

**National Drought Management Authority
NYERI (KIENI) COUNTY
DROUGHT EARLY WARNING BULLETIN FOR NOVEMBER 2019**



A Vision 2030 Flagship Project



NOVEMBER EWS PHASE



Drought Situation & EW Phase Classification

Biophysical Indicators

- Above normal rains were received in Kieni. Amounts received were uniformly distributed in time and space.
- An improvement was recorded in vegetation condition as result of OND on-going 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.
- Seasonal crops performance is good. Farmers are currently undertaking second weeding and top dressing.
- There was an eight percent increase in milk yield which also gave rise to a seven percent increase in consumption.
- Distances to water sources for households use remained unchanged.
- Terms of trade ratio were within the normal range.
- Percent at risk of malnutrition is also within normal range at 1.1 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)	258.63	161.18
VCI	65.93	>35
Forage condition	Good	Good
Production indicators	Value	Normal
Crop Condition(specify crop)	Good	Good
Livestock Body Condition	Good	God
Milk Production	6	5.2 litres
Access Indicators	Value	Normal
Terms of Trade (ToT)	80	123
Milk Consumption	1.5 litres	1.3 litres
Return distance to water sources for household use	0.7 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)	1.1	2.7
Coping Strategy Index	5.75	0.0

<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 are on-going. Amount received was above normal and evenly distributed in time and space. Kieni received 160 percent of the normal rain for an average of 15 to 20 days. The decadal distribution was as follows registered 56.81 mm in the first dekad, 75.85 mm second dekad and 125.97 mm in third dekad compared to LTA of 60.18 mm, 56.69 mm and 44.31 mm respectively.

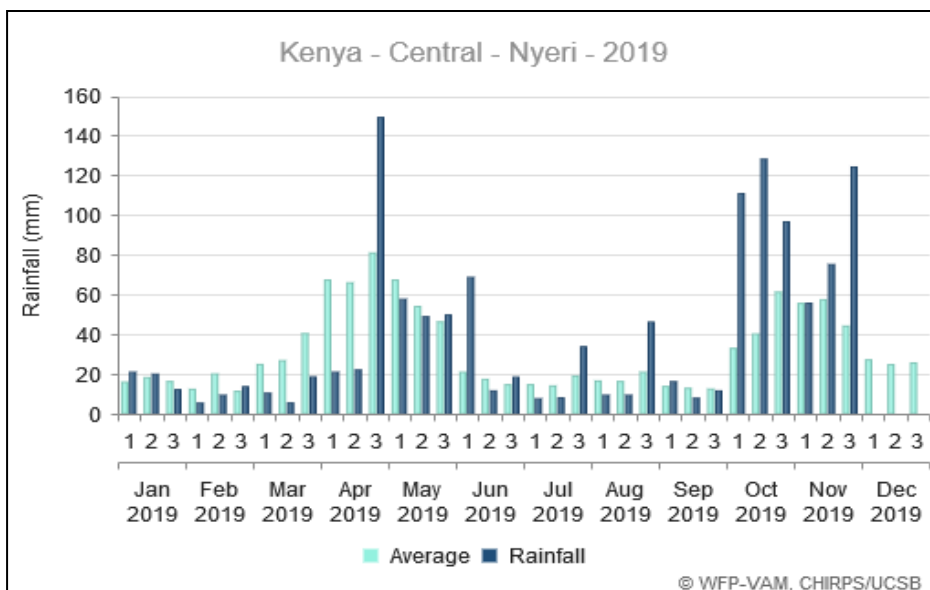


Figure 1: Presentation of the rainfall performance for November.

- In general Nyeri County received 153.6 percent of the normal rains. In the first, second and third dekad the County recorded 55.5 mm, 75 mm, and 124.1 mm compared to the LTA of 55.4mm, 57.3 mm and 44 mm as shown in figure 1 above.
- Due the heavy rains, Pans and dams have impounded water to full capacity; however a few like Kamangura dam in Kieni East Sub County were overwhelmed by resurging runoff which led to breaking their embankments walls. The grounds were highly water logged and flooding was reported in some pockets of Naromoru/Kiamathaga, Thegu and Gakawa wards in Kieni East 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 65.93 percent and above the long term average in term of vegetation condition index. Observed improvement in vegetation performance is attributed to on-going OND rain
- The vegetation condition was above the long term average across the livelihood zones as shown in figure 2 (a) and 2 (b) below. See figure 2 (a) and 2 (b)

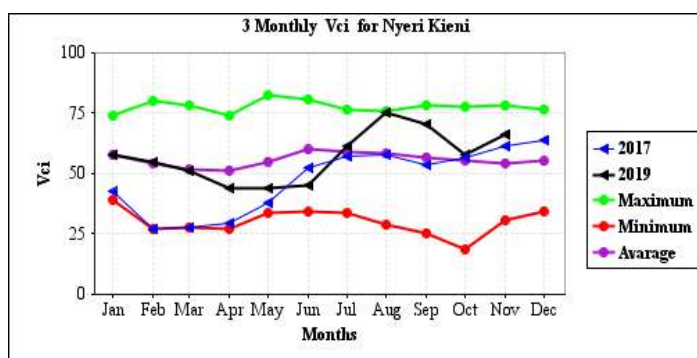


Figure 2 (a): Presentation of 3 monthly VCI for

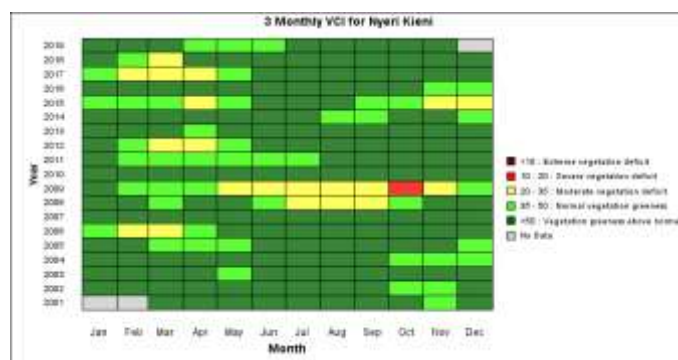


Figure 2(b): Presentation of the Vegetation Condition Index (VCI)

2.1.2 Pasture

- Most of the region registered fair pasture condition at 66.7 percent which is significant improvement compared to 37.5 percent in October.
- Heavy rains, water logging and increased runoff impacted on pasture performance graduating from fair to good currently standing at 33.3 percent down from 37.5 percent in October.
- However, the situation is expected to improve as the OND rains continue. Available pastures are expected to last for 3 months in the Marginal Mixed farming livelihood zones and 4 months in the mixed farming livelihood zones.

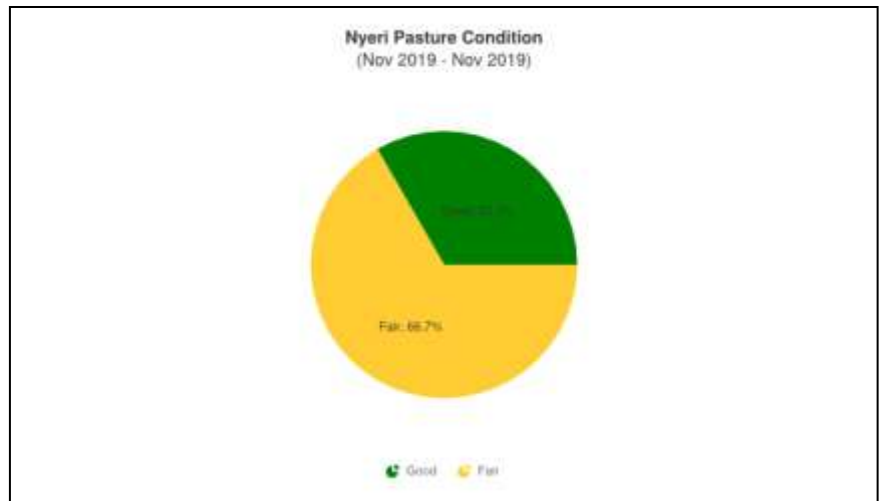


Figure 3(a): Presentation of pasture condition for Nyeri County

2.1.2 Browse

- The browse condition was generally good across the region at 83.3 percent.
- However, the following pockets, Thungari, Lamuria, Lusoi and Kahurura which consist 16.7 percent registered fair conditions.

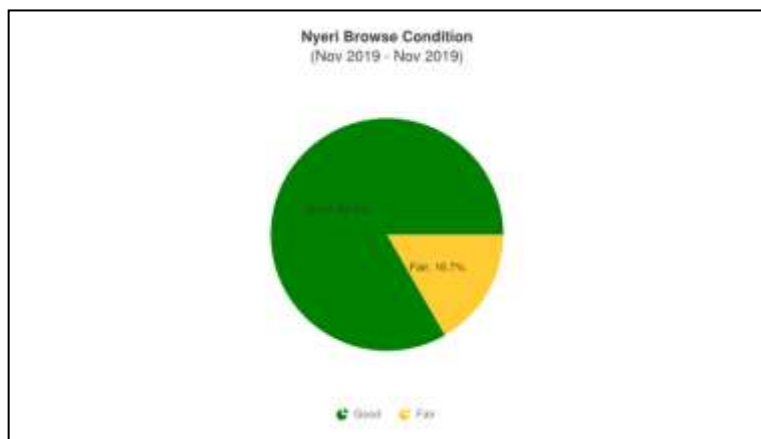


Figure 3 (b): Presentation of browse condition for Nyeri County

2.2 WATER RESOURCE

2.2.1 Sources

- With the on-going OND rains, 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.
- Access to water has significantly improved. Water rationing programmes have ceased, water trekking distances for both livestock and livelihoods have significantly reduced. Rivers are flowing above normal flow. Open water sources are full while some are overflowing due to the heavy rains.

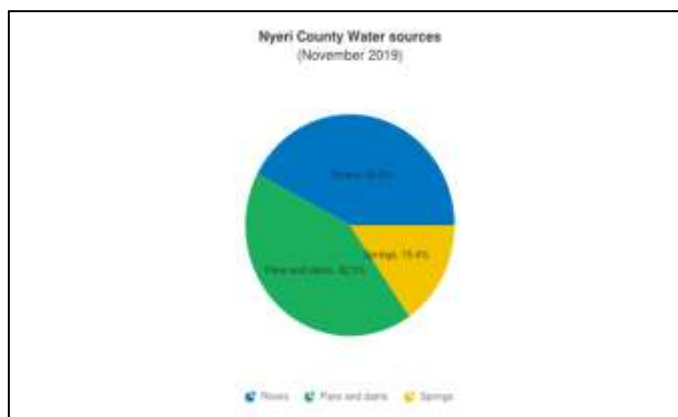


Figure 4: Shows main water sources for

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 source in the month under review remained the same as last month at 0.7 Km.
- In the Marginal Mixed farming livelihood zones distances reduced by 14.3 percent from 0.7 Km in October to 0.6 in November while in the mixed farming livelihood zones distances remained unchanged from the previous month at 0.7 Km.

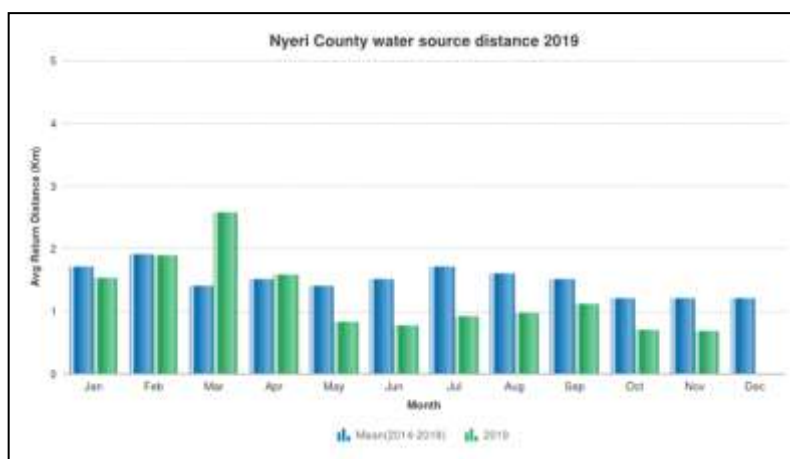


Figure 5: presentation of average return distances

- Compared to the 2013-2015 mean averages of 1.2 Km, distances covered in November were lower by 41.6 percent as indicated in figure 5.

2.2.3 Livestock access

- Average distance from the grazing field to watering points reduced by 25 percent from 0.8 Km in October to 0.6 Km in November. As all water sources had impounded adequate water due to the ongoing rains. In the Marginal Mixed farming livelihood zones distances reduced by

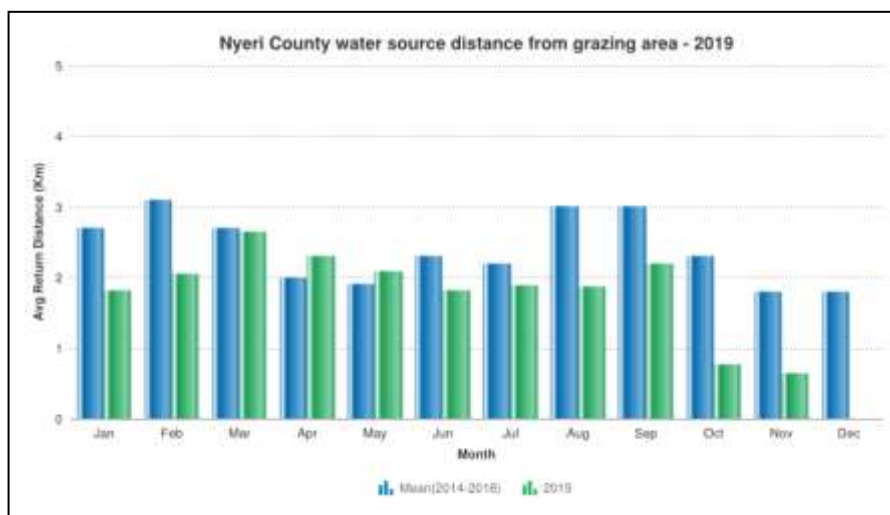


Figure 6: presentation of average grazing distances to water

28.6 percent from 0.7 Km in October to 0.5 Km in November while in the mixed farming distances remained unchanged from previous month at 0.8 Km.

- Compared to the 2013-2015 mean averages of 1.8 Km, distances covered in November were lower by 66.7 percent as indicated in figure 6.

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 8.3 percent from 4.8 litres in October to 6 litres in November. Milk production was higher in the Marginal Mixed zones and stood at 6.1 litres compared 5.1 litres in Mixed farming livelihood zones.

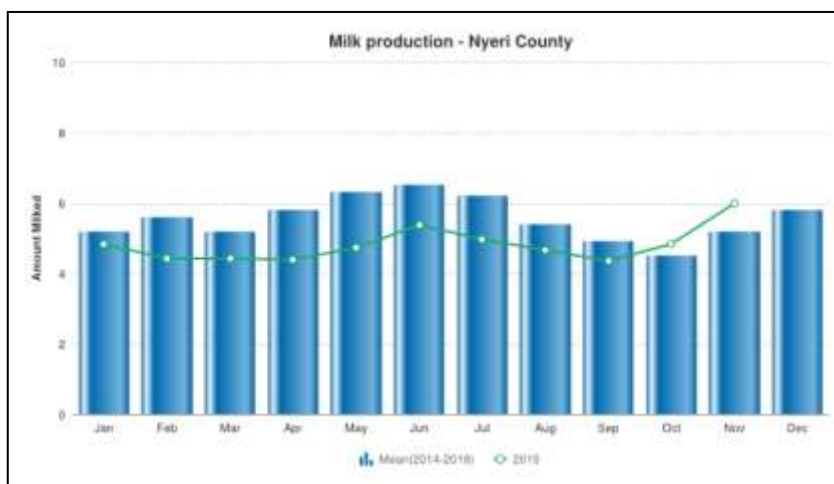


Figure 7: Presentation of average milk production for the region

- 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 5.2 litres, the month's production was higher by 15.4 percent as indicated in figure 7.

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.
- Second weeding and top dressing is on-going in atleast 80 of the farms under crop production and the remaining 20 percent at first weeding.

3.2.2 Stage and Condition of food Crops

- The crops were at various stages of development, Maize at Knee height while potatoes and beans were at flowering stage to pod formation.
- 20 percent of farms under beans crops and potatoes have been highly by water logging while maize crop in lower zones .

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 two percent to retail for Ksh 32,800 in November from Ksh 32,300 in October. Increase in prices could be attributed to good body condition and health.
- Compared to the 2013-2015 short term averages of Ksh 23,900 reported prices were higher by 37 percent, as indicated in figure 8.

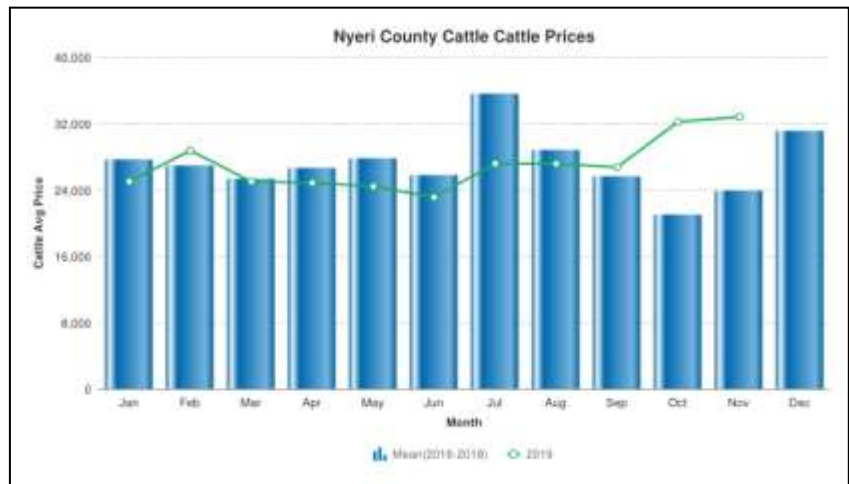


Figure 8: Outlines average price trends for cattle

4.1.2 Sheep prices

- Sheep prices retailed for Ksh 4,300 similar to the previous month.
- The month's prices were lower by 6.5 percent, compared to the 2013-2015 short term averages of Ksh 4,600 as indicated as shown in figure 9.

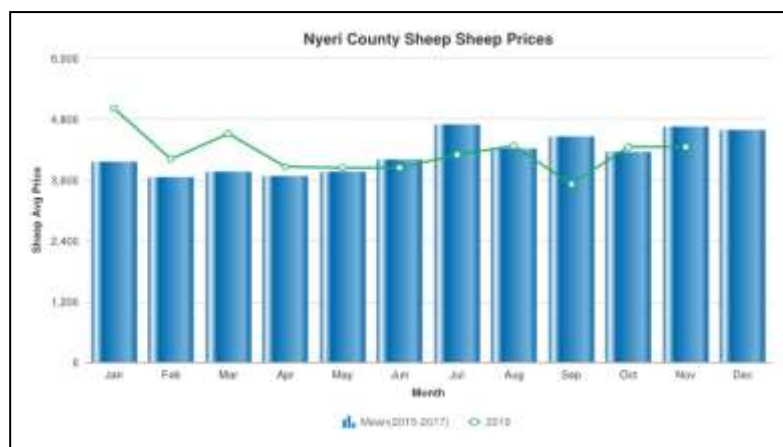
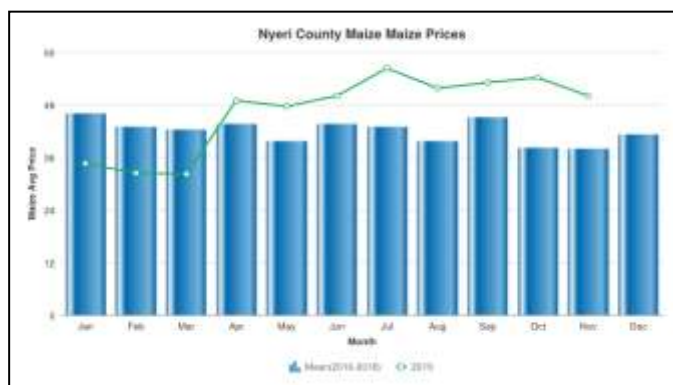


Figure 9: Outlines average price trends for sheep

4.2 CROP PRICES

4.2.1 Maize

- Maize prices reduced by 7.8 percent to retail for Ksh 50 in November from 54.2 in October. Commodity were mainly dictated by market forces
- Compared to the short term averages of Ksh 37.9, the registered price was higher by 28.5 percent as shown in figure 10.



4.2.2 Beans

- Beans prices have been relatively stable since August with a kilogram has been retailing at Ksh 93 since September.
- Compared to the short term average of Ksh 84 the month's

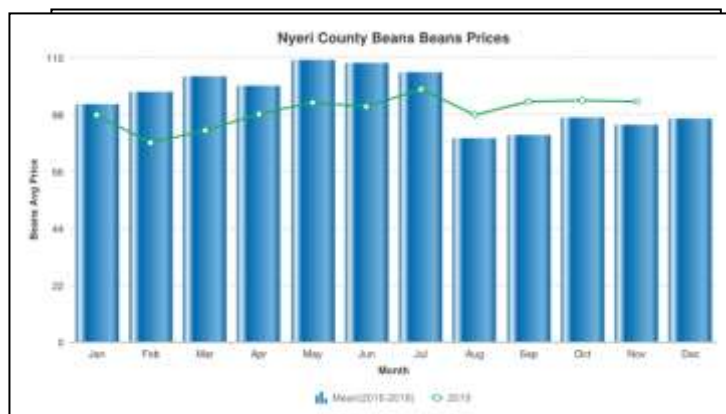


Figure 11: Outlines average price trends for beans

price was higher by 11 percent as outlined in figure 11.

4.2.3 Livestock Price Ratio/Terms of Trade

- Terms of trade ratio increased by 8.4 percent from 73.8 in October to 80 in November.
- Improved TOT is attributable to favourable commodity prices at the market in relation to improved prices of small stocks.
- Compared to the short term average of 123 current TOT reduced by 35.3 percent as outlined in figure 12.

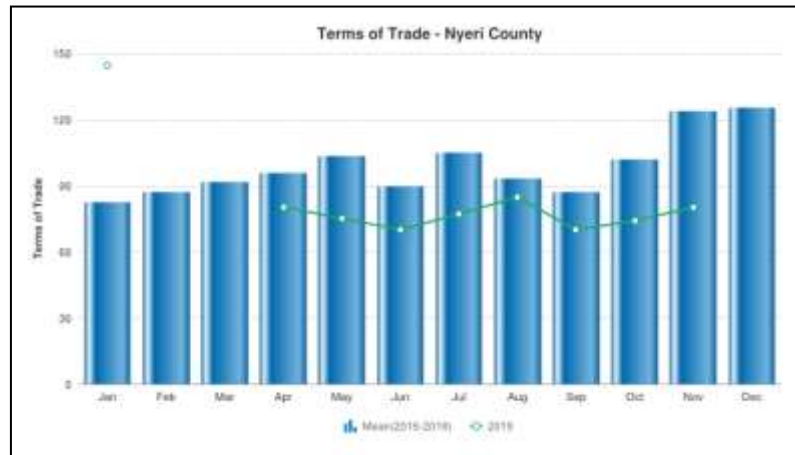


Figure 12: Outlines terms of trade in Nyeri, Kieni sub counties.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- The month's household milk consumption improved by 7.14 percent from 1.4 litres in October to 1.5 litres in November.
- This accounted for 20 percent and 5.3 percent in marginal mixed livelihood zones and mixed farming livelihood zones, of one litre and 1.9 litres in October to 1.2 litres and 2 litres respectively.
- Compared to the 2013-2015 short term average of 1.3 litres, the month's consumption was higher by 7.7 percent as shown in figure 13.

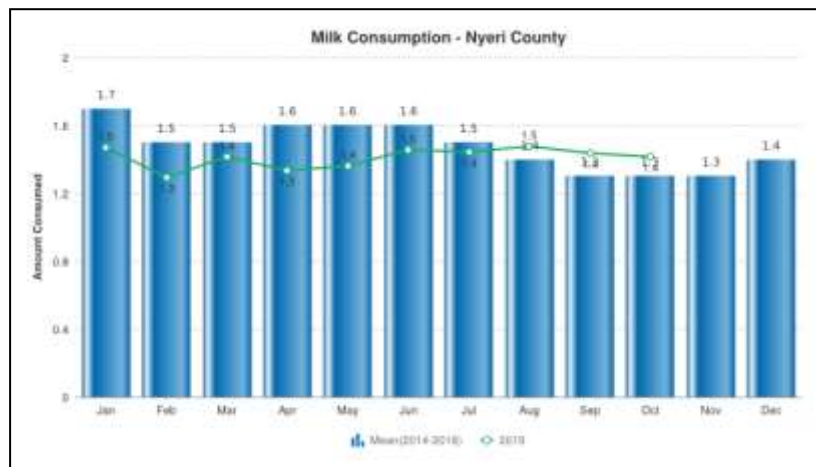


Figure 13: Outlines milk consumption for the county

5.2 FOOD CONSUMPTION SCORE

□ The proportion of households with borderline and acceptable food consumption score in the sampled population was 37 percent and 75 percent respectively.

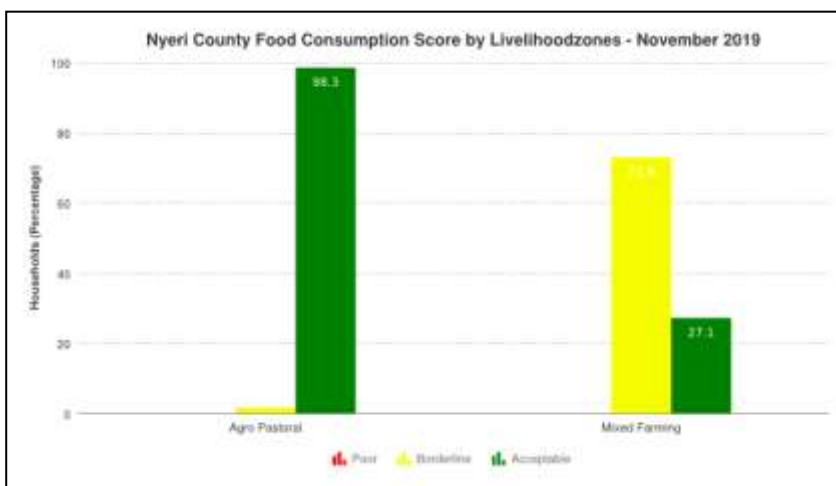


Figure 14: Presentation of food consumption score by livelihood zones

□ This was an improvement from last month where 6.1 percent had poor consumption score,

while those with borderline and acceptable food consumption scores were 36.9 percent and 57 percent respectively.

□ The improvement could be attributed to availability of income from farm labour, availability of early maturing crops at the household level and favourable terms of trade for livestock keepers.

□ The marginal mixed farming livelihood zones fared better since 98 percent of the households had acceptable food consumption score compared to 27.1 percent in mixed farming livelihood zones.

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

□ 1.1 percent cases of malnutrition were reported during the month of November which was within the normal range as compared to the Long term Average of 1.3 percent.

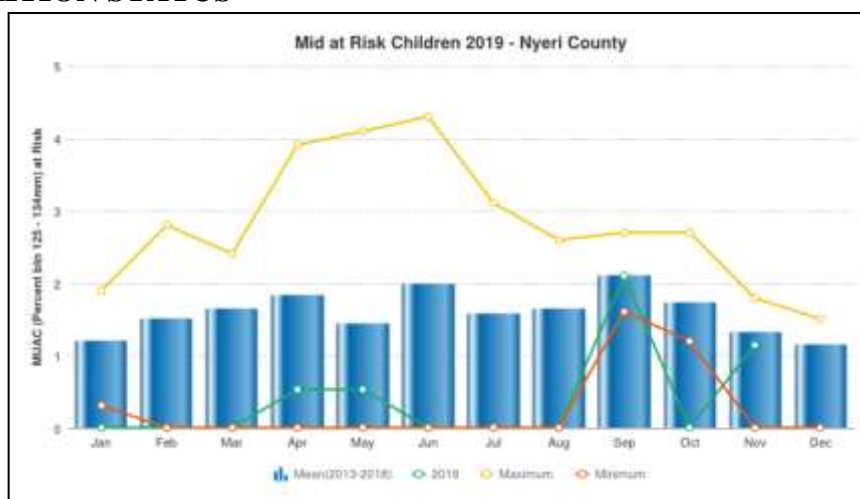


Figure 15: Presentation of nutrition status of children below five years

5.4 COPING STRATEGIES

- Coping Strategy Index (CSI) increased by 19 percent from 4.84 in October to 5.74 in November, an indication of increased frequency in employing food related coping mechanisms.
- It could also be attributed to inadequate of food stuffs at the household level and over reliance relying on market for food supply, besides majority of the households relied on less preferred food and reduced the number of meals.
- CSI increased by 46 percent and five percent in Marginal mixed farming livelihood zones and Mixed Farming livelihood zones from 5 and 4 in October to 7.3 and 4.2 in November respectively. Marginal mixed zones registered high coping strategy index of 7.3 compared to 4.2 in Mixed farming livelihood zones as indicated in figure 16.

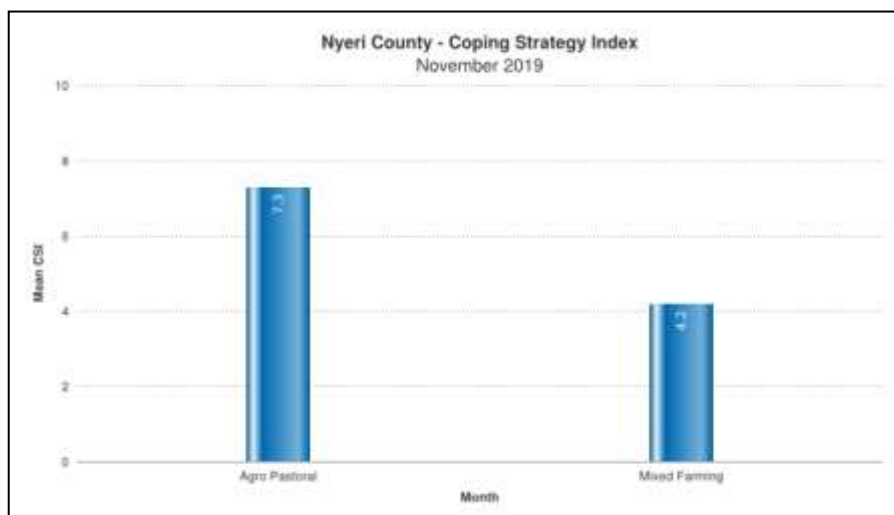


Figure 16: presentation of the region coping strategies

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.
- There was a request to all households dwelling in landslide prone areas to relocate to safer grounds.

7.1 FOOD SECURITY PROGNOSIS

- On-going rains have led to restoration of the grazing fields, recharge of water sources and improved crop production leading to increase in livestock productivity, access to food and non-food items and also improving on livelihoods. Also purchasing power at the household level is favourable and income from farm labour has been steady.
- However, this gain could be reversed due to effect to water logging, floods and landslides. Also households have exhausted their stocks and are relying on markets for supply.
- Despite, the on-going rains household food security status is critical but on an improving trend.

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)