

# National Drought Management Authority

MERU COUNTY

DROUGHT EARLY WARNING BULLETIN FOR SEPTEMBER 2019



A Vision 2030 Flagship Project



## SEPTEMBER 2019 EW PHASE

Drought Status: **ALERT**



Maandalizi ya mapema

### Drought Situation & EW Phase Classification

#### Biophysical Indicators

- During the month the county experienced very little to no rainfall in the Rain Fed and Mixed Farming livelihood zones. The agro pastoral and Rain fed Livelihood zones didn't receive any rainfall in the month under review.
- The little rainfall was below long term average for the dekad one in the Rain Fed and Mixed Farming livelihood zones in the month under review.
- The VCI for the Igembe North, Igembe Central and Igembe South sub counties depicted moderate vegetation deficit.

#### Socio Economic Indicators (Impact Indicators)

##### Production Indicators

- Land preparation in Rain fed livelihood zone.
- Livestock body condition was fair to poor for all species.
- Milk production per HH per day was within the normal.

##### Access Indicators

- Terms of Trade were below the normal range.
- Milk consumption per HH per day was below normal range.
- Return distances to water sources were above the normal range.
- Distances to water sources from grazing areas were above the normal range.

##### Utilization Indicators

- The proportion of children at risk of malnutrition remained within the normal range.

## Early Warning Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Stable
Agro - Pastoral	Alert	Worsening
Rain Fed Cropping	Alert	Deteriorating
County	Alert	Deteriorating
Biophysical Indicators	Value	Normal Range/ Value
Rainfall (% of Normal)	94	80 - 120
VCI-3Month	32.62	35 - 50
Production indicators	Value	Normal
Maize Crop Condition	Land Preparation	Land Preparation
Livestock Body Condition for cattle	Fair to Poor	Fair
Milk Production per HH/ day	1.9	1-2Litres
Livestock Migration Pattern	Normal	Normal
Access Indicators	Value	Normal
Terms of Trade (ToT)	78.3	112
Milk Consumption per HH/ day	0.9	1.1Litres
Return HHs distance to water sources	7.2	<6 Km
Water source return distance from grazing areas	13.0	9 Km
Cost of water (20 litres)	2.50-5.00	Kshs 3.00 - 5.00
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	18.7	<20.0

<ul style="list-style-type: none"> <li>▪ Short rains harvests</li> <li>▪ Increased HH Food Stocks</li> <li>▪ Short dry spell</li> <li>▪ Reduced milk yields</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>▪ Increased HH Food Stocks</li> <li>▪ A long dry spell</li> <li>▪ Land preparation</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
-----	-----	-----	-----	-----	-----	-----	-----	------	-----	-----	-----

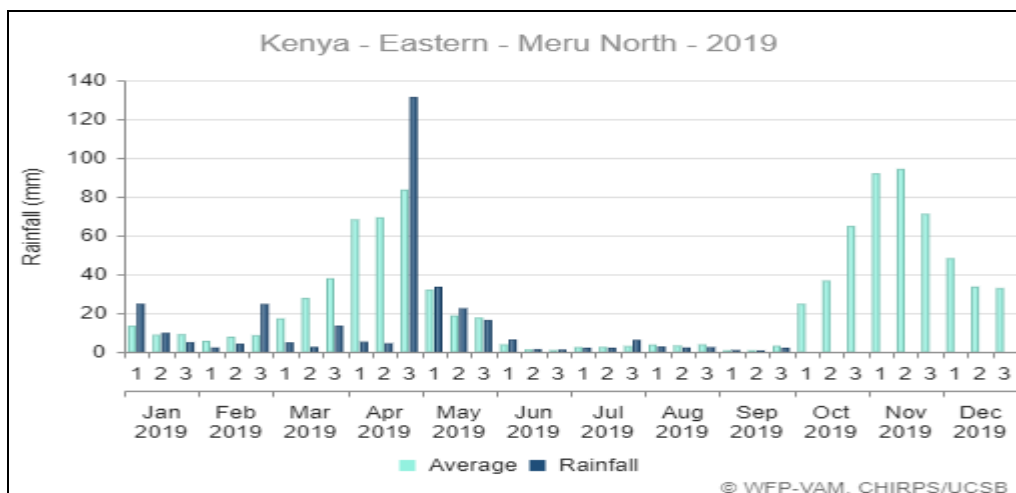
# 1. CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

- During the month, the county experienced very little to no rainfall in Rain Fed livelihood zone. The agro pastoral zone did not receive any rainfall in the month under review.
- The little rainfall was below long-term average for the dekad one in the Rain Fed and Mixed Farming livelihood zones in the month under review.

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

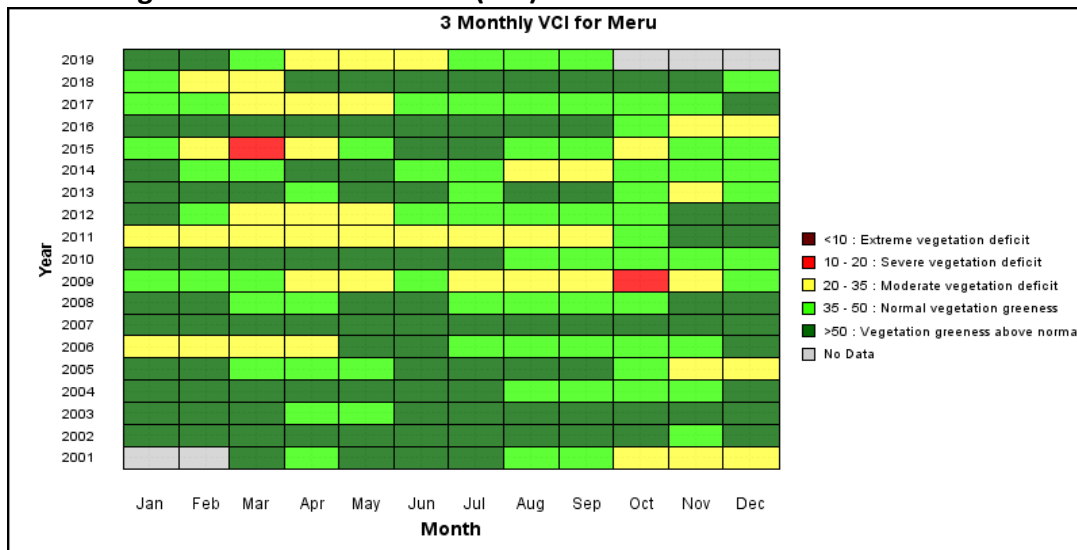
- According to WFP-VAM, Climate Hazards Group InfraRed Precipitation with Station Data (CHIRPS) three months' rainfall anomaly was within the normal at 94%.
- Dekad one, two and three recorded 0.6mm, 0.4mm and 1.8mm of rainfall amounts respectively.
- Compared to LTM dekad two and three were below by 20.0% and 35.7% respectively while dekad one was above by 20%.



# 2. IMPACTS ON VEGETATION AND WATER

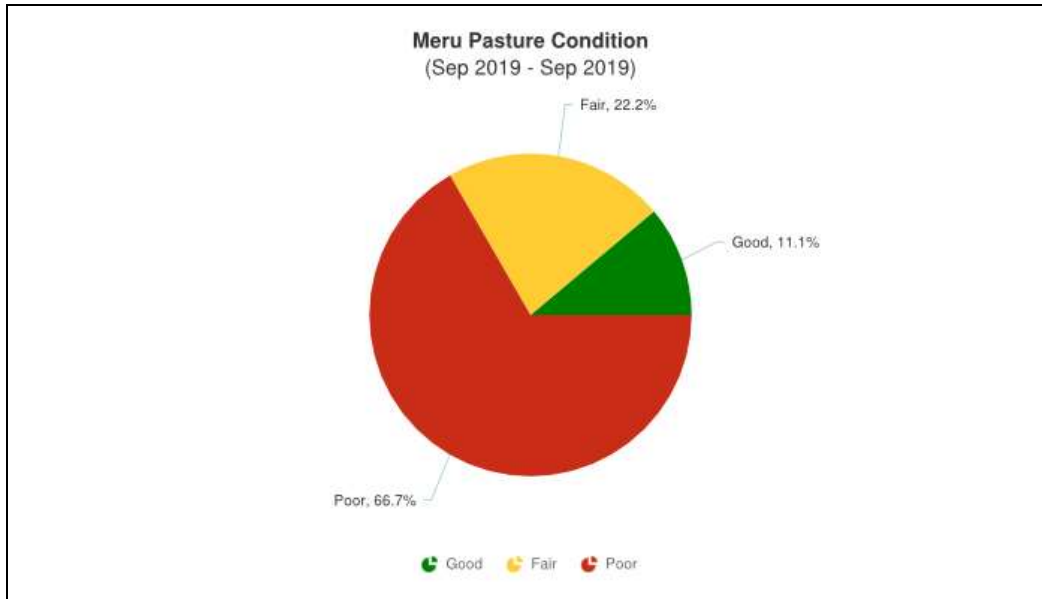
## 2.1 VEGETATION CONDITION

### 2.1.1 Vegetation Condition Index (VCI)



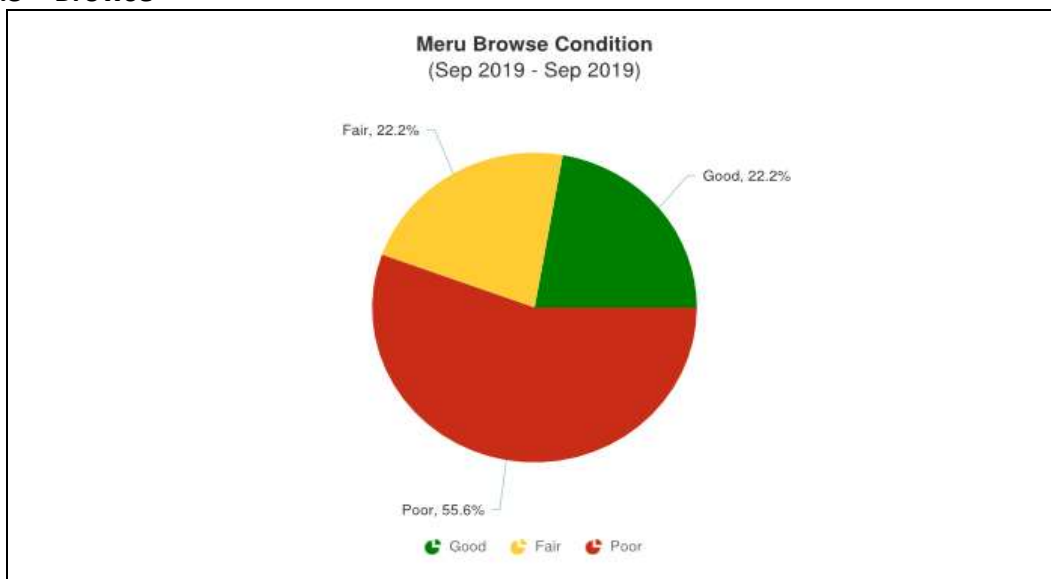
- The county vegetation greenness condition was normal as depicted by a vegetation condition index (VCI) value of 47.85
- Igembe North, Igembe South and Igembe central Sub Counties have VCI depicted moderate vegetation deficit.
- The current situation is attributed to very little to no rainfall in the past 4 months in the Rain fed livelihood zone.

### 2.1.2 Pasture



- Based on community interviews conducted 11.1%, 22.2% and 66.7% of respondents reported pasture condition was good, fair and poor respectively. Pasture has deteriorated as compared to last month in Rain fed livelihood zone. Areas reporting poor conditions was Agro pastoral zone livelihood zone.

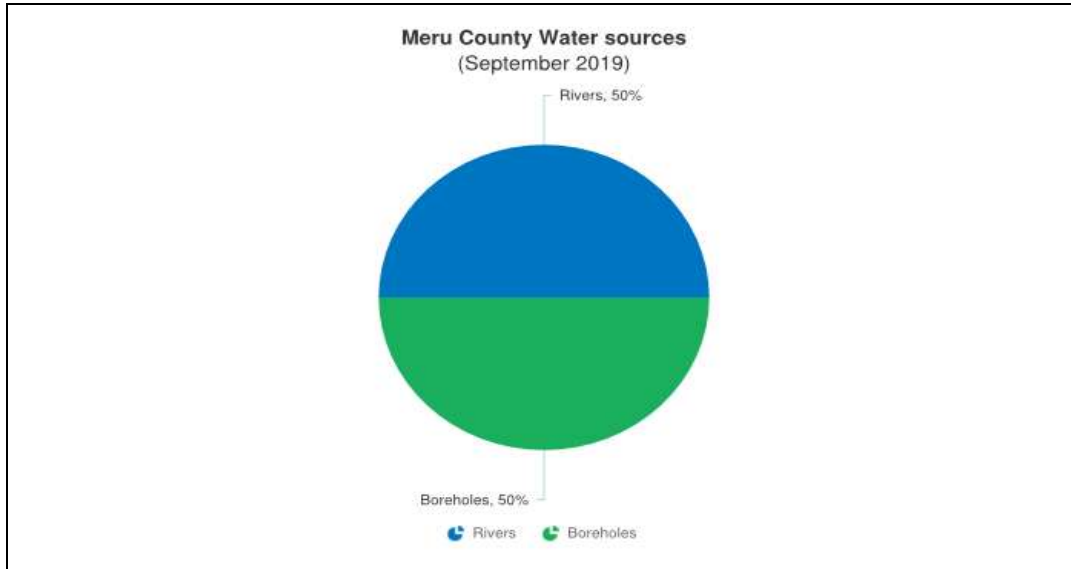
### 2.1.3 Browse



- Results from community interviews undertaken showed that 22.2%, 22.2% and 55.6% of respondents confirmed browse condition was in good, fair and poor conditions respectively.
- The browse situation has deteriorated as compared to last month in all the livelihood zone.
- The available browse in Agro pastoral Zone livelihood zone was still poor.
- Constraints were observed in accessing browse in the month under review due to water and distance mainly in the Agro pastoral Zone.

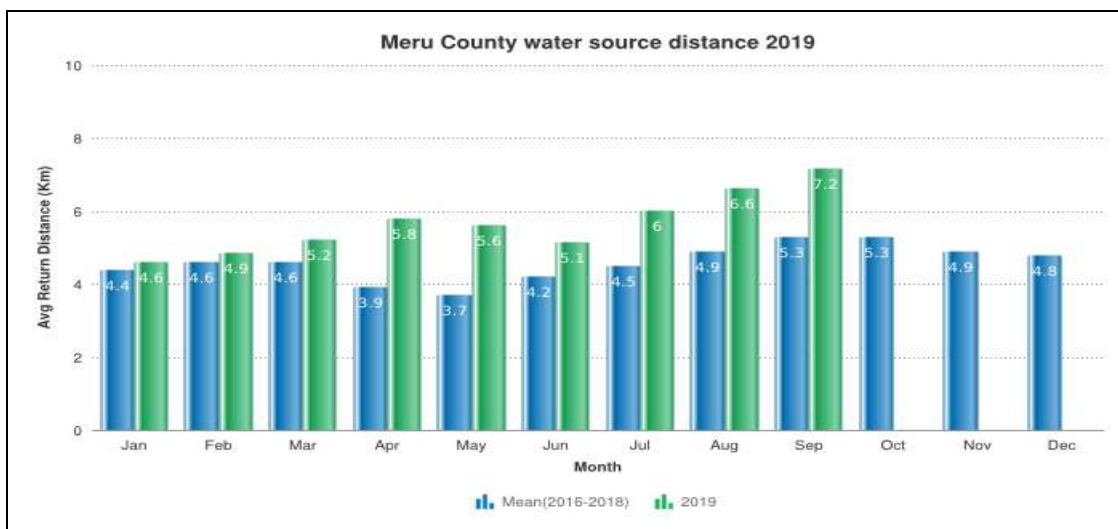
## 2.2 WATER RESOURCE

### 2.2.1 Sources



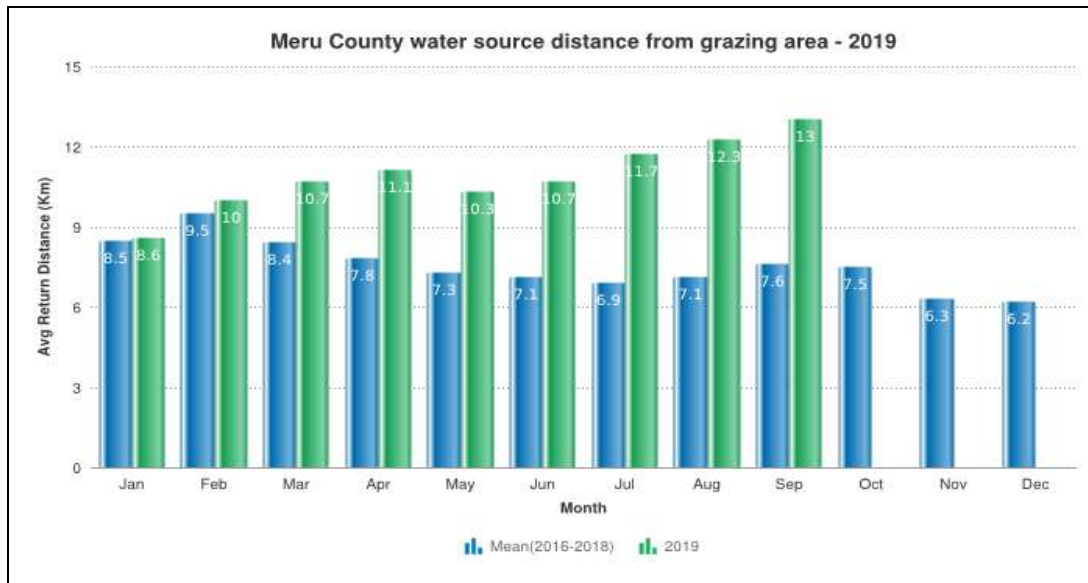
- The main sources of water from community interviews conducted were rivers and boreholes by 50.0 and 50.0 percent respectively.
- The county government had drill additional boreholes in most of the wards, this has greatly contributed to water availability.
- Most pans have no water and Short distances are witnessed in areas where additional boreholes were drilled.
- Major rivers have dried up from downstream e.g. Urra, Mboone rivers.

### 2.2.2 Household Access to Water



- Return distances to fetch water increased to 7.2km from 6.6km recorded the previous month.
- The increase was because no rains were received in the Agro pastoral livelihood zone and some areas in mixed farming and Rain fed livelihood zones.
- Compared to the long term average the current distance is longer by 35.8%
- The average cost of 20 litre jerry can at water kiosks was ranging between Kshs 2.50 to Kshs 5.00 which is normal at this time of the year.
- Based on community interviews conducted, 31.6% of respondents treated water. Out this number 80.0% use boiled water while 20.0% filter water.

### 2.2.3 Livestock Trekking Distance to Water Sources from Grazing Areas



- Return distance to water source from grazing areas increased to 13.0km from 12.3km posted in the previous month.
- This was due to browse scarcity and long distances to water points in the Agro pastoral Livelihood zone. The Rain fed and Mixed Farming livelihood zones experienced shorter distances to water and pasture compared to the agro pastoral zone.
- Compared to LTM the distance is longer by 71.1% in agro pastoral zone

## 3. PRODUCTION INDICATORS

### 3.1 LIVESTOCK PRODUCTION

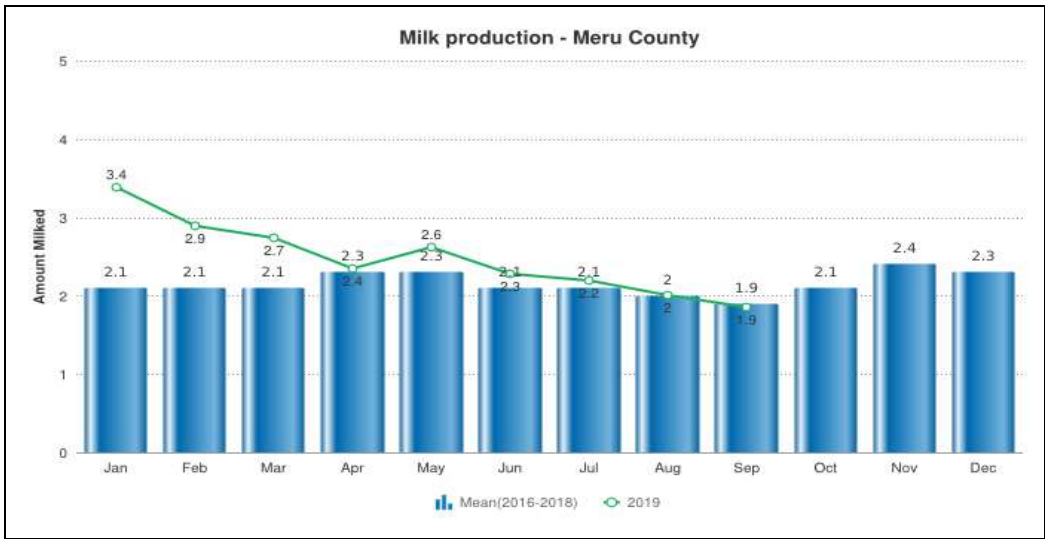
#### 3.1.1 Livestock Body Condition

- In all livelihood zones livestock body condition was fair to poor for all species.

#### 3.1.2 Livestock Diseases

- No livestock diseases were reported across all livelihood zones.

#### 3.1.3 Milk Production



- The average milk production per household per day decreased to 1.9 litres compared to 2.0 litres posted in the previous month.
- Milk production was the same as Long Term Average.
- Milk production was high in Mikinduri Ward where cattle are of better breed and practice zero grazing. Rain fed and Mixed farming livelihood zones has more pasture and water availability as compared to Agro pastoral zone.
- Average milk price per litre at household level was Ksh 60.00

### 3.2 RAIN-FED CROP PRODUCTION

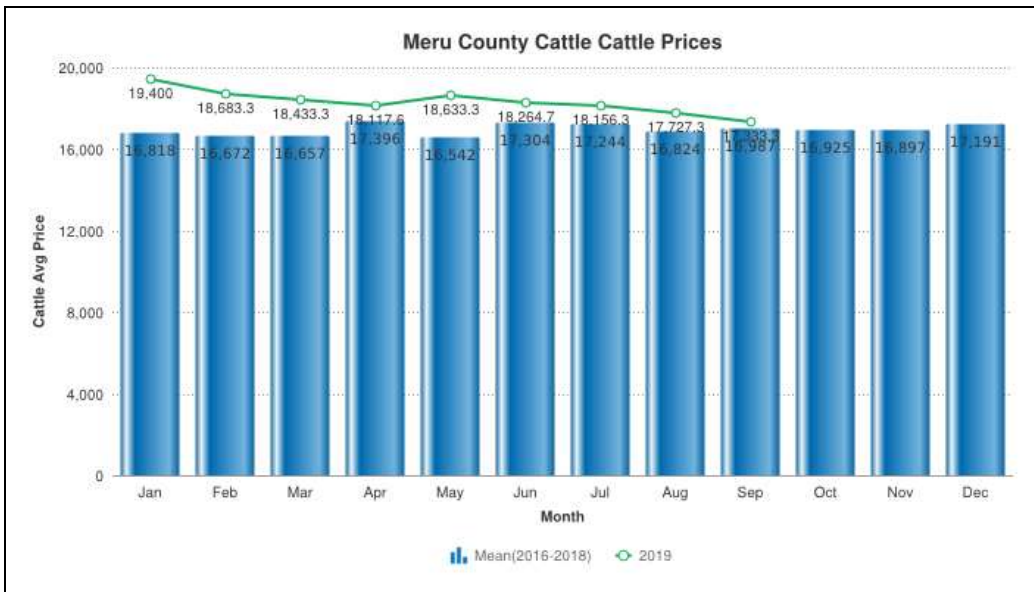
#### 3.2.1 Stage and Condition of food Crops

- Most farmers were preparing their farms in Mixed Farming and rain fed livelihood zones. The agro pastoral are waiting for the next season to plant.

## 4.0 MARKET PERFORMANCE

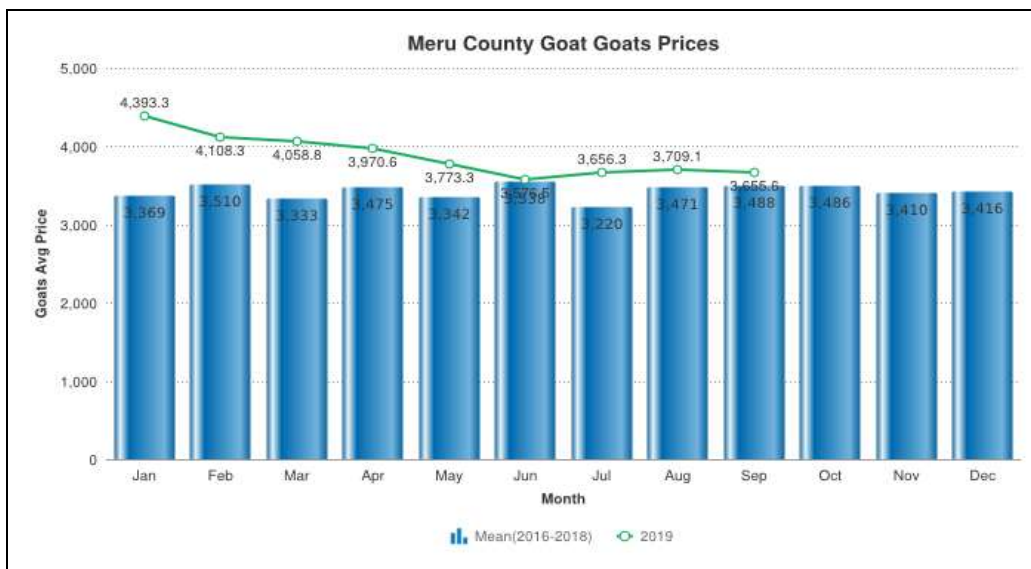
### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices



- The average market price of a three-year-old bull was at Kshs 17,333 compared to the previous month of Kshs 17,727.
- The trend is stable and compared to the previous year at this time.
- Crop residues supplemented the livestock feeds majorly in mixed farming and rain fed cropping livelihood zones. Body condition of cattle is likely to deteriorate in the following two months due to increasing trekking distances to water sources and diminishing pasture.
- This will reduce market value of the livestock's hence lower the milk produced and consumed at household level leading to increased cases of malnutrition.
- Compared to the long term mean, the average price was higher by 2.0%.

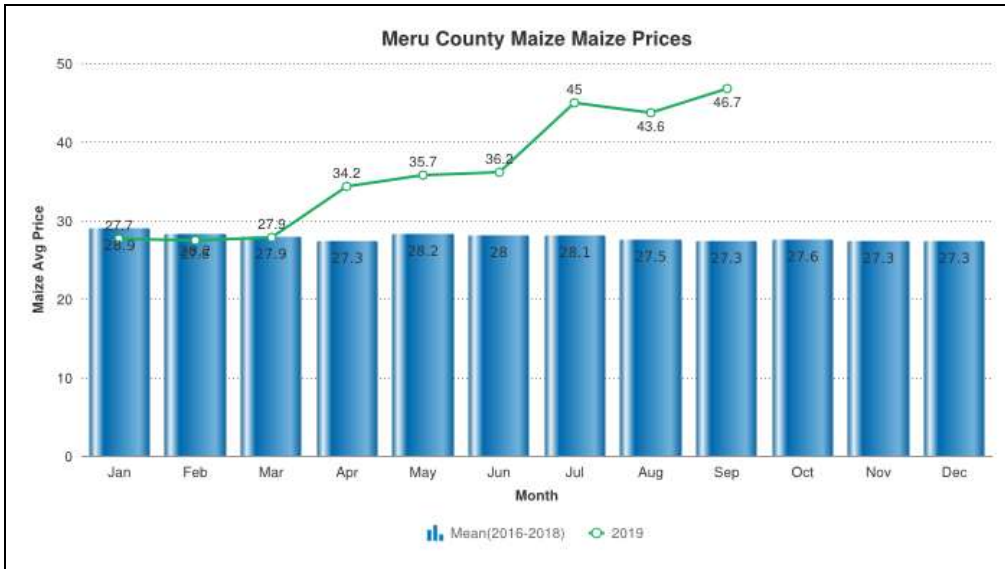
#### 4.1.2 Goat Prices



- The average market price of a two-year goat was Kshs 3,655 compared to Kshs 3,709 posted in the previous month.
- Sheep and goats body condition is likely to remain stable in mixed farming and rain fed cropping livelihood zones during the same period due to availability of browse and crop residues.
- The change in price could be attributed to reduction in browse quantity mostly in Agro pastoral livelihood zone.
- Compared to long term mean, the average price was higher by 4.8%.

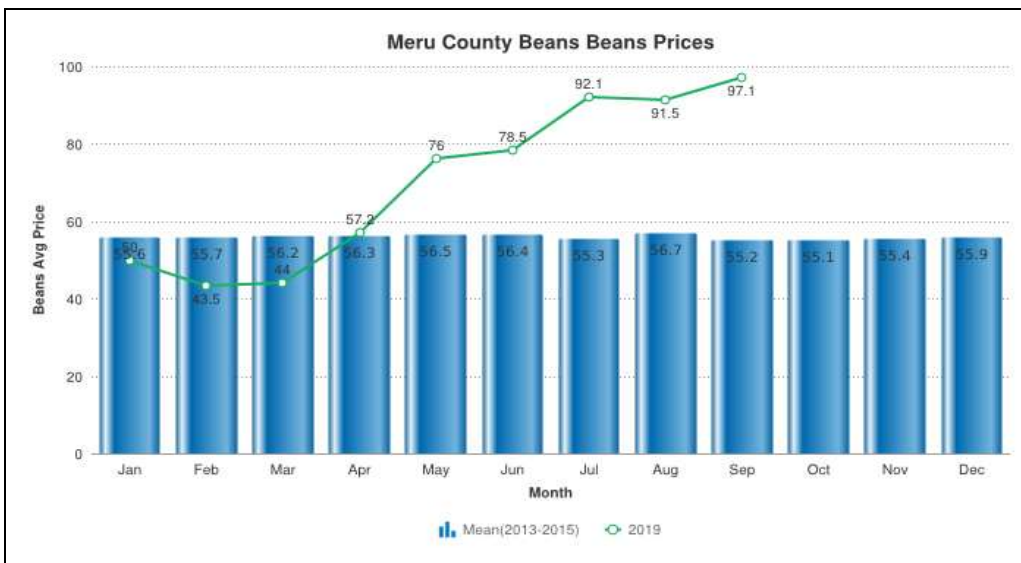
## 4.2 CROP PRICES

### 4.2.1 Maize



- The average market price of a kilo of maize has decreased to retail at Kshs 46.70 compared to the previous month of Kshs 43.60
- The general rise was due to delayed rains and uncertainty of the rainfall performance in all the livelihood zones, the farmers who have last season stock had to sell at high price to due to demand in the market.
- The price of maize has slightly decreased due to little harvest experienced in Rain fed livelihood zone.
- The prices were Kshs 45-50 per kilo for all the livelihood zones.
- Compared to the long term average the current price was above normal.

#### 4.2.2 Beans

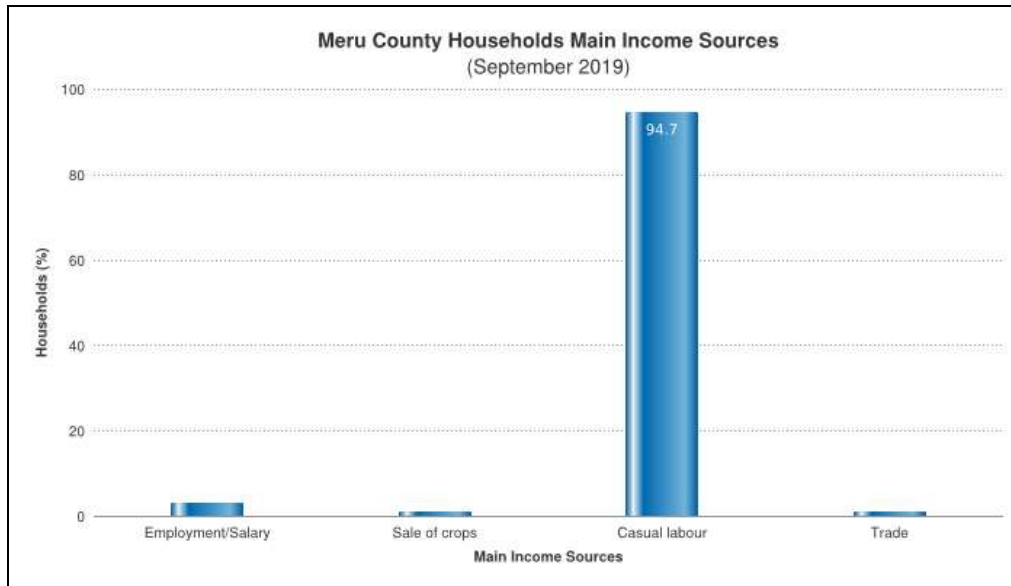


- Average market price of a kilo of beans was Kshs 97.10 which was high compared to Ksh 91.50 posted previous month. This was due to the delayed rains during this planting season and very high demands in the market
- Households with stocks were unwilling to release them to the market for fear of the performance of rains.



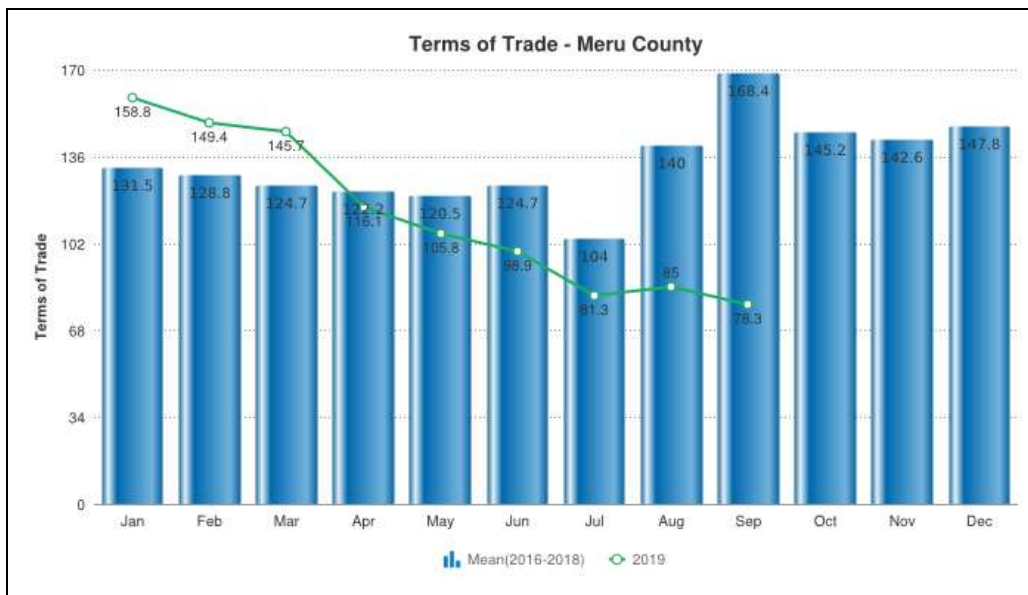
- The prices were Kshs 90-100 per kilo for all the livelihood zones.
- Compared to the long term mean the price was higher by 75.9%.

#### 4.2 INCOME



- Household main source of income were casual labour. Others were trade, sale of crops and employment/salary at lower proportions.
- Trade were stable trend compared to previous months.
- Casual labour opportunities were available in the Miraa plantations and town centres.

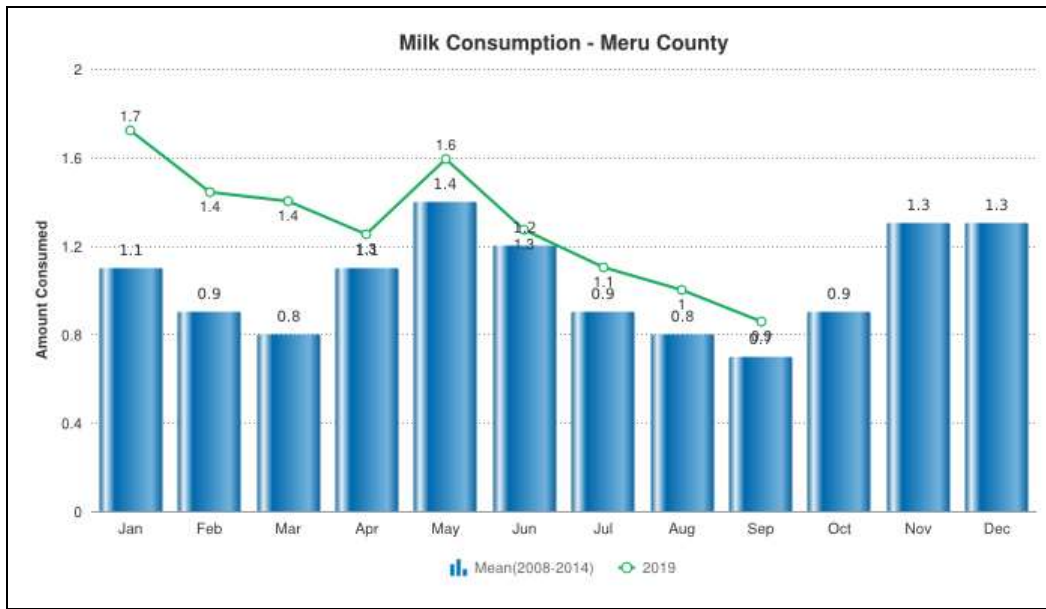
#### 4.4 TERMS OF TRADE



- Terms of trade were below the LTA at 78.3
- Terms of Trade was below the LTA by 53.50 percent.
- The downward trend was attributed to stable price of goats and sharp increase in price of maize.
- Proceeds of sale of goat could purchase 78.3 kilograms of maize.

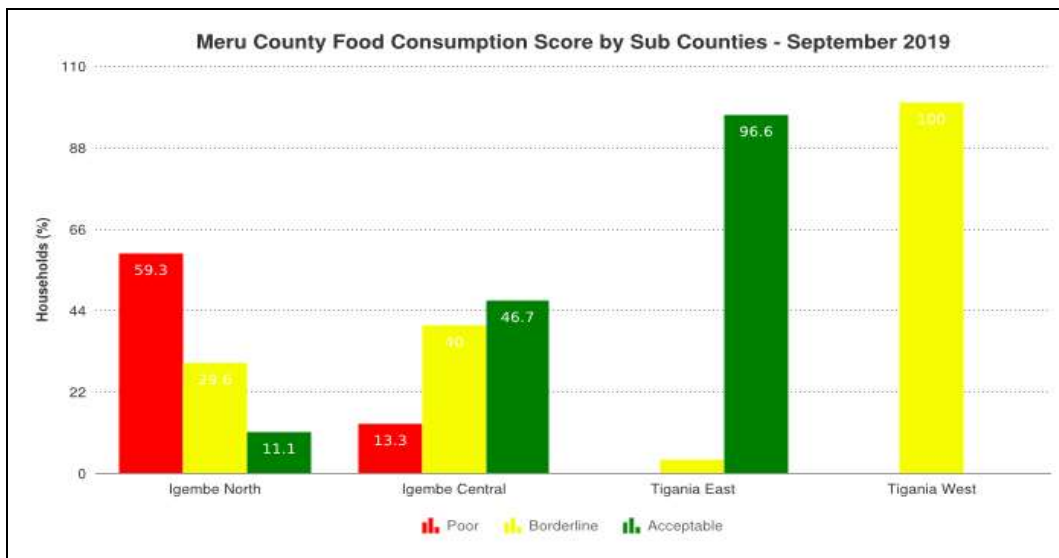
## 5. FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION



- Milk consumption per household per day was at 0.9 litres in the month under review.
- The quantity of milk consumed was low in Agro pastoral livelihood zone.

### 5.2 FOOD CONSUMPTION SCORE

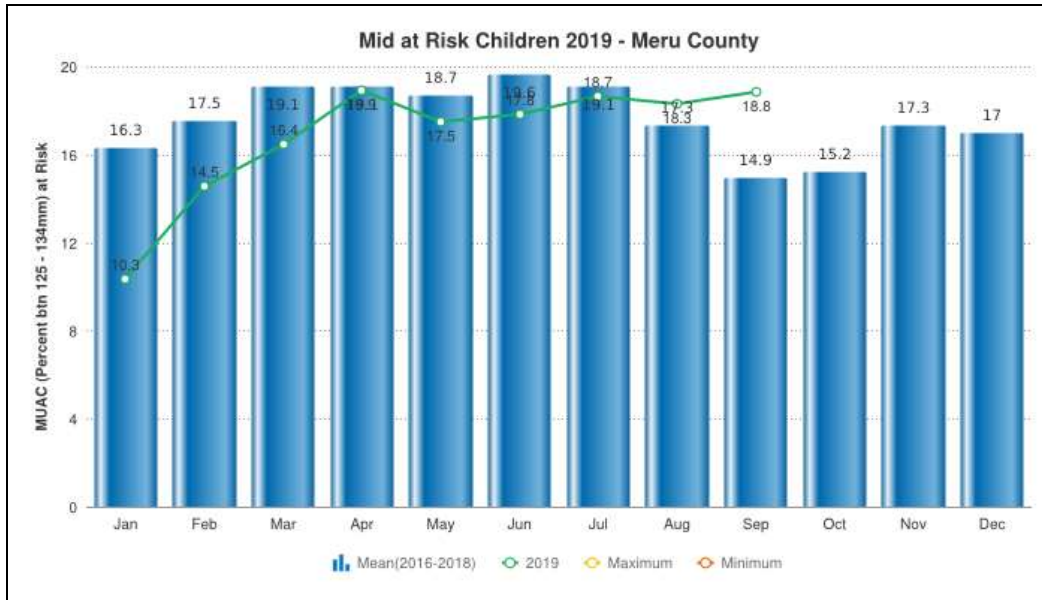


- Households interviewed showed that 38.6 percent were in the acceptable food consumption score category indicating that they were consuming an acceptable diet in terms of meal frequency, dietary diversity, nutritional value and amount. The proportions of households under borderline category was 43.3 percent. The rest 18.1 percent was poor.
- 51.8 percent households interviewed reported consumption of grains for about six days, 31.6 percent of these households consumed pulses for an average of five days in a week.

- Most households consumed more than three food groups i.e. maize, vegetables and pulses

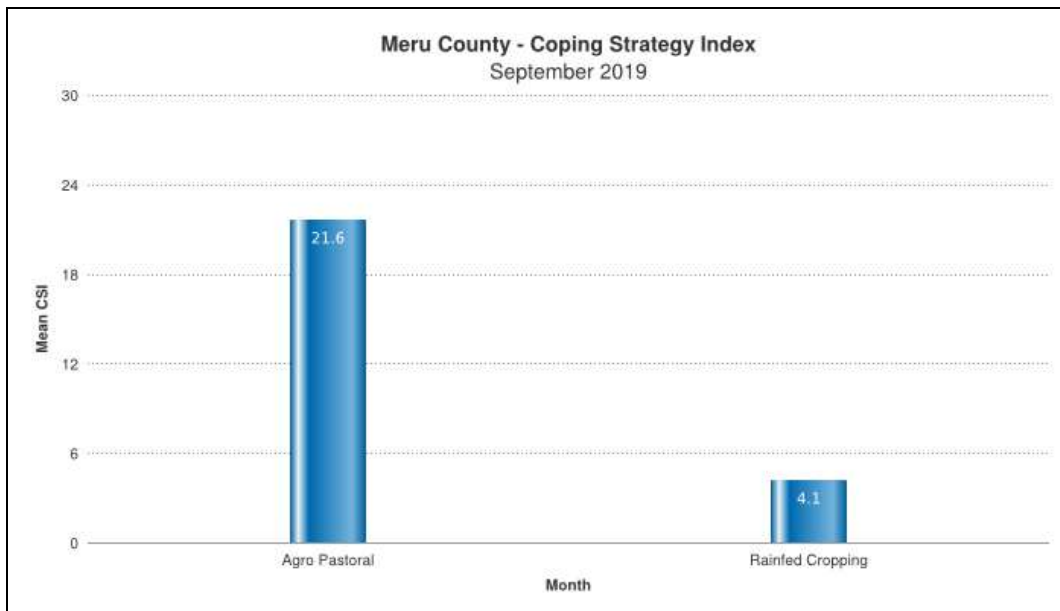
### 5.3 HEALTH AND NUTRITION STATUS

#### 5.3.1 Nutrition Status



- Mid Upper Arm Circumference (MUAC) measurement for children below five years at risk of malnutrition was at 18.8 percent compared to previous month of 18.8 percent.
- This was above the long term mean by 26.2 percent.

#### 5.3.2 Coping Strategies



- The CSI for the month under review was recorded at 16.22 compared to 20.26 posted in the previous month.
- This demonstrates that households were employing the more coping strategies compared to previous month.
- Approximately 49.2 percent of sampled households engaged in reduction of meals and reduced portion of meals for about seven days in a week.

## **6.0 EMERGING ISSUES**

### **6.1 Insecurity/ Conflict/ Human Displacement**

- Small Pockets of human conflicts were witnessed in Agro pastoral zone.
- Low Vitamin A and immunization coverage in some pockets within the county

### **6.2 FOOD SECURITY PROGNOSIS**

- Prices of maize and beans are extremely high.
- Quality and quantity of pasture and browse is expected to deteriorate.
- Livestock production and productivity is expected to decrease due to availability of water at longer distances with time.

### **6.3 On-going interventions**

- Water tracking in primary and secondary schools, health centres and communities all in agro pastoral livelihood zone.

## **7. RECOMMENDATIONS**

### **Agriculture and Livestock Sector**

- Farmers to be trained on crop rotation to break the cycle of pest and diseases.
- Livestock disease surveillance due to influx of camels in the agro pastoral livelihood zone.
- Provision of relief seed (DTS)
- Livestock vaccination
- Fall Army worm surveillance

### **Water and Irrigation Sector**

- Provision of water treatment tabs mainly in Kangetha ward, Kamweline and Ndoledi.
- Provision of water tanks to institutions and communities are underway.
- Stand-by genset for Ndumuru borehole.
- Servicing of operational boreholes and fuel subsidy.

### **Public Health and Nutrition Sector**

- Provision of water treatments compounds at household level.
- Provision of (adequate) vaccines in health facilities
- SMART survey.
- Integrated outreach clinic

### **Peace and security**

- Peace building and conflict resolution meetings in Meru-Isiolo-Tharaka border across Inter – county and inter- sub county