

National Drought Management Authority
KWALE COUNTY
DROUGHT EARLY WARNING BULLETIN FOR APRIL 2018



A Vision 2030 Flagship Project



APRIL 2018 EW FLAG

Drought Status: NORMAL



Shughull za kawaida

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	74.68	43
State of Water Sources	5	5
Production indicators	Value	Normal
Crop Condition (maize and legumes)	N/A	N/A
Livestock Body Condition	2 (livestock farming) 2(mixed farming)	2 (livestock farming) 2(mixed farming)
Milk Production (Litres)	4.5	4.0
Livestock Migration Pattern	No migration	No migration
Livestock deaths (from drought)	Zero deaths	Zero deaths
Access Indicators	Value	Normal
Terms of trade	46	50.4
Milk Consumption (litres)	1.7	1.8
Return distance to water sources (km)	2.4	2.3
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	9.1	5.4

Drought Situation & EW Phase Classification

Biophysical Indicators

- The county received higher-than-normal rainfall in April.
- The Vegetation Condition Index was significantly above-normal at 74.68 compared with 43 normally.
- 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 12.5 percent above-normal.
- No livestock migration was reported during the month.

Access indicators

- The terms of trade and milk consumption were within seasonal ranges for the month.
- Average return distances to water sources for household consumption were normal for this time of the year.

Utilization Indicators

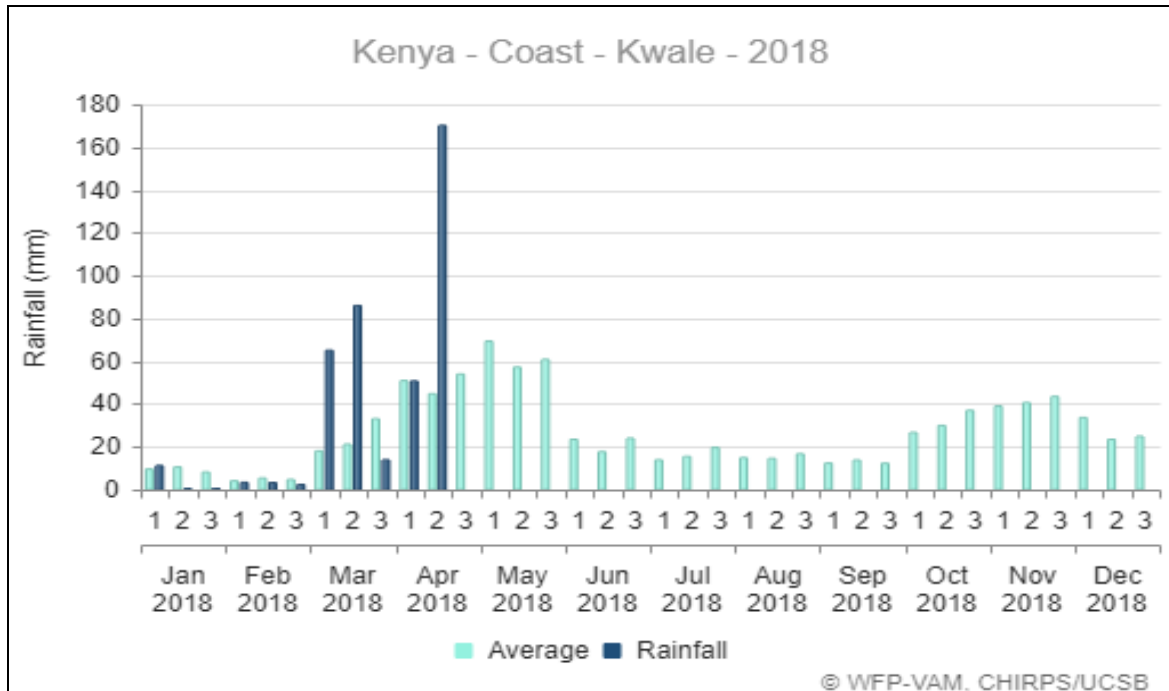
- The percentage of children at risk of malnutrition was above-normal for this time of the year.

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's onset was in the first dekad of March which was normal.
- The first dekad of April received average rainfall while the second one received above-average amounts of rainfall as shown in the graph below.



- The spatial distribution was uneven although the temporal distribution was fair for the first two dekads in April. In the second week of April specifically, only areas in Mwereni in Lunga Lunga sub-county received rains while the rest experienced showers or nil rainfall.
- According to the meteorological department's rainfall forecast, the county is projected to receive average to near-average amounts in the month of May.

2. IMPACTS ON VEGETATION AND WATER

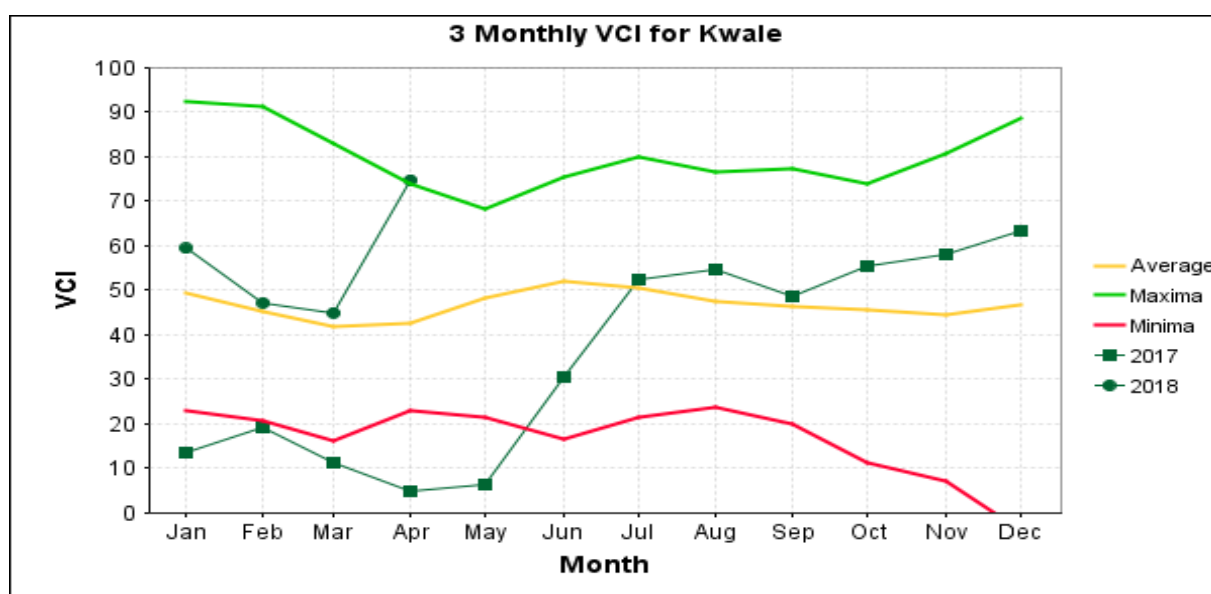
2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

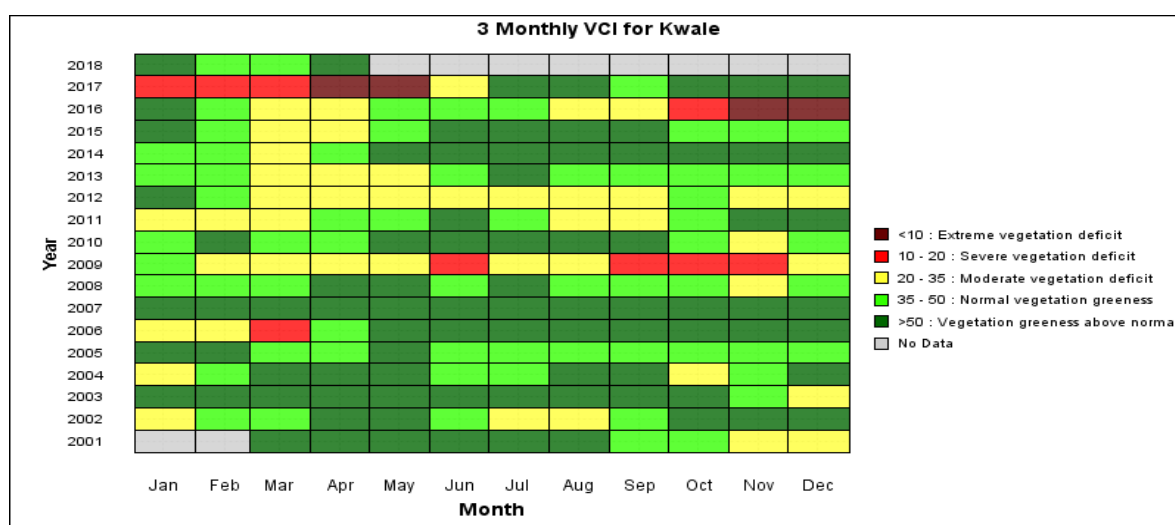
- The county's vegetation greenness improved this month as the vegetation condition index increased from 44.8 last month to 74.68 in April placing the county in the 'vegetation greenness above-normal' band.
- The improvements were equally manifested at the sub-county level as all sub-counties registered significant improvements in the vegetation condition.
- The specific indices at this level are provided in the table below which categorizes each sub-county at the 'vegetation greenness above-normal' band.

Sub-county	3-month VCI October 2017	3-month VCI November 2017	3-month VCI December 2017	3-month VCI January 2018	3-month VCI February 2018	3-month VCI March 2018	3-month VCI April 2018
Kinango	55.36	57.3	64.81	61.15	47.18	43.13	74.05
Lunga Lunga	52.32	57.67	63.05	57.41	43.91	42.44	80.66
Matuga	62.1	62.16	59.19	58.15	53.64	55.1	70.43
Msambweni	51.14	55.34	54.41	48.26	42.7	49.37	64.18
Kwale County	55.36	57.91	63.18	59.26	47.01	44.8	74.68

- The graph below also illustrates the improved condition as the VCI was recorded as above-average and also coincided with the highest ever recorded index since 2001.

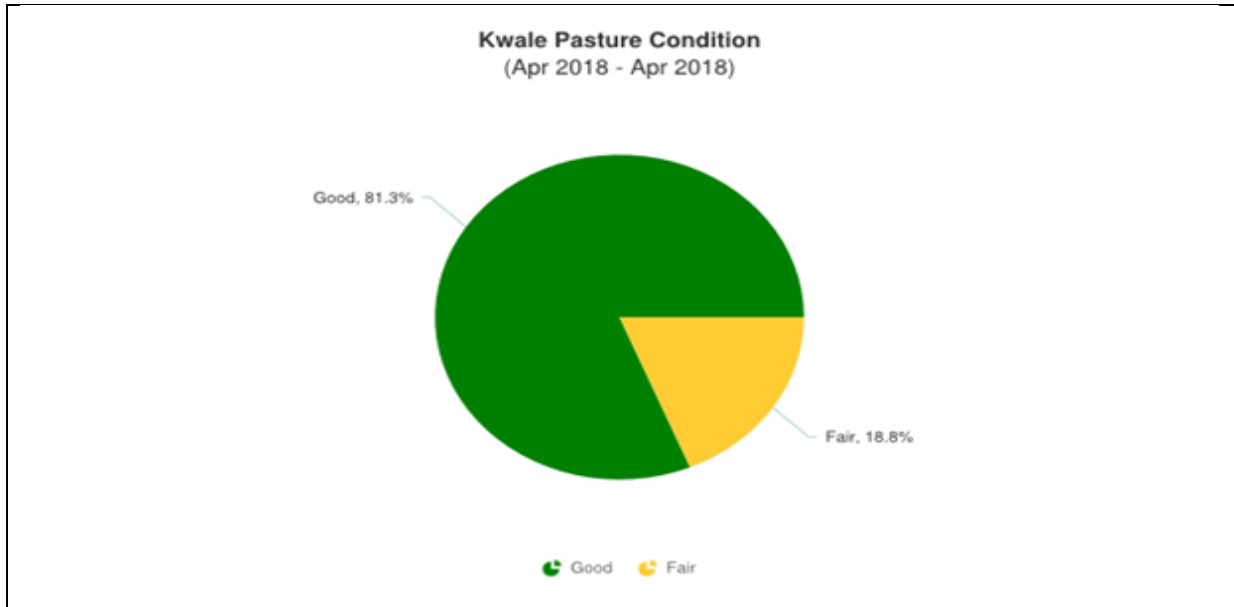


- The matrix below further underscores the significant improvement compared with a similar time last year when the county was categorized in the 'extreme vegetation deficit' band.

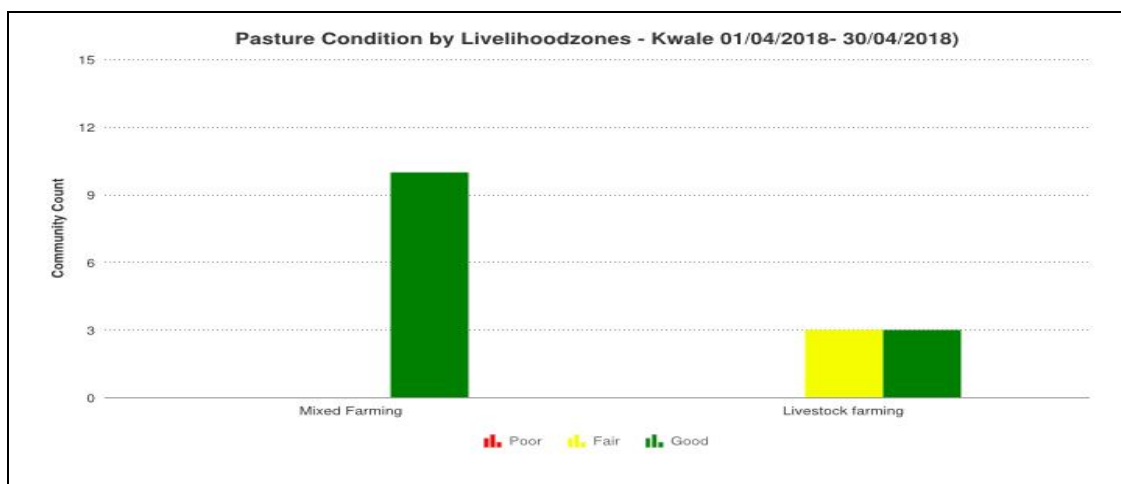


2.1.2 Pasture

- The improved vegetation condition was manifested in improved pasture availability as most households (81.3 percent) reported having good pasture condition this month compared with 21.1 percent last month.
- The improvement was largely attributed to the on-going rains in the county.
- The current pasture condition is illustrated in the pie-chart below.



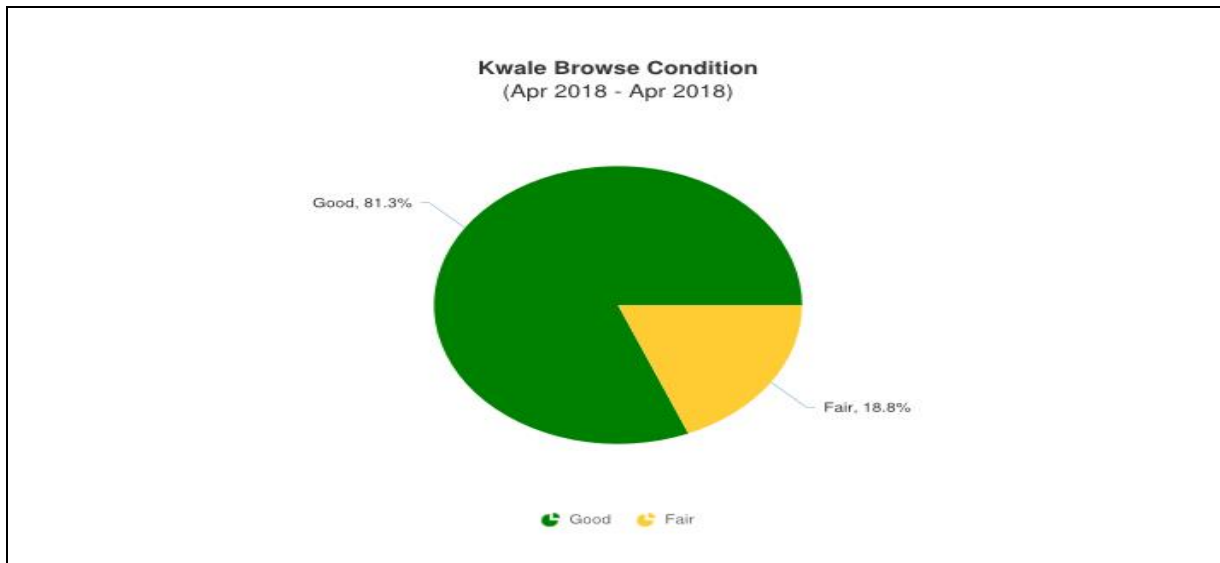
- The available pasture is expected to last for six and four months in the mixed farming and livestock farming livelihood zones respectively.
- Pasture condition was better in the mixed farming livelihood zone compared with the livestock farming livelihood zone as shown in the graph below.



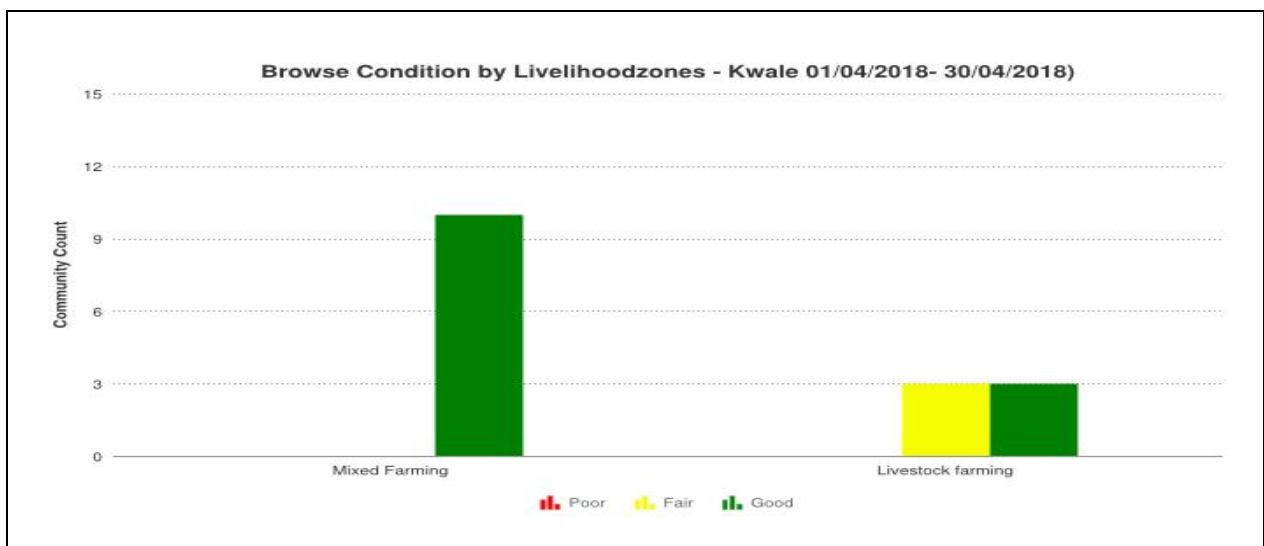
2.1.3 Browse

- The browse condition continued to improve this month as no households reported poor condition similar to last month. In addition, the majority of households (81.3 percent) reported good browse condition.
- The available browse was projected to last approximately six months in the mixed farming livelihood zone and five months in the livestock farming livelihood zone.

- The pie-chart below illustrates the current browse condition in the county.



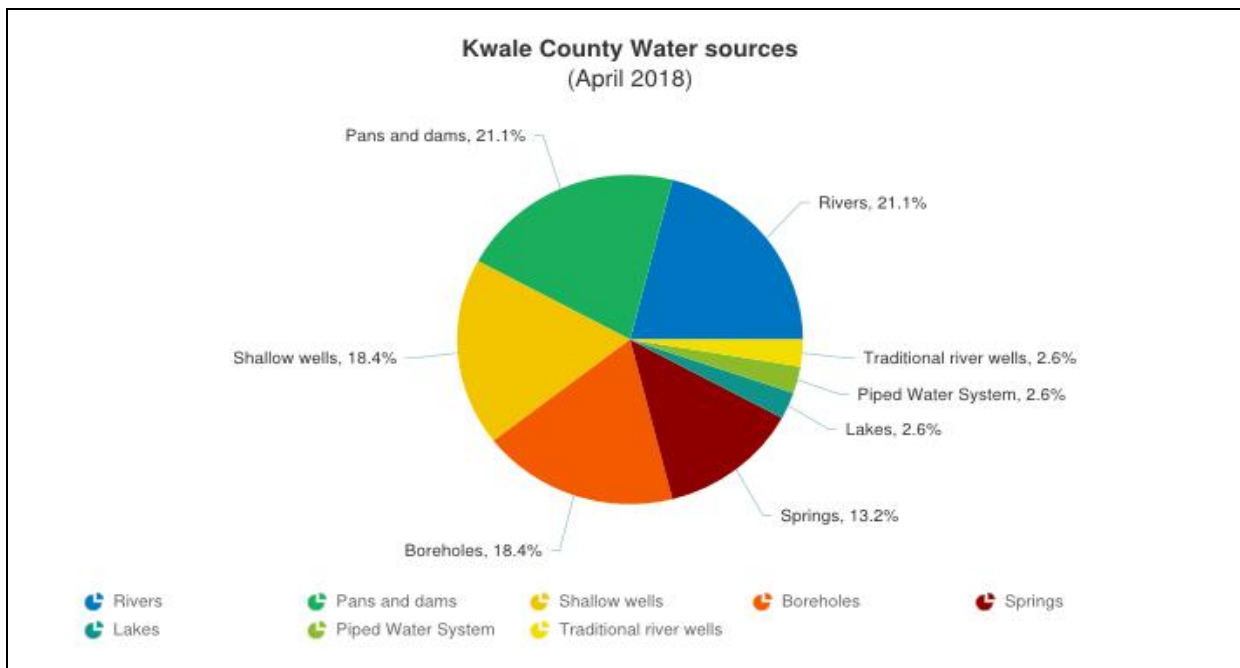
- Browse condition was significantly better in the mixed farming livelihood zone compared with the livestock farming one as shown in the graph below.



2.2 WATER RESOURCES

2.2.1 Sources

- The main sources of water this month included pans, dams, shallow wells, boreholes and rivers as shown in the graph below.

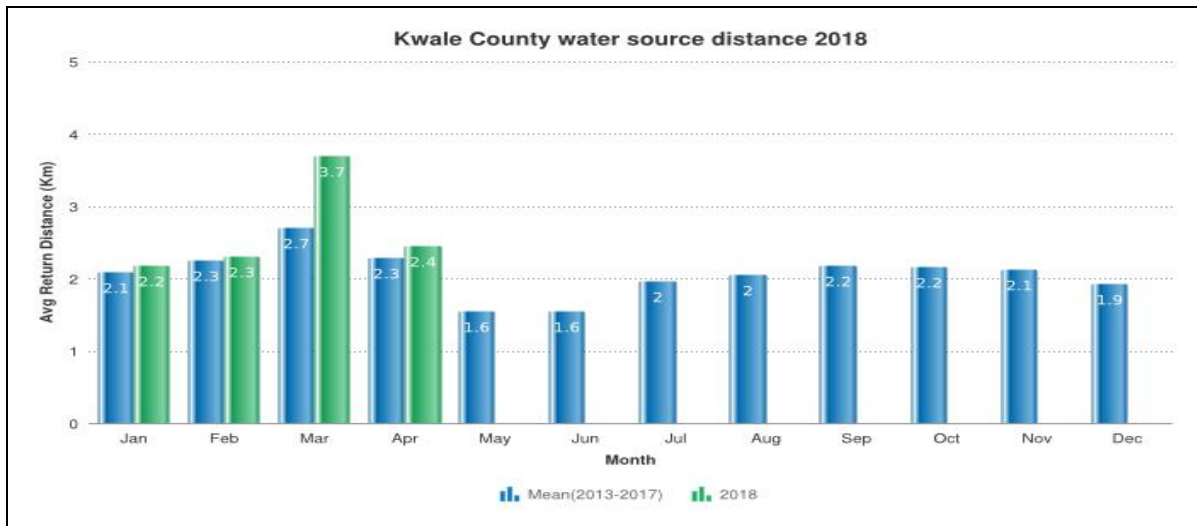


- Most open water sources in the livestock farming livelihood zone were recharged from the rains that were received in the county.
- The sources held water projected to last at least four months in this zone.
- The early warning classification categorizes the state of water resources at 5 implying normal water availability for the period under review (refer to the table below for the description of the state of water resources).
- The situation had not changed compared with last month.

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

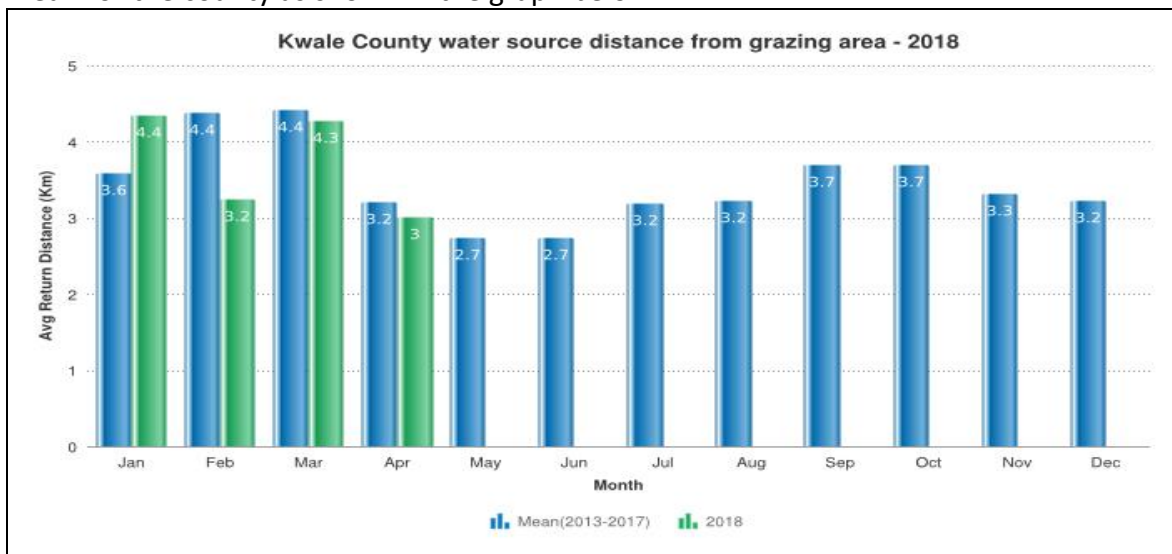
- There was a 35.1 percent reduction in the average trekking distance to water points for households from a recorded 3.7 km in March to 2.4 km in April.
- The reduction was largely attributed to water points near homesteads being replenished with water from the rains.
- The current average return trekking distances were normal for this time of the year as shown in the graph below.



- A marginal decrease in the distance trekked to access water for domestic consumption was recorded this month in the mixed farming livelihood zone from 1.8 km in March to 1.4 km. However, the distance remained constant at 2.1 km in the livestock farming livelihood zone similar to last month.

2.2.3 Livestock access

- There was a 30.2 percent reduction in the return distances trekked to grazing areas from water points from 4.3 km in March to 3.0 km in April.
- The current average trekking distances were normal compared with the 2013-2017 long-term mean for the county as shown in the graph below.



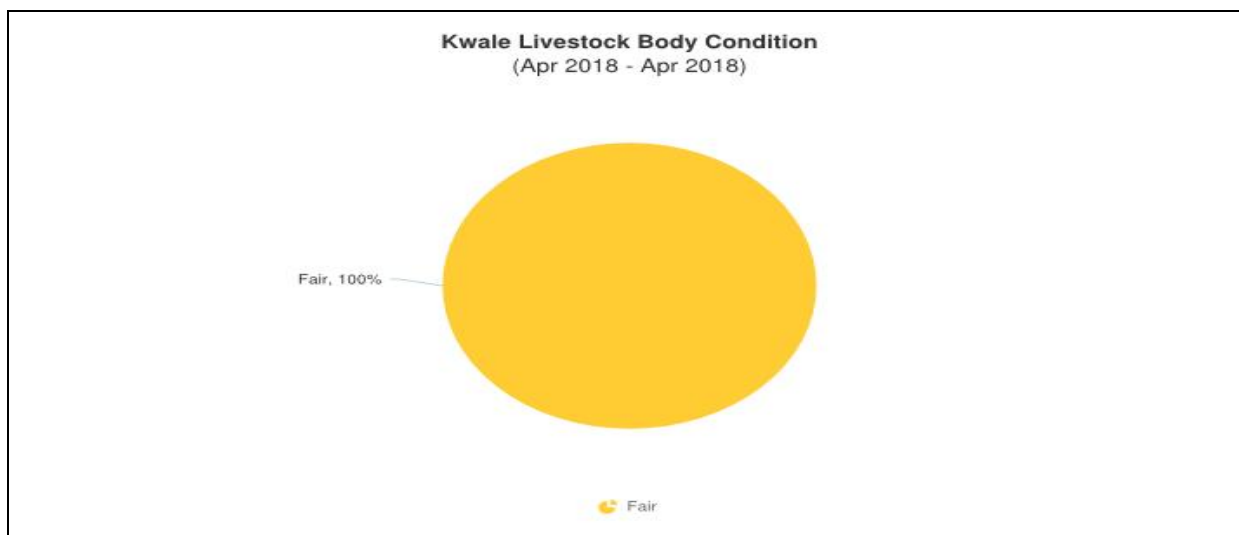
- The livestock farming and mixed farming livelihood zones recorded distances of 3.0 and 1.8 km respectively in the month of April.
- The distances had not significantly changed in both livelihood zones compared with last month as the former had posted 2.9 km and the latter 2.2 km.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- There was some deterioration in body condition this month no households interviewed this month reported good body condition compared to 50 percent last month.
- The deterioration could have been attributed to disease in livestock during the month.
- Below is a pie-chart of the current livestock body condition in the county.



- However, the deterioration did not affect the early warning classification for livestock body condition significantly which remained at 2 (moderate) this month for both livelihood zones similar to last month. (See below the early warning classification table for livestock body condition).

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

- Despite the deterioration, livestock body condition is projected to improve since availability of pasture and browse is expected to continue through to May with the continued rains.

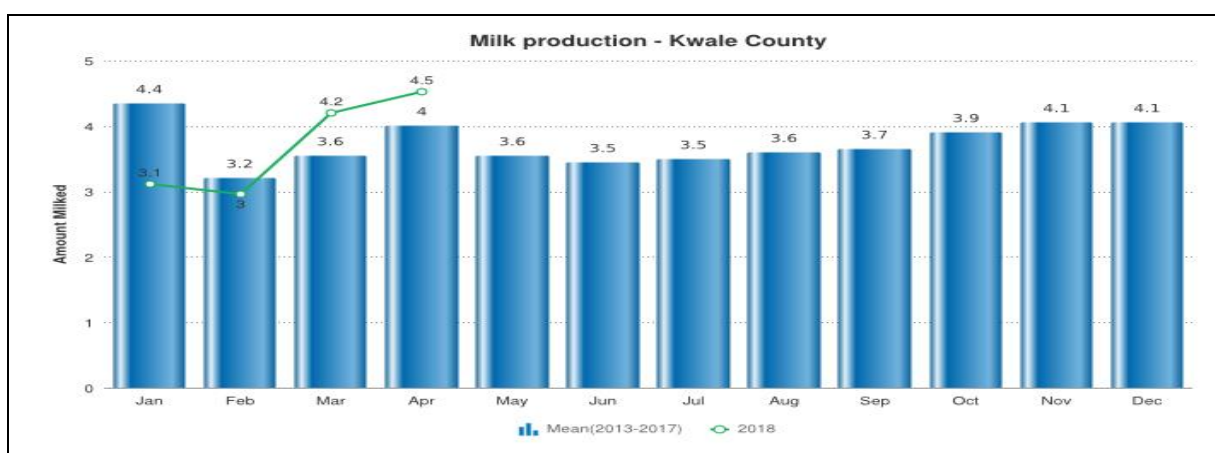
3.1.2 Livestock Diseases

- Contagious Bovine Pleuro-Pneumonia (CBPP), New Castle Disease (NCD), Foot and Mouth Disease (FMD) and Contagious Caprine Pleuro-Pneumonia (CCPP) were reported in Ndavaya ward in the livestock farming livelihood zone in Kinango sub-county similar to last month.

- However, the disease incidences were within seasonal ranges, although they did result in slightly deteriorated livestock body condition.

3.1.2 Milk Production

- Cows remained the main producers of milk in the county which was normal.
- A marginal increase of 7.1 percent was registered in the county’s average milk production as an average 4.5 litres was recorded this month compared to 4.3 litres in March.
- The current production was 12.5 percent higher than the normal production of 4.0 litres in the 2013-2017 LTA.
- The slight increase in production could be attributed to increased availability of forage and water due to the on-going rains, a trend that is likely to continue through to May since the rains are forecasted to continue.
- The graph below illustrates the current milk production trends in the county.



3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and condition of food crops

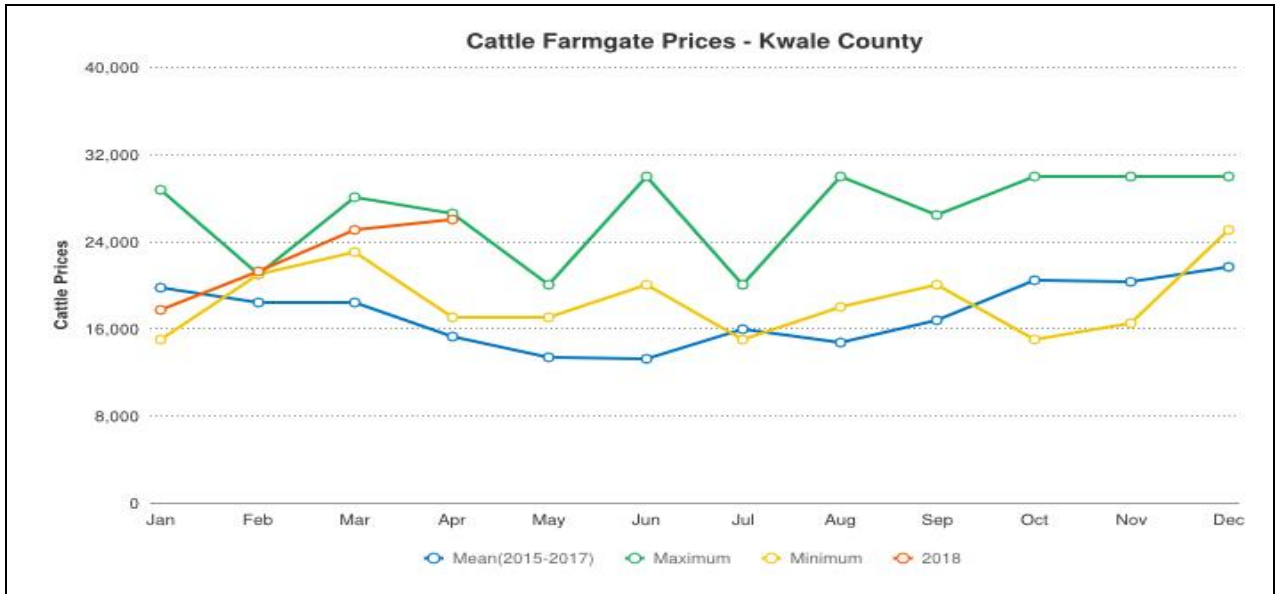
- Households were still engaging in land preparation and planting this month similar to last month.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

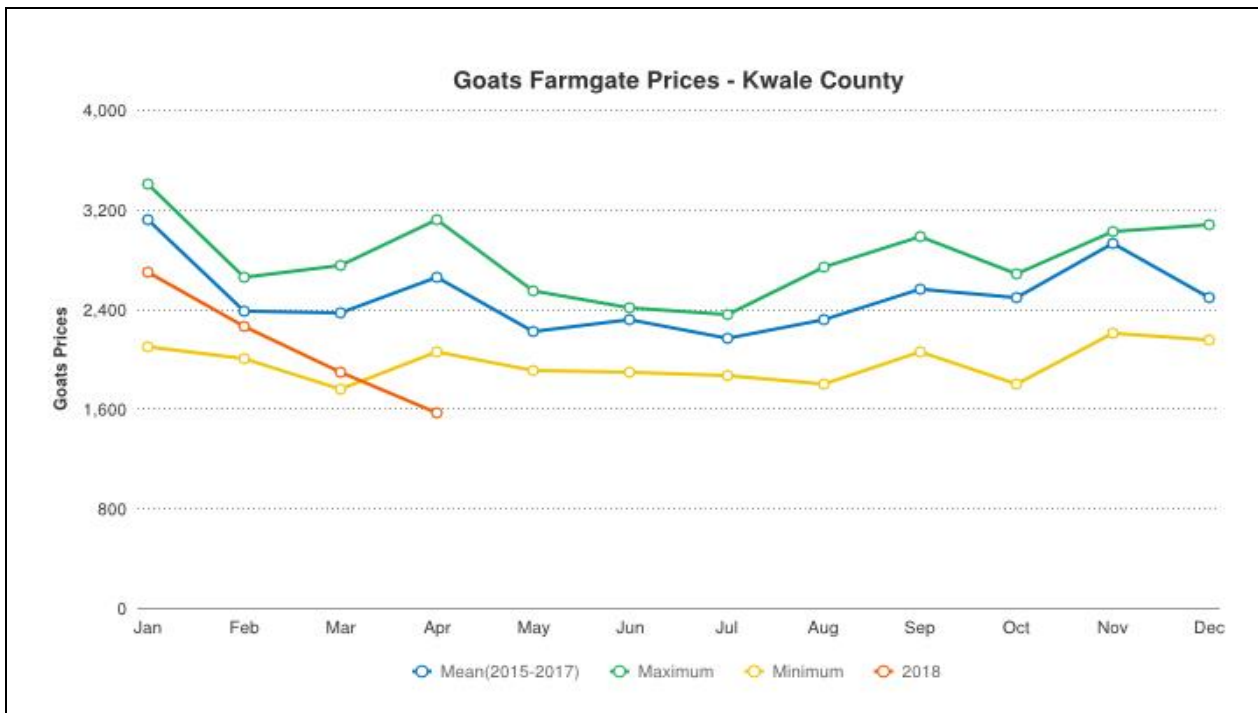
4.1.1 Cattle Prices

- The average trading price of a mature 3-year old bull was Kshs 26,000 indicative of a marginal increase of four percent compared to last month’s Kshs 25,000.
- The price was significantly higher than normal when compared with the 2013-2017 LTA of Kshs 15,269 and also coincided with the highest ever recorded price in the county.
- The improved price could be owed to increased availability of pasture and water during the last two months.
- Below is a chart showing the cattle price trends in the county.



4.1.2 Goat Prices

- The average selling price of a medium-sized three-year old goat was Kshs 1,551.4 indicative of a 17.9 percent decrease compared with Kshs 1888.5 posted last month.
- The current price was significantly lower than normal compared with the 2015-2017 LTA of Kshs 2,657.
- The trend in goat prices for the county has been provided in the graph below.

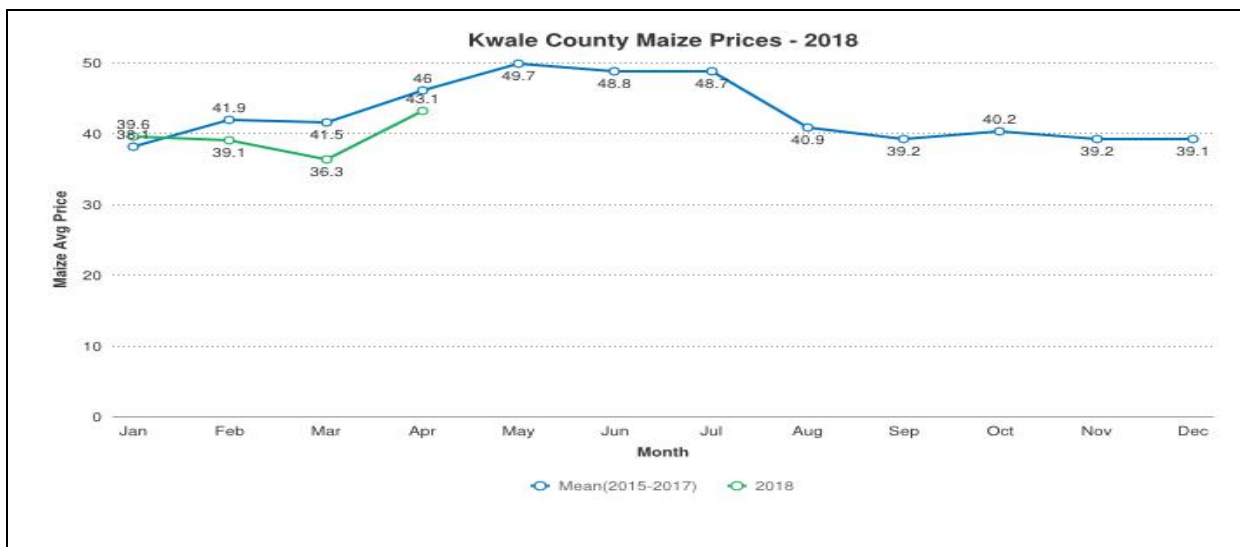


4.2 CROP PRICES

4.2.1 Maize

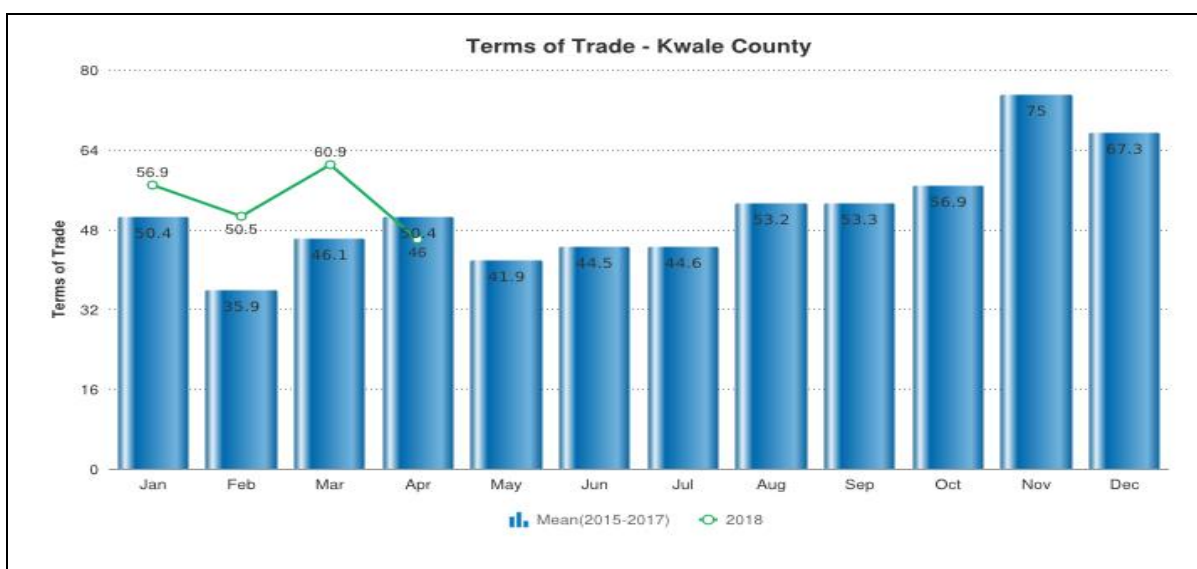
- The selling price for a kilogram of maize this month was Kshs 43.1 having increased by 18.7 percent from Kshs 36.3 recorded in March.

- The increase could be attributed to increased demand as household stocks were diminishing and reliance on retail stores was increasing.
- However, the price was within seasonal ranges for this time of the year.
- Illustrated below is a graph for the maize price trends in the county.



4.3 TERMS OF TRADE (CASUAL LABOUR VERSUS MAIZE PRICES)

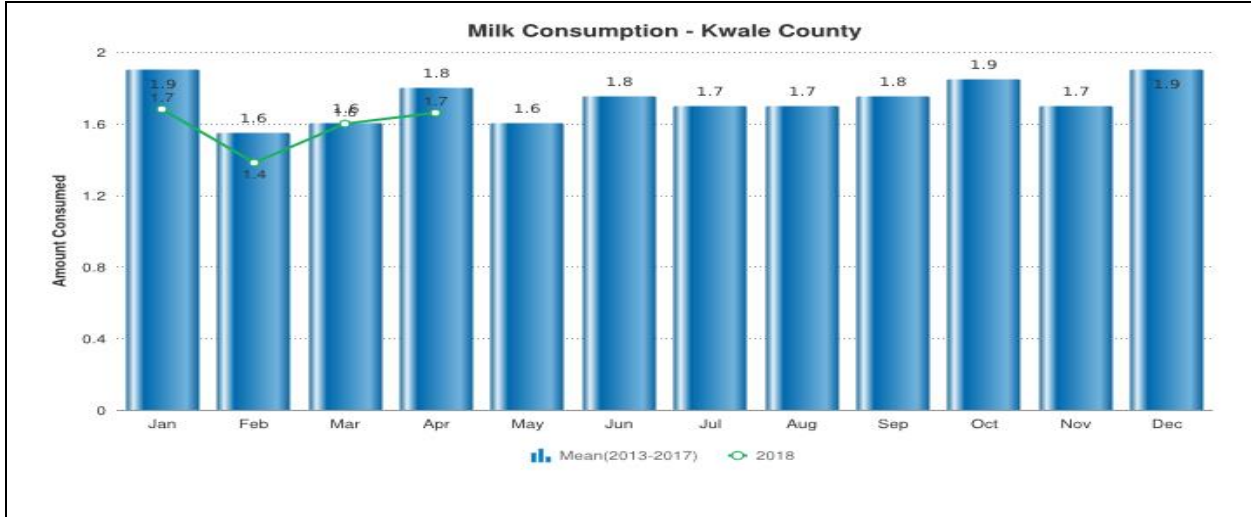
- There was a 24.5 decrease in the households' purchasing power in the county as the terms of trade (TOT) had reduced.
- Households in the county could only obtain 46 kilograms of maize this month compared to 60.9 in March from the proceeds of casual labour, the county's main source of income.
- The reduction in TOT and consequent household purchasing power could be attributed to the increase in maize prices.
- The TOT were however, within the normal seasonal ranges in the county for this time of the year as illustrated in the graph below.



5.0 FOOD CONSUMPTION AND NUTRITION STATUS

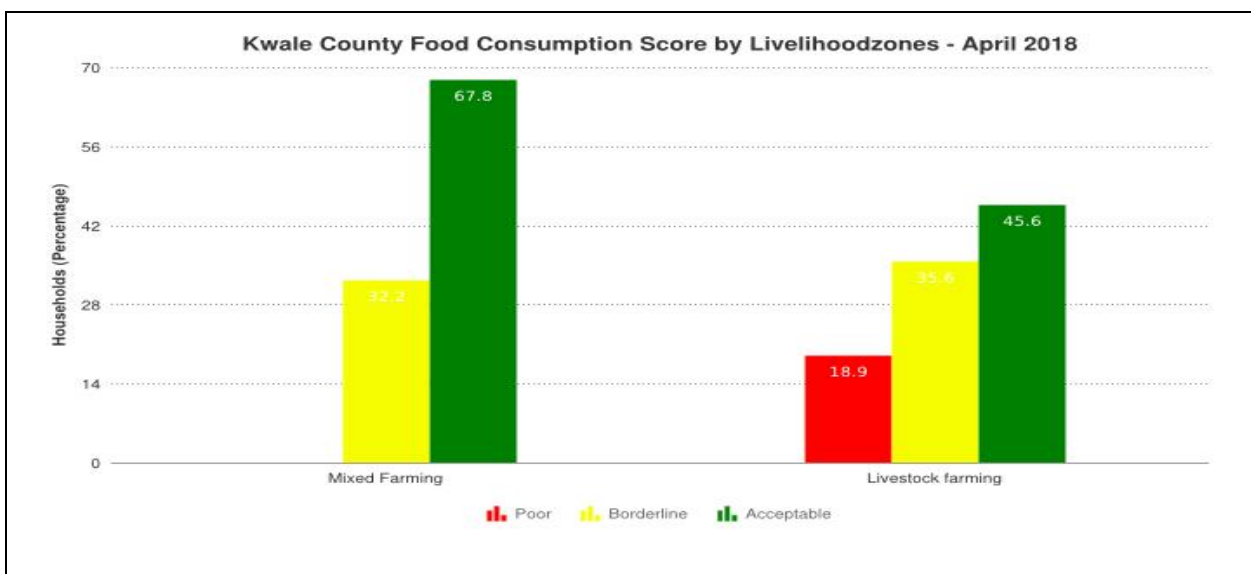
5.1 MILK CONSUMPTION

- There was no significant change in the county’s average milk consumption this month compared to last month, neither was it out of the expected seasonal ranges compared with the 2013-2017 LTA.
- The graph below illustrates the milk consumption trend.



5.1 FOOD CONSUMPTION SCORE

- There was no significant change in food consumption gaps in the county as the proportion with acceptable food consumption remained comparably the same as last month; 53.9 percent in March compared with 56.7 percent in April.
- The implication was that at least 50 percent of the county’s population was consuming a staple and vegetable on a daily basis complemented by a frequent consumption of pulses and oil while occasionally also consuming dairy products, fish and meat.
- Significant inter-livelihood zone variations were recorded in food consumption in the county this month as illustrated in the graph below.

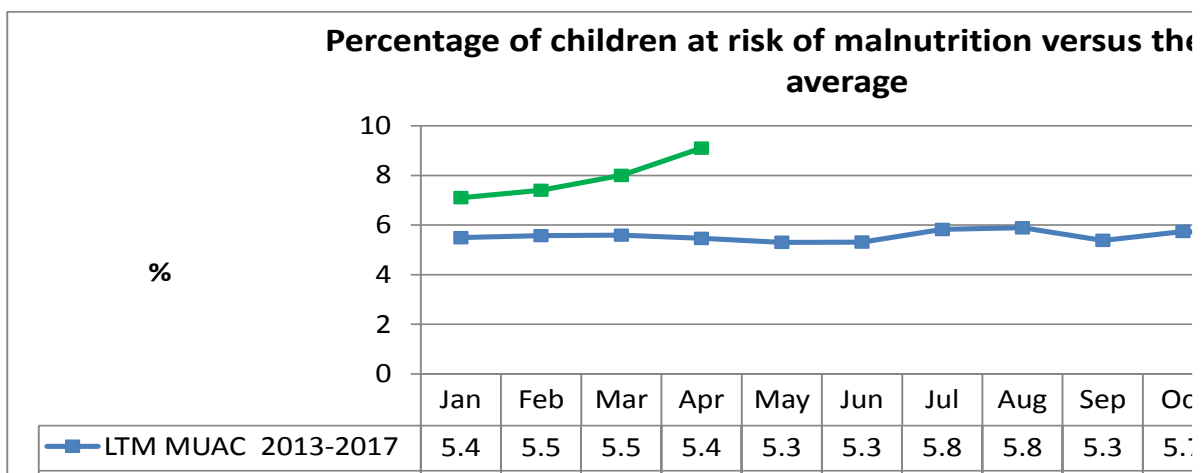


- The livestock farming livelihood zone displayed the highest food consumption deficits similar to last month as approximately 18.9 percent of the households had reported poor food consumption. The implication was that this proportion of households was only able to consume a staple and vegetables during the entire 7-day recall period.
- However, in comparison to last month, food consumption remained fairly the same as the proportion of households with acceptable dietary diversity, nutritional value and food frequency was similar for both months (64 percent in March and 67.8 percent in April in the mixed farming livelihood zone and 44 percent in March and 45.6 percent in April in the livestock farming livelihood zone).

5.3 HEALTH AND NUTRITION STATUS

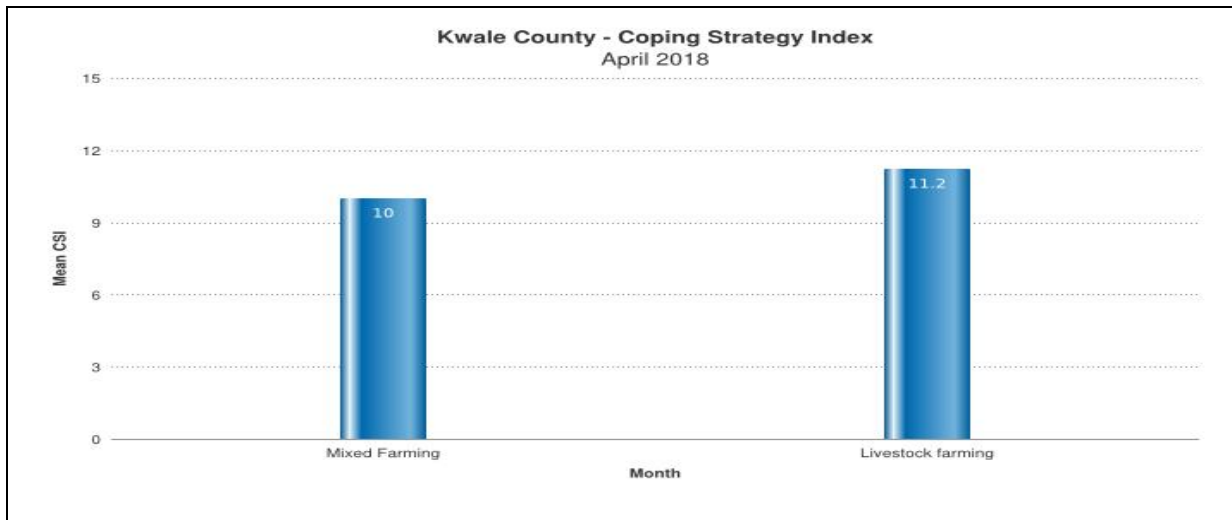
5.3.1 Nutrition Status

- The sampled number of children to determine the proportion of those at risk was 492 females and 554 males.
- The percentage found to be at risk was 9.1 percent which was a 13.75 percent increase compared with eight percent recorded in March and was also higher than the proportion recorded in the 2013-2017 LTA of 5.4 percent.
- The graph below shows the malnutrition trends in the county.



5.4 COPING STRATEGIES

- The county's coping strategy index (CSI) remained stable at 10.62 which was comparable to 10.61 posted last month.
- The implication was that there had not been a considerable change in the number and/or the frequency of the consumption-based coping strategies being employed by households in the county in comparison to March.
- However, households were employing slightly more severe coping strategies a little more frequently in the livestock farming livelihood zone compared with the mixed farming livelihood zone as the former posted an index of 11.2 while the latter recorded one of 10.
- The inter- livelihood zone disparities have been displayed in the graph below.



- There was equally no significant change in the index compared to last month which had been recorded as 10.8 and 10.5 in the mixed farming and livestock farming livelihood zone respectively.

6. CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

○ Water

- The excavation of Kwa Diki water pan which was funded by the European Union and implemented by NDMA was still continuing this month.
- The Catholic Relief Services with funding from the Kenya Drought Recovery Project was engaged in extension of the Taru-Egu pipeline in Kinango sub-county.

○ Agriculture department

- The department was rolling out a subsidized crop insurance policy to maize farmers in Matuga, Msambweni and Lunga Lunga sub-counties. Farmers could insure crops planted between 15th March 2018 to 15th May 2018 on a 0.5-20 acre piece of land against drought and floods.
- Campaigns were still on-going by the department to advise farmers to construct water-harvesting structures on their farms in order to benefit from the on-going heavy amounts of rains.
- The department had procured coconut, citrus, banana and mango seedlings for planting from KALRO to be delivered next month.
- Scouting for the fall army worm was still on-going in the county in a bid to avert potential maize crop losses in good time.

○ Health and Nutrition department

- The department continued with the routine activities for the department which included: referral and treatment of the malnourished, vitamin A supplementation, growth monitoring and immunization of children, administration of iron and folic acid to pregnant mothers, screening for malnutrition and promotion of good hygiene practices.

7. EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- No cases of conflict, insecurity or human displacement were reported in April similar to last month.

7.2 Migration

- No migration was reported during the month under review.

7.3 FOOD SECURITY PROGNOSIS

Households in the mixed farming livelihood zone continued to have minimal food consumption gaps as most still held stocks from the recently-concluded harvests although these were beginning to get depleted resulting in a slight increase in price. Households' purchasing power was therefore projected to reduce as the terms of trade reduce due to increasing maize prices. However, most households were likely to continue to still be able to meet their minimum daily dietary needs as casual labour is likely to continue being available. Local vegetables are also projected to continue being available further diversifying diets. Consequently, most households in this zone were likely to continue employing the same coping strategies without increasing them either in frequency or severity.

In the livestock farming livelihood zone, the rains had improved forage and water availability resulting in increased livestock production, which was projected to continue increasing since the rains are forecasted to continue through to May. Income from livestock production is therefore likely to continue increasing supplementing household income which will counteract the increasing maize prices, which is a staple in the county. It will also increase milk availability at household level for consumption. It is therefore unlikely that households in this zone will have increased food consumption deficits and will also not engage in more severe insurance-based coping strategies more frequently than they are currently doing.

8. RECOMMENDATIONS

- The increasing malnutrition rates need to be investigated. **Action-** department of Health and Nutrition.
- Continued disease surveillance for CCPP, FMD and CBPP that were reported in Kinango sub-county. **Action-**Department of Veterinary Services.
- Continued scouting for the fall army worm to avert maize crop losses early. **Action-**department of Agriculture.