# National Drought Management Authority
## (NYERI) COUNTY
### DROUGHT EARLY WARNING BULLETIN FOR JULY 2020

## JULY EWS PHASE

**Drought Status: NORMAL**

**Shughuli za kawaida**

### Drought Situation & EW Phase Classification
### Biophysical Indicators

- The month of July was characterised by dry, windy and cold weather conditions. Offseason rains were received in the areas bordering the mountains. Amounts received were below normal and poorly distributed in time and space
- Vegetation condition was above normal vegetation greenness.

### Socio Economic Indicators (Impact Indicators)

- Livestock body condition and health was satisfactory.
- Harvesting of beans and potatoes was ongoing in both livelihood zones.
- Milk production and consumption was above the long-term average.
- Distances to water sources for households' use was below the long-term average.
- Terms of trade ratio was similar to the previous month.
- 1.5 percent of children under the age of five years were at a risk of malnutrition.

### Early Warning (EW) Phase Classification

| Livelihood Zone | Phase | Trend |
|---|---|---|
| Mixed Farming | Normal | Deteriorating |
| Marginal Mixed Farming | Normal | Deteriorating |
| **Biophysical Indicators** | **Value** | **Normal Range/Value** |
| Rainfall (%) | 82 | 90-110% of LTA |
| VCI | 80.86 | >35 |
| Forage condition | Good-Fair | Fair |
| **Production indicators** | **Value** | **Normal** |
| Crop Condition (Maize, beans and potatoes) | Good | Poor |
| Livestock Body Condition | Good | Fair |
| Milk Production | 6.8 | 5.8 litres |
| **Access Indicators** | **Value** | **Normal** |
| Terms of Trade (ToT) | 112 | 89 |
| Milk Consumption | 1.6 litres | 1.4 litres |
| Return distance to water sources for household use | 1 Km | 1.5 Km |
| Return distance to water sources from grazing field. | 1.6 Km | 2.1 Km |
| **Utilization indicators** | **Value** | **Normal** |
| Nutrition Status, MUAC (% at risk of malnutrition) | 1.5 | 1.1 |
| Coping Strategy Index | 4.67 | >5 |

| | | | |
|---|---|---|---|
| ▪ Short rains harvests<br>▪ Short dry spell<br>▪ Reduced milk yields<br>▪ Increased HH Food Stocks<br>▪ Land preparation | ▪ Planting/Weeding<br>▪ Long rains<br>▪ High Calving Rate<br>▪ Milk Yields Increase | ▪ Long rains harvests<br>▪ A long dry spell<br>▪ Land preparation<br>▪ Increased HH Food Stocks<br>▪ Kidding (Sept) | ▪ Short rains<br>▪ 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 characterised by dry, windy and cold weather conditions.
- Offseason rains were received in the areas bordering the mountains for an average of three to four days.
- Generally, Nyeri County received 13.9 mm and 9.4 mm in the first and second dekad compared to the Long-Term Average of 14.5 and 14.3 respectively as shown in figure 1.
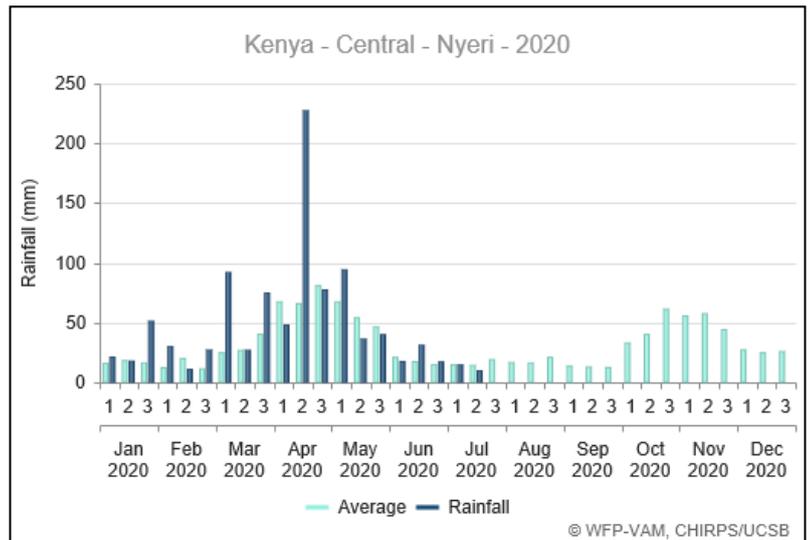
**Figure 1: Presentation of the rainfall performance for July**

## 2.0 IMPACTS ON VEGETATION AND WATER
## 2.1 VEGETATION CONDITION
## 2.1.1 VEGETATION CONDITION INDEX(VCI)

- Vegetation condition was above normal vegetation greenness as shown in figure 2 (a) below, attributed to good performance rains that were experienced through the long rain season up to the month of June and the effects of the 2019 short rain season that had performed equally well.
- The current condition is the best that has been recorded in the month of July over the years as shown in figure 2(b) below. The 3 monthly VCI stood at 80.86.
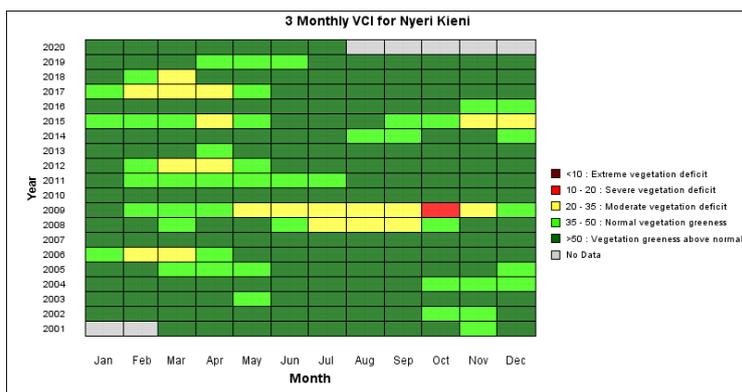
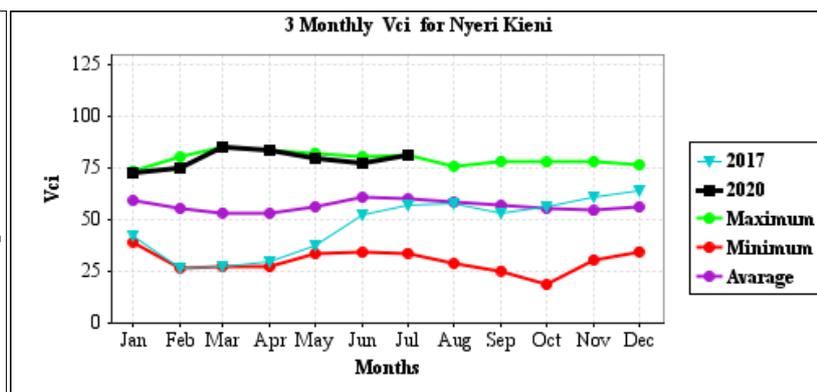**Figure 2 (a): Presentation of 3 monthly VCI for Kieni**   **Figure 2 (b): Presentation of 3 monthly VCI for Kieni**

**Pasture**

☐  Pasture quantity was above normal across the livelihood zones. However, the quality declined slightly during the month of July compared to the previous month, attributed to lack of rains coupled with frequent frost bite.

☐  The pasture condition was good in the upper zones bordering the mountains and fair in the lower zones as shown in figure 3(a).

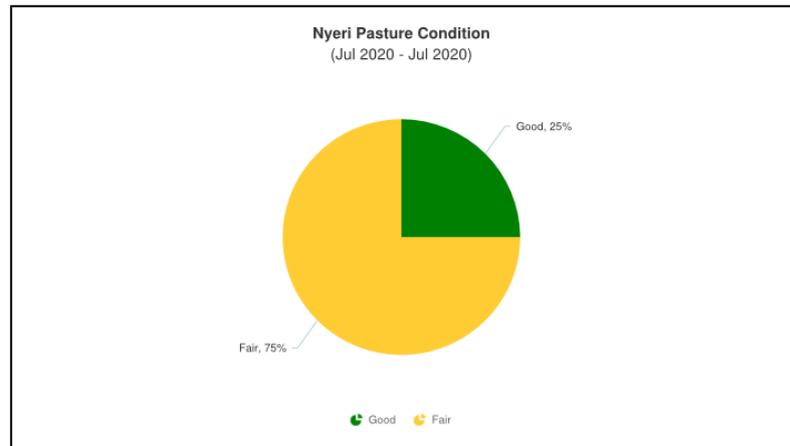☐  Available pastures are expected to last for the next three months in both livelihood zones.



**Figure 3(a): presentation of pasture condition for Nyeri (Kieni) County**

### 2.1.2  Browse

☐  Browse condition remained good across the livelihood zones and was still above normal compared to a similar period, in the previous years.

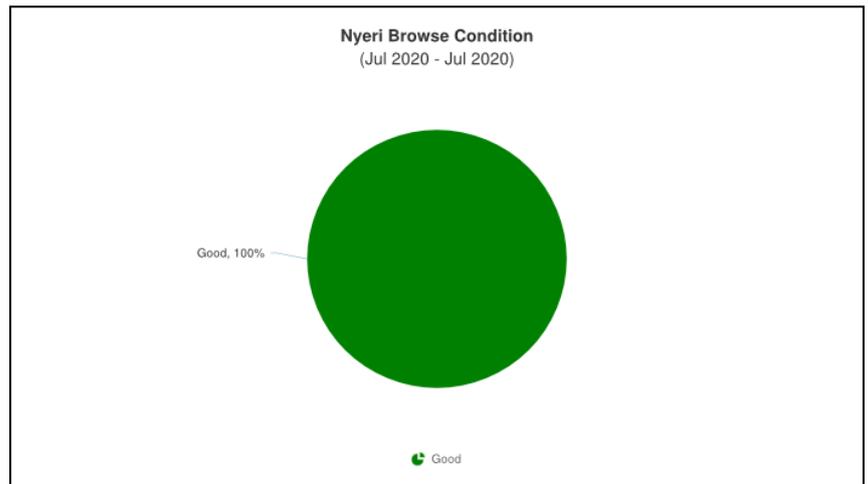☐  The available browse is expected to last for four months.



**Figure 3(b): presentation of browse condition for Nyeri (Kieni) County**

## 2.2 WATER RESOURCE
### 2.2.1  Sources

☐ The main sources of water for Kieni were rivers at 71 percent, pans and dams at 25 percent and springs at three percent as shown in figure 4.

☐ Water access was still good in both livelihood zones,

☐ Rivers were flowing at the minimum base level due to over abstraction and diversion of rivers by residents in the upper zones reducing flows for downstream users. Water rationing was reported in the areas of Naromoru/Kiamathaga, Kamariki and Lamuria.

☐ Open water sources have impounded sufficient amounts and are expected to last for the next three months.
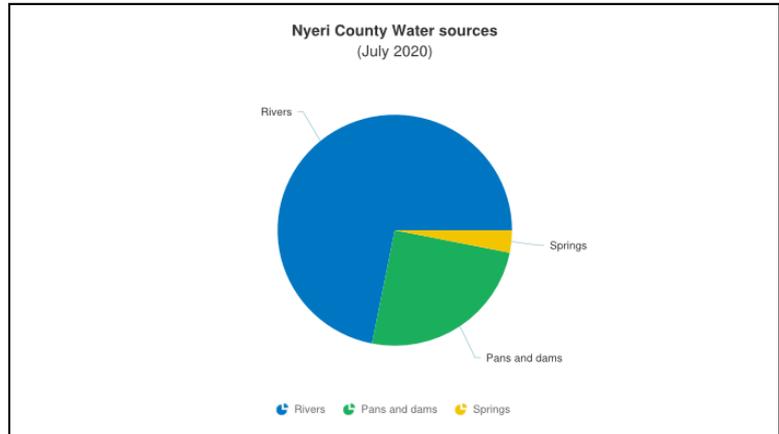


**Figure 4: Shows main water sources for Kieni**

### 2.2.2  Household access and Utilization

☐ Distance from the household to water sources stood at one Km in July which was quite comparable to 0.9 Km the previous month.

☐ The month's distances were lower by 33 percent compared to the 2015-2019 long term average of 1.5 Km as indicated in figure 5.
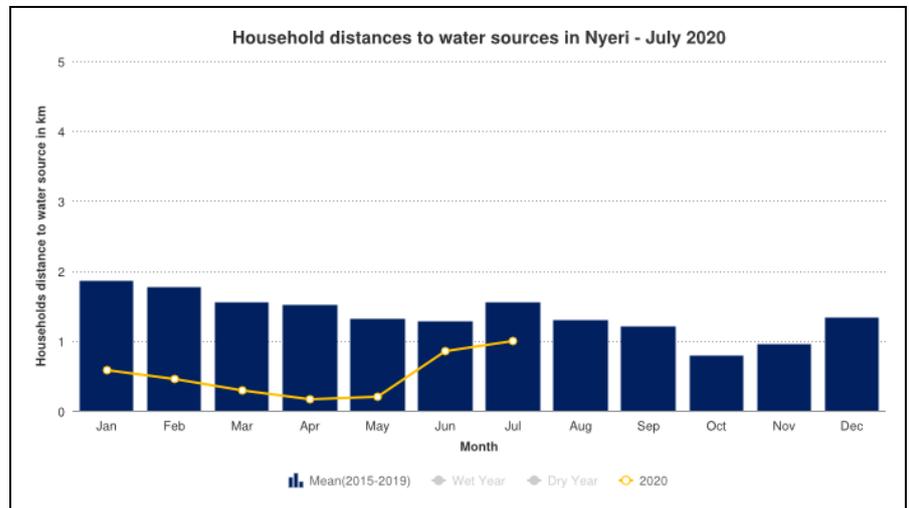


**Figure 5: presentation of average return distances**

### 2.2.3 Livestock access

- The average distances from the grazing field to water stood at 1.6 Km which was quite comparable to 1.5 Km the previous month.

- Registered distances were lower by 25 percent compared to the 2015-2019 long term average of 2.1 as shown in figure 6.
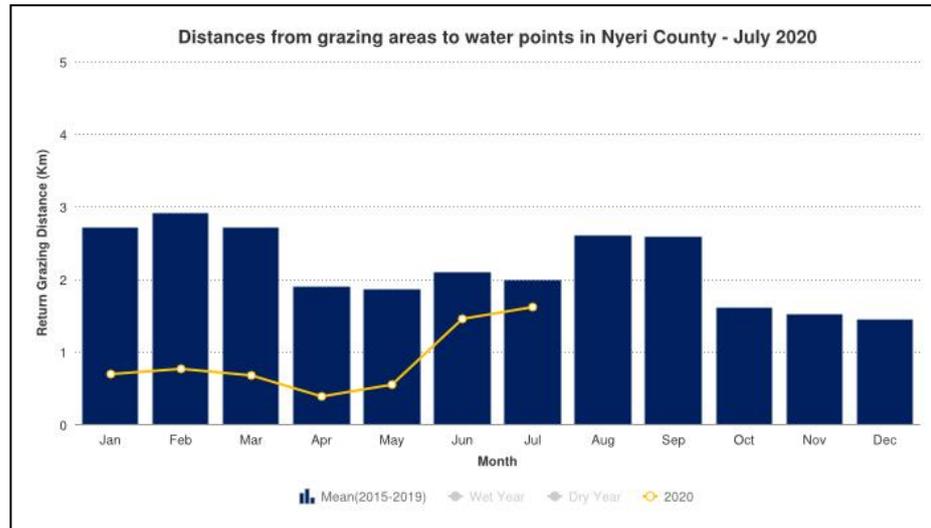


**Figure 6: presentation of average grazing distances to water**

## 3.0 PRODUCTION INDICATORS
## 3.1 LIVESTOCK PRODUCTION
### 3.1.1 Livestock Body Condition

- Body condition for all the three livestock species (Cattle, Sheep and goats) is good across the livelihood zones. This can be attributed to adequate pastures, browse and other feed resources like Napier and hay which were readily available.

### 3.1.2 Livestock diseases

- Out breaks of Lumpy Skin Disease (LSD) and Foot and Mouth Disease (FMD) were reported in Karemeno, Biricha and Kabendera in Mugunda Ward in Kieni West and Maragima in Thegu, Naromoru and Gakawa wards in Kieni East. As a result, ring vaccinations were conducted in the affected areas whereby 2500 and 3000 heads of cattle were vaccinated in Kieni West and Kieni East respectively.

### 3.1.3 Milk Production

- The average milk production dropped by 12 percent from 7.7 litres in June to 6.8 litres in July.

- The month's production was higher by 17 percent as compared to the 2015-2019 LTA of 5.8 as shown in figure 8, attributed to adequate pastures and water resources.
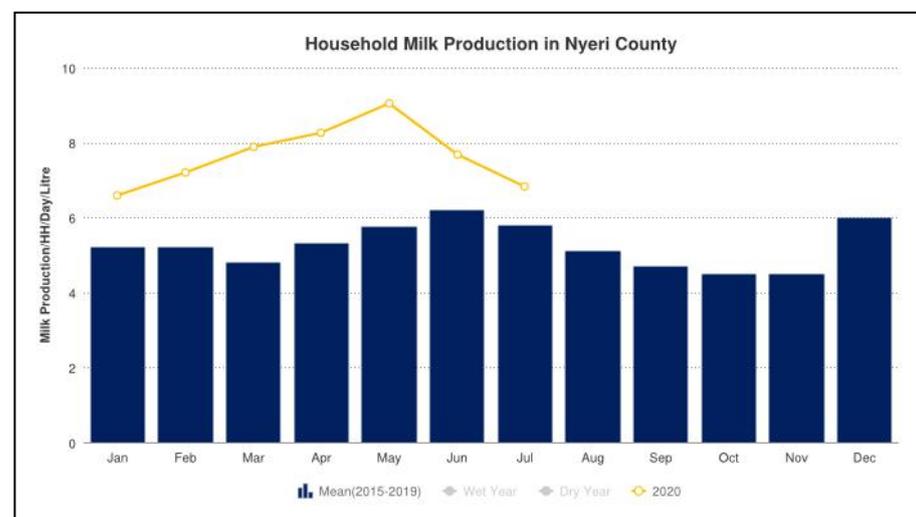


**Figure 8: Presentation of average milk production in Nyeri (Kieni)**

## 3.2 RAIN-FED CROP PRODUCTION
### 3.2.1 Stage and Condition of food Crops
- The main rain fed crops grown in Kieni East and Kieni West sub counties include: Maize, beans and potatoes. Crops at the farms were in different stages of development. Maize are at maturity to cobing stage. For late planters' maize and potatoes are at tussling and flowering stage respectively.
- Harvesting of beans and potatoes for farmers who planted early was ongoing.
- Above average yields are expected for maize, beans and potatoes in both livelihood zones.

## 4.0 MARKET PERFORMANCE
## 4.1 LIVESTOCK MARKETING
### 4.1.1 Cattle Price

- Livestock prices were still on an upward trend, attributed to good livestock body condition and health.
- A mature four-year-old bull retailed for Ksh 38,000 in July from Ksh 36,125 in June, five percent increase.
- Compared to the 2017-2019 short term averages of Ksh 25,092 reported prices were higher by 51 percent, as indicated in figure 9.
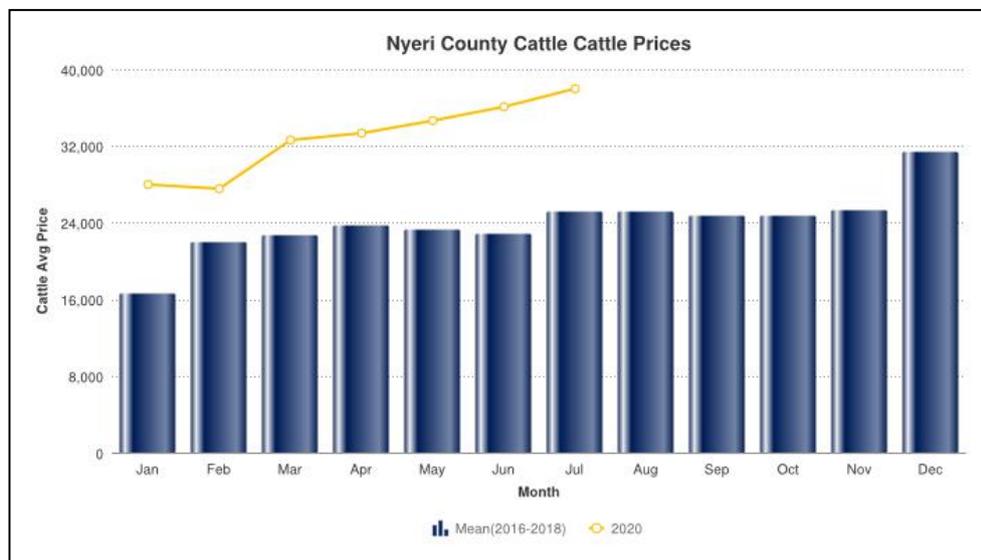
**Figure 9: Outline average price trends for cattle**

### 4.1.2 Sheep prices
- A two-year-old medium size Sheep sold for Ksh 4,758 in July which was quite comparable to Ksh 4750 in June.
- The month's prices were higher by nine percent, compared to the 2017-2019 short term averages of Ksh 4,350 as shown in figure 10.
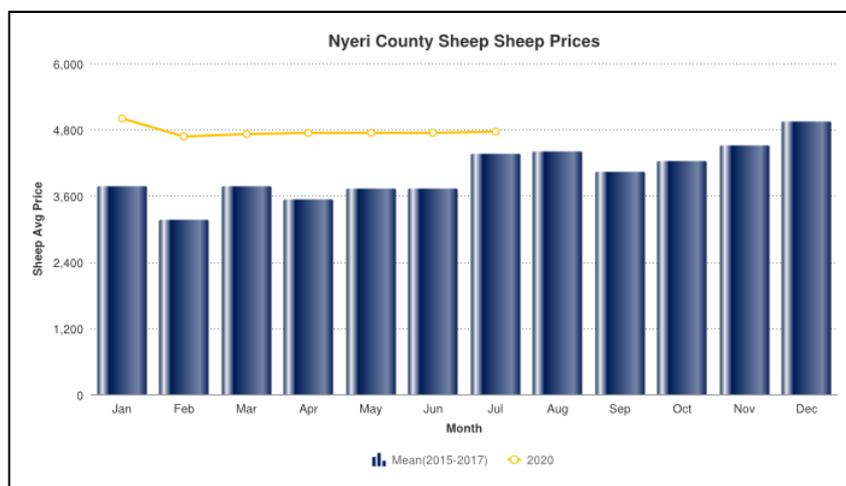
**Figure 10: Outline average price trends for sheep**

## 4.2   CROP PRICES
### 4.2.1   Maize

☐ Maize prices were relatively stable during the month under review compared to the previous month. This could be attributed to availability of maize stock at the household level.

☐ A kilo of maize retailed for Ksh 42.6 in July which was similar to the previous month.

☐ Compared to the short-term averages of Ksh 50, the registered price was lower by 14.8 percent as shown in figure 11.
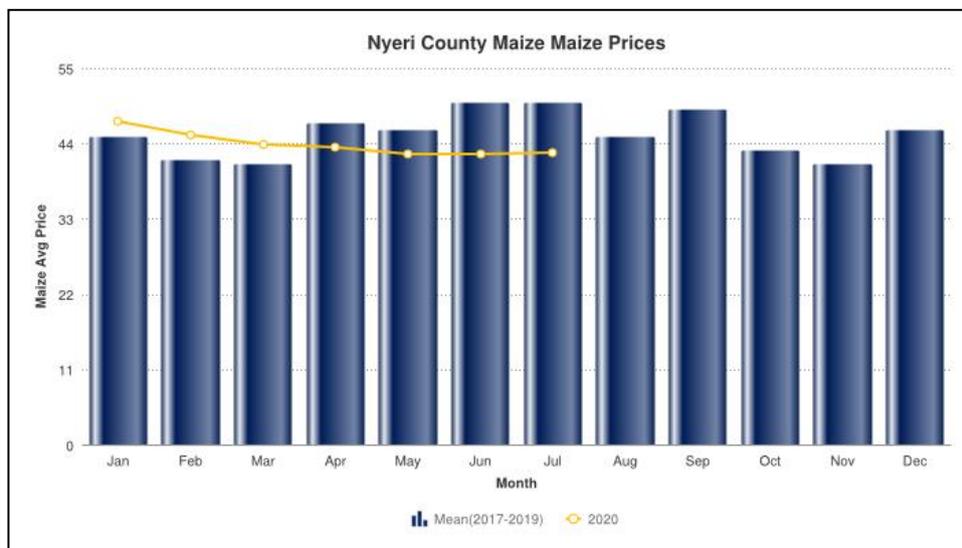


**Figure 11: Outlines average price trends for Maize**

### 4.2.2   Beans

☐ A kilo of Beans retailed for Ksh 99 in July from Ksh 97 in June, registering two percent increase.

☐ The above average prices for beans could be attributed to lack of stock at the household level. Households were still relying on markets for supply.

☐ Prices are expected to decline given that harvesting of the commodity has started.

☐ The month's prices were lower by nine percent, compared to the 2017-2019 short term average of Ksh 91.
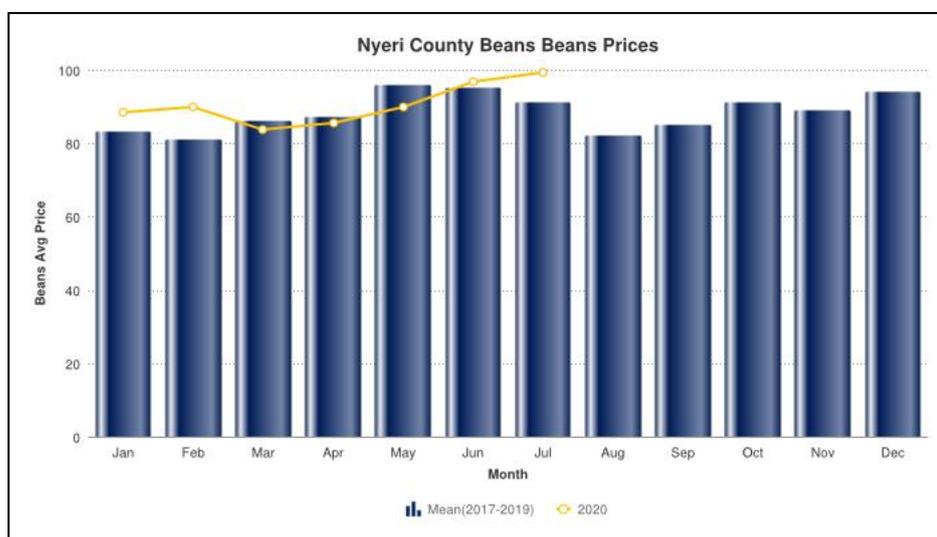


**Figure 12: Outlines average price trends for Beans**

### 4.2.3   Livestock Price Ratio/Terms of Trade

☐ Terms of trade ratio remained stable attributed to stable prices for cereals and small stock.

☐ A kilo of sheep was equivalent to 112 kilograms of maize similar to the last month.

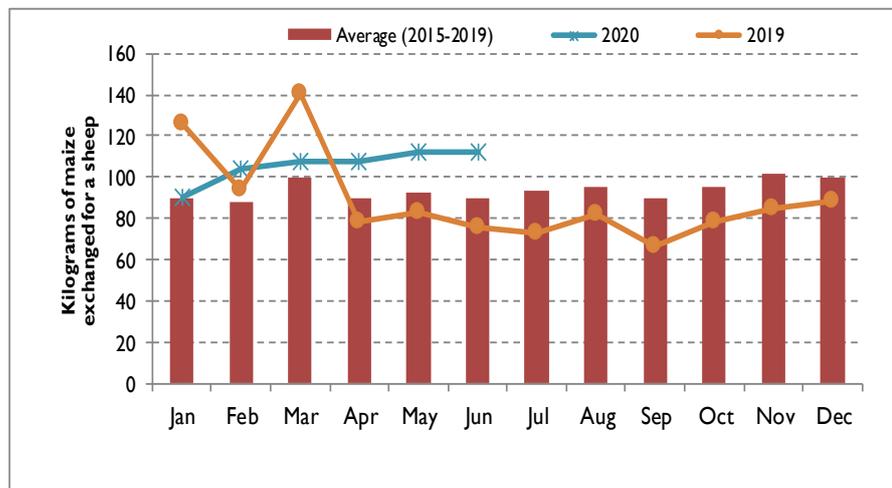☐ Compared to the 2017-2019 short term average of 89 current TOT was higher by 20 percent as outlined in figure 13.



**Figure 13: Outlines terms of trade in Kieni**

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS
## 5.1    MILK CONSUMPTION

☐ Milk consumption has been stable since January. Consumption stood at 1.6 litres which was similar to the previous month.

☐ Households in marginal mixed farming consumed more milk at 1.7 litres per day compared to 1.5 litres in mixed farming livelihood zones.

☐ Compared to the 2015-2019 short term average of 1.4 litres, the month's consumption was higher by 14 percent as shown in figure 14.
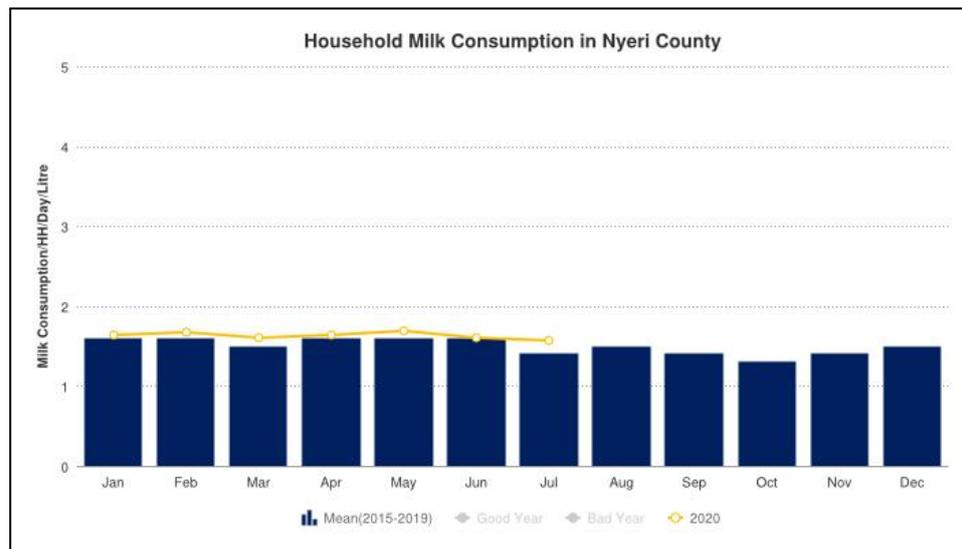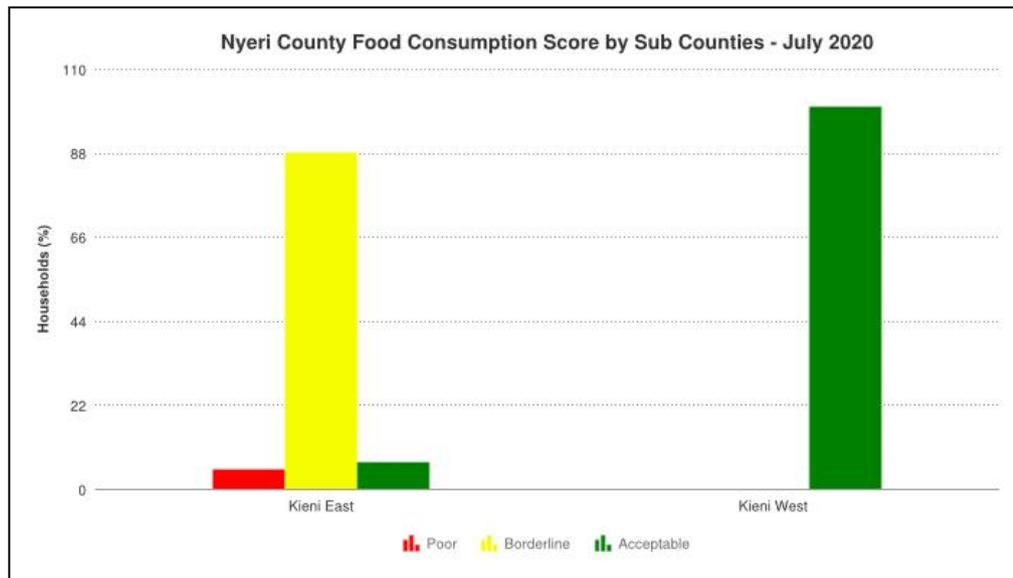


**Figure 14: Outlines milk consumption for the county**

## 5.2 FOOD CONSUMPTION SCORE

 The food consumption score for Kieni remained stable during the month under review compared to the previous month. This is attributed to availability of maize stocks from the OND season coupled with accessibility of other short cycle maturing crops from the MAM rains as well as adequate milk.



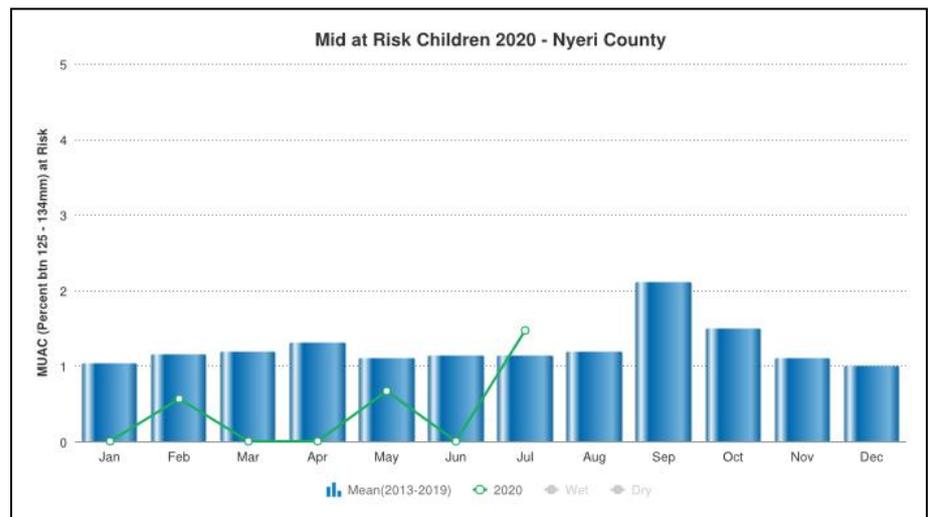**Figure 15: Presentation of food consumption score by livelihood zones**

Proportion of households with acceptable, borderline and poor food consumption score in the sampled population was 43 percent, 54 percent and three percent respectively compared to 52 percent, 47 percent and one percent respectively in June.

 The marginal mixed farming livelihood zones fared better, since all the households had acceptable food consumption score compared to 6.9 percent in mixed farming livelihood zones, attributed to poor dietary diversity in mixed farming zones.

 Three percent of the households in Mixed Farming Livelihood zones had a poor food consumption score.

## 5.3  HEALTH AND NUTRITION STATUS
### 5.3.1  Nutrition Status

 Percent of children under the age of five years at risk of malnutrition stood at 1.5 percent. The increase in malnutrition cases could be poor feeding and lack of normal growth follow up at the health centres due to the covid 19.

 The cases were reported in Mwiyogo/Endarasha ward in Kieni West sub county and Gakawa ward in Kieni East sub county.

 Compared to the 2013-2019 long term average of 1.1, percent at risk of malnutrition was lower by 36 percent.



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

## 5.4 COPING STRATEGIES

☐ The coping strategy index stood at 4.67 in the month of July which was quite comparable to 4.35 the previous month.

☐ Households in Marginal mixed farming livelihood zones applied coping mechanisms more frequently compared to those in Mixed farming livelihood zones as indicated in figure 17.
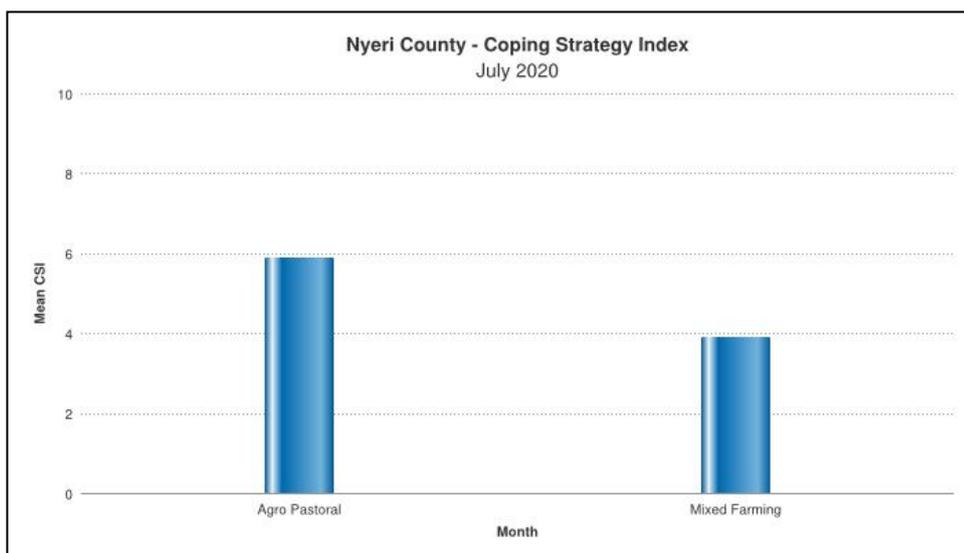


**Figure 17: Presentation of the CSI for Kieni by livelihood zones**

☐ The main coping strategies applied by vulnerable households were reliance on less preferred food, restricting adult consumption for children to eat and reducing daily meals intake.

## 6.0 CURRENT INTERVENTION MEASURES (ACTION)
## 6.1 NON-FOOD INTERVENTIONS

☐ Offering HINIYC services at the health facilities.
☐ Public awareness on the covid 19 pandemic.
☐ Rehabilitation of kiguru dam in Mweiga.
☐ Upgrading of Endarasha water project.
☐ Supporting 30 farmer groups with local poultry.
☐ Supporting 20 farmer group with French and Kenya Alpine dairy goat breeding stocks.
☐ Vaccination of cattle, sheep and goat against LSD, FMD and BQ.

## 6.2 FOOD AID

☐ Cash transfers under the Inua Jamii programme was ongoing. The target was persons above 70 years, the disabled and the most vulnerable in Kieni constituency. At least 5,149 persons above 70 years and 149 disabled persons have benefitted from the programme so far.

## 7. 0 EMERGING ISSUES

☐ There were incidences of human wildlife conflict in Gakawa, Kabaru and Thegu warrd in Kieni East Sub County. Farmers are counting huge losses after maundering elephants invaded their farms leaving a trail of destruction.

## 7.1 FOOD SECURITY PROGNOSIS

☐ According to the forecast, the OND rains are expected in mid-October.

☐ Household food security is expected to remain stable attributed to adequate maize stock from the OND season. The yields from the MAM season are likely to cushion the households further with the stocks expected to last until the next seasonal harvest.

☐ The forage and water resources are expected to decline leading to deterioration in livestock body condition, decrease in milk production and increased trekking distances to water sources. This will most likely lead to a decline in livestock prices.

☐ Food commodity prices are likely to decline due to availability of commodities locally. The household purchasing power is also likely to improve. However, the terms of trade are likely to be unfavorable for livestock keepers given the livestock prices are expected to decline.

## 8. RECOMMENDATIONS
- Capacity building on post-harvest management. (NDMA).
- Sensitize farmers on soil fertility management (CGN).
- Livestock disease surveillance and deworming (CGN).
- Sensitize farmers on fodder modern harvesting and storage (CGN).