

# National Drought Management Authority

## MAKUENI COUNTY

### DROUGHT EARLY WARNING BULLETIN FOR JANUARY 2018



A Vision 2030 Flagship Project



#### MAY EW PHASE

Drought Status: **NORMAL**



Shughuli za kawaida

#### Drought Situation & EW Phase Classification

##### Biophysical Indicators

- The month was characterized by light showers unlike the previous two months where heavy rains were experienced resulting to floods and mudslides.
- The vegetation greenness for the County was above normal as indicated by the 3 month Vegetation Condition Index (VCI)
- Pasture and browse condition was good across all the three livelihood zones.
- Water availability was normal across the county with the exception of Wote town whereby the two main sources Kamunyulu dam had breached and the Sump at Kaiti had been damaged by floods, the situation had been contained by the installation of two temporal sumps at Kaiti river by Kenya Red Cross Society

##### Socio Economic Indicators (Impact Indicators)

- The Livestock body condition ranged from fair to good (for cattle) and good (for shoats).
- Milk production and consumption was good attributed to the availability of pasture and water for livestock.
- Terms of trade were favourable at 111.8, an implication that from the sale of one goat one could purchase 111.8kg of maize.
- Average distances to watering sources for livestock was 3.4km a slight increase from 3.2Km.
- The percentage of children at risk of malnutrition was within the normal range.
- The County CSI was within the normal range implying the coping mechanisms being employed were normal at this time

Livelihood Zone	Phase	Trend
Mixed farming coffee/dairy	Normal	Stable
Mixed farming Food Crop/Livestock	Normal	Stable
Marginal Mixed Farming	Normal	Stable
County	Normal	Stable
Biophysical Indicators	Value	Normal Ranges
Rainfall (% of Normal)	94.60	80-120
VCI-3Month	68.16	>35
State of Water Sources	5	5
Production indicators	Value	Normal
Crop Condition	good	Fair
Livestock Body Condition	6-Normal	6-Normal
Milk Production	1.7	1.8 Litres
Livestock Migration Pattern	Normal	Normal
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	111.8	>80
Milk Consumption	1.5	1.2 litres
Return distance to water sources	3.0Km	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)	10.5	<12.9
Coping Strategy Index (CSI)	0.92	<10

<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

- Compared to the previous two months (March and April) the month of May recorded low rainfall. The rains received were 94.6 percent of normal, though only slight showers were experienced.
- The onset of the MAM rains had been reported on the first week of March across all the three livelihood zones and cessation second to third dekad of May.
- Makindu Met recorded a total of 600.7mm, Kikima 1031.3mm in 38 wet days and Kathonzweni 415.8mm in 39 wet days for the entire March-April-May season.
- In May, Makindu met in MMF LZ recorded 14.6mm in 1 day, Kambu in MMF zone recorded 10.5 mm in 1 day. Kathonzweni recorded 19.4mm in 5 wet days while Kikima in Mixed Farming (coffee/dairy)LZ recorded 58.5mm in 6 wet days.
- During the month of May there was no floods or mudslides since the rains received had receded significantly from the previous month.

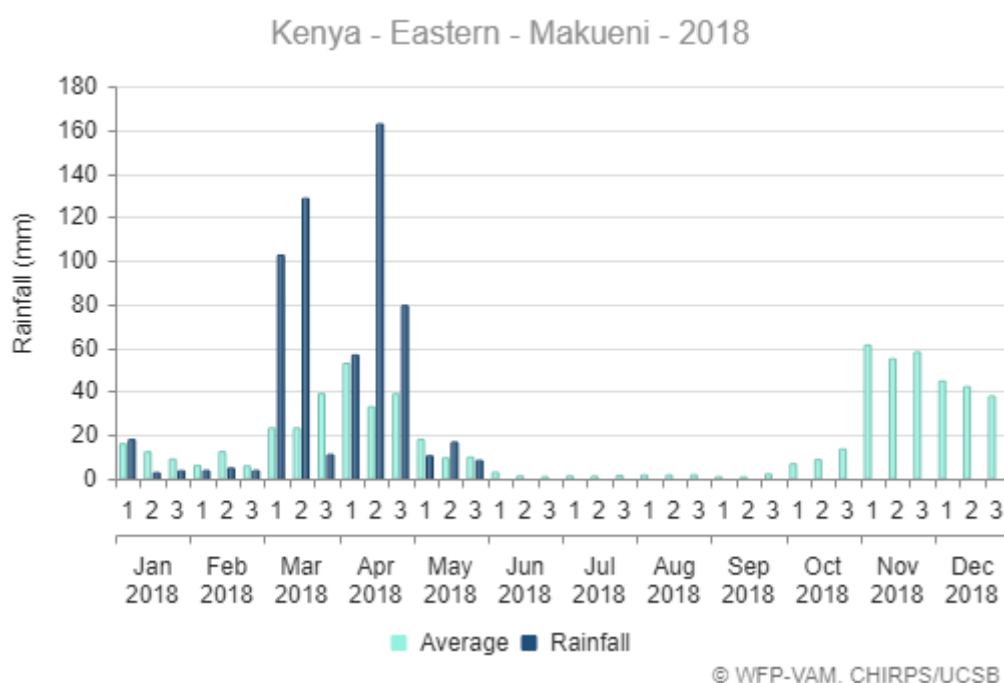


Figure 1: Makueni May average rainfall Vs amount received

## 2. IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index(VCI)

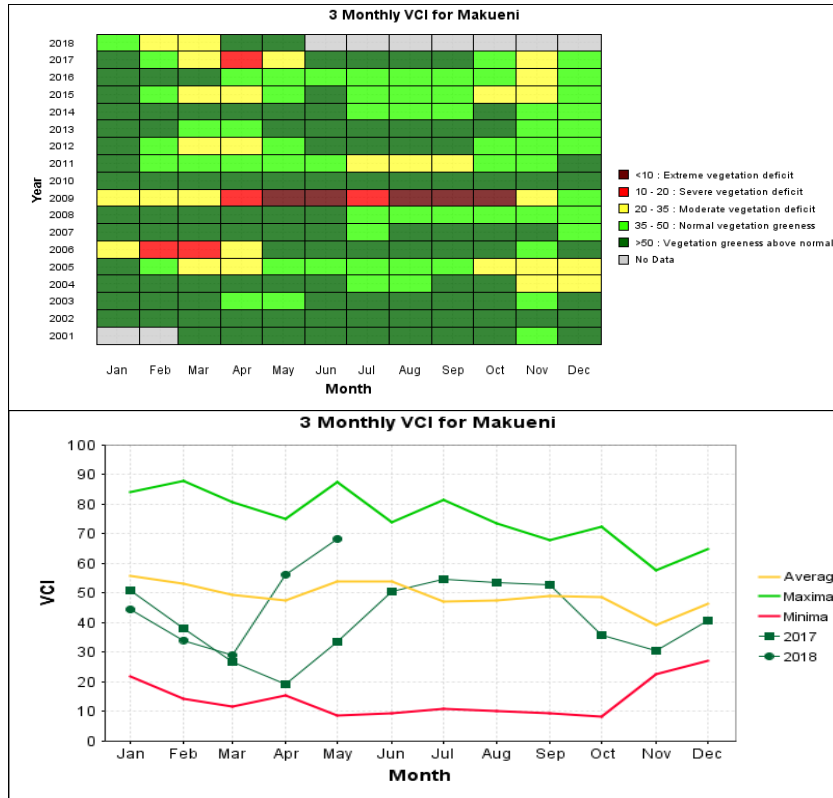


Figure 2: Makueni May VCI matrices

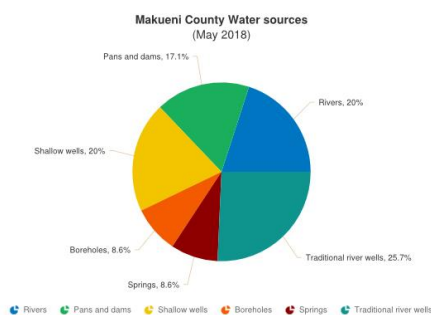
- Going by the three month VCI, the vegetation condition had greatly improved. The County recorded a three month average VCI of 68.16 an implication of above normal vegetation greenness. The vegetation condition is expected to remain stable for the next one to two months.

#### 2.1.2 Pasture and Browse

- The quantity and quality of Pasture and browse was good across all livelihood zones attributed to the MAM rains that were received in the last three months.
- The available pasture are expected to last the county for the next three to four months

## 2.2 WATER RESOURCE

### 2.2.1 Sources

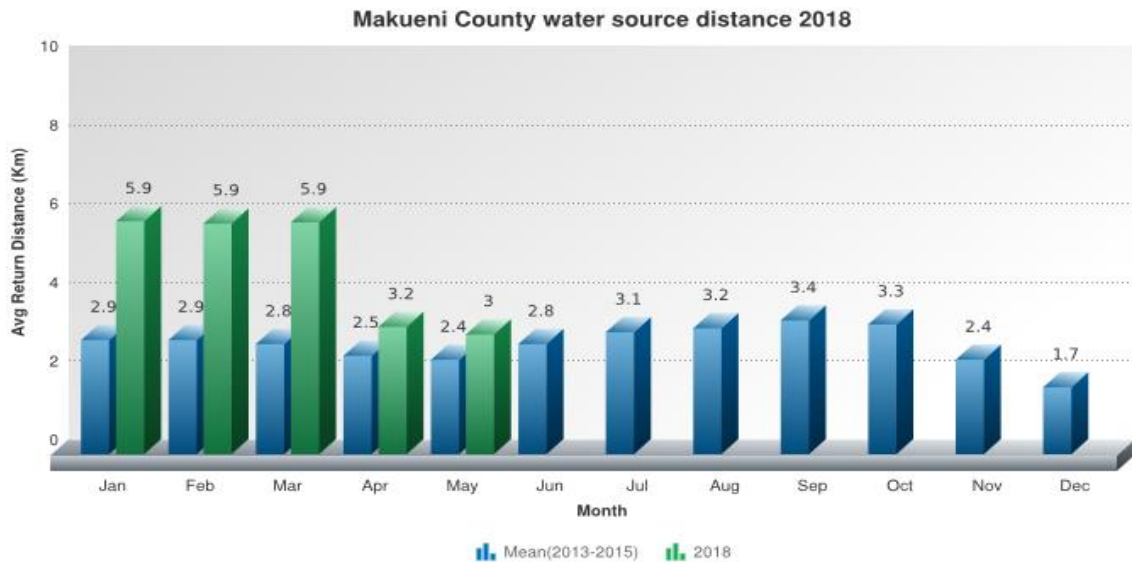


- Major sources of water for the county during the month were: traditional river wells, rivers, shallow wells, pan and dams, boreholes and springs. Other water sources included piped water schemes.
- Water levels had improved greatly in the last two months as a result of the MAM rains.

- Average cost of a 20 litre Jerrycan at the water kiosk ranged from Ksh3 to Ksh5 against the Normal price of Ksh 3.
- Water shortage in Wote town was also restored to normalcy through the installation of two temporary treatment plants by the County government and KRCS that is after the main supply of water Kamunyulo Dam and Kaiti Sump had been damaged by the floods.

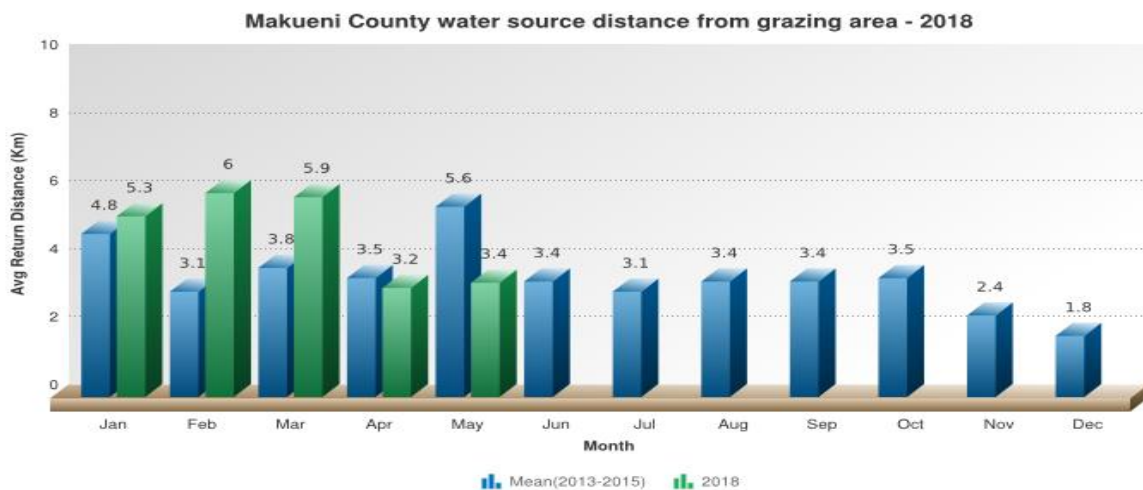
## 2.2.2 Household access and Utilization of water

### Distances to water sources for household consumption



- Average household return distances reduced from 3.2Km to an average of 3.0Km and are expected to remain stable for the next 1 to 2 months.

## 2.2.3 Livestock access to water



- Average return distances to water sources had increased slightly by 200m from 3.2Km to 3.4Km. This was attributed to the reduction in water level in most seasonal rivers and the breached dams.
- The distances are expected to remain stable for the next one to two months.

## **3.0 PRODUCTION INDICATORS**

### **3.1 LIVESTOCK PRODUCTION**

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

- Current livestock body condition for cattle in most parts of the county was smooth good appearance a body score of 6.
- The normal livestock body condition is expected to continue for the next one to two months due to the availability of pasture and water.

#### **3.1.2 Livestock Diseases**

- No major livestock disease outbreaks reported. Farmers should however be on the lookout for lumpy skin disease which is common during such a period.
- Plans for vaccination against Anthrax, FMD and Black quarter in the month of June were underway.

#### **3.1.3 Milk Production**

##### **Milk availability**

- Milk availability was fair to good in mixed farming livelihood zone and is expected to remain stable with the availability of pasture and water for livestock.

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

- Households in this zone were more reliant on goat milk whose yield was between 500-750mls per day against a long term of one litre per day. Local Zebu also produced 500-750mls.

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

- In this livelihood zone, Zebu cattle and crossbreeds accounted for most milk produced. Availability was approximately 750-1000mls compared to a normal of 1000mls.

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

- The production of milk per day per household ranged from 1000-1500mls per day against a normal of 2 litres.

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

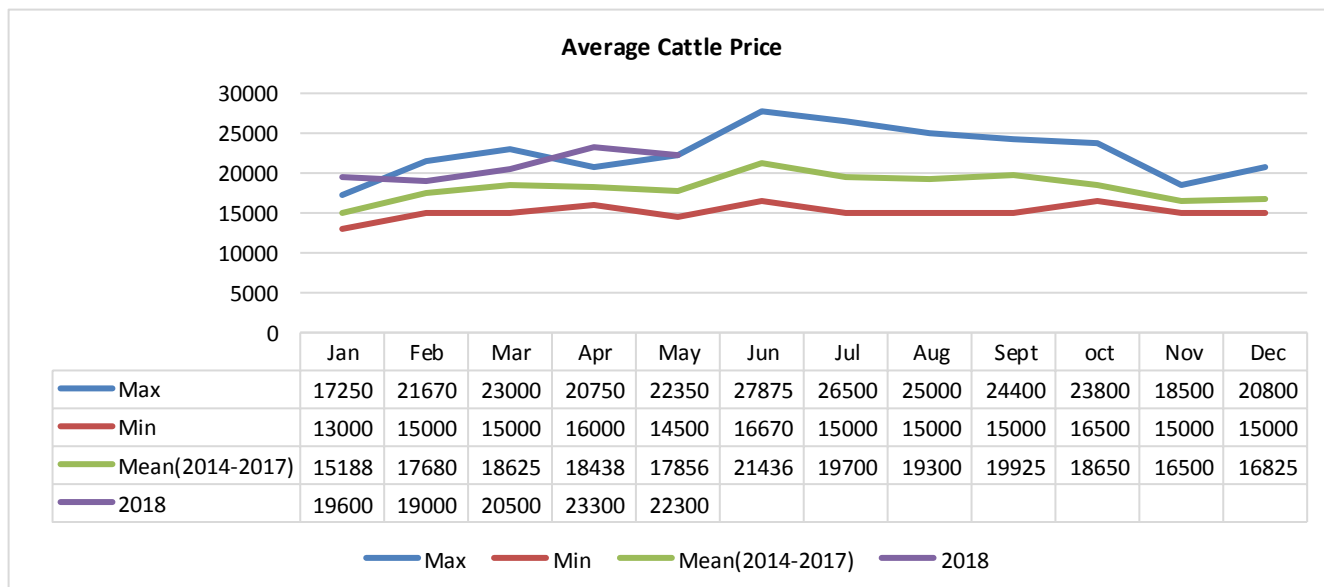
### **3.2.1 Stage and Condition of food Crops**

- Main agricultural activity was harvesting of green grams in both Kibwezi west and East and parts of Makueni sub Counties. Harvesting of pigeon peas and Cow peas while green was also ongoing in most part of the County. Maize was at the tasselling stage while in other parts green maize was ready was also being harvested though the expected yields will be low. Sorghum was at the head formation stage while cassava was at the vegetative stage.

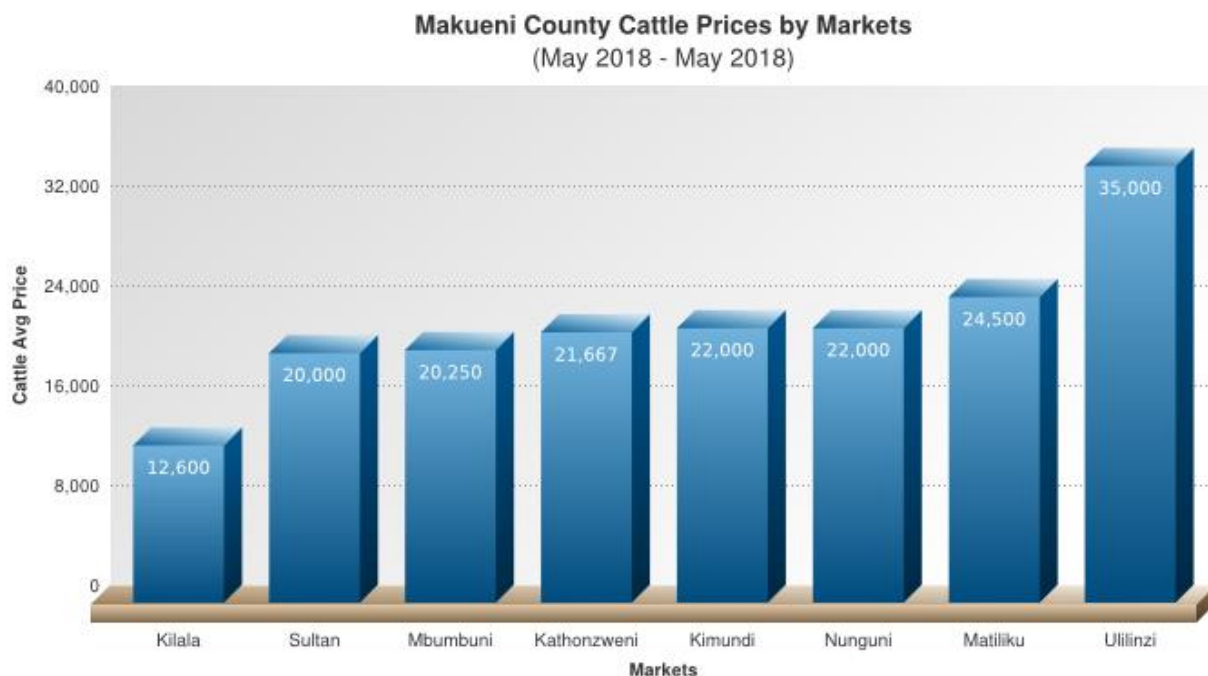
## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

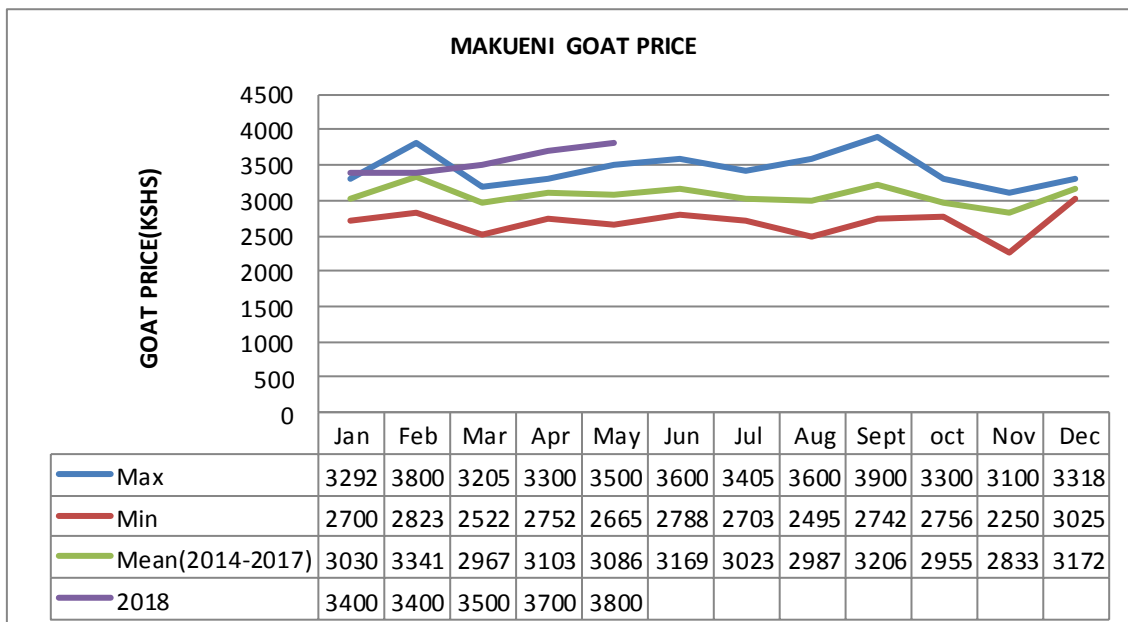
#### 4.1.1 Cattle Prices



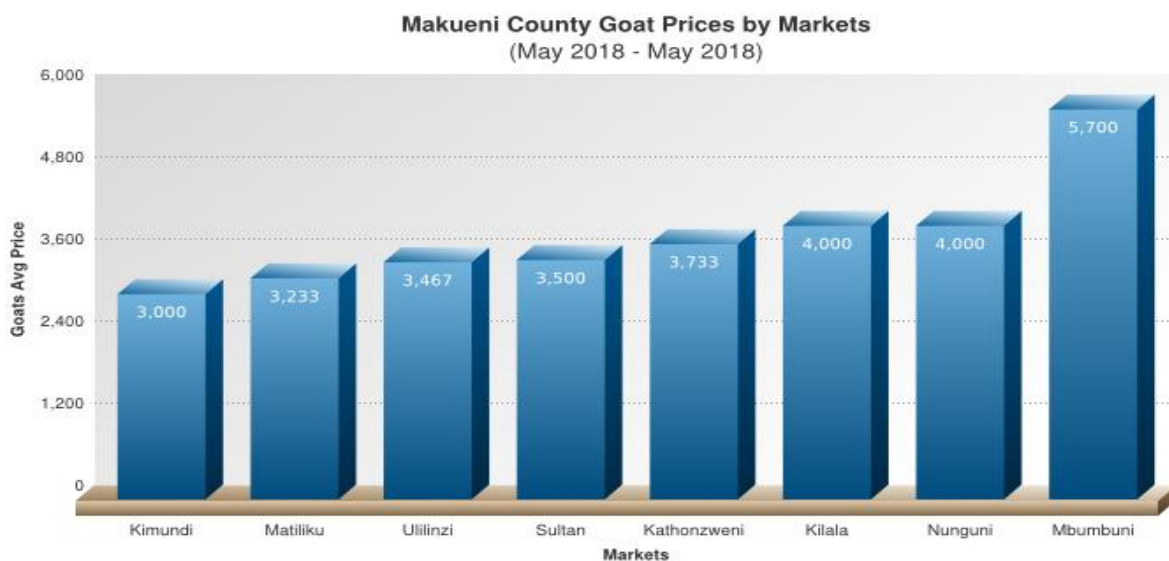
- Average farm gate prices of cattle (2-3 year old bull) decreased from Ksh23, 300 to Ksh22, 300. Compared to (2014-2017) long term average the current price was above normal.
- The decrease in price is attributed to the body size of the livestock.
- Majority of Farmers had held up on to their herd since pasture and water for their livestock was readily available.
- The prices of cattle at different markets were as follows:



## 4.1.2 Goat Prices

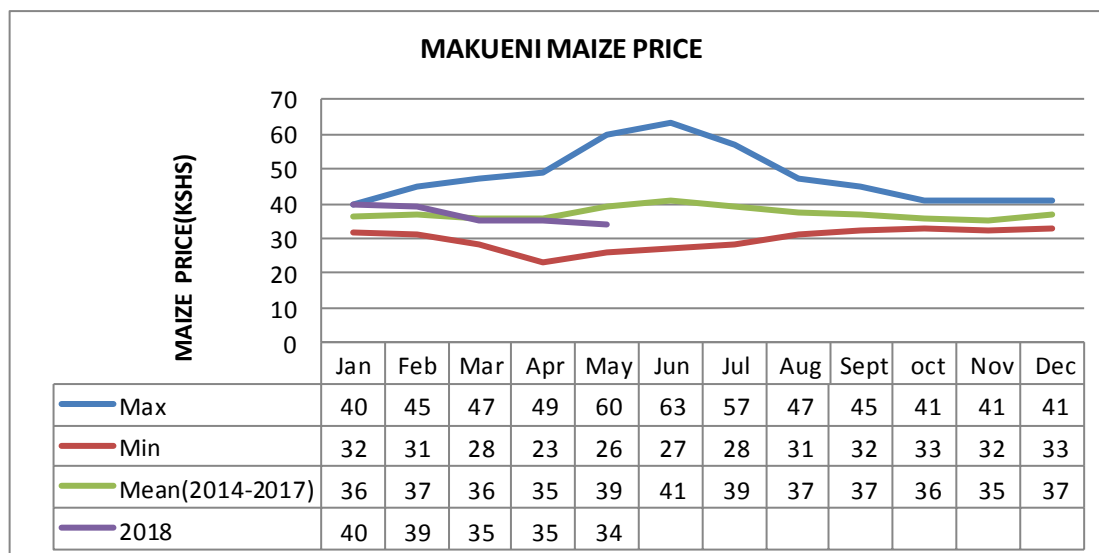


- The average farm-gate price of a goat increased from Ksh3, 700 to Ksh 3,800.(2.7 percent change)
- Compared to the 2014-2017 long term mean the price remained relatively high.
- The increase in price was attributed to the prevailing good body condition.
- Average goat market prices were as follows in the various markets.



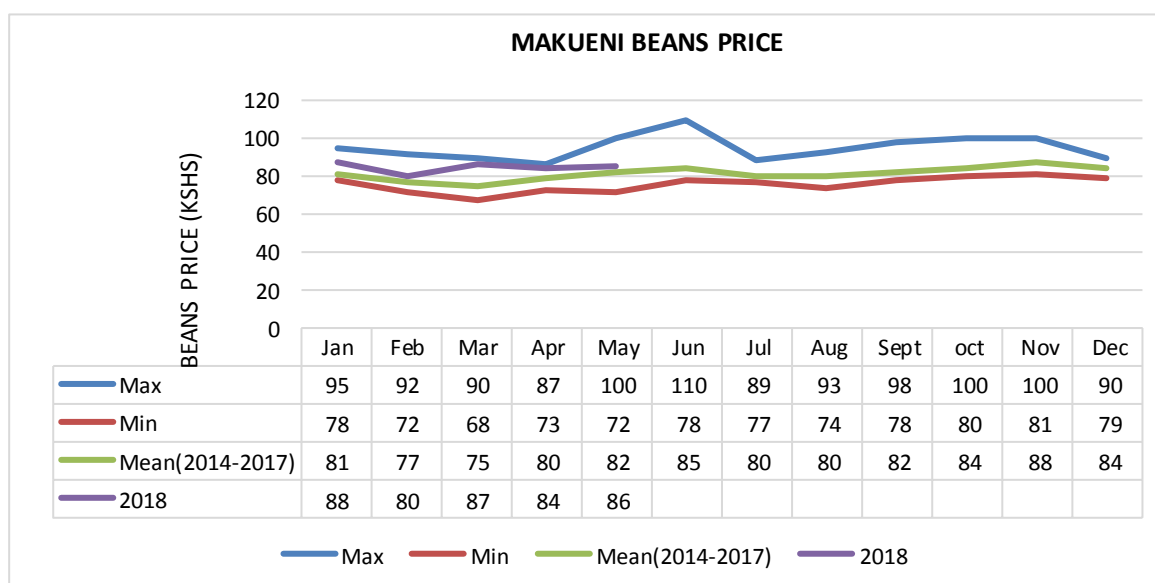
## 4.2 CROP PRICES

### 4.2.1 Maize



- The average market price of maize remained stable at Ksh34 per kilogramme.
- Compared to the long term average the price was lower by 14 percent.

### 4.2.3 Beans

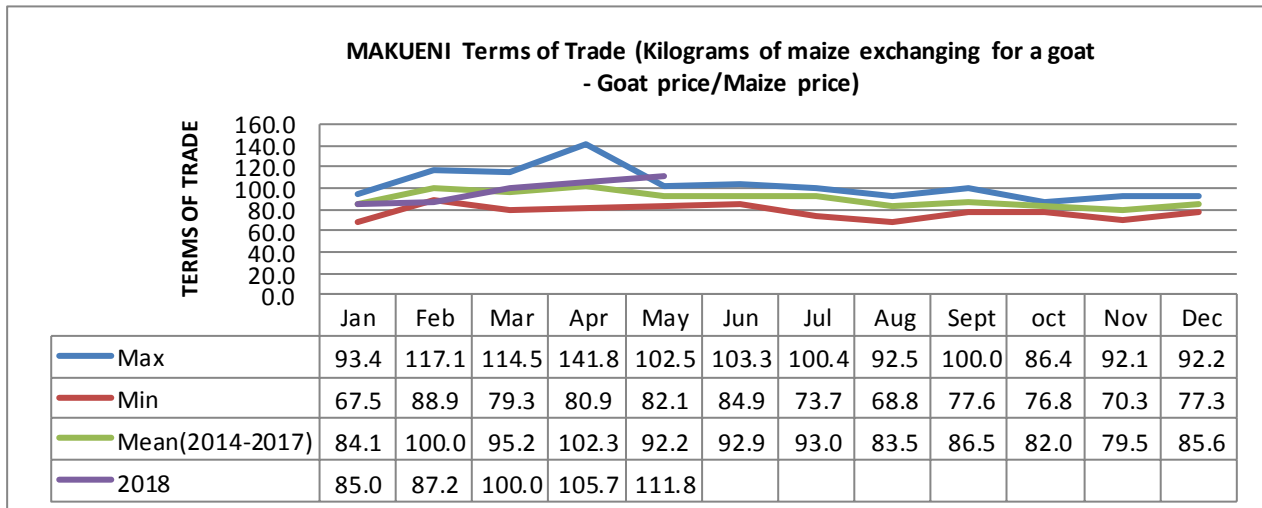


- The average price for beans for the month recorded as KSh86.
- The prices varied from one market to another.
- The high prices are attributed to the shortage of the commodity in the County though the price is expected to go lower in the next few weeks with the harvesting that is ongoing in some parts of the County and the availability of other cereals like pigeons peas and cow peas.
- Compared to the long term mean the current prices were above normal.



#### 4.2.3.1 Other outstanding observations.

### 4.3 Livestock Price Ratio/Terms of Trade



- Terms of trade were favorable 111.8 implying that from a sale of one goat, a farmer could purchase 111.8 Kg of maize.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

#### Marginal mixed Farming zone

- Milk consumption per day in this zone was between 500mls to 750mls against the long term of 750mls to 1000mls.
- The prices were high at Ksh 55-60per litre against the normal of Ksh55.
- Milk consumption is expected to improve even more with the availability of pasture and water for livestock.

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

- Milk consumption per day in this zone was between 500mls to 750mls.
- The current milk price was Ksh 50 against the normal of Ksh45.

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

- Milk consumption is about 1000mls to 1500mls. The average milk price was Ksh 50 against the normal of Ksh45.

### 5.2 FOOD CONSUMPTION SCORE

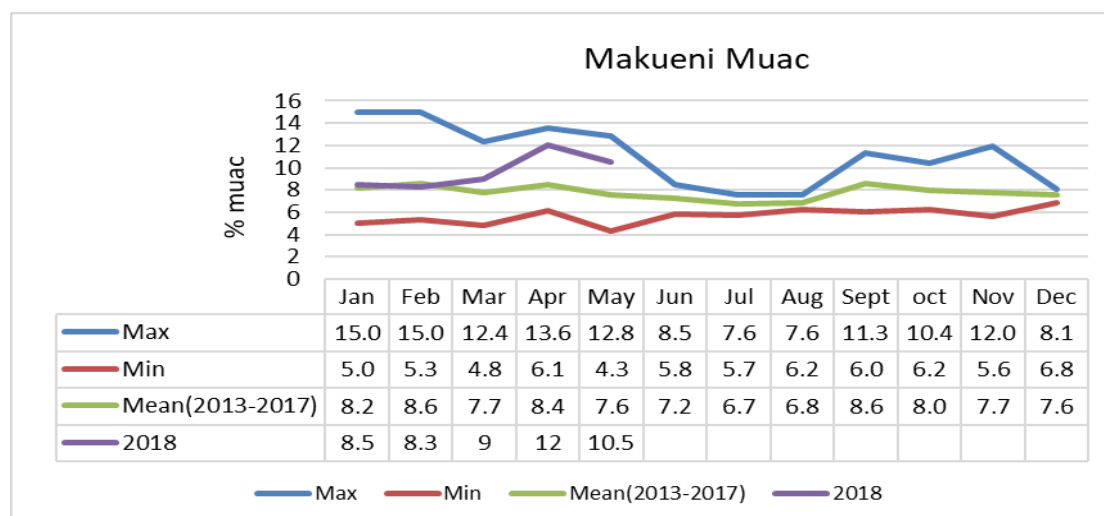
- In mixed farming zone 38.4 percent of households had an acceptable food consumption score while 61.6 percent of households were at the borderline. In the marginal mixed farming zone 58 percent of households had an acceptable food consumption score while 40.9 percent of households were at the borderline.
- Below is an illustration of food consumption score in different livelihood zones.



## 5.3 HEALTH AND NUTRITION STATUS

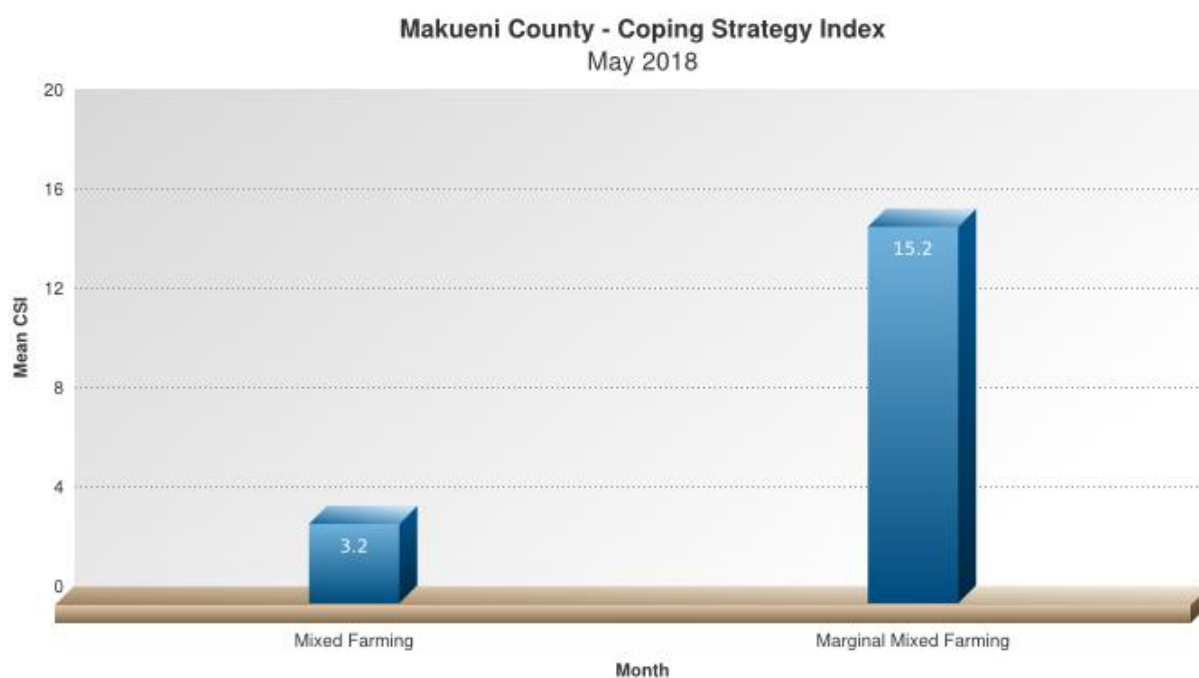
### 5.3.1 Nutrition Status

- The percentage of children (under-fives) at risk of malnutrition was 10.5% a decrease from 12% though within the normal range.
- Compared to the long term average the situation was above normal.



## 5.4 COPING STRATEGIES

- The CSI in Mixed farming livelihood zone was 3.2, a decrease from 5.4 while in the Marginal mixed farming zone it was 1.52 a decrease from 1.7, implying that compared to last month, less coping strategies were being employed during the month.
- The average CSI for the county was 0.92 a decrease from 1.12 that of last month.



## **6.0 CURRENT INTERVENTION MEASURES (ACTION)**

### **6.1 NON-FOOD INTERVENTIONS**

- Asset Creation projects funded by WFP through NDMA and implemented by WVK in North Makueni and KRCS in South Makueni.
- Training of Farmers on feed preservation, utilisation and Hay bailing.
- Capacity building of farmers on Aflatoxin given that they are expecting a good harvest.
- Post-harvest management.
- Update and Review of the drought contingency plan
- Community Managed Disaster Risk Reduction (CMDRR) trainings through Participatory Disaster Risk Assessment (PDRA) countywide.

### **6.2 FOOD AID**

- The office of the County Commissioner was allocated relief food meant for the flood victims. An allocation of 500 bags (50kg) of maize, 200 bags (90kg) of beans, 100 cartons (24x0.5l) of Oil and 100 blankets.

## **7.0 EMERGING ISSUES**

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

- No major incidence reported.

### **7.2 Migration.**

- No major livestock migration.

### **7.3 Food security prognosis**

- Already, some pigeon peas are being harvested within the county. Markets are operating normally with Terms of Trade being above average at 112. Replanting took place in most areas with emphasis on drought tolerant varieties as seen by the sorghum was at the head formation stage and cassava which was at the vegetative stage.
- Animal body condition was good for both the large and small herd countywide as a result of adequate pasture regeneration and is expected to remain relatively stable for the next 1-2 months. Milk production has also gone up

## **8. RECOMMENDATIONS**

- Distribution of mosquito nets and aqua tabs across the county as well as outreaches on safe water use.
- Pasture harvesting and silage storage trainings for farmers.
- Proper post-harvest storage techniques trainings for farmers.