


National Drought Management Authority

KAJIADO COUNTY DROUGHT MONITORING AND EARLY WARNING BULLETIN JANUARY 2021



A Vision 2030 Flagship Project



JANUARY EW PHASE						Early Warning Phase Classification		
Drought Status: NORMAL  Shuhuli za kawaida						LIVELIHOOD ZONE	EW PHASE	TRENDS
						PASTORAL	NORMAL	STABLE
						AGRO-PASTORAL	NORMAL	STABLE
						MIXED FARMING	NORMAL	STABLE
						COUNTY	NORMAL	STABLE
Drought Situation & EW Phase Classification Biophysical Indicators ✓ The cessation of the short rains was early, in second week of December. The County though received off season rains in January with poor spatial and sporadic in nature. ✓ The County vegetation greenness reduced but still above normal. ✓ Forage condition was fair to poor in parts pastoral zones and good to fair in mixed farming areas due to pressure from parts of pastoral areas. Production Indicators ✓ Cattle body condition ranged from good to moderate while milk production rose but still below the long term average. Low milk production was due to low pasture and water availability. Crop condition was fair and deteriorating. ✓ There was internal return migration of livestock in Kajiado South and West pastorals. Access indicators ✓ The terms of trade were above five-year average. ✓ The amount of milk consumed by households was similar to the long term average for similar period of the year. ✓ Distances to water sources reduced below the long term averages for similar period of the year. Utilization Indicators ✓ Proportion of under-five children at risk of malnutrition was reduced below the five-year average for the month. ✓ Coping strategy index reduced, households were obtaining food with less difficulty. ✓ Households with acceptable FCS increased while poor reduced.						Biophysical Indicators	Observed Value/Range	Normal Range/LTA
						3-monthly VCI	50.08	>35
						State of water	Fair	Adequate
						Forage condition	Good to fair	Good
						Production Indicators		
						Observed Value/Trend		
						Normal Range		
						Crop	Fair	Good
						Livestock body condition	Good to Moderate	Good
						Household milk production per day	2.8 litres	>3.79 litres
						Livestock Migration	Minimal Internal	None
						Access Indicators		
						Observed Value		
						LTA		
						Terms of trade (kg of maize for a goat)	118.18	64.51
Household milk Consumption per day	2.5 litres	2.53 litres						
Distance to water sources	Livestock	6.2 km	7.73 km					
	Household	5.2 km	5.96 km					
Utilization indicators								
Value								
LTA								
MUAC (% <135 mm)	6.45%	10.76%						
CSI	5.28	<10						
FCS	Acceptable 84.6% Poor 1.2%	Acceptable 100%						

<ul style="list-style-type: none"> Short rains harvest Short dry spell Reduced milk yields Increased HH food stock 	<ul style="list-style-type: none"> Long rains Planting/weeding High calving rate Milk yields increase 	<ul style="list-style-type: none"> Long rains harvest A long dry spell Land preparation Increased HH food stocks 	<ul style="list-style-type: none"> Short rains Planting weeding 								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

Seasonal Calendar

1.0 CLIMATIC CONDITIONS

1.1 Rainfall Performance

- In January, the County had wet weather conditions due to off season rains as opposed to the expected hot and dry conditions.
- Compared to the long term average, the amount of rains received in the first dekad of January was relatively fair, 38.2 mm compared to normal of 16.1 mm (Figure 1).
- However, the off season rains spatial distribution was poor and sporadic with the bulk of it only received in parts of Kajiado South, East and Central.
- Due to poor performance of the previous short rains which was characterized by late onset and early cessation, the impact of January off season rains on forage regeneration and water availability would be moderate.

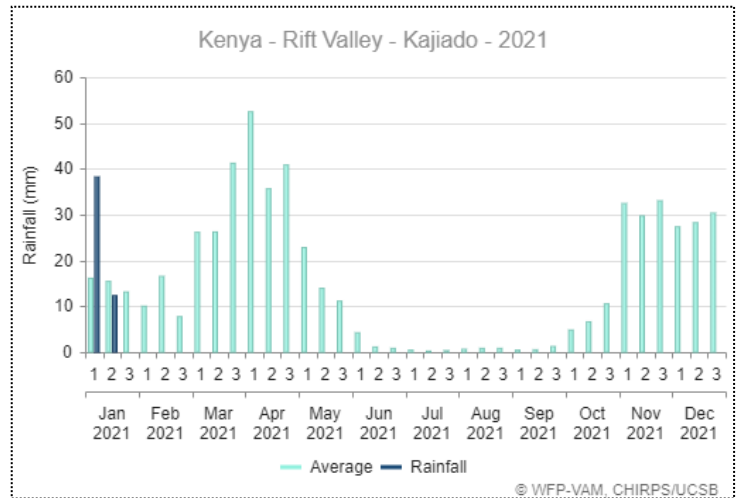


Figure 1: Rainfall performance; Kajiado, January 2021

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The County vegetation greenness in January 2021 was normal with a 3-monthly vegetation condition index of 50.08 (Figure 2).
- However, it's worth noting that the vegetation condition in the County has been deteriorating from 93.39 in October 2020 to 57.08 in December 2020.
- Vegetation condition was likely to deteriorate further in the next two months due to poor spatial and temporal distribution of the off season rains. Short rains had equally performed below average for the season.

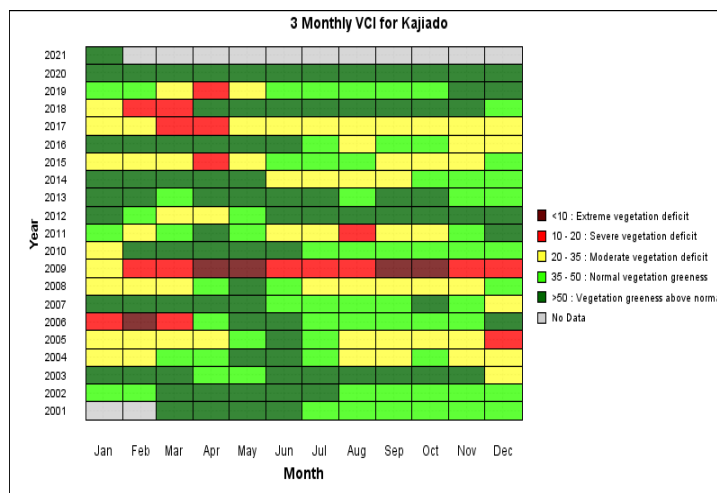


Figure 2: 3-monthly VCI matrix; Kajiado 2001-2021

2.1.2 Pasture and Browse Condition

- Pasture and browse was below normal for such a time of the year with a declining trend. 79 percent of the key informants interviewed reported fair, 13 percent poor while 8 percent reported good pasture conditions.
- Pasture regeneration following the short rains was below average, consequently the January off season rains impact remained moderate with irregular pattern favouring mixed farming livelihood zones.
- Invasive weeds such as Ipomea, Mathenge and the Mexican flower in pastoral and agro-pastoral livelihood zones are however fully rejuvenated and thus affecting available pasture space for livestock consumption.
- The available pasture would last less than two months due to internal migrations. Hot spot areas for monitoring include Loodokilani, Singiraini, Imaroro, Lenkism, olgulului, Magadi, Ewuaso, Kaputiei North and Mosiro.

2.2 WATER SOURCES

2.2.1 Sources

- The main sources of water for both domestic and livestock use in the county were: Pans/dams, Boreholes, and piped water, which are normal at this time of the year (Figure 3).
- Other sources included rain water harvesting, water tracking in Mbirikani and Magadi, traditional river wells and rivers in Rombo and Loodokilani.
- Recharge of surface water sources was below normal during the short rains, the January off season rains resulted to moderate improvement in the water availability and access especially for livestock.

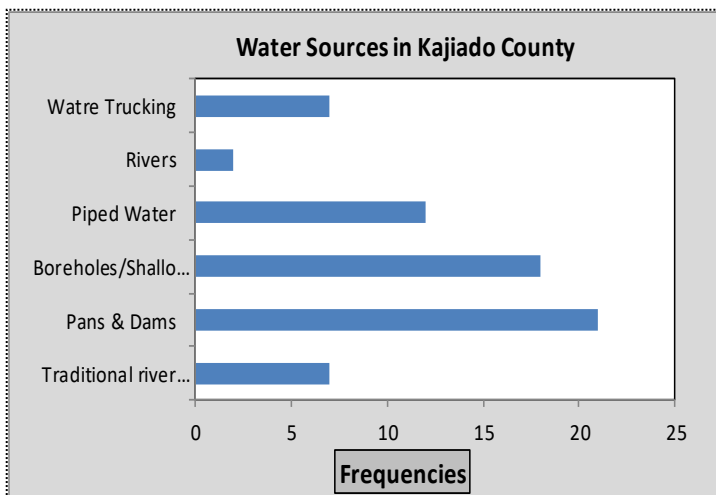


Figure 3: Water sources; Kajiado, January 2021

2.2.2 Households Water Access and Utilization

- The off-season rains in January reduced the average return distance that people trekked to fetch water for domestic use from 6.1 km in December to 5.2 km (Figure 4). This was below normal.
- Longer distances to water points were observed in Magadi, Meto, parts of Ewuaso, Kuku, Mosiro and Mbirikani of up to 10 km.
- In agro-pastoral Kaputiei North, households were consuming on average 90 litres of water per day compared to pastoral Mbirikani, where average household consumption per day was 26 litres.
- Cost of a 20 litre Jerican ranged from Ksh.0-3 in mixed farming to Ksh 20 for the same in pastoral areas particularly Magadi and Mbirikani where water trucking was taking place.

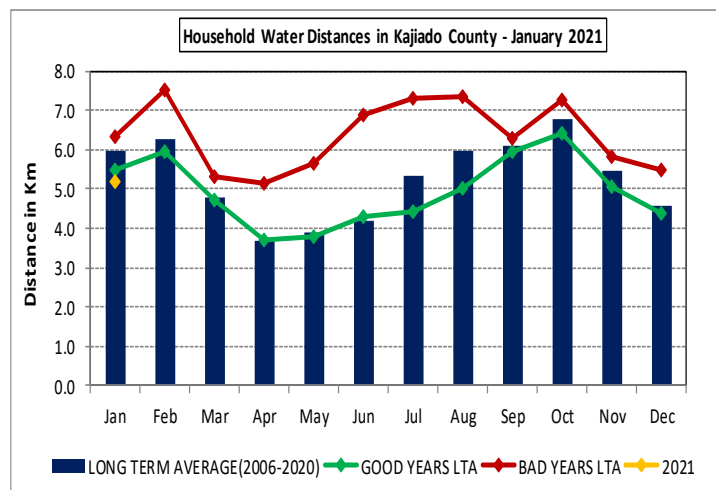


Figure 4: Average return distance from homesteads to water sources; Kajiado 2009 -2021

- 33% of the total household interviewed were treating water mainly through boiling at 64% and use of water treatment chemicals at 36%.

2.2.3 Livestock Access to Water

- The average return distance that livestock covered from grazing areas to water points reduced by 10 percent to 6.2 km in January 2021 from 6.9 km in December 2020 due to the off-season rains; this is 20 percent below the long term average (Figure 5).
- Currently water was available in pans especially in Kajiado South, parts of East and Central.

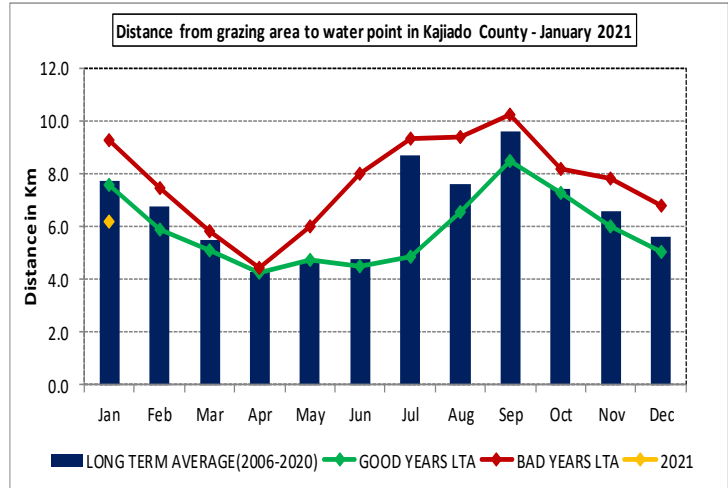


Figure 5: Average return distance from grazing fields to water sources; Kajiado, 2009-2021

- Watering frequencies for all the livestock species ranged between 3-4 times in pastoral West to daily in agro-pastoral and mixed farming areas.
- Distance covered by livestock in search of water from grazing areas was likely to increase by end February. The pans were likely to dry up due to evaporation caused by current high temperatures.
- In Mosiro, Kuku, Kunchu, Mbirikani and Magadi, watering points were about 20 km from grazing areas. These areas have inherent water inadequacy in addition to general poor rainfall performance.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Cattle body conditions remained same as the previous month ranging from moderate, neither fat nor thin in pastoral and agro-pastoral livelihood zones to good, smooth appearance in mixed farming livelihood zone. Shoats had good body conditions across all livelihood zones.
- In January 2020, body condition for all livestock species were good, fat with smooth appearance.
- Normally, livestock body condition for all species would be good (fat with smooth appearance) due to pasture and water availability from the short rains season.

3.1.2 Livestock Diseases

- Ewuaso reported cases of Foot & Mouth and Lumpy Skin Diseases while Cases of Contagious Caprine Pleuropneumonia (CCPP), Contagious Bovine Plueropneumonia (CBPP) and worms continued to be reported across Kajiado West Sub-County.

3.1.3 Milk Production

- The average household cow milk production improved slightly by 12% to 2.8 liters per day in January 2021 from 2.5 litres in December 2020, this is attributed to improved water availability from the off season rains (Figure 6).
- However, the current production is 26% below normal due to reduced tropical unit coupled with poor rainfall performance over the season resulting in below average pasture and water availability.
- Milk availability at the household level ranged from 3.6 litres per day in pastoral areas to 2.5 litres in agro-pastoral livelihood zones.

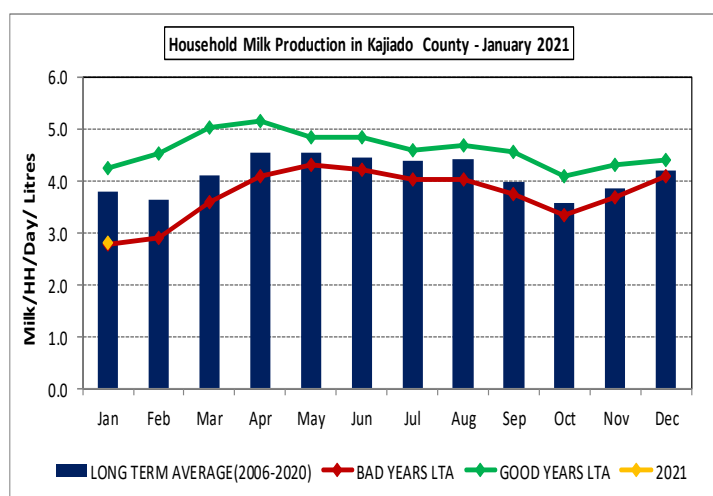


Figure 6: Average milk production; Kajiado, 2006-2021

3.2 RAIN-FED CROP PRODUCTION

- By December, crops had suffered moisture stress and deteriorated to fair conditions due to poor rainfall performance. Currently, maize was at tussling stage while beans was at podding Stage.

4.0 MARKET PERFORMANCE

4.1 Livestock Marketing

- All the major livestock and food commodities markets namely Shompole, Kiserian, Ilbisil, Kimana and Rombo were in normal operation's in all the livelihood zones during the of January 2021.

4.1.1 Cattle Prices

- The County average cattle price in January was Ksh. 42,000, this was 54% above the five-year average for this time of the year. In December 2020, the average price was Ksh. 41,700 (Figure 7).
- This was not normal, in January cattle prices usually decline. The continued increase in prices was attributed to low supply at market occasioned by restricted movements since the outbreak of COVID 19 virus and sustained good body conditions throughout the year 2020.

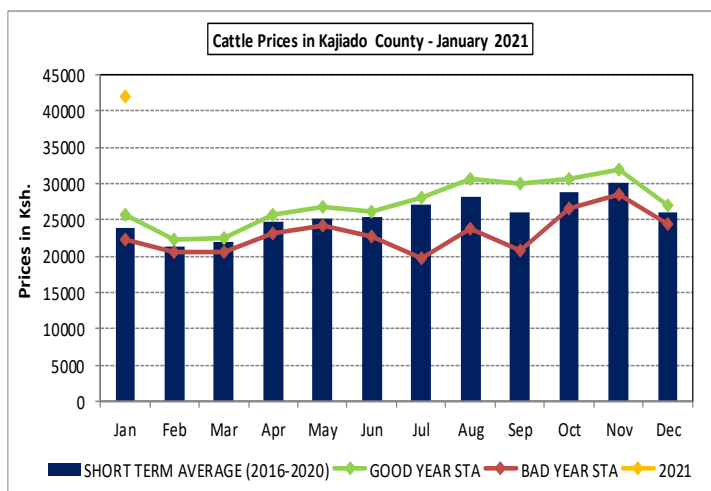


Figure 7: Average cattle prices; Kajiado, 2016-2021

- There were significant variations across livelihood zones. High prices of Ksh. 70,000 were traded in Kaputiei North where cattle still had good body conditions to Ksh 30,000 in Ewuaso, here cattle body condition were mainly fair.

4.1.2 Goats Prices

- In January, goat price was 72% above the short term average selling at Ksh. 6,500 (Figure 8), in December 2020, the price was Ksh. 6,200
- The continued high price was due to good body condition as browse had been available and accessible throughout the year 2020 coupled with low supply at market.
- The lowest price was sold in Mbirikani at Ksh 5,250 while the highest price of Ksh. 8,000 was sold in Rombo.

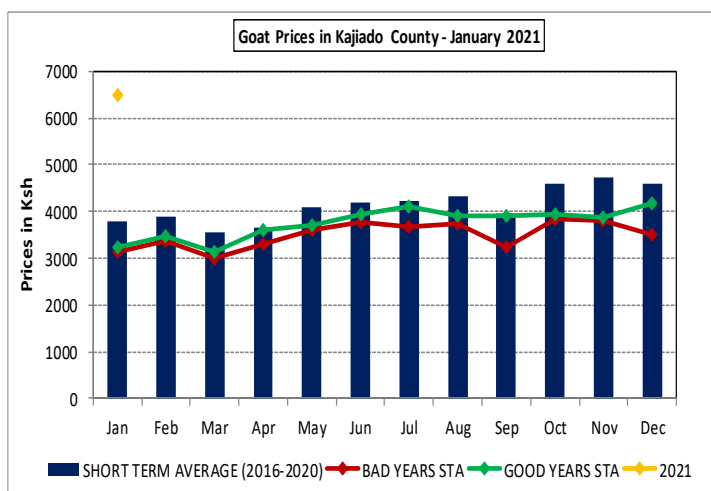


Figure 8: Average goats' prices; Kajiado, 2016-2021

4.2 PRICES OF CEREALS AND LEGUMES

4.2.1 Maize Prices

- Maize price remained stable at Ksh. 55 per kilogram, the five-year average for this time of the year was Ksh. 54.38 per kilogram (Figure 9).
- There was significant variation across the livelihoods zones. In mixed farming areas of Loitokitok, a kilogram of maize was sold at Ksh. 30 while in pastoral areas of Ewuaso, a kilogram of maize was sold at Ksh. 65. This was attributed to poor roads infrastructure in pastoral areas with heavy reliance on market for food stuff.

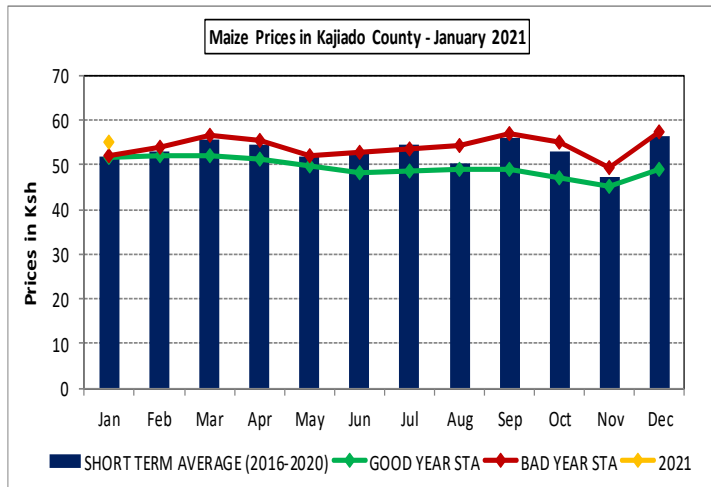


Figure 9: Average maize prices; Kajiado, 2016-2021

4.2.2 Beans Prices

- The average market price of a kilogram of beans in January was Ksh. 96, this was 6.7% below the five-year average and December price of Ksh. 102 (Figure 10).
- The reduction in price was attributed to the current harvest in the neighbouring Tanzania and thus availability at market especially along the border.
- In pastoral West, a kilogram of beans was selling at Ksh 120 while in mixed farming South a kilogram of beans was sold at Ksh. 65. Mixed farming areas are close to the border, accessible and have more alternative food sources.

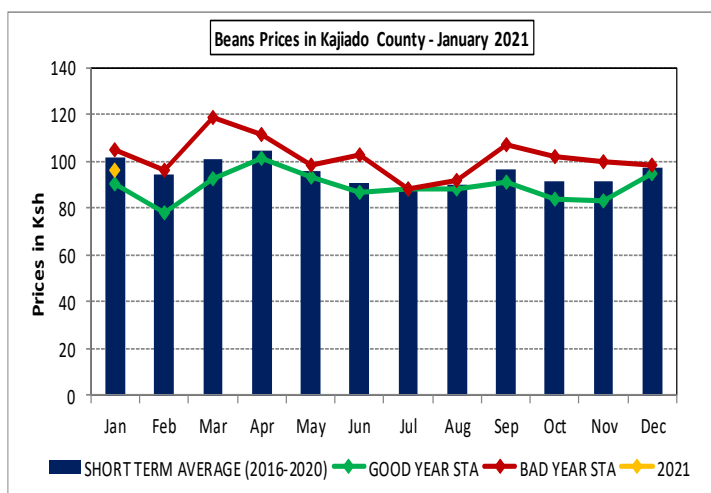


Figure 10: Average beans prices; Kajiado, 2016-2021

4.2.3 Milk Prices

- With no variation across the livelihoods, milk price remained stable at Ksh 52 per litres same as previous month. Normal price of milk at this time of the year is Ksh. 40 per litre.

- The high milk price is attributed to decline in production, the current production was 26% below normal.

4.4.1 Terms of Trade

- Terms of trade was favourable to the pastoralists as the sale of one medium-sized goat could be exchanged for 118.18 kilogram of maize during the month of January from 112.7 in December 2020 (Figure 11).

- The current terms of trade was 45.4% above the long term average of 64.51 kilogram of maize per sale of a goat.

- The favourable terms of trade was attributed to the consistently increasing goat price against averagely stable maize price.

- In pastoral livelihood average terms of trade was 69.6 kilogram of maize while agro-pastoral livelihood had 94.3 kilogram of maize per sale of a medium sized goat. Pastoral livelihood zones recorded averagely higher prices of maize.

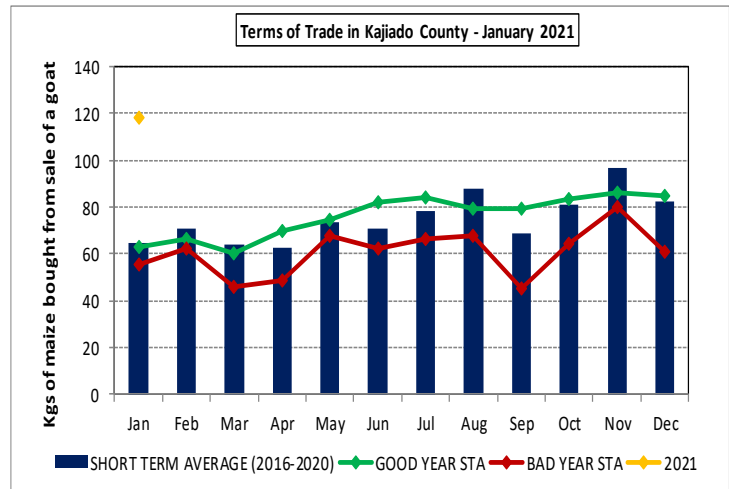


Figure 11: Trends in ToT; Kajiado 2016-2021

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk Consumption

- Household consumed mainly cow's milk.

The average milk consumption in January 2021 was similar to that of the previous year and long term average for such a time of the year at 2.5 litres per day (Figure 12).

- The slight improvement was due to improved production following the off season rains that boosted water availability and consequently pasture improvement.

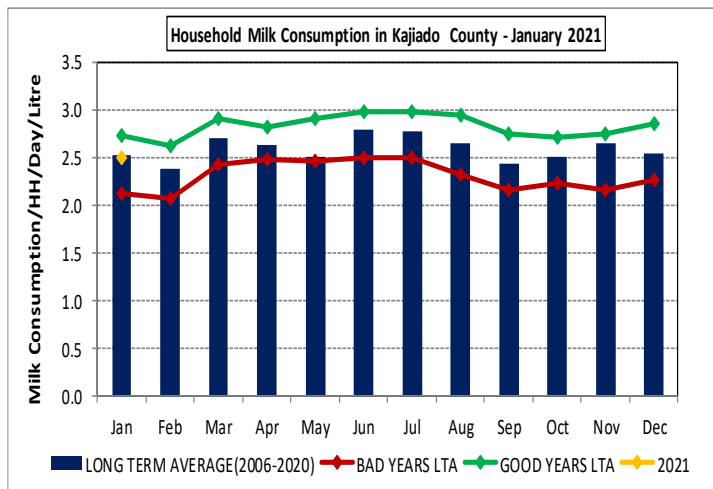


Figure 12: Household milk consumption; Kajiado, January 2021

- Consumption varied across the livelihood zones with households in the pastoral and agro-pastoral livelihood zones consuming between 2-3 litres per day while in the mixed farming livelihood zones consumption ranged between 3-4 litres per day.

5.2 Food Consumption Score

- The proportion of households consuming acceptable diet improved from 74.6% during the previous month to 84.6% in January. There is equally a slight reduction of households with poor consumption score from 1.8% in December 2020 to 1.2% (Figure 13).

- Kajiado West reported 4.8% poor and 53.6% borderline food consumption scores respectively. This was attributed

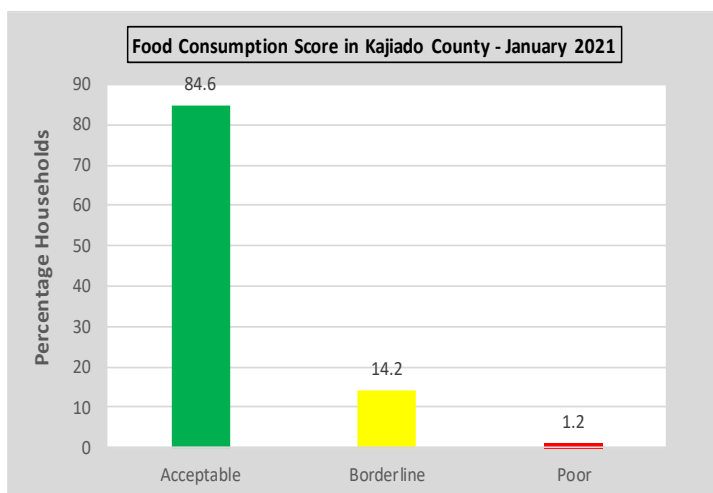


Figure 13: Food consumption score; Kajiado, January 2021

to migration reported in the previous month and high prices of food stuff in the area thus households have difficulty practicing dietary diversity.

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status of Children aged 6-59 Months

- The current percentage of children under five at risk of malnutrition based on MUAC (125-134 mm) was 6.45% compared to the long term average of 10.76% (Figure 14). In December 2020, children at risk of malnutrition were 6.7%.
- The level of malnutrition remained below the five-year average through the year 2020 attributed to improved infant and young child feeding practices, better household access to food due to enhanced household income from higher livestock prices and availability of milk consumption.
- Areas marked for higher risk of malnutrition include; Mbirikani, Lorn'osua, Meto, Lenkism, Mashenani, Esineti, Oloirero, Magadi, Ewuaso and Mosiro.

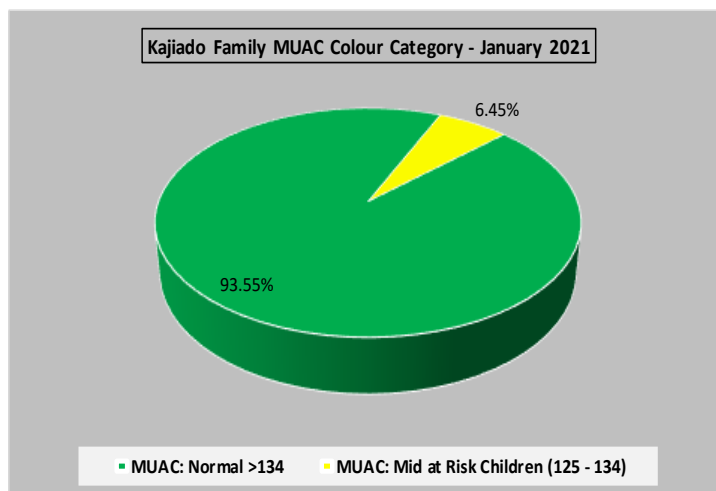


Figure 14: Risk of malnutrition for children aged 6-59 months; Kajiado, January 2021

5.3 Coping Strategies (CSI)

- The coping strategy index for January 2021 was 5.28 compared with 7.13 in December 2020, this implied that households were employing less severe coping strategies.
- Among the coping strategies employed include: selling small stocks in exchange for cereals, eating less preferred food, borrowing food and reducing the portions of food eaten.
- The CSI varied across the livelihood zones with pastoral livelihood zone recording CSI of 6.4 while agro-pastoral livelihood zone recorded CSI of 3.1.

6.0 CURRENT INTERVENTION MEASURES

6.1 Non-Food Interventions

- Water trucking in Kajiado South (Lenkism/Entonet, Mbirikani Wards) and Kajiado West (Magadi ward); *by County Government.*
- School feeding programs and supply of masks to schools for COVID 19 prevention protocols.
- Contingency plans review and Scenario Building – *by National Drought Management Authority.*
- Routine active and passive livestock disease surveillance - *by County Government.*
- Vitamin A Supplementation/Deworming, Growth Monitoring, Iron and Folic Acid Supplementation (IFAS) by - *by County Government and partners.*

7.0 EMERGING ISSUES

7.1 Migration

- Minimal internal return migration to normal grazing areas was observed. Livestock from Oldonyonyokie were moving back from Kamukuru and Naseria areas while Livestock from Isilale were moving back from Isinya and Sultan Hamud areas.

7.2 Food Security Prognosis

- The January off season rains slightly improved surface water availability and consequently pasture regeneration.
- The available pasture though not regenerated to full capacity, is expected to last for at least two months up to the next rainfall season in March.
- Thus milk production will not diminish as was projected following the poor short rains performance but shall remain below average for such a time of the year.
- Due to moisture stress, crop production, harvests are expected to be below average, total crop failure already reported in Matapato South thus minimal reduction in food prices at market.
- Livestock prices are expected to display a stable trend above average prices for the next two months due to fair body conditions.
- Levels of malnutrition are unlikely to rise significantly as terms of trade will still likely favour farmers in the next two months, households will be able to exchange small stock for a reasonable kilograms of cereals.

8.0 RECOMMENDATIONS FOR ACTION

- Provision of masks and water for schools and critical institutions; *By National and County Governments in collaboration with partners.*
- Enhanced immunization practices and Vitamin A supplementation coverage; *By County Government (Ministry of Health) in collaboration with National Drought Management Authority and UNICEF.*
- Supply of storage tanks and hand wash facilities in market centers, bus stops and primary schools; *By County Governments in collaboration with partners.*
- Completion of the ongoing water projects – IIngusuani, Singiraini, Enchoroi; *By Ministry of water and Natural Resources in collaboration with partners.*
- Continuous Uprooting of ipomea species to make grass available to livestock; *By National and County Governments in collaboration with partners.*