

**National Drought Management Authority**  
**KWALE COUNTY**  
**DROUGHT EARLY WARNING BULLETIN NOVEMBER 2019**



A Vision 2030 Flagship Project



**NOVEMBER 2019 EW FLAG**

**Drought Status: NORMAL**



**Shughull za kawaida**

**Early Warning (EW) Phase Classification**

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Stable
Livestock Farming	Normal	Improving
County	Normal	Improving
Biophysical Indicators	Value	Normal Range/Value
VCI	66.81	>50
State of Water Sources	5	5
Production indicators	Value	Normal
Crop Condition (maize and legumes)	Fair	Good
Milk Production (Litres)	5.2	4.0
Livestock Migration Pattern	No migration	No migration
Livestock deaths (from drought)	Zero deaths	Zero deaths
Access Indicators	Value	Normal
Terms of trade	24.3	68.9
Milk Consumption (litres)	1.5	1.7
Return distance to water sources for households (km)	2.7	3.4
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	9.9	5.6

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- Normal to above-normal rains were received in November.
- The VCI for the month was significantly above-average for this time of the year.
- The state of water sources was normal.

**Socio Economic Indicators (Impact Indicators)**

**Production indicators**

- The condition of maize, cowpeas and green grams was fair this month when normally it would be good.
- Milk production was slightly above-average for the month.
- No migration or drought-related deaths were recorded during the month.

**Access indicators**

- Terms of trade (casual labour to maize) were more than 50 percent below-average implying significantly reduced purchasing power at household level for this time of the year.
- Milk consumption was within seasonal ranges in November.
- Distances to water points for household use were within seasonal ranges during the month.

**Utilization Indicators**

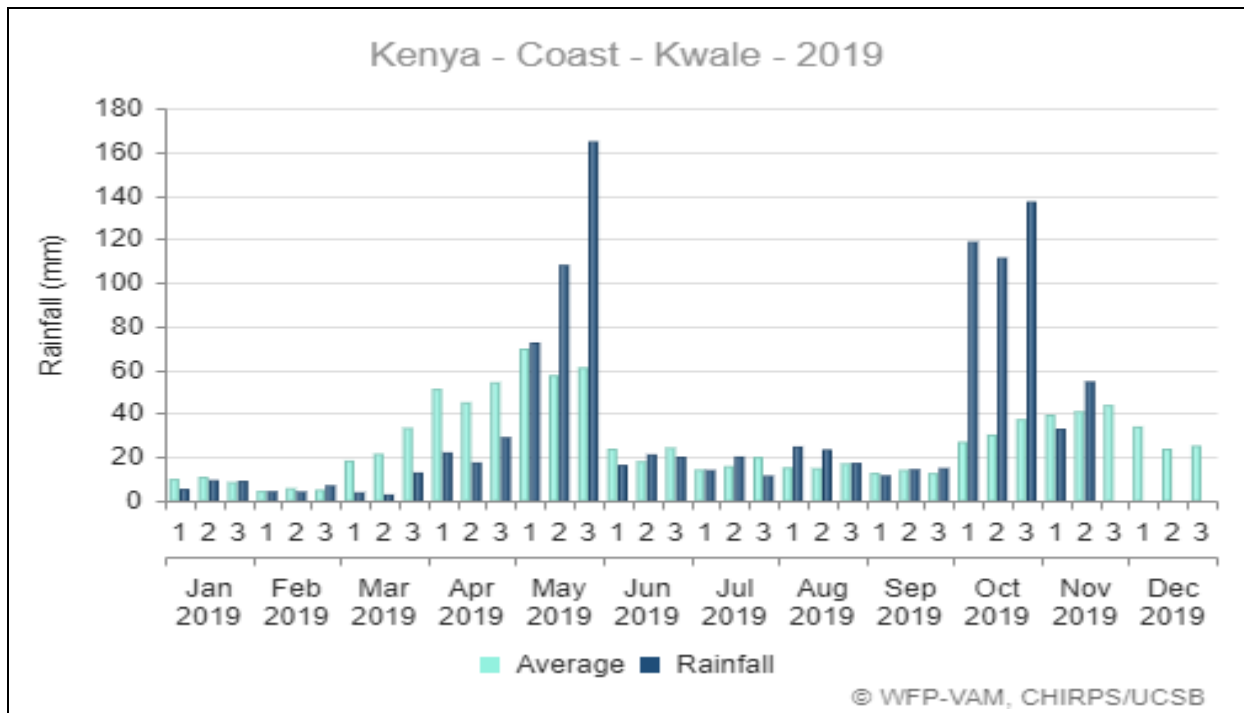
- The proportion of children at risk of malnutrition was significantly above-average for this time of the year implying a worsened nutritional status for children aged 0-5 years for this time of the year.

**Seasonal Calendar**

<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>								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

## 1.1 RAINFALL PERFORMANCE

- The short rains season’s onset was timely in the first dekad of November as illustrated in the graph below.
- The amounts received in the first dekad were estimated at 32.5 mm in comparison with 39 mm in the long-term average which was 16.7 percent less than normal.
- In the second dekad, amounts were recorded at 54.2 mm which were 33.8 percent above the long-term mean of 40.5mm.
- The spatial distribution was fair while the temporal distribution was good.
- The cessation of the current season is projected to be in the second dekad of December with above-average tendencies.

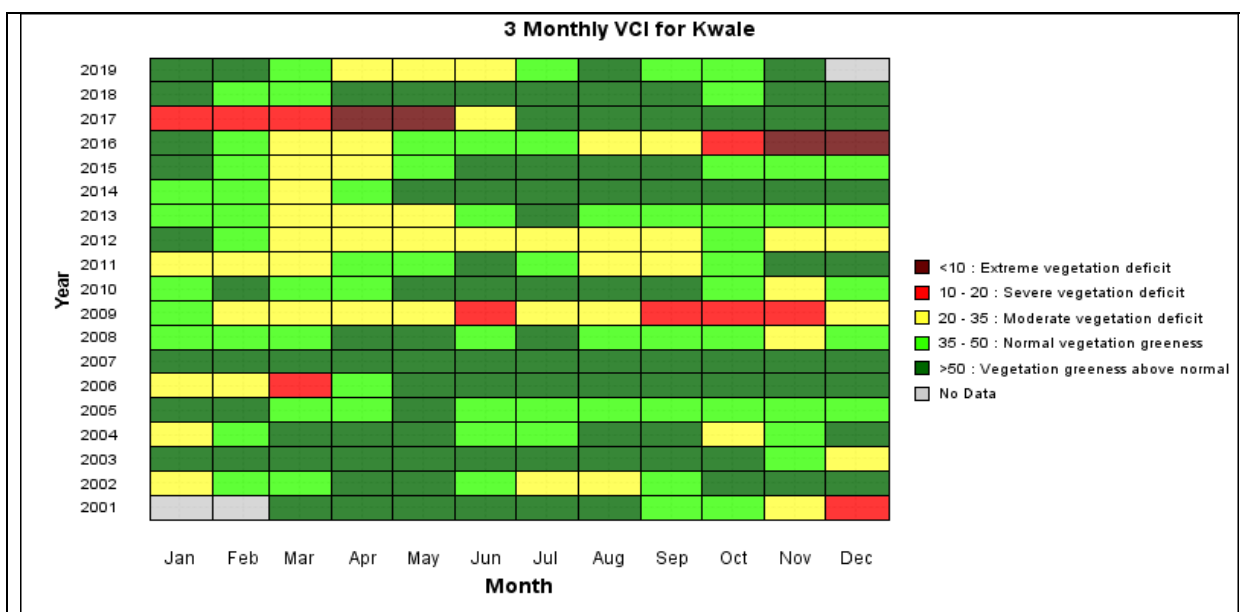


## 2. IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

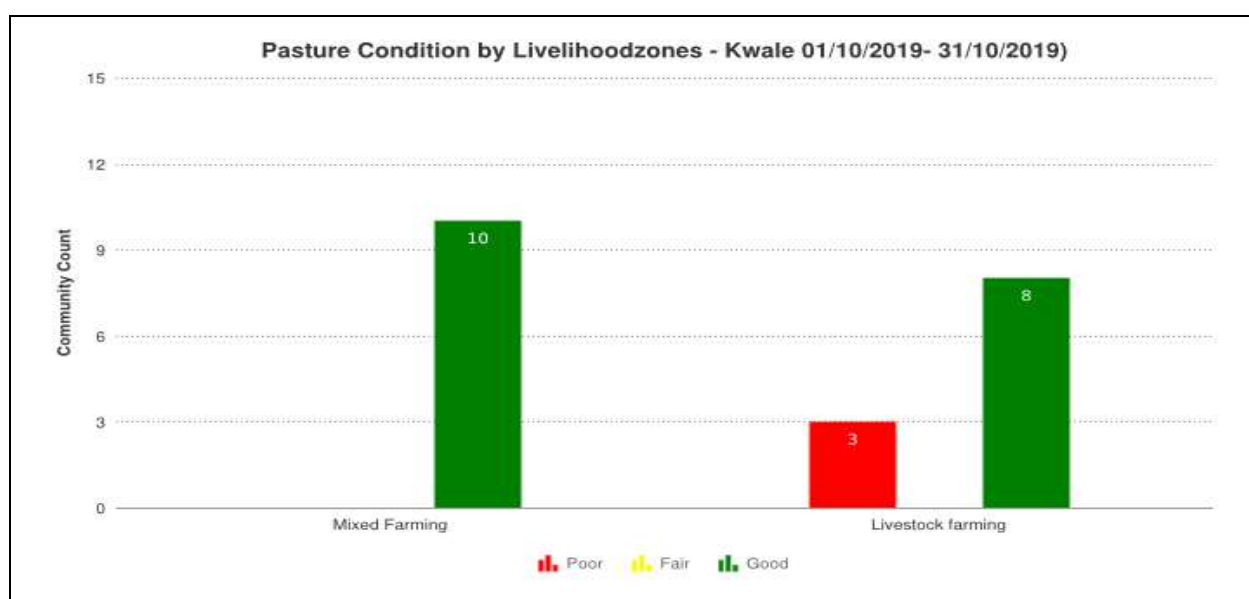
#### 2.1.1 Vegetation Condition Index (VCI)

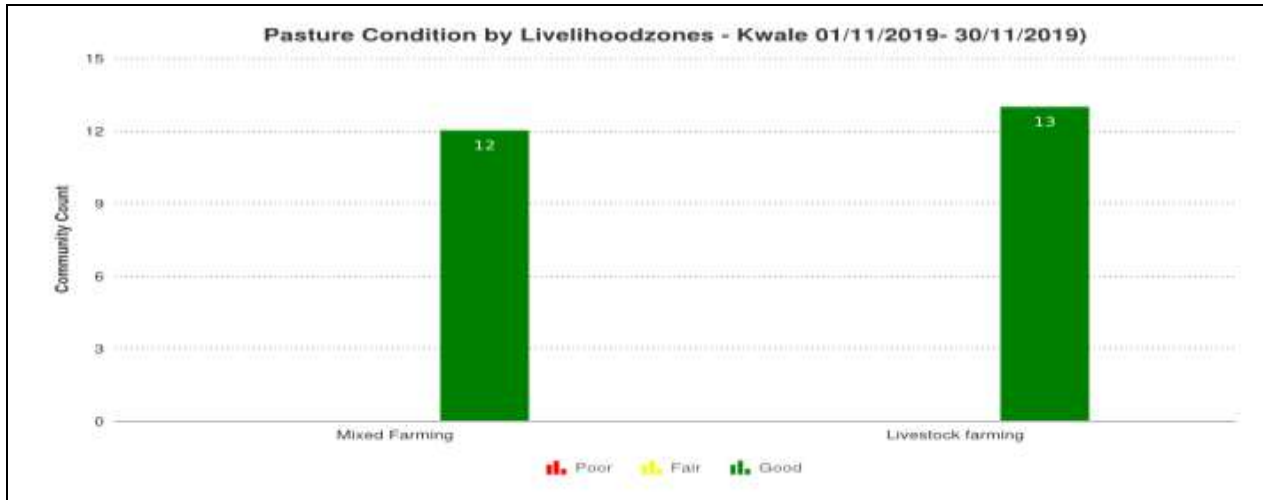
- There was a significant improvement in the county’s vegetation greenness as the VCI increased by a 40.3 percent margin from 47.63 last month to 66.81 in November.
- Therefore, the county was classified in the ‘vegetation greenness above-normal’ band as shown in the matrix below.
- The most significant improvement was recorded in the livestock farming livelihood zone which comprises of Kinango and Lunga Lunga Sub-counties.
- Kinango Sub-county’s VCI increased from 41.65 in October to 64.46 in November while Lunga Lunga’s increased from 49.01 to 70.19 during the same period.
- However, vegetation condition remained relatively stable in the mixed farming livelihood zone comprising Matuga and Msambweni Sub-counties.
- In Matuga Sub-county, it increased slightly from 64.42 in October to 69.89 in November while that of Msambweni Sub-county was recorded as 69.45 and 70.67 during the same period.
- All the sub-counties were therefore classified in the ‘vegetation greenness above normal’ band.
- The current vegetation greenness is similar to the same time last year as shown in the same matrix.



### 2.1.2 Pasture

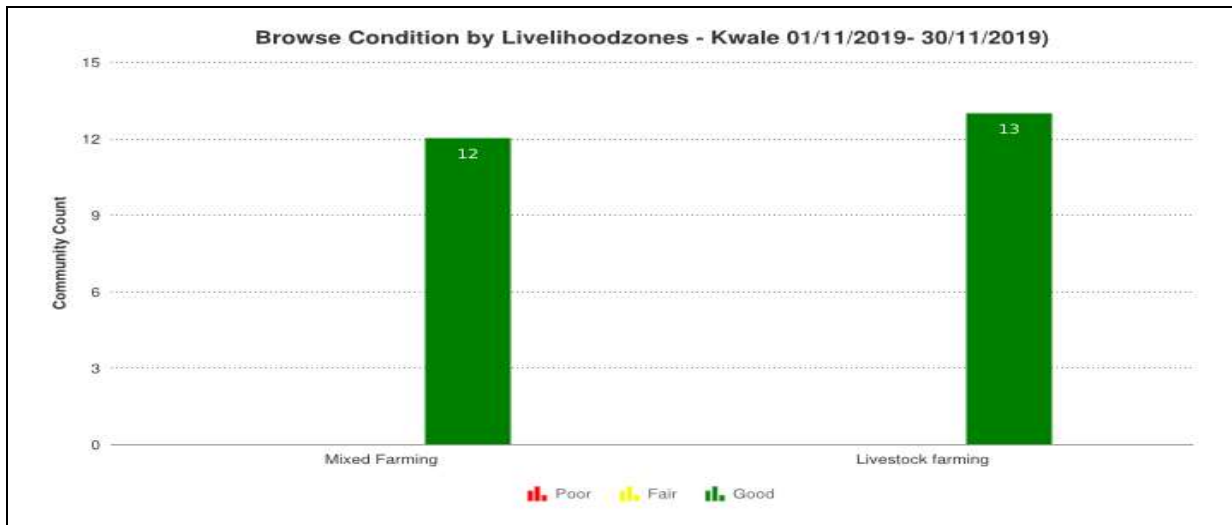
- An improvement was recorded in pasture condition this month in comparison with last month as no household posted poor condition compared with 14.3 percent last month.
- The situation had also improved at the livelihood zone level as shown in the diagrams below, with the highest improvement recorded in the livestock farming livelihood zone.
- There were also no significant variation in the condition of pasture at livelihood zone level this month.
- The improvement is attributed to the on-going rains in the county that have availed sufficient precipitation for pasture to seed and mature.
- The trend was likely to continue through to mid next month when it is envisaged that the season will come to an end.
- The available pasture was projected to last at least four months in the livestock farming livelihood zone and six months in the mixed farming one.





### 2.1.3 Browse

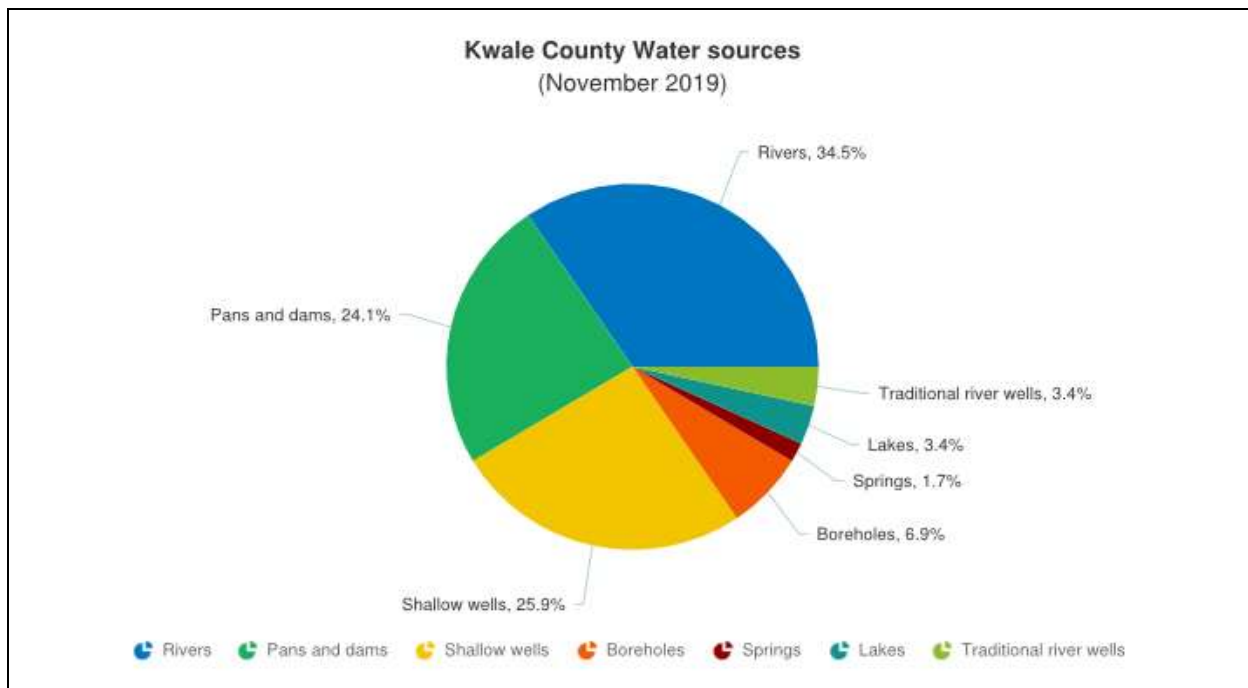
- An improvement was recorded in the browse condition in the county as all households reported good condition compared with 85.7 percent in October.
- The improvement was also recorded at livelihood zone level where minimal variations in browse condition were registered as shown in the graph below.
- Similar to the pasture condition, the improved condition was occasioned by favourable showers that sufficiently recharged browse.
- The available browse was projected to last more than six months beyond the next rainy season in March next year.



## 2.2 WATER RESOURCES

### 2.2.1 Sources

- Pans, dams, shallow wells and rivers were the most relied upon sources of water for domestic consumption in November similar to October.
- The sources are the ones normally used at this time of the year.
- Other sources in use during the month were as shown in the pie-chart below.

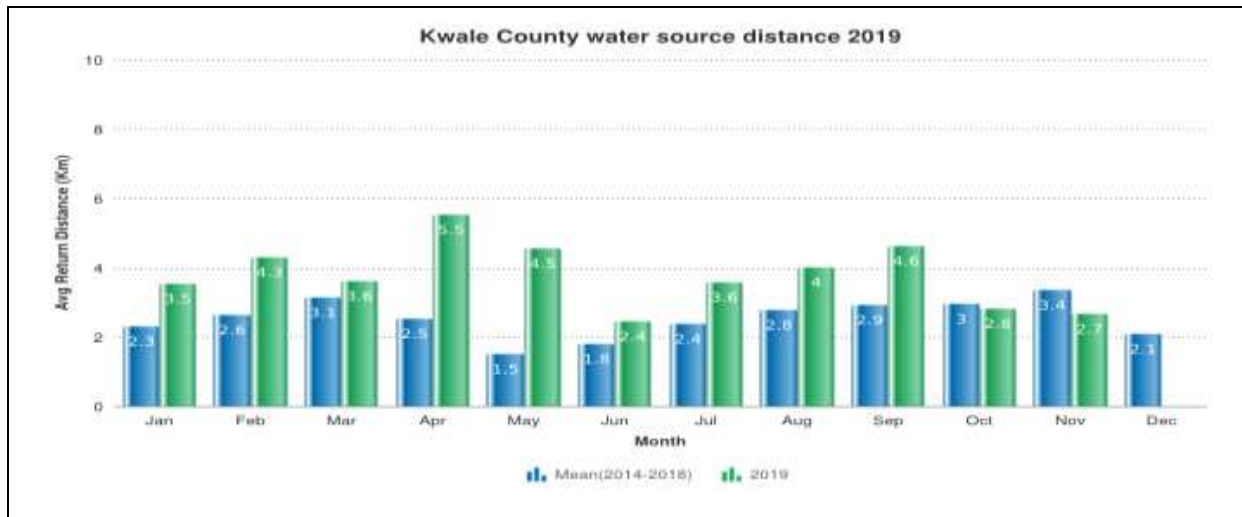


- The status of water resources is normal for this time of the year as described in the table below.

INDEX	STATE OF WATER SOURCE	DESCRIPTION
1	<b>EMERGENCY SITUATION</b>	All main water sources have dried up; only few boreholes still yielding significant amounts
2	<b>STRONGLY INADEQUATE</b>	Surface water sources have dried up while the underground water sources are yielding very little amounts of water. Breakages of boreholes contribute to worsen the situation. Acute water shortage in many areas within the livelihood
3	<b>INADEQUATE</b>	Surface water sources have dried up while the underground water sources are yielding modest amounts of water. Concentration of livestock around few water points contribute to spread communicable diseases and to degradation of rangeland
4	<b>DECLINING</b>	The water availability is below normal for the period
5	<b>NORMAL</b>	The water availability is normal for the period
6	<b>GOOD</b>	The water availability is above normal for the period

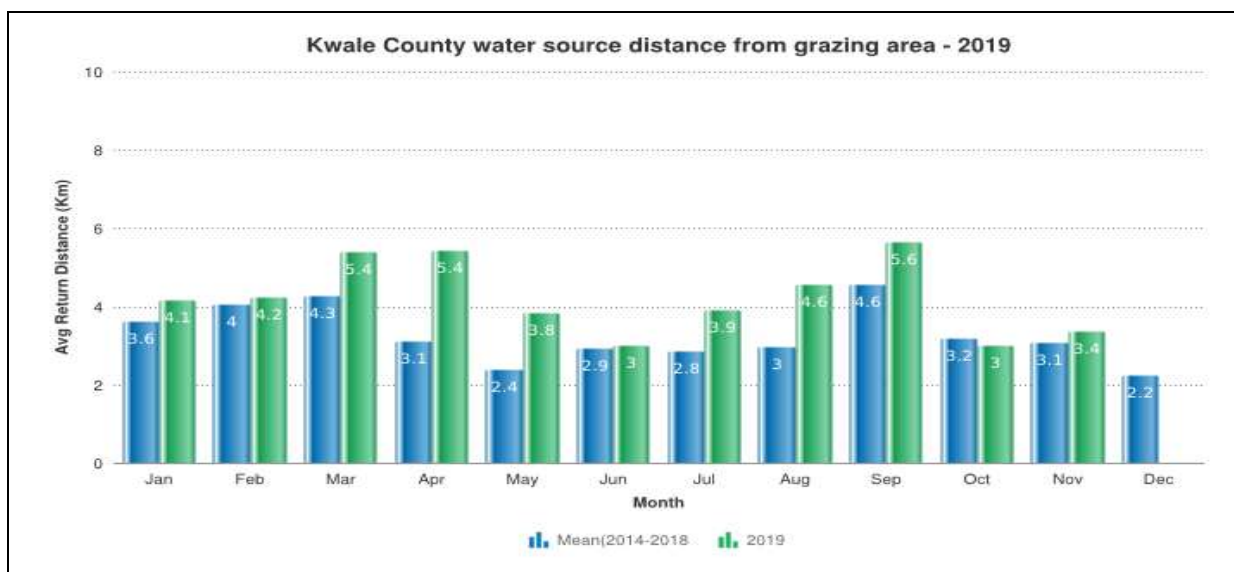
### 2.2.2 Household access and utilization

- The aggregate distance walked by households from homesteads to watering points remained stable at 2.7 km in November compared with 2.8 km recorded in October.
- The distance was also within seasonal ranges compared with 3.4 km recorded in the 2014-2018 LTA as shown in the graph below.
- The highest distance was recorded in the mixed farming livelihood zone at 2.0 km while the least was posted in the livestock farming one at 0.7 km.



### 2.2.3 Livestock access to water

- A stable trend was recorded in livestock’s access to water as the distance they walked to watering points from grazing areas remained relatively the same at 3.4 km in November compared with 3.0 km in October.
- The distance was also within seasonal norms compared with 3.1 km recorded in the 2014-2018 LTA as shown in the graph below.
- The current trend was likely to be sustained as the rains were still on-going up to at least mid-December when they are likely to cease.



## 3.0 PRODUCTION INDICATORS

### 3.1 LIVESTOCK PRODUCTION

#### 3.1.1 Livestock Body Condition

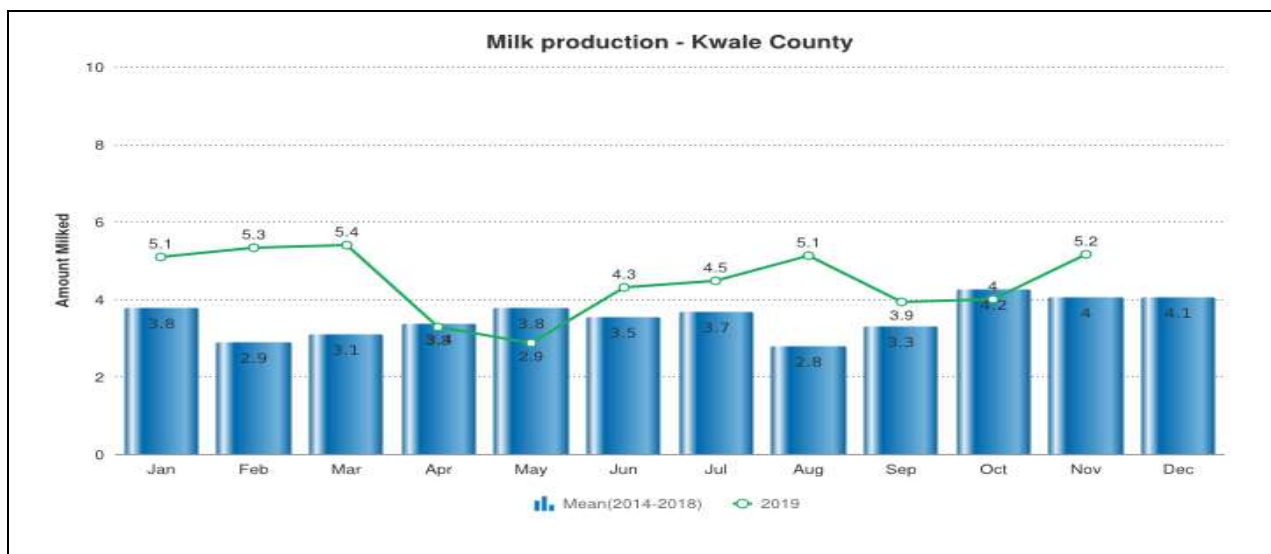
- The livestock body condition improved slightly compared with last month as the proportion of livestock with a good smooth appearance increased by five percent from 52.4 percent last month to 55 percent in November as shown in the table below.
- In addition, the proportion with thin fore ribs visible almost halved from 9.5 percent to five during the same period.

- With the rangeland resources likely to remain available through to the onset of the next season, the condition is likely to further improve during this period.

Level	Classification	Characteristics (this describes majority of the herd and not individual isolated stock)	October 2019 (Proportion of livestock in %)	November 2019 (Proportion of livestock in %)
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	52.4	55
2	Moderate	Moderate. neither fat nor thin	19	25
3	Stressed	Borderline fore-ribs not visible. 12th & 13th ribs visible	19	15
4	Critical	Thin fore ribs visible	9.5	5
5	Emaciated	Very thin no fat, bones visible	-	-
		Emaciated, little muscle left	-	-

### 3.1.2 Milk Production

- Cattle were the main producers of milk this month similar to last month which was normal.
- The production increased slightly by a 30 percent margin from 4.0 litres in October to 5.2 litres in November.
- The production was also higher-than-normal by a similar margin compared with the 2014-2018 LTA as illustrated in the graph below.
- With the projected increased availability of pasture and water in addition to an increased likelihood of improved body condition, the production was also projected to increase in the coming months.





## 3.2 RAIN-FED CROP PRODUCTION

### 3.2.1 Stage and condition of food crops

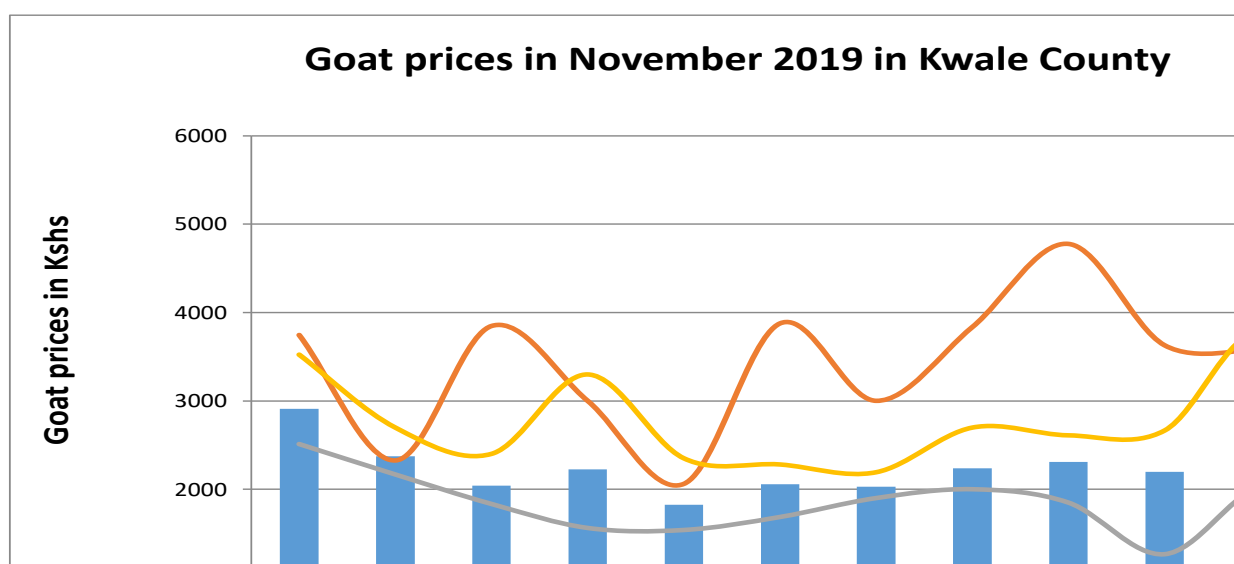
- The three major food crops planted this season include maize, cowpeas and green grams.
- Maize is the main staple which is currently at knee-high stage and was currently in fair condition. Water-logging and leaching has affected the condition which would normally be good at this time of the year.
- The other two crops, cowpeas and green grams, were at germination stage while normally they would be at flowering stage, and were in fair condition compared with good normally.
- The delay in maturity level in the three major crops is largely due to delayed planting as ploughing was a challenge as a result of soggy soils due to significantly above-average rains during the normal planting dates in October.
- The acreage ploughed had also reduced due to the same reason; tractor ploughing, an incentive by the county government had achieved only 25 percent of its targeted acreage of 6000 acres this season.
- The late planting dates could also have been occasioned by the county's delay in distributing the cowpea and green gram seeds as incentives.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Goat prices

- A three-year old medium-sized buck was trading at Kshs 3,592.3 having maintained a stable trend from Kshs 3,628.6 recorded in October.
- The price also coincided with the highest ever recorded value for the month in addition to being 26.2 percent higher than the 2016-2018 LTA of Kshs 2,845.93 as shown in the figure below.
- The increased availability of browse could have been attributed to good body condition which could have led to the higher-than-average prices.

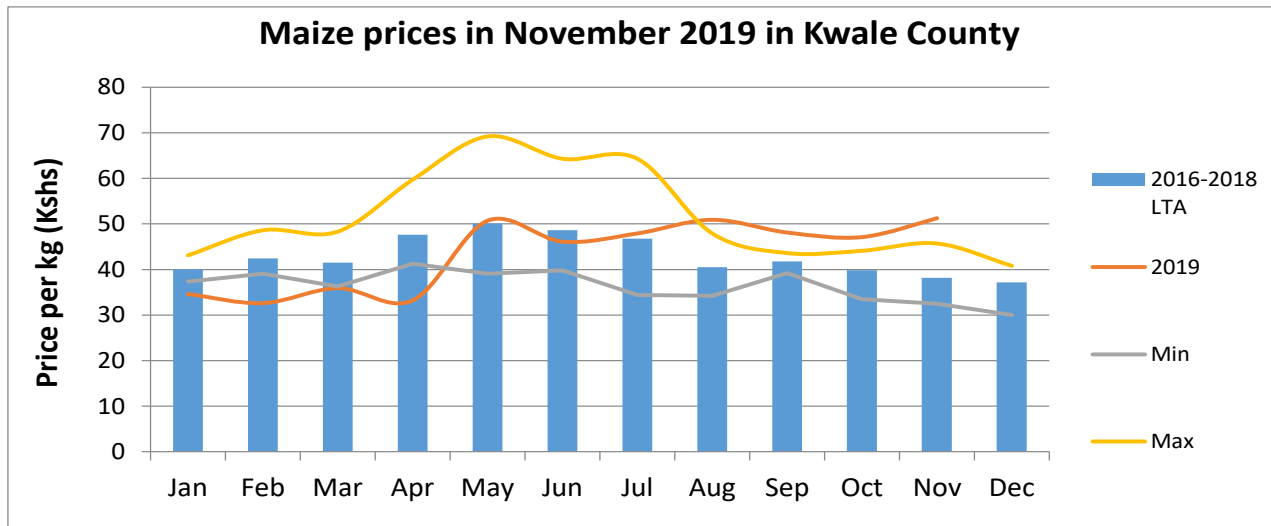


## 4.2 CROP PRICES

### 4.2.1 Maize

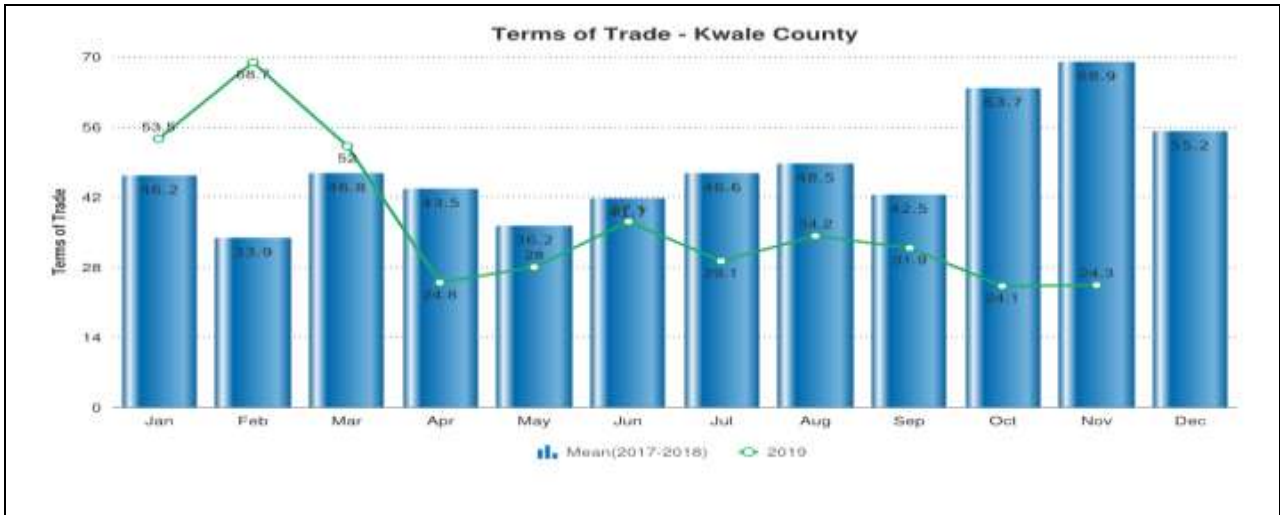


- Maize was selling at Kshs 51.25 per kilogram in November having remained stable in comparison to Kshs 47.1 recorded in October.
- The price was also similar to the highest ever recorded price this month at Kshs 45.7.
- In addition, it was 34.2 percent higher than normal compared with Kshs 38.2 recorded in the 2016-2018 LTA.
- Maize price trends in the county are illustrated in the graph below.
- The higher-than-average trends in maize prices could be attributed to its heightened demand in the county given that previous seasons did not sufficiently replenish stocks at household level.



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

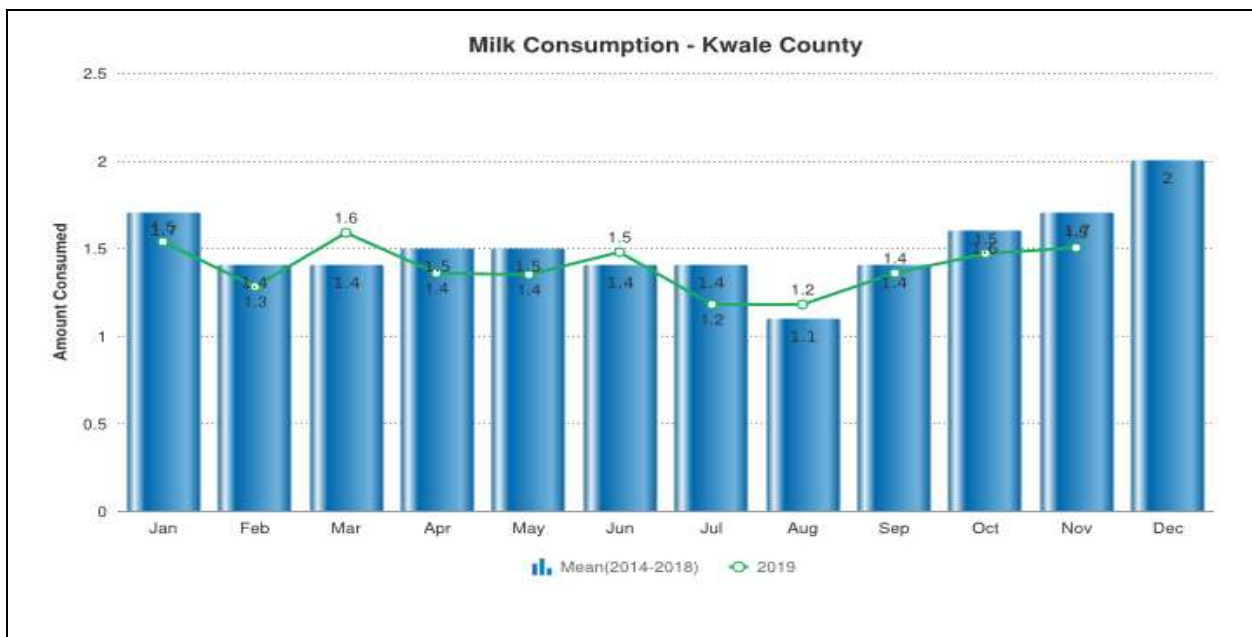
- The ToT maintained a stable trend from 24.1 recorded in October to 24.3 recorded in November.
- The household purchasing power had therefore remained relatively the same in comparison to last month as households were able to purchase an almost similar amount of maize from the proceeds of casual labour.
- However, the ToT had decreased significantly in comparison with normal times. Households could currently purchase less than half (24.3kg) of the quantity of maize normally purchased at this time of the year (68.9 kg) recorded in the 2017-2018 LTA.
- With the above-average rains received last month which coincided with the start of the planting season, the soils became very soggy impeding ploughing and other land preparation activities.
- Therefore, planting and weeding dates were delayed, which are some important on-farm activities that normally afford households income opportunities from casual labour at this time of the year.
- Consequently, the reduced income manifested itself in the decreased purchasing power at household level as shown in the graph below.



## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

- The average milk consumption at household level was 1.5 litres in November similar to October.
- The consumption was within seasonal averages in comparison with the 2014-2018 LTA which was recorded as 1.7 litres.
- The following graph shows the average milk consumption trends in the county.



### 5.2 FOOD CONSUMPTION SCORE

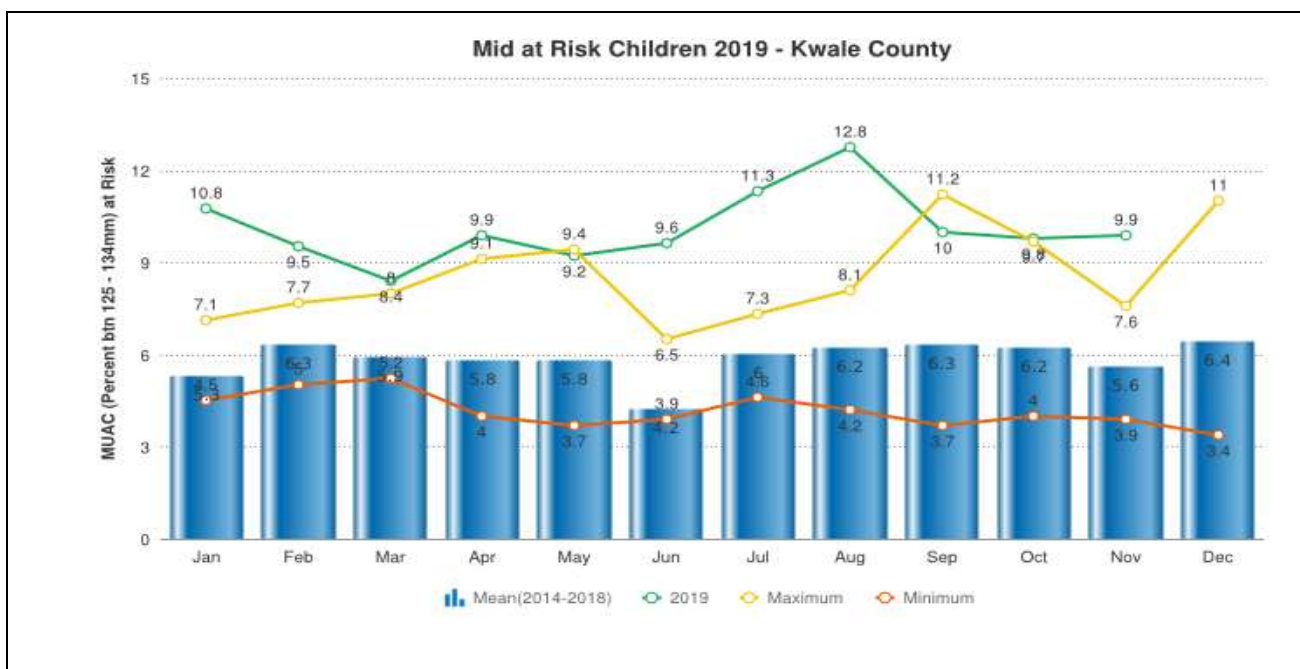
- The food consumption score maintained a relatively stable trend compared with last month as a score of 40.4 was recorded in November compared with 38.0 in October.
- The food consumption score was also similar to that posted at the same time last year at 40.2.
- A similar trend was followed in the proportion of households with a poor food consumption score who averaged 10.7 percent this month compared with 12.4 percent in October.
- However, some variations were recorded in the proportion of households in the remaining three food consumption groups this month in comparison to last month.

- The proportion with a borderline score was estimated at 28.2 percent in November compared with 33.9 percent last month, indicative of a 16.8 percent reduction in the population in this group.
- In addition, the proportion with an acceptable score was approximated at 61 percent this month compared with 53.7 percent in October, proportionate to a 13.6 percent increase in the population within this group.
- The implication was that there had been some improvement in food consumption patterns (i.e food frequency, dietary diversity and nutritional value of food) particularly in the population with borderline and acceptable consumption.
- At livelihood zone level, the highest food consumption score was recorded in the mixed farming livelihood zone at 48.2 having increased by an 11.1 percent margin from 43.4 in October.
- The least food consumption score was posted in the livestock farming livelihood zone at 32.6 having maintained a stable trend from 33.6 in October.

### 5.3 HEALTH AND NUTRITION STATUS

#### 5.3.1 Nutrition Status

- A total of 1,023 children were sampled for the determination of the proportion of those at risk of malnutrition using the mid-upper arm circumference this month.
- Disaggregated by gender, the number of boys and girls were 584 and 436 respectively.
- The proportion of those at risk maintained a stable trend at 9.9 percent similar to last month.
- However, despite the stability, it was higher than the highest proportion ever recorded at this time of the month (7.6%) in the county in addition to being higher than seasonal norms (5.6%) as shown in the figure below.



### 5.4 COPING STRATEGIES

- The reduced coping strategy index (rCSI) for the county was aggregated at 13.7 in November having remained stable compared with 13.1 recorded in October.
- The households had therefore, neither increased nor decreased the frequency and severity of consumption-based coping strategies considerably to curb food consumption deficits compared with last month.

- The minimum change in the index was also reflective of the stability in the average food consumption score in the county.
- The stability was equally reflected at livelihood zone level where the mixed farming livelihood zone posted an index of 13.9 in November compared with 13.2 in October.
- The index remained stable in the livestock farming one at 13.4 during both months.

## **6. CURRENT INTERVENTION MEASURES**

### **6.1 NON-FOOD INTERVENTIONS**

#### **○ Agriculture department**

- The department has provided tractor ploughing services to all sub-counties with 1500 acres ploughed this month against a target of 6,000 acres.
- It provided 20 tonnes of green grams and cowpeas per ward in all wards with each ward receiving 500 kgs of green grams and 500 kgs of cowpeas.
- It distributed 60,000 coconut seedlings in 13 wards with each ward getting 4,285 seedlings. The wards include: Mwavumbo and Kasemeni in Kinango Sub-county, Waa-Ng'ombeni, Kubo South and Mkongani wards in Matuga Sub-county. Other wards that benefitted include Ramisi, Kinondo, Gombato Bongwe and Ukunda wards in Msambweni Sub-county and Pongwe/Kikoneni, Mwereni, Dzombo and Vanga wards in Lunga Lunga.

#### **○ Livestock department**

- The department distributed 150 beehives and accessories to all wards at a cost of Kshs 2.4 million.

#### **○ Nutrition department**

The department in collaboration with Population Services Kenya conducted the following activities in November:

- integrated community outreaches during which malnutrition screening and immunization services were offered to households in far-to-reach areas.
- community dialogues on maternal nutrition to pregnant and lactating mothers, exclusive breastfeeding and complementary feeding.

#### **○ NDMA/KRCS/COUNTY GOVERNMENT/NATIONAL GOVERNMENT**

- Members from the departments above who constitute part of the county disaster management committee conducted a rapid assessment on floods in Lunga Lunga Sub-county.
- Priority needs identified included food, mosquito nets, seeds, shelter, clothing, water treatment chemicals and medical supplies.

## **7. EMERGING ISSUES**

### **7.1 Insecurity/Conflict/Human Displacement**

- There were 42 households displaced by floods this month in Kiwegu, Vanga Ward and two lives lost through drowning in the Uмба River in Lunga Lunga Sub-county.

### **7.2 Migration**

- There was no migration reported in November.

## **8. RECOMMENDATIONS**

- Continued monitoring of the season's above-average rains on food security-related sectors including
  - agriculture: monitor acreage achieved versus the target for the season due to delayed ploughing and planting dates as well as washing away of farm inputs.
  - roads: monitoring of access and feeder roads in addition to related infrastructure for possible destruction.
  - health: mechanisms for disease surveillance for both epidemic-prone and water-borne diseases should be up-scaled as well as a high alert on the possibility of destruction of sanitation facilities.