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

NDMA

A Vision 2030 Flagship Project

KENYA VISION 2030

AUGUST 2017 EW FLAG

Drought Status: NORMAL

Shughuli 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 54.63
- 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 below normal.
- No livestock migration was reported during the month.

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

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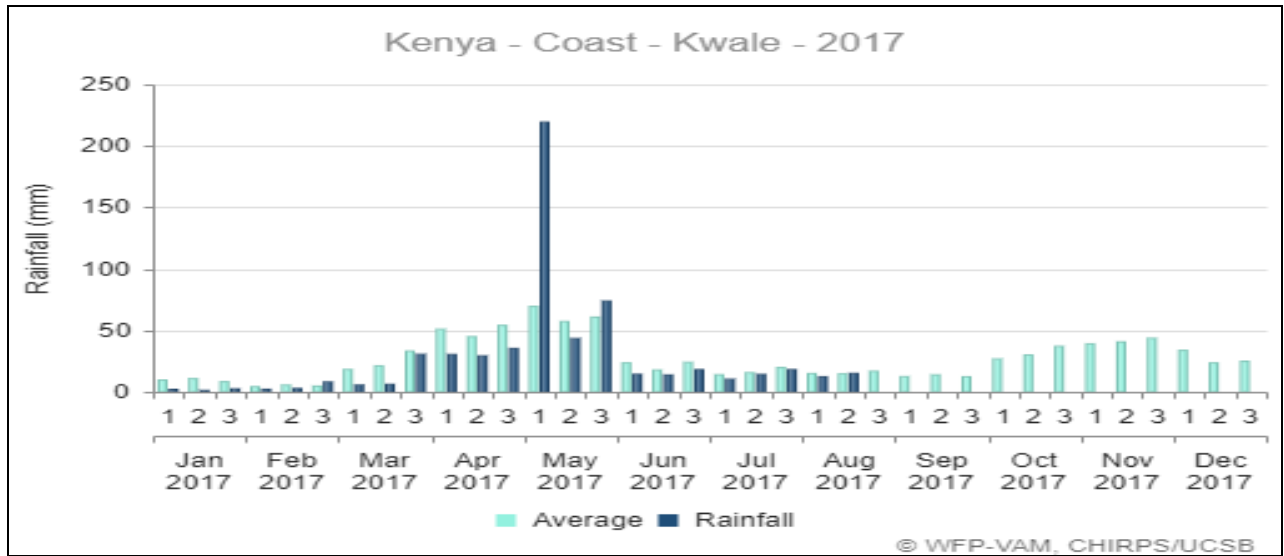- The proportion of children at risk of malnutrition was above normal for this time of the year.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Stable
Livestock Farming	Normal	Stable
County	Normal	Stable
Biophysical Indicators	**Value**	**Normal Range/Value**
VCI	54.63	49
State of Water Sources	3	5
Production indicators	**Value**	**Normal**
Crop Condition (maize and legumes)	Poor	Good
Livestock Body Condition	2	1
Milk Production (Litres)	3.5	3.9
Livestock Migration Pattern	No migration	No migration
Livestock deaths (from drought)	None	No deaths
Access Indicators	**Value**	**Normal**
Milk Consumption (litres)	1.5	1.9
Return distance to water sources (km)	3.1	2.1
Utilization indicators	**Value**	**Normal**
Nutrition Status, MUAC (% at risk of malnutrition)	7.1	5.99

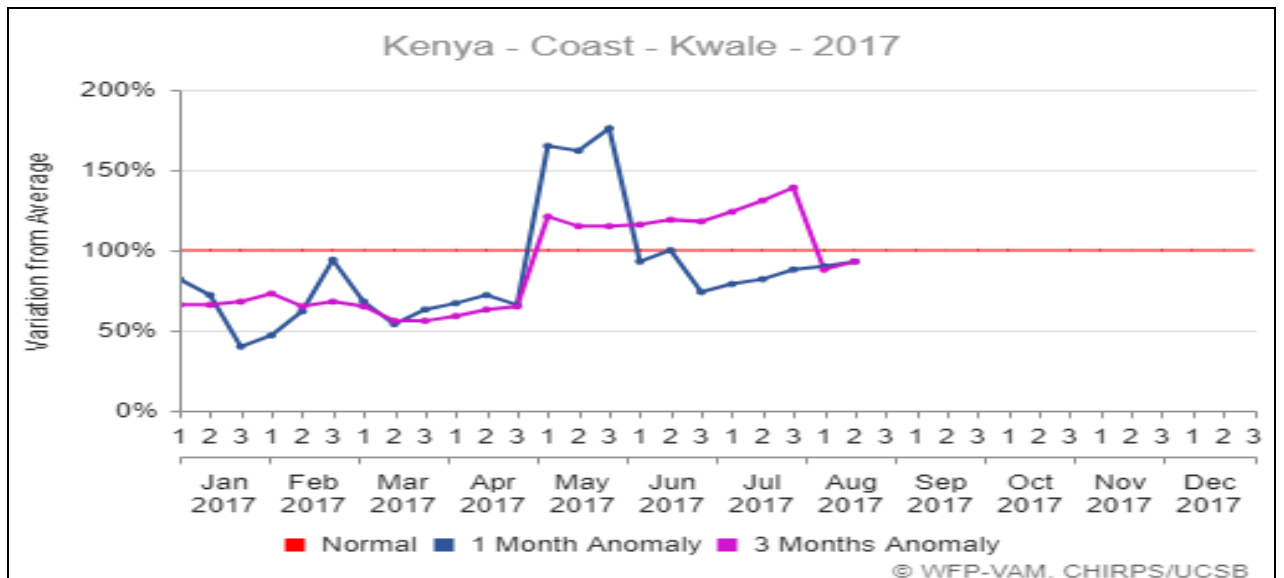|			
▪ Short rains harvests ▪ Short dry spell ▪ Reduced milk yields Increased household food stocks ▪ Land preparation	▪ Planting/weeding ▪ Long rains ▪ High calving rate ▪ Milk yields Increase	▪ Long rains harvests ▪ A long dry spell ▪ Land preparation ▪ Increased household food stocks ▪ Kidding (Sept)	▪ Short rains ▪ Planting/weeding

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

RAINFALL PERFORMANCE

- The onset of the long rains season was in the last week of March with the month of May recording the highest amounts.
- The county received little rainfall in August as shown in the graphs below:

- The temporal and spatial distribution of the rains was poor and uneven respectively in this reporting month.

KWALE DROUGHT MONITORING BULLETIN AUGUST 2017
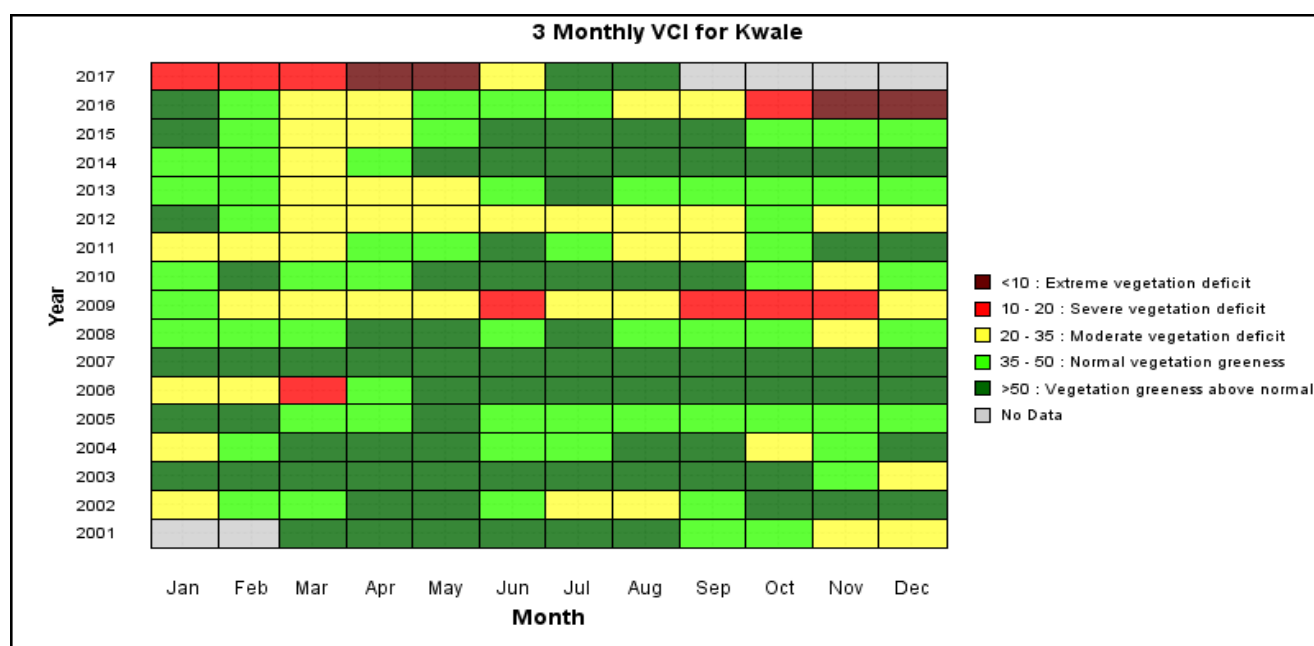
2.0 IMPACTS ON VEGETATION AND WATER
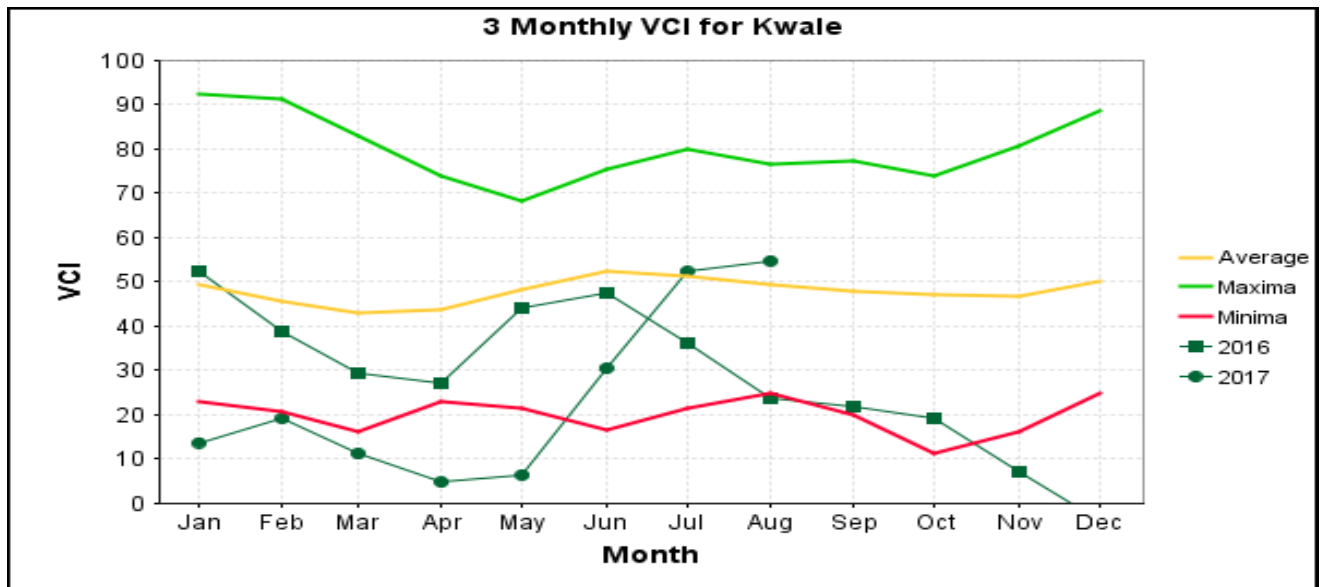
2.1 VEGETATION CONDITION

2.1 1 Vegetation Condition Index (VCI)

- The vegetation condition in the county continued to improve as shown in the table below:

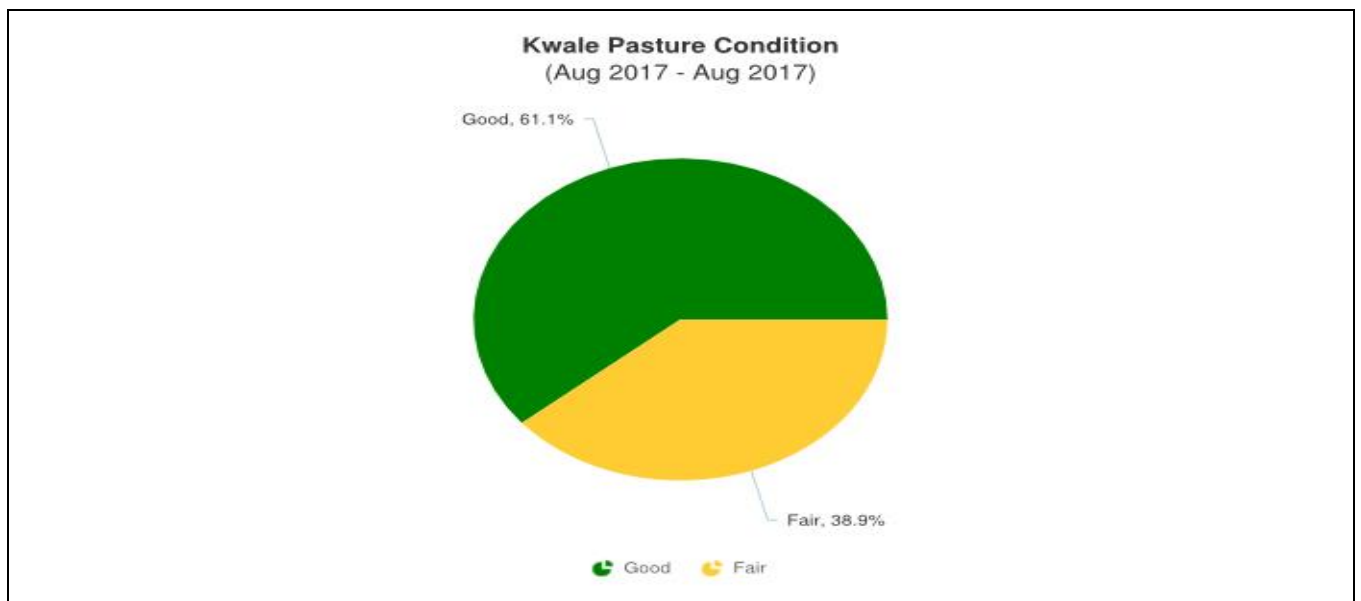| Sub-county	3-month VCI April 2017	3-month VCI May 2017	3-month VCI June 2017	3-month VCI July 2017	3-month VCI August 2017
Kinango	5.75	10.63	39.34	60.13	60.36
Lunga Lunga	-2.4	-4.06	20.97	49.13	51.73
Matuga	8.96	1.86	11.46	31.93	44.56
Msambweni	13.92	15.1	17.71	24.17	27.04
Kwale County	**4.63**	**6.25**	**30.34**	**52.12**	5**4.63**

- The county's VCI was 54.63 and classified in the 'above normal vegetation greenness' band.
- Msambweni sub-county's VCI was 27.04 hence categorised in the 'moderate vegetation deficit' band and the lowest among the four sub-counties. Matuga sub-county was in the 'normal vegetation greenness' category while Lunga Lunga and Kinango sub-counties were 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.

KWALE DROUGHT MONITORING BULLETIN AUGUST 2017
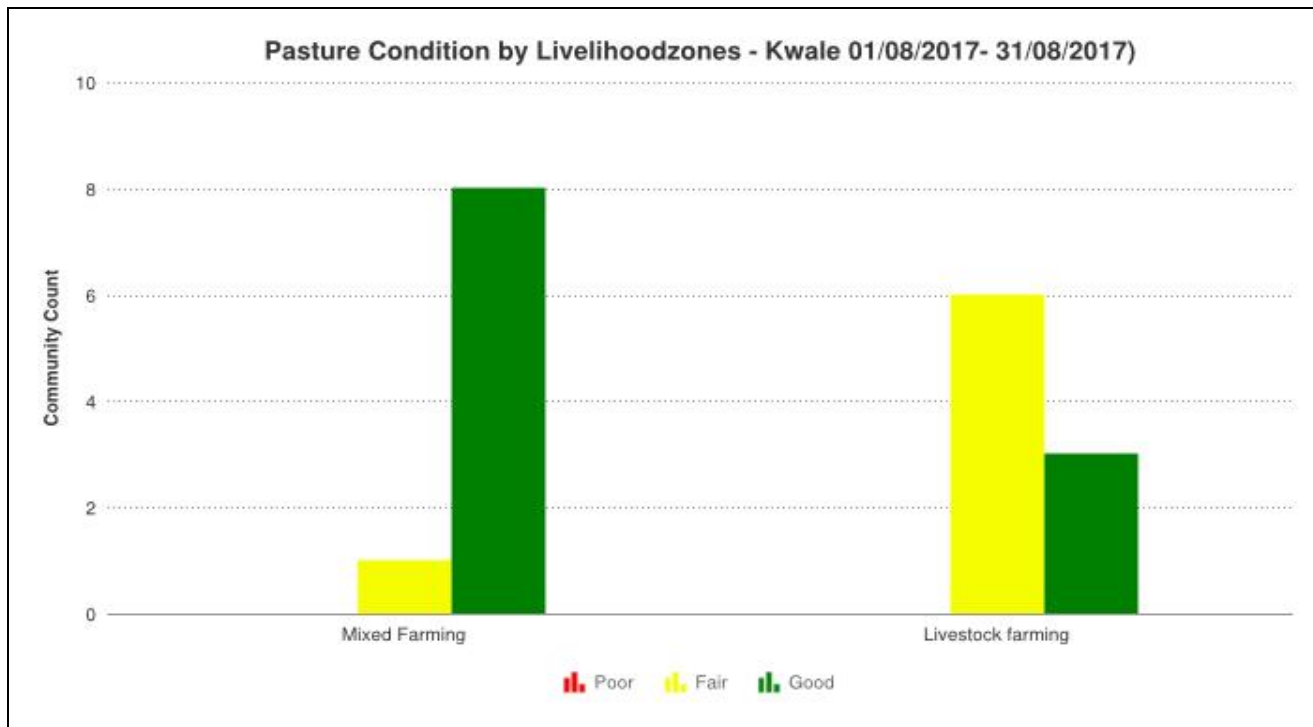
3 Monthly VCI for Kwale

2.1.2 Pasture

- 61.1 percent of the households interviewed reported good pasture condition while the remaining 38.9 percent reported that the pasture condition was fair. No household reported poor pasture condition similar to the previous month.
- The pasture condition in the county is shown in the pie-chart below:

Kwale Pasture Condition
(Aug 2017 - Aug 2017)

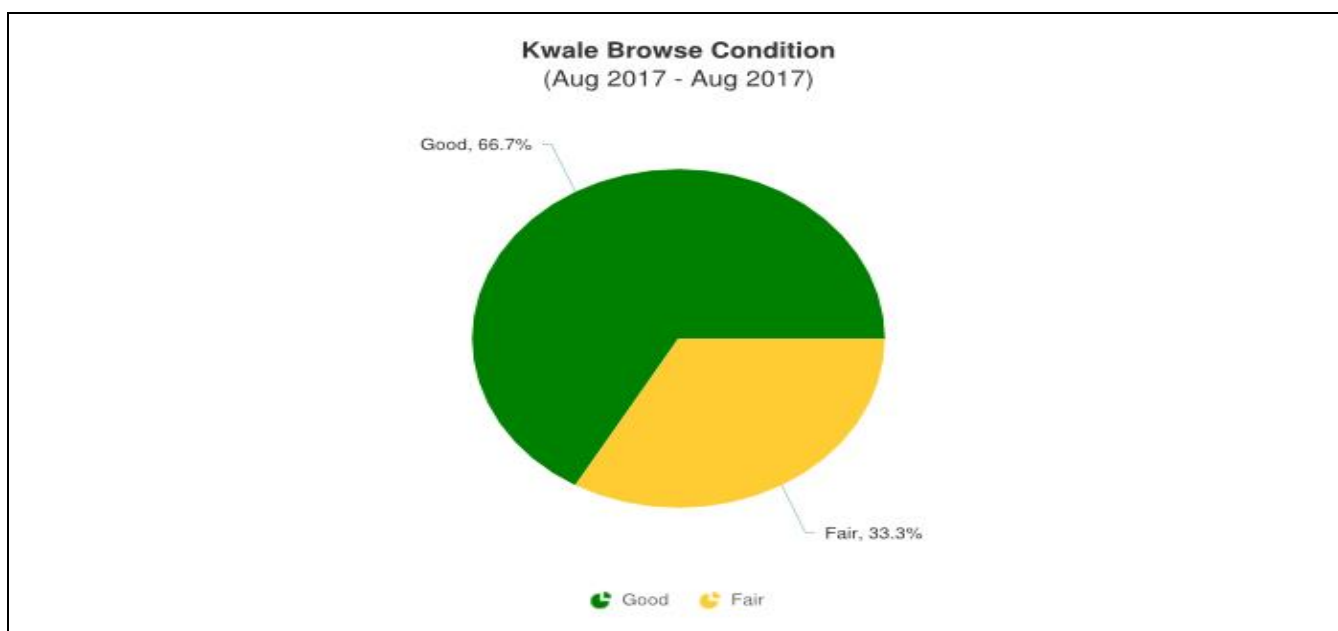Good, 61.1%

Fair, 38.9%

Good Fair

- Pasture condition was better in the mixed farming livelihood zone compared to the livestock farming zone similar to the previous month and illustrated in the graph below:
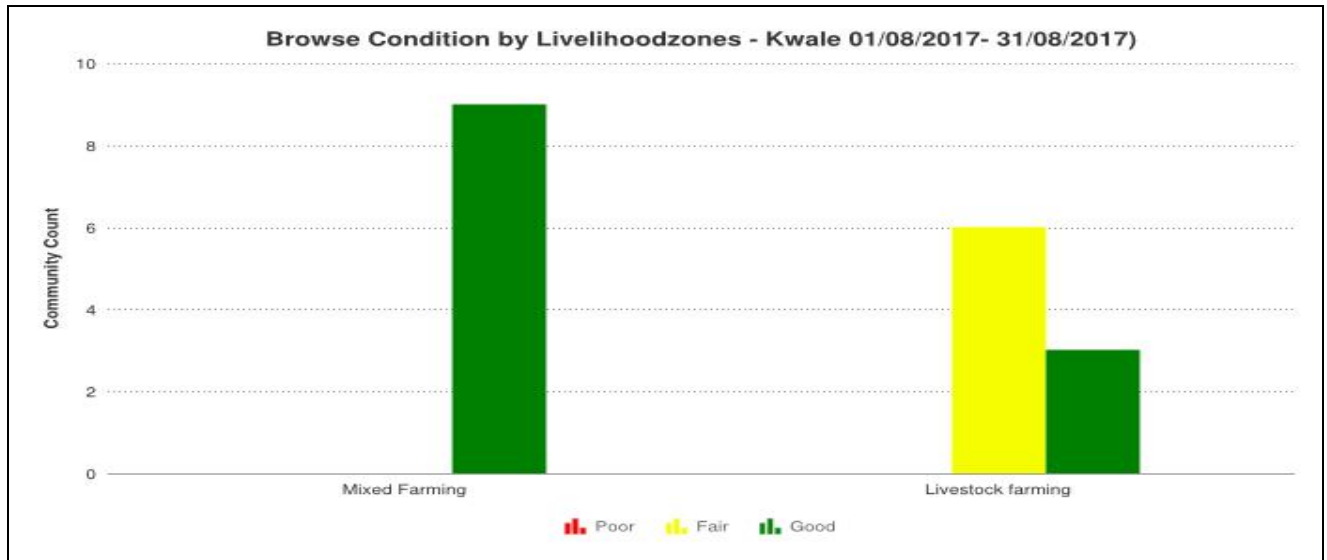
Pasture Condition by Livelihoodzones - Kwale 01/08/2017- 31/08/2017)

- The available pasture is likely to last approximately for two and three months in the livestock and mixed farming livelihood zones respectively.

2.1.3 Browse
- A bigger proportion of households (two thirds) had reported that the browse condition was good and the remaining one third reported that it was fair.
- The current browse condition in the county is shown in the pie-chart below:

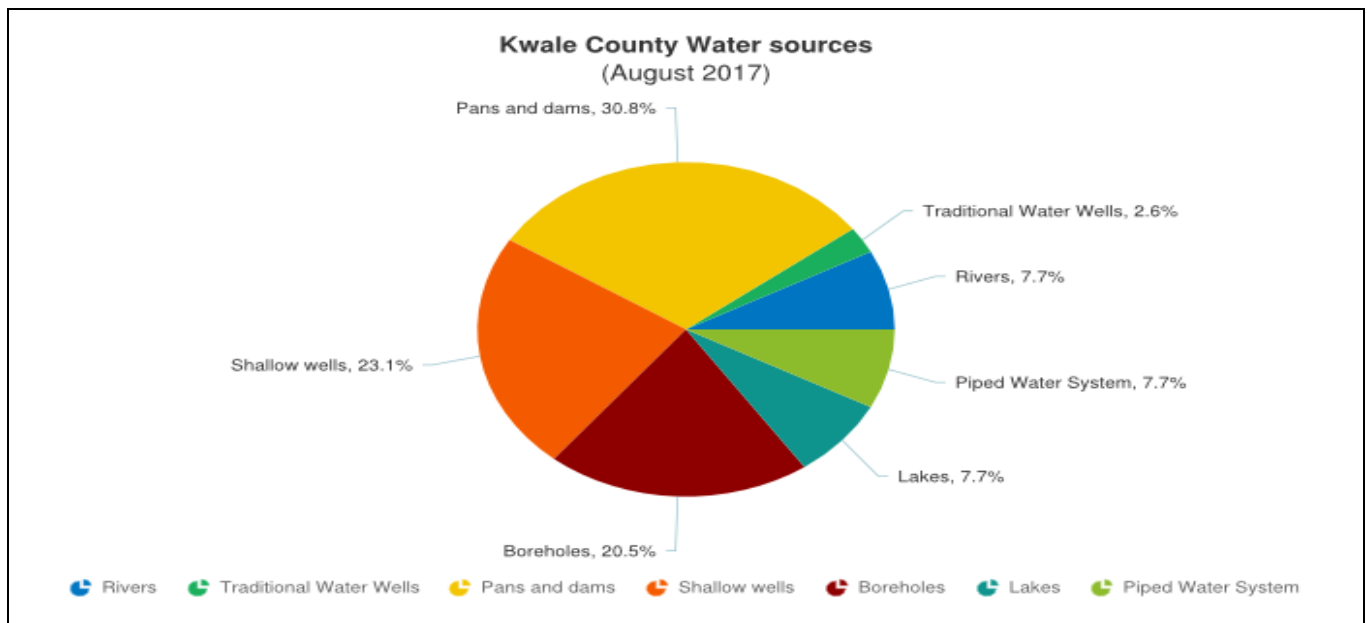**Kwale Browse Condition**
(Aug 2017 - Aug 2017)

- Browse condition was better in the mixed farming livelihood zone compared to the livestock farming zone as shown in the graph below.
- The available browse is projected to last for approximately four months in the mixed farming livelihood zones and three months in livestock farming livelihood zones.

5

Browse Condition by Livelihoodzones - Kwale 01/08/2017- 31/08/2017)

2.2   WATER RESOURCES

2.2.1   Sources
- Pans and dams, shallow wells and boreholes were the main sources of water for inhabitants of this county in this reporting month.
- These sources were the normal ones for this time of the year.
- Others sources include traditional water wells, lakes, piped water system and rivers as shown in the pie-chart below:

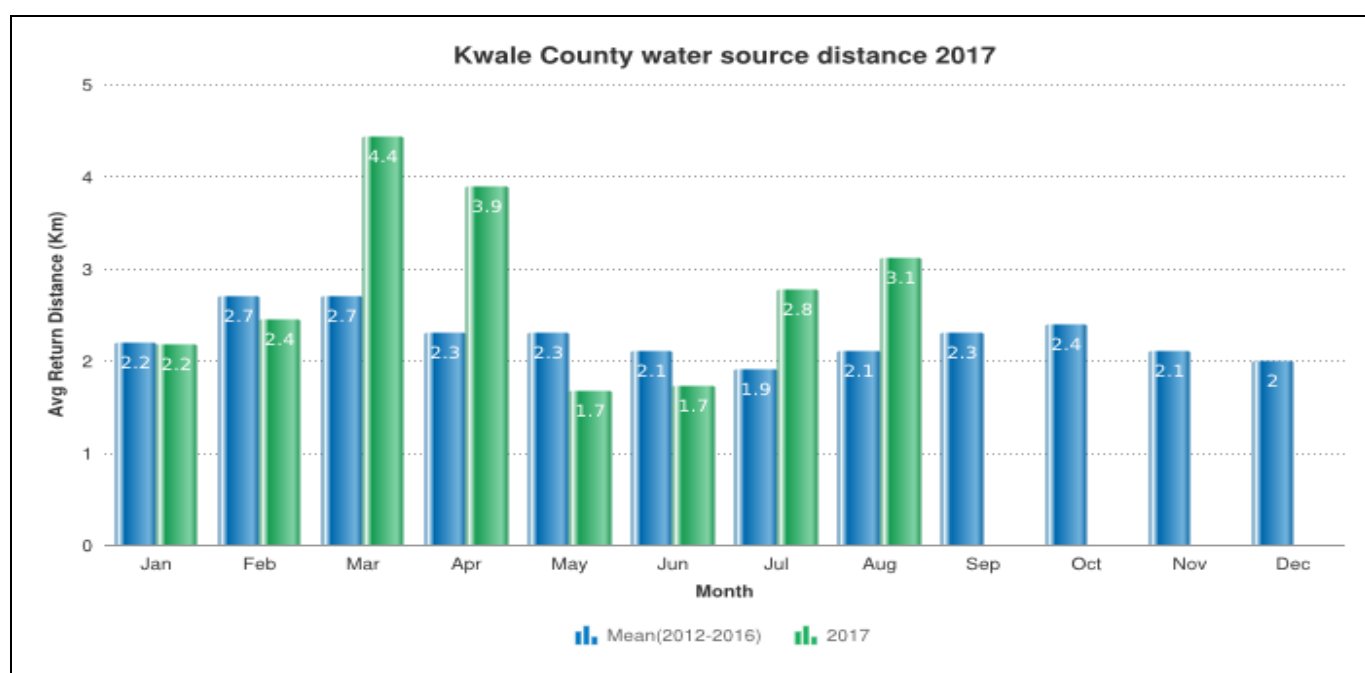Kwale County Water sources
(August 2017)

- Pans and dams which are the main sources in the livestock farming livelihood zone are between 50 - 60 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 four (4) indicating 'declining' for this time of the year (refer to the table below for assessment of the

state of water sources). Water levels are diminishing because of cessation of the long rains and onset of dry spell.

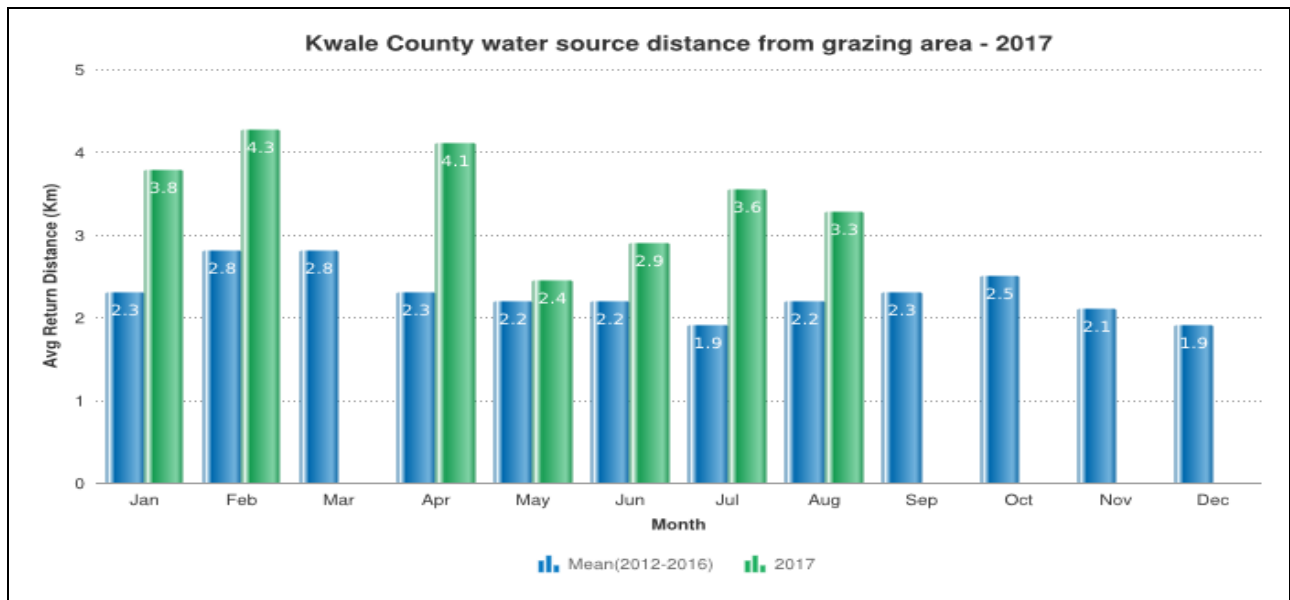| INDEX	STATE OF WATER SOURCE	DESCRIPTION
1	EMERGENCY SITUATION	All main water sources have dried up; only few boreholes still yielding significant amounts
2	STRONGLY INADEQUATE	Surface water sources have dried up while the underground water sources are yielding very little amounts of water. Breakages 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 increased by 10.7 percent from 2.8km to 3.1km in August. This increment is attributed to drying of some temporary water sources like shallow wells, seasonal rivers and ponds which were nearer to homesteads. Households are relying on more reliable sources like dams and pans.
- The distance was 47 percent longer than the long-term mean distance of 2.1 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 decreased slightly from 3.6km to 3.3km in August but remained 50 percent longer than the long-term distance of 2.2km as shown in the graph below.
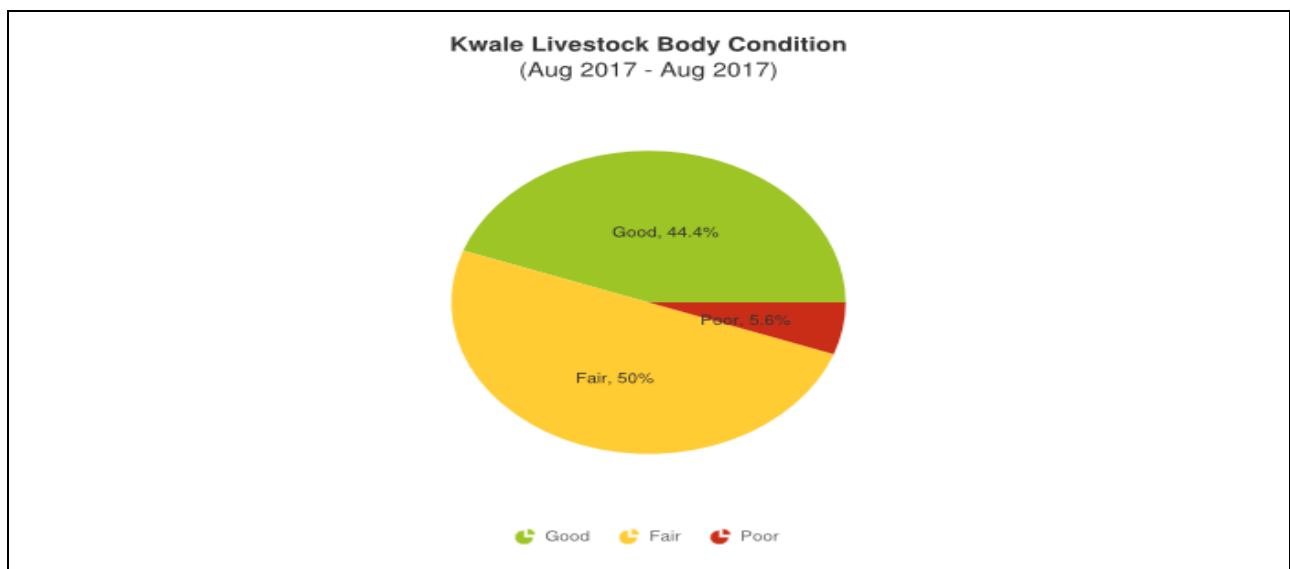
3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition
- A half of the households interviewed reported that their livestock had fair body condition, while 44.4 percent had good condition and the remaining 5.6 percent was in poor condition.
- The livestock body condition in the county is shown in the pie-chart below:

- The early warning classification for the livestock body condition is 2, indicating moderate, neither fat nor thin, and is likely to continue improving since forage is projected to last for 2 months.

KWALE DROUGHT MONITORING BULLETIN AUGUST 2017

The table below shows the classification of body condition for livestock:
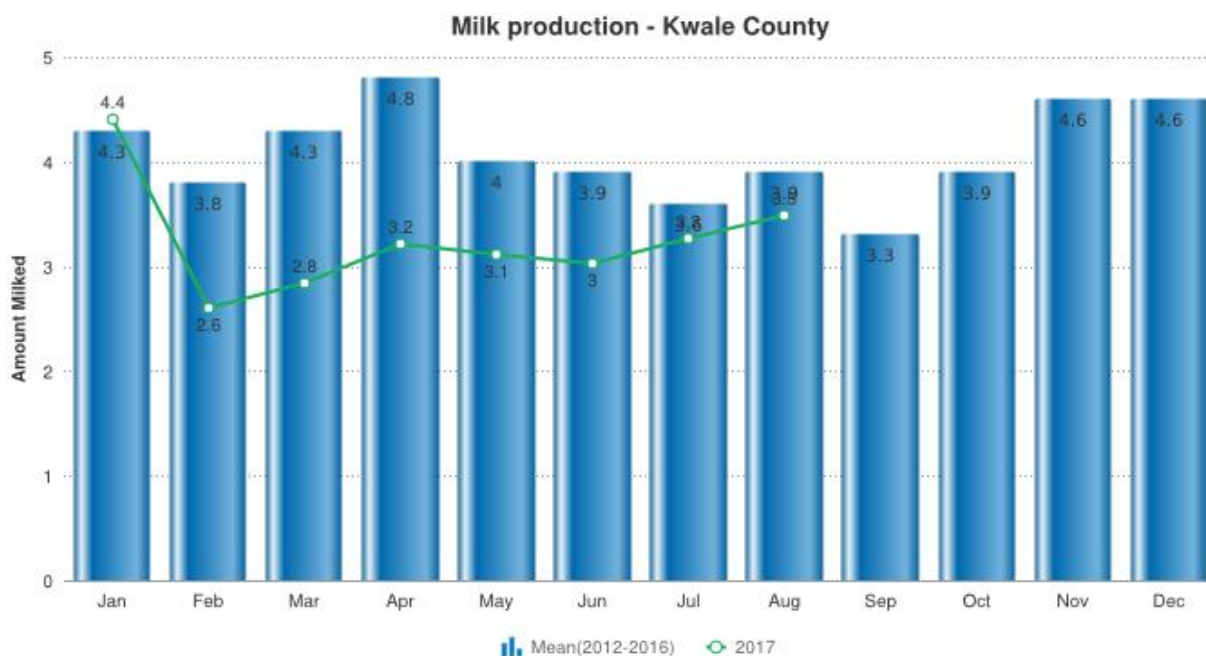
Level	Classification	Characteristics (this describes majority of the herd and not individual isolated Stock)
1	Normal	Very Fat Tail buried and in fat
		Fat, Blocky. Bone over back not visible
		Very Good Smooth with fat over back and tail head
		Good smooth appearance
2	Moderate	Moderate. neither fat 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 county in the month of August 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 3.3 litres to 3.5 litres in August. This is attributed to sufficient pasture for livestock.
▪ The production was 7.7 percent lower than the 2012-2016 long-term amount of 3.9 litres.

Milk production - Kwale County

3.2 RAIN-FED CROP PRODUCTION
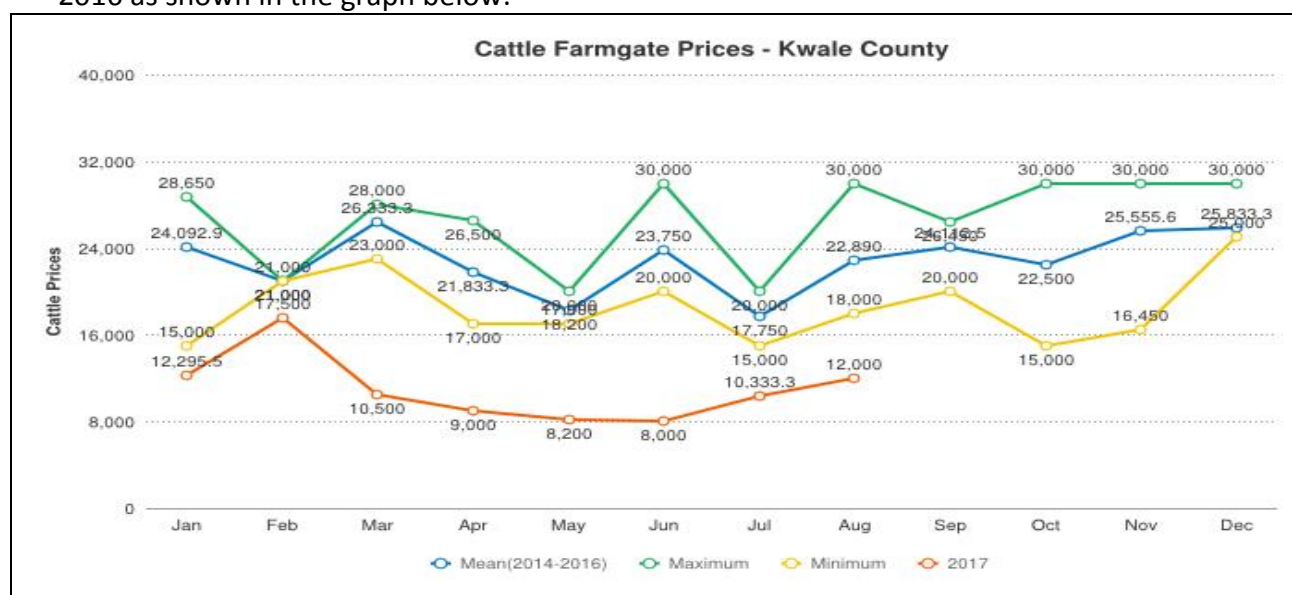
3.2.1 Stage and condition of food crops

- The main crops in farms are maize, cowpeas and green grams and those who planted early in the month of April have harvested. The areas where farmers reported harvesting include Vanga and Dzombo wards in Lungalunga Sub-county, Mivumoni in Msambweni Sub County, Patakani, Mwapala, Lukore in Matuga Sub County and few areas in Kinango sub-county. The yield was below the expected and will likely sustain households for at least two months.
- However, in areas where the maize crop was infested with fall army worms, farmers are getting little yields.

4.0   MARKET PERFORMANCE
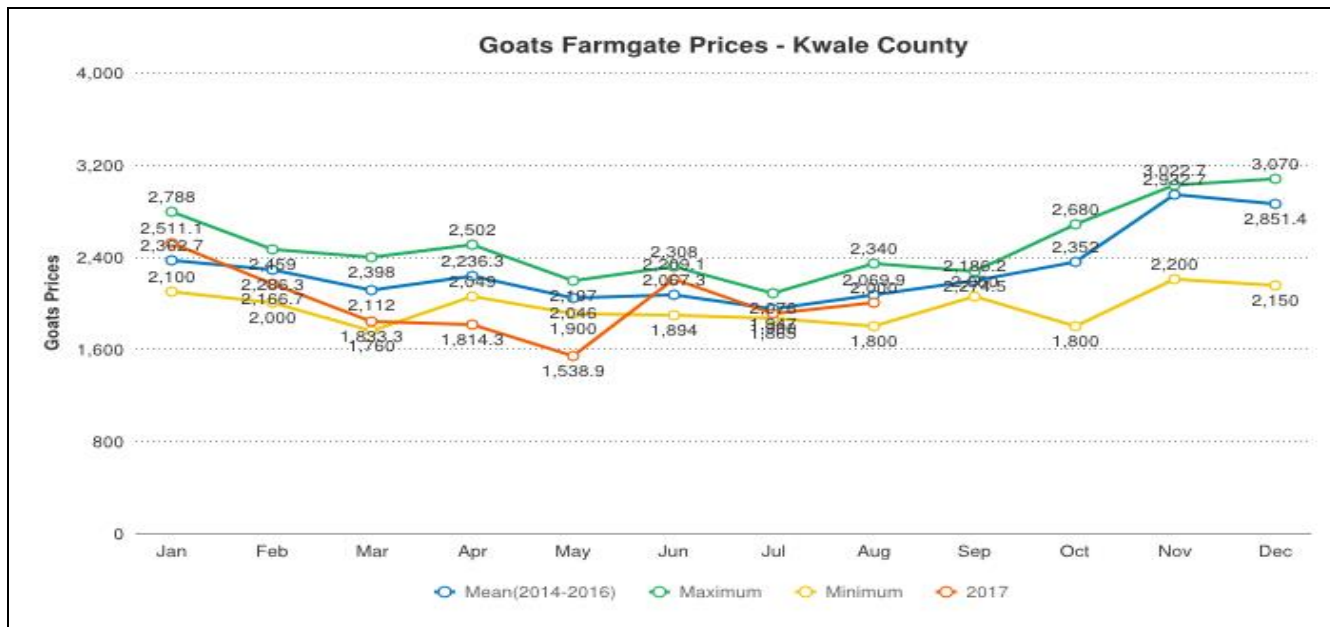
4.1   LIVESTOCK MARKETING

4.1.1   Cattle Prices

- The average price of a three-year old bull at household level increased from Kshs 10,333 to Kshs. 12,000 recorded this month. This improving trend is attributed to sufficient pasture for cattle hence better livestock body condition and better prices in markets.
- Cattle prices were 47 percent lower than the long-term average price Kshs. 22,890 of 2014-2016 as shown in the graph below:
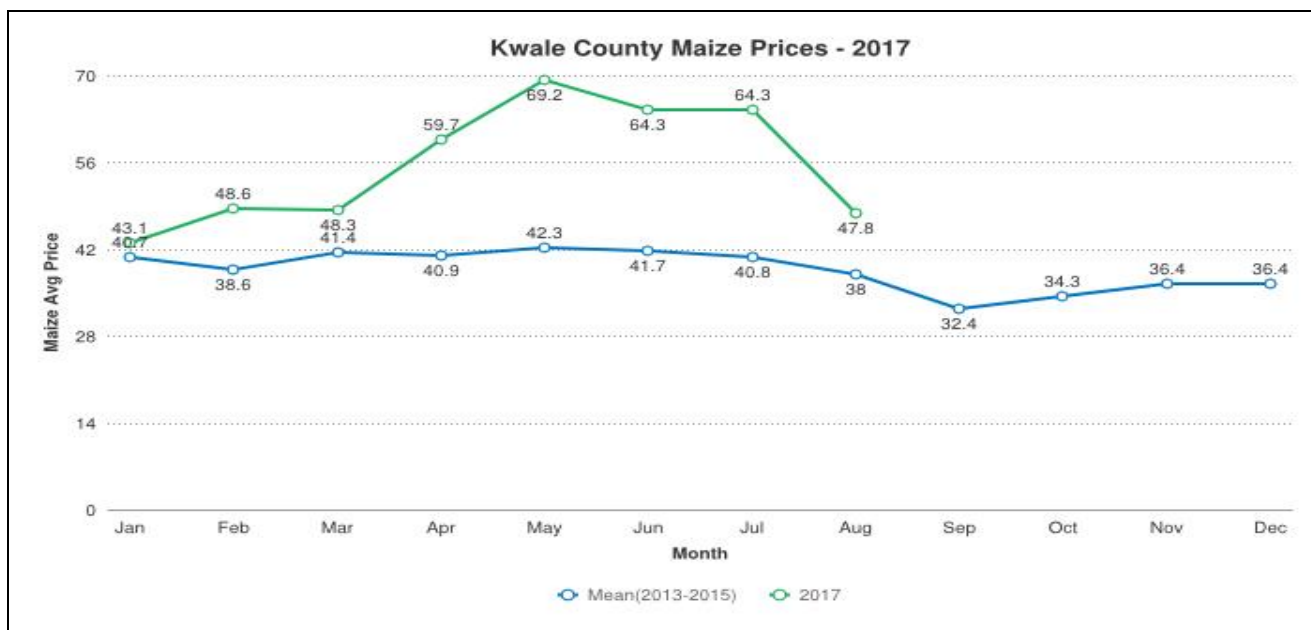

4.1.2 Goat Prices

- The average price of a three-year old medium-sized goat also increased slightly from Kshs. 1,900 to Kshs. 2,000
- The current goat prices were normal for this time of the year.

Goats Farmgate Prices - Kwale County

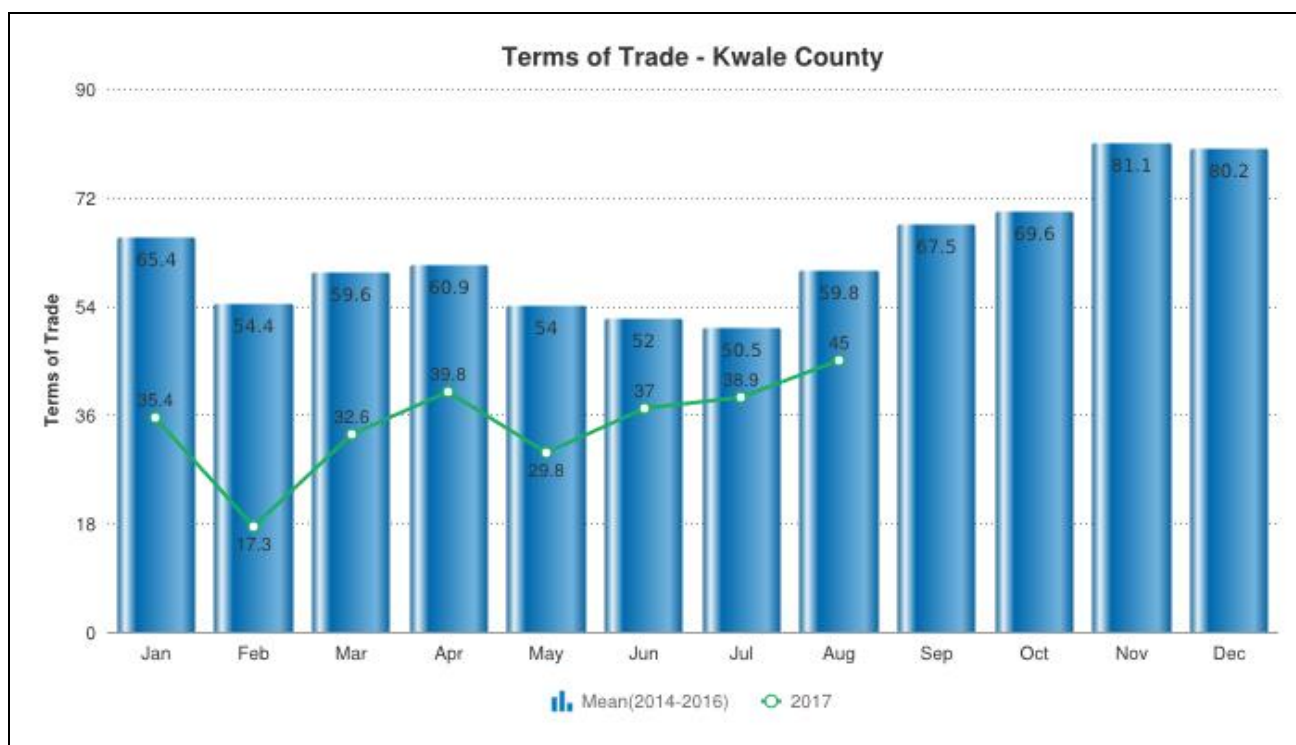## 4.2   CROP PRICES

4.2.1   Maize

- The average market price of a kilogram of maize reduced significantly from Kshs. 64.3 recorded last month to Kshs. 47.8 recorded this month. This drop is attributed to the fact that farmers across the county are harvesting maize and the stock will last for at least two months.
- The trend in maize prices in the county is shown in the graph below:

Kwale County Maize Prices - 2017

- This month's price is 20.5 percent higher than the 2014-2016 long-term average price of Kshs. 38.

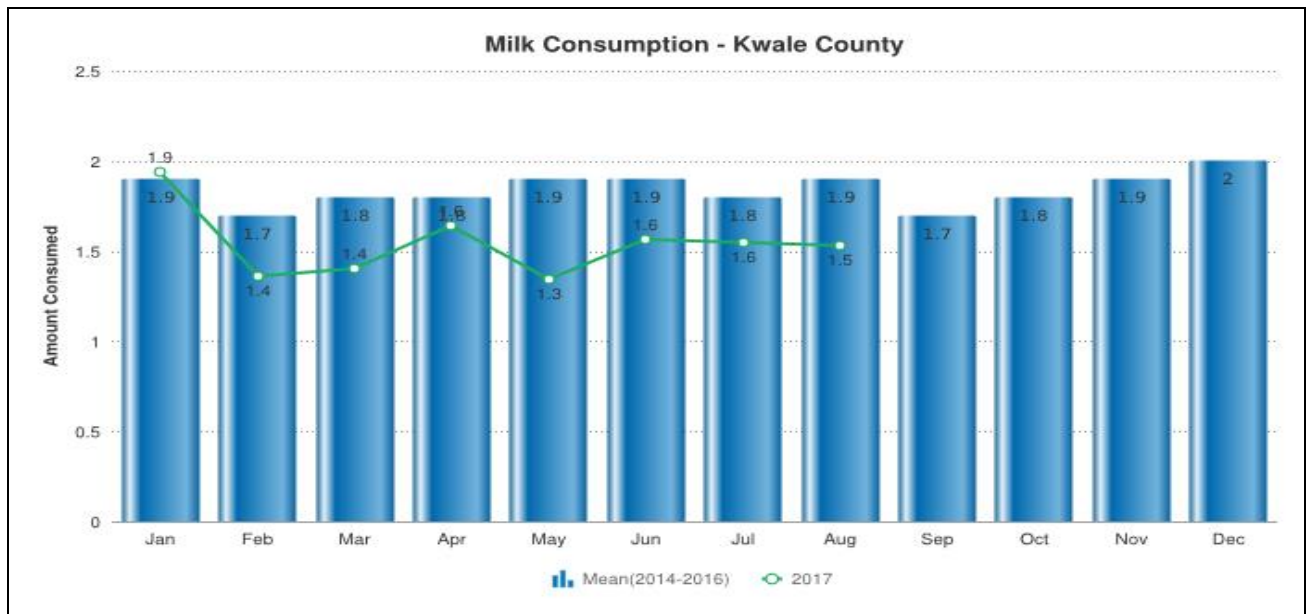## 4.3   TERMS OF TRADE (CASUAL LABOUR VERSUS MAIZE PRICES)

- The terms of trade increased from 38.9 to 45 in this reporting month. This is implies the purchasing power of households has improved as they can buy an average of 45kgs of maize from casual labour proceeds as compared to 38.9 Kgs recorded last month.
- This is attributed to the fact that more households are engaging in casual labour in farms as harvesting and land preparation is going on. Also the price of maize has significantly reduced because of availability of yields from farms.
- The county's terms of trade were 25 percent below the expected 59.8 kilograms of maize in the 2014-2016 long-term average.
- The trend in terms of trade in the county is shown in the graph below:

5.0   FOOD CONSUMPTION AND NUTRITION STATUS
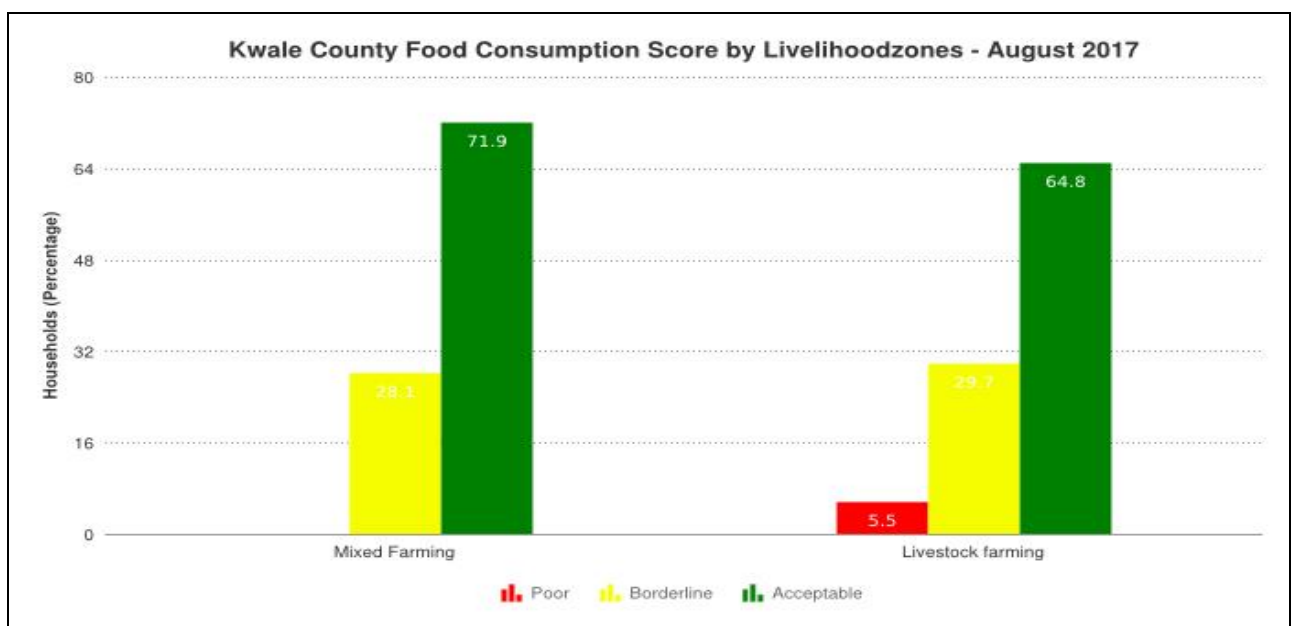
5.1   MILK CONSUMPTION

- The average milk consumption at household level was 1.5 litres a slight decline from the previous month's amount of 1.6 litres.
- The milk consumption trend is shown in the graph below:

Milk Consumption - Kwale County

- Milk consumption was lower than the long-term mean amount by 21.1 percent compared to the 2014-2016 long-term average of 1.9 litres.

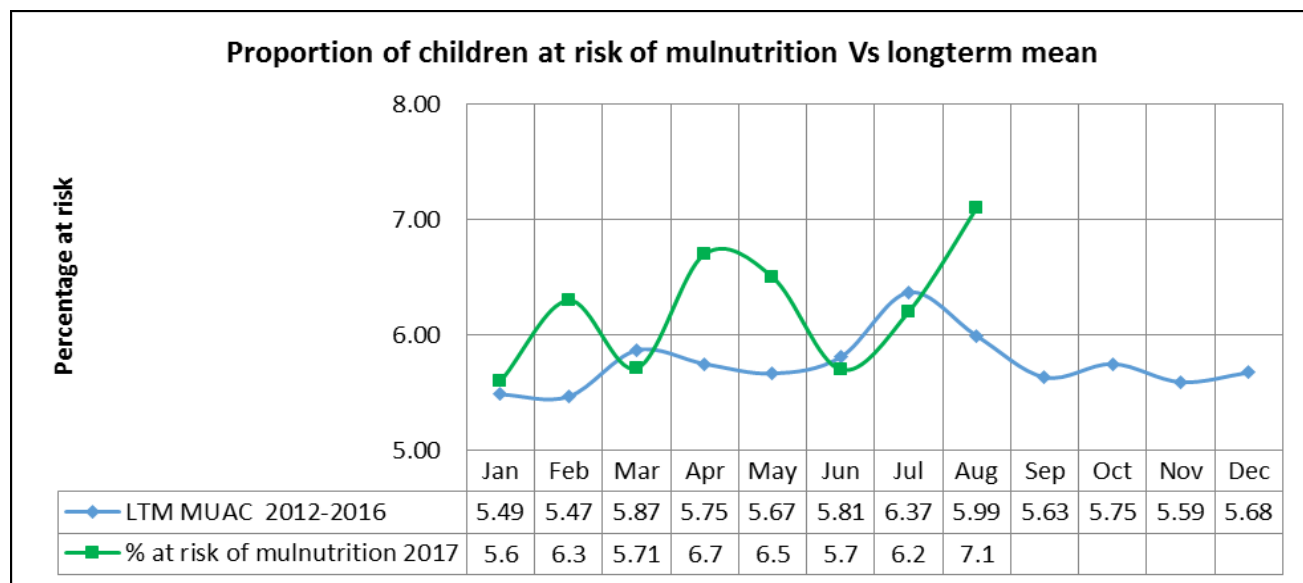## 5.2   FOOD CONSUMPTION SCORE

- The proportion of households with a poor food consumption score was 3 percent similar to the previous month. The proportion in the borderline category decreased slightly from 32 percent to 28 percent while those in the acceptable zone increased slightly from 65 percent to 68 percent.
- The proportion of households with acceptable food consumption score in both livelihood zones was 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:

Kwale County Food Consumption Score by Livelihoodzones - August 2017
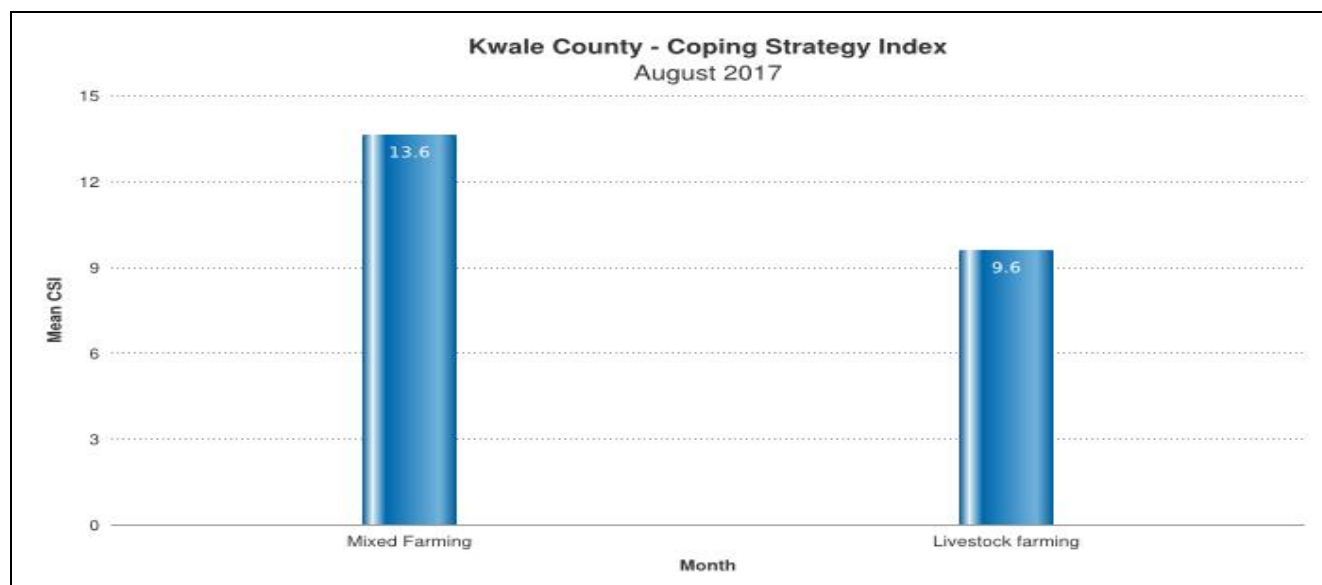
5.3   HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status
- The proportion of children below five years of age at risk of malnutrition based on the MUAC measurement was 7.1 percent compared to 6.2 percent recorded the previous month. A total of 1,060 children were sampled (543 males and 517 females).
- The population that was at risk was 15.5 percent higher than the expected 5.99 percent in the 2012-2016 long-term average as shown in the graph below:

Proportion of children at risk of mulnutrition Vs longterm mean

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
LTM MUAC 2012-2016	5.49	5.47	5.87	5.75	5.67	5.81	6.37	5.99	5.63	5.75	5.59	5.68
% at risk of mulnutrition 2017	5.6	6.3	5.71	6.7	6.5	5.7	6.2	7.1				

5.4   COPING STRATEGIES
- The mean coping strategy index (CSI) for the month was 11.59 compared to 16.13 recorded. This significant drop is attributed to availability of enough food in households hence employing less of the consumption-based coping strategies.
- Both in the mixed and livestock farming livelihood zones the CSI decreased from 16.8 to 13.8 percent and from 15.5 to 9.6 percent respectively.
- The indices at livelihood zone level are shown in the graph below:

Kwale County - Coping Strategy Index
August 2017

Mixed Farming	Livestock farming
13.6	9.6

- The most commonly employed consumption-based coping mechanisms included reliance on less preferred/expensive food and credit purchases.

6.0   CURRENT INTERVENTION MEASURES

6.1   NON-FOOD INTERVENTIONS
- The county department of Agriculture continued to distribute pesticides to farmers to control the fall army worms. The chemicals were delivered to the county by the State Department of Agriculture from Nairobi.

6.2   FOOD INTERVENTIONS
- No relief food was distributed in this reporting 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
Farmers across the county are harvesting maize from their farmers, and the yields will last for at least 2 months and reduce over-reliance on expensive sifted maize flour in shops. Availability of forage and water has continued to contribute towards improvement of livestock production and boosting household incomes. Therefore the food security situation has slightly improved although this trend may last for at least two months as households stocks diminish, and water sources and forage decrease. As the dry spell continues there will be need for proper interventions to be put in place to cushion residents against drought shocks.

8.0   RECOMMENDATIONS
- Herders to be supported to do fodder production and conservation to cushion them during the dry spell.
- 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 (*chakula kwa jamii*) to curb the current food insecurity situation.
- Post-harvest management training to farmers to reduce losses of the crops yields in farms.