


# National Drought Management Authority

## KAJIADO COUNTY DROUGHT MONITORING AND EARLY WARNING BULLETIN SEPTEMBER 2021



A Vision 2030 Flagship Project



SEPTEMBER EW PHASE						Early Warning Phase Classification										
<b>Drought Status: ALERT</b>  <b>Maandalizi ya mapema</b>						<b>LIVELIHOOD ZONE</b>	<b>EW PHASE</b>	<b>TRENDS</b>								
						PASTORAL	ALERT	WORSENING								
						AGRO-PASTORAL	ALERT	WORSENING								
						MIXED FARMING	ALERT	WORSENING								
						COUNTY	ALERT	WORSENING								
<b>Drought Situation &amp; EW Phase Classification</b> <b>Biophysical Indicators</b> ✓ In September, the County experienced normal dry spell. The vegetation greenness was normal for this time of the year. ✓ Water was inadequate and the situation was deteriorating. <b>Production Indicators</b> ✓ The 12 <sup>th</sup> and 13 <sup>th</sup> ribs of cattle were visible indicating stresses body condition due to inadequate pasture. ✓ Household daily milk production was half way below normal production at this time of the year. <b>Access indicators</b> ✓ The terms of trade sustained a declining trend since May, which indicates declining household food purchasing power. ✓ Milk consumption was 50 percent below normal in September. ✓ Return distance to water sources for livestock was within the normal range at this time of the year <b>Utilization Indicators</b> ✓ About 38.3 percent of the households had food consumption score between 21.5 and 35. This proportion were consuming poor diet in terms of diversity and or frequency. ✓ The risk of malnutrition for under-fives stands at 7.9 percent with an increasing trend. ✓ Households were now using less expensive food, borrowing, reducing the size of meals eaten in a day due to shortage of food.						<b>Biophysical Indicators</b>	<b>Observed Value/Range</b>	<b>Normal Range/LTA</b>								
						3-monthly VCI	55.02	35 - 50								
						State of water	Inadequate	Fairly adequate								
						Forage condition	Poor-Depleted	Fair								
						<b>Production Indicators</b>						<b>Observed Value/Trend</b>	<b>Normal Range</b>			
						Livestock body condition	Stressed	Fair								
						Milk production	2.0 litres	>4.4 litres								
						Livestock Migration	Early migration	Migration								
						<b>Access Indicators</b>						<b>Observed Value</b>	<b>LTA</b>			
						Terms of trade	91 kg/goat	69 kg/goat								
						Milk consumption	1.6 lt	2.4 lt								
						Distance to water sources	Livestock	9.6 km	9.6 km							
							Household	8.4 km	6.1 km							
						<b>Utilization indicators</b>						<b>Value</b>	<b>LTA</b>			
						MUAC (% <135 mm)	7.9	10.5								
CSI	7.1	<10														
FCS	Border line = 38.3% Acceptable = 66.7%															
<ul style="list-style-type: none"> <li>Short rains harvest</li> <li>Short dry spell</li> <li>Reduced milk yields</li> <li>Increased HH food stock</li> </ul>		<ul style="list-style-type: none"> <li>Long rains</li> <li>Planting/weeding</li> <li>High calving rate</li> <li>Milk yields increase</li> </ul>		<ul style="list-style-type: none"> <li>Long rains harvest</li> <li>A long dry spell</li> <li>Land preparation</li> <li>Increased HH food stocks</li> </ul>		<ul style="list-style-type: none"> <li>Short rains</li> <li>Planting</li> <li>weeding</li> </ul>										
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec					

Seasonal Calendar

## 1.0 CLIMATIC CONDITIONS

### 1.1 Rainfall Performance

- Normally, June-September is the long dry weather period for Kajiado County (Figure 1).<sup>a</sup>
- This was not different this year. In September, the County experienced usual dry spell.

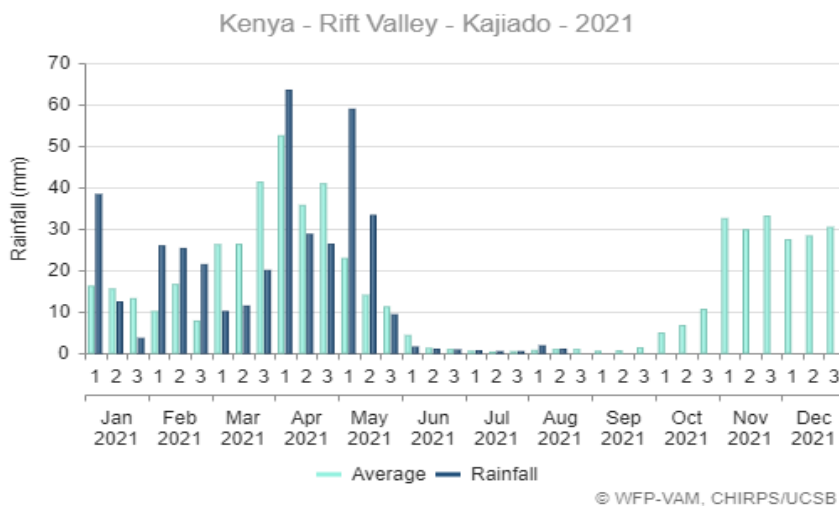


Figure 1: Rainfall performance; Kajiado

## 2.0 VEGETATION AND WATER CONDITION

### 2.1 Vegetation Condition

- Figure 2 is a matrix showing 3-monthly vegetation condition index for the County. The vegetation condition index for the month of September was 55.02. This suggest vegetation greenness above normal for this time of the year comparative to similar historical periods.
- The VCI for Kajiado Central (Pastoral) and Kajiado North (Mixed farming) were slightly below the County average at 42.05 and 42.6 respectively.

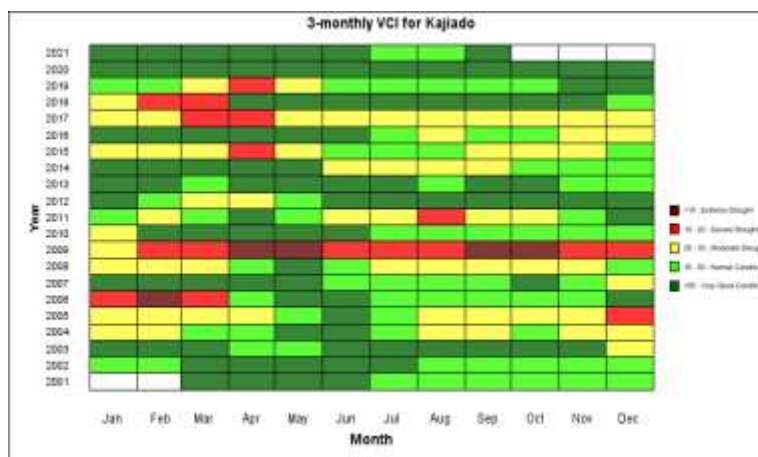


Figure 2: 3-monthly VCI matrix; Kajiado 2001-2021

### 2.2 Pasture and Browse Condition

- In some pastoral wards like Mosiro, Matapato South, Matapato North, Lekism, Mbirikani, Ewuaso, Meto, Purko, Lenkism, Kuku, Rombo, Loodokilani, Magadi and in Agro-pastoral central mainly in Dalalekutuk ward, pasture had depleted by end of August.

<sup>a</sup> By the time of compilation and submission of this bulletin, data for September this year was not available  
Kajiado Drought Monitoring & Early Warning Bulletin – September 2021

- In Agro-pastoral east, mainly Kaputei north where land is subdivided and most farmers have fenced their land, pasture condition was fair in September and would last up to end of October.
- Browse was still fair across the County and would probably last for the one to two months.

### 2.3 Sources of Water

- Usually households would get water from various sources. Here, key informants report at most three sources of water used by households in their communities in a given month.
- Figure 3 shows that in September, boreholes/shallow wells were the major (reported by 22 communities out of 25 communities) water sources for both domestic use and for livestock.
- This was normal for this time of the year. Even so high concentrations of livestock at strategic boreholes especially to areas where cattle have migrated to risks occurrence of livestock and human disease outbreaks.
- Boreholes will remain the major source of water for domestic use and for livestock until the rainy season probably in mid-October.

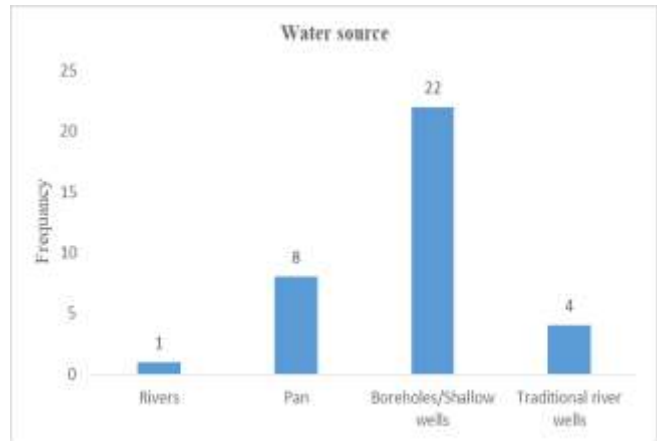


Figure 3: Main water Sources; Kajiado, September 2021

### 2.4 Households Water Access and Utilization

- The average return distance that people covered to fetch water for domestic use increased from 6.7 km in August to 8.4 km in September (Figure 4).
- Households were now relying mostly on boreholes for domestic water. On average boreholes, have larger geographical catchment compared to other sources such as river wells.
- Pastoral households covered about 10 km while those in agro-pastoral covered 5.5 km.
- The current distance was 38 percent above the long-term average distance. The long-term average distance for this time of the year, is 6.1 kilometres.

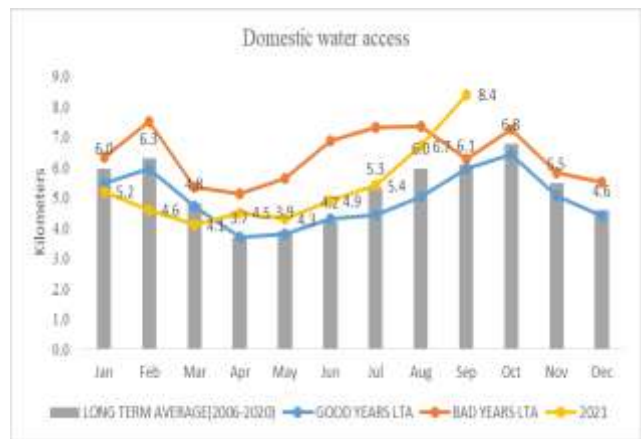


Figure 4: Average return distance from home to water sources; Kajiado 2009 - 2021

- The current distance was likely to reduce if the County were to receive rain by mid-October.
- Household water consumption have remained nearly stable for the last three months at about 60 litres per day in agro-pastoral zone and about 40 litres in pastoral zone per day.
- The cost of water was also stable for the June-September period with a 20-litre jerician selling at Ksh. 5 at the source and between Ksh 15 and Ksh 20 when supplied by a vender.
- Only about 25 percent of the households treated water for drinking of which about 75 percent of households who treated drinking water did so through boiling.

## 2.5 Livestock Access to Water

- The return distance that livestock trekked from grazing fields to watering points increased from 8.2

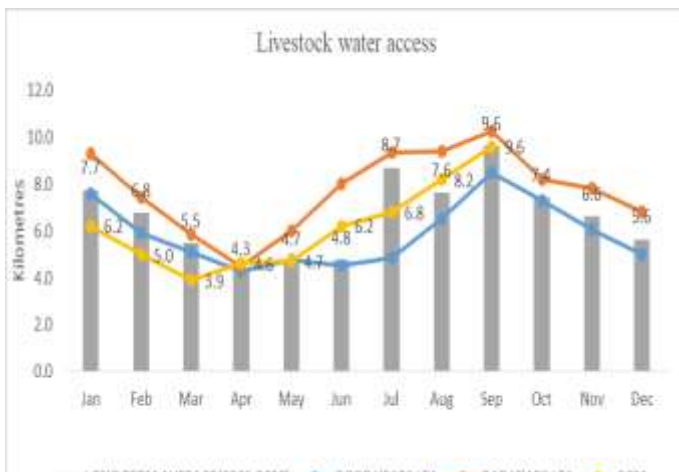


Figure 5: Average return distance from grazing fields to water sources; Kajiado, 2009-2021

km in August to 9.6 km in September. The current distance is similar to the long-term average (Figure 5).

- In pastoral south (Mbirikani, Kuku and Rombo), livestock were trekking nearly 12 km to watering points from grazing areas with watering frequency being not more than three times a week.
- The distance that livestock cover to get water from grazing fields would probably

reduce by October if the County get rains by mid-October.

## 3.0 PRODUCTION INDICATORS

### 3.1 Livestock Body Condition

- Most of cattle in pastoral zone had their 12th and 13th ribs visible because of strained access to pasture. In a good year, cattle body condition would be moderate; neither fat nor thin.
- In agro-pastoral east, cattle were in moderate body condition and so were the goats across all livelihoods. This was normal for this time of the year.
- Livestock all species body condition were continually deteriorating due to inadequate forage.

### 3.2 Livestock Diseases

- Cases of livestock diseases reported during the month included Peste des petits ruminants (PPR), Contagious Bovine Plueropneumonia (CBPP), Contagious Caprine Pleuropneumonia (CCPP), Foot and Mouth Disease and worms remains persistent in the County.

### 3.3 Livestock Migration

- Livestock migration in search of pasture started in July. This was slightly earlier than normal. In a normal year, migration of livestock in search of pasture starts round end of August.
- Some cattle from pastoral southern and central (Matapato, Lenkism, Mbirikani, and Kuku wards) have moved to Chylu hills while others have moved to Machakos and Makueni Counties. Those from Rombo were nearing Tsavo West National park.
- Also cattle from Dalalekutuk (agro-pastoral central) and Purko (Pastoral central) ward moved westwards to Shingilaine and Kamukuru). Cattle from Mosiro and Ewuaso (Pastoral west) were moving to the neighbouring Counties of Narok and Nakuru.

### 3.4 Milk Production

- Cattle is the main source of milk for the County. Goats also provide milk though in small quantities especially during the wet season.

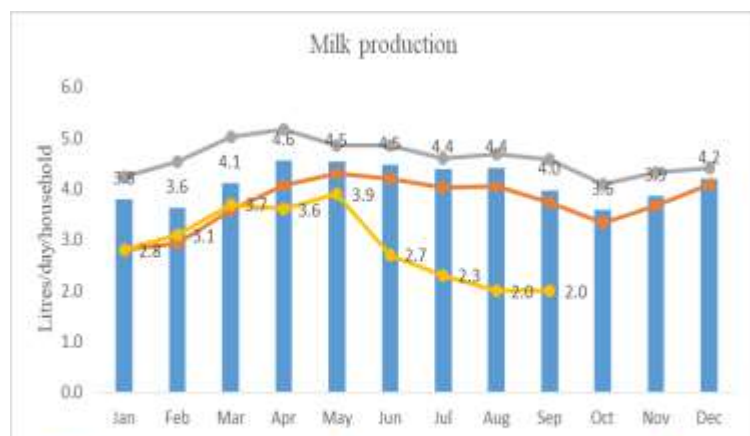


Figure 6: Average milk production; Kajiado, 2006-2021

2.6 litres for Agro-pastoral households.

- Declining household's milk production was associated with declining livestock body condition.

### 4.5 Rain fed Crop Production

- In September, most farmers were ploughing their lands in readiness for 2021 short rains.

- This year, milk production has continually declined from 2.6 litres per day per household in June to 2.0 litres per day per household in September. The daily household long-term average milk production for similar month is 4 litres (Figure 6).
- The daily household milk production for pastoral households was 2 litres and

#### 4.0 MARKET PERFORMANCE

- The main livestock markets in the County include Rombo, Shompole, Ilbisisil, Kimana and Kiserian. Although food stuffs are found in all the markets, the major markets include Ngong’, Kiserian, Longai, Isinya, Kajiado IIsisil, Kitengela, Kimana and Loitoktok. All these market were in normal operation in September.

#### 4.1 Prices of Cattle

- Last year, especially the time of COVID-19 restrictions (April- September), the prices of livestock went exceedingly high. At some point, markets were closed and supply went down. This pushed livestock prices high.
- After lifting the restrictions, cattle prices took a downward trend starting from January this year. The declining livestock body condition starting around July further accelerated decline of their prices.
- In January, a mature bull was selling at Ksh. 42,000 and Ksh. 32,800 in September. For the past five years, the price of a mature bull averaged Ksh. 30,400 at this time of the year (Figure 7). The current average price of cattle was 8 percent above the last five years’ average price.
- The lowest price of cattle of Ksh. 20,600 was in pastoral south at Mbirikani.

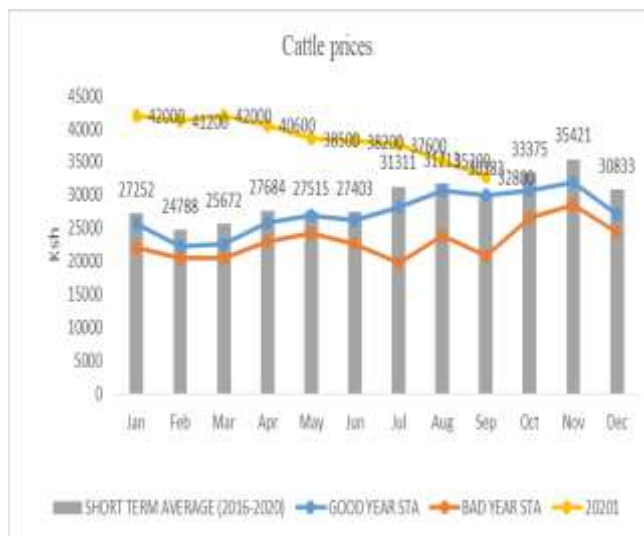


Figure 7: Average Cattle price; Kajiado 2016-2021

#### 4.2 Prices of Goats

- The prices of goats this year followed similar trend to that of cattle. In January, an average goat was sold at Ksh. 6,500 and Ksh. 5,090 in September. The average price of goat for the last five years is Ksh. 3,950 (Figure 8).
- The current goat prices were above the five-year average by 29 percent.
- The lowest price of goats of Ksh. 5,000 was in pastoral south at Mbirikani.

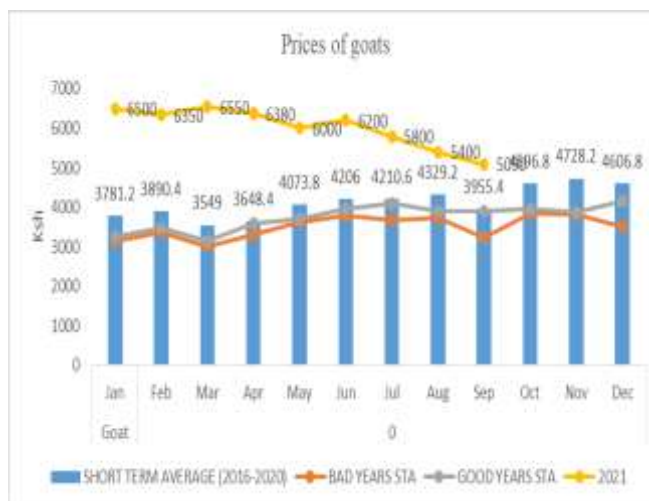


Figure 8: Average goats' price; Kajiado 2016-2021



### 4.3 Prices Maize

- Prices of maize were nearly stable for the period between June and September. This was after some harvest from mixed farming zone within the County and from other neighbouring Counties.
- In June, a kilogram of maize was selling at Ksh 55 and Ksh. 56 per kilogram in September. The average price of maize for the past five years is Ksh. 57 per kilogram (Figure 9).
- Variations of maize price across livelihoods were minimal in September. Najile market (Pastoral west) recorded the highest price of maize at Ksh. 70 per kilogram.

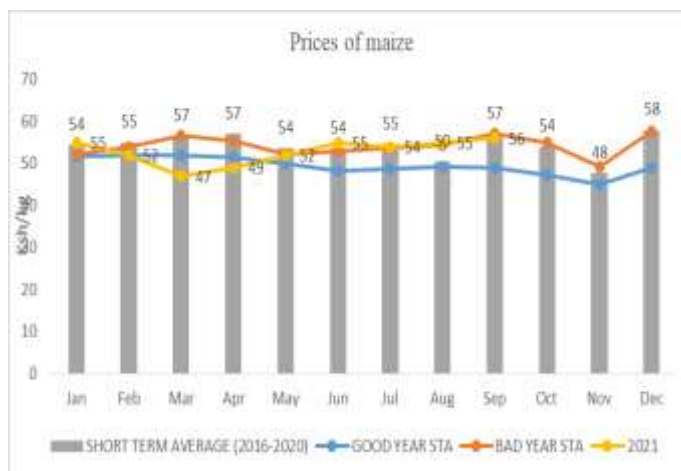


Figure 9: Average price of maize; Kajiado 2016-2021

### 4.4 Prices of Beans

- Prices of beans changed minimally between January and September this year. It was worth noting that during the past three months, the prices of beans were higher than the short-term average.
- In January, a kilogram of beans was selling at Ksh. 96 and Ksh. 101 in September. The short-term average for the month of September is Ksh. 98 per kilogram (Figure 10).
- The stability of beans prices was associated with availability of the commodity at the market. Supplies of beans is from both within and outside the County.
- Prices of beans varied across markets with the highest price of Ksh. 113 per kilogram and lowest price of Ksh. 86 per kilogram being observed in Najile (Pastoral west) and Rombo (Pastoral south) markets respectively.



Figure 10: Average beans prices; Kajiado, 2016-2021

#### 4.5 Milk Prices

- In August-September period, the average price of milk ranged between Ksh. 50 and Ksh. 55 per litre with no livelihood variations. This was the normal price at this time of the year.

#### 4.6 Terms of Trade

- Whereas the prices of foodstuffs remained relatively stable this year, the prices of livestock maintained a steady decline. The result was a continuous decline in terms of trade especially after March.
- In September, one would exchange a medium size goat for 91 kg of maize. The average terms of trade for the previous five years is 69 kilograms of maize for a medium size goat. (Figure 11).
- There were no livelihood variations in terms of trade in the month of September this year.



Figure 11: Average TOT; Kajiado, 2016-2021

### 5.0 FOOD CONSUMPTION, DISEASE OUTBREAK AND NUTRITION STATUS

#### 5.1 Milk Consumption

- This year, the household milk consumption fell below the historical average by June and thereafter maintained a steady declining.
- In September, household's milk consumption averaged 1.6 litres per day. This was 33 percent lower than the long-term average, which is 2.4 litres a day (Figure 12).
- There were no variations in milk consumption by livelihood zones in September.
- Reduction in milk production corresponded to reduction in milk production.



Figure 12: Milk consumption; Kajiado, 2006-2021



## 5.2 Food Consumption Score

- Figure 13 shows the monthly food consumption score since January this year. The general trend is reduction of the proportion of households with food consumption score above 35 (green colour) especially from June.

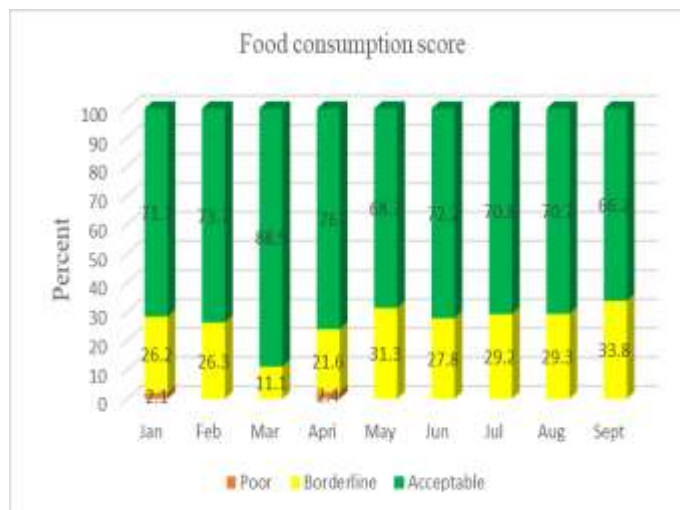


Figure 13: Food consumption score; Kajiado, July 2021

- Reduction of food consumption score means reduction in the dietary diversity and or frequency of consumption of one or more food groups.
- In our case, there was reduction in the number of households consuming staples and vegetable on daily basis complemented by oils and pulse for four days a week between May and September.
- Relatively larger proportion of households in pastoral zones had food consumption score ranging between 21.5 and 35 compared to those in Agro pastoral zone. In September 2.2 percent and 1.7 percent of the household in Kajiado West and Kajiado East respectively and food consumption score of less than 21. This suggest possibility of these households consuming on average only starches, oil, and sugar with very few other foods.
- The trend in food consumption score was consistent to trends in other indicators including livestock and foodstuffs prices and terms of trade.

## 5.3 Disease Outbreak

- In the month of September, there were no reports of human disease outbreak. However, COVID-19 is still a threat to human health.

## 5.4 Nutrition Status of Children aged 6-59 Months

- Figure 14 show the results of measurement of Mid-Upper Arm Circumference (MUAC) using family MUAC tape for children aged 6 to 59 months.
- The yellow part represent the proportion of those children at risk of malnutrition equivalent of MUAC measurement ranging between 125 mm and 135 mm.
- The trend show increasing proportion of children at risk of malnutrition especially after May. In May, the proportion of children at risk of malnutrition was 5.1 percent and 7.9 percent in

September. The short-term average proportion of children at risk of malnutrition in September is 10.5 percent.

- The increasing proportion of under-five children at risk of malnutrition mirrors the reversed trends in livestock prices, milk production, milk consumption, terms of trade and to larger extent the trend in food consumption score.
- In September, the proportion under-fives at risk of malnutrition in Pastoral livelihood was 8.8 percent and 7.1 percent in agro-pastoral livelihood zone.
- Pastoral areas in need of close monitoring for risks of malnutrition include Ololuwa, Nkaimurunya, Magadi, Ewuaso, Dalalekutuk, Entonet, Mbirikani, Meshinani, Kuku, Mosiro, Meto and Lenkism.

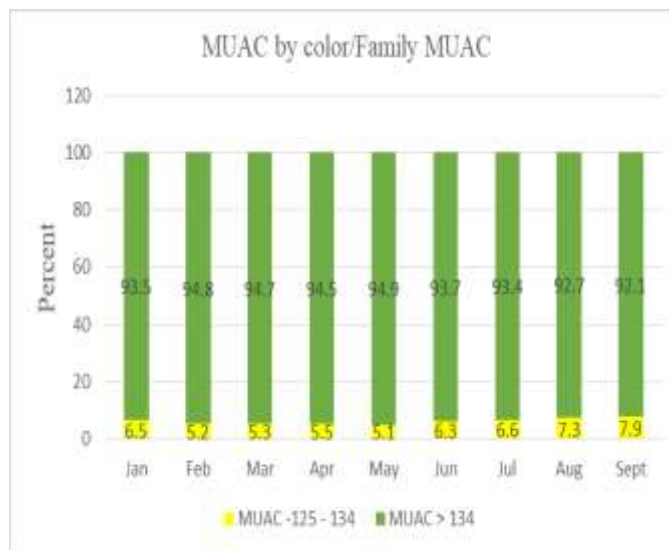


Figure 14: Risk of malnutrition for children aged 6-59 months; Kajiado, 2016-2021

## 5.5 Coping Strategies

- The County mean coping strategy index (CSI) in August and September was 7.1 and 7.8 respectively.
- In September, the coping strategy index for pastoral households was 9.2 and 4.4 in Agro-pastoral households.
- The common coping strategies employed by households across the livelihood zones to deal with lack of food or money to buy food during June - September period include reliance on less expensive food, borrowing and reducing the size of meals consumed per day.
- In agro-pastoral livelihood zone coping strategy index was 2.9 while in pastoral it was 8.9.

## 6.0 FOOD SECURITY PROGNOSIS, CURRENT INTERVENTIONS AND RECOMMENDATIONS

### 6.1 Food Security Prognosis

- The 2021 long rains performance was poor resulting to below normal pasture development and water availability as well as crop yields.

- The gains on pasture development due to January-February off-season rains did not last beyond June and by July cattle were migrating from their normal grazing fields in search of pasture.
- Following poor pasture condition and migration of livestock, their productivity including their body condition, prices, milk production continue to deteriorate.
- Household food stock is minimal due to below normal harvest. Consequently, prices of foodstuff will remain relatively high.
- Dietary diversity was expected to decline across all livelihood zones and thus affecting nutritional status of under five children even further.
- The situation was likely to worsen for the next six months in the event of delayed and or poor 2021 short rains.

## **6.2 Current Interventions**

- Human and livestock disease surveillance; *by respective County departments and partners*
- Routine extension services; *by department of Agriculture and department of livestock*
- Integrated outreaches in Kajiado West, Central and South sub-Counties; *by County Government and partners.*

## **6.3 Recommendations for Action**

- Feed supplementation for the lactating herds. *Action by County Government (Livestock production) in collaboration with National Drought Management Authority and partners*
- Vaccination campaign against Contagious Bovine Pleuropneumonia (CBPP), Contagious Caprine Pleuropneumonia (CCPP), Lumpy Skin Disease and Foot & Mouth Disease; *by County Government (Veterinary services) in collaboration with National Drought Management Authority and partners.*
- Provision of fast moving spare parts to strategic community boreholes including Emwapuri, Olkolojeseke, Enkirorit, Emotoroki and Longuswa.
- Mass screening and outreaches in hotspot areas. *Action by County Government (department of health services) in collaboration with National Drought Management Authority and partners*
- Review of County contingency plan and response plan. *Action by County Government in collaboration with National Drought Management Authority and partners*
- Resource mobilization. *Action by all stakeholders*