National Drought Management Authority
(NYERI) COUNTY
DROUGHT EARLY WARNING BULLETIN FOR DECEMBER 2019

NDMA

A Vision 2030 Flagship Project

KENYA VISION 2030

DECEMBER EWS PHASE

Drought Status: NORMAL

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Drought Situation & EW Phase Classification
Biophysical Indicators

- During the month of December, Kieni recorded above normal rains. Amount received were poorly distributed in time and space
- Vegetation condition was above normal as a result of OND rains.
- There was a general improvement in water access, as recharge of water sources was good and open water sources were full to capacity.

Socio Economic Indicators (Impact Indicators)

- Livestock body condition was good and smooth.
- Maize crop at the farms are above Knee high to tussling stage.
- There was 12 percent increase in milk yield which also gave rise to a seven percent increase in consumption.
- Distances to water sources for households reduced by 14 percent.
- Distances to water sources from the grazing field remained unchanged from last month.
- Terms of trade ratio were within the normal range.
- Percent of under five at risk of malnutrition was within normal range at 1.2 percent.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Stable
Agro pastoral	Normal	Stable
Biophysical Indicators	**Value**	**Normal Range/Value**
Rainfall (mm)	228	161.18
VCI	71.45	>35
Forage condition	Good	Good
Production indicators	**Value**	**Normal**
Crop Condition(specify crop)	Fair	Good
Livestock Body Condition	Good	Good
Milk Production	6.7	5.8 litres
Access Indicators	**Value**	**Normal**
Terms of Trade (ToT)	87.9	128
Milk Consumption	1.6 litres	1.4 litres
Return distance to water sources for household use	0.6 Km	1.2 Km
Return distance to water sources from grazing field.	0.6 Km	1.8 Km
Utilization indicators	**Value**	**Normal**
Nutrition Status, MUAC (% at risk of malnutrition)	1.2	1.2
Coping Strategy Index	5.10	0.0

▪ Short rains harvests ▪ Short dry spell ▪ Reduced milk yields ▪ Increased HH Food Stocks ▪ Land preparation	▪ Planting/Weeding ▪ Long rains ▪ High Calving Rate ▪ Milk Yields Increase	▪ Long rains harvests ▪ A long dry spell ▪ Land preparation ▪ Increased HH Food Stocks ▪ Kidding (Sept)	▪ Short rains ▪ Planting/weeding
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1.0 CLIMATIC CONDITIONS
1.1 RAINFALL PERFORMANCE

☐ Kieni experienced one of the wettest short rains seasons on record over the last decade ranging up to 160 percent of the long term average. In the month of December amounts received were poorly distributed in time and space.

☐ In general, Nyeri County received 228 percent of the normal rains as shown in figure 1.

☐ Due the heavy rains, Pans and dams have impounded water to full capacity; however, a few like Gatere

Figure 1: Presentation of the rainfall performance for December.

dam in Thegu in Kieni East Sub County were overwhelmed by heavy runoff which washed away their embankments walls. Due to the heavy floods crops have been destroyed and households displaced. The overflow of River Kamariki led to displacement of over 25 households in Mugunda ward in Kieni West Sub County.
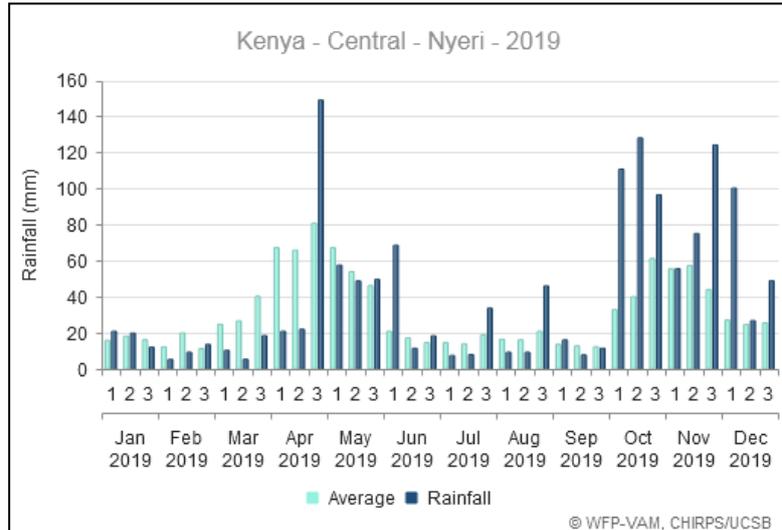
2.0 IMPACTS ON VEGETATION AND WATER
2.1 VEGETATION CONDITION
2.1.1   VEGETATION CONDITION INDEX(VCI)
☐ The vegetation performance was good at 71.45 percent, attributed to the good performance of the OND rains.

☐ The vegetation condition was above the long term average across the livelihood zones as shown in figure 2 (a) and 2 (b) below.
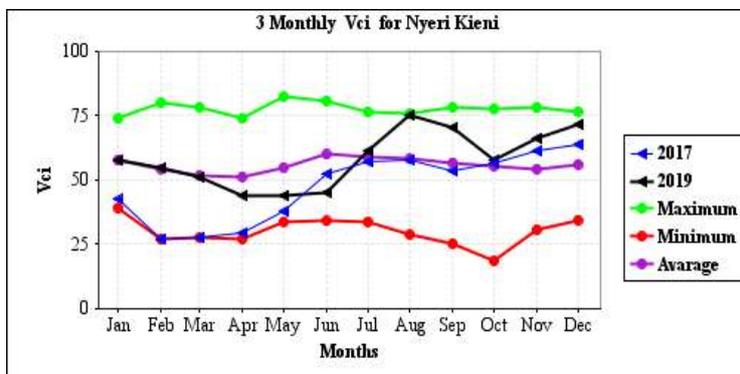
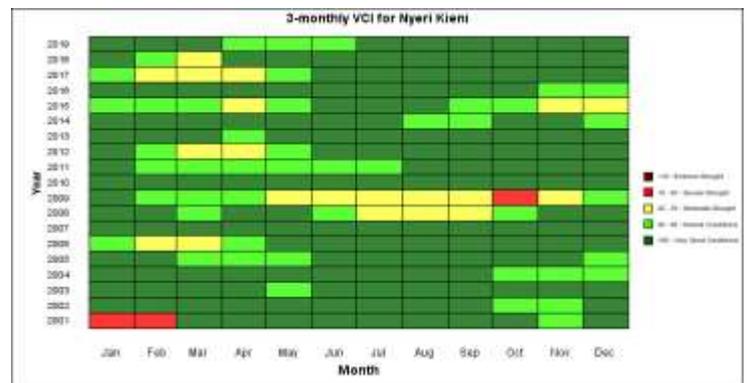*Figure 2 (a): Presentation of 3 monthly VCI for*

Figure 2(b):   Presentation of the Vegetation Condition Index (VCI)

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2.1.2 Pasture

☐ Most of the region registered good pasture condition at 83.3 percent which is a significant improvement compared to 33.3 percent in November.

☐ Fair pastures at 16.7 percent were reported in Thegu ward in Kieni East Sub County and some pockets in Kieni West Sub County.

☐ Available pastures are expected to last for 4 months in both Marginal Mixed farming livelihood zones and mixed farming livelihood zones.
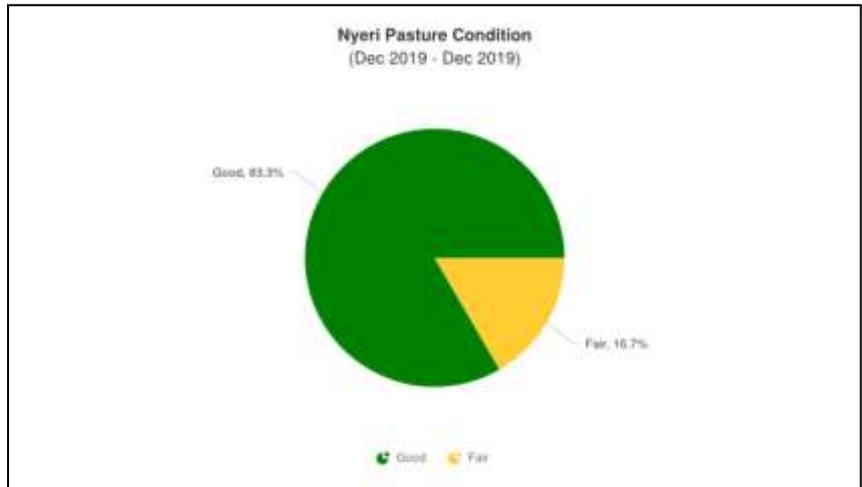

Figure 3(a): Presentation of pasture condition for Nyeri County

2.1.2 Browse

☐ Browse condition was good across the livelihood zones, attributed to the good performance of the OND rains.

☐ Available browse is expected to last for four months in both livelihood zones.

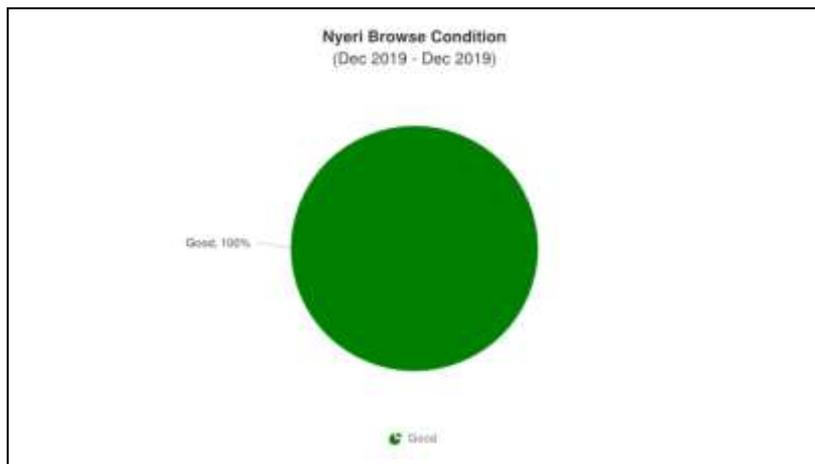☐ Compared to a normal year the current situation is above normal.

Figure 3 (b): Presentation of browse condition for Nyeri County.

2.2   WATER RESOURCE
2.2.1   Sources
- Due to the good performance of the OND rains, access to water was good. Household water sources have been diversified from water harvest, piped water, rivers, pans and dams. Figure 4, is a representation of some of the sources the households are using.

- Rivers are flowing above normal flow. Open water sources are full while some are overflowing due to the heavy rains. Trekking distances to water sources for both livestock and livelihoods have significantly reduced.
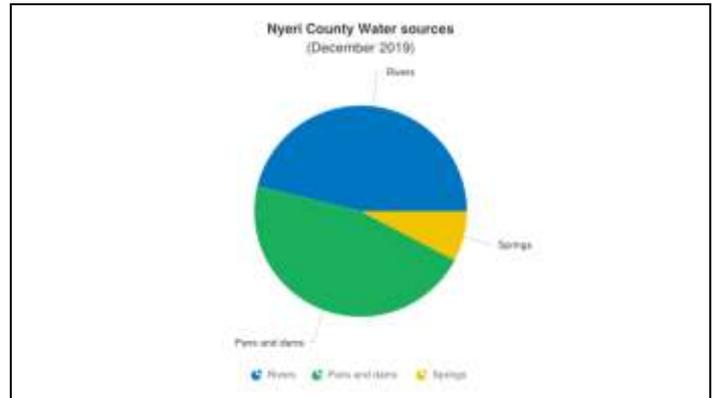
Figure 4: Shows main water sources for Kieni

2.2.2   Household access and Utilization
- Households distances to water sources were minimal as most water sources were reliable and within reach. Distance from the household to water sources reduced from 0.7 Km on November to 0.6 Km in December.

- Compared to the 2013-2015 mean averages of 1.2 Km, distances covered in December were lower by 50 percent as indicated in figure 5.
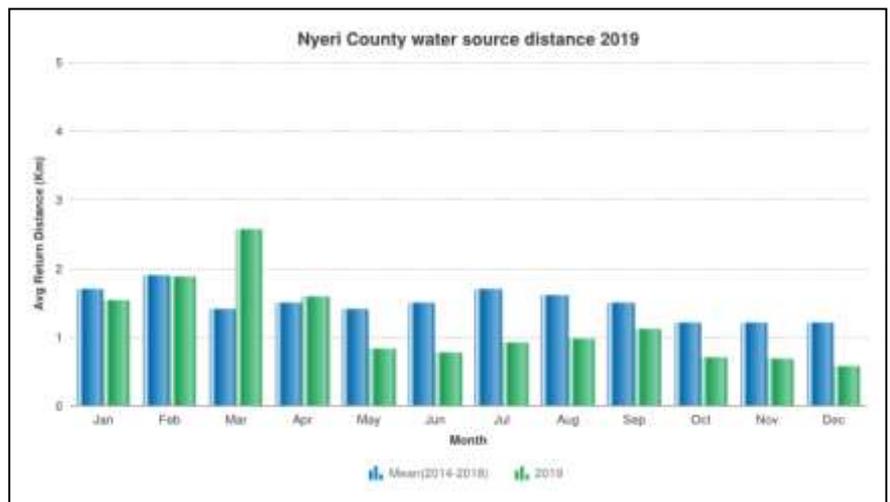
Figure *5: presentation of average return distances*

2.2.3   Livestock access
- The current distances from grazing field to water sources were below the long term average of 1.8 Km by 67 percent as indicated in figure 6

- In the Marginal Mixed farming livelihood zones distances reduced by 60 percent from 0.5 Km in November to 0.2 Km in December while in the mixed farming distances
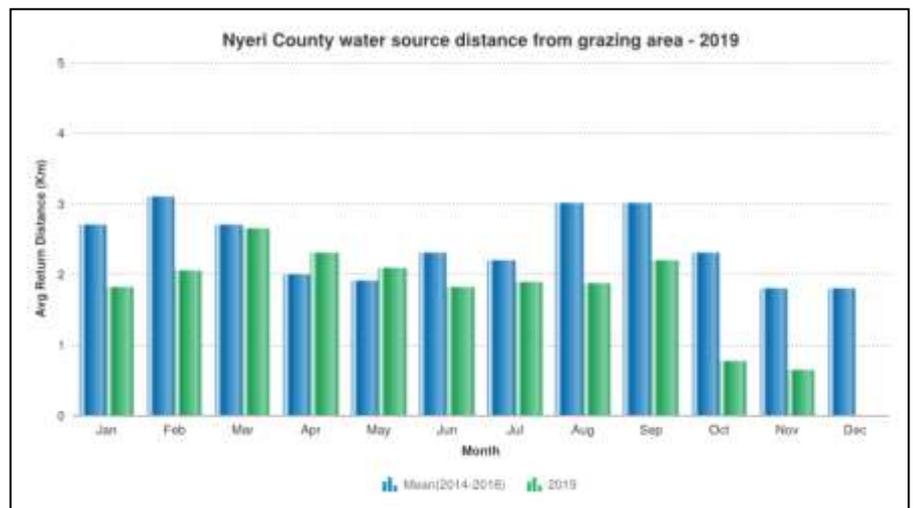
Figure *6: presentation of average grazing distances to water*

remained unchanged from previous month at 0.8 Km.

3.0 PRODUCTION INDICATORS
3.1 LIVESTOCK PRODUCTION
3.1.1 Livestock Body Condition
☐ Livestock body condition for all species were satisfactory during the month under review, as pasture were adequately available and distances to water sources were negligible.

3.1.2 Milk Production
☐ Milk production increased by 12 percent from 6 litres in November to 6.7 litres in December. Production was higher in the Marginal Mixed zones and stood at 7.1 litres compared to 6.1 litres in Mixed farming livelihood zones.

☐ Increase in milk production could be attributed to good animal health and reduced cost of managing the productive stock.

☐ Compared to the 2013-2015 short term average of 5.8 litres, the month's production was higher by 15.5 percent as indicated in figure 7.
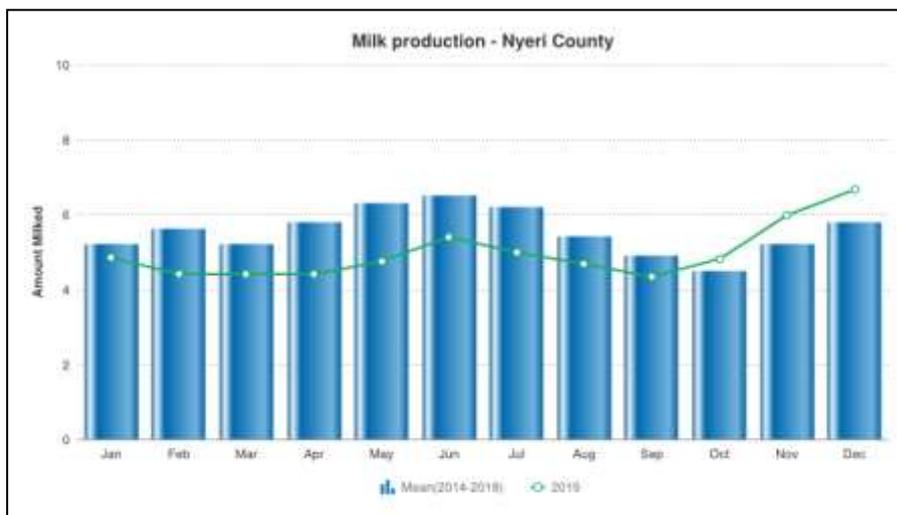
Figure 7: Presentation of average milk production for the region

3.2 RAIN-FED CROP PRODUCTION
3.2.1 Area planted and date of planting
☐ Area planted during the OND season was above the LTA attributed to timely onset of the rains. Most of the farmers did minimum tillage on their farms.
☐ Majority of the farmers have already undertaken second weeding and top dressing.

3.2.2 Stage and Condition of food Crops
☐ Currently, maize crop at the farms are at above Knee high to tussling stage. Due to the heavy rains, excessive moisture and water logging, crop development has slowed and significant damage has been caused to potatoes and beans.

3.2.3 Pest and Diseases
☐ Fall Army Worm (FAW) and maize stalk borer has been reported in Kieni East and Kieni West sub counties.
☐ Early and late blights were reported in potatoes and beans.
☐ Soft rots in potato tubers have escalated due to excess soil moisture.

4.0 MARKET PERFORMANCE
4.1 LIVESTOCK MARKETING

4.1.1 Cattle Price

- Cattle prices increased by 17.5 percent to retail for Ksh 32,900 in December from Ksh 28,000 in November. Increase in prices could be attributed to good body condition and health.
- Compared to the 2013-2015 short term averages of Ksh 31,106 reported prices were higher by six percent, as indicated in figure 8.
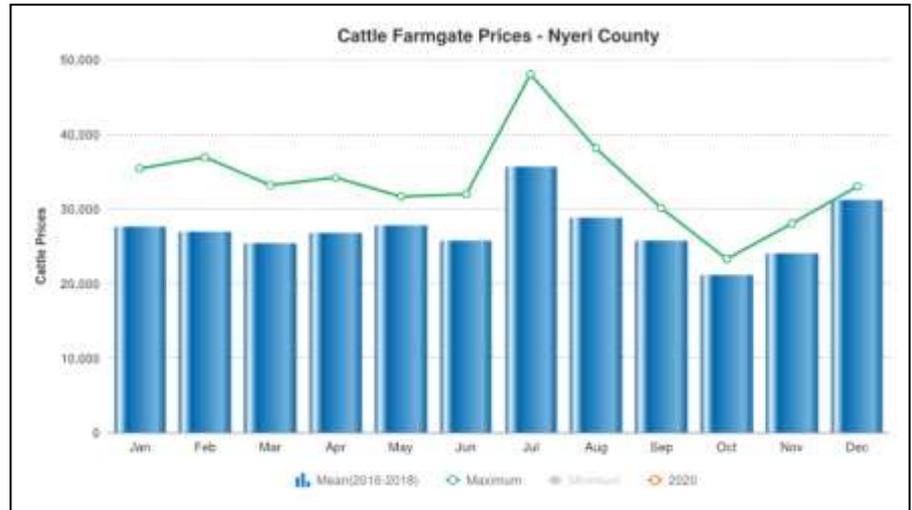

Figure 8: Outlines average price trends for cattle

4.1.2 Sheep prices

- Sheep prices increased by 13 percent to retail for Ksh 4,792 in December from Ksh 4,250 in November.
- The month's prices were higher by five percent, compared to the 2013-2015 short term averages of Ksh 4,581 as shown in figure 9.
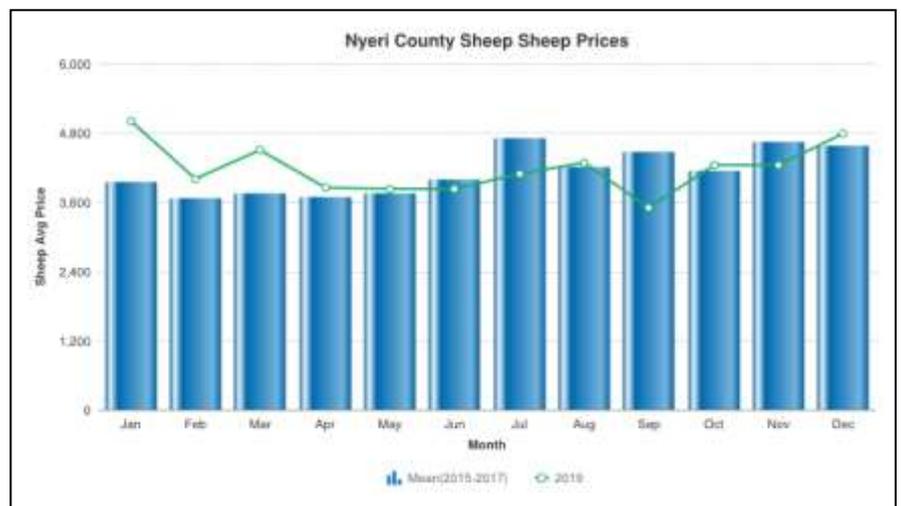

Figure 9: Outlines average price trends for sheep.

4.2   CROP PRICES
4.2.1   Maize

- Maize prices increased by 7.6 percent to retail for Ksh 53.8 in December from 50 in November. Most households had exhausted food stock at the household level and solely relied on markets for supply hence the increase in prices.
- Compared to the short term averages of Ksh 41.2, the registered price was higher by 31 percent as shown in figure 10.
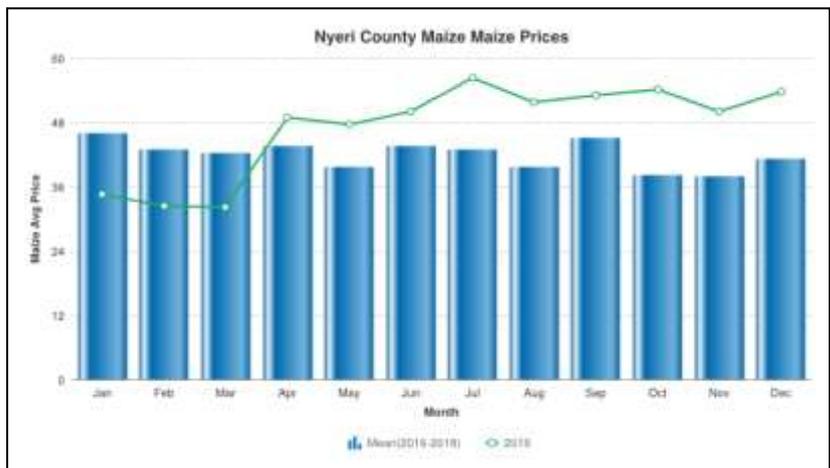

Figure 10: Outlines average price trends for Maize.

4.2.2 Beans

□ Bean prices increased by 7.8 percent to retail for Ksh 100 in December from 92.7 in November.

□ Compared to the short term average of Ksh 86.4 the month's price was higher by 16 percent as outlined in figure 11.
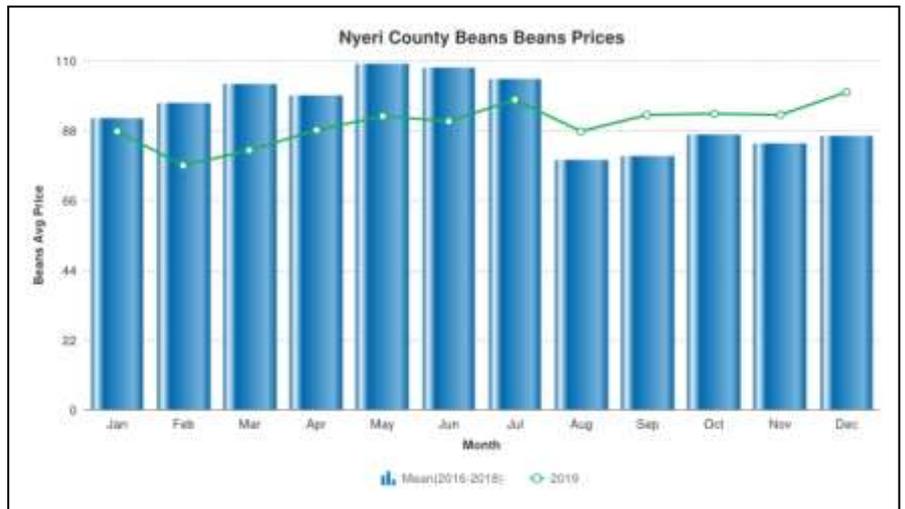

Figure 11: Outlines average price trends for beans

4.2.3 Livestock Price Ratio/Terms of Trade

□ Rising goat prices have boosted the goat-to-cereal terms of trade, despite persistently above-average cereal prices.

□ Households are able to purchase 87.9 kilograms of maize from a sale of one kilogram of goat meat. This was a 10 percent increase from last month where households could purchase 80 kilograms of maize from the sale of the same.

□ Compared to the short term average of 125 current TOT was lower by 29.7 percent as outlined in figure 12.
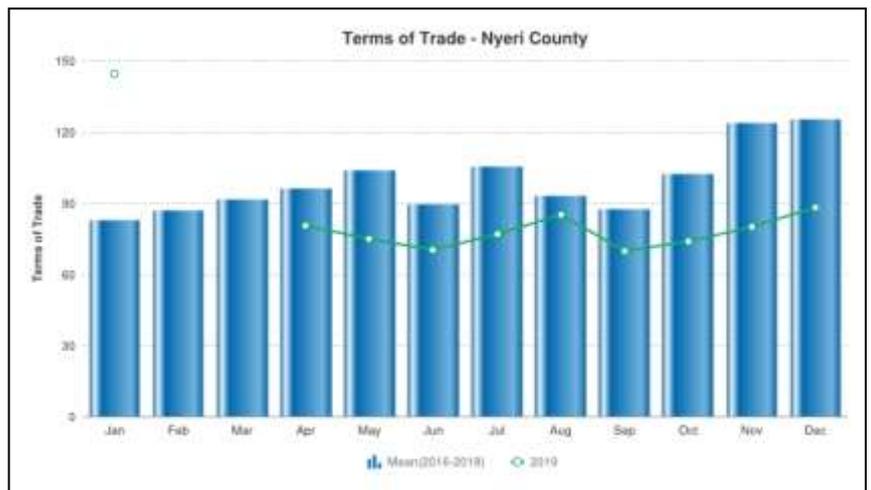

Figure 12: Outlines terms of trade in Kieni

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5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1   MILK CONSUMPTION

☐ The month's household milk consumption improved by 7 percent from 1.5 litres in November to 1.6 litres in December.

☐ Households in marginal mixed farming consumed more milk at 1.7 litres per day compared to 1.4 litres in mixed farming livelihood zones.

☐ Households sold the remaining milk to the various co-operatives that are operating in the region, although the prices are very low.

Figure 13: Outlines milk consumption for the county

☐ Compared to the 2013-2015 short term average of 1.4 litres, the month's consumption was higher by 14 percent as shown in figure 13.
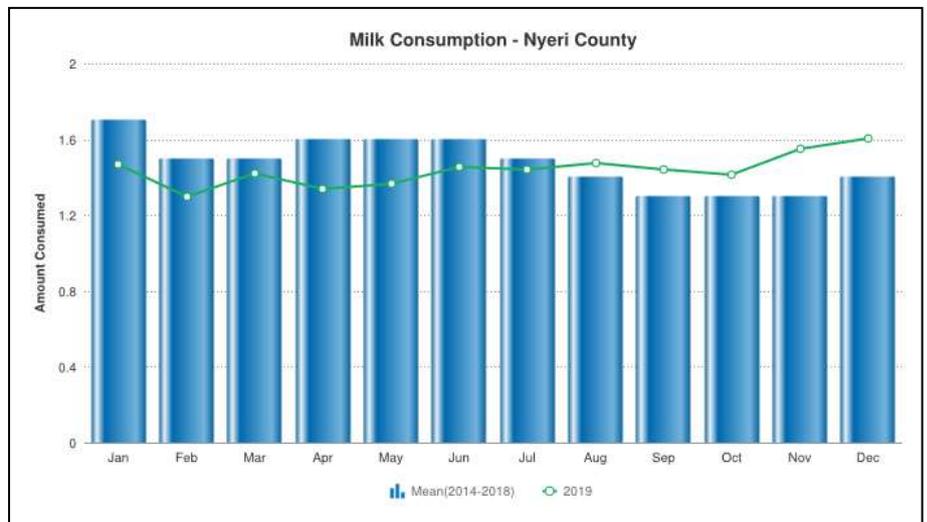
5.2   FOOD CONSUMPTION SCORE

☐ The food consumption score for Kieni was relatively stable compared to the previous month. In the month of December, the proportion of households with poor, borderline and acceptable food consumption score in the sampled population was one percent, 35 percent and 64 percent which
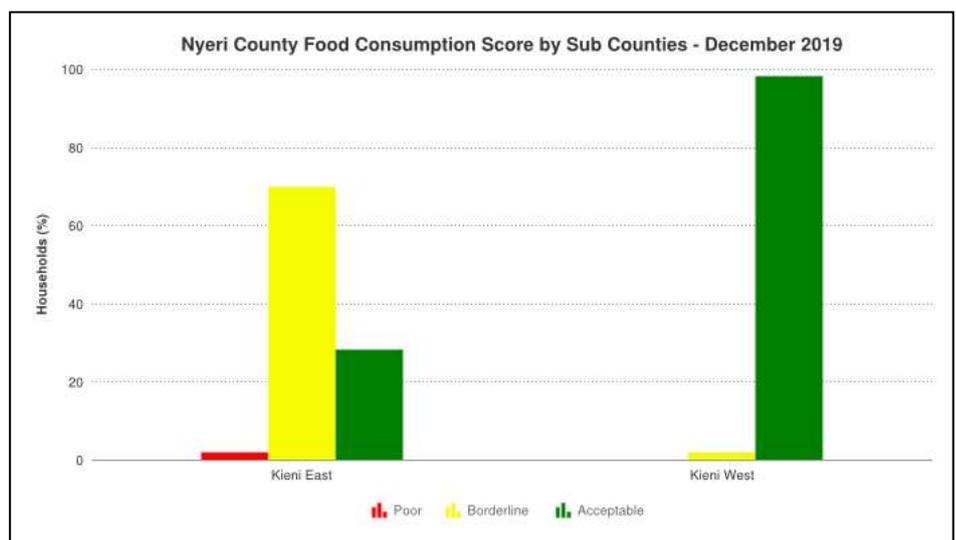

Figure 14: Presentation of food consumption score by livelihood zones

was quite comparable to the month of November where 37 percent were at borderline and 63 percent at acceptable.

☐ The marginal mixed farming livelihood zones fared better since 98 percent of the households had acceptable food consumption score compared to 28.3 percent in mixed farming livelihood zones.

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5.3 HEALTH AND NUTRITION STATUS
5.3.1 Nutrition Status

☐ Percent of children at risk of malnutrition increased by 9 percent from 1.1 percent in November to 1.2 percent in December. The cases were reported in Mwiyongo/Endarasha ward.

☐ Reported cases of malnutrition were within the normal range as compared to the long term Average of 1.2 percent.
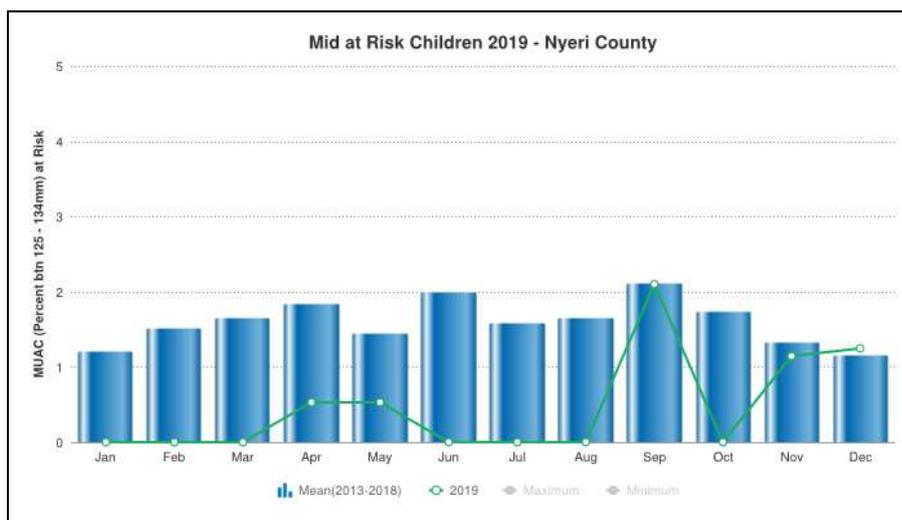

Figure 15: Presentation of nutrition status of children below five years

5.4 COPING STRATEGIES

☐ Coping Strategy Index (CSI) reduced by 11 percent from 5.74 in November, to 5.10 in December, an indication of decreased frequency in employing food related coping mechanisms.

☐ Decrease could be attributed to availability of income from agricultural casual labour and accessibility of early maturing crops like traditional vegetables.

☐ CSI decreased by 14 percent and 9.5 percent in Marginal mixed farming livelihood zones and Mixed Farming

Figure 16: presentation of the region coping strategies

livelihood zones from 7.3 and 4.2 in November to 6.3 and 3.8 in December respectively. Marginal mixed zones registered high coping strategy index of 6.3 compared to 3.8 in Mixed farming livelihood zones as indicated in figure 16.
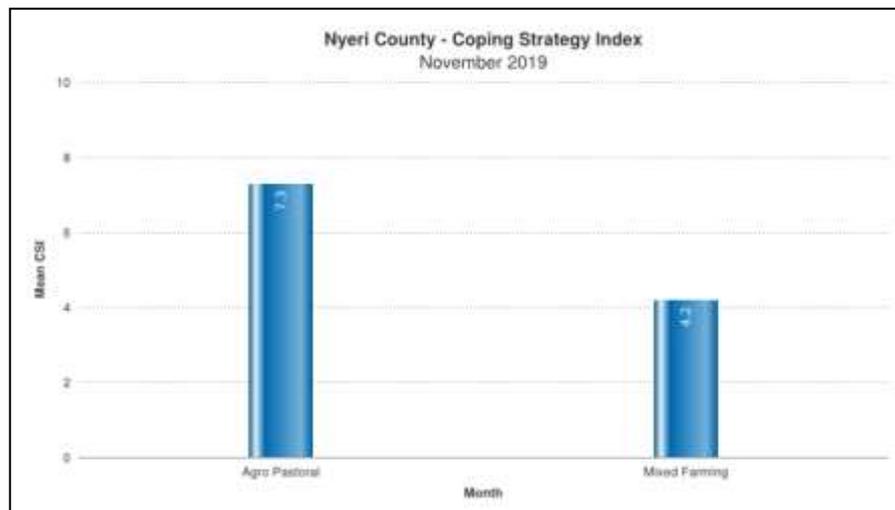
6.0 CURRENT INTERVENTION MEASURES (ACTION)
6.1 NON-FOOD INTERVENTIONS

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

6.2 FOOD AID

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

7. 0 EMERGING ISSUES
☐ Incidences of human wildlife conflict were reported in Thegu ward in Kieni East Sub County.
☐ Over 25 households were displaced by floods in Mugunda ward in Kieni West Sub County.

7.1 FOOD SECURITY PROGNOSIS
☐ In January, the household food availability is expected to improve given that green maize will be available for consumption. Food prices are expected to decline given that households will not be relying entirely on markets for supply. Income from the farm related casual labour will be expected to increase, hence an improvement in the household purchasing power.
☐ Household milk availability is also likely to improve further, given that the above-normal availability of pasture, browse, and water resources will sustain good livestock body conditions. Livestock prices are likely to increase leading to favourable terms of trade for livestock keepers due to declining food prices.

8. RECOMMENDATIONS
- Review of county drought contingency plans. (N.D.M.A).
- Sensitization households on water harvesting (CGN).
- Vaccination and deworming of livestock against trade sensitive diseases. (CGN)
- Support preparedness activities to enhance resilience in communities and other livelihoods diversification activities. (NDMA)
- Support to ward level CP through scenario creation and simulation. (NDMA)