


National Drought Management Authority

KAJIADO COUNTY DROUGHT MONITORING AND EARLY WARNING BULLETIN AUGUST 2021



A Vision 2030 Flagship Project



AUGUST EW PHASE						Early Warning Phase Classification					
Drought Status: NORMAL  Shughuli za kawaida						LIVELIHOOD ZONE		EW PHASE		TRENDS	
						PASTORAL(West,South)		NORMAL		WORSENING	
Drought Situation & EW Phase Classification Biophysical Indicators ✓ Dry and sunny weather conditions prevailed in August. The long rains had performed below the normal ranges. ✓ The vegetation cover reduced but still at normal band. Forage was poor in Central, North and parts of West and South and is likely to worsen in the next one month. ✓ Water situation was inadequate with strategic water points getting pressure from livestock, people and wildlife.						PASTORAL(Central, parts of South)		ALERT		WORSENING	
						AGRO-PASTORAL (Central, North)		ALERT		WORSENING	
Production Indicators ✓ Cattle body condition was good to fair while shoats were good. ✓ Household daily milk production reduced and still below the long-term average due to diminishing pasture and increased trekking. Out migration in Rombo and Mbirikani, Kajido South. ✓ The yield for both maize and beans were below the normal range due to below normal performance of the long rains.						AGRO-PASTORAL (East)		NORMAL		WORSENING	
						MIXED FARMING		ALERT		WORSENING	
Access indicators ✓ The terms of trade declined though remains above the long-term average but expected to reduce further. ✓ Milk consumption declined due to low production. Return distance to water sources for both domestic and livestock use increased though still within normal but expected to worsen.						COUNTY		NORMAL		WORSENING	
Utilization Indicators ✓ 29.3% and 1.5% households were consuming borderline and poor food consumption scores respectively. ✓ The risk of malnutrition for under-fives is on the increase though still below the normal range for this time of the year.						Biophysical Indicators		Observed Value/Range		Normal Range/LTA	
						3-monthly VCI		45.68		35 - 50	
Short rains harvest ▪ Short rains harvest ▪ Short dry spell ▪ Reduced milk yields ▪ Increased HH food stock						State of water		Inadequate		Adequate	
						Forage condition		Fair to poor		Good	
Long rains ▪ Long rains ▪ Planting/weeding ▪ High calving rate ▪ Milk yields increase						Production Indicators		Observed Value/Trend		Normal Range	
						Livestock body condition		Good to fair		Good	
Short rains ▪ Short rains ▪ Planting ▪ weeding						Milk production		2 litres		>4.41 litres	
						Livestock Migration		In-migration Minimal out-migration		None	
Long rains harvest ▪ Long rains harvest ▪ A long dry spell ▪ Land preparation ▪ Increased HH food stocks						Access Indicators		Observed Value		LTA	
						Terms of trade		98.18 kg/goat		87.59 kg/goat	
Short rains ▪ Short rains harvest ▪ A long dry spell ▪ Land preparation ▪ Increased HH food stocks						Milk consumption		1.8 litres		2.64 litres	
						Distance to water sources		Livestock		8.2 km	
Long rains ▪ Long rains harvest ▪ A long dry spell ▪ Land preparation ▪ Increased HH food stocks						Household		6.7 km		5.96 km	
						Utilization indicators		Value		LTA	
Short rains ▪ Short rains harvest ▪ A long dry spell ▪ Land preparation ▪ Increased HH food stocks						MUAC		7.3		9.84	
						CSI		7.10		<10	
Long rains ▪ Long rains harvest ▪ A long dry spell ▪ Land preparation ▪ Increased HH food stocks						FCS		Borderline = 29.3%, Poor =1.5%.			
Short rains ▪ Short rains harvest ▪ Short dry spell ▪ Reduced milk yields ▪ Increased HH food stock						Long rains ▪ Long rains harvest ▪ A long dry spell ▪ Land preparation ▪ Increased HH food stocks					
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Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

Seasonal Calendar

1.0 CLIMATIC CONDITIONS

1.1 Rainfall Performance

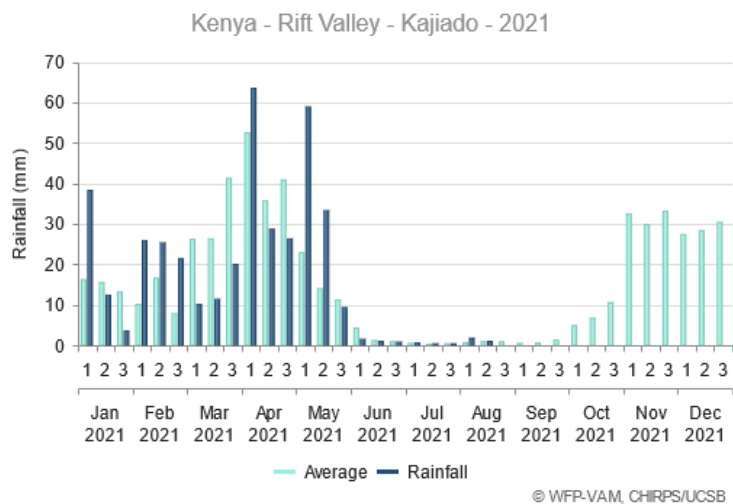


Figure 1: Rainfall performance; Kajiado

- The below average performance of the long rains in addition to pests and diseases resulted in below-normal crop production in rain fed mixed farming areas, reduced casual labour opportunities and household food availability; given the prevailing conditions to date ,appropriate contingency measures are required.

- The County remained dry as expected with more sunny intervals and occasional cloudiness during the month of August. Light rains were received mainly in Kajiado North, West and parts of South; rest of the areas received no rainfall at all (Figure 1).
- The 2021 long rains season had performed below average with poor temporal distribution and uneven spatial distribution across the livelihoods.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index

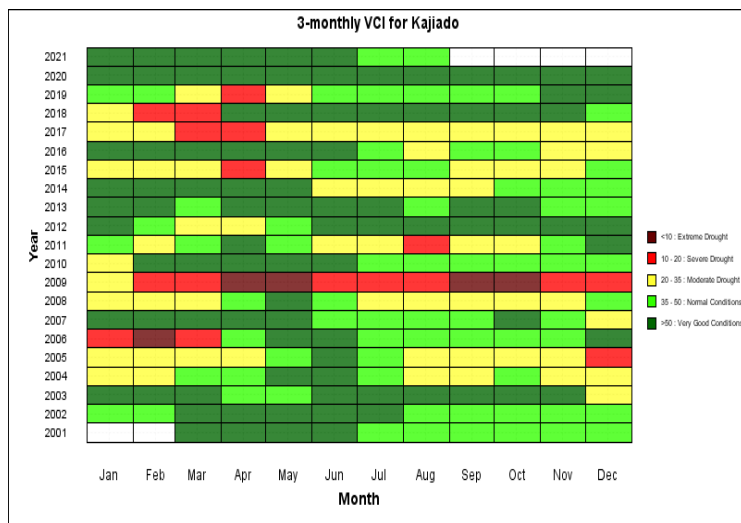


Figure 2: 3-monthly VCI matrix; Kajiado 2001-2021

33.6 respectively. These Sub-Counties need close monitoring.

- The vegetation condition index (VCI) was in the normal band and followed the expected downward trend with an actual value of 45.68; poor rains during the season led to below average regeneration of forage. In August 2020, the County VCI was 91.1 (Figure 2).
- Kajiado Central and North Sub Counties are in moderate vegetation deficit with VCI values of 32.92 and

2.1.2 Pasture and Browse Condition

- Pasture condition ranged from poor to fair in pastoral and agro-pastoral livelihood zones while good in mixed farming areas. Pastoral areas of Mosiro, Rombo, parts of Ewuaso, Meto, Purko, Lenkism ,Kuku, Rombo, Singiraine, Mbirikani, Magadi and agro-pastoral areas of Dalalekutuk, parts of Kaputiei North have depleted pasture, consequently livestock migration was reported by July.
- The poor condition of pasture is attributed to insufficient rainfall received in most parts of the county during the long rains season resulting to inadequate regeneration of forage.
- Browse is majorly good cross the county except in Kaputiei North, Mbirikani and Rombo where it is fair. The current browse is likely to last for one and half months.

2.2 WATER SOURCES

2.2.1 Sources

- Figure 3 shows that the most frequented water sources during the month of August are boreholes/shallow wells (40%), piped water (19%) and traditional river wells (16%). The shift from pans to boreholes, shallow wells and piped water was due to drying up of majority of pans in July while those holding water have deteriorated in quality. During the long rains, recharge of pans and dams was 10-50 percent of capacity.

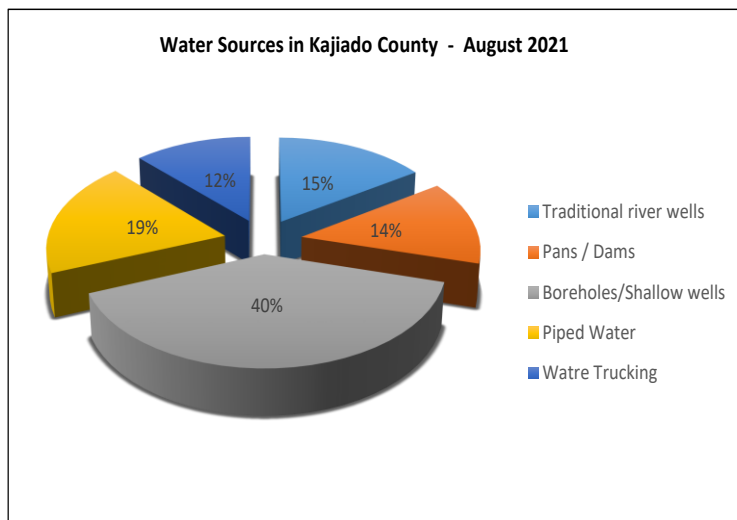


Figure 3: Main Water Sources; Kajiado, August 2021

normal three months.

- Other water sources include traditional river wells and water tracking.
- Some households in Mbirikani, Lenkism, Dalalekutuk Singiraine and Rombo are already drawing domestic water from the watering points also being used by the livestock.
- The existing open water sources are expected to last for less than one and half months as compared to the

2.2.2 Households Water Access and Utilization

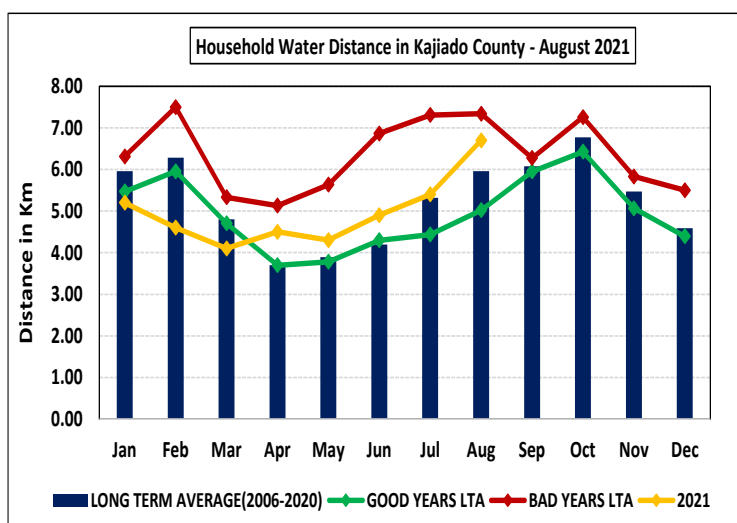


Figure 4: Average return distance from household to water sources; Kajiado 2009 - 2021

use was 4.5 kilometres while in pastoral livelihoods the distance was 3.7 kilometres.

- The average return distance that households covered to access water for domestic use was 6.7 kilometres. In July, this distance was 5.4 kilometres (Figure 4). The long-term average for the month is 5.96 kilometres.
- The increase is attributed to continued drying up of open water sources as well as seasonal river wells.
- In agro-pastoral livelihoods, average distance to water points for domestic

- Average water consumption per person per day was within normal ranges at 10 to 15 litres in pastoral livelihood zones and 15 to 20 litres in agro-pastoral livelihood zones.
- At boreholes/shallow wells, the cost of water ranged from Ksh. 5 in Kaputiei North to Ksh. 20 in Mbirikani per 20-litre jerrican while the cost of transporting the same was between Ksh. 5 to 10.
- About 32 percent of the households were treating water mainly through boiling, use of water treatment chemicals and filtration.

2.2.3 Livestock Access to Water

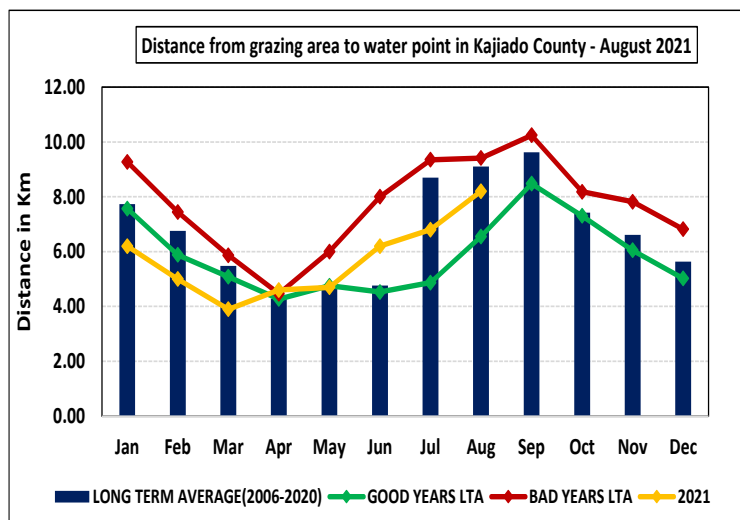


Figure 5: Average return distance from grazing fields to water sources; Kajiado, 2009-2021

for this time of the year.

- In pastoral areas, livestock were covering on average, between 8 kilometres in Rombo to over 10 kilometres in Mbirikani while the average distance in agro-pastoral areas was 3.7 kilometres.
- Livestock watering frequency in pastoral and agro-pastoral livelihood zones ranged between 3 to 5 days per week while in mixed farming it was 5 days per week.
- With influx of livestock in Kajiado West in search of pasture, disease outbreaks and increased pressure on strategic boreholes are expected significantly impacting and constraining livelihood activities and resulting in the destruction of property.

- The average distance that livestock trekked from grazing areas to water points increased from 6.8 kilometres in July to 8.2 kilometres in August (Figure 5). This was attributed to migration of livestock to dry season grazing zones, which have been taking place since June, in addition to the drying up of some open water sources.
- The current distance was below the long-term average of 9.10 kilometres

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- In August, the cattle body condition was good in mixed farming livelihood zones while in pastoral and agro-pastoral areas especially Mosiro, Ewuaso, Rombo, Mbirikani and Dalalekutuk cattle body condition was mainly fair. Pasture had been depleted by end of June in these areas. This is below normal for this time of the year.
- Livestock body conditions are expected to worsen in the next month due to further deterioration of pastures, reduced water availability increased trekking distances and diseases due to migration.
- Goats' and sheep body conditions were still good with no significant variation across livelihoods.

3.1.2 Livestock Diseases

- Foot and Mouth Disease (FMD), Contagious Bovine Pleuropneumoia (CBPP), Contagious Caprine Pleuropneumoia (CCPP), Peste des petits ruminants (PPR) and worms continued being reported.

3.1.3 Livestock Migration

- Both intra and out migration in search of pasture and water were reported during the month. This was early as normal out migration is usually in September.
- In pastoral South, livestock out-migration from Rombo to Tsavo National park and from Mbirikani to Chyulu and Ilchukai continued. In pastoral and agro-pastoral Central, livestock in-migration from Isilale, Purko, Ildamat and Dalalekutuk to Isinya-sambi, Kamukuru, Loodokilani and Sajiloni, areas were reported. Cattle from Magadi, Ewuaso and Olkiramatian areas of Kajiado West had migrated to Ngurumani hills while Sholinke reported presence of herds from Matapato North, South and Dalalekutuk wards.

3.1.3 Milk Production

- The average milk production per day per household in August was 2 litres. The average milk production was 55 percent below the long-term average for this time of the year (Figure 6) below.
- The below normal milk production was attributed to continued low tropical unit, ongoing migrations, reduced water availability and increased trekking distances.
- Milk production in Pastoral and Agro pastoral livelihood zones were 2 and 3 litres respectively

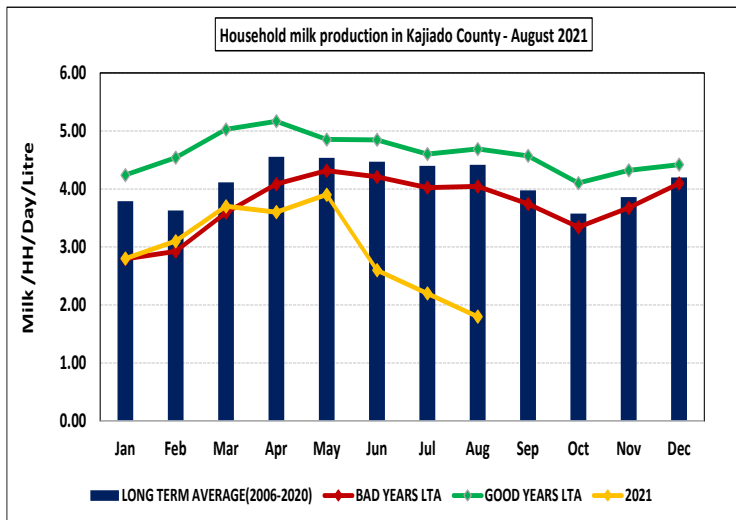


Figure 6: Average milk production; Kajiado, 2006-2021

- With the continued deterioration in livestock body condition due to migration, reduced pasture and water, significant reduction in milk production was likely in the next month.

3.2 RAIN-FED CROP PRODUCTION

- Although area planted for maize was relatively the same as long term mean, the average yield for the long rain season reduced by 47 percent of the five-year average.
- Similarly, area planted for beans was above long-term average by 10 percent, the yield was below the five-year average by 39 percent.
- The decrease in maize production was attributed to below average rainfall at critical crop physiological development in addition to infestation by the Fall Armyworm, beans suffered moisture stress and cutworm infestations.
- Following the mixed performance of the long rains; crop production, household access to food and income remains constrained by below-average food stocks and incomes from crop sales.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

- All the markets namely; Rombo, Shompole, Ilbibil, Kimana and Kiserian were in normal operation.

4.1.1 Cattle Prices

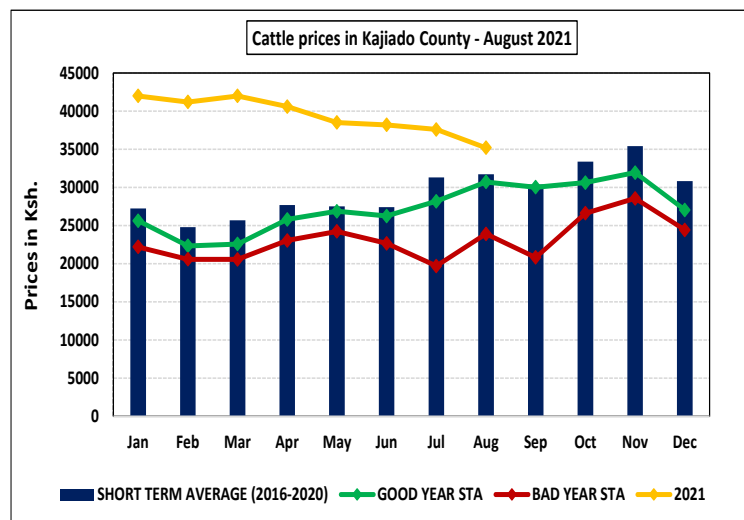


Figure 7: Average cattle prices; Kajiado 2016-2021

- In August, the retail price of an average 3-year-old bull was Ksh. 35,200. This was 10 percent above the five-year average price and 6.4 percent below the previous month (Figure 7).
- Since March this year livestock prices have exhibited a downward trend owing to the general increased supply from neighbouring Tanzania sold at cheaper rates, continued reduction in

body conditions and effects of COVID-19 such as the new tight school calendar.

- Across the livelihood zones, pastoral reported an average price of Ksh. 31,660 while agro-pastoral had an average price of Ksh.45, 800.
- Cattle prices are likely to continue declining in the next two months due to deteriorating body conditions.

4.1.2 Goats Prices

- On average, the price of a medium sized goat declined by 7 percent to Ksh.5, 400 in August due to increased supply from neighbouring Tanzania that were equally sold at lower prices. Households were selling too for income (Figure 8).
- However, the current price was 25 percent above the five-year average for such a time of the year.

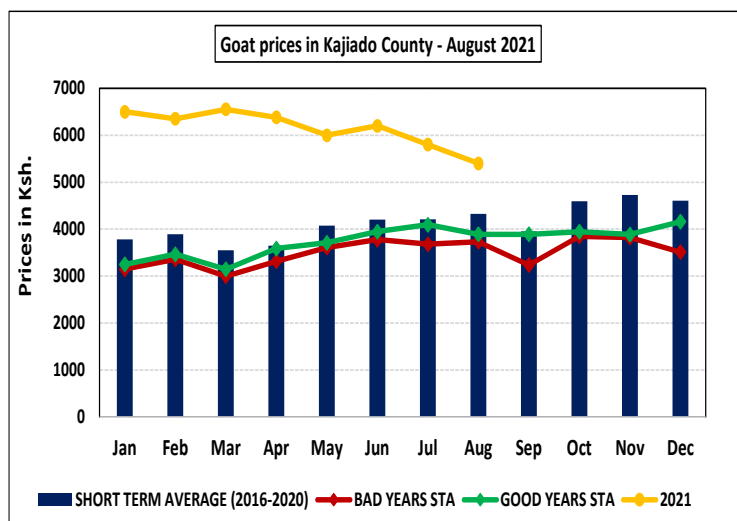


Figure 8: Average goat price; Kajiado 2016-2021

- The prices varied between Ksh.4, 375 in Loodokilani to Ksh. 7,000 in Kamukuru of Kajiado West with no significant variation in terms of livelihood zones.
- Though the goat prices indicated a downward trend, they are likely to remain above the five-year average for the next two months.

4.2 PRICES OF CEREALS AND LEGUMES

4.2.1 Maize Prices

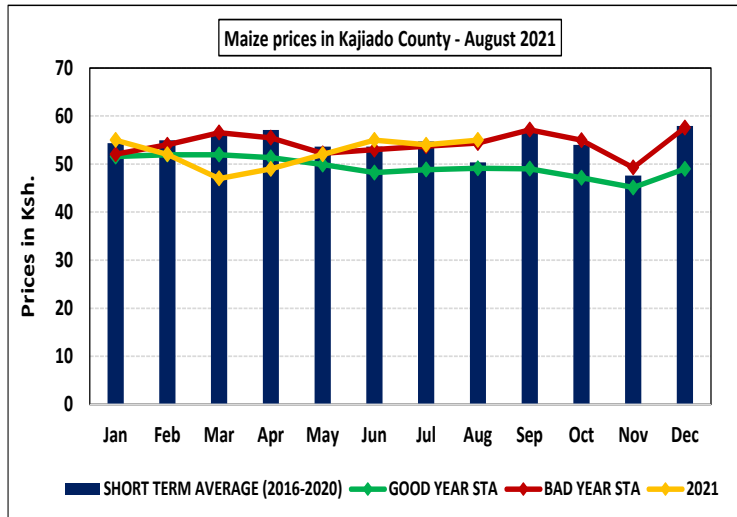


Figure 9: Average price of maize; Kajiado 2016-2021

- Maize and beans are the most important commodities consumed in the county, with maize availability considered synonymous with food security.
- In August, maize prices were within the bad year average at Ksh.55per kilogram with no significant change from the previous month and 9 percent above the five-year average. This is not normal as a significant reduction

was expected following the long rains season harvest (Figure 9).

- The stable maize price is supported by increased supply from neighbouring Tanzania and the neighbouring counties against below normal long rains season harvest.
- Higher price of Ksh. 60 per kilogram was reported in Kamukuru and Ewuaso Kedong markets while the lowest price of Ksh. 40 per kilogram was reported in Rombo.

4.2.2 Beans Prices

- In the month of August, the average price of beans was Ksh. 100 per kilogram compared to Ksh. 97 in July. The poor performance of the long rains season has seen traders selling their stock at higher prices (Figure 10).
- In Magadi, Kajiado West, a kilogram of beans was selling at Ksh. 120 while in Loitoktok the same was selling at Ksh. 80.Kajiado South enjoys cross border trade with good infrastructure unlike pastoral West, which is purely market dependant with poor road networks.
- The beans price is above the five-year average by 9.4 percent. Beans have maintained steady higher price throughout the year due to below average performance of two consecutive seasons.

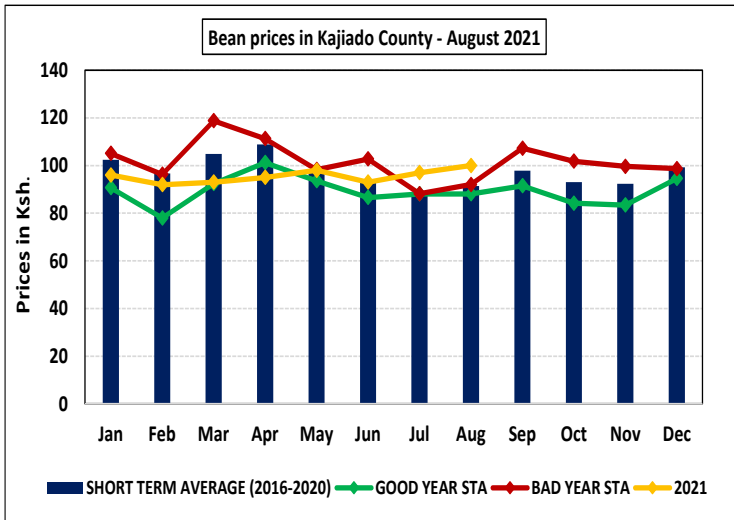


Figure 10: Average beans prices; Kajiado, 2016-2021

- The price of beans was likely to remain relatively high above normal until the next harvest season owing to reduced availability at both household and market.

4.3 Milk Prices

- The average price of milk per litre in August remained Ksh. 55 similar to the previous month with no livelihood variations. The five-year average for such a time of the year is Ksh. 45.
- The high price was due to low production as livestock migration intensifies against rising demand.
- The price of milk is likely to remain high up to November when milk production is expected to increase.

4.4 Terms of Trade

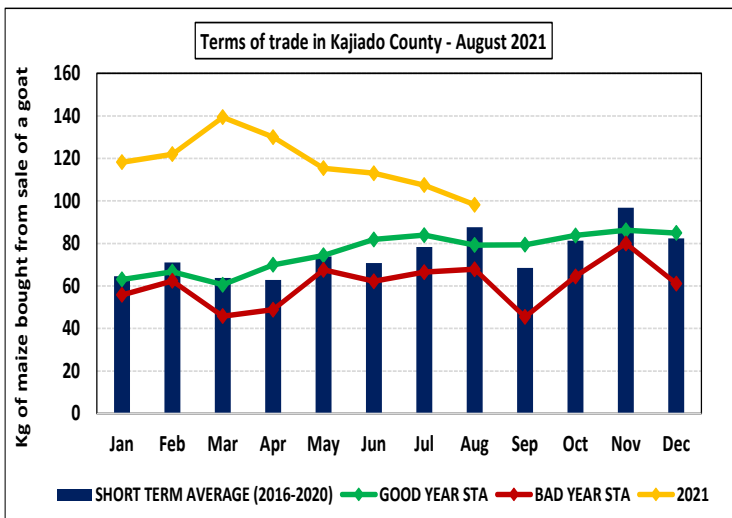


Figure 11: Trends in ToT; Kajiado 2016-2021

- In August, a pastoralist would exchange a medium sized goat for 98.18 kilograms of maize. In July, terms of trade (ToT) was 107.4 kilogram of maize per sale of medium sized (Figure 11).
- The ToT was still favourable to pastoralists being above the five-year average by 12.1 percent.
- However, it is on a downward trend with a persistent higher maize price against falling goat prices.

- ToT was lowest in Kajiado West with an average of 81.8 and highest in Kajiado South with 106.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk Consumption

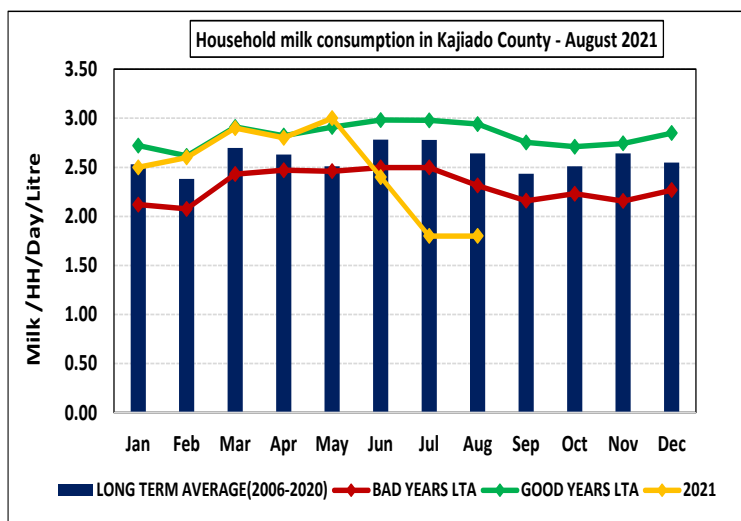


Figure 12: Milk consumption; Kajiado, 2006-2021

- The household average milk consumption remained stable at 1.8 litres per day. The normal consumption for this time of the year is 2.64 litres per day (Figure 12).
- Kajiado Central had the lowest milk consumption of 1.5 litres per day; this sub-county is currently the most affected having had the earliest migration. In pastoral West, milk consumption was the highest with 2.2

litres per day. West still has forage and has reported the least migration.

- Reduction in milk consumption is expected to continue in the next two months due to expected decline in production.

5.2 Food Consumption Score

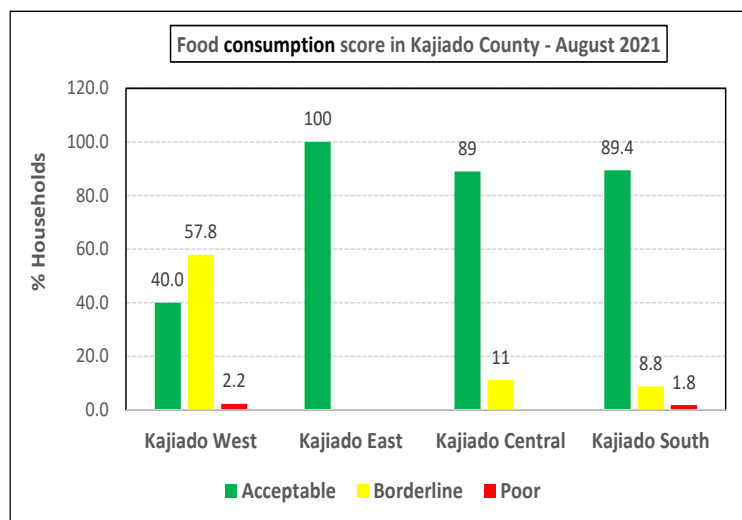


Figure 13: Food consumption score; Kajiado, August 2021

- The proportion of households consuming poor and borderline diet in August were 1.5 and 29.3 percent respectively, this was an increase from 0.5 and 21.6 percent in July respectively. Kajiado West had 2.2 while South had 1.8 households consuming poor diet (Figure 13).
- Although there was harvest, food prices remained high in addition to reduced milk availability; this reduced

households' purchasing power in order to supplement their diets.

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status of Children aged 6-59 Months

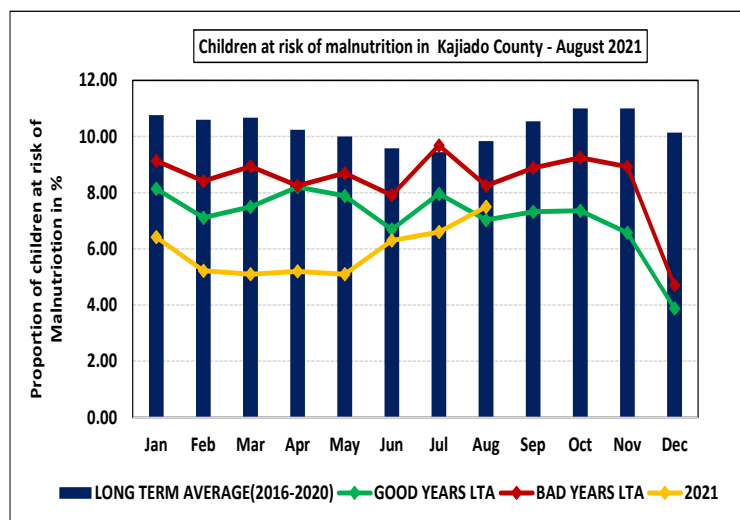


Figure 14: Risk of malnutrition for children aged 6-59 months; Kajiado, 2016-2021

- In August, the proportion of children at risk of malnutrition was 7.3 percent, a 14 percent increase from July (Figure 14).
- Since May, the proportion of children at risk of malnutrition has been rising though still below the five-year average by 23.8 percent. The rise was probably due to diminishing milk availability coupled with reducing household purchasing power.
- In pastoral livelihood zone, the proportion of children at risk of malnutrition was 9.2 percent while in agro-pastoral livelihood zone it was 6.1 percent.
- Pastoral areas in need of close monitoring for risks of malnutrition include Ololuwa, Nkai-Murunya, Magadi, Ewuaso, Dalalekutuk, Entonet, Mbirikani, Meshinan, Kuku, Mosiro, Meto and Lenkism.

5.3 Coping Strategies

- The average coping strategy index for the county increased to 7.10 from 6.1 reported during the month of July.
- Due to below-average milk production and low terms-of-trade, households were applying consumption-based coping strategies such as reliance on less expensive food, borrowing, reducing the size of meals consumed per day and sale of livestock. In Mbirikani, household reported selling household assets/goods in order to obtain food.
- In agro-pastoral livelihood zones coping strategy index was 2.8 while in pastoral it was 8.8. High food prices and reduced purchasing power were the main contributing factors for the rise in coping strategies in pastoral areas.

6.0 FOOD SECURITY PROGNOSIS, CURRENT INTERVENTIONS AND RECOMMENDATIONS

6.1 Food Security Prognosis

- According to the metrological department forecast, the short rains season for (October - December 2021) is likely to perform below average.
- Based on analysis of current pasture situation and expected below average rainfall, rangeland resources are expected to continue deteriorating rapidly and will be depleted by September across most pastoral areas. Browse is expected to remain good to fair up to November. Migration to dry-season grazing areas and other atypical routes is expected to intensify as herders seek water and pasture. Livestock productivity is expected to continue to decline, further reducing milk production, consumption and milk sales for households.
- With the decline in livestock prices and stable high food prices, terms of trade is likely to reduce further though slightly above long-term average.
- Based on trend analysis and the current availability of water, distances to water sources for livestock are expected to increase across the livelihood zones until the onset of the short rains in October as cattle migrate near pasture and away from water sources.
- With reducing household purchasing power, there food availability and consumption is expected to below average, and thus households will likely intensify the application of consumption and livelihood coping strategies. Reduced food and milk consumption will likely increase risk of malnutrition.
- Based on the forecast and existing weather patterns, the below-average October to December short rains are likely to start late, resulting in an extended period of dryness which will further impact livestock health and productivity, extend the time livestock are away from the homesteads, and result in some livestock deaths due to a lack of water/pasture in the most affected areas.

6.2 Current Interventions

- Human and livestock disease surveillance especially COVID-19 and livestock diseases; *by respective County departments and partners.*
- Water tucking in Kajiado West and South; *by County Government.*
- Provision and distribution of fuel subsidy in Kajiado West and South; *by County Government.*
- Routine extension services; *by department of Agriculture and department of livestock.*

- Livelihood mapping; *by National Drought Management Authority - European Union / Ending Drought Emergencies.*

6.3 Recommendations for Action

- Provision of livestock feeds pellets for the milking, pregnant and lactating herds; *by County Government (Livestock production) in collaboration with National Drought Management Authority and partners.*
- Rehabilitation of non-functional strategic boreholes; *by County government (Water department) and partners.*
- Activate boreholes maintenance rapid response teams; *by County government (Water department) and partners.*
- De-silting of strategic water pans; *by County government 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.*
- Mass screening and outreaches in hotspot areas; *by County Government (department of health services) in collaboration with National Drought Management Authority and partners*
- Up scaling Livestock diseases surveillance; *by County government through department of veterinary in collaboration with partners.*
- Continuous human disease surveillance and community sensitization especially on COVID-19; *by County Governments in collaboration with partners.*
- Fuel Subsidy to strategic boreholes; *by County Government (Veterinary services) in collaboration with National Drought Management Authority and partners*