



REPUBLIC OF KENYA
MINISTRY OF ENVIRONMENT AND FORESTRY
KENYA METEOROLOGICAL DEPARTMENT

Dagoretti Corner, Ngong Road, P. O. Box 30259, 00100 GPO, Nairobi, Kenya
Telephone: 254 (0) 20 3867880-7, **Fax:** 254 (0) 20 3876955/3877373/3867888,
E-mail: director@meteo.go.ke, info@meteo.go.ke **Website:** <http://www.meteo.go.ke>

THE “LONG RAINS” MARCH-APRIL-MAY (MAM) SEASON UPDATE

Summary

The “Long Rains” March-April-May (MAM) season constitutes an important rainfall season in Kenya and more so in the Western, Rift Valley and Central regions. This seasonal rainfall highly impacts on the agricultural sector and hence food security in the country.

REVIEW OF THE WEATHER DURING THE FIRST HALF OF MARCH 2019.

Rainfall

Generally sunny and dry weather conditions prevailed over most of the country during the first half of March 2019. However, several stations in the Western highlands such as Kisii, Nyamira, Bungoma, Trans-Nzoia, Kakamega, Busia, Homa Bay, and Kericho recorded substantial amounts of rainfall. as earlier predicted. Some parts of Central highlands (Kiambu, Meru and Nairobi) also experienced some rainfall.

Temperature

During the first two weeks of the month, high daytime and nighttime temperatures were recorded over most parts of the country. The highest daily maximum (daytime) temperature of 41.0⁰C was recorded at Mandera station on 9th March, while Lodwar station recorded 40.5⁰C on 3rd March 2019. This is because of the persistent high pressures over the Arabian region and the tropical cyclones in the western Indian Ocean.

The MAM 2019 Long Rains updates

The Climate Outlook for the March-April-May (MAM) 2019 “Long Rains” season indicated that most of the country was likely to experience slightly above average rainfall except for parts of Eastern Kenya and the Coastal regions. The seasonal rainfall onset was also expected to be timely over several parts of the country.

However, a Tropical Cyclone known as “IDAI” located in the Mozambican Channel for several days (*See Figure 1-Courtesy of Tropical Storm Risk (TSR)*) has played a key role in delaying the northward movement of the rain-bearing Inter-Tropical Convergence Zone (ITCZ). The cyclone significantly reduced moisture influx into the country and this led to the continued sunny and dry weather conditions over the better part of the country. There are possibilities of more TCs developing in the South-West Indian Ocean Basin and this may delay further the onset over the eastern sector of the country. Despite the timely onset of the MAM 2019 seasonal rainfall over the western counties, prolonged dry spells are likely due to the existence of the TCs.

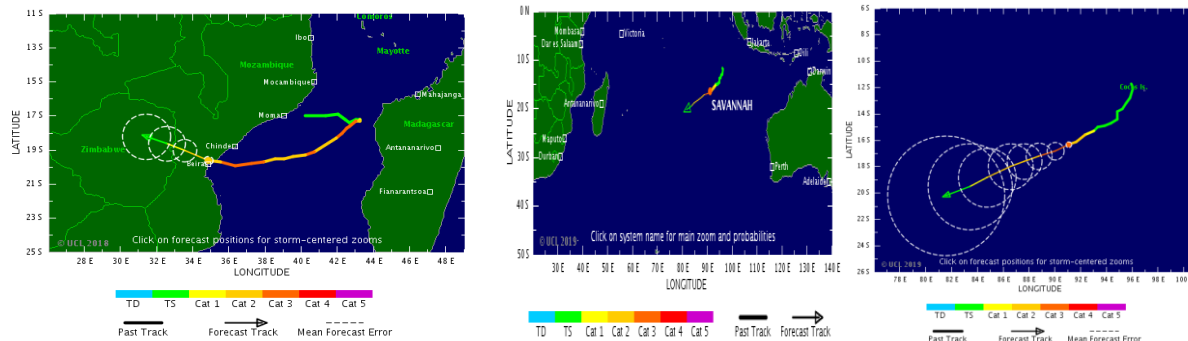
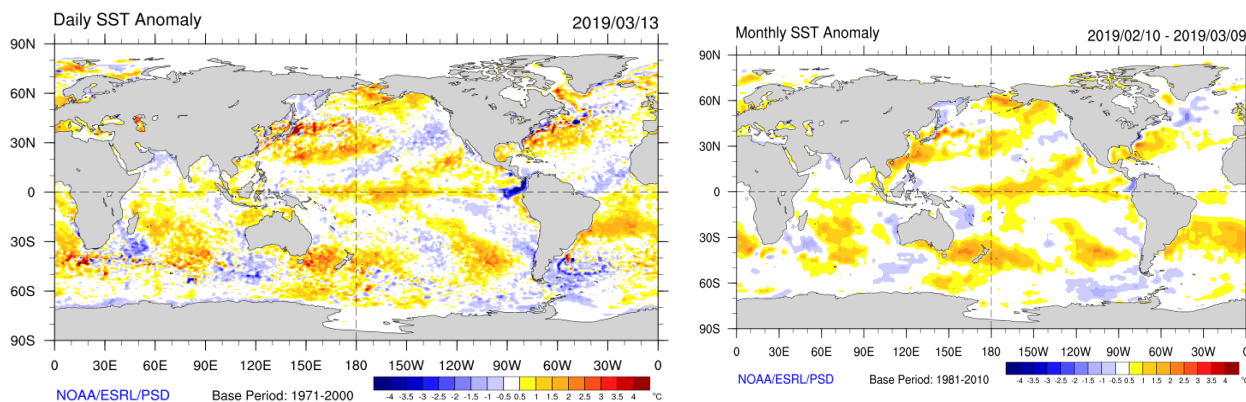


Figure 1: Tropical Cyclone IDAI landed in Mozambique, developing cyclone SAVANNAH and its trajectory left, mid and right panels

Neutral to cooler than average Sea Surface Temperatures (SSTs) along the Western Equatorial Indian Ocean coupled with very warm SSTs to the east of Madagascar (*See Figure 2 – Courtesy of NOAA*) have also contributed to the delay in the establishment of the ITCZ over the country.

Figure 2: Latest Daily and Monthly SSTs anomalies



EXPECTED SEASONAL RAINFALL DISTRIBUTION

The spatial and temporal distribution of the March to May 2019 seasonal rainfall was expected to be good over most of the western sector and generally poor over the eastern sector of the country, especially in the Arid and Semi-Arid Lands (ASALs). However, the existence of tropical cyclones and the unfavourable SSTs patterns both in the Indian and the Atlantic Oceans are likely to result in poor distribution even over the western sector of the country.

The MAM 2019 seasonal rainfall onset was expected **in March** over most parts of the country. However, sunny and dry weather conditions are likely to persist over the better part of the country and more so the Eastern sector of the country and Northwestern Kenya.

In April 2019, near-normal to above-normal rainfall is expected over most parts of the country and more so in western Kenya, central Rift Valley, Northern Kenya (Marsabit, Moyale) and the central highlands including Nairobi. Depressed rainfall is, however, likely to occur over Northwestern Kenya.

In May 2019, most parts of the country are likely to experience depressed rainfall except the western, central Rift Valley and central Kenya regions which are likely to experience slightly enhanced rainfall.

The onset of the seasonal rainfall that was expected between the third and fourth week of March 2019 over several counties in South Eastern, Coast, Central Kenya and Central Rift Valley, (*See Table 1 -*

KMD) is therefore likely to delay. However, the Tropical Cyclone “IDAI” has started decaying thus allowing moisture influx into the country.

Table 1: MAM 2019 Onset

	Region	Onset Dates	Cessation Dates
1.	Counties in the Lake Basin and in Highlands West of the Rift Valley.	1 st to 2 nd week of March 2019.	Rainfall will continue into June 2019.
2.	Southern parts of the Rift Valley (Narok, Kajiado etc).	4 th week of March to 1 st week of April 2019	2 nd to 3 rd week of May 2019.
3.	Central highlands including Nairobi area.	4 th week of March to 1 st week of April 2019	3 rd to 4 th week of May 2019.
4.	Central Rift Valley (Nakuru, Nyahururu etc).	4 th week of March to 1 st week of April 2019	Rainfall will continue into June 2019.
5.	South-eastern Counties.	4 th week of March to 1 st week of April 2019	1 st to 2 nd week of May 2019.
6.	Southern Coastal Strip.	4 th week of March to 1 st week of April 2019	Continues into June 2019.
7.	Northern Coastal Strip.	4 th week of March to 1 st week of April 2019	Continues into June 2019.
8.	North-western Counties.	1 st to 2 nd of April 2019	2 nd to 3 rd week of May 2019.
9.	Northern and North-eastern Counties (Wajir, Garissa, Mandera, Marsabit).	4 th week of March to 1 st week of April 2019	1 st to 2 nd week May 2019.

POTENTIAL IMPACTS

- The expected late onset and poor distribution of the MAM 2019 seasonal rainfall are likely to impact negatively on the agricultural sector leading to food insecurity.
- In Northwestern Kenya and other ASALs where poor rainfall performance is expected, problems related to water scarcity and lack of pasture for livestock is expected to increase following the poor rainfall performance observed during the October-November-December 2018 ‘Short-Rains’ season. Human-wildlife and inter-community conflicts over the limited resources are likely to be on the increase in these areas. Contingency plans and strategies should therefore be in place to avert such incidences
- Cases of flooding in flood prone areas such as Budalang’i and Kano areas and also landslides/mudslides in areas such as Murang’a are still probable. The National Disaster Operations Centre is, therefore, advised to be on standby in order to ensure mitigation of any negative impacts that may arise.
- The expected prolonged dry spells are likely to result into reduced water levels in the Seven Forks, Turkwel and Sondu Miriu catchment areas.
- Flash floods are still likely to occur in Western Kenya, Central Rift Valley and Central Highlands.
- Water resources for drinking, sanitation and industrial use are expected to deteriorate over most parts of the country due to the expected poor rainfall. This is more so over Northwestern, Southeastern, Northeastern and the Coastal regions.



Stella Aura, MBS

Ag. DIRECTOR OF METEOROLOGICAL SERVICES