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**MINISTRY OF ENVIRONMENT AND FORESTRY**  
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**UPDATE**

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

**1.1 Introduction**

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

**1.2 Review of the Weather during the Month of March 2022.**

The month of March was characterized by sunny and dry weather conditions over most parts of the country. However, a few areas over the Highlands West of the Rift Valley, the Lake Victoria Basin, South Rift Valley and the Highlands East of the Rift valley received occasional rainfall. Nairobi, the South-eastern lowlands, parts of the Northeast, parts of Central Rift Valley and parts of South coast received rainfall during the fourth week of March. The Northwest and most of the Coastal strip remained sunny and dry throughout the month.

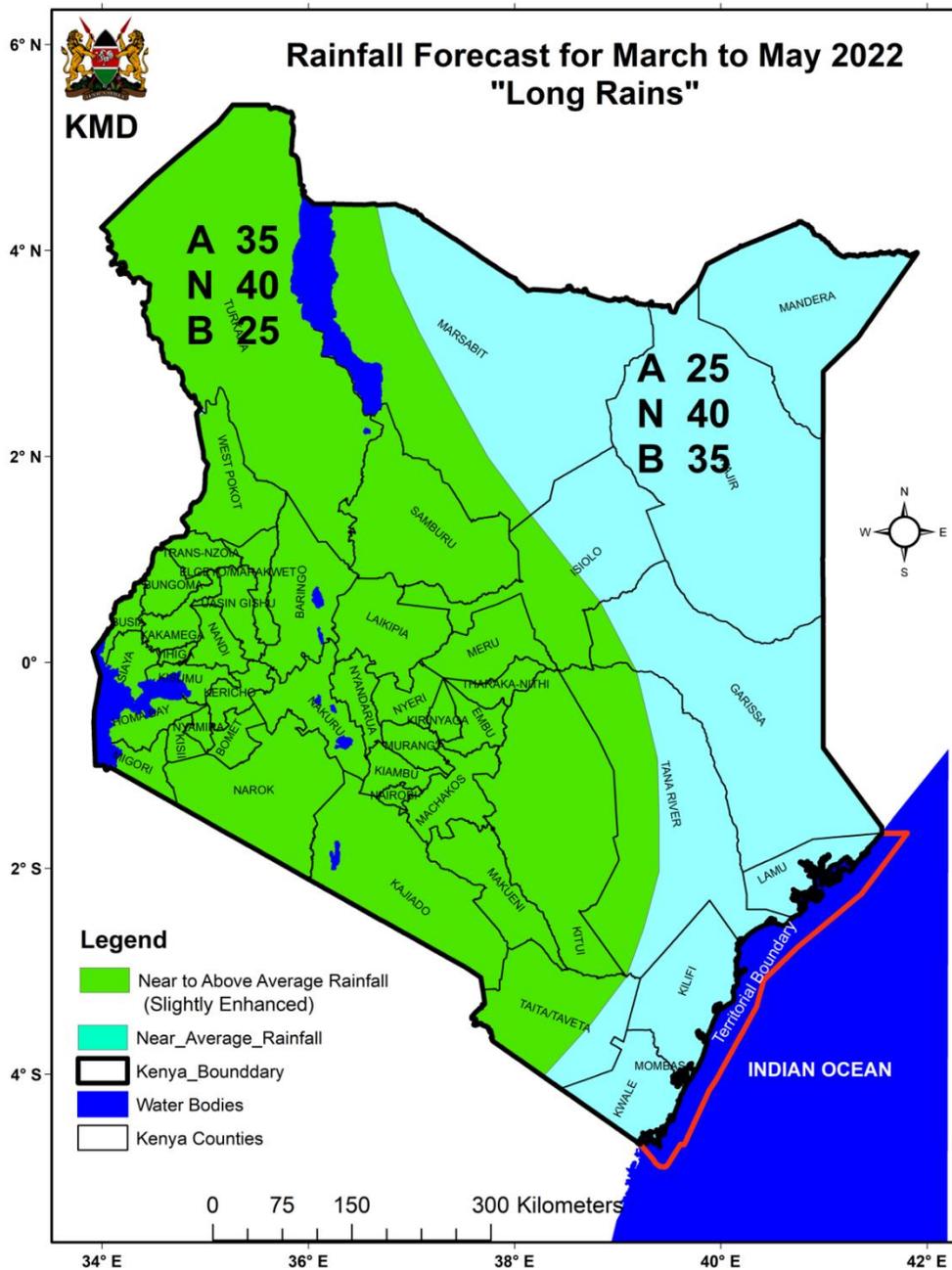
Depressed rainfall was received over most parts of the country. Kisumu, Moyale, Voi and Nanyuki are the only stations that recorded near average rainfall at 117.8%, 115.2%, 101.5% and 93.5%, respectively. All the other stations recorded less than 75% of the March LTM (Depressed rainfall).

The onset of the rainfall season was within the predicted period over the Southern Rift Valley, Lake Victoria Basin, the Highlands East of the Rift Valley (including Nairobi County), Southeastern lowlands, parts of the South Coast and parts of the Northeast. However, the onset delayed over the Highlands West of the Rift Valley where it was expected in the 2<sup>nd</sup> to 3<sup>rd</sup> week of March but was realized during the 4<sup>th</sup> week of March. Most of the Central Rift Valley, the Northwest and most of the Coastal regions have not yet realized their onset which was expected between the 3<sup>rd</sup> to 4<sup>th</sup> week of March over the Central Rift Valley and 4<sup>th</sup> week of March to 1<sup>st</sup> week of April over the Northwest and Coastal regions.

**1.3 The MAM 2022 Long Rains updates**

The Climate Outlook for the March-April-May (MAM) 2022 “Long Rains” season indicated that enhanced rainfall was expected, with a 35% probability, over the Highlands West of the Rift Valley, the Lake Victoria Basin, Central and South Rift

Valley, the North-west, the Highlands East of the Rift Valley (including Nairobi County) and the Southeastern lowlands. Near average rainfall was expected (with a 35% probability) over the North-eastern and the Coastal regions. See **Figure 1** for details.

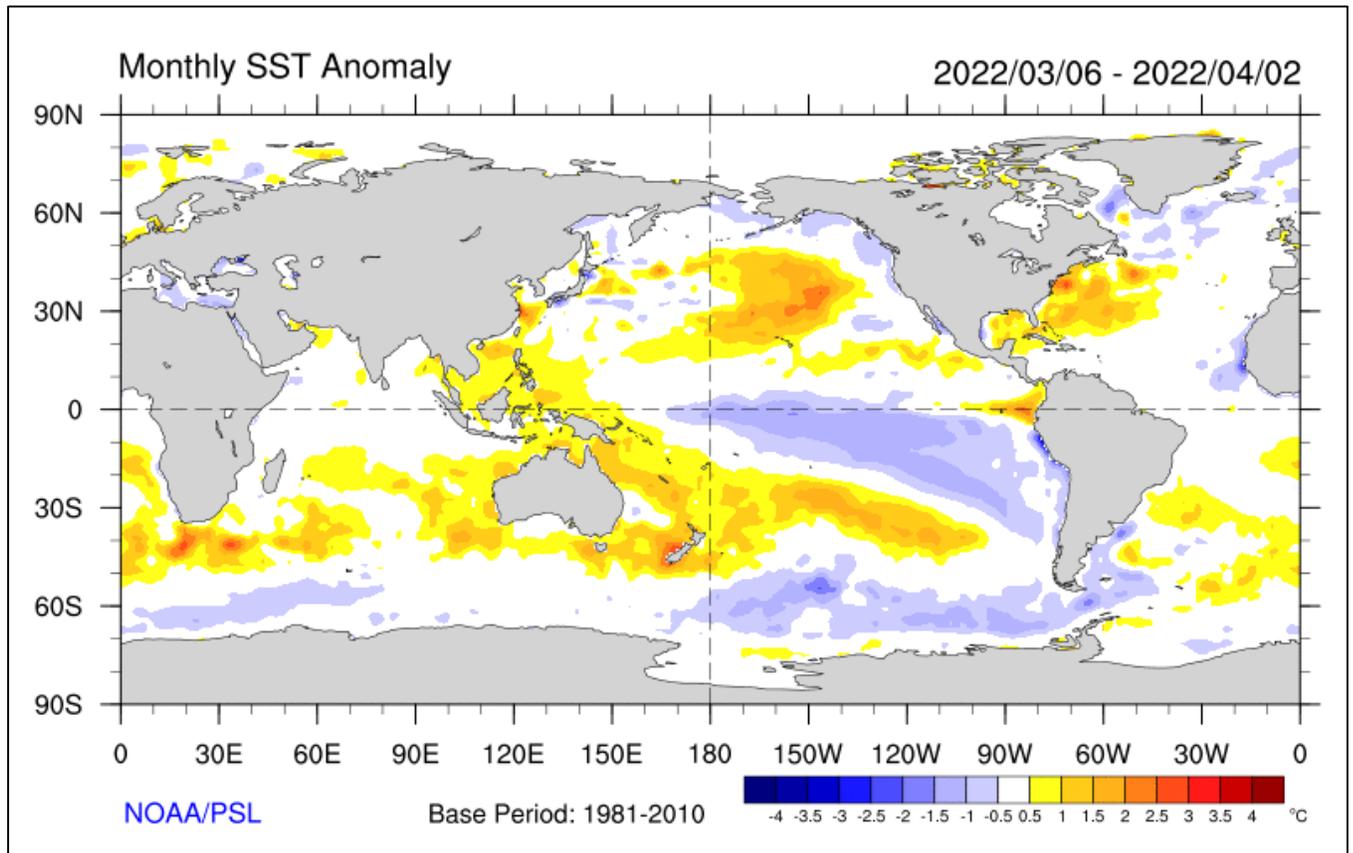


**Figure 1: March to May 2022 Seasonal Forecast**

However, warmer than average Sea Surface Temperatures (SSTs) over the Indian and Atlantic Oceans have led to low pressure over the Southern hemisphere (**Figure 2**). This, coupled with higher pressures over the Northern Hemisphere, has delayed the northward movement and proper establishment of the rain-bearing Inter-Tropical Convergence Zone (ITCZ). The warming over the South Western Indian Ocean Basin was responsible for the formation of the intense tropical cyclones Batsirai and Gombe that hit Madagascar and Mozambique in early February and mid-March, respectively. Additionally, a key driver of convection over the Indian Ocean that is only predictable

at shorter time scales, the Madden Julianne Oscillation (MJO), is currently not favorable for wet weather activities in the country and is expected to remain unfavorable during the first half of April. Therefore, despite the timely onset of rainfall over several parts of the country, the distribution for the remaining part of the season is likely to be poor especially over the eastern sector of the country. A dry spell is expected over most parts of the country during the first half of April as had been indicated in the April forecast.

In May, the Western sector of the country is likely to experience enhanced rainfall and near average rainfall is expected over the Central and the Southeastern lowlands. Below average rainfall is expected over the Coastal and the Northeastern regions.

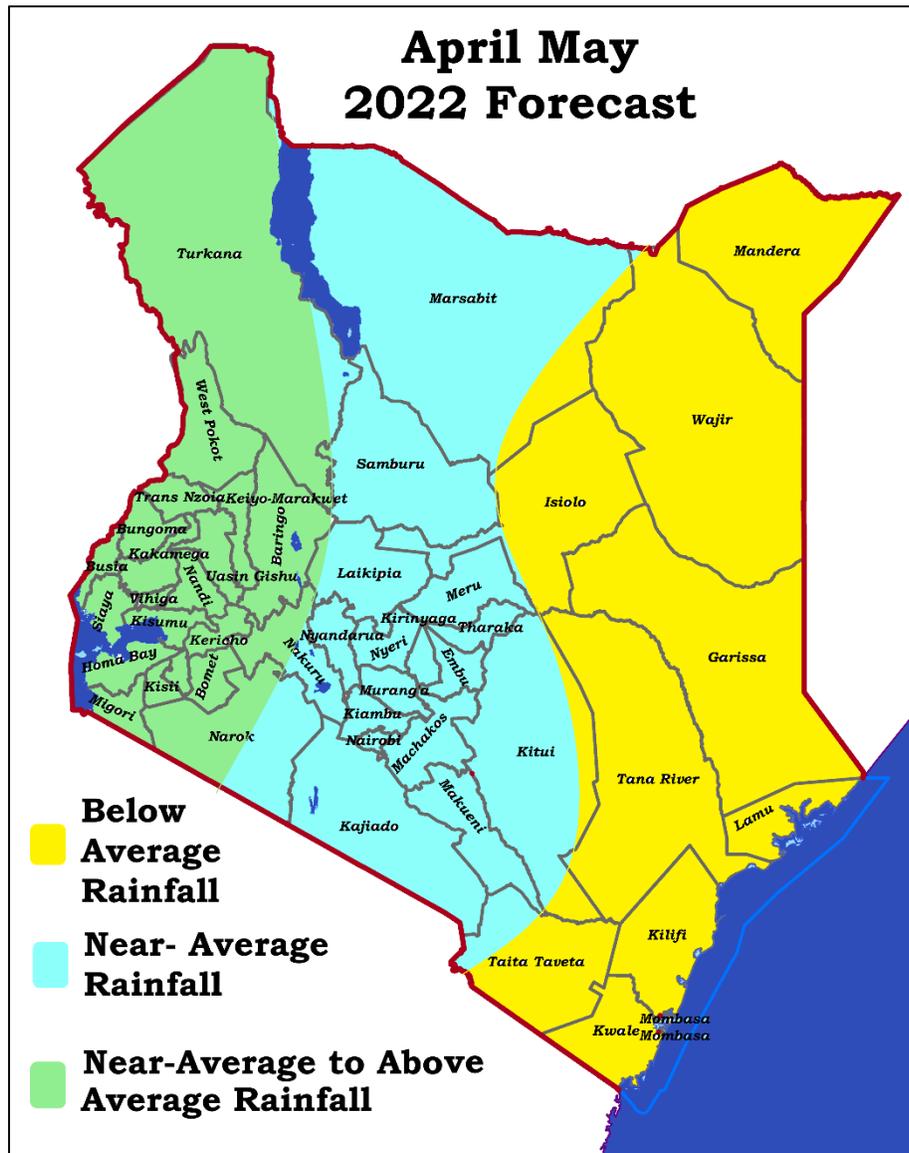


**Figure 2: Latest Monthly SSTs anomalies (Courtesy of NOAA)**

During the remaining part of the season (April and May), near average rainfall with a slight tendency to above average rainfall is expected over the **Highlands West of the Rift Valley, the Lake Victoria Basin, Central and South Rift Valley and the Northwestern regions.**

Near average rainfall is expected over the **Highlands East of the Rift Valley including Nairobi County, the South-eastern Lowlands and parts of the Northeast (Central and Western parts of Marsabit County).**

Below average rainfall is expected over the **Coastal strip** and most of the **Northeastern** regions. See **Figure 3.**



**Figure 3: April May 2022 Forecast**

**1.4 Expected Seasonal Rainfall Distribution**

The spatial and temporal distribution of the March to May 2022 seasonal rainfall was expected to be good over the western, central and southeastern regions of the country and generally poor over the North-western, North-eastern and Coastal sectors of the country.

However, due to the low pressures over the southern hemisphere and the high pressures over the northern hemisphere as well as the unfavorable MJO, the spatial and temporal distribution of the rainfall for the remainder of the season is expected to be generally poor over the whole country.

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