National Drought Management Authority
KWALE COUNTY
DROUGHT EARLY WARNING BULLETIN SEPTEMBER 2018

NDMA

A Vision 2030 Flagship Project

KENYA VISION 2030

SEPTEMBER 2018 EW FLAG

Drought Status: NORMAL

Shughuli za kawaida

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Stable
Livestock Farming	Normal	Worsening
County	Normal	Worsening
Biophysical Indicators	**Value**	**Normal Range/Value**
VCI	52.24	48
State of Water Sources	5	5
Production indicators	**Value**	**Normal**
Crop Condition (maize and legumes)	-	-
Livestock Body Condition	2 – moderate (livestock farming and mixed farming livelihood zones)	2 – moderate (livestock farming and mixed farming livelihood zones)
Milk Production (Litres)	5.0	3.7
Livestock Migration Pattern	No migration	No migration
Livestock deaths (from drought)	Zero deaths	Zero deaths
Access Indicators	**Value**	**Normal**
Terms of trade	46.1	53.3
Milk Consumption (litres)	2.1	1.8
Return distance to water sources for households (km)	2.6	2.2
Utilization indicators	**Value**	**Normal**
Nutrition Status, MUAC (% at risk of malnutrition)	11.2	5.38

Drought Situation & EW Phase Classification

Biophysical Indicators
- The first two dekads of the month received normal rainfall.
- The Vegetation Condition Index (VCI) was above-normal at 52.24.
- The state of water sources was normal for this time of the year.

Socio Economic Indicators (Impact Indicators)

Production indicators
- Livestock body condition was moderate similar to last month which was normal for this time of the year.
- Milk production was above-normal for this time of the year.
- No livestock migration was reported during the month under review.

Access indicators
- The terms of trade were 13.5 percent lower than the normal 53.3.
- Milk consumption was within seasonal norms for this time of the year.
- Access to water for domestic use was also within seasonal ranges for this time of the year.

Utilization Indicators
- The proportion of children at risk of malnutrition was above-average for this time of the year implying that it was worse compared to normal times.
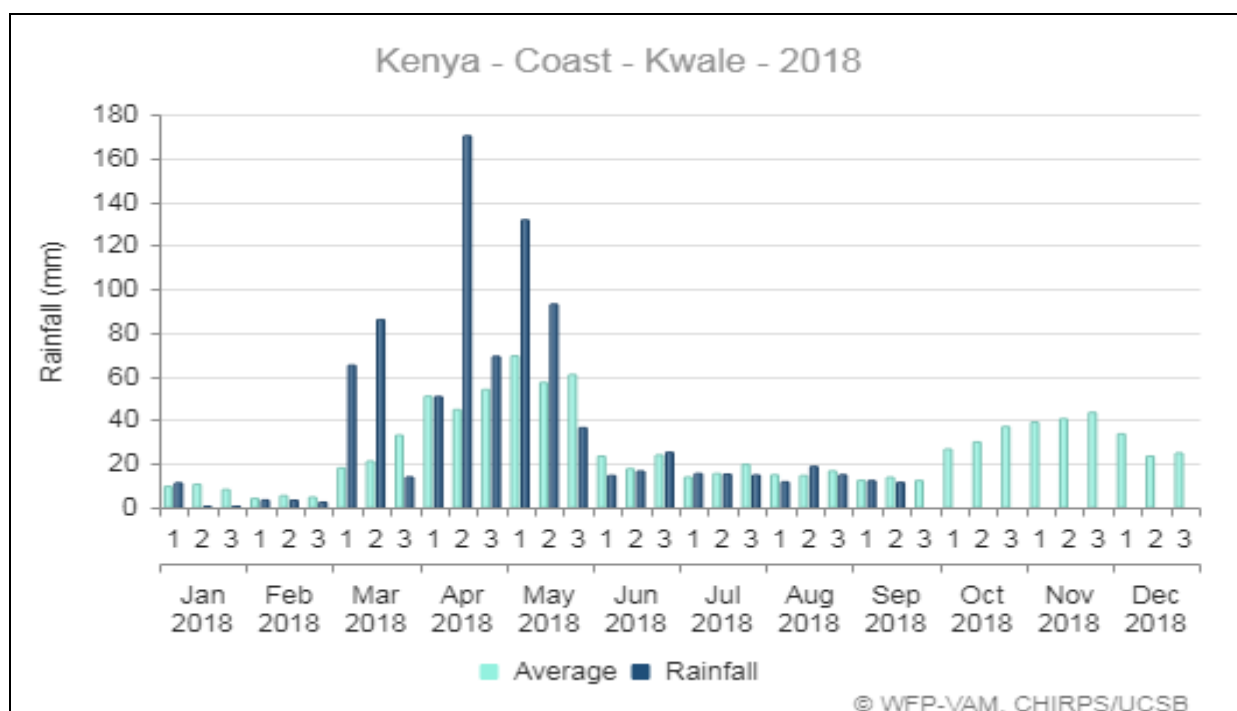
Seasonal calendar

▪ 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 amounts of rains were received this month as shown in the diagram below.
- However, the distribution was poor temporally and uneven spatially. The rains were mostly concentrated in the mixed farming livelihood zone with most parts of the livestock farming livelihood zone not receiving any rainfall.
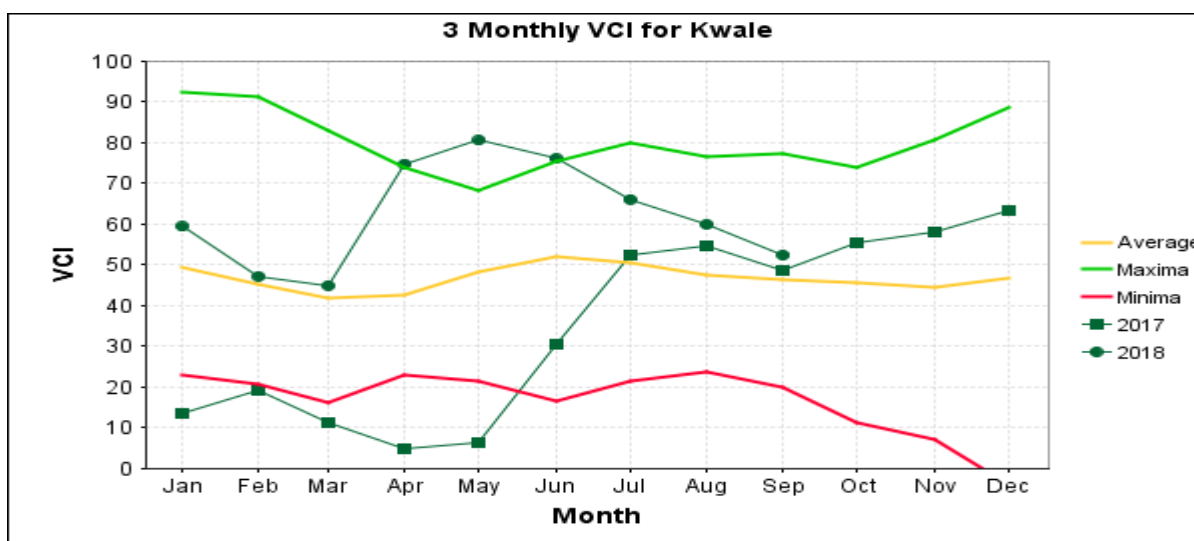

2.   IMPACTS ON VEGETATION AND WATER
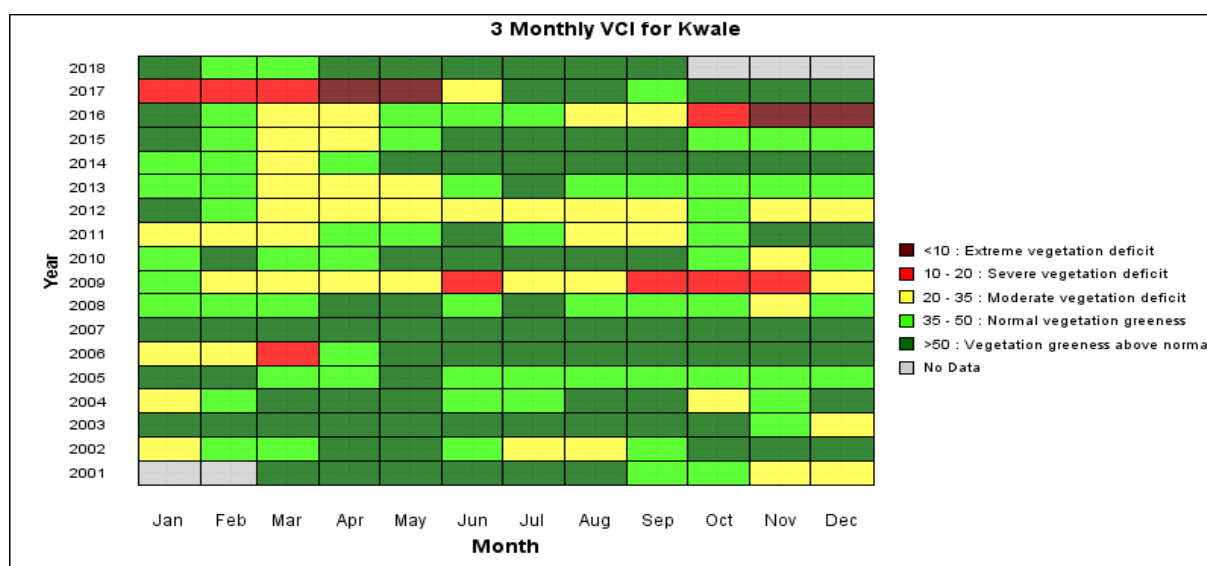
2.1   VEGETATION CONDITION

2.1 1   Vegetation Condition Index (VCI)
- The vegetation condition continued on a deteriorating trend compared with last month as the VCI decreased from 59.77 in August to 52.24 in September. The decrease could be attributed to the minimal rainfall received during the first two dekads as indicated in the graph above.
- However, the vegetation greenness still remained above-normal for this time of the year as shown in the matrix and graph below.

Sub-county/County	3-month VCI May 2018	3-month VCI June 2018	3-month VCI July 2018	3-month VCI August 2018	3-month VCI September 2018
Kinango	81.57	75.93	61.33	57.85	47.83
Lunga Lunga	88.26	82	61.41	60.77	55.8
Matuga	67.85	70.81	67.98	67.95	63.31
Msambweni	61.09	60.23	53.36	56.6	59.19
Kwale County	**80.42**	**75.96**	**61.82**	**59.77**	**52.24**

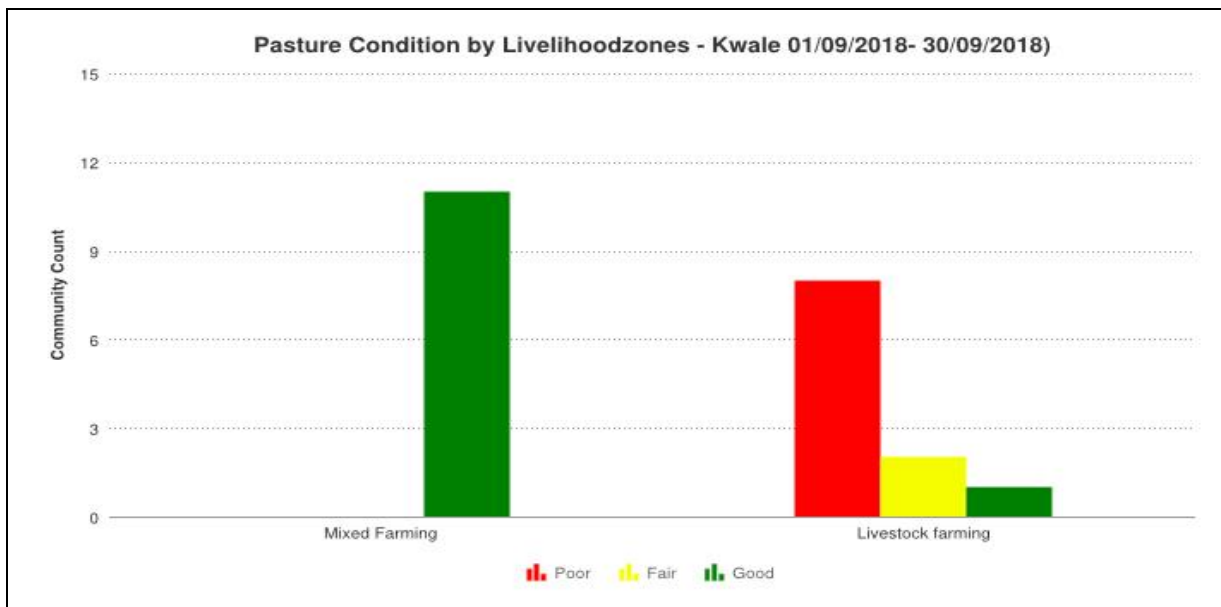KWALE SEPTEMBER 2018 DROUGHT EARLY WARNING BULLETIN

3 Monthly VCI for Kwale

- In comparison to a similar last year, the vegetation condition was slightly better as the county was in the normal vegetation greenness in September last year.

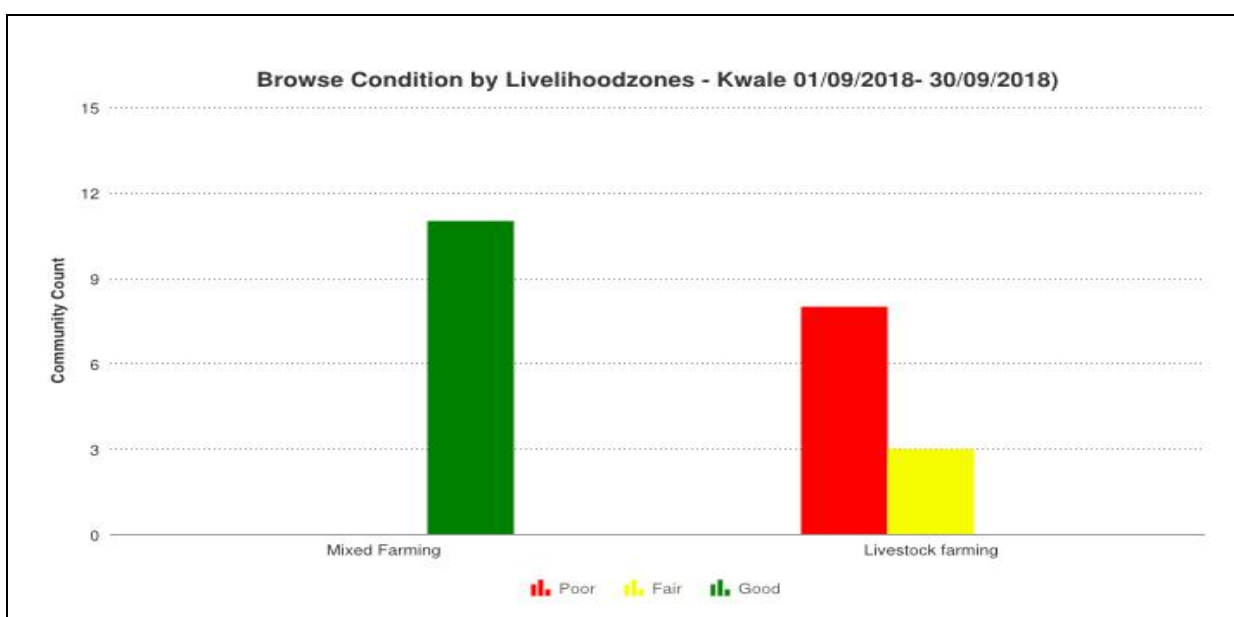3 Monthly VCI for Kwale

2.1.2 Pasture

- Pasture condition was on a deteriorating trend compared with last month as the number of households who had reported poor condition had increased from 10.7 percent in August to 36.4 percent in September.
- The decrease could have been occasioned by the reduction in rainfall amounts since the cessation of the long rains season that reduced the ability of pasture to optimally seed and mature.
- The livestock farming livelihood zone had the worst condition with most households reporting poor pasture condition. However, the situation was much better in the mixed farming livelihood zone where all households reported good pasture condition as shown in the graph below.

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Pasture Condition by Livelihoodzones - Kwale 01/09/2018- 30/09/2018)

- The pasture available was likely to last at least four months in the mixed farming livelihood zone and two months in the livestock farming livelihood zone.
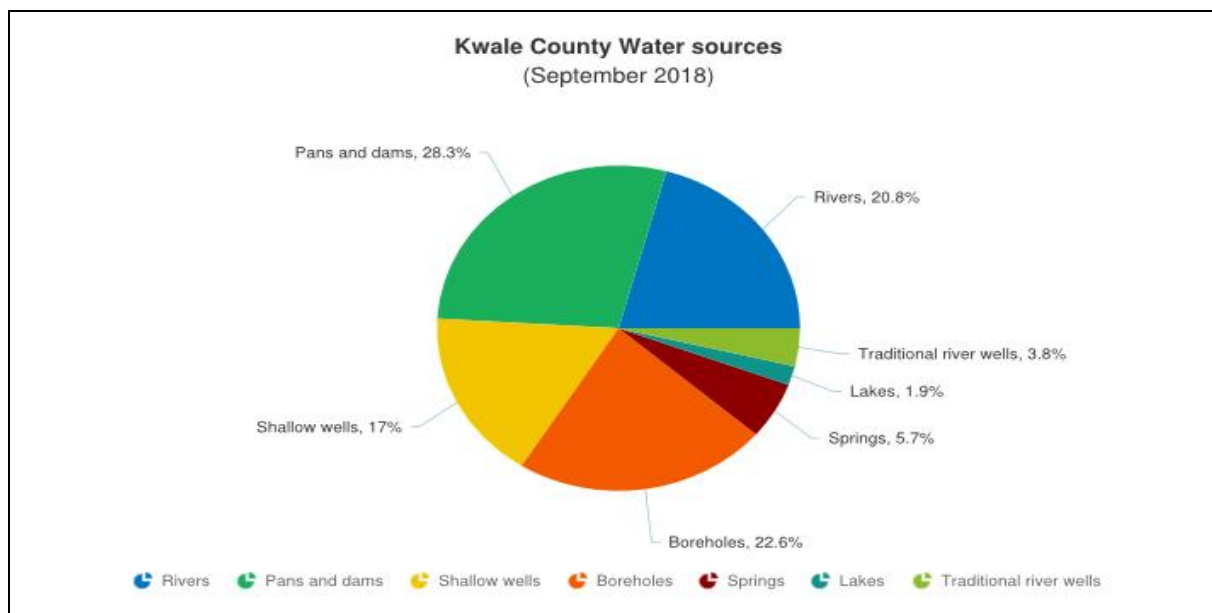
2.1.3 Browse
- The condition of browse deteriorated slightly compared with last month as the proportion of households that reported good browse condition reduced from 68.2 percent in August to 50 percent this month.
- The deterioration was worst in the livestock farming livelihood zone where some households reported poor condition but remained good in the mixed farming one where all households reported good condition.
- The available browse was projected to last approximately three and four months in the former and latter zones respectively.
- Below is a graph displaying the current browse condition disaggregated by livelihood zone.

Browse Condition by Livelihoodzones - Kwale 01/09/2018- 30/09/2018)

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2.2 WATER RESOURCES

2.2.1 Sources

- Pans and dams were the most relied upon water sources this month with approximately 28.3 percent of the population relying on them. Other major sources include rivers and boreholes on which approximately 20.8 and 22.6 percent of the households relied this month as shown in the pie-chart below.
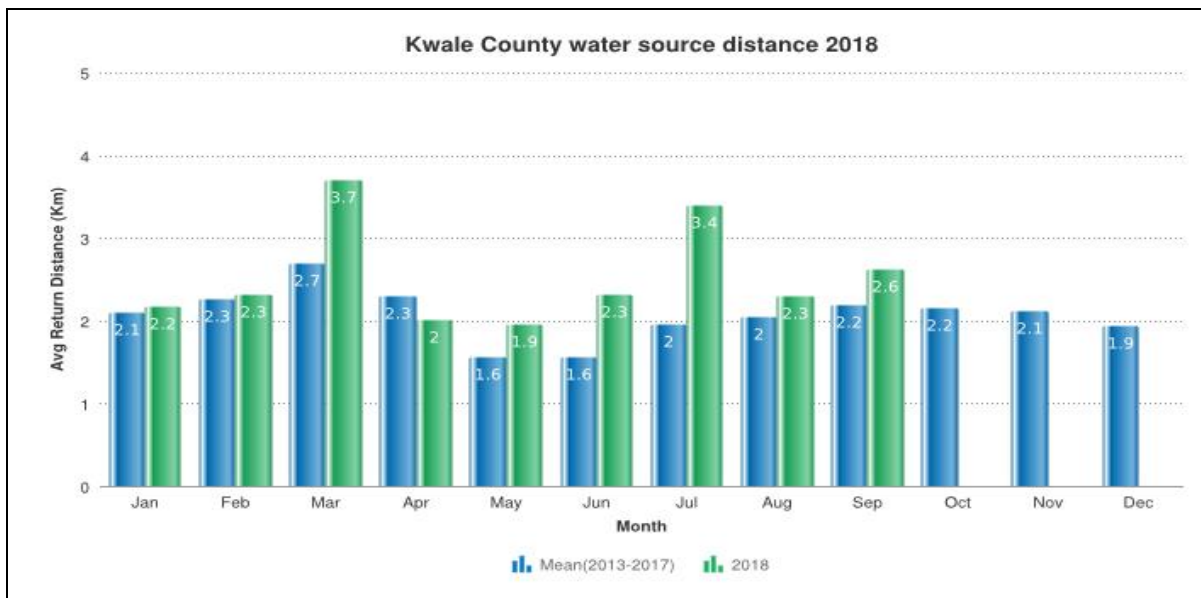

- The sources that were currently being relied upon for domestic consumption were the normal ones for this time of the year.
- The county was classified in the 'normal water availability' category similar to last month (refer to the table below for description of state of water sources).

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

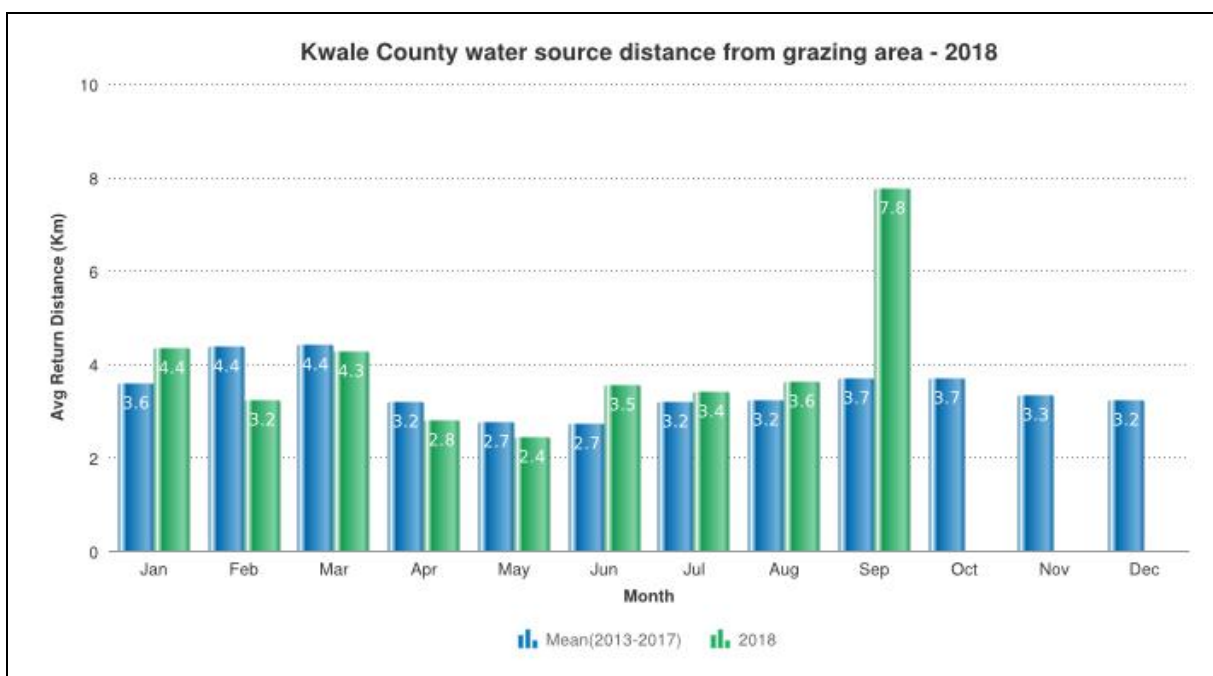### 2.2.2 Household access and utilization

- Access to water for domestic consumption remained stable compared to last month as the distance to watering points averaged 2.3 km in August compared with 2.6 km in September.
- It had also remained relatively similar to seasonal norms as indicated in the 2013-2017 LTA which averaged 2.2 km as indicated in the diagram below.

Kwale County water source distance 2018

- The mixed farming livelihood zone recorded a distance of 1.7 km in September compared with 1.3 km recorded last month while the livestock farming one posted 1.3 km compared with 1.5 km in August.

2.2.3 Livestock access to water
- The average return trekking distance to grazing areas from watering points increased from 3.7 km in August to 7.8 km in September. The increase was occasioned by the reduced availability of forage due to minimal rains which resulted in its minimal seeding and maturity.
- The distance was recorded at 7.8 km which was higher than 3.7 km recorded in the 2013-2017 LTA as illustrated in the following graph.

Kwale County water source distance from grazing area - 2018

3.0 PRODUCTION INDICATORS

3.1   LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition
▪ The body condition for both large and small stock was moderate (described as neither fat nor thin in the table below) this month in both livelihood zones similar to last month.
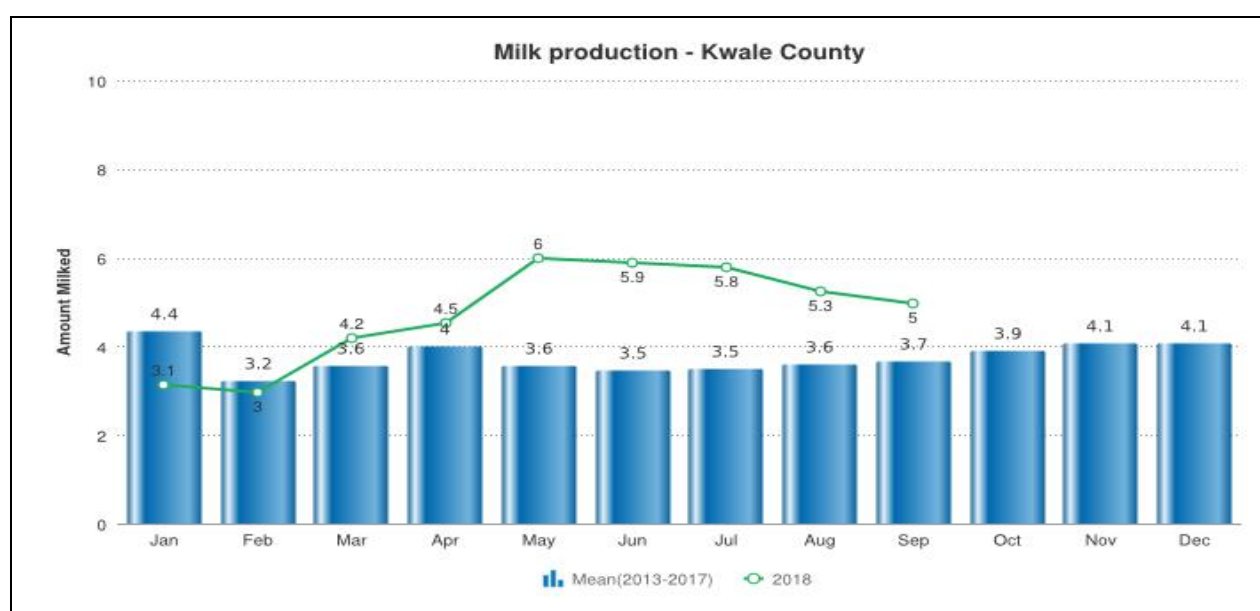
Level	Classification	Characteristics (this describes majority of the herd and not individual isolated Stock)
1	Normal	Very Fat Tail buried and in fat
		Fat, Blocky. Bone over back not visible
		Very Good Smooth with fat over back and tail head
		Good smooth appearance
2	Moderate	Moderate. neither fat 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
▪ There were no livestock diseases reported during the month under review.

3.1.3   Milk Production
▪ A higher proportion of milk was produced by cattle this month similar to last month and normal times.
▪ Milk production maintained a stable trend compared with last month as an average of 5.0 litres was posted in September compared with 5.3 litres last month.
▪ It was also above-average compared with the 2013-2017 LTA of 3.7 litres as indicated in the graph below.
▪ The above-normal trend could be attributed to the higher-than-average availability of forage as evidenced by the above-average vegetation conditions in the VCI.

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3.2 RAIN-FED CROP PRODUCTION
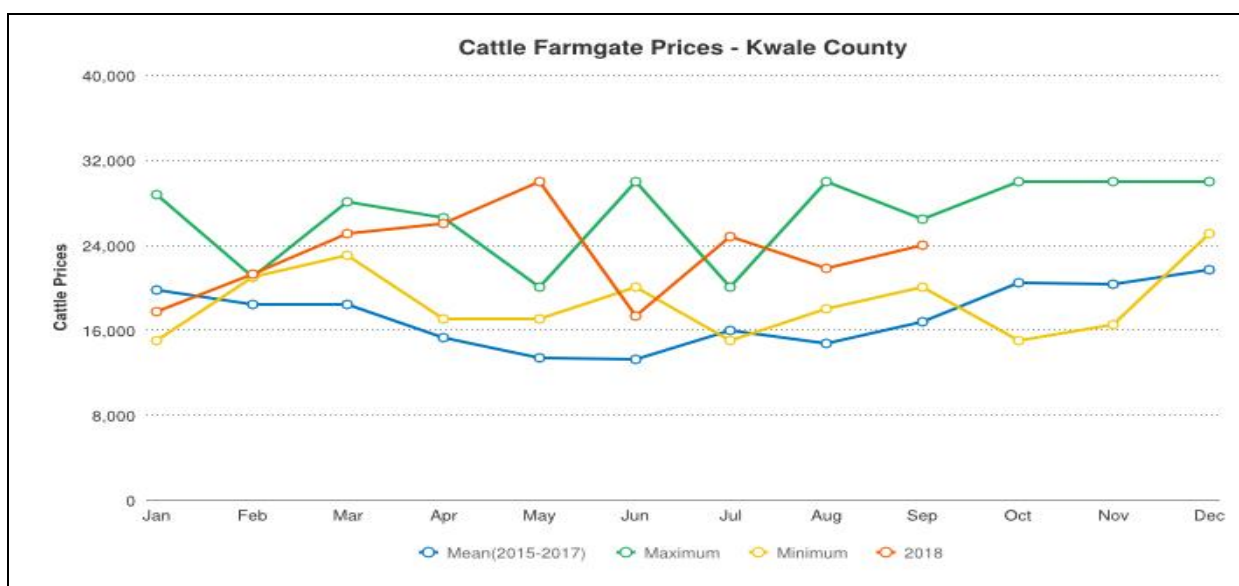### 3.2.1 Stage and condition of food crops
- Currently there were no major food crops on farms this month. Most households were engaged in land preparation for the short-rains season.

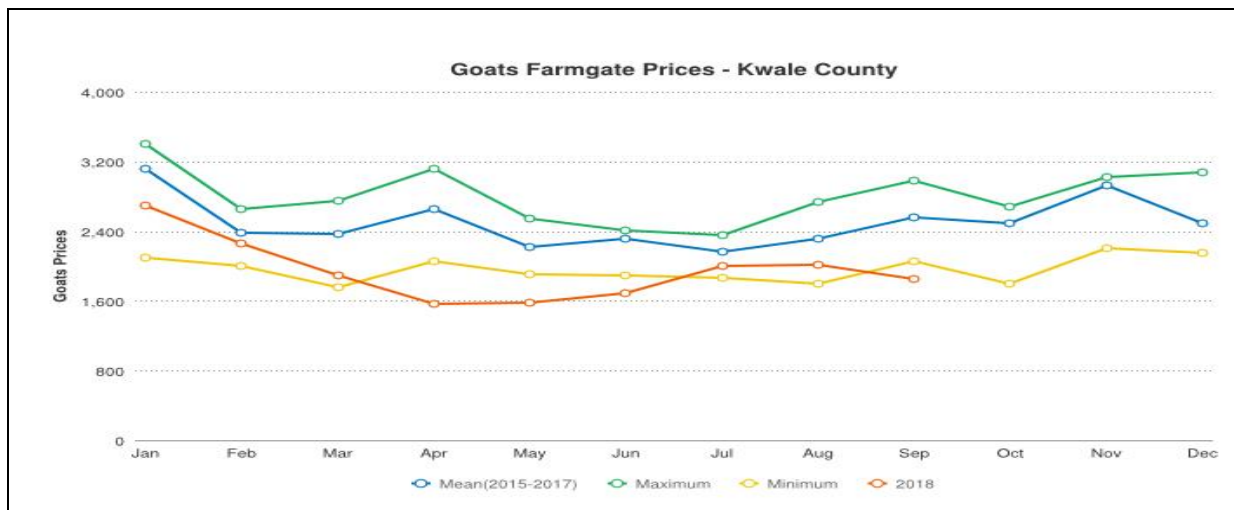# 4.0   MARKET PERFORMANCE

4.1   LIVESTOCK MARKETING

4.1.1 Cattle Prices
- The selling price of a 3-year old bull was Kshs 23,916 in September compared to Kshs 21,750 in August, indicative of a 10 percent increase in price.
- In addition to the slight increase in price from last month, the current selling price was 43 percent above the 2015-2017 LTA of Kshs 16,712.
- The above-normal trend in price could be attributed to the reluctance of livestock keepers to offer their livestock for sale in order to allow them to multiply since pastoral resources such as water and forage were available.
- The following graph shows cattle price trends in the county.
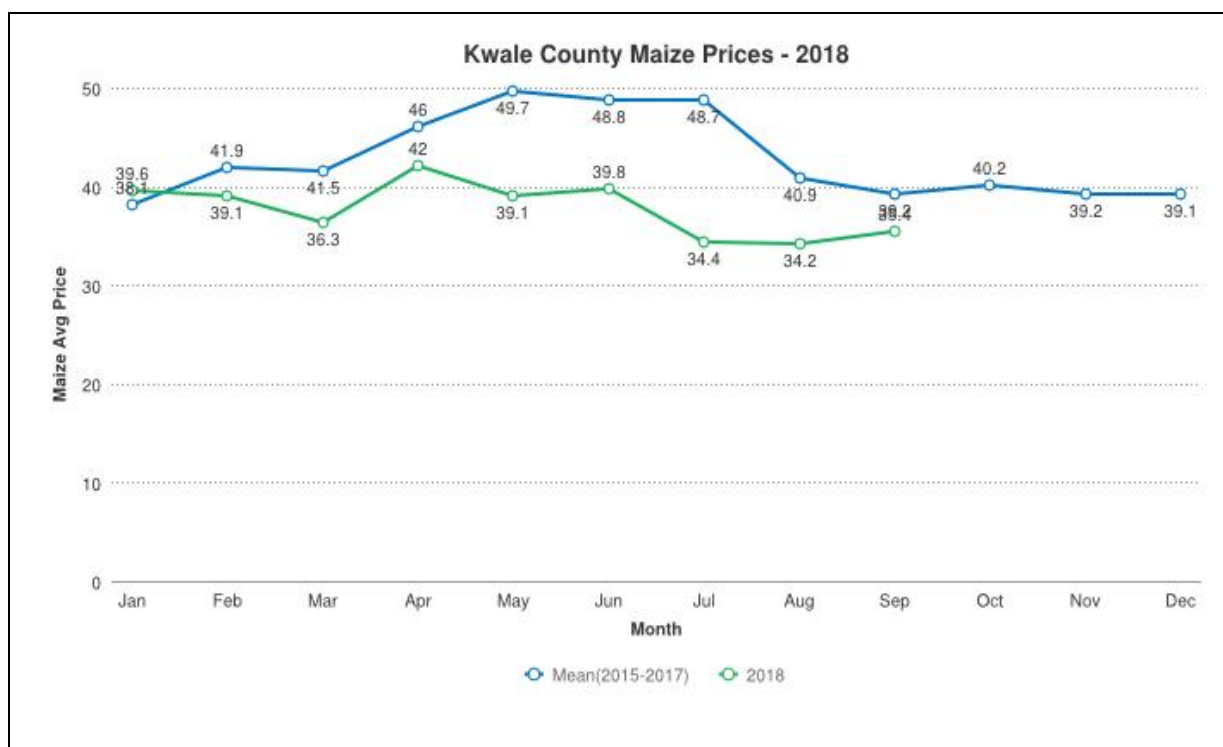

4.1.2 Goat Prices
- The average trading price of a medium-sized three-year old buck was Kshs 1,848.8 in September compared with Kshs 2,010.5 last month displaying a relatively stable trend as indicated in the graph below.
- The current price was 27.9 percent lower than Kshs 2,563 posted in the 2015-2017 LTA as indicated in the graph below.

Goats Farmgate Prices - Kwale County
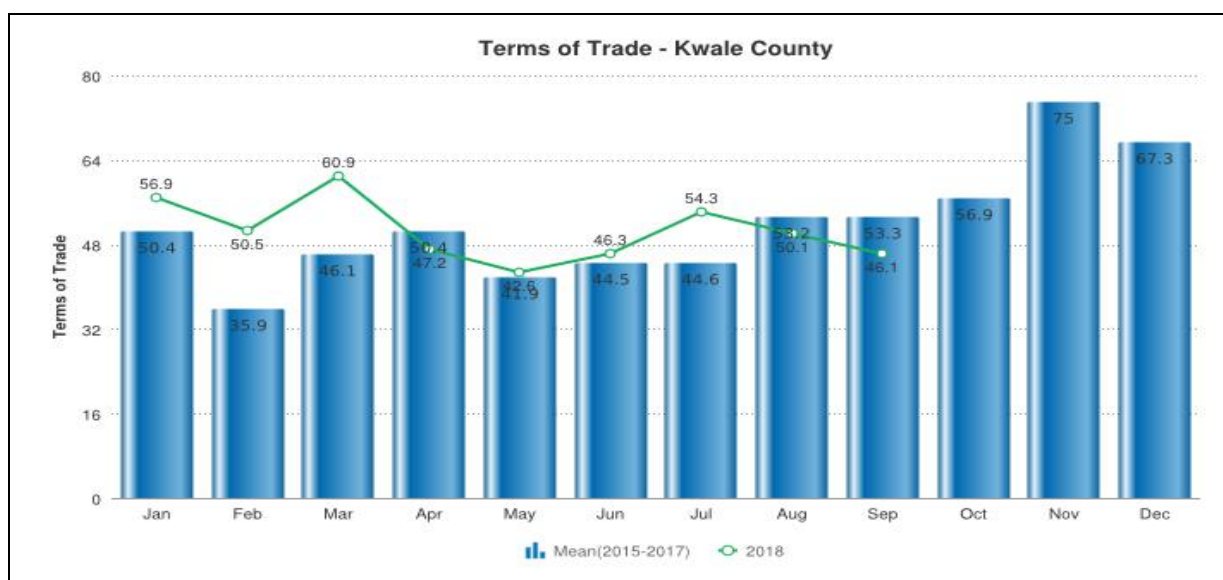
4.2   CROP PRICES

4.2.1   Maize

- In September, a kilogram of maize was retailing at Kshs 35.4 compare with 33.5 recorded in August, depicting a stable trend.
- Households still had some maize stocks for consumption similar to last month which could explain the stability in price.
- In addition, the current price was within seasonal norms when compared with the 2015-2017 LTA of Kshs 39.2 as illustrated in the graph below.

Kwale County Maize Prices - 2018

4.3 TERMS OF TRADE (CASUAL LABOUR VERSUS MAIZE PRICES)

- Terms of trade (ToT) is an indirect means of measuring households' purchasing power for those who mainly depend on markets for food.
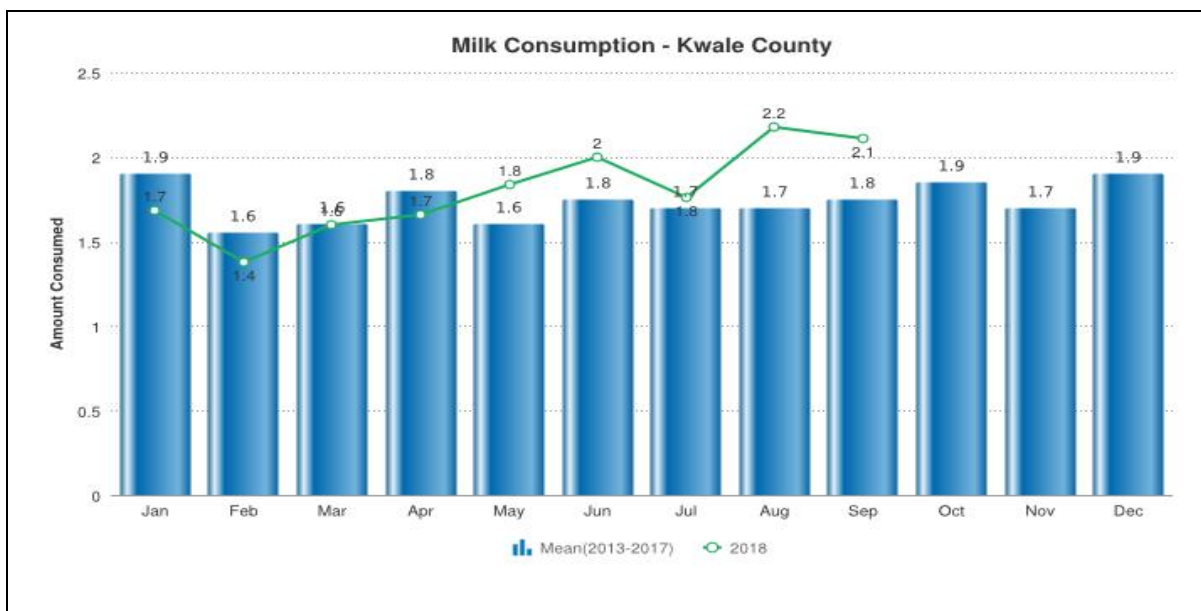
- The ToT remained stable compared with last month as they averaged 46.1 compared with 50.1 recorded in August implying that the quantity of maize that could be purchased from the proceeds of casual labour had not registered a significant difference.
- The stability could be attributed to the fact that maize prices had also maintained a stable trend compared with last month.
- However, they were a little lower than normal by 13.5 percent compared with 53.3 posted in the 2013-2017 LTA implying slightly below-average household purchasing power compared with the expected at this time of the year.
- Below is a graph illustrating the trend in ToT in the county.

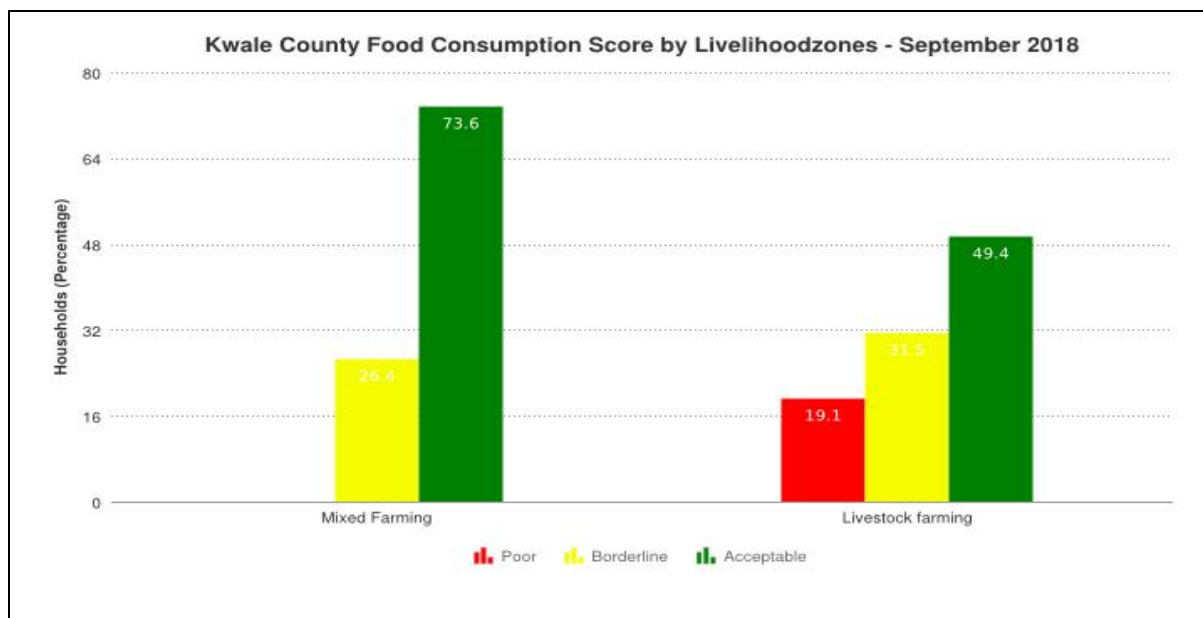## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION
- There was no significant change recorded in the milk consumption at household level this month compared with last month as an average of 2.1 litres was recorded in September compared with 2.2 litres in August.
- It was also within seasonal norms as an average of 1.8 litres was recorded in the 2013-2017 LTA as illustrated in the graph below.

Milk Consumption - Kwale County
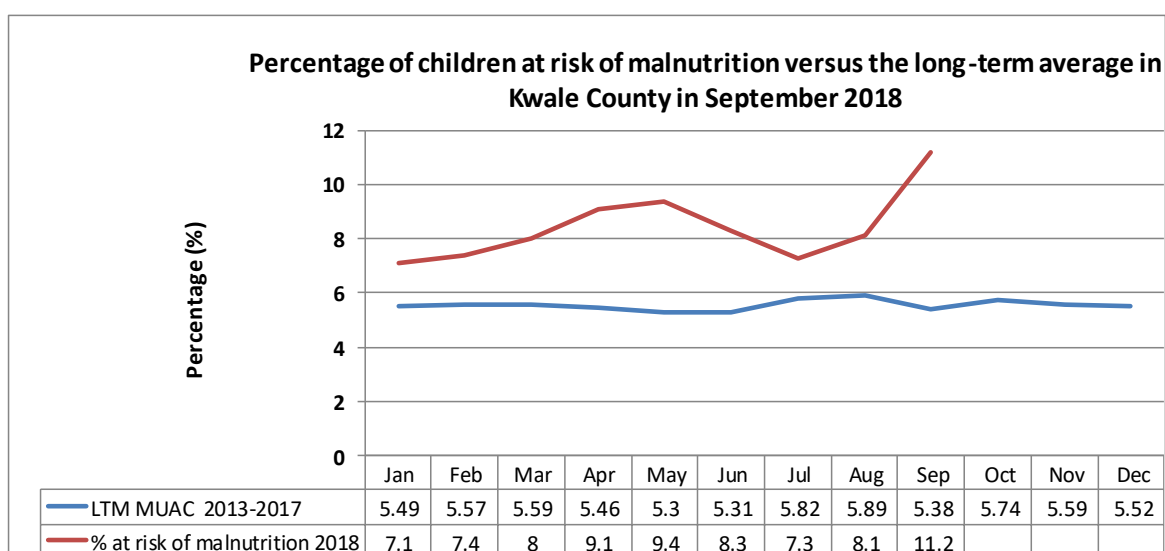
5.2 FOOD CONSUMPTION SCORE

- The county's average food consumption score this month was 40.2 displaying a stable trend compared with 38.1 that was recorded in August. Therefore the county was classified in the acceptable food consumption group similar to last month.
- At the livelihood zone level, the mixed farming and livestock farming livelihood zones registered a score of 45.3 and 35.1 respectively, also placing both zones in the acceptable food consumption group.
- Food consumption patterns remained similar to the previous month as households in the acceptable food consumption were approximated at 73.6 percent in the mixed farming livelihood zone in September compared with 72.5 percent in August.
- Similarly, an equally stable trend was registered in the livestock farming livelihood zone where approximately 49.4 percent of households were reported to have had acceptable food consumption compared with 44.4 percent the previous month.
- The snapshot of food consumption patterns at livelihood zone level is illustrated in the graph below.
- The stability in food consumption could be mainly attributed to the fairly stable staple prices coupled with continued availability of food stocks at household level from the earlier-concluded harvest similar to last month.

Kwale County Food Consumption Score by Livelihoodzones - September 2018

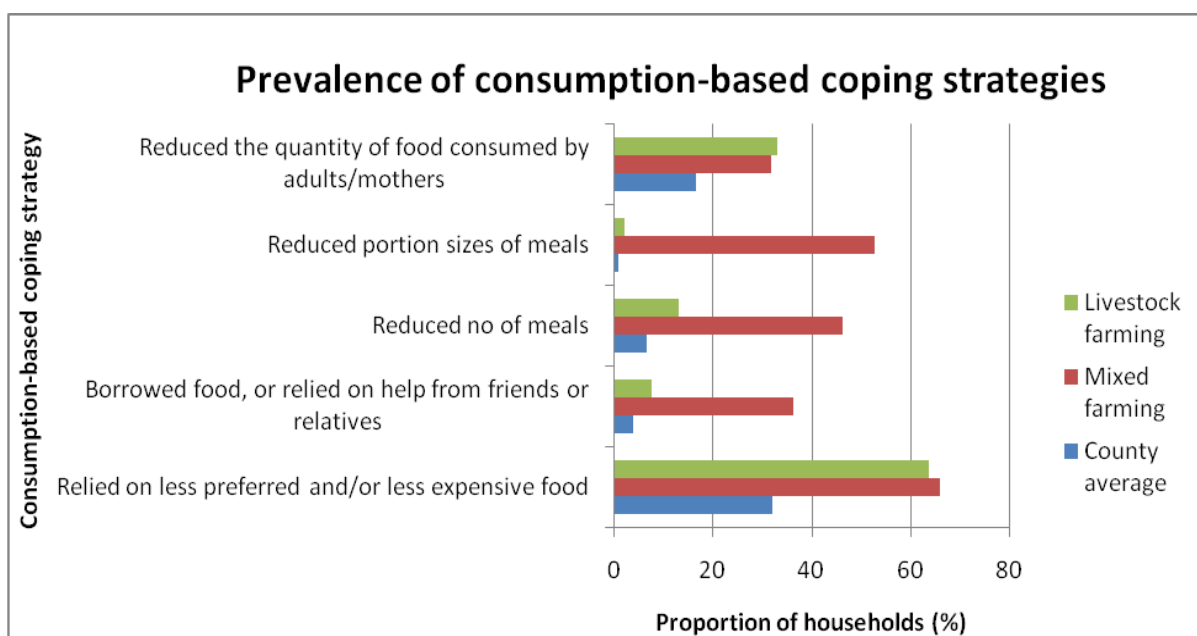## 5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- The proportion of children at risk for malnutrition as measured by the mid-upper arm circumference (MUAC) of between 125-134 mm deteriorated by 37 percent from 8.1 percent in August to 11.1 percent in September as shown in the graph below.
- Given that food consumption patterns had remained stable with a few households having significant food consumption gaps, the deterioration in nutritional status this month could be attributed to other non food security-related causes such as poor child-care practices and diseases.
- In addition, the prevalence of both global acute malnutrition (GAM) and moderate acute malnutrition (MAM) by MUAC was 0.5 percent, while that of severe acute malnutrition (MUAC<115mm) was 0.0 percent.
- The proportion at risk was also higher-than-normal in comparison to the 2013-2017 LTA which had recorded a proportion of 5.38.
- The sample population from which the measurement of MUAC was determined was 519 males and 492 girls.

Percentage of children at risk of malnutrition versus the long-term average in Kwale County in September 2018

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
LTM MUAC 2013-2017	5.49	5.57	5.59	5.46	5.3	5.31	5.82	5.89	5.38	5.74	5.59	5.52
% at risk of malnutrition 2018	7.1	7.4	8	9.1	9.4	8.3	7.3	8.1	11.2			

5.4   COPING STRATEGIES

- The county's average coping strategy this month was 10.0 this month having maintained a stable trend compared with 9.3 recorded in August.
- The implication was that households had neither increased the frequency nor the severity of employing consumption-based coping strategies compared to last month to bridge food consumption gaps.
- The relative stability could be owed to the availability of food stocks at household level which ensured similar consumption patterns to last month.
- The stability was displayed at the livelihood zone level too as the livestock farming livelihood zone posted and index of 10.6 this month compared with 10.1 in August while the mixed farming one recorded 9.3 in comparison to 8.5 during the same period.
- The most commonly employed consumption-based coping strategy was reliance on less preferred and/or less expensive food both at county and livelihood zone level as shown in the graph.

6.   CURRENT INTERVENTION MEASURES

6.1   NON-FOOD INTERVENTIONS
o **Agriculture department**
  The department conducted the following in September:
- The farmers were sensitized on land preparation for the short rains season which was due to begin next month.
- Post-harvest management campaigns were conducted to advise farmers on how to preserve the available harvests

o **National Drought Management Authority (NDMA)**
- Training of technical members of staff on Community Managed Disaster Risk Reduction.

7. EMERGING ISSUES

7.1   Insecurity/Conflict/Human Displacement
▪ There were no cases reported during this reporting month.

7.2   Migration
▪ No migration was reported in September.

7.3   FOOD SECURITY PROGNOSIS

Food availability continued to be stable for most households in the county assuring them of adequate food consumption. Food access had equally remained good as staple maize prices remained lower than average. Livestock production is also likely to remain good for at least three months as forage and water, two integral pastoral resources, are projected to be available through to at least December. Furthermore, with the short rains season projected to perform above-average, it will continue to register improvements ensuring milk availability at household level both for consumption and income particularly in the livestock farming livelihood zone. Income opportunities in the mixed farming livelihood zone will also increase with the progress of the season assuring poor households of an income. Therefore, although food stocks will likely have been depleted in the next two months or so and the prices of staples may have started increasing, these events will coincide with increased incomes from both livestock and crop production. Consequently, no significant food consumption deficits are envisaged and households will not have to increase the number of food and/or frequency of consumption-based coping strategies to meet these gaps. The nutritional status of children could also improve as a result of increased food consumption, although these positive gains may be negated by other causal factors not related to food security such as increased disease burden and sub-optimal childcare and hygiene practices.

8.   RECOMMENDATIONS
▪ With a higher-than-average projected short rain season, farmers should continue to be sensitized to increase acreage under crop production in order to reap maximum benefits.
▪ The county remains on high alert for the Rift Valley Fever out-break during the October-November-December rains due to projected higher-than-normal rains. It's therefore remains important to vaccinate the majority of the county livestock herd (80%) in the hotspots of Kubo South, Gombato, Ramisi, Kinondo, Kinango and Vanga wards.
▪ Nutritional screening should be up-scaled to help curb the deteriorated nutritional status compared to last month and normal times in children aged below five years.