

2026 El Niño: Current State and Expected Outlook

Dr. Arun Kumar

Chair: WMO Expert Team on Operational Climate Prediction Systems (ET-OCPS)

akumar.wmo@gmail.com

Sebastian Grey

Scientific Officer, Agricultural Meteorology
World Meteorological Organization (WMO)

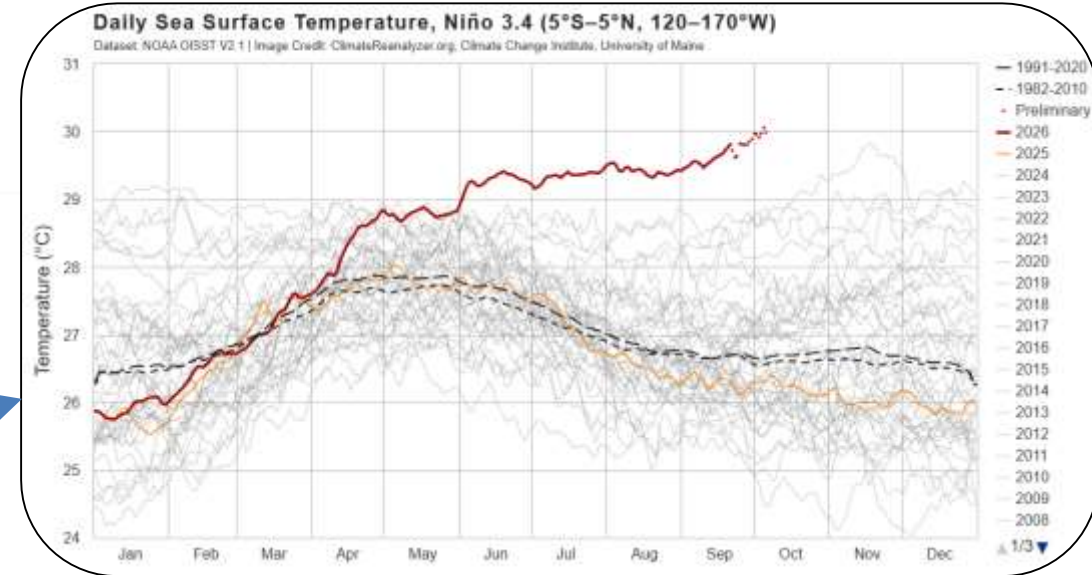
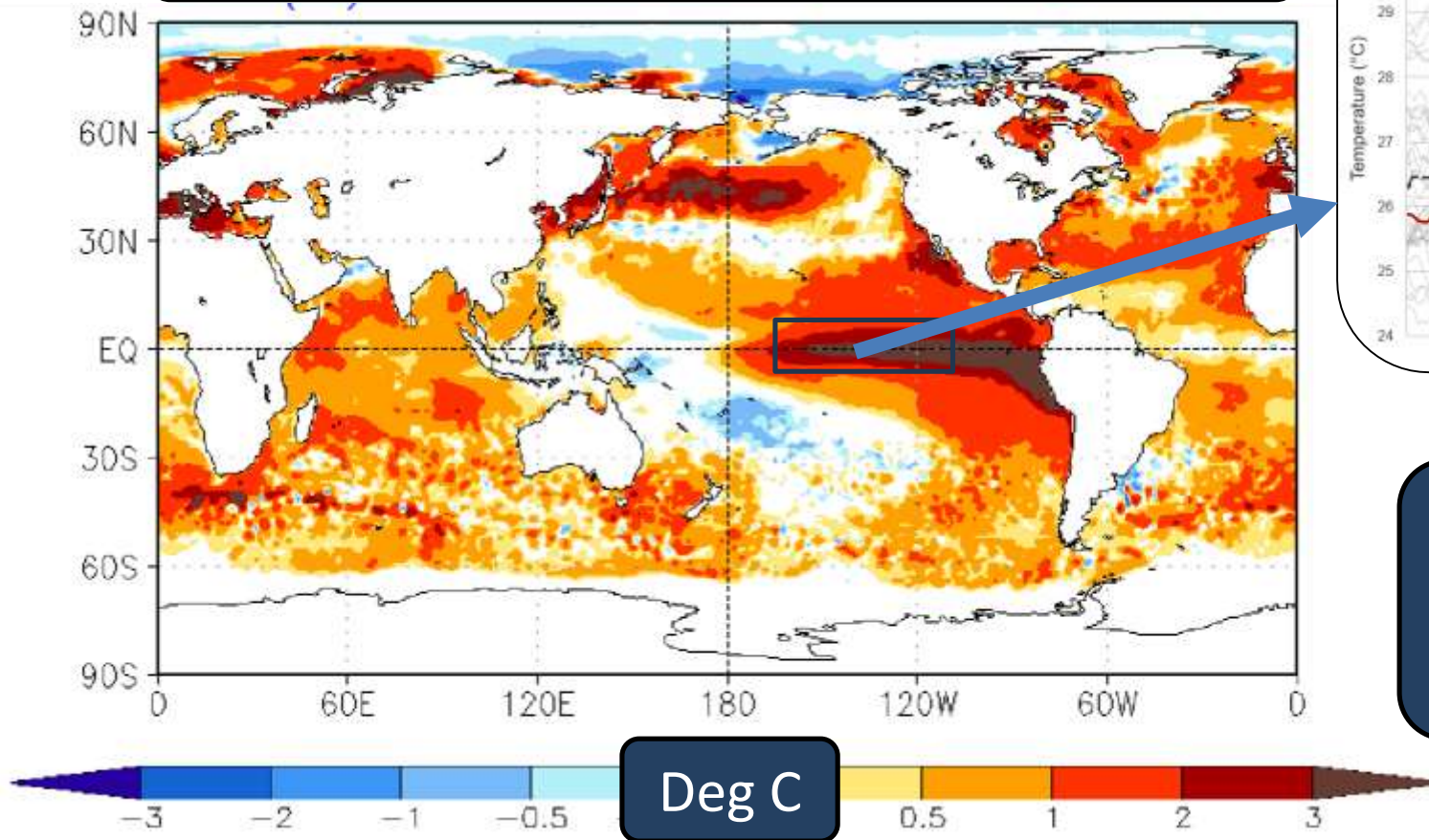
sgrey@wmo.int



WORLD
METEOROLOGICAL
ORGANIZATION

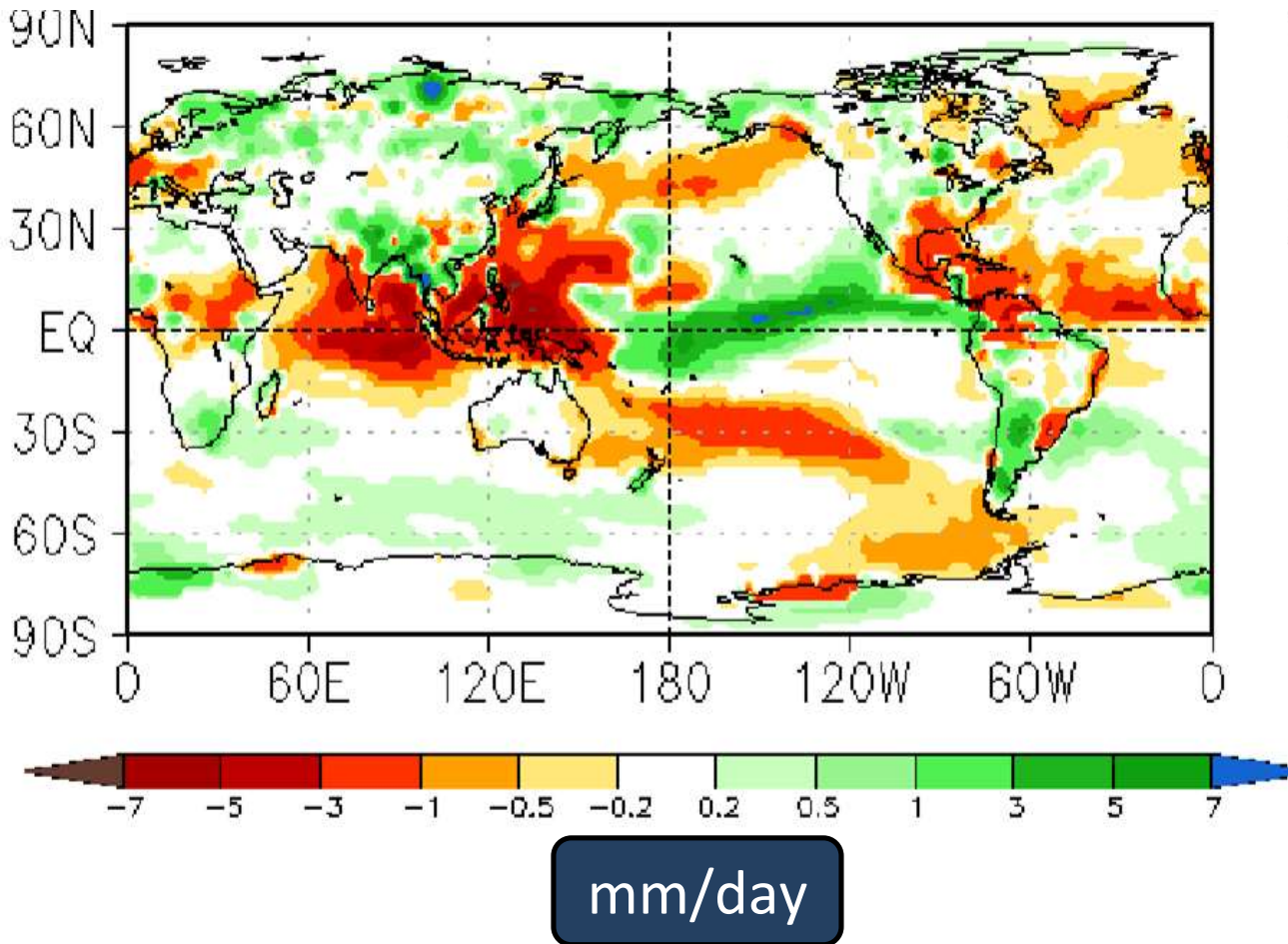
The Current State of Equatorial Pacific

Sea Surface Temperature (SST) Anomaly July-August-September 2026



- The SSTs in the equatorial Pacific are much above normal and are affecting rainfall and surface temperatures across the globe.

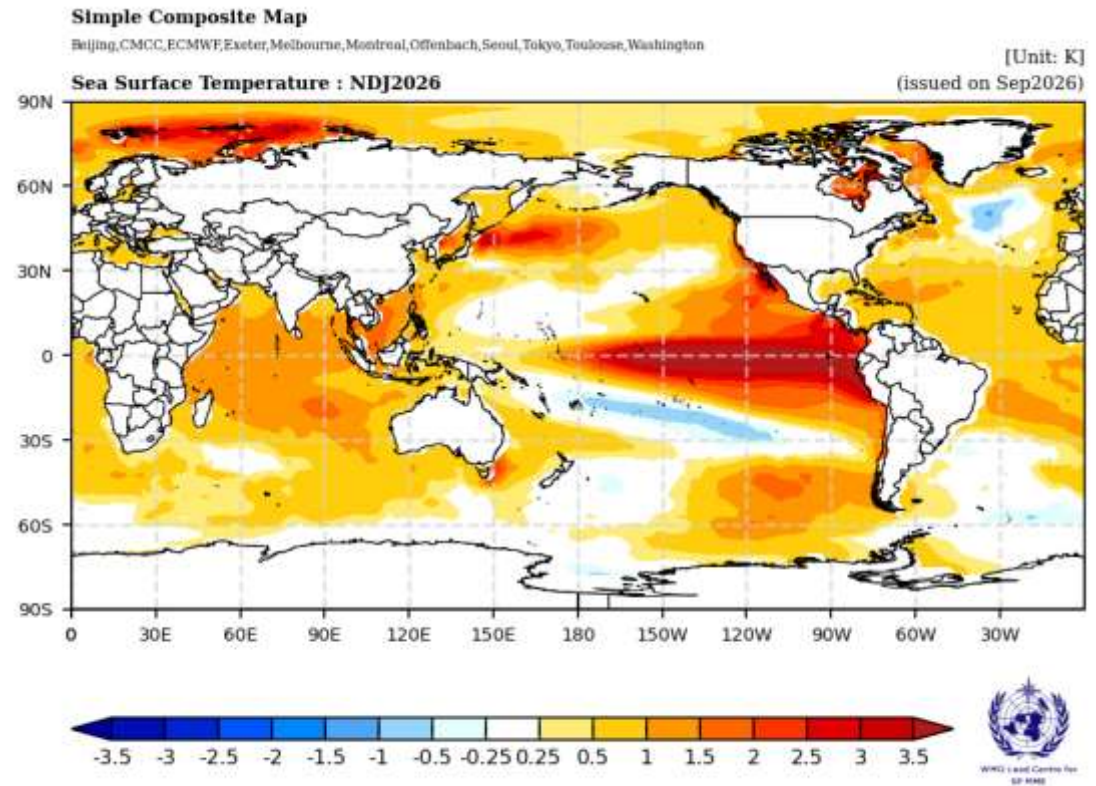
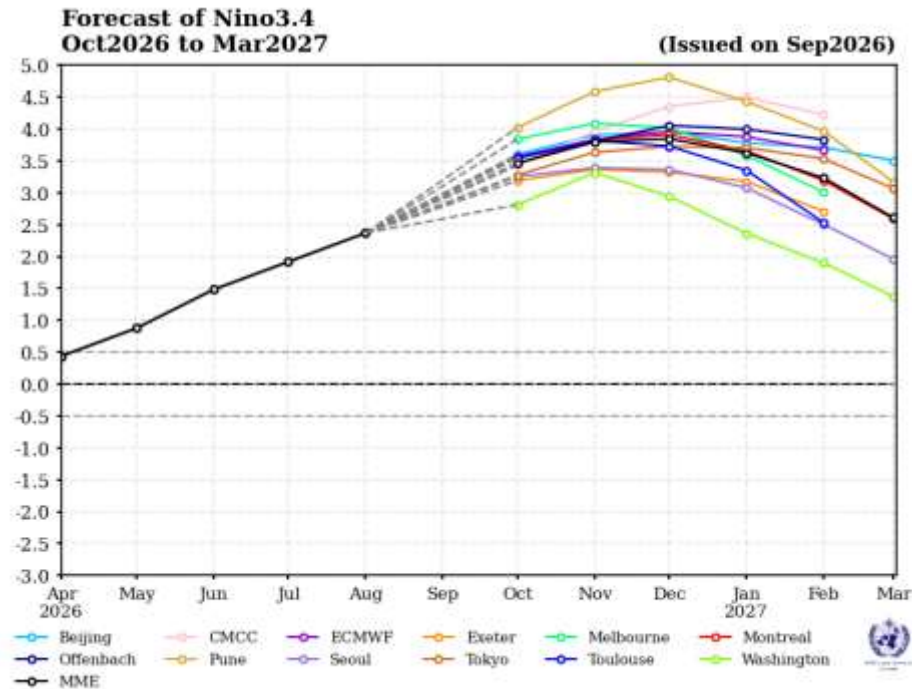
Observed Rainfall Anomaly
July-August-September 2026



- Reduced (increased) hurricane activity in the Atlantic (Eastern Pacific).
- 13% reduction in All-India Monsoon Rainfall.
- Dryness over the Maritime Continent and Central America.

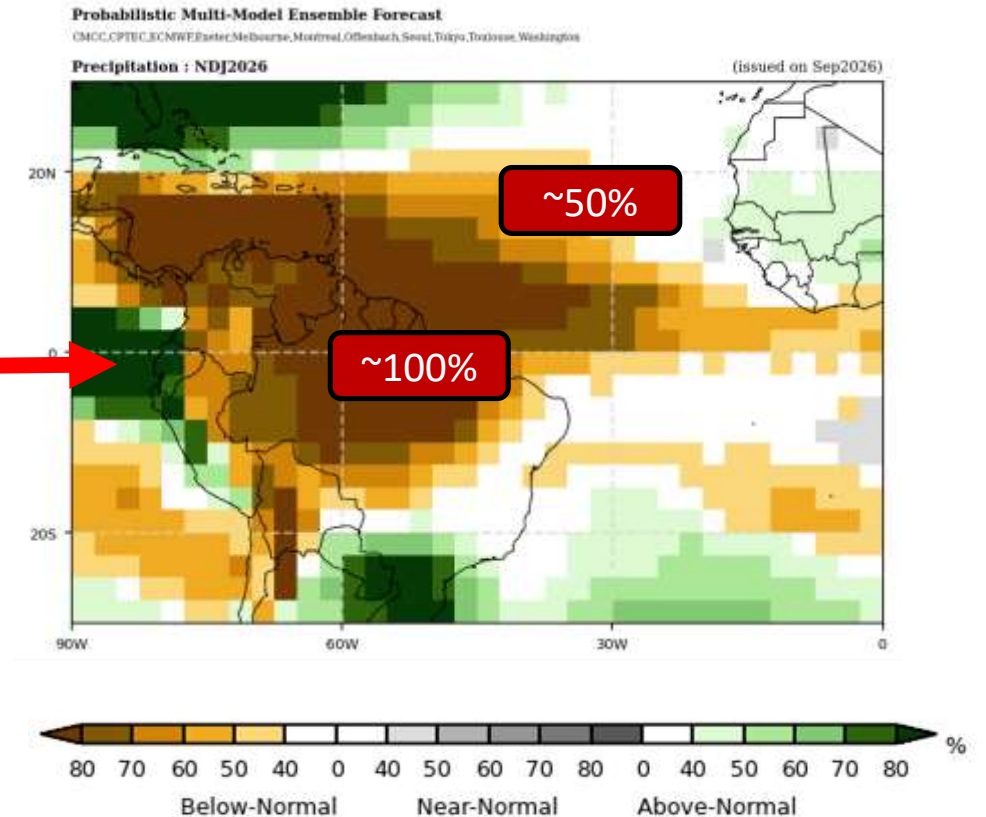
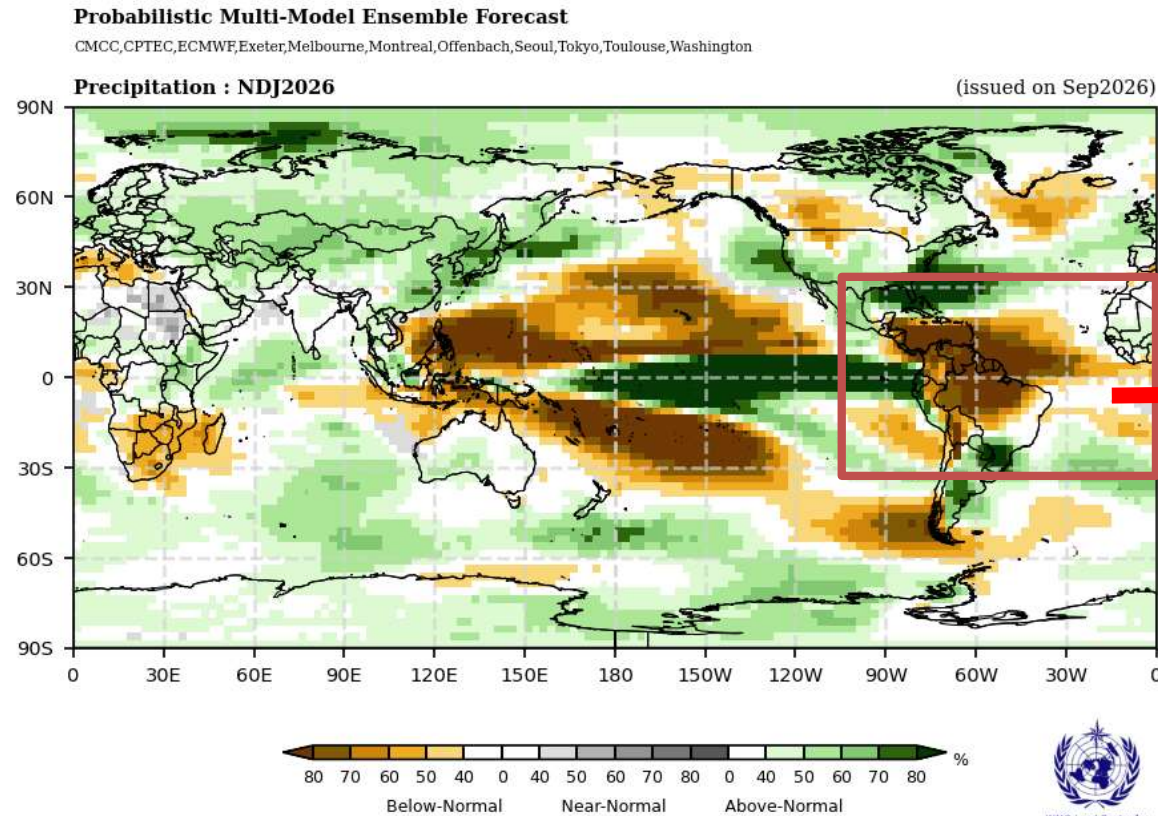


What is Expected for the Northern Hemisphere Winter?



- El Niño is anticipated to peak around November-December 2026.

What is Expected for the Northern Hemisphere Winter?



November-December-January 2026 Rainfall Outlook

**El Niño occurs
against the backdrop
of long-term climate
change and other
climate patterns.**

Long-term warming
increases the likelihood
and intensity of extreme
events while other climate
patterns can offset or
amplify local impacts.

What this means...



Past ≠ Present. We cannot
assume past events will predict
the current El Niño.

**A warmer ocean may amplify
impacts.** This El Niño is
unfolding against the backdrop
of record ocean heat.

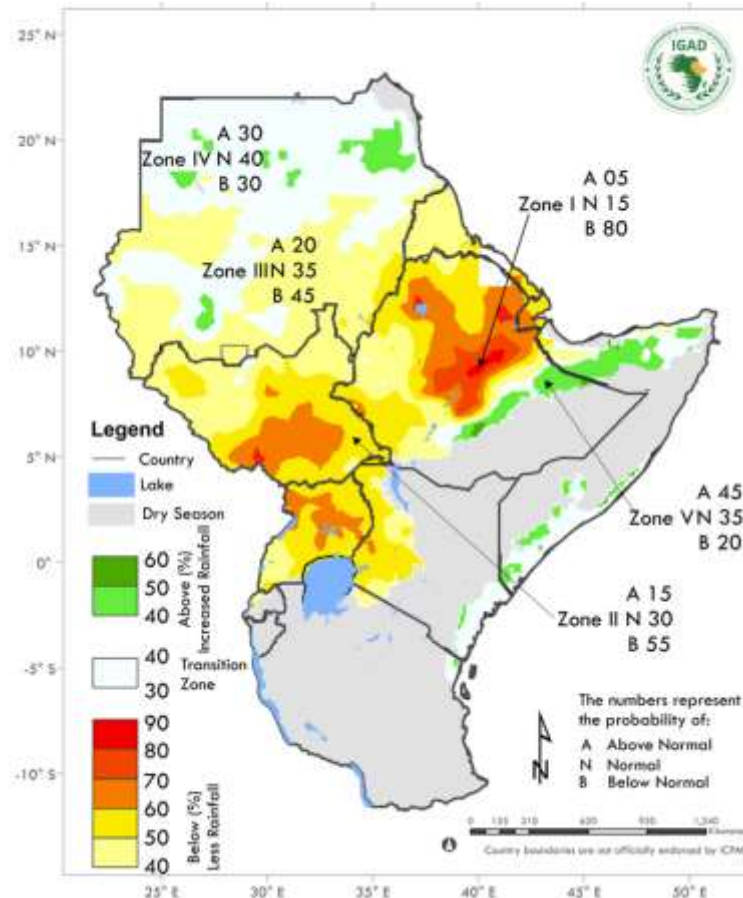
Continuously reassess. We
must regularly test our
assumptions to provide certainty
anticipatory action requires.

El Nino impacts vary by region and season

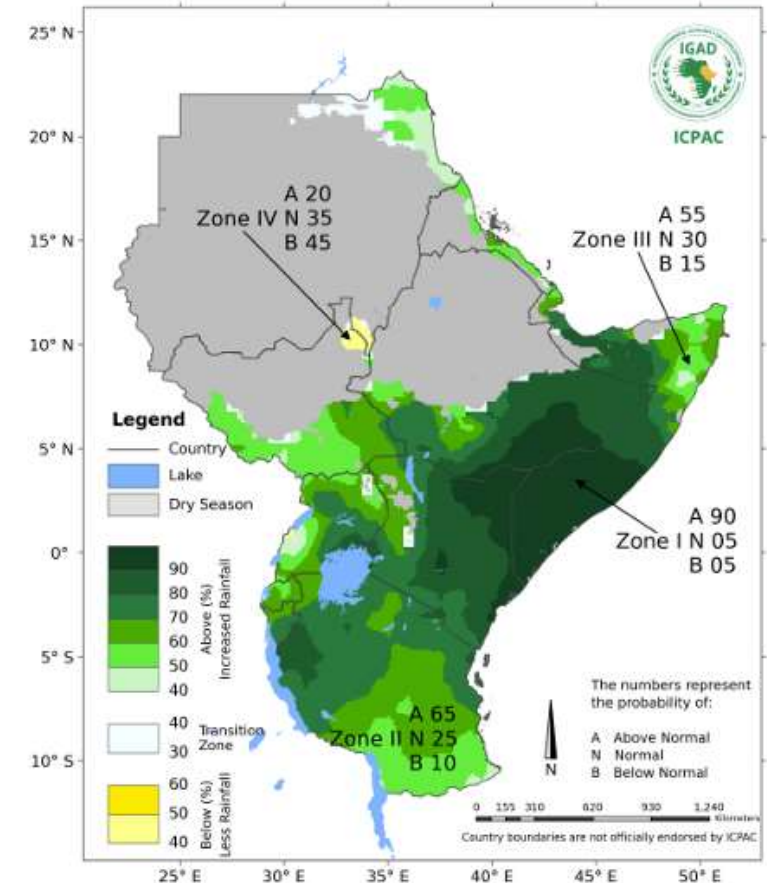
A very strong El Niño ≠ same impacts everywhere



Rainfall Forecast for June to September 2026 in the Greater Horn of Africa

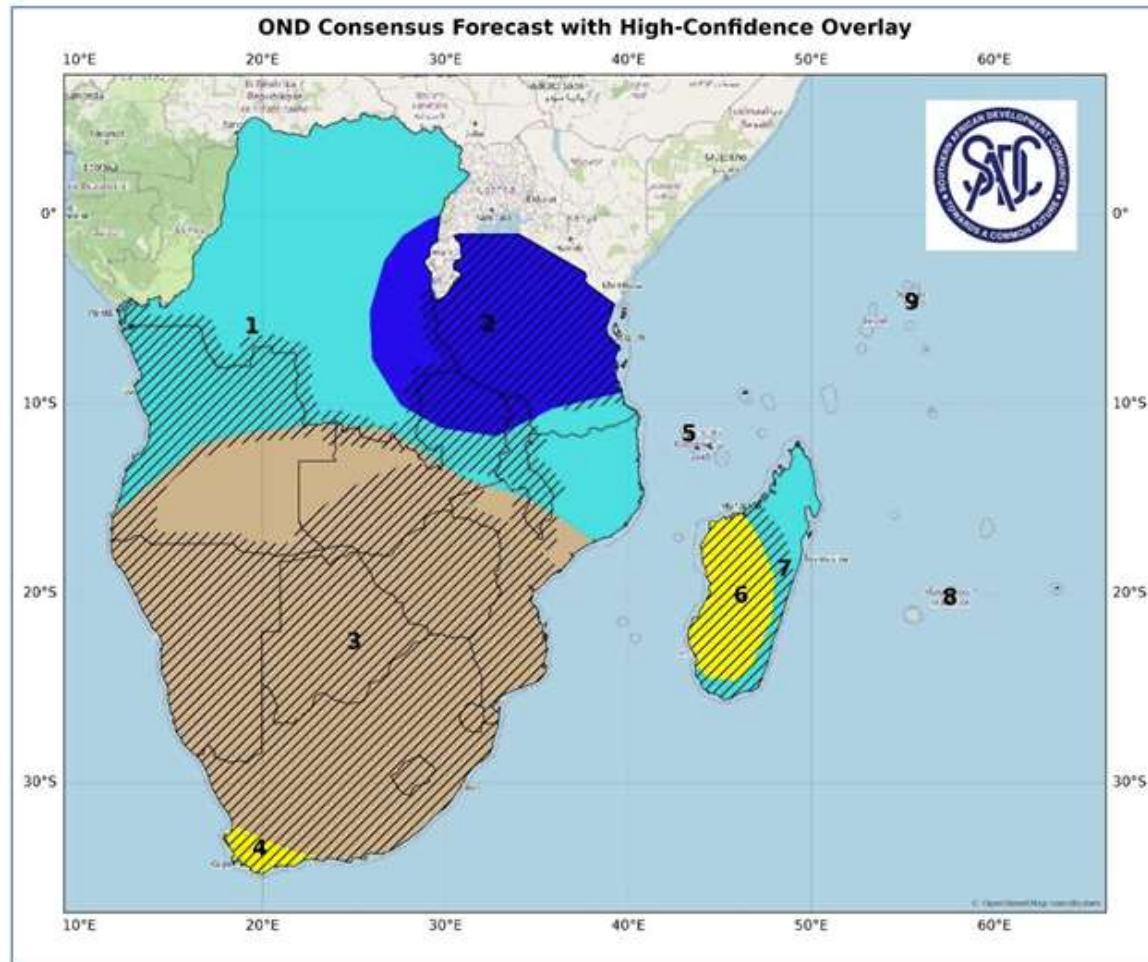


Rainfall Forecast for October to December 2026 in the Greater Horn of Africa

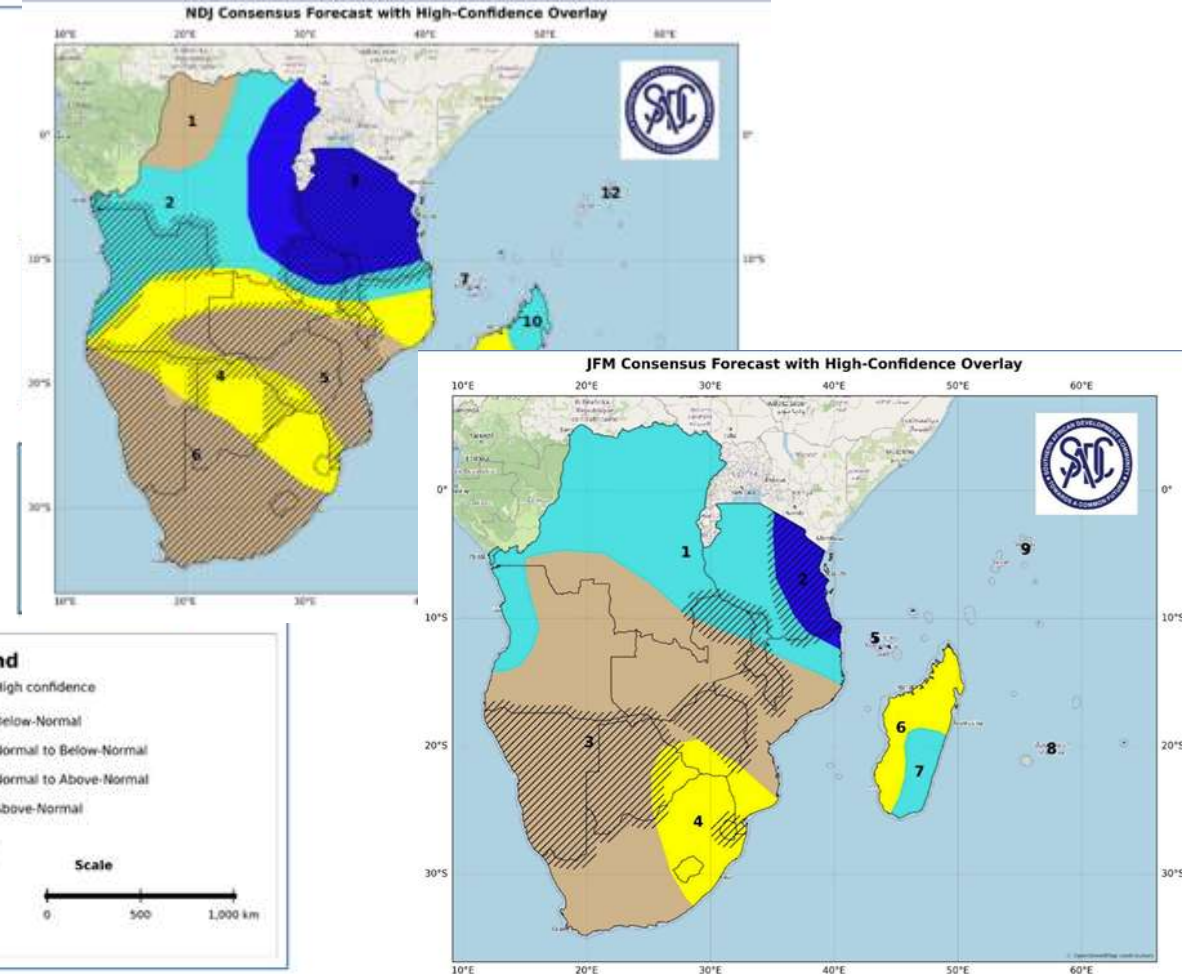


El Nino impacts vary by region and season

Rainfall Forecast for October to March in SADC region



Rainfall Forecast by 1st and 2nd half of season in SADC region

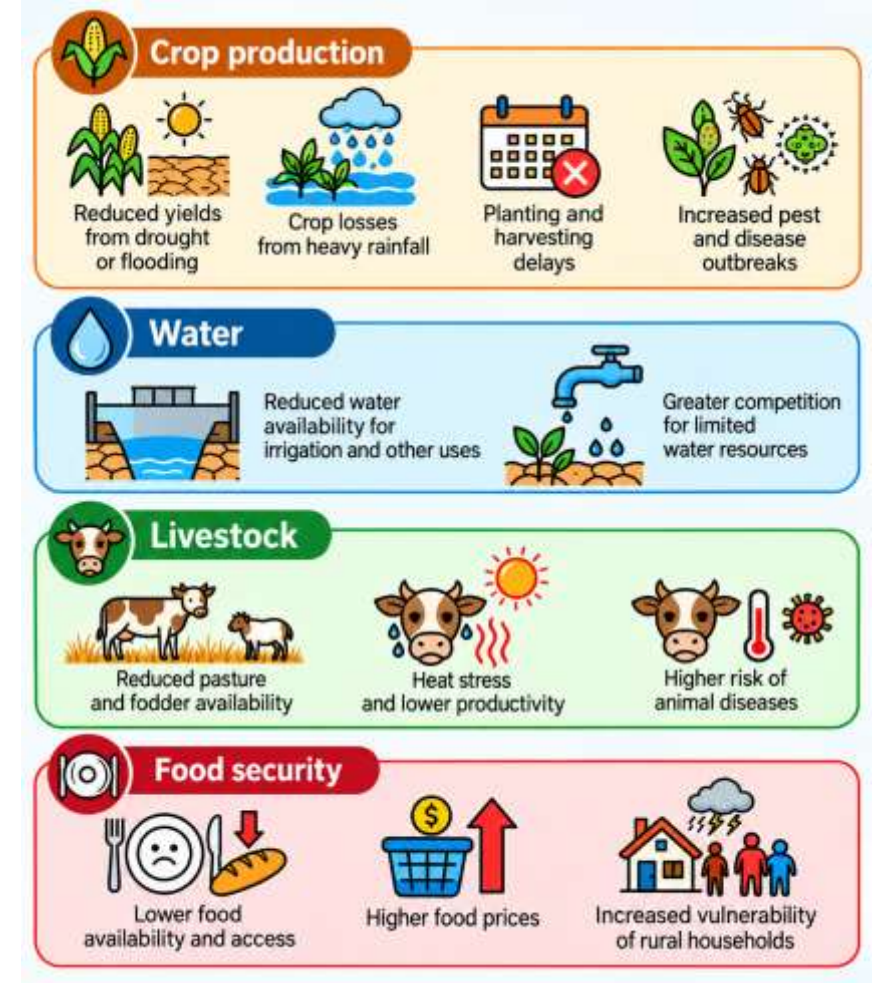


Impacts on Agriculture & Food Security

- El Niño combined with extreme heat acts as a compound risk multiplier, threatening global food systems and the livelihoods of around 1.2 billion people whose livelihoods depend on agrifood systems.
- The compound shocks of the 2023/24 cycle directly drove over 60 million [people into acute food insecurity across Africa, Latin America, and Asia](#)

Sources:

- <https://library.wmo.int/fr/records/item/69845-extreme-heat-and-agriculture>
- <https://doi.org/10.1175/WAF-D-19-0235.1>



CLIMATE SIGNAL ENSO MONITORING

ENSO Signal (El Niño / La Niña)

- Sea Surface Temperature anomaly
- Broad indication of possible wetter than normal or drier than normal conditions in different parts of the world.
- Also indication of possibly hotter conditions (which is usually the case with El Niño).

REGIONAL CLIMATE OUTLOOKS (BY RCCs) (3–6 MONTHS)

Regional Climate Outlooks (by RCCs)

- Probability of higher than normal or lower than normal rains (and potentially floods and drought).
- Which locations within different regions are expected to experience what conditions.
- Can also be downscaled to national level by NMHSs showing which parts of the country are at risk of different outcomes.

SUB-SEASONAL FORECAST (WEEKS TO ABOUT 1 MONTH)

Sub-seasonal Forecast (weeks to about 1 month)

- Updated frequently (weekly).
 - Onset forecast (when rains are likely to start).
 - Dry spell forecast (timing, length, intensity).
-
- Can also be dependent on other drivers like MJO.

CURRENT CONDITIONS & DROUGHT INDICATORS

Current Agriculture, Food Security & Drought Indicators

- Crops, pasture and livestock conditions
- Water availability
- Markets and food security situation
- Drought indicators: SPI, SPEI, soil moisture, vegetation health, rainfall deficits

How bad is it now and where are the most vulnerable areas?

DECISIONS & ACTIONS BY DIFFERENT USERS

National Disaster Management Agencies

Early warning, preparedness,
resource mobilization

Humanitarian Partners

Pre-position food, plan response,
target vulnerable populations

Agricultural Authorities

Plan agricultural & livestock support,
input distribution, disease control,
advisories

Farmers & Pastoralists

Decide actions: change variety, adjust
planting date, delay planting, water
management, fodder management

Summary and Resources

- There is a very high probability that strong El Niño conditions will manifest in the equatorial Pacific and influence climate across the globe.
- The rainfall outlook for the tropics (**30°S–30°N**) has large probabilities for **above- and below-normal** rainfall during the **Northern** winter.
- The outlooks, however, remain probabilistic; outside the core region of **the** equatorial Pacific, probabilities are lower.
- Decision-making must account for the probabilistic nature of seasonal outlooks.
- Resources
 - [WMO Global Seasonal Climate Update \(GSCU\)](#)
 - [WMO El Niño/La Niña Updates](#)
 - [WMO Coordination Mechanism \(WMC\)](#)

Thank you.



WORLD
METEOROLOGICAL
ORGANIZATION

wmo.int