



A Vision 2030 Flagship Project



**National Drought Management Authority  
NYERI (KIENI) COUNTY  
DROUGHT EARLY WARNING BULLETIN FOR MARCH 2021**

**MARCH EWS PHASE**



**Early Warning (EW) Phase Classification**

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Deteriorating
Marginal Mixed Farming	Normal	Deteriorating
County	Normal	Deteriorating
Biophysical Indicators	Value	Normal Range/Value
Rainfall (%)	64	90-110% of LTA
VCI	61.56	>35
Forage condition	Fair - poor	Fair
Production indicators	Value	Normal
Livestock Body Condition	Fair	Fair
Milk Production	5.1 litres	5.5 litres
Livestock Migration pattern	In migration	No migration
Access Indicators	Value	Normal
Terms of Trade (ToT)	99	113
Milk Consumption	1.5 litres	1.4 litres
Return distance to water sources for household use	1.7 Km	1.5 Km
Return distance to water sources from grazing field.	3.4 Km	2 Km
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of	0.0	1.1

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- The onset of the March-April-May (MAM) has delayed in Kieni. According, to the Kenya Meteorological department forecast, the long rains were to start by the third week of March.
- Above normal vegetation condition was recorded in both livelihood zones.
- Access to water for domestic and livestock use deteriorated during the month under review compared to the previous month.

**Socio Economic Indicators (Impact Indicators)**

- Livestock body condition ranged from Fair to poor.
- Milk production was below the long-term average.
- Milk consumption was similar to the previous month.
- Distance to water sources for household use increased compared to the previous month.
- Terms of trade ratio improved compared to the previous month.
- About 1,000 heads of cattle and 1,000 shoats have migrated into Kieni West and Kieni East Sub Counties from the neighbouring Laikipia County.

<ul style="list-style-type: none"> <li>▪ Short rains harvests</li> <li>▪ Short dry spell</li> <li>▪ Reduced milk yields</li> <li>▪ Increased HH Food Stocks</li> <li>▪ Land preparation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Planting/Weeding</li> <li>▪ Long rains</li> <li>▪ High Calving Rate</li> <li>▪ Milk Yields Increase</li> </ul>	<ul style="list-style-type: none"> <li>▪ Long rains harvests</li> <li>▪ A long dry spell</li> <li>▪ Land preparation</li> <li>▪ Increased HH Food Stocks</li> <li>▪ Kidding (Sept)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Short rains</li> <li>▪ Planting/weeding</li> </ul>								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

## 1.0 CLIMATIC CONDITIONS

### 1.1 RAINFALL PERFORMANCE

- The onset of the March-April-May (MAM) has delayed in Kieni. According to the Kenya Meteorological department forecast, the onset of the long rains was expected by the third week of March.
- In the month of March, Kieni was characterised by hot, windy and dry weather condition with an exception of some localised areas that received light showers for an average of two to four days.
- In General, Nyeri County received 84 percent of the normal rains. The first and second dekad of March recorded 20.1mm and 23.2mm respectively, compared to the LTA of 24.7mm and 26.6mm as shown in figure 1.

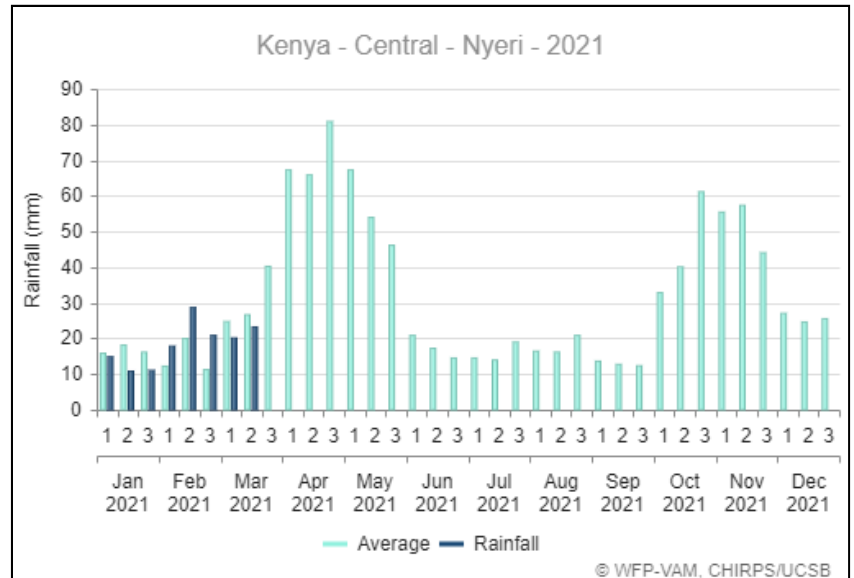


Figure 1: Presentation of the rainfall performance for March

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 VEGETATION CONDITION INDEX(VCI)

- The vegetation condition for Kieni, was relatively stable during the month under review compared to the previous month. The month's VCI stood at 61.56 in March similar to the previous month as shown in figure 2(a).

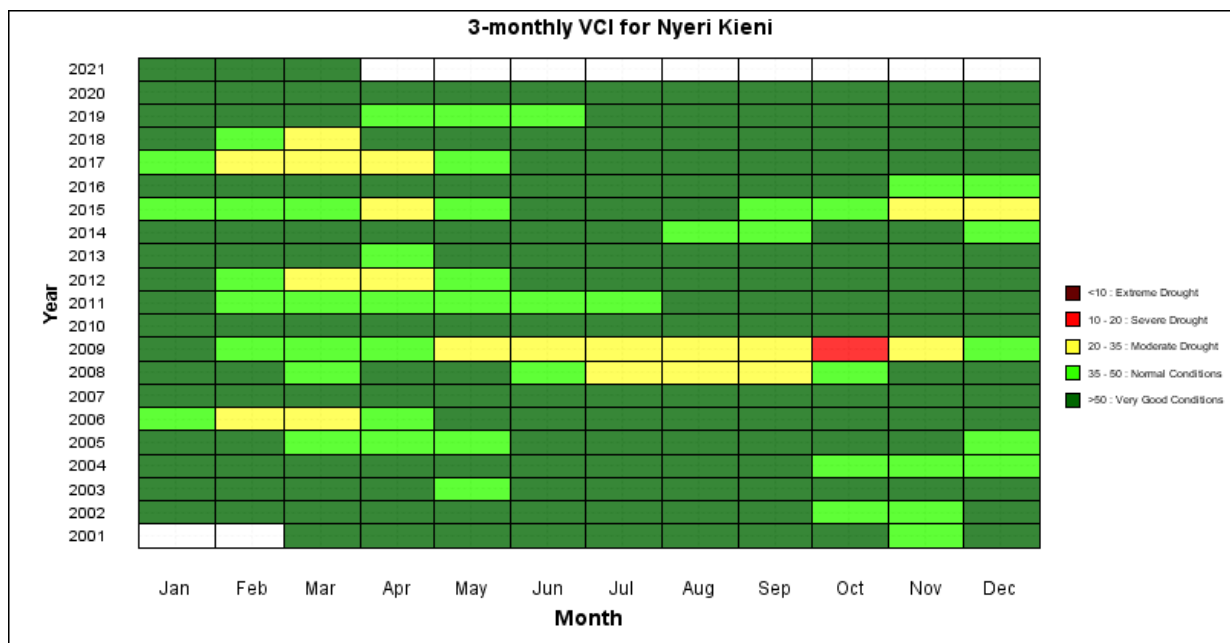
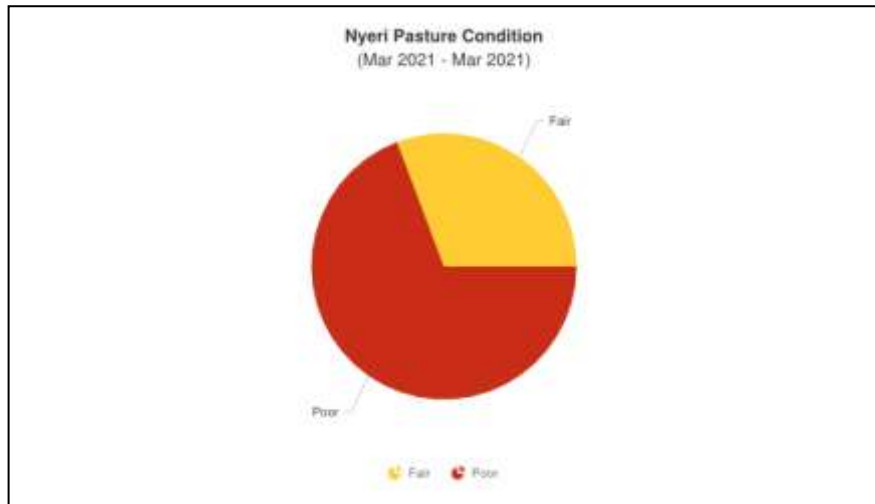


Figure 2(a): 3 monthly VCI for Kieni

## Pasture

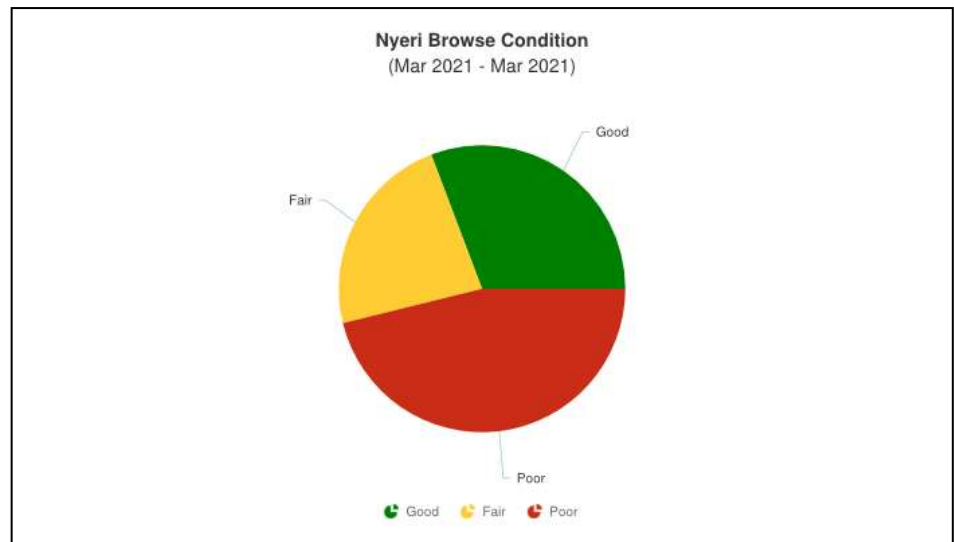
- Pasture condition deteriorated during the month of March compared to the previous month.
- The percentage of households who reported poor conditions increased from 25 percent in February to 66.7 percent in March.
- 15.4 percent and 33.3 percent of the respondents reported good and fair conditions.
- The current situation is expected to improve with start of the long rains.
- Areas that recorded poor pasture conditions were Karemeno, lamuria, Mwiyo, Muthuni and Labura in Kieni West Sub County and Thungari, Gathiuru and Rongai in Kieni East Sub County.



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

## 2.1.2 Browse

- Consequently, browse condition also deteriorated in the month of March compared to the previous month.
- 33.3, 25 and 41.7 percent of the respondent reported fair and poor pasture conditions respectively as indicated in figure 3(b).



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

## 2.2 WATER RESOURCE

### Sources

- Rivers remained the main source of water in Kieni at 56.3 percent, followed by pans/dams at 31.3 percent. Boreholes and springs are each at 6.3 percent.
- The sources were normal at this time of the year.
- Access to water for domestic and livestock use deteriorated during the month, compared to the month of February.
- Rivers are flowing at the minimum base level, this has led to some of the water projects to initiate water rationing, and households in the affected areas are receiving water once in a fortnight.

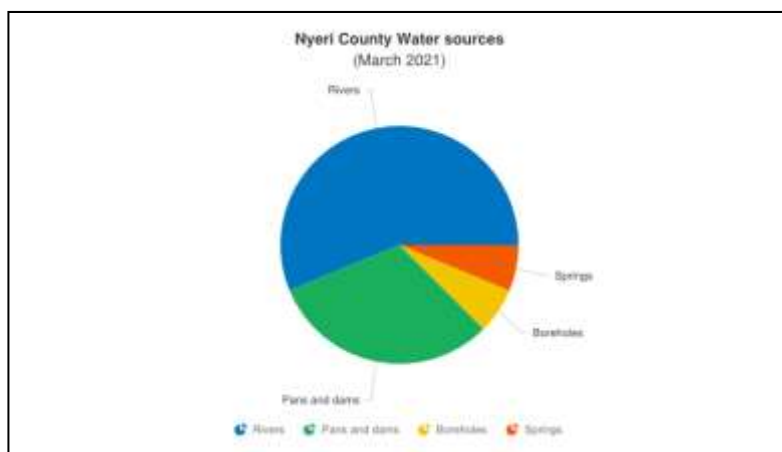


Figure 4: Shows main water sources for Kieni

### 2.2.1 Household access and Utilization

- Access to water for household use deteriorated this month compared to the previous month as households had to walk a longer distance of 1.7 Km in March from 1 Km in February.
- The distance was longer by 20 percent, compared to the 2016-2020 long term average of 1.5 Km as indicated in figure 5.

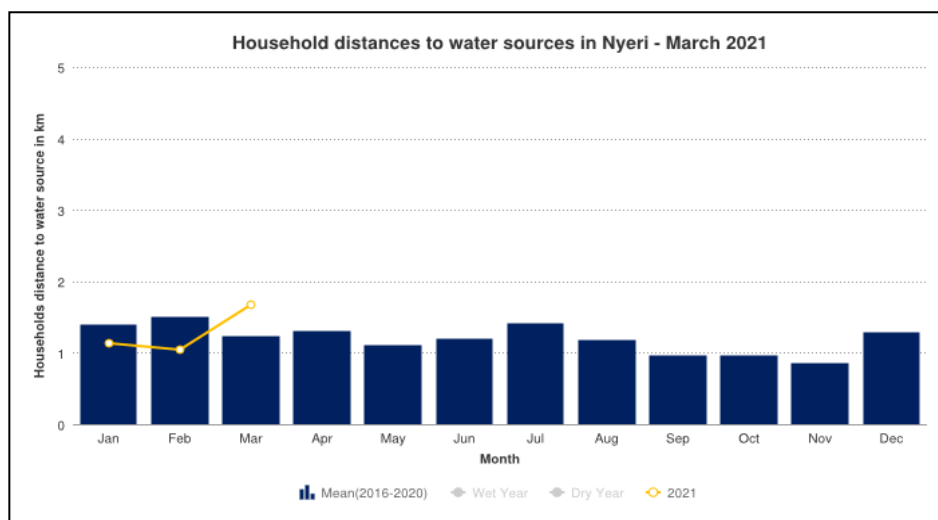


Figure 5: presentation of average household distances to water

### 2.2.2 Livestock access

- Access to water for livestock consumption also deteriorated, with livestock trekking an average distance of 3.4 Km from the grazing areas to water sources in March compared to 1.9 Km in February.
- Registered distances were higher by 80 percent compared to

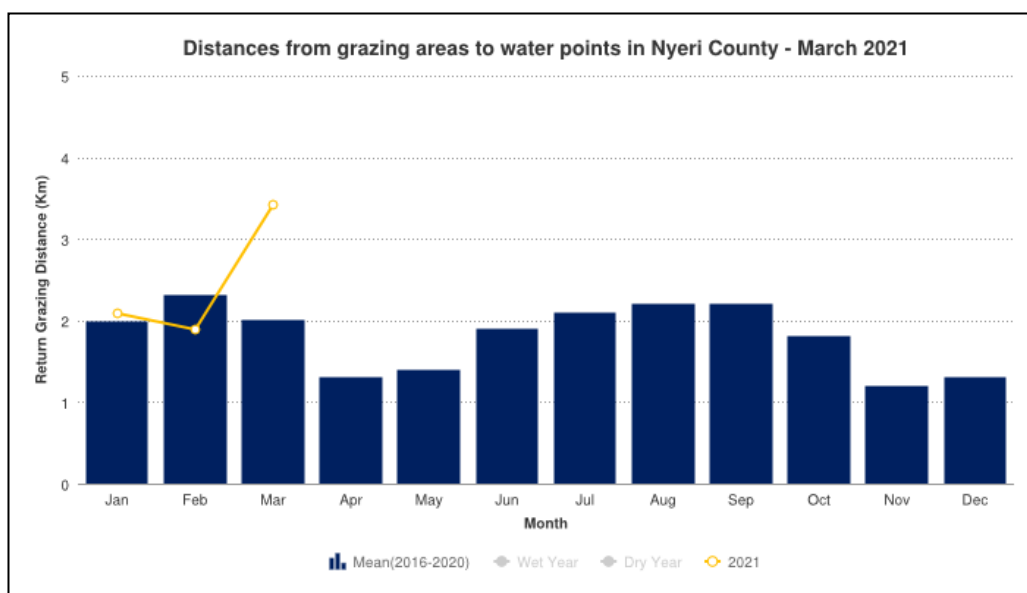


Figure 6: presentation of average grazing distances to water

the 2016-2020 long term average of 2 Km as shown in figure 6.

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- Livestock body condition deteriorated during the month of March compared to the previous month, attributed to poor pasture and increased trekking distances to water sources. A large portion of livestock body condition ranged from moderate to stressed phase.

##### 3.1.2 Livestock diseases

- Suspected cases of Lumpy Skin Disease (LSD) were reported in Gathiuru in Gakawa ward in Kieni East Sub County.

##### 3.1.3 Milk Production

- The average household milk production this month is 5.1 litres which is similar to the month of February.
- The month's production was lower by seven percent compared to the 2016-2020 long term of 5.5 litres as shown in figure 8.

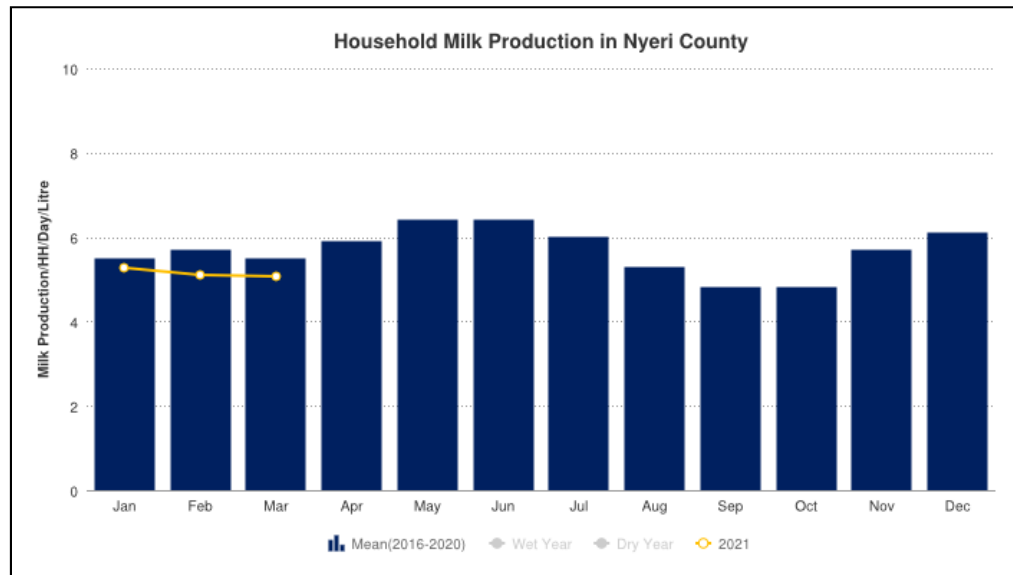


Figure 8: Presentation of average milk production in Nyeri (Kieni)

### 3.2 RAIN-FED CROP PRODUCTION

#### 3.2.1 Stage and Condition of food Crops

- Currently, most farmers are still preparing their farms and planting in readiness to the March-April-May (MAM) season. For farmers in the high attitude areas who planted early, maize and beans are at two leaf stage. However, for those in the low attitude areas crops are yet to germinate.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Price

- Due to deteriorating livestock body conditions, prices are on a downward trend.
- The trading price of a mature four-year-old bull is Ksh 27,167 in March from Ksh 30,000 in February, registering nine percent drop.
- Compared to the 2018-2020 short term averages of Ksh 23,358, the month's price was higher by 16 percent, as indicated in figure 9.

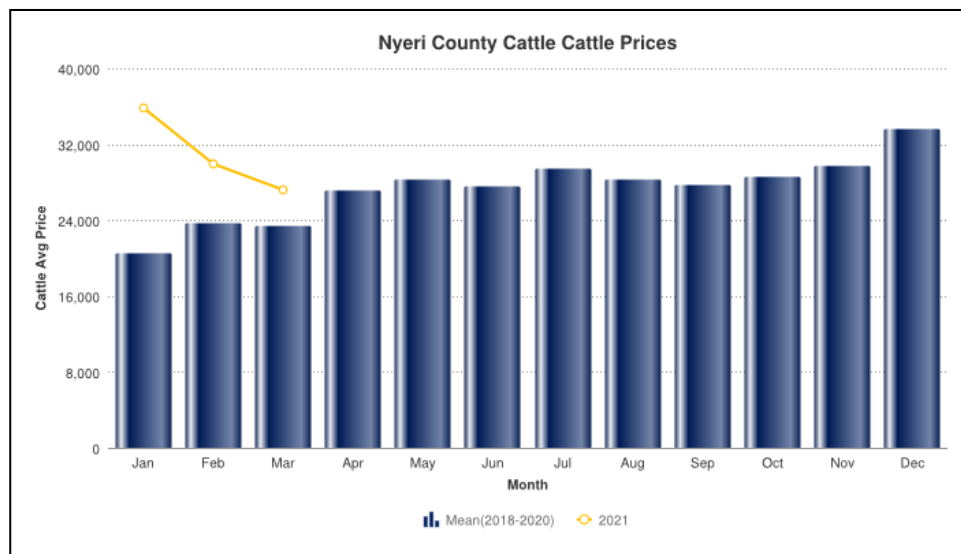


Figure 9: Outline average price trends for cattle

#### 4.1.2 Sheep prices

- A two-year-old medium size Sheep retailed for Ksh 3,750 in March from Ksh 3,958 in February, recording five percent drop.
- The month's price was lower by 14 percent compared to the 2018-2020 short term averages of Ksh 4,374 as shown in figure 10.

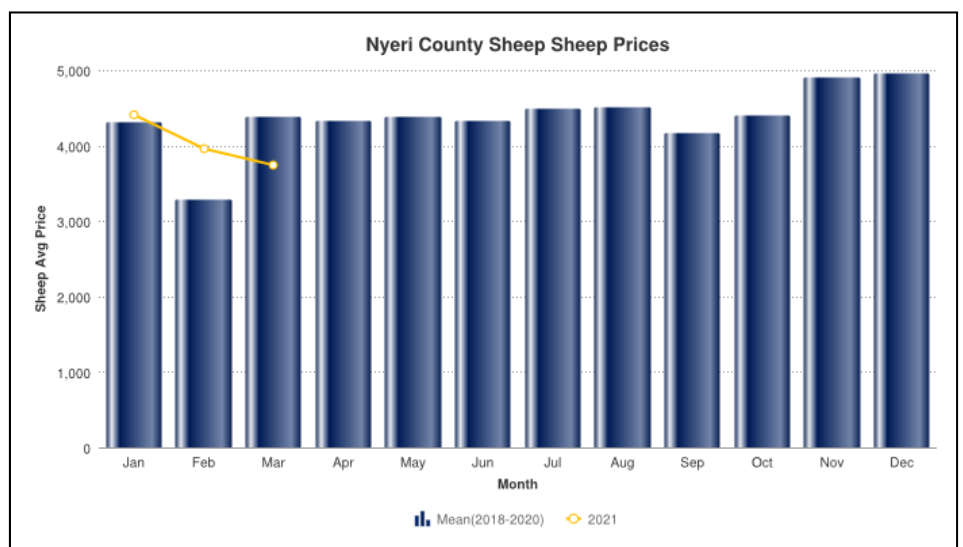
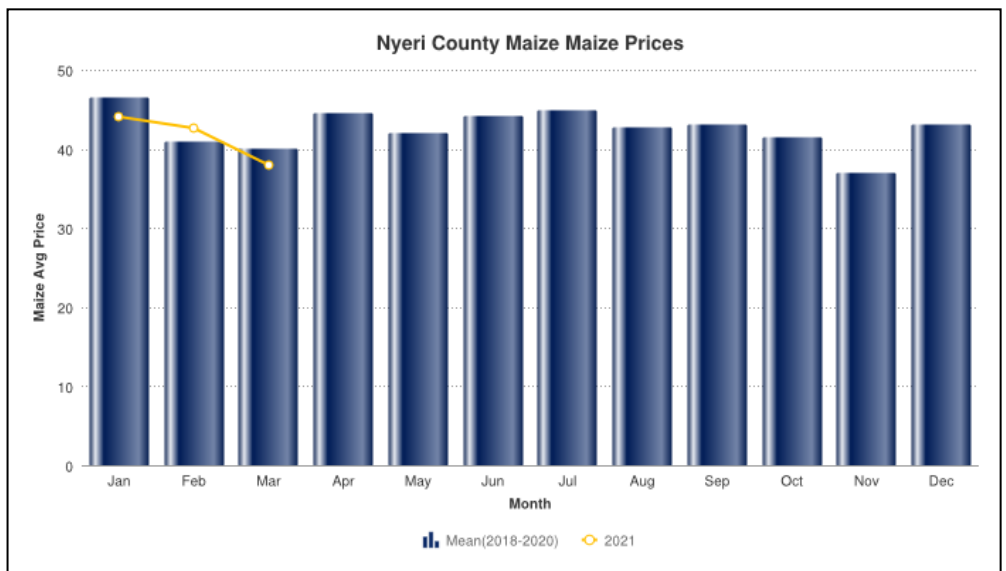


Figure 10: Outline average price trends for sheep

## 4.2 CROP PRICES

### 4.2.1 Maize

- Maize prices dropped by 12 percent to retail for Ksh 37.9 in March from Ksh 43 in February.
- The month's price is below the seasonal norms compared with Kshs 40 posted in the 2018-2020 long term averages as shown in figure 11.



#### 4.2.2 Beans

- Beans prices are above the seasonal norms compared to the 2018-2020 short term average of Ksh 82. This is attributed to the fact that majority of the households are solely relying on markets for supply.
- Beans prices were stable with a kilo of beans retailing for Ksh 100 in March from Ksh 98 in February.

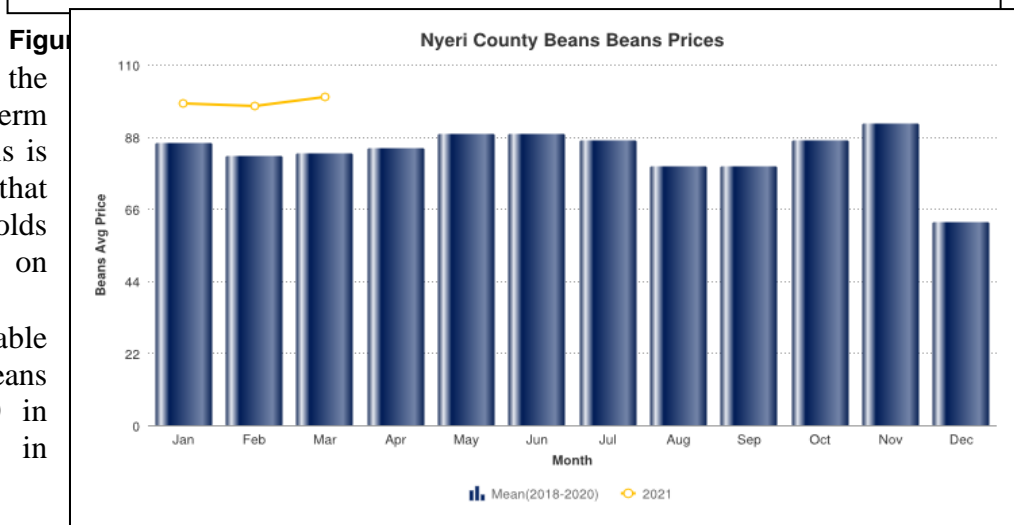


Figure 12: Outlines average price trends for Beans

#### 4.2.3 Livestock Price Ratio/Terms of Trade

- Terms of trade ratio improved during the month of March compared to the previous month, attributed to a drop in maize prices.
- A mature sheep was equivalent to 99 kilograms of maize accounting for eight percent increase from last month of 92 kilograms.
- The month's TOT was lower by 12 percent compared to the 2018-2020 short term average of 113 kgs as outlined in figure 13.

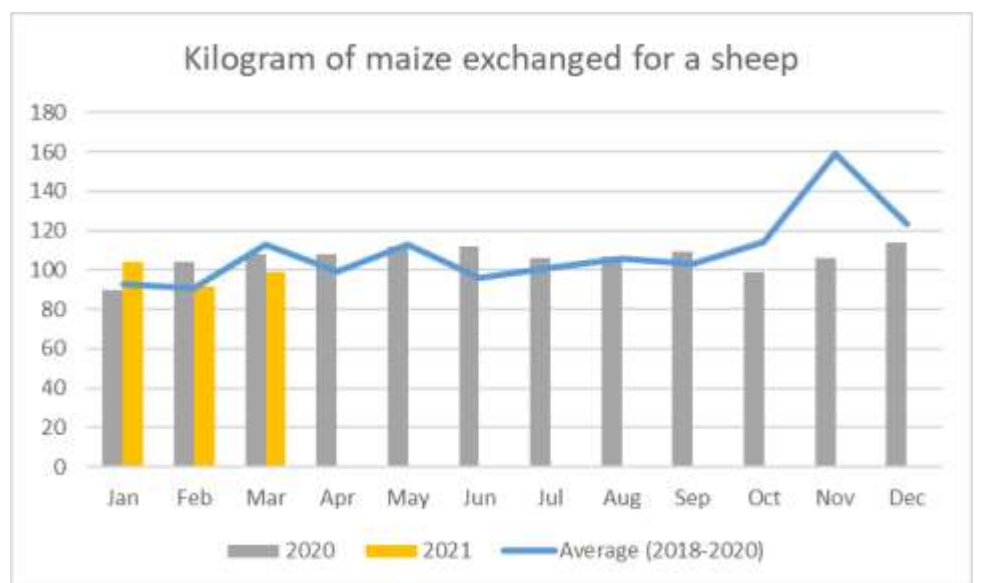


Figure 13: Outlines terms of trade in Kieni

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

- Milk consumption stood at 1.5 litres in March, which was similar to the previous month.
- Households in marginal mixed farming livelihood zones consumed more milk at 0.9 litres per day compared to 0.7 litres in mixed farming livelihood zones.
- Compared to the 2016-2020 short term average of 1.4 litres, the month's consumption was within the threshold as shown in figure 14.

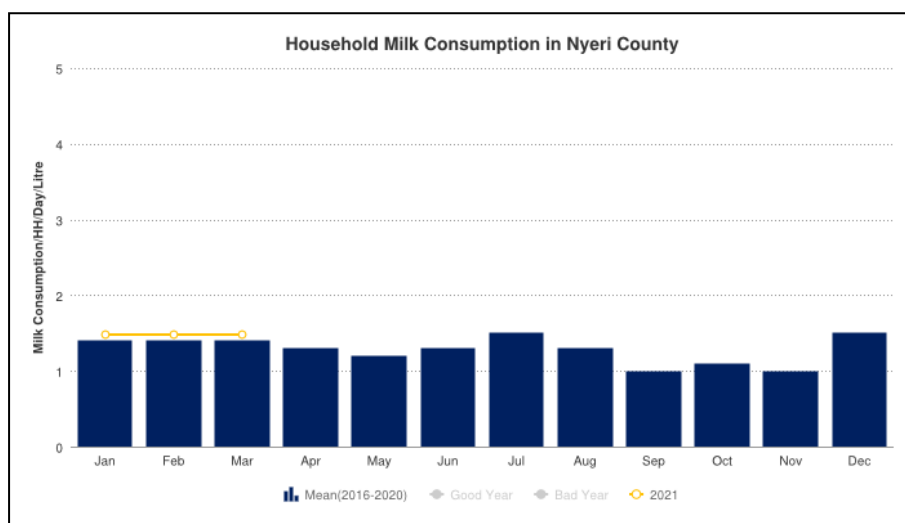


Figure 14: Outlines milk consumption for the county

### 5.2 FOOD CONSUMPTION SCORE

- The food consumption score remained steady during the month under review compared to the previous month. Proportion of households with acceptable and borderline food consumption score in the sampled population was 53 and 47 percent respectively compared to previous month where 52 and 45 percent of the households had acceptable

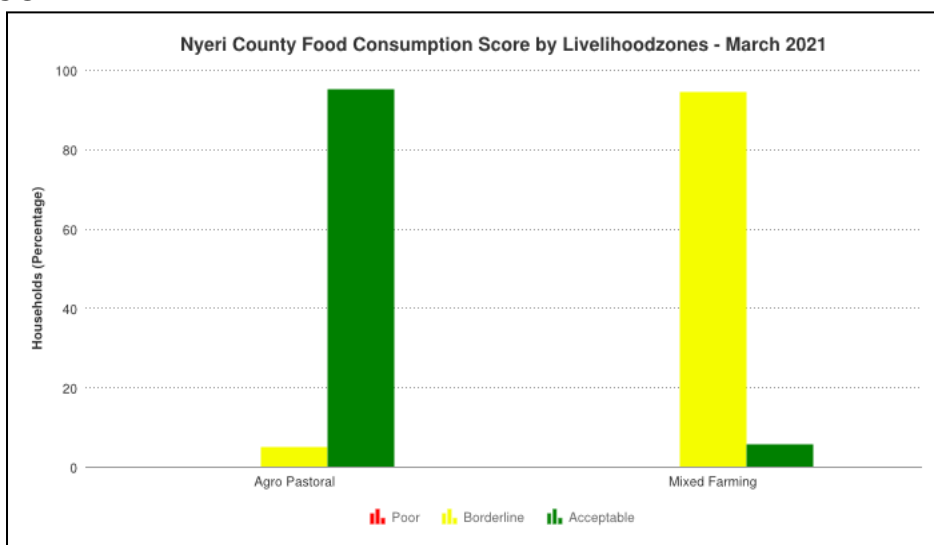


Figure 15: Presentation of food consumption score by livelihood zones and borderline food consumption score respectively as shown in figure 15.



- The marginal mixed farming livelihood zones fared better, since 95 percent of the households had acceptable food consumption score compared to 5.6 percent in mixed farming livelihood zones.

### 5.3 HEALTH AND NUTRITION STATUS

#### 5.3.1 Nutrition Status

- There were no reported cases of under-fives at risk of malnutrition during the month under review.

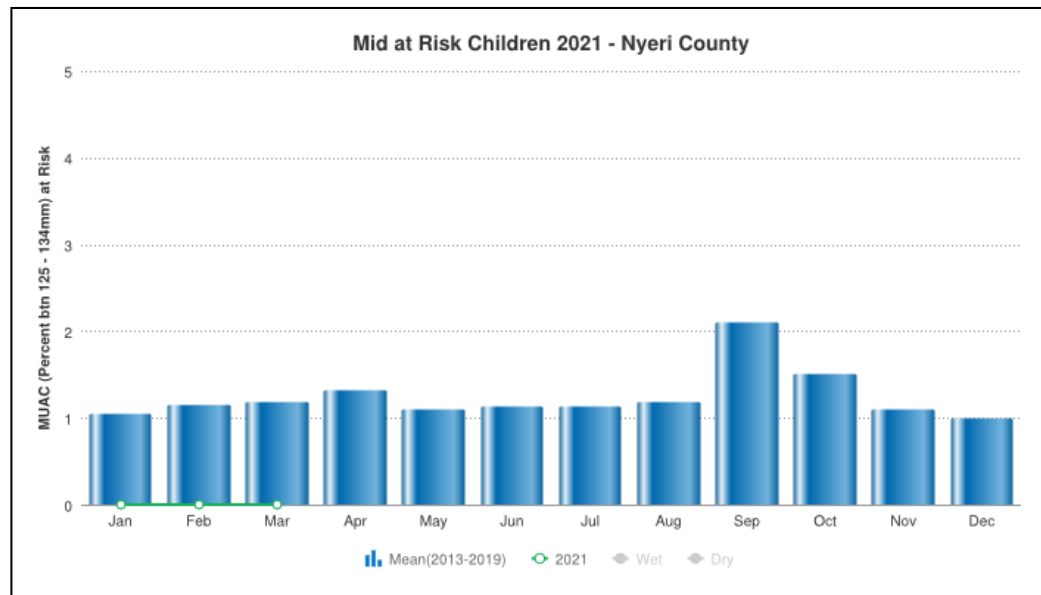


Figure 16: Presentation of nutrition status of children below five years

### 5.4 COPING STRATEGIES

- The coping strategy index dropped from 6.51 in February to 4.04 in March, an indication that households were coping less frequently during the month of March compared to the previous month, due to availability of income from agricultural waged labour.

- The month's CSI was lower compared with 6.11 recorded during the same time last year.

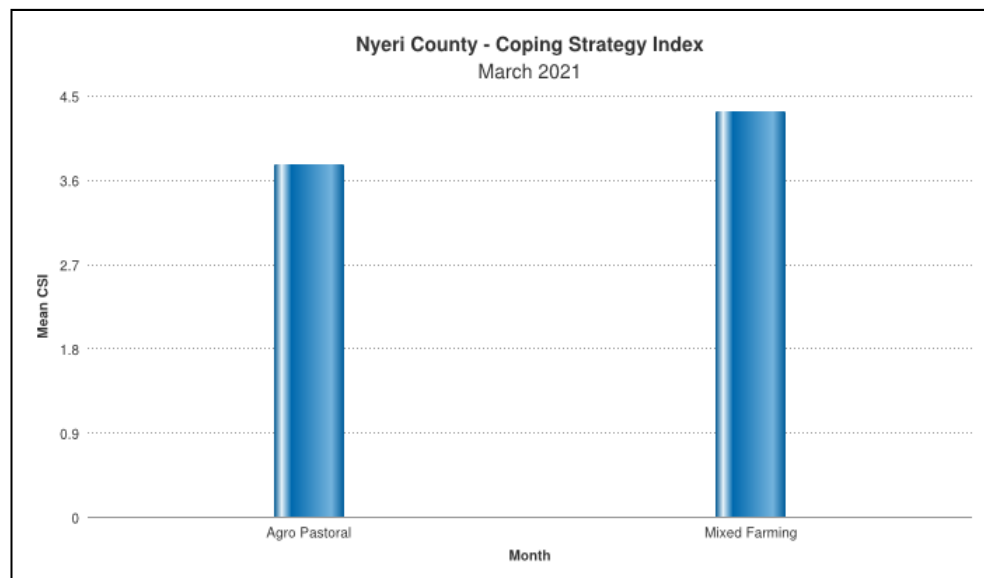


Figure 17: Presentation of the CSI for Kieni by livelihood zones

- Houseolds in mixed farming livelihood zones registered a higher index of 4.3 compared to those in the mixed farming livelihood zones who recorded an index of 3.8.
- 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

- ☐ Solarization and pipeline distribution of Gatunyaga borehole for livelihood diversification by NDMA.

## 6.2 FOOD AID

- ☐ There were no food interventions during the month under review.

## 7.0 EMERGING ISSUES

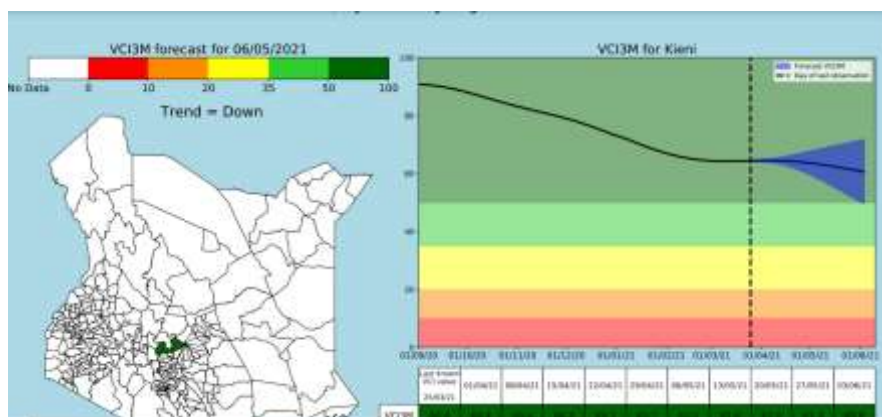
### 7.1 Migration

- ☐ At least, 1000 heads of cattle and 1000 shoats have migrated into Kieni West and Kieni East Sub Counties from the neighbouring Laikipia County.

### 7.2 FOOD SECURITY PROGNOSIS

- ☐ In the next three months, the situation in Kieni is expected to improve further with the onset of the MAM rains. Forage and water sources are expected to regenerate. Consequently, distances in search of water and pasture are expected to decline. Livestock body condition is expected to improve leading to an increase in milk production. Subsequently, malnutrition rates for under-fives are expected to improve.

- ☐ According to the astracast forecast, Kieni is expected to experience above normal vegetation condition for the next three months.



## 8. RECOMMENDATIONS

- Sensitize farmers on soil fertility management (CGN).
- Livestock disease surveillance and deworming (CGN).
- Sensitize farmers on modern fodder harvesting and storage (CGN).
- Provision of subsidized seeds and fertilizer to farmers (CGN).
- Capacity building on water harvesting and storage (CGN)