

National Drought Management Authority
(Nyeri) COUNTY
DROUGHT EARLY WARNING BULLETIN FOR SEPTEMBER 2018



A Vision 2030 Flagship Project



SEPTEMBER 2018 EWS PHASE



Drought Situation & EW Phase Classification

Biophysical Indicators

- The month of September was relatively dry. However, offseason rains were received in some pockets mostly in high altitude areas for an average of two days.
- The Vegetation Condition had deteriorated during the month of September compared to the previous month. However, the Vegetation condition was above average.
- Access to water was poor. Rivers were flowing at below normal levels. Water rationing by major water projects was reported with households accessing water once weekly.

Socio Economic Indicators (Impact Indicators)

Production Indicators

- Land preparation in both livelihood zones was on-going.
- Livestock body condition range from good to fair for all species.
- Milk production was above normal.

Access indicators

- Terms of trade were favourable for livestock keepers.
- Milk consumption was within normal ranges.
- Distances to water sources were below the long-term averages.

Utilization Indicators

- The proportion of children at risk of malnutrition during the month under review was within the normal threshold compared to the long term averages.
- Coping strategy Index of 4.2 was reported which was within normal range.

Early Warning (EW) Phase Classification			
Livelihood Zone		Phase	Trend
Mixed Farming		Normal	Deteriorating
Agro pastoral		Normal	Deteriorating
County		Normal	Deteriorating
Biophysical Indicators		Value	Normal Range/Value
Rainfall (% of Normal)	94.3	30-50	
VCI-3Month	66.13	35-50	
	poor	poor	
Production indicators		Value	Normal
Crop Condition (specify crop)		Fair	Fair
Livestock Body Condition	Good	Fair	
Milk Production	4.8 litres	4.2 litres	
Livestock Migration Pattern	None	Normal	
Access Indicators		Value	Normal
Terms of Trade (ToT)	135	70	
Milk Consumption	1.6	1.3	
Return distance to water sources	1.1	1.7	
Utilization indicators		Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	2.6	2.7	
Coping Strategy	4.24	<5.0	

<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

- Most parts in Kieni East and Kieni West sub counties experienced dry and cold weather conditions. However, offseason rains were received in some pockets in high altitude areas bordering the mountains. The areas that reported to have received rains were Gathiuru and Kahurura in Gakawa ward and Kamiruri and Kamariki in Munguda ward.
- The temporal distribution was poor as the rains were received for an average of two days. The rains did not have any impact on crop production and pasture regeneration.
- According to the Kenya metrological department projections, the onset of the October-November-December (OND) rains is expected by the second to the third week of October. The seasonal rains will be above average.

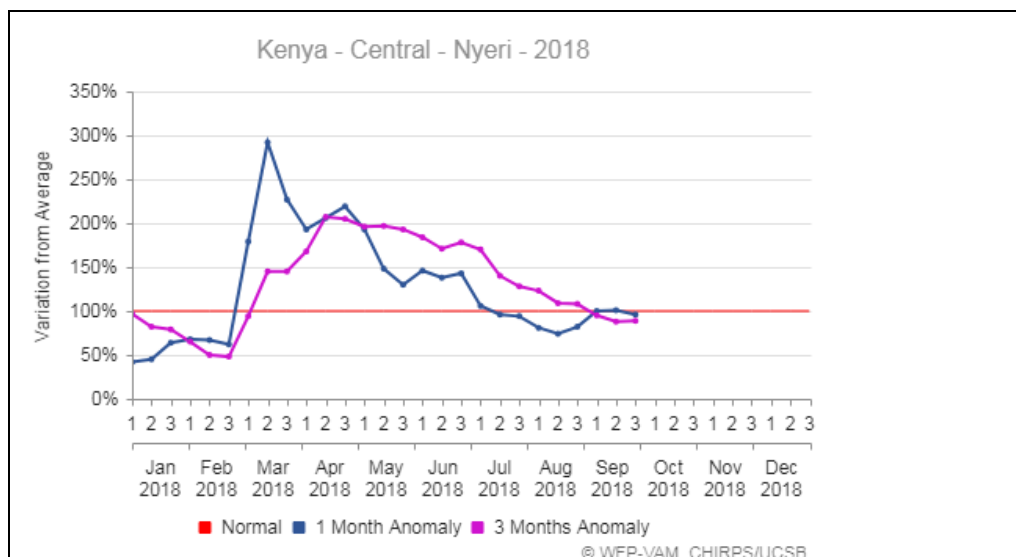


Figure 1a: Presentation of the rainfall trend 2018.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- Nyeri County received 16.1mm, 7mm and 13.3mm in the first, second dekad and third dekad compared to the long term average of 13.6mm, 12.7mm and 13.3mm as shown in figure 1 b below.
- These amounts accounted for 94.3percent of normal rains.

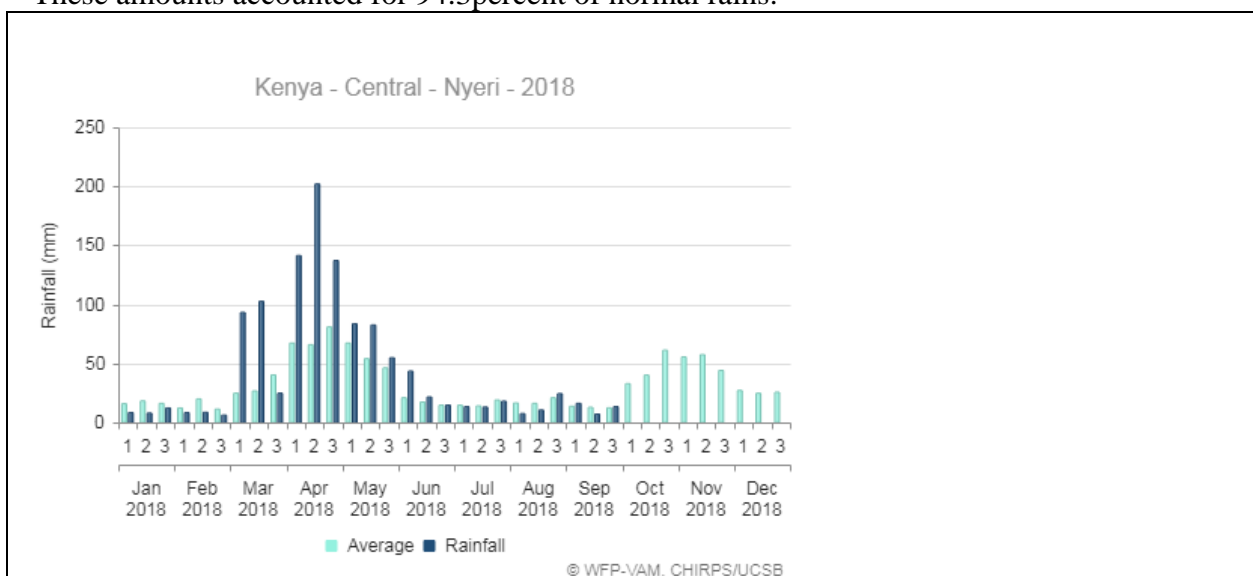


Figure 1b: Presentation of the rainfall performance for September 2018

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- Above-average trend in vegetation greenness was maintained in the county although it had reduced by 13.3 percent as evidenced by the reduction in the VCI compared to last month as shown in the figure 2 (a) below.
- The decline in the VCI could be attributed to lack of rains and frequent attacks by frost bites coupled with strong winds that were blowing away straws. The Vegetation Condition Index stood at 66.13.

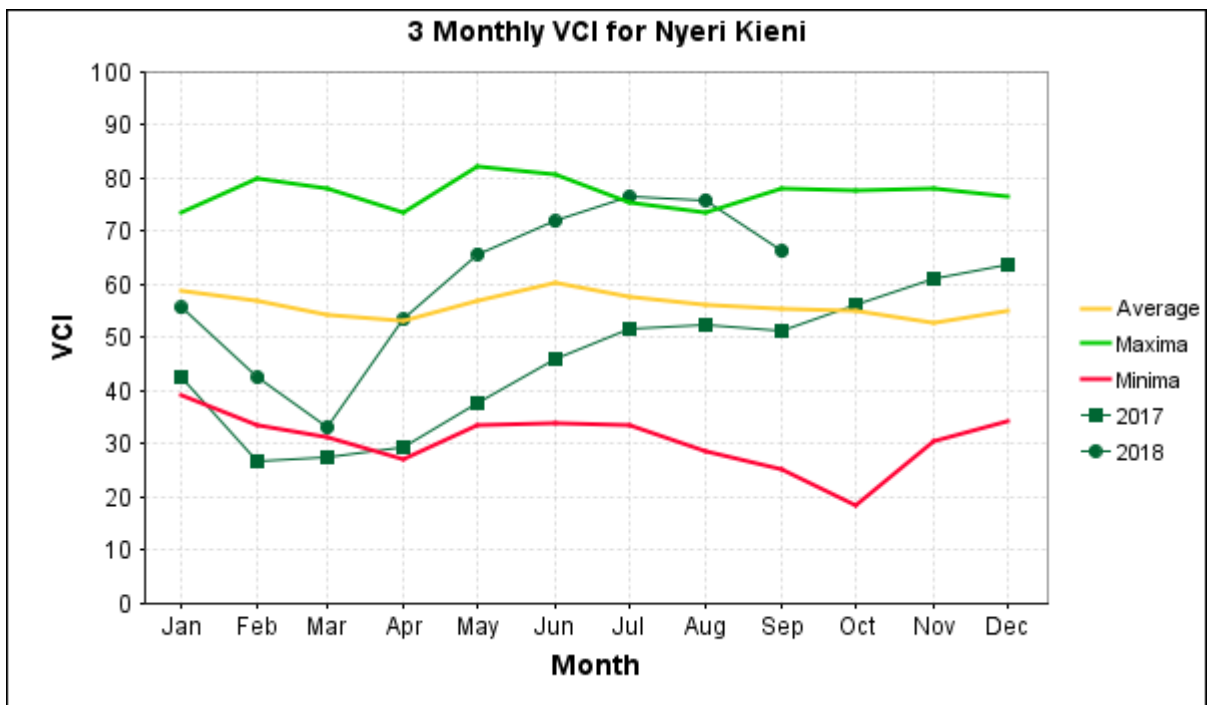


Figure 2(a): Vegetation Condition Index (VCI) - 2018

2.1.2 Pasture

- Pasture condition deteriorated this month compared to the previous month as registered in the increase in the proportion of households who reported poor pasture conditions. 75 percent indicated poor pasture conditions in September compared to 66.7 percent in August.
- The declining pasture condition could be attributed to lack of precipitation coupled with frequent frost attacks with the worst hit being agro pastoral livelihood zones as shown in figure 3 below.
- In mixed farming livelihood zones pasture condition ranged from fair to poor.
- The graph below represents the current pasture condition for September.

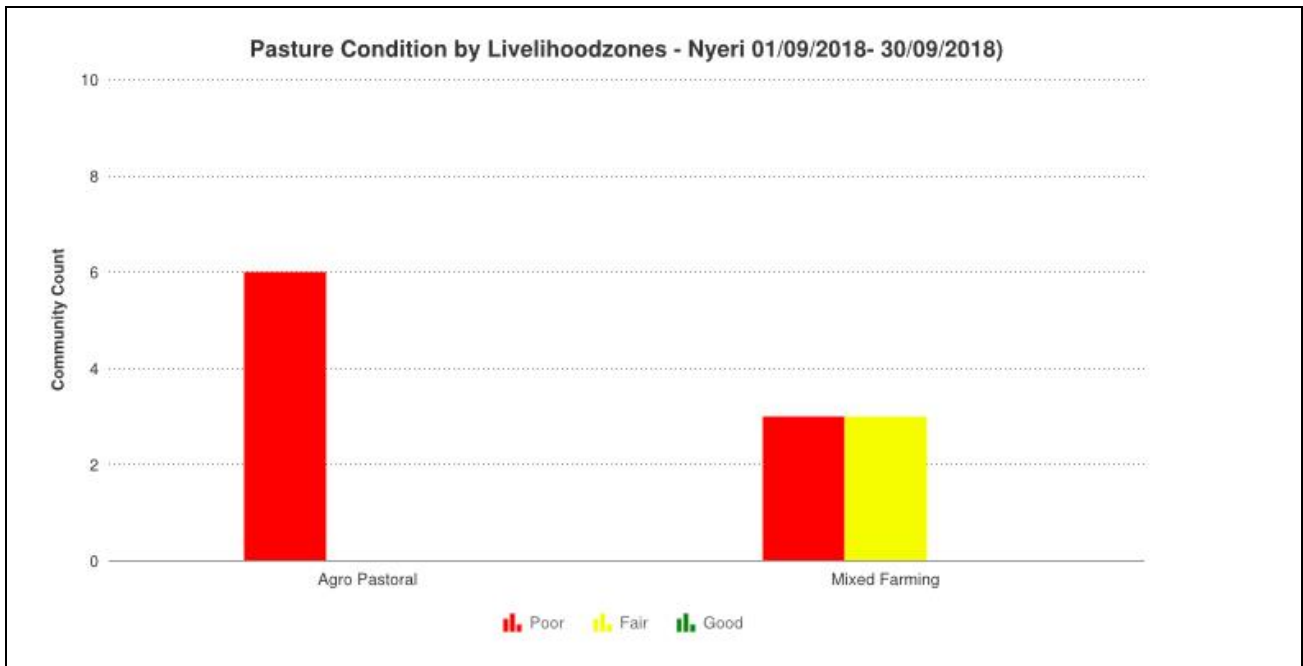


Figure 3: Nyeri county pasture condition

2.1.3 Browse

- Browse conditions was fair. The current situation was above average compared to a similar period in a normal year and last year.
- Available browse is adequate to meet the needs of the livestock for the next 1.5 month in agro pastoral livelihood zones and 2 months in mixed farming livelihood zones.
- The pie-chart below represents the current browse condition.

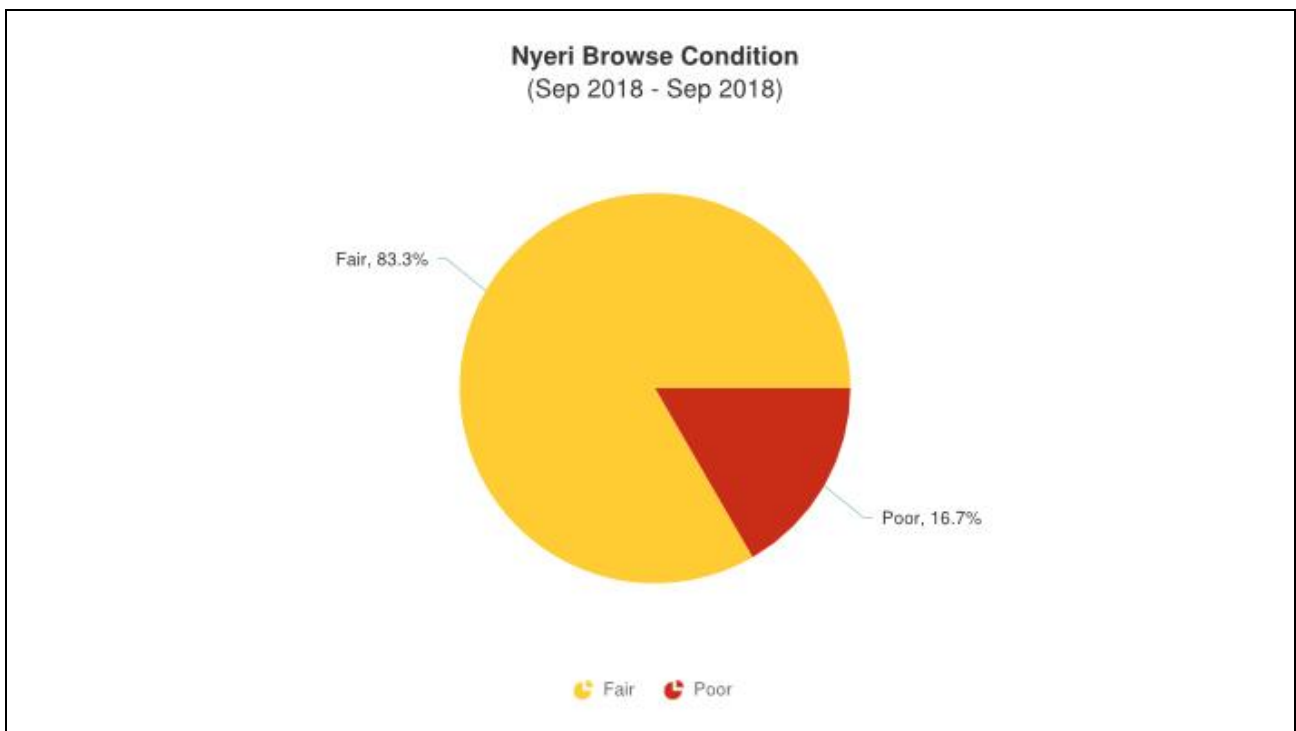


Figure 4: Nyeri county browse condition

2.2 WATER RESOURCE

2.2.1 Sources

- 60 percent of the households in Kieni relied on dams and pans as their main sources of water while 40 percent depended on rivers. There was 45 percent decrease in households relying on rivers in the month of September compared to the previous.
- Rivers were flowing at the minimum base level attributed to lack of precipitation. Water rationing was reported with households receiving water once in a week.
- Water holding structures were 20 percent full across all the livelihood zones.

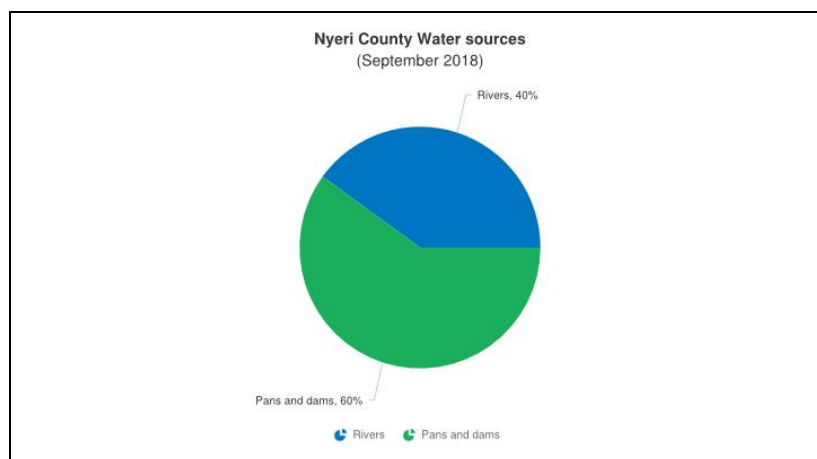


Figure 5: Nyeri county water sources

2.2.2 Household access and Utilization

- Access to water was poor during the month of September attributed to lack of rains.
- Distances to water sources increased by 37.5 percent from 0.8 Km in August to 1.1 Km in September.
- Distances increased by 72.7 percent and 21.4 percent in agro pastoral livelihood zones and mixed farming livelihood zones from 2.2 Km and 1.4 Km in August to 3.8 Km and 1.7 Km respectively.
- Compared to the 2013-2017 mean averages of 1.7 Km, distances covered during the month were lower by 35.3 percent as indicated in figure 6 below.

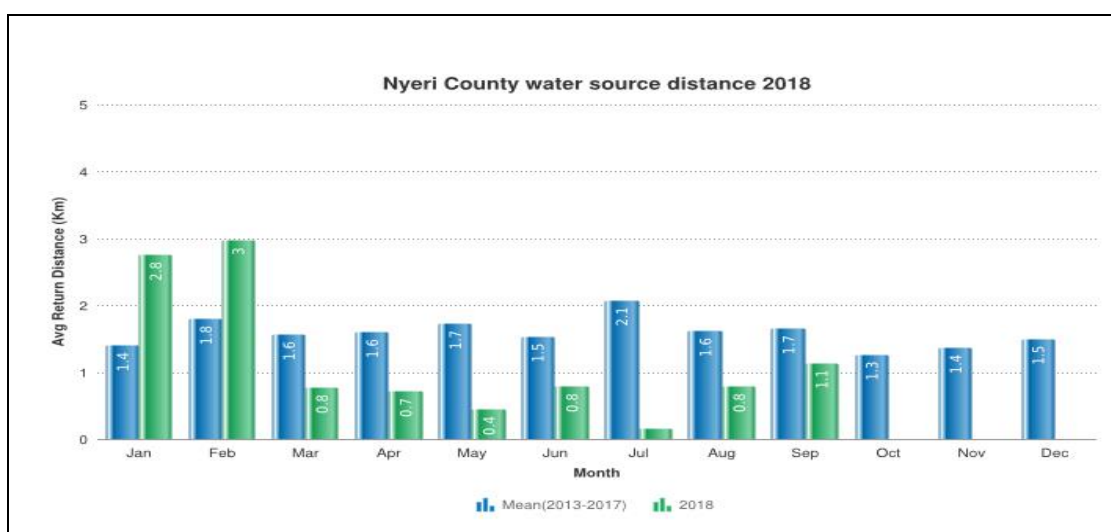


Figure 6: presentation of average return distances to water

2.2.3 Livestock access

- Trekking distances from the grazing fields to water sources did not record a significant change as it averaged at 2.1 Km in September compared to 2 Km in August.
- Compared to the 2013-2015 long term averages of 3.2 Km, the month's distances were lower by 34 percent as indicated in figure 7 below.

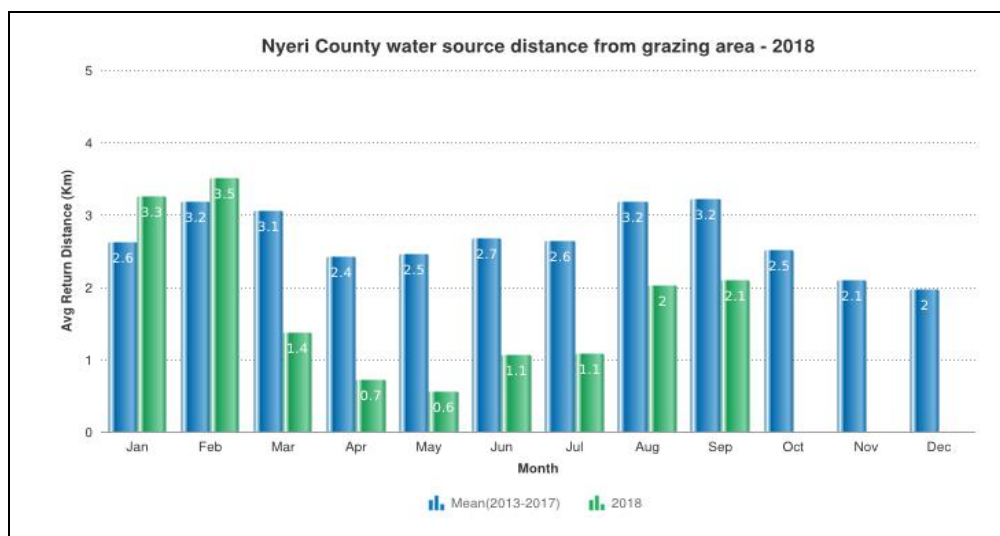


Figure 7: presentation of average grazing distances to water

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- The livestock body condition remained relatively stable during the month under review compared to the previous month. The body conditions ranged from good to fair across the livelihood zones. The stable livestock body condition can be attributed to availability of adequate livestock feeds, mostly composed of crop residue from the long rains harvest and Napier grass.
- Compared to a normal year the body conditions were above average

3.1.2 Livestock Diseases

- Disease surveillance by relevant department is ongoing.

3.1.3 Milk Production

- Milk production was relatively stable during the month under review compared to the previous month.
- The month's production stood at 4.8 litres s and was above the 2013-2017 long term averages of 4.2 litres. The above average production could be attributed to availability adequate livestock feed mainly composed of crop residue from the long rains harvest and Napier grass coupled with below average distances from grazing field to water sources.

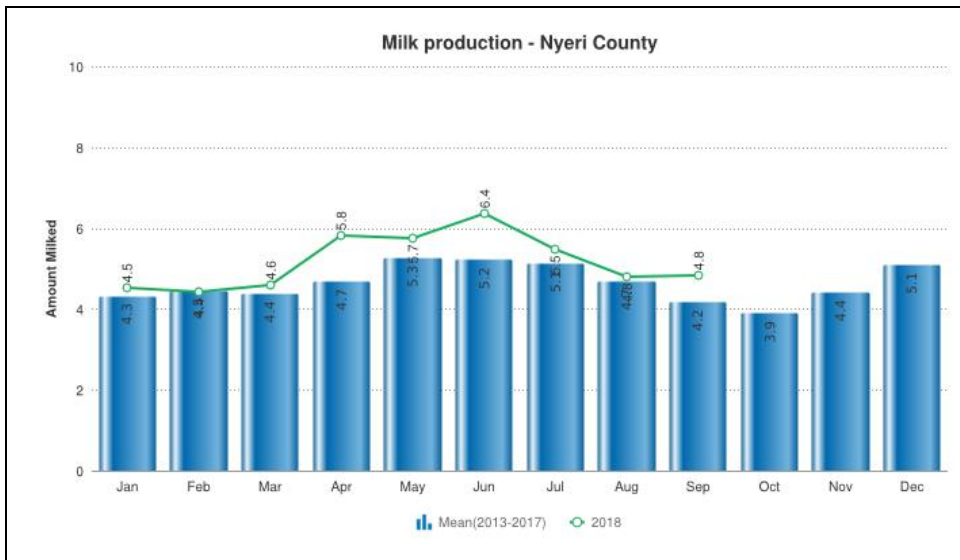


Figure 8: Presentation of average milk production for the region

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

- Majority of the farmers were undertaking land preparation in readiness for the October-November-December (OND) rains. At least 70 percent of the household in Kieni constituency have already planted potatoes while 30 percent have planted maize and beans. The rest are expected to plant before the start of the seasonal rains.
- 80 percent of the area planted with maize has been harvested. The output from maize crop is below the long term average due to the early onset of the long rain that affected land preparation and planting practices.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

- Cattle price remain relatively stable during the month of September, as a three year old mature bull sold for 25,300 compared to 25,700 in August. Stable livestock prices could be attributed to availability of livestock feeds at the household level.
- The month's prices were lower by 4.2 percent compared to 2015-2017 short term averages of Ksh 29,900 as indicated in figure 9.

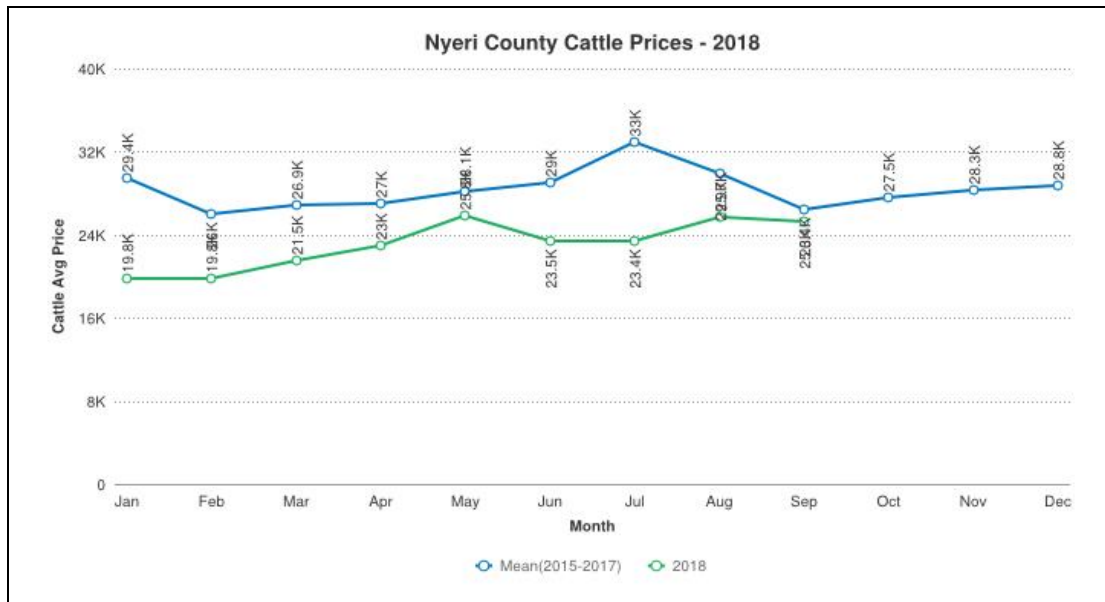


Figure 9: Presentation of average cattle prices

4.1.2 Sheep prices

- Sheep prices remained same as was reported last month at Ksh 4,700.
- Compared to the 2015-2017 short term averages of Ksh 3,400, reported prices were higher by 38.2 percent as shown in figure 10.

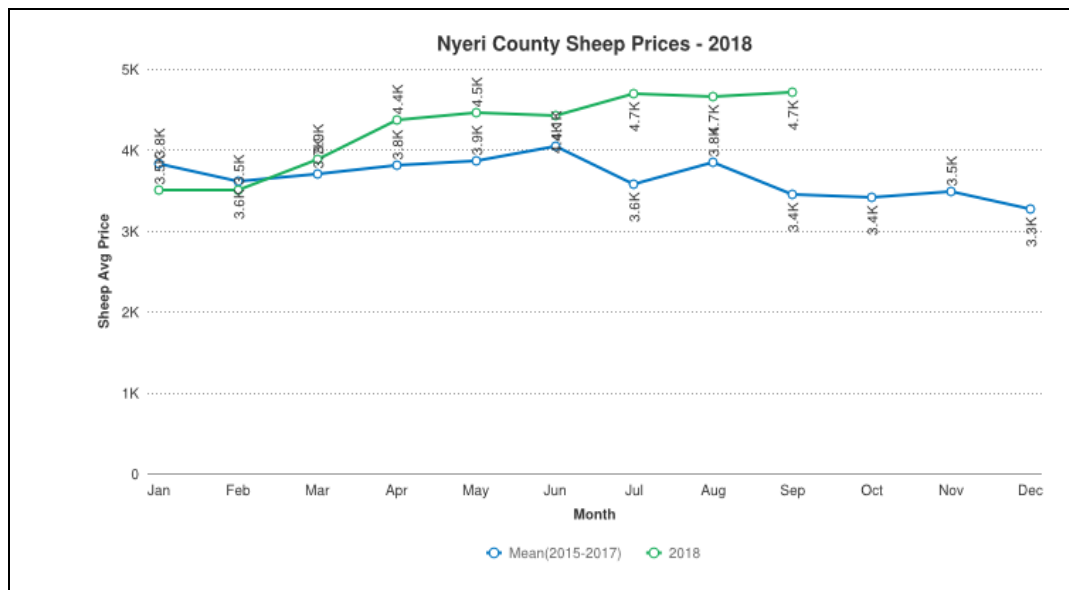


Figure 10: Presentation of average sheep prices

4.2 CROP PRICES

4.2.1 Maize

- The average trading price of a kilogram of maize was Kshs 35 in September which was quite comparable to Kshs 33.3 recorded in August.
- Households have adequate maize stocks levels leading to the low prices.
- Compared to the 2015-2017 short term averages of Ksh 48, the month's price was lower by 30 percent as shown in figure 11 below.

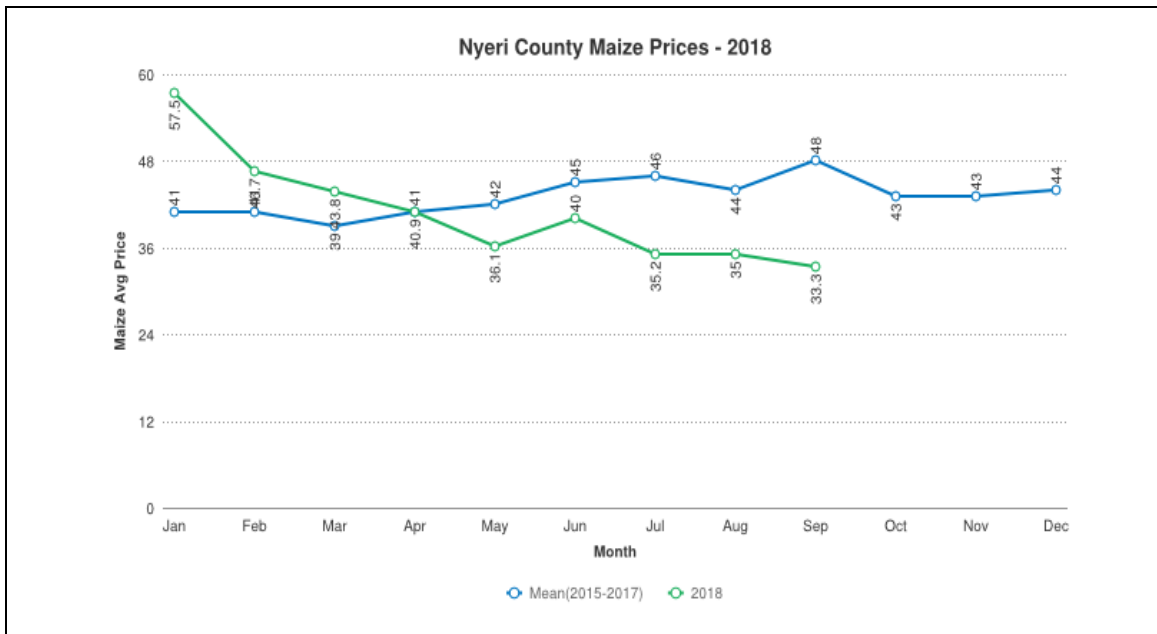


Figure 11: Outlines average price trends for maize

4.2.3 Beans

- Beans prices decreased by 7.7 percent to retail for Ksh 60 in September from Ksh 65 in August. Drop in beans prices could be attributed to availability of trivial stocks at the households mainly from the long rains harvests and cross county imports. Compared to 2015-2017 short term averages of Ksh 78 the month's price was lower by 23 percent as shown in figure 12 below.

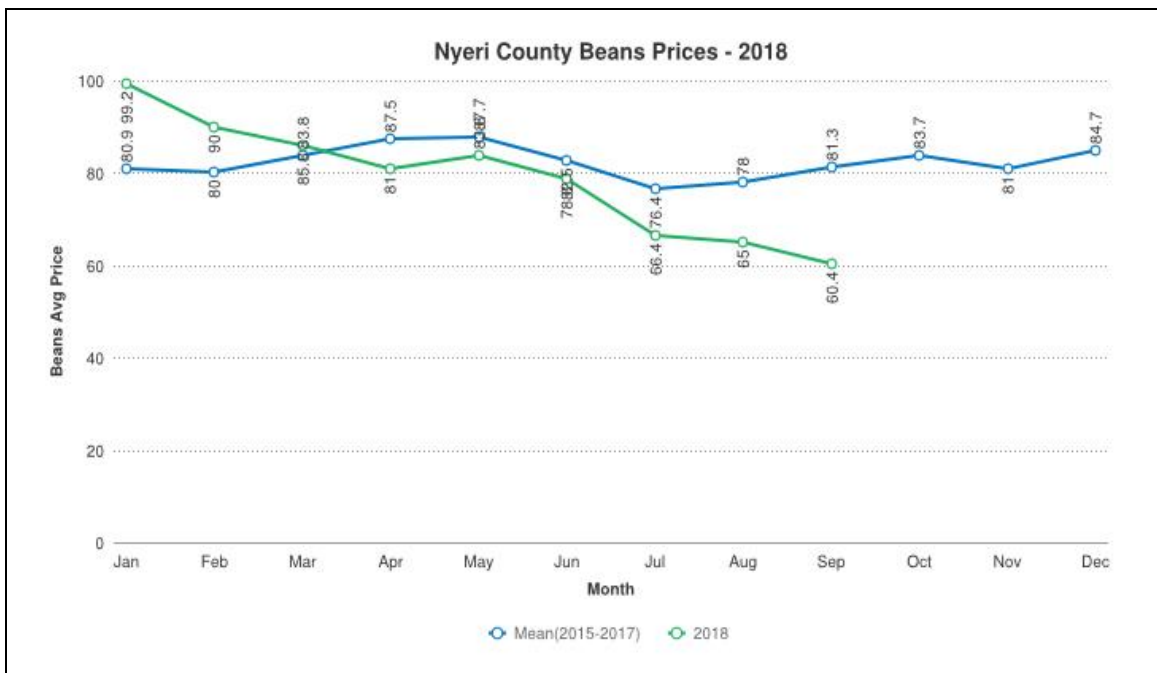


Figure 12: Outlines average price trends for beans

4.3 Livestock Price Ratio/Terms of Trade

- The Terms of Trade Ratio (TOT) for the month of September increased by 4.5 percent to stand at 135 in September from 129.2 in August. This was an indication that the household purchasing power had improved.
- Households can buy more kilogrammes of maize from sale of a kilogramme of meat. This is due to the low maize prices while livestock prices were relatively stable

- The month's Terms of Trade Ratio (TOT) was above that of the short term average by 93 percent as shown in figure 13 below.

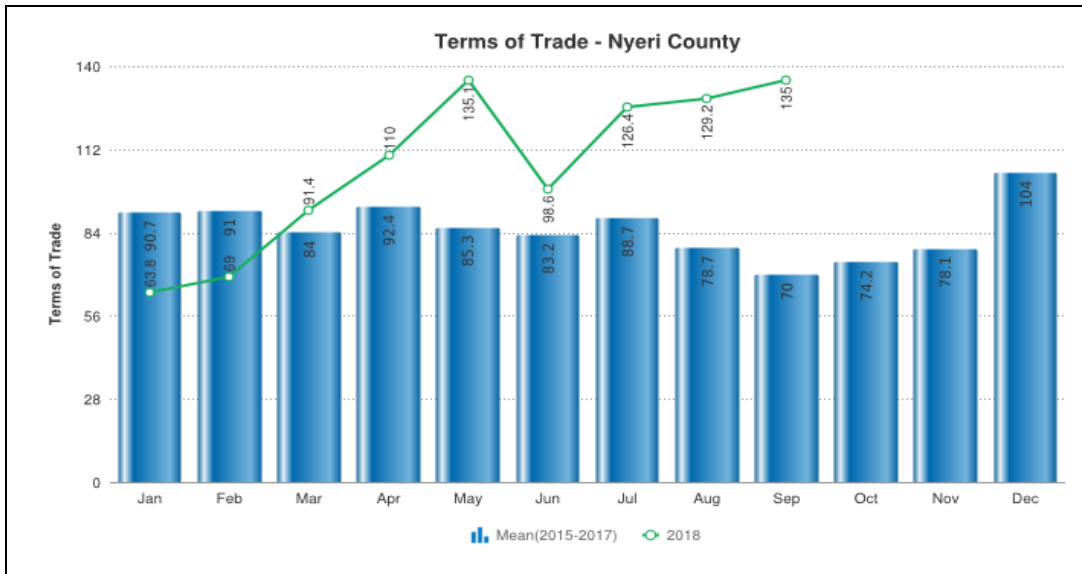


Figure 13: Outlines terms of trade

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- Milk consumption at the household level was 1.6 litres in September which was relatively comparable to 1.4 litres in August. Stable consumption can be attributed to steady milk production.
- The month's consumption was within the normal threshold compared to the 2013-2017 long term average of 1.3 litres as shown in figure 14 below.
- A litre of milk is currently selling for Ksh 50 which is high as compared to normal at this time of the year.

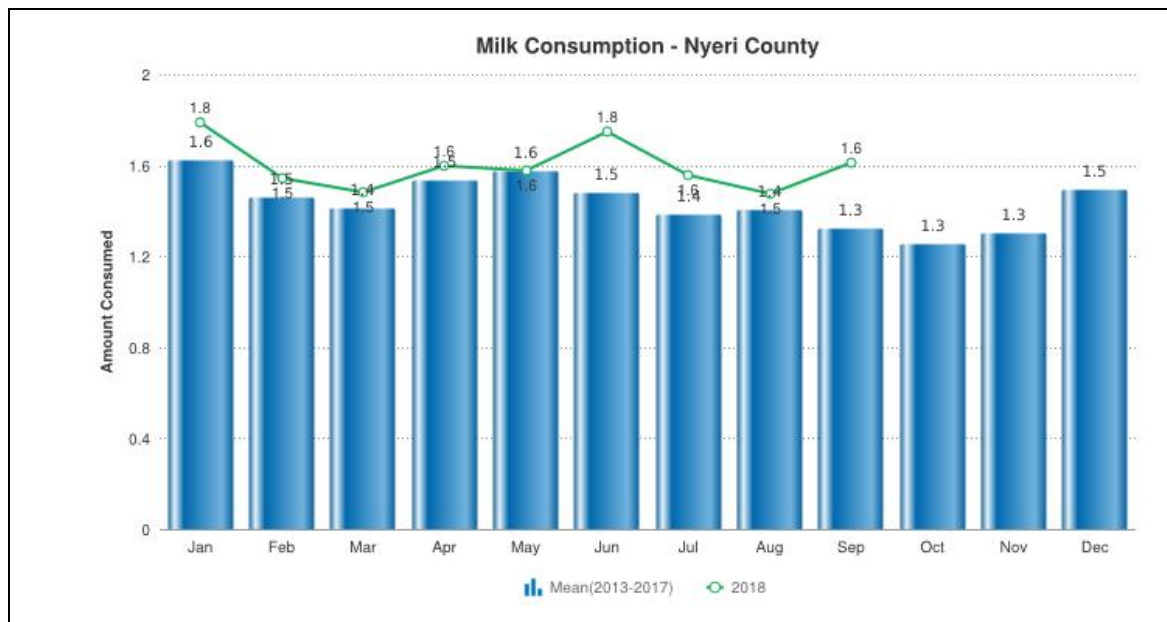


Figure 14: Outlines milk consumption for the county

5.2 FOOD CONSUMPTION SCORE

- The food consumption score for households in Kieni had improved during the month of September compared to the previous month. This is attributed to availability of adequate food stuff at the household level mostly from the long rains harvest and stable milk production.
- The proportions of households with borderline and acceptable food consumption score in the sampled population were 43 percent and 57 percent respectively.
- There were disparities in food consumption patterns at the livelihood zone level as 100 percent of household in agro pastoral livelihood zones had acceptable food consumption score compared to 36 percent in mixed farming livelihood zones as shown in figure 15 below. This is an indication that households in agro pastoral livelihood zones had a higher dietary diversity and consumption frequency.
- More households had acceptable food consumption score in Kieni west in the month under review compared to the previous months. However, there was a drop in households having acceptable food consumption in Kieni East compared to the previous month.

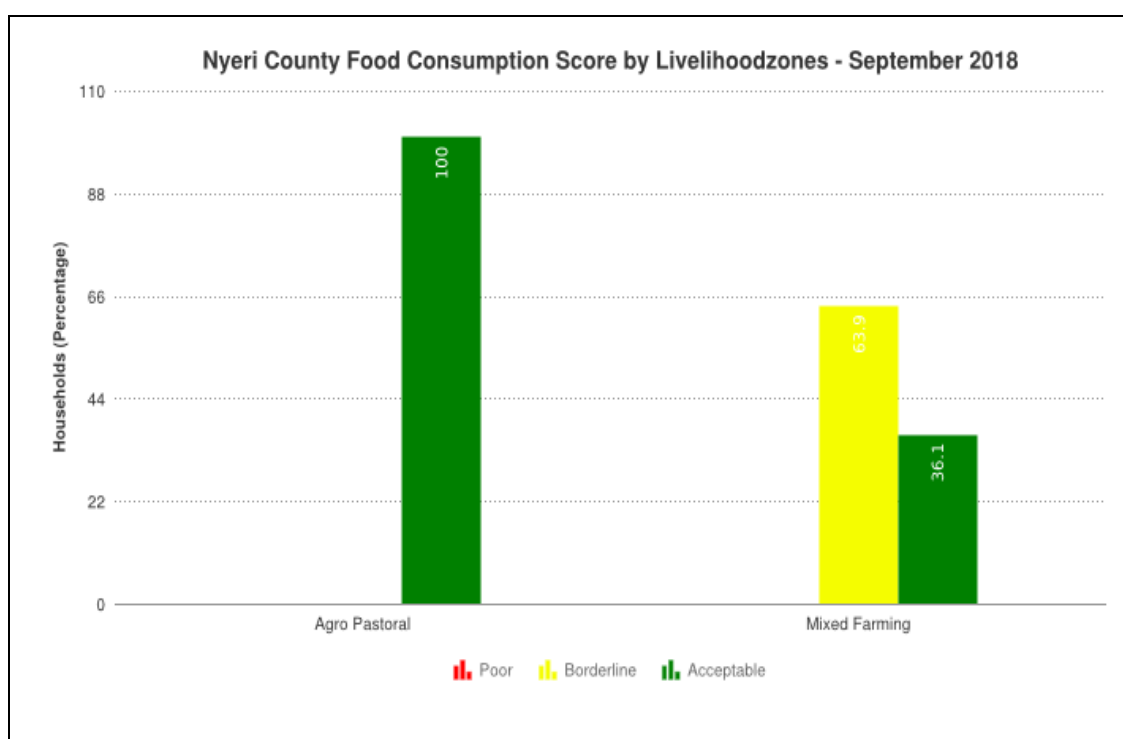


Figure 15: Outlines FCS for the county

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- Nutrition status of children below the age of five deteriorated during the month under review, as 2.6 percent of the children were at risk of malnutrition compared to nil last month.
- The percent of children at risk of malnutrition was within the normal threshold compared to the 2013-2017 long term averages.

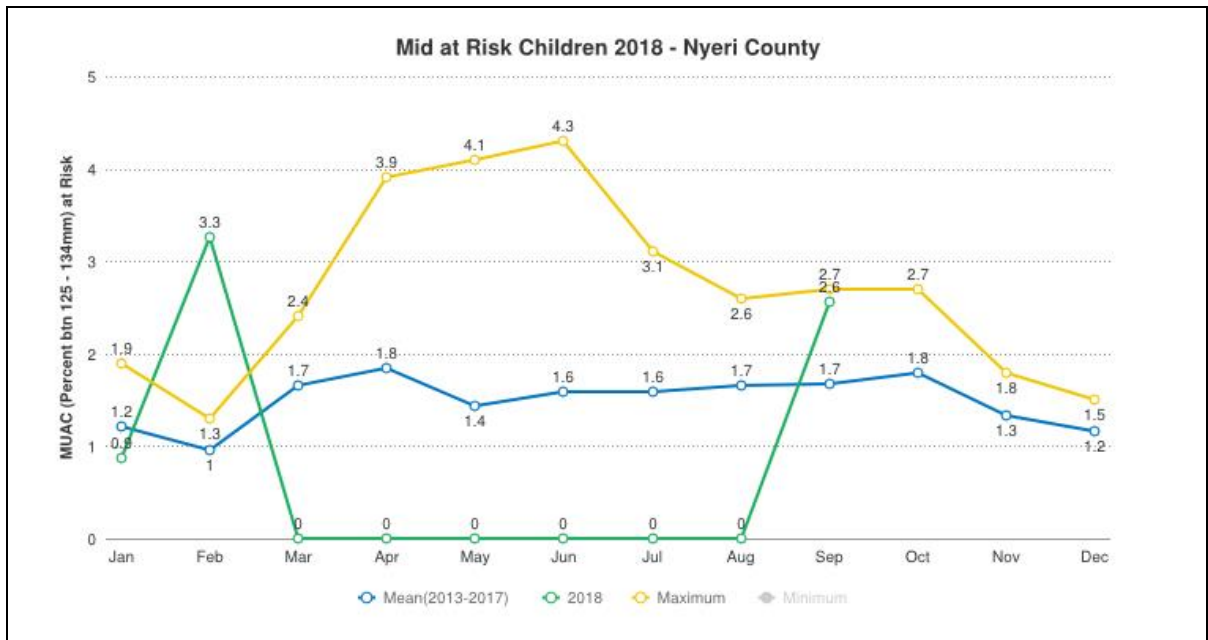


Figure 16: Presentation of nutrition status of children below five years

5.4 COPING STRATEGIES

- The mean coping strategy index (CSI) in September was 4.24 percent which was rather comparable to 3.17 recorded in August.
- The month's index had increased by 75 percent in agro pastoral livelihood zones indicating that households in this zone were employing more consumption-based coping mechanism and with higher severity compared to the previous month.
- In mixed farming livelihood zones the mean CSI remained relatively the same as last month as they recorded 3.5 percent compared to 3.7 percent in August.

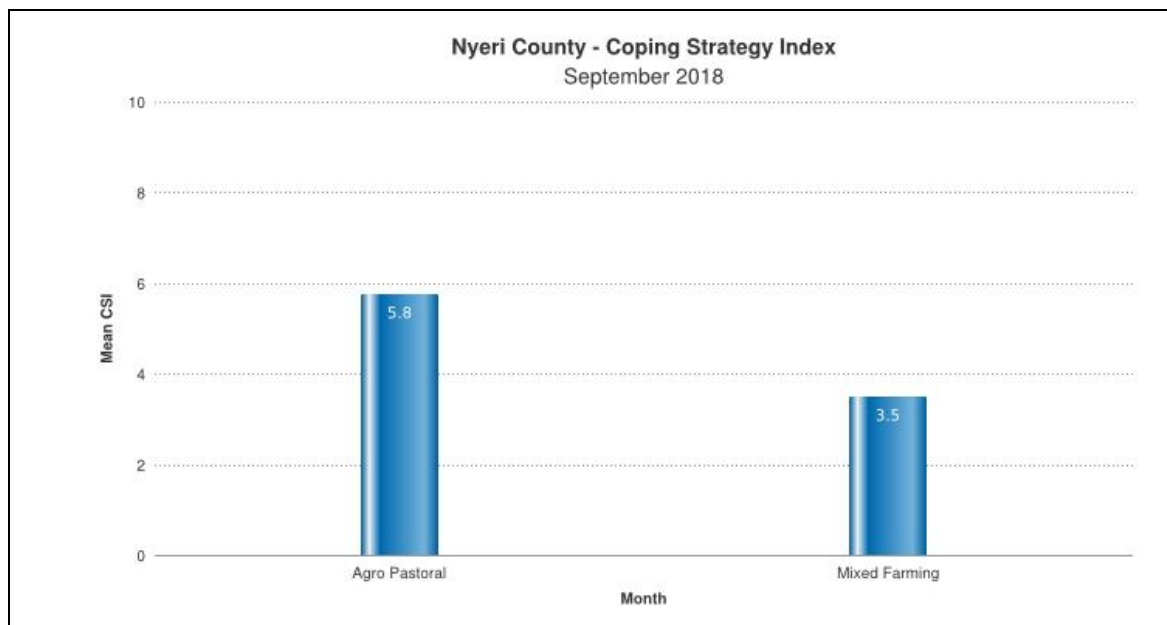


Figure 17: outlines the mean Coping Strategy Index

6.0 CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

- There were no 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.

7.1 FOOD SECURITY PROGNOSIS

- The just concluded long rains assessment carried out by the Kenya food security steering group classified Kieni in the minimal food security phase classification (IPC phase I). With the projected above average performance of the short rains from October, the body condition of livestock is expected to remain good as it supports regeneration of pasture and browse and support above average livestock prices. Milk production and milk consumption is likely to increase resulting in a decrease in malnutrition in children under the age of five years. Household food availability and consumption will increase household purchasing power and below average staple food prices, with supplies from unimodal harvest, and household are expected to reduce the application of both consumption and livelihood coping strategies. Household food stock will dwindle in December but will likely be mitigated by substantial short cycle harvest across most of the areas that will increase food consumption and dietary diversity. As a result, households are expected to remain at minimal (IPC phase I).

7.2. LIVESTOCK AND MIGRATION.

- There were no unusual human and or livestock's movements into or out of the county. Observed animals movement within the county was for grazing and watering.

8. RECOMMENDATIONS

- Sensitization on value addition (Agriculture Department and NDMA).
- Sensitization on post harvesting food handling. (Agriculture Department and NDMA).
- Up scaling of livestock feeds. (NDMA and livestock department).
- Continued livestock diseases surveillance. (Livestock Department).
- Review of county drought contingency plans. (NDMA).
- Sensitization on water harvesting (Water department).
- Rehabilitation of water storage facilities in preparation on October, November and December rainfalls. (Water department).
- Support farmers with certified seeds and subsidized farming implement (Agriculture department).