

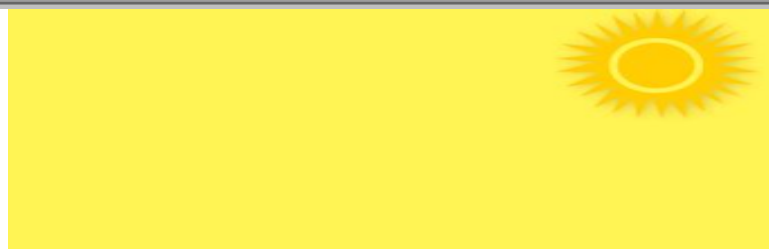
**National Drought Management Authority**  
**MAKUENI COUNTY**  
**DROUGHT EARLY WARNING BULLETIN FOR MARCH 2017**



A Vision 2030 Flagship Project



**MARCH EW PHASE**



**Early Warning (EW) Phase Classification**

Livelihood Zone	Phase	Trend
Mixed farming coffee/dairy	Alert	Stable
Mixed farming Food Crop/Livestock	Alert	Worsening
Marginal Mixed Farming	Alert	worsening
County	Alert	Worsening
Biophysical Indicators	Value	Normal Ranges
VCI-3Month	26.44	>35
State of Water Sources	4	5
Production indicators	Value	Normal
Crop Condition	Planting	Good
Livestock Body Condition	4-Moderate	6-Normal
Milk Production	1.75L	1.8 Litres
Livestock Migration Pattern	Normal	Normal
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	71	>80
Milk Consumption	0.8 L	1 litres
Return distance to water sources	4.5 Km	3.4 Km
Cost of water at source (20 litres)	KSh 2-5	KSh 2
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	6.8	<12.9
Coping Strategy Index (CSI)	11	<10

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- Generally the month was hot and dry except from some rain which were experienced towards the end of the month
- The average VCI for the county was 26.44 implying moderate vegetation deficit.
- The quantity and quality of pasture and browse ranged from fair to poor across all the livelihood zones.
- The state of water sources fast declining in the Marginal Mixed Farming zone and normal in Mixed Farming LZs since major water sources still had water for both livestock and domestic use.

**Socio Economic Indicators (Impact Indicators)**

- Generally the body condition for cattle was moderate (neither fat nor thin) and at borderline in Marginal Mixed Farming Zone while that of shoats was good across all zones.
- Terms of trade was unfavorable at 71.1(below normal)
- The proportion of children at risk of malnutrition was 6.9% an increase from 6.8%.
- CSI for the County was 11 implying high coping mechanisms.

**Seasonal Calendar**

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

# 1. CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

Generally the month of March was hot and dry but towards the end of the month (fourth week) some rainfall was received in the mixed farming livelihood zones. Onset of rainfall was expected as from Week 2 to 3 of March. Onset was late since the areas that received rainfall did so from the third-fourth week of March. Most areas in the Marginal Mixed Farming livelihood zone have not received any rainfall.

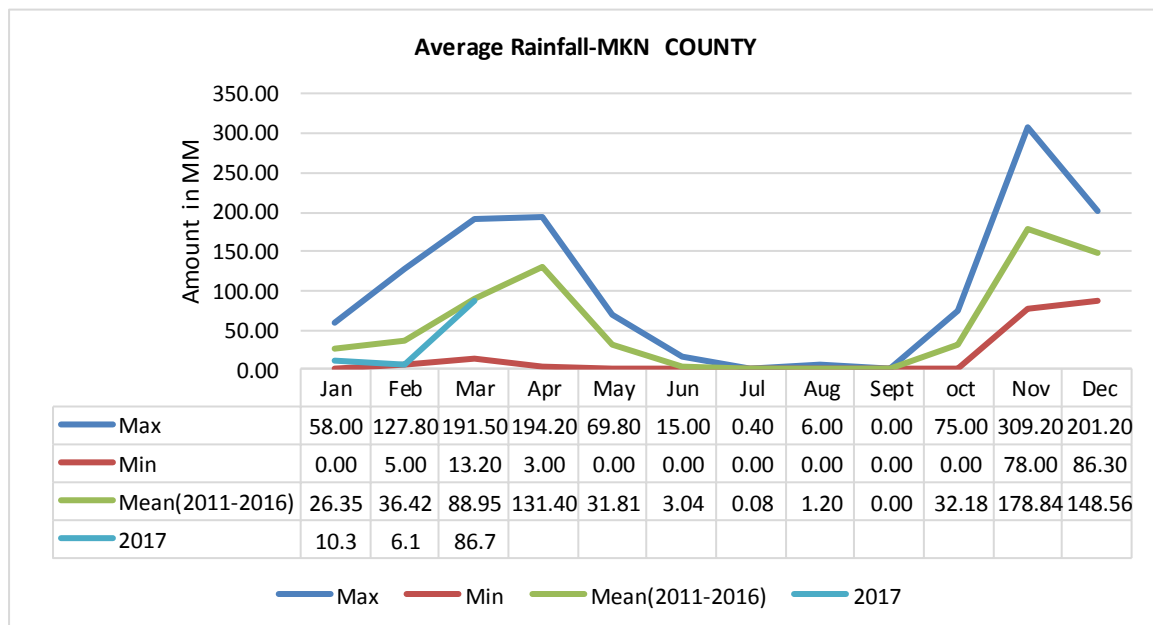
## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

**Mixed Farming (coffee/dairy/irrigation):** Ilima received 174.5 mm in 3 days

**Mixed Farming (cotton/livestock/food crop):** Kisau received 148.2 mm in 2 days, Makuli received 57.1 mm in 8 days, and Nthangu forest recorded 48.3 mm in 3 days. Average of 84.5 mm in 5 days

**Marginal Mixed Farming (MMF) Zone:** Makindu received 1.2 mm in 2 days, Kathonzweni recorded 0 mm

The county average rainfall received was 86.7 mm. The (2011-2016) long-term average is 97.10



# 2. IMPACTS ON VEGETATION AND WATER

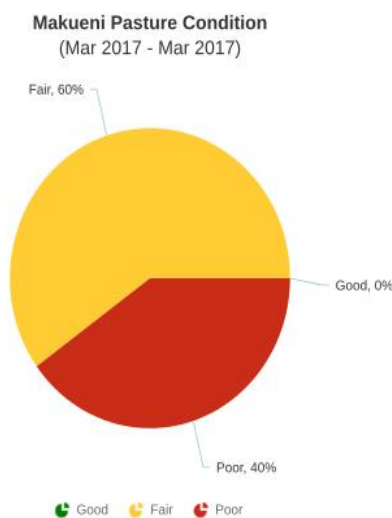
## 2.1 VEGETATION CONDITION

### 2.1.1 Vegetation Condition Index (VCI)

The 3-month average VCI for the County was 26.44 implying a progressive worsening condition for the county with an exception of Parts of Kaiti and Mbooni which recorded 41.93 and 36.45 respectively (an indication of normal vegetation greenness). VCI has indicated that of the 6 sub-counties, there has been progressive worsening conditions with four sub-counties shifting to the moderate deficit band

### 2.1.2 Pasture and Browse

- The quantity and quality of Pasture and browse ranged from fair to good in the mixed farming livelihood zone while in the marginal mixed farming zone it ranged from fair to poor.
- The delay in onset of rainfall especially in the Marginal Mixed Livelihood zone has caused the condition of pasture to deteriorate more.

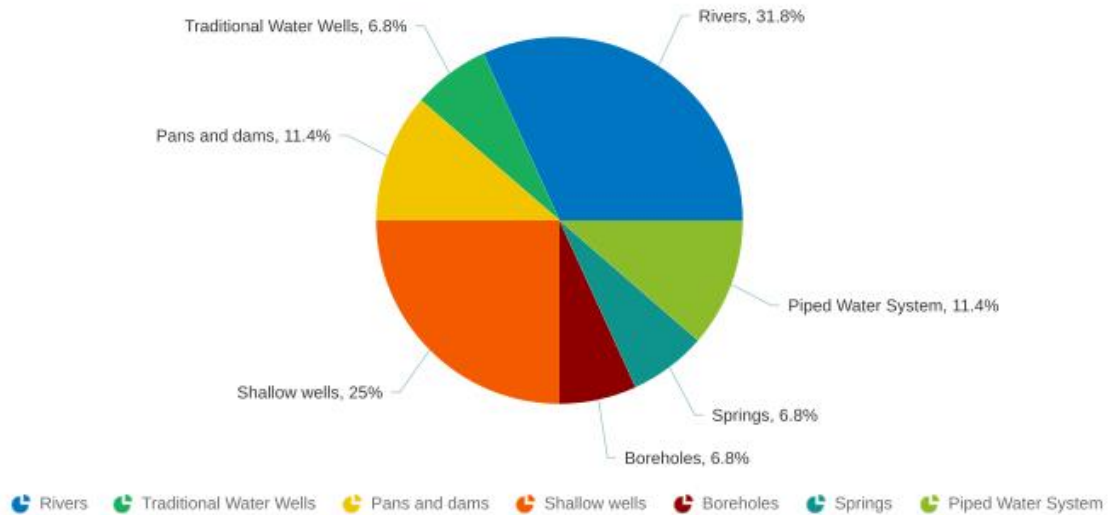


## 2.2 WATER RESOURCE

### 2.2.1 Sources

Main sources of water for the county during the month under review were: Rivers 31.8%, shallow wells 25%, pan and dams 11.4%, piped water schemes at 11.4%, boreholes 6.8%, traditional river wells at 6.8% and springs at 6.8%.

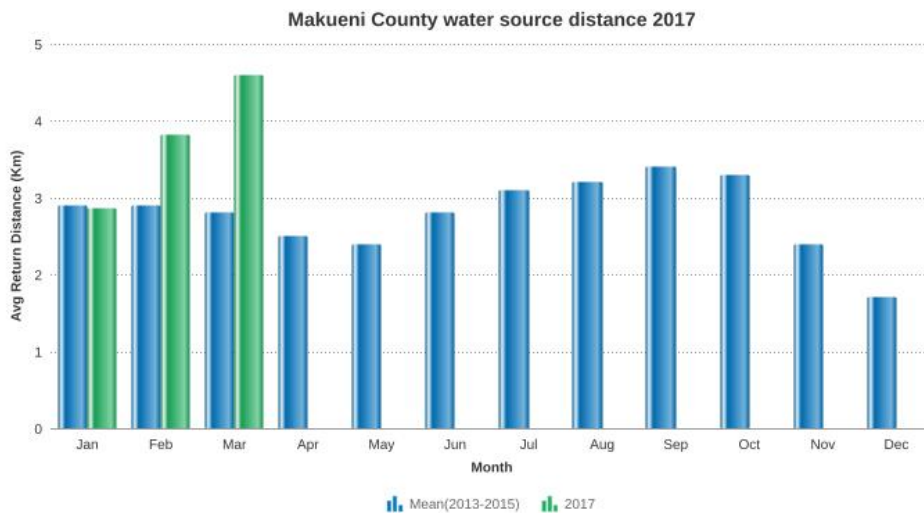
**Makueni County Water sources**  
(March 2017)



- The water sources were normal in most parts of the county apart from some areas like Yinthungu and parts of Kibwezi West where the boreholes had broken down and most households had to walk for longer distances in search of water.
- Cost of a 20 litre Jerry was between 3 - 5 Shillings at the water kiosks.

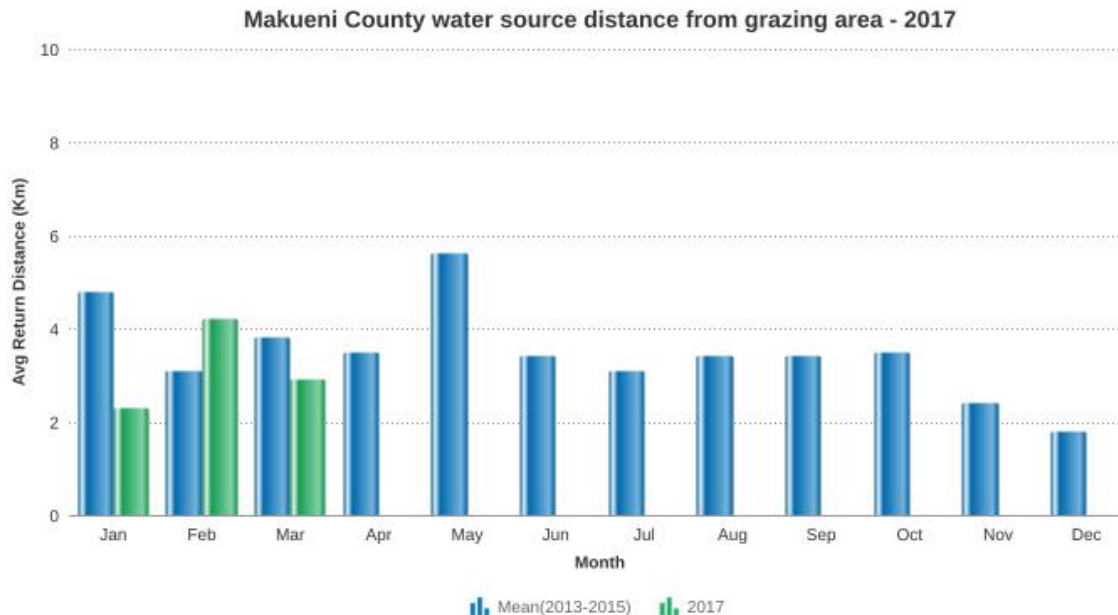
### 2.2.2 Household access and Utilization of water

- **Distances to water sources for household consumption**



- The average household return distance increased from 3.8Km to 4.5Km compared to a similar time last year the distances were slightly higher.

### 2.2.3 Livestock access to water



- Distances to water sources had slightly decreased especially in areas where rainfall was received.

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- Generally, the body condition for cattle in the marginal mixed farming livelihood zones was at the borderline, 12<sup>th</sup> and 13<sup>th</sup> rib visible (Body score of 4) mostly in Kibwezi East, Kathonzweni and Kalawa. However, in the Mixed farming Livelihood zones, the body condition ranged from fair to good while that of shoats was generally 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

- Availability of milk in all the livelihood zones was low but normal for this time of the year and compared to the same period last year, the situation was almost similar.
- Compared to last month the situation has worsened due to the declining pastures and increase in water distances.

###### Marginal mixed Farming zone:

- Majority of Households in this zone were relying on goats' milk whose yield was between 100-250mls per day. Local Zebu also produced significant amounts of between 1-2ltrs per day though not in all families.

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

- In this zone Zebu cattle and crossbreeds accounted for most milk produced. Availability was approximately 350mls-500mls compared to a normal of 500mls.

**Mixed Farming (Coffee/Dairy):** The production of milk per day per household ranged from 0.75litres to 1 litre per day against a normal of 1litre.

### 3.2 RAIN-FED CROP PRODUCTION

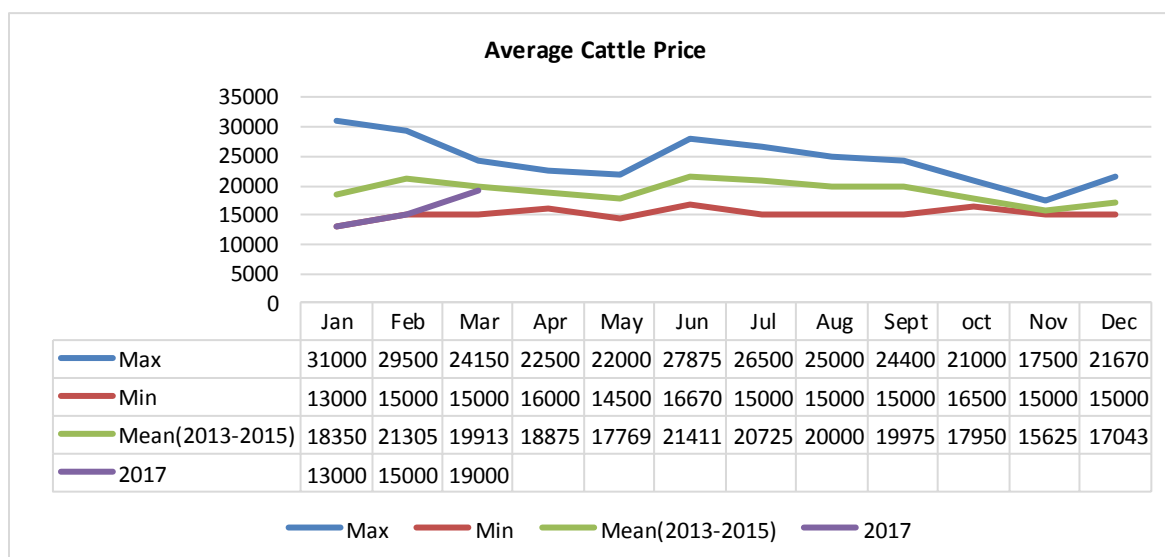
#### 3.2.1 Stage and Condition of food Crops

- Main agricultural activity was harvesting of green grams (mostly in mixed farming livestock/Food Crop and marginal mixed farming zone) and land preparation across all the livelihood zones.
- Planting of maize and cowpeas was also taking place in Mixed farming Livelihood zones.

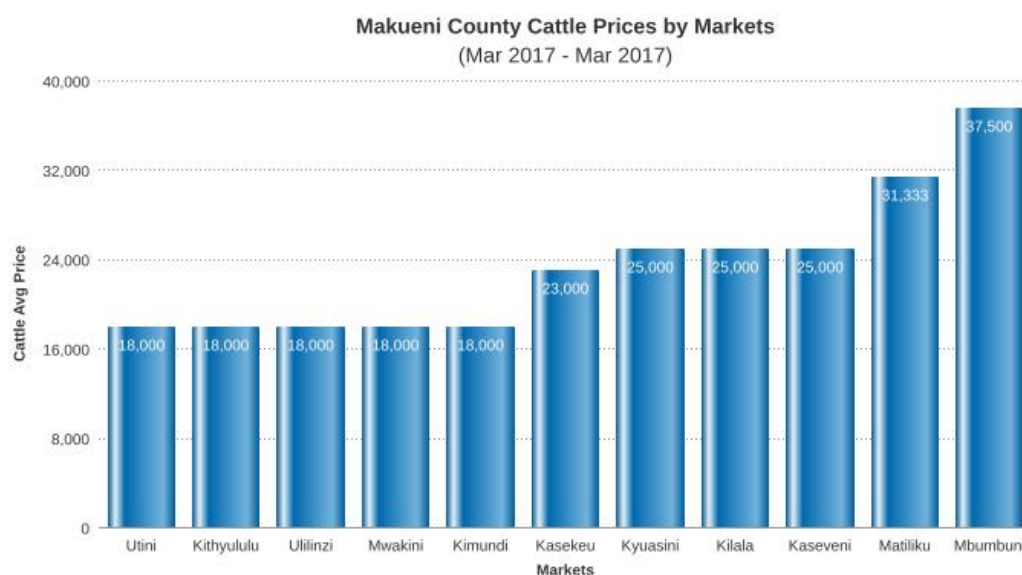
## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

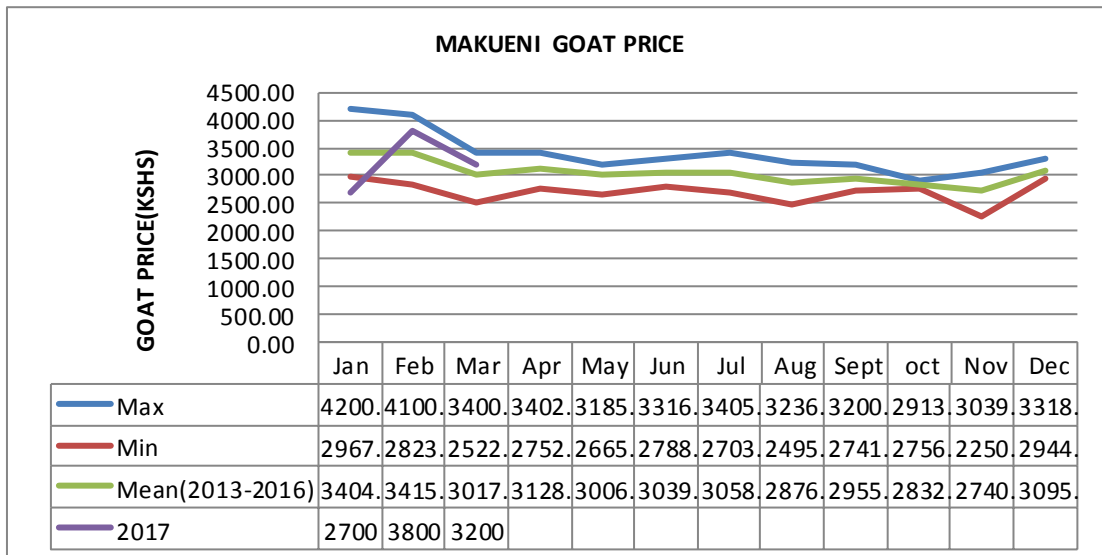
#### 4.1.1 Cattle Prices



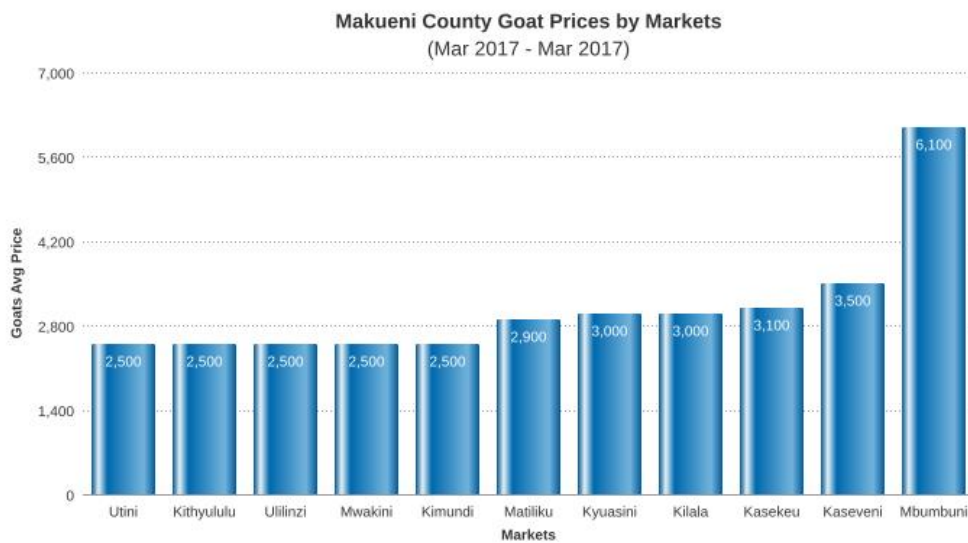
- Average farm gate prices of cattle increased slightly from KSh15000 to Ksh19000. Compared to the (2013-2015) long term average, the current price was lower.
- Cattle prices at different markets across the county is shown.



### 4.1.2 Goat Prices

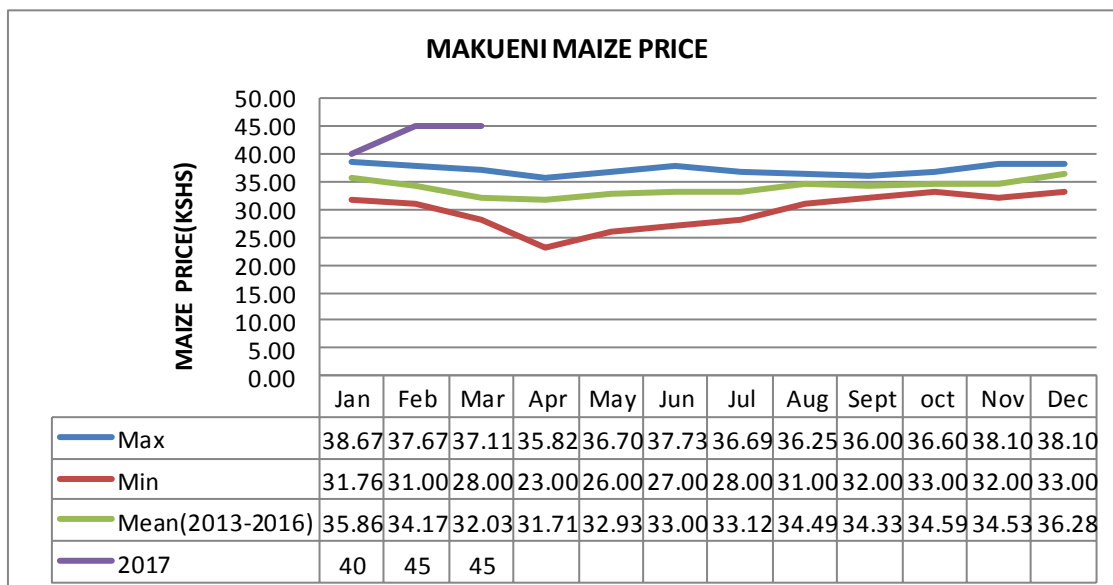


- The average farm-gate price of a goat decreased slightly to Ksh3800 from Ksh3200 and was higher than the (2013-2016) long-term mean. This can be attributed to the good body condition and the high supply of shoats due the declining pasture and browse.
- Average goat market price was as follows in various markets across the county.



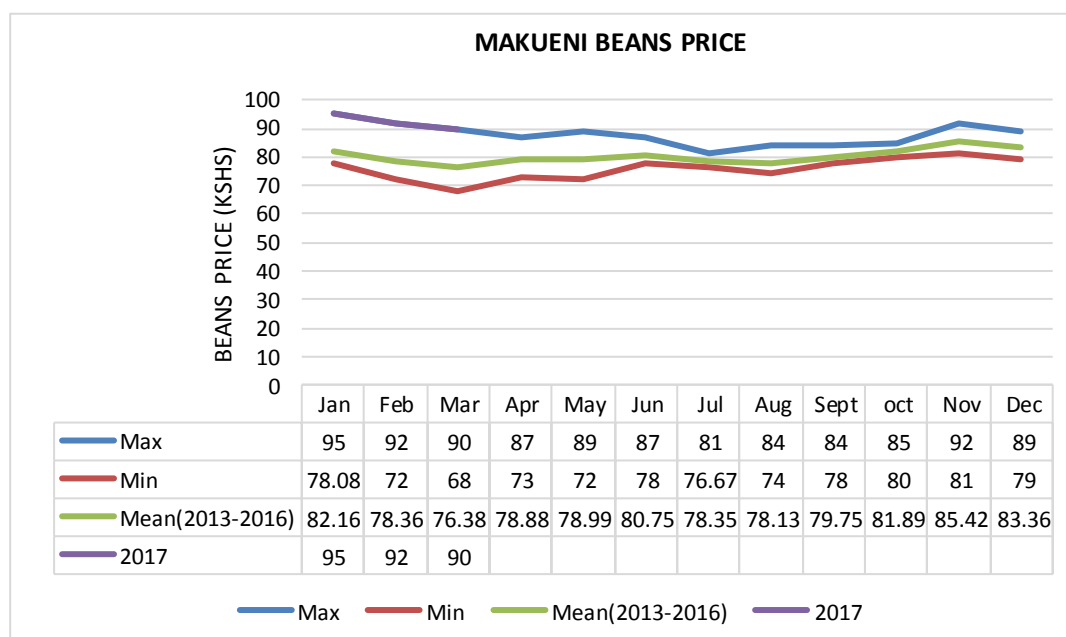
## 4.2 CROP PRICES

### 4.2.1 Maize



- The average market price of maize remained stable at Ksh45 from the previous month. This price is however higher than the (2013-2016) long-term average. The high prices can be attributed to the diminished household stocks hence reliance on imports.
- Compared to the long term mean, the price is high and this is not normal at this time of the year.

### 4.2.3 Beans

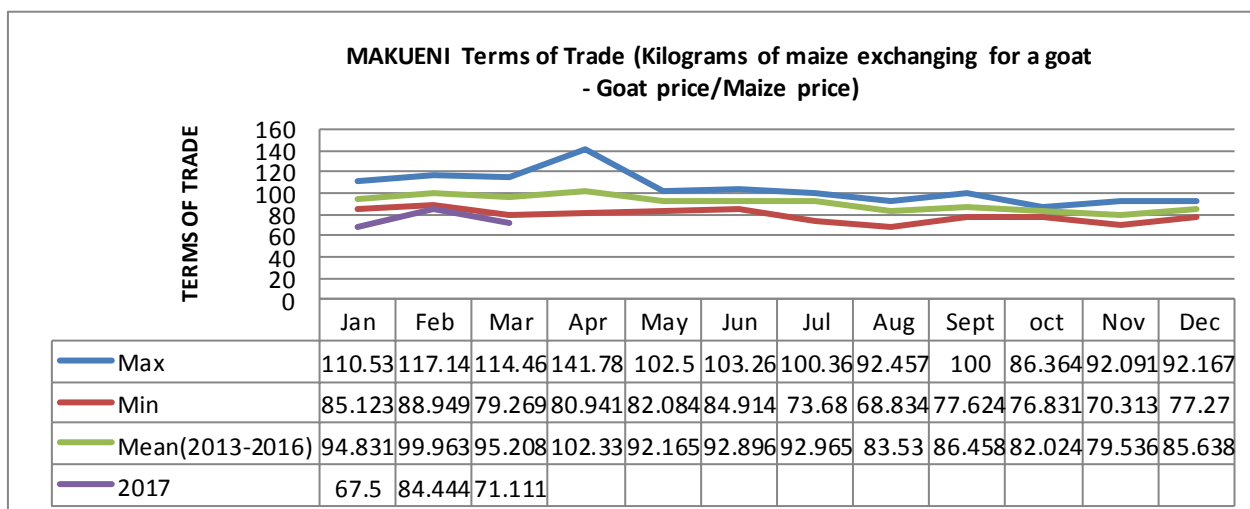


- The average price of beans decreased by ksh2 from Ksh92 to Ksh90. The high prices are as a result of diminished stocks in households due to poor harvest. Compared to the long term average the price was relatively high.



#### 4.2.3.1 Other outstanding observations.

### 4.3 Livestock Price Ratio/Terms of Trade



- Terms of trade diminished to 71.1 from 84.4 the previous month. This implies that from proceeds from a sale of one goat, a farmer could purchase 71Kg of maize.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

#### Marginal mixed Farming zone

- Milk production was relatively equal to milk consumption in this zone, an average of 300-350mls (Which is below normal).
- The current milk price was Ksh60-70 per litre against the normal of Ksh55 and this has limited accessibility to majority of the households.

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

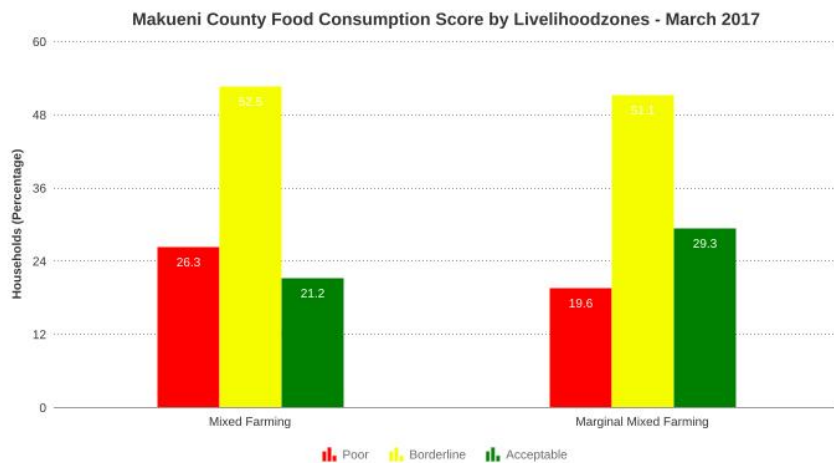
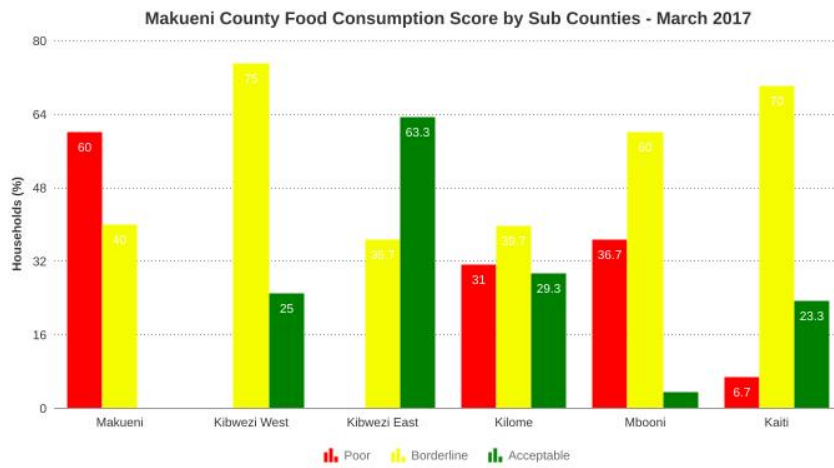
- Milk consumption per day in this zone was between 300mls to 500mls which was below normal.
- The current milk price is between Ksh55 to Ksh60 against the normal of Ksh50.

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

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

### 5.2 FOOD CONSUMPTION SCORE

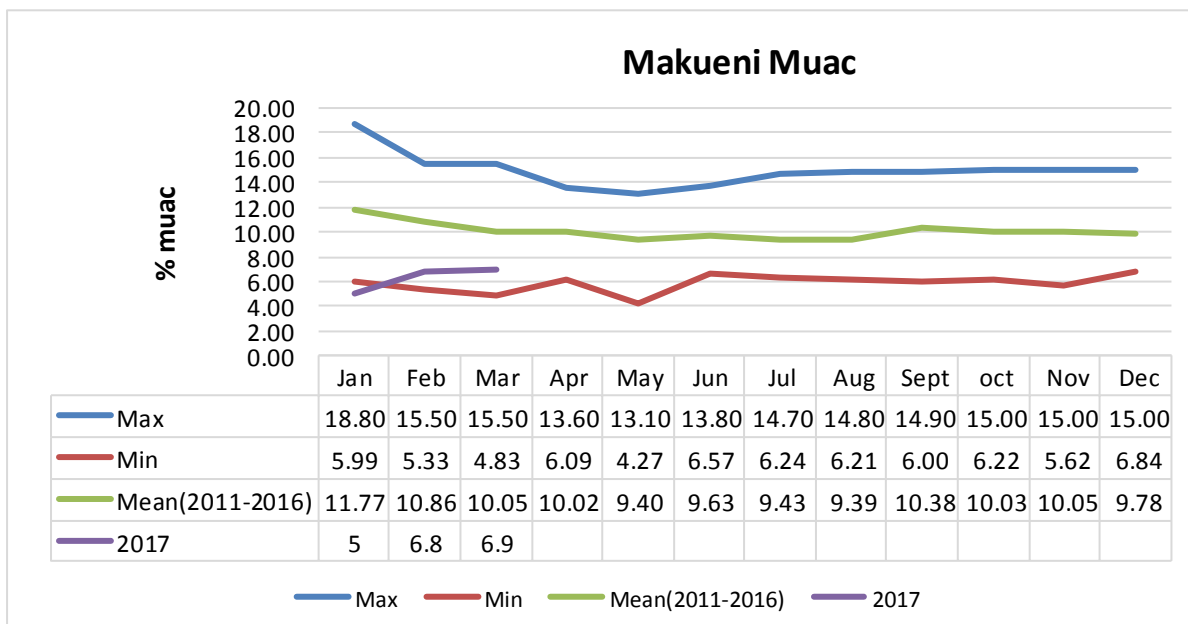
- From the 210 households sampled during the month of February, 49 of the households were found to have a poor consumption score, 109 were found to be at the borderline while 52 had an acceptable Food consumption score.



## 5.3 HEALTH AND NUTRITION STATUS

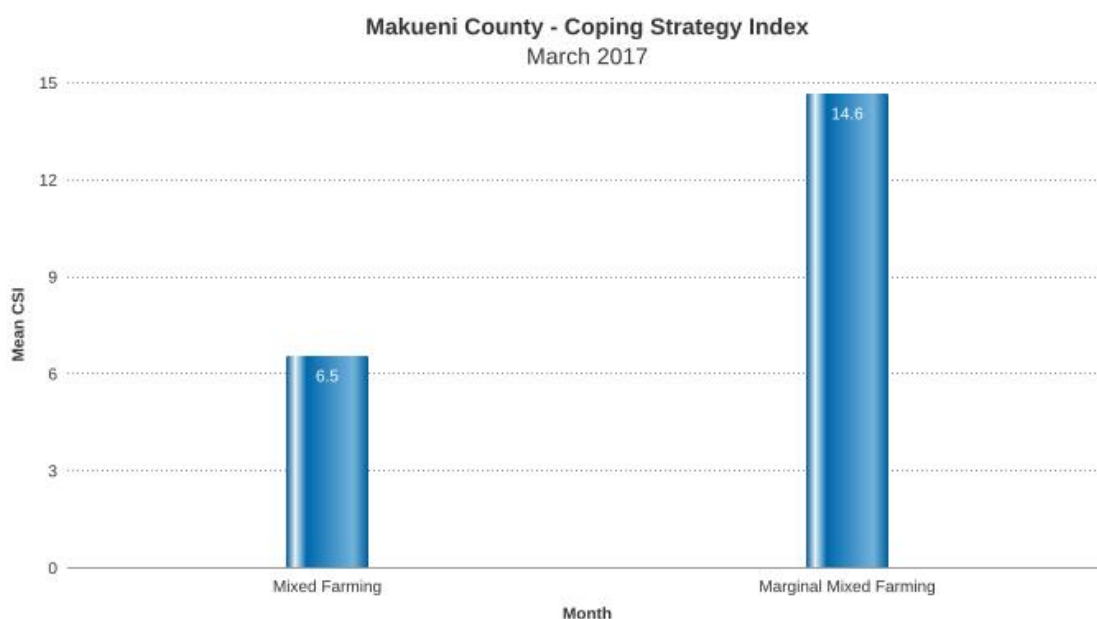
### 5.3.1 Nutrition Status

- The average percentage of children at risk of malnutrition slightly increased from 6.8 percent to 6.9 percent but remained within the normal ranges.
- The slight increase in malnutrition can be attributed to the decrease in dietary diversity mostly amongst the under-fives, reduction in the amount of milk consumed mostly by the under-fives.
- The situation is expected to get worse as the rains have not been consistent with some areas having not yet received any rainfall.



### 5.3 COPING STRATEGIES

- In the Marginal Mixed Farming zone the CSI was 14.6 while that of Mixed Farming livelihood zone was 6.5, this implies that the food insecurity in the mixed farming was less compared to the marginal mixed farming zone.
- Most households were employing livelihood based coping strategies.



## 6.0 CURRENT INTERVENTION MEASURES (ACTION)

### 6.1 NON-FOOD INTERVENTIONS

- Asset Creation Projects by GoK/ WFP, World Vision, Kenya Red Cross Society and NDMA.
- Harvesting and bailing of available pastures and making it accessible to farmers.
- Poultry vaccination in kathekani, Kalawa, ngaamba and Mavindini.
- Mango, greengrams and indigineous chichen value chain promotion and market linkage by County Government of Makueni in conjunction with ASDP.
- Vaccination against CCPP was ongoing.

## **6.2 FOOD AID**

- Food aid was received and distributed during the month under review.

## **7. EMERGING ISSUES**

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

- No human-wildlife conflict cases reported.

### **7.2 Migration.**

- No migrations reported.

### **7.3 FOOD SECURITY PROGNOSIS**

Rains have begun in the Mixed Farming Livelihood zones, although they have not been consistent. The Marginal Mixed Livelihood zone is yet to receive rainfall. Crop farmers across the county are highly dependent on rainfall for farming hence the reason why the inconsistent rains are likely to have a negative ripple effect on the crop performance given that they might miss out on some important crop growth stages. There have been reports of borehole breakdown in the Marginal Mixed Farming zone as well as decline in dietary diversity from the previous month as shown by the increase in number of people with poor and borderline Food Consumption Score from the previous month.

Already, cereal and pulse market prices are above long-term average. It's advisable that the county stakeholders take the necessary preparedness measures.

## **8. RECOMMENDATIONS**

- Enhance livestock disease surveillance.
- Provision of drought tolerant seeds.
- Need for provision of merchandized Agriculture for hire.
- Capacity building on CA/GAPS (Zaipits, terraces, tree pits etc.)
- Promotion of Value Addition Crops (green grams and mangoes)
- Stockpiling of boreholes with spares
- Fuel Subsidy in the affected areas
- Provision of drought-resistant seeds