



**National Drought Management Authority
(NYERI) COUNTY
DROUGHT EARLY WARNING BULLETIN FOR DECEMBER 2020**

DECEMBER EWS PHASE



Drought Situation & EW Phase Classification

Biophysical Indicators

- The October-November-December (OND) rains progressed into the month of December. Performance of the rains was below normal.
- Kieni East Sub County recorded above normal vegetation condition.
- Access to water for domestic and livestock use was fair.

Socio Economic Indicators (Impact Indicators)

- Livestock body condition deteriorated during the month of December compared to the previous month.
- Crops at the farms are in fair condition and at different stages of development. Maize is at knee high while beans and potatoes are at flowering stage.
- Milk production and consumption reduced in the month of December compared to the previous month.
- Distance to water sources for household use was below the long-term average.
- Terms of trade ratio was good and above the short-term average.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Deteriorating
Marginal Mixed Farming	Normal	Deteriorating
County	Normal	Deteriorating
Biophysical Indicators	Value	Normal Range/Value
Rainfall (%)	50	90-110% of LTA
VCI	73.99	>35
Forage condition	Good-fair	Good
Production indicators	Value	Normal
Crop Condition (Maize)	Fair	Good
Livestock Body Condition	Moderate	Normal
Milk Production	5.7 litres	6 litres
Livestock Migration pattern	In migration	No migration
Access Indicators	Value	Normal
Terms of Trade (ToT)	114	100
Milk Consumption	1.5 litres	1.5 litres
Return distance to water sources for household use	1 Km	1 Km
Return distance to water sources from grazing field.	1.7 Km	1.4 Km
Utilization indicators	Value	Normal
Nutrition Status, MUAC	0.0	1.1

<ul style="list-style-type: none"> ▪ Short rains harvests ▪ Short dry spell ▪ Reduced milk yields ▪ Increased HH Food Stocks ▪ Land preparation 	<ul style="list-style-type: none"> ▪ Planting/Weeding ▪ Long rains ▪ High Calving Rate ▪ Milk Yields Increase 	<ul style="list-style-type: none"> ▪ Long rains harvests ▪ A long dry spell ▪ Land preparation ▪ Increased HH Food Stocks ▪ Kidding (Sept) 	<ul style="list-style-type: none"> ▪ Short rains ▪ Planting/weeding 								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The October-November-December (OND) rains performance in the month of December was poor coupled with uneven spatial and temporal distribution.
- Kieni East and Kieni West sub counties registered 50 percent of the normal rains for an average of three days.
- In general, Nyeri County registered 28.4mm, 12mm and 37.7mm in the first, second and third dekad compared to the LTA of 27mm, 24.6mm and 25.5mm respectively as shown in figure 1.

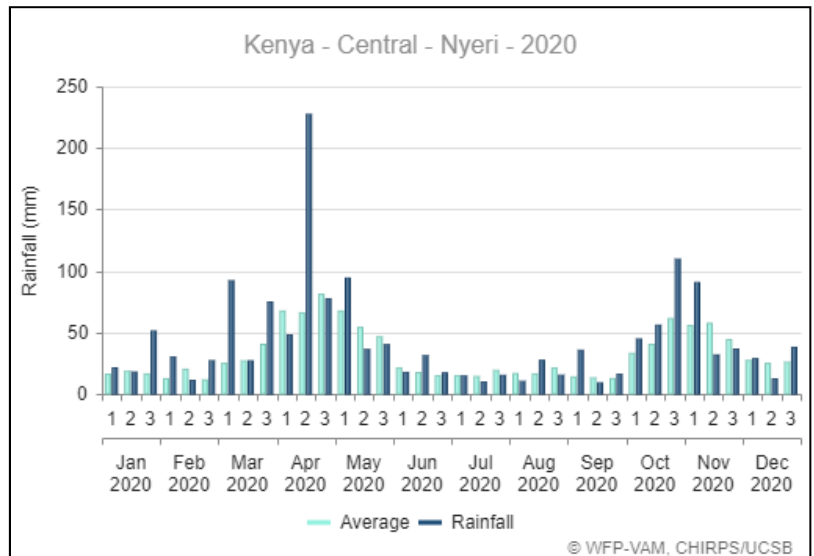


Figure 1: Presentation of the rainfall performance for December

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 VEGETATION CONDITION INDEX(VCI)

Kieni registered a 3-month VCI of 66.4 during the month of December. Reported index was above normal greenness for the region as shown in figures 2(a) and (b) below.

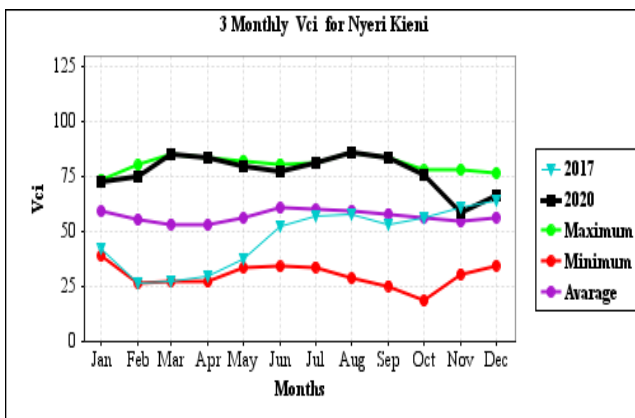


Figure 2(a): 3 monthly VCI for Kieni

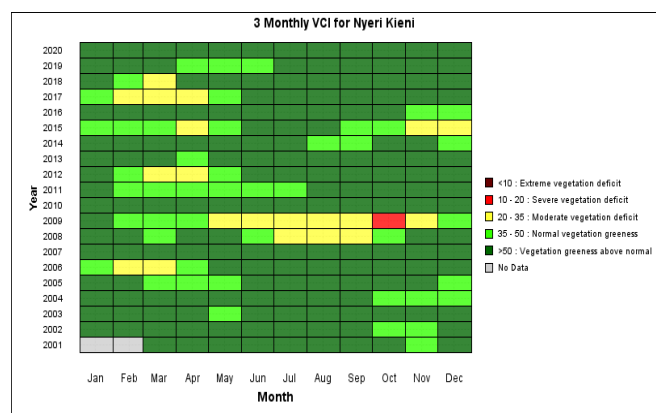


Figure 2(b): 3 monthly VCI for Kieni

Pasture

- Pasture condition deteriorated during the month of December compared to the previous month, due to poor rainfall performance coupled with frequent frost attacks.
- Pasture condition rating was 46 percent good, 36 percent fair and 18 percent poor as indicated in figure 3(a).
- The Meteorological department has predicted a

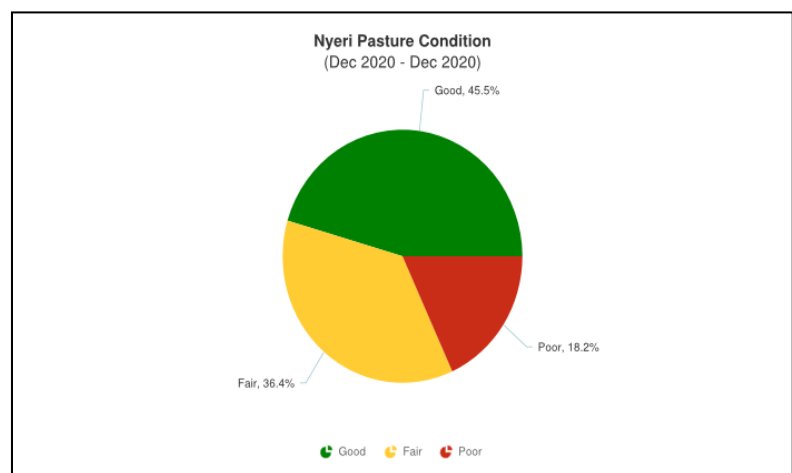


Figure 3(a): presentation of pasture condition for Nyeri (Kieni) County

longer than usual dry spell until the onset of long rains. Therefore, current situation is likely to deteriorate further.

- Areas that recorded poor pasture conditions were Karemeno and lamuria in Mugunda Ward in Kieni West Sub County.

2.1.2 Browse

- Consequently, browse condition also deteriorated during the month of December compared to the last month.
- Available browse rating stood at 46 percent good, 36 percent fair and 18 percent poor as indicated in figure 3(b).

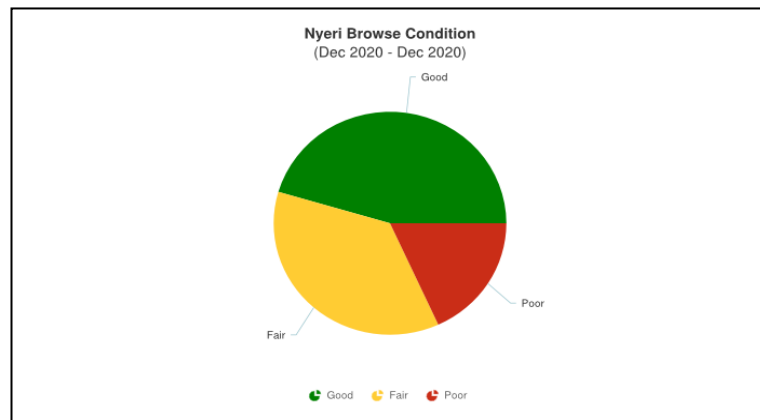


Figure 3(b): presentation of browse condition for Nyeri (Kieni) County

2.2 WATER RESOURCE

Sources

- Rivers remained the main source of water in Kieni at 50 percent, followed by pans/dams at 27 percent and boreholes at 4.5 percent.
- Rivers and streams registered minimum base flows. Reported flows are likely to drop further ongoing sunny and dry conditions persist.
- Open water sources were about 25 percent to 50 percent full occasioned by high evaporation rates given the prevailing weather conditions above.

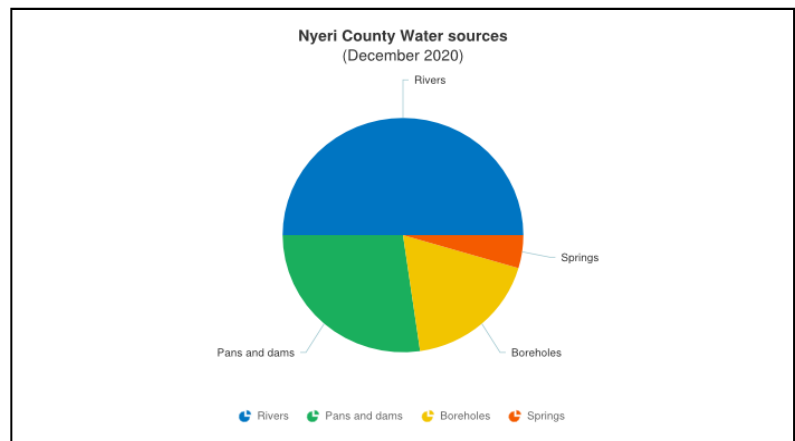


Figure 4: Shows main water sources for Kieni

2.2.1 Household access and Utilization

- Access to water for household use deteriorated slightly this month compared to last month as distances to water sources increased from 0.9 Km in November to one Kilometre in December.
- However, registered distances were shorter by 10 percent, compared to the 2015-2019 long term average of 1.3 Km as indicated in figure 5.

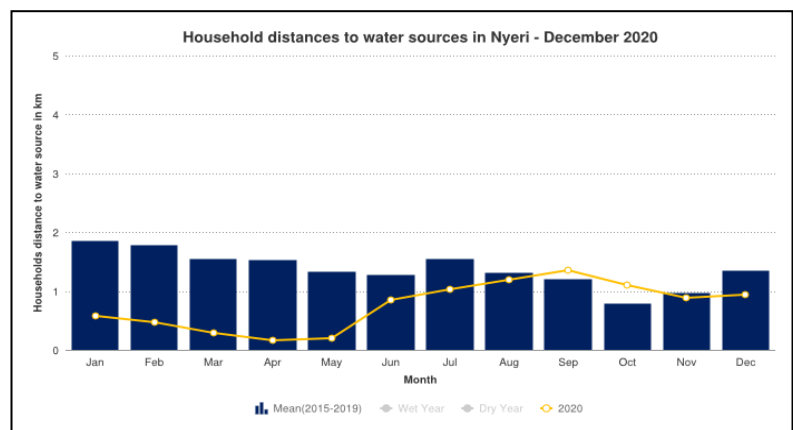


Figure 5: presentation of average household distances to water

2.2.2 Livestock access

- Watering frequency for livestock dropped to once a day as trekking increased to 1.7 Km in December up from 1.5 Km in November.
- Registered distances were higher by 21 percent compared to the 2015-2019 long term average of 1.4 Km as shown in figure 6

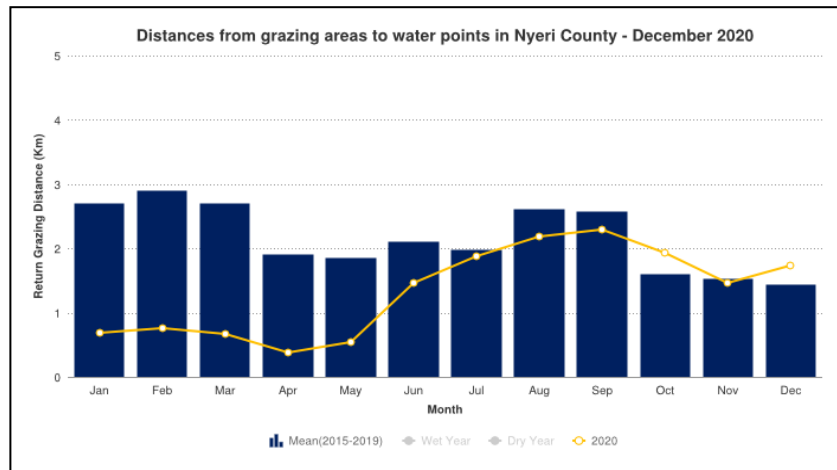


Figure 6: presentation of average grazing distances to water

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Livestock were of fair body condition for all species in the month of December. Observed conditions was on a declining trend when compared to the month of November. Body condition largely impacted by deteriorating pastures conditions coupled with rising trekking distances to water sources.

3.1.2 Livestock diseases

- No contagious livestock disease outbreak reported in the region for the period of monitoring. However, disease surveillance by the livestock department for market sensitive livestock diseases was ongoing, mainly informed by the presence of immigrant herders a situation that highly exposes the region to outbreaks.

3.1.3 Milk Production

- The average household milk production in the month of December was 5.7 litres from 6.2 litres in November, accounting for eight percent drop.
- The month's production was lower by five percent compared to the 2015-2019 long-term average of 6 litres as shown in figure 8.

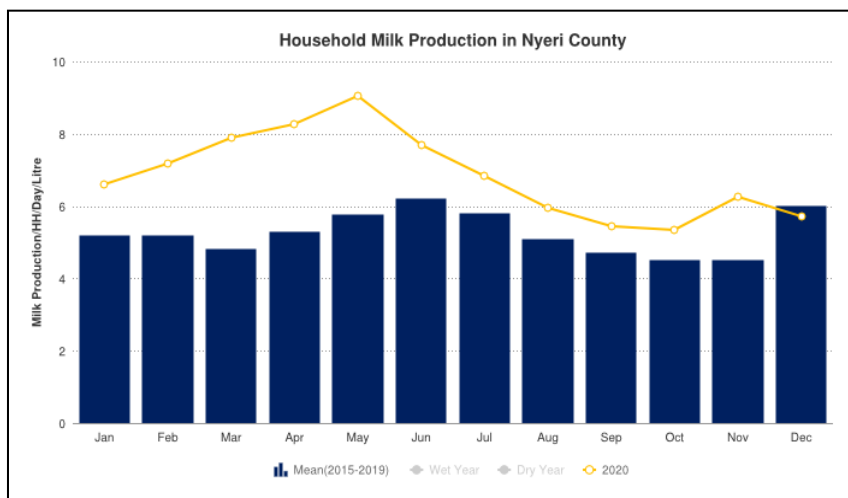


Figure 8: Presentation of average milk production in Nyeri (Kieni)

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

- The main rain food crops grown in Kieni East and Kieni West sub counties include Maize, beans and potatoes. Crops currently at the farms level are at different stages of growth and development. Maize was at below knee high while potatoes and beans were at flowing stage.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Price

- Livestock prices increased during the month under review compared to the previous month, attributed to an increase in demand during the festive season.
- The trading price of a mature four-year-old bull was 39,375 in December up from Ksh 33,077 in November, a 19 percent increase.
- Compared to the 2017-2019 short term averages of Ksh 31,406 reported prices were higher by 25 percent, as indicated in figure 9.

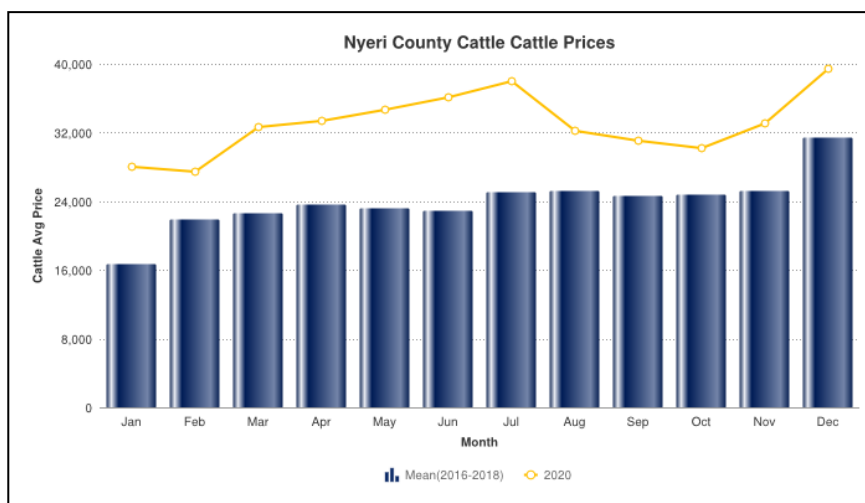


Figure 9: Outline average price trends for cattle

4.1.2 Sheep prices

- A two-year-old medium size Sheep retailed for Ksh 5,000 in December up from Ksh 4,654 in November, a seven percent increase.
- The month's prices were within normal thresholds compared to the 2017-2019 short term averages of Ksh 4,958 as shown in figure 10.

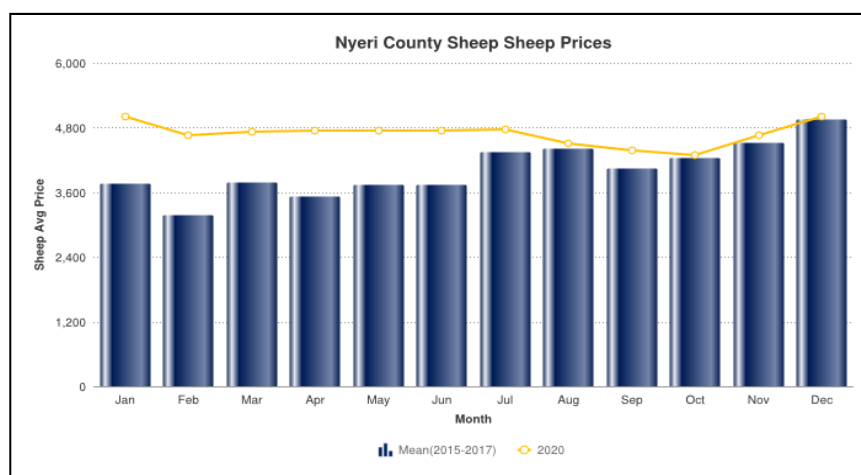


Figure 10: Outline average price trends for sheep

4.2 CROP PRICES

4.2.1 Maize

- Food commodity prices were on an upward trend, after majority of the households exhausted their stocks and were at present relying on markets for supply.
- A kilo of maize retailed for Ksh 44 in December up from Ksh 39 in November, a 13 percent increase.
- Compared to the short-term averages of Ksh 46, the month's price is within the normal threshold as shown in figure 11.

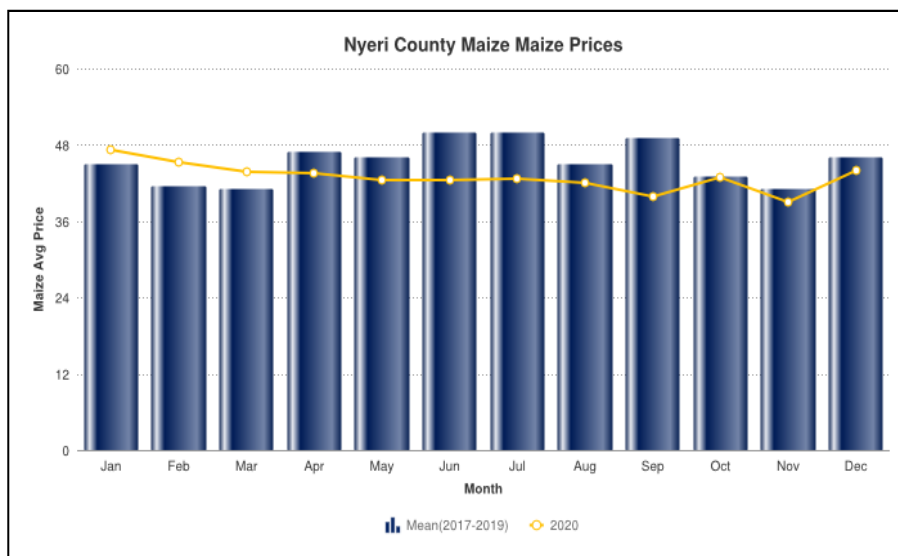


Figure 12: Outlines average price trends for Maize

4.2.2 Beans

- Beans prices were above the 2017-2019 short term average of Ksh 94 by 4 percent.
- A kilo of beans retailed for Ksh 98 in December from Ksh 99 in November. Beans yield for the season performed poorly. Available beans stocks in the markets and sourced from other counties pushing thus prices upward.

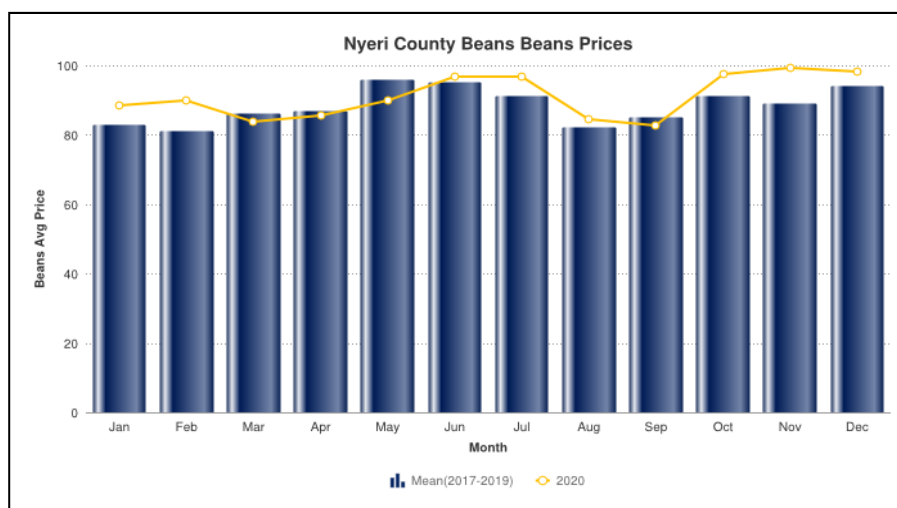


Figure 12: Outlines average price trends for Beans

4.2.3 Livestock Price Ratio/Terms of Trade

- Terms of trade ratio improved during the month of December compared to the previous month, attributed to an increase in livestock prices.
- A mature sheep was equivalent to 114 kilograms of maize accounting for seven percent increase from last month of 106 kilograms.
- Compared to the 2017-2019 short-term average of 100 kgs current TOT was higher by 14

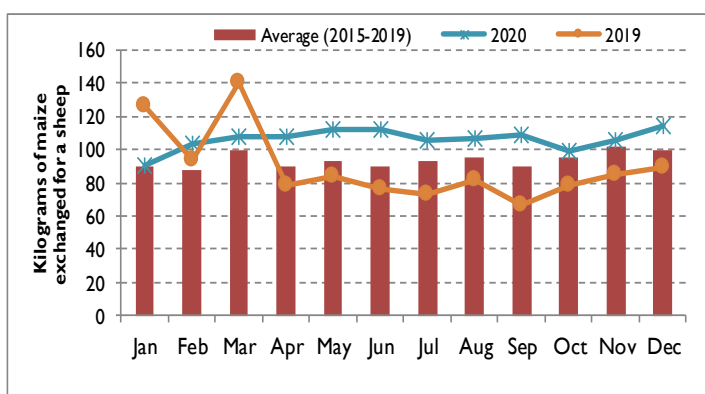


Figure 13: Outlines terms of trade in Kieni

percent as outlined in figure 13.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- Milk consumption reduced by 14 percent from 1.6 litres in November to 1.5 litres in December.
- Decrease in consumption was as a result low production at the household level.
- Households in marginal mixed farming livelihood zones consumed more milk at 0.9 litres per day compared to 0.7 litres in mixed farming livelihood zones.

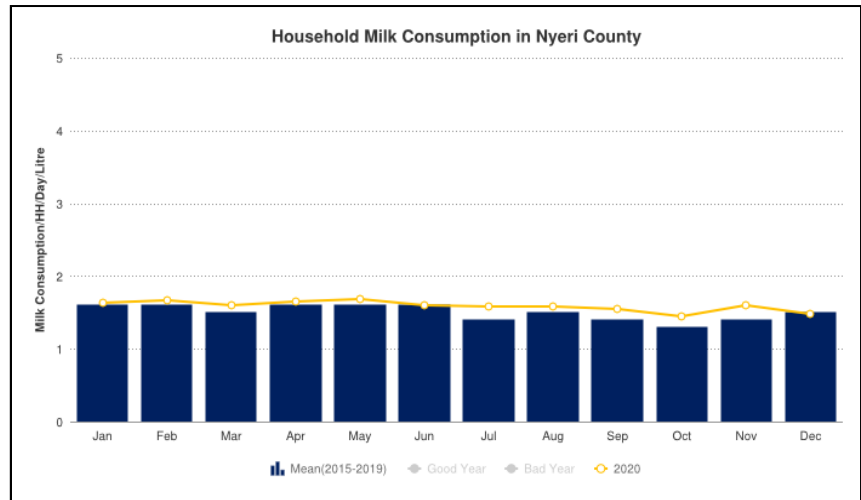


Figure 14: Outlines milk consumption for the county

- Compared to the 2015-2019 short term average of 1.5 litres, the month's consumption was within the threshold as shown in figure 14.

5.2 FOOD CONSUMPTION SCORE

- The food consumption score improved during the month under review compared to the previous months, due to availability of early maturing and availability of agricultural waged labour.
- All the households in Kieni had acceptable food consumption score.

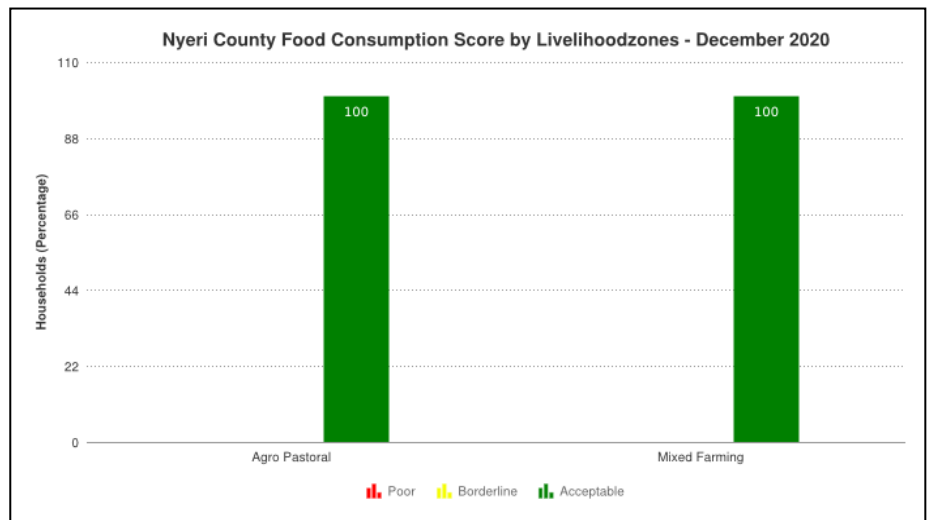


Figure 15: Presentation of food consumption score by livelihood zones

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- There were no cases of malnutrition for under-fives years during the month under review.

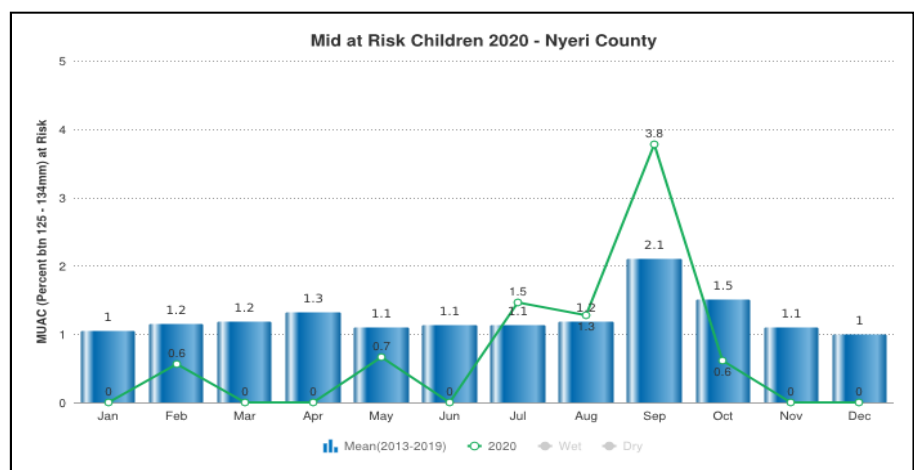


Figure 16: Presentation of nutrition status of children below five years

5.4 COPING STRATEGIES

- The coping strategy index for December was 5.12 which was quite comparable to 4.92 in November.
- The month's CSI was lower compared with 5.17 recorded during the same period last year.
- Households in agro pastoral livelihood zones registered a higher index of 6.4

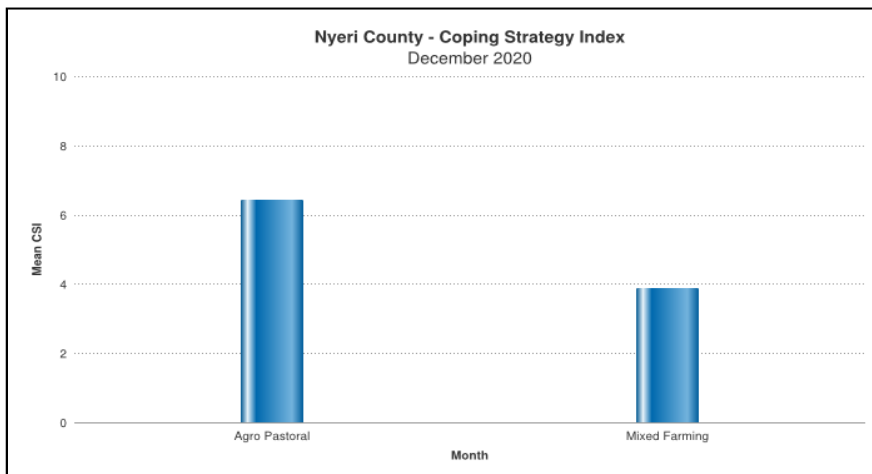


Figure 17: Presentation of the CSI for Kieni by livelihood zones

- compared to those in the mixed farming livelihood zones who recorded an index of 3.9.
- The main coping strategies applied by vulnerable households were reliance on less preferred food, restricting adult consumption for children to eat and reducing daily meals intake.

6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 NON-FOOD INTERVENTIONS

- Solarization of boreholes in Gatuamba Karichen, Kimahuri Secondary School, Kaaga Water project, Lusoi water project, Mureru water project and Naromuru girls by the County Government of Nyeri.
- Laying of pipes in Warazo – Lusoi water project, Guraga water project, Chereti (A and B) water project and Kinaki water project by the County Government of Nyeri.
- Distilling of Lusoi dam and Mikumbuni dam by KSAP and the County Government of Nyeri.
- Roofing of 225m³ tank by the County Government of Nyeri.
- Digging of water pans in Naromoru/Kiamathaga by the County Government of Nyeri, about 300 households are likely to benefit.
- KSCAP supporting groups with alternative income generating activities, by providing them with dairy goat, poultry, bananas and Irish potatoes.
- Vaccination of cattle against Lumpy Skin Disease (LSD), Anthrax and black quarter.
- Vaccination of dogs against Rabies.

6.2 FOOD AID

- There were no food interventions during the month under review.

7.0 EMERGING ISSUES

7.1 Migration

- A herd of about 300 animals spotted in Solio and moving towards Kieni West Sub County from Laikipia County, and believed to be an early entry to the county by immigrant herders for pasture and water. This is indicative that more movements is likely.

7.2 FOOD SECURITY PROGNOSIS

- The performance of the October-November-December (OND) rains was below the normal average. Forage and water sources will decline further until the start of the MAM rains in mid-March. Milk production will also reduce leading to a decline in consumption.
- Majority of the households have exhausted their stock and are relying on markets for supply. Given that production is likely to be below average, households will continue to rely on markets for supply hence food prices are likely to increase.

8. RECOMMENDATIONS

- Capacity building on post-harvest management. (NDMA).
- Sensitize farmers on soil fertility management (CGN).
- Livestock disease surveillance and deworming (CGN).
- Sensitize farmers on fodder modern harvesting and storage (CGN).
- Provision of subsidized seeds and fertilizer to farmers (CGN).
- Capacity building on water harvesting and storage (CGN)