National Drought Management Authority
(Nyeri) COUNTY
DROUGHT EARLY WARNING BULLETIN FOR AUGUST 2019

NDMA

A Vision 2030 Flagship Project

KENYA VISION 2030

AUGUST 2019 EWS PHASE

Drought Status: ALERT

Maandalizi ya mapema

Drought Situation & EW Phase Classification

Biophysical Indicators

- Offseason rains were received across the livelihood zones for an average of three to four days. The rains were poorly distributed in time and space. Moderate amounts were recorded in high attitude areas bordering the mountains while poor amounts were received in the low attitude areas.
- Pasture conditions were fair in both marginal mixed farming livelihood zones and mixed farming livelihood zones.
- Access to water in the month of August deteriorated compared to the previous month. The main sources of water were rivers, pans and dams, shallow wells and springs.

Socio Economic Indicators (Impact Indicators)

Production Indicators

- Livestock body condition was good to fair for all species.
- Milk production decreased compared to the previous month.

Access indicators

- Milk consumption was within the normal threshold.
- Household distances to water sources increased compared to the previous month.

Utilization Indicators

- There were no reported incidences of malnutrition among the under-fives.
- Coping strategy Index was within the normal threshold.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Alert	Deteriorating
Agro pastoral	Alert	Deteriorating
County	Alert	Deteriorating
Biophysical Indicators	**Value**	**Normal Range/Value**
Rainfall (% of Normal)	-%	80%-120%
VCI-3Month	74.85	35-50
Forage	Fair	Fair
Production indicators	**Value**	**Normal**
Crop Condition (specify crop)	poor	Good
Livestock Body Condition	fair	Fair
Milk Production	4.7 litres	5.4 litres
Livestock Migration Pattern	No migration	No Migration
Access Indicators	**Value**	**Normal**
Milk Consumption	1.4	1.5
Distance to water sources	1	1.6
Utilization indicators	**Value**	**Normal**
Nutrition Status, MUAC (% at risk of malnutrition)	0	1.4
Coping Strategy Index (CSI)	5.01	<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.

☐ Offseason rains were received across the livelihood zones for an average of three to four days. The rains were poorly distributed in time and space. Moderate amounts were recorded in high attitude areas bordering the mountains while poor amounts were received in the low attitude areas.

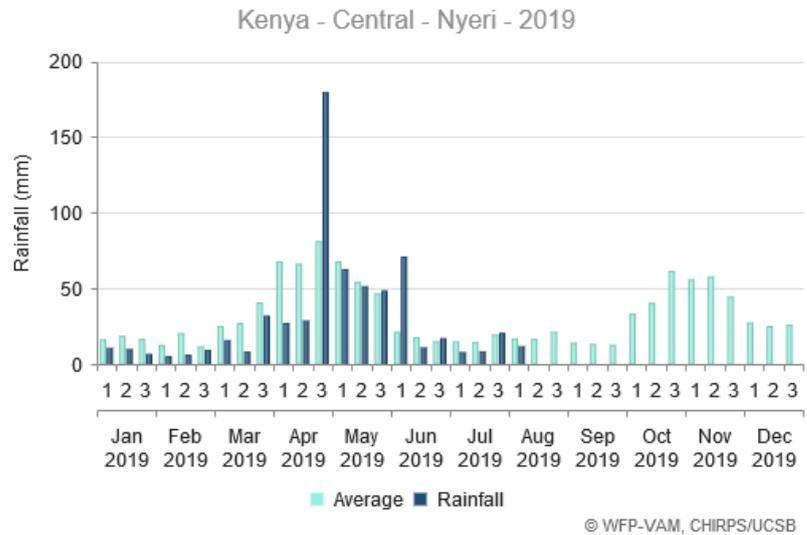☐ Nyeri County received 11.3 mm in the first dekad compared to the long term average 16.4 mm as shown in figure 1 above.

Figure 1: Rainfall performance for Nyeri County

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

☐ The vegetation condition improved during the month of August compared to the previous month as show in figure 2b. This was attributed to the offseason rains that were received. The current condition is above the long term average. The month's VCI stood at 74.85 an improvement from last month and the highest that has been recorded in the month of August over the years.
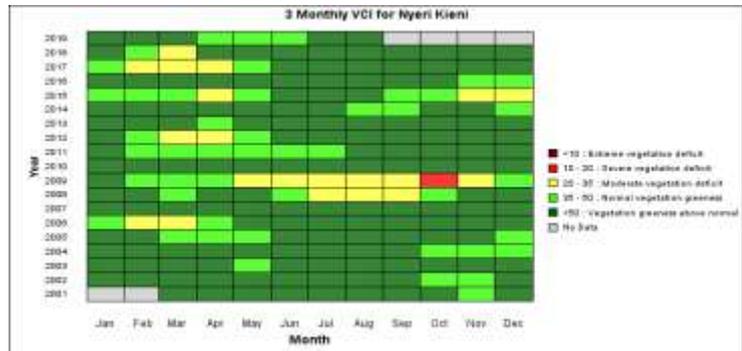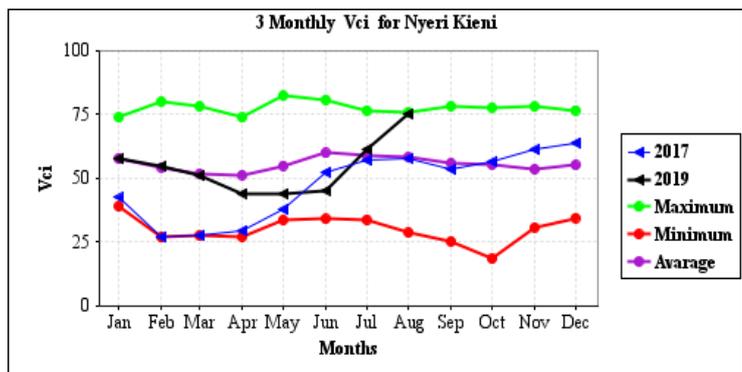

Figure 2: 3 monthly VCI for Kieni

Figure 2b: 3 monthly VCI for Kieni

2.1.2 Pasture
☐ Pasture condition was fair across the livelihood zones with an exception of areas surrounding the mountains that registered good conditions.

☐ The situation was normal compared to a normal year.

☐ Mugunda ward in Kieni West sub county recorded poor conditions.

☐ Mixed farming livelihoods had better pasture conditions compared to marginal mixed farming livelihoods. Pasture conditions in Mixed farming ranged from fair to Good while in Marginal mixed ranged from poor to fair.

Figure 1: Pasture conditions in Nyeri (Kieni)

☐ The available pastures are expected to last for two months in mixed farming livelihood zones and one month in marginal mixed livelihood zones.
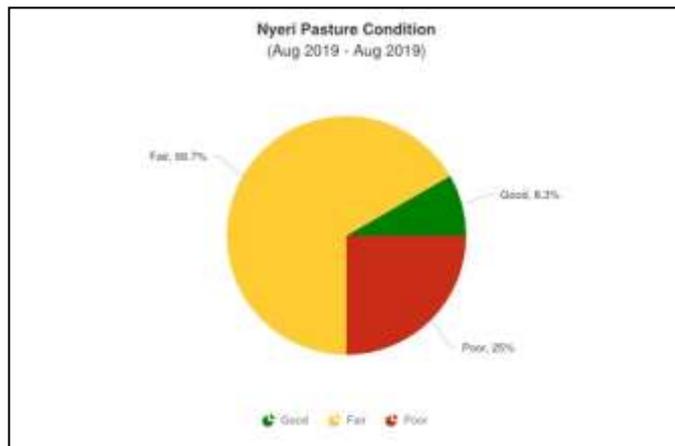
2.1.3 Browse
☐ Browse conditions stood at 16. 7 percent poor, 58.3 percent fair, 25 percent good across all the livelihood zones.

☐ Mixed farming livelihoods had better browse conditions compared to marginal mixed farming livelihoods. Situation in Mixed farming livelihood zone was good to fair while in Marginal mixed livelihood zone was fair to poor.

☐ Compared to a normal year the current situation was normal.

☐ The available browse is expected to last for three months in mixed farming livelihood zones and two months in Marginal mixed livelihood zones.
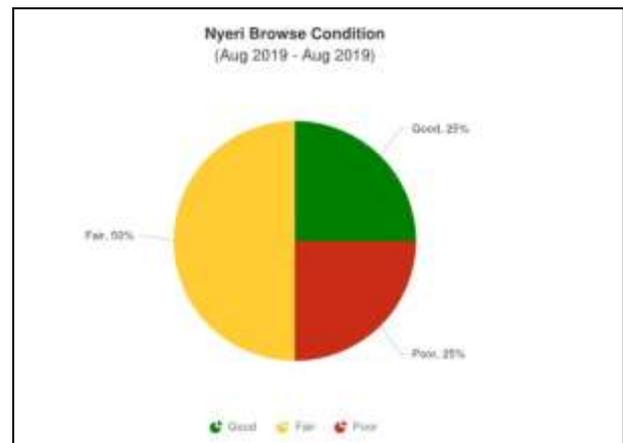

Figure 2: Browse conditions in Nyeri (Kieni)

2.2 WATER RESOURCE

2.2.1 Sources

- The main sources of water in August were rivers (34.5 percent), pans and dams (41.4 percent), shallow wells (3.6 percent) and springs (20.7 percent) as shown in figure 5.
- Rivers were flowing at below normal levels while Open water source were 40 percent full across all livelihood zones.

Figure 5: Main water sources in Nyeri (Kieni)

- It is projected that available water sources will last for two months in both livelihood zones which are comparable to the normal situation.

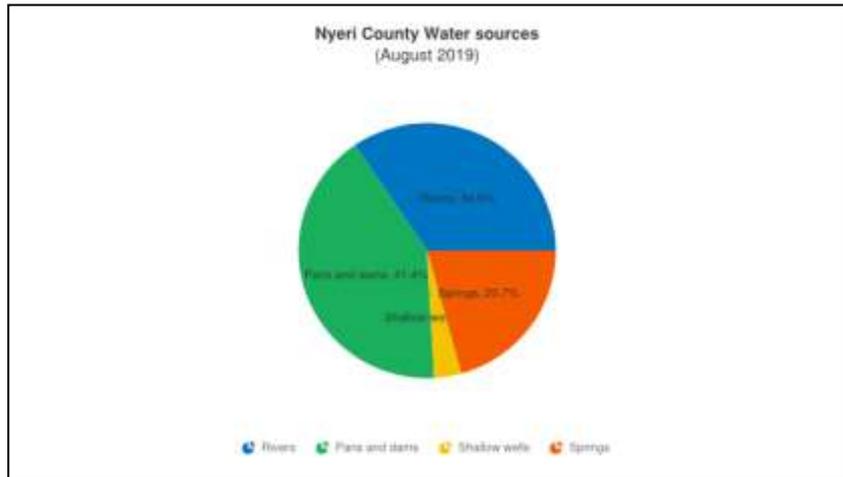### 2.2.2 Household access and Utilization

- Distances from the household to water sources increased by 10 percent from 0.9 Km in July to one Km in August . This could be attributed to poor recharge of water sources.
- Recorded distances to water sources increased by 15.4 percent in marginal mixed livelihood zones from 1.1 Km in July to 1.3 Km in August while in mixed farming livelihood zones water distances remained unchanged at 0.7 km.

Figure 6: Household distances to water sources

- Registered distances were lower by 37.5 percent compared to the 2014-2018 long term averages of 1.6 Km as shown in figure 6.

2.2.3 Livestock access
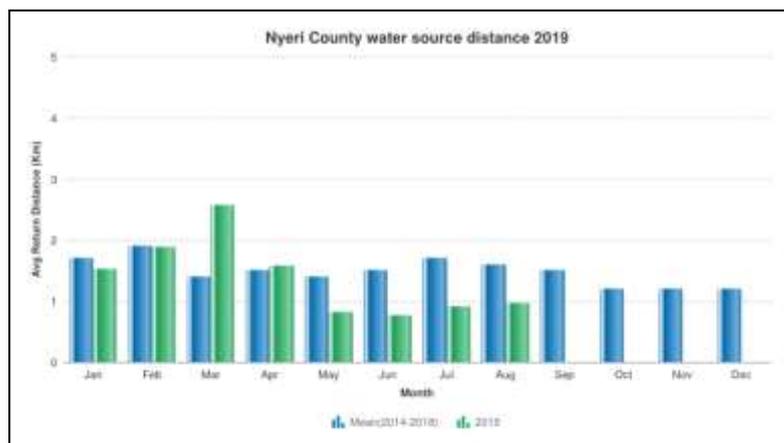
☐ Average distances from grazing field to watering points remained same as reported last moth at 1.9 km.

☐ The highest distances were recorded in marginal mixed farming livelihood zones which stood at 2.6 Km compared to 1.2 Km in mixed farming livelihoods zone.

☐ Compared to 2014-2018 long term average of 3 Km, reported distances were lower by 33.7 percent as shown in figure 7.

☐ Current watering frequency for animals is twice daily in mixed farming livelihood zone and once in marginal mixed farming livelihood zones.
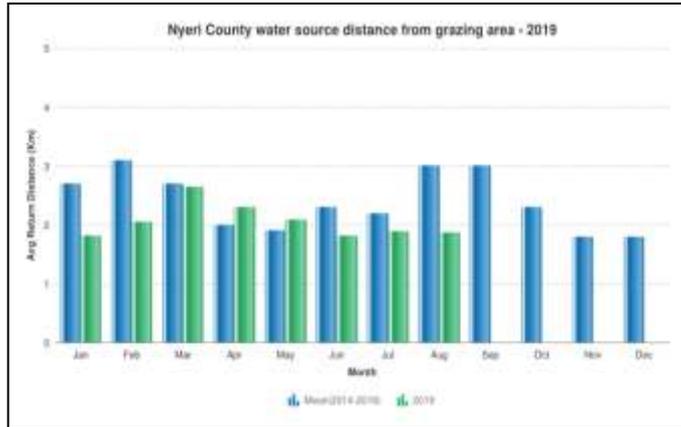

Figure 7: Average livestock return distances from the grazing area

3.0 PRODUCTION INDICATORS
3.1 LIVESTOCK PRODUCTION
3.1.1 Livestock Body Condition

☐ Cattle body condition ranged from fair to good in both livelihood zones. This could be attributed availability of pastures. The body condition for shoat was also good in both livelihood zones. This could be attributed to availability of browse. However, the situation is expected to deteriorate if the current situation persists.

3.1.2 Livestock Diseases

☐ No contagious livestock disease outbreaks were reported during the month under review.

3.1.3 Milk Production

☐ Milk production decreased by 6.3 percent from 5.0 litres in July to 4.7 litres in August. Household daily milk production decreased by 5.4 percent in marginal mixed livelihood zones from 3.9 litres in July to 3.7 litres in August while in mixed farming livelihood zones production decreased by 3 percent litres from 6.3 in July to 5.4 litres in August.
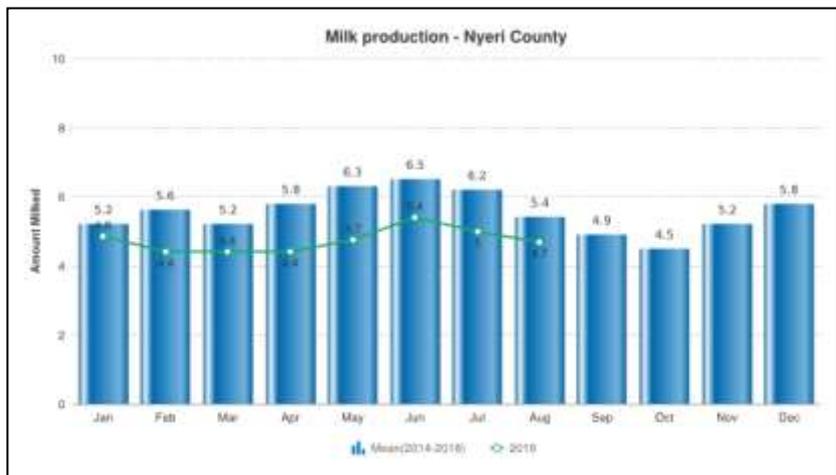
☐ Compared to 2014-2018

Figure 8: Average household Milk production for Nyeri (Kieni)

long term average of 5.4 litres, the months production was lower by 13 percent as shown in figure 8.

☐ The decrease in milk production could be attributed to increased distances to water sources and harsh weather conditions.

4.0 MARKET PERFORMANCE
4.1 LIVESTOCK MARKETING
4.1.1 Cattle Prices
□ Cattle prices in the month of August retailed at Ksh 27,083 same as was reported last month.
□ The month's price was lower by six percent compared to the 2016-2018 short term average of Ksh 28,833 as shown in figure 9.
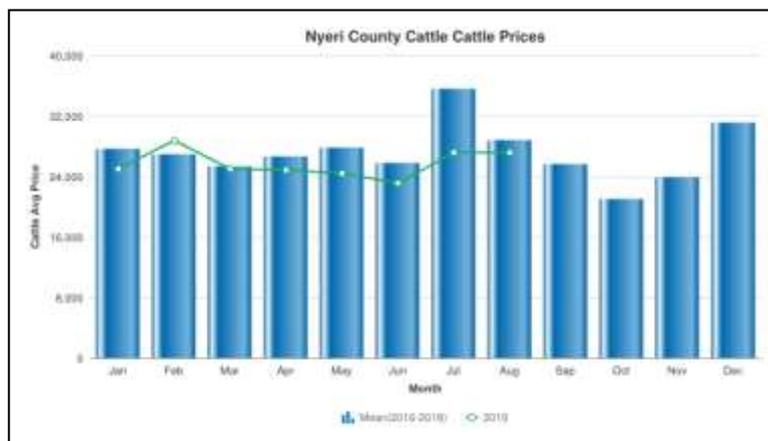
Figure 9: Average cattle prices for Nyeri (Kieni)

4.1.2 Sheep prices
□ Sheep prices increased by 4.7 percent. A two year old medium size sheep price sold for Ksh 4,300 August from Ksh 4,100 July. The increase could be attributed to improved livestock body conditions due to availability of pastures.
□ The registered prices were higher by 2.4 percent compared to the 2016-2018 short term averages of Ksh 4,200 as shown in figure 10.
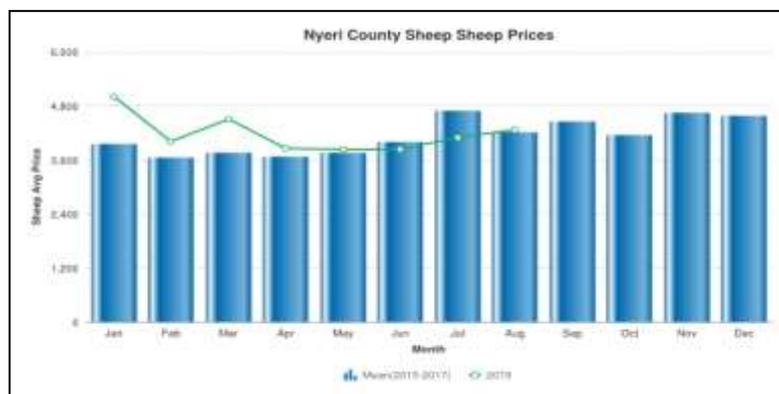
Figure 10: Average sheep prices for Nyeri (Kieni)

4.2 CROP PRICES
4.2.1 Maize prices
□ Maize prices dropped by 8.9 percent to retail at Ksh 51.7 in August from Ksh 56.3 in July. The decreased in maize prices could be attributed to the on-going harvest.
□ In mixed farming livelihood zones prices dropped by 8.7 percent to retail for Ksh 48.3 in August from Ksh 52.5 in July while in Agro pastoral zone prices decreased by 9 percent from Ksh 60 in July to Ksh 55 in August.
□ Compared to the 2016-2018 short term averages of Ksh 39.7, current price was higher by 30 percent as shown in figure 11.
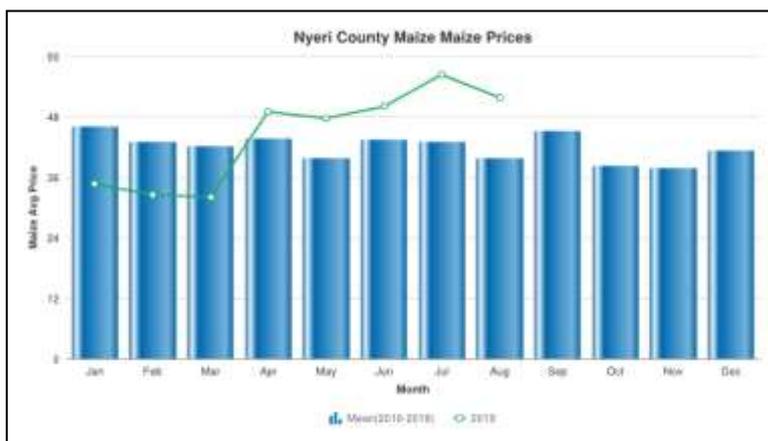
Figure 11: Average maize prices for Nyeri (Kieni)

4.2.2 Beans prices

□ Beans prices decreased by 11.4 percent to retail for Ksh 87.5 in August from Ksh 97.5 in July. The decrease in prices could be attributed to the on-going harvest at the household level. In mixed farming Livelihood zones prices decreased by 11.8 percent to retail for Ksh 85 in August from Ksh 95 in July while in Marginal mixed livelihood zone prices decreased by 11.1 percent from Ksh 100 in July to Ksh 90 in August.

Figure 12: Average beans prices for Nyeri (Kieni)

□ The month's price was lower by 11.2 percent, compared to the 2016-2018 short term average of Ksh 78.7 as shown in figure 12.

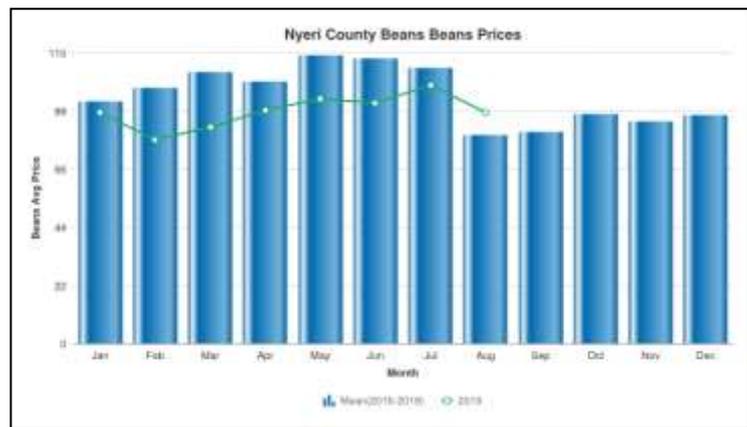### 4.3. Livestock price ratio/Terms of trade ratio

□ During the month of August, a farmer would exchange a medium size goat for 84.9 Kg of maize. This was 10 percent increase from the month of July where a goat exchanged for 77 Kg of maize. The change can be attributed to the increase in goat prices against the decreasing prices of food commodities. This has led to favourable terms of trade to livestock keepers.

□ Mixed farming livelihoods had a better TOT of 93.9 compared to marginal mixed farming livelihood zones with a TOT of 63.3.

Figure 13: Terms of Trade for Nyeri (Kieni)   agro

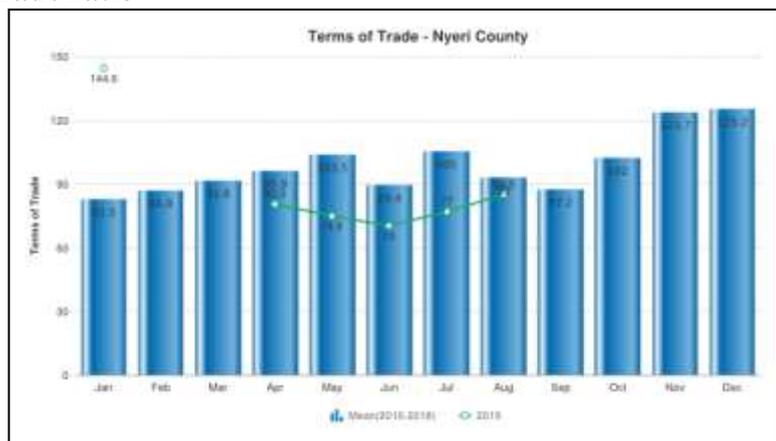□ The month's TOT was lower by 8.7 percent compared to the long term average of 93 kg of maize for a sheep.

5.0   FOOD CONSUMPTION AND NUTRITION STATUS
5.1   MILK CONSUMPTION

□ Milk consumption at the household level was 1.5 litres which was quite comparable to 1.4 litres in July.

□ The month's consumption was within the 2014-2018 long term average of 1.4 litres as shown in figure 14.
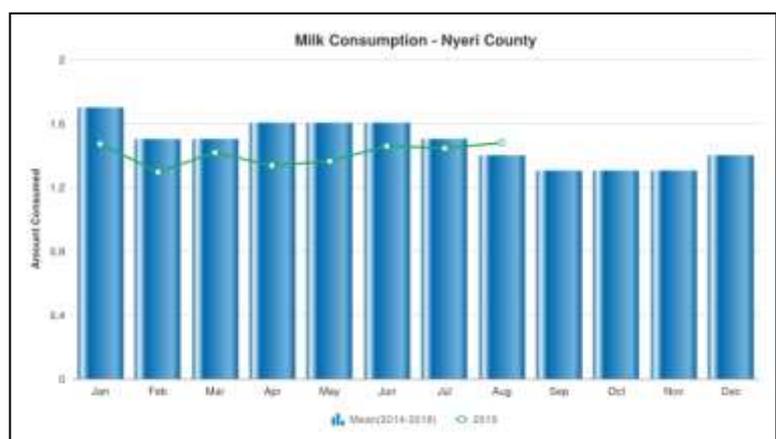
Figure 14: Average household Milk consumption for Nyeri (Kieni)

5.2 FOOD CONSUMPTION SCORE

☐ The food consumption score for the month of August deteriorated compared to July. This could be attributed to poor dietary diversity due to low yields from the MAM season. In August proportions of household with poor, borderline and acceptable food consumption score were five percent, 39 percent and 56 percent compared to 2 percent, 38 percent and 60 percent in July as shown in the figure 14.
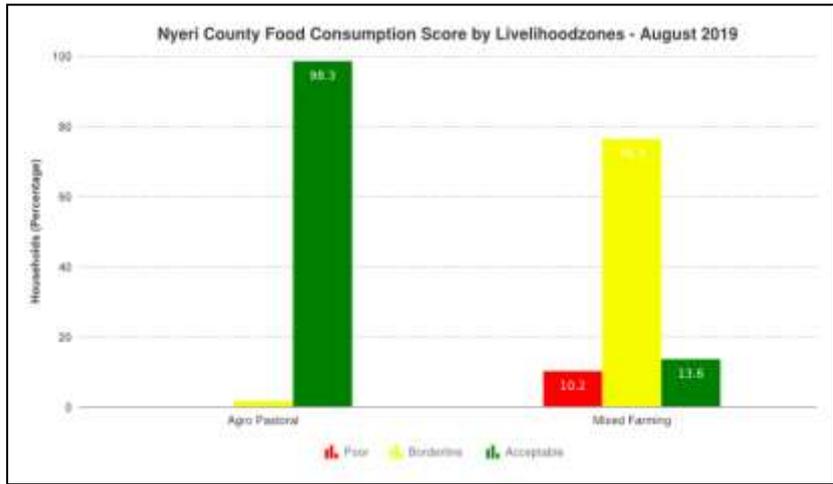
Nyeri County Food Consumption Score by Livelihoodzones - August 2019

Figure 14: FCS by livelihood zones for Nyeri (Kieni)

☐ In the marginal mixed livelihood zones majority of the households had acceptable food consumption score of 98 percent while in the mixed farming livelihood zones 10 percent, 76 percent and 14 percent had poor, borderline and acceptable food consumption scores respectively.

☐ This is an indication that households in agro pastoral livelihood zones had a better dietary diversity and consumption frequency compared to those in mixed farming livelihood zones.

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

☐ There were no reported incidences of malnutrition among the under-fives as shown in figure 15.
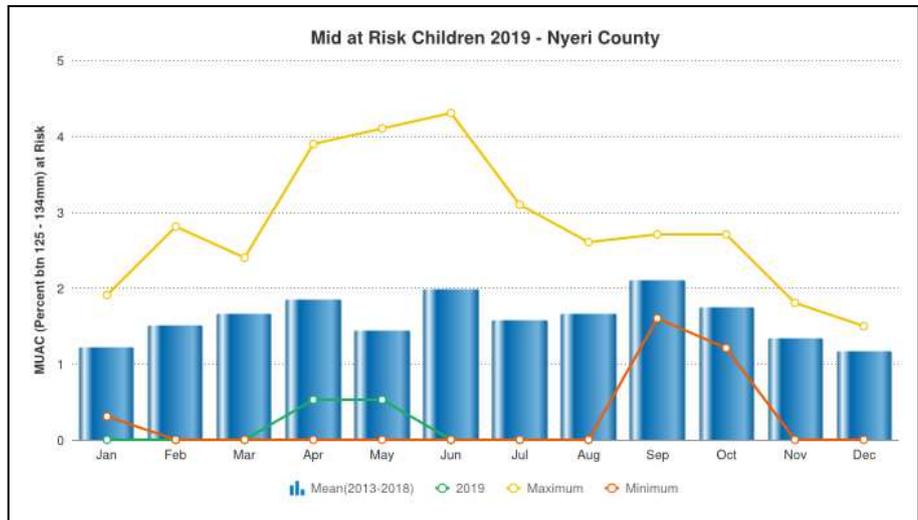
Mid at Risk Children 2019 - Nyeri County

Figure 15: Presentation of children at risk of malnutrition in Nyeri (Kieni)

5.4 COPING STRATEGIES

☐ The mean Coping Strategy Index (CSI) for Kieni decreased by 9.7 percent from 5.50 in July to 5.01 in August. Decrease in mean CSI could be attributed to the on-going harvest and stable food prices.

☐ The CSI in marginal mixed farming livelihoods decreased by 19.6 percent from 6.7 in July to 5.6 in August while in mixed farming livelihood zones stood at 4.4 in August which was quite comparable to 4.3 in the previous month.

Figure 16: Coping strategy index for Nyeri (Kieni)

☐ Households in agro pastoral livelihoods were coping more frequently compared to those in mixed farming livelihood zones, attributed to the better performance of the seasonal rains in the mixed farming livelihood zones.
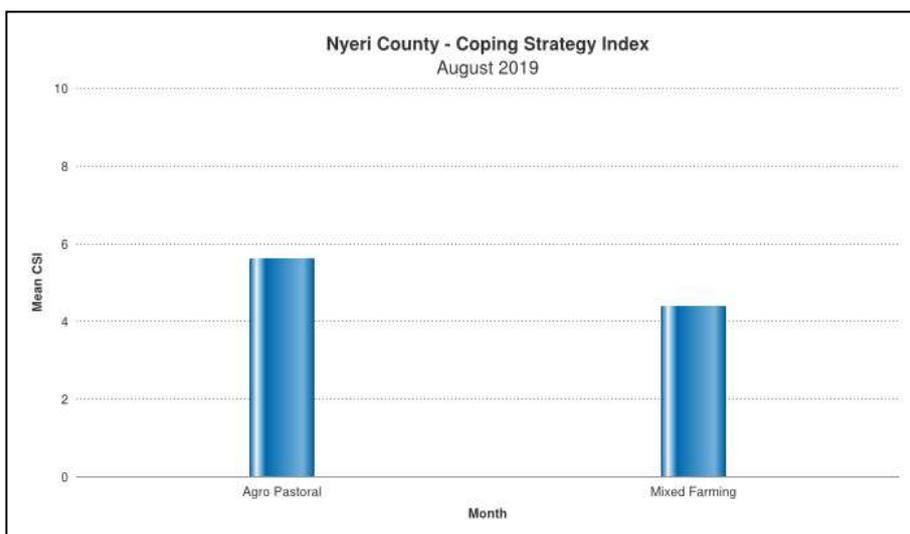
6.0   CURRENT INTERVENTION MEASURES
6.1   NON-FOOD INTERVENTIONS

☐ 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.
7.1 FOOD SECURITY PROGNOSIS

☐ The Marginal Mixed Farming and Mixed Farming zones are expected to have an unstable food security situation since most households rely on markets for food. Due to the below average performance of the long rains water and forage resources are expected to deteriorate across all livelihood zones until November. Water availability and accessibility has been severely affected and more so in the Marginal Mixed Farming livelihood zone.

☐ The livestock body condition is expected to deteriorate through to October therefore reducing the supply of milk and reducing livestock prices. This will reduce household livelihood sources and purchasing power. Terms of trade are likely to also reduce as the price of maize increases and sheep prices reduce.

7.2. LIVESTOCK AND MIGRATION.

☐ There were unusual human and or livestock's movement into and out of the county. Observed animal movement with the county was for grazing and watering.

7.3 CONFLICTS.

☐ Human wildlife conflict was reported in Gathiuru and Kahurura locations in Gakawa ward in Kieni East sub county.

7.3. RECOMMENDATIONS

- Activation of sectoral working groups to prepare for response plans (Action: NDMA)
- Rehabilitation of strategic water points and de-siltation of pans and dams (Action: CGN)
- Encourage surface water harvesting (Action: CGN)
- Provision of supplementary feeds for livestock (Action: CGN)
- Provision of relief food to needy households (Action: Department of special programmes)
- Undertake a rapid assessment (Action: NDMA)
- Provision of water treatment tablets (aqua tabs) (Action: CGN NDMA NIB stakeholders).