

National Drought Management Authority

KWALE COUNTY

DROUGHT EARLY WARNING BULLETIN JULY 2018



A Vision 2030 Flagship Project



JULY 2018 EW FLAG

Drought Status: NORMAL



Shughull za kawaida

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Stable
Livestock Farming	Normal	Deteriorating
County	Normal	Deteriorating
Biophysical Indicators	Value	Normal Range/Value
VCI	61.82	50
State of Water Sources	5	5
Production indicators	Value	Normal
Crop Condition (maize and legumes)	Good	Good
Livestock Body Condition	2 (livestock farming) 2(mixed farming)	2 (livestock farming) 2(mixed farming)
Milk Production (Litres)	5.8	3.5
Livestock Migration Pattern	No migration	No migration
Livestock deaths (from drought)	Zero deaths	Zero deaths
Access Indicators	Value	Normal
Terms of trade	54.5	44.6
Milk Consumption (litres)	1.8	1.7
Return distance to water sources (km)	3.6	2.0
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	7.3	5.8

Drought Situation & EW Phase Classification

Biophysical Indicators

- The first two dekads of the month received normal rainfall.
- The Vegetation Condition Index was above-normal at 61.82.
- The state of water sources was normal for this time of the year.

Socio Economic Indicators (Impact Indicators)

Production indicators

- Livestock body condition was normal for this time of the year.
- Milk production was above-normal.
- No livestock migration was reported during the month.

Access indicators

- The terms of trade were 22 percent above the normal of 44.6 implying above-average household purchasing power.
- Milk consumption was normal for this time of the year.
- The return distances to water sources were above-normal similar to last month.

Utilization Indicators

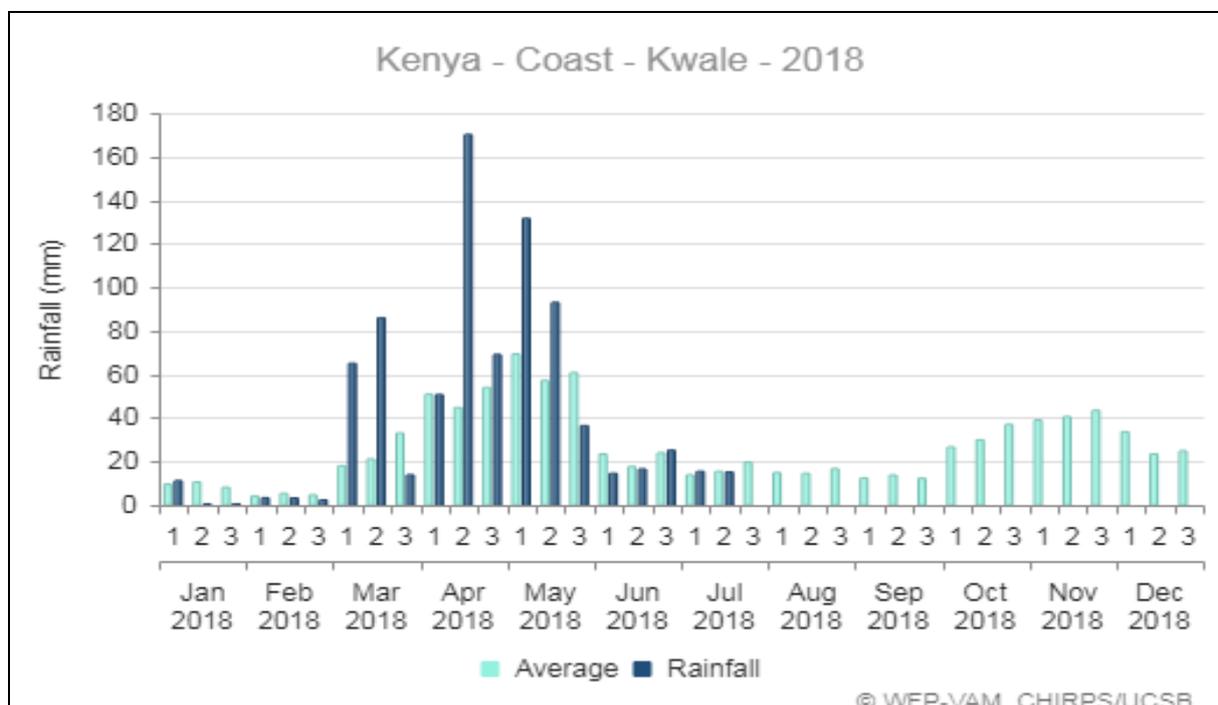
- The percentage of children at risk of malnutrition was 25 percent above-normal for this time of the year.

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

- The long rains season ended in the third dekad of June.
- However, some areas received some showers and the amounts recorded were normal for this time of the year as shown in the graph below.
- The rainfall distribution was spatially even and temporally good in both the mixed farming and livestock farming livelihood zone.



2. IMPACTS ON VEGETATION AND WATER

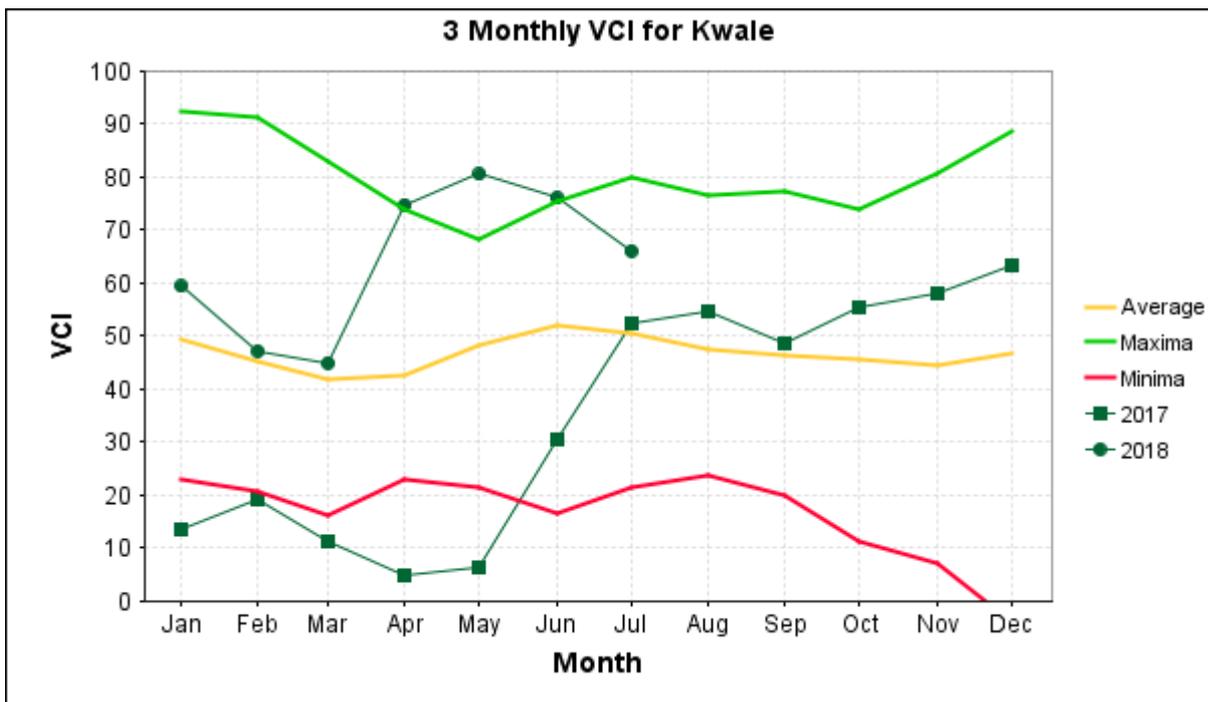
2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

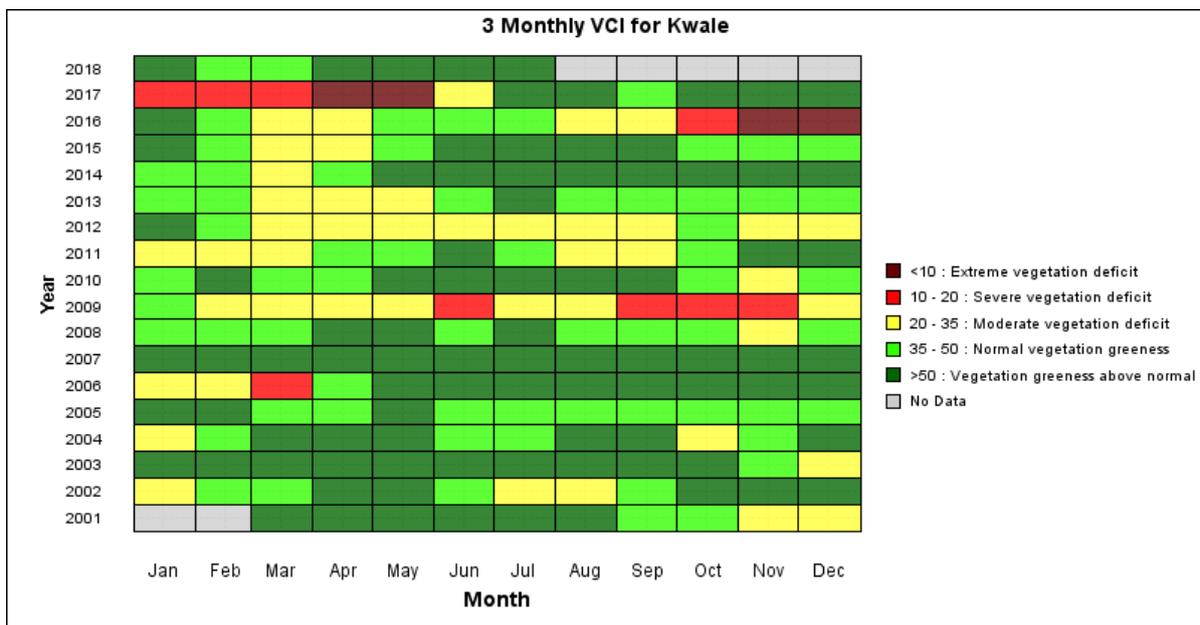
- An above-average trend in vegetation greenness was maintained in the county although it had reduced slightly by 19.2 percent as evidenced by the reduction in the VCI compared with last month as shown in the table below.
- The decrease could be attributed to the reduced rainfall since the rainy season has ended.
- In addition, all four sub-counties also maintained above-normal vegetation condition similar to last month. However, all the sub-counties also registered reduced vegetation greenness compared with last month due to reduced rainfall amounts.

Sub-county/County	3-month VCI May 2018	3-month VCI June 2018	3-month VCI July 2018
Kinango	81.57	75.93	61.33
Lunga Lunga	88.26	82	61.41
Matuga	67.85	70.81	67.98
Msambweni	61.09	60.23	53.36
Kwale County	80.42	75.96	61.82

- The current vegetation conditions were better than normal for this time of the year as indicated in the graph and matrix below.

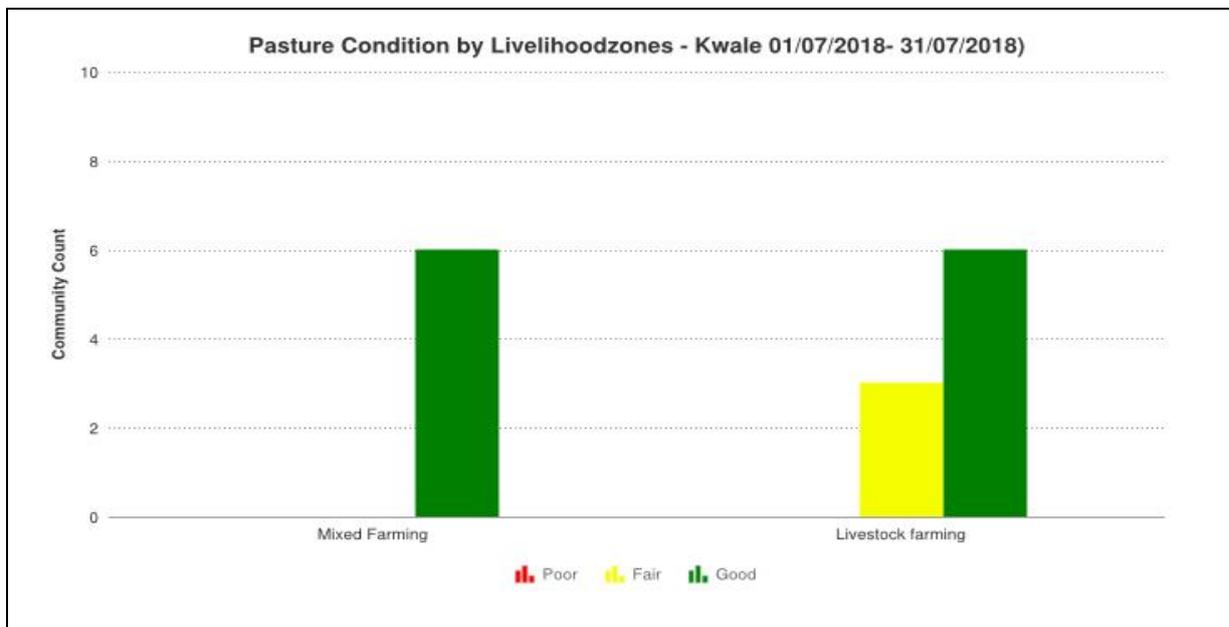


- The matrix also shows that the current conditions are similar to the same time last year when the county was classified in the 'vegetation greenness above-normal' band.



2.1.2 Pasture

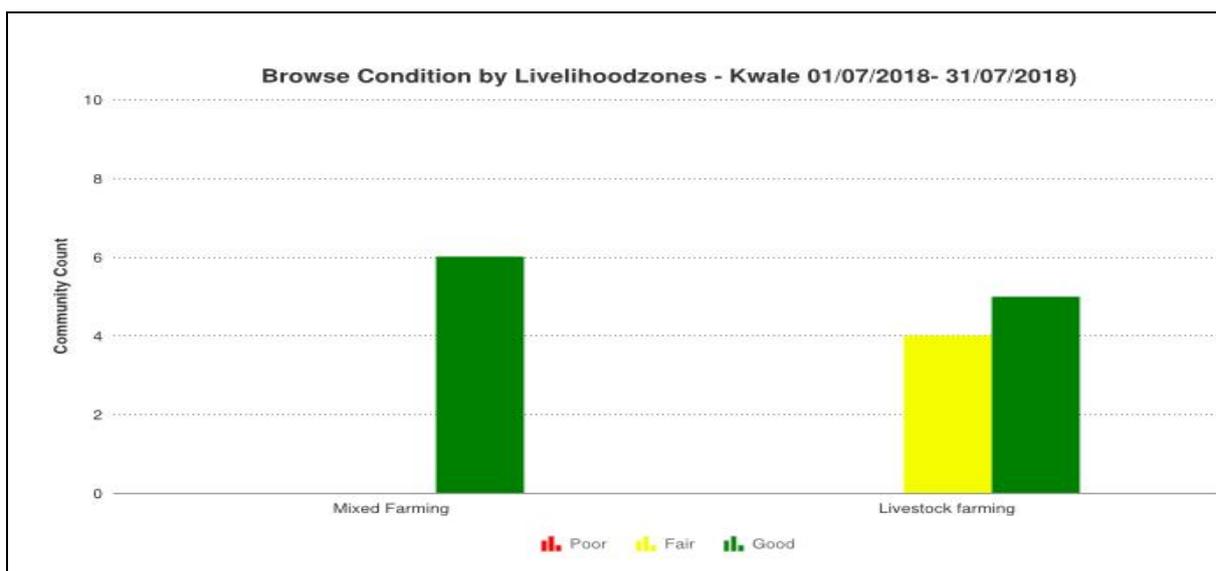
- Pasture condition remained fairly the same as last month in the county as a whole as a similar number of households (80%) recorded having good pasture condition compared with last month (83%).
- At livelihood zone level, the condition remained the same in the mixed farming livelihood zone although it slightly deteriorated in the livestock farming one.
- The graph below shows the pasture condition at livelihood zone level.



- The projected duration the available pasture was expected to last is four and six months in the livestock farming and mixed farming livelihood zones respectively.

2.1.3 Browse

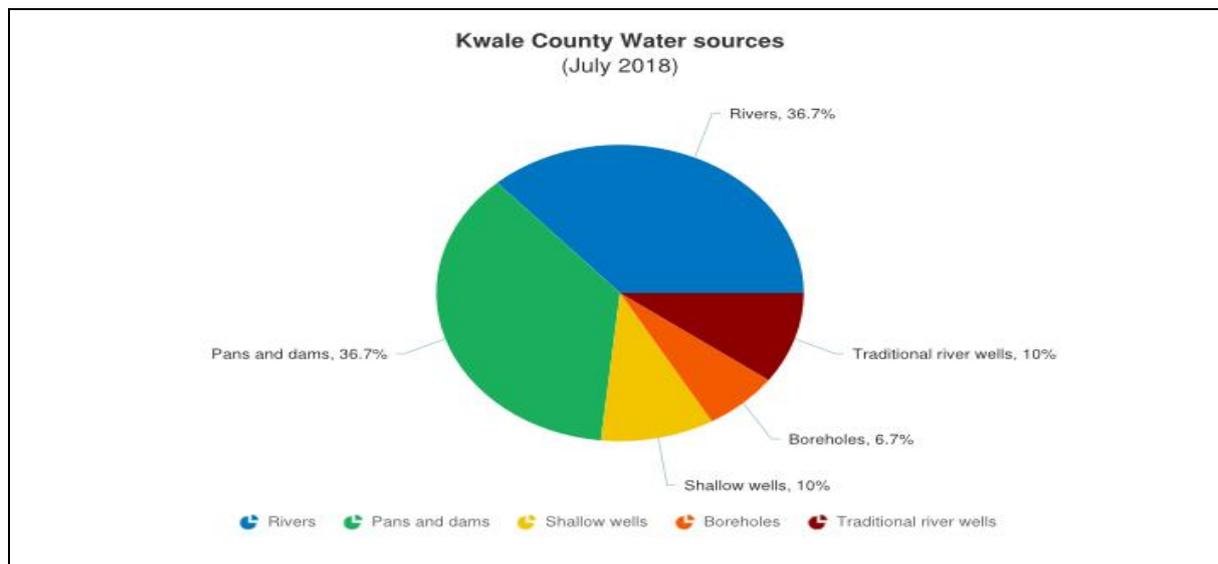
- There was a slight deterioration in browse condition as the proportion of households who reported good browse condition reduced from 100 percent last month to 73.3 percent in July.
- Although the situation remained fairly similar in the mixed farming livelihood zone compared with last month, it worsened in the livestock farming one where less households reported good browse condition during the same period.
- The available browse was projected to last for six months in the former livelihood zone and four months in the latter.
- The graph below represents the current browse condition in the county.



2.2 WATER RESOURCES

2.2.1 Sources

- Pans, rivers and dams were the main sources of water for domestic consumption similar to last month.

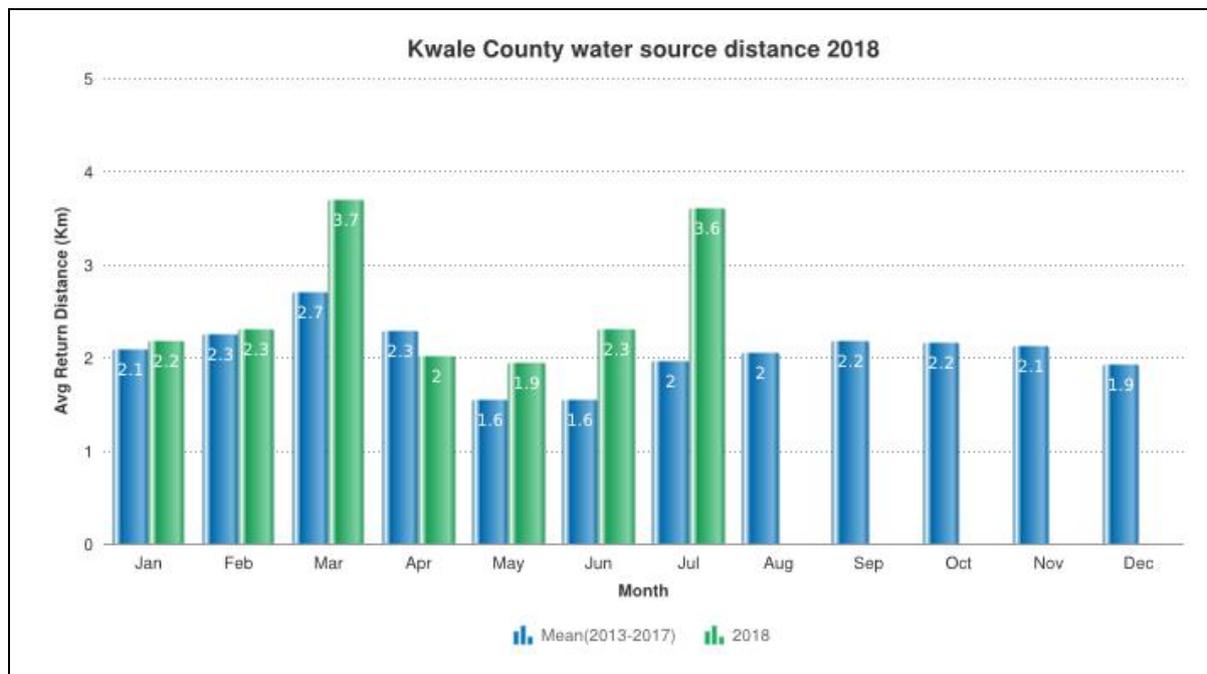


- Households in the livestock farming livelihood zone were relying on open water sources while those in the mixed farming one were mostly relying on protected ones such as tap water and boreholes.
- All the sources currently in use for domestic consumption were the normal ones for this time of the year.
- The open water sources in the livestock farming livelihood zone were projected to hold water for at least three months.
- The early warning classification for the county was therefore 5 similar to last month.
- The implication was that water availability was normal for this time of the year (see below for description of the state of water resources).

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

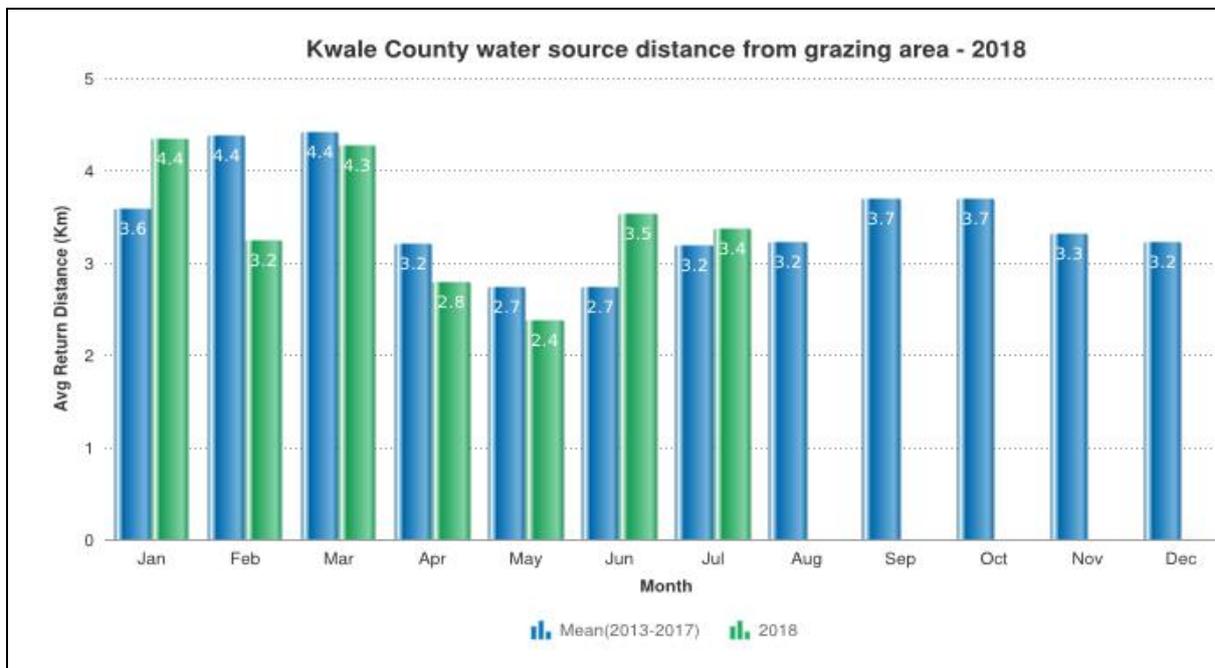
- Access to water for domestic consumption was slightly more difficult than last month as households had to walk slightly longer to water points (3.6 km in July compared with 2.3 km in June). The trend in the distances walked is shown in the graph below.



- At livelihood zone level, the distances also remained relatively the same as the mixed farming and livestock farming livelihood zones posted a distance of 1.5 and 1.4 km respectively compared with 1.5 km recorded in both livelihood zones in June.
- Household access to water therefore remained fairly stable compared with last month although the distance was higher than normal for this time of the year.

2.2.3 Livestock access to water

- Access to water for livestock remained comparatively similar to last month as the distance walked from watering points to grazing areas was 3.4 km in July compared with 3.5 km in June.
- The distance walked was also within the seasonal ranges for the month as the average distance recorded in the 2013-2017 LTA was 3.2 km as shown in the graph below.



- The mixed farming livelihood zone recorded the shortest distance at 1.8 km similar to last month while the livestock farming one recorded the highest at 2.3 km having reduced slightly from 2.7 km.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Both the mixed farming and livestock farming livelihood zones recorded 'moderate early warning classification' for livestock body condition (see below the early warning classification table for livestock body condition) which was normal for this time of the year.
- There had not been any considerable change compared with last month and livestock were likely to retain the same conditions for at least three months due to continued availability of forage and water.

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

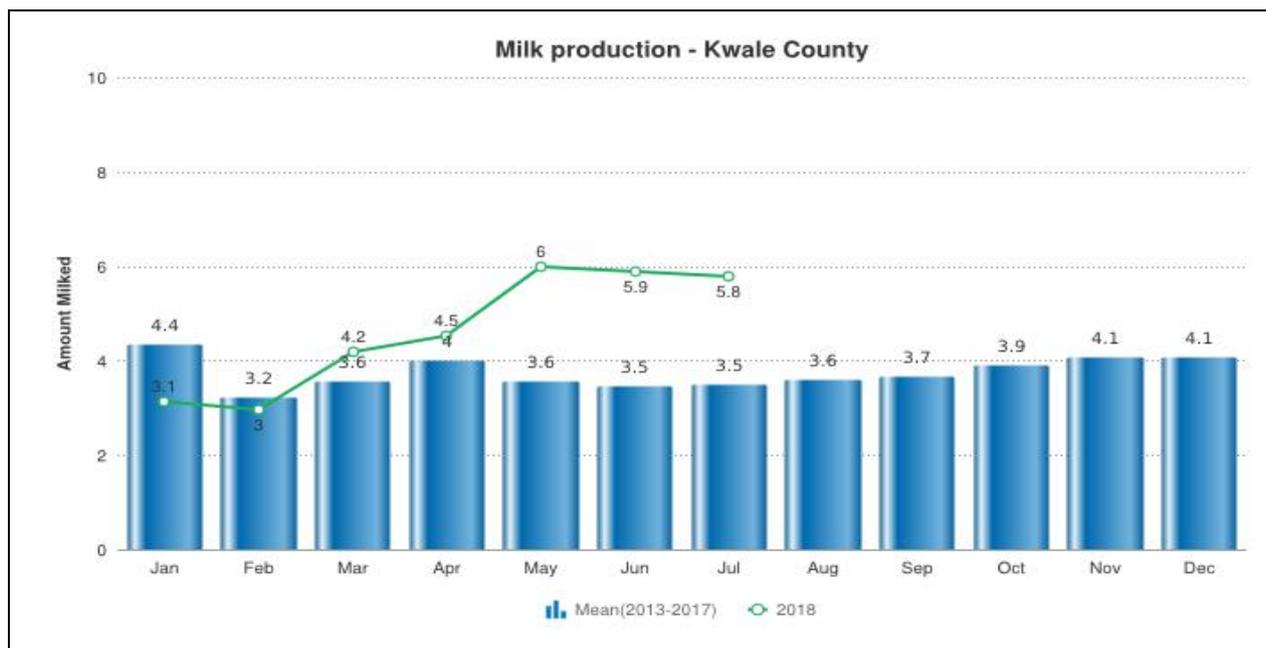
3.1.2 Livestock Diseases

- There were no livestock diseases reported during the month that posed a significant threat to food security.

- However, the county was still on high-alert for a Rift Valley Fever outbreak and plans were underway to vaccinate approximately 80 percent of the total livestock in the county in Kinango, Vanga, Gombato, Kubo South, Kinondo and Ramisi wards.

3.1.3 Milk Production

- Most of the milk produced in the county came from cows similar to last month which was also normal.
- Milk production maintained a stable trend at household level as shown in the graph below. However, it continued to register an above-average trend compared with the 2013-2017 LTA.
- The continued pasture and water availability could be the reason the milk produced had maintained an above-average trend.



3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and condition of food crops

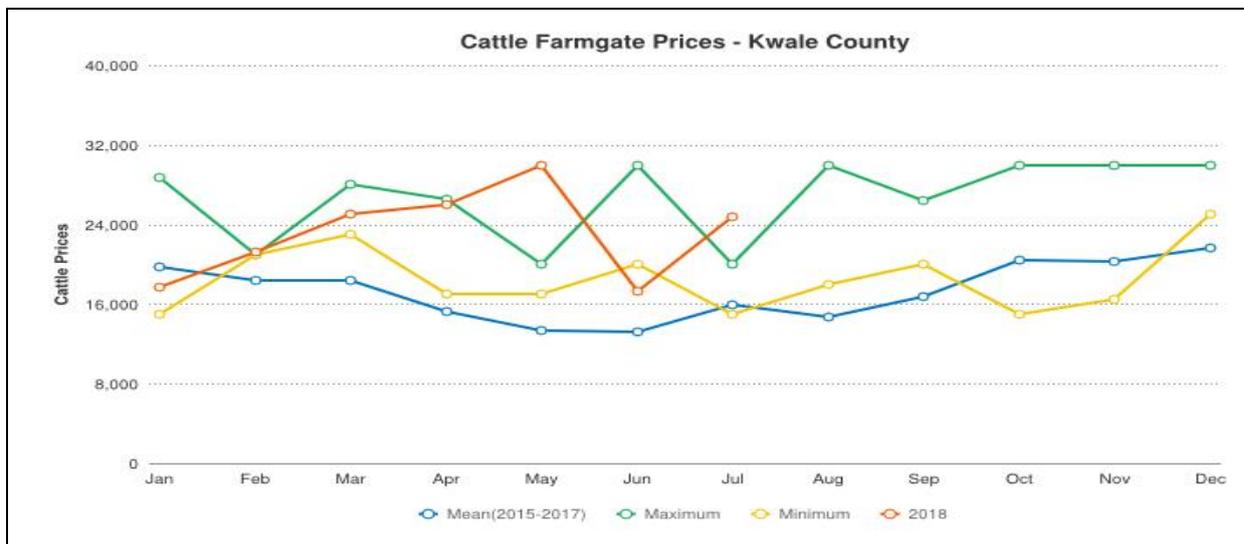
- The main on-farm activities included weeding for the second time and harvesting of the early-planted crop. The crop condition was good and a near-average harvest was envisaged particularly in the mixed farming livelihood zone.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

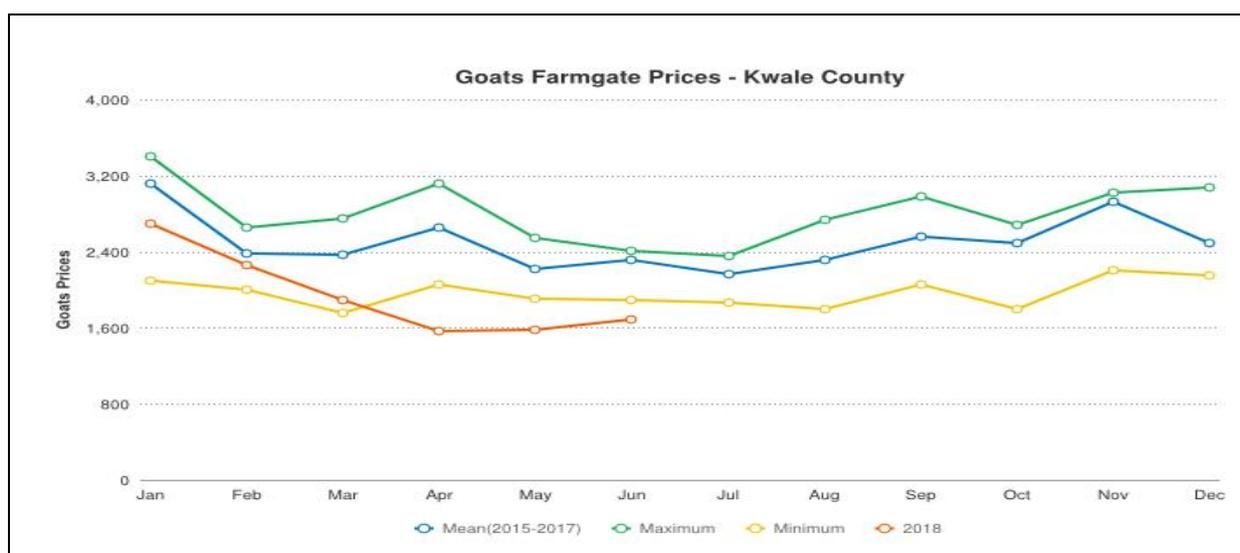
4.1.1 Cattle Prices

- A mature 3-year old bull was trading at Kshs 24,750 in July having increased by 42.8 percent from Kshs 17,333 recorded in June as recorded in the graph below.
- The hike in prices could be attributed to the fact that livestock farmers were not disposing off their livestock for sale as food was available at household level with the harvesting season having begun. There were therefore few cattle offered for sale as a result.



4.1.2 Goat Prices

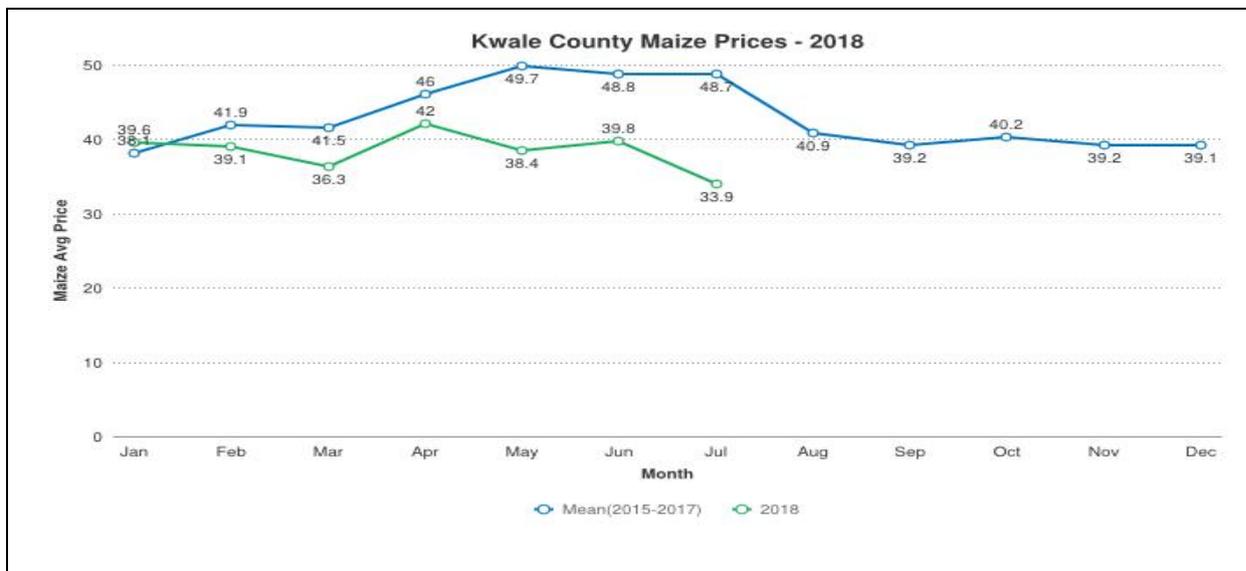
- A medium-sized three-year old buck was trading at Kshs 1,997.1 having remained fairly stable compared with Kshs 1,685.9 posted in June.
- The current price was within the seasonal ranges for this time of the year.
- Goat price trends have been shown in the graph below.



4.2 CROP PRICES

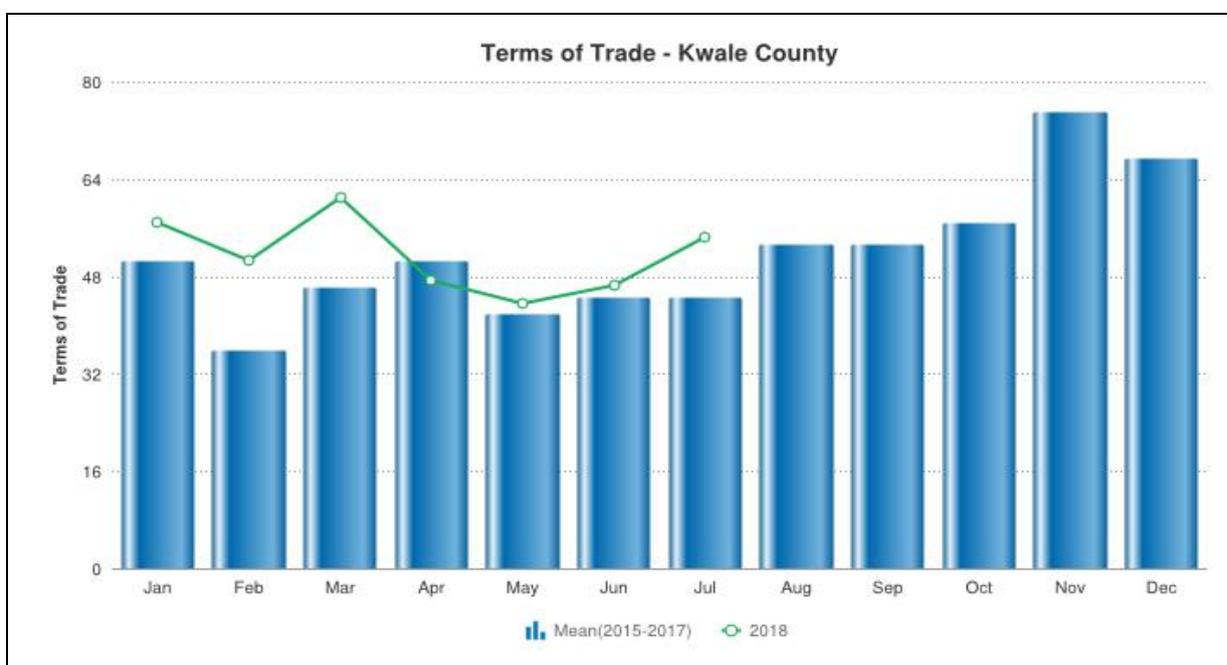
4.2.1 Maize

- The average selling price of a kilogram of maize was Kshs 33.9 in July having decreased by 14.8 percent from Kshs 39.8 in June.
- The slight decrease in price could be attributed to the fact that harvesting was on-going in the county and therefore the demand for the commodity had slightly reduced.
- The price was 30.4 percent below the 2015-2017 LTA of Kshs 48.7 as shown in the graph below.



4.3 TERMS OF TRADE (CASUAL LABOUR VERSUS MAIZE PRICES)

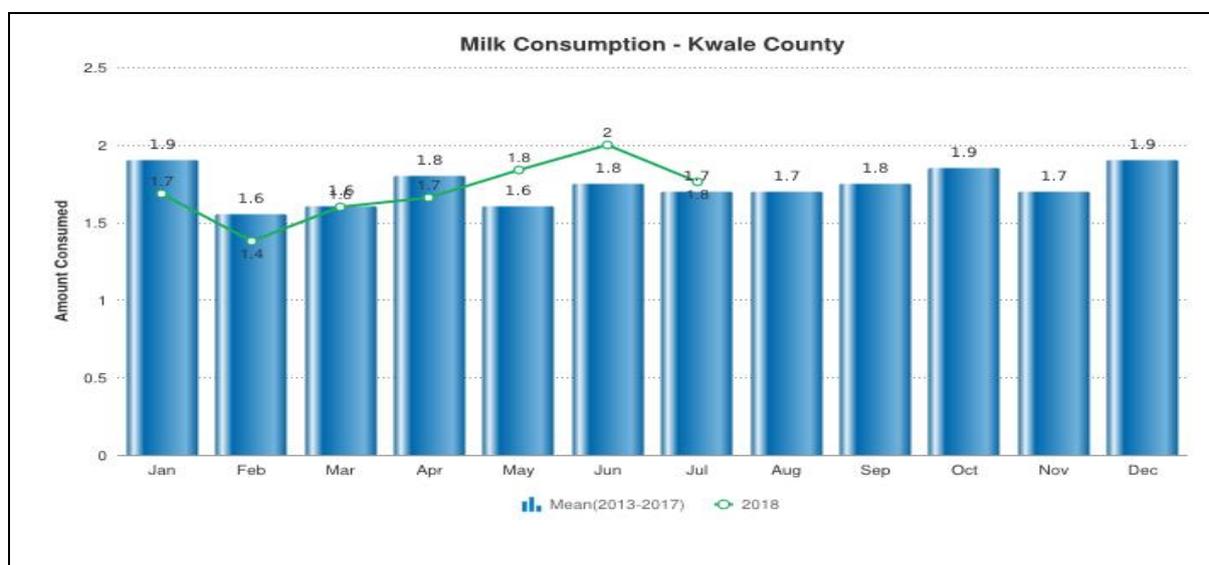
- Terms of trade is a proxy indicator used to measure the purchasing power of households that are primarily market-dependant.
- The terms of trade (TOT) increased slightly by 17.2 percent from 46.5 last month to 54.5 this month and were also 22.2 percent higher than the 2015-2017 long-term average of 44.6.
- The increase in TOT meant that a higher amount of maize could be purchased by households with the proceeds of casual labour this month compared with last month and also during normal times indicative of increased household purchasing power.
- The enhanced purchasing power could be attributed to increased income from casual labour as many households engaged in on-farm labour against reducing maize prices.
- The graph below shows the trend in terms of trade at county level.



5.0 FOOD CONSUMPTION AND NUTRITION STATUS

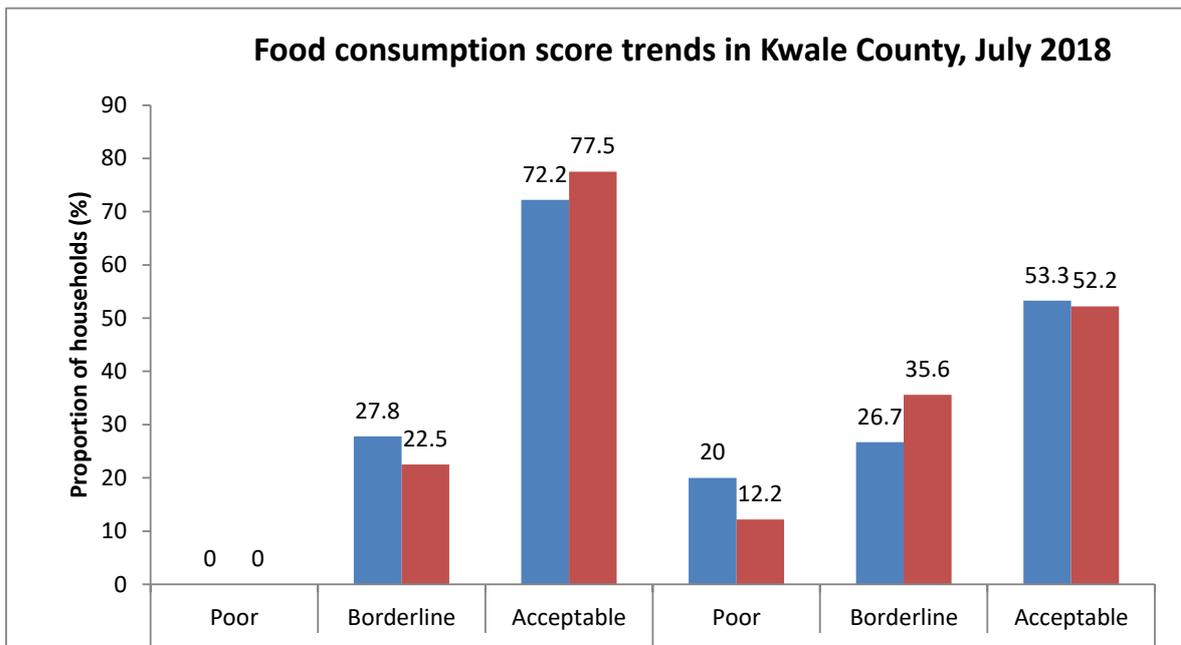
5.1 MILK CONSUMPTION

- The average milk consumption at household level remained relatively stable in the county as it was aggregated at 1.7 litres in July compared to 2.0 litres in June.
- Milk consumption remained within seasonal norms similar to last month as illustrated in the graph below.



5.2 FOOD CONSUMPTION SCORE

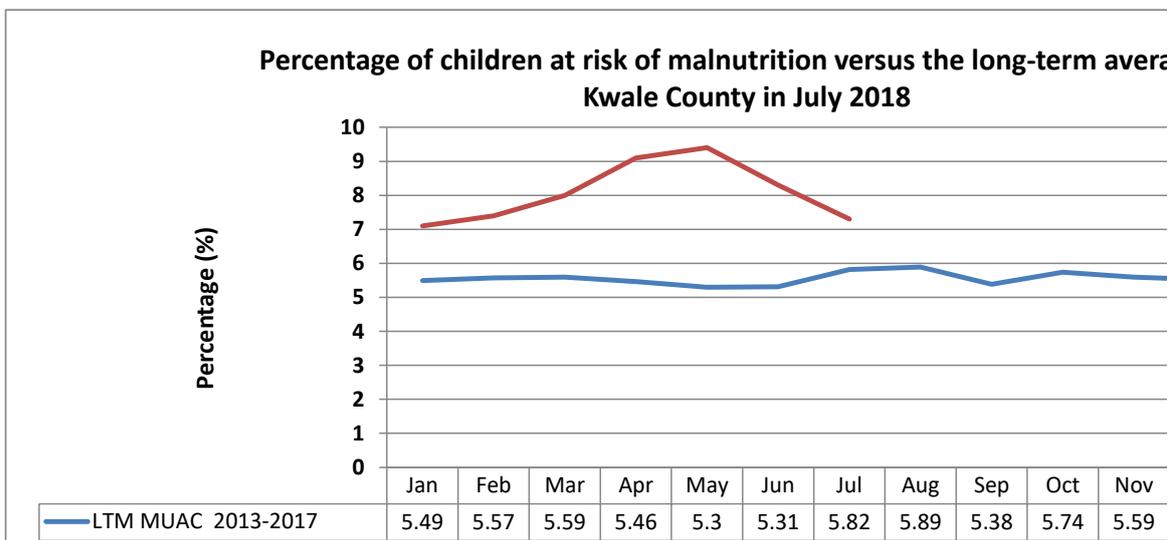
- The average food consumption score for the county was 41.8 in July which had remained relatively similar to 41.5 recorded in June.
- Approximately 6.1, 29.1 and 64.8 percent of households had poor, borderline and acceptable food consumption respectively in July compared with 9.7, 22.4 and 67.9 percent for the respective food consumption groups in June.
- There was therefore a relative stability in the food consumption patterns as all food consumption groups had recorded minimal changes in July compared with June.
- The stability could be owed to the increased availability of food at household level as harvesting was on-going, the staple's price (maize) had reduced and was below-normal and terms of trade were generally favourable allowing for food access.
- At livelihood zone level, there were slight variations as the mixed farming and livestock farming livelihood zones recorded an average food consumption score of 46.5 and 37.1 respectively.
- The implication was therefore that households in the latter livelihood zone had more food consumption gaps than the former due to consuming food of reduced dietary diversity, food frequency and nutritional value.
- This was also underscored in the graph below which shows more households in the livestock farming livelihood having poor food consumption (consuming only vegetables and a staple) than in the mixed farming one.
- The details in the inter-livelihood variations have been provided in the graph below.



5.3 HEALTH AND NUTRITION STATUS

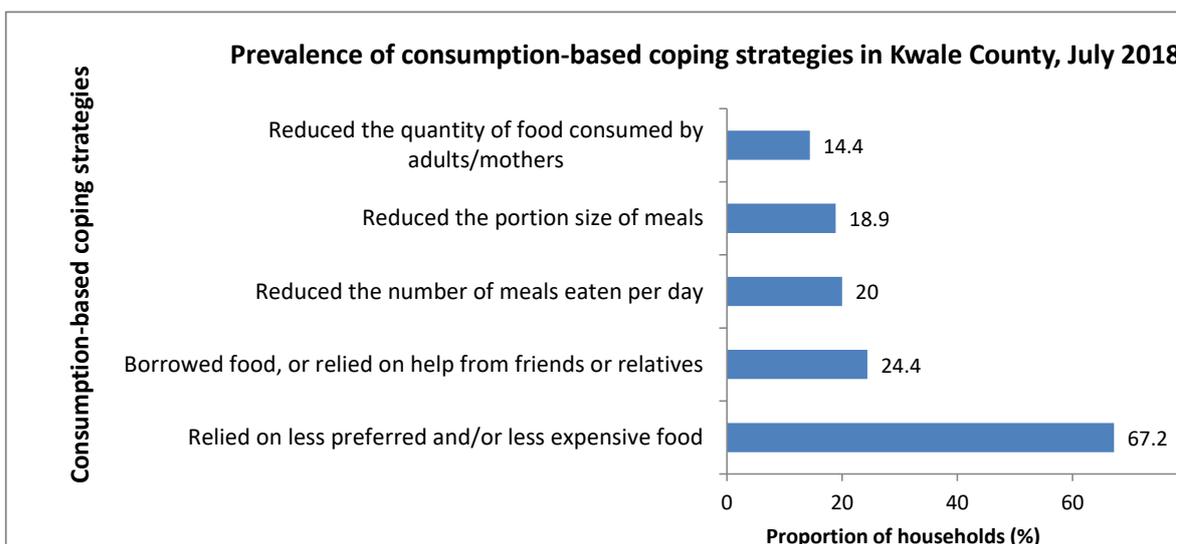
5.3.1 Nutrition Status

- The nutritional status of children aged below five years improved slightly this month by 12 percent as was evidenced in the reduction of the proportion of this cohort at risk of malnutrition from 8.3 percent in June to 7.3 percent in July. The trend in malnutrition in the county is provided in the graph below.
- The measurement of the percentage of children at risk was determined using the mid-upper arm circumference (MUAC) of between 125-134 mm in a sample population of 511 males and 573 females.
- The slightly improved nutritional status could be attributed to improved terms of trade and food availability owed to the on-going harvests. There was also increased food consumption by 7.3 percent in the mixed farming livelihood zone for households who had acceptable food consumption which could also have contributed to the improvement.
- However, despite the minor improvement compared with last month, the proportion at risk was still 25.4 percent higher than normal compared with the 2013-2017 LTA of 5.82 percent as shown in the graph below.
- Nevertheless, the prevalence of the global acute malnutrition (GAM) by MUAC remained stable at 1.8 percent this month compared with 1.9 percent in June.



5.4 COPING STRATEGIES

- The mean coping strategy in July was 10.3 compared with 9.17 in June therefore displaying a stable trend.
- The stability was also displayed at the livelihood zone level where indices of 10.7 and 10.0 were recorded in the mixed farming and livestock farming livelihood zones respectively in July compared with 7.0 and 11.3 posted in the respective livelihood zones last month.
- The highest prevalence of consumption-based coping strategies was reliance on less preferred and/or less expensive food (least severity) at 67.2 percent and the least was reduction on the quantities of food consumed by adults/mothers at 14.4 percent (highest severity). The prevalence of these strategies is shown in the graph below.
- Most households were therefore using lesser severe coping strategies to bridge food consumption deficits which could be attributed to the continued availability of food at household level.



6. CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

○ Agriculture department

The department was engaged in the following interventions in July:

- Crop cutting experiments under the Kenya Agricultural Insurance Project to estimate potential yields.
 - Sensitization of farmers on proper storage of harvests to forestall aflatoxin poisoning as harvesting was on-going in areas where showers were still being experienced.
 - Sensitization on storage of food stocks to households to enable them to last at least one year.
 - Sensitization campaign on crop diversification for short-maturing crops.
 - Under a project on conservation agriculture funded by FAO, recruitment of 180 trainer of farmers, nine master trainers and 7,200 farmers (360 groups in each of the 20 wards) was done during the month who will later benefit from conservation agriculture techniques.
- **Livestock department**
The department undertook the following interventions during the month:
 - County-wide vaccination campaigns against Foot and Mouth Disease where 33,411 cattle were vaccinated and against Contagious Caprine Pleuro-Pneumonia (CCPP) where 15,886 goats were vaccinated.
 - Clinical runs were conducted on the livestock that had been distributed by the county government.
 - Soil samples were collected from Ndumbule in Kinango ward, Mwereni in Lunga Lunga ward and Mkongani in Matuga ward for analysis of estimation of grazing biomass funded by FAO.
 - **National Drought Management Authority (NDMA)**
 - NDMA undertook a Participatory Disaster Risk Assessment (PDRA) and prepared a drought contingency plan for Samburu/Chengoni and Kasemeni wards which the wards can use to respond to drought if it occurs.
 - It also updated the county's drought contingency plan which would serve the same purpose above when need arises.

7. EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- There were no cases of insecurity, conflict or human displacement reported during the month under review.

7.2 Migration

- No migration was reported during this reporting month.

7.3 FOOD SECURITY PROGNOSIS

Households in the mixed farming livelihood zone had slightly improved food consumption due to increased food availability at household level as harvesting was on-going. On-farm activities had also assured households in this area of some income from casual labour which was likely to continue as harvesting goes on. As harvests continue to fill grain stores, prices of maize are likely to continue reducing against increasing income from casual labour. Therefore food consumption gaps are likely to continue reducing as food availability and access improve and households are unlikely to employ severe consumption-based coping strategies in increased frequency. The nutritional status of children is also likely to improve as a result of increased food consumption.

In the livestock farming livelihood zone, harvesting was also on-going and food stocks were therefore becoming increasingly available at household level and the prices were also reducing.

Livestock production was generally good as cattle prices had also improved and milk was available both for sale and consumption. Given that forage is likely to last at least four months in this zone, then the livestock body condition is likely to remain relatively good and prices projected to increase. Income from livestock production is therefore likely to increase further improving food access for poor market-dependent households. Therefore there is a low likelihood of significant food consumption gaps in this zone and even poor households are likely to continue employing the normal consumption-based coping strategies in lower frequencies. In addition, the nutritional status of children aged below five is also projected to improve due to improved food access and availability.

8. RECOMMENDATIONS

- Continued nutritional screening to increase referrals in order to support the reducing malnutrition trend in the county.
- Vaccination of a critical mass of the county's livestock against Rift Valley Fever to avert a potential out-break in several hotspots in Kinango, Vanga, Gombato, Kubo South, Kinondo and Ramisi wards.
- Continued sensitization of post-harvest handling of the crops (in order to avoid aflatoxin poisoning for maize) and to enable households to have food stocks through to the next long rains season.