

National Drought Management Authority

KAJIADO COUNTY DROUGHT MONITORING AND EARLY WARNING BULLETIN – AUGUST 2019



A Vision 2030 Flagship Project



AUGUST EW PHASE



Early Warning Phase Classification

LIVELIHOOD ZONE	EW PHASE	TRENDS
PASTORAL	ALERT	WORSENING
AGRO-PASTORAL	ALERT	WORSENING
MIXED FARMING	ALERT	WORSENING
COUNTY	ALERT	WORSENING

Drought Situation & EW Phase Classification

Biophysical Indicators

- ✓ Dry weather with some off season conditions prevailed in August. The short rains were below the normal ranges.
- ✓ The county vegetation condition was moderate with fair to poor pasture in a deteriorating trend.
- ✓ Water situation was inadequate with strategic water points getting pressure from livestock, people and wildlife.

Production and Access Indicators

- ✓ Livestock body condition, milk production and prices declined with a deteriorating trend though still above long term means.
- ✓ The long rains harvest was less than 10% of the normal.
- ✓ Both intra and out migration were early in June and on going.

Access indicators

- ✓ The terms of trade was above the long term average but on the decline and trend expected to continue.
- ✓ Milk consumption declined due to low production.
- ✓ Return distance to water sources both for domestic and livestock use increased above long term averages.

Utilization Indicators

- ✓ The risk of malnutrition for under-fives increased though still below the normal range for this time of the year.
- ✓ Households were employing both livelihood and consumption based coping strategies
- ✓ About 70% households were consuming acceptable diet.

Biophysical Indicators	Observed Value/Range	Normal Range/LTA	
State of water	Inadequate	Adequate	
3-monthly VCI	44.03	>35	
Forage condition	Fair to poor	Good	
Production Indicators	Observed Value/Trend	Normal Range	
Cattle body condition	Fair	Good	
Household milk production per day	3.0 litres	>=5.3 litres	
migration pattern	Intra and out migration	No migration	
Access Indicators	Observed Value	Long Term Average	
Terms of trade	71 kg of maize/goat	>=65 kg of maize/goat	
Household milk Consumption per day	2.0 litres	>=4.4 litres	
Distance to water source	Livestock	8.0 km	<=7.9 km
	Household	6.3 km	<=4.9 km
Utilization indicators	Value	Long Term Average	
MUAC (% <135 mm)	8.2%	<=10.7%	
Coping Strategy Index	6.7	<=10	
Food Consumption Score	8.6% poor	<5% poor	

<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"> Planting/Weeding Long rains 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

- Total rainfall amount from March to May 2019 was below average in most parts of the County.

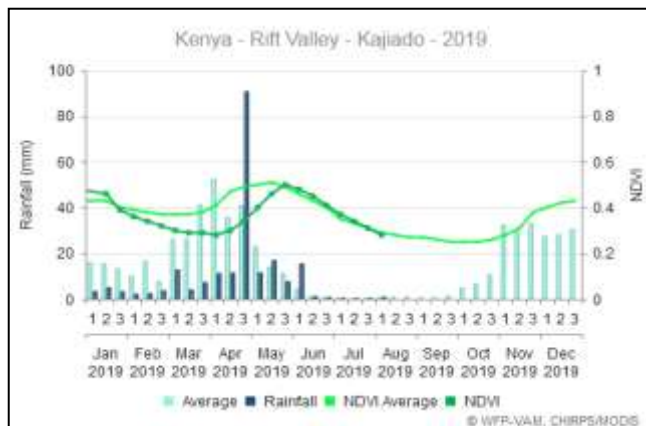


Figure 1a: Trend in Rainfall performance for Kajiado

3-months rainfall anomaly (125%) indicates a surplus which stabilized expected below normal drop in vegetation condition to normal (Figure 1b).

- The off - season rains were received in Kajiado North, pockets of Central and East between July and August.
- Note that the 2019 rainfall trend indicates that the County has mostly been receiving scanty below normal rainfall inadequate for agricultural activities, indicative of the 90% crop failure for the just ended season (Figure 1a).
- Given the prevailing status of rainfall received to date, appropriate preparedness and contingency measures are required.

This below-normal average rainfall condition was equally accompanied with a delay in onset in the third dekad of April instead of the first dekad of March. During the season poor temporal and spatial precipitation distribution was observed.

- Normally, the county experiences dry and hot weather period in the month of August (Figure 1a), however for this year, the 3-

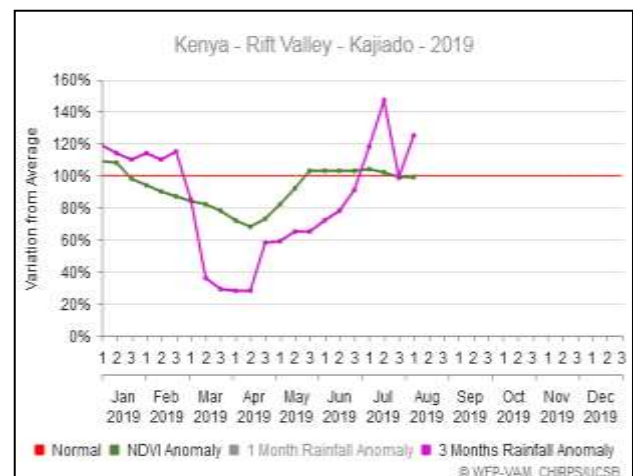


Figure 1b: Rainfall anomalies for Kajiado County

2.0 IMPACTS ON VEGETATION AND WATER

2.1 Vegetation Condition

- No significant change was recorded in the County 3-monthly vegetation condition index (VCI) during August. In July, the County VCI was 43.28 and 44.03 in August (Figure 2).

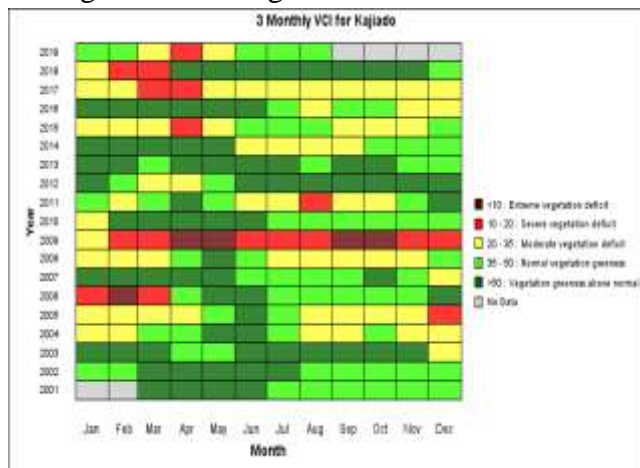


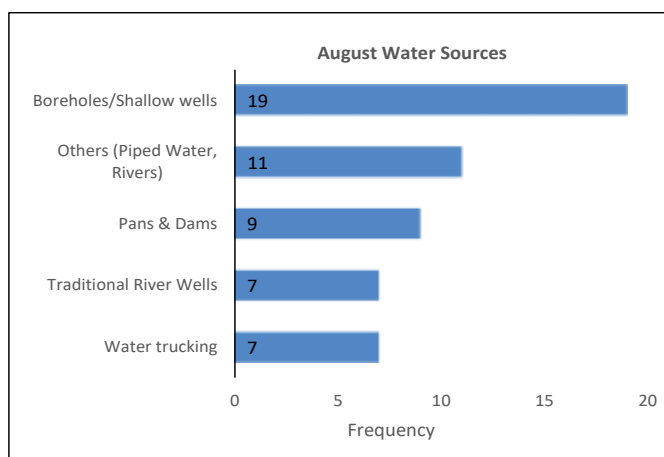
Figure 2: 3-monthly VCI Matrix; Kajiado, 2001 - 2019

- Kajiado South Sub-County was in moderate vegetation deficit with a VCI value of 25.6 while Kajiado North was the most green with VCI value of 56.16.
- In the absence of any off season rains, the County vegetation condition is expected to deteriorate in the coming month.

2.2 Pasture and Browse Situation

- Pasture condition was poor in pastoral areas but fair in pockets of agro-pastoral Central and East due to the off season rains received in July and August.
- In pastoral areas of Magadi, Mosiro, Ewuaso, Lenkism, Kuku, Rombo, Singiraine and Mbirikani pasture was depleted, consequently livestock out migration was reported.
- The current pasture is likely to last a month or less due to grazing pressure from intra-migrations.
- Browse has declined though still available in all livelihood zones and could last two months.

2.3 Water Sources



- Boreholes/shallow wells were the most mentioned sources of water by 83% of the 23 key informants. Other sources of water included Piped water (39%), Pans/Dams (39%), Traditional river wells (30%), and water trucking (30%) (Figure 3).
- The shift from pans/dams to boreholes / shallow wells and water trucking was

Figure 3: Water Sources; Kajiado August 2019
Drought Early Warning Bulletin, Kajiado August 2019

due to continued drying up of pans in August. There was poor recharge of open surface waters and the current water is expected to last for less than two months as compared to a normal duration of 3 months, consequently water trucking is going on in Kajiado West and South.

2.4 Households Access to Water

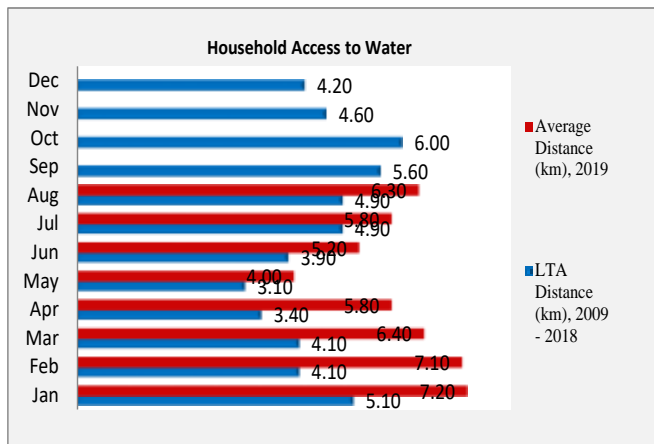


Figure 4: Average household return distance to water source permanent water sources mainly boreholes.

- The average return household trekking distance to water sources for domestic use increased to 6.3 kilometres from 5.8 kilometres in July. This distance is 24% above the long term average of 4.9 kilometres at this time of the year.
- The distance is likely to stabilize for the next two months as households will continue to draw water from

- Mbirikani, Magadi and Mosiro wards had household return distance to water points at over 10 kilometres. Water tinkering was observed in Magadi and Mbirikani wards. In Loodokilani Ward, Indupa borehole in Kilonito was broken resulting into congestion at the Elang’ata Wuas river well.

2.5 Livestock Access to Water

- In August, livestock trekked an average of 8 kilometres to water sources from grazing fields while in July this distance was 6.6 kilometres (Figure 5). Boreholes and shallow wells were the main source of water for livestock. Pans had poor water quality.
- In pastoral areas, livestock were covering over 10 km in search of water. Livestock in these areas had migrated in search of water and pasture.
- The watering frequency is expected to decrease from the current 5 times a week to 3 times a

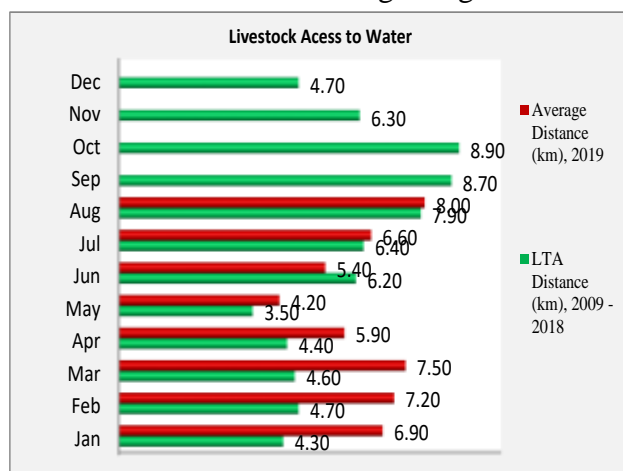


Figure 5: Average distance from grazing field to water sources

week.

3.0 PRODUCTION INDICATORS

3.1 Livestock Body Condition

- Currently, livestock body condition for cattle is good in mixed farming livelihood zones while in pastoral areas especially Mosiro, Ewuaso, Lenkism ,Kuku, Rombo, Singiraine and Mbirikani cattle body condition is fair to poor. Pasture had been depleted by end of June in these areas. This is below normal for this time of the year.
- Generally across the county, livestock body conditions are expected to worsen in one month due to further deterioration of pastures, reduced water availability and increased trekking distances.
- Goats' and sheep body condition is good with no significant variation across livelihoods. Their body condition was expected to remain stable for one month as browse was still fairly available.

3.2 Livestock Diseases

- Suspected cases of Foot and Mouth Disease (FMD), Contagious Bovine Pleuropneumoia (CBPP) and Contagious Caprine Pleuropneumoia (CCPP) were reported along the livestock migratory corridors of Mbirikani-Kuku-Rombo-Chyulu, Magadi-Mile 46-Matapato South.
- As livestock migrate outside the county in search of pasture, cases of Foot and Mouth Disease and Trypanosomiasis were likely to be observed in the next two months.

3.3 Livestock Migration

- Both intra and out migration in search of pasture and water were reported during the month. This is early as normal migration is usually in September.
- In Kajiado West cattle were moving to Ewuaso Nyiro swamp, Maparasha, those from Emotoroki, Dalalekututk and Lenkisim were moving to Kenyewa poka, Purko, those from Rombo moving to Tsavo National Park while Mbirikani and Kuku were moving to Chyulu hills.

3.3 Milk Production

- The average milk production per day per household in August was 3.0 litres compared to 3.8 litres in July. The 21% decline in milk production is attributed to the ongoing migration , reduced water availability and increased trekking distances.
- The long term average household milk production in August is 5.3 litres per day.

- Further decline in milk production is expected as body condition deteriorates in the next months.

4.0 MARKET PERFORMANCE

4.1 Livestock Marketing

- Livestock markets in the County remained operational in August. The main livestock markets are; Shompole, Ilbisil, Kimana, Rombo and Kiserian.

4.1.1 Prices of Cattle

- In August, the retail price of an average bull was Ksh. 31,000. This was 44% above the three year average price and 4.9% below the previous month (Figure 6).

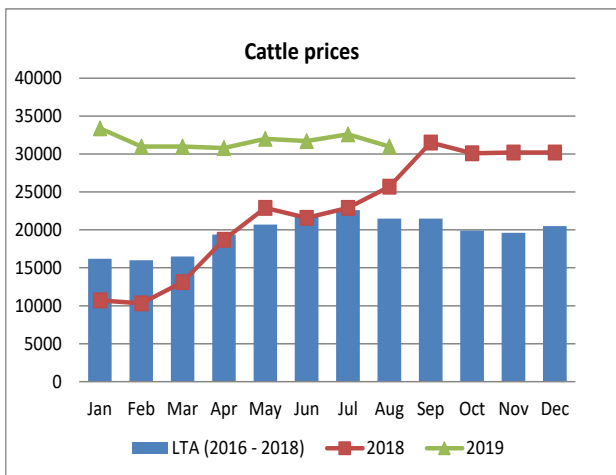


Figure 6: Trends in cattle price; August 2019

condition deteriorates even more.

- Reduction in cattle prices was generally attributed to deterioration in their body condition while in Rombo, Mbirikani the key informants reported pastoralists reducing prices to destock.
- Highest price of Ksh.40,600 was reported in Isinya and lower price of Ksh.18,200 in Ewuaso.
- Further reduction in cattle prices is anticipated in the next two months as body

4.1.2 Prices of Goats

- On average the price of goats declined by 2% to Ksh. 4,280 in August, in July it was Ksh. 4,270 (Figure 7).
- The decline is attributed to large volume at market as famers are selling to buy food stuffs due to the poor performance of the season. In addition browse is on the decline.
- However, the current price is 41% above the long term average and 20% above the previous year.

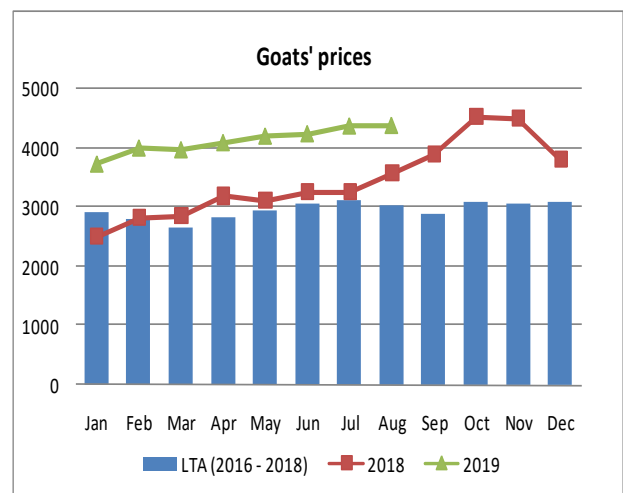


Figure 7: Trends in goat price; August 2019

- Goat prices are likely to continue on the downward trend as schools reopen and condition deteriorates.

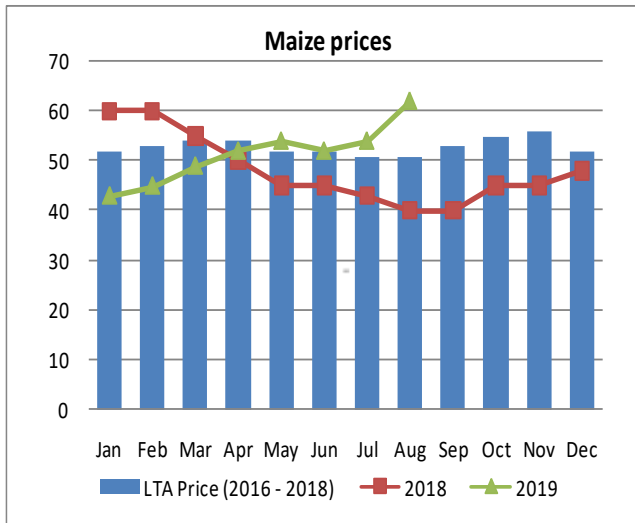


Figure 8: Average prices of Maize; August 2019

accessibility of the area. In Mosiro for example, a kilogram of maize was selling at Ksh. 120 while in Kimana it was Ksh. 50.

- Further rise in maize prices is likely due to expected scarcity of the commodity both at household and market levels.

4.2.2 Prices of Beans

- The poor performance of the just ended season even across the bordering Tanzania has facilitated farmers to sell their stock at higher prices. The average price of beans sold for Ksh. 110 representing a 17% rise from the month of July and 16% above the three year long term average (Figure 9).
- In Mosiro a kilogram of beans was selling at Ksh. 130 due to its scarcity while in Loitoktok the same was selling at Ksh. 70.
- The price of beans is likely to remain relatively high above normal until the next harvest season owing to reduced availability at both household and market.

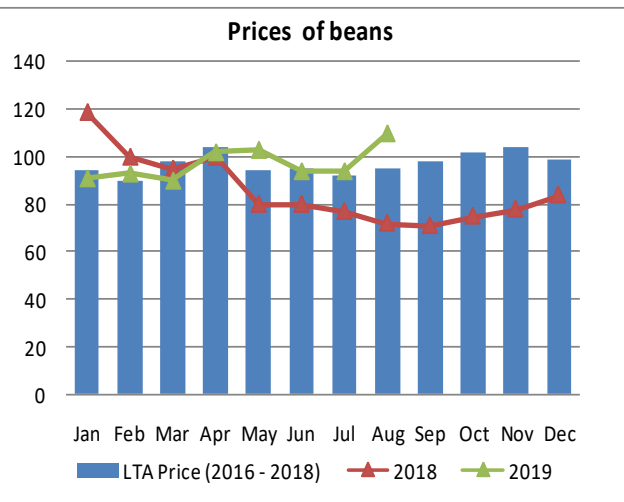


Figure 9: Average prices of Beans; August 2019

4.3 Prices of Milk

- Milk price recorded a slight increase from the previous month. In August a litre of milk was selling at Ksh. 65 and Ksh. 60 in July with no livelihood variations.
- In a normal year, a litre of milk cost Ksh. 45.
- Milk prices were expected to remain high due to low production for the next three months.

4.4 Livestock Terms of Trade

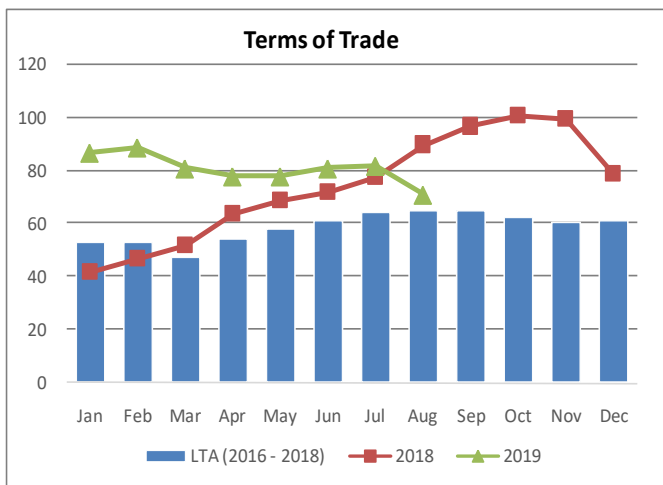


Figure 10: Trends in ToT; August 2019

- The terms of trade (ToT) was unfavourable to the farmers having declined by 11% in August to 71 kilograms of maize for sale of a goat from 80 kilograms in July (Figure 10).
- The decline in terms of trade is attributed to the rise in maize price against declining goat price.
- The ToT is however 6% above the long term average for such a time of the year.
- Trend in ToT is expected to continue on the decrease as maize prices are likely to continue rising against the decreasing goat price for the next three months.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk Consumption

- The reduction in livestock productivity has impacted negatively on milk consumption. The average household milk consumption per day in August is 2.0 litres. The current milk consumption reduced by 26% below the previous month and 55% below the long term mean of 4.4 litres.
- Reduction in milk consumption is expected to continue in the next two months due to decline in production caused by deterioration in pasture, water and increased trekking distance.

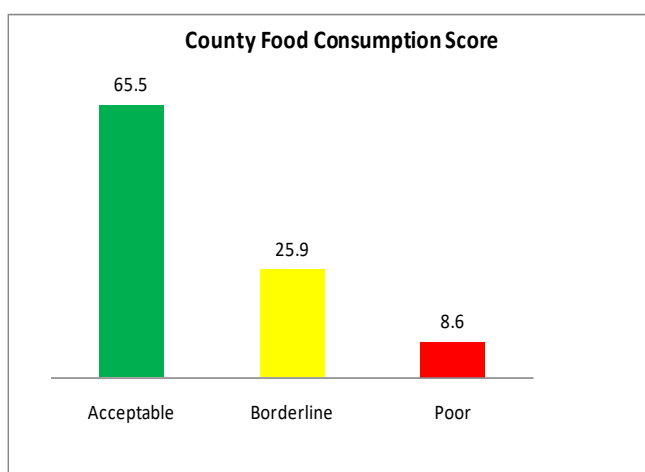


Figure 11: Food consumption score; August 2019

5.2 Food Consumption Score

- The proportion of households consuming poor diet in the county was 8.6 % in August (Figure 11).
 - Kajiado west had the highest proportion of households consuming poor diet at 16.9%, Kajiado south reported 7.3%.
 - Household access to dietary diversity especially in pastoral livelihood zone was limited by high prices of food commodities and reduced milk availability.
- The proportion of households consuming poor diet is likely to rise with the current high food prices, reduced milk availability and poor purchasing power.

5.3 Coping Strategies

- The average coping strategy index for the county increased to 6.7 compared with the 5.35 reported during the month of July.
- Common coping strategies employed by households across the livelihood zones included reliance on less expensive food, reduced the size of meals, purchase on credit, reduced number of per day, borrowing food and some spending their savings.
- In agro-pastoral zones coping strategy index was 3.7 while in pastoral it was 10.4. High food prices and reduced purchasing power were the main contributing factors for rise in coping strategies.

5.3 Nutritional Status of Children aged 6-59 Months

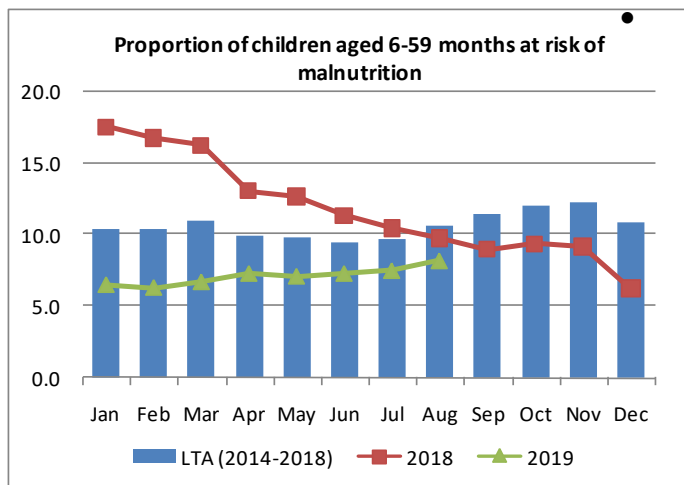


Figure 12: Risk of malnutrition for children aged 6-59 months; August 2019

The risk of malnutrition for under-fives children has been on the rise since May 2019. In August, the proportion of under-fives who were at risk of malnutrition increased to 8.2% from 7.5% reported in July.

- The 9.3% increase is attributed to poor child care practices, reduced milk availability and poor hygiene practices.
- This is however, 23% below the five

year long term average.

- Areas marked for higher proportion of children with mid upper arm circumference (MUAC) less than 135 millimetres include; Rombo, Lenkism, Mbirikani, Magadi ,Ewuaso , Loodokilani and Mosiro.

5.5 Human Diseases

- Cases of fever, breathing difficulty and Malaria continued to be reported among the under-fives children across the County. Diarrhoea was reported in Kaputiei North in Kajiado east.

6.0 FOOD SECURITY PROGNOSIS, CURRENT INTERVENTIONS AND RECOMMENDATIONS

6.1 Food Security Prognosis

- The poor performance of the long rains resulted into poor pasture regeneration and poor recharge of surface water sources thus affecting livestock body conditions.
- Livestock productivity has declined thus livestock are likely to fetch lower prices in the next three months. Additionally, milk production will decline further due to reduction in pasture and long trekking distances to water sources and increased out migration even for the milking herds.
- The 90% crop failure will lead to low food stock at household level in mixed farming and agro pastoral areas. In pastoral areas, majority of households will be dependant on markets for food commodities which shall be scarce.
- Staple food commodity is expected to stabilize at high prices above average for the next three months leading to increased household food insecurity.
- Households are likely to increasingly apply both consumption and livelihood based coping strategies like reduction of meal portion sizes, skipping meals, purchase of food on credit, spending savings.
- Households in poor food consumption score and malnutrition in children under five years of age is likely to increase due to poor dietary diversity, reduce purchasing power and reduced milk consumption.

6.2 Current Interventions

- Construction of Oloichumari water pan; *by National Drought Management Authority in collaboration with County Government.*
- Human and livestock disease surveillance; *by County Government.*
- Water tucking in Kajiado West, Magadi and Kajiado South, Mbirikani; *by County Government*

6.3 Recommendations for Action

- Repair of Indupa borehole in Kajiado West, Kilonito.

- Provision of school meals to public schools across the county; *by the National Government through Ministry of Education.*
- Targeted food security assessment in drought hotspot areas especially in Lenkism, Mosiro, Ewuaso, Rombo and Magadi wards; *by National Drought Management Authority in collaboration with other stakeholders.*
- Up scaling disease surveillance and vaccination campaigns along livestock migratory routes; *by County Government (Veterinary services) in collaboration with National Drought Management Authority and partners*
- Mass screening and outreaches in hotspot areas in Kajiado West and South; *by County Government (department of health services) in collaboration with National Drought Management Authority and partners*
- Feed supplementation for the milking, pregnant and lactating herds; *by County Government (Livestock production) in collaboration with National Drought Management Authority and partners*