

# MAM 2024 ADVISORIES FOR MAKUENI COUNTY



**AICCRA**  
Accelerating Impacts of CGIAR  
Climate Research for Africa



**KENYA  
METEOROLOGICAL  
DEPARTMENT**



INITIATIVE ON  
**Livestock and Climate**

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## **ADVISORIES FOR THE MARCH - MAY 2024 (MAM 2024) RAIN SEASON**

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## **1 introduction**

These advisories were Co-produced at a Participatory Scenario Planning workshop involving farmers, Agricultural Extension Staff, Indigenous traditional forecasters and Kenya Meteorological Dept staff. The workshop was sponsored by the AICCRA Programme.

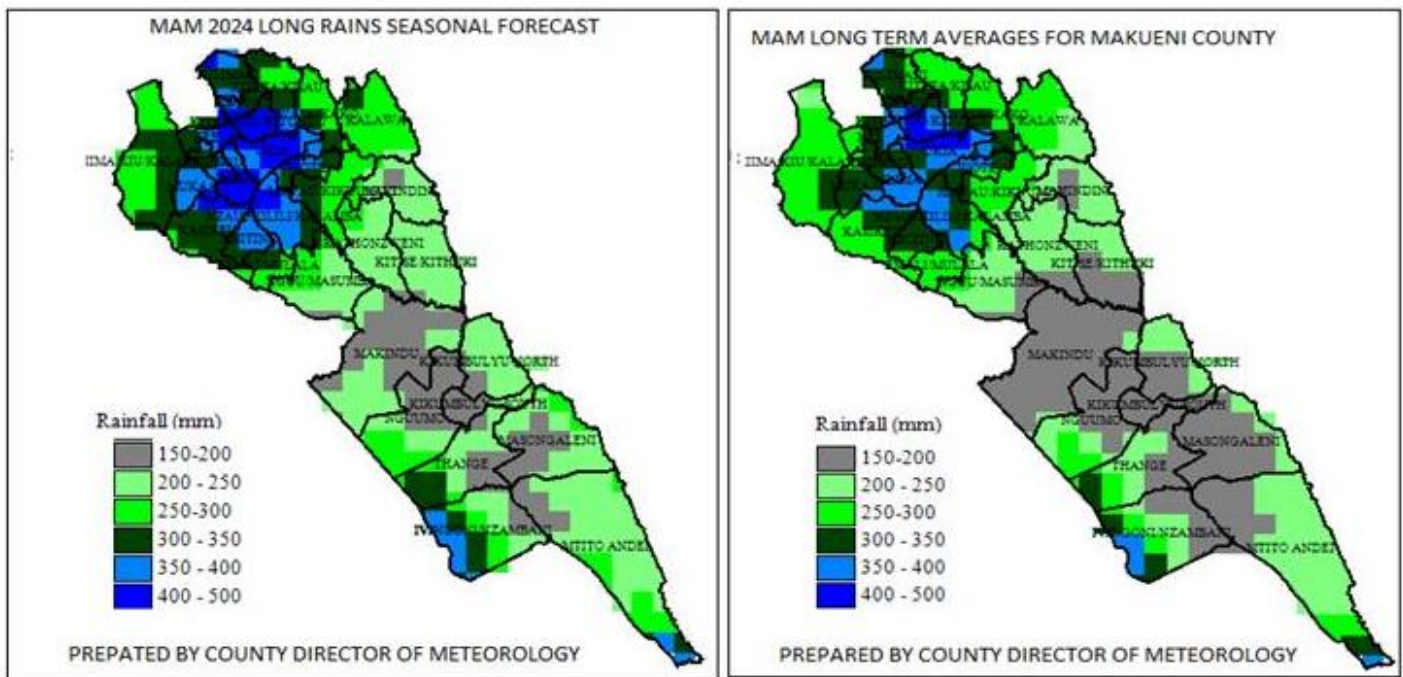
## 2 MAM 2024 Seasonal Weather Forecast

### 2.1 Highlights

The MAM 2024 rainy season is expected to be near Normal (N) with timely onset between **18<sup>th</sup> – 31<sup>st</sup> March 2024**. The rainfall distribution both in time and space is expected to be **fair to good** in most wards within Makueni County. Occasional heavy rainfall storms that are likely to trigger **flash flooding** are also expected to occur as the season progresses. **Dry spells** are however likely expected to occur during the season.

The predicted cessation dates is between **8<sup>th</sup>-21<sup>st</sup> May 2024**.

### 2.2 Probable MAM 2024 total Seasonal Rainfall vs Normal (Long term Mean)



### 2.3 Summary of the MAM 2024 Seasonal Forecast by Wards

| S/No | Sub County      | Ward/<br>climatic zone    | Seasonal Amount in mm             |                       | Probable Onset dates             | Probable Cessation dates                                    | Probable Length of Rain Period        | Probable distribution  |
|------|-----------------|---------------------------|-----------------------------------|-----------------------|----------------------------------|---|---------------------------------------|--|
|      |                 |                           | Normal (Long term mean 1991-2020) | Forecast for MAM 2024 |                                  |   |                                       |  |
| 1    | Makueni         | Kitise / Kithuki          | 200-250                           | 200-250               | Between<br>18 – 31 March<br>2024 | Between<br>8 <sup>th</sup> to 21 <sup>st</sup><br>May 2024. | 45-60<br>days                         | a) Fair to good<br>b) Dry spells within<br>the rain season<br>however likely<br>which could affect<br>vulnerable crops |
| 2    |                 | Kathonzweni               | 200-250                           | 200-250               |                                  |   |                                       |  |
| 3    |                 | Mavindini                 | 200-250                           | 200-250               |                                  |   |                                       |  |
| 4    |                 | Nzaui /<br>Kilili/Kalamba | 350-400                           | 350-400               |                                  |   |                                       |  |
| 5    |                 | Muvau /<br>Kikumini       | 250-300                           | 250-300               |                                  |   |                                       |  |
| 6    |                 | Wote                      | 300-350                           | 300-350               |                                  |   |                                       |  |
| 7    |                 | Mbitini                   | 350-400                           | 350-400               |                                  |   |                                       |  |
| 8    | Kibwezi<br>East | Masongaleni               | 150-200                           | 200-250               |                                  |   |                                       |  |
| 9    |                 | Nzambani /<br>Ivingoni    | 200-250                           | 200-250               |                                  |   |                                       |  |
| 10   |                 | MtitoAndei                | 200-250                           | 200 -250              |                                  |   |                                       |  |
| 11   |                 | Thange                    | 200-250                           | 200-250               |                                  |   |                                       |  |
| 12   | Kibwezi<br>West | Makindu                   | 150-200                           | 200-250               |                                  |   |                                       |  |
| 13   |                 | Mulala / Emali            | 250-300                           | 250-300               |                                  |   |                                       |  |
| 14   |                 | Nguu /<br>Masumba         | 200-250                           | 200-250               |                                  |   |                                       |  |
| 15   |                 | Nguumo                    | 200-250                           | 200-250               |                                  |   |                                       |  |
| 16   |                 | Kikumbulyu<br>North       | 200-250                           | 200-250               |                                  |   |                                       |  |
| 17   |                 | Kikumbulyu<br>South       | 150-200                           | 150-200               |                                  |   |                                       |  |
| 18   | Kilome          | Kasikeu                   | 250-300                           | 300-350               |                                  |   |                                       |  |
| 19   |                 | Kiima/Kiu                 | 250-300                           | 300-350               |                                  |   |                                       |  |
| 20   |                 | Mukaa                     | 350-400                           | 400-500               |                                  |   |                                       |  |
| 21   | Mbooni          | Tulimani                  | 300-350                           | 350-400               |                                  |   |                                       |  |
| 22   |                 | Mbooni                    | 350-400                           | 400-500               |                                  |   |                                       |  |
| 23   |                 | Kako/Waia                 | 250-300                           | 250-300               |                                  |   |                                       |  |
| 24   |                 | Kalawa                    | 250-300                           | 250-300               |                                  |   |                                       |  |
| 25   |                 | Kisau/Kiteta              | 250-300                           | 350-400               |                                  |   |                                       |  |
| 26   |                 | Kithungo/Kitundu          | 350-400                           | 400-500               |                                  |   |                                       |  |
| 27   | Kaiti           | Kilungu                   | 350-400                           | 400-500               |                                  |   |                                       |  |
| 28   |                 | Ukia                      | 350-400                           | 400-500               |                                  |   |                                       |  |
| 29   |                 | Ilima                     | 350-400                           | 400-500               |                                  |   |                                       |  |
| 30   |                 | Kee                       | 350-400                           | 400-500               |                                  |   |                                       |  |
|      |                 |                           |                                   |                       |                                  | 50-60<br>days   | Fair to good rainfall<br>distribution |  |

## 2.4 Recommendations

### 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.
- Risk of long dry Spells within the rainy period:
  - At the moment we cannot reasonably predict the actual length of the dry spells and their impacts on various crops.
  - We therefore advise farmers to choose crops that are least vulnerable to such long dry spells
- Length of the rainy period(LRP):
  - The exact length of soil moisture is slightly higher than the LRP depending on crop type, soil type and the amount of moisture at the time of cessation.
  - Choose the crop whose length of growing period to maturity is not too far from the LRP.

### ii) Onset dates versus planting dates:

- For those wishing to dry plant, it is advisable to plant within one week before the predicted onset dates.
- For those wishing to wet plant, it is advisable to wait for the weekly weather update which is more accurate.
- Wet Plant when the **weekly forecast** indicates at least **3 days** with rain of a total amount **greater than 20 mm**.

## 3 Agro-Weather Advisories

### 3.1 General Responsibilities

- Farmers to implement the advisories
- Agricultural Extension Officers to advise farmers
- Input suppliers to ensure inputs are available on time
- Community Extension Volunteers to advise farmers
- Kenya Met. Department to provide weather updates (weekly, alerts, updates)
- Agriculture, Livestock and Fisheries development
- Insurance companies

### 3.2 General Farm Activities

- Early land preparation: Second week of March 2024.
- Repair of soil and water conservation structures: Terraces, Zai Pits, Basins
- Repair of water storage structures: De-silting of farm ponds, weirs, water tanks, water pans, Gutters
- Practices: Conservation Agriculture (CA): Ripping, Planting stations.
- Pre-germination (seed soaking); Seed preparation
- Scale up manure and fertilizer application (basal & top dressing)
- Timely weed control
- Timely and proper pests and disease control.
- Proper spacing of crops
- Plant ecologically suitable certified seeds as indicated above
- Pitting for fruits and forest Trees

### 3.3 Specific agronomic Advisories for the Upper zones

| Crop varieties to plant | Ukia Ward<br>Probable MAM 2024 amount:<br><b>400-500 mm</b>  | Mukaa Ward<br>Probable MAM<br>2024 amount:<br><b>400-500 mm</b> | Mbooni and<br>Kithungo/Kitundu Wards<br>Probable MAM 2024 amount:<br><b>400-500mm</b> |
|-------------------------|--|---|---|
| 1. Maize                | DUMA 41/43, DK 8031, SUNGURA F1, HARAKA 301, DHO4, DHO2, PAN 3M 05, KISHINDO, PIONEER 3253 (Irrigated) | Same crops  | Same crops  |
| 2. Beans                | KAT X56, KAT B1, KAT X69, NYOTA, MWITEMANIA, ANGAZA, KATRAM  | Same crops  | Same crops  |
| 3. Cow Peas             | K80, M66, KV-27, KV-27-1, FAULU, KEN KUNDE   | Same crops  | Same crops  |
| 4. Sweet potatoes       | IRINE, YELLOW FLESH, KEMP 10, KSP 20, SPK 004  | Same crops  | Same crops  |
| 5. Sunflower            | KENYA FEDHA, 8998, HYSUN 33  | Same crops  | Same crops  |
| 6. Fodder/Pasture       | PANKCHONG, BRACHARIA, SUGAR GRAZE, NUTRIFEED   | Same crops  | Same crops  |

### 3.4 Specific Advisories for Livestock Sector – Upper Zones

|                                       | Recommended Actions  |
|---------------------------------------|--|
| <b>Activities on Livestock Sector</b> | <b>Pastures/Fodder to be established</b> <ul style="list-style-type: none"> <li>●Panicummaximum (Mbwea)</li> <li>●Chloris Roxburghiana (Kilili)</li> <li>●Chloris Gayana (Boma Rhodes)</li> <li>●Bracharia Species</li> <li>●Eragrostis Superba (Mbeetwa)</li> </ul> |
|                                       | <ul style="list-style-type: none"> <li>●Ration feeding/Paddocking/Conservation feeding</li> <li>●Destocking for appropriate carrying capacity</li> <li>●Adoption of home feed formulation</li> </ul>   |
|                                       | <ul style="list-style-type: none"> <li>●Proper housing</li> <li>●De-worming</li> <li>●Tick control</li> <li>●Restocking of fish ponds</li> <li>●Rehabilitation of fish ponds</li> </ul>  |

### 3.5 Specific agronomic Advisories for the Middle zones

| Crops to plant       | Wards:<br><b>Tulimani, Kako/Waia, Kisau/Kiteta, Kasikeu, Nzaui/Kilili/Kalamba, ,Emali/Mulala, Wote/Nziu, Muvau/Kikumini, Kiima Kiu</b><br>Probable MAM 2024 amount: <b>300-400 mm</b> |
|----------------------|---|
| 1. Maize             | DUMA 43,DH02, KISHINDO, SUNGURA 301,DK 8031, PAN 3M-5, HARAKA 101, TOSHEKA  |
| 2. Beans             | KAT B1,KAT X56, NYOTA   |
| 3. Green/Black Grams | BIASHARA, KAREMBO, KS20, N26  |
| 4. Cow peas          | KUNDE SOKO, KUNDE TAMU, KVU-27-1, M66, KEN KUNDE, BLACK EYE (Kang'au)   |
| 5. Dolichos          | BLACK EYE   |
| 6. Sorghum           | GADAM, KARI MTAMA 1, SEREDO, LOCAL VARIETIES  |
| 7. Millets           | KAT PM-1,2.3.SERENA, SILA   |
| 8. Finger Millet     | KAT FM-1, LOCAL VARIETIES   |

### 3.6 Specific Advisories for Livestock Sector – Middle Zone

|                                       | <b>Recommended Actions</b>   |
|---------------------------------------|--|
| <b>Activities on Livestock Sector</b> | <b>Pastures/Fodder to be established</b> <ul style="list-style-type: none"> <li>●Panicummaximum (Mbwea)</li> <li>●Chloris Roxburghiana (Kilili)</li> <li>●Chloris Gayana (Boma Rhodes)</li> <li>●Bracharia Species</li> <li>●Eragrostis Superba (Mbeetwa)</li> </ul> |
|                                       | <ul style="list-style-type: none"> <li>●Ration feeding/Paddock/Conservation feeding</li> <li>●Destocking for appropriate carrying capacity</li> <li>●Adoption of home feed formulation</li> </ul>  |
|                                       | <ul style="list-style-type: none"> <li>●Proper housing</li> <li>●De-worming</li> <li>●Tick control</li> <li>●Restocking of fish ponds</li> <li>●Rehabilitation of fish ponds</li> </ul>  |

### 3.7 Specific agronomic Advisories for the Lower Zone

| <b>Crops to plant</b>         | <b>Wards:</b><br>Makindu, Nguu/Masumba, Kalawa, Kikumbulyu South, Kikumbulyu North, Nguumo, Thange, Nzambani/Ivingoni, Mavindini, Kathonzweni, Kitise/Kithuki, Masongaleni, Mtito Andei<br><b>Probable MAM 2024 amount:</b><br>150-250 mm | <b>Wards:</b><br>Nguu/Masumba, Kalawa, Nzambani/Ivingoni<br><b>Probable MAM 2024 amount:</b><br>250-300 mm   |
|-------------------------------|---|--|
| 1.Maize                       | <b>Not recommended</b>  | <b>Not recommended</b>   |
| 2.Beans                       | <b>Not recommended</b>  | KAT X 56, NYOTA, MWITEMANIA, KATRAM  |
| 3.Green Grams                 | KS 20, N 26, BIASHARA, KAREMBO, MAKUENI, NDENGU TOSHA   | KS20, N26, BIASHARA, KAREMBO, MAKUENI, NDENGU TOSHA  |
| 4.Cow Peas                    | K80, KVV 27-1, KVV 419, KEN KUNDE, KUNDE TUMAINI, LOCAL VARIETIES   | M66, K80, KVV 27-1, KVV 419, KEN KUNDE, KUNDE TUMAINI, LOCAL VARIETIES   |
| 5.Sorghum                     | GADAM, SEREDO, KARI MTAMA 1, KARI MTAMA 11, SMILE, SILA, ADVANTA, KIVILA KYA IVUI   | GADAM, SEREDO, ADVANTA, KARI MTAMA 1, SMILE, SILA, KIVILA KYA IVUI/NYELELE   |
| 6.Pearl Millet                | KAT PM-2, KAT PM-3  | KAT PM-2, KAT PM-3, KAT PM-4   |
| 7.Sunflower                   | KENYA FEDHA   | KENYA FEDHA, H998, HYSUN 33  |
| 8.Pasture Grass/Fodder Shrubs | Ratoon pasture grasses such as Ndata Kivumbu (Eragrostis Superba), Bracharia Mulato, Boma Rhodes, Sugar Graze, Nutri-feeds, Panicum species, Masai Love Grass etc.  | Ratoon pasture grasses such as Ndata Kivumbu (Eragrostis Superba), Bracharia Mulato, Boma Rhodes, Sugar Graze, Nutri-feeds, Panicum species, Masai Love Grass etc. |

### 3.8 General Activity Plans

| S/No. | Activity                              | When   | By Whom                                       | Remarks  |
|-------|---------------------------------------|--|---|--|
| 1.    | Land preparation                      | Ongoing until 18/03/2024   | Farmers Service Providers                     | Use of CA is recommended   |
| 2.    | Dry planting                          | Ongoing until 18/03/2024   | Farmers Service Providers                     | Use of recommended certified seeds and plant varieties<br>Application of manures and fertilizers         |
| 3.    | Wet planting                          | 18/03/2024 – 01/04/2024<br>Check the weekly weather update on KMD website<br><a href="https://meteo.go.ke/node/4942">https://meteo.go.ke/node/4942</a> | Farmers Service Providers                     | Use of recommended certified seeds and plant varieties<br>Application of manures and fertilizers         |
| 4.    | Gapping, Thinning & Weeding           | 1 <sup>st</sup> – 2 <sup>nd</sup> Week of April 2024   | Farmers Service Providers                     | Continuous activity  |
| 5.    | Pest and Disease Control              | From 1 <sup>st</sup> Week of April 2024  | Farmers Spray Service Providers               | Adherence to spray programs<br>Continuous consultation with Agriculture Extension Officers               |
| 6.    | Harvesting                            | From June 2024   | Farmers Service Providers                     | Harvest at physiological maturity  |
| 7.    | Post-harvest management and Marketing | From 2 <sup>nd</sup> Week of June 2024   | Farmers Service Providers<br>Marketing agents | Grains to be dried to the recommended moisture content (13.5% for cereals)<br>Drying of vegetable leaves |

### 3.9 General Analysis of Hazards/Risks and Opportunities (Agriculture)

|               | Risks  | Responsible actors  |
|---------------|--|---|
| Risks         | <ul style="list-style-type: none"> <li>• Drought</li> <li>• Famine</li> <li>• Destruction of infrastructure due to occasional heavy rains</li> <li>• Human wildlife conflicts</li> <li>• Resource based conflicts</li> <li>• Reduced crop yields</li> <li>• Low water levels</li> <li>• Forest fires</li> <li>• Increased incidences of pests and diseases</li> <li>• Domestic violence</li> <li>• Prostitution</li> </ul> | Governments at both levels<br>NGOs<br>Farmers<br>Kenya Red Cross<br>KMD |
| opportunities | <ul style="list-style-type: none"> <li>• Pasture/feed conservation</li> <li>• Proper post-harvest management of the previous harvest</li> </ul>  | Governments at both levels  |

|         | <b>Risks</b>   | <b>Responsible actors</b>  |
|---------|--|--|
|         | <ul style="list-style-type: none"> <li>• Water harvesting</li> <li>• Adoption of Climate Smart Agriculture technologies/Good Agricultural Practices (GAPs)</li> <li>• Hay harvesting</li> <li>• Water trucking/Vending</li> <li>• Crop insurance</li> <li>• Water harvesting</li> <li>• Business opportunities for Agro-dealers and farmers</li> <li>• Opportunities for tree planting</li> <li>• Livestock insurance</li> <li>• Dissemination of Agro-Weather advisories</li> <li>• Increase in hay trade</li> <li>• Silage production</li> <li>• Water business</li> </ul> | NGOs<br>Insurance Service Providers<br>Farmers<br>Service Providers<br>Input Suppliers |
| Impacts | <ul style="list-style-type: none"> <li>✓ Food and nutrition insecurity</li> <li>✓ Low crop yields</li> <li>✓ Limited availability of pasture and browse</li> <li>✓ High cost of hay</li> <li>✓ High cost of living</li> <li>✓ Poverty</li> <li>✓ Increased incidences of human wildlife conflicts.</li> <li>✓ Poor performance in schools</li> <li>✓ Early marriage &amp; unplanned pregnancies</li> <li>✓ High incidences of divorce</li> <li>✓ HIV/AIDS increase</li> <li>✓ Increase in school dropout rates</li> </ul>  | Governments at both levels<br>NGOs<br>Farmers  |



### 3.10 Other advisories for Livestock farmers

|                                | <b>Recommended Actions</b>  | <b>Responsible</b>  |
|--------------------------------|---|---|
| <b>Activities on Livestock</b> | <p><b>Pastures/fodder to be establishment</b></p> <ul style="list-style-type: none"> <li>•Panicum maximum (Mbwea)</li> <li>• Chloris Roxburghiana (Kilili)</li> <li>•Bracharia species</li> <li>•Boma Rhodes</li> <li>●Panicum species</li> <li>●Nutri-feeds</li> <li>●Masai Love grass</li> <li>•Sorghum fodder</li> <li>• Sugar graze</li> <li>•Eragrostis Superba (Mbeetwa)</li> <li>•Ration feeding/paddock/conservation feeding</li> <li>●Ratooning pasture grasses such as Eragrostis Superba (Ndata Kivumbu)</li> <li>• Destocking for appropriate carrying capacity</li> <li>• Adoption of home feed formulation</li> <li>• Breed management</li> <li>• Rehabilitation of existing and establishment of new water harvesting structures</li> <li>• Bush management for pasture improvement</li> <li>•De-worming</li> <li>•Tick control</li> <li>• Vaccination of livestock against weather related diseases</li> <li>• Proper housing for livestock</li> <li>• Timely harvesting and preservation of pastures and fodders</li> <li>• Rehabilitation of fish ponds</li> <li>•Restocking of fish ponds</li> </ul> | <p>Farmers<br/>           WLPOs<br/>           Community Extension<br/>           Volunteers<br/>           Input suppliers</p> |

## 4 Advisories for Other Livelihood Sectors

| SECTOR              | Impact   | Hazards/ Risks   | Opportunity   | Intervention/Actions  | Responsible  |
|---------------------|--|--|---|---|--|
| Water resources     | <ul style="list-style-type: none"> <li>•Little water that should be harvested</li> <li>• Drought</li> <li>• Poverty</li> <li>•Malnutrition</li> <li>• Marriage breakages</li> <li>• Food insecurity</li> <li>• High cost of living</li> <li>• Increase in resource based conflicts</li> <li>• High crime rates</li> <li>• Increased i school drop out rates</li> <li>•Gender Based Violence</li> </ul> | <ul style="list-style-type: none"> <li>• Drought</li> <li>•Migration</li> <li>• High incidences of school drop outs</li> <li>• Insecurity</li> <li>• Drying up of planted trees</li> <li>• Forest fires</li> <li>• Reduced livestock feeds</li> <li>• Low water levels in water sources</li> <li>• Resource based conflicts increase</li> <li>•Increased human-wildlife conflicts</li> <li>• Marriage breakage</li> <li>•Child labor</li> <li>• Prostitution increase</li> <li>• Increased incidences of pests and disease outbreak</li> </ul> | <ul style="list-style-type: none"> <li>•Water harvesting &amp; conservation</li> <li>• Pasture/feed conservation</li> <li>• Water business</li> <li>•Conflict resolution</li> </ul> | <p>Water trucking, adopt Water harvesting structures e.g. dams ,ponds ,water tanks and drought response interventions</p>                   | <p>KWS, NDMA, Dept. of water, Department of Agriculture, Livestock, Irrigation and development partners</p>                        |
| Disaster management | <ul style="list-style-type: none"> <li>• Drought</li> <li>• Upsurge of resource based conflicts</li> <li>• Water scarcity</li> <li>• Food insecurity</li> </ul>  | <ul style="list-style-type: none"> <li>• Occasional heavy rainfall events likely to trigger flooding</li> <li>•Long dry spells likely to impact vulnerable crops</li> <li>• Limited resources</li> <li>• High cost of living</li> </ul>  | <ul style="list-style-type: none"> <li>• Anticipatory planning</li> <li>• Development of contingency plans</li> </ul>   | <p>Activation of Emergency /Contingency plans</p>   | <p>National Drought Management Authority, NGOs, Governments, Faith Based Organization Kenya Red Cross Society – Makueni branch</p> |
| Wildlife /forestry  | <ul style="list-style-type: none"> <li>•Increased Human /wildlife conflicts</li> <li>•Incidences of wild fire breakouts in forests</li> </ul>  | <ul style="list-style-type: none"> <li>•Loss of livelihood</li> <li>• Wildlife deaths</li> <li>• Environmental degradation through un-wanton felling of trees for charcoal.</li> </ul>   | <ul style="list-style-type: none"> <li>•Conservation and strict protection of the current biodiversity</li> <li>• Surveillance to deter illegal activities</li> </ul>               | <p>Human /wildlife conflict minimization through budgetary allocation for compensation ,electric fencing ,surveillance and enforcement,</p> | <p>KWS National &amp; County Government Farmers Conservationists</p>   |

| SECTOR                      | Impact  | Hazards/ Risks   | Opportunity   | Intervention/Actions   | Responsible  |
|-----------------------------|---|--|---|--|--|
|                             | • Loss of biodiversity  |  |   | Afforestation programs   |  |
| Trade, industry and finance | <ul style="list-style-type: none"> <li>•commodity price increase</li> <li>•Reduced per capita incomes</li> <li>• Unavailability of commodities</li> </ul> | Famine/ drought/starvation   | Prudent utilization of current food reserves, importation of essential food commodities                 | Subsidized trader<br>Reduced credit interests  | Dept of Trade, Business Community, National & County Government              |
| Energy                      | Energy infrastructure network collapse  | <ul style="list-style-type: none"> <li>• Temporary blackouts</li> <li>• Reduced businesses turnover</li> </ul> | Maintenance of KPLC infrastructures, Investment on alternative energy sources                           | Allocate emergency funds, subsidy on fuel especially for domestic use  | Kenya Power (KPLC)<br>Private power generators                               |
|                             | Power outages   | Short-circuiting   | Energy saving   | Alternative supply e.g. solar, generators  | Kenya Power (KPLC)<br>Private power generators                               |
|                             | Increased cost of Energy  | Reduced electric energy generation   | Intensified use of solar energy   | Power rationing, Subsidies on solar power equipment  | Kenya Power (KPLC)<br>Private power generators                               |
| Health                      | Increased Food insecurity   | Increased Malnutrition cases, Increased food deficient related ailments  | Leverage on Nutrition, Increase food supplements for young children and the elderly (vulnerable groups) | Emergency /mobile clinic, Increase Health personnel, Enhanced public health activities, Prepositioning of drugs in health facilities | Ministry Of Health, Department of Health, Private Hospitals, Stakeholders    |
| Education                   | Disruptions of education due to hunger at home, Increased school drop out rates   | Poor school infrastructure due to parent's low incomes   | Initiation of School feeding Program  | Early warning and preparedness   | KMD, NDMA, Min. of Education, NGOs, CDMU, Faith Based Organizations, Parents |

## 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/4942> and via SMS messages every Monday evening or early Tuesday morning.

### For More information, Contact:

- The Nearest Agric Office in Wards, Sub Counties & County office.*
- Makueni County Meteorological Office: Contact: 0795929926*

## 6 Annex 1: Makueni Wards Map

