

National Drought Management Authority

KWALE COUNTY

DROUGHT EARLY WARNING BULLETIN APRIL 2019



A Vision 2030 Flagship Project



APRIL 2019 EW FLAG

Drought Status: **NORMAL**



Shughull za kawaida

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Deteriorating
Livestock Farming	Normal	Deteriorating
County	Normal	Deteriorating
Biophysical Indicators	Value	Normal Range/Value
VCI	34	40
State of Water Sources	4	5
Production indicators	Value	Normal
Crop Condition (maize and legumes)	N/A	N/A
Livestock Body Condition	2 – moderate (livestock farming and mixed farming livelihood zones)	2 – moderate (livestock farming and mixed farming livelihood zones)
Milk Production (Litres)	3	3.1
Livestock Migration Pattern	No migration	No migration
Livestock deaths (from drought)	Zero deaths	Zero deaths
Access Indicators	Value	Normal
Terms of trade	27.5	46.8
Milk Consumption (litres)	1.6	1.4
Return distance to water sources for households (km)	6	3.1
Cost of water (Kshs per 20 litres)	3-5	3-5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	5.0	5.9

Drought Situation & EW Phase Classification

Biophysical Indicators

- No rains were received this month which was not normal at this time of the year.
- The Vegetation Condition Index (VCI) was below at 34 compared with 40 normally.
- The state of water sources was below normal for this time of the year.

Socio Economic Indicators (Impact Indicators)

Production indicators

- Livestock body condition was normal at the moderate early warning classification similar to last month.
- Milk production was normal this month.
- There were no drought-related deaths or migration events during the month.

Access indicators

- Terms of trade (casual labour to maize) was below normal during the month implying deteriorating household purchasing power compared with normal times.
- Milk consumption was slightly above-average this month.
- Access to water for domestic consumption was higher than normal for this time of the year.
- The cost of water remained at Kshs 3-5 which was normal.

Utilization Indicators

- The prevalence of children at risk of malnutrition was slightly below average compared with normal times.

Seasonal Calendar

<ul style="list-style-type: none"> Short rains harvests Short dry spell Reduced milk yields Increased household food stocks Land preparation 	<ul style="list-style-type: none"> Planting/weeding Long rains High calving rate Milk yields increase 	<ul style="list-style-type: none"> Long rains harvests A long dry spell Land preparation Increased household food stocks Kidding (Sept) 	<ul style="list-style-type: none"> Short rains Planting/weeding 								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1.1 RAINFALL PERFORMANCE

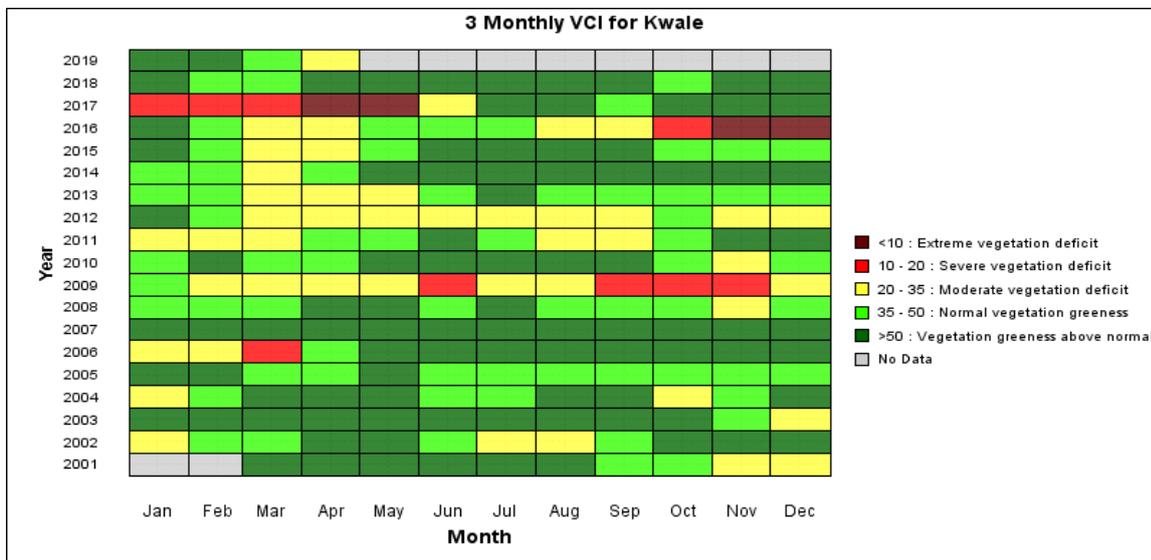
- No rains were received during the month which was not normal at this time of the year

2. IMPACTS ON VEGETATION AND WATER

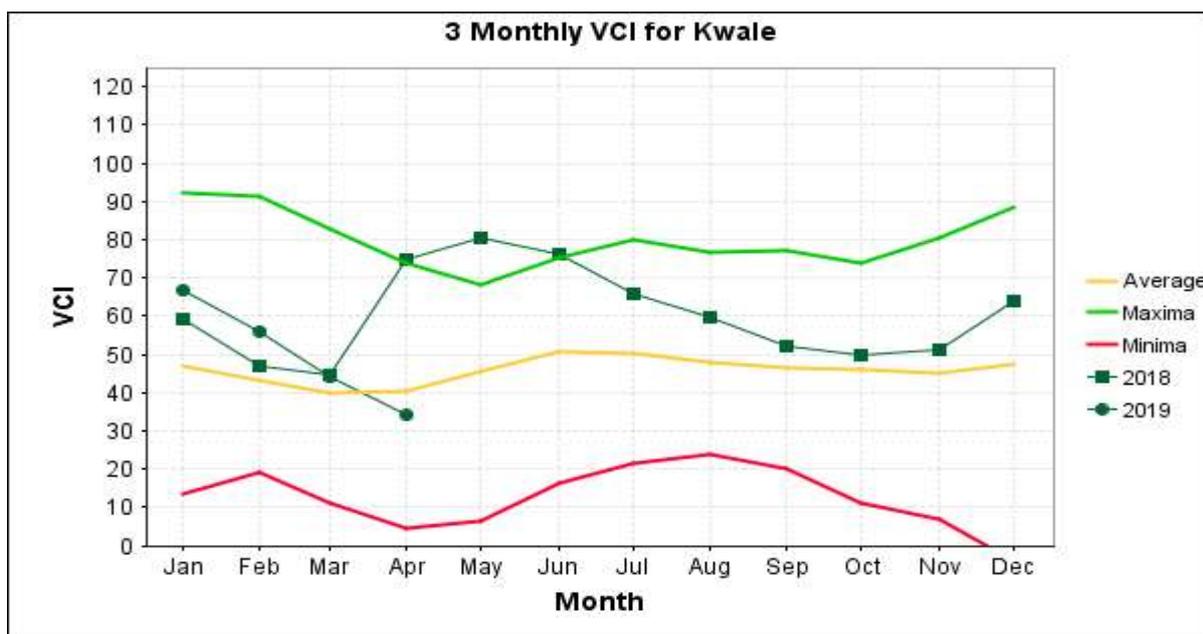
2.1 VEGETATION CONDITION

2.2 Vegetation Condition Index (VCI)

- The vegetation condition in Kwale worsened slightly above last month's state.
- This worsening state was occasioned by exceedingly high temperatures, which increased evapotranspiration hence the variance in the vegetation condition compared to the previous month of March
- All the four sub-counties experienced similar trends of worsening vegetation conditions. However, Kinango sub-county was hardest hit.
- From the graph below, vegetation greenness change compared to last month's condition can be noted.



- Out of the four Kwale sub-counties, Msambweni and Matuga had minimal vegetation deterioration compared with Kinango and Lunga lungu sub-counties.
- Deterioration in vegetation condition affected the livestock livelihood zone compared to mixed farming zone of the county.



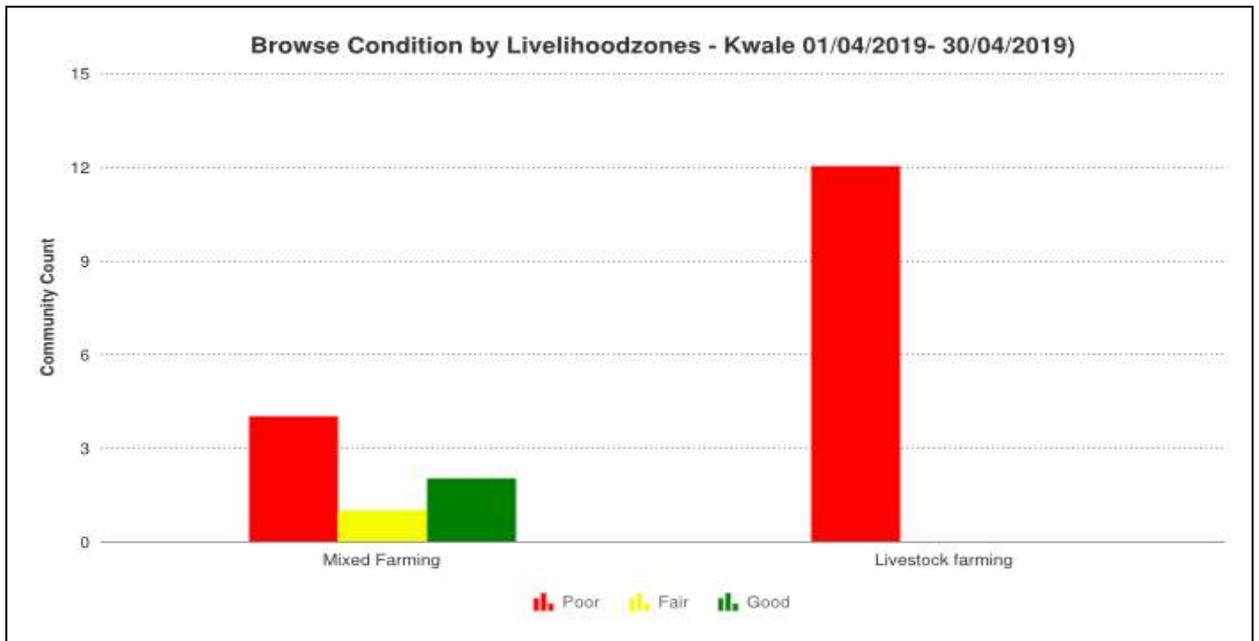
- The line graph above depicts the worsening vegetation condition in this region from the beginning of this year to date.
- In the year 2018 for instance the situation during the month of April was far better compared with this month where declining vegetation condition was noted.

2.1.2 Pasture

- The condition of pasture worsened in the livestock farming zone compared with the mixed farming zone.
- Pastoral zones in most cases are characterized by scarce vegetation cover compared with mixed farming lands. This scenario disadvantages livestock farmers who at times incur huge losses due to insufficient pasture.
- This situation exposes pasture to the scorching effect of high temperatures hence the dexterity in drying up.
- From the pasture condition in the previous month it can be seen that the rate of deterioration in pasture condition is faster in the livestock farming zone compared with the mixed farming zone.
- Pasture condition, livestock body condition and livestock market prices are correlated variables. Where pasture condition is good then it means livestock body condition will too be good and so will be the market prices.
- The bar graph below shows the actual situation in the livelihood zones of the county.
- A reversal of this worsening pasture state is expected soon as showers of rain have been received lately.

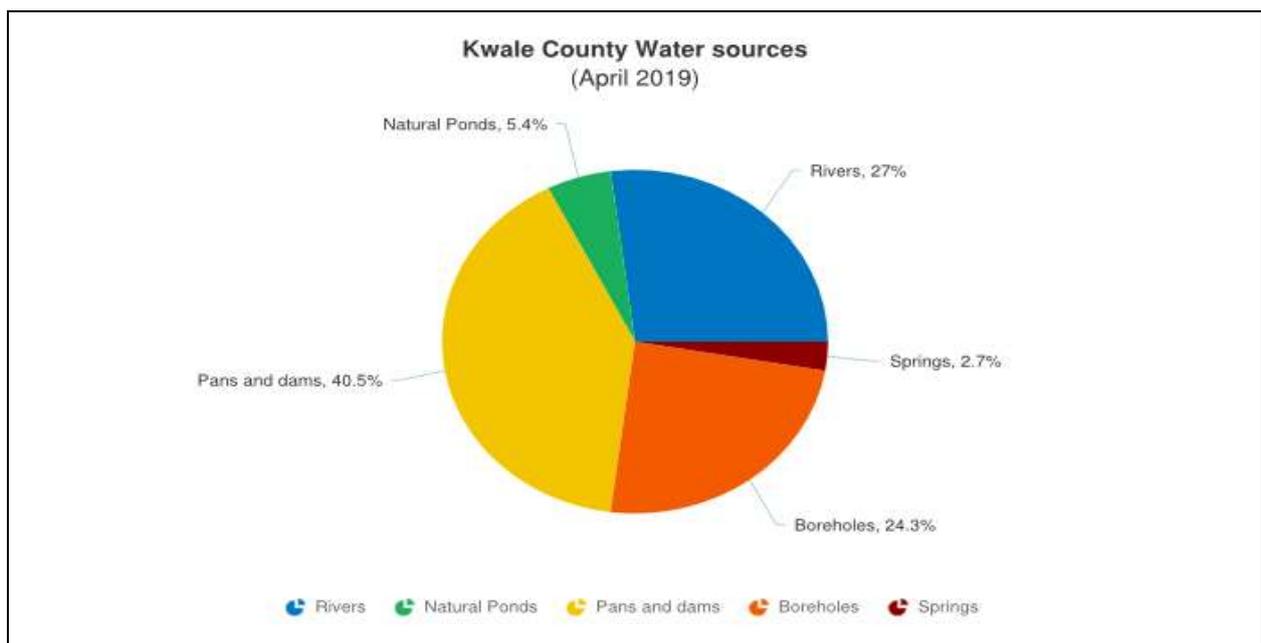
2.1.3 Browse

- Browse condition during the month worsened more so in the livestock farming zone compared with the mixed farming region.
- This month, approximately 55 percent of households reported poor condition in April compared with 44.4 percent in March as indicated in the graph below.



2.2 WATER RESOURCES

2.2.1 Sources



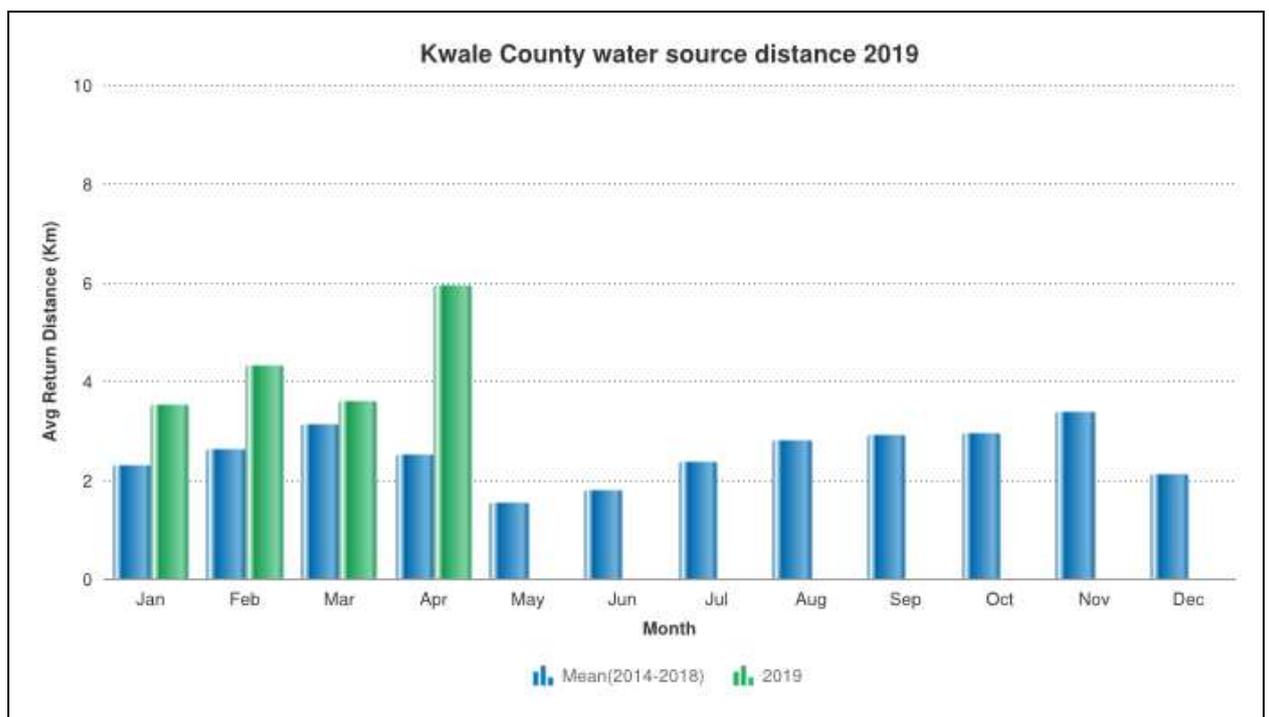
- Pans and dams, rivers, boreholes, natural ponds and springs are the sources of water in the county. Pans and dams, boreholes and rivers were the main water sources for households and livestock this month.
- It is important to take into cognizance that pans and dams and rivers are unreliable sources of water and hence more investments should be done in more reliable sources to cushion the communities and their livestock during severe periods of drought.
- The pie chart above shows that the amount of water from the main water sources is adequate for domestic utilization

- Further, the three main water sources above reflect the cumulative effect of the sporadic showers received during the months of February and March of this year. This means that a small proportion of the population had to trek longer to access the resource.
- The status of water sources was therefore normal for the month similar to last month (see below for the description of water sources' states).

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

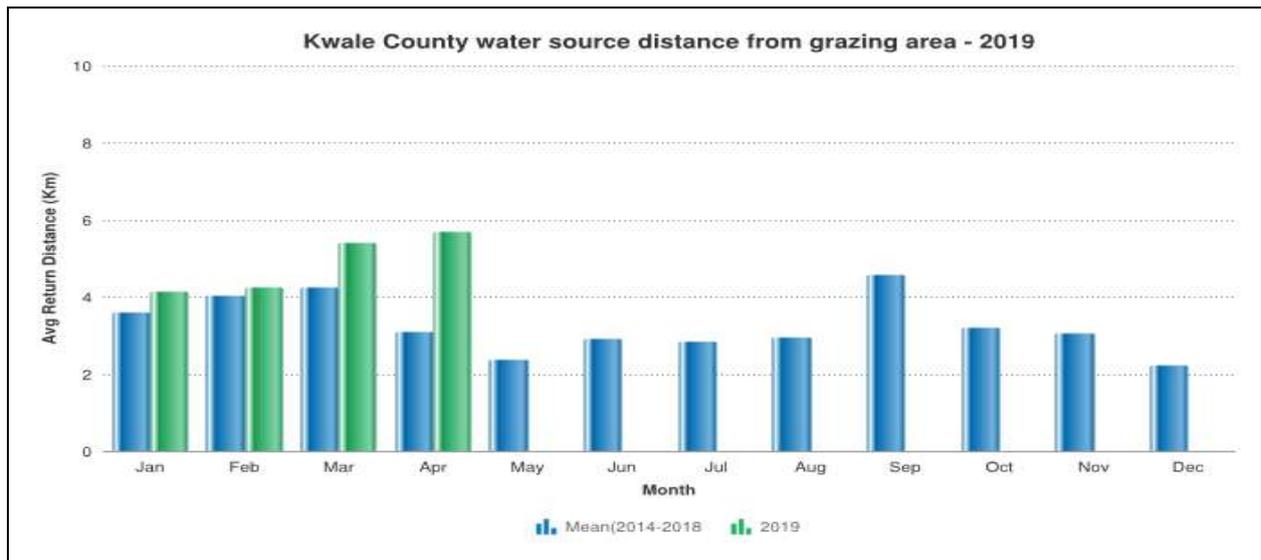
2.2.2 Household access and utilization

- The bar graph below depicts the trends in water source distance commencing from January to April 2019.
- The month of April saw increased distances to water points due to the on-going dry spell.
- The long term averages from 2014 to 2018 shows marked variations in rainfall patterns during the period.
- The trends in the distances are provided in the graph below.



2.2.3 Livestock access to water

- The return distance to water points from grazing areas increased slightly this month compared to last month.
- The bar graph below shows the average return distances to from grazing areas. The month of April saw a slight increase in return distances to grazing areas compared to last month. There was an average increase of 1.1 km from last month's distance.
- The increase is attributed to the worsening pasture condition.
- The distance posted this month was approximately 93.0 percent higher than the long-term averages of the period 2014-2018 as shown in the bar graph below.



3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

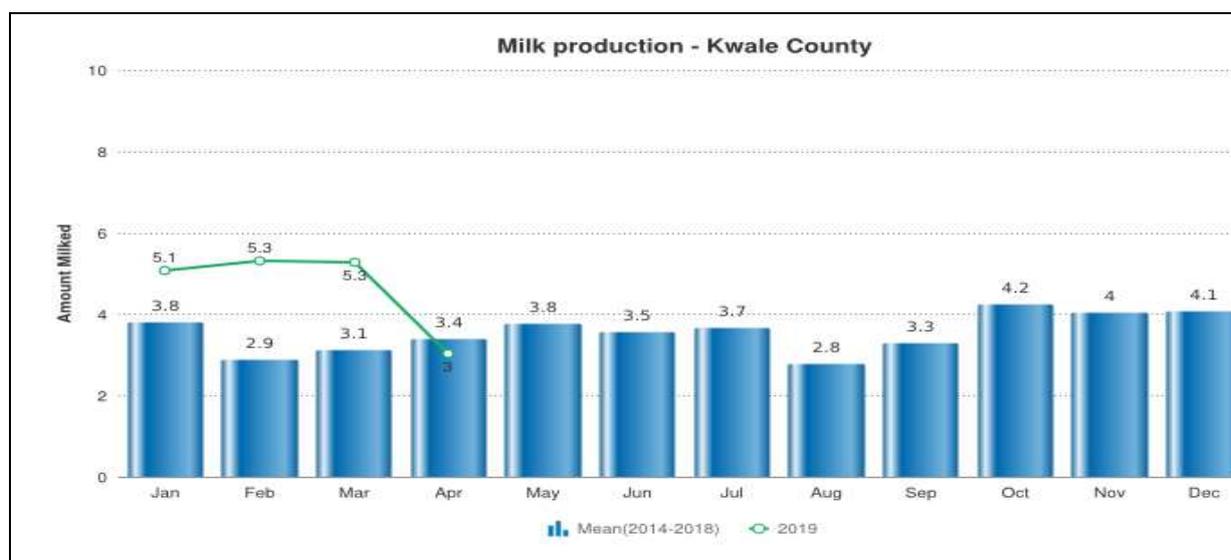
3.1.1 Livestock Body Condition

- Livestock body condition is still stable. Approximately 66.7 percent of households reported good condition compared with 33.3 percent last month.
- The early warning classification remains 2 implying that most livestock were at moderate and therefore neither fat nor thin body condition similar to last month as shown 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

- Milk was produced from cattle this month similar to last month and was also normal. However, there was a general reduction in the amount of milk produced.
- The average household milk production was 3 litres in April having significantly reduced compared with 5.3 litres recorded in March.
- The reduction could be attributed to the deteriorating pastoral resources such as water and pasture across the two livelihood zones.
- Milk production was slightly below normal for this time of the year compared with 3.4 litres recorded in the 2014-2018 LTA as shown in the graph below.



3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and condition of food crops

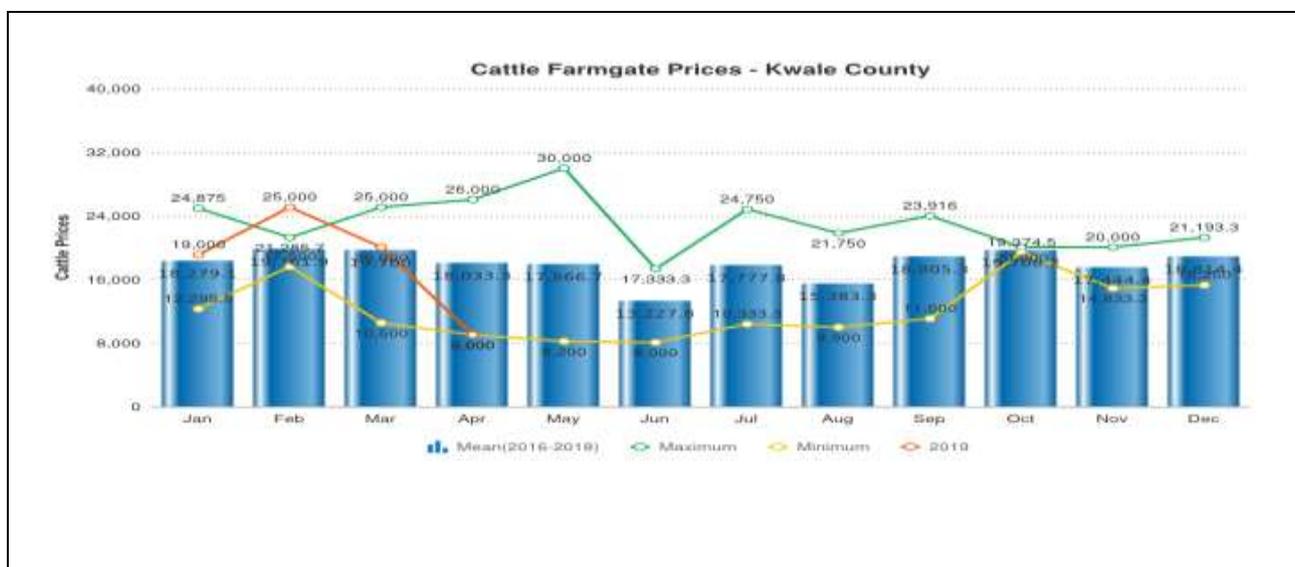
- Land preparation and nursery establishment activities were on-going in both livelihood zones.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle prices

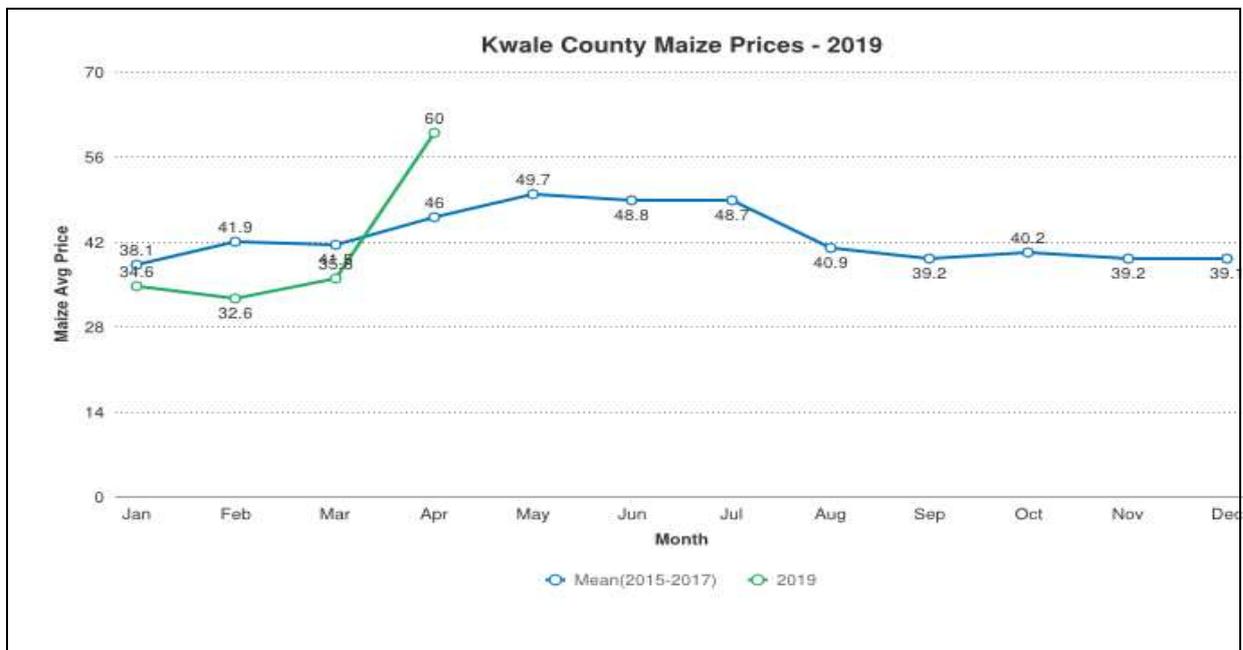
- The average price of a 3-year old bull was Kshs 9,000 in April having reduced by a 55 percent margin from Kshs 20,000 recorded last month.
- The reduction could have been occasioned by the reduced availability of pasture and water compared with last month.
- The price was below normal for this time of the year as seasonal average of 2016-2018 LTA was Kshs 18,033.



4.2 CROP PRICES

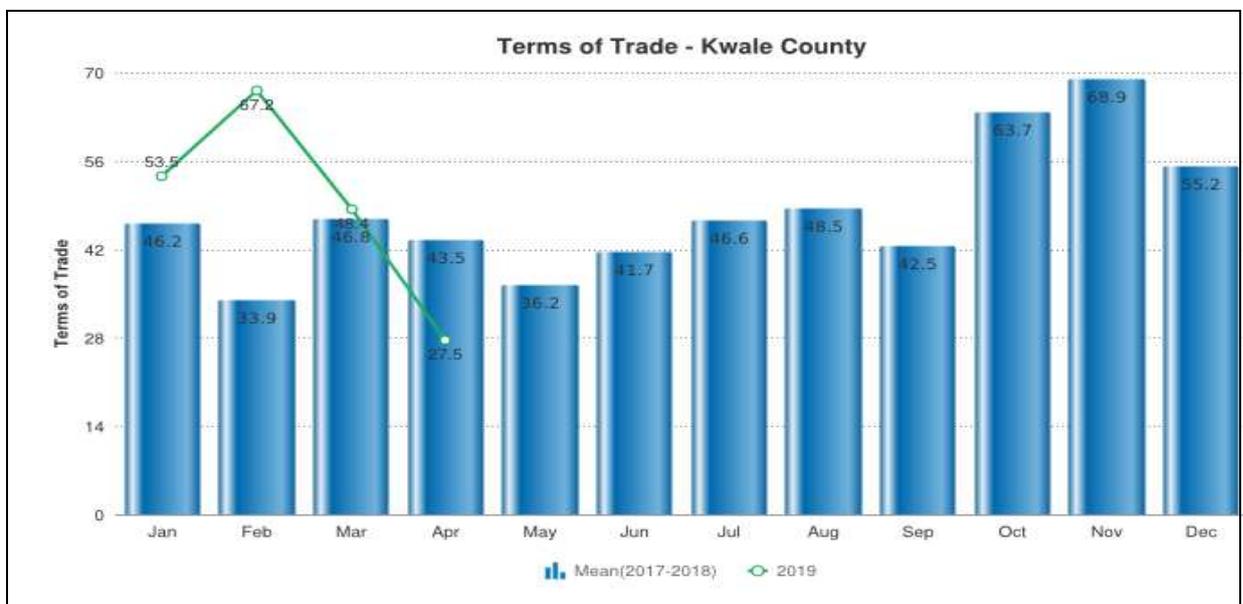
4.2.1 Maize

- There was a significant increase in the price of maize during the month. Maize was retailing at Kshs 60 having increased by a 67.6 percent margin from Kshs 35.8 posted in March.
- The price was 30.4 percent higher than Kshs 46.0 recorded in the 2016-2018 LTA as shown in graph below.



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

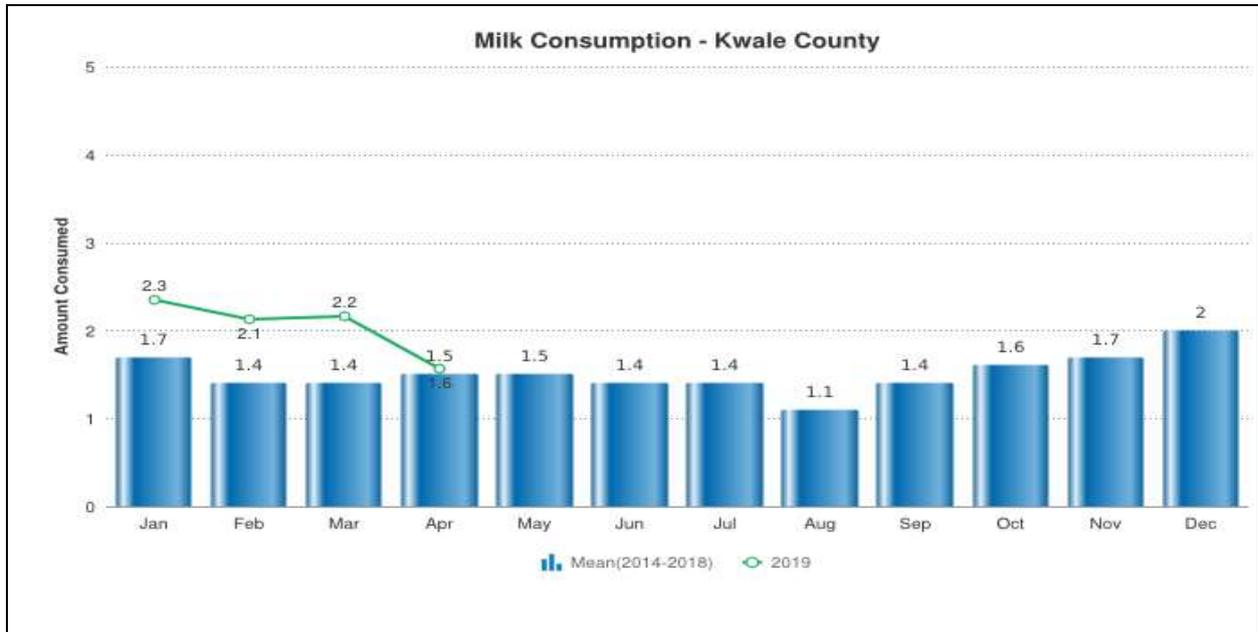
- The ToT decreased by 42.2 percent this month from 48.4 last month to 27.5 in April as shown in the graph below.
- The implication was that households' purchasing power had significantly reduced as they were able to buy a lower quantity of maize from the proceeds of casual labour in April compared with March.
- The decrease in terms of trade was 36.8 percent below normal which was recorded as 43.5 in the 2017-2018 LTA.
- The graph below shows the trends in ToT in the county.



5.0 FOOD CONSUMPTION AND NUTRITION STATUS

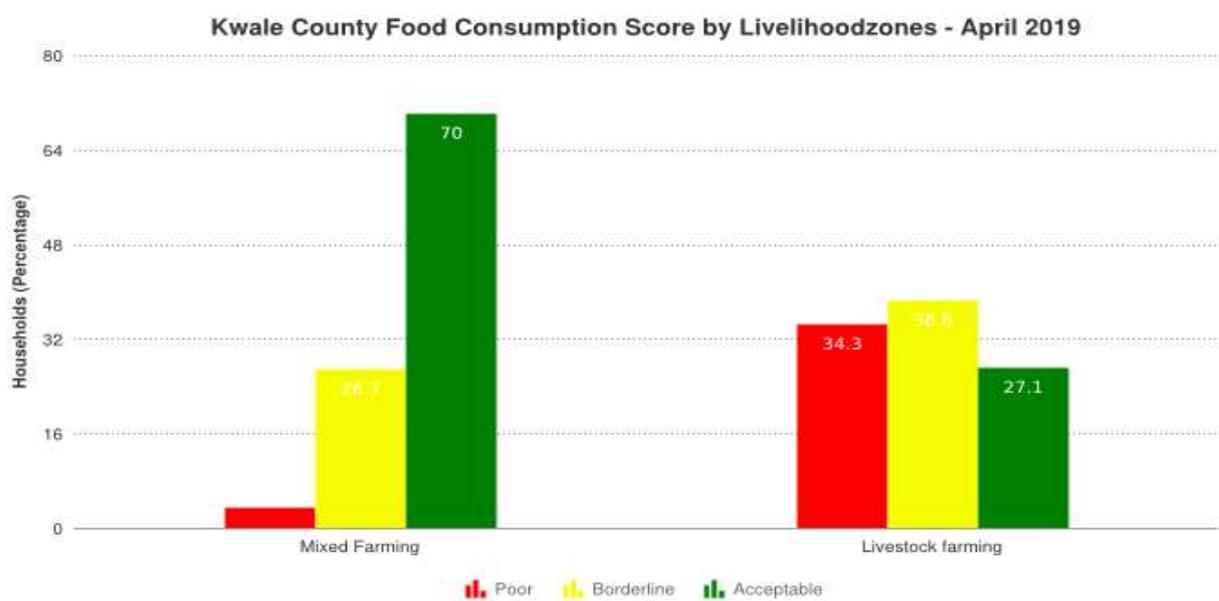
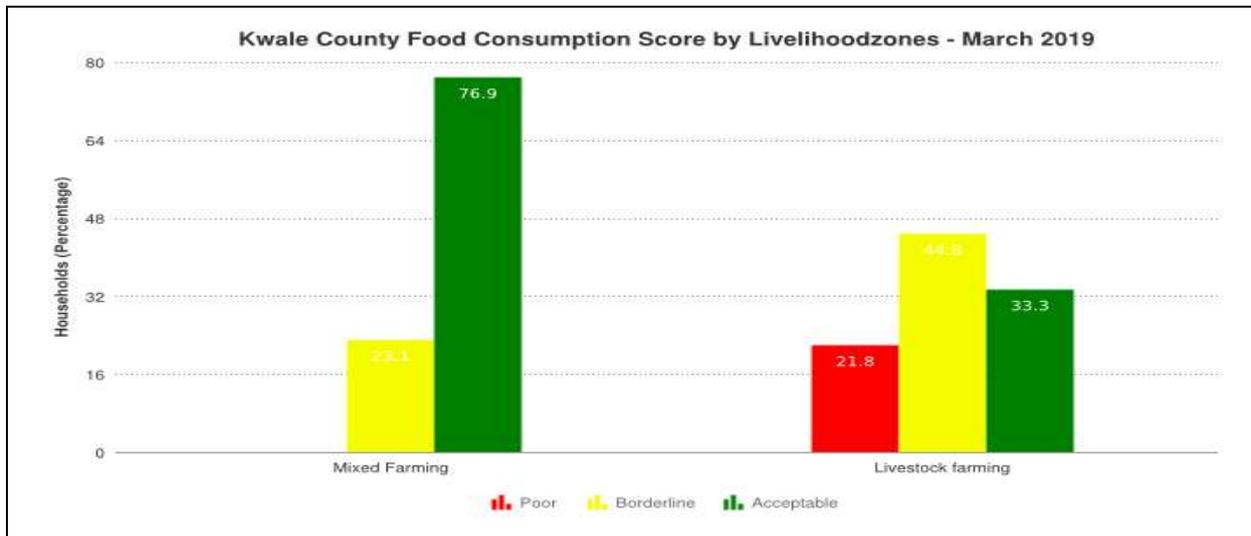
5.1 MILK CONSUMPTION

- There was a reduction in milk consumption during the month. Milk consumption averaged 1.6 litres per household compared with 2.2 litres posted in March.
- Average milk consumption during the month was slightly above the 2014-2018 LTA which was recorded as 1.4 litres.

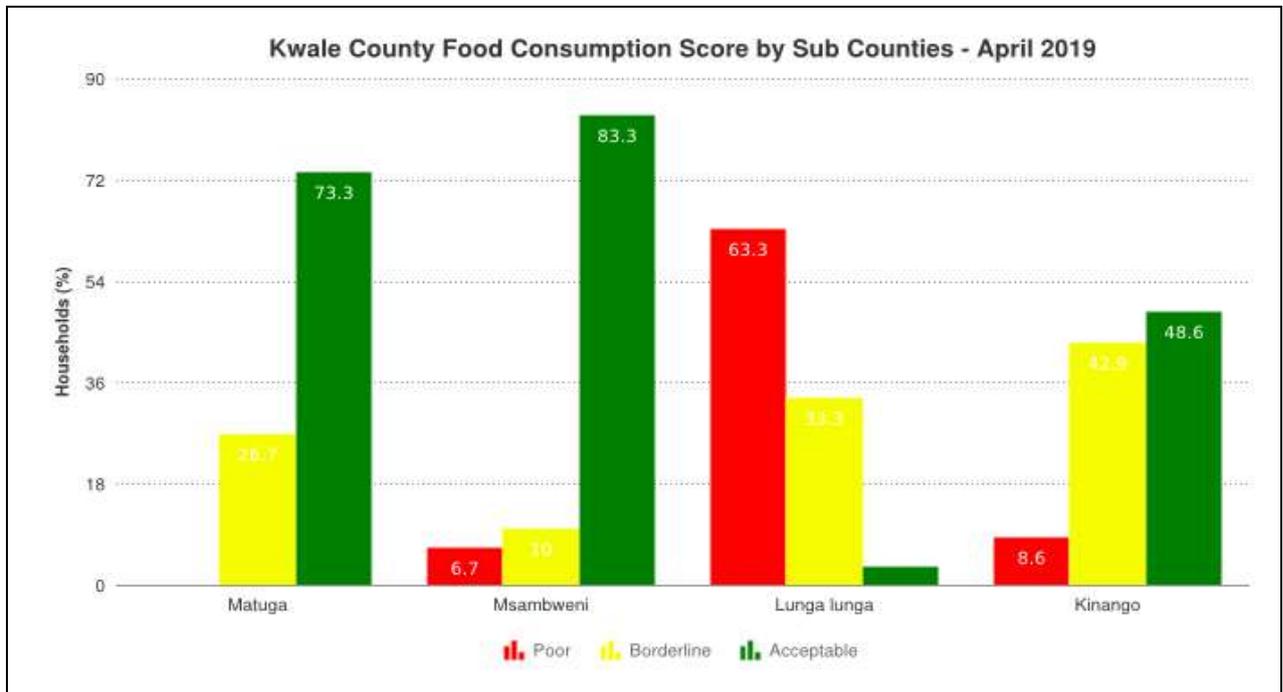


5.2 FOOD CONSUMPTION SCORE

- The proportion of households in the poor, borderline and acceptable food consumption groups was 19.6, 32.7 and 48.5 percent respectively in the month.
- The proportion with acceptable food consumption had reduced from 55.1 in March to 48.55 in April.
- The county's food consumption score this month averaged 36.5 having reduced from 44.4 recorded in March.
- The increase in the proportion of households in the poor food consumption category and the slight reduction in the average food consumption score compared to last month point to slight reductions in food frequency, dietary diversity and nutritional value of diets.
- The implication was therefore that food consumption gaps had generally increased in the county. The proportion of households in the poor category in the livestock farming zone increased from 21.8 percent in March to 34.3 percent in April.



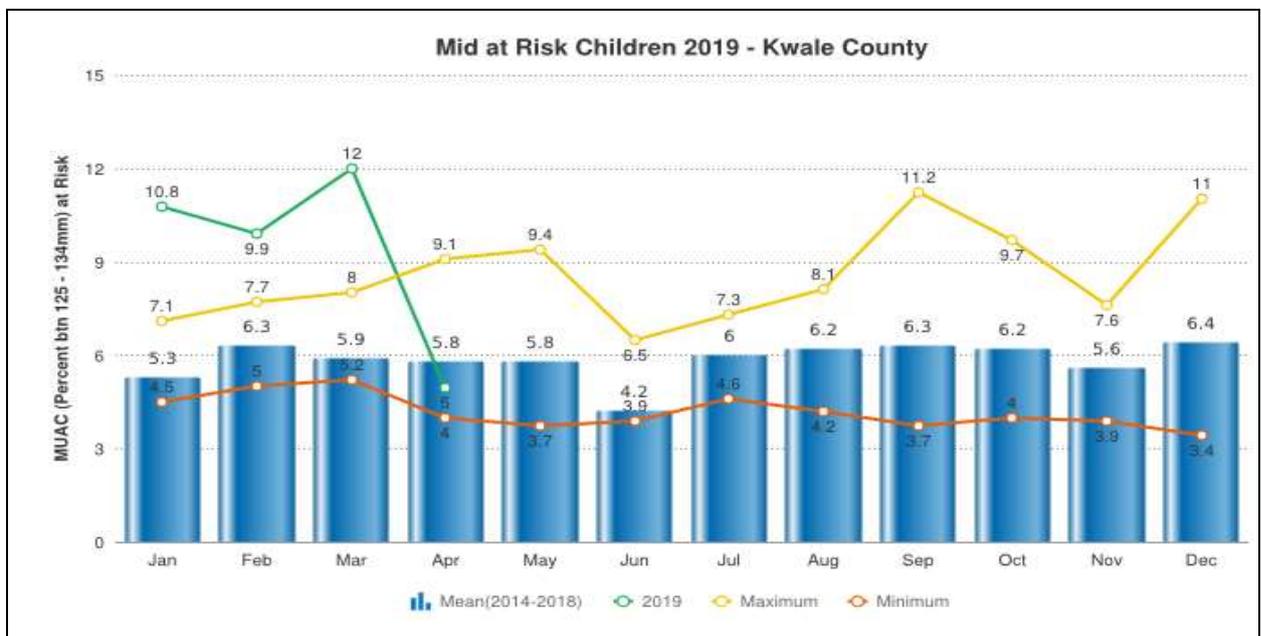
- It was also important to note that most of the households in the livestock farming livelihood zone who recorded in the poor food consumption group were from Lunga Lunga Sub-county followed by Kinango sub county as shown in the graph below.

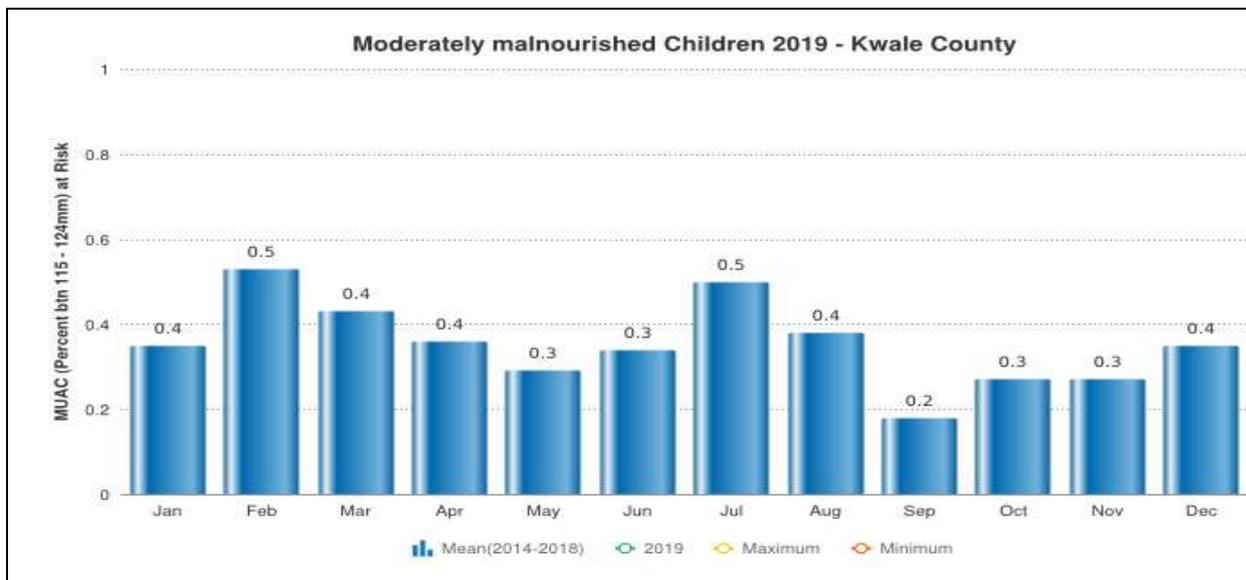


5.3 HEALTH AND NUTRITION STATUS

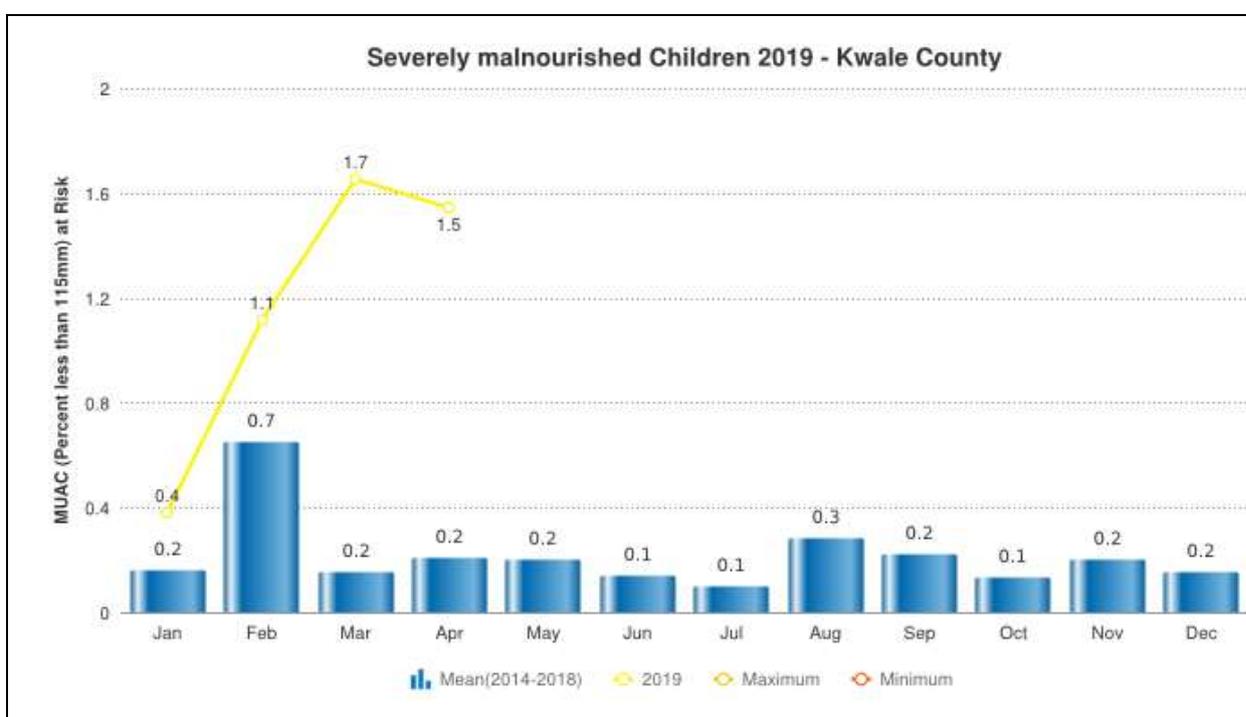
5.3.1 Nutrition Status

- The Mid-Upper Arm Circumference method was used for the estimation the proportion of children at risk of malnutrition. The findings were that the prevalence of children at risk (MUAC 125mm-134mm), moderately malnourished (MUAC<125mm) and severely malnourished (MUAC<115mm) was 5, 0 and 1.5 percent respectively as shown in the graphs below.

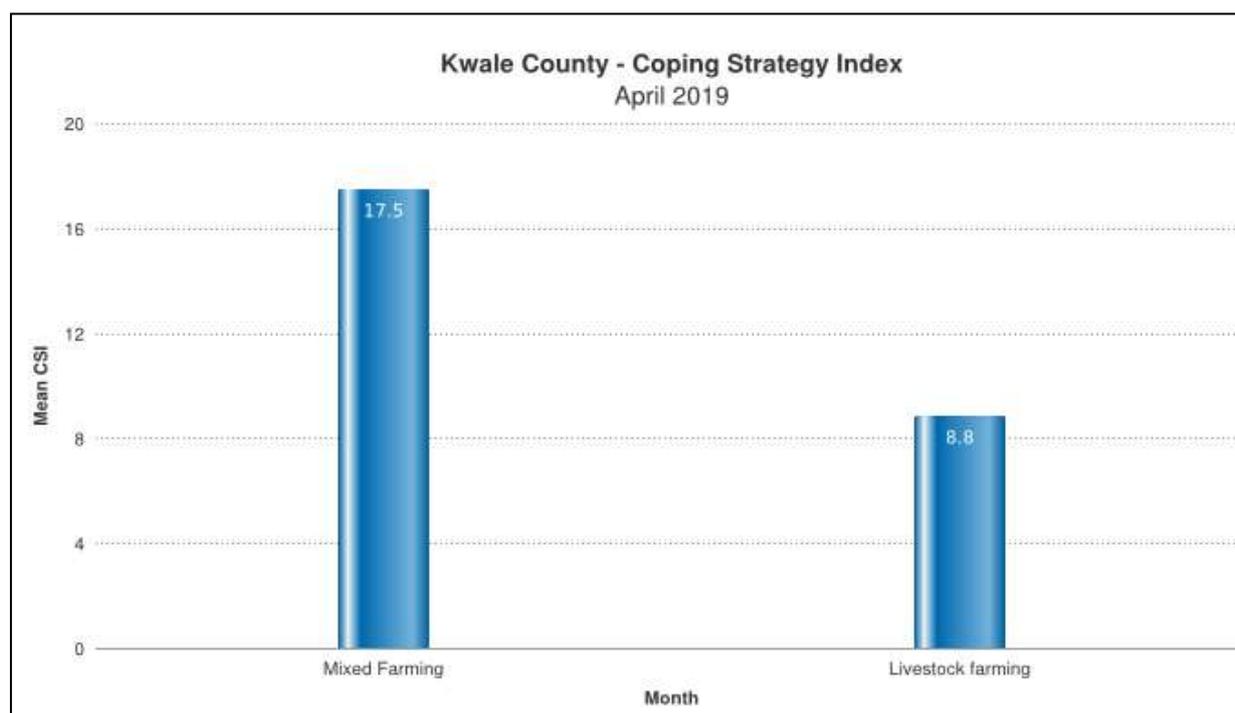




- The prevalence of those at risk reduced by 37.5 percent from 8 percent in February to 5 percent in March while that for the moderately at risk remained the same as last month at zero percent.
- The proportion of children at risk compared with the previous month was lower than normal in comparison with the 2014-2018 LTA which was recorded at 5.9 percent.
- The prevalence of the severely malnourished also reduced by 27.3 percent from 1.7 percent in March to 1.5 percent this month as shown in the graph below. It was also above the 2014-2018 LTA which was recorded at 0.2 percent at this time of the year.



5.3 COPING STRATEGIES



- The reduced coping strategy index (rCSI) averaged 13.2 this month having increased significantly compared with 11.8 posted in March.
- The increase was reflected in the mixed farming livelihood zone where an index of 17.5 had been posted in April compared with 12.6 recorded in March. This therefore implies that households significantly increased or reduced the frequency and number of consumption-based coping strategies to bridge food consumption deficits.
- There was, however, a decrease in the index in the livestock farming livelihood zone by approximately 27.3 percent from 11.0 percent in March to 8.0 percent in April. Households in this zone had therefore slightly decreased the number and severity of consumption-based coping strategies compared with last month.

6. CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

- **Agriculture department**

The following interventions were carried out by the agriculture department in April

- County tractor ploughing services. The county facilitated the ploughing of 2000 acres for the long rains season in all the 20 wards
- Establishment of vegetable nurseries (for tomatoes, capsicums and kales) at Nyalani Integrated Food Security Project.
- KCEP-CRAL project distributed e-voucher cards to beneficiaries to access farm inputs from service providers during the long rains season targeting 11,012 farmers
- Food and Agriculture Organization (FAO) trained 7,200 farmers on conservation agriculture

- **Health department**

The following interventions were carried out by the county health department in April

- Community dialogue meetings on public health, routine outreaches by facilities
- Routine distribution of therapeutic and supplementary food and growth monitoring at facility level
- Distribution of vitamin A and iron folic acid supplements (IFAS) to pregnant mothers at facility level

7. EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- No cases of human displacement, conflict or insecurity were reported in April

7.2 Migration

- No migration was recorded during the month under review.

7.3 FOOD SECURITY PROGNOSIS

Continued depletion of household food stocks is a worrying trend. Communities were mainly market-dependent during the month. Land preparation activities were on-going in most parts of the county and casual labour opportunities were available. Terms of trade (casual labour to maize prices) was below normal during the month implying deteriorating household purchasing power compared with normal times.

The expected onset of the long rains season next month will hopefully facilitate the rejuvenation of forage especially in the livestock farming zone, although the rains are projected to have below-normal tendencies. With the projected onset of the long rains next month, livestock production is likely to improve, the income from which will supplement domestic earnings from casual labour opportunities. However, crop production is likely to be impacted negatively by the rains. Therefore, it is possible that some households will experience some slight food gaps forcing them to increase their frequency and severity of coping strategies.

8. RECOMMENDATIONS

- Close monitoring of the long rains season and its impacts on livestock and crop production as the onset has delayed yet this is the main cropping season
- Close monitoring of availability of pasture and browse across the county.
- Conduct rapid nutrition assessment to establish the reason for above-normal malnutrition rates in the county.