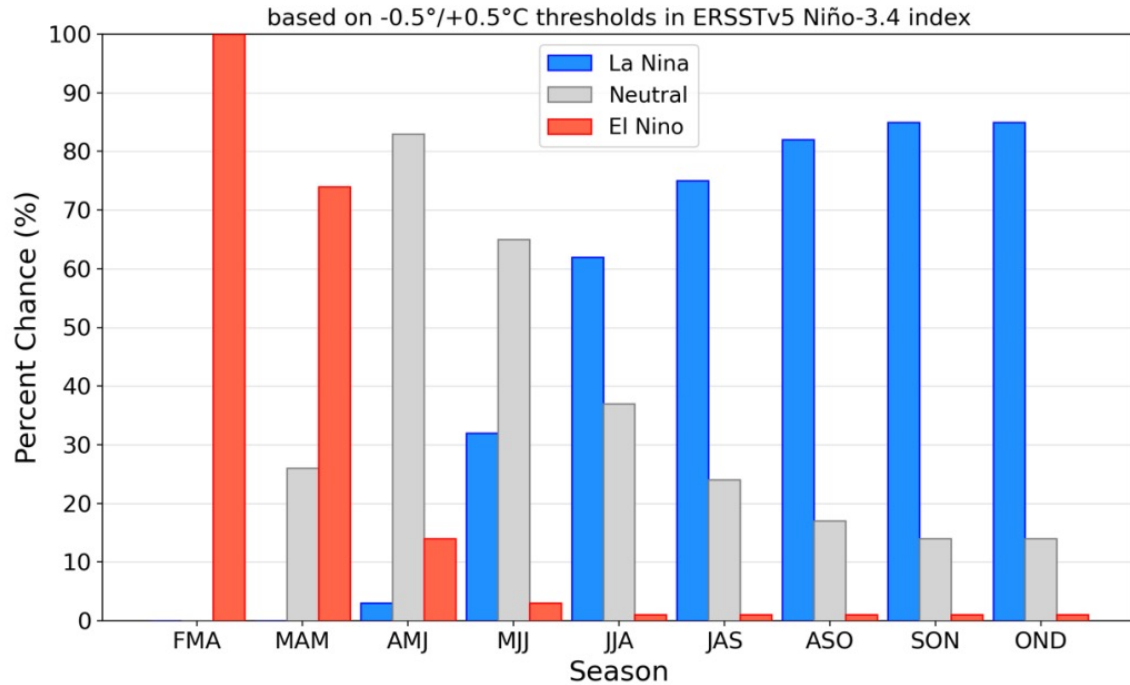


Labelled dots for each day.

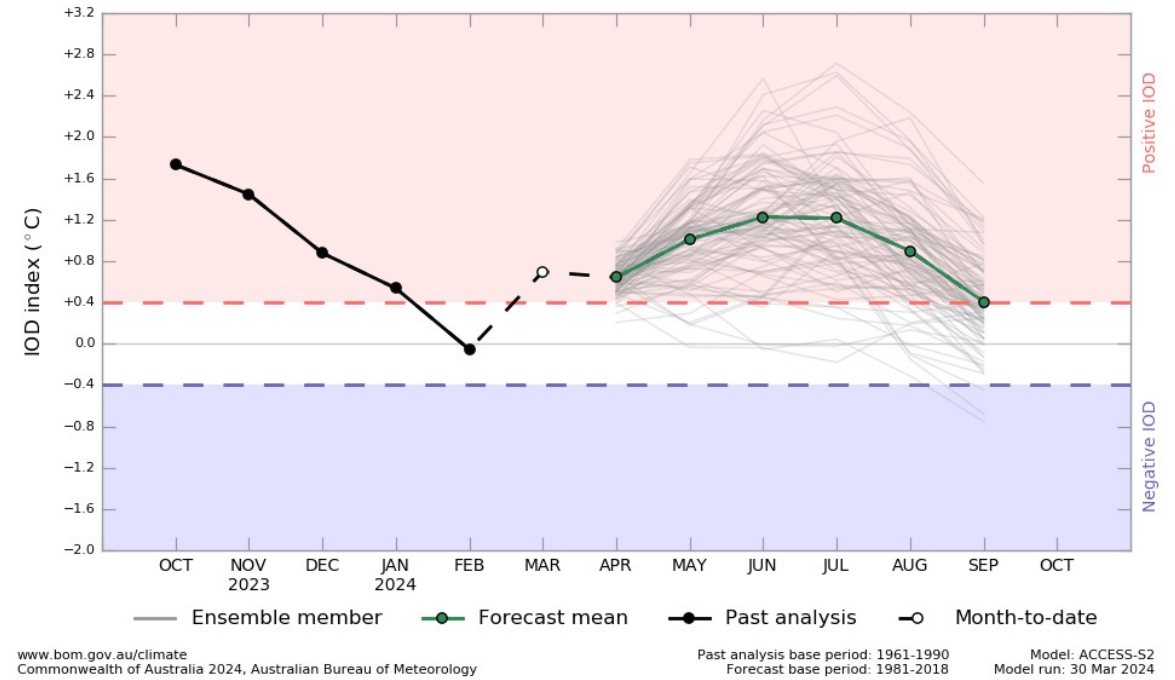
Blue line is for Apr, green line is for Mar, red line is for Feb.

# ENSO AND IOD EVOLUTION & OUTLOOK

Official NOAA CPC ENSO Probabilities (issued Mar. 2024)



IOD index

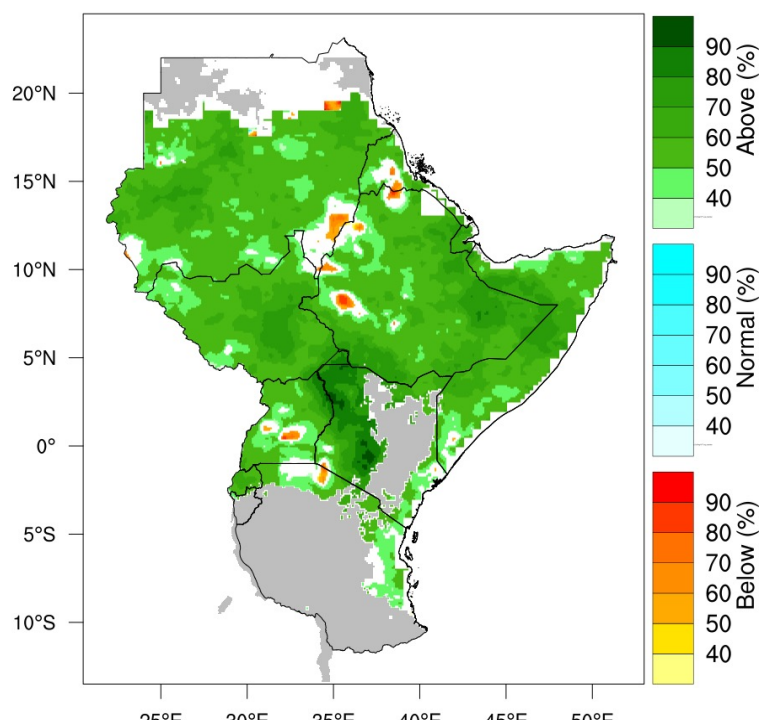


- Weak El Niño conditions are still observed
- A transition from El Niño to ENSO-neutral is likely by AMJ, with increasing odds of La Niña developing in JJA 2024
- La Niña conditions are associated with Enhanced rainfall during M/JJA season

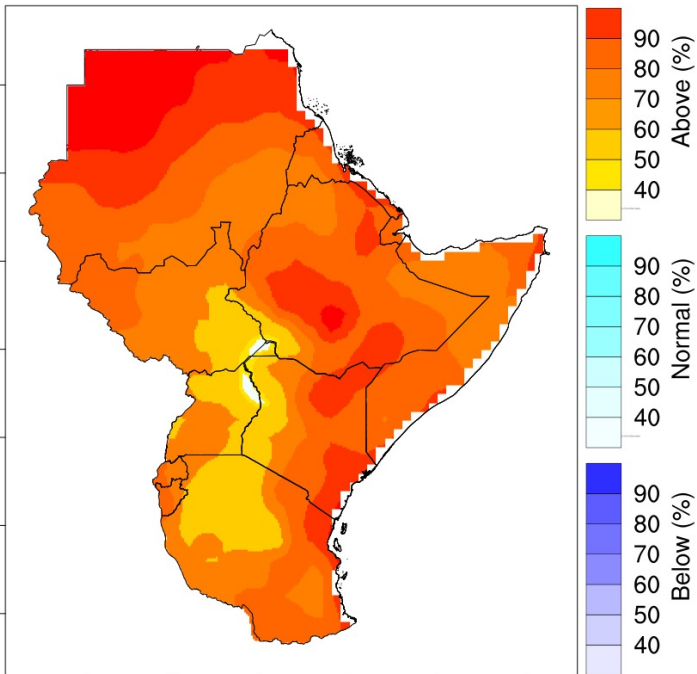
- The Indian Ocean Dipole (IOD) is currently positive.
- IOD strength is likely to remain in positive phase for the coming few months
- The linkage between IOD and M/JJA season is weak.



## MAY-JUL 2024 OUTLOOK



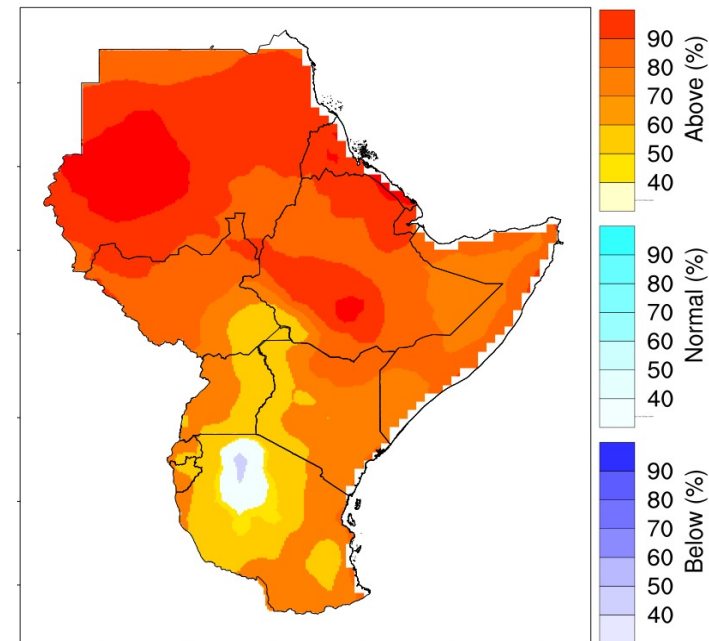
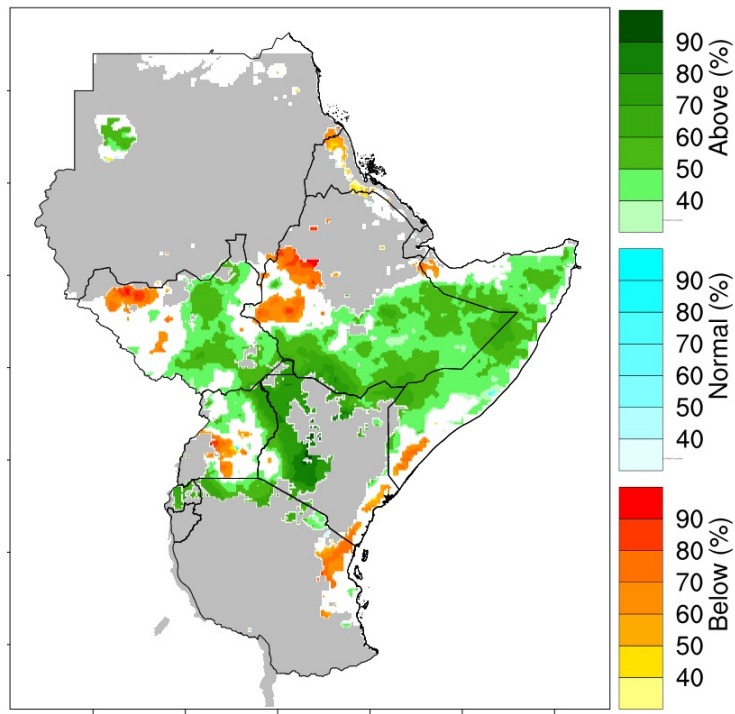
- **Wetter than usual conditions** expected over most parts of the northern sector including Sudan, South Sudan, Eritrea, Ethiopia, Somalia, western Kenya and Uganda.
- The southern parts the region is **generally dry** during this season



- **Warmer than usual** temperatures indicated over most parts of the region.

# MAY 2024 FORECAST

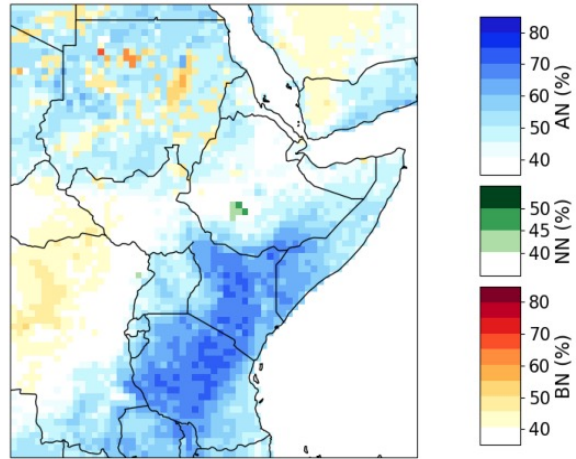
- **Wetter than usual conditions** expected over southern Ethiopia, Somalia, western Kenya, north-eastern Uganda, and eastern parts of South Sudan.
- **Drier than usual conditions** expected over parts of western Ethiopia, north-western South Sudan, central Uganda and coastal parts of Kenya.
- **Warmer than usual conditions** expected over most parts of the region
- **Average to cooler than usual conditions** expected over parts of central and northern Tanzania.



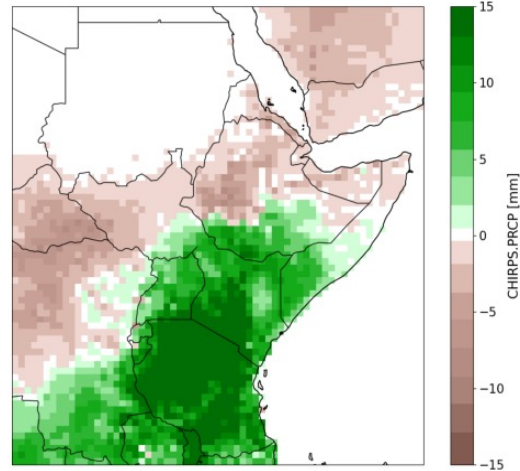
# Forecast Initialised on 05 Apr 2024

## Week1 (06-12 Apr 2024)

GEFSV12.PRCP - Probabilistic Forecast Week 1

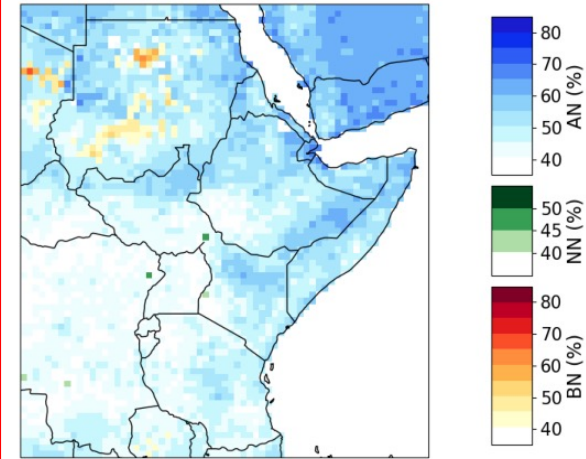


GEFSV12.PRCP - Deterministic Forecast Week 1

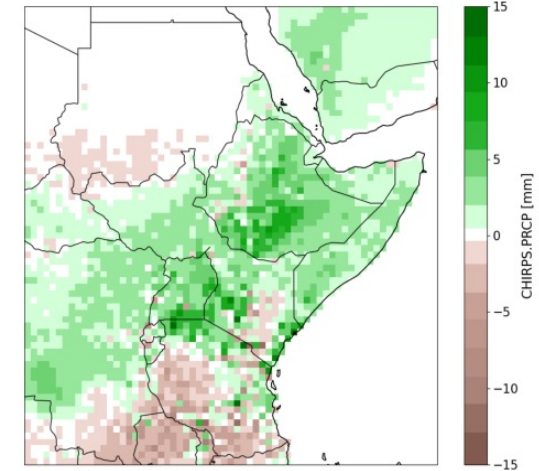


## Week3 (20-26 Apr 2024)

GEFSV12.PRCP - Probabilistic Forecast Week 3

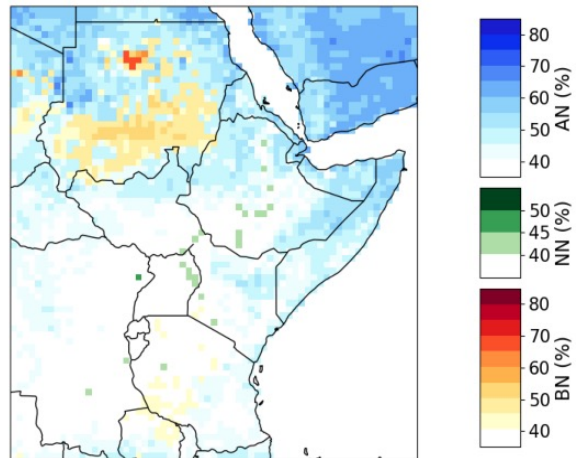


GEFSV12.PRCP - Deterministic Forecast Week 3

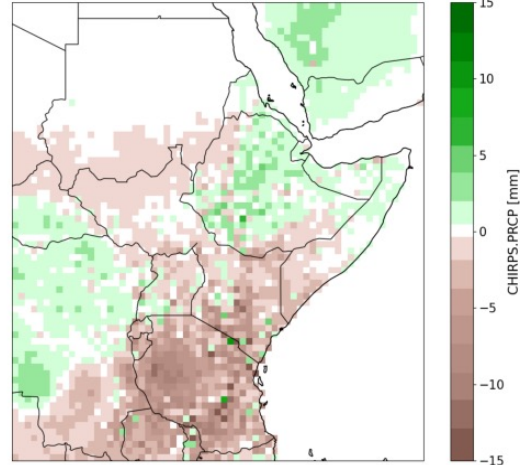


## Week2 (13-19 Apr 2024)

GEFSV12.PRCP - Probabilistic Forecast Week 2

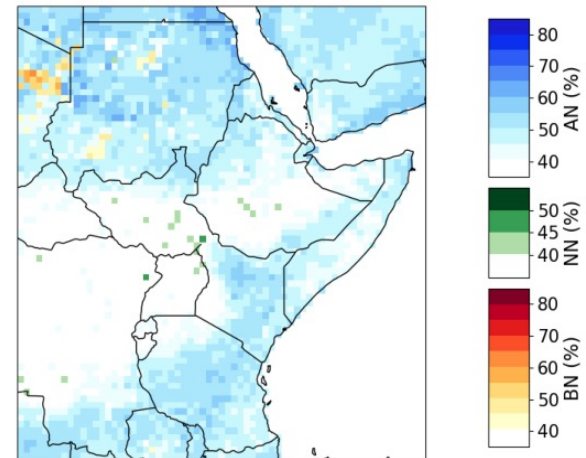


GEFSV12.PRCP - Deterministic Forecast Week 2

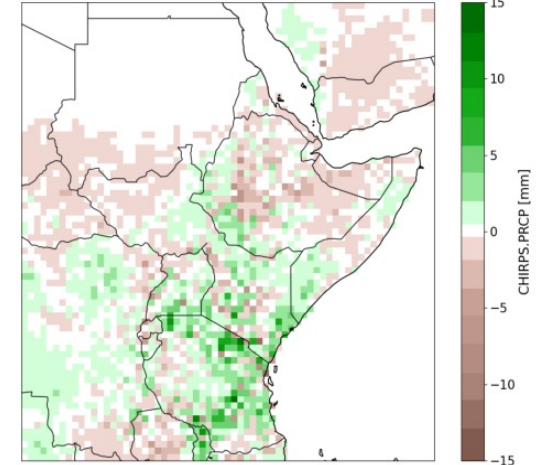


## Week4 (27 Apr – 03 May 2024)

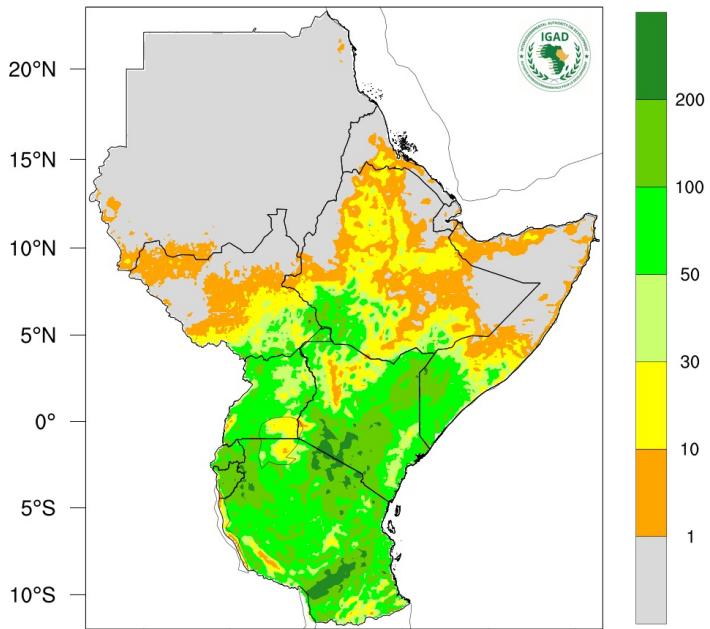
GEFSV12.PRCP - Probabilistic Forecast Week 4



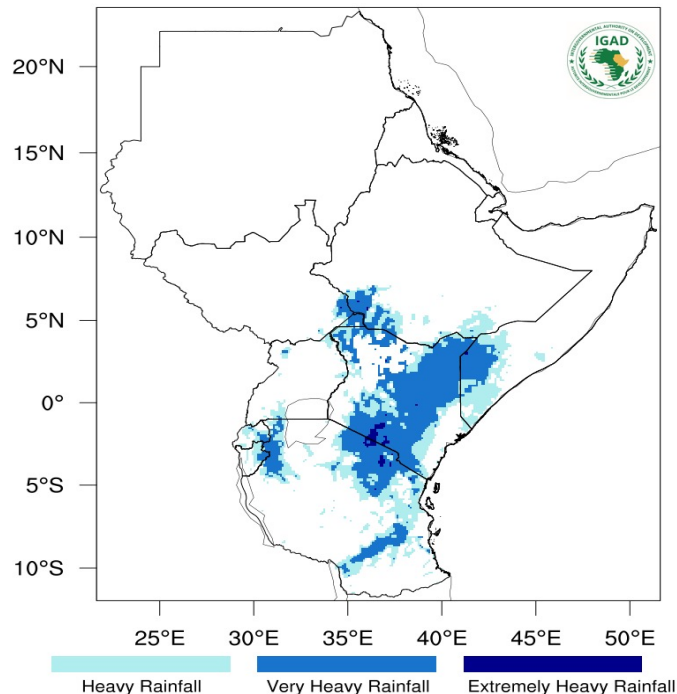
GEFSV12.PRCP - Deterministic Forecast Week 4



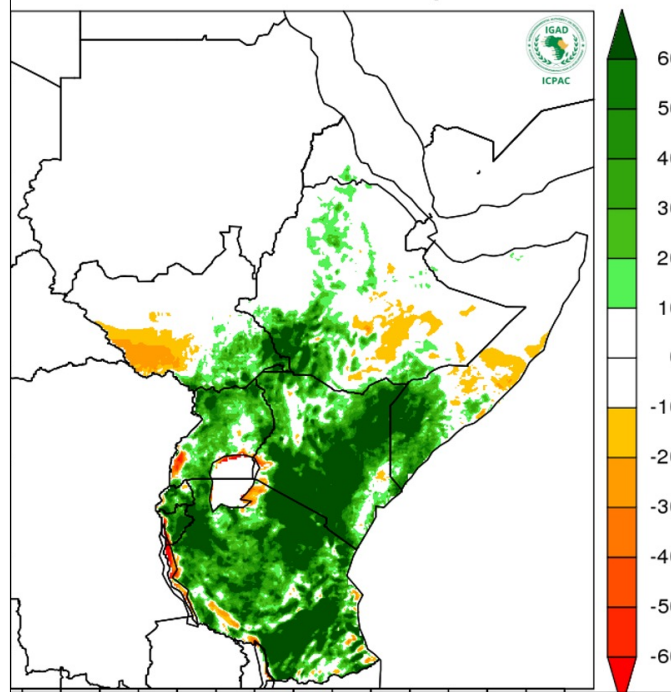
Total Rainfall (mm) for 09-16 Apr 2024



Exceptional Rainfall for 09-16 Apr 2024



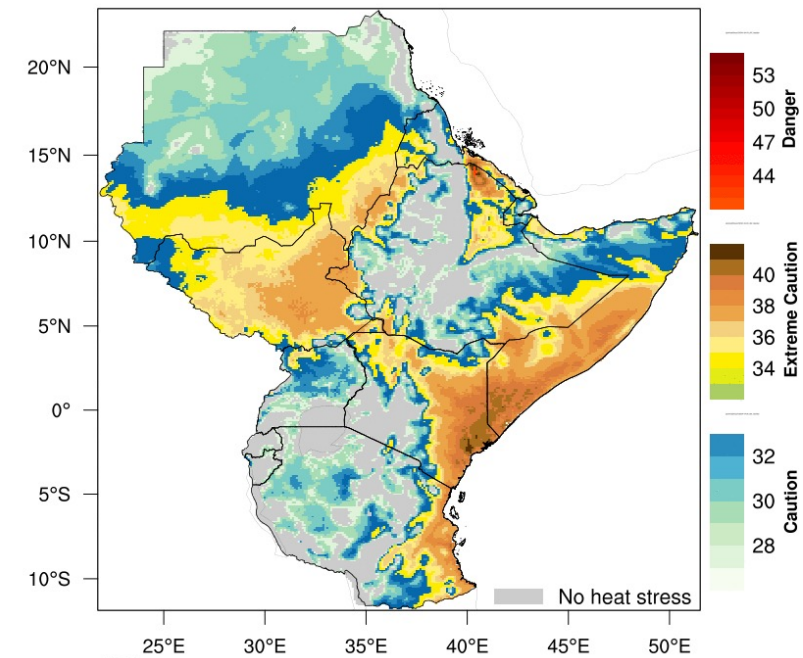
Rainfall Anomalies for 09-16 Apr 2024



## WEEKLY FORECAST

- Wetter than usual conditions forecasted in equatorial and southern regions of GHA, with heavy rainfall anticipated in central to northern Kenya, parts of northern Tanzania, southern Somalia, and southwestern Ethiopia.
- Elevated heat stress expected in South Sudan, eastern Kenya to southern Somalia, coastal areas of Tanzania, and northeastern Ethiopia.

Heat Stress Index : 2024-04-09



KEY  
 Caution : Heat fatigue with prolonged exposure  
 Extreme Caution : Heat exhaustion  
 Danger : Heat exhaustion/ heat stroke probable

# Thank you!!

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