National Drought Management Authority
KWALE COUNTY
DROUGHT EARLY WARNING BULLETIN JULY 2019

A Vision 2030 Flagship Project

KENYA VISION 2030

JULY 2019 EW FLAG

Drought Status: NORMAL

Shughuli za kawaida

Drought Situation & EW Phase Classification

Biophysical Indicators
- The first dekad received normal rains while the second one received slightly above-normal rains.
- The VCI for the month was slightly below average for this time of the year.
- The state of water sources was normal for July.

Socio Economic Indicators (Impact Indicators)

Production indicators
- Livestock body condition was normal at the moderate early warning classification.
- Milk production was above-average during the month.
- There were no deaths related to drought or migration reported this month.

Access indicators
- Terms of trade (casual labour to maize) were below-average implying slightly reduced household purchasing power compared with normal times.
- Milk consumption was normal during the month under review.
- Distances to water sources for domestic consumption were slightly above-average compared with normal times in July.

Utilization Indicators
- The prevalence of children at risk of malnutrition was above-normal for this time of the year implying worse-than-normal malnutrition rates.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Improving
Livestock Farming	Normal	Improving
County	Normal	Improving
Biophysical Indicators	**Value**	**Normal Range/Value**
VCI	44.36	>50
State of Water Sources	5	5
Production indicators	**Value**	**Normal**
Crop Condition (maize and legumes)	Poor	Good
Livestock Body Condition	2 – moderate (livestock farming and mixed farming livelihood zones)	2 – moderate (livestock farming and mixed farming livelihood zones)
Milk Production (Litres)	4.5	3.7
Livestock Migration Pattern	No migration	No migration
Livestock deaths (from drought)	Zero deaths	Zero deaths
Access Indicators	**Value**	**Normal**
Terms of trade	31.3	46.6
Milk Consumption (litres)	1.2	1.4
Return distance to water sources for households (km)	4.0	2.4
Utilization indicators	**Value**	**Normal**
Nutrition Status, MUAC (% at risk of malnutrition)	9.5	6.0

Seasonal Calendar

▪ Short rains harvests ▪ Short dry spell ▪ Reduced milk yields ▪ Increased household food stocks ▪ Land preparation	▪ Planting/weeding ▪ Long rains ▪ High calving rate ▪ Milk yields Increase	▪ Long rains harvests ▪ A long dry spell ▪ Land preparation ▪ Increased household food stocks ▪ Kidding (Sept)	▪ Short rains ▪ Planting/weeding
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1.1   RAINFALL PERFORMANCE

▪ Normal rains were received in the first dekad of July while slightly above-average amounts were received in the second one as shown in the graph below.
▪ The rains' distribution was poor in time but fairly even in space as both livelihood zones received some rains.
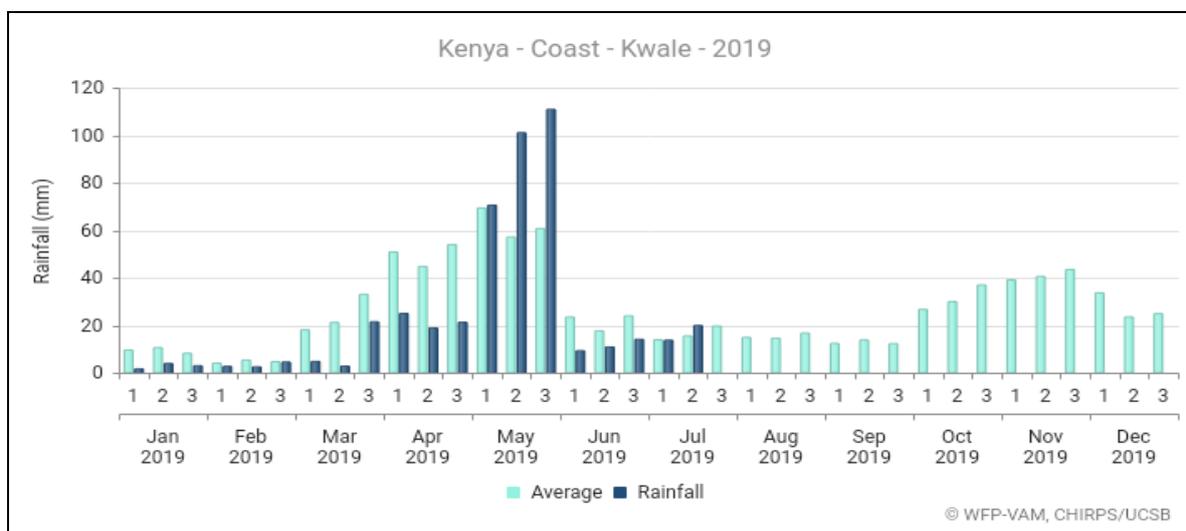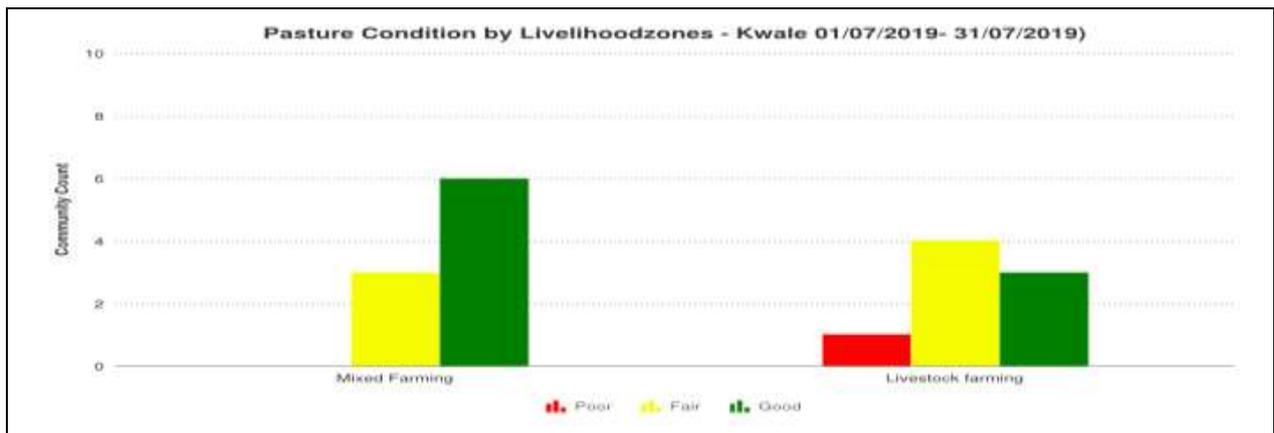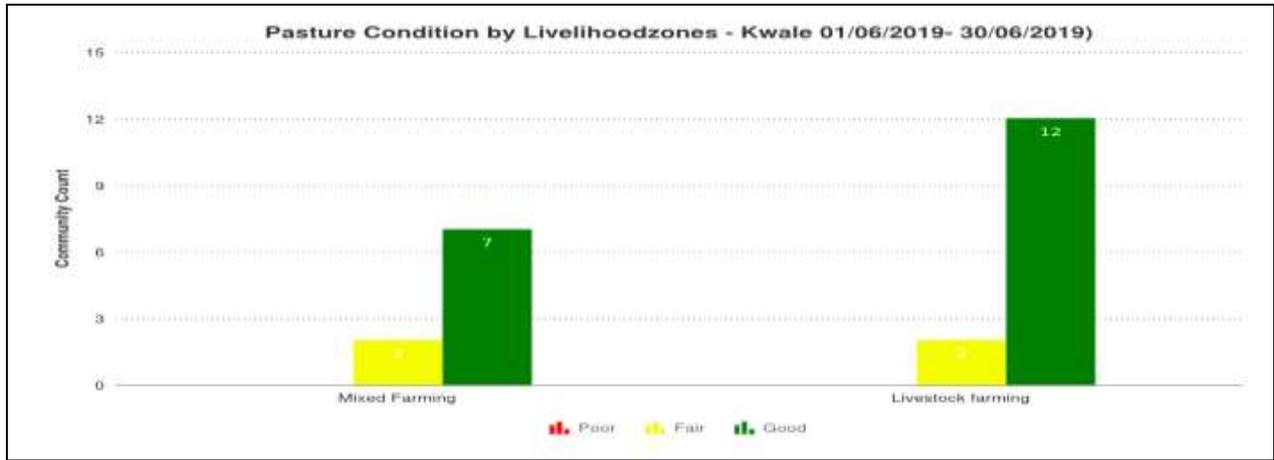

2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1 1   Vegetation Condition Index (VCI)

▪ There was a significant improvement in vegetation greenness in the county as the VCI increased significantly from 28.48 recorded in June to 44.36 posted in July. The county was therefore classified in the 'normal vegetation greenness' band.
▪ A notable improvement was also registered in both livelihood zones. In Kinango and Lunga Lunga sub-counties, comprising a large part of the livestock farming livelihood zone, the index increased from 19.25 and 16.92 respectively in June to 44.43 and 45.43 respectively in July.
▪ In the mixed farming livelihood zone comprising of largely Matuga and Msambweni Sub-counties, the index increased from 24.78 and 23.74 respectively in June to 43.93 and 39.46 respectively in July.
▪ All the sub-counties were therefore also categorized in the 'normal vegetation greenness' band having improved from the 'moderate vegetation deficit' band.
▪ At a VCI of 44.36, the county had a slight deficit in vegetation greenness compared with a normal of approximately 51.
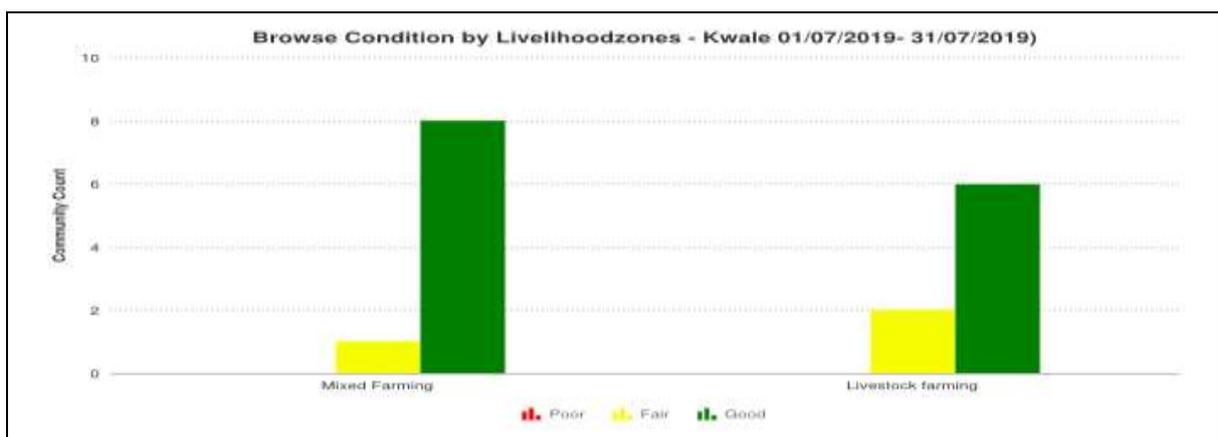
2.1.2 Pasture

▪ There was a slight deterioration in pasture condition this month in comparison to last month as approximately 5.9 percent of households reported poor condition compared with no households in June.
▪ The deterioration was reflected at livelihood zone level where all the households who reported poor condition were recorded in the livestock farming livelihood zone with slight deterioration in the mixed farming one as shown in the graphs below.
▪ The slight deterioration could have been occasioned by the cessation of the rains.

Pasture Condition by Livelihoodzones - Kwale 01/06/2019- 30/06/2019)

Pasture Condition by Livelihoodzones - Kwale 01/07/2019- 31/07/2019)

2.1.3 Browse

- A slight deterioration in browse condition was recorded in July as approximately 82.4 percent of households recorded good condition compared with 100 percent last month.
- The deterioration was evident in both livelihood zones as shown in the graphs below.
- The deterioration could have been occasioned by the decreased rainfall amounts after the cessation of the long rains' season.

Browse Condition by Livelihoodzones - Kwale 01/07/2019- 31/07/2019)

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Browse Condition by Livelihoodzones - Kwale 01/06/2019- 30/06/2019)
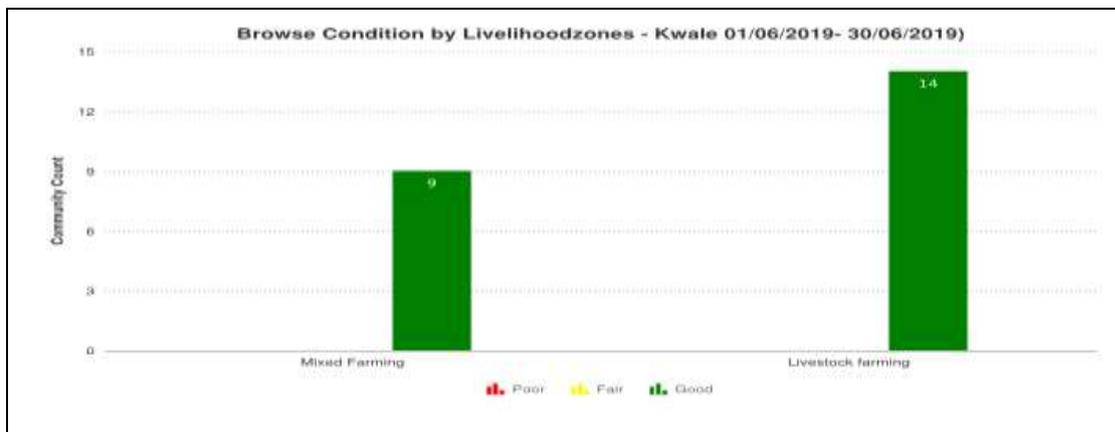
- Browse condition was slightly better in the mixed farming livelihood zone compared with the livestock farming one because the former received slightly better rainfall amounts compared with the latter.

2.2 WATER RESOURCES
2.2.1 Sources
- Pans and dams, rivers and shallow wells were the main sources of water for domestic consumption this month as shown in the pie-chart below.
- Open water sources were still mostly relied upon since the long rains season had recharged most of them; 85-95 percent in the mixed farming livelihood zone and 60-90 percent in the livestock farming livelihood zone.
- However, the proportion of households relying on two of the major water sources, namely rivers and pans/dams had reduced from last month when the water in these sources reduced due to drying up after the rains ended.
- Approximately 24.4 percent of households were relying on pans and dams this month compared with 27.1 in June, while a similar proportion was currently relying on rivers compared with 28.8 percent last month.
- Other sources in use this month are also shown in the pie-chart below.


Kwale County Water sources
(July 2019)
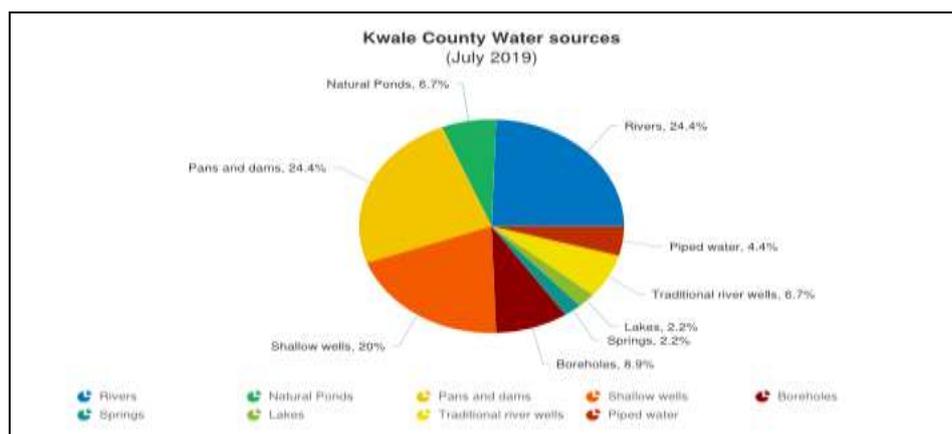
- The water sources' status in the county was classified as 5 and was normal for this time of the year as provided in the description below.

INDEX	STATE OF WATER SOURCE	DESCRIPTION
1	EMERGENCY SITUATION	All main water sources have dried up; only few boreholes still yielding significant amounts

| 2	**STRONGLY INADEQUATE**	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	**INADEQUATE**	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	**DECLINING**	The water availability is below normal for the period
5	**NORMAL**	The water availability is normal for the period
6	**GOOD**	The water availability is above normal for the period

2.2.2 Household access and utilization

- Households had to trek a slightly longer distance this month to water points for up to 4.0 km this month compared with 2.4 km last month.
- The increase could be attributed to the fact that some open water sources had dried up after the cessation of the long rains season forcing households to walk longer to fetch water.
- The current distance was also above the distance normally walked this month recorded at 2.4 km in the 2014-2018 LTA as shown in the graph below.
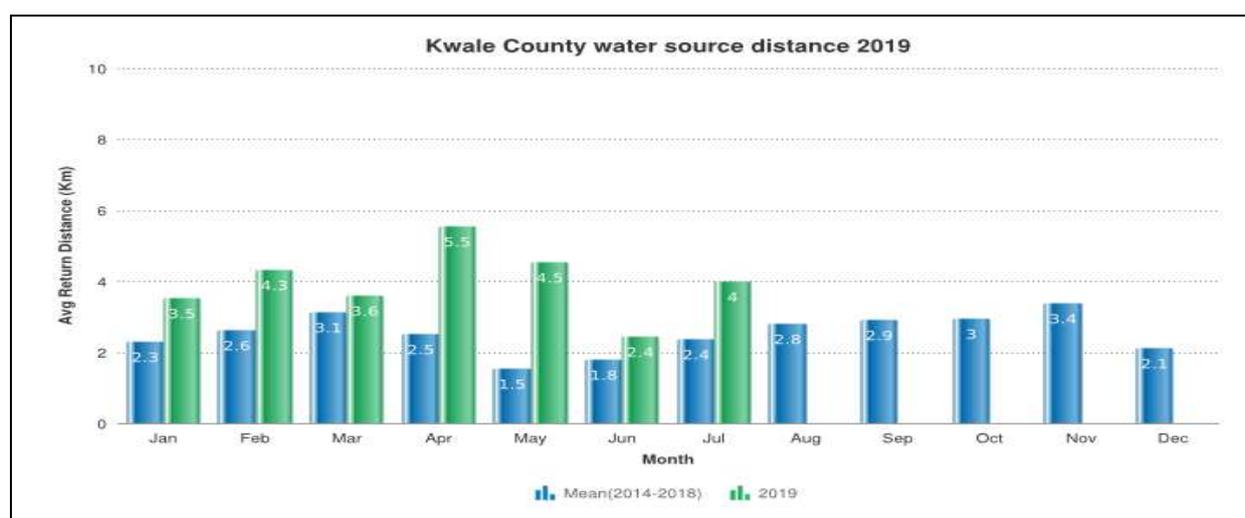
2.2.3 Livestock access to water

- The average trekking distance from watering points to grazing areas increased marginally from 3.0 km in June to 4.2 km in July as shown in the graph below.
- The marginal increase could be attributed to the slightly deteriorated forage conditions which were also slightly worse than normal as the distance recorded in the 2014-2018 LTA was 2.8 km.
- The increased distance compared with last month and with normal times implied that livestock had to walk slightly longer distances to access pasture and browse.

Kwale County water source distance from grazing area - 2019
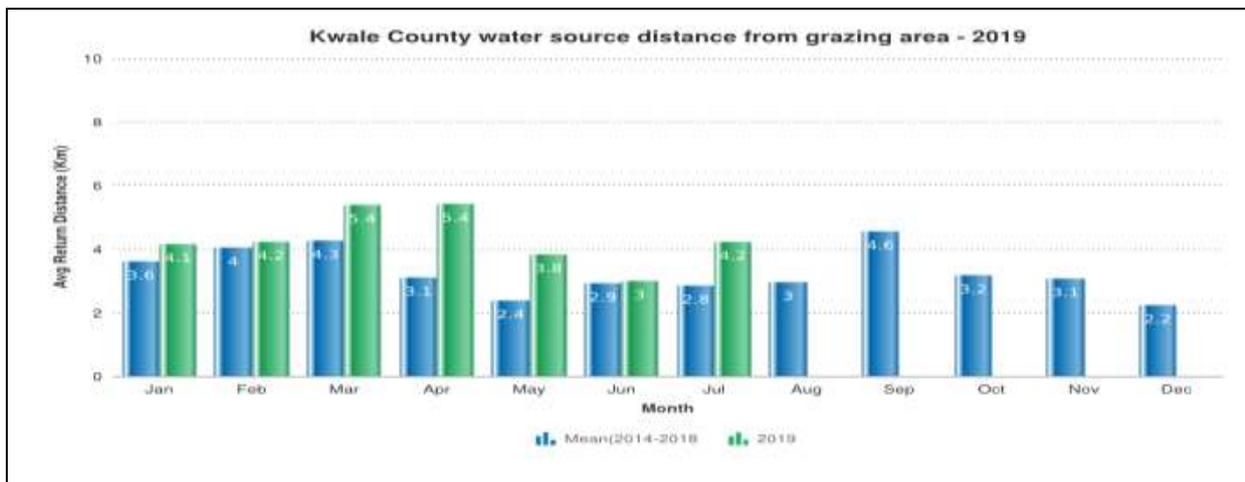
## 3.0 PRODUCTION INDICATORS

3.1   LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- All households reported good livestock body condition in July compared with 50 percent in June.
- The impacts of the deteriorated rangeland resources were yet to be manifested in the livestock body condition this month.
- However, the early warning classification for livestock body condition remained 2 at moderate as described in the table below

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 Milk Production

- Cattle were the main milk producers this month similar to normal times.
- Milk production per household averaged 4.5 litres this month having remained stable compared with 4.3 litres recorded in June as shown in the graph below.
- It was 21.6 percent above-normal as the 2014-2018 LTA was recorded as 3.7 litres on average.

Milk production - Kwale County
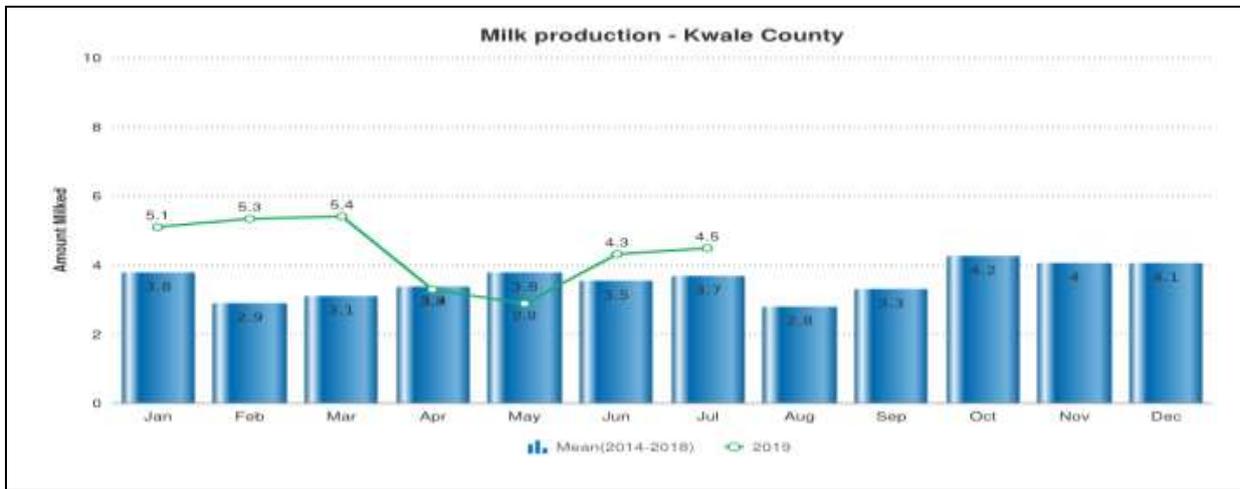
3.2 RAIN-FED CROP PRODUCTION
### 3.2.1 Stage and condition of food crops
- Maize, cowpeas and green grams were the main crops grown this season. Most of the maize had been adversely affected by moisture stress in April which significantly affected the critical cobbing and grain-filling stages of its development. Cowpeas and green grams which had been in fair condition were equally affected and reached only the vegetative stage. Consequently, insignificant production of the three main crops was projected for the season.

4.0   MARKET PERFORMANCE

## 4.1   LIVESTOCK MARKETING

4.1.1 Goat prices
- A medium-sized three-year-old buck was retailing at Kshs 3,000 this month having dropped by 22.6 percent compared with Kshs 3,875 recorded last month as shown in the graph below.
- However, despite this decrease, it was almost twice the normal price for this time of the year at 47.7 percent above the 2016-2018 LTA of Kshs 2030.7.
- In addition, it was 26.8 percent higher than the highest ever recorded price of Kshs 2,195.

Goat prices in June 2019 in Kwale County
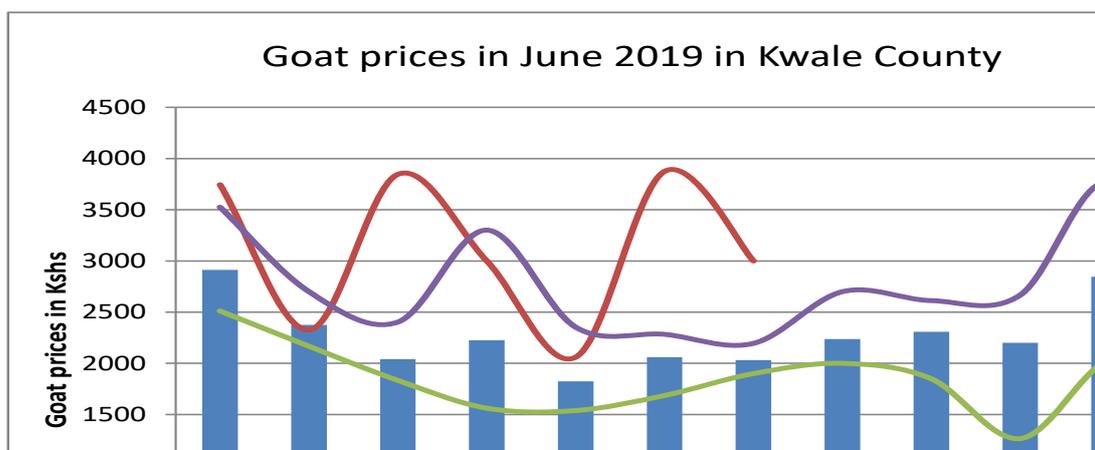
4.2   CROP PRICES

4.2.1   Maize

- A kilogram of maize was retailing at Kshs 47.9 in July having maintained a stable trend from Kshs 46.1 recorded in June.
- The price was normal for this time of the year as the 2016-2018 LTA was posted at Kshs 46.7 as shown in the table below.

Maize prices in June 2019 in Kwale County
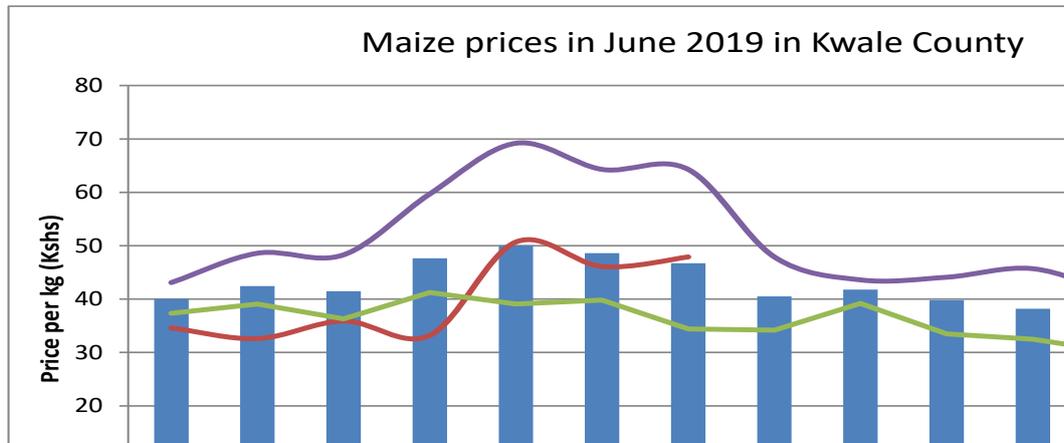
## 4.3 TERMS OF TRADE (ToT) - CASUAL LABOUR VERSUS MAIZE PRICES

- The ToT remained decreased slightly by a 15.6 percent margin from 37.1 in June to 31.3 in July as shown in the graph below.
- The implication was that households could currently purchase a slightly lower quantity of maize from the proceeds of casual labour in July compared with last month.
- In addition, the ToT was also lower by a 32.8 percent margin compared with 46.6 in the 2017-2018 LTA.
- The implication of the lower than average ToT was that household purchasing power was lower than normal times.

Terms of Trade - Kwale County
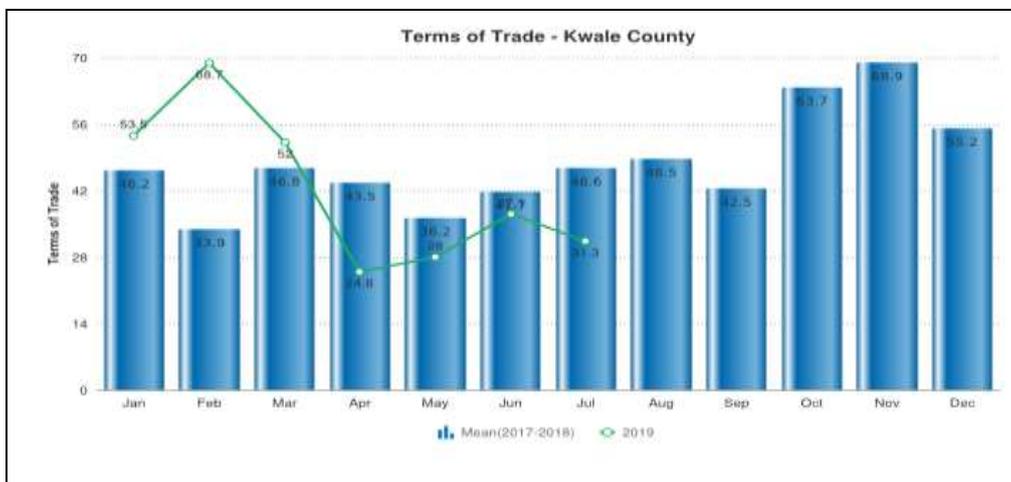
5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- Household milk consumption remained stable at approximately 1.2 litres in July compared with 1.5 litres in June.
- It also remained within seasonal norms as the 2014-2018 LTA averaged 1.4 litres as shown in the graph below.

Milk Consumption - Kwale County
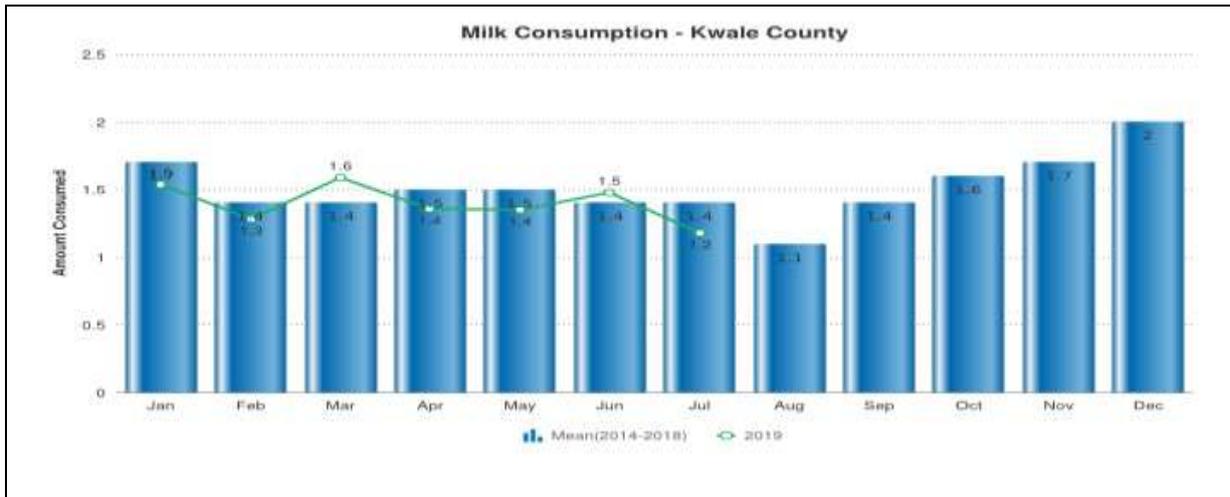
5.2 FOOD CONSUMPTION SCORE

- The mean food consumption score for the county in July was 43.9 having increased from 39.9 in June. The increase in the score implied improved dietary diversity, food frequency and nutrient intake this month compared to last month. However, it remained stable compared with 41.8 posted at a similar time last year.
- The highest score was recorded in the mixed farming livelihood zone at 50.3 and the least was posted in the livestock farming one at 37.4.
- It remained relatively stable in the mixed farming livelihood zone which had posted a score of 48.1 in June but improved in the livestock farming one which had recorded a score of 31.6.
- Compared with a similar time last year, the proportion of households with poor food consumption in the county increased from 6.1 percent in July 2018 to more than double at 12.9 percent this month.
- The largest proportion of these households was in the livestock farming livelihood zone where it increased from 12.2 percent in July last year to 24.7 percent this month as shown in the figure below.
- However, the situation was relatively stable in the mixed farming livelihood zone which recorded nil households in July last year compared with one percent in a similar food consumption group in July this year.
- The implication was therefore that food consumption had deteriorated in the livestock farming livelihood zone but had remained in the mixed farming one.
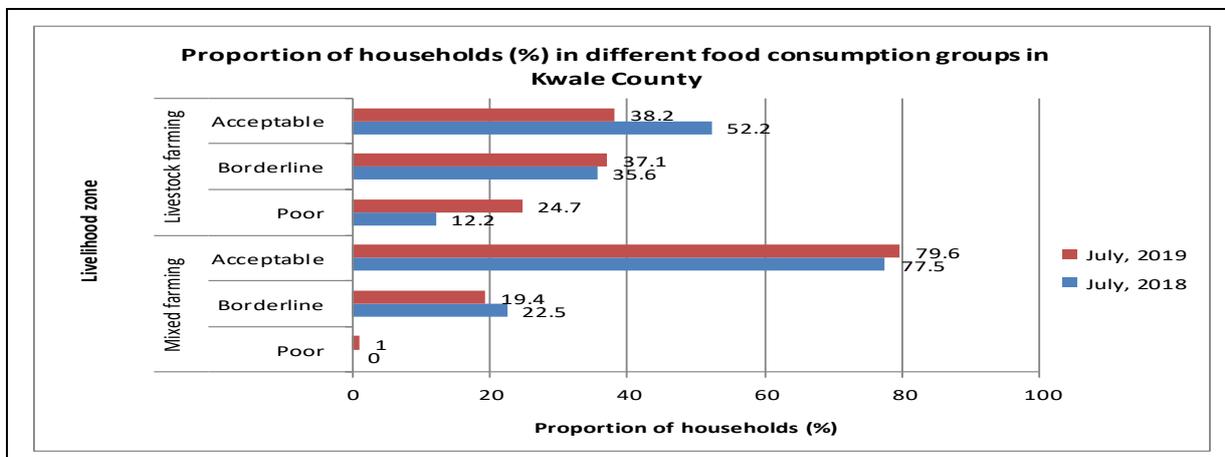
5.3   HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- The proportion of children at risk of malnutrition was estimated using the mid-upper arm circumference and was recorded as 9.5 percent in July having remained stable compared with 9.6 percent posted in June.
- Despite the stability recorded in comparison to last month, the proportion was higher than normal at 6.0 percent recorded in the 2014-2018 LTA as shown in the graph below.
- It was also higher than the highest proportion ever recorded which was approximated at 7.3 percent.
- The implication was that the malnutrition rate in the county was worse than normal times and also the highest ever recorded in the county at this time of the year.
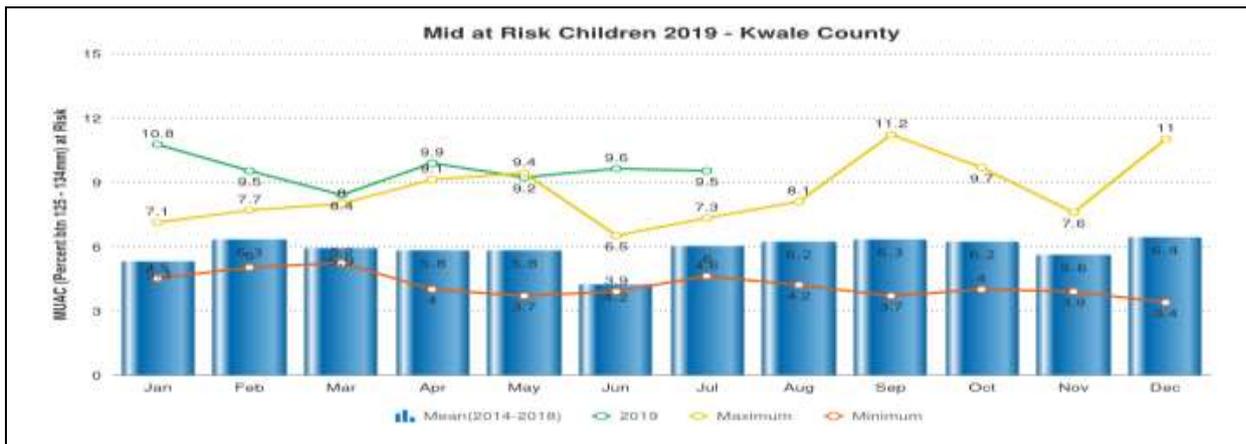

5.4   COPING STRATEGIES

- The county's mean reduced coping strategy index (CSI) was 15.4 this month having remained stable in comparison with 14.4 recorded in June.
- The highest index was recorded in the mixed farming livelihood zone at 17.3 having increased slightly from 16 in June.
- The lowest index was posted in the livestock farming livelihood zone at 13.4 having increased marginally from 12.7 last month
- Therefore, households in both livelihood zones had slightly increased the frequency and severity of employing consumption-based coping strategies in order to bridge food gaps in comparison to last month.
- It was also evident that the households in the mixed farming livelihood zone had continued to engage a higher level of coping to curb food gaps similar to last month.
- The figure below shows the reduced coping strategy index this month and a similar time last year.

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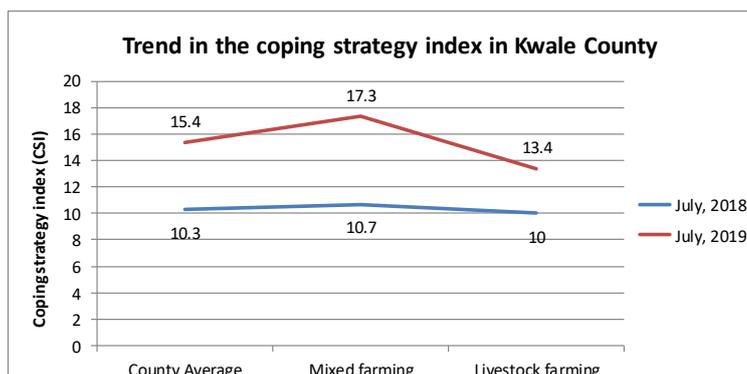
- It was evident from the graph above that households in the county had increased their levels of coping compared with a similar time last year, which was also reflected in the proportions engaging the individual coping strategies in the graph below.

Consumption-based coping strategies in Kwale County
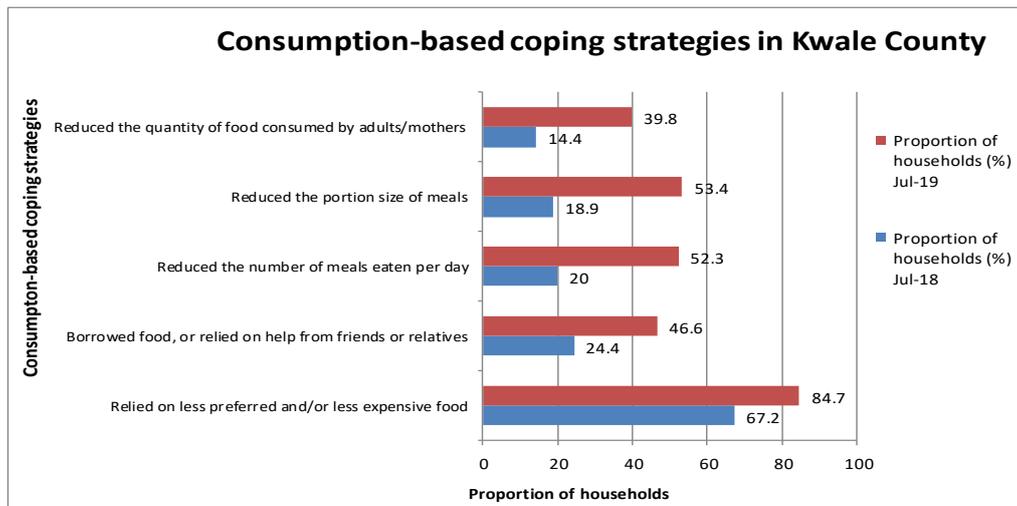
6. CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS
o **Livestock department**
- Procurement of 455 breeding bucks to be distributed to all the sub-counties.

o **Agriculture department**
- National Agricultural and Rural Inclusive Growth Project (NARIGP) funded by the World Bank that seeks to enhance productivity and profitability undertook the following in July:
- Community-Driven Development Committee members from several wards were trained on drafting of micro-proposals for projects to be funded and produced micro-proposals for projects targeting value chains (tomato, green gram, apiculture and dairy), sustainable land management, nutritional mainstreaming and vulnerable and marginalized groups.

o **Nutrition department**
- The department conducted routine activities including growth monitoring, vitamin A supplementation, supplementary/therapeutic food distribution and health education programs.

o **Water department**
- Pipeline extension, construction and rehabilitation in Lunga Lunga and Msambweni Sub-counties targeting 104,400 beneficiaries at a cost of 30M.
- Dam rehabilitation and construction in Lunga Lunga and Kinango Sub-counties targeting 6,200 beneficiaries at a cost of 24M.

7. EMERGING ISSUES
7.1 Insecurity/Conflict/Human Displacement
- No cases of human displacement, conflict or insecurity were recorded in July.

7.2 Migration
- No migration was reported during the month under review.

7.3   FOOD SECURITY PROGNOSIS

Crop production is projected to be insignificant this season and households have depleted food stocks from the previous seasons. Therefore, a higher than normal proportion is currently relying on markets and will continue to do so through to October 2019. With food stock prices likely to maintain an above-average trend, and opportunities for casual labour decreasing due to reduced production, food access is likely to continue being compromised for most households who are currently relying on market purchases for food. For livestock keepers, the situation is likely to remain fairly stable throughout the scenario period given that forage is likely to be available through to October. However, the terms of trade will continue being below-average despite above-average prices because of higher-than-normal maize prices. Therefore as the purchasing power of households gets eroded, food consumption gaps will increase and households likely to increase the severity and frequency of coping. The nutritional status of children is likely to further worsen as a result of reduced food availability and access as dietary diversity, nutritional value of food and food frequency reduces.

8.   RECOMMENDATIONS

- Continuous monitoring of the food security situation in both livelihood zones as households are engaging higher levels of coping compared with a similar time last year.
- Increased health and nutrition outreaches in attempt to curb the higher-than-normal malnutrition rates.