A Vision 2030 Flagship Project

National Drought Management Authority

KAJIADO COUNTY
DROUGHT MONITORING AND EARLY WARNING BULLETIN JANUARY 2023

JANUARY EW PHASE

Early Warning Phase Classification

LIVELIHOOD ZONE	EW PHASE	TRENDS
PASTORAL SOUTH	ALARM	WORSENING
PASTORAL WEST	ALARM	WORSENING
AGRO-PASTORAL	ALARM	WORSENING
MIXED FARMING	ALARM	WORSENING
COUNTY	**ALARM**	**WORSENING**

Drought Situation & EW Phase Classification

Biophysical Indicators

- ✓ January is drier than normal. The 2022 short rains performed poorly with both unclear onset and unclear cessation.
- ✓ The County is barely in moderate vegetation deficit with Oloosirkon/Sholinke in extreme drought; Entonet/Lenkism, Matapato South, Rombo, and Kuku wards in severe drought.
- ✓ Pasture regeneration was poor and remains depleted across the County.

Production Indicators

- ✓ Cattle are emaciated and thus their productivity was far below the long-term average.
- ✓ Households had no food stocks in all livelihood zones.

Access indicators

- ✓ The terms of trade was unfavourable to pastoralists being 49% below the short-term average for January.
- ✓ Milk production as well as consumption was negligible.
- ✓ Distance to water sources for both domestic and livestock were above the long-term averages for the period.

Utilization Indicators

- ✓ The risk of malnutrition for under five continue to increase above the five-year average to reach 12% in January
- ✓ Over 50% of households had food consumption score below 35, with an average of one meal per day.
- ✓ Coping strategy index is above normal with household using both consumption and livelihood based coping strategies.

Biophysical Indicators		Observed Value/Range	Normal Range/LTA
% Of average rainfall (Oct-Dec)		37.9	80-120
3-monthly VCI		25.98	35-50
State of water		Inadequate	Adequate
Pasture condition		Depleted	Good
Production Indicators		**Observed Value/Trend**	**Normal Range**
Livestock body condition		Emaciated	Fat
Milk production		<1.7 litres	>=3.6 litres
Livestock migration		Rampant movement	No migration
Access Indicators		**Observed Value**	**LTA**
Terms of trade (kg of maize for a goat)		43	84.54
Milk consumption		< 1.4 litres	>=2.45 litres
Distance to water sources	Livestock	9 km	7.7 km
	Domestic	6.8 km	5.9 km
Utilization indicators		**Value**	**LTA**
MUAC		12 %	<9.26
CSI		9.47	< 6.4
FCS	Pastoral	Borderline 50%, poor 3%	Acceptable = above 70%
	Agro-Pastoral	Borderline 54%, poor 5%	Acceptable = Above 85%

▪ Short rains harvest ▪ Short dry spell ▪ Reduced milk yields ▪ Increased HH food stock			▪ Long rains ▪ Planting/weeding ▪ High calving rate ▪ Milk yields increase			▪ Long rains harvest ▪ A long dry spell ▪ Land preparation ▪ Increased HH food stocks			▪ 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

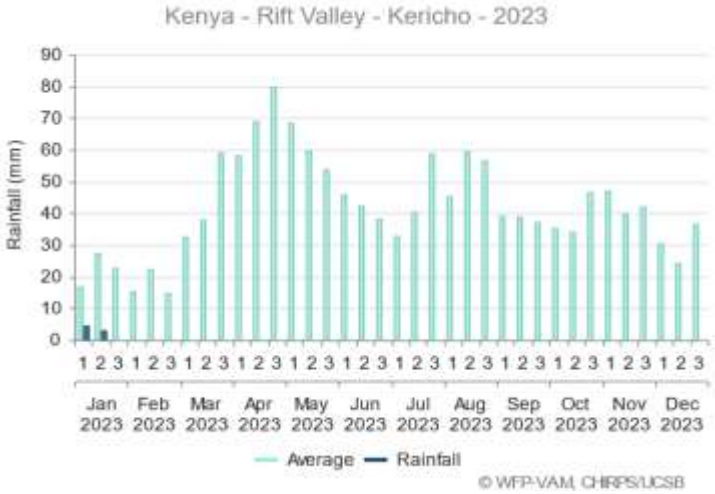

Figure 1: January 2023 Rainfall Performance

- January usually marks the beginning of the short dry period; this year however, the County remained sunny and drier than normal. Occasional light showers during the first half of the month were experienced in Kajiado west; Ngurumani, Magadi, parts of Ewuaso, and Oloitoktok areas (Figure 1).
- The performance of the 2022 October-December "short rains" season was extremely poor, characterized by unclear, delayed onset of seasonal rains, an erratic temporal distribution, uneven spatial distribution and below-average cumulative rainfall.
- This represents the fifth consecutive season of below-average rains, which in addition to the high inflation on households purchasing power, have severe impacts on household livelihoods, food security, and nutrition.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 Vegetation Condition Index (VCI)

- The January County vegetation condition index (VCI) was 25.98 (Figure 2), indicating moderate vegetation greenness.
- Kajiado south sub-County is in severe drought with VCI value of 16.78 while Kajiado central and east sub-counties are in moderate condition.
- Oloosirkon/Sholinke ward in extreme drought while Entonet/Lenkism, Matapato

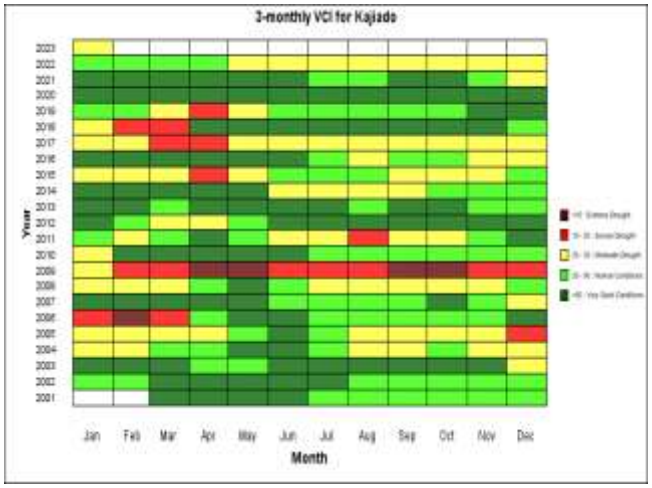

Figure 2: 3-monthly VCI from 2001 to January 2023

South, Rombo, Kuku, Imbirikani/Eselenkei, Kitengela, Ong'ata Rongai wards are in severe drought approaching extreme drought conditions.

2.2 Pasture and Browse Condition

- Pasture condition is majorly depleted in the County except for smaller parts of Kajiado west; Mosiro, Ngurumani, Olkiramatian areas which experienced some fair regeneration.
- The poor rangeland regeneration following the short rains season is attributed to depressed rainfall coupled with poor distribution in time and space.
- The main factors limiting access to pastures and browse in January are invasion of African Army warm in Kenyewa Poka, Poka, Imaroro, Dalalekutuk, Purko, Kaputiei North, Rombo, Kitengela, Kuku and Entonet/Lenkism wards and wildlife invasion in Entonet/Lenkism, Imbirikani, Emotoroki, Mailua and Maparasha, boders of Tsavo West National Park and Chyulu hills.
- Browse is fair but below normal at this period of the year and would last for about one and half months except for Mosiro, Ngurumani, Olkiramatian where browse is good.

2.3 Water Access and Utilization

2.3.1 Water Sources

- The three main water sources used by the communities for both livestock and domestic use in January are shown in Figure 3.
- Access to water is an urgent concern for humans, livestock and wildlife.
- Many open water sources including rivers, water pans, and dams have dried up across pastoral and agropastoral livelihood zones, while existing open water sources at 20 to 30 percent of capacity.
- Borehole/shallow wells and piped water are the most used sources constituting 31 and 21 percent of the total responses respectively. Other water sources are traditional river wells, rivers, springs, and water trucking in Kajiado central, west and south sub counties (Figure 3). Thus, there is pressure on boreholes leading to

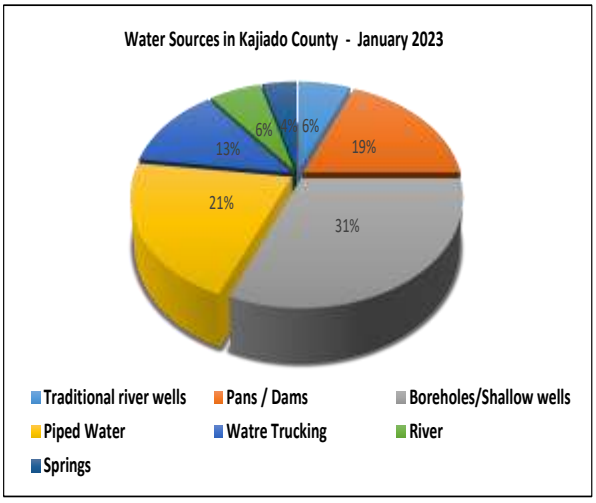

Figure 3: Main water sources, Kajiado January 2023

breakages due to over use and poor maintenance as household's, livestock and wildlife share same water sources.

- Normally, pans/dams, ponds and seasonal rivers are the main sources of water in January following the short rains.

2.3.2 Households Water Access and Utilization

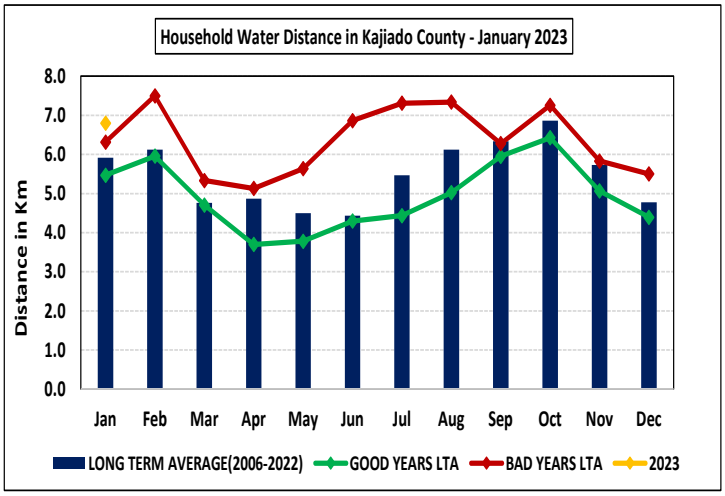

Figure 4: Households average return distance to water source

- Ease of access for water collection is an important criterion for households when selecting water sources. Households reported a 15 percent above-average round trip to their primary water sources upon increasing to 6.8 kilometres from 6.2 kilometres during the previous month (Figure 4).
- This is attributed to depletion of the rain water harvests and drying up of ponds that recharged minimally during the October-December rainy period.
- The average household water consumption in Pastoral livelihood zones in January is 48.1 litres per day and 49.7 litres in Agro-pastoral livelihood zones.
- The cost of water is ranging from Ksh. 5 for a 20-litre Jerican from the source to Ksh. 20 when delivered by a water vendor. This is normal for this time of the year.

2.2.3 Livestock Access to Water

- The average return distance trekked by livestock in accessing water from grazing fields to watering points is 9 kilometres which is 18 percent above long-term average for the period, which compares closely with the bad year average of 9.3 kilometres (Figure 5).

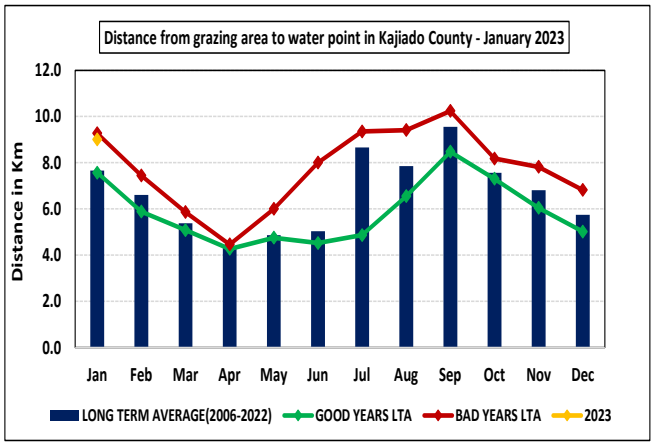

Figure 5. Distance from gazing fields to water points

- Increased distance is attributed to the mixed performance of the short rains. In Kajiado east, central and south pans are dry. In parts of Kajiado west such as Ewuaso, Mosiro, Loodokilani, and Magadi some pans were recharged but below normal. In Ngurumani and other parts of Kajiado west, pans were 50% recharged and were still holding significant water by end of January.
- Livestock are watering for 3-4 days per week in pastoral and agropastoral central, east and south since they shared water points with households mainly at boreholes and through water trucking while in pastoral west, watering frequency ranged between 5-7 days per week.

3.0 PRODUCTION INDICATORS

3.1 Livestock Production

3.1.1 Livestock Body Condition

- Livestock body condition is emaciated mainly in body condition score (BCS 1-2) due to lack of pasture in Kajiado central, east and south. Kajiado west especially Magadi and Mosiro had body condition (BCS 3-4) due to minimal in-migrations, fair pasture and water access.
- The body condition of sheep is mainly at (BCS 2) while goats are fair in (BCS 3-4) across all sub counties.
- On average, effects of the short rains are very minimal in most parts of the county and could not be felt in terms of pasture availability and thus livestock productivity.

3.1.2 Livestock Mortalities

- Drought related livestock deaths are still being reported across the County. By December 2022, the County had lost over 45 percent of its livestock herd. Kajiado central, east and south sub counties are the worst hit sub Counties.
- Livestock deaths due to consumption of pasture infested with the African Fall Army Warm continued to be reported in January in Kajiado east, south and central sub counties.
- The County was however, able to respond by conducting pest control between December-January through spraying of agrochemicals in Kitengela, Kaputiei North, Imaroro, Kinyewa /poka, Entonet, Kuku, Rombo, and Dalalektuk wards.

3.1.3 Livestock Diseases

- Transboundary, and endemic diseases including Anaplasmosis, Malignant catarrh, Sheep and goat pox, Foot and Mouth Disease, Peste des petits ruminants (PPR), Lumpy Skin Diseases, East Coast Fever, Contagious Caprine Pleuropneumonia (CCPP), Enterotoxamia, and Contagious Bovine Pleuropneumonia (CBPP) were reported across the County. Sample collection for diagnosis is ongoing by the county government.

3.1.4 Livestock Migration

- Massive livestock herd from Kajiado north, central, east, south and as far as Suswa in Narok was observed in Ngurumani, Shompole, and Orkiramatia of Magadi ward in Kajiado west.
- Other areas of Kajiado west such as Ewuaso, Loodokilani, Keekonyokia moved to Nakuru, Kiambu, Gilgil, and Narok. Other livestock from Kajiado south, east and central moved to Chyulu hills while those from east moved to Makueni, Machakos and Taita Taveta Counties in search of pasture and water. This poses a great risk of transboundary livestock diseases outbreak and has negative implication on household food security.

3.1.5 Milk Production

- Due to the prevailing drought across the County, availability and accessibility of milk, a key source of food and income, remains well below normal. The commodity is currently obtained through purchase, which poses serious food security implications at household level.
- The average household daily milk production in January at 1.7 litres is lower than the bad year average by 39 percent; this is attributed to poor cattle body condition, migrations and reduced tropical livestock unit. The long-term average for this time of the year is 3.6 litres per household per day (Figure 6).
- There is no significant variation in milk production between pastoral and agro-pastoral livelihood zones.

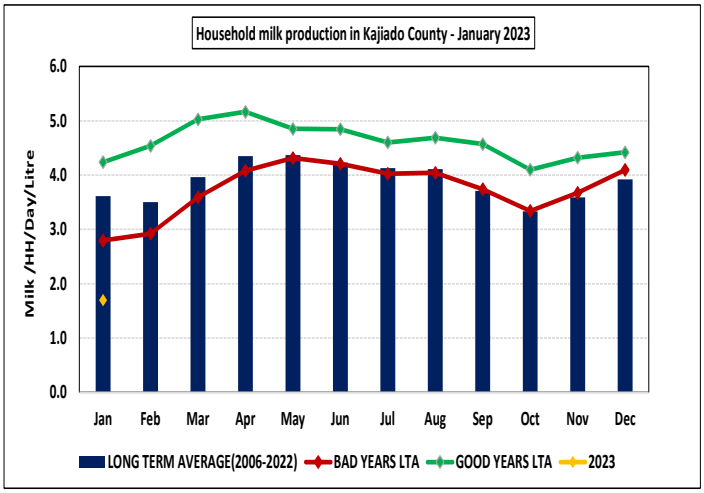

Figure 6: Household average daily milk production

3.2 Rain-Fed Crop Production

- Due to the poor performance of 2022 short rains, the development of crops was behind schedule. Currently, crops especially maize are majorly in poor condition having suffered moisture stress. Beans dried up prematurely and have been harvested. The yield is estimated at 61 percent of the long term average.
- The projected yield for maize is 24% of the long-term averages for the season.

4.0 MARKET PERFORMANCE

4.1 Livestock Marketing

- All the major livestock and commodity markets in the County namely; Isinay, Ilbisil, Kimana, Ewuaso, Rombo, Shompole and Kiserian are in normal operation. However, there is notable low livestock prices, existence of livestock from outside the County and unseasonably high commodity prices across the monitored markets. It was also noted that pastoralists were bringing very weak livestock for sale and sold at throw away prices.

4.1.1 Cattle Prices

- The average price of a medium-sized cattle reduced by 10 percent from December to Ksh 22,000 (Figure 7) in January. This price is similar to that of a bad year average and below the short-term average by 25.45 percent.
- The highest price was reported in Shompole at Ksh 40,000, as there was no migration as they received fair rains. In place like Enkorika, which is among the areas, worst hit with the drought since September 2022, farmers were selling their cattle as low Ksh. 2,000.

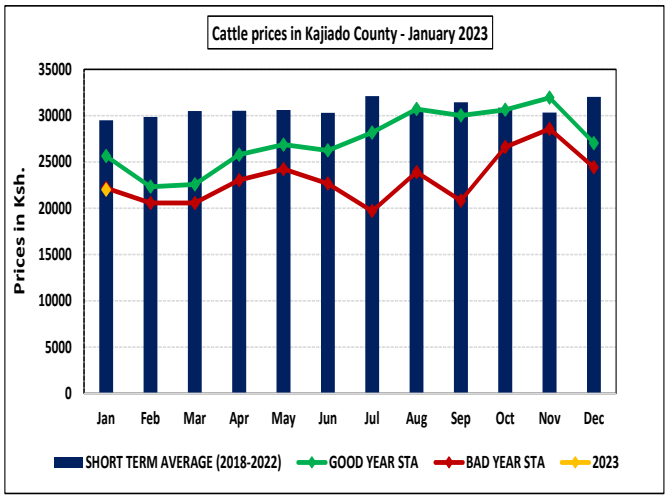

Figure 7: The average market price of cattle

- During transect drive, community interviews indicated that reduction is due to low demand for the local cattle since they were so emaciated, traders were buying cattle from outside the County from as far as Isiolo that have fair body condition, Additionally, the community has been constrained financially due to loss of their livelihoods as a result of the ravaging drought.
- Cattle prices are expected to remain significantly below normal as their body condition deteriorates further in the ensuing two months due lack of pasture, and from covering long distances to water source.

4.1.2 Goats Prices

- The average price of a medium sized goat is Kshs. 4,300 which is slightly below Ksh. 4,440 that was recorded in the same period in 2022 (Figure 8). The prices fell within the seasonal normal after higher prices in festive month of December.
- The highest price of Ksh. 5,000 for average size goat was observed in Nguruman and Shompole while the lowest Ksh. 2,000 was observed in Isinya and Kiserian markets.

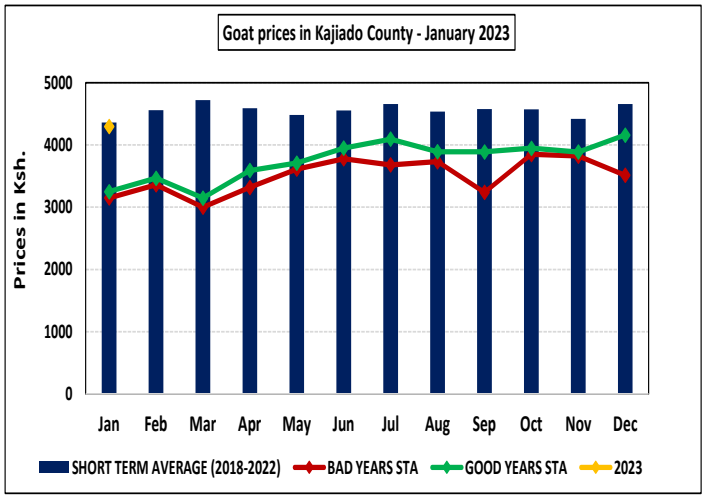

Figure 8: The average market price of goat

- Goat prices are likely to decline further as the lean dry season progresses across the livelihood zones driven by depleted pastures, browse and increasing distances to water.

4.2 Prices of Cereals and Legumes

4.2.1 Maize Prices

- The average maize price in the month of January stood at Ksh. 100 per Kilogram which is 91.6 percent rise above the short-term average of Ksh.52.2 per Kilograms (Figure 9).
- The current high prices of maize have been occasioned by crop failure and carry over effects of previous failed seasons leading to low supply, in addition to high inflation in the country. High maize prices imply access to less quantities due to constrained purchasing power.

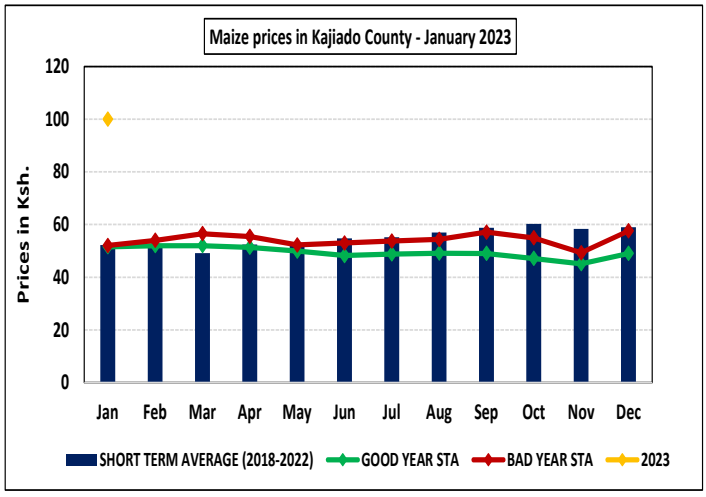

Figure 9: The average market price of maize

- The highest price of Ksh.170 per kilogram was at Ewuaso market in Kajiado west while in Isinya market in Kajiado east, a kilogram of maize is selling at Ksh. 75. The western side of

the County is served with poor road network and limited livelihoods which explains the skewed high prices of foodstuffs.

4.2.2 Beans Prices

- Beans price is quite high at 40.8 percent above the short-term average for similar period of the year.
- The current average market price of beans is Ksh. 140 and Ksh. 130 in December. The current price of bean is above the bad year average by 33.3 percent (Figure 10).

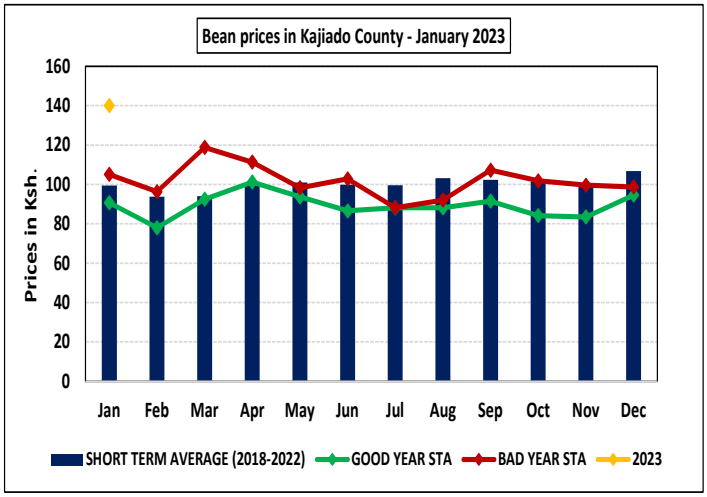

Figure 10: The average market price of beans

- The observed high price of beans is due to reduction in supply coupled with increased demand of the commodity.
- There are variations in prices of beans from one area to another depending on the source and accessibility of the area. In Mosiro, a kilogram of beans is selling at Ksh. 200 while in Loitoktok a kilogram of beans is Ksh. 120.
- Commodity prices are likely to remain high due to the projected low yield of crops during 2022 short rains.

4.3 Milk Prices

- The cost of one litre of milk in January 2023 remains similar to the previous month at Ksh. 120 per litre. The consistent high price of milk is due to low production and insignificant calving.
- There are no livelihood variations in prices of milk in the month of January.
- Normally, price of milk at this time of the year would be Ksh. 60 per litre.

4.4 Terms of Trade

- The average terms of trade for the month of January 2023 is 43 kilograms, which is 49 percent below the long-term average (Figure 11).

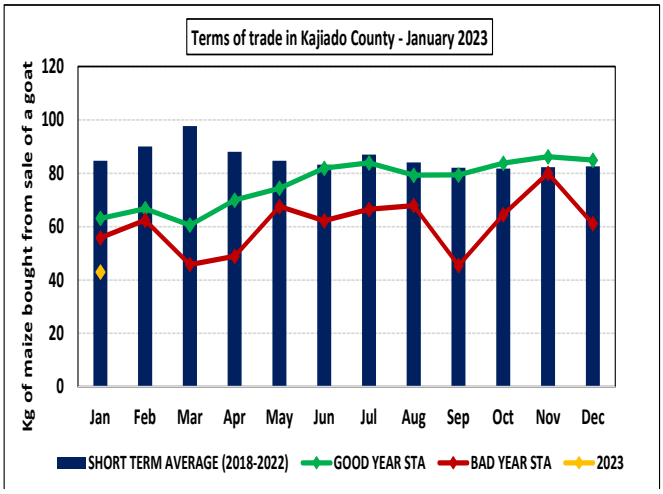

Figure 11: Average terms of trade

- The deterioration in the terms of trade was due to high maize prices coupled with the fluctuating goat prices.
- The poor terms of trade is likely to compromise household's food security through reduced purchasing power.
- The terms of trade is expected to remain poor as maize price remain high against declining goat prices.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk Consumption

- The daily household's milk consumption declined by about 42.9 percent compared with long-term average of 2.45 litres for similar period of the year (Figure 12).
- The January the daily average milk consumption per day per household for the County is 1.4 litres which is 33.9 percent lower than the bad year average (Figure 12). Most of the households are now buying milk from the markets which is quite costly.

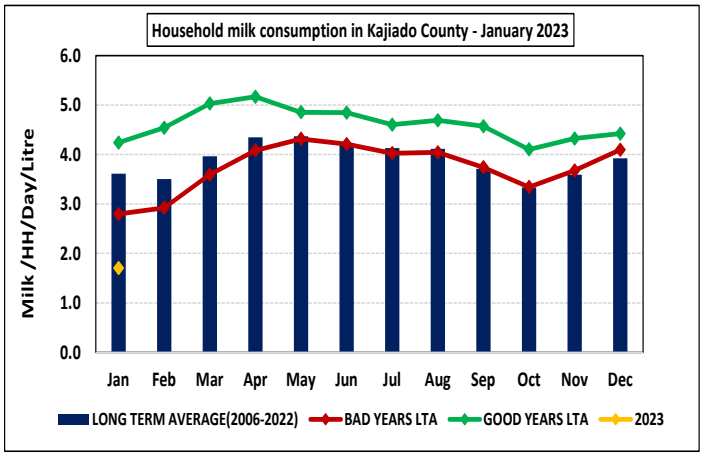

Figure 12: Average household milk consumption per day

- Household milk availability was constrained by insignificant production occasioned by poor body conditions, low calving, internal and external migration in search of pasture and water.

5.2 Food Consumption

- Figure 13 shows the percentage of households under each of the three food consumption bands in January.
- About 49.6 percent and 54.2 percent of the households in pastoral and agro-Pastoral zones were only consuming staples such as maize and vegetable daily, accompanied by oil and pulses a few times a week respectively.
- Similarly, 2.5 percent and 5.1 percent in pastoral and agro-Pastoral would neither consume staples and vegetables every day and never or very seldom consumed protein rich food such as meat and dairy respectively.

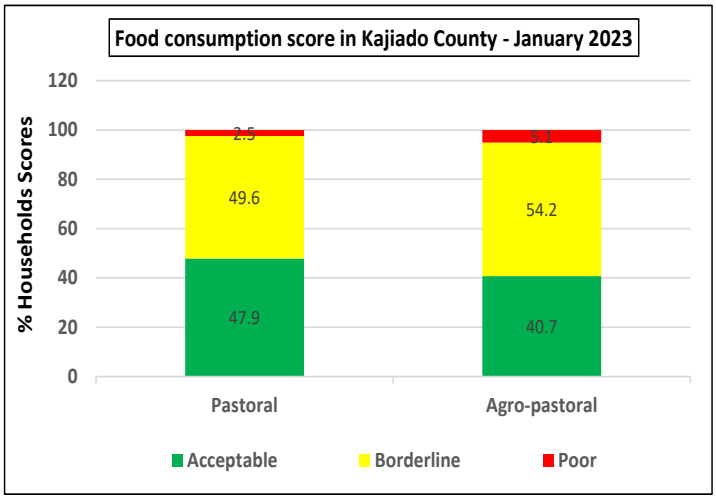

Figure 13. January Food consumption score

- Although various types of food items are available in the market, households' access to diversified diet especially in pastoral zone has been limited by declining terms of trade. Households are now prioritizing on carbohydrate rich food such as maize and rice for energy with an average one meal frequency per day.

5.3 Nutrition Status of Children aged 6-59 Months

- The mid-upper arm circumference (MUAC) in this monitoring is a rapid screening tool that is commonly used to select children aged 6-59 Months for nutrition programmes and nutrition surveillance.
- The proportion of children aged 6-59 months with MUAC of between 125mm and 135mm at risk of malnutrition in January 2023 increased to 12 percent, above the five-year average of 9.26 percent (Figure14), indicative of both poor health and nutrition status.

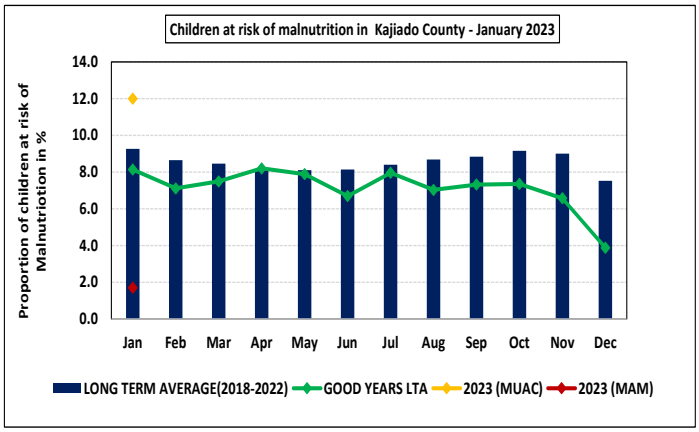

Figure 13: % of under-fives at risk of malnutrition

- Furthermore, about 1.7 percent of children age 6-59 months with MUAC of between 110mm and 125mm indicative of Moderate Acute Malnutrition (MAM) was reported.
- The sustained rise in risks of malnutrition since April 2022 is attributed to poor dietary consumption due to scarcity of key food items like milk, unfavourable terms of trade and diarrhoea incidences reported during December- January period.
- Areas marked for higher risk of malnutrition include; Oloosirkon/Sholinke, Entonet/Lenkism, Matapato South, Rombo, Kuku, Imbirikani/Eselenkei, Kitengela, Ong'ata Rongai, Kimana, Ildamat, Keekonyokie, Matapato North, Kaputei North, Imaroro, Ewuaso Nkidong'I, Dalalekutuk, Kenyawa-Poka, Iloodokilani, and Purko wards.

5.4 Coping Strategies Index

- The coping strategy index (CSI) has been on the increase since September 2022, meaning that households have been straining more and more to get food or money to buy food. The current average CSI for the County is 9.47, compared to 5.1 in December 2022. This is attributed to the reduction in humanitarian response interventions by different stakeholders in January.
- Pastoral and agro-pastoral household are using more stressful ways to get food or money to buy food with CSI of 9.8 and 8.8 respectively.
- Due to lack of food or money to buy food, households were employing both consumption and now reducing both the number and the portions of meals taken in a day especially by adults in order to copy with current food shortage.

5.5 Human Diseases

- There were no reports of human disease outbreaks in the month of January. However, diarhoea cases continued to be repoerted in January across the county.

6.0 EMERGING ISSUES

6.1 African Fall Army Warm

- There were reported cases of Fall Army warm invasion in Kenyewa Poka, Imaroro, Dalalekutuk, Purko, Kaputiei North, Rombo, Kitengela, Kuku and Entonet/Lenkism wards.
- The Africa Army warm was depleting the minimally regenerating pasture and led to

livestock deaths upon consumption of the pasture.

- The County was, however, able to respond by conducting pest control between December-January through spraying of agrochemicals in Kitengela, Kaputiei North, Imaroro, Kinyewa /poka, Entonet, Kuku, Rombo, and Dalalektuk wards.

6.2 Human /Wildlife Conflict

- As the dry season continues to progress, there has been notable cases of human/ wildlife conflicts.
- The conflicts have been occasioned by competition for the scarce water and forage. Destruction of infrastructure especially water facilities by wild animals has also been observed especially in Kajiado South ward.

7.0 FOOD SECURITY PROGNOSIS

- During the period of January to March the County is expected to continue with normal dry weather conditions with high temperatures.
- Pasture is already depleted and livestock body condition would continue to deteriorate and consequently, their productivity.
- The County is likely to experience further livestock deaths due to drought during this period. Farmers in agro-pastoral and mixed farming zones are likely to experience crop failure due to drought with exception of small farming belt at the slopes of Mt. Kilimanjaro, Ngurumani and irrigated cropping.
- Prices of foodstuff were likely to continue increasing in the absence of subsides.
- Increased cases of malnutrition among children, women and elderly, is likely to increase due to limited access to proper diet.
- Continued human / wildlife conflicts and water scarcity.

8.0 CURRENT INTERVENTIONS AND RECOMMENDATIONS

8.1 Interventions

Intervention	Location	Beneficiaries	Implementer
Repair of protected wells	County wide	5,000 households	CGK/ UNICEF

Rehabilitation of boreholes	Kumpa pry borehole	500 households	CGK
	Impiro borehole	2,000 households	CGK
Spraying of agrochemicals	Kitengela, Kaputiei North, Imaroro, Kinyewa /poka, Entonet, Kuku, Rombo, and Dalalektuk	Over 2,500 Hectares	CGK
Integrated Community outreaches	County wide	2,000 people	County Government UNICEF World Vision

8.2 Proportion of people in Need of Food Assistance in Kajiado County

Sub County	Ward	Proposed Range (%)
Kajiado North	Ngong	20 - 25
	Olkeri	25 - 30
	Ololua	15 - 20
	Nkaimurunya	25 - 30
	Rongai	20 – 25
Kajiado West	Mosiro	30 – 35
	Magadi	25 – 30
	Ewuaso	25 – 30
	Kekonyokie	25 - 30
	Ilondolikani	30 - 35
Kajiado East	Imaroro	35 – 40
	Kenyawa Poka	30 - 35
	Kaputiei North	30 – 35
	Olosirkon/Sholinke	30 – 35
	Kitengela	25 - 30
Kajiado Central	Maparasha South	40 - 45
	Maparasha North	40 – 45
	Purkp	40 - 45
	Dalalekutuk	30 -35
	Ildamat	25 -30
Kajiado South	Rombo	25 - 30
	Kuku	20 - 25
	Kimana	20 - 25
	Mbirikani/Selengei	30 -35
	Entonet/Lenkism	30 - 35

9.0 Recommendations (Immediate)

- Rehabilitation of Olchorroibor primary school, Oltepesi Oltepesi, Enkutoto, Olonerei, Emashini, Oloika, Elangata Nanyukie, Noonkonyonka, Osewan, Oltukai, Noonkopen, Oloosinya, Chuulu, Olkoilanga, Tuala, Aningoi, Oloilien, Tikoishi, Olooloitikoshi, Ilbartan boreholes
- Provision of humanitarian assistance including food aid, cash transfers and water treatment chemicals; Action by County government and partners.
- Slaughter destocking; Action by National government and partners.
- Livestock vaccination and treatment; Action by County government and partners.
- Integrated health outreaches and availing therapeutic foods for malnourished children; Action by County government and partners.