

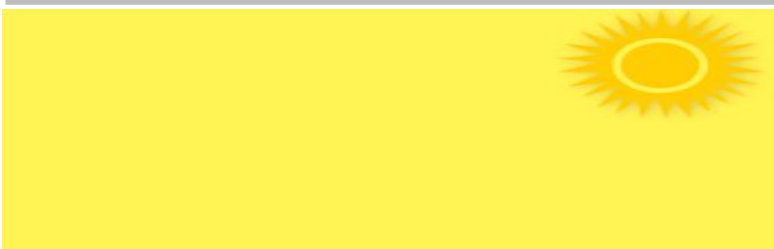
**National Drought Management Authority**  
**MAKUENI COUNTY**  
**DROUGHT EARLY WARNING BULLETIN FOR SEPTEMBER 2017**



A Vision 2030 Flagship Project



**SEPTEMBER EW PHASE**



**Early Warning (EW) Phase Classification**

Livelihood Zone	Phase	Trend
Mixed farming coffee/dairy	Normal	Worsening
Mixed farming Food Crop/Livestock	Alert	Worsening
Marginal Mixed Farming	Alert	Worsening
County	Alert	Worsening
Biophysical Indicators	Value	Normal Ranges
VCI-3Month	52.54	>35
State of Water Sources	3-4	5
Production indicators	Value	Normal
Crop Condition	N/A	Fair
Livestock Body Condition	3-4 Alert	6-Normal
Milk Production	1.9L	1.8 Litres
Livestock Migration Pattern	Normal	Normal
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	87	>80
Milk Consumption	1.3 L	1.2 litres
Return distance to water sources	4.6 Km	3.4 Km
Cost of water at source (20 litres)	Ksh 3-5	Ksh 3
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	9.6	<12.9
Coping Strategy Index (CSI)	10.3	<10

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- Generally the month of September was dry with no rainfall being recorded.
- The County recorded an average 3 month VCI of 52.54 implying normal vegetation greenness for the County. Although VCI indicates normal vegetation index although the situation on the ground is different.
- The quantity and quality of pasture ranged from fair to poor in the Mixed farming zone while in the Marginal mixed farming zone it was poor.
- The state of surface water sources was on a declining trend across all the three livelihood zones. In most of the urban centres the water was inadequate with frequent rationing experienced as a result of reduced levels coupled with machine breakdown.

**Socio Economic Indicators (Impact Indicators)**

- Livestock body condition ranged from fair to good across all the three livelihood zones body score of 4-5
- Compared to the long term, Terms of trade were unfavorable at 87.
- The percentage of children at risk of malnutrition was 9.6 percent which is within the normal range.

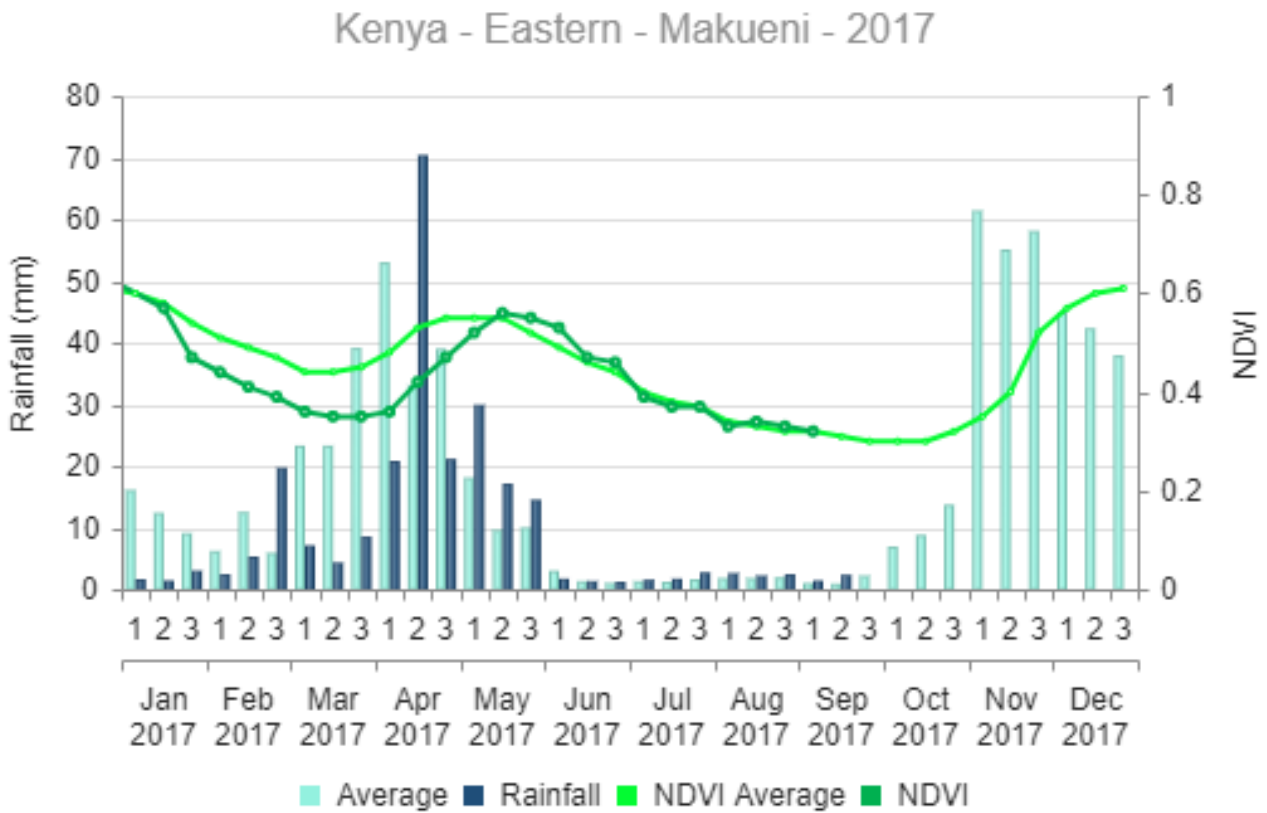
<ul style="list-style-type: none"> <li>▪ Short rains harvests</li> <li>▪ Short dry spell</li> <li>▪ Reduced milk yields</li> <li>▪ Increased HH Food Stocks</li> <li>▪ Land preparation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Planting/Weeding</li> <li>▪ Long rains</li> <li>▪ High Calving Rate</li> <li>▪ Milk Yields Increase</li> </ul>	<ul style="list-style-type: none"> <li>▪ Long rains harvests</li> <li>▪ A long dry spell</li> <li>▪ Land preparation</li> <li>▪ Increased HH Food Stocks</li> <li>▪ Kidding (Sept)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Short rains</li> <li>▪ Planting/weeding</li> </ul>
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Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
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# 1. CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

- Generally no rainfall was received during the month of September and this is normal as shown in the graph.



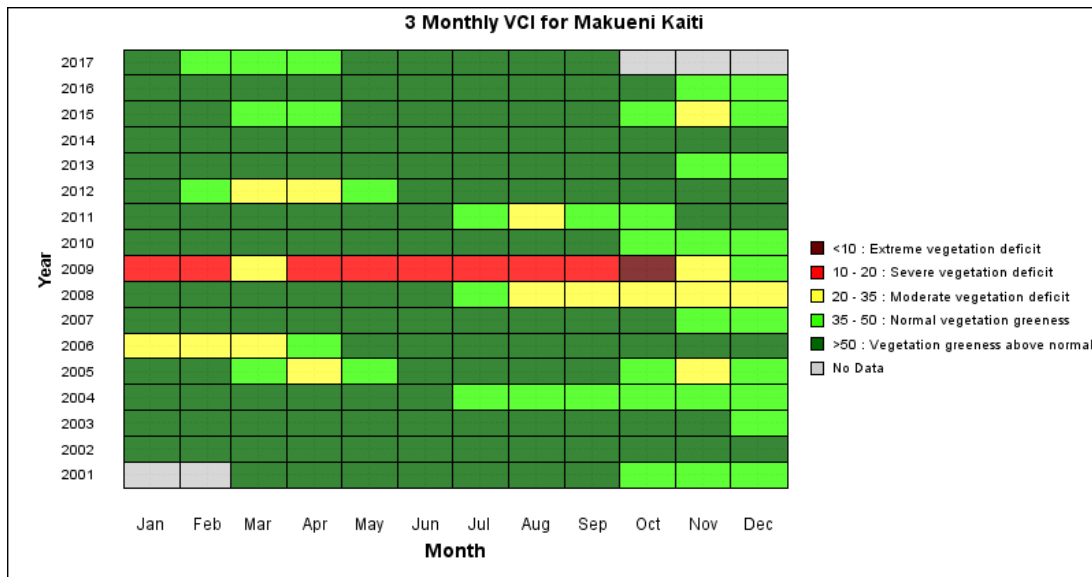
© WFP-VAM, CHIRPS/MODIS

Makuli forest in the Mixed Farming (livestock/food crop) livelihood zone however received 133.7 mm of rainfall in 7 rainy days.

## 2. IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index(VCI)

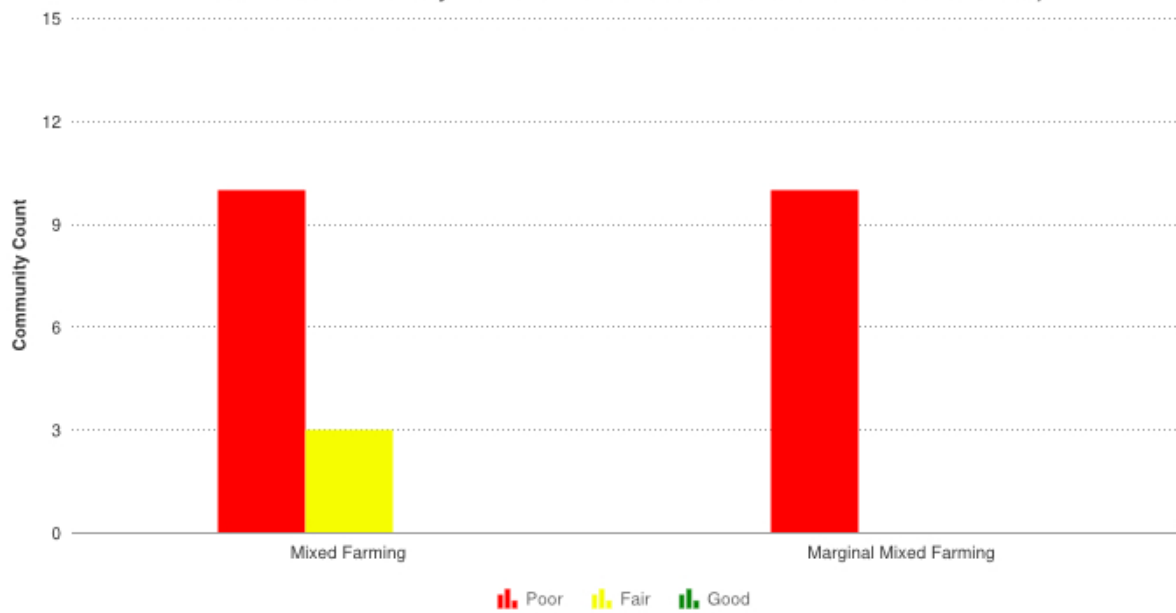


- The average 3-month VCI for the County was 52.54 from 53.39 that of last month an implication of normal vegetation greenness.
- For Kibwezi West, Kibwezi East and Kilome was 50.61, 38.9 and 44.91 respectively implying normal vegetation greenness.
- However, hotspots have been recorded in Kibwezi East, West and parts of Makueni sub county

#### 2.1.2 Pasture and Browse

- In both mixed farming (Coffee/Dairy) and mixed farming (Livestock/Food Crop) livelihood zone the quantity and quality of Pasture ranged from fair to poor while in the marginal mixed farming zone it was poor.
- Browse condition was fair in both mixed farming (Coffee/Dairy) and mixed farming (Livestock/Food Crop) while in Marginal mixed farming livelihood zone it ranged from fair to poor.
- Compared to last month Pasture and browse had deteriorated more across all the three livelihood zones. The persisting dry conditions combined with in-migration from the neighbouring Kajiado county has only strained the resources available.

Pasture Condition by Livelihoodzones - Makueni 01/09/2017- 30/09/2017)



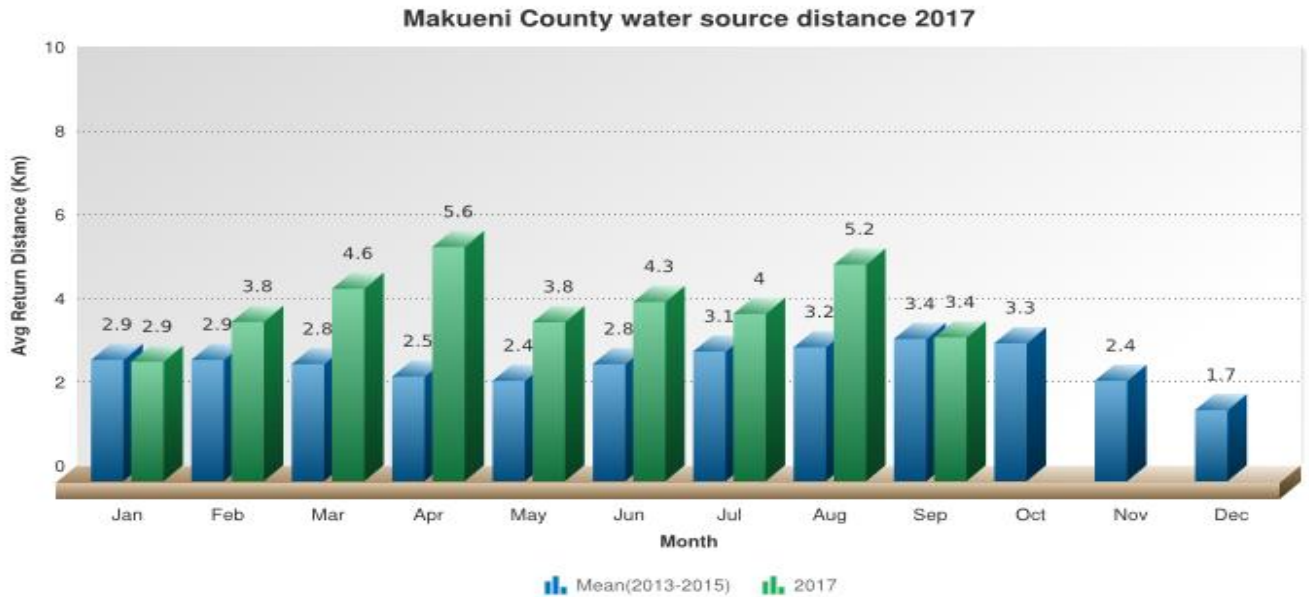
## 2.2 WATER RESOURCE

### 2.2.1 Sources

- Major sources of water during the month of September were: Rivers, shallow wells, pans & dams and piped water schemes mostly in Kilome Sub County.
- Other sources were traditional river wells, springs and boreholes.
- State of water sources was 4 to 5 (Normal and declining in some areas) in both the mixed farming (Coffee/Dairy) and mixed farming (Livestock/Food Crop) livelihood zones though with a decline trend while in the marginal mixed farming livelihood zone the situation was below normal an index of 3 (inadequate).
- Along the Athi belt, residents had to walk for longer distances (more than 6Km) in search of water for both livestock and domestic use. In other areas mostly in marginal mixed farming zone the waiting time was more than 6 hours due to low volumes of water resulting to long queues.
- Average cost of a 20 litre Jerry can was between Ksh3 to 5.
- In Wote town, water stress was really felt during the month of September with rationing taking place for close to three weeks. This was attributed to the drying up and reduction in levels of the town's main water supply (Rivers Kaiti and Muani). A 20 litre jerry can was being sold at Ksh25.

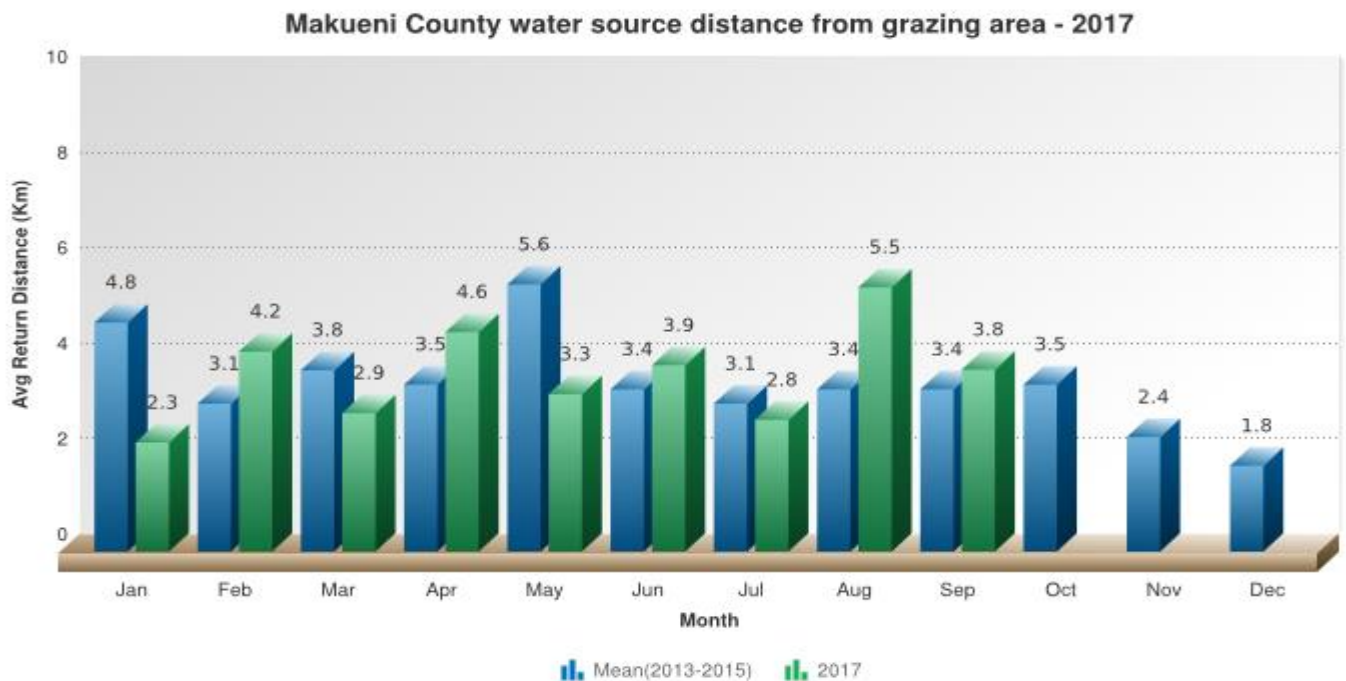
## 2.2.2 Household access and Utilization of water

### Distances to water sources for household consumption



- The average household return distances was 3.4Km compared to the long term mean of 3.4km.

## 2.2.3 Livestock access to water



- Average return distances to water sources for livestock in the County was 3.8Km mostly in the Marginal mixed farming zone.
- The high distances is attributed to declining water levels in the available water resources.
- The distances are expected to increase more and more as the available resources get depleted.

## **3.0 PRODUCTION INDICATORS**

### **3.1 LIVESTOCK PRODUCTION**

#### **3.1.1 Livestock Body Condition**

- The current livestock body condition for cattle was at the borderline (fore-ribs not visible but 13<sup>th</sup> and 14<sup>th</sup> ribs visible) to moderate while that of shoats was good across all the three livelihood zones.

#### **3.1.2 Livestock Diseases**

- No major livestock disease outbreaks reported.

#### **3.1.3 Milk Production**

##### **Milk availability**

- Milk availability in all the livelihood zones was low but normal.
- The trend in milk availability was on a decline as a result of the poor pasture conditions and longer distances to water sources.

##### **Marginal mixed Farming zone:**

- Households in this zone were more reliant on goat milk whose yield was between 0.1-0.4lts per day. Local Zebu also produced 0.2-0.5lts but the situation is expected to decline in the next 1 to 2 months as the pastures decline more.

##### **Mixed farming (Food Crop/Livestock):**

- In this zone Zebu cattle and crossbreeds accounted for most milk produced. Availability was approximately 0.4-0.6lts compared to a normal of 0.5lts.

##### **Mixed Farming (Coffee/Dairy):**

- The production of milk per day per household ranged from 0.75-1.5 lts per day against a normal of 1litre.

### **3.2 RAIN-FED CROP PRODUCTION**

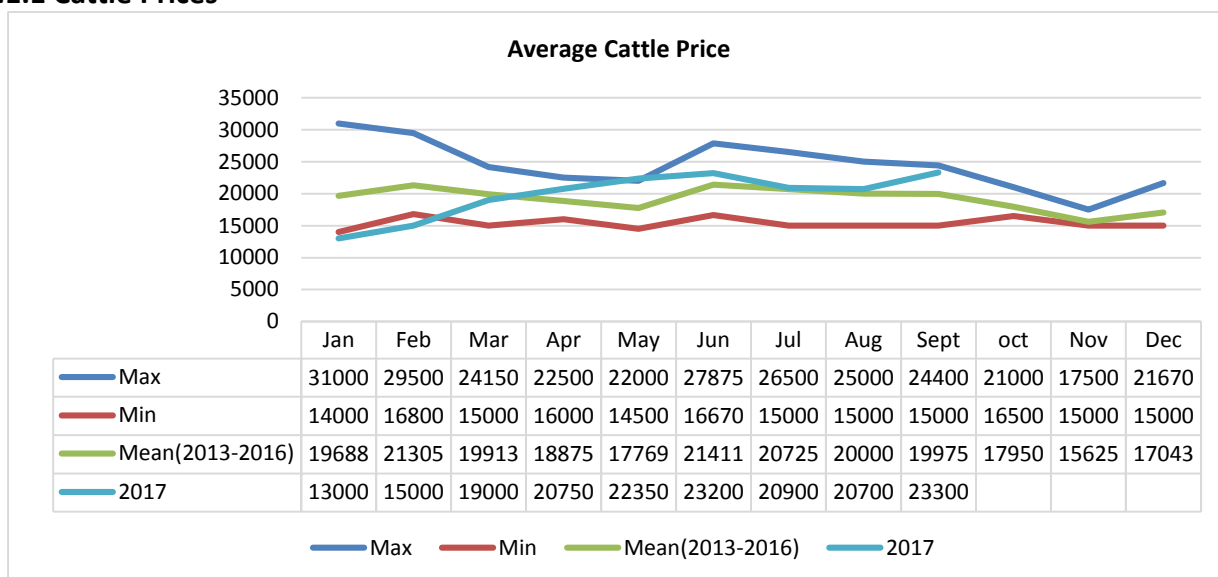
#### **3.2.1 Stage and Condition of food Crops**

- Land preparation was the main farm activity taking place throughout the county in anticipation of the rains.
- There were reported cases of white flies, blight in beans as well as powdery mildew. This was in the highland areas where irrigation is practiced.

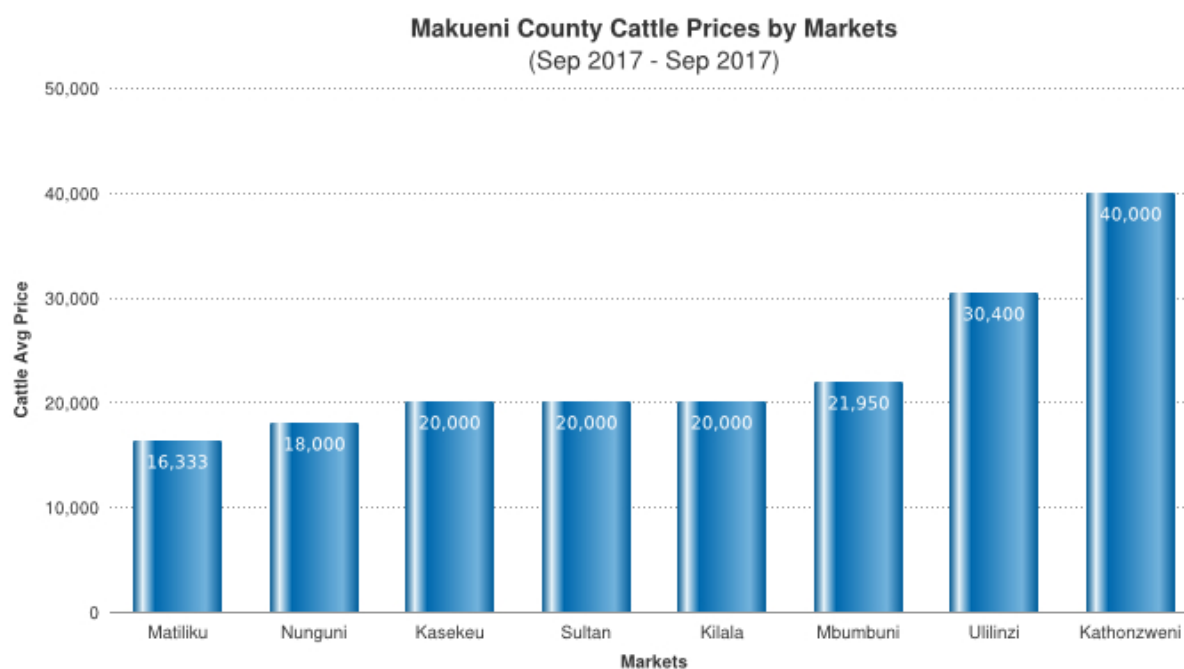
## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

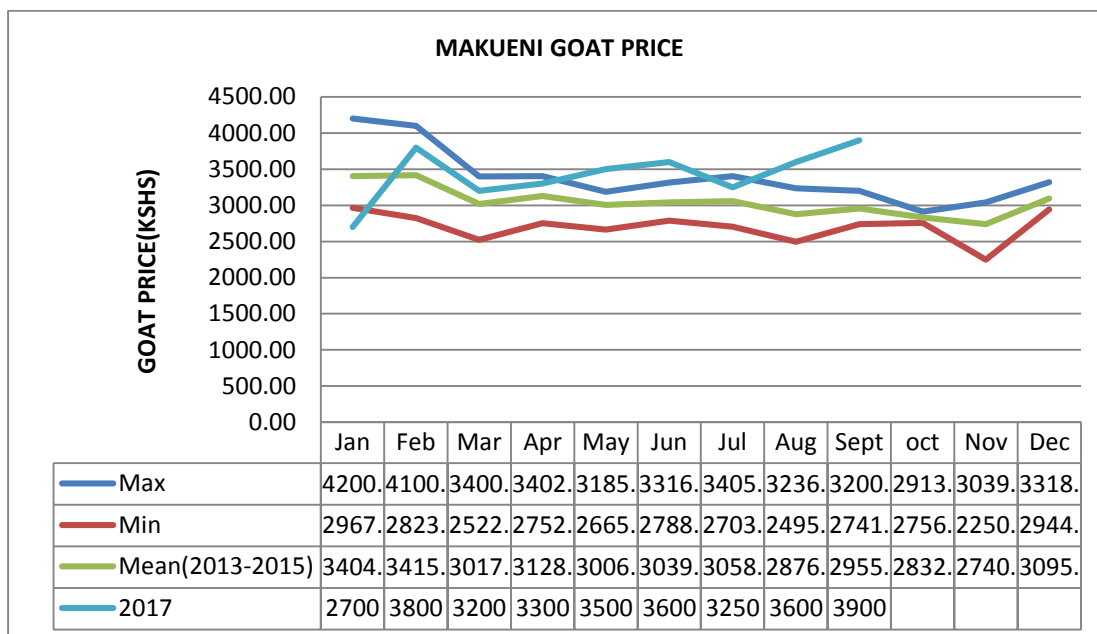
#### 4.1.1 Cattle Prices



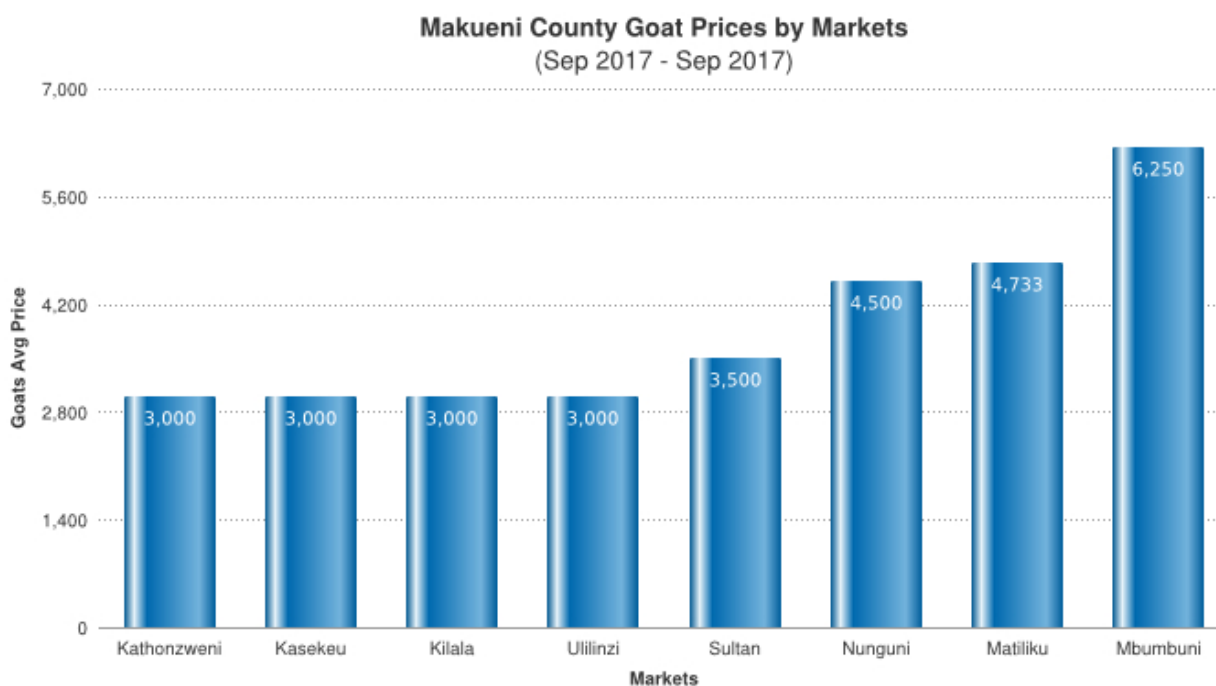
- Average farm gate prices of cattle increased slightly from KSh20, 700 to Ksh23, 300. Compared to (2013-2016) long term average the current price was above normal.
- The trend in could be attributed to influx of herds from neighbouring county of Kajiado. The farmers from Kajiado boast of larger herd sizes such as Borana and Sahiwal which fetch better market prices. The livestock keepers have sought markets within the county as the drought situation in their county worsens.
- The prices of cattle at different markets were as follows:



### 4.1.2 Goat Prices



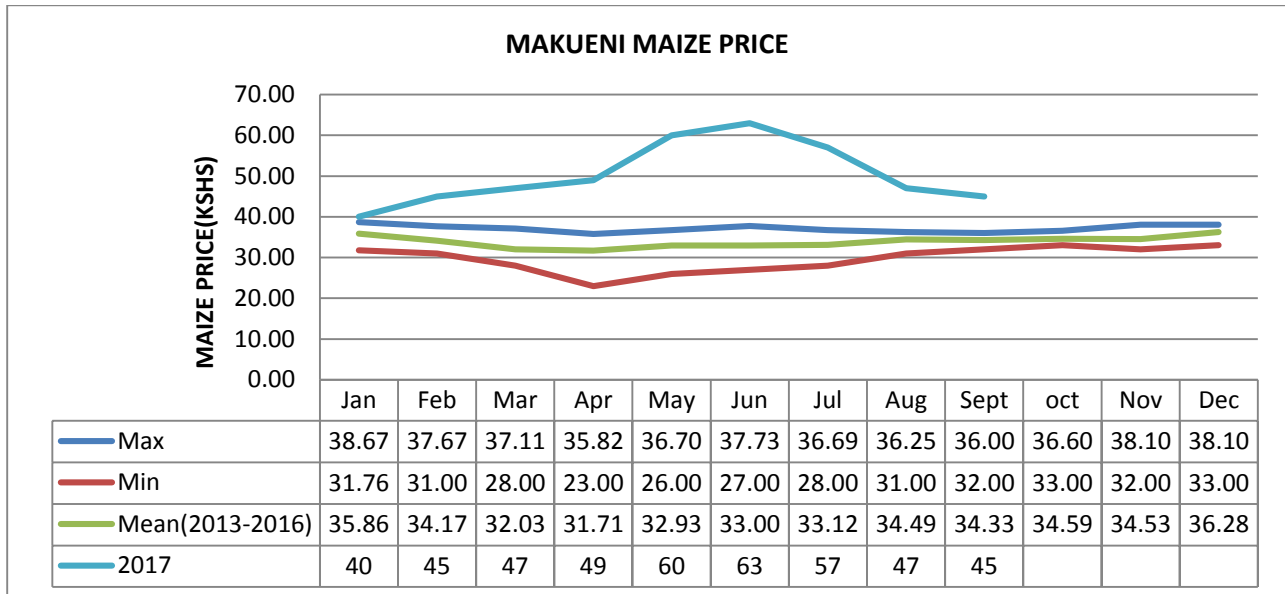
- The average farm-gate price of a goat increased from Ksh3, 600 to Ksh3, 900. This was higher than the (2013-2016) long-term mean.
- The increase in price is attributed to the good body condition of shoats.
- Average goat market price was as follows in various markets across the county.



## 4.2 CROP PRICES

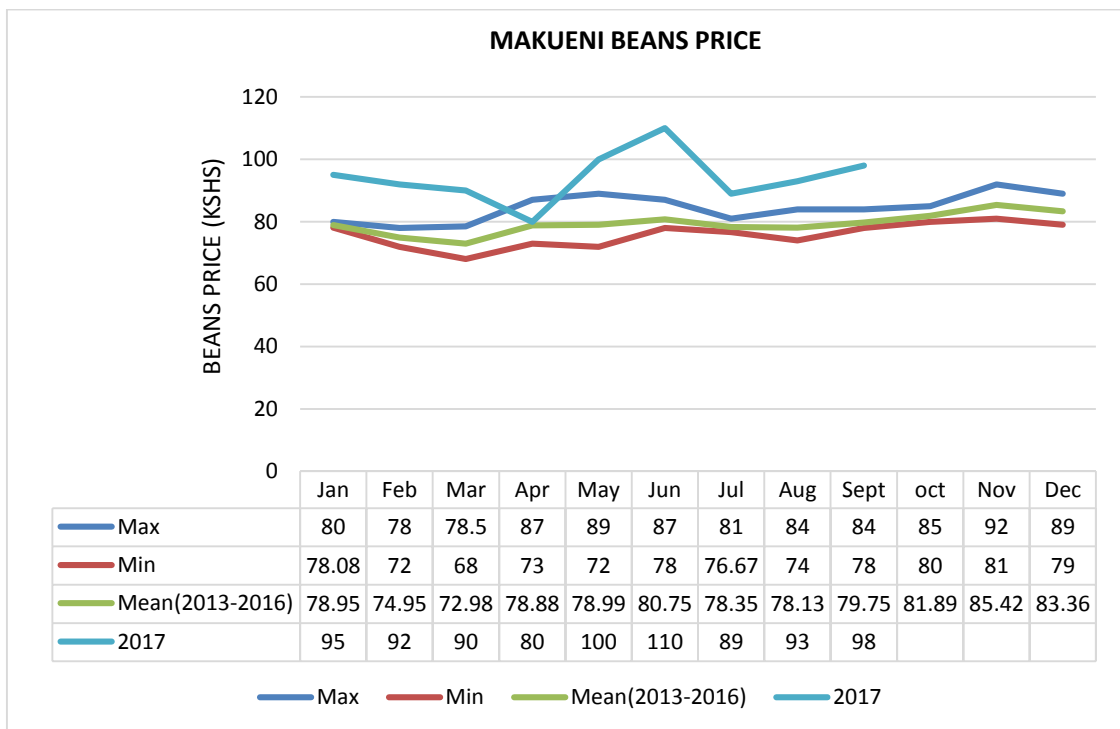


### 4.2.1 Maize



- The average market price of maize decreased steadily to Ksh 45 from Ksh47 last month. This was attributed to increase in imports from other parts of the country that have stabilized the price as well as the harvests coming from the Mixed farming livelihood zones.
- The price remained relatively higher than the (2013-2016) long-term average and lower than that of last month.
- The prices remain steadily higher than long term price as a result of restricted importation of the commodity from Tanzania coupled with the continued use which depletes the available household stocks.

### 4.2.3 Beans

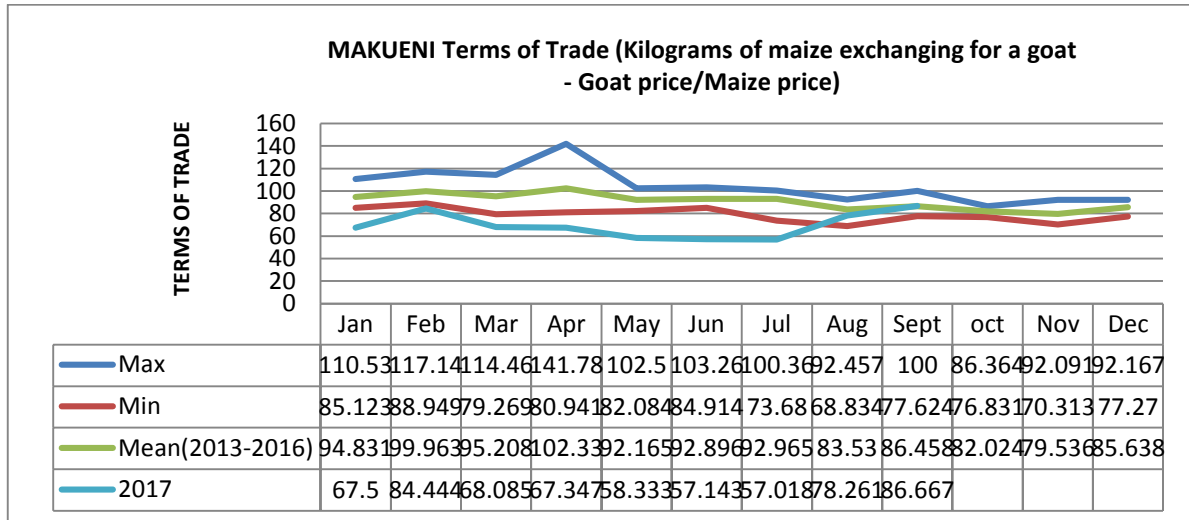


- The average price of beans increased from Ksh93 to ksh98.

- Compared to the long term the current prices are above normal and this is attributed to the poor harvests that were realised in most parts of the County.

#### 4.2.3.1 Other outstanding observations.

### 4.3 Livestock Price Ratio/Terms of Trade



- Terms of trade (ToT) were fair at 87 implying that from a sale of one goat, a farmer could purchase 87Kg of maize from the earnings of a goat. The ToT improved from the previous month (78Kg) mainly due as a result of the decline in maize prices and increased goat prices. This was however stable compared to (2013-2015) Long Term Average of 86

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

#### Marginal mixed Farming zone

- Milk produced was equivalent to milk consumed in this zone, an average of 350-450mls (Which was below normal).
- Current milk price was between Ksh60 to Ksh70 per litre against the normal of Ksh55 and this has limited accessibility to majority of the households.

#### Mixed farming Zone (Food crop/Livestock).

- Milk consumption per day in this zone was between 300mls to 500mls which was below normal.
- The current milk price is between Ksh55 to Ksh60 against the normal of Ksh50.

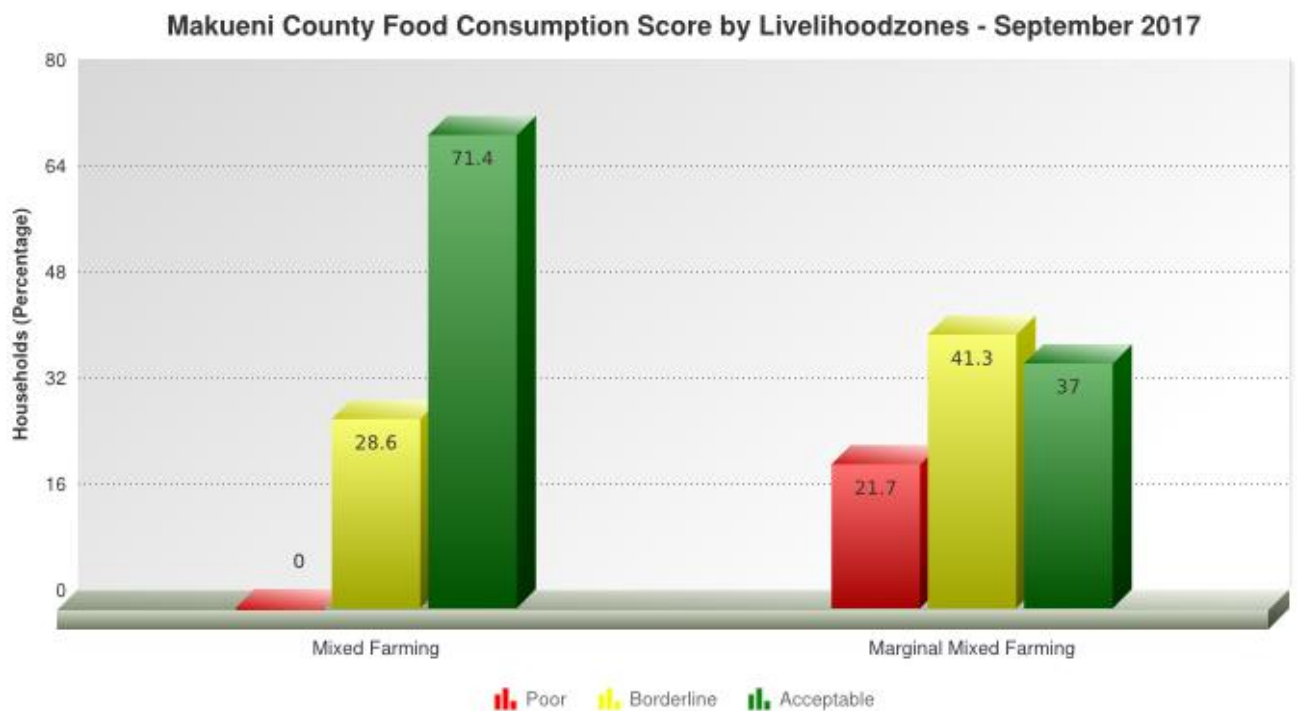
#### Mixed Farming Zone (Coffee/Dairy)

- Milk consumption is about 500mls to 700mls which is below normal. The average milk price was between Ksh48 to Ksh60 against the normal of Ksh45.

### 5.2 FOOD CONSUMPTION SCORE

- 56.4% of households had an Acceptable food consumption score, 34.1% of households were at the borderline while 9.5% had a poor consumption score.

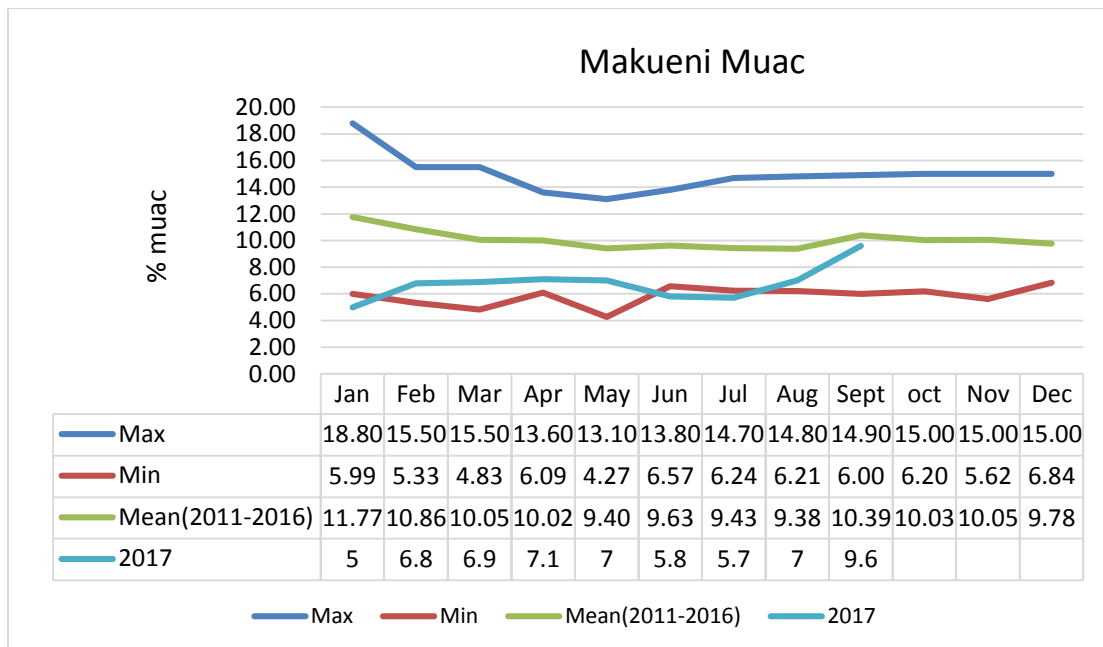
- This implies that the dietary diversity of most households was fair to good and this is as a result of the outreach interventions by the nutrition department and availability of food stocks in the market.
- Figure below illustrates the food consumption score in the mixed farming and marginal mixed farming livelihood zone.



## 5.3 HEALTH AND NUTRITION STATUS

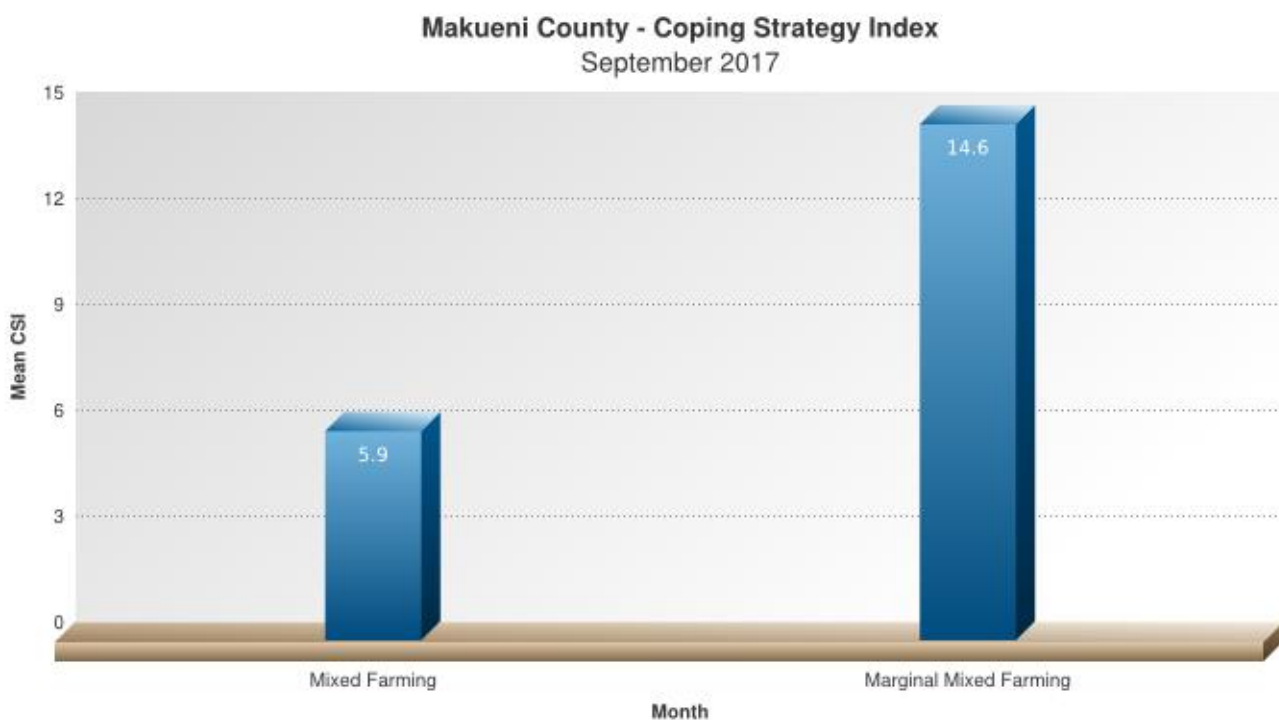
### 5.3.1 Nutrition Status

- The average proportion of children at risk of malnutrition was 9.6 percent of the 573 children sampled.
- Compared to the long term average the situation was stable.



### 5.3 COPING STRATEGIES

- The CSI in Mixed farming livelihood zone was 5.9 while in the Marginal mixed farming zone it was 14.6 implying more coping mechanisms were being employed in Marginal Mixed Farming livelihood zone than in the Mixed Farming livelihood zones.
- The average CSI for the county was 10.3



## 6.0 CURRENT INTERVENTION MEASURES (ACTION)

### 6.1 NON-FOOD INTERVENTIONS

- Asset Creation Projects by GoK/WFP/World-Vision/Kenya Red-Cross Society/NDMA in Makueni, Mbooni, Kibwezi East and West sub counties targeting 61,000 beneficiaries. WFP and Nutrition Dept. have developed a concept note on nutrition programming in Asset

Creation and the process is ongoing whereby they are targeting two schools and one health centre per sub-county for piloting.

- Registration and disbursement for the first tranche in the “Chakula Kwa Jamii initiative” was implemented by Ministry of Special Programmes under the leadership of WFP and partners in Mbooni (selected wards), Makueni (Wote ward), Kilome (Kiu-Kalanzoni ward), Kibwezi East and West sub counties a total of 27,567 beneficiaries.

## **6.2 FOOD AID**

- No food was distributed by the Ministry of Special Programmes through the County Commissioner’s office during the month of September.
- The county Government of Makueni supported primary schools with Relief food
- Distribution of plummy nuts, plumpy sap, corn soy blend and super soy blend by KEMSA and WFP countywide.

## **7. EMERGING ISSUES**

### **7.1 Insecurity/Conflict/Human Displacement/Human Wildlife conflict**

- There were reported cases of human-wildlife conflict along Athi River belt in areas such as Muuani, Wandei, Yikivuthi, Athi Salama, Utini and Muangeni. Elephants and monkeys have been crossing from Chyulu and Tsavo in search of water.

### **7.2 Migration.**

- Cases of livestock migration from the neighbouring County of Kajiado were still being reported in Mukaa and areas bordering Kajiado. Large herds of Camels were also spotted in along the highway towards Makindu.

### **7.3 Food security prognosis**

Currently, water sources remain strained (for human, livestock and wildlife) countywide as the hot and dry weather conditions persist. The cases of increased waiting time, increased water prices, human-wildlife conflict attest to this. There is competition for the available pasture as there have been in-migration of herds (cattle and camels) from neighbouring counties. Market prices for staples have remained higher than long-term albeit stable. Livestock prices remained relatively stable.

However, all is not lost going by the predictions by the Meteorological department of enhanced rains during the OND season come to pass, then we can expect a bumper crop harvest such as the one experienced during the 2015 OND ‘elnino’. Such a scenario would stabilize food commodity prices as well as adequately replenish water sources, as well as pasture regeneration to comfortably last the county to the next rainy season both for consumption and sale. Onset is expected on the third week of October and Cessation around the third week of December. Distribution in terms of space and time is expected to be good.

## **8. RECOMMENDATIONS**

### **Agriculture Sector**

- Up scaling of current crop production.
- Promotion of water harvesting at household level.
- Promotion of Good Agronomic Practices that is smart Agriculture, minimum tillage, crop rotation and zai-pitting.
- Promotion of drought tolerant crops(production, value addition and utilization)

### **Livestock sector**

- Livestock improvement programme for goats, chicken and cattle.
- Range rehabilitation.
- Disease surveillance along Kajiado border
- Enhance livestock medical camps at sub county level

### **Water Sector**

- Servicing and rehabilitation of broken down boreholes as well as stockpiling with spares.
- Advocate rain water harvesting and use of water treatment chemicals
- Support fuel subsidy and water trucking in drought hit areas

### **Health Sector**

- Improving Vitamin A supplementation for Children Under five years.
- Integrated health outreaches and mass screening of children under the age of 5 years
- Enhance advocacy on exclusive breastfeeding.
- Sensitizing community health volunteers on WASH and HIV
- Upscale supplementary feeding programme

### **Education**

- Upscale HGSMP to cover more schools.