



**National Drought Management Authority  
NYERI COUNTY  
DROUGHT EARLY WARNING BULLETIN FOR APRIL 2020**

**APRIL EWS PHASE**



**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- The March-April-May (MAM) rains progressed into the month of April. Amounts received were above average in the second and third dekad. Temporal and spatial distribution was good across the livelihood zones.
- Vegetation condition was above average, due to the ongoing MAM rains
- Water availability and utilization is still good as water harvesting from the rains was ongoing, further open water sources were full to capacity.

**Socio Economic Indicators (Impact Indicators)**

- Livestock body condition and health was satisfactory.
- Milk production was above the long-term average while consumption was within normal thresholds.
- Distances to water sources for households' use dropped by 33 percent from last month. Return distances from grazing field to water sources also dropped by 43 percent.
- Terms of trade ratio was above the long-term average by 20 percent.
- Majority of the households in Kieni were taking two to three meals composed of three to four food groups.

**Early Warning (EW) Phase Classification**

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Stable
Agro pastoral	Normal	Stable
Biophysical Indicators	Value	Normal Range/Value
Rainfall (%)	105	90-110% of LTA
VCI	83.79	>35
Forage condition	Good	Good
Production indicators	Value	Normal
Crop Condition (specify crop)	Good	Good
Livestock Body Condition	Good	Good
Milk Production	7.8	5.3 litres
Access Indicators	Value	Normal
Terms of Trade (ToT)	109	90
Milk Consumption	1.6 litres	1.5 litres
Return distance to water sources for household use	0.2 Km	1.5 Km
Return distance to water sources from grazing field.	0.4 Km	1.9 Km
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	0	0
Coping Strategy Index	0	0.0

- 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 March-April-May (MAM) rains continued into the month of April.
- Amounts received in Kieni were above normal, averaging 105 percent of the normal rains. The bulk of the rains were received in the second and third dekad. The first dekad received below normal amounts.
- Temporal and spatial distribution was good across the livelihood zones. The rains were received for an average of 15 to 20 days.
- The rains impacted positively on water resources, livestock and crop production.
- Generally, Nyeri County received 47.7 mm and 227.1 mm in the first and second dekad compared to the Long-Term Average of 67.2 and 65.8 respectively as shown in figure 1.

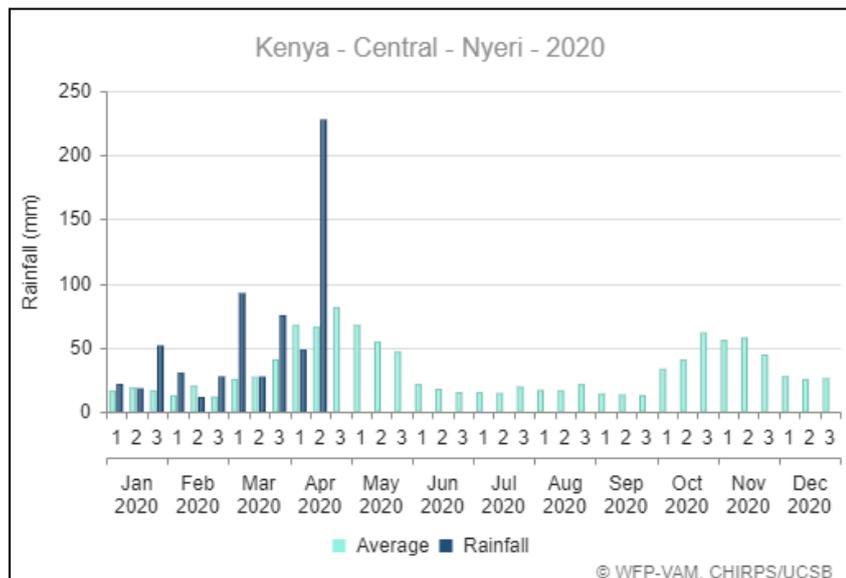


Figure 1: presentation of the rainfall performance for March

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 VEGETATION CONDITION INDEX(VCI)

- The ongoing OND rains have assisted in nourishing the already good pasture conditions. The 3 monthly vegetation condition index stood at 83.79 indicative of above normal vegetation greenness as shown in figure 2 (a) below. However, there was slight decline in the vegetation condition compared to the previous month attributed to below normal performance of the rains in the first dekad coupled with frost attacks as shown in the figure 2 (b) below. The vegetation condition is expected to remain stable in the next six months.

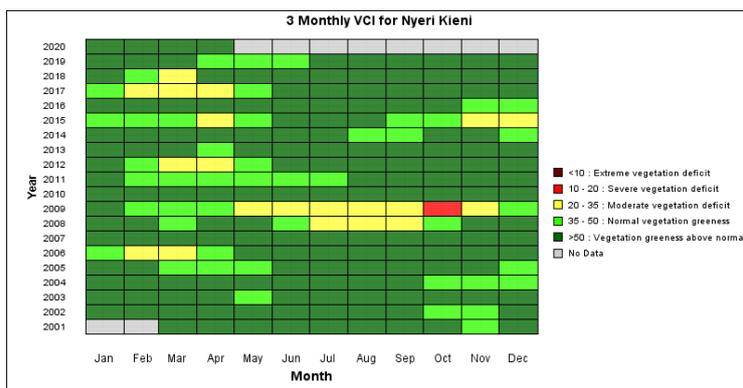


Figure 2 (a): Presentation of 3 monthly VCI for Kieni

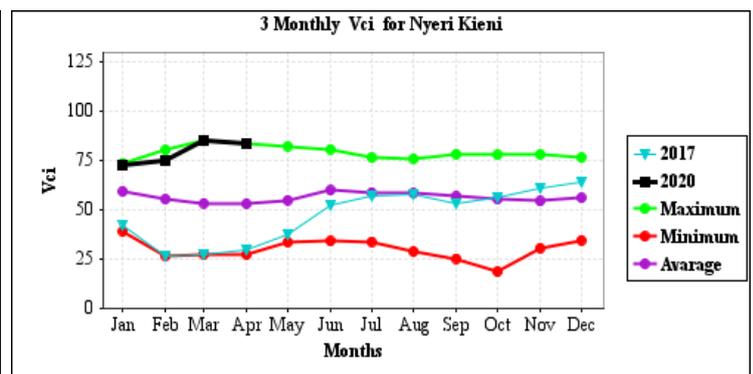


Figure 2 (b): Presentation of 3 monthly VCI for Kieni

### 2.1.2 Pasture

- Pasture condition remained good and above normal across the livelihood zones compared to a normal year, owing to the ongoing MAM rains (Figure 3a).
- Harvesting of cultivated pastures and Napier grass was ongoing.
- Available pastures are adequate for the next four months.

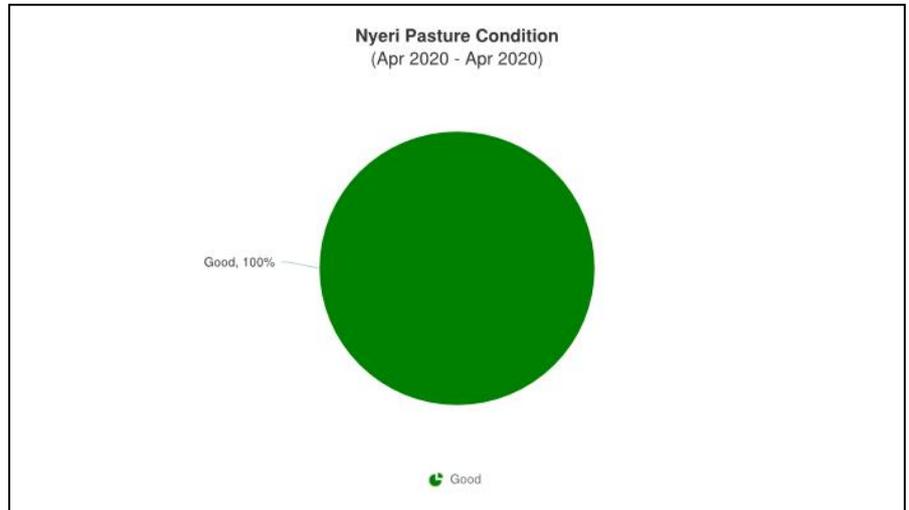


Figure 3(a): presentation of pasture condition for Nyeri (Kieni) county

### 2.1.3 Browse

- Browse condition equally remained good across the livelihood zones and was still above normal compared to a similar period, in the previous years.
- The current situation is expected to remain stable for the next six months.

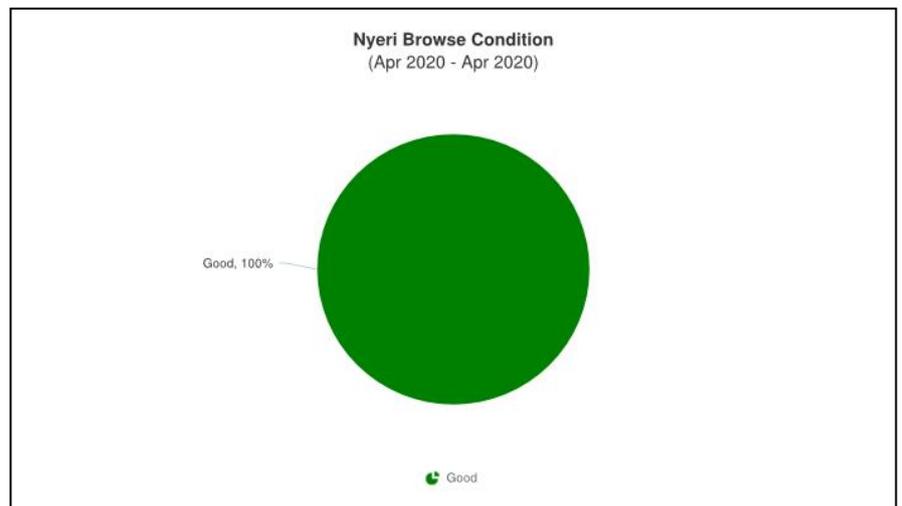


Figure 3(b): presentation of browse condition for Nyeri (Kieni) County

## 2.2 WATER RESOURCE

### 2.2.1 Sources

- The main sources of water for Kieni were rivers at 82 percent and pans and dams at 18 percent as shown in figure 4.
- Given the ongoing MAM rains, access to water remained satisfactory across the livelihood zones. The current situation is above normal at this time of the year.
- Rivers were flowing at above normal flows while open water sources are full to capacity.

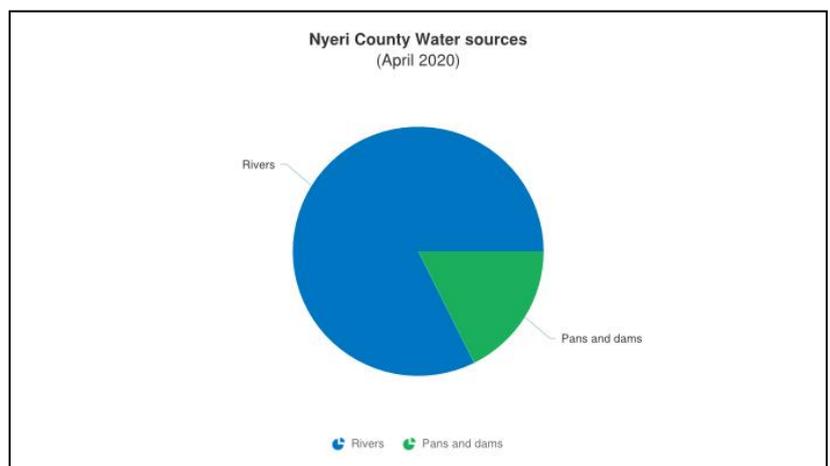


Figure 4: Shows main water sources for Kieni

- Trekking distances to water sources for both livestock and household use are nominal as households were still practicing rain water harvesting.

### 2.2.2 Household access and Utilization

- Distances from the household to water sources were minimal as piped water systems to households were steady. On the other hand surface structures had equally impounded adequate water from surface runoff.
- Distance from the household to water sources dropped by 33 percent from 0.3 Km in March to 0.2 Km in April.
- The month's distances were lower by 80 percent compared to the 2015-2019 long term average of 1.5 Km as indicated in figure 5.

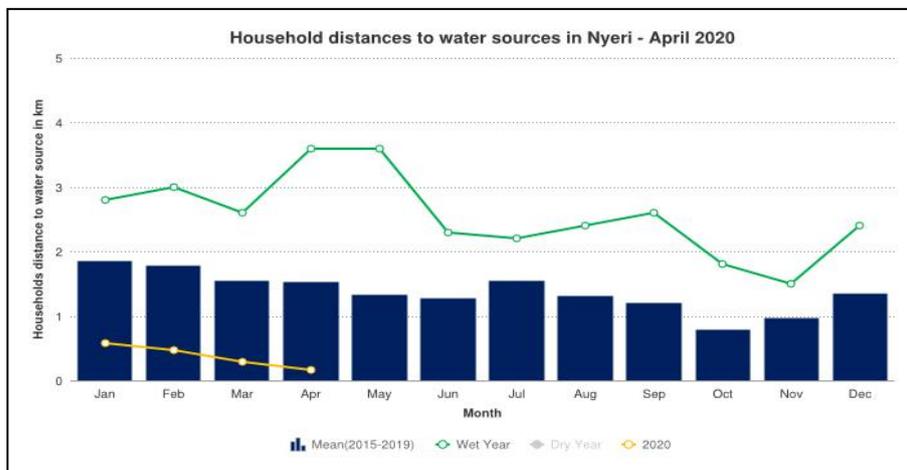


Figure 5: presentation of average return distances

### 2.2.3 Livestock access

- The average distances from the grazing fields to water sources dropped by 43 percent from 0.7 Km in March to 0.4 Km in April.
- Registered distances were lower compared to the 2015-2019 long term average of 1.9, by 79 percent as shown in figure 6.

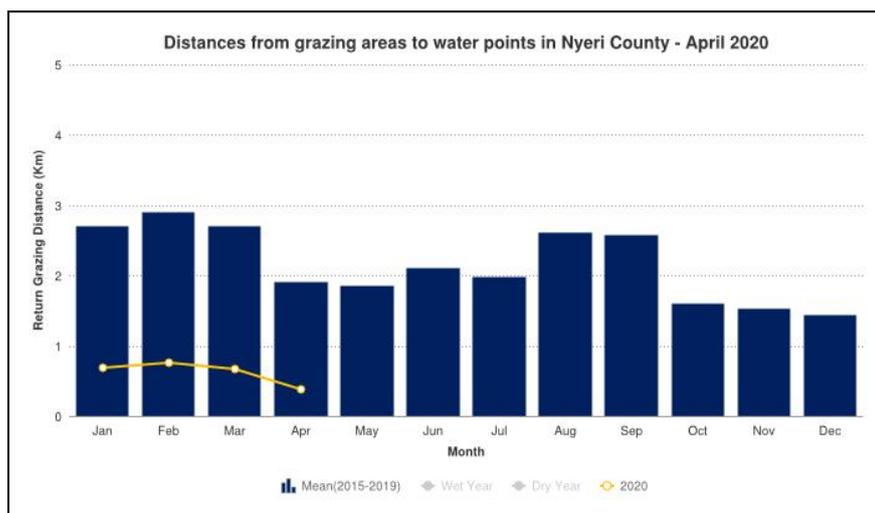


Figure 6: presentation of average grazing distances to water

## 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 both livelihood zones. This can be attributed to adequate pastures, browse and other feed resources like Napier and crop residue which were readily available.
- Body condition for all livestock species are expected to remain good for the next three months.

#### 3.1.2 Livestock diseases

- Confirmed cases of lumpy Skin Disease were reported in Gakawa ward, in Kiini East Sub County.

### 3.1.3 Milk Production

- The average milk production remain stable at 7.8 litres, similar to the previous month.
- The month's production was higher by 47 percent as compared to the 2015-2019 LTA of 5.3, attributed to adequate and good quality livestock feeds, low distances to water sources and good livestock body conditions and health.

## 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 and beans were at two leaf stage while potatoes were at vegetative stage.
- For farmers that planted early, maize was at below knee high while potatoes were at flowering stage. Harvesting of potatoes under plantation Establishment Livelihood system (PELIS) was ongoing. Beans growth and development was hampered due to excessive moisture and water logging.
- Currently farmers were undertaking first weeding, and seconding weeding for early planters. However, five percent of the farmers were still doing land preparation and planting.
- The main challenges facing majority of the farmers' current season include; high cost of land preparation and prohibitive costs of farms inputs.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Price

- Livestock prices were still on an upward trend, attributed to availability of adequate forage and minimal distances to water sources.
- A mature four-year-old bull retailed for Ksh 33,400 in April from Ksh 32,667 in March, two percent increase.
- Compared to the 2017-2019 short term averages of Ksh 23,652 reported prices were higher by 41 percent, as indicated in figure 7.

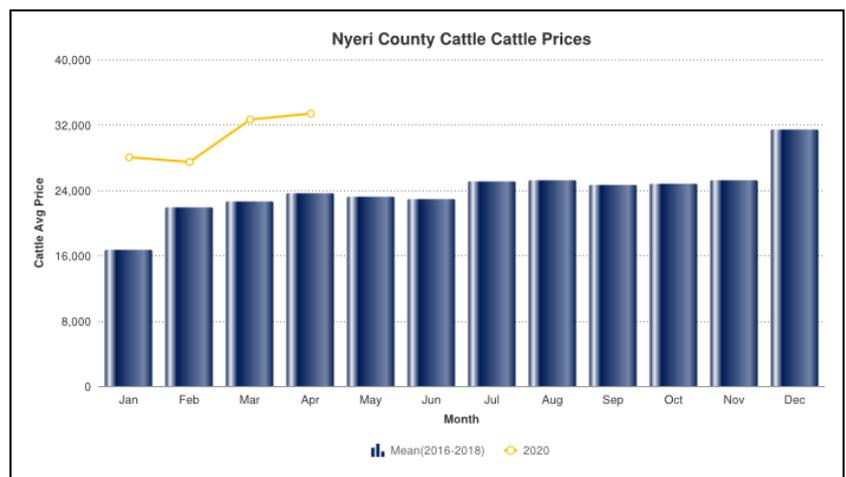


Figure 7: Outline average price trends for cattle

#### 4.1.2 Sheep prices

- A two-year-old medium size Sheep sold for Ksh 4,750 in April which was quite comparable to Ksh 4,722 in March.
- The month's prices were higher by 34 percent, compared to the 2017-2019 short term averages of Ksh 3,528 as shown in figure 8.

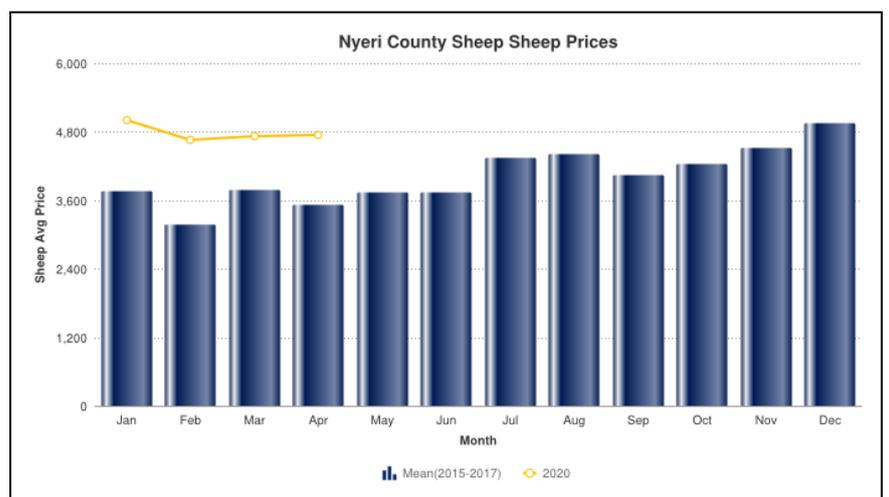


Figure 8: Outline average price trends for sheep

## 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 stock at the household level.
- A kilo of maize grain sold for average of Ksh 43.5 in April from Ksh 43.8 in March.
- Compared to the short-term averages of Ksh 47, the registered price was lower by seven percent as shown in figure 9.

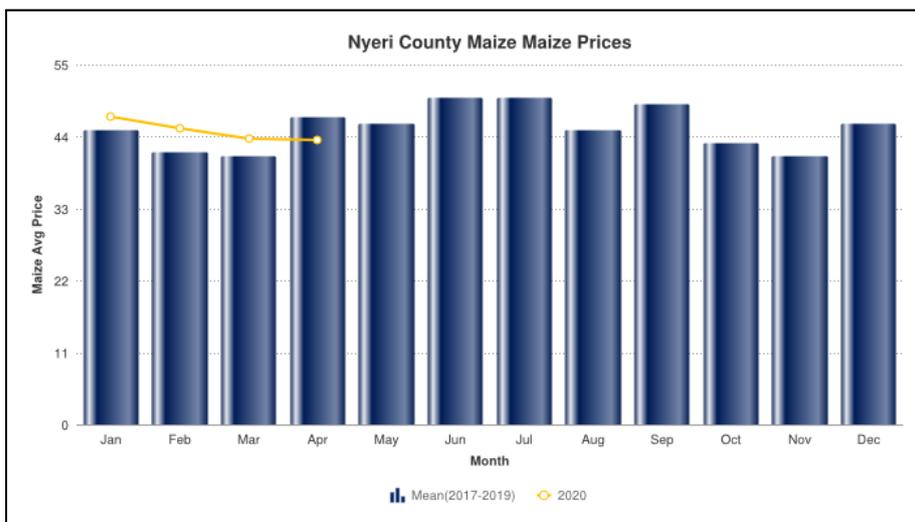


Figure 9: Outlines average price trends for Maize

- Prices are likely to increase as a result of the stringent measure that have been put in place to prevent the spread of covid 19.

### 4.2.2 Beans

- A kilo of Beans grain retailed for Ksh 87 in April from Ksh 84 in March, registering four percent increase.
- The increase in prices could be attributed to overreliance of market for supply coupled with stringent measure that have been put in place to prevent the spread of covid 19. The prices are expected to increase further for the next three months.
- The month's prices were within threshold compared to the 2017-2019 short term average of Ksh 87.

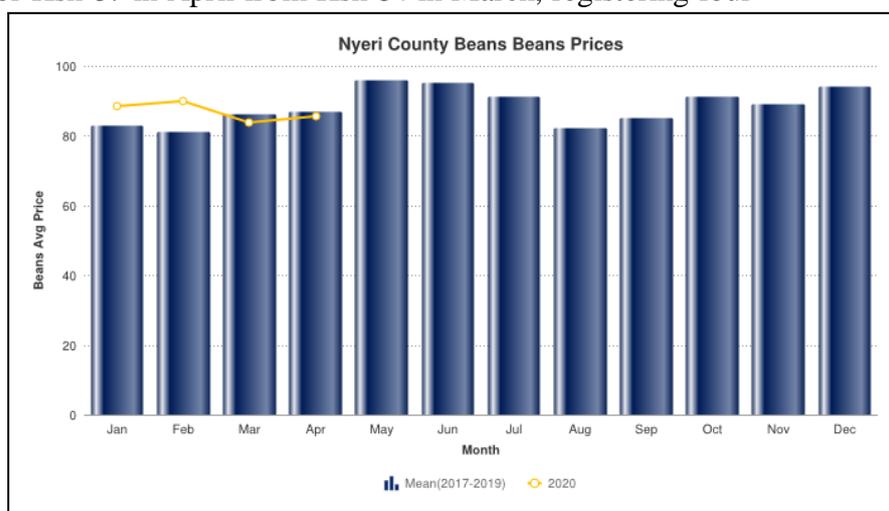


Figure 10: Outlines average price trends for Beans

### 4.2.3 Livestock Price Ratio/Terms of Trade

- Terms of trade remained relatively stable attributed to steady sheep and beans prices.
- A mature sheep was equivalent to 109 kilograms of maize similar to the previous month.
- Compared to the 2017-2019

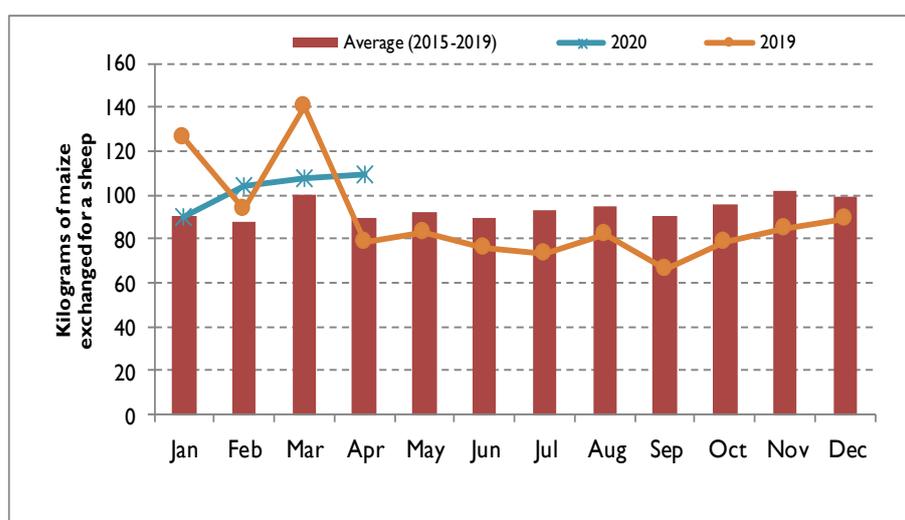


Figure 11: Outlines terms of trade in Kieni

short term average of 90 kgs current TOT was higher by 20 percent as outlined in figure 11.

## **5.0 FOOD CONSUMPTION AND NUTRITION STATUS**

### **5.1 MILK CONSUMPTION**

- Milk consumption remained unchanged compared to the last month at 1.6 litres
- The remainder of the yields was offered for sale through the various co-operatives operating in the region.
- Compared to the 2015-2019 short term average of 1.5 litres, the month's consumption was within the threshold.

### **5.2 FOOD CONSUMPTION SCORE**

- Majority of the households in Kieni were taking two to three meals composed of three to four food groups. The foods consumed were maize, beans, tea, milk, ugali, traditional vegetables, cabbages, potatoes and porridge.

## **5.3 HEALTH AND NUTRITION STATUS**

### **5.3.1 Nutrition Status**

- In general, the nutritional status for children below the age of five had improved attributed to availability of adequate milk at the household level, improved dietary diversity and access to health facilities.

### **5.3.2 Human Health**

- The first case of corona virus Covid 19 within Kenyan borders was reported on 13th March 2020. As of April 30th 2020, there were 396 confirmed cases, 144 discharges and 17 fatalities. So far there are no reported cases of corona virus in Nyeri County and resident are advised to be vigilant through following the government laid down guidelines.

## **5.4 COPING STRATEGIES**

- The households were coping less frequently during the month under review compared to the previous month. This could be attributed to the above average harvests for maize from the OND season, accessibility of traditional vegetable and other short cycle maturing crops as well as availability of adequate milk.
- 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**

- Capacity building of Dairy cow and poultry groups on: feed formulation, financial management, Value addition, Waste management, Market linkage, Leadership and governance in Kieni East.
- Drilling of boreholes in Mapema, Kahuti Secondary, Gatwe in Kabaru, Thegu and Naromoru/Kiamathaga in Kieni East.
- Desilting of Mikumbuni dam in Kieni East Sub County.
- Equipping boreholes, pipeline extension, Construction of masonry tanks and desilting of water pans in Mweiga, Gararakwa, Endarasha/Mwiyogo and Mugunda in Kieni West Sub County.
- Iron and folate supplementation among pregnant women.
- Offering HINIYC services at the health facilities.

- Public awareness on the covid 19 pandemic.

## **6.2 FOOD AID**

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

## **7.0 EMERGING ISSUES**

- Human-wildlife conflict was reported in areas bordering the mountains, attributed to the cold weather conditions in the forests forcing the Elephants to relocate to warmer grounds. Farmers at Kahurura and Gathiuru in Gakawa ward, Thegu ward and Kabaru Ward in Kieni East are counting huge losses after marauding elephants invaded their farms leaving a trail of destruction on their crops.

## **7.1 FOOD SECURITY PROGNOSIS**

- According to Kenya Meteorological Department MAM 2020 forecast, central Kenya is among areas that will continue to receive enhanced rainfall.
- Household food security is expected to remain stable attributed to adequate maize stock from the OND season. The stocks are expected to last for two to three months. Availability of traditional vegetable and other short cycle maturing crops due to the ongoing MAM rains are expected to cushion the households further.
- Given the ongoing MAM rains livestock productivity is expected to remain good due to availability of adequate forage and water sources.
- Market disruptions will be inevitable due to effects of covid 19 pandemic. In return, terms of trade are expected to decrease due to increase in food prices and decline in livestock prices.
- The proportion of children at risk of malnutrition is likely to reduce due to replenishment of household stocks from short rains harvest and availability of adequate milk.

## **8. RECOMMENDATIONS**

- Review of county drought contingency plans. (NDMA).
- Vaccination and deworming of livestock FMD, LSD, Black quarter and rabies (CGN).
- Support preparedness activities to enhance resilience in communities and other livelihoods diversification activities. (NDMA)
- Support to ward level CP through scenario creation and simulation. (NDMA)
- Capacity building on post-harvest management. (NDMA)
- Sensitize farmers on soil fertility management (CGN).
- Capacity building on water harvesting techniques (CGN).