



REPUBLIC OF KENYA

Ministry of Environment, Climate Change and Forestry

State Department of Environment and Climate Change

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Ref No. MET/MSA COUNTY/FCST/OND2025

OCTOBER-NOVEMBER-DECEMBER (OND-2025) SEASON OUTLOOK FOR MOMBASA COUNTY

1. HIGHLIGHTS

- ✓ The OND-2025 rainy season is expected to be Below – Normal in the County of Mombasa and its neighborhoods.
- ✓ The onset dates are expected to fall within the 3rd to 4th week of November. A delayed onset is expected
- ✓ Rains are likely to continue in to the 3rd to 4th week of December 2025 (wet spell period of between 5 – 6 weeks)
- ✓ The rainfall distribution over Mombasa County will be marked by prolonged dry spells and occasional isolated storms. Occasional Floods are expected
- ✓ Temperatures are expected to be warmer than average across the county and the coastal waters.

The reasons for below - Normal rainfall during the OND 2025 season:

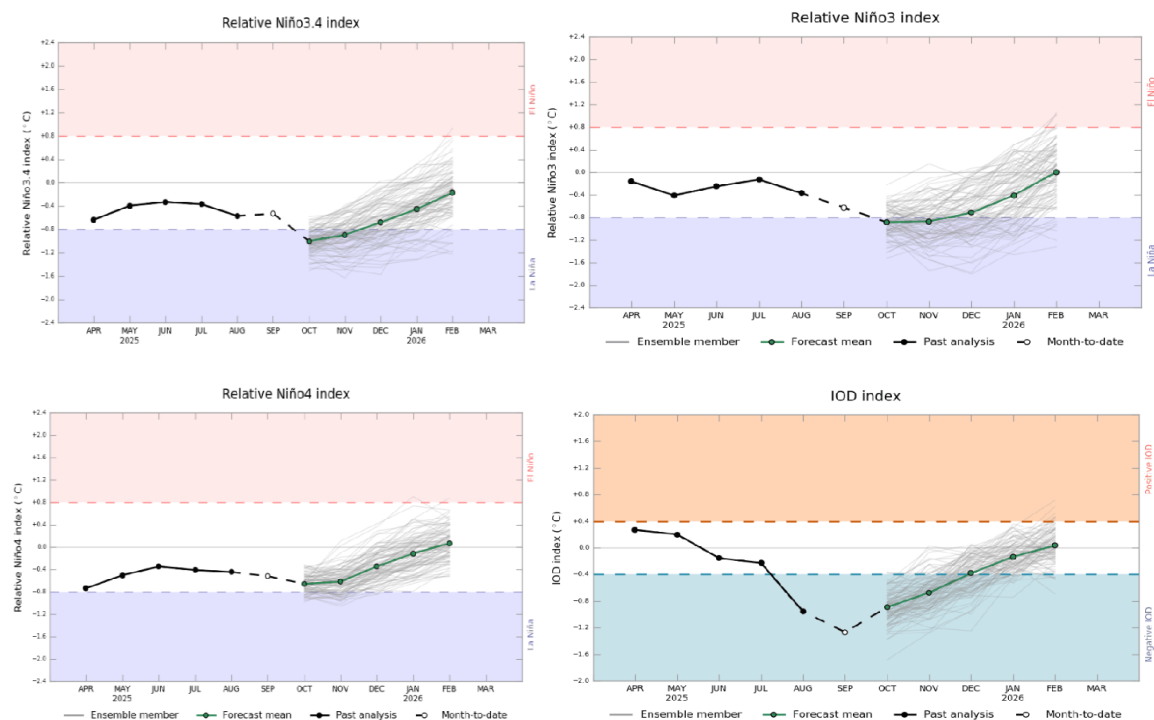
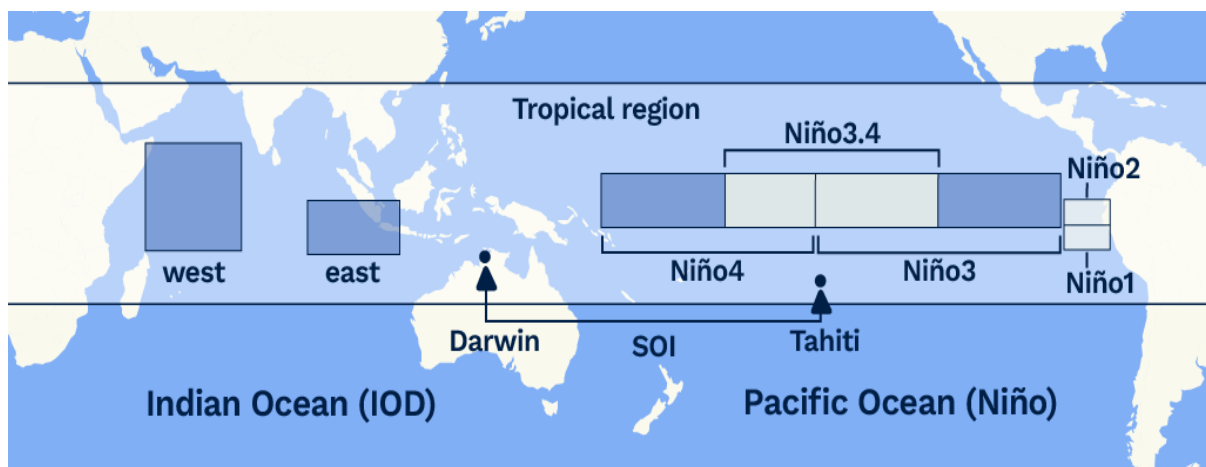
- 1) This will be driven by weak La Niña conditions, characterized by cooler-than average Sea Surface Temperatures (SSTs) over the Central and Eastern Equatorial Pacific Ocean, which are likely to develop during the September to November period and persist into early 2026
- 2) The existence and persistence of negative and neutral phases Indian Ocean Dipole.

OCEAN AND ATMOSPHERE INDICES

Climate is influenced by sea surface temperature and atmospheric patterns in the Pacific, Indian and Southern ocean regions. Specific regions are continuously monitored as they can indicate the presence or potential development of ENSO (El Niño, La Niña), Indian Ocean dipole (IOD) phases. Pacific and Indian Ocean indices are updates every after fourteen days.

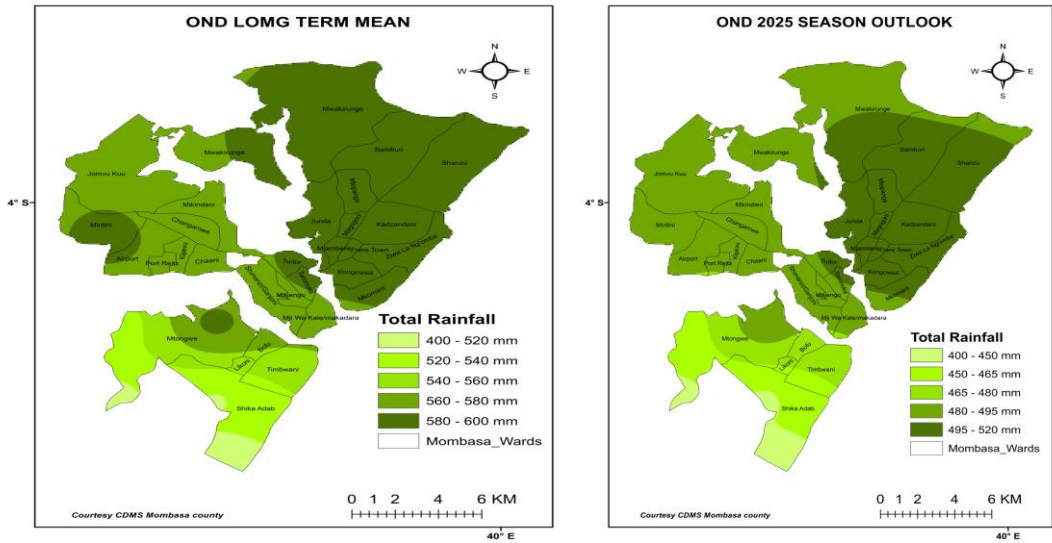
NIÑO INDICES REGIONS

To monitor the Pacific Ocean for signs of El Niño or La Niña, climatologists use several SST indices. These indices measure the difference between the current sea surface temperature and its long-term (1991–2020) average in several regions located along the equatorial Pacific. The difference is referred to as an anomaly. These regions are labeled Niño1, Niño2, Niño3, Niño3.4 and Niño4 and are used by meteorological agencies around the world.



Figures 1: Ocean and atmospheric indices

SPATIAL MAP OF PROBABLE TOTAL OND 2025 SEASONAL RAINFALL COMPARED WITH LONG TERM OND MEAN

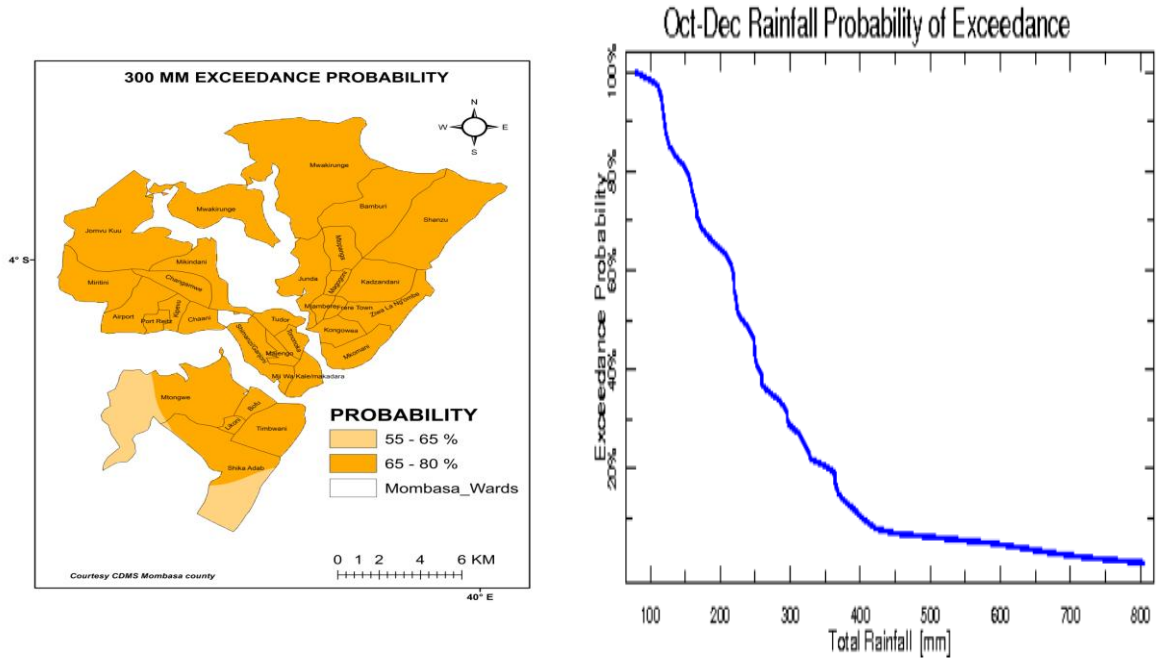


(a)

(b)

Figure 2: (a) OND Long Term Average rainfall and (b) OND-2025 rainfall outlook for Mombasa County

FORECAST SUCCESS BROBILITY AND EXCEEDANCE PROBABILITY



Figures 3: OND probability of exceedance

OND SEASON LTM AND 2025 OUTLOOK TOTALS BY SUB-COUNTY

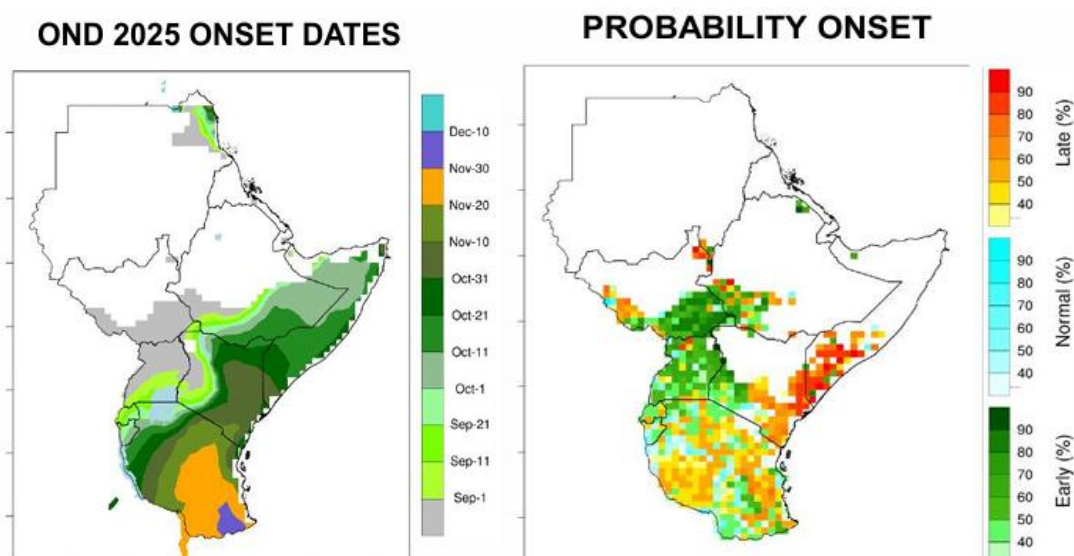
Sub-County	OND Long-Term Average Rainfall	OND-2025 Forecast Total Rainfall
Nyali	560 - 600 mm	490 - 520 mm
Mvita	540 - 580 mm	480 - 500 mm
Likoni	400 - 520 mm	400 - 450 mm
Kisauni	560 - 600 mm	490 - 520 mm
Jomvu	540 - 580 mm	480 - 500 mm
Changamwe	520 - 560 mm	480 - 500 mm

Table 1: OND LTM and 2025 season total rainfall

ON SET, CESSATIONS AND DISTRIBUTION OF THE 2025 OND SEASON

ON SET DATES	CESSATION DATES	DISTRIBUTION
Third to fourth week of November 2025) Normal to delayed on set expected	Between the 3 rd to 4 th week of December 2025	The rainfall will be poorly distributed throughout the OND season. With occasional storms

Table 2: OND 2025 onset, cessation and distributions



SUMMARY FOR DECISION MAKERS IN VARIOUS SECTORS IN MOMBASA COUNTY

1. DISASTER RISK MANAGEMENT

The anticipated drying up of water sources due to below average forecasted rainfall could expose communities to safety risks. This situation may also lead to livestock disease outbreaks and loss, human disease outbreaks (waterborne and vector-borne), increased resource-based conflicts and cross-border movements. The expected occasional storms could impact negatively on weak infrastructure, drainage systems, roads, and bridges.

2. AGRICULTURE AND FOOD SECURITY

There is a likelihood of inadequate soil moisture to support crop growth and development due to low rainfall and poor distributions. Also, the prevalence of pests and disease outbreaks is likely. This situation may lead to an increase in the number of food-insecure households hence malnutrition of populations across the county. Additionally, there is a likelihood of increased conflict, involving human - wildlife interactions and community disputes.

3. WATER AND ENERGY

There is likelihood of potential reduction in water supply for human consumption, livestock, irrigation, and hydropower production, coupled with the risk of water contamination during the occasional storms and conflicts over water use and access. Water harvesting and storage is advised especially during the occasional storms.

4. HEALTH

There is a likelihood of increased incidence of vector-borne diseases due to scarcity of clean water. Malnutrition as a result of the expected inadequate food supply to feed the community. Expected higher temperatures could also impact on human and animal skin health conditions.

5. FISHERIES

The anticipated warmer temperatures (sea surface temperatures) are likely to impact on fishing activities within the western Indian Ocean that boarder the County coastal waters. This can cause fish habitat shift to cooler deep waters as a result of down welling, can also affect spawning and health of fish; affect the coral reefs and coastal habitat eventually impacting on the economic activity. Sustainable fishing practices and measures need to be employed during the season.

6. TRANSPORT SECTOR

The anticipated occasional storms are likely to impact on road constructions (delays and rescheduling of activities) and also affect road transport. The delivery of food items to the markets could also be impacted whenever such storms occur and this could also translate to losses in business and low supply

NB: The relevant sectors are advised to develop appropriate advisories to enable the community cope/adapt and where possible mitigation measures should be applied to the anticipated situations likely to be caused by the expected below average rainfall during the 2025 OND season

2. RECOMMENDATIONS

- a. The OND seasonal forecast should be considered together with the various time scale forecasts (24-hour, Monthly, Weekly forecasts, special forecasts) and regular advisories/updates issued by the Kenya Meteorological department and Mombasa County Meteorological Office
- b. The various sectors and agencies are advised to co-develop appropriate advisories and also put in place measures that would assist in adaptation and mitigation during the season.



Joseph Amollo
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