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**Monthly Weather Forecast for Kilifi County valid 1<sup>st</sup> to 31<sup>st</sup> May, 2024**

**THE OUTLOOK FOR MAY 2024 AND REVIEW FOR APRIL, 2024 IN KILIFI COUNTY**

**1. HIGHLIGHTS**

**1.1. The Forecast for May 2024**

May marks the peak of the “Long Rains” season over several parts of the county with the month of June being the cessation. The outlook for May 2024 indicates that several parts of the county are likely to experience near-average to above-average rainfall. Occasional storms are also likely to be experienced.

**1.2 The Climate Outlook for May, June and July, 2024**

The forecast for the next three months indicates that rainfall is expected over the region. The County is likely to experience rainfall in May and run into June coinciding with the June -July-August season that usually favors the coastal strip with occasional rains especially the areas within the coastline. Temperatures are expected to be warmer than normal over the whole county during the forecast period with higher probabilities for warmer than average temperatures.

### **1.3. Rainfall Review for April 2024**

April marked the proper onset of the Long Rains (March-April-May) season over several parts of the county. Most parts of the county lying within the coastline experienced near average to above average rainfall during the month but with poor distribution with both wet and dry spells.

The month was characterized by heavy rains (>20mm) episodes especially on 5<sup>th</sup>, 15<sup>th</sup>, 19<sup>th</sup> and 24<sup>th</sup> followed by dry spells indicating fair to poor temporal distribution in the coastline and hinterlands respectively. The rains were not spread uniformly indicating poor spatial distribution in both the hinterlands and the areas within the coastline.

## **2. May 2024 Forecast**

The month of May marks the peak for the MAM rainfall season in the county as well as the peak for the tropical storms season which begins in October and ends in May.

The tropical storms that usually occur in neighbouring coasts in Tanzania, Mozambique Channel and Madagascar are expected to have ripple effects in Kenyan waters thus affecting both ocean conditions and rainfall patterns by enhancing or reducing the expected magnitudes of rainfall depending on their strength and orientation.

The county having the Galana-Sabaki River where the Athi-Galana basin empties its waters from Ngong, Nairobi County and Kiambu County suffers ripple effects of heavy rains received in the catchment. The predicted storms in those regions may affect the water levels in the river Galana-Sabaki and subsequently affect the flood plains of Kilifi County.

### **2.1 The Rainfall Forecast for May 2024**

The forecast indicates that the county is likely to experience near-average to above average rainfall. The hinterlands are expected to receive near average to above average rainfall while the areas within the coastline (10miles strip from the shoreline) are expected to receive above average rainfall. The month of May is expected to begin with a dry spell and experience occasional storms in the course of the month. The rainfall is expected to run into the month of June and continue as June-July-August rainfall season.

## **2.2 Potential impacts**

### **2.2.1. Agriculture and Food Security**

The expected rainfall is likely to be conducive for agricultural production, especially in the areas lying within the coastline where rainfall is expected to be above average. Since rainfall is expected to continue into the month of June-July-August season; farmers are encouraged to continue liaising with agricultural extension officers to get advice on good agricultural practices hence maximize production.

The near-average to above average rainfall expected over the hinterlands which are the ASALS of Kilifi where agro-pastoralism is practiced is expected to improve pasture and browse as well as enhance production for the recommended crops.

## **Disaster Management**

There is a likelihood of flooding in low-lying areas and flood plains especially over the flood plains of Galana-Sabaki River in Adu, Magarini and Malindi Sub-counties as well as in poorly drained urban centers within the coastline where rainfall is expected to be above average. Relevant authorities are therefore advised to put in place measures to avert possible negative impacts that may arise. Kilifi County Government is also advised to clear drainages in good time to avert artificial flooding of the urban areas. The public are advised not to drive or walk through flooded rivers or raging waters.

Cases of lightning strikes are still likely as earlier experienced in Sokoni ward towards the end of March where a house was damaged. The public are advised not to shelter near metallic structures or under trees to avoid the risk of lightning strikes, which could lead to loss of life.

Cases of rough seas are also likely as we come to the end of tropical storms season in May and enter the summer monsoonal season in June-July-August which are occasionally characterized by strong southerly winds. The ocean users using small crafts are advised to venture with caution and keep updated with weekly forecasts and updates from the county director.

## **Water Resource Management and Energy**

The anticipated increase in rainfall is poised to improve water availability, benefiting both domestic and livestock needs. To capitalize on this resource, the public is encouraged to adopt rainwater harvesting and storage techniques. However, this surge in rainfall may also bring about adverse effects, such as heightened siltation and sedimentation in rivers and dams, as well as the risk of flooding, including river channel overflows, urban flooding, and flash floods. To address these challenges, authorities are advised to prioritize dam delisting efforts and implement strategies for separating storm water and wastewater channels. These measures can help alleviate the impact of flooding on communities.

Furthermore, the rise in inflow into hydropower reservoirs is anticipated to bolster hydropower generation and facilitate groundwater recharge for geothermal power production. Nonetheless, it is crucial to acknowledge that increased rainfall may lead to disruptions in power supply, posing socio-economic risks. Thus, there is a critical need to enhance power transmission and distribution infrastructure to ensure reliable electricity supply.

As the seasonal rainfall gradually declines in arid and semi-arid areas, effective water management becomes imperative to sustain water resources for both human and animal populations beyond the season. Residents are urged to embrace rainwater harvesting to augment their water requirements.

## **Environment and Forestry**

The anticipated near to above average rainfall is poised to provide sufficient soil moisture, creating conducive environments for tree growth. Thus, active participation in tree planting initiatives, such as the 15B tree planting initiative, and especially the coconut and cashewnut trees lost in the years of drought is strongly encouraged to further enhance the national forest cover through agro-forestry. However, it is crucial to remain mindful of the potential environmental risks associated with excessive rainfall, particularly soil erosion.

To mitigate these risks and ensure environmental sustainability, the public is advised to adopt responsible agricultural practices. These include implementing conservation agriculture and soil conservation measures to protect against erosion and maintain soil health. By taking proactive steps to safeguard the

environment, communities can contribute to long-term resilience against the impacts of climate change while promoting the growth of healthy, thriving ecosystems.

## **Health**

The risk of vector-borne diseases, notably Malaria, is anticipated, particularly in areas such as Galana-Sabaki flood plains in Adu, Malindi and Magarini Sub-counties. Additionally, these flood-prone areas, may experience outbreaks of waterborne diseases. Health authorities are advised to strategically position and redistribute medical supplies and insect-treated nets in the affected areas. Furthermore, public health education efforts focusing on disease prevention, as well as initiatives promoting Water Sanitation and Hygiene (WASH), should be intensified to mitigate the spread of diseases among these vulnerable communities.

## **Transport and Public Safety**

Flash floods are expected to be a concern in various regions. The anticipated floods pose a risk of causing structural damage to infrastructure such as roads, bridges, and sub-standard facilities. Consequently, transportation may be affected, with the possibility of property damage and loss of lives. Similarly Strong winds in the event of ocean storms may cause loss of fishing gears, small vessels and lives. It is crucial for the public to exercise caution while venturing rough Seas, driving in rainy conditions and to refrain from crossing flooded roads, rivers and staying in flood plains to minimize the risk of accidents resulting from such adverse weather conditions.

## **Outlook for May to July 2024**

The forecast for the next three months indicates that the County is expected to receive rainfall with some breaks throughout the forecast period. This rainfall is likely to be near to slightly above the May to July LTM. Temperatures are expected to be warmer than usual during the forecast period, with higher probabilities for warmer than average temperatures.

## **EXPERIENCED IMPACTS OF RAINFALL IN APRIL 2024**

### **Agriculture and Food Security**

The rainfall experienced in the month even though with dry spells provided favorable conditions for agricultural activities. However, the heavy rainfall also resulted in significant crop damage in the flood plains of Sabaki Ward, Magarini Ward and Chakama.

### **Disaster Risk Management**

The heavy rainfall experienced on Athi-Galana catchment resulted in several significant impacts:

The three boat-cross sites in Sabaki, Magarini and Chakama were closed down.

The floods displaced many people.

Property and farms of unknown value was destroyed.

For instance, In Sabaki ward Madunguni village around 68 households were affected by 30<sup>th</sup> April with mainly crops destroyed but animals and humans were evacuated.

## **Transport and Public Safety**

The heavy rainfall experienced upcountry and in the county during the month led to the disruption of transport services and the destruction of infrastructure in the Galana-Sabaki flood plains and other areas in Shimo la tewa, Ganda and Malindi wards. For example:

Madunguni secondary in Sabaki ward has been inaccessible by 30<sup>th</sup> April,

Kavunyalalo Primary school toilets in Sabaki ward destroyed by strong winds on 29<sup>th</sup> April,

Village roads heading to Kache, Kajole, Kipanga Jeni, and Songerako kwa Nyoga in Magarini ward destroyed by Sabaki river floods on 28<sup>th</sup> April.

Fishers from Shela ward lost their gears and boat on 27<sup>th</sup> April and

On 28<sup>th</sup> April two fishermen from Malindi ward among whom one lost his life, lost their boat and gears due to strong winds and high waves.

## **Water Resource Management and Energy**

Water availability for both human and livestock use saw improvements across most regions of the

County. However, the heavy rains occasionally led to disruptions in power supply in certain areas. For instance, the power supply was interrupted in the Kikambala area of Kilifi County on April 15th, when strong winds brought down a power line.

**N/B: This forecast was downscaled from the attached National forecast and should be used with the weekly forecasts generated from the County Meteorological Office.**

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