



**KENYA
METEOROLOGICAL
DEPARTMENT**



INITIATIVE ON
Livestock and Climate

Kenya Meteorological Department
and
County Departments of Tharaka County Government

THARAKA COUNTY

WEATHER- BASED LIVELIHOOD-ADVISORY FOR THARAKA-NITHI COUNTY FOR MARCH - MAY 2024 RAINFALL SEASON

1 INTRODUCTION

This advisory was developed on 12 -13 th March 2024 by a team of scientists and practitioners from Kenya Meteorological Department (KMD), Departments in Tharaka-Nithi County Government including Department of Agriculture, Livestock, Water, Indigenous Weather Forecasters, and farmers. Due consideration was given to farmers’ preferences and views on the adoptability and usefulness of these management practices. This advisory presents the potential optimal options for March-April-May (MAM) season of 2024 for Tharaka-Nithi County.

The advisory is mainly aimed at supporting the rural household level decision making in Tharaka-Nithi County in planning livelihood activities and strategies for the March– May 2024 rainy season.

The advisory was co-developed at a Participatory Scenario Planning Workshop that was sponsored by Alliance for Biodiversity & CIAT and ILRI under the AICCRA Project.

2 WEATHER FORECAST FOR THE MARCH -MAY (MAM) 2024 SEASON

2.1 Highlights

Tharaka-Nithi County is expected to receive **above normal** rainfall in most of the areas.

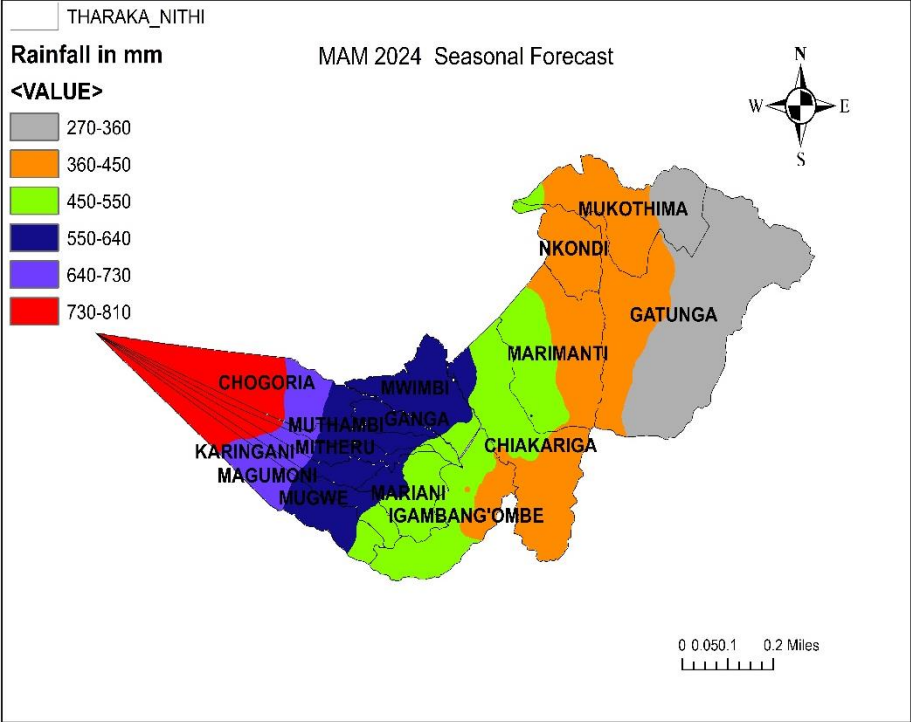
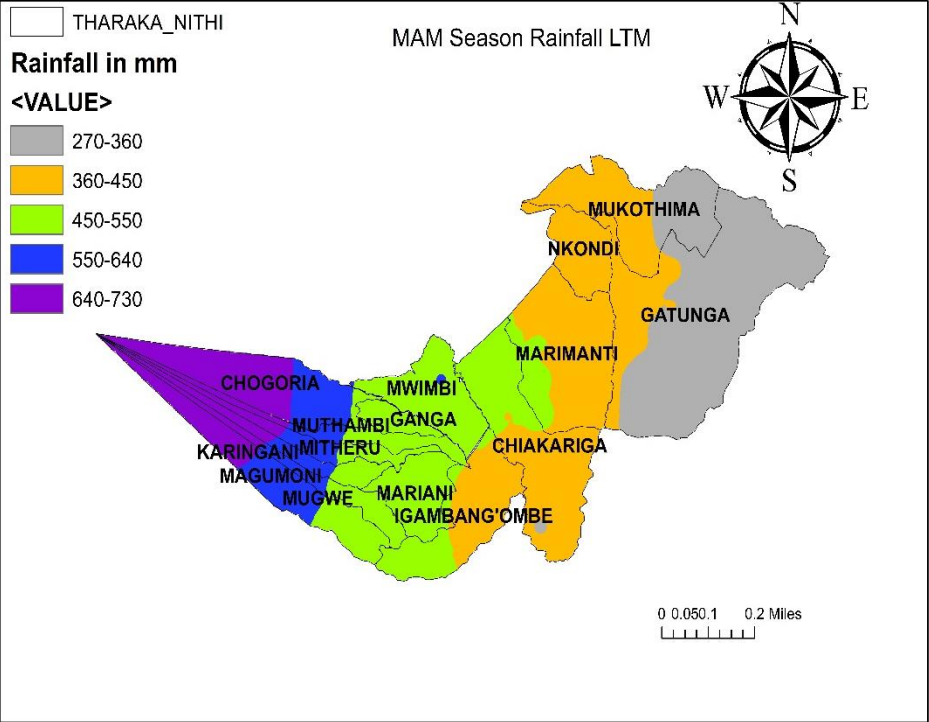
The season has high probability of receiving rainfall within the range of 270mm in the low lying areas of Tharaka sub-County to over 800mm in the high ground areas around Mount Kenya. **(See figure below).**

The onset of the rains is expected to **continue** from the current rains which is being experienced since the month of February 2024. This is expected to be followed by a dry spell lasting until the **third to fourth week of March 2024**. The peak period of the season rain will be in the month of April 2024.

Rainfall is predicted to be **well distributed** both in space and time within the months of April and May.

The rains will cease in the **1st – 2nd week** of May.

2.2 Spatial Distribution of Expected total March-May 2024 Seasonal Rainfall



2.3 Recommendations for using the forecast information

i) Onset dates

- The onset dates predicted in this seasonal forecast should be used in conjunction with weekly weather updates which are more accurate.

2.4 MAM 2024 Seasonal Forecasts by Ward/AEZ

SN O	Sub county	Ward/ climatic zone	Seasonal Amount in mm		Probable onset dates	Probable Cessation dates
			Normal (Long term mean 1991-2020)	Forecast for MAM 2024		
1	Chuka-Mara	Mwimbi	430-510	510-670	Between 18 th to 28 th March 2024	Between 24 th May to 4 th June 2024
		Ganga	510-590	590-670		
		Igamba-ngombe	350-430	430-510		
		Igamba-ngombe	430-510	510-590		
2	Tharaka North	Mukothima	270-350	270-350	Between 19 th to 29 th March 2024	Between 22 nd May to 3 rd June 2024
		Mukothima	350-430	350-430		
		Mukothima	430-510	430-510		
		Nkondi	350-430	510-590		
		Nkondi	430-510			
3	Tharaka South	Gatunga	270-350	270-350	Between 19 th to 29 th March 2024	Between 21 st May to 3 rd June 2024
		Gatunga	350-510	350-430		
		Chiakariga	350-430	350-430		
		Chiakariga	430-510	430-510		
		Chiakariga	500-600	510-590		
		Marimanti	350-430	350-430		
		Marimanti	430-510	430-510		
		Marimanti	500-600	510-590		

3 AGRO- ADVISORIES BASED ON THE MARCH -APRIL 2024 SEASON RAINFALL FORECAST

The objective of the agro-advisory is to enable farmers to make the best bet option in farm level activities including choosing the right crops to plant, minimizing risks and matching crop varieties with seasonal Crop Water requirements that are within the lower limit value of the predicted range. The advisory calls farmers to make use of the seasonal forecast issued by the Kenya Meteorological Department when making decision to plant. Planting is recommended when the weekly forecast indicates at least **3 days** with rain of a total amount greater than **20 mm**. This onset week should be around the predicted seasonal onset dates.

3.1 Specific agro-weather Advisories for the Upper and Middle zones

Crops to plant	Wards : Magumoni,Karingani,Chongoria,Mitheru Probable MAM 2024 Amount 640-730; Crop Varies	, Mugwe, Mariani, Muthambi, Ganga, Mwimbi, Probable MAM 2024 Amount :550-640 mm Crop varies
1. Maize	Hybrid series - 513, 516; DH 04; Duma 43; Panner; pioneer; Dekalb; Sungura;	Same crop
2. Beans	KatB1, GLP 92, KatX56, Kat B9, Local varieties (Wairimu, Mwitemania), KatX69, Nyota,	Same crop
3. Cow Peas	K80, M66, Locals - Ken Kunde,	Same crop
4. Pigeon peas	Maintain the existing short rains crop; - ICEAP 00936, ICEAP 00554	Same crop
5. Cassava	Maintenance of existing crop (KME 1, Mucericeri, KME 61, Red Stemmed Varieties,Karembo, Tajirika, Locals)	Same crop
6. Sweet Potatoes	Locals, Bungoma, Kensport 3, kensport 4, Kemp 10, kemp 20, Locals, Bungoma, Kensport 3, kensport 4, Kemp 10, kemp 20,	Same crop
7. Sorghum	Gaddam, Serena, Seredo, Kari Mtama 1, Macia, Sila, Red sorghum Gaddam, Serena, Seredo, Kari Mtama 1, Macia, Sila, Red sorghum	Same crop
8. Millets	Finger millet, Pearl Millet	Same crop
9. Green Grams	N26, KS20, Biashara, Karembo, Tosha	Same crop

3.2 Specific agro-weather Advisories for the Lower zones

Crops to plant	Wards :Ingambangombe,Nkondi and Mukothima Probable MAM 2024 Amount 360-450mm Crop varieties.	Wards : Gatunga,Chikariga and Marimanti Proble MAM 2024 Amount 270m-360mm
1. Green grams	N26, KS 20, Local varieties, Karembo Ndengu Tosha, Ndengu biashara	The same
2. Cow Peas	Plant this varieties K80, M66, KVVU419, , KVVU27-1,Locals (Kangau)	The same
3. Sorghum	Gaddam, Kari Mtama 1, Sila, Advanta, local varieties, serena	The same
4. Millet	KPM1, KPM2, local varieties, KPM3	The same
5. Pigeon peas	Maintain the short rain crop (Mbaazi 1, Kat 6/8, Locals, Mbaazi 2, ICEAP 00936 and ICEAP 00554)	The same
6. Maize	Nduma 43, Pioneer 3253 , DK777	The same
7. Green grams	N26, KS 20, Local varieties, Karembo Ndengu Tosha, Ndengu biashara	The same
8. Cow Peas	Plant this varieties K80, M66, KVVU419, , KVVU27-1,Locals (Kangau)	The same

3.3 General Analysis of Hazards/Risks and Opportunities (agriculture)

Hazards /risks	Opportunities	Proposed actions
<ul style="list-style-type: none"> • Soil erosion, Landslides and Land degradation • Flash Floods • River flooding • Isolated incidences of water logging • Outbreak of crops pests and diseases • Destruction infrastructure-roads, irrigation etc • Leaching of nutrients • False on-set of rains • Poor germination and loss seeds • Destruction of farm structures • Low land productivity • Wastage inputs and poor crop establishment • Poor market prices • Food insecurity • Post harvest loses. • Human wildlife conflicts • Increased cost of production due heavy rains 	<ul style="list-style-type: none"> • Maximizing yields and income through planting recommended varieties. • Increased area under crop and farm forest cover • Water harvesting for crop production and household use • Increased irrigation • Availing of certified farm inputs by agro-dealers/government • Kitchen gardening • Insuring of crops against • Planting and sale of tree seedlings • Diversification • Reduced fire outbreak • Contract farming 	<ul style="list-style-type: none"> • Establish new and Repair existing soil and water conservation structures and farm facility structures. • Timely procurement of inputs • Embrace Good Agricultural Practices - Integrated Pest Management and Integrated Crop Management • Procurement of crop insurance • Seek climate information updates from KMD • Capacity building of farmers-extension services • Promote value chain development - aggregation centres, value addition. • Opening of the drainage systems • River protection • Enforce existing laws on riverbank protection and water catchment areas • Promote integrated water resource management. • Develop policies and legislations relevant to the sector

3.4 Specific advisories for Livestock farmers

Hazard/Risks	Opportunities	Recommended Actions	RESPONSIBLE
<p>Cows and goats</p> <ul style="list-style-type: none"> • Livestock diseases, Parasites infestation, • Bloating • Low milk prices • Poor body condition • Low feed quality -low dry matter content • Feed wastage due to inadequate storage capacity. • Water logging in the livestock sheds <p>Poultry</p> <ul style="list-style-type: none"> • Reduced hatchability • Increased diseases and pests • Attacks by safari ants <p>Apiary</p> <ul style="list-style-type: none"> • Low honey production • Destruction of beehives • Bee migration 	<ul style="list-style-type: none"> • Feed Conservation Increased feed production. • Stock management • Breed improvement-for adaptable breeds • Value addition • Water harvesting and storage • Increase of stock numbers • Minimal movement by handlers • Increased manure production • Renovation of feed sheds • Increased sales by agro dealers 	<ul style="list-style-type: none"> ✓ Pastures/fodder to be established ✓ Vaccination ✓ Routine deworming ✓ Feed stocking ✓ Rehabilitation of sheds ✓ Water harvesting ✓ Pest control ✓ Fencing 	<p>Farmers</p> <p>WLPO</p> <p>Community Extension Volunteers,</p> <p>Inputs suppliers</p> <p>Service providers</p>

4 Advisories for Other Livelihood Sectors

SECTOR	Hazards/ Risk	Opportunity	Intervention/Actions	Responsible
Water resources	Flash flood. River flooding Contamination of water Water borne disease. Blockage of water intakes	Water harvesting & conservation	Construction of water storage and harvesting structure Water treatment Deworming of school going children	Dept of water and development partners
Disaster management	Flash floods. Landslides/mudslides	Prepare disaster response mechanism	Emergency /contingency plans	National Drought Management Authority, NGOs, Governments, Faith Based Organization
Wildlife /forestry	Falling of trees Increased snake bites Death of birds	Reduced Human /wildlife conflict, Incidences of wildfire breakout. Tree planting Increased of seedlings	Establishment of tree nurseries Antivenom distribution Rehabilitation of endangered species	KWS National & County Government Farmers
Trade, industry, and finance	Transport problems. Low sales	Increased supply	Subsidized trader	Dept of Trade, Business Community,

SECTOR	Hazards/ Risk	Opportunity	Intervention/Actions	Responsible
	Low prices for suppliers			National & County Government
Energy	<ul style="list-style-type: none"> • Poor quality firewood • Temporary blackouts • Energy infrastructure network collapse • Short-circuiting • Power outages • Reduced hours of sunshine 	<ul style="list-style-type: none"> • Maintenance of KPLC infrastructures, Investment on alternative energy sources • Prepare and store firewood. • Energy saving technology • Intensified use of solar energy 	Be on the look out for falling power lines. Prepare storage places for firewood and store	Farmers
Transport /communication	Flash floods. Damage of roads and bridges Drowning Blockage of drainage Vehicles Get stuck on muddy roads	Water harvesting along roads. Clean the drainage	Diversion channels Emergency funds /personnel, declogging of culverts	Dept of Transport, NTSA, National Government, County Government
Health	Increase disease incidences/outbreaks (malaria, cholera, Typhoid, worms etc).	Stocking of health facilities Maintain hygiene.	Deworming Distribution on mosquito nets Emergency /mobile clinic,	Ministry Of Health, Private Hospitals, Stakeholders

5 How to get Weather Updates

You can get weekly weather updates from the Counties folder in the KMD Website

<https://meteo.go.ke/node/4292>.

**For More information, Contact, the Nearest Agric Office at the Ward, Sub County & at the County.
and
County Meteorological Office mobile 0729287479.**

6 Annex 1: Tharaka Nithi Wards Map

