REPUBLIC OF KENYA

KENYA METEOROLOGICA DEPARTMENT

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March, April , May (MAM 2024) Seasonal Forecast for Meru county

Contents

1 OND Review highlights 1

2 Spatial Map of Probable total Seasonal Rainfall MAM 2024 4

2.2 Probability Map of areas receiving more than 300mm 3

3.0 Expected impacts of MAM 2024 Rainfall season……..……..……4

3.1 mitigation and management strategies ……5

4.0 Recommendations ……...6

6.0 Meru county map…….....7

OND 2023 Rainfall Review

- The October, November, December (OND) 2023 rainfall was enhanced everywhere in Meru county
- The onset occurred in the Third week of October 2024
- Meru met station recorded 1282.4mm LTM 701=182%
- Mugae school reported 735.8mm LTM 401 =183%
- Lower Chure secondary 1271.6mm LTM 702= 181%
- The cessation as occurred over most parts in the third week of January 2024

Spatial Rainfall distribution Map in OND2023

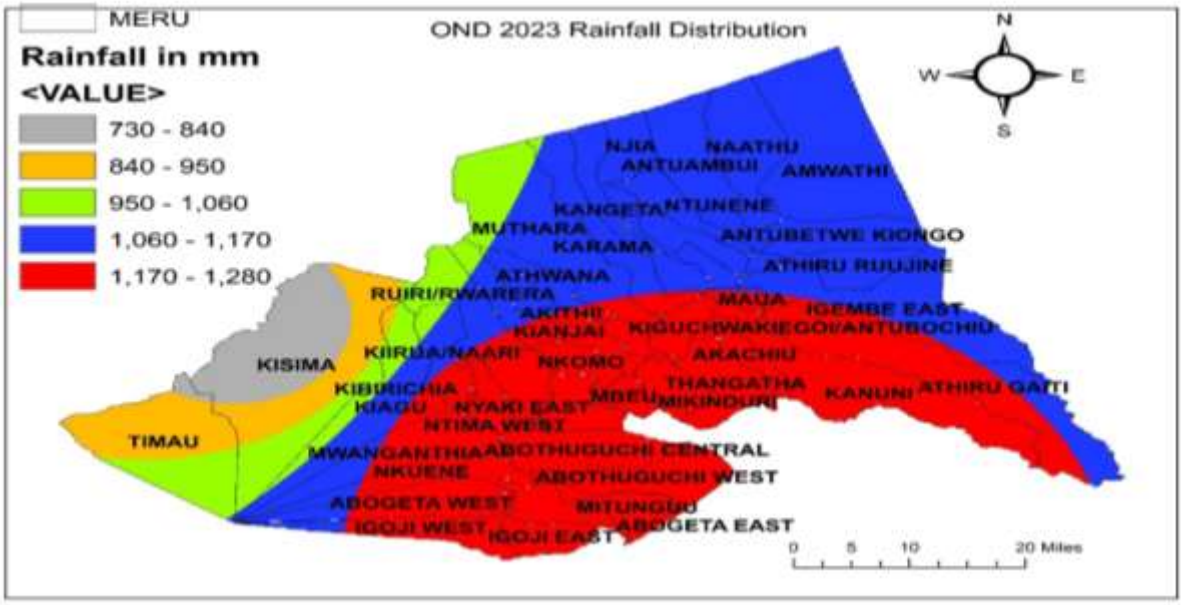


Figure 1 : Rainfall distribution during OND 2023 Season in Meru county

All parts in the Meru county recorded enhanced rainfall

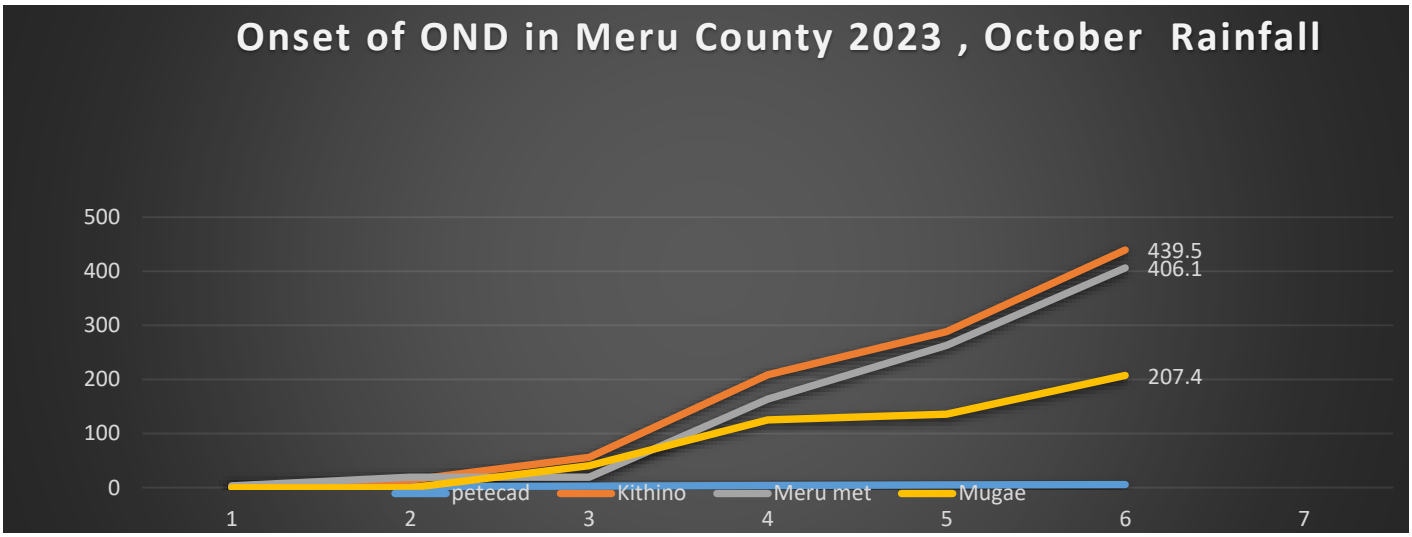


Figure 1 : Shows the onset date in Meru County during OND 2023 Season

As figure1 shows the three stations in Meru had reported rainfall more than 20mm within the third week of October 2023.

Remarks on OND 2023 Season

- OND Rains were enhanced everywhere in county
- Rain supported good crops for food security
- Rivers and streams got recharged as result of OND rains
- Fodders for animals became plenty
- Crops and farms were submerged
- There was massive destruction of properties
- Interruption of transportation over many places in the county occurred due to rains

MAM 2024 Season Outlook Highlights

MAM 2024 Rainfall is expected to be normal to above normal over several parts of county. The distribution is expected to be fair both in time and space Onset dates is expected to be between 26th March to 3rd June and cessation is expected between 26th May to 4th June 2024. The rainfall is expected to reach peak during the month of April. Thunderstorm and lightens are expected to be

common phenomenal within the season. Temperature are expected to normal to above normal within the season.

Spatial Map of Probable Total Seasonal Rainfall and LTM

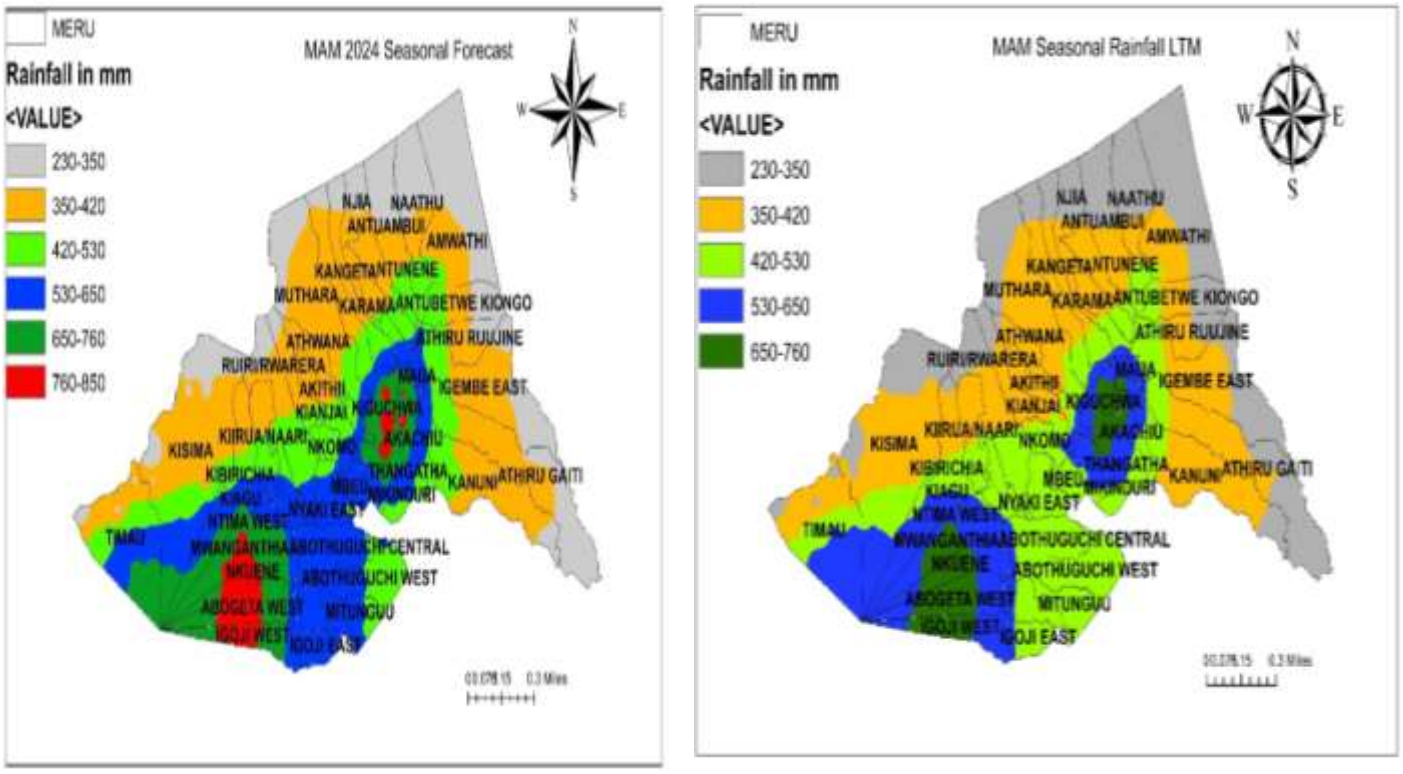
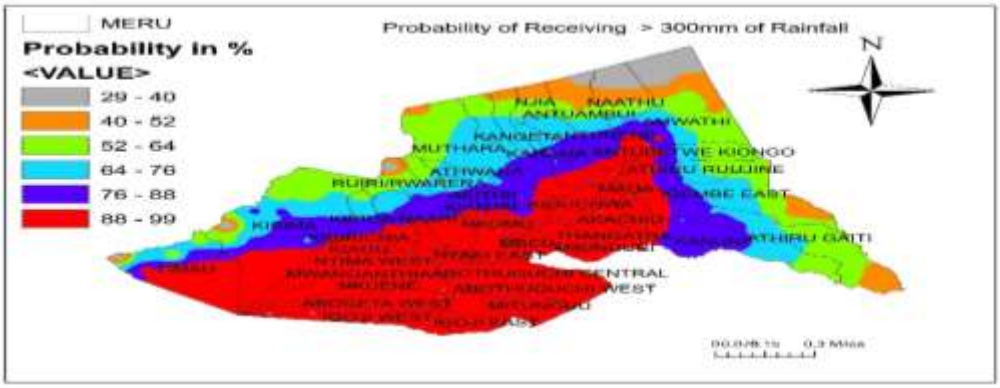


Figure 4: MAM Rainfall 2024 and LTM of Meru county Spatial distribution maps

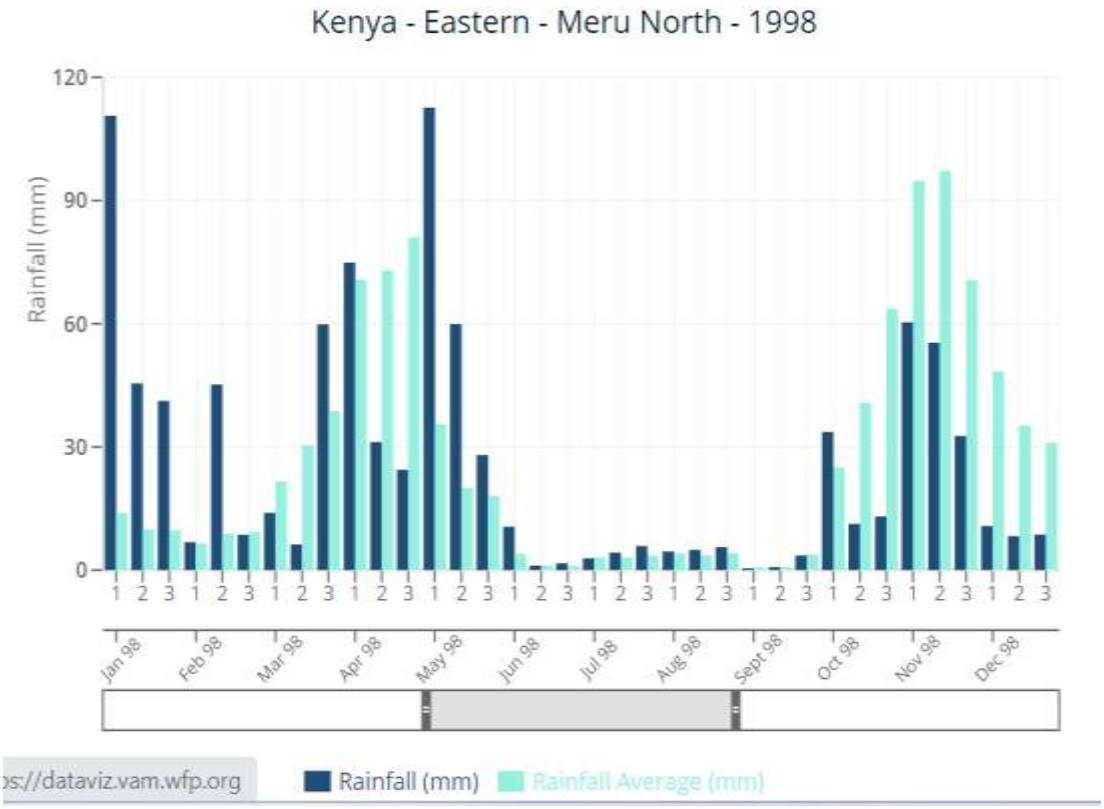
The upper zones (Abogeta,Igoji,Nkune,Kigucwa, Maua and Akachiu) these areas are expected to receive above normal rainfall. The middle zones are expected to receive normal to above normal rainfall while the lower zones are expected to receive normal rainfall.

2.1 Probability of receiving more than 300mm of rainfall



Several parts of the county are expected to receive more than 300mm of rainfall during MAM season 2024 .However the middle lower and lower parts have low chances of receiving 300mm that implies that the selection of crop should be done careful to meet moisture expected in different parts

Figure 5 : Areas in Meru which have probability of receiving more than 300mm of rainfall during MAM2024



MAM 2024 season is expected to show some characteristic of MAM 1998 see more details in the figure 7

Figure 7 : Shows characteristics of MAM 1998

3.0 Expected Impact of MAM2024 Rainfall

1. Risk of Flood and waterlogging, erosion, and nutrient leaching potentially
2. **Pest and Diseases**: The prolonged humidity fosters the spread of pests and diseases, posing threats to crops and livestock.
3. **Pre- and Post-Harvesting**: The excess Moisture triggers challenges leading to spoilage, rotting and contamination leading to potential losses.

Positive Price Effects: Decreased food commodity prices alleviate financial burdens for consumers, improving accessibility to essential goods.

Nutritional Gains: Increased agricultural productivity contributes to improved nutrition, positively impacting on public health and well-being.

Resource Conflict Mitigation: Reduced agricultural resource conflicts result in more harmonious relations among stakeholders, fostering sustainable livelihoods

1. **Extreme weather events** such as storms, strong wind, heavy rainfall, lightning strikes lead to reduced production
2. **Agricultural Infrastructure Damage**: Floods, damage vital agricultural infrastructure roads and irrigation, impeding farming operations and development

3.1 mitigation and management strategies

1. **Enhanced Infrastructure for Pre and Post-harvesting**: Promotion of essential infrastructure for both pre and post-harvest Processes,
   - Vvigilant mitigation measures on prevention and control of Aflatoxin contamination of agricultural produce
2. **Strategic Marketing**: Implementing effective marketing strategies to ensure value addition of surplus of feeds, fodder, Food conservation and market access.
3. **Inputs Acquisition:** Advising farmers and input suppliers on acquiring appropriate, quality inputs, ensuring Agricultural productivity, resilience and reduced vulnerability.
4. **Value Chain Enhancement**: Facilitating value addition at different
5. **Water Management**: Promotion of water harvesting practices for Agricultural use, efficient water usage, conservation and maintenance of water systems
6. **Drainage and Good Agricultural Practices**: Training farmers on effective drainage, water harvesting, desilting techniques and adoption of good agricultural practices to reduce livelihoods loses.

4.0 Recommendation

i) Choosing the right crops to plant:
   - To minimize risks, choose the crops whose seasonal Crop Water requirement is within the lower limit value of the predicted range

ii) Onset dates

iii) Water harvesting to be given the require serious in order to keep enough storage .
   - The onset dates predicted in this seasonal forecast should be used in conjunction with weekly weather updates which are more accurate

You can find more information about the climate and weather in Kenya on the KMD website http://www.meteo.go.ke/ Justin , county director of meteorological services Meru

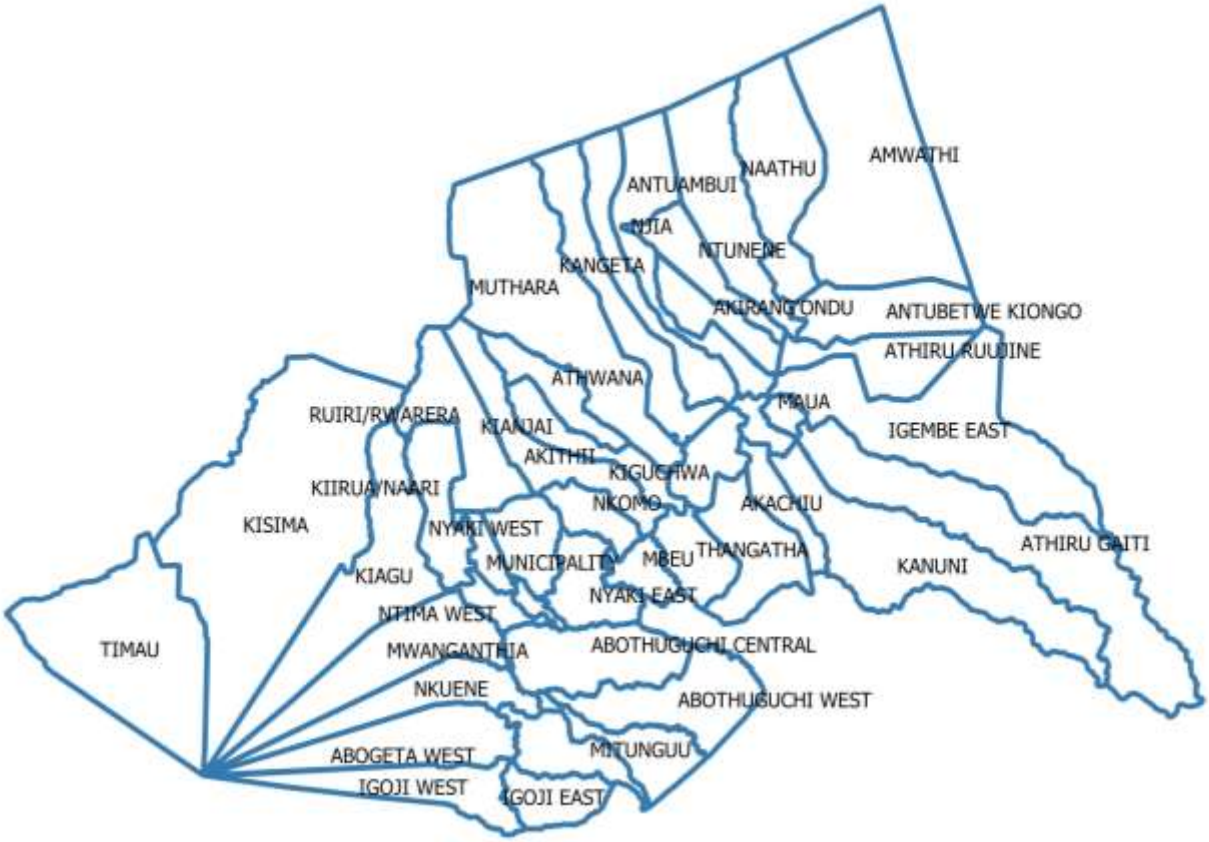


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Figure 8: Meru county map