



**National Drought Management Authority**  
**KWALE COUNTY**  
**DROUGHT EARLY WARNING BULLETIN DECEMBER 2021**

**DECEMBER 2021 EW FLAG**



**Early Warning (EW) Phase Classification**

Livelihood Zone	Phase	Trend
Mixed Farming	Alarm	Deteriorating
Livestock Farming	Alarm	Deteriorating
County	Alarm	Deteriorating
Biophysical Indicators	Value	Normal Range/Value
VCI	3.85	>45
State of Water Sources	3	5
Production indicators	Value	Normal
Crop condition (maize and legumes)	-	Good
Milk Production (Litres)	1.9	4.1
Livestock Migration Pattern	Intra-county migrations	No migrations
Livestock deaths (from drought)	-	-
Access indicators	Value	Normal
Terms of trade	68.3	67.0
Milk Consumption (litres)	1.6	2.0
Return distance to water sources for households (km)	4.2	2.1
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	4.3	-

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- The first dekad of the month received below normal rainfall while the second dekad received above normal rainfall.
- The vegetation condition for December was below normal for the month with all sub-counties classified in the severe drought category.
- The state of water sources was below average for this time of the year.

**Socio Economic Indicators (Impact Indicators)**

**Production indicators**

- Land preparation was on-going on a small-scale for the short rains season crop. Planting was done because of the rains received in the second dekad of the month.
- Milk production was below average for December.
- Intra-county movements by herders have been recorded as livestock herders move in search of pasture and water from Puma, Mwavumbo and Mwereni Wards into Ramisi and Mkongani Wards.

**Access indicators**

- Terms of trade (casual labour to maize) were within the normal range implying normal purchasing power at household level.
- Household milk consumption was below normal in December.
- Distances to water sources for domestic use were double the average for December.

**Utilization Indicators**

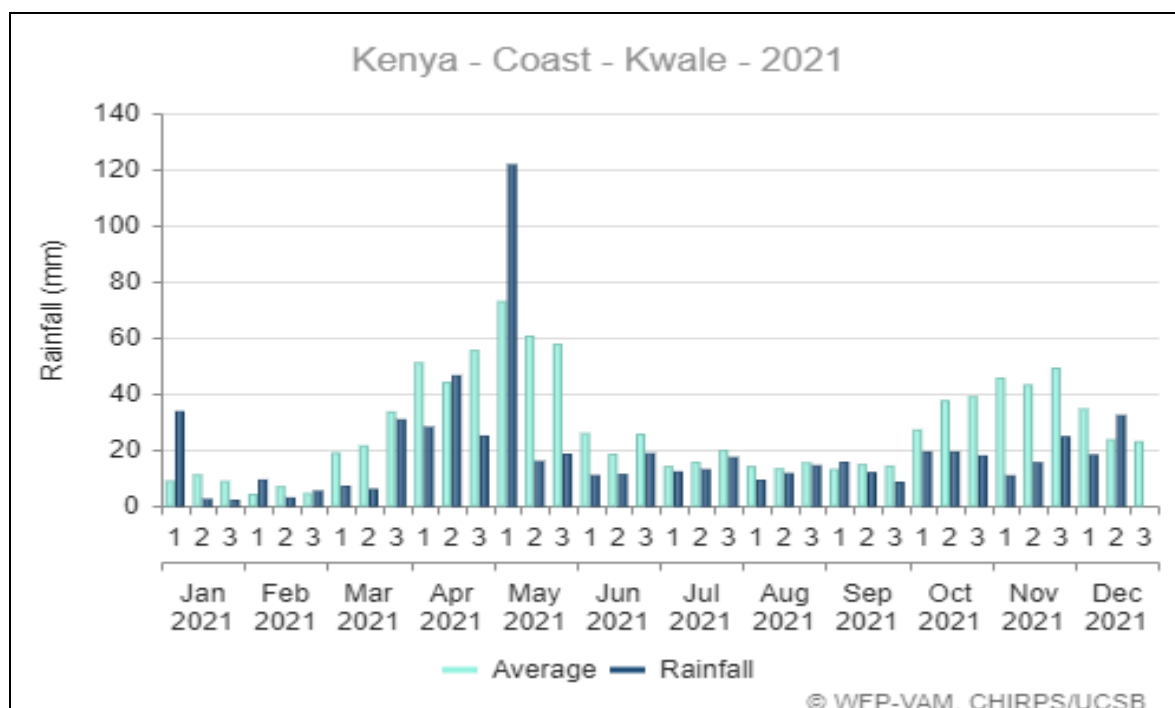
- The proportion of children at risk of malnutrition was estimated at 4.3 percent for children aged 0-5 years.

**Seasonal calendar**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
<ul style="list-style-type: none"> <li>▪ Short rains harvests</li> <li>▪ Short dry spell</li> <li>▪ Reduced milk yields</li> <li>▪ Increased household 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 household food stocks</li> <li>▪ Kidding (Sept)</li> </ul>			<ul style="list-style-type: none"> <li>▪ Short rains</li> <li>▪ Planting/weeding</li> </ul>		

## 1.1 RAINFALL PERFORMANCE

- The first dekad of the month received below normal rainfall while the second dekad received above normal rainfall as shown in the graph below.
- Dekad 1 received an average of 17.881 mm of rainfall in comparison with 34.268 mm in the long-term average (LTA) while dekad 2 received an average of 32.033mm in comparison with 23.398 mm in the LTA.
- The amount received in the first dekad was 52% of the LTA, while the amount received in the second dekad was 37% more than the LTA.



## 2.0 IMPACTS ON VEGETATION AND WATER

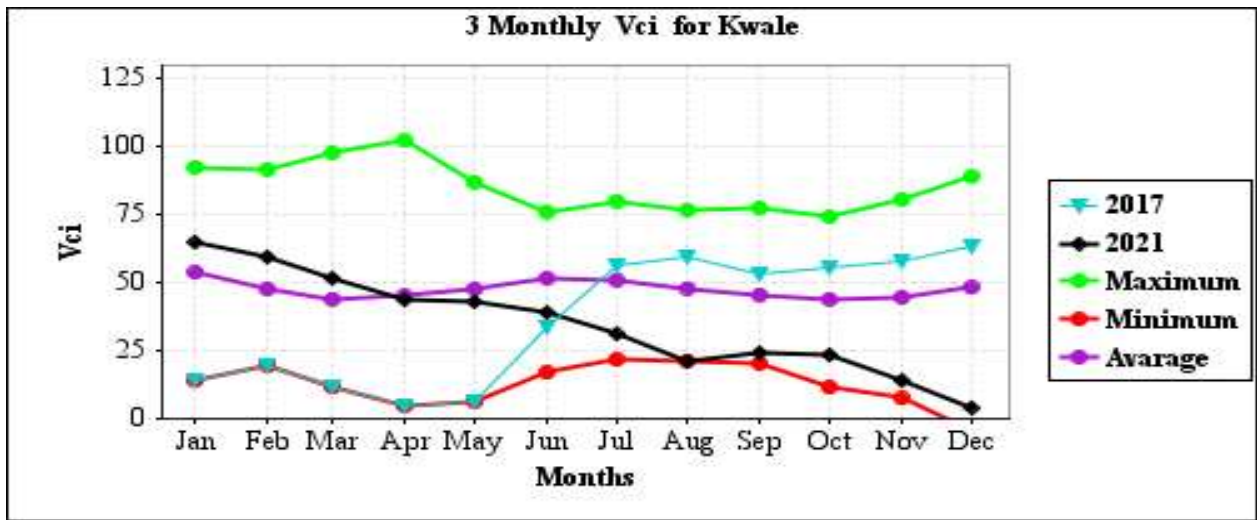
### 2.1 VEGETATION CONDITION

#### 2.1.1 3-monthly Vegetation Condition Index (VCI)

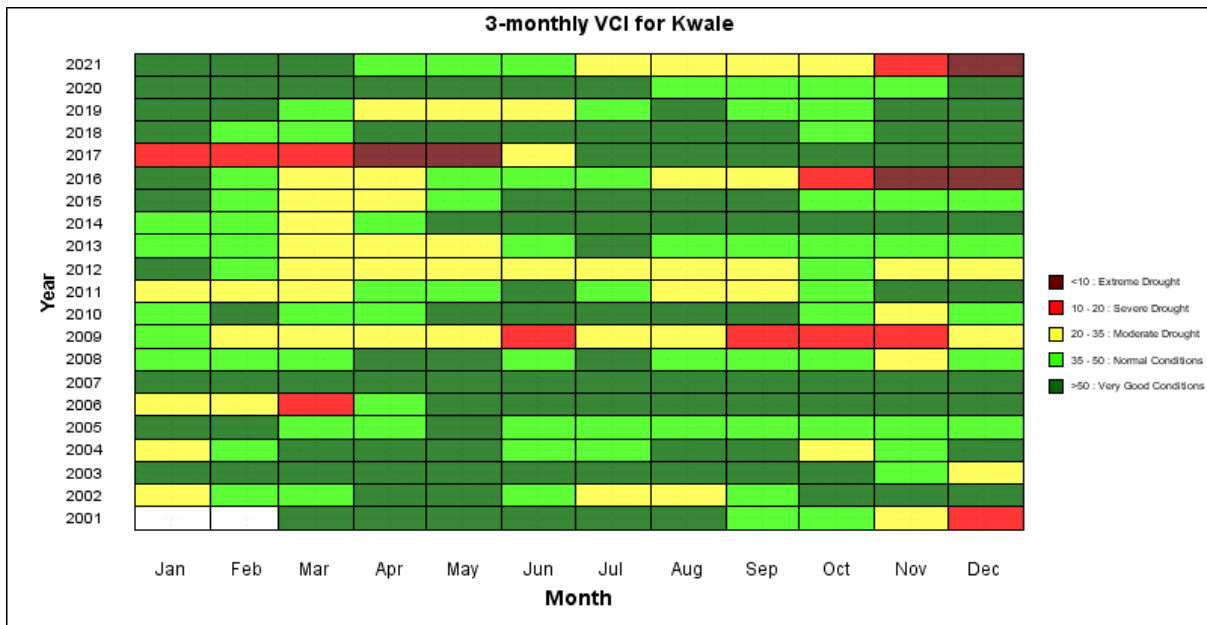
- The vegetation greenness in the county deteriorated as the 3-monthly VCI recorded decrease from 13.58 in November to 3.85 in December. The trend in VCI is shown in the table below.
- The county is therefore categorised in the extreme drought category having deteriorated from severe drought category recorded last month.
- All sub-counties are also in extreme drought category.

Area	Jan 2021	Feb 2021	Mar 2021	April 2021	May 2021	June 2021	July 2021	August 2021	Sept 2021	Oct 2021	Nov 2021	Dec 2021
Kinango Sub-county	61.91	55.81	45.9	36.67	37.17	34.22	26.02	16.93	21.24	20.89	12.36	5.32
Lunga Lunga Sub-County	68.29	61.71	54.78	36.67	53.4	48.88	40.55	28.8	25.84	22.99	15.97	4.99
Matuga Sub-county	67.06	67.2	64.76	53.92	43.63	36.06	31.23	23.56	27.71	28.03	16.82	1.05
Msambweni Sub-county	67.06	66.07	64.34	55.43	51.81	47.42	38.99	26.21	32.09	32.98	8.23	-12.21
Kwale County	64.28	59.16	51.29	43.08	42.55	38.57	30.75	21.04	23.68	22.88	13.58	3.85

- The current vegetation greenness is almost similar to a time when the county recorded its least vegetation greenness as shown in the graph below.



- In addition, the county’s vegetation condition was worse than a similar time last year and similar to the same period in 2016 when the county experienced extreme drought as shown in the matrix below.



**Field Observations (Pasture and browse conditions)**

**Pasture**

- Pasture condition was generally poor in the livestock farming livelihood zone but fair in the mixed farming one. The on-going drought has hit the former zone quite hard forcing herders to move their livestock in to the mixed farming livelihood zone. As a result the mixed farming livelihood zone is experiencing fast depletion of pasture as a result of over-grazing.

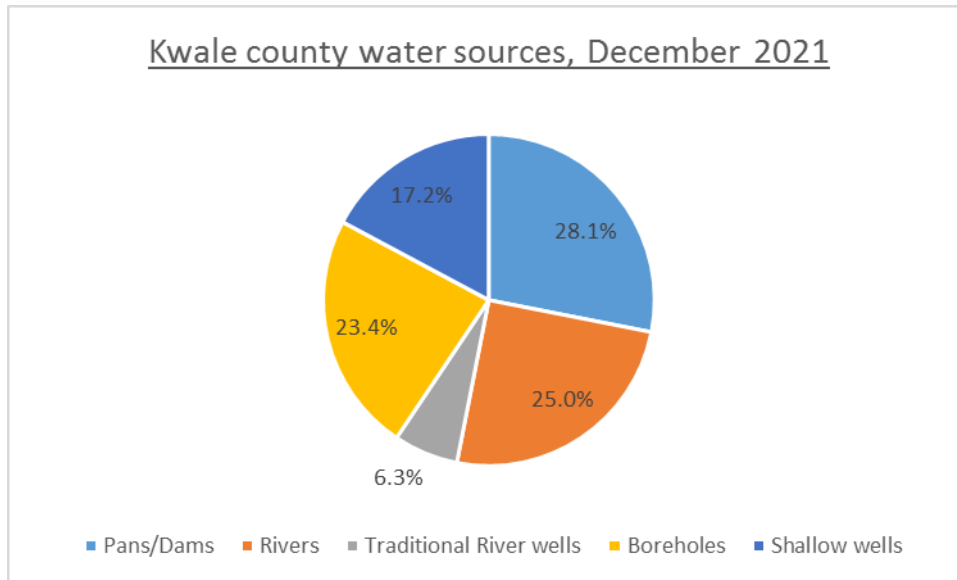
**Browse**

- Browse condition was generally fair in both the livestock farming and mixed farming livelihood zones. However, the trend was fast deteriorating due to the on-going drought and over-grazing in the mixed farming livelihood zone.

## 2.2 WATER RESOURCES

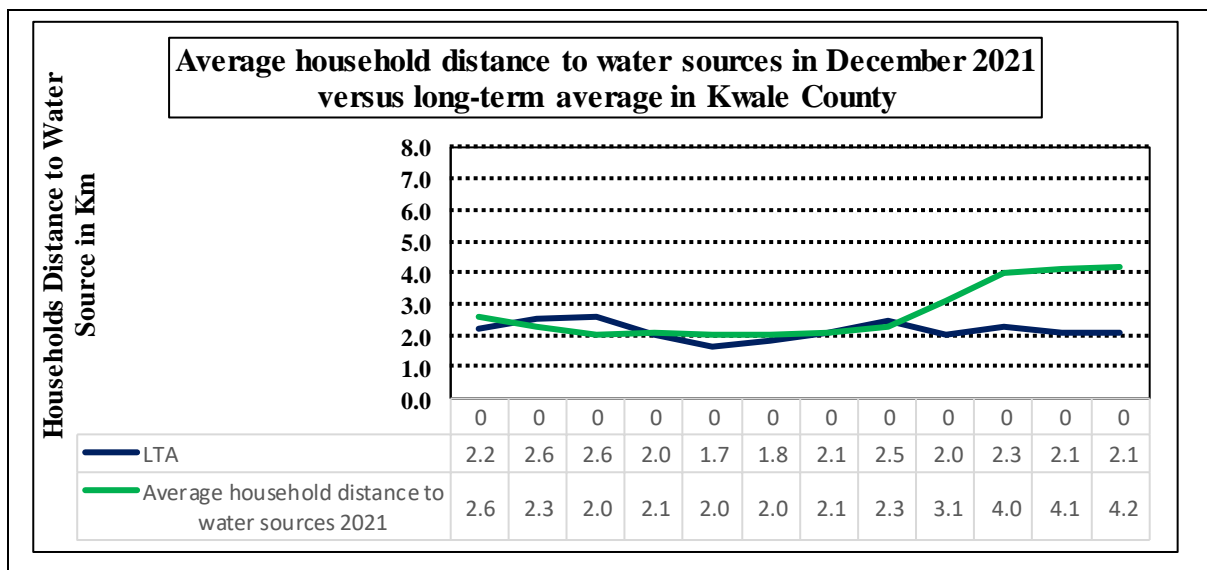
### 2.2.1 Sources

- Pans and dams were the most relied upon sources of water in December where they were still holding water particularly in the livestock farming livelihood zone. However, a good number had dried up and many households here were relying on water trucking. Rivers and boreholes were also relied upon particularly in the mixed farming livelihood.
- The status of water sources was inadequate and below normal for this time of the year.



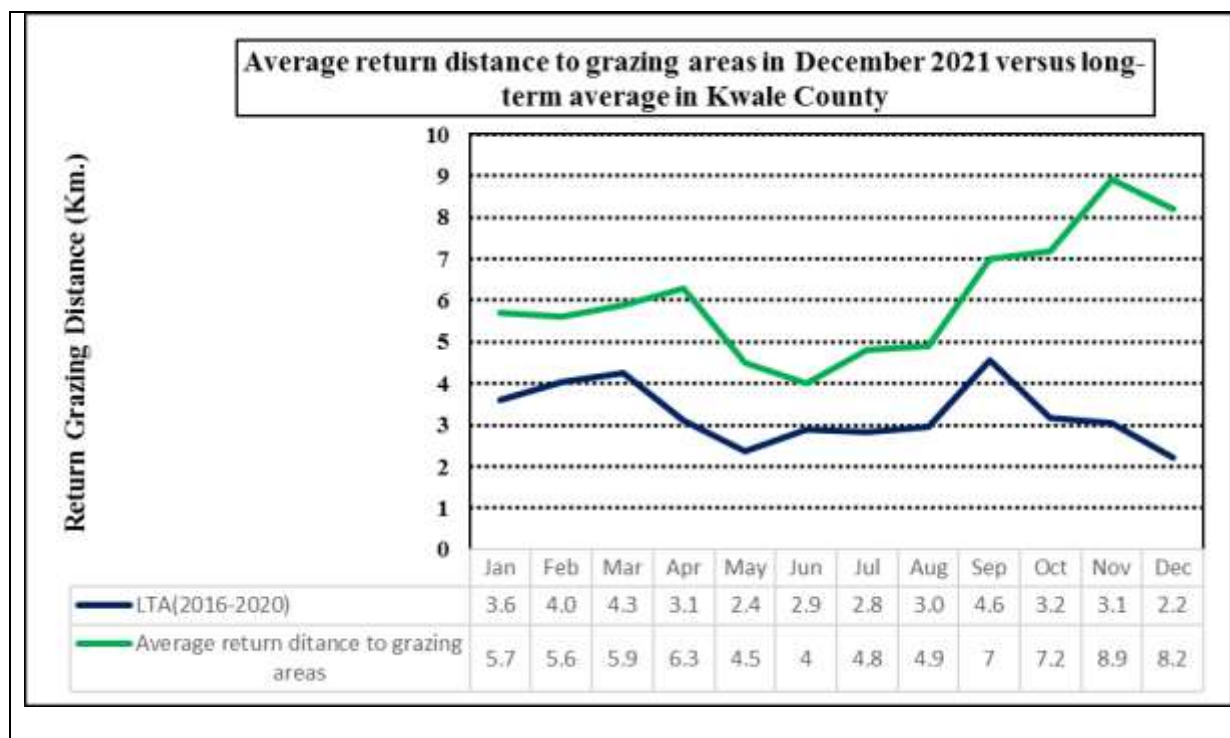
### 2.2.2 Household access and utilization

- Access to water for household use remained similar to last month as the distances to water sources recorded at 4.2km in December compared to 4.1km in November 2021 as shown in the graph below.
- The current distance was twice the one normally recorded at this time of the year at 2.1km in the 2016-2020 LTA.



### 2.2.3 Livestock access to water

- Access to water by livestock had slightly improved as livestock had to walk a shorter distance by 8.5 percent from 8.9 km in November to 8.2 km in December as shown in the graph below.
- The current distance was more than double that normally walked in comparison with 2.2 km recorded in the 2016-2020 LTA.
- The slight shortening of the average distance in December compared to November could be attributed to the above normal rains received in the second dekad of the month, however there was still very little impact towards improving the depleted rangeland resources particularly grazing reserves and thus the longer distances recorded compared to LTA.



## 3.0 PRODUCTION INDICATORS

### 3.1 LIVESTOCK PRODUCTION

#### 3.1.1 Livestock Body Condition

- Livestock body condition continued to deteriorate this month similar to last month. More livestock were categorised in stressed and moderate categories than in the normal category in December similar to November.
- Most of the livestock in the livestock farming livelihood zone were categorised in the stressed level while most in the mixed farming one were categorised in the moderate level.
- The increased unavailability of rangeland resources including water and forage could be a major contributing factor for the deterioration.
- The table below provides a description of various levels of body condition in livestock.

Level	Classification	Characteristics (this describes majority of the herd and not individual isolated stock)
1	Normal	Very Fat Tail buried and in fat
		Fat, Blocky. Bone over back not visible
		Very Good Smooth with fat over back and tail head
		Good smooth appearance

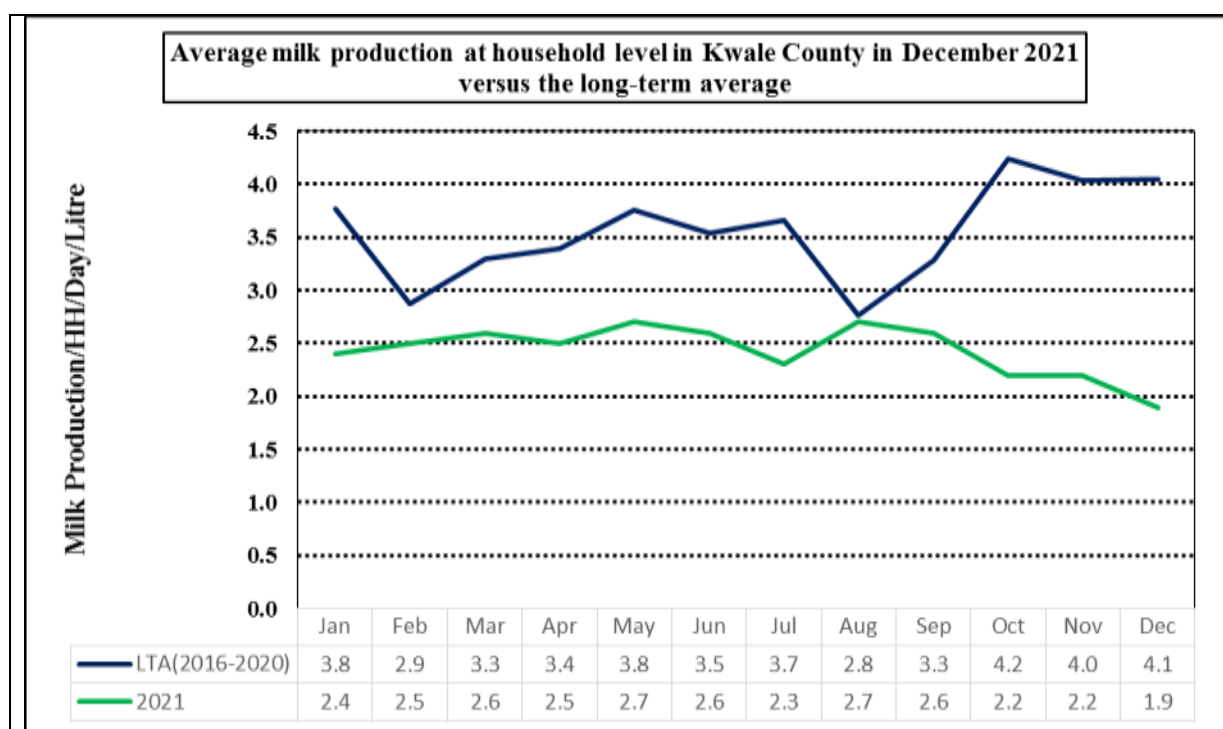
2	Moderate	Moderate. neither fat nor thin
3	Stressed	Borderline fore-ribs not visible. 12th & 13th ribs visible
4	Critical	Thin fore ribs visible
5	Emaciated	Very thin no fat, bones visible Emaciated, little muscle left

### 3.1.2 Livestock Diseases

- During the reporting period, they were cases of Lumpy Skin Disease (LSD) and Foot and Mouth Disease (FMD) in cattle, and Contagious Caprine Pleuro-Pneumonia (CCPP) in goats and Pestes des Petits Ruminants (PPR) in sheep and goats reported in Kinango Sub-county in the livestock farming livelihood zone.

### 3.1.2 Milk Production

- The average household production of milk was recorded at 1.9 litres in December having slightly reduced in comparison with 2.2 litres recorded in November.
- The milk production was below normal at almost half that normally produced at this time of the year compared with 4.1 litres recorded in the 2016-2020 LTA as shown in the graph below.
- The acute unavailability of rangeland resources could be a major contributing factor to the below average and deteriorating trend in milk production.



## 3.2 RAIN-FED CROP PRODUCTION

### 3.2.1 Stage and condition of food crops

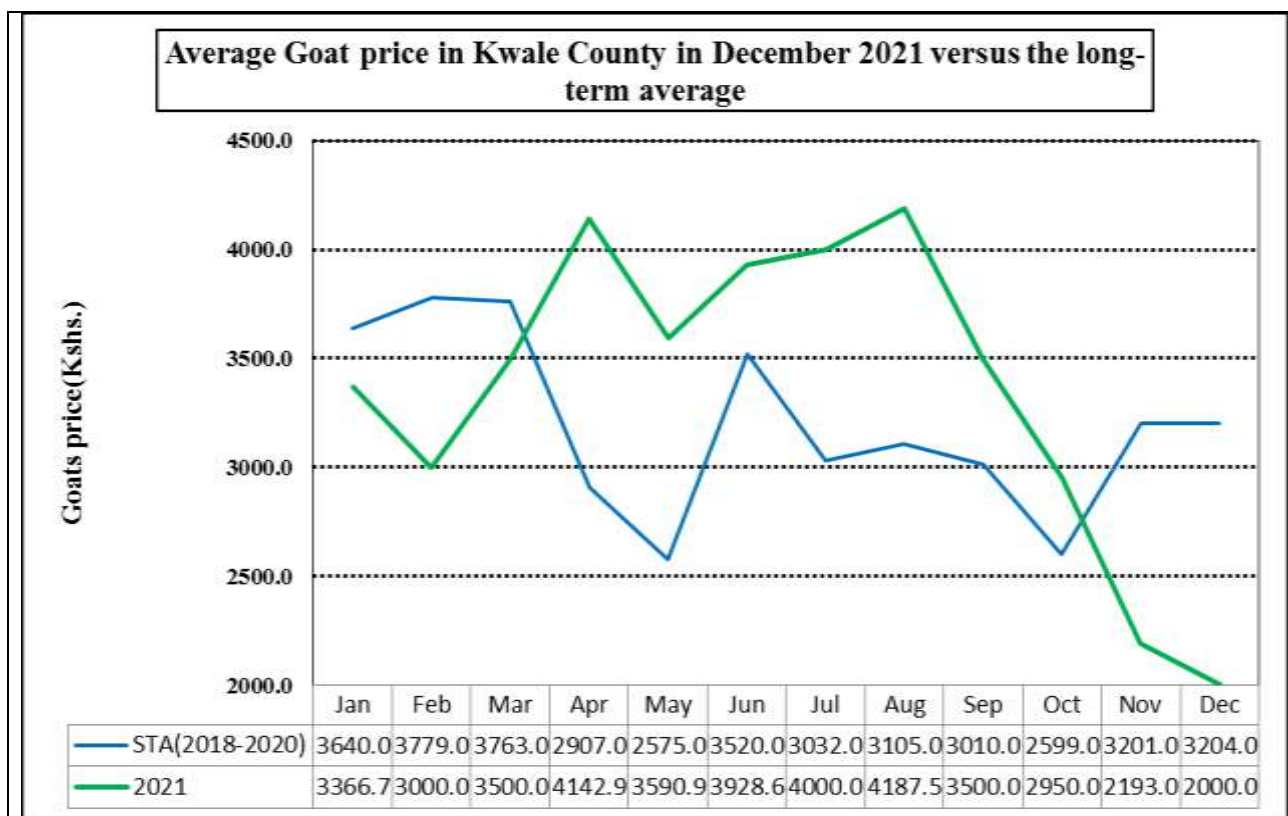
- Following the rainfall received in the first and second dekads of the month, most farmers who had prepared their farms immediately went into planting.
- However the prospects for the crops are dim since the normal cropping calendar has been disrupted by the delayed rains, which in turn will compromise crop production for the season.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Goat prices

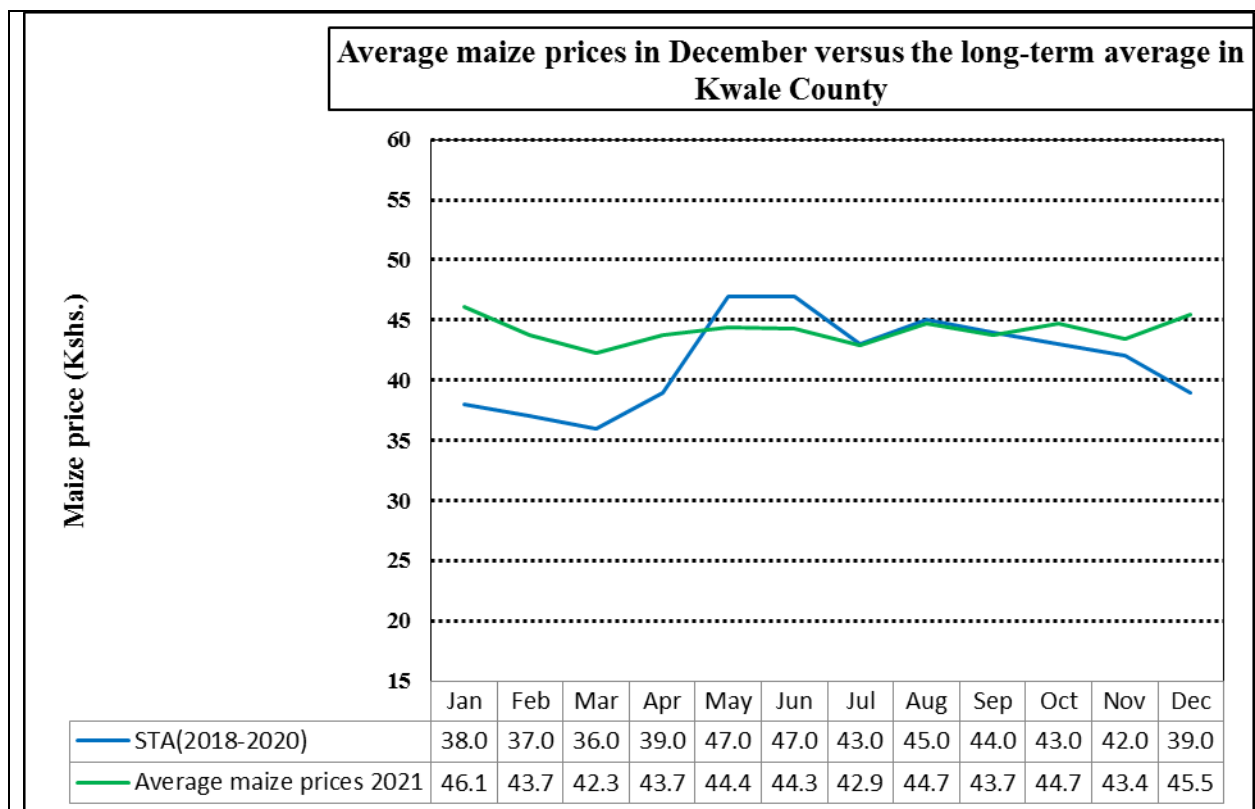
- The selling price of a medium-sized three-year old buck was Kshs 2,000 on average having recorded an 8.8 percent decrease compared with Kshs 2,193 recorded in November.
- The price was 37.6 percent lower than the 2018-2020 LTA which was recorded as Kshs 3204 as shown in the graph below.



## 4.2 CROP PRICES

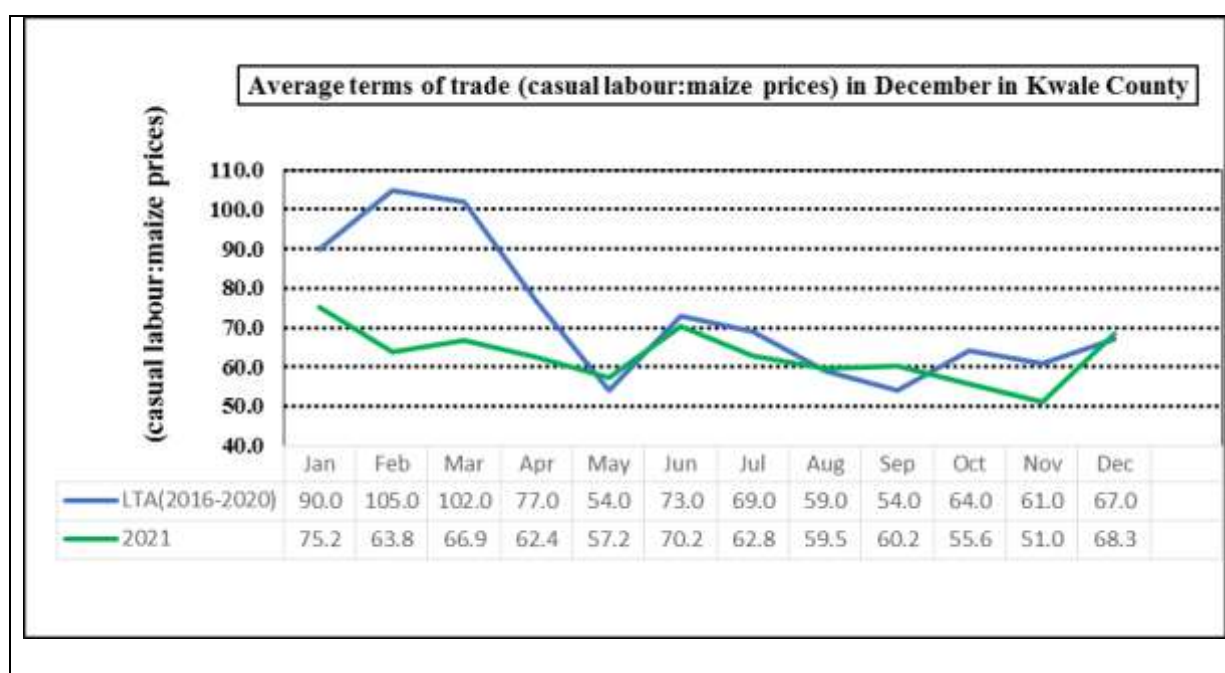
### 4.2.1 Maize

- The retail price of a kilogram of maize was Kshs 45.5 in December having maintained a stable trend in comparison with Kshs 43.4 recorded in November.
- The price was higher than the seasonal norms for this time of the year in comparison with Kshs 39.0 in the 2015-2017 LTA as shown in the graph below.



#### 4.3 TERMS OF TRADE (ToT) - CASUAL LABOUR VERSUS MAIZE PRICES

- The average ToT was 68.3 in December having increased from 51.0 recorded in November.
- The ToT was within the normal seasonal range for this time of year in comparison with 67.0 recorded in the 2018-2020 LTA as shown in the graph below.
- The implication was that household purchasing power improved in comparison with last month and was within normal range for this time of the year.
- Therefore, households were able to purchase a higher quantity of maize from the proceeds of casual labour this month but similar quantities compared with normal times.

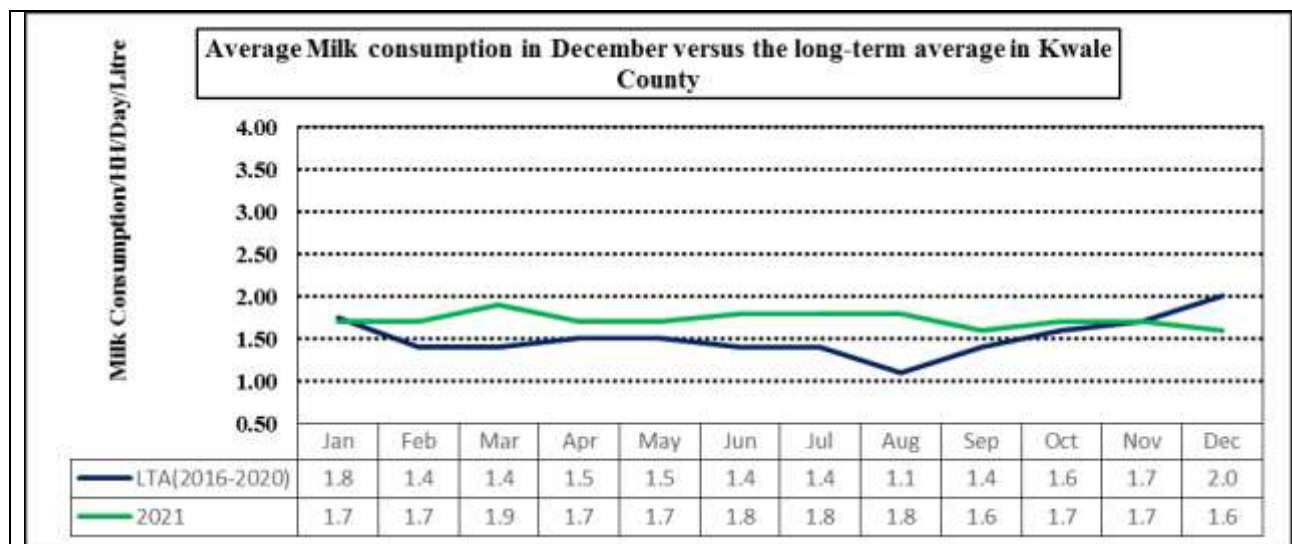




## 5.0 FOOD CONSUMPTION

### 5.1 MILK CONSUMPTION

- Milk consumption averaged 1.6 litres in December having slightly reduced compared to 1.7 litres last month as shown in the graph below.
- Consumption was also lower compared to the amount normally consumed at this time of the year of 2.0 litres.



## 5.3 HEALTH AND NUTRITION STATUS

### 5.3.1 Nutrition Status

- The proportion of children at risk of malnutrition as determined by the mid-upper arm circumference method was estimated at 4.3 percent in December.
- The proportion had registered an increase from 4.1 percent and 3.9 percent in November and October respectively.
- This increasing trend is likely to be recorded in the coming months as households rely on food stocks from previous harvests which are currently being depleted and current harvests from the short rains season expected to be poor due to the poor performance of the rains both in time and space.

## 5.4 COPING STRATEGIES

- The reduced coping strategy index (rCSI) was estimated at 14.75 in December having remains stable in comparison with 15.1 recorded in November.
- There had therefore not been any considerable change in the severity and/or frequency of the consumption-based coping strategies to mitigate food consumption gaps.

## 6. CURRENT INTERVENTION MEASURES

### 6.1 FOOD INTERVENTIONS

- None.

## 6.2 NON-FOOD INTERVENTIONS

### **Agriculture, Livestock & Fisheries department (County Government of Kwale)**

- Provision of 11 tons of drought tolerant crop seeds i.e. 5.5 tons cowpeas and 5.5 tons green grams

### **Health services department (County Government of Kwale)**

- Routine growth monitoring in all facilities
- Conducted Malezi Bora campaigns and distributed Vitamin A and deworming tablets

### **Water department (County Government of Kwale)**

- Provision of water for water trucking in Samburu-Chengoni and McKinnon Road Wards.

### **National Drought Management Authority**

- Support to water trucking activities in Samburu/Chengoni and McKinnon Road Wards through
  - provision of fuel for the County Government of Kwale's water bowser for water trucking activities
  - payment of allowances for drivers for the water trucking exercise

### **Kenya Red Cross Society**

- The Society conducted community mobilization for livestock offtake (slaughter) in Kinango, Lunga lunga and Matuga sub counties.

### **Coast Water Services Board (CWSB)**

- Support to water trucking in Samburu-Chengoni, Puma and Macknon Road wards

### **Kwale International Sugar Company Limited (KISCOL)**

- Support to water trucking services in Mwereni ward, Lunga lunga sub county

### **National Government (Department of Interior & Coordination)**

- Unconditional cash transfer (UCT) to 26,000 households. Each household received Kshs 3000 in December.

## 7. EMERGING ISSUES

### 7.1 Migration

- Intra-county migrations have continued to occur this month and slightly intensified as herders in the livestock farming livelihood zone in areas such as Mwavumbo, Kasemeni, and Puma Wards have moved their livestock into parts of Ramisi and Mkongani Wards in search of water and pasture. The movements have accelerated the depletion of the available water and pasture, and have also been a mode of transmission of livestock diseases.

## 8. RECOMMENDATIONS

- On-going cash transfers should continue as households will be relying on stores for food given since crop production was compromised this season.
- Conduct integrated health and nutrition outreaches for purposes of rapid nutritional screening for malnutrition for children aged below five years given that malnutrition has been on a constant deteriorating trend for the last 5 months.

- Livestock off-take should be conducted as earlier planned to enable livestock farmers benefit from their herds before death claims them as they wait for rangeland rejuvenation.