

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



A Vision 2030 Flagship Project



**OCTOBER EW PHASE**



**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- The onset of the October-November-December (OND) rains was early by the first week of October compared to third week of October normally. The precipitation was good distribution in both time and space across all livelihoods.
- The pasture conditions during the month under review stood at 25 percent poor, 37.5 fair and 37.5 percent good across all the livelihood zones.
- The browse conditions during the month under review stood at 62.5 fair and 37.5 percent good across all the livelihood zones.
- Vegetation condition index for the month stood at 56.12. This is indicative of above normal vegetation greenness and same as the long term average.

**Socio Economic Indicators (Impact Indicators)**

- The livestock body condition was fair to good across the entire sub county.
- Milk production increased from 4.4 litres in September to 4.8 litres in October.
- Milk consumption remained unchanged at 1.4 litres compared to the previous month.
- Distances to water sources for households reduced from 1.1 Km last month to 0.7 Km in October.
- Terms of trade ratio increased from 69.8 in September to 73.8 in October.
- Percent of children at risk of malnutrition whose MUAC was below 135 mm was 1.3 percent for the period under review which was lower than the long term average of 2.7 percent.

**Early Warning (EW) Phase Classification**

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Improving
Agro pastoral	Normal	improving
Biophysical Indicators	Value	Normal Range/Value
Rainfall (mm)	69 %	61.8
VCI	57.23	60
Forage condition	poor	Fair
Production indicators	Value	Normal
Crop Condition (specify crop)	fair	fair
Livestock Body Condition	fair	Fair
Milk Production	4.8 litres	4.5 litres
Livestock Migration Pattern	None	None
Livestock deaths (from drought)	None	None
Access Indicators	Value	Normal
Terms of Trade (ToT)	73.8	102
Milk Consumption	1.4 litres	1.3 litres
Return distance to water sources	0.7 Km	1.2 Km
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	1.3	2.7
Coping Strategy Index	6.57	0.0

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

## 1.0 CLIMATIC CONDITIONS

### 1.1 RAINFALL PERFORMANCE

- The onset of the October-November-December (OND) rains was early by the first week of October compared to third week of October normally. The precipitation was good in distribution in both time and space across all livelihoods. On average the marginal mixed farming livelihoods received rains for five days in upper zones and three days in lower
- The first and second dekad registered 44.6 mm and 46.9 mm compared to averages of 12.1 mm and 15.9 mm. This was 69 percent higher.

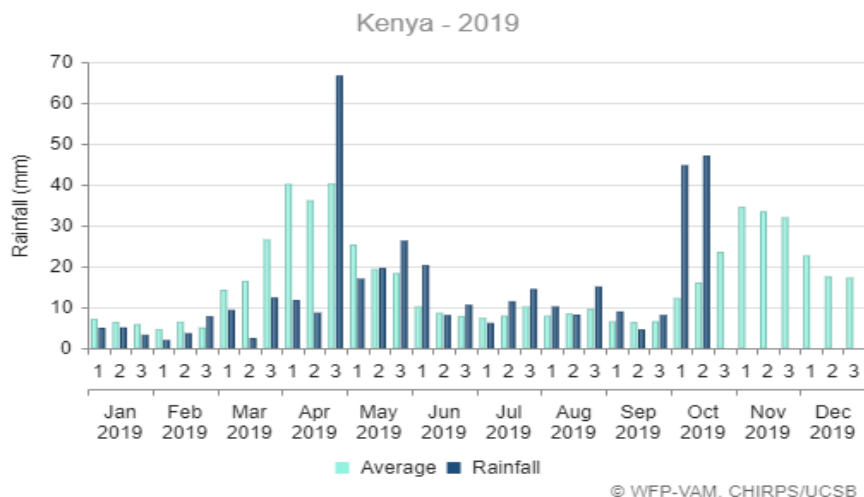


Figure 1: Presentation of the rainfall performance for October

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 VEGETATION CONDITION INDEX(VCI)

- The vegetation condition index for the month of October stood at 57.23 as compared to 70.07 in September. This 18.32 percent decrease.
- The month’s VCI was indicative of above normal vegetation greenness.
- The vegetation condition was the same as the long term average but below the maximum that has been registered for the month as shown in figure 2 (a) below

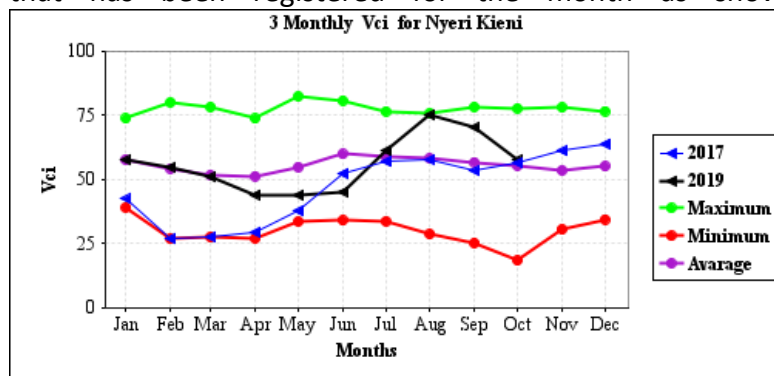


Figure 2: Presentation of 3 monthly VCI for Nyeri County

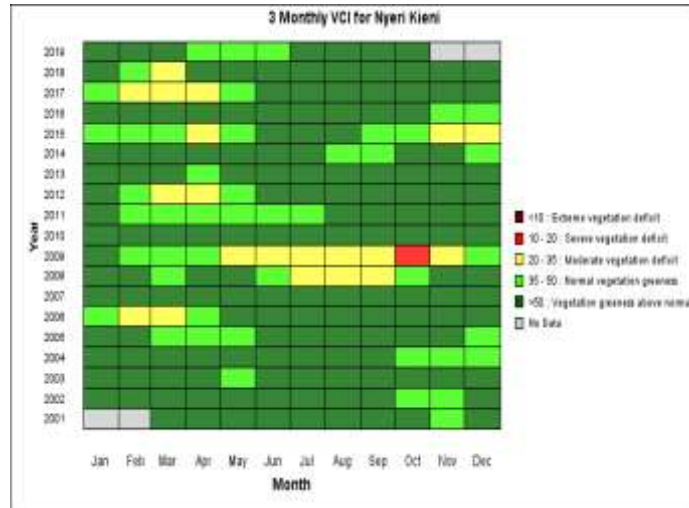


Figure 3: Presentation of the Vegetation Condition Index (VCI)

### 2.1.2 Pasture

- The pasture conditions during the month under review stood at 25 percent poor, 37.5 fair and 37.5 percent good across all the livelihood zones.
- This is an improvement compared to last month which stood at 40 percent poor and 60 percent fair. This can be attributed to the OND rainfall which has helped to regenerate the depleted pastures.
- The ongoing rains are expected to improve the pasture conditions which may last to 2 months in the mixed marginal farming zones and 3 months in the mixed farming zones

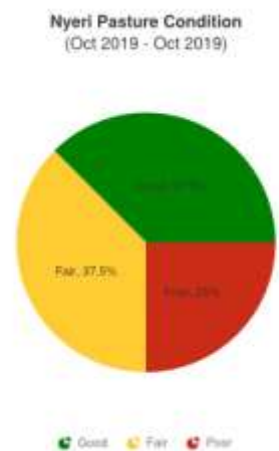


Figure 4(a): Presentation of pasture condition for Nyeri County

### 2.1.2 Browse

- The browse conditions during the month under review stood at 62.5 fair and 37.5 percent good across all the livelihood zones.
- This is an improvement compared to last month, which stood at 50 percent poor and 30 percent fair and 20 percent good. This can be attributed to the OND rainfall, which has helped to regenerate the depleted pastures.
- The ongoing rains are expected to improve the pasture conditions which may last to 3 months in the mixed marginal farming zones and 4 months in the mixed farming zones

**Nyeri Browse Condition**  
(Oct 2019 - Oct 2019)

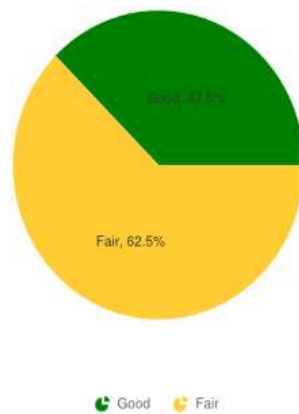


Figure 4(b): Presentation of browse condition for Nyeri County

## 2.2 WATER RESOURCE

### 2.2.1 Sources

- Main water sources in the region were rivers at 46.2 percent, springs at 29.6 percent, shallow wells at 3.7 percent and pans and dams at 14.8 percent as illustrated in figure 5.
- Due to onset of the OND rains, 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, while open water sources are full.

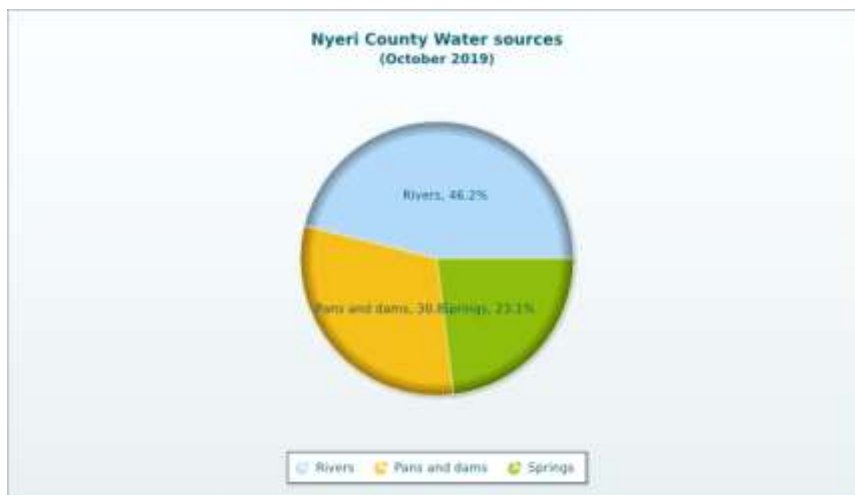


Figure 5: Shows main water sources for the region

### 2.2.2 Household access and Utilization

- Distance from the household to water source reduced by 36 percent from 1.1 km in september to 0.7 Km in October. This could be attributed to thr onset of the OND rainfall.
- In the mixed marginal zones didstances livelihood zones reduced by 53 percent from 1.5 km in september to 0.7 Km while in the mixed farming distances reduced by 22 percent from 0.9 km in september to 0.7 Km in October.
- Compared to the 2013-2015 mean averages of 1.2 Km, distances covered in October were lower by 41.6% as indicated in figure 6.

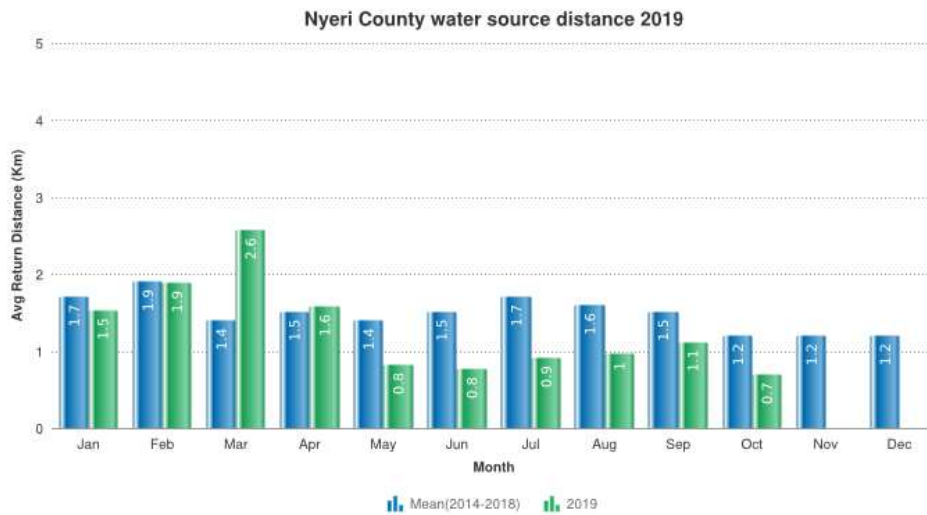


Figure6: presentation of average return distances to water

### 2.2.3 Livestock access

- Average distance from the grazing field to watering points reduced by 63.6 percent from 2.2 km in september to 0.8 Km in October. This could be attributed to the onset of the OND rainfall.
- In the mixed marginal zones didstances livelihood zones reduced by 75 percent from 2.8 km in september to 0.7 Km while in the mixed farming distances reduced by 55 percent from 1.8 km in september to 0.8 Km in October.This can be attributed to livestock watering points are at homestead from pans and dams as last month thus the decrease in distances.
- Compared to the 2013-2015 mean averages of 2.3 Km,distances covered in October were lower by 65 % as indicated in figure 6.

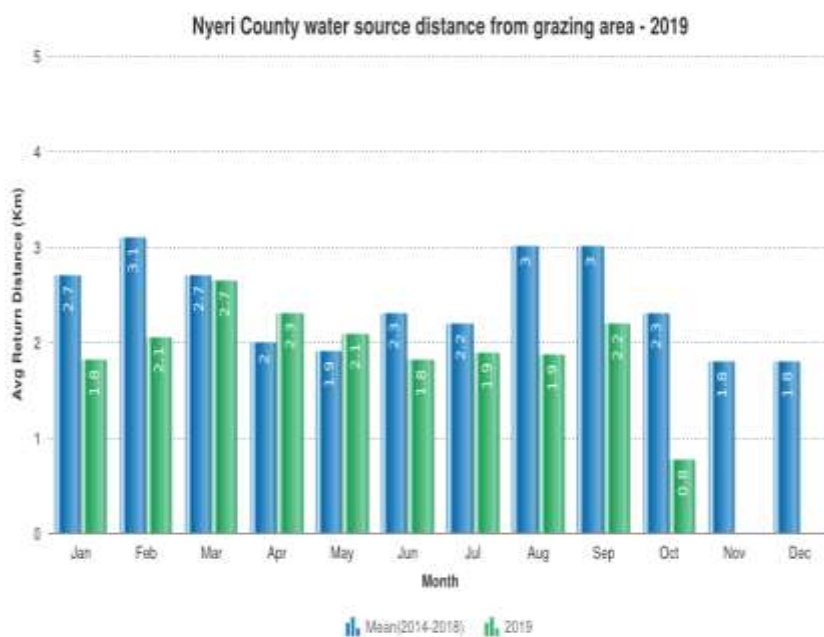


Figure 7: presentation of average grazing distances to water

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- Livestock body conditions ranged from fair to good across all livelihood zones. This was attributed to the various conditions of pasture, browse and fodder crops in the livelihoods. The OND rainfall has helped in regeneration of the pasture, browse and fodder crops, which had been depleted in all sentinel sites except Gakawa. The livestock body conditions had improved and ranged from moderate to good. The improvement of body condition has had an improvement in milk production and livestock prices.

##### 3.1.2 Milk Production

- Milk production increased by 8.3 % from 4.4 litres in September to 4.8 litres in October. Milk production in the marginal mixed zones was 4.2 litres compared to the mixed farming zones at 4.9 litres.
- Increase in milk production could be attributed to the improvement of livestock body condition due to improved pasture and reduced trekking distances in search of water and pasture.
- Compared to the 2013-2015 short-term average of 4.5 litres the month's production was higher by 6.7percent as indicated in figure 9.

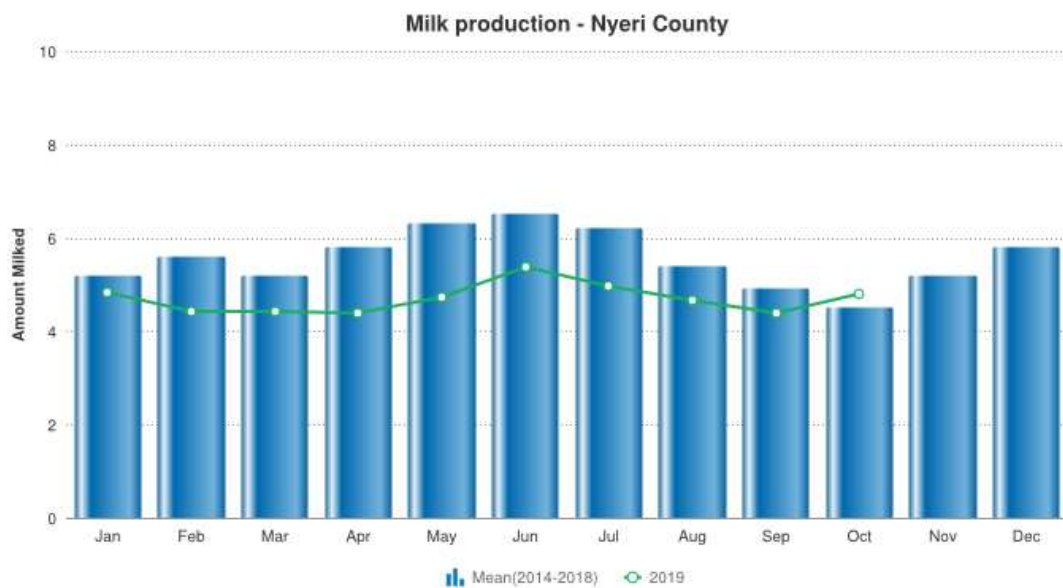


Figure 8: Presentation of average milk production for the region

### 3.2 RAIN-FED CROP PRODUCTION

#### 3.2.1 Area planted and date of planting

- The main food crops grown in Kieni East and Kieni West sub counties include Maize, wheat, field beans and Irish potatoes. Those under irrigation include cabbages, carrots beans in pods and onions.
- \*0 percent of the farmers had planted crops and were at various germination stages and 20 percent of the farmers were in land preparations while 30 percent had embarked on early weeding.
- Challenges noted for the season were high cost of land preparation, high cost of farms inputs and unreliable incomes occasioned by consecutive crop failures. As a result,

majority of the farmers were recycling last season yields as seeds while compromising on top dressing ratio a practice that will highly affect the season's production.

### 3.2.2 Stage and Condition of food Crops

- Beans are on 5<sup>th</sup> leaf stage, maize on early vegetative phase, wheat germination to 4 inches and Potatoes are at 2<sup>nd</sup> earthing.

### 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.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Price

- Cattle prices increased by 19.6 % to retail for Ksh 32,300 in October from Ksh 27,003 in September. Increase in livestock prices could be attributed to the improved livestock body conditions hence the high prices. Compared to the 2013-2015 short term averages of Ksh 21,000 reported prices were higher by 35 % as indicated in figure 9.

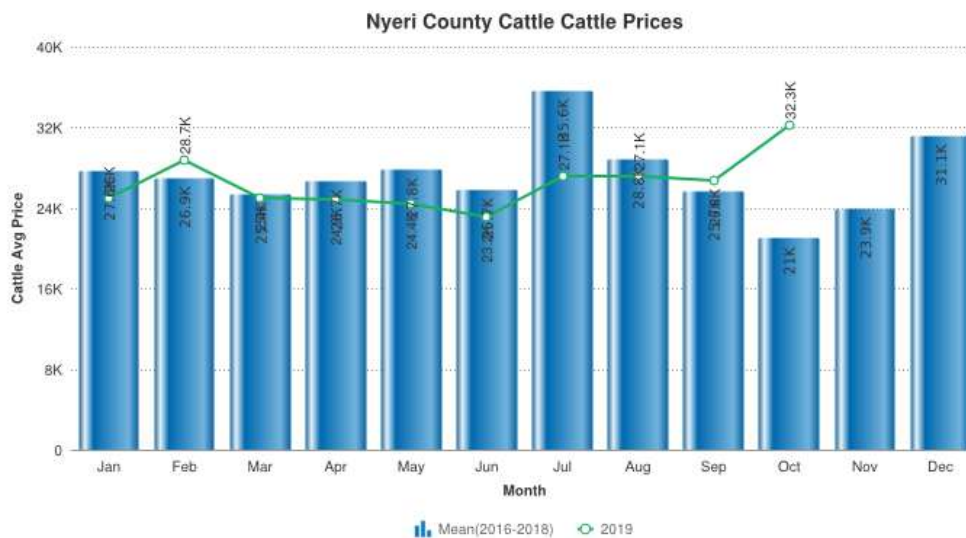


Figure 9: Outlines average price trends for cows.

#### 4.1.2 Sheep prices

- The sheep prices increased by 17.6 % to retail for Ksh 4250 in October from Ksh 3,500 in September.
- The month's prices were higher by 2.6 % compared to the 2013-2015 short term averages of Ksh 4,142 as indicated as shown in figure 10.

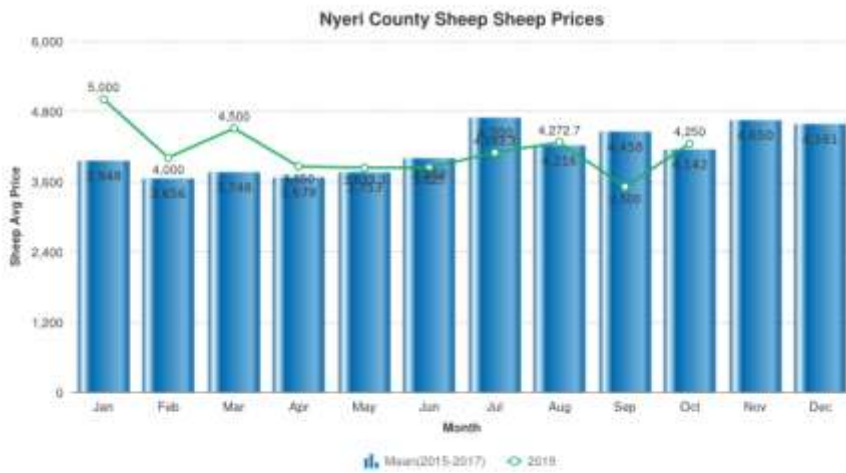


Figure 10: Outlines average price trends for sheep

## 4.2 CROP PRICES

### 4.2.1 Maize

- Maize prices increased by 2.3 % to retail for Ksh 54.2 in October from Ksh 53 in September.
- Compared to the short term prices of Ksh 45.1, the month’s price was higher by 20% as shown in figure 12 below.

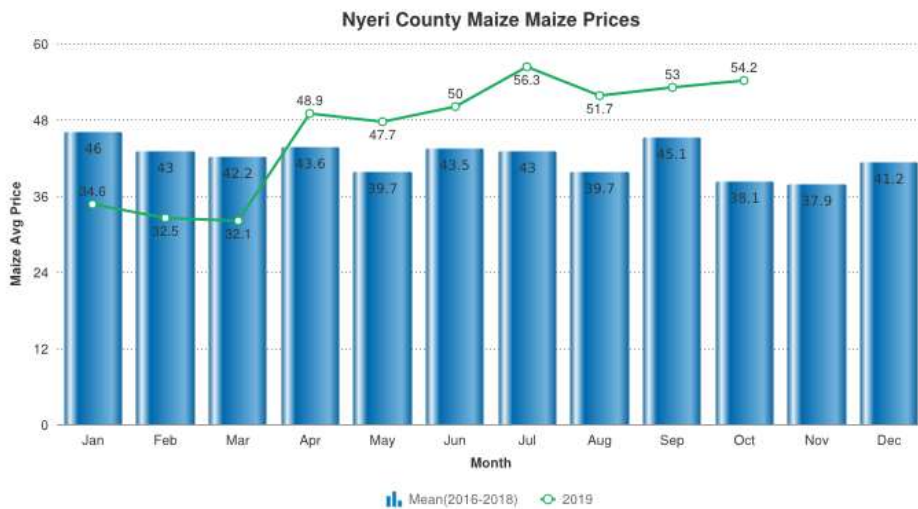


Figure 11: Outlines average price trends for maize

### 4.2.2 Beans

- Beans prices were stable at Ksh 93.
- Compared to the short term prices of Ksh 86.60 the month’s price was above the long term average by 7.5 %as outlined in figure 13 below.



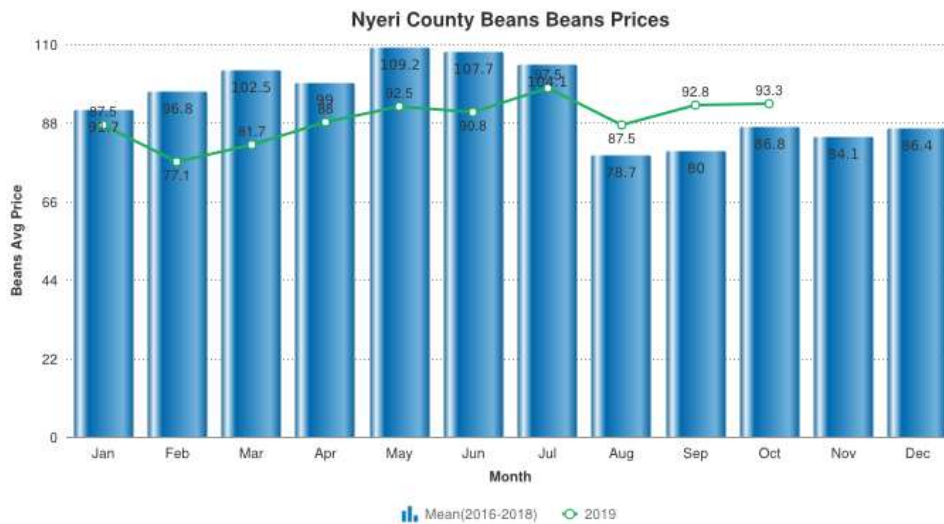


Figure 12: Outlines average price trends for beans

### 4.2.3 Livestock Price Ratio/Terms of Trade

- Terms of trade ratio increased by 5.7 % from 69.8 in September to 73.8 in October.
- Increase in trade ratio could be attributed to stable maize prices while increase in sheep prices due to improved body conditions. Indication that the household purchasing power has improved.

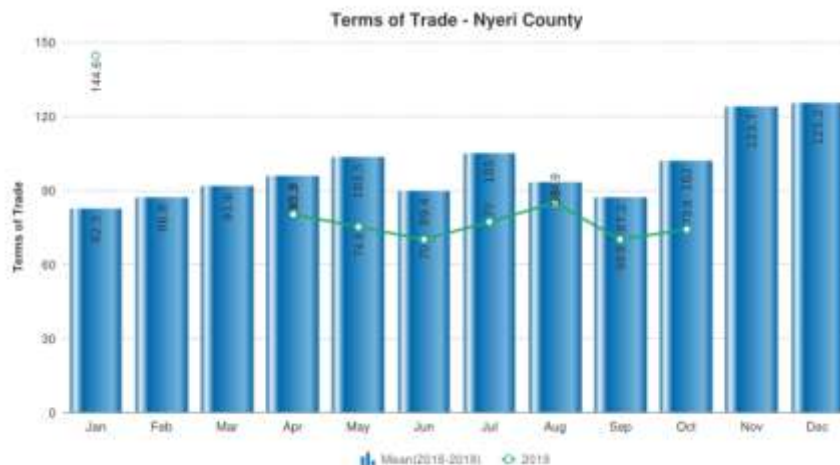


Figure 13: Outlines terms of trade in Nyeri, Kieni sub counties.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

- The month's household milk consumption remained unchanged from last month at 1.4 litres. Households in marginal mixed zones was at 1.1 litres while that of mixed farming was at 1.9 litres consumption in the mixed farming zones.
- Compared to the 2013-2015 short-term average of 1.3 litres the month's consumption was higher by 7.5 % as shown in figure 15 below.

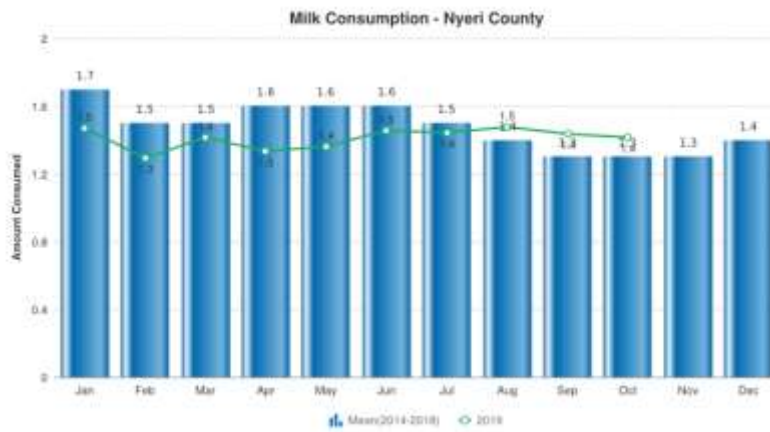


Figure 14: Outlines milk consumption for the county

## 5.2 FOOD CONSUMPTION SCORE

- The proportion of households with poor food consumption score in the sampled population was 6.1 percent poor, while those with borderline and acceptable food consumption scores were 36.9 percent and 57 percent respectively.
- The marginal mixed farming zone fared better as they had a 100 percent food consumption score compared to mixed farming zones, which stood at 18.3 percent acceptable, 70 percent borderline and 11.7 percent poor.

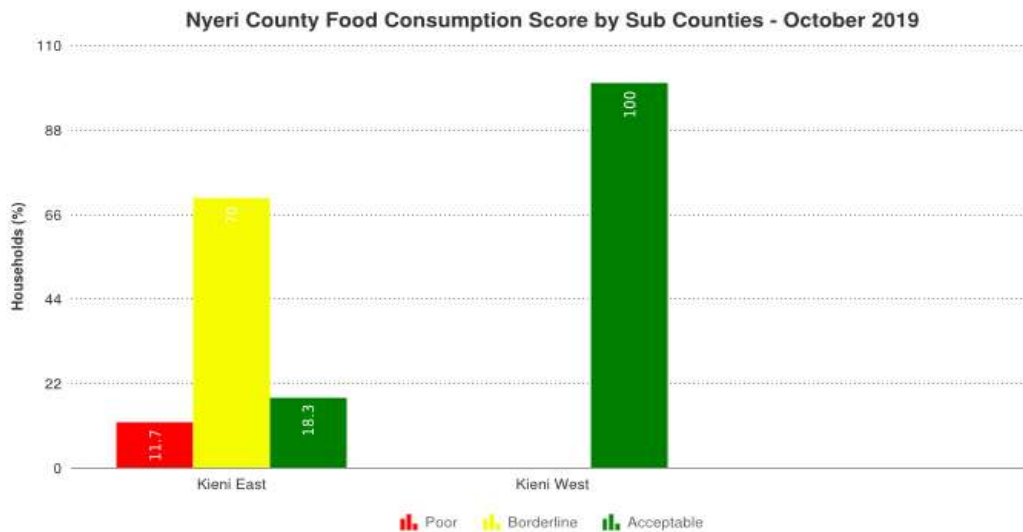
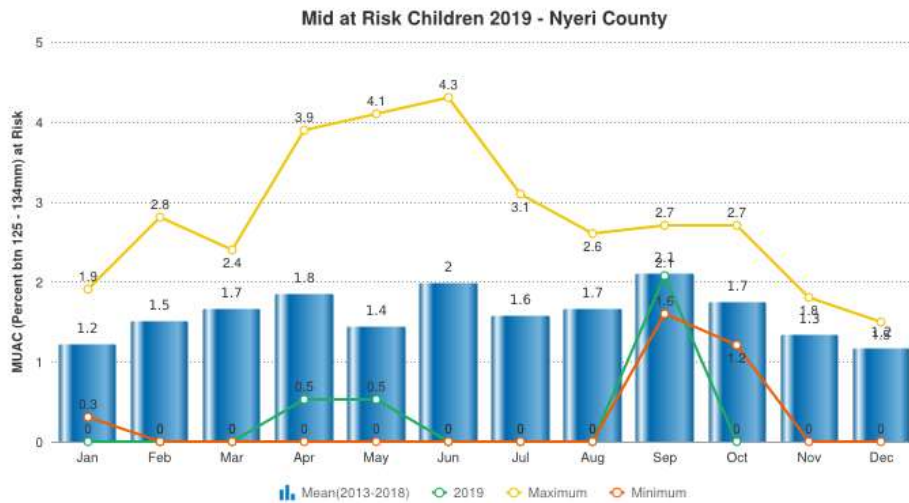


Figure 15: Presentation of food consumption score by livelihood zones

## 5.3 HEALTH AND NUTRITION STATUS

### 5.3.1 Nutrition Status

- Nutrition status of children below the age of five dropped from 2% in September to 0 % in October as indicated in figure 18 below. Percentage of children at risk of malnutrition was below the 2011-2015 long-term average of 1.7 %.



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

#### 5.4 COPING STRATEGIES

- Mean coping Strategy Index (CSI) for the month of October reduced by 2.25 from 5 in September to 4.89 in October. A decrease in month's CSI is an indication that household were employing less coping mechanism. Increase in meal portions in the households this could be attributed to the little yield experienced and the availability of vegetables and other horticultural products and wildly growing vegetables due to the OND precipitation.
- In the livelihood zones, mixed farming zones CSI reduced by 2.5 from 4.1 in September to 4 in October while marginal mixed farming reduced by 1.69 from 6 in September to 5 in October.
- Marginal mixed zones registered high coping strategy index of 5.9 as compared to 4 in Mixed farming livelihood zones as indicated in figure 19 below.

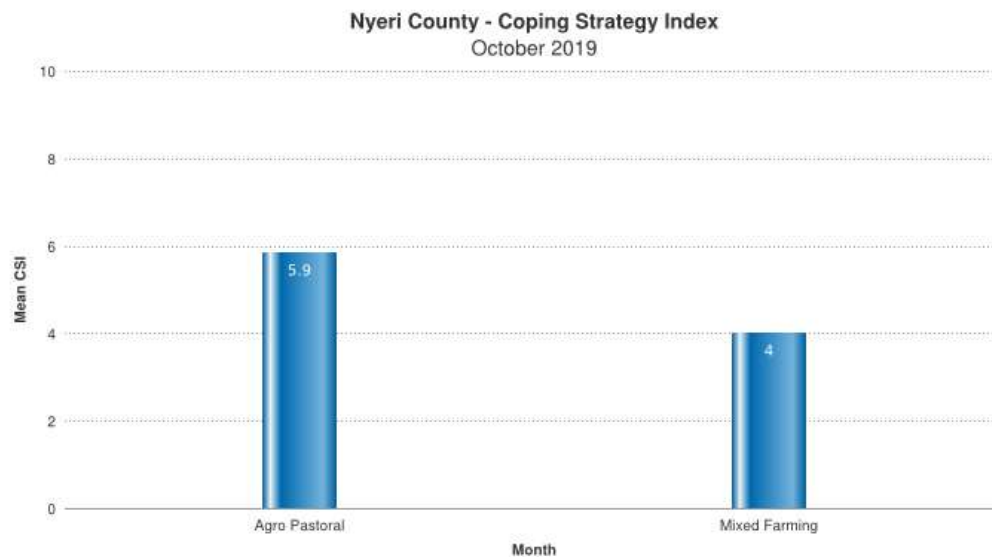


Figure 17: presentation of the region coping strategies

### 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**

Only minor human wildlife conflicts were recorded in Thegu ward.

### **7.1 FOOD SECURITY PROGNOSIS**

- As per the meteorological department forecast, the ongoing rains are expected to be enhanced in the course of this month and beyond. The precipitation is expected to have an impact on food production.

## **8. RECOMMENDATIONS**

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