



Republic of Kenya

Ministry of Environment, Climate Change and Forestry
Kenya Meteorological Department
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County Meteorological Services

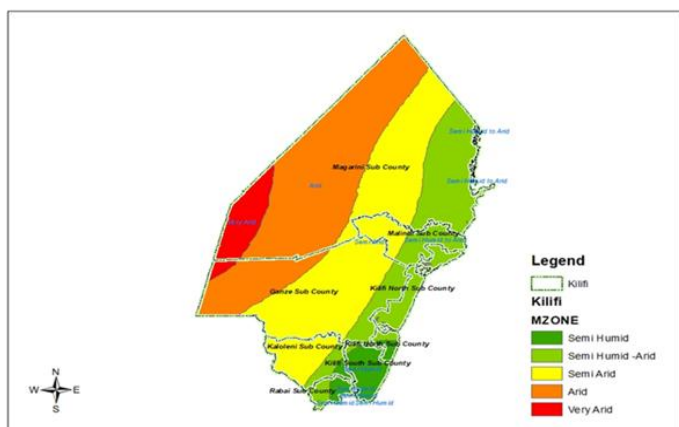
Kilifi County

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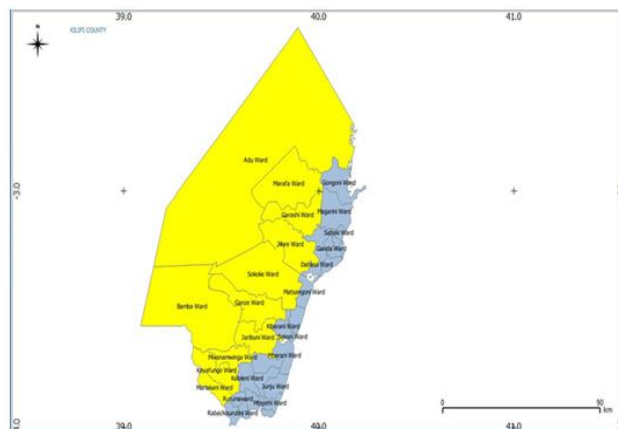
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ADVISORIES FOR THE MARCH-MAY 2025 (MAM 2025) RAINY SEASON



The 5 climatic zones of Kilifi County (very arid, arid, semi arid, semi humid, semi humid-arid lands)



The hinterlands (yellow) and the coastline (blue) regions of Kilifi County

INTRODUCTION

The long rains season MAM in Kilifi County is most depended on in areas within the ten miles stretch region (coastline) while the short rains do better in the hinterlands. However, the season also coincides with the fish catch peak. The season also coincides with the active stage of the tropical storms whose season begins in October and ends in May. The tropical cyclones can either enhance or reduce the expected rainfall amounts as well as delay the rainfall onsets and sending very strong winds. Kilifi County has two main planting seasons. However, Kilifi utilizes the JJA Season to plant pulses and cassava which begins at the end of May through June.

KMD performs various activities before and during the MAM and OND seasons namely:

1. Downscaling
2. Participatory Scenario Planning -PSP
3. Dissemination

Downscaling of forecasts

- The CDM's are invited to a downscaling workshop before the start of every season.
- The downscaling workshops involve interaction with senior officers from KMD.
- New skills are taught every year.
- Type of models that were run to generate the seasonal forecast are highlighted.
- The expected intra-seasonal variability systems likely to affect the season are highlighted for monitoring.
- Downscaling of National forecasts to County level is done.

Participatory Scenario Planning PSP activity

- During the PSP workshops, meteorological, agricultural, livestock, KALRO and relevant experts such as County Disaster management, County Drought management and Climate change experts are invited.
- ITK experts, agro dealers and farming communities involved in weather observations and dissemination of climate information are also invited as part of public participation.
- The entire team is engaged with the coproduction of agro weather and sectorial advisories.
- Forecast from KMD is released, the ITK persons will also release their forecast based on their observations and experience.
- The meteorological observers from the farming communities share an overview of rainfall and crop performance for the previous season.

- The CMDRR and Community managed Climate change heads share an overview of rainfall performance and climate hazard impacts for the previous season.
- Agricultural and Livestock experts guide on crop types and varieties and animal breeds for the season for each ward given the forecasted amounts.
- Both farmers and agricultural experts guide on the indigenous and conventional methods to be used for disease and pest control among other risks and GAPS.
- All the participants including the observers, agro dealers, drought, disaster, humanitarian managers and the Media fraternity are utilized as agents of dissemination of the sectorial advisories to the communities.

Dissemination of forecasts

- The forecasts are disseminated using various platforms including: Local and National FM radio and TV stations in talk shows-facebook live, recordings and broadcasts, Email, WhatsApp platforms, bulk SMS, posters, brochures and barazas.
- The forecasts include; the seasonal climate outlook, monthly, weekly, daily and related advisories.
- In the event that some severe weather is foreseen, like heavy rainfall, strong winds or cyclones, then severe weather alerts are issued.
- All these forecasts are disseminated to end users immediately they are released.

1 CLIMATE INFORMATION

1.1 Review of Previous Seasons (MAM and OND 2024)

Rainfall performance for the whole season March to June 2024

1. **Onset:** End of March to 1st week of April.
2. **Cessation:** 2nd week of May to 1st week of June.
3. **Distribution:** poor distribution in space and time.
4. Very Long dry spells, up to 38days in May
5. Large wet spells/Storms of up to 80mm in one day experienced.
6. Rainfall amounts ranged from 181 to 509mm below the climatological mean of 150-500mm in the hinterlands and 500-600mm in the coastline areas.

Table I: MAM 2024 Total amounts by station

STATION	WARD	MAM TOTALS	LTM
Msabaha	Ganda	440.9mm	500-600mm
Mtwapa	Shimolatewa	508.6mm	500-600mm
Zoghato	Gongoni	250mm	350-500mm
Matsanjeni	Matsangoni	322.3mm	400-600mm
Kawala	Mariakani	232.8mm	350-500mm
Kanyangwa	Malindi	395.7mm	500-600mm
Dzitsoni	Chasimba	275mm	500-600mm
Bomani	Magarini	331.8mm	400-600mm
Kakoneni	Jilore	180.8mm	300-600mm
Mwanamwinga	Mwanamwinga	209.2mm	350-500mm

MAM 2024 Impacts to Agriculture and Food Security

- Very long dry spells induced crop failure in the hinterlands.
- Very long dry spells induced poor crop performance in areas within the coastline except in a few climate smart practicing farms.
- Farmers took advantage of the June-September rains and planted vegetables, cassava and simsim in as demonstrated by KMD MRG observers.

- Crop pests infestation also increased as a result of the dry spells and high temperatures as observed in the Meteorological demonstration farm in Mtwapa.
- Flooding in April swept away crops hence causing crop loss in Madunguni, Chakama, and parts of Garashi and Sabaki wards
- Flooding displaced animals including hypopotamus that destroyed crops in farms along Sabaki River and Estuary.

MAM 2024 Impacts to Fisheries

- Poor ocean conditions experienced due to presence of IALY and HIDAYA CYCLONES.
- Fishing activities limited which translated to poor fish stocks since Kilifi fishers are mostly artisanal fishers using small crafts.
- MAM coincides with the fish catch peak season hence fishing days were minimal.
- Loss of fishing gears, vessels and a few fishers who defied marine forecasts recorded.
- Cases of rescued fishers and swimmers recorded.

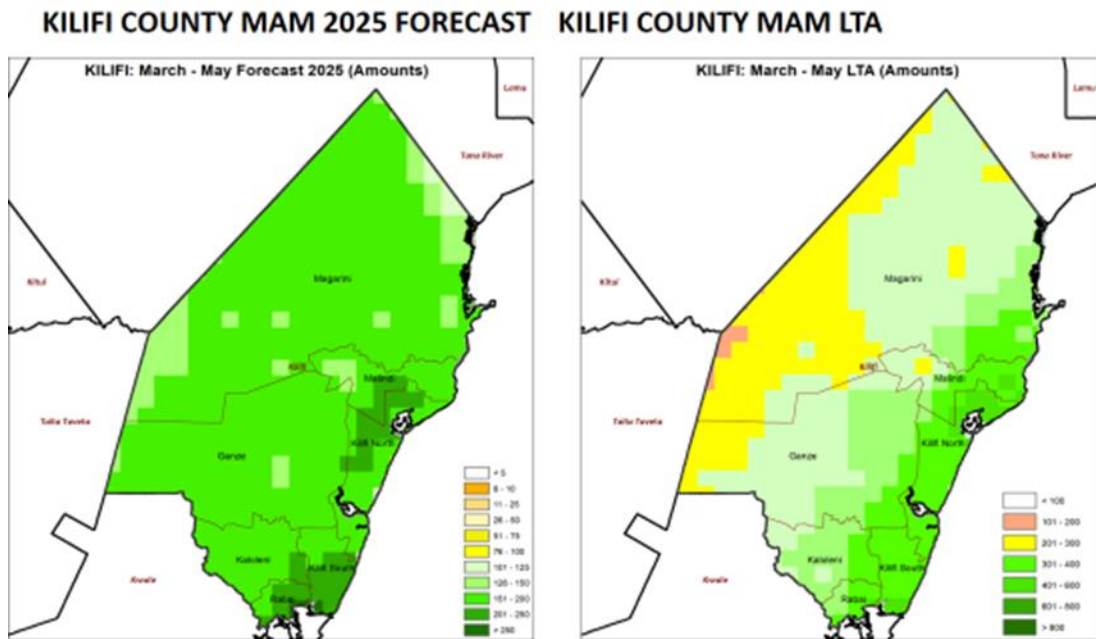
Rainfall performance for the whole season- October to December 2024

1. OND Rainfall was below LTA ranging from 116mm-352mm in Magarini and Kilifi South respectively.
2. Late Onset between 7th November and 21st November.
3. Early to normal cessation between 10th and 29th December.
4. 1- 4 Storms of up to 106mm/24 hrs experienced.
5. RAINY DAYS ranged from 10 to 28days in Kilifi North and Kilifi South respectively.
6. Rainfall duration was shorter ranging from 21 to 52 days in Matsangoni and Jilore wards respectively.
7. Long dry spells of up to 12days experienced.
8. Distribution was very poor in November and fair to good in December.

Table II: Rainfall performance for OND 2024

Station	Ward	Oct (mm)	Nov (mm)	Dec mm	OND mm	OND Rain Days	OND Storms	End
Msabaha	Ganda	66	89	129	284	23	3	28/12/2024
Bomani	Magarini	38	64	54	156	17	2	24/12/2024
Zoghato	Gongoni	23	69	24	116	13	1	24/12/2024
Kawala	Mariakani	28	104	115	247	16	3	28/12/2024
Mwanamwinga	Kayafungo	24	80	142	246	14	3	29/12/2024.
Wakala	Marafa	24	143	128	296	16	3	21/12/2024.
Kakoeni	Jilore	15	160	115	289	20	4	28/12/2024.
Dzitsoni	Chasimba	53	125	124	302	28	2	29/12/2024.
Kanyangwa	Malindi	24	63	160	247	19	4	24/12/2024.
Mtepeni	Mtepeni	54	99	199	352.	22	3	25/12/2024.
Marereni	Adu	25	64	33	123	13	1	21/12/2024.
Masjenji	Matsangoni	35	38	167	210	10	3	28/12/2024.

1.1 MAM 2025 Seasonal Weather Outlook



1.1.1 Highlights

- MAM Long rains season forecast indicate a possibility of Early to near normal rainfall Onset.
- Areas within the coastline located in the Southern half of Kilifi County are expected to experience rainfall onset between the 4th week of March and the 1st week of April.

- The northern half of the County, in areas within the hinterlands are expected to experience rainfall onset between the 2nd and the 3rd week of April.
- The season is expected to experience a late cessation running into June.
- Rainfall amounts are expected to be depressed and far much below the climatological average.
- Below average rainfall ($\leq 250\text{mm}$) is expected in the northern half of Kilifi County lying within the hinterlands,
- Near average to below average rainfall ($\geq 250\text{mm}$) is expected in the Southern half of Kilifi County lying within the coastline.
- Poor to fair distribution in space and time is expected in the Southern half of Kilifi County lying within the coastline.
- Poor distribution in space and time is expected in the northern half of Kilifi County lying within the hinterlands.
- The season is expected to be characterized by prolonged dry spells coupled with occasional storms.
- Temperatures are expected to be higher than the long term average.
- The season may also be affected by intra-seasonal variability systems such as cyclones which may either enhance or further depress the rains.
- Farmers, fishers and general public are advised to follow the weekly forecasts for more information.

MAM 2025 expected rainfall amounts

- MAM rainfall is expected to be depressed and below the climatological average across the county.
- The hinterlands and especially Magarini, Ganze and several parts of Kaloleni Sub counties are expected to receive the most depressed Rainfall ranging from 101-250mm against climatology of 101-400mm.
- Areas within the coastline are expected to receive depressed rainfall ranging from 126->250 against climatology of 250-600mm.
- Several parts and approximately 2/3 of the County are expected to receive $< 250\text{mm}$ of rainfall in total, hence mapped as the drought hot spots.
- Out of 35wards, only 13 are expected to receive $> 250\text{mm}$.
- A few Wards lying within the coastline are expected to receive $> 250\text{mm}$ close to maize production thresholds of 300mm.
- Wards expected to receive $> 250\text{mm}$ include: Matsangoni, Watamu, Dabaso, Junju, Mtepeni, Shimo la tewa, Matsangoni, Ganda, Malindi, Kaloleni, Ruruma, Rabai, Mwawesa.

MAM 2025 Expected amounts per Subcounty

1.1.2 MAM Long Term Average rainfall per Sub County

Sub county	Wards	LTA amounts in mm	Expected amounts in mm	Rainfall Onset	Rainfall cessation	Distribution
1. Magarini LTA:101-400mm	Adu	101-250mm	101-200mm	2 nd -3 rd week April	Late. Run into JJA	POOR
	Magarini Gongoni	301-400mm	125-250mm	1 st -3 rd week April		POOR
	Sabaki Garashi Marafa	201-300mm		2 nd -3 rd week April		
2. Malindi LTA:201-600mm	Jilore Shela Kakuyuni	250-500mm	126-200mm	4 th week March-1 st week April		POOR
	Ganda Malindi Town	301-600mm	200->250mm	4 th week March-1 st week April		POOR - FAIR
3. Kilifi South LTA:301-600mm	Chasimba	301-500mm	126-250mm	4 th week March-1 st week April		POOR - FAIR
	Mwarakaya	500mm				
	Junju	401-600mm	201->250mm			
	Mtepeni Shimo La Tewa					
4. Kilifi North LTA:301-600mm	Matsangoni Watamu Dabaso	301-600mm	200->250mm			POOR - FAIR
	Tezo	301-500mm	150-250mm			
	Sokoni					
	Mnarani					
Kibarani						
5. Ganze LTA:201-400mm	Sokoke Jaribuni	250-350mm	126-250mm	1 st -3 rd week April		POOR
	Ganze	201-350mm				
	Bamba					
6. Kaloleni LTA:250-400mm	Mariakani Kayafungo Mwana Mwinga	250-350mm	126-250mm	4 th week March-1 st week April		POOR - FAIR
	Kaloleni	301-400mm	200->250mm			

7. Rabai LTA:301- 600mm	Kambe Ribe	301- 400mm	150- 250mm	4 th week March-1 st week April		POOR
	Rabai Ruruma Mwawesa	401- 600mm	200- >250mm			POOR - FAIR

2 AGRO-WEATHER ADVISORIES

2.1 General Responsibilities

- Farmers to implement the advisories
- Agricultural Officers to advise farmers
- Input suppliers to ensure inputs are available on time
- Community Extension Volunteers to advise farmers
- Humanitarian institutions to assist drought, flood and ocean hazards (cyclones/tropical storms) threatened hot spots in the light of the MAM and weekly weather forecasts and alerts.
- Kenya Met Department to provide weather updates (weekly, other)
- Agriculture, Livestock and Fisheries development
- Insurance companies against drought, riverine floods and ocean hazard

2.2 General Farm Activities

- Early land preparation: before 1st week of March for all areas
- Repair of water storage structures: Desilting of farm ponds, weirs, water tanks, water pans, Gutters
- Practice Conservation Agriculture (CA): Ripping, Terraces, Zai Pits, Planting stations.
- Plant ecologically suitable certified seeds as indicated above
- Scale up manure and fertilizer application (basal & top dressing)
- Timely weed control
- Heighten Timely and proper pests and disease control.
- Proper spacing of crops
- Pitting for fruits and forest Trees
- Rehabilitation of fruit tree crops (manuring, pruning)
- Plant and replant fruit trees to take advantage of late cessation running into June, such as coconut, cashew nut, pomegranates, mango trees, citrus trees
- Expand water pan and ponds excavation to take advantage of storms.

2.3 When to Plant

- Plant when the **weekly forecast** indicates at least **3 days** with rainfall totals of **greater than 20 mm**. This onset week should be around the predicted seasonal onset dates.

2.4 Highlights for agro-weather advisories

A) Very Arid Climatic zone

Wards: Adu (Chakama, Shakahola, Baricho, Bofu) and Bamba

Expected rainfall amount: 126-150mm

- Onset of rains 2nd -3rd week April, Cessation run into June
- Farmers are advised to grow drought tolerant and early maturing crops e.g. cassava, cowpeas, green grams, sorghum, millet, indigenous vegetables including pumpkins, etc
- Farmers are advised to use climate smart technologies e.g. water harvesting structures
- Due to expected very low rainfall amounts , it is not advisable to plant maize
- Farmers are advised to embrace Integrated Pest Management and Integrated Crop Management
- Farmers are advised to establish agroforestry
- It is recommended that farmers procure crop insurance

B) Arid zone

Wards: Ganze, Bamba, Sokoke, Jaribuni, Adu (Marereni, Kamale, Ramada, Kambicha, Kanagoni)

Expected rainfall amount: 126-250mm

- Onset of rains 1st -3rd week April, Cessation run into June
- Farmers are advised to grow drought tolerant and early maturing crops e.g. cassava, cowpeas, green grams, beans, sorghum, millet, indigenous vegetables including pumpkins, etc
- Farmers are advised to use climate smart technologies e.g. water harvesting structures
- Due to expected very low rainfall amounts , it is not advisable to plant maize
- Farmers are advised to embrace Integrated Pest Management and Integrated Crop Management
- Farmers are advised to establish agroforestry
- It is recommended that farmers procure crop insurance

C) Semi-arid zone

Wards: Mariakani, Magarini, Gongoni, Sabaki, Jilore, Kayafungo. Mwana Mwinga, Garashi, Marafa,

Expected rainfall amount: 126-250mm

- Onset of rains
 - ✓ Magarini & Gongoni 1st -3rd week April, Cessation run into June.

- ✓ Sabaki, Garashi & Marafa 2nd -3rd week April, Cessation run into June.
 - ✓ Kayafungo. Mwana Mwinga. Jilore & Mariakani 4th week March-1st week April, Cessation run into June.
- Farmers are advised to grow drought tolerant and early maturing crops e.g. cassava, cowpeas, green grams, beans, sorghum, millet, indigenous vegetables including pumpkins, etc.
 - Farmers are advised to use climate smart technologies e.g. water harvesting structures.
 - Due to expected very low rainfall amounts, it is not advisable to plant maize.
 - Farmers are advised to embrace Integrated Pest Management and Integrated Crop Management.
 - Farmers are advised to establish agroforestry
 - It is recommended that farmers procure crop insurance.

D) Semi humid - arid zone

Wards: Sokoni, Tezo, Kambe Ribe, Matsangoni, Watamu, Shela, Kakuyuni, Kibarani, Mnarani, Chasimba, Mwarakaya

Expected rainfall amount: 126-250mm

- Onset of rains 4th week March-1st week April, Cessation run into June.
- Farmers are advised to grow drought tolerant and early maturing crops e.g. cassava, cowpeas, green grams, beans, sorghum, millet, indigenous vegetables including pumpkins, etc.
- Due to expected low rainfall amounts, it is advisable to grow drought tolerant and early maturing maize varieties i.e. DHO4, PH1, Sungura, Duma 43 & 46, Pioneer and DK 8033 & 8031, GAF4, KDV1 and Ukamez.
- Farmers are advised to use climate smart technologies e.g. water harvesting structures.
- Farmers are advised to embrace Integrated Pest Management and Integrated Crop Management.
Farmers are advised to establish agroforestry
- It is recommended that farmers procure crop insurance.

E) Semi humid zone

Wards: Mtepeni, Junju, Shimo la tewa, Ganda, Rabai, Kaloleni, Ruruma, Mwawesa, Malindi, Dabaso

Expected rainfall amount: 201->250mm

- Onset of rains 4th week March-1st week April, Cessation run into June.
- Farmers are advised to grow drought tolerant and early maturing crops e.g. cassava, cowpeas, green grams, beans, sorghum, millet, indigenous vegetables including pumpkins, etc.

- Due to expected low rainfall amounts, it is advisable to grow drought tolerant and early maturing maize varieties i.e. DHO4, PH1, Sungura, Duma 43 & 46, Pioneer and DK 8033 & 803
- Farmers are advised to use climate smart technologies e.g. water harvesting structures.
- Farmers are advised to embrace Integrated Pest Management and Integrated Crop Management.
- Farmers are advised to establish agroforestry
- It is recommended that farmers procure crop insurance.

2.5 Specific agro-weather Advisories for the Semi humid zone

Crops to plant	Wards: Mtepeni, Junju, Shimo la tewa, Probable MAM 2025 amount: 201->250mm	Wards: Ganda, Rabai, Ruruma, Mwawesa, Kaloleni Probable MAM 2025 amount: 201->250mm	Wards: Malindi, Dabaso Probable MAM 2025 amount: 201->250mm
1. Maize	DHO4, PH1, Sungura, Duma 43 & 46, Pioneer and DK 8033 & 8031	DHO4, PH1, Sungura, Duma 43 & 46, Pioneer and DK 8033 & 8031	DHO4, PH1, Sungura, Duma 43 & 46, Pioneer and DK 8033 & 803
2. Beans	GLP 92, Nyota	GLP 92, Nyota	GLP 92, Nyota
3. Cow Peas	K80, M66, Locals, Ken Kunde, Kunde mboga, Kunde Faulu	K80, M66, Locals, Ken Kunde, Kunde mboga, Kunde Faulu	K80, M66, Locals, Ken Kunde, Kunde mboga, Kunde Faulu
4. Pigeon peas	Mbaazi 1& Local variety	Mbaazi 1& Local variety	Mbaazi 1& Local variety
5. Dolichos	DL 1002, DL 1009	DL 1002, DL 1009	DL 1002, DL 1009
6. Cassava	Tajirika, Shibe, Karemba, Nzalauka, Siri, Karibuni, Guzo, Mucericeri, Locals	Tajirika, Shibe, Karemba, Nzalauka, Siri, Karibuni, Guzo, Mucericeri, Locals	Tajirika, Shibe, Karemba, Nzalauka, Siri, Karibuni, Guzo, Mucericeri, Locals
7. Sweet Potatoes	Mtwapa 8, Irene, Kenspot, Locals	Mtwapa 8, Irene, Kenspot, Locals	Mtwapa 8, Irene, Kenspot, Locals
8. Sorghum	Gaddam, Serena, Seredo, Kari Mtama 1,	Gaddam, Serena, Seredo, Kari Mtama 1,	Gaddam, Serena, Seredo, Kari Mtama 1,
9. Millets	Finger millet, Pearl Millet	Finger millet, Pearl Millet	Finger millet, Pearl Millet

Crops to plant	Wards: Mtepeni, Junju, Shimo la tewa, Probable MAM 2025 amount: 201->250mm	Wards: Ganda, Rabai, Ruruma, Mwawesa, Kaloleni Probable MAM 2025 amount: 201->250mm	Wards: Malindi, Dabaso Probable MAM 2025 amount: 201->250mm
10. Green Grams	N26, KS20, Biashara, Karembo, Dengu Tosha	N26, KS20, Biashara, Karembo, Dengu Tosha	N26, KS20, Biashara, Karembo, Dengu Tosha

2.6 Specific agro-weather Advisories for the Semi humid-Arid zone

Crops to plant	Wards: Sokoni, Tezo, Kambe Ribe, Probable MAM 2025 amount: 150-250mm	Wards: Matsangoni, Watamu, Shela, Kakuyuni, Kibarani Probable MAM 2025 amount: 126-250 mm	Wards: Mnarani, Chasimba, Mwarakaya, Probable MAM 2025 amount: 126-250 mm
1. Maize	DHO4, PH1, Sungura, Duma 43 & 46, Pioneer and DK 8033 & 8031, GAF4, KDV1, Ukamez Mwangongo, Mdzihana, Kanjerenjere	DHO4, PH1, Sungura, Duma 43 & 46, Pioneer and DK 8033 & 8031, GAF4, KDV1, Ukamez Mwangongo, Mdzihana, Kanjerenjere	DHO4, PH1, Sungura, Duma 43 & 46, Pioneer and DK 8033 & 8031, GAF4, KDV1, Ukamez Mwangongo, Mdzihana, Kanjerenjere
2. Beans	GLP 92, Nyota	GLP 92, Nyota	GLP 92, Nyota
3. Cow Peas	K80, M66, Locals, Ken Kunde, Kunde mboga, Kunde Faulu	K80, M66, Locals, Ken Kunde, Kunde mboga, Kunde Faulu	K80, M66, Locals, Ken Kunde, Kunde mboga, Kunde Faulu
4. Pigeon peas	Mbaazi 1& Local variety	Mbaazi 1& Local variety	Mbaazi 1& Local variety
5. vegetables	Indigenous vegetables	Indigenous vegetables	Indigenous vegetables
6. Cassava	Tajirika, Shibe, Karembo, Nzalauka, Siri, Karibuni, Guzo, Mucericeri, Locals	Tajirika, Shibe, Karembo, Nzalauka, Siri, Karibuni, Guzo, Mucericeri, Locals	Tajirika, Shibe, Karembo, Nzalauka, Siri, Karibuni, Guzo, Mucericeri, Locals

7. Sweet Potatoes	Mtwapa 8, Irene, Kenspot, Locals	Mtwapa 8, Irene, Kenspot, Locals	Mtwapa 8, Irene, Kenspot, Locals
8. Millets	Finger millet, Pearl Millet	Finger millet, Pearl Millet	Finger millet, Pearl Millet
9. Green Grams	N26, KS20, Biashara, Karembo, Dengu Tosha	N26, KS20, Biashara, Karembo, Dengu Tosha	N26, KS20, Biashara, Karembo, Dengu Tosha
10. Sorghum	Gaddam, Serena, Seredo, Kari Mtama 1,	Gaddam, Serena, Seredo, Kari Mtama 1,	Gaddam, Serena, Seredo, Kari Mtama 1,
11. Simsim	Black , White	Black. White	Black , White
12. Sunflower	Fedha, Hysun	Fedha, Hysun	Fedha, Hysun

2.7 Specific agro-weather Advisories for the Semi-arid zone

Crops to plant	Wards: Mariakani, Magarini, Gongoni, Sabaki, Jilore,	Wards: Kayafungo. Mwana Mwinga, Garashi, Marafa
	Probable MAM 2025 amount: 126-250 mm	Probable MAM 2025 amount: 126-250 mm
1. Maize	Not recommended	Not recommended
2. Beans	GLP 92, Nyota	GLP 92, Nyota
3. Cow Peas	K80, M66, Locals, Ken Kunde, Kunde mboga, Kunde Faulu	K80, M66, Locals, Ken Kunde, Kunde mboga, Kunde Faulu
4. Pigeon peas	Mbaazi 1& Local variety	Mbaazi 1& Local variety
5. vegetables	Indigenous vegetables	Indigenous vegetables
6. Cassava	Tajirika, Shibe, Karembo, Nzalauka, Siri, Karibuni, Guzo, Mucericeri, Locals	Tajirika, Shibe, Karembo, Nzalauka, Siri, Karibuni, Guzo, Mucericeri, Locals
7. Sweet Potatoes	Mtwapa 8, Irene, Kenspot, Locals	Mtwapa 8, Irene, Kenspot, Locals
8. Millets	Finger millet, Pearl Millet	Finger millet, Pearl Millet

9. Green Grams	N26, KS20, Biashara, Karembo, Dengu Tosha	N26, KS20, Biashara, Karembo, Dengu Tosha
10. Sorghum	Gaddam, Serena, Seredo, Kari Mtama 1,	Gaddam, Serena, Seredo, Kari Mtama 1,
11. Simsim	Black , White	Black. White
12. Sunflower	Fedha, Hysun	Fedha, Hysun

2.8 Specific agro-weather Advisories for the Arid zone

Crops to plant	Wards: Ganze, Bamba	Wards: Sokoke, Jaribuni	Wards: Adu-Marereni, Kamale, Ramada, Kambicha, Kanagoni,
	Probable MAM 2025 amount: 126-200 mm	Probable MAM 2025 amount: 126-250 mm	Probable MAM 2025 amount: 126-200 mm
1. Maize	Not recommended	Not recommended	Not recommended
2. Beans	GLP 92, Nyota	GLP 92, Nyota	GLP 92, Nyota
3. Cow Peas	K80, M66, Locals, Ken Kunde, Kunde mboga, Kunde Faulu	K80, M66, Locals, Ken Kunde, Kunde mboga, Kunde Faulu	K80, M66, Locals, Ken Kunde, Kunde mboga, Kunde Faulu
4. Pigeon peas	Mbaazi 1& Local variety	Mbaazi 1& Local variety	Mbaazi 1& Local variety
5. vegetables	Indigenous vegetables	Indigenous vegetables	Indigenous vegetables
6. Cassava	Tajirika, Shibe, Karembo, Nzalauka, Siri, Karibuni, Guzo, Mucericeri, Locals	Tajirika, Shibe, Karembo, Nzalauka, Siri, Karibuni, Guzo, Mucericeri, Locals	Tajirika, Shibe, Karembo, Nzalauka, Siri, Karibuni, Guzo, Mucericeri, Locals
7. Sweet Potatoes	Mtwapa 8, Irene, Kenspot, Locals	Mtwapa 8, Irene, Kenspot, Locals	Mtwapa 8, Irene, Kenspot, Locals
8. Millets	Finger millet, Pearl Millet	Finger millet, Pearl Millet	Finger millet, Pearl Millet

9. Green Grams	N26, KS20, Biashara, Karembo, Dengu Tosha	N26, KS20, Biashara, Karembo, Dengu Tosha	N26, KS20, Biashara, Karembo, Dengu Tosha
10. Sorghum	Gaddam, Serena, Seredo, Kari Mtama 1,	Gaddam, Serena, Seredo, Kari Mtama 1,	Gaddam, Serena, Seredo, Kari Mtama 1,
11. Simsim	Black , White	Black. White	Black , White
12. Sunflower	Fedha, Hysun	Fedha, Hysun	Fedha, Hysun

2.9 Specific agro-weather Advisories for the very arid zone

Crops to plant	Wards: Adu; Chakama,Shakahola,Baricho,Bofu Bamba; Ndigiria Probable MAM 2025 amount: 126-150 mm
1. Maize	Not recommended
2. Cow Peas	K80, M66, Locals, Ken Kunde, Kunde mboga, Kunde Faulu
3. Pigeon peas	Mbaazi 1& Local variety
4. vegetables	Indigenous vegetables (Incl. Pumpkins)
5. Cassava	Tajirika, Shibe, Karembo, Nzalauka, Siri, Karibuni, Guzo, Mucericeri, Locals
7. Millets	Finger millet, Pearl Millet
8. Green Grams	N26, KS20, Biashara, Karembo, Dengu Tosha
9. Sorghum	Gaddam, Serena, Seredo, Kari Mtama 1,
10. Simsim	Black , White

2.10 General Analysis of Hazards/Risks and Opportunities (agriculture and fisheries)

Hazards /risks	Opportunities	Proposed actions
<ul style="list-style-type: none"> Flash floods_occasional storms Soil erosion logging due to strong winds_cyclones Outbreak of crop pests and diseases due to higher temperatures False on-set of rains Poor germination and loss of seeds Stunted growth of crops due to prolonged dry spells Low crop yields Loss of inputs and poor crop establishment Food insecurity and poor farm incomes Cyclone/tropical storm risk Deteriorated ocean conditions 	<ul style="list-style-type: none"> Fruit tree farming to take advantage of late cessation and occasional storms Water harvesting for use during dry spells Maximizing yields and income through planting recommended drought tolerant varieties Adopt climate smart technologies in crop production e.g. zai pits, use of manure, cover crops, etc Increase area under cassava production Increase farm forest cover through farmer managed natural regeneration Availing of the right certified farm inputs by agro-dealers Kitchen gardening Insuring of crops against drought Insuring of fish value chains against storms 	<ul style="list-style-type: none"> Establish agroforestry Establish new and repair existing soil and water conservation structures and farm facility structures Crop diversification Early and appropriate land preparation (chiesel ploughing) Timely procurement of inputs Embrace Integrated Pest Management and Integrated Crop Management Procurement of crop insurance Construction of water pans and dams with high priority in Magarini, Ganze and Kaloleni sub counties. Practice aquaculture which is less vulnerable to storms Practice mariculture of seaweed as an alternative livelihood to fishing Embrace carbon trading through mangrove replanting as an alternative livelihood to fishing

2.11 Specific advisories for Livestock farmers Specific advisories for Livestock farmers

Recommended Actions	Hazard/Risks	Opportunities	Ward	Responsible
<ul style="list-style-type: none"> ✓ Fodder conservation Baling of grass Harvesting and storage of maize stovers Harvesting and preservation of leaves from forage trees (Laucaena, gliricidia, moringa) Supplement feeds with cassava leftovers 	<ul style="list-style-type: none"> Livestock diseases, Parasites infestation, Poor pasture and fodder establishment Inadequate pasture and fodder 	<ul style="list-style-type: none"> Feed Conservation Breed improvement- for drought and disease adaptable breeds Value addition 	All wards	Farmers WLPO Community Extension Volunteers,

<ul style="list-style-type: none"> • Supplement with edible vegetable leftovers from the market <p>✓ Pastures/fodder to be established</p> <ul style="list-style-type: none"> • Panicum maximum -<i>Mondo</i> • Nappier-<i>mappingopingo</i> • Moringa-<i>muzungwi</i> • Leucaena-<i>lukina</i> • Clitoria-<i>clitoria</i> • Cassava-<i>mhogo</i> • Sorghum-<i>mtama</i> • Bracharia-<i>bracharia</i> • Gliricidia--<i>gliricidia</i> • Cowpeas-<i>kunde</i> • Chloris <i>Roxburghiana</i> (African fox)-<i>nyasi ya mbweha</i> • <i>Cenchrus ciliaris</i> • Sunflower-<i>Alizeti</i> • Thevetia Peruviana -<i>Mkode</i> • Passion-<i>mpeheni</i> • Cynodone dactylion <i>Kitoja Kafunga kima</i>) • Lukoka • Ziziphus Mauritania -<i>mkunazi</i> • Melia volcansa-<i>Kirumbutu</i> <p>✓ Soil and Water Conservation</p> <ul style="list-style-type: none"> • Roof catchment • Farm ponds 	<ul style="list-style-type: none"> • Reduced milk production • Low birth rates • Poor body condition • Low prices of animals • Reduced water availability • Reduced household income <ul style="list-style-type: none"> • Illegal grazers • Theft • Fodder establishment • Poor quality seeds • Rain failure • Accident • Conflicts • Leakages • Injuries • Breeding group for parasitic organisms 	<ul style="list-style-type: none"> • Water harvesting and storage • Increase of small stock number • Reduce large stock number <ul style="list-style-type: none"> • Available natural pasture. • Available fodder trees • Established pasture • Availability of seeds • Knowledge available • Land available • Labor • Tools available <ul style="list-style-type: none"> • Skilled officers • Input supplies 		<p>Inputs suppliers</p> <p>Service providers</p> <p>Farmers</p> <p>Extension officers</p> <p>NGOs</p> <p>KALRO</p> <p>Other stakeholders</p>
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<ul style="list-style-type: none"> • Water pans • Boreholes • Water harvesting techniques – zaipits, v bund, U bund • Micro catchment conservation-tree planting- <p>✓ Breed improvement</p> <ul style="list-style-type: none"> • AI services • Drought tolerant improved breeds, galla Boran, black head persian, Sahiwal. Girr, Brown swiss <p>✓ Adoption of modern livestock production technologies</p> <ul style="list-style-type: none"> • Adoption of modern beekeeping technologies • Poultry production technology-housing - feeding incubation <p>✓ Modern Animal health management practices.</p> <ul style="list-style-type: none"> • Vaccination campaigns • Vector control 			
<p>✓ General Actions</p> <ul style="list-style-type: none"> • Fodder Conservation • Fodder establishment • Destocking for appropriate carrying capacity. • Adopt Home feed formulations. • Breed management • Rehabilitation of Existing and establishment of new water harvesting structures • Bush management for pasture improvement • Deworming • Tick control • Vaccinate the animals against weather related diseases • Proper housing for livestock protection. • Timely harvesting and preservation of pastures and fodder 			

- Livestock insurance
- Rehabilitation of fish ponds
- Restocking of fishponds.
- Conservation of fish feeds

2.12 Highlights -Livestock Advisory

A) Semi humid climatic zone

Wards: Mtepeni, Junju, Shimo la tewa, Ganda, Rabai, Ruruma, Mwawesa, Malindi, Dabaso.

Expected rainfall amount: 201->250mm

- Farmers to conserve natural and established pasture and Fodder before the onset of rains
- Farmers to plant Bracharia, Napier, Panicum maximum, clitoria, mucuna, Leucaena, Gliricidia for livestock feed security
- Farmers to plant bee forage trees like Sunflower-*Alizeti*, *ziziphus mauratania-mkunazi*, *thevetia peruviana-mkode*, *lantana camara-shomoro*,
- Farmers advised to harvest run off water and roof catchment water for livestock use, fodder establishment
- Farmers advised to practice agroforestry in their farms-*melia volcansa-kurumbutu*, *Leucaena*, *gliricidia*,
- Farmers to adopt livestock production technologies like proper housing, on farm feed formulation, selection of high producing drought tolerant livestock breeds, proper and timely breeding practices, AI
- Farmers advised to adopt appropriate animal health management practices: vaccinations, vector control, ticks, tsetse flies, worms and treatment
- Farmers to take livestock insurance cover through the DRIVE project Ruruma.

B) Semi humid-Arid climatic zone

Wards: Sokoni, Tezo, Kambe Ribe, Matsangoni, Watamu, Shela, Kakuyuni, Kibarani, Mnarani, Chasimba, Mwarakaya.

Expected rainfall amount: 126-250 mm

- Farmers to conserve natural and established pasture and Fodder before the onset of rains
- Farmers to plant Bracharia, Napier, Panicum maximum, clitoria, mucuna, Leucaena, Gliricidia for livestock feed security
- Farmers to plant bee forage trees like Sunflower-*Alizeti*, *ziziphus mauratania-mkunazi*, *thevetia peruviana-mkode*, *lantana camara-shomoro*,
- Farmers advised to harvest run off water and roof catchment for livestock use, fodder establishment
- Farmers advised to practice agroforestry in their farms-*melia volcansa-kurumbutu*, *Leucaena*, *gliricidia*,

- Farmers to adopt modern livestock production technologies like proper housing, on farm feed formulation, selection of high producing drought tolerant livestock breeds, proper and timely breeding practices
- Farmers advised to adopt appropriate animal health management practices: vaccinations, vector control, ticks, tsetse flies, worms and treatment
- Farmers to take livestock insurance cover through the DRIVE project Kakuyuni, Chasimba.

C) Semi-arid climatic zone

Wards: Mariakani, Magarini, Gongoni, Sabaki, Jilore, Kayafungo. Mwana Mwinga, Garashi, Marafa, Kaloleni

Expected rainfall amount: 126 ->250 mm

- Farmers to conserve natural pasture before the onset of rains
- Farmers to plant Bracharia, Panicum maximum, clitoria, mucuna, Leucaena, Gliricidia for livestock feed security
- Farmers to plant bee forage trees like Sunflower-*Alizeti*, ziziphus mauratania-*mkunazi*, thevetia peruviana-*mkode*, lantana camara-*shomoro*,
- Farmers advised to harvest run off water and roof catchment for livestock use, fodder establishment
- Farmers advised to practice agroforestry in their farms-*melia volcansa-kurumbutu*, Leucaena, gliricidia,
- Farmers to adopt modern livestock production technologies like proper housing, on farm feed formulation, selection of high producing drought tolerant livestock breeds, proper and timely breeding practices, AI
- Farmers advised to adopt appropriate animal health management practices: vaccinations, vector control, ticks, tsetse flies, worms and treatment
- Farmers to take livestock insurance cover through the DRIVE project. Mariakani, Gongoni, Jilore, Kayafungo. Mwana Mwinga, Marafa, Kaloleni

D) Arid climatic zone

Wards: Ganze, Bamba, soko, Jaribuni, Adu-Marereni, Kamale, Ramada, Kambicha, Kanagoni,

Expected rainfall amount: 126->250 mm

- Farmers to conserve natural pasture before the onset of rains
- Farmers to plant Panicum maximum, Chloris Roxburghiana (African fox)-*nyasi ya mbweha*, Sorghum-*mtama*, cassava for livestock feed security
- Farmers to plant bee forage trees like Sunflower-*Alizeti*, ziziphus mauratania-*mkunazi*, thevetia peruviana-*mkode*, lantana camara-*shomoro*,

- Farmers advised to harvest run off water and roof catchment for livestock use, fodder establishment
- Farmers advised to practice agroforestry in their farms-melia volcansa-kurumbutu,
- Farmers to adopt modern livestock production technologies like proper housing, on farm feed formulation, selection of high producing drought tolerant livestock breeds, proper and timely breeding practices, AI
- Farmers advised to adopt appropriate animal health management practices: vaccinations, vector control, ticks, tsetse flies, worms and treatment
- Farmers to take livestock insurance cover through the DRIVE project

E) Very Arid climatic zone

Wards: Adu (Chakama, Shakahola, Baricho, Bofu) and Bamba

Expected rainfall amount: 126-150mm

- Farmers to conserve natural pasture before the onset of rains
- Farmers to plant Panicum maximum, Chloris Roxburghiana (African fox)-nyasi ya mbweha, Sorghum-mtama, cassava for livestock feed security
- Farmers to plant bee forage trees like Sunflower-Alizeti, ziziphus mauratania-mkunazi, thevetia peruviana-mkode, lantana camara-shomoro,
- Farmers advised to harvest run off water and roof catchment for livestock use, fodder establishment
- Farmers advised to practice agroforestry in their farms-melia volcansa-kurumbutu,
- Farmers to adopt modern livestock production technologies like proper housing, on farm feed formulation, selection of high producing drought tolerant livestock breeds, proper and timely breeding practices, AI
- Farmers advised to adopt appropriate animal health management practices: vaccinations, vector control, ticks, tsetse flies, worms and treatment
- Farmers to take livestock insurance cover through the DRIVE project

2.13 Advisories for other Livelihood Sectors

Sector	Impact	Hazards/ Risk	Opportunity	Intervention/Actions	Responsible
Water resources	Little water that should be harvested	Inadequate water infrastructures - Flash flood	Water harvesting & conservation	Water trucking, adopt Water harvesting structures e.g. dams ,ponds ,water tanks	Dept of water and development partners

Sector	Impact	Hazards/ Risk	Opportunity	Intervention/Actions	Responsible
Disaster management and special programmes	Few disasters likely to happen. Increased Human-human conflict. Influx of immigrants.	Likelihood of tropical cyclones expected to interfere with season and ocean activities. Riverine Flooding. Famine. Structural damages-strong winds. Gender based violence. Early marriages.	Leverage on salvaged produce.	Emergency operation system. Contingency plans. Early warning systems. Humanitarian hub.	National Drought Management Authority, NGOs, Governments, Faith Based Organization Meteorological Department. Search and Rescue team. CMDRR team Community managed climate change risks team.
Wildlife /forestry	Increased human-wildlife conflict, Incidences of wild fire breakout.	Loss of livelihood. Loss of wildlife	Conservation and strict protection of the current biodiversity	Human /wildlife conflict minimization through budgetary allocation for compensation ,electric fencing ,surveillance and enforcement, Afforestation programs	KWS National & County Government Farmers
Trade, industry and finance	commodity price increase Reduced per capita incomes	Famine/ drought/starvation	Prudent utilization of current strategic grain reserves, Importation of essential food commodities	Subsidized trader Reduced credit interests	Dept of Trade, Business Community, National & County Government
Energy	Energy infrastructure network collapse	Electrocution, Temporary blackouts,	Maintenance of KPLC infrastructures, Investment on	Allocate emergency funds, subsidy on fuel especially for domestic use	Kenya Power

Sector	Impact	Hazards/ Risk	Opportunity	Intervention/Actions	Responsible
			alternative energy sources		
	Power outages	Short-circuiting	Energy saving	Alternative supply e.g. solar, generators	Kenya Power
	Increased cost of Energy	Reduced electric energy generation	Intensified use of solar energy	Power rationing, Subsidies on solar power equipment	
Transport /communication	Poor transport & communication networks	Flash floods. Riverine Flooding. Rough Seas.	Road for water harvesting. Bow lake fishing.	Diversion channels. Emergency funds /personnel, unclogging of culverts. Establish SAR Services. Establish Early warning system.	Dept of Transport, NTSA, National Government, County Government. Meteorological Department. Search and Rescue team. CMDRR team Community managed climate change risks team
Health	Increased Food insecurity	Increased Malnutrition, Increased food deficient related ailments, Stunted growth to children.	Leverage on Nutrition, Increase food supplements for young children and the elderly	Emergency /mobile clinic, Increase Health personnel, Enhanced public health activities, Prepositioning of drugs in health facilities.	Ministry Of Health, Private Hospitals, Stakeholders
Education	Disruptions of education due to hunger at home, Increased school drop outs, poor performance.	Poor school infrastructure, Destruction of structures by strong winds.	Initiation of School feeding Program.	Early warning and preparedness	Dept of Education, NGOs, Faith Based Organizations, Parents. Meteorological Department.

2.14 How to get Weather Updates

You can get weekly weather updates from the Counties folder in the KMD Website <https://meteo.go.ke>

Media centers disseminating Weather information in Kilifi County

1.KBC Pwani FM Radio, 2. Radio Kaya, 3. Lulu FM Radio, 4. Bahari FM Radio, 5. Msenangu FM Radio, 6. SBS FM Radio, others

Others

WhatsApp weather groups and SMS messages every Monday evening or early Tuesday morning from the county Director Meteorological Services.

For More information Contact, the Nearest Agric Office: Ward, Sub County & County-Kilifi.

Kilifi Meteorological Office mobile +254720672579.