

National Drought Management Authority
KWALE COUNTY
DROUGHT EARLY WARNING BULLETIN FOR JULY 2017



A Vision 2030 Flagship Project



JULY 2017 EW FLAG

Drought Status: NORMAL



Shughull za kawaida

Drought Situation & EW Phase Classification

Biophysical Indicators

- Below-normal rainfall was received in both livelihood zones.
- The Vegetation Condition Index was above normal at 52.12.
- 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 at this time of the year.
- Milk production was slightly below normal.
- No livestock migration was reported during the month.

Access indicators

- Milk consumption was slightly below normal.
- Return distances to water sources were above normal.

Utilization Indicators

- The proportion of children at risk of malnutrition was slightly below normal for this time of the year.

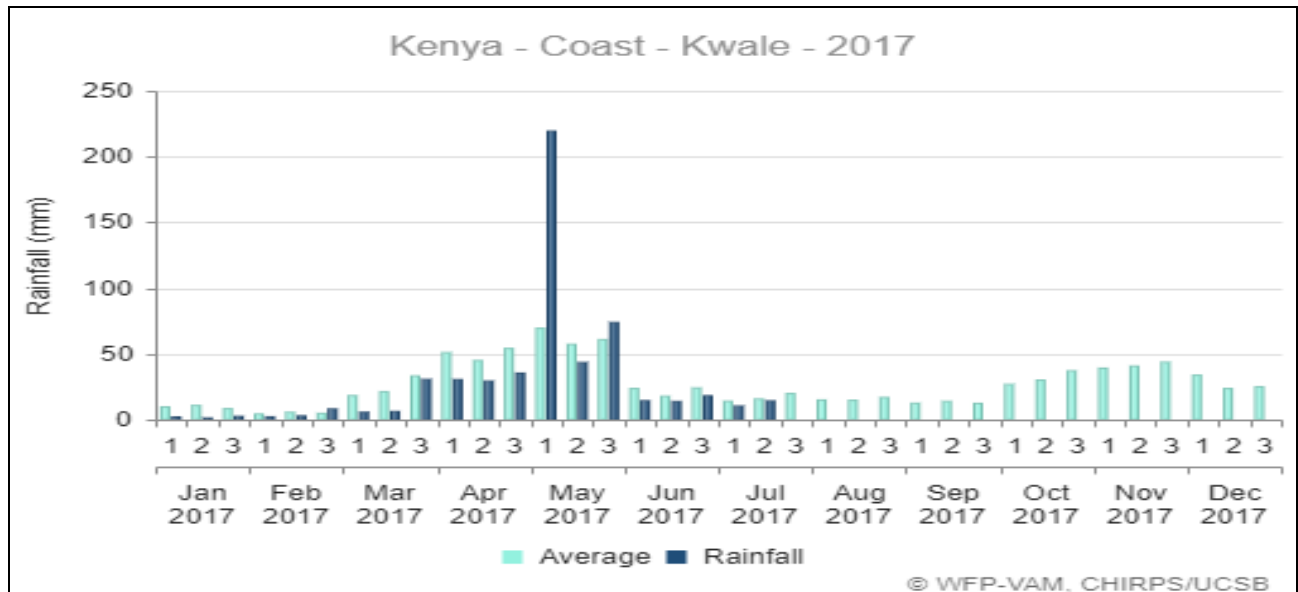
Early Warning (EW) Phase Classification

| Livelihood Zone | Phase | Trend |
|--|--------------|--------------------|
| Mixed Farming | Alert | Improving |
| Livestock Farming | Normal | Stable |
| County | Normal | Stable |
| Biophysical Indicators | Value | Normal Range/Value |
| VCI | 52.12 | 50 |
| State of Water Sources | 4 | 5 |
| Production indicators | Value | Normal |
| Crop Condition (maize and legumes) | Poor | Good |
| Livestock Body Condition | 2 | 2 |
| Milk Production (Litres) | 3.3 | 3.6 |
| Livestock Migration Pattern | No migration | No migration |
| Livestock deaths (from drought) | None | No deaths |
| Access Indicators | Value | Normal |
| Milk Consumption (litres) | 1.6 | 1.8 |
| Return distance to water sources (km) | 2.8 | 1.9 |
| Utilization indicators | Value | Normal |
| Nutrition Status, MUAC (% at risk of malnutrition) | 6.2 | 6.37 |

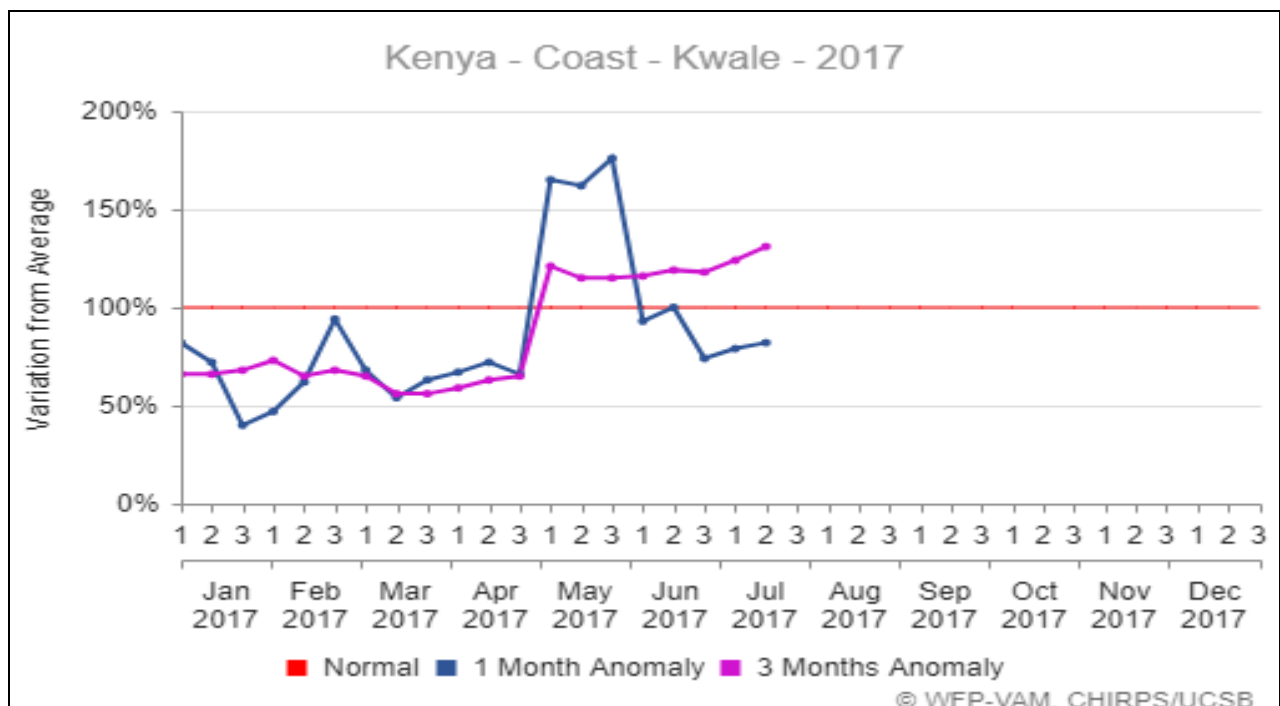
| | | | | | | | | | | | |
|---|---|--|---|-----|-----|-----|-----|------|-----|-----|-----|
| <ul style="list-style-type: none"> Short rains harvests Short dry spell Reduced milk yields Increased household food stocks Land preparation | <ul style="list-style-type: none"> Planting/weeding Long rains High 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 onset of the long rain season was in the last week of March with the month of May recording the highest amounts.
- The county received below normal rainfall amounts in July compared to the long-term average as shown in the graphs below:



- The temporal distribution was poor as rains were only received in the first and second dekads while no rains received in the third dekad. The spatial distribution was quite uneven and the rains have reduced in intensity.



2.0 IMPACTS ON VEGETATION AND WATER

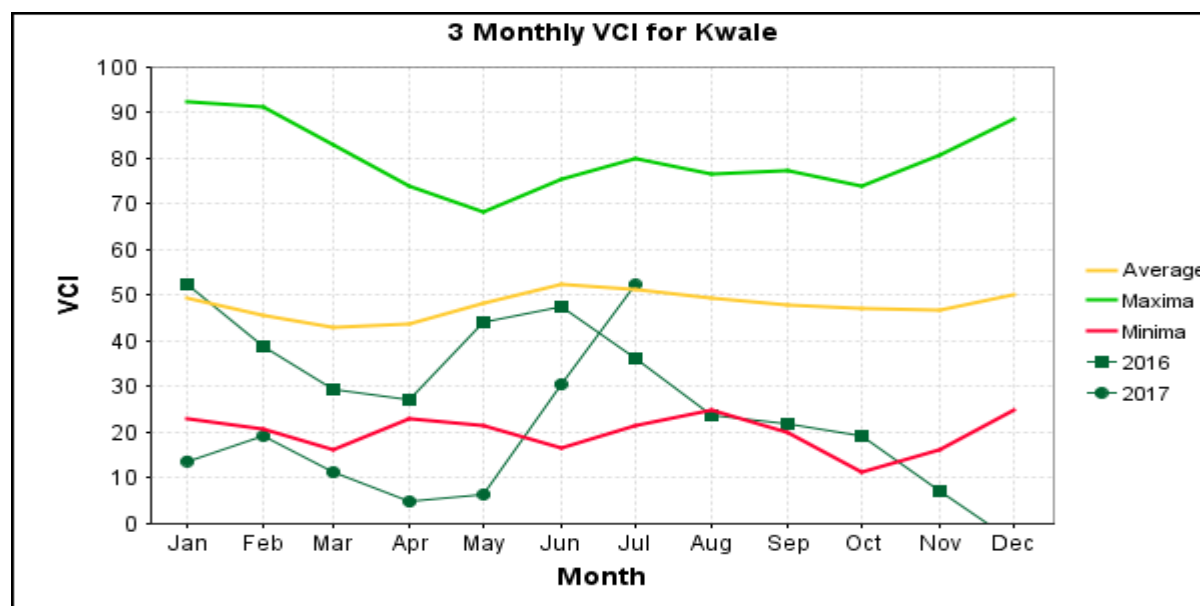
2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

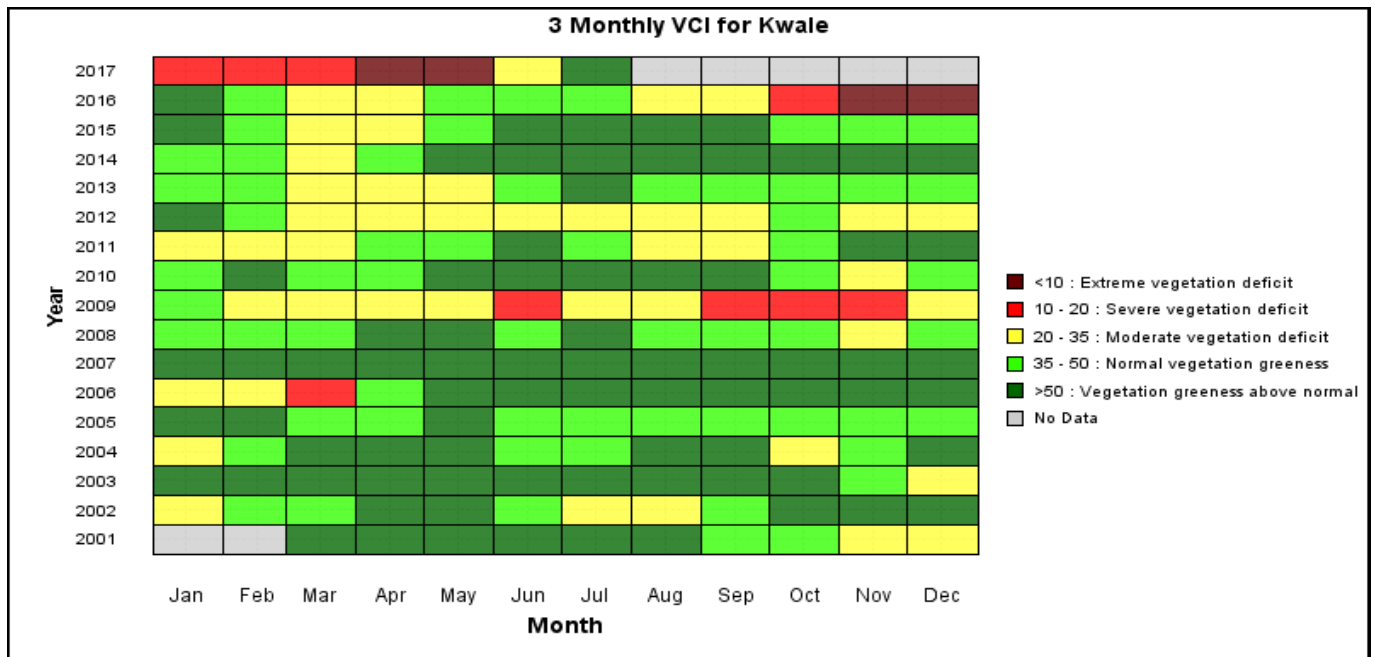
- The vegetation condition in the county continued to improve from May to July. This is because of the rains which were received in May and June.
- This improvement is shown in the increase in the value of VCI in the county as shown in the table below:

| Sub-county | 3-month VCI March 2017 | 3-month VCI April 2017 | 3-month VCI May 2017 | 3-month VCI June 2017 | 3-month VCI July 2017 |
|---------------------|---------------------------|---------------------------|-------------------------|--------------------------|--------------------------|
| Kinango | 11.13 | 5.75 | 10.63 | 39.34 | 60.13 |
| Lunga Lunga | 6.42 | -2.4 | -4.06 | 20.97 | 49.13 |
| Matuga | 16.98 | 8.96 | 1.86 | 11.46 | 31.93 |
| Msambweni | 16.76 | 13.92 | 15.1 | 17.71 | 24.17 |
| Kwale County | 11.04 | 4.63 | 6.25 | 30.34 | 52.12 |

- The county's VCI was above 50 for the first time this year and therefore classified in the 'above normal vegetation greenness' band and a remarkable improvement from the previous month's situation.
- Matuga and Msambweni sub-counties were classified in the 'moderate vegetation deficit' band while Lunga Lunga sub-county was in the normal vegetation deficit category. Kinango sub-county was in the 'above normal vegetation greenness' category.
- All the four sub-counties recorded an improvement in VCI as shown the table above.
- The trend in VCI is shown in the graph and matrix below.

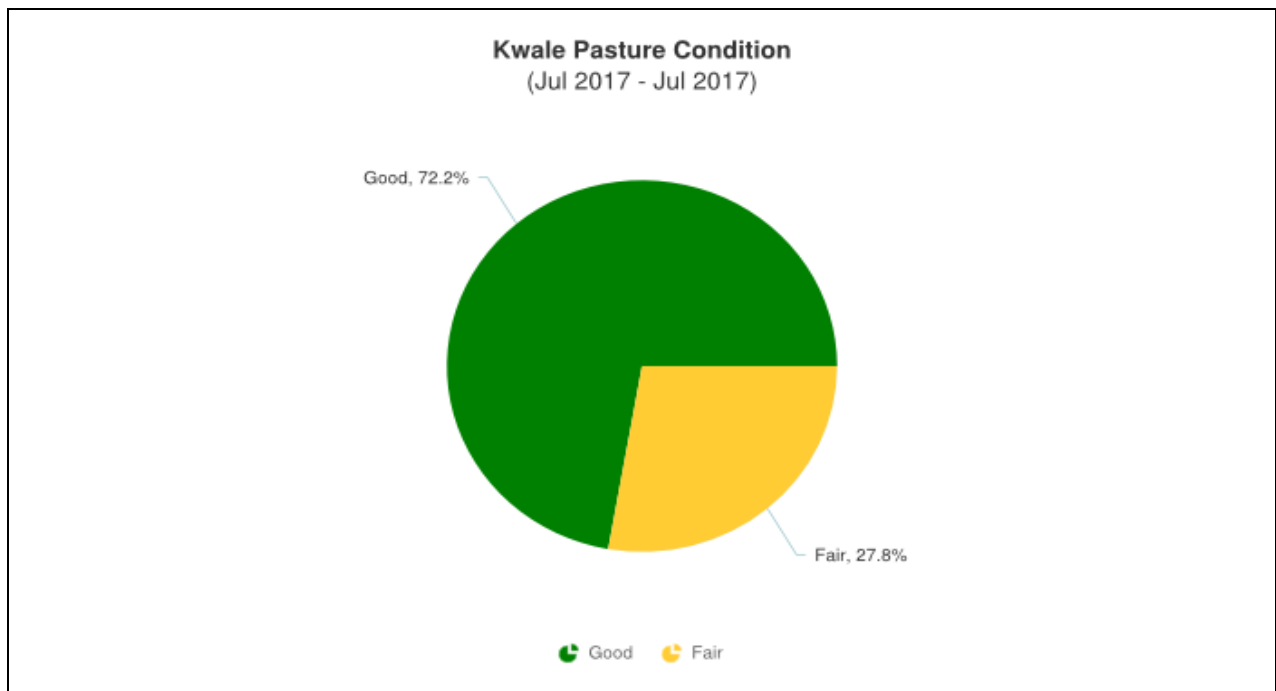


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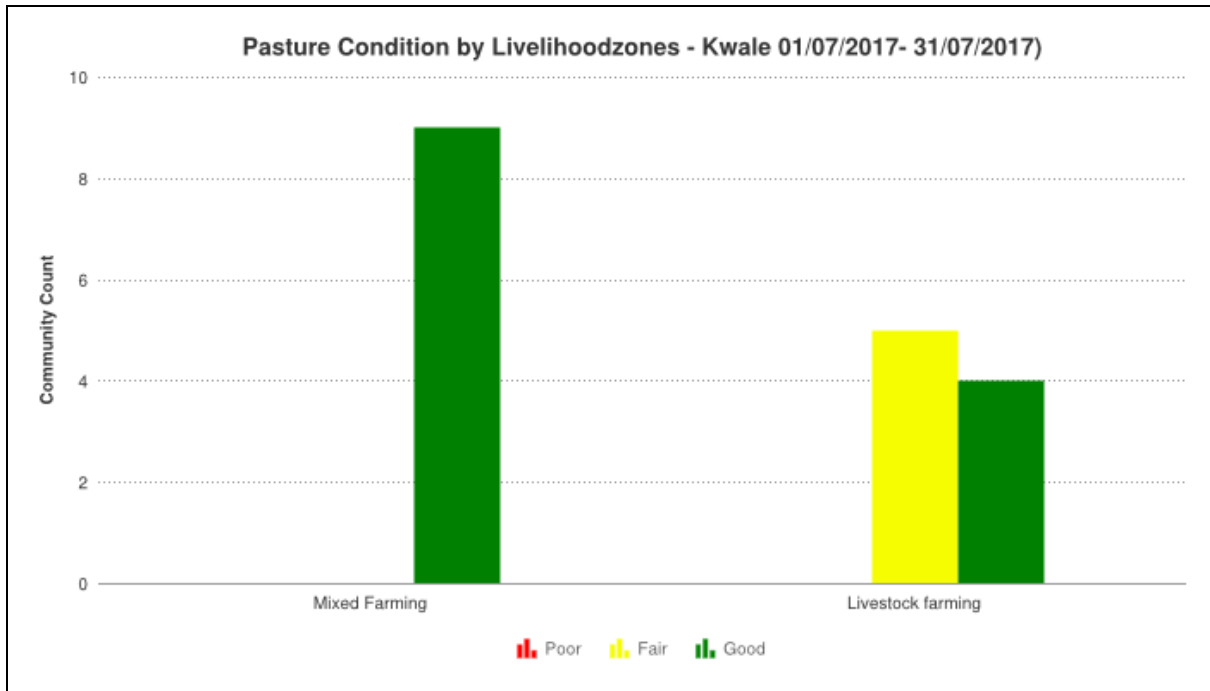


2.1.2 Pasture

- Majority of households (72.2 percent) reported good pasture condition while 27.8 percent reported that the pasture condition was fair. No household reported poor pasture condition similar to the previous month. This is attributed to the rains received in the last few weeks which had rejuvenated pasture.
- The pie-chart below shows the pasture condition in the county.



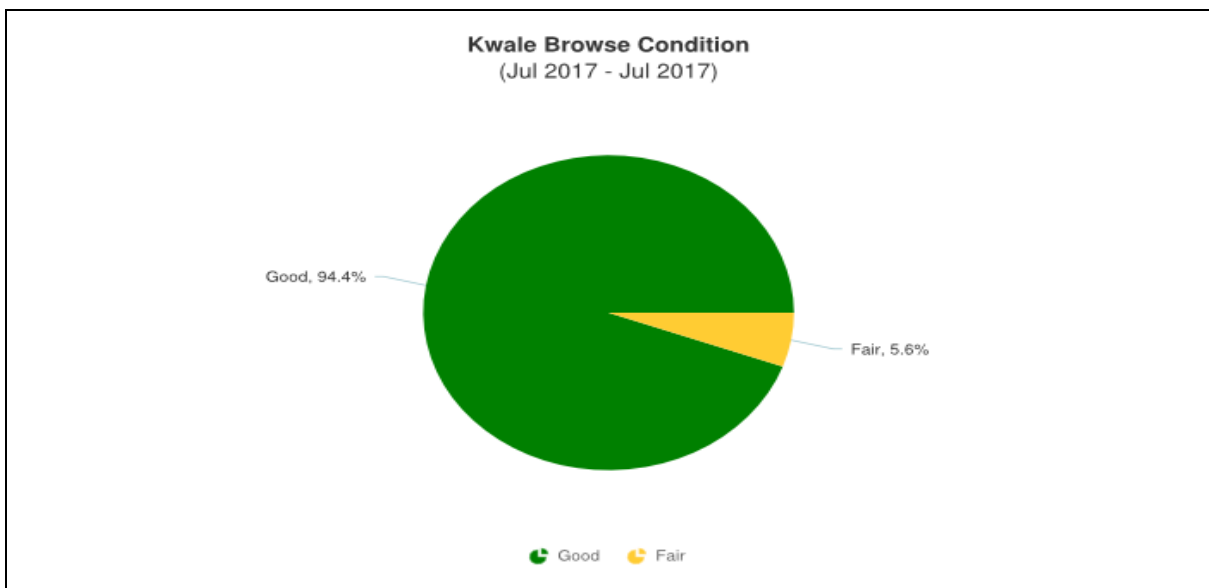
- Pasture condition was better in the mixed farming livelihood zone compared to the livestock farming one similar to the previous month and illustrated in the graph below:



- The available pasture was likely to last approximately four months in the mixed farming and three months in the livestock farming livelihood zones. The pasture condition at livelihood zone level is illustrated in the graph above.

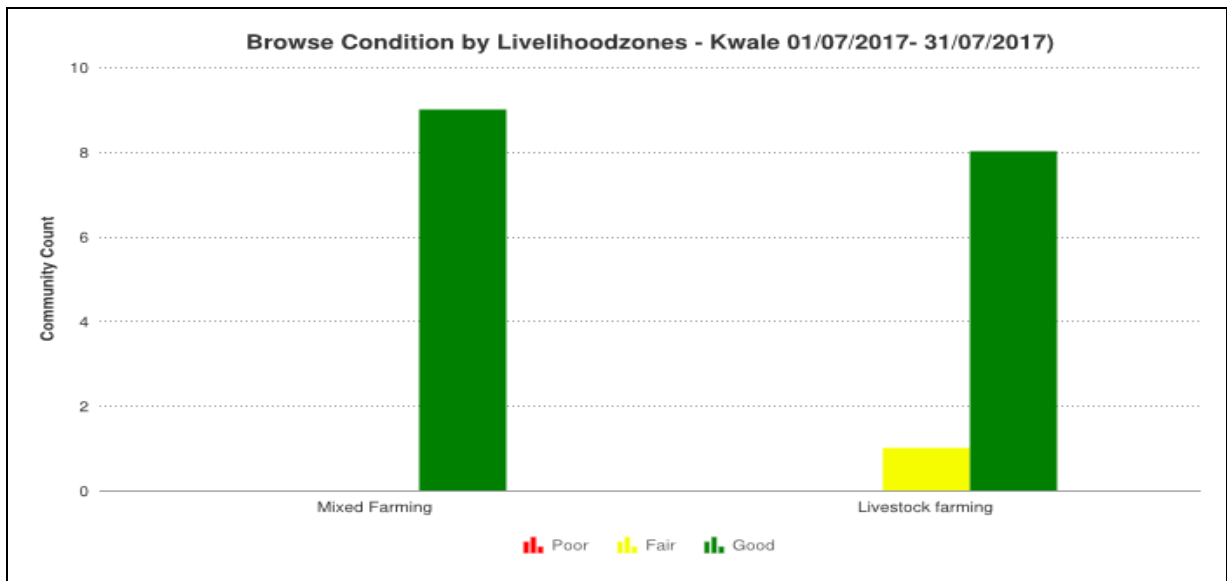
2.1.3 Browse

- A majority of households (94.4 percent) reported that the browse condition was good similar to the previous month.
- Browse availability significantly improved due to the rains received in May and some part of June.
- The current browse condition in the county is shown in the pie-chart below:



- Browse condition was better in the livestock farming livelihood zone compared to the mixed farming one as shown in the graph below, the same as the previous month.

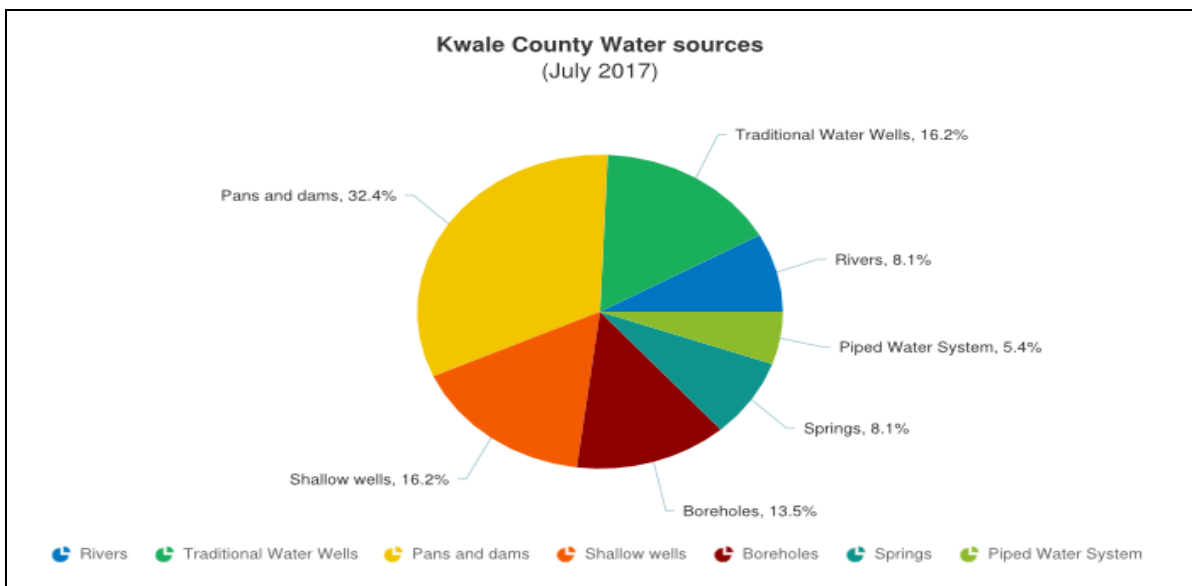
- The available browse was projected to last for approximately six months in the mixed farming livelihood zones and four months in livestock farming livelihood zones.



2.2 WATER RESOURCES

2.2.1 Sources

- The main sources of water for residents of this county for the month were: pans and dams, shallow wells, traditional water wells and boreholes.
- The sources used were the normal ones for this time of the year.
- Others sources include piped water system springs and rivers as shown in the pie-chart below:



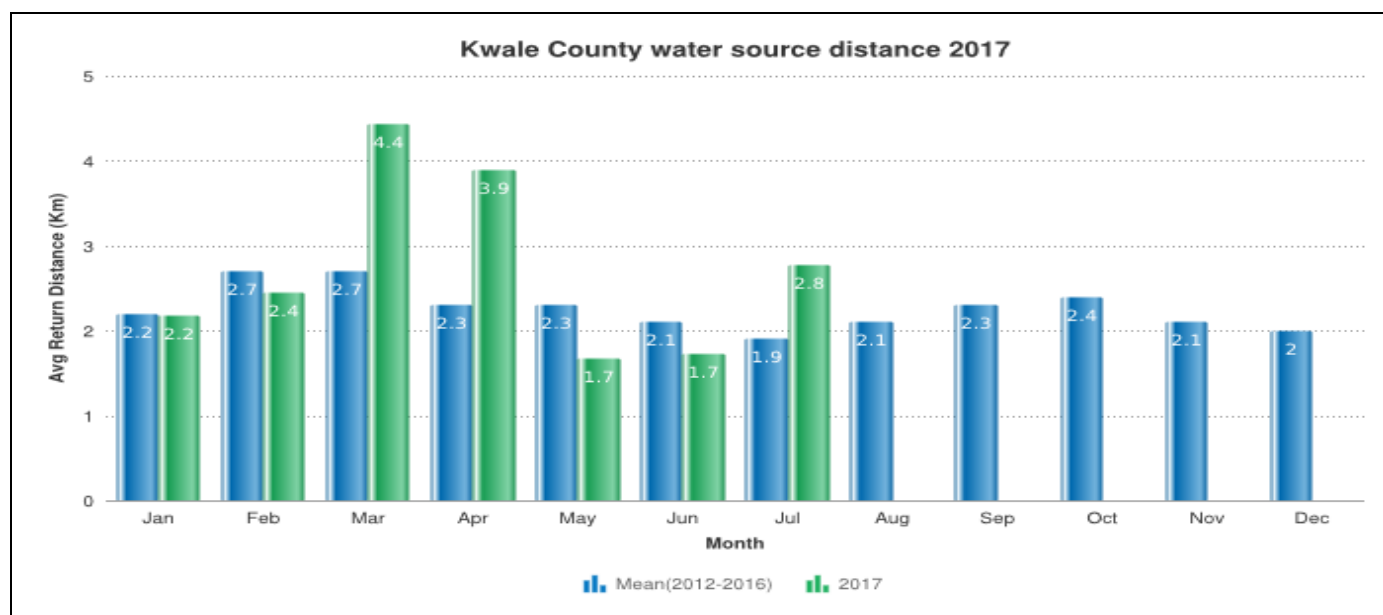
- Pans and dams which are the main sources in the livestock farming livelihood zone are between 60 - 70 percent full with the water available likely to last for approximately 4 months.

- The general early warning phase classification for the state of water sources is five (5) indicating 'normal' for this time of the year (refer to the table below for assessment of the state of water sources). This is attributed to good rains which had recharged all the 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

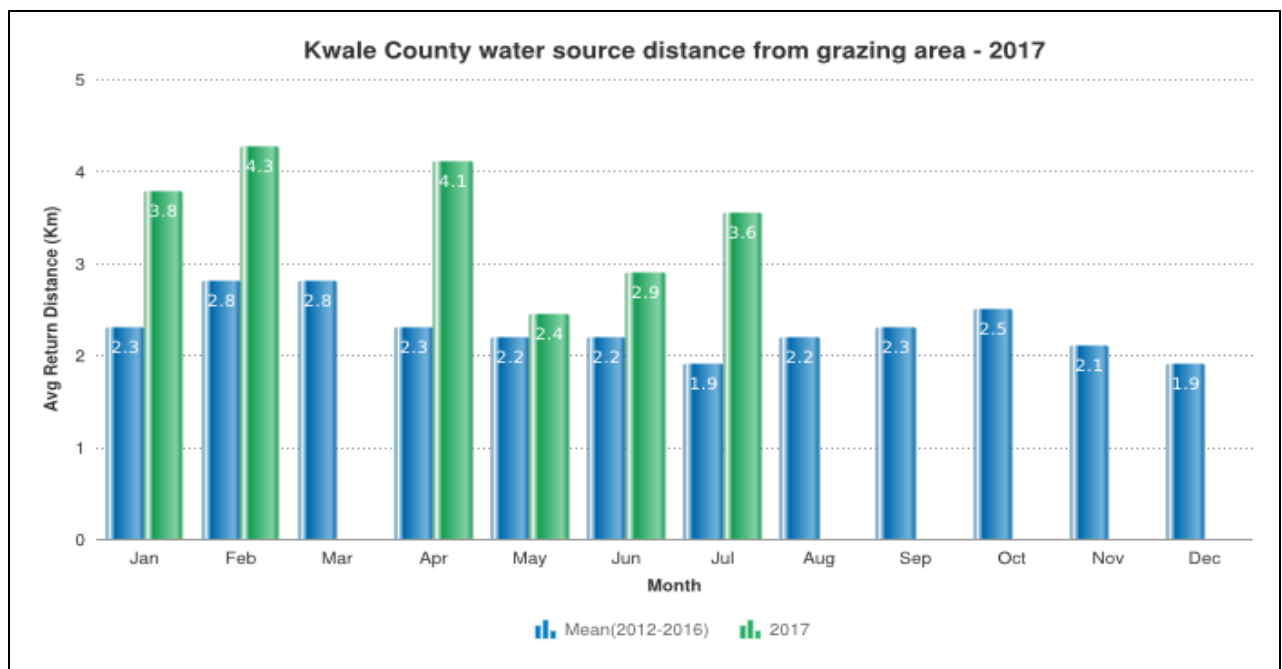
- The average return distance from water sources by households was recorded at 2.8km, which is an increment of 64.7 percent recorded the previous month of June. This increment is attributed to drying of some temporary water sources like shallow wells, seasonal rivers and ponds which were nearer to homesteads. The rains received in May and early June had recharged most major sources.
- The distance was 39 percent higher than the long-term mean distance of 1.9 km as shown in the graph below.



2.2.3 Livestock access

- The average trekking distance from the main water sources to the grazing areas for livestock was 3.6km, an increment of 24 percent from 2.9km recorded in June.

- The distance was 89 percent above the normal distance of 1.9km as shown in the graph below.

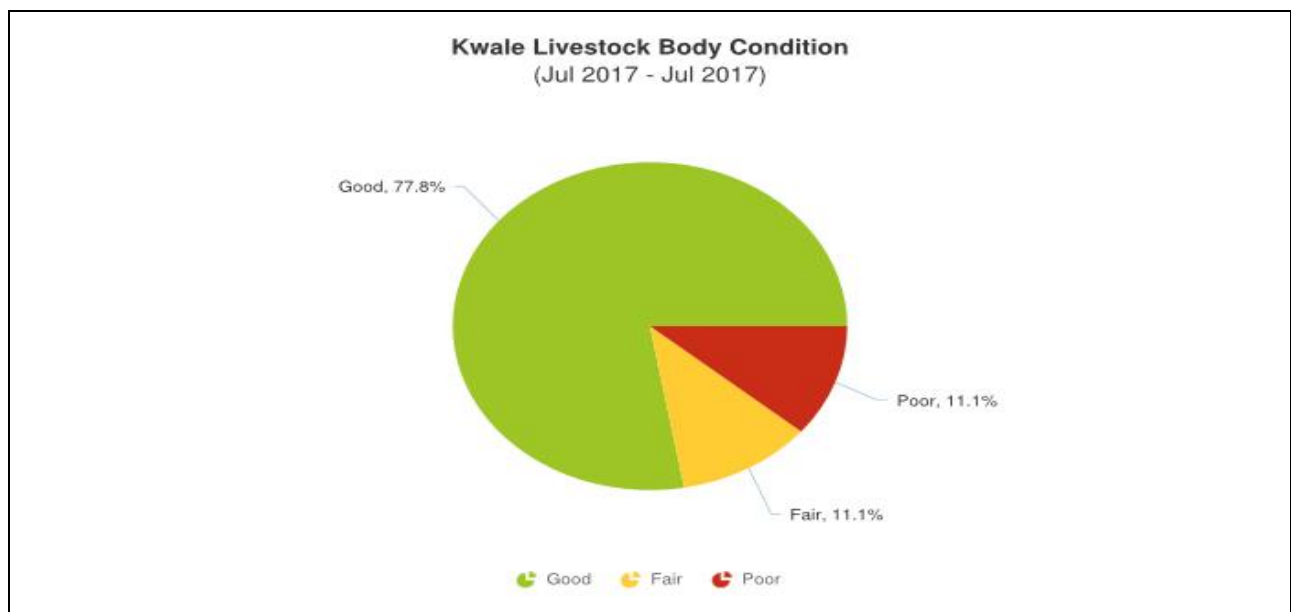


3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- A majority of households (77.8 percent) reported that their livestock had good body condition, while 11.1 percent had fair condition and the remaining 11.1 percent was in poor condition.
- The livestock body condition in the county is summarized in the pie-chart below:



- The early warning classification for livestock is 2, indicating moderate, neither fat nor thin, and is likely to continue improving since forage is projected to last for between 3 to 4 months.
- The table below shows the classification of body condition for livestock:

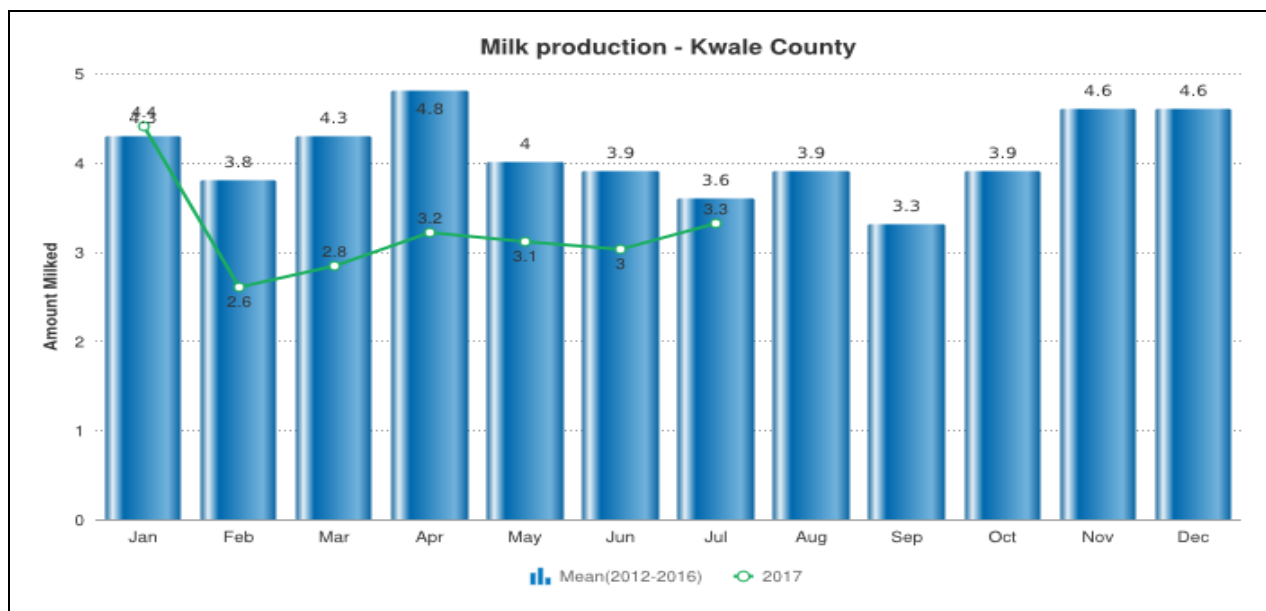
| Level | Classification | Characteristics (this describes majority of the herd and not individual isolated Stock) |
|-------|----------------|---|
| 1 | Normal | Very Fat Tail buried and in fat |
| | | Fat, Blocky. Bone over back not visible |
| | | Very Good Smooth with fat over back and tail head |
| | | 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

- No livestock diseases' outbreak was reported in the month of July 2017.

3.1.3 Milk Production

- Cows were the main producers of milk this reporting month similar to the previous month.
- The average milk production in the county increased from 3 litres to 3.3 litres due to availability of forage for livestock.
- The production was 8.3 percent lower than the 2012-2016 long-term amount of 3.6 litres.



3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and condition of food crops

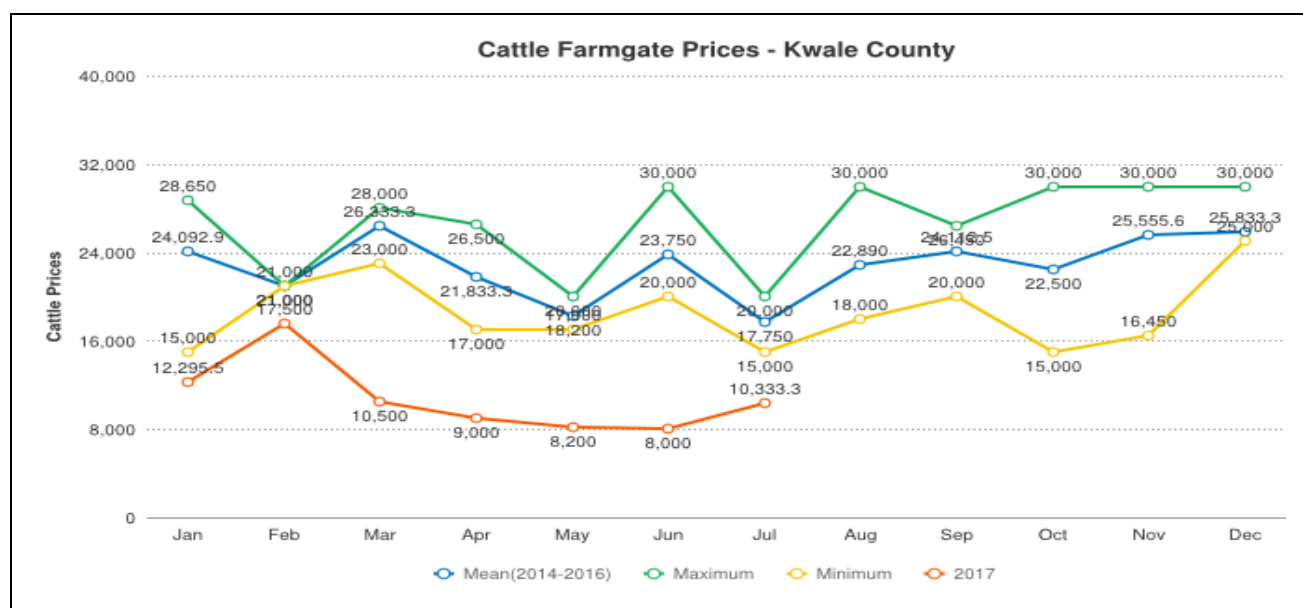
- The main crops in the farms are maize, cowpeas and green grams and those who planted early in the month of April have started harvesting. The areas where farmers reported harvesting include Vanga and Dzombo wards in Lungalunga Sub-county, Mivumoni in Msambweni Sub County and Patakani, Mwapala and Lukore in Matuga Sub County. This yield, although below normal, will sustain households for between one and two months.
- However, maize that was planted late in the month of April and May was infested with fall army worms and farmers will get very minimal yields.
- Pulses were in good condition and farmers expect a fair harvest.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

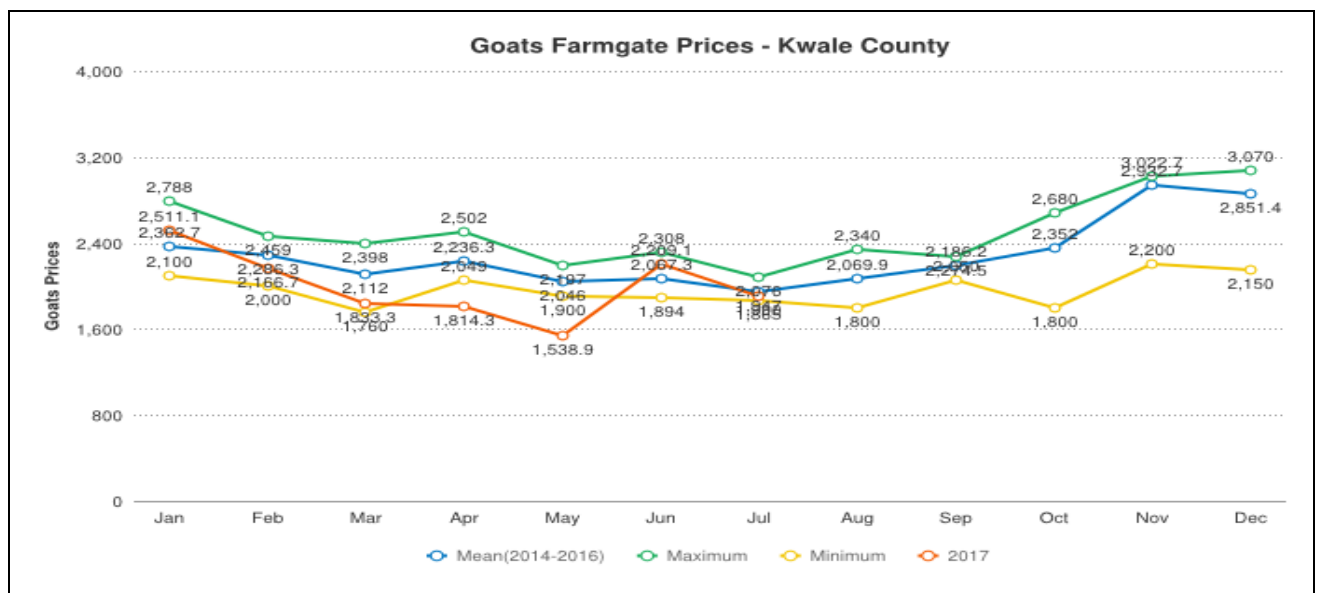
- A three-year old bull was selling at an average price of Kshs 10,333 up from Kshs 8,000 recorded the previous month.
- This increment in prices may be attributed to general improvement in livestock body condition hence fetching better prices in markets.
- Cattle prices were 41 percent lower than the long-term average price Kshs. 17,750 of 2014-2016 as shown in the graph below:



4.1.2 Goat Prices

- The average price of a three-year old medium-sized goat was Kshs. 1,900 which is a drop of 14 percent from last month price of 2,209.10.
- The current goat prices were 6.9 percent high than the expected price of Kshs. 2,067 in the 2014-2016 long-term average.

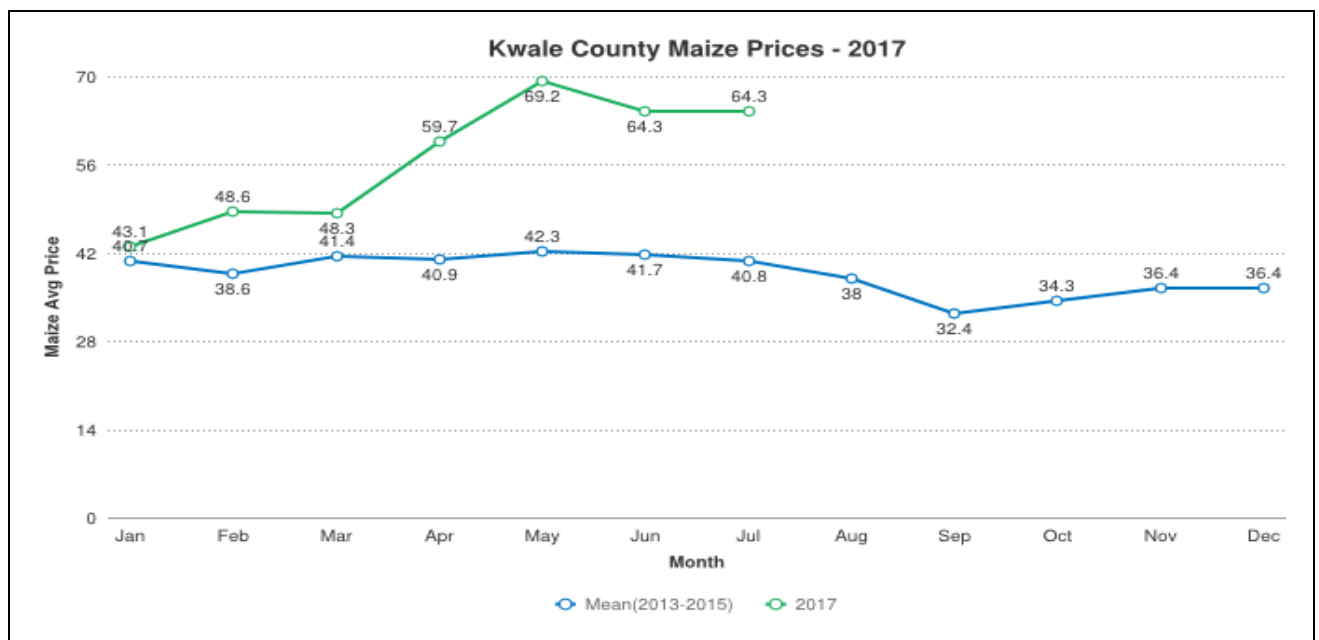
- The prices was 2.4 percent lower than the long-term 2014-2016 average price of Kshs. 1,947 and the trend is shown in the graph below.



4.2 CROP PRICES

4.2.1 Maize

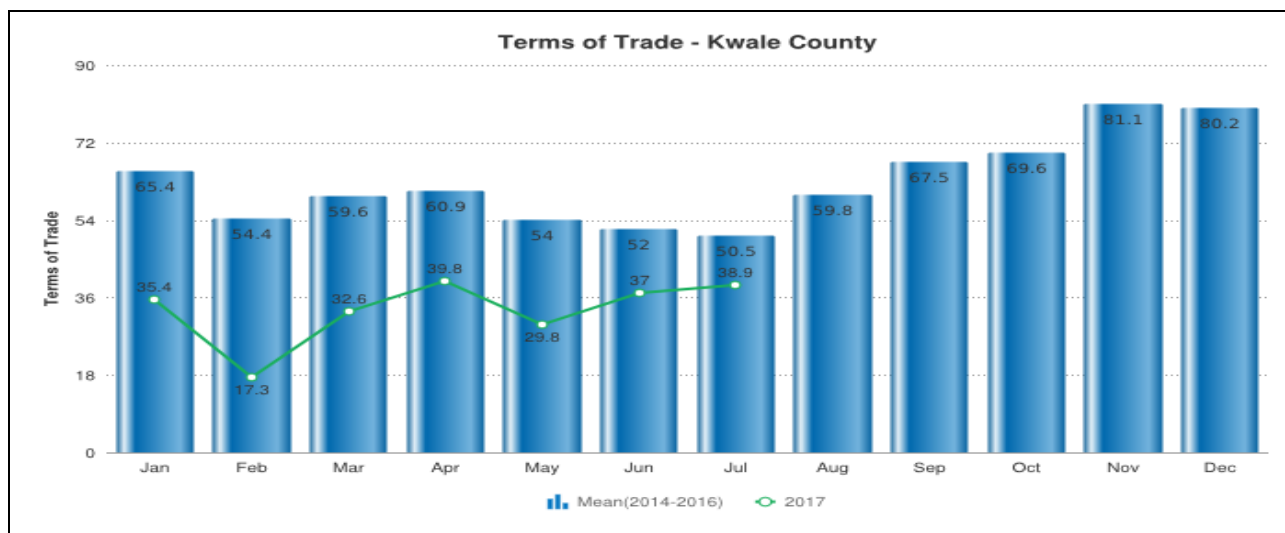
- A kilogram of maize was trading at an average of Kshs. 64.3, similar to the previous month. The trend in prices is shown in the graph below:



- However the high maize prices are expected to go down because some farmers who planted early in the month April have started harvesting maize.
- The above-normal trend in price continued this month as a 36.5 percent increase above the 2014-2016 long-term average price of Kshs. 40.8 was recorded.

4.3 TERMS OF TRADE (CASUAL LABOUR VERSUS MAIZE PRICES)

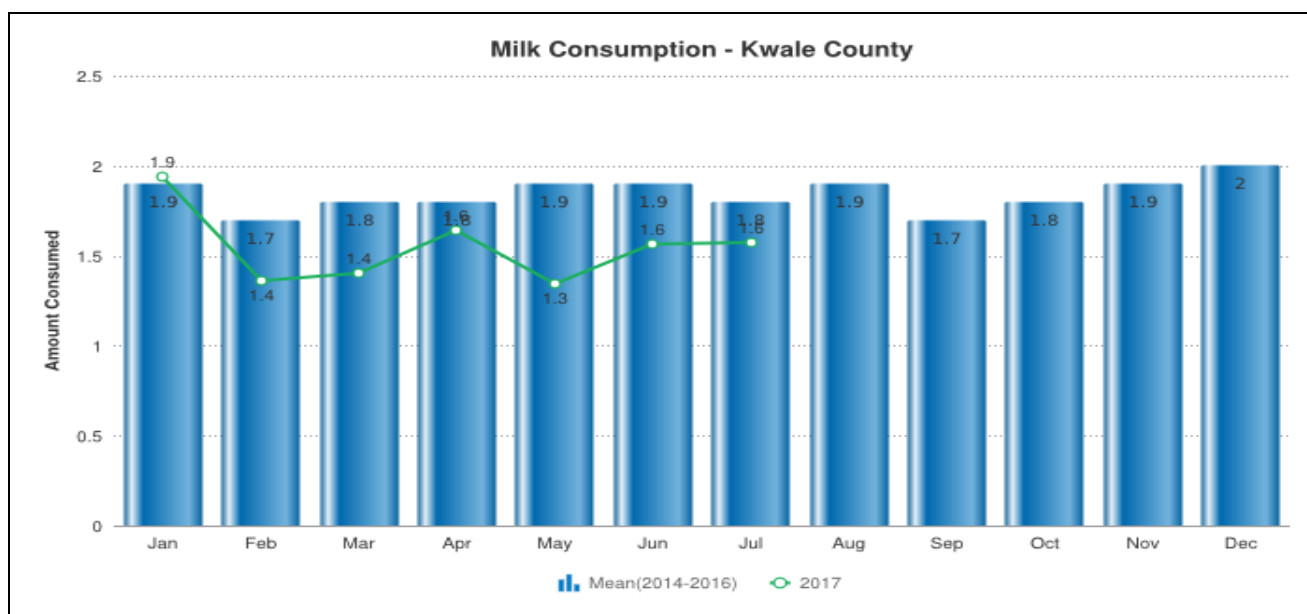
- The terms of trade increased slightly from 37 to 38.5 in this reporting month. This implies the purchasing power of households improved this month as they could purchase an average of 38.9 kilograms of maize in July compared to 36.4 kilograms the previous month from the incomes gotten from casual labour.
- The increase in the terms of trade may be attributed to the fact that some households could engage in casual labour in farms. Also the availability of government subsidized maize floor eased pressure on demand of the commodity in local markets.
- The county's terms of trade were 23 percent below the expected 50.5 kilograms of maize in the 2014-2016 long-term average.
- The trend in terms of trade in the county is provided in the figure below.



5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

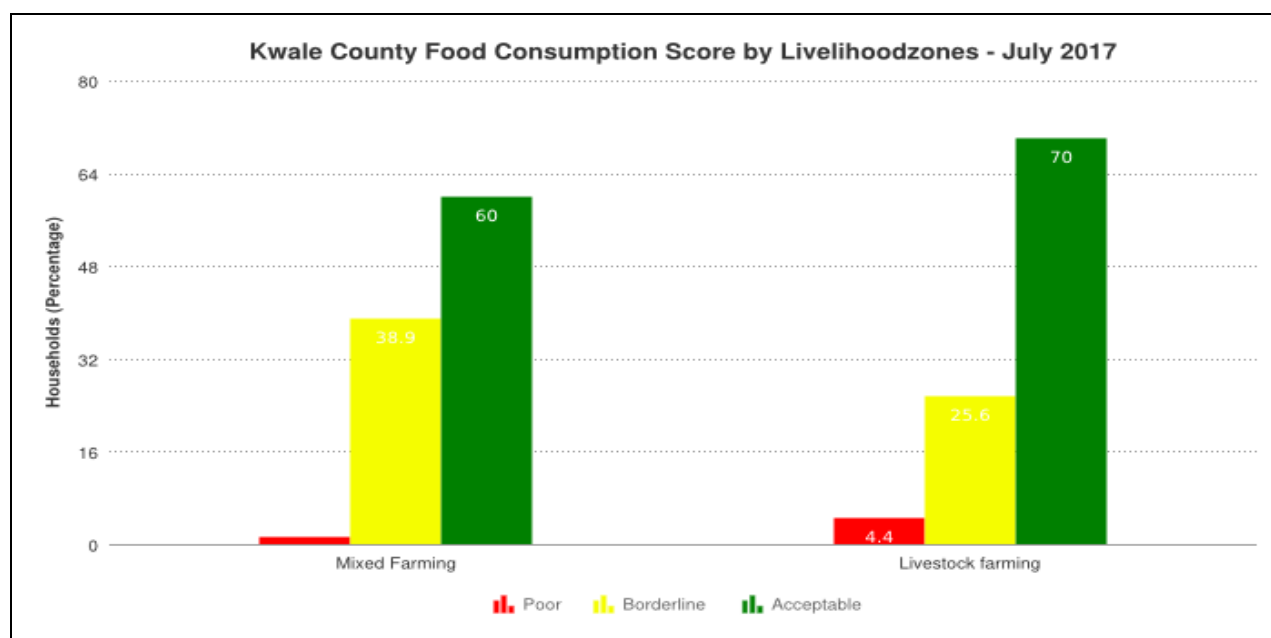
- The average milk consumption at household level was 1.6 litres similar to the previous month. The milk consumption trend is shown in the graph below.



- Milk consumption was lower than normal by 11.1 percent compared to the 2014-2016 long-term average of 1.8 litres.

5.2 FOOD CONSUMPTION SCORE

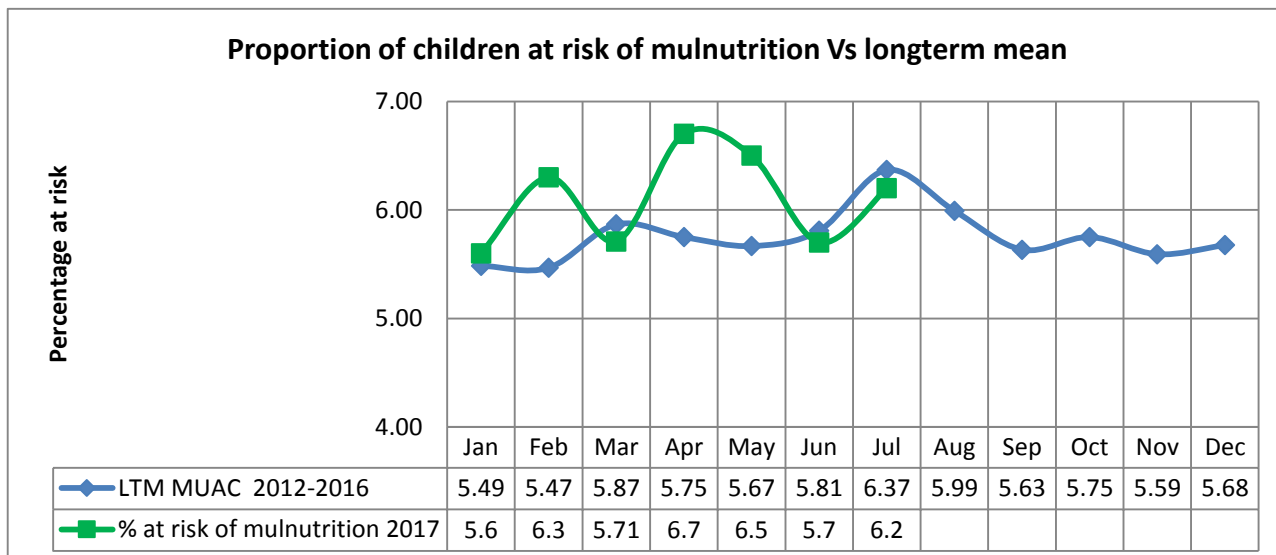
- The proportion of households with a poor food consumption score reduced by 30 percent from 6.7 percent to 2.7 percent in July. The proportion in the borderline category increased from 25 percent to 32.2 percent while those in the acceptable zone reduced slightly from 68 percent to 65 percent.
- The recorded food consumption gaps could be attributed to above-average food commodity prices, reduced income from casual labour which is a major source of income in the county and reduced milk consumption as milk was sold for income.
- The proportion of households with acceptable food consumption score in both livelihood zones is over 60 percent in both households. This implies majority of households were consuming at least a staple and vegetables on a daily basis complemented by a frequent consumption of pulses and oil, similar to the previous month. The food consumption situation at livelihood zone level is shown in the graph below.



5.3 HEALTH AND NUTRITION STATUS

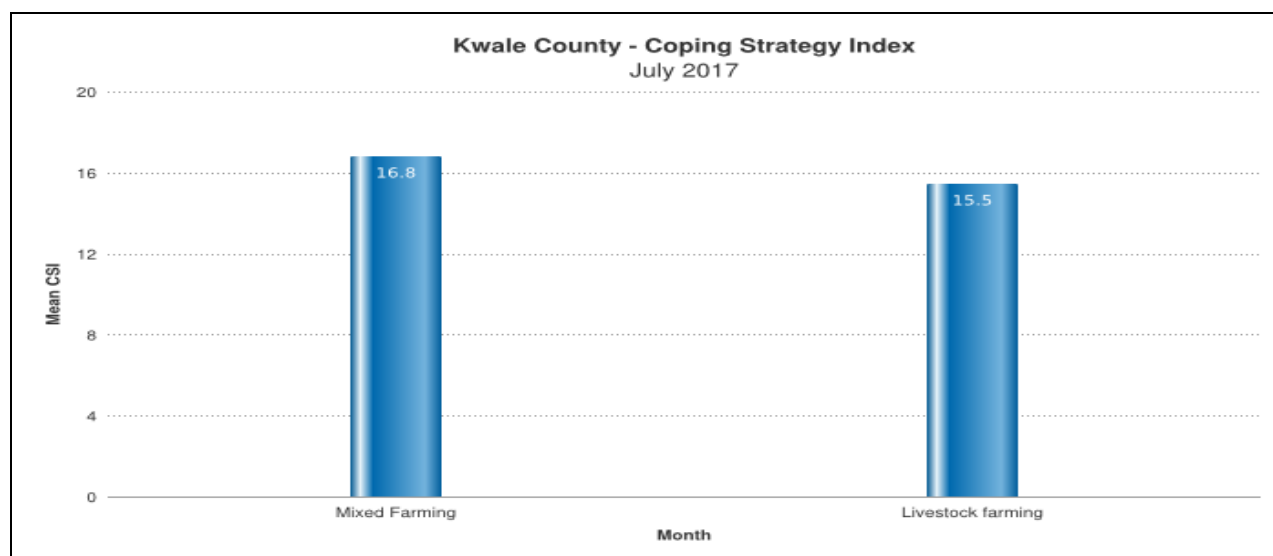
5.3.1 Nutrition Status

- The proportion of children at risk of malnutrition based on the MUAC increased slightly from 5.7 percent to 6.2 percent in July 2017 as shown in the graph below. A total of 1,045 children were sampled (555 males and 490 females).
- The population that was at risk was slightly lower than the expected 6.37 percent in the 2012-2016 long-term average.



5.4 COPING STRATEGIES

- The coping strategy index (CSI) for the month averaged 16.13, a slight drop from 16.56 recorded in June. This implies that consumption-based coping strategies were employed more frequently and that households were finding it more difficult to access food similar to similar to the previous month.
- In the mixed livelihood zone it increased from 15.9 percent to 16.8 percent in July while in the livestock farming it decreased from 17.2 to 15.5.
- The indices at livelihood zone level are shown below:



- The most commonly employed consumption-based coping mechanisms included reduction of the portion and/or number of meals, reliance on less preferred/expensive food and credit purchases similar to the previous month.

6.0 CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

- Monitoring of the cash for assets (asset creation) programme in Kinango sub-county was done by NDMA, KRCS and WFP during the month.
- Distribution of 150 beehives to asset creation programme beneficiaries in Kinango Sub County by NDMA. This support targeted 5 FDPs namely Dumbule, Nzovuni, Miyani, Minyenzeni and Mwamdudu
- Supply of pesticides for control of fall army worms. The chemicals were delivered to the county by the State Department of Agriculture and distributed to sub counties by the county department of Agriculture

6.2 FOOD INTERVENTIONS

- The national government through the County Commissioner's office distributed 1200 bags of maize, 600 bags of beans, 1200 bags of rice and 200 cartons of cooking oil.
- The county government distributed 600 bags of rice during the month

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- No cases of insecurity, conflict or human displacement were reported this month.

7.2 Migration

- No migration was reported the month.

7.3 FOOD SECURITY PROGNOSIS

The rains that were received in May till the second dekad of June recharged most open and ground water sources. This has significantly improved water accessibility and availability and therefore less stress in the distance walked by humans and livestock to access water. Because of forage availability, livestock production is likely to improve and consequently its prices in markets boosting household incomes. Higher-than-normal food commodity prices are still being reported especially the sifted maize flour which is sometimes unavailable in local shops. This trend in higher food prices will change as farmers started harvesting maize and pulses from their farms and will rely less on commercial maize flour and other commodities. The harvest will sustain households for between one to two months. The fall army worms' invasion in maize farms across the county is likely to reduce the expected harvest to up to 50 percent thereby greatly affecting food stocks at household level. There were various on-going humanitarian food and non-food interventions which were serving as a safety net for vulnerable households. Therefore the food security situation is expected to slightly improve for a month or two then worsen as stocks diminish in households and proper interventions should be put in place.

8.0 RECOMMENDATIONS

- Provision of pesticides to farmers to tackle the fall army worm invasion which has destroyed hundreds of acres of maize plantations across the county.
- Accelerate the processing of the cash set aside for the unconditional cash transfer to curb the current food insecurity situation.
- Post-harvest management training to farmers to reduce losses of the crops yields in farms.