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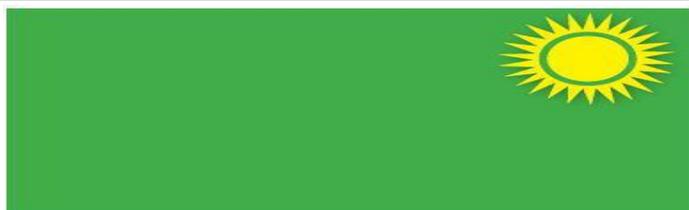## (Nyeri) COUNTY
DROUGHT EARLY WARNING BULLETIN FOR MAY 2018

NDMA

A Vision 2030 Flagship Project

KENYA VISION 2030

May 2018 EW PHASE

Drought Situation & EW Phase Classification
Biophysical Indicators
- The March-April-May (MAM) rainfall continued into the month of May. Amounts received were above normal and evenly distributed in time. Spatial distribution was poor.
- The vegetation greenness was above normal in all the livelihood zones.
- Access to water for household and livestock use was good across all the livelihood zones. Distances to water sources have reduced.

Socio Economic Indicators (Impact Indicators)
Production Indicators
- Farm activities progressed well during the month under review. Crops were at different stages of development. Maize was at knee height to tasseling, beans at pod formation and potatoes at harvesting to flowering stage.
- Livestock body condition was good for all species.
- Milk production was above normal threshold.
- No in or out migration of livestock 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 child were at risk of malnutrition during the month under review.
- Coping strategy index of 3.91 was reported which was within normal range.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	stable
Agro pastoral	Normal	stable
County	Normal	stable
Biophysical Indicators	**Value**	**Normal Range/Value**
Rainfall (% of Normal)	137.1%	80-120
VCI-3Month		35-50
Forage condition	Good	Fair
Production indicators	**Value**	**Normal**
Crop Condition (specify crop)	Fair	Good
Livestock Body Condition	good	Fair
Milk Production	5.7 litres	5.3 litres
Livestock Migration Pattern	no migration	Normal
Access Indicators	**Value**	**Normal**
Terms of Trade (ToT)	124.7	85.3
Milk Consumption	1.6	1.6
Return distance to water sources	0.7	2.5
Utilization indicators	**Value**	**Normal**
Nutrition Status, MUAC (% at risk of malnutrition)	0	1.4
Coping Strategy Index (CSI)	4.34	<5.0

Seasonal Calendar

▪ 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 March-April-May (MAM) rains continued into the month of May. High amounts were experienced across all the livelihood. On average 137 percent of the normal was received during the month under review.

☐ The amounts received were evenly distributed in time. Kieni sub counties received the rains for an average of eight days during the month.
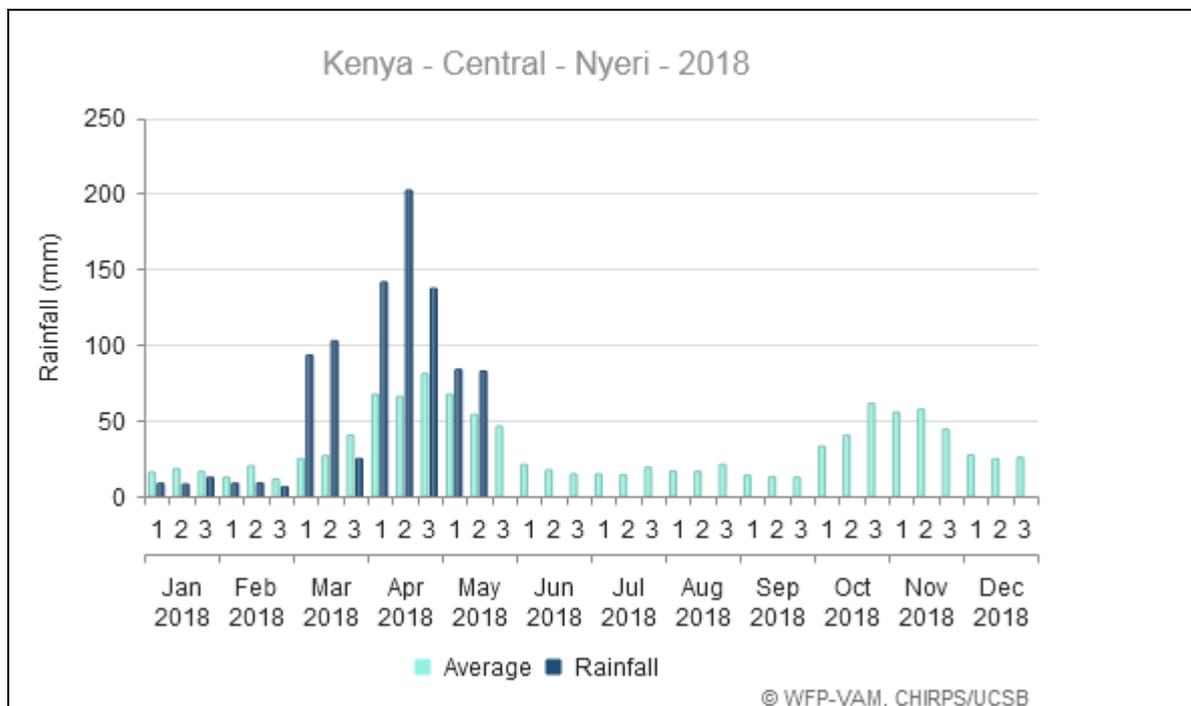

Figure 1: Presentation of the rainfall performance for April 2018

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION
☐ In the first and second dekad, amount of rainfall recorded was 83.5 m and 82.5 mm compared to the long-term averages of 67.2 mm and 53.9 mm respectively. Spatial distribution was poor.

2.0   IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1   Vegetation Condition Index (VCI)

☐ Due to the good performance of the MAM rains, the vegetation condition has improved since March. The three months' Vegetation Condition Index (VCI) stood at 53.09 indicative of above normal vegetation greenness as shown in figure 2(a) and figure 2(b) below.
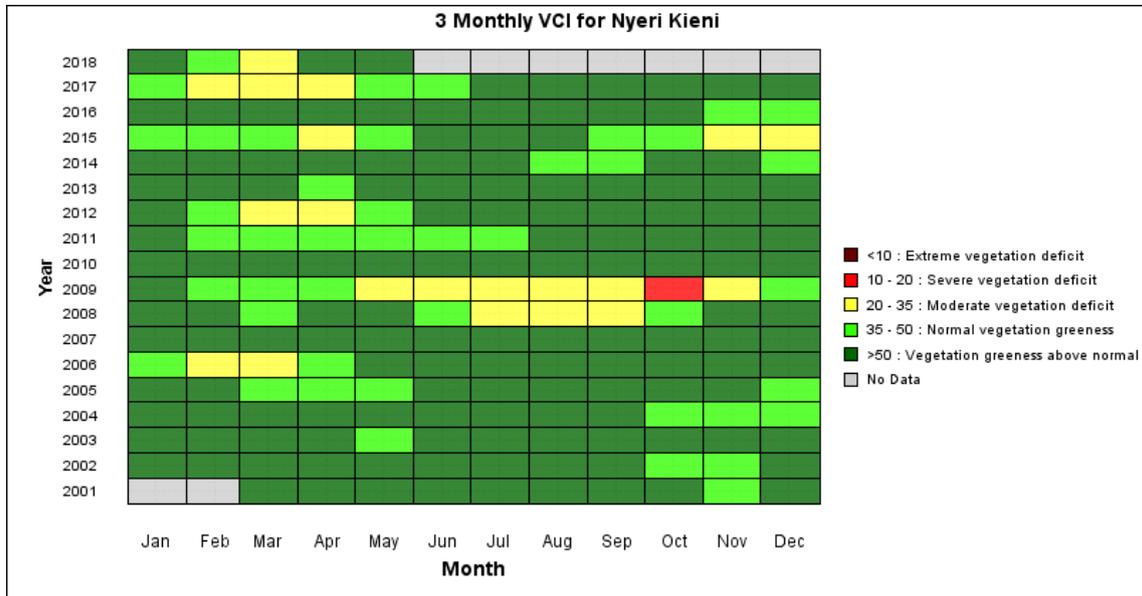

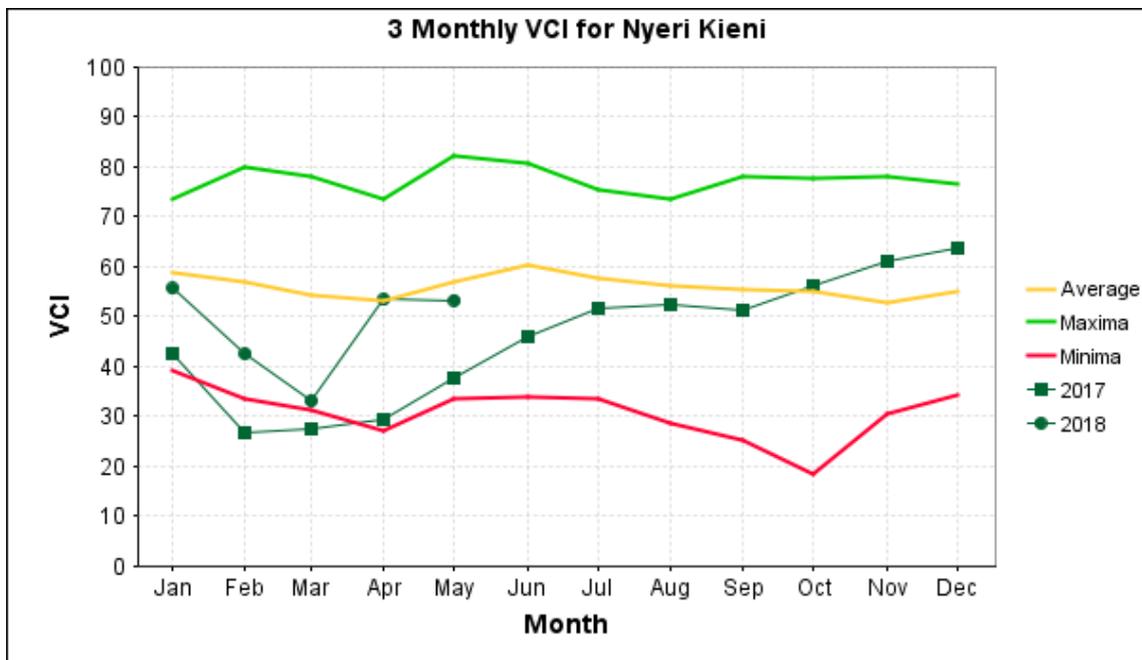*Figure 2(a): Vegetation Condition Index (VCI)-May 2018*

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

2.1.2 Pasture

☐ Due to the good performance of the MAM rains regeneration was good. Grazing fields have recovered across all the livelihood zones. Most of the livestock are grazing near homestead. Grass in the grazing field is about six inches tall. Compared to the same period last year the situation is above normal.

☐ Available pasture is adequate to meet the need of livestock in Kieni for the next six months. During our monthly monitoring, all the respondents' interviewed noted that pasture conditions were good as shown in figure 3 below.
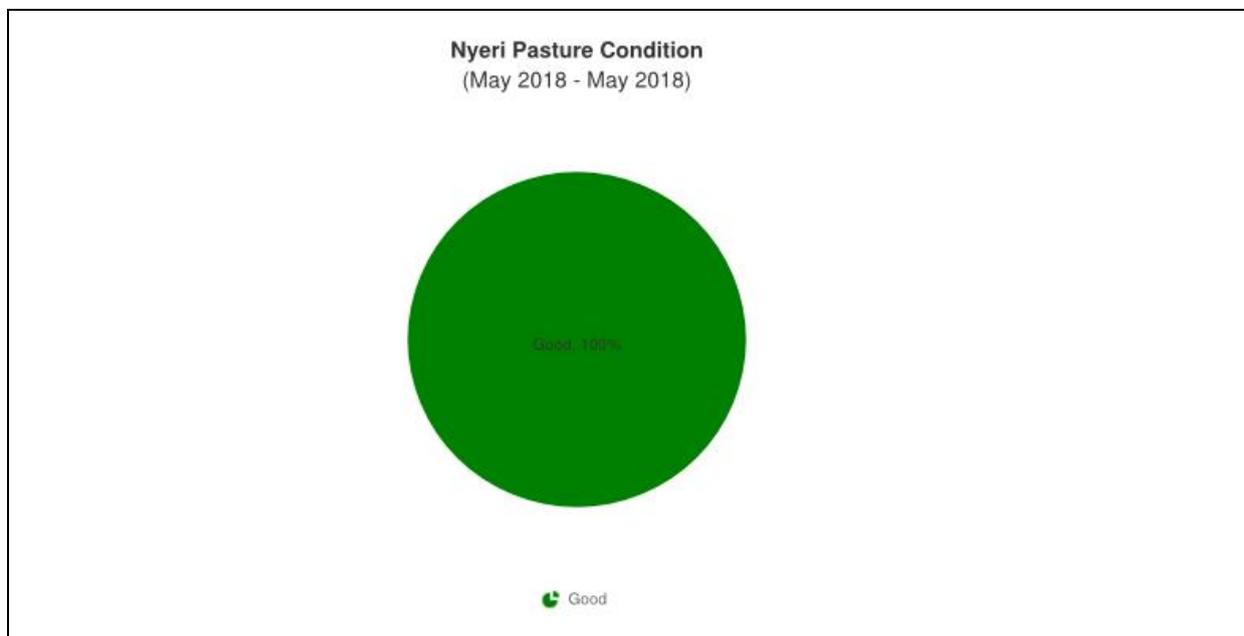

Nyeri Pasture Condition
(May 2018 - May 2018)

Good, 100%

● Good

Figure 3: Nyeri county pasture condition

2.1.3 Browse

☐ The browse condition was good across all the livelihood zones attributed to the good performance of the rains. During our monthly monitoring all the respondents interviewed indicated that browse condition was good as shown in figure 4 below.

☐ Compared to a normal year the situation was above normal. Available browse is expected to last for three to four months in both mixed farming and agro pastoral livelihood zones.
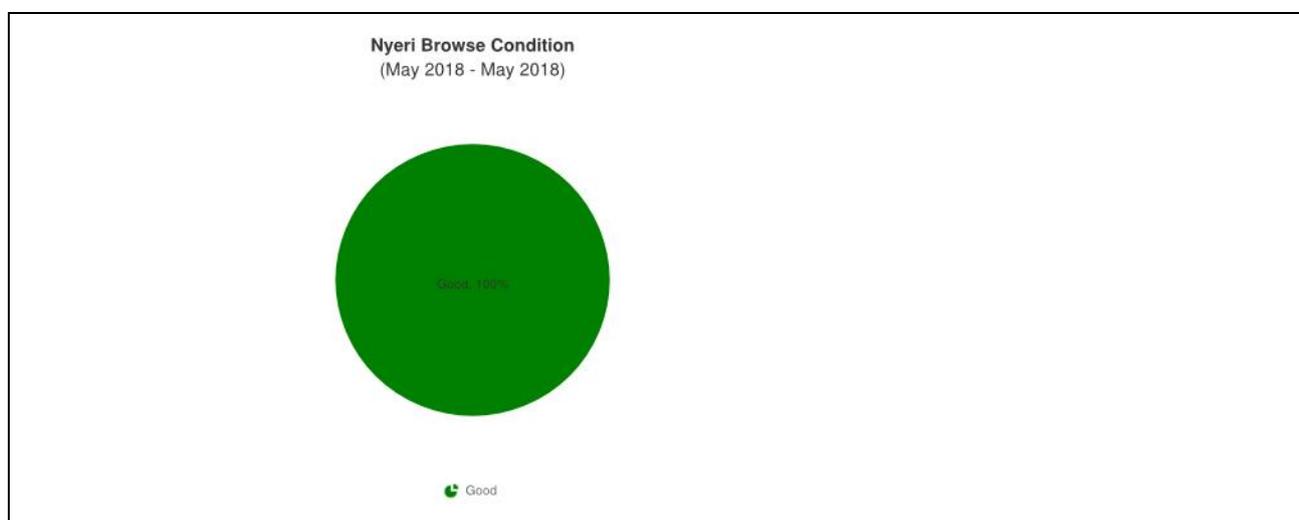

Nyeri Browse Condition
(May 2018 - May 2018)

Good, 100%

● Good

Figure 4: Nyeri county browse condition

2.2   WATER RESOURCE
2.2.1 Sources
☐ The main sources of water in Kieni were piped water system at 50 percent, rivers at 33.3 percent and pans and dams at 16.7 percent as shown in figure 5 below.
☐ Access to water was good and had improved compared to the previous month. Water holding structures have impounded sufficient level and are expected to last for the next two month.
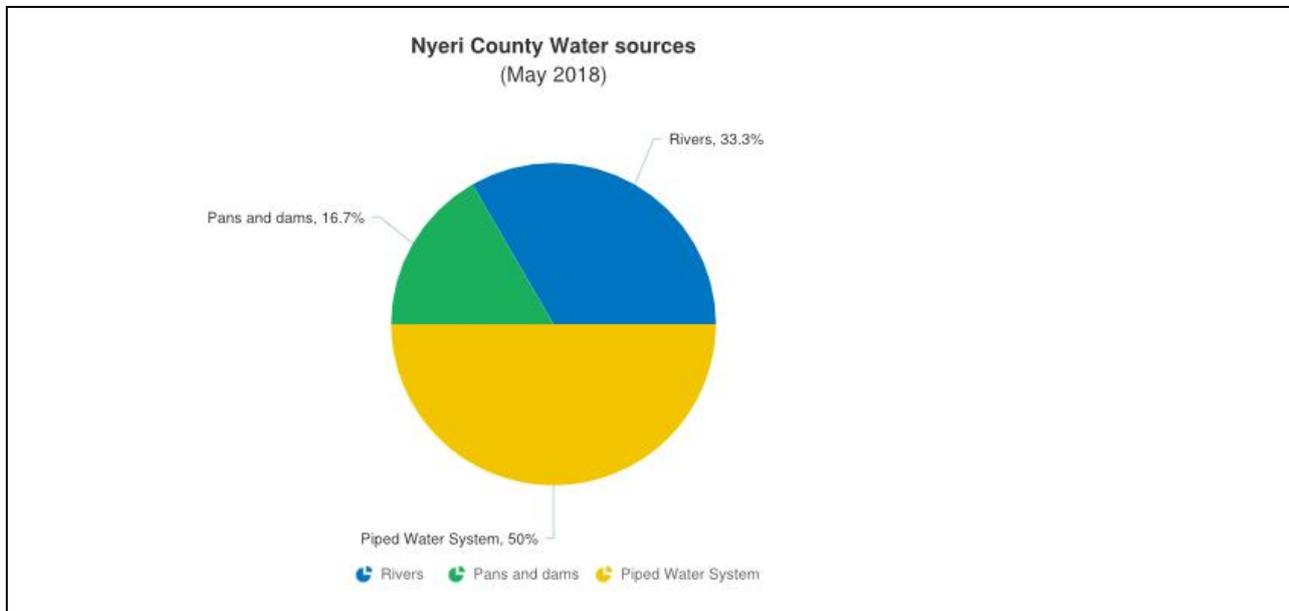

Figure 5: Nyeri county water sources

2.2.2   Household access and Utilization
☐ Distance from the household to water source have significantly reduced by 43 percent from 0.7 Km in April to 0.4 Km in May.
☐ Drop in distances can be attributed to improved river flows. Surface holding structures are also full to capacity. Compared to the 2013-2017 mean averages of 1.7 Km, distances covered in May were lower by 76 percent as indicated in figure 6.
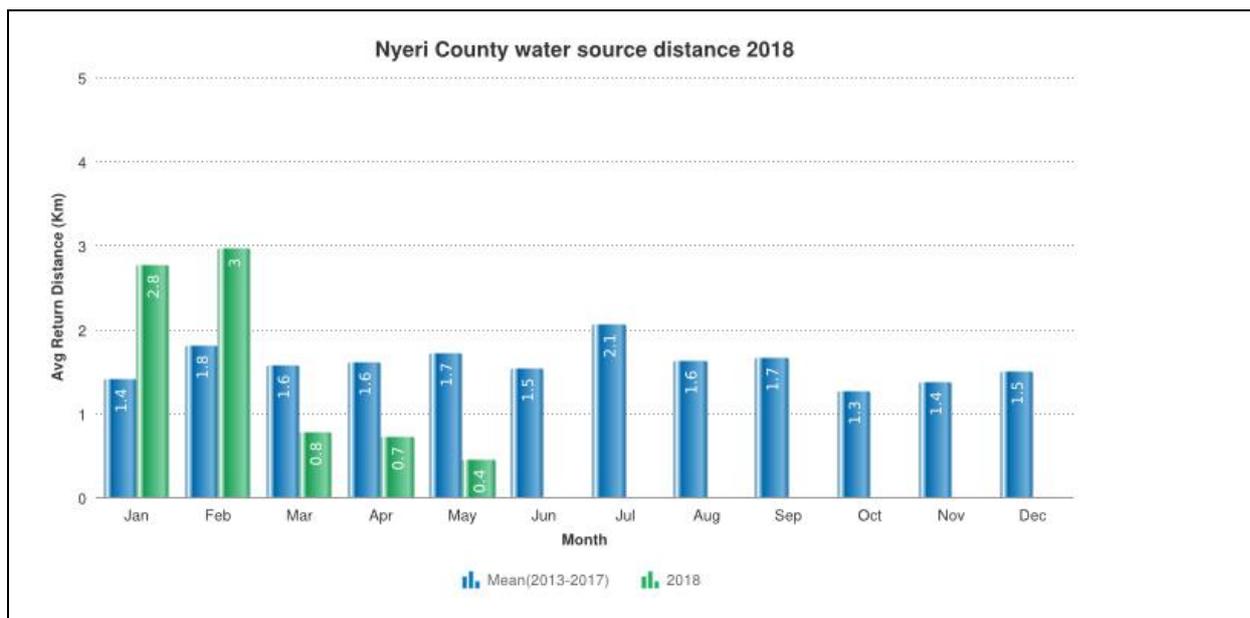

Figure 6: *presentation of average return distances to water*

2.2.3 Livestock access

 Average distances from grazing field to watering points reduced by 14 percent from 0.7 Km in April to 0.6 Km in May.
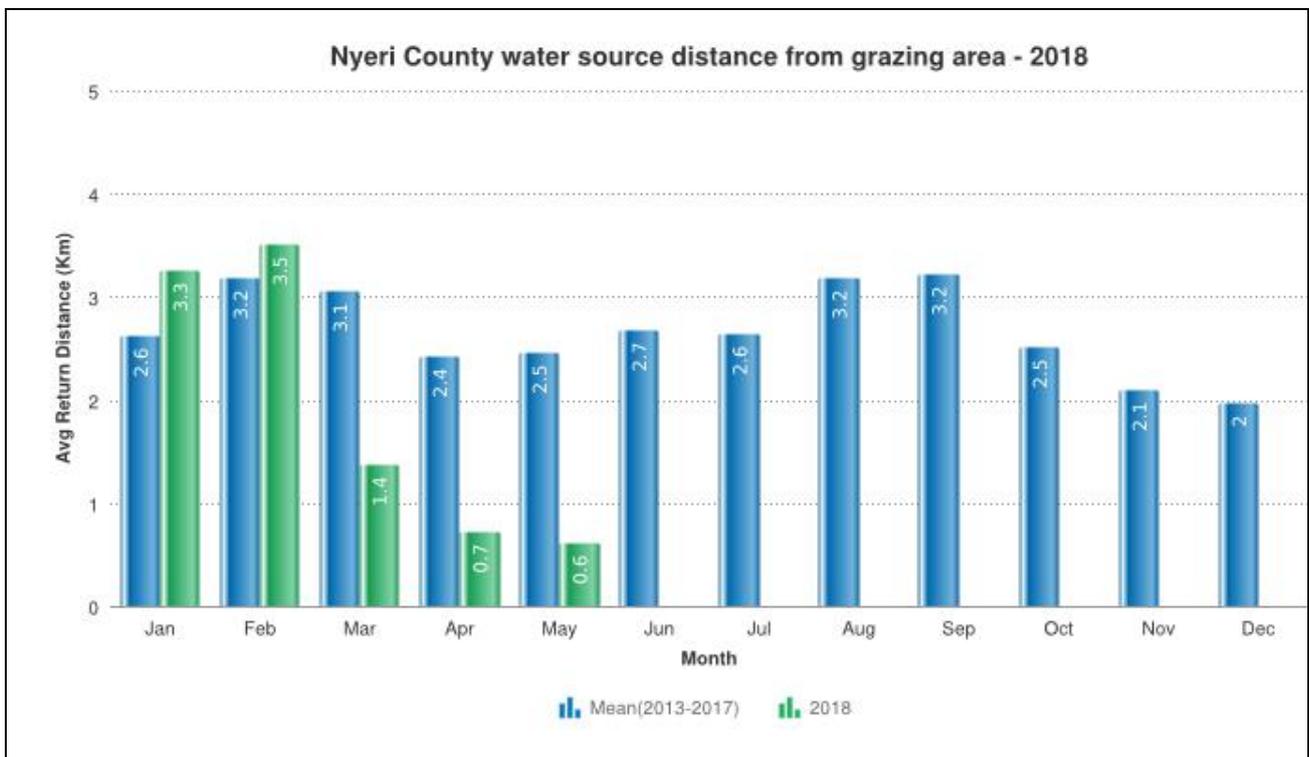 Reported distances were lower by 76 percent as compared to 2013-2017 mean average of 2.5 Km as indicated in figure 7.

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 has improved across livelihood zones and attributed to improved pasture conditions and drop in distances to water sources.

☐ Currently livestock body condition for all species is good. Compared to a normal year observed body conditions are satisfactory.

☐ Cases of bloating and diarrhoea in livestock have become too common as livestock feed on lush pasture.

3.1.2 Livestock Diseases

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

3.1.3 Milk Production

☐ Milk production dropped by 1.7 percent from 5.8 litres in April to 5.7 litres in May. The slight drop in production could be attributed to extremely cold conditions along high attitude areas.

☐ Compared to the 2013-2017 mean averages of 5.3 litres the month's production was higher by 7.5 percent as indicated in figure 8.
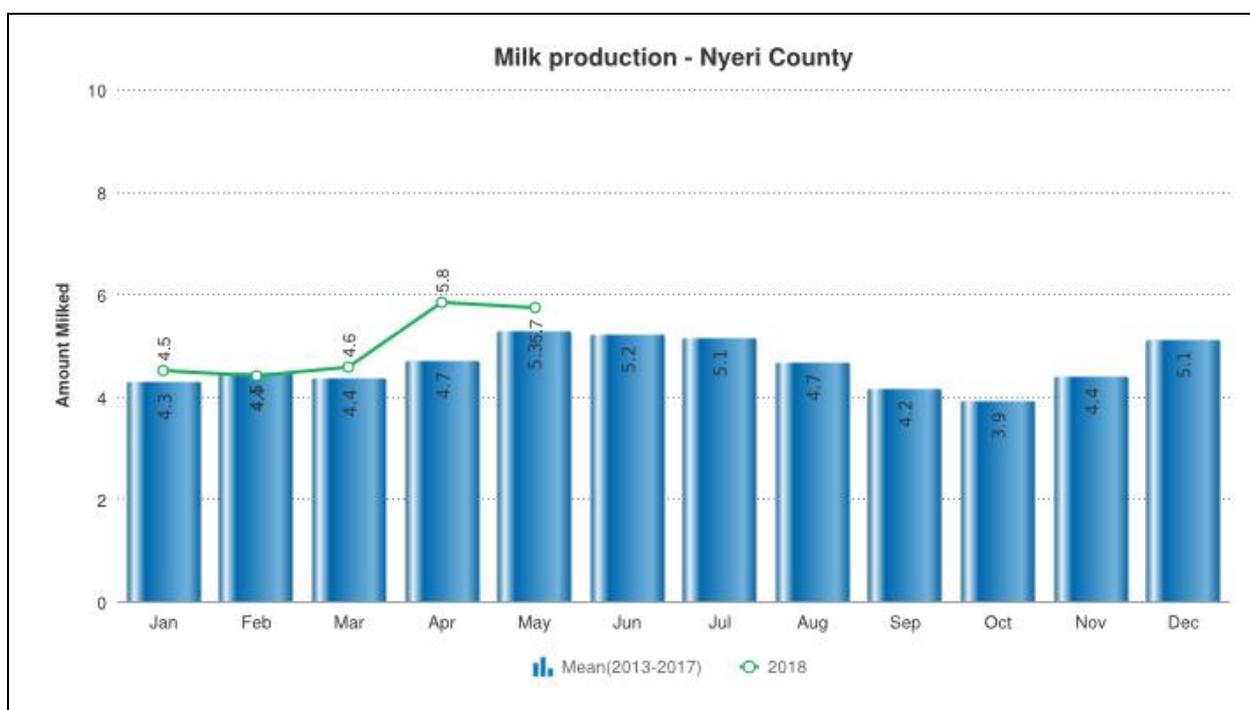

Figure 8: Presentation of average milk production for the region

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

☐ The month of May continue to register above normal rains. Realised rainfall were critical in supporting crop production.

☐ Crops at farm level are at different stages of development. Maize is at knee height to tasseling stage, beans at pod formation stage and potatoes at harvesting to flowering stage. Local vegetables are readily available at the household levels and markets.

☐ However, beans crops have been affected by blight and bacterial infections. This will likely reduced the expected yields. Performance of potatoes has also been affected due to high soil moisture contents leading to high incidences of blights and tuber rot.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

☐ Livestock prices were on an upward trend since season rains onset which has led to recovery of the regions grazing fields. A mature cattle sold at Ksh 25,833 in May compared to Ksh 22,955 in April which was 12.5 percent higher.

☐ Compared to the 2015-2017 mean averages of Ksh 28,023, reported prices were lower by 7.8 percent as indicated in figure 9.
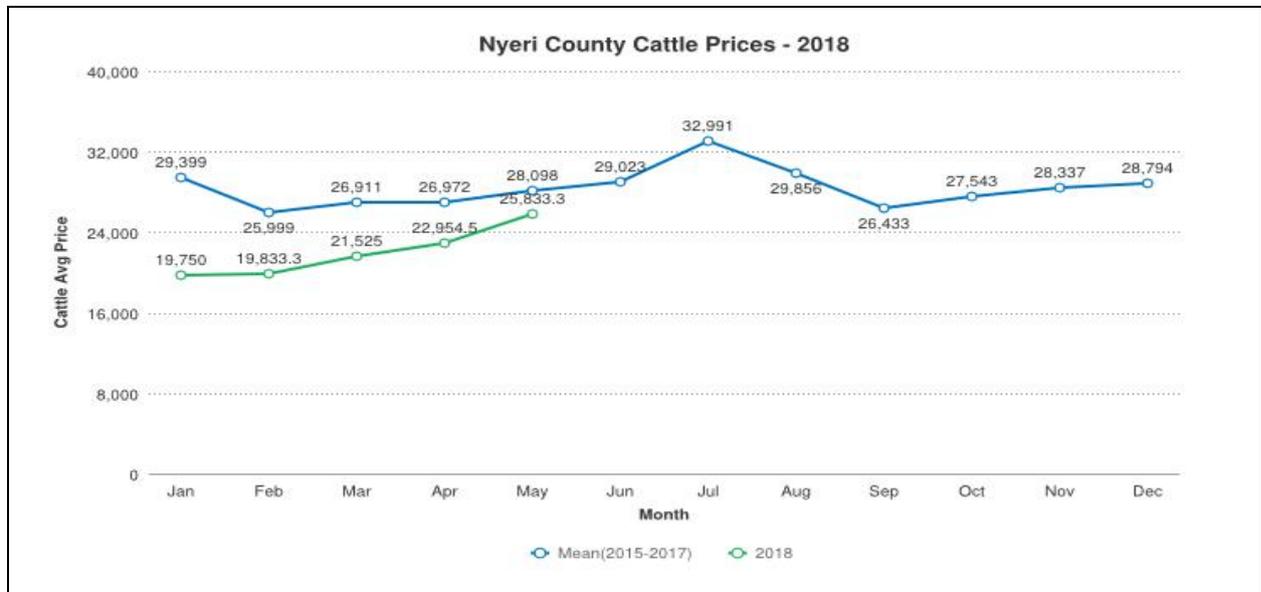

Figure 9: Presentation of average cattle prices

4.1.2 Sheep prices

☐ Sheep prices also increased by 22.7 percent to retail for Ksh 4,500 in May from Ksh 4,400 in April. Compared to the 2015-2017 mean averages of Ksh 3,900 reported prices were higher by 15.4 percent as indicated in figure 10.
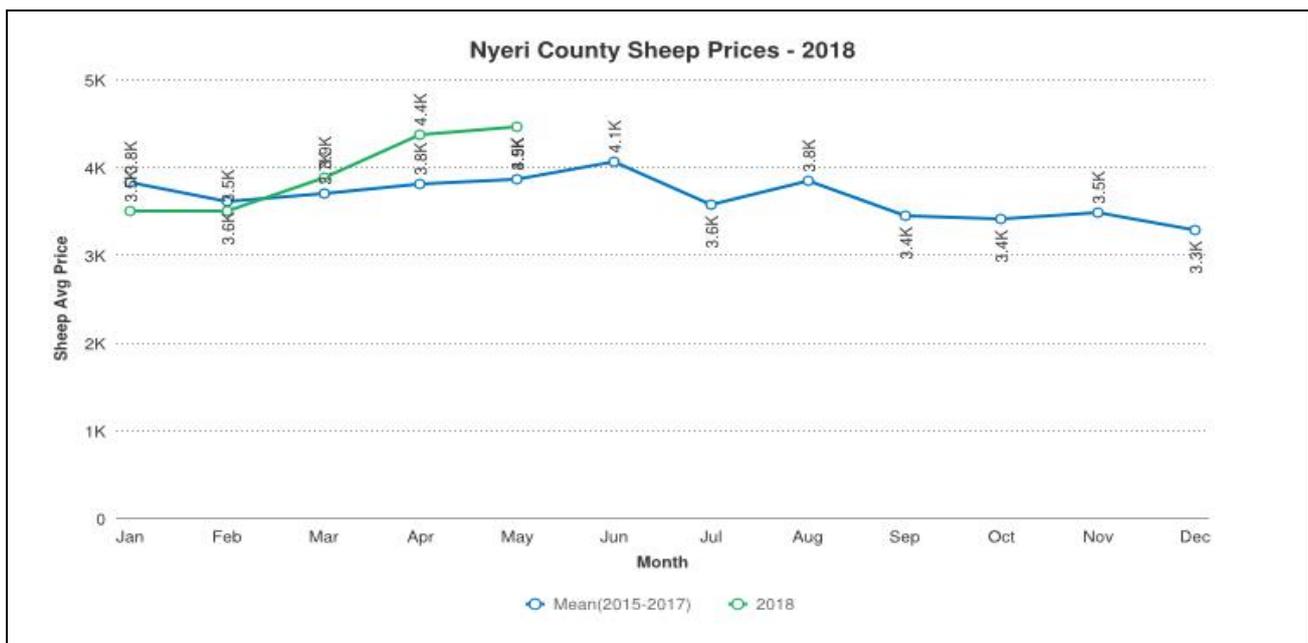

Figure 10: Presentation of average sheep prices

4.2 CROP PRICES
4.2.1 Maize
☐ Maize prices have been on a downward trend since February attributed to cross border imports by traders.
☐ Prices have dropped by 12.2 percent to retail for Ksh 36 in May from Ksh 41 in April. Compared to the 2015-2017 mean averages of Ksh 42, the month's price was below mean average price as shown in figure 11 below.
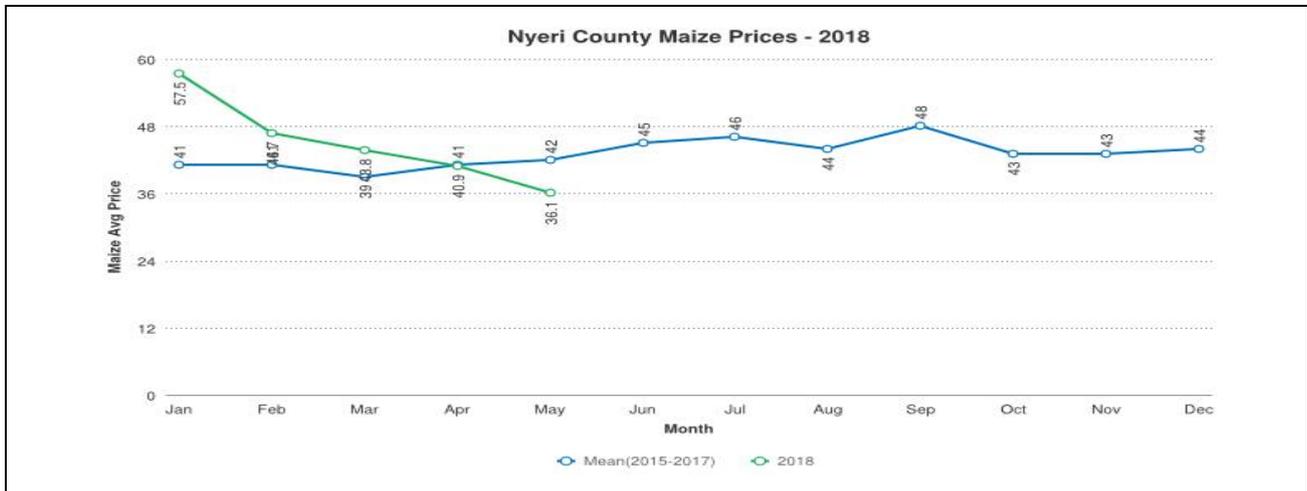

Figure 11: Outlines average price trends for maize

4.2.3 Beans
☐ Beans prices increased by four percent from Ksh 81 in April to Ksh 84 in May. The increment in beans prices is attributed to over reliance on markets following poor shorts rains harvests and depletion of household stocks.
☐ Compared to the 2015-2017 mean averages of Ksh 87.7 the month's prices were lower by 4.4 percent as shown in figure 12 below.
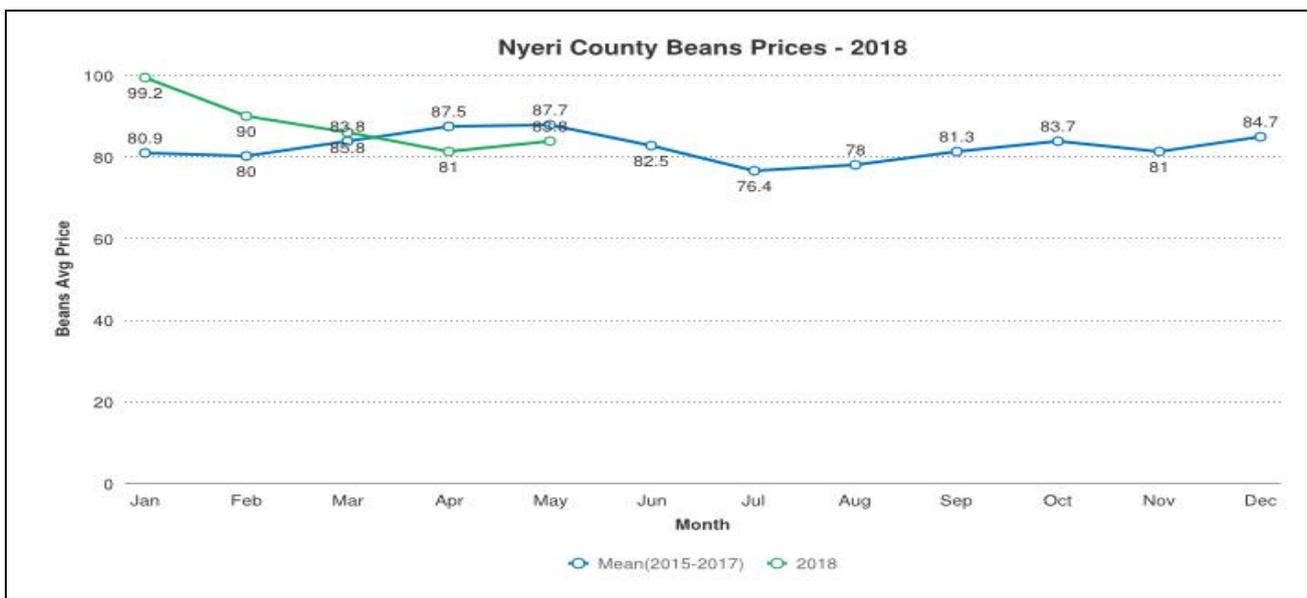

Figure 12: Outlines average price trends for beans

4.3   Livestock Price Ratio/Terms of Trade

☐ The Terms of trade ration increased by 13.6 percent from 110 in April to 125 in May. This is attributed to an increase in goat prices whereas maize prices are on a decline, an indication that household purchasing power is improving.

☐ Compared to the 2015-2017 mean averages of 85.3 percent the month's terms of trade ratio was higher by 46.2 percent as shown in figure 13 below.
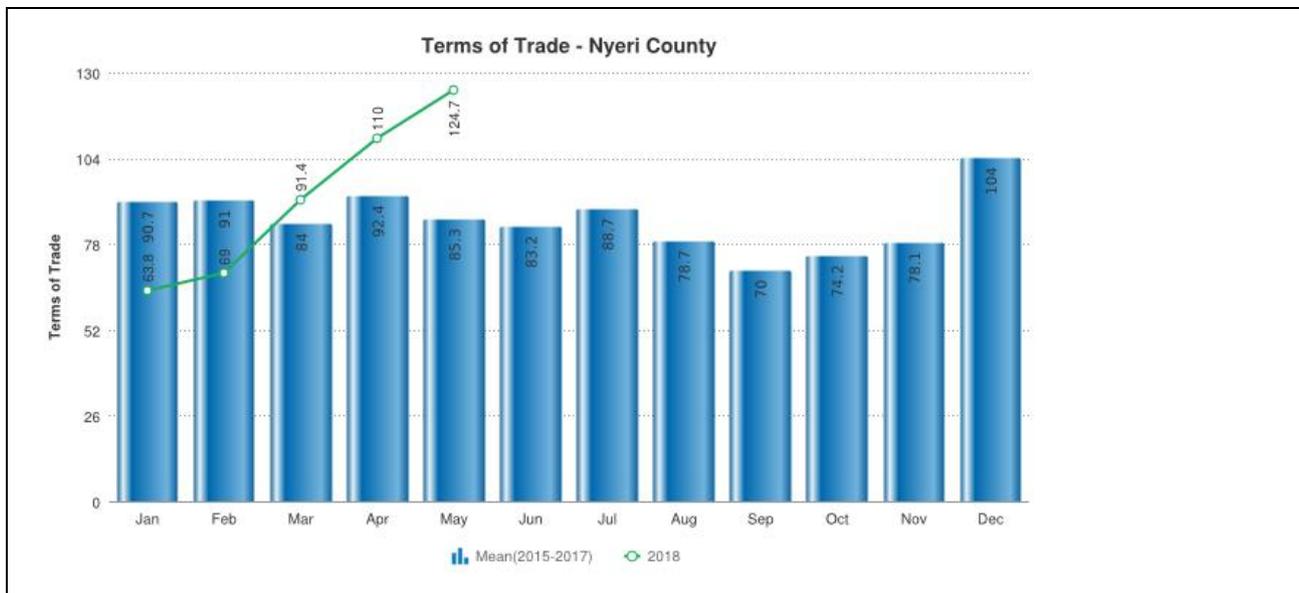

Figure 13: Outlines terms of trade

5.0 FOOD CONSUMPTION AND NUTRITION STATUS
5.1 MILK CONSUMPTION
☐ Milk consumption at the household was the same as was reported last month at 1.6 litres.
☐ Compared to the 2013-2015 short term average of 1.6 litres the month's consumption was within normal ranges as shown in figure 14 below.
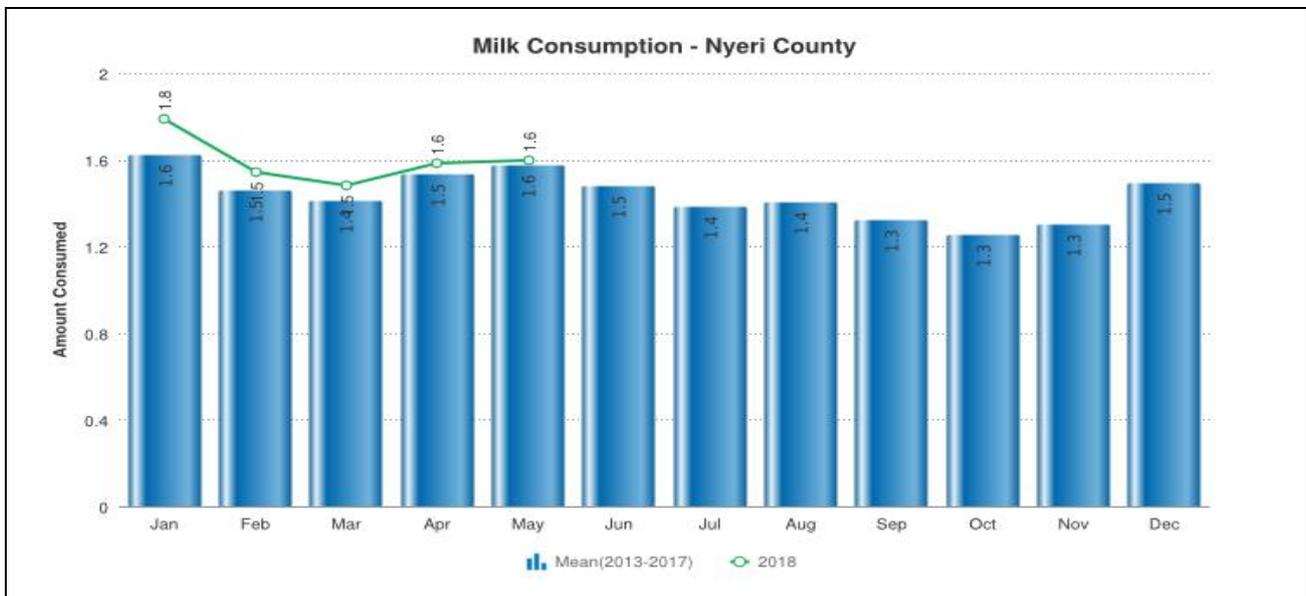

Figure 14: Outlines milk consumption for the county

5.2 FOOD CONSUMPTION SCORE
☐ Food consumption score for Kieni has improved compared to last month. The proportion of households at borderline and acceptable scores for the month stood at 26 percent and 75 percent compared to 33 percent and 67 percent last month.
☐ Kieni West had a better consumption score of 91.5 percent acceptable and 8.5 percent borderline compare to Kieni East of 48.9 percent acceptable and 51.1 percent borderline. This is an indication that households in Kieni West had a higher dietary diversity and consumption frequency.
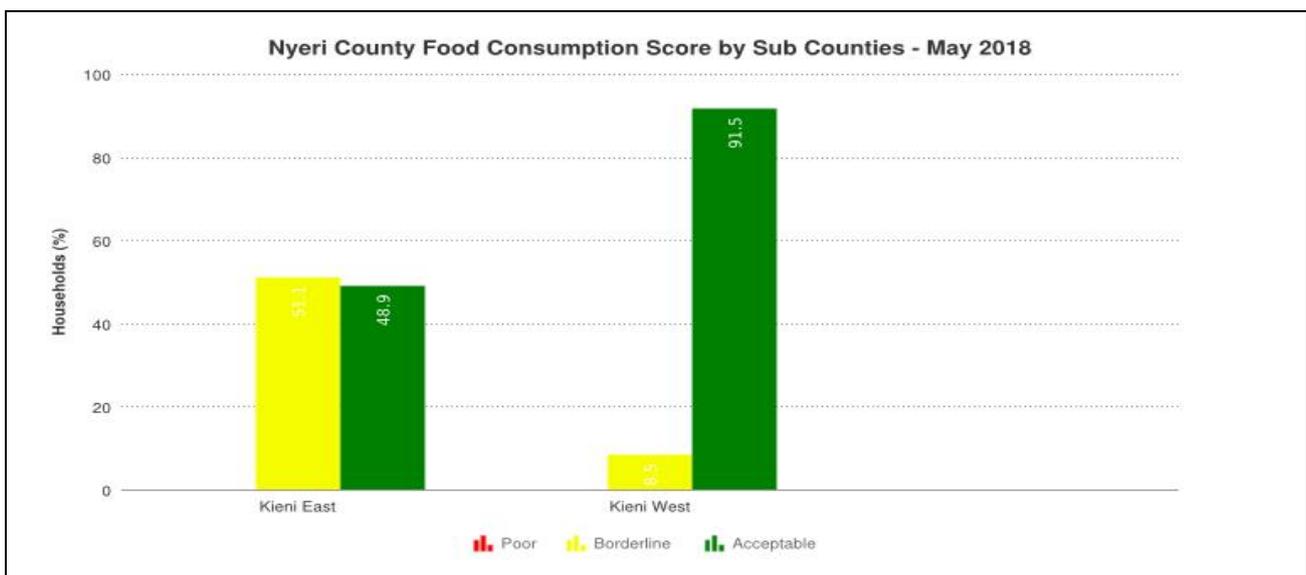

Figure 15: Outlines milk consumption for the county

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5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

☐ No child aged five years and below were at risk of malnutrition. Observed development were as a result of milk and local vegetables availability.
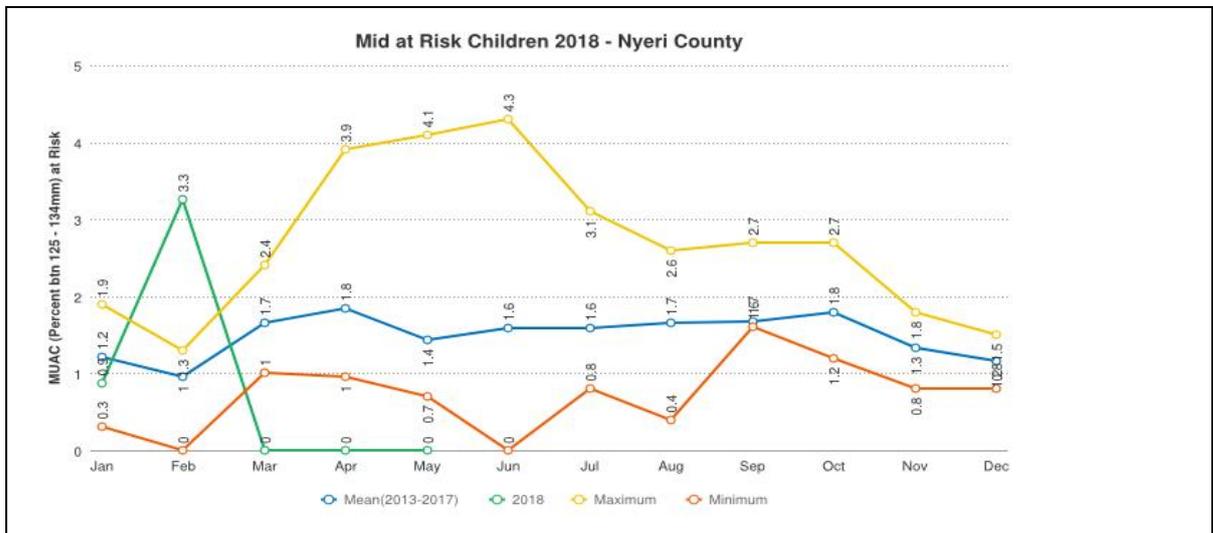

Figure 16: Presentation of nutrition status of children below five years

5.3.2 Health

☐ Surveillance on human diseases needs to be carried following incidences of flush floods in the region which exposing it to risks of water borne diseases.

☐ Stagnant pools of water act as o breeding grounds for pests and pathogens.

5.4 COPING STRATEGIES

☐ The month's mean coping strategy Index (CSI) stood at 4.34 May from 3.91 in April registering 10 percent increase. An increase in the mean CSI is an indication that households are coping more frequently. The most common coping strategies applied by households in Kieni were reliance on less preferred food, reduced meals portions and sizes and reduced number of meals taken per day. Agro pastoral farming livelihood zones registered high coping strategy index of 5.3 as compared to 3.1 in Mixed farming livelihood zones as indicated in figure 17 below.
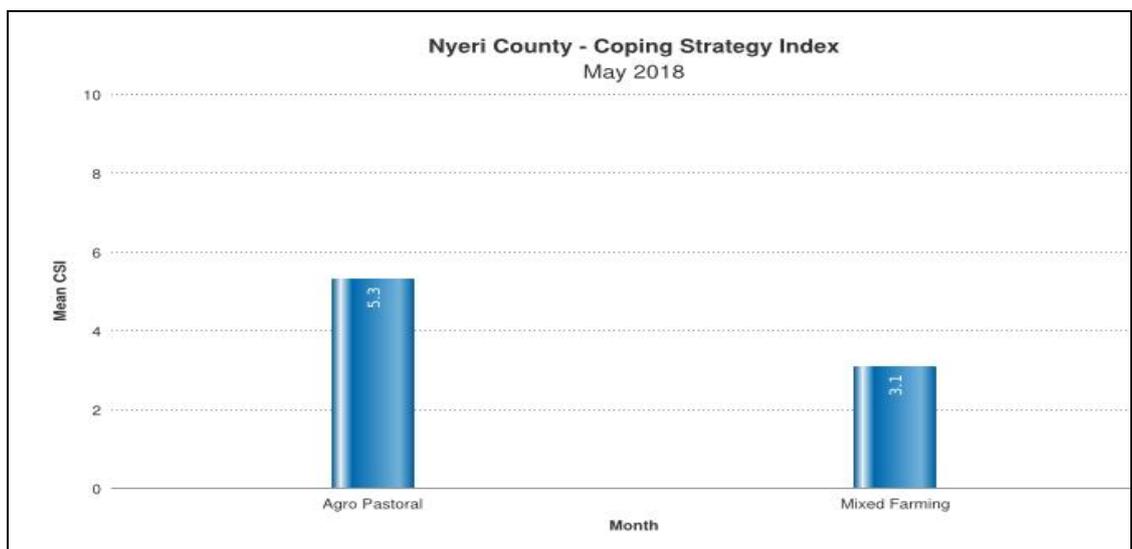

Figure 17: Coping Strategy Index

6. CURRENT INTERVENTION MEASURES (ACTION)

6.1 NON-FOOD INTERVENTIONS

- The following interventions were undertaken by County Government of Nyeri during the month under review:
    - Livelihood diversification – support to farmers groups with breeding stock for pigs, improved local chicken, fruit trees (macadamia and avocado) and modern bee keeping starter kits.
    - Provision of farmers groups with improved pasture seeds.
    - Provision of pesticides to farmers for controlling fall army worm.
    - Pest and disease surveillance- pathology tests on potatoes.
    - Linkage of potato farmers to marketers.
    - Provision of subsidised agricultural lime to farmers for soil improvement.

6.2 FOOD AID

- Provision of relief food to vulnerable households in Kieni East and Kieni West sub counties.

7.0 EMERGING ISSUES

- No emerging issues were reported during the month under review.

7.1 FOOD SECURITY PROGNOSIS

- Livestock production is expected to improve further as a result of good pasture and browse condition and reduced distances to water sources.
- Households will likely benefit from the early harvests from the long rain season as farmers are expected to start using pulses and maize in the next one to two months.
- Food commodity prices are expected to remain lower due to increased market supply occasioned by the harvest from within the county and also from other neighboring counties.

8. RECOMMENDATIONS

- Continued livestock diseases surveillance and Deworming. (Livestock Department).
- Continued pest surveillance. (Department of Agriculture)
- Water borne diseases surveillance. (Departments of health and water).
- Repair of destroyed water intakes and pipelines. (NDMA and Water department).
- Enhanced water harvesting both run off and roof catchment. (NDMA and Water department).
- Review of county drought contingency plans. (NDMA).