



**REPUBLIC OF KENYA**  
**MINISTRY OF ENVIRONMENT, CLIMATE CHANGE AND FORESTRY**  
**KENYA METEOROLOGICAL DEPARTMENT**  
**KISII COUNTY METEOROLOGICAL SERVICES**

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*Ref. No. KMS/KISII FCST/MAM 2025*

*Date: 17<sup>th</sup> February, 2025*

**THE OUTLOOK FOR THE MARCH – APRIL – MAY (MAM) “LONG RAINS”  
SEASON FOR KISII COUNTY**

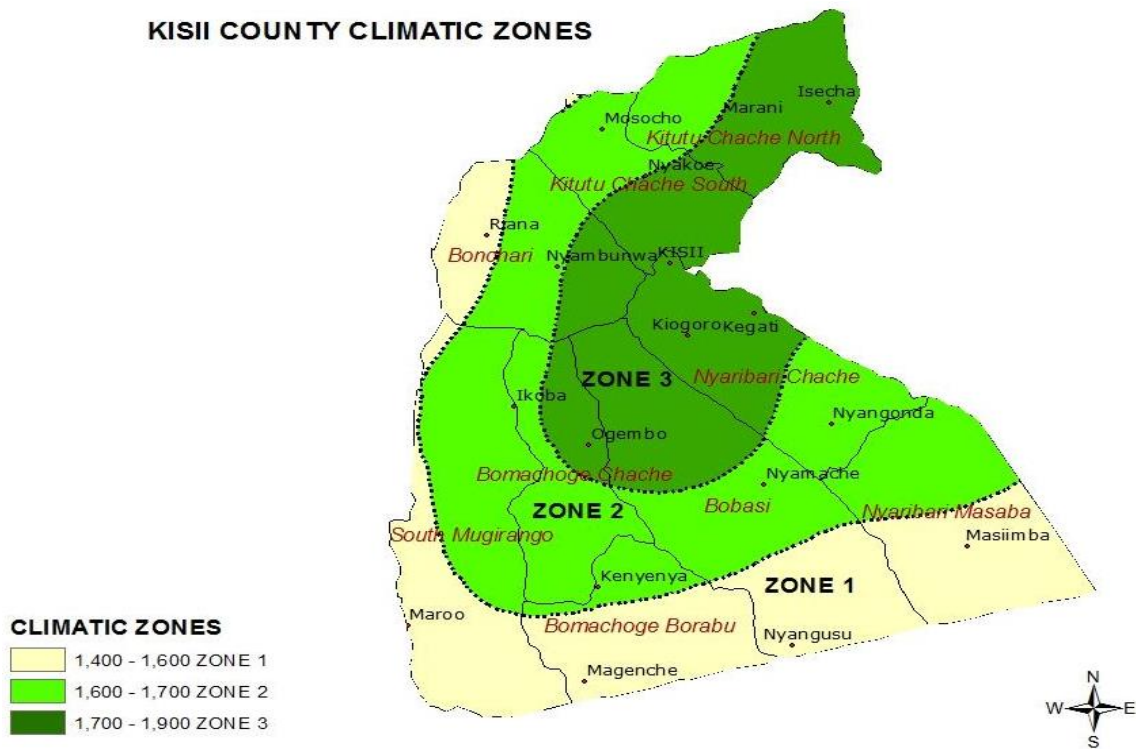
During the Long Rains of March-April-MaySeason, Kisii County is expected to receive **Near Normal to above Normal Rainfall**. The distribution of rainfall in space and time is expected to be good.

**The onset (start) & Cessation (End) of The March to May, 2025 Long Rains Season:**

The rains being received in the month of February will continue into the month of March, and the seasonal rainfall is likely to continue into the month of June 2025.

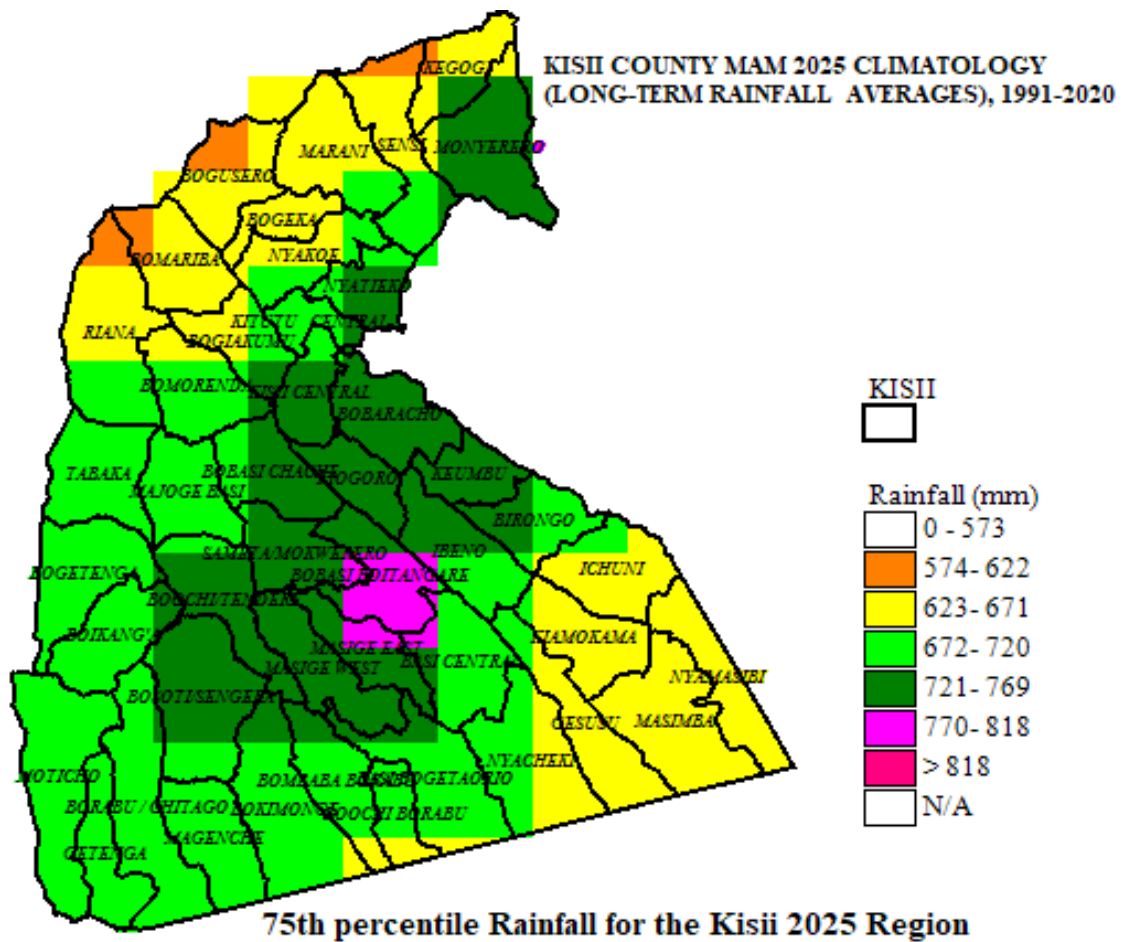
The peak of the seasonal rainfall will be the month of April 2025. The Cessation (end) of rainfall will be the month of June.

## KISII COUNTY CLIMATIC ZONES



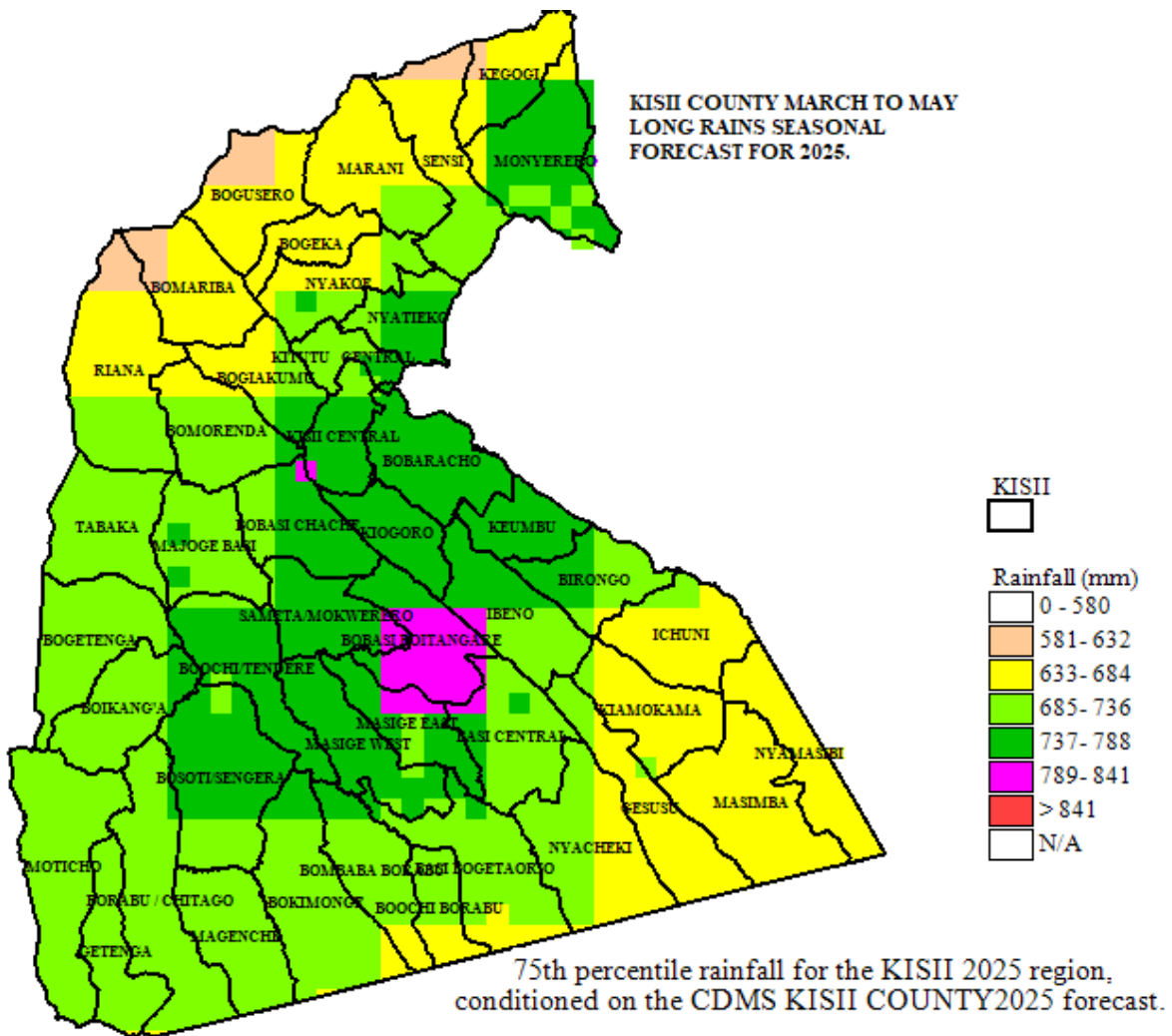
**Figure 1: Kisii County Climatic Zones**

Kisii County Climatic zones are specified in figure 1, as zone 1: which experiences amounts of rainfall, ranging between 1400mm to 1600mm per year. While zone 2, experiences rainfall amounts of 1600mm to 1700mm annually. Zone 3, receives amounts of rainfall ranging between 1700mm to 1900mm per year.



**Figure 2: March to May Long Rains Season, long-term Averages**

Figure 2 shows that the long-term rainfall averages usually recorded during the Months of March to May for over 30 years between 1991 and 2020.



**Figure 3: Kisii County, March-April-May (MAM) 2025 Seasonal Forecast**

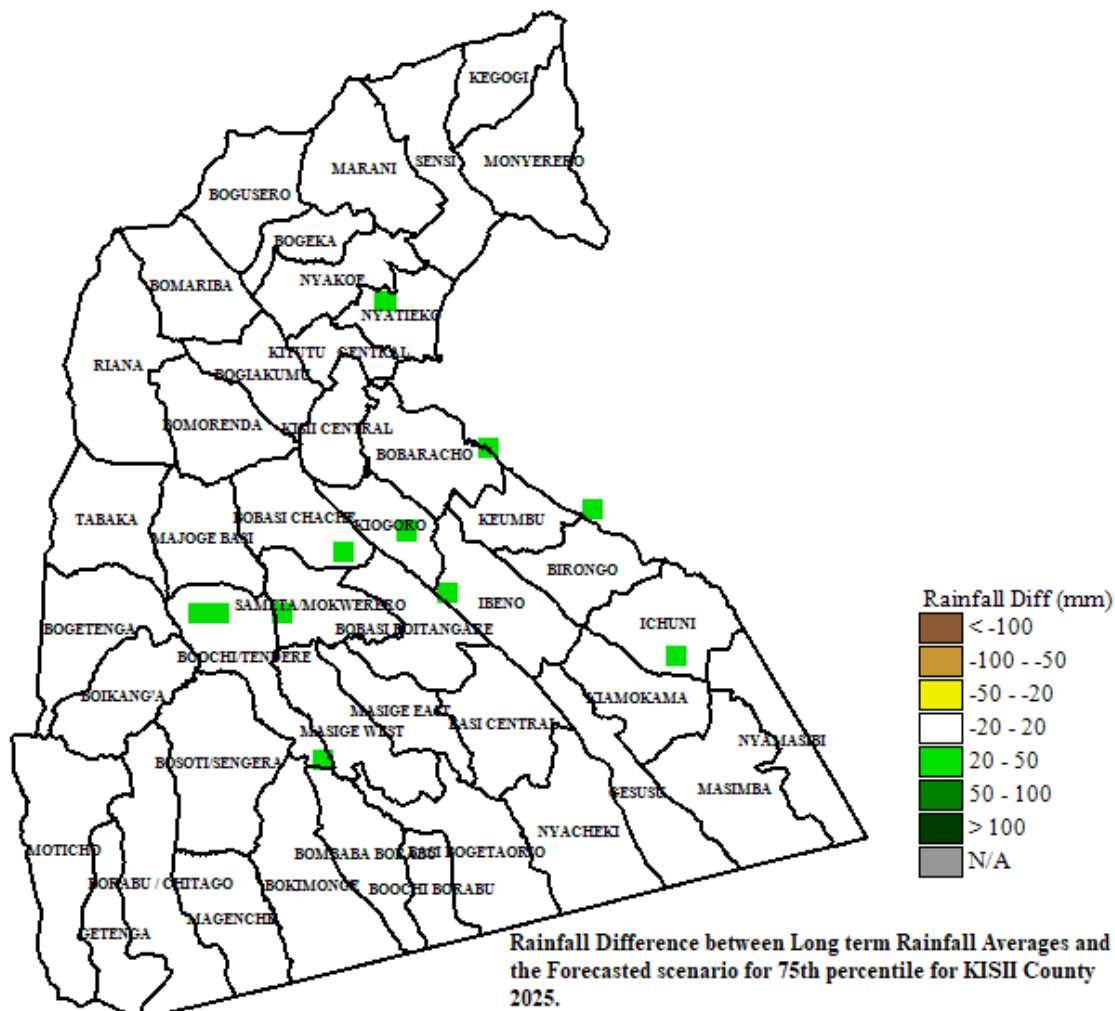


Figure 4: Rainfall Differences between Climatological and March-April-May, 2025 Seasonal Forecast.

Figure 4 indicates that above normal rainfall is expected in a few parts of Kisii County during the MAM season as shown by the green colouration in figure 4. Most places in Kisii County are likely to experience **Near Normal to above Normal Rainfall** as shown by the white parts of Fig. 4.

### ONSET AND CESSATION OF MARCH TO MAY 2025 SEASONAL RAINFALL

- a) **Onset or Start of rainfall.** Rainfall will continue from February into the month of March, 2025.
- b) **Cessation or End of rainfall.** Rainfall will continue into the month of June 2025.

#### Rainfall Performance Classification

Rainfall as % of LTM / Range	Description
Less than 75%	Below Normal (Depressed) rainfall
Between 75% and 125%	Near normal rainfall
Greater than 125%	Above Normal (Enhanced) rainfall

## POTENTIAL IMPACTS & SECTORAL ADVISORIES

### 1. Kisii County Government

- a) The County government of Kisii is advised to open up drainage systems early enough to avoid water accumulation due to surface runoffs that lead to flash floods within the County.
- b) The County in conjunction with forestry department is advised to collaborate and do a survey of weak trees which should be cut down to minimize accidents when weak trees will fall on people and property due to strong winds that may be associated with heavy rains and strong winds expected during the March to May seasonal rains of 2025.


### 2. Environment and Natural Resources Sector

The Ministry of environment and Forestry should encourage county residents to put in place soil conservation measures to minimize environmental degradation caused by soil erosion. Residents should also be encouraged to plant trees to increase forest cover and conserve the environment.



### 3. Agriculture, Livestock Development and Food Security Sectors

The **Near Normal to above Normal Rainfall** expected over the County will be advantageous for agricultural activities. Farmers should make good use of the expected good rains and maximize crop produce through suitable land-use management. Farmers are advised to liaise with the Department of Agriculture, Livestock, Fisheries and Co-operative Development for advice on the appropriate advisories during this season.

### **Scenario: NEAR NORMAL TO ABOVE NORMAL RAINFALL**

TYPE	IMPACT	ADVISORY
<b>Dairy cattle</b> 	<b>Positive</b> -Increased pasture and fodder availability -Increased milk production. -Optimized milk production due to increased fodder availability	- Ensure proper drying of cut fodder -Conserve fodder for dry season -Training on fodder conservation -Enhanced marketing for fodder and milk - Value addition of milk and milk products -Establish fodder and fodder trees -Water harvesting
	<b>Negative</b> -Bloat-Consumption of lush pasture -Increased incidences of diseases e.g. pneumonia, FMD, internal parasites, -Low DM intake and reduced nutrition due to high moisture content of roughage -High rate of deterioration of chopped feeds	- Avoid grazing on young grass -Mix green feeds with conserved feeds -Routine vaccinations, prompt treatment, deworming, -Proper housing - Wilting of cut forage before feeding -Use of appropriate means of transport -Provision of anti-stress supplements to stall production



	<ul style="list-style-type: none"> <li>-Animal stress due to thunderstorms and strong winds</li> <li>-Difficulties in transportation of produce and products due poor and damaged roads</li> </ul>	
<b>TYPE</b>	<b>IMPACT</b>	<b>ADVISORY</b>
<b>Poultry</b> 	<b>Positive</b> <ul style="list-style-type: none"> <li>- Increased production as a result of increased feeds</li> <li>-Increased access to feeds for free range birds</li> </ul> <b>IMPACT</b> <ul style="list-style-type: none"> <li><b>Negative</b></li> <li>-Increased disease incidences e.g. coccidiosis, gumoro, New castle Disease (NCD), fowl typhoid, internal parasites and fowl cholera</li> <li>-Stress</li> <li>-Drop in egg production</li> <li>-Stagnant water near poultry houses</li> <li>-Challenges in brooding management due to low temperatures</li> </ul>	<ul style="list-style-type: none"> <li>-Flock planning and aggressive marketing of birds, poultry products and by-products</li> <li>- Water harvesting</li> </ul> <b>ADVISORY</b> <ul style="list-style-type: none"> <li>-Timely Vaccination, maintain hygiene of poultry houses, proper housing,</li> <li>-Prompt treatment</li> <li>-Proper feeding</li> <li>- Provision of anti-stress supplements to sustain production</li> <li>-Agro vets to stock poultry drugs and vaccines</li> <li>-Prior training on disease detection and management</li> <li>-Open up, improve and/or maintain drainage channels during rainy season</li> <li>- Early procurement of fuel and required equipment for effective brooding.</li> <li>-Proper storage of concentrates feeds</li> </ul>
<b>TYPE</b>	<b>IMPACT</b>	<b>ADVISORY</b>
<b>Bananas</b> 	<b>Positive</b> <ul style="list-style-type: none"> <li>-Increased production</li> <li>-Increased availability of planting materials.</li> </ul> <b>Negative</b> <ul style="list-style-type: none"> <li>-Increased disease and pest incidences- sigatoka, cigar end rot, nematodes</li> <li>-Falling of banana stems due to strong winds</li> <li>-Hailstorms</li> <li>-Leaching of nutrients</li> <li>-Storms, water-surface runoffs</li> <li>-Impassable feeder roads in transportation of produce to the market.</li> </ul>	<ul style="list-style-type: none"> <li>- Value addition to lengthen self-life of produce</li> <li>-Promote and strengthen group marketing</li> <li>- Utilization of Banana collection sheds</li> <li>-Increase area under banana production</li> </ul> <b>- Advisory</b> <ul style="list-style-type: none"> <li>Use of clean planting materials</li> <li>-Proper Disposal of affected plants</li> <li>-Use of clean farm tools for orchard management</li> <li>- Use IPM (Integrated pest management)</li> <li>-Use propping materials</li> <li>-Plant appropriate agroforestry trees as wind breaks</li> <li>-Use suitable planting varieties</li> <li>-Use indigenous traditional knowledge</li> <li>-Covering young bunches with gunny bags or polythene</li> <li>-Erect and maintain Soil conservation structures and water harvesting technologies</li> </ul>
<b>Cereals-maize ,sorghum, millet</b>	<b>IMPACT</b> <ul style="list-style-type: none"> <li><b>Positive</b></li> <li>-Increased production</li> <li>-Increased source of alternative animal feed</li> </ul>	<b>ADVISORY</b> <ul style="list-style-type: none"> <li>-Early land preparation, planting, selection of suitable seed varieties based on AEZs(Agro-ecological Zones)</li> <li>-Use recommended fertilizers and rates.</li> <li>-By products should be used to make animal feeds.</li> </ul>



-Agro dealers to stock right farm inputs and adequate quantities.  
 -Training on Proper post-harvest handling (aflatoxins) and marketing

**Negative**  
 -Excessive Leaching of nutrients  
 -Increased crop pest and disease-MLND (Maize Lethal Necrotic Disease)

-Improve soil structures using cultural farm Practices(agroforestry, cover crops  
 -Use IPM

**Legumes-Beans, Groundnuts, Soya, Lucerne, Desmodium etc.**

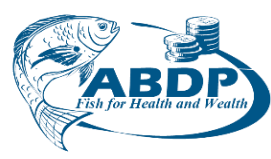


**Positive**  
 -Increased production  
 -Increased source of alternative animal feed

-Early land preparation, planting, selection suitable seed varieties based on AEZs(Agro ecological Zones)  
 -Use recommended fertilizers and rates.  
 -By products should be used to make animal feeds.  
 -Agro dealers to stock right farm inputs and adequate quantities.  
 -Training on Proper post-harvest handling (aflatoxins) and marketing


**Negative**  
 -Excessive Leaching of nutrients  
 -Increased crop pest and disease-Beans fly, Anthracnose, Blight

-Improved soil structures using cultural farm Practices (agroforestry, cover crops  
 -Use IPM  
 -Early land preparation and timely planting



**MINISTRY OF MINING, BLUE ECONOMY AND MARITIME AFFAIRS  
 STATE DEPARTMENT OF BLUE ECONOMY AND FISHERIES  
 AQUACULTURE BUSINESS DEVELOPMENT PROGRAMME**

**PARTICIPATORY SCENARIO PLANNING FEB., 2025: NEAR NORMAL TO ABOVE NORMAL RAINFALL SCENARIO**

<b>TYPE</b>	<b>IMPACT</b>	<b>ADVISORY</b>
	<p><b>Positive</b>            -Increased water availability for aquaculture production</p>	<p>- Ensure installation of screened inlets to protect the ponds from debris and unwanted aquatic organisms such as frogs and wild fish            - Ensure overflows are screened to prevent fish from being carried away by overflowing water            - Establish kitchen gardens to utilize the excess water            - invest in water harvesting facilities including tanks and reservoirs installed with dam liners            - Ponds that usually experience water stress should be stocked at the onset of the rainy season to prolong the growing period</p>
	<p><b>Negative</b>            -decreased temperatures causing low metabolic activity in fish            -flooding of ponds constructed</p>	<p>- Harvest mature fish to prevent losses in case of flooding            - Avoid feeding the fish during rainy and cloudy weather</p>



<p>along river valleys          -pollution of water sources including streams          -Falling of trees on ponds due to strong winds          - decreased primary production as a result of prolonged periods of cloudy weather</p>	<p>- construct several on-farm retention ditches to allow storm runoff to percolate in to the soil, which will continuously recharge the earthen ponds          - divert water inlets to prevent polluted water from getting in to the ponds          -Harvest trees surrounding ponds          -invest in aeration equipment to enhance dissolved oxygen levels in ponds          - construction of alternate ponds on higher ground to for temporary fish storage during flooding events</p>
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#### 4. Water and Sanitation

Water resources for drinking, sanitation and industrial use are expected to increase over most parts of the county due to the expected **Near Normal to above Normal Rainfall**. People are encouraged to harvest as much water as possible for future use. Urban centers are also encouraged to urgently construct **storm drainage systems** and open up clogged drainages to avoid piling of floodwaters in towns from surface runoff. Sewerage systems are supposed to be fixed before the seasonal rains start to avoid spilling over of sewerage wastes to minimize water related diseases in our county.

#### 5. Energy Sector

**Near Normal to above Normal Rainfall** expected in the county, may lead to power blackouts due to lightning strikes and thunderstorms which will negatively impact on businesses, homes and industries especially in the afternoons during heavy rains which is usually accompanied by lightning and thunderstorms. The Energy sector is therefore advised to cut or strip hanging branches near power lines to minimize hazards caused by trees or branches falling on the power lines. Solar energy users are likely to store less energy due to expected increased cloudiness during the long rains season.

#### 6. Disaster Management Sector

- a) Lightning strikes and strong winds are expected in several parts of the County.
- b) Cases of flooding in Low-lying areas as well as landslides/mudslides in susceptible areas of the county are also likely.
- c) Students should not be allowed to play while it rains to avoid being struck by lightning.
- d) People should not take shelter under trees while it rains to avoid lightning strikes and falling branches.

- e) Expected **Near Normal to above Normal Rainfall** is likely to make the soils and rocks to be loose and heavy. Therefore, people working at quarries should avoid taking shelter in the quarry caves since the soils and rocks may fall on them.

The County Government and the National Disaster Operations Centre are, therefore, advised to be on standby in order to ensure communities lives and livelihoods are safeguarded.

### **7. Health Sector**

Various parts of the county are likely to experience outbreaks of diseases that are associated with **Near Normal to above Normal Rainfall** such as malaria, respiratory diseases, vector and water borne diseases. The Ministry of Health should, be on the lookout for such cases. Hospitals should be equipped with necessary drugs to be able to deal with such situations as they arise.

### **8. Transport and Public Safety Sector**

Muddy and slippery conditions are likely to be experienced on various weather roads in several parts of the county. Motorists are, therefore, advised to drive carefully in order to avoid accidents that may originate from such slippery conditions. This may lead to transport problems especially during rush hours and more so in areas where the roads become impassable whenever it rains.

**For further information, please contact:**

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