SEPTEMBER EW PHASE

Drought Status: ALERT

Maandalizi ya mapema

Kilifi County Drought Early Warning Bulletin – September 2021

Early Warning Phase Classification

<table>
<thead>
<tr>
<th>LIVELIHOOD ZONE</th>
<th>EW PHASE</th>
<th>TRENDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marginal Mixed Farming</td>
<td>Alarm</td>
<td>Worsening</td>
</tr>
<tr>
<td>Livestock/Ranching</td>
<td>Alarm</td>
<td>Worsening</td>
</tr>
<tr>
<td>Cash Cropping/Dairy</td>
<td>Alarm</td>
<td>Worsening</td>
</tr>
<tr>
<td>Food Cropping</td>
<td>Alert</td>
<td>Deteriorating</td>
</tr>
<tr>
<td>Mixed Farming zone</td>
<td>Alert</td>
<td>Deteriorating</td>
</tr>
<tr>
<td>County</td>
<td>Alert</td>
<td>Deteriorating</td>
</tr>
</tbody>
</table>

Drought Situation & EW Phase Classification

Biophysical Indicators (Environmental indicators)
- The month under review recorded minimal average rains compared to the previous month.
- The state of water sources on average ranged between fair to poor across the livelihood zones indicating a below normal situation for this time of the year.
- The county recorded on average moderate drought with some pockets recording poor to depleted pastures condition, a below normal situation for this time of the year.

Socio Economic Indicators (Impact Indicators)

Production indicators
- On average the livestock body condition for all species ranged from fair to poor across the livelihood zone.
- Milk production remained stable for the month under review compared to the previous month.
- Livestock body condition continued deteriorating.

Access indicators
- Average distance to water sources by households and livestock recorded an increase in the month of September compared to the previous month.
- Average livestock prices recorded a decrease for the month under review compared to the previous month.
- Average Terms of Trade recorded a decrease compared to the previous month.

Utilization indicators
- The month under review recorded zero percent cases of children under-five years at risk of malnutrition.

Biophysical Indicators

<table>
<thead>
<tr>
<th>Biophysical Indicators</th>
<th>Value</th>
<th>Normal ranges</th>
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</thead>
<tbody>
<tr>
<td>Rainfall (Average)</td>
<td>11.3mm</td>
<td>39.96mm</td>
</tr>
<tr>
<td>VCI-3 month</td>
<td>23.08</td>
<td>35-50</td>
</tr>
<tr>
<td>Average Forage Condition</td>
<td>Poor</td>
<td>Fair</td>
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</table>

Production indicators

<table>
<thead>
<tr>
<th>Production indicators</th>
<th>Value</th>
<th>Normal ranges</th>
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</thead>
<tbody>
<tr>
<td>Maize Crop Condition</td>
<td>No crop</td>
<td>Final Harvesting</td>
</tr>
<tr>
<td>Livestock Body Condition</td>
<td>Fair-Poor</td>
<td>Good</td>
</tr>
<tr>
<td>Milk Production (in liters)</td>
<td>1.7</td>
<td>4.3</td>
</tr>
<tr>
<td>Livestock Migration Pattern</td>
<td>Intra migration</td>
<td>Inter- migration</td>
</tr>
<tr>
<td>Livestock Deaths (from Drought)</td>
<td>Suspected cases</td>
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</tr>
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Access indicators

<table>
<thead>
<tr>
<th>Access Indicators</th>
<th>Value</th>
<th>Normal ranges</th>
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</thead>
<tbody>
<tr>
<td>Terms of Trade (ToT)</td>
<td>99.0</td>
<td>88.9</td>
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<tr>
<td>Milk Consumption (in litres)</td>
<td>0.8</td>
<td>1.5</td>
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<tr>
<td>Average Distance to Water Sources (in km)</td>
<td>4.4</td>
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</tr>
<tr>
<td>Average Distance to Water Sources from grazing (in km)</td>
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</tbody>
</table>

Utilization indicators

<table>
<thead>
<tr>
<th>Utilization indicators</th>
<th>Value</th>
<th>Normal ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition Status, MUAC (% at risk of malnutrition)</td>
<td>0.0</td>
<td>0-3</td>
</tr>
</tbody>
</table>

**Kilifi County Drought Early Warning Bulletin – September 2021**

- Short rains harvests
- Short dry spell
- Reduced milk yields
- Increased HH Food Stocks
- Land preparation

Long rains

- Long rains
- Planting/Weeding
- High calving Rate
- Milk yields increase

Dry Cool Season

- Long rains harvests
- A long dry spell
- Land preparation
- Increased HH Food Stocks
- Kidding (Sept)

Short rains Season

- Short rains
- Planting/weeding/pest control

<table>
<thead>
<tr>
<th>Dry Season</th>
<th>Long Rains</th>
<th>Dry Cool Season</th>
<th>Short Rains Season</th>
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</thead>
<tbody>
<tr>
<td>Jan</td>
<td>Feb</td>
<td>Mar</td>
<td>Apr</td>
</tr>
<tr>
<td>Apr</td>
<td>May</td>
<td>Jun</td>
<td>Jul</td>
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<tr>
<td>Aug</td>
<td>Sept</td>
<td>Oct</td>
<td>Nov</td>
</tr>
<tr>
<td>Dec</td>
<td></td>
<td></td>
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</table>
1.0 CLIMATIC CONDITIONS

1.1 Rainfall performance
- The month under review recorded minimal rains, a decrease of 30.7 percent was recorded compared to the previous month.
- The cash and food cropping zone recorded the lowest amount of rainfall while the Livestock Farming zone recorded the highest of 32.0mm.
- Spatial distribution was uneven as most parts of the Mixed Farming and Marginal Mixed farming zones recorded little showers to zero mm of rainfall.
- The amount recorded during the month under review was 72.4 percent below the long term mean at this time of the year.

![Average Rainfall (mm) in Kilifi County - September 2021](image)
- The rainfall amounts recorded across the dekads were below the long term means at this time of the year as per the Rainfall Estimate (RFE) graph below.
- The month of September was generally dry in most parts of the county.

2.0 IMPACT ON VEGETATION

2.1 Vegetation Condition
2.1.1 Vegetation Condition Index [VCI]
- The Vegetation Condition Index (VCI) compares the current NDVI to the range of values observed in the same period in previous years. The VCI is expressed in % and gives the position of the observed value within extreme values (minimum and maximum) in the previous years.
• On average the county recorded moderate vegetation condition index of 23.08
• Kaloleni, Ganze, Malindi and Rabai sub counties recorded severe drought condition of 18.63, 18.56, 13.41 and 18.25 respectively which was below for this time of the year.
• The vegetation condition was significantly below normal compared to the previous year.

2.1.2 Pasture

• Pasture condition remained poor to depletion in areas of Ganze, Magarini, Malindi, Rabai, Kilifi South and parts of Kaloleni sub counties.
• Pasture condition expected to continue deteriorating across the livelihood zones as the short rains delayed with a forecast of depressed rains.
• Significant percentage (95.5) of sampled households across the livelihood zones recorded poor pasture condition, with 4.5 % recorded fair pasture condition. Most areas in the marginal mixed and livestock farming continued to record depleted pastures.
• Intra-migration continues mainly in the livestock farming and Marginal Mixed Farming zones.
• On average the current pasture condition was below normal during this time of the year.

2.1.3 Browse

• In the month of September, significant percentage (68.2) of sampled households across the livelihood zone recorded between Poor browse condition.
• Browse condition expected to continue deteriorating across the livelihood zones.
• Browse condition was below normal at this time of the year.
2.2 Water Resources
2.2.1 Water Sources
- A larger percentage (39.3) of sampled households depended on Rivers, 32.1 percent depended on pans & dams with 17.9 percent depending on traditional river wells.
- Rabai, Kilifi South, Ganze, Kaloleni and Magarini sub counties where rains were scarce continued to record water stress as the pans and dams remained dry.
- The water condition in the water sources was below normal during this time of the year following poor two conservative rain seasons.
2.2.2 Household water access and utilization

- The average household distance to water sources for the month under review increased by 4.8% as compared to the previous month to 4.4km from 4.2km.
- The increase can be attributed to drying of strategic pans and water rationing across the livelihood zones.
- The livestock farming and Marginal Mixed Farming zones recorded the highest average distance of 7 kms.
- The average distance during the month under review was higher compared to the short term average at this time of the year.

2.2.3 Livestock access to water

- The month under review recorded an increase of 2.0 percent in average distance to water sources from 5.1 kms for the previous month to 5.2kms.
- This can be attributed to continued deterioration of pasture and water condition across the livestock, Marginal Mixed and cash cropping zones of Ganze, Magarini, Kaloleni, Kilifi South Malindi and Rabai Sub Counties.
- The average distance during the month under review was above the short term average at this time of the year.
3.0 PRODUCTION
3.1 Livestock Production
3.1.1 Livestock body condition
- Average livestock body condition still ranged between fair to poor as pasture and waters access varied across the livelihood zones.
- On average, 4.5 percent of sampled households recorded borderline fore ribs not visible 12th & 13th ribs visible, 54.5 percent recorded moderate neither fat nor thin body condition, 13.6 percent recorded poor while 27.3 percent recorded fair. Some parts of Adu in Magarini sub county, Sokoke, Bamba in Ganze sub county, Kayafungo in Kaloleni sub county and Jilore in Malindi sub county recorded significantly poor cattle body condition due to pasture and water stress.
- Body condition expected to deteriorate further in some parts of the livestock, cash cropping and Marginal Mixed farming zones as pasture and water stress continued.
- Average body condition was below normal at this time of the year.

![Kilifi Livestock Body Condition](image)

3.1.2 Livestock disease
- Cases of NCD and CCPP were reported in some parts of Ganze, Kilifi South and Magarini sub counties.

3.1.3 Livestock Migration.
- Cases of intra-migration of cattle were reported in Ganze and Magarini sub counties in search for pasture and water.
- Out-migration was reported too from Bamba ward in Ganze to Kwale county in search for pasture.
- Also inter-migration of camels from Tana-River was too recorded into livestock farming zones of Ganze and Magarini sub counties.

3.1.4 Milk production
- Milk production during the month of September remained stable compared to previous month at 1.7 ltrs/hh/day.
- The stability can be attributed to stability in pasture and water stress causing poor livestock body condition across livelihood zones.
- The production was 60.5 percent lower than the short term average at this time of the year.
3.2 Rain Fed Crop Production

3.2.1 Stage and condition of food crops

- Most farms remained bare with those with cassava recording poor crop condition.

3.2.2 Crop Harvest

- Cassava and vegetables were the main crops harvested during the month under review.
4.0 MARKET PERFORMANCE

4.1. LIVESTOCK MARKET

4.1.1 Cattle prices.
- Average price for a 4-year old bull during the month under review recorded a slight decrease of 0.2 percent to Ksh 22,409 compared to the previous month which recorded Kshs.22, 450.
- The decrease can be attributed to decrease in livestock body condition due to pasture and water stress in some parts of the livestock farming, cash cropping/dairy and Marginal Mixed Farming zones.
- The price was 12.1 percent above the short term mean at this time of the year.

4.1.2 Goat prices
- Average price of a 3-year-old medium sized buck during the month under review recorded a 5.4 percent decrease to Ksh 4,091 from ksh 4,267 recorded in the previous month.
- The decrease can be attributed to high supply in the market due decrease in household food security thus households searching for cash to buy food.
- The month’s average price was 23.4 percent higher than the short term mean at this time of the year.
4.2 Crop prices

4.2.1 Maize

- A kilo of maize recorded a increase of two percent compared to the previous month to Kshs 41.3 from Ksh 40.4 recorded in the previous month.
- The slight increased can be attributed to preference for sifted maize meal compared to maize which was scarce in the market following poor 2021 long rains season.
- The month’s average price was 7.0 percent lower compared to the short term mean at this time of the year.

4.2.2 Beans

- The average price of a kilo of beans recorded two point three percent decrease from Ksh. 111.9 recorded in the previous month to Ksh. 109.3 in September.
- The decrease can be attributed to increase in supply from outside the county where the rains were fair. The price is expected to remain high till the next harvest.
- The month’s average price/kg was 11.3 percent higher than the short term mean at this time of the year.
4.3 Terms of Trade (ToT)

- The month under review recorded a decrease of 5.7% compared to the previous month.
- The decrease can be attributed to slight increase in maize prices per kg with a decrease in average goat prices.
- The ToT for the month under review was 10.1 percent higher than the short term average at this time of the year.

![Average Terms of Trade in Kilifi County - September 2021](image)

5.0 NUTRITION STATUS

5.1 Milk Consumption

- Milk consumption during the month under review decrease to 0.8ltrs/hh/day from 1.1ltrs/hh/day as compared to the previous month.
- The decrease can be attributed to sale of milk at household level to buy other food items.
- The current consumption was 38.5 percent lower as compared to Long Term Average at this time of the year.

![Average Household Milk Consumption in Kilifi County - September 2021](image)
5.2 Health and Nutrition Status
- Many households struggled to put food on the table despite a significantly deterioration on household food security.
- Households going an extra mile to ensure under five years old are able to take three meals a day as adults skipped meals.
- The month of September recorded zero percent of children under- five years at risk of malnutrition but nutrition department continued raise in alarm for hard to reach area where defaulter and malnutrition cases continued to raise.
- This situation is expected to deteriorate in the livestock farming, Marginal Mixed Farming zones of Ganze, Magarini and Kaloleni sub counties, cash cropping zone of Rabai sub county, due to poor season’s contribution to food security.

5.2.2 Food Consumption Score
- A high proportion of sampled households, 80.8 percent across livelihood zones recorded acceptable food consumption with 18.3 percent recording borderline food consumption and 0.9 percent recording poor consumption.
- Following poor seasons recorded across the livelihood zones for the last two years, significant percentage of households had shifted to charcoal burning and selling firewood selling for food purchase.
- The Mixed Farming and livestock farming zones recorded the highest percent of households at borderline with only the livestock farming zone recording households at poor band on food consumption.
- Food consumption expected to decline across the livelihood zones following poor season harvest.
5.3 COPING STRATEGIES

- The month under review recorded an average of 5.42 Coping Strategy Index (CSI) with Food cropping zone recording the highest score followed by cash cropping/dairy and livestock farming zones an indication of food shortages in these zones.
- Reduction in the number of meals and portion was the main consumption strategy employed.
- On average the CSI is expected to increase for cash cropping/dairy and livestock farming zones but decrease in other livelihood zones.
6.0 CURRENT ONGOING INTERVENTION MEASURES

6.1 Food-aid
- Supplementary feeding at health facilities by Ministry of Health and other relevant partners.
- Food assistance by plan-international to two schools in Jaribuni ward, Ganze sub county.
- Water trucking to Ganze and Magarini sub counties by NDMA and county water department

6.2 Non-food aid
Health Sector
Continuation of routine activities;
- Therapeutic Feeding Programs to manage acute malnutrition (SFP, OTP, ITP) in the entire county
- Baby-Friendly Community Initiative in Ganze, Kaloleni and Magarini sub counties.
- Iron Folate Supplementation among Pregnant Women in the entire county.
- Distribution of Ready to Use Food (RUFT) to sub county health facilities to manage acute malnutrition by Kenya Red Cross

Crops Sector
- Community capacity development Sustainable Land Management and coconut, Dairy farming by NARIGP.

Livestock sector
- Community mobilization for KMC commercial offtake (450 heads of cattle).
- Disease surveillance by county government-veterinary services department.
- Community mobilization for mass vaccination in Bamba ward in Ganze and parts of Magarini.

Water Sector
- Water trucking to areas worst hit with waters scarcity in Ganze and Magarini Sub Counties by the county water department.
- Pipeline extension in parts of Ganze and Magarini sub counties

Social protection sector.
- Cash transfer by world vision to 9000 households in Magarini(700) and Ganze(200) sub counties
- Community targeting for cash transfers by Kenya Red Cross
EMERGING ISSUES

- Continued Human-Wildlife conflicts in areas of Ganze, Kaloleni and Magarini Sub Counties over water resource.
- Increase in livestock deaths due to pasture and water stress.

7.1 FOOD SECURITY PROGNOSIS

- Household food security expected to continue decreasing following poor performance of the last two seasons and depressed rains forecasted for 2021 short rains.
- Food prices expected to remain high following poor previous seasons and increase in fuel prices.
- Livestock body condition expected to continue deteriorating as pasture and water stress continued.
- Average distance to water sources by both livestock and households expected to increase as more pans and dams continued to dry up and water rationing continued.
- Livestock average prices expected to decrease as livestock body condition continued deteriorating.
8. RECOMMENDATIONS

Livestock Sector
- Urgent Feed supplementation for vulnerable livestock in Bamba, Ganze, Kayafungo, Jilore, Sokoke, Jaribuni, Ganze, Adu and Mwawesa wards.
- Activation of commercial off take as pasture scarcity continued in Bamba, Sokoke and Jaibuni wards in Ganze Sub County, Adu, Gongoni and Magarini wards in Magarini sub county, Jilore in Malindi Sub County, Kayafungo and Mwanamwanga in Kaloleni sub county and Rabai Sub County.
- Ecto – and Endo parasite control as inter and intra migration cases continued to be reported in Magarini and Ganze sub counties.
- Rehabilitation of Strategic water pans-Shomella, Ndigiria, Kayafungo, Kwa Buni, Mrya Chakwe.
- Vaccination against Lumpy Skin Disease and CCPP in Ganze, Magarini and Kaloleni Sub Counties.
- Close monitoring of disease spread along migratory routes and intra migration continued.
- Slaughter off take as livestock body condition continued deteriorating and increased mortality due to malnutrition.

Water Sector
- Rehabilitation of strategic water pans and earth dams which are currently dry – Shomella, Mrya Chakwe, Kadzifitseni and Kayafungo by water department and other partners.
- Water trucking to areas in Ganze, Kaloleni and Magarini sub counties recording water stress (Kamale, Palakuni, Vitsapuni, Mwawesa, Midoia, Gede, Ndigiria, Marereni, Msumarini, Boraimani, Bofu, Gotani, Tsangatsini and Ndatani) by water department and other partners.
- Strategic Borehole repair and solarization, Rima Ra Pera borehole

Health Sector
- Support for health and nutritional outreaches across Ganze, Magarini, Kaloleni, parts of Malindi and Kilifi south sub counties.
- Close monitoring of cases of malnutrition at household level by nutrition department and other relevant partners.
- Capacity building of caregivers on Family MUAC across the county for early detection of cases of malnutrition.
- Defaulter tracing for nutritional monitoring in hard to reach areas of Ganze, Magarini and Kaloleni sub counties.

Crops Sector
- Community sensitization on irrigated agriculture as the rain-fed agriculture continued to perform poorly.
- Damming of water along river Sabaki for household and livestock use, food and fodder production.
- Revival and Expansion of irrigation schemes for crops and fodder production.
- Distribution of relief food to affected households across the county.

Education Sector
- Revival of school meals programme.

Coordination
- Close coordination of response activities and drought status continued to worsen.
- Close monitoring and drought situation.