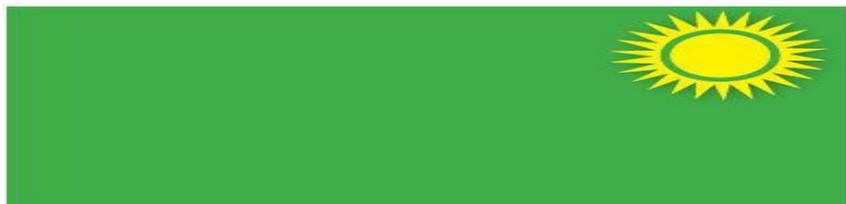# National Drought Management Authority
(Nyeri) COUNTY
DROUGHT EARLY WARNING BULLETIN FOR JULY 2018

NDMA

A Vision 2030 Flagship Project

KENYA VISION 2030

JULY 2018 EW PHASE

Drought Situation & EW Phase Classification
Biophysical Indicators
- The month of July was generally dry. However, off season showers were received for an average of two days. Amounts received were poorly distributed in time and space.
- The vegetation greenness was above normal in all the livelihood zones.
- Access to water was fair. Rivers were flowing at normal levels while water holding structures were 50 percent full.

Socio Economic Indicators (Impact Indicators)
Production Indicators
- Crops at the farms were in good condition. Maize was at milking stage.
- Livestock body condition was good for all species.
- Milk production was above normal threshold but on a decline as compared to last month.
- No livestock in or out migration was reported.

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
- No cases of children below the age of five years at risk of malnutrition were reported during the month under review.
- Coping strategy Index of 3.62 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)	92	80-120
VCI-3Month	76.32	35-50
Forage condition	Fair	Fair
Production indicators	**Value**	**Normal**
Crop Condition (specify crop)	Good	Fair
Livestock Body Condition	Good	Fair
Milk Production	5.5 litres	5.1 litres
Livestock Migration Pattern	None	Normal
Access Indicators	**Value**	**Normal**
Terms of Trade (ToT)	126.4	88.7
Milk Consumption	1.6	1.4
Return distance to water sources	0.7	2.7
Utilization indicators	**Value**	**Normal**
Nutrition Status, MUAC (% at risk of malnutrition)	0	0.8
Coping Strategy Index (CSI)	3.62	<5.0

- 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

☐ The month of July was generally dry. However offseason showers were received for an average of two days and did not have any impact on crop production and pasture regeneration. Rainfall received in the region has been on the decline since April to slightly below normal for July one month anomaly as observed in Figure 1a below. The amounts received were poorly distributed in amount, time and space.
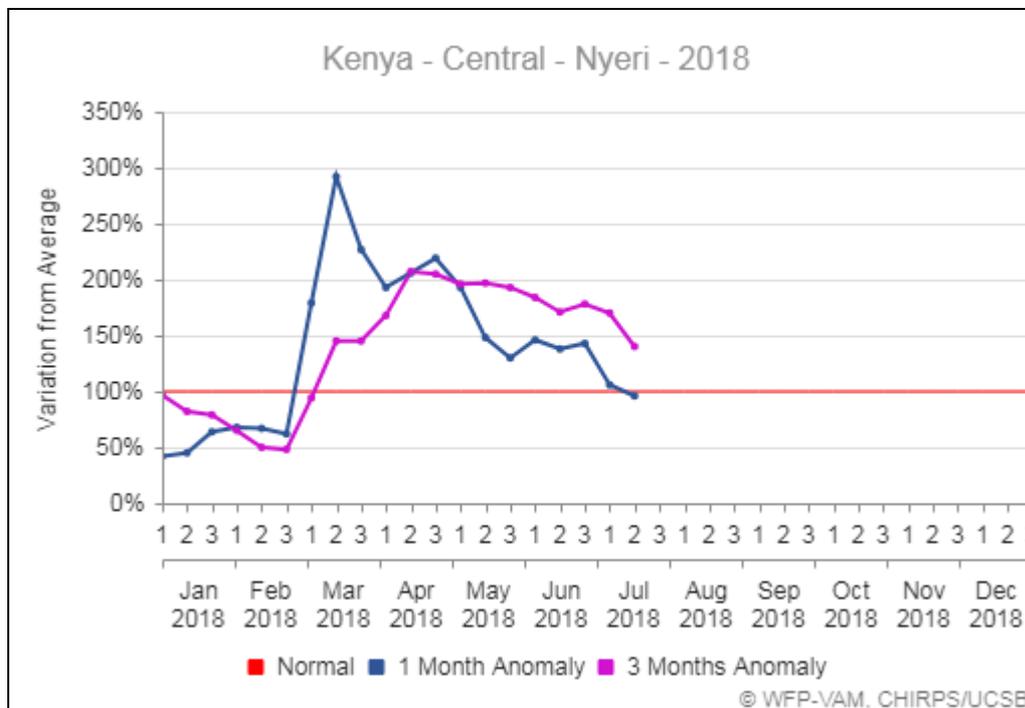

Figure 1a: Presentation of the rainfall trend 2018.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

☐ Nyeri County received 13.3 mm and 13.9 mm in the first and second dekads compared to the long term average of 14.5 mm and 12.9 mm as shown in figure 1 b below.

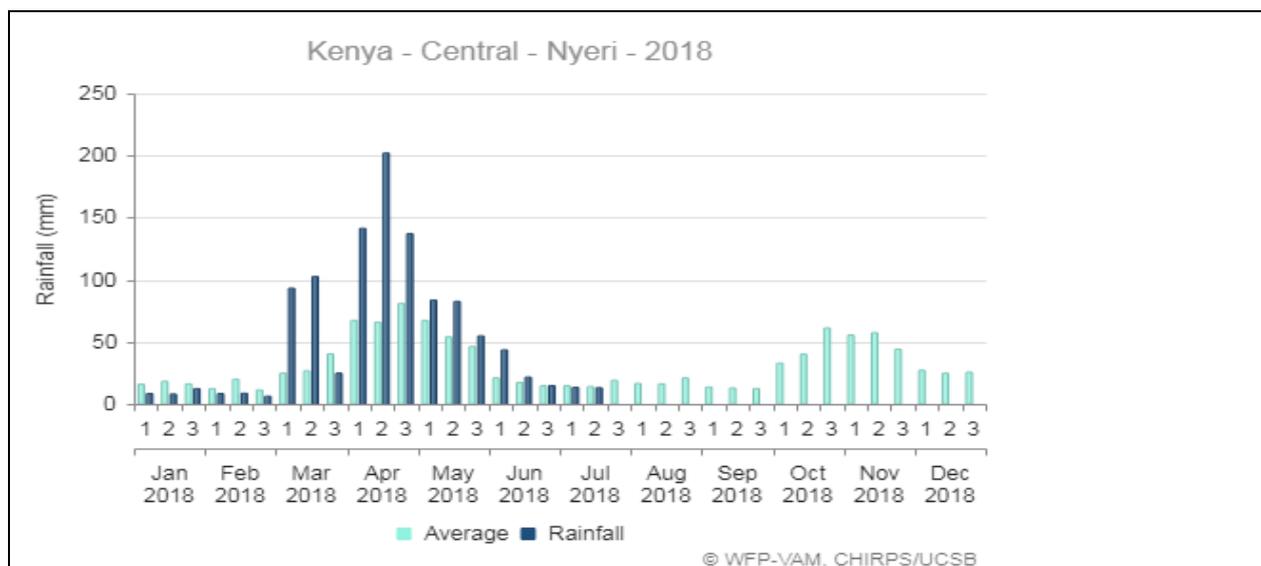☐ The amount of precipitation received accounted for 92.3 percent of normal rains.

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

2.0   IMPACTS ON VEGETATION AND WATER
2.1   VEGETATION CONDITION
2.1.1 Vegetation Condition Index (VCI)

☐ The vegetation condition in Kieni has been improving since April. The three months VCI for July was above average and the highest recorded for the period compared to previous years. The above average vegetation cover can be attributed to the good performance of the March-April-May rains. The three month vegetation greenness stood at 76.32 as shown in figure 2 (a) and 2 (b).
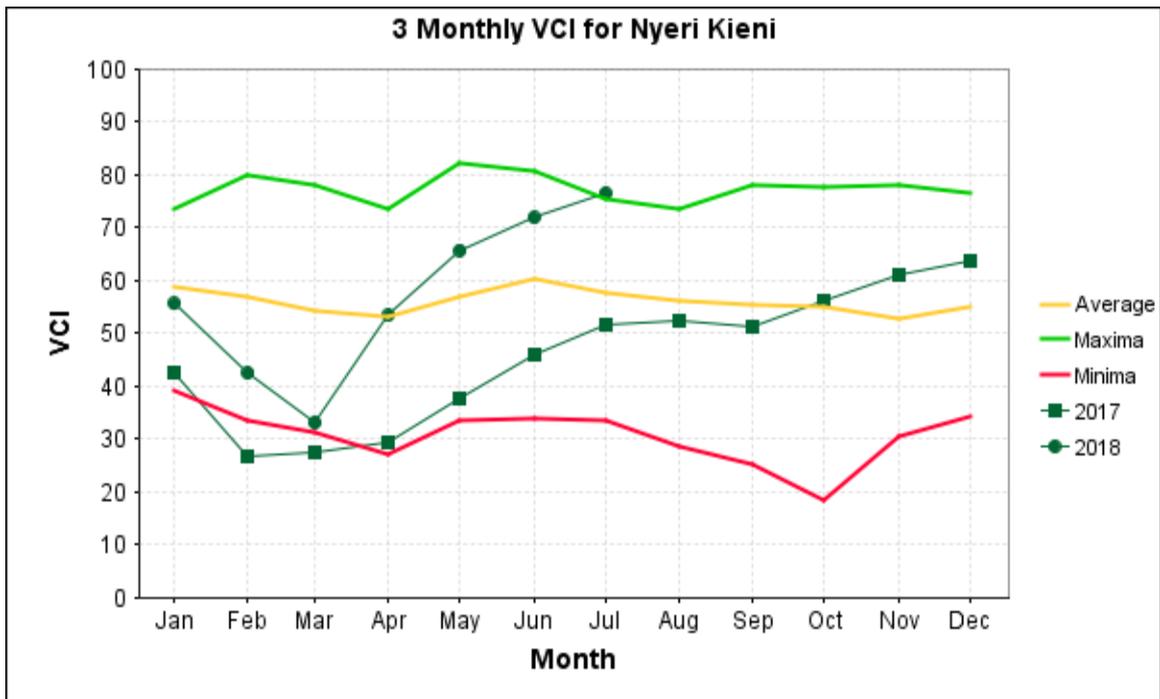

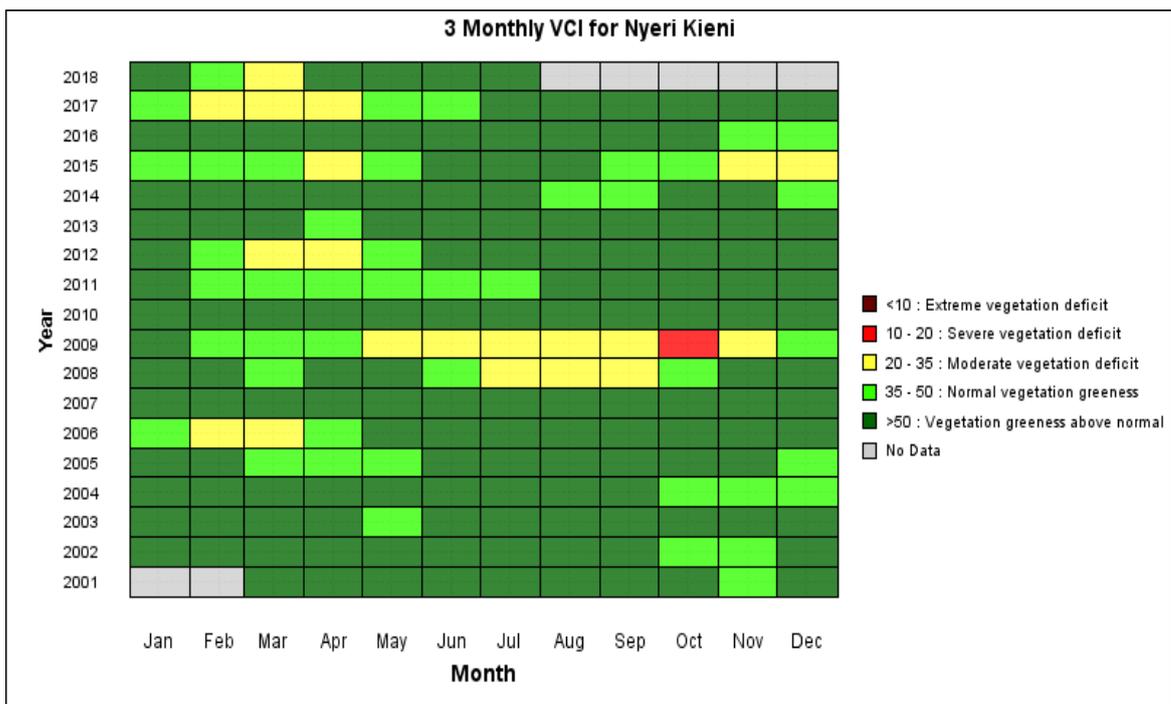*Figure 2(a): Vegetation Condition Index (VCI) - 2018*

Figure 2(b): 3 monthly VCI for Nyeri County.

2.1.2   Pasture

□   Pasture condition has deteriorated compared to the previous month. This could be attributed to effects of frequent frost attacks. Pasture conditions ranged from good to fair across all the livelihood zones.

□   Pasture quality and quantity was better in mixed farming livelihood zones compared to agro pastoral livelihood zones where the tropical livestock unit was high.

□   Available pasture is adequate to meet the needs of the livestock for the next 1 month in agro pastoral livelihood zones and 2 months in mixed farming livelihood zones. Compared to a normal year the situation is normal in both livelihood zones.

□   The pie-chart below represents the current pasture condition.
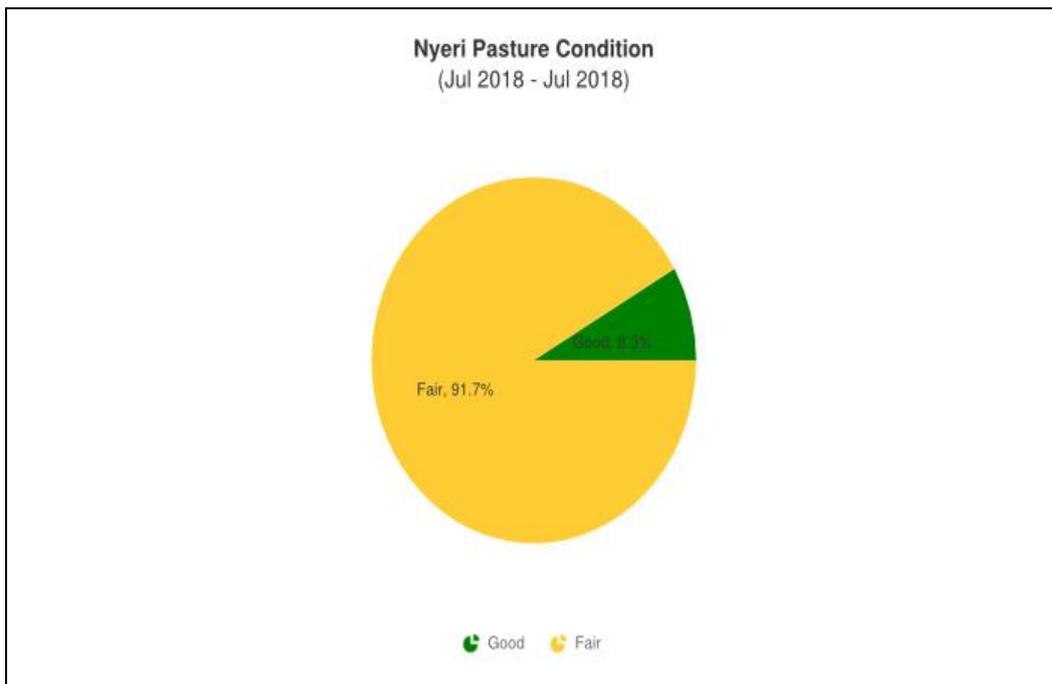

Nyeri Pasture Condition
(Jul 2018 - Jul 2018)

Good, 8.3%
Fair, 91.7%

● Good   ● Fair

Figure 3: Nyeri county pasture condition

2.1.3   Browse

□   Browse conditions ranged from good to fair across all the livelihood zones. Rapid and continuous growth accelerated by the MAM rainfall has made the difference compared to similar period normally.

□   Available pasture is adequate to meet the needs of the livestock for the next 2 month in agro pastoral livelihood zones and 3 months in mixed farming livelihood zones. Compared to a normal year the situation is normal in both livelihood zones.

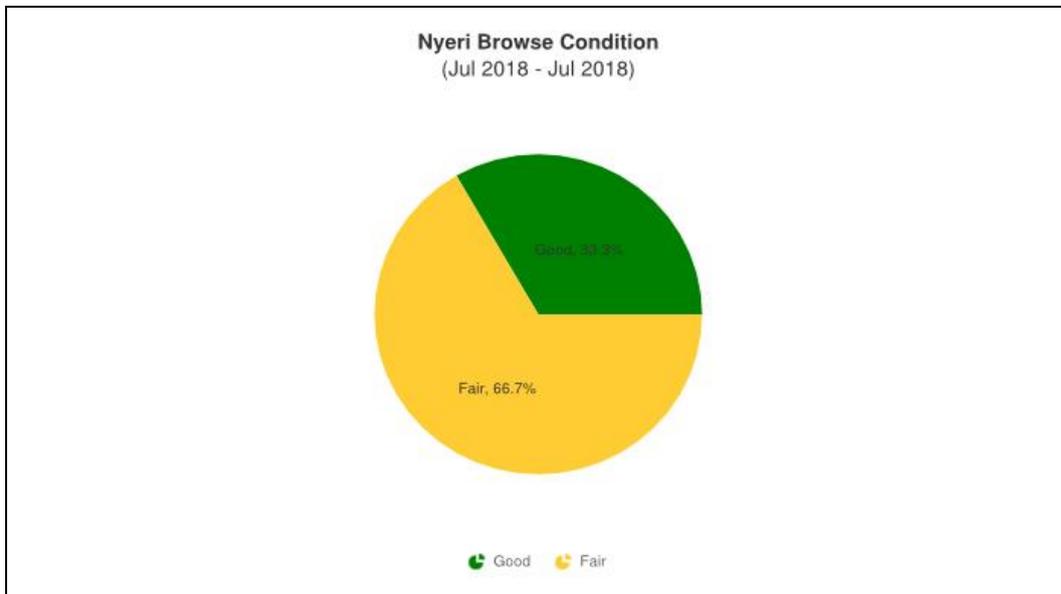□   The pie-chart below represents the current browse condition.

Figure 4: Nyeri county browse condition

2.2 WATER RESOURCE
2.2.1 Sources
☐ Rivers were the main sources of water for majority of households. Other sources were pans and dams. Rivers were flowing at near normal levels while water holding structures were 50 percent full.

☐ Over obstruction of rivers by upland users was reported leading to a low flows at the tail end areas.
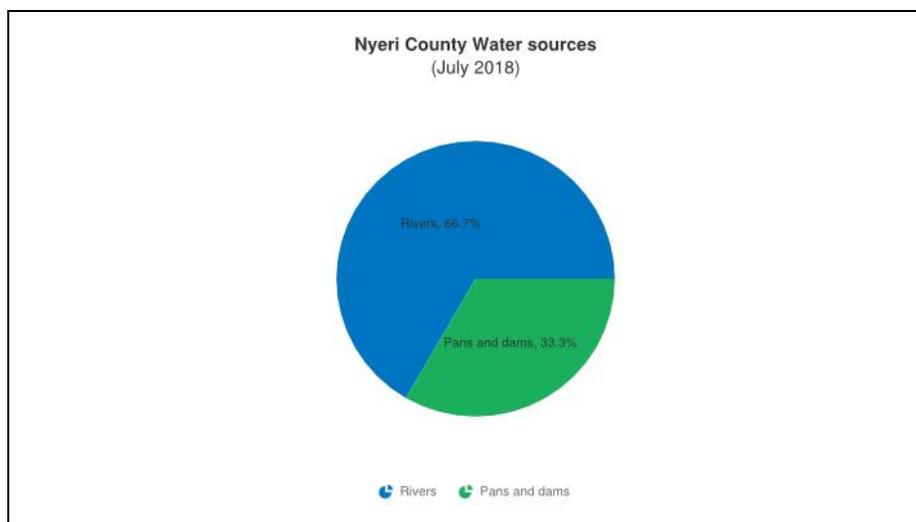

Figure 5: Nyeri county water sources

2.2.2 Household access and Utilization
☐ July have been a relatively dry month and water holding strucures are drying up This has led to increased distances from the households to water sources.

☐ Distances have increased by 50 percent, from 0.4 Km in June to 0.8 Km in July. Compared to the 2013-2017 mean averages of 2.1 Km, distances covered in July were lower by 46.6 percent as indicated in figure 6.
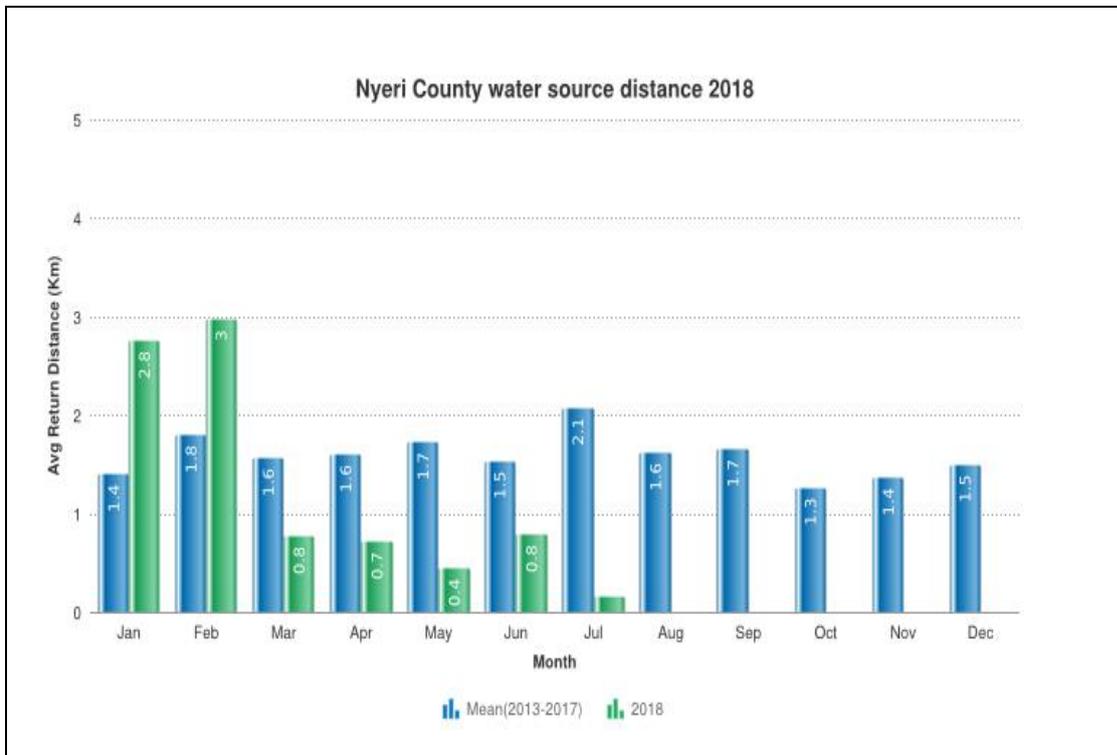
Figure *6: presentation of average return distances to water*

2.2.3 Livestock access

☐ Distances from the grazing field to water sources remained unchanged from last month at 1.1 Km. Reported distances were lower by 58 percent as compared to 2013-2017 mean average of 2.6 Km as indicated in figure 7.
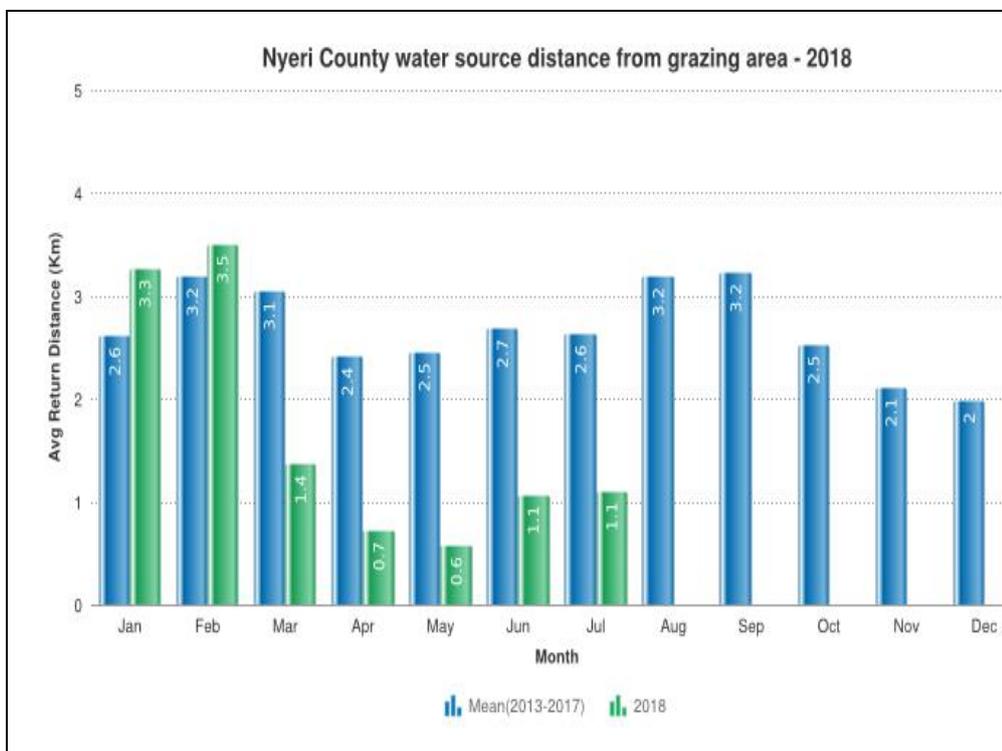

Figure *7: presentation of average grazing distances to water*

3.0 PRODUCTION INDICATORS
3.1 LIVESTOCK PRODUCTION
3.1.1 Livestock Body Condition
☐ Livestock body condition was good for all species in both mixed farming and agro pastoral livelihood zones. This is attributed to availability of adequate pasture and browse for livestock. The situation has further been improved by availability of crop residue that formed part of the livestock feeds.

☐ The next rainy season is expected in October and therefore no significant changes are expected in the livestock sector in between.

3.1.2 Livestock Diseases
☐ No livestock diseases were reported during the period under review.

3.1.3 Milk Production
☐ Milk production reduced by 14 percent from 6.4 litres in June to 5.5 litres in July. Drop in production could be attributed to deteriorating pasture quality and high distances to water sources.

☐ In Kieni East and West sub counties, production dropped from 6.6 litres and 6.2 litres to 5.9 litres and 5.1 litres respectively.
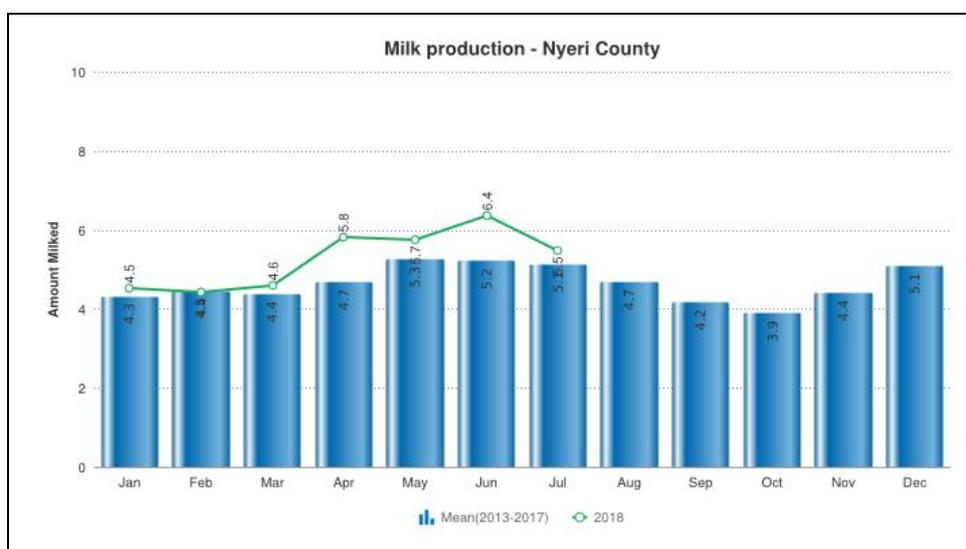

Figure 8: Presentation of average milk production for the region

3.2 RAIN-FED CROP PRODUCTION
3.2.1 Stage and Condition of food Crops
☐ Crops at the farms were in good condition. Maize was at the milking stage.

☐ Harvesting of potatoes was ongoing though in small scale.

4.0 MARKET PERFORMANCE
4.1 LIVESTOCK MARKETING
4.1.1 Cattle Prices
☐ Cattle prices dropped by 1.3 percent to retail for Ksh 23,100 in July from Ksh 23,400 in June. Drop in cattle prices could be attributed to market forces of demand and supply.

☐ The month's prices were lower by 33 percent compared to the 2015-2017 mean averages of Ksh 33,000 as indicated in figure 9.
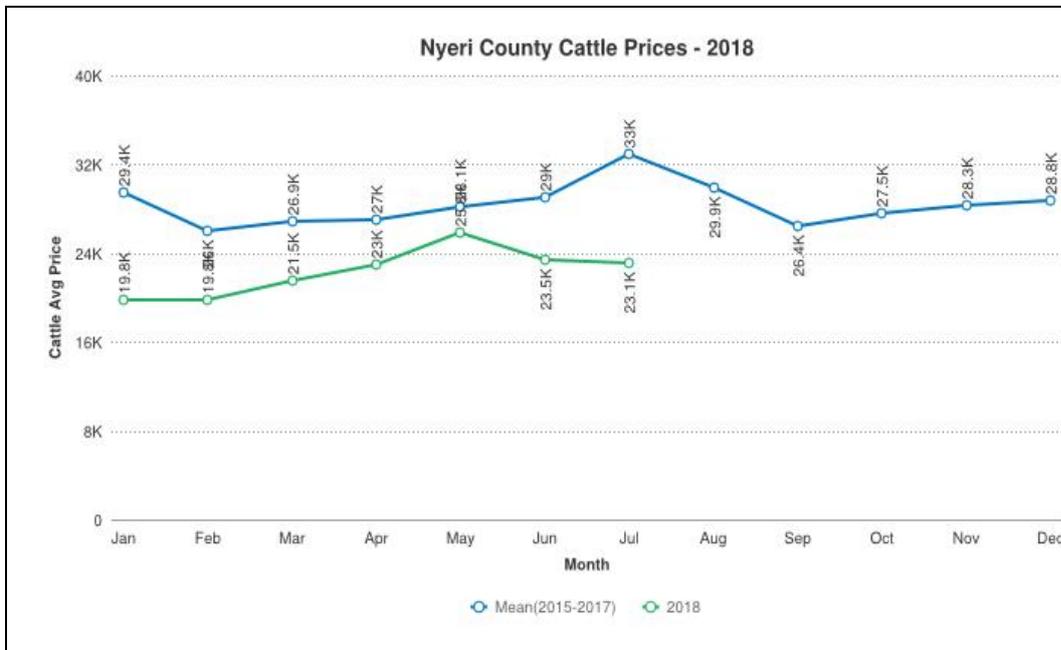
Figure 9: Presentation of average cattle prices

4.1.2 Sheep prices
☐ Sheep prices increased by 4.5 percent to retail for Ksh 4,600 in July from Ksh 4,400 in June. Compared to the 2015-2017 mean averages of Ksh 3,600 reported prices were higher by 27.7 percent as indicated in figure 10.
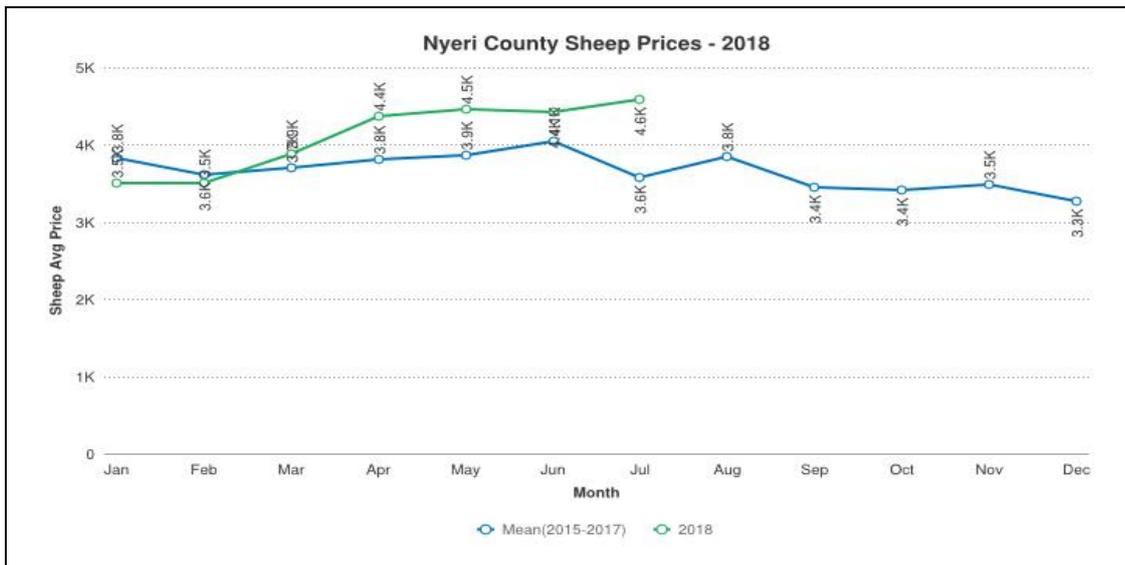

Figure 10: Presentation of average sheep prices

4.2   CROP PRICES
4.2.1   Maize
☐ Maize prices dropped by 11.25 percent to retail for Ksh 35.2 in July from Ksh 40 in June. Drop in prices could be attributed to availability of maize from the neighbouring counties.
☐ Compared to the 2015-2017 mean averages of Ksh 46, the month's price was below mean average by 23.5 percent as shown in figure 11 below.
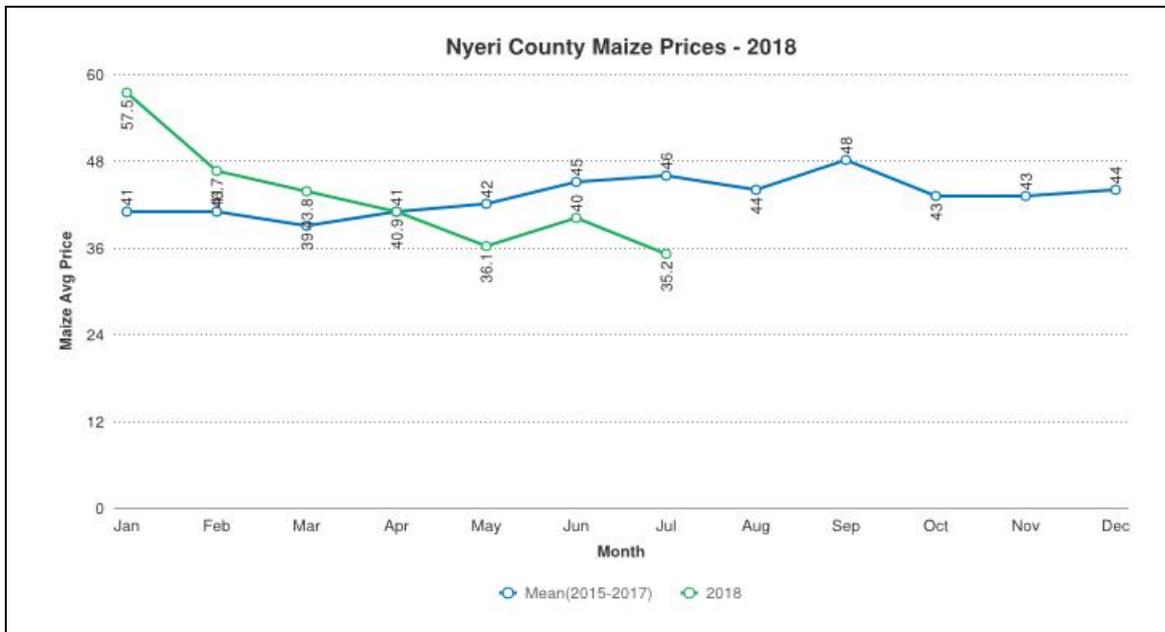
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Figure 11: Outlines average price trends for maize

4.2.3 Beans

☐ Beans prices decreased by 18 percent to retail for Ksh 64.4 in July from Ksh 78.80 in June. Drop in beans prices could be attributed to ongoing beans harvesting in the region. Compared to 2015-2017 mean averages of Ksh 87.7 the month's price was lower by 13 percent as shown in figure 12 below.
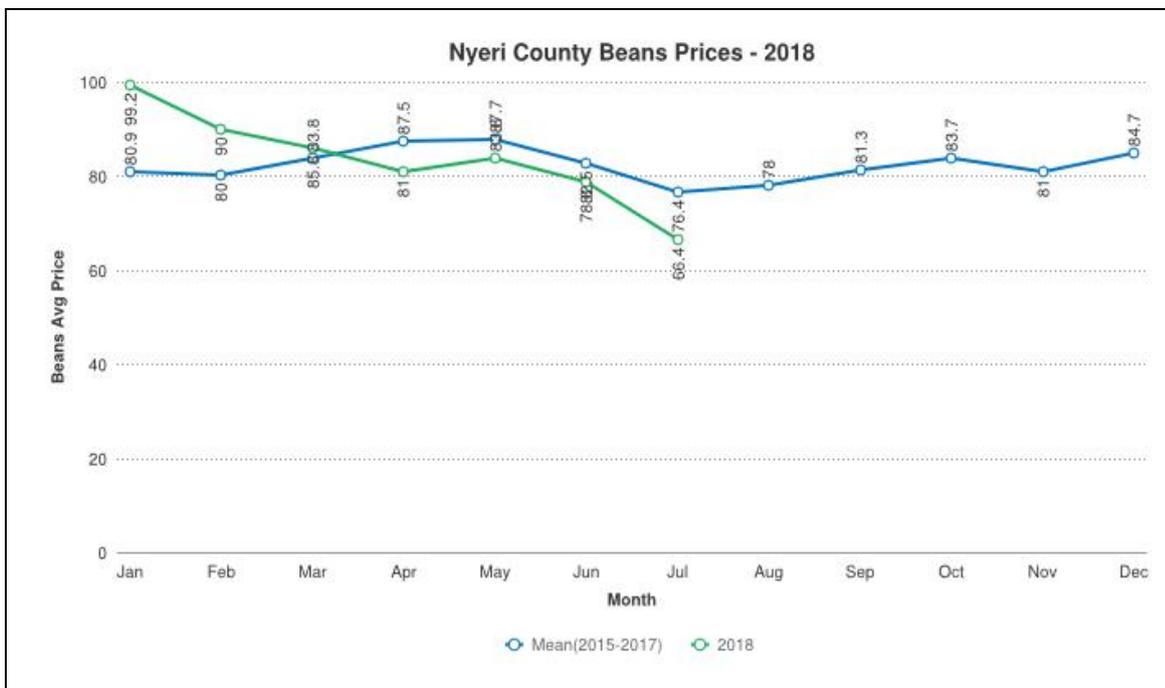

Figure 12: Outlines average price trends for beans

4.3   Livestock Price Ratio/Terms of Trade

☐ The Terms of Trade Ratio (TOT) for the month of July increased by 28 percent to stand at 126 in July from 98.6 in June. This is an indication that households could purchase more kilograms of maize from a sale of a kilogram of meat.

☐ The month's Terms of Trade Ratio (TOT) was higher compared to the long term average of

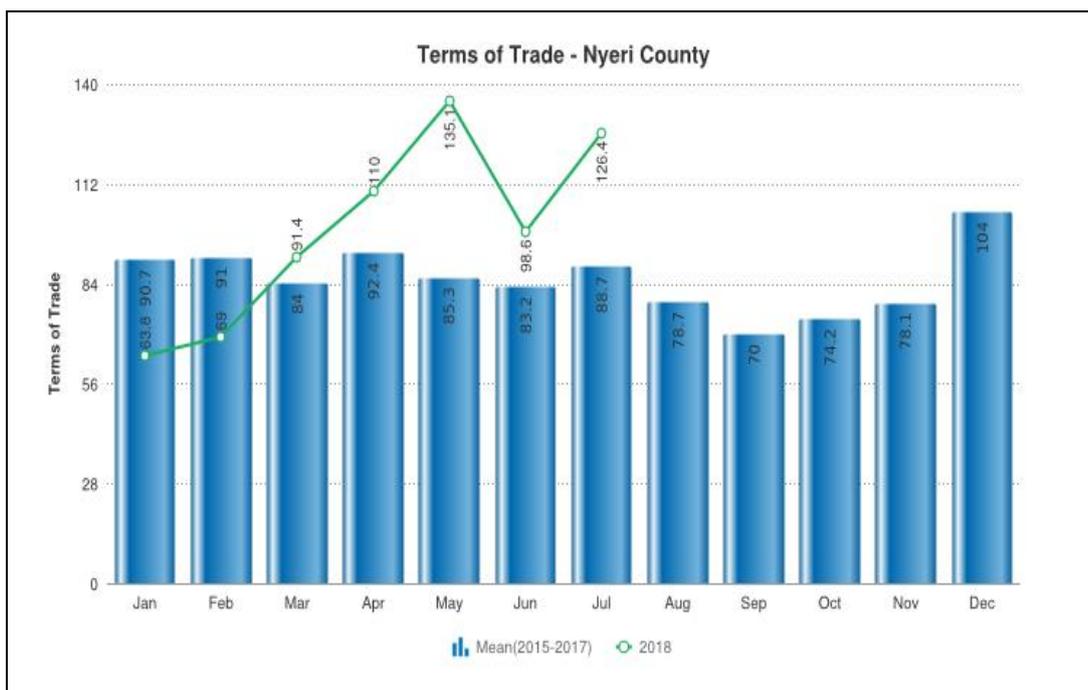88.7 as shown in figure 13 below. This means that, household purchasing power for the month was above average.

Figure 13: Outlines terms of trade

5.0   FOOD CONSUMPTION AND NUTRITION STATUS
5.1   MILK CONSUMPTION

☐ Drop in milk production has triggered shortage in the market thus attracting high prices as compared to normal. As a result, households are choosing to add on sales and sacrifice on consumption. A litre of milk ranges from Ksh 40 –Ksh 45 in June to Ksh 45- Ksh 50 during the month under review.

☐ Milk consumption at the household level reduced by 11 percent from 1.8 litres in June to 1.6 litres in July 2018.

☐ Compared to the 2013-2015 mean average of 1.4 litres the month's consumption was above normal by 14.3 percent as shown in figure 14 below.
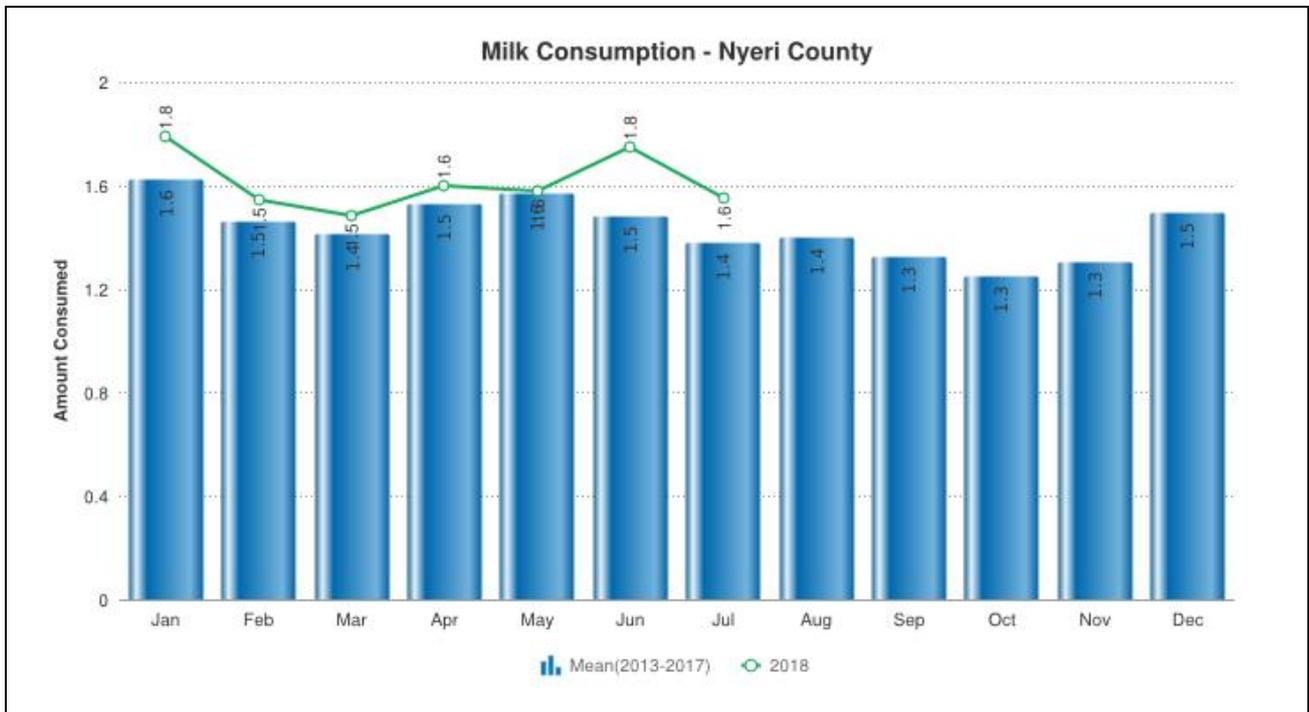
Figure 14: Outlines milk consumption for the county

5.2 FOOD CONSUMPTION SCORE

☐ The proportions of households with borderline and acceptable food consumption score in the sampled population were at 32.5 percent and 67.5 percent respectively.

☐ 96.8 percent of the household in Kieni West had an acceptable consumption score compare to 36.2 percent in Kieni East. This is an indication that households in Kieni West had a higher dietary diversity and consumption frequency.

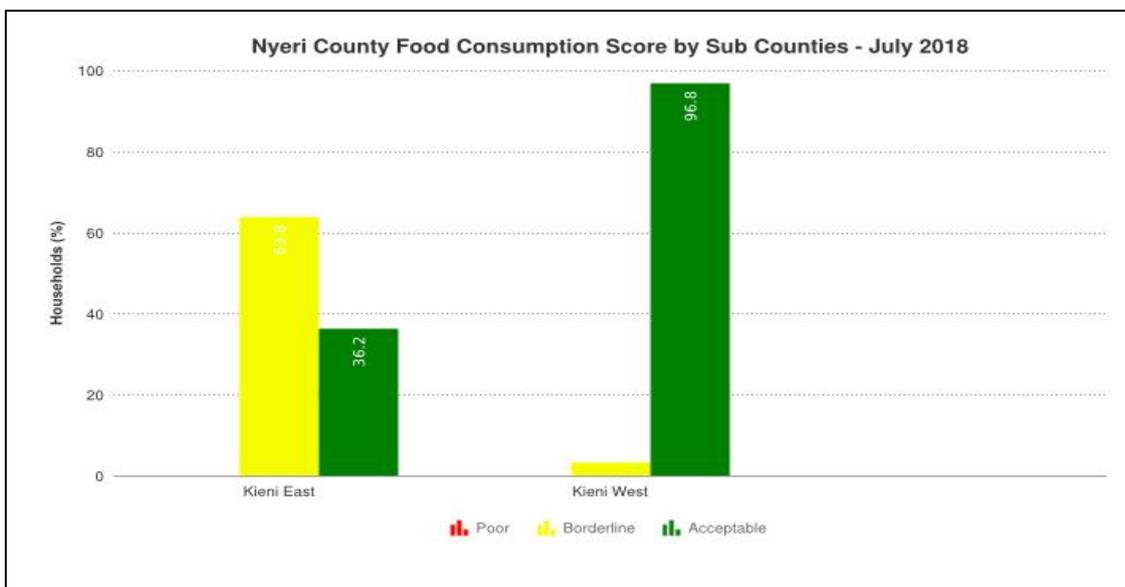☐ Households with acceptable consumption score in Kieni East dropped when compared to last month.

Figure 15: Outlines milk consumption for the county

5.3   HEALTH AND NUTRITION STATUS
5.3.1 Nutrition Status
- ☐ The proportion of children below the age of five years at risk of malnutrition remained at nil percent as registered last month as shown in figure 16 below.
- ☐ Nil malnutrition cases in Kieni can be attributed to the variety of food sources available following the MAM rainfall leading to improved household dietary levels.
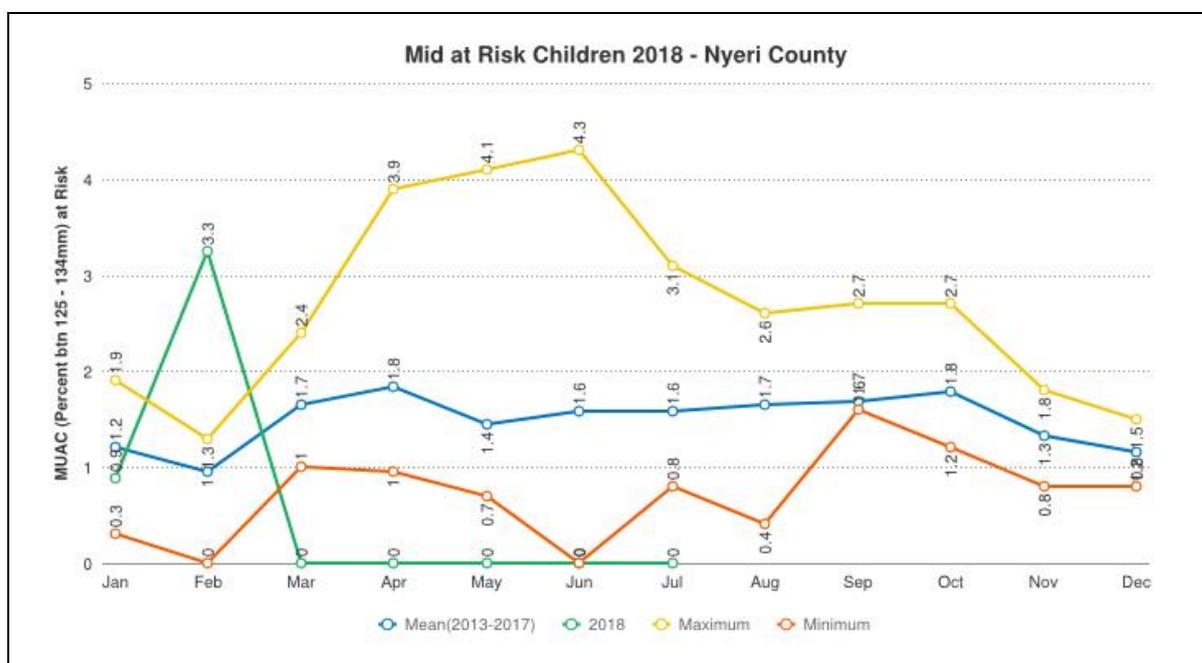

Figure 16: Presentation of nutrition status of children below five years

5.4 COPING STRATEGIES
- ☐ The month's mean coping strategy Index (CSI) stood at 3.62 from 4.59 in June registering a 21 percent decrease.
- ☐ A decrease in the mean CSI can be attributed to availability of food at the household level due to the good performance of the MAM rains
- ☐ Agro pastoral farming livelihood zones registered high coping strategy index of 3.8 as compared to 3.4 in Mixed farming livelihood zones as indicated in figure below. This indicating that households in agro pastoral livelihood zones were applying coping mechanisms more frequently compared to those in mixed farming livelihood zones.
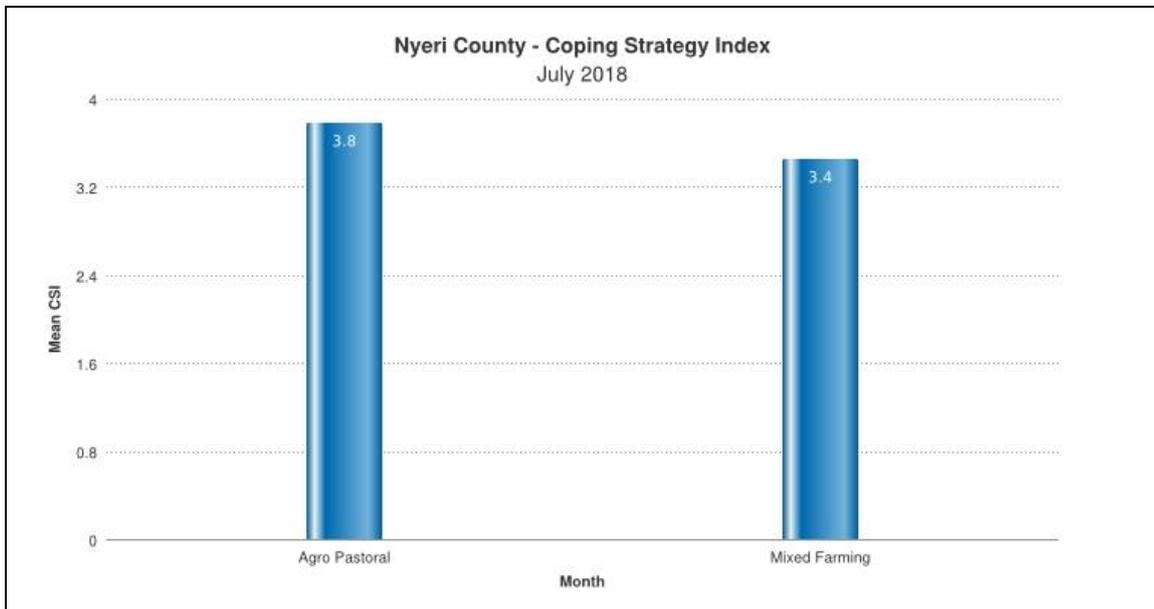
Figure 17: outlines the mean Coping Strategy Index

6. CURRENT INTERVENTION MEASURES
6.1 NON-FOOD INTERVENTIONS

6.2 FOOD AID - NOTE THE FOLLOWING
7.0 EMERGING ISSUES.
7.3 FOOD SECURITY PROGNOSIS

☐ The long rains maize harvests will improve food security in Kieni by providing slightly above-average casual wage labour income-earning opportunities and increasing household food availability through late August to early September. The Malnutrition especially for children below the age of five will remain low as household dietary diversity and food consumption is likely to improve.

8. RECOMMENDATIONS
☐ Livestock diseases surveillance and Deworming. (Livestock Department).
☐ Repair of destroyed water intakes and pipeline. (NDMA and Water department).
☐ Crops pests and diseases surveillance (Agriculture Department).
☐ Sensitization on water harvesting (NDMA and Water department).
☐ Sensitization on produce value addition (Agriculture Department and NDMA).
☐ Sensitization on proper storage. (Agriculture Department and .NDMA).
☐ Sensitize farmers on fodder storage (Agriculture Department).
☐ Review of response plan (NDMA).