# National Drought Management Authority

**KITUI COUNTY**

**DROUGHT EARLY WARNING BULLETIN FOR MAY 2018**

A Vision 2030 Flagship Project

## MAY EW PHASE


**Early Warning (EW) Phase Classification**

| Livelihood Zone | Phase | Trend |
|---|---|---|
| Marginal Mixed Farming | Normal | Stable |
| Mixed Farming | Normal | Stable |
| **COUNTY** | **Normal** | **Stable** |

| Biophysical Indicators | Value | Normal Range/Value |
|---|---|---|
| Rainfall (% of normal) | 77.4 | 80-120 |
| VCI-3 month | 79.07 | 35-50 |
| Forage Condition | Good | Good |
| **Production indicators** | **Value** | **Normal** |
| Crop Condition | Good | Good |
| Livestock Body Condition | Moderate | Moderate |
| Milk Production (in litres) | 1.4 | ≥ 2.1 |
| Livestock Migration Pattern | Normal | Normal |
| Livestock Deaths (from Drought) | No death | No death |
| **Access Indicators** | **Value** | **Normal** |
| Terms of Trade (ToT) | 115 | ≥ 82 |
| Milk Consumption (in litres) | 1.2 | ≥ 1.3 |
| Return Distance to Water Sources (in Km) | 4.9 | ≤5.8 |
| Cost of Water at Source (20 litres Jerry can) | 2-5 | ≤5Ksh |
| **Utilization indicators** | **Value** | **Normal** |
| Nutrition Status, MUAC (% at risk of malnutrition) | 9.2 | ≤8 |
| Coping Strategy Index (CSI) | 7.4 | ≤10 |

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- The county received 77.4 percent of May rains which was fairly distributed in amount, time and space. The rains were below normal.
- The vegetation condition was good and above the normal range.

**Socio-Economic Indicators (Impact Indicators)**

**Production Indicators**

- Crops were at grain filling/harvesting and were in good condition.
- The livestock body conditions ranged from fair to good across the livelihood zones with no abnormal cases of migration, diseases or death reported.
- Livestock Milk production was below normal.

**Access Indicators**

- Terms of trade were favourable compared to long term mean.
- Milk consumption was slightly below normal.
- Distances to water sources were within normal range.
- The cost of water at source was normal.

**Utilization Indicators**

- The percentage of children at risk of malnutrition was above normal.
- Households employed normal coping mechanisms to cope with lack of food or money to buy food.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ▪ Short rains harvests<br>▪ Short dry spell<br>▪ Reduced milk yields<br>▪ Increased HH Food Stocks<br>▪ Land preparation | | ▪ Planting/Weeding<br>▪ Long rains<br>▪ High Calving Rate<br>▪ Milk Yields Increase | | | | ▪ Long rains harvests<br>▪ A long dry spell<br>▪ Land preparation<br>▪ Increased HH Food Stocks<br>▪ Kidding (Sept) | | | ▪ Short rains<br>▪ Planting/weeding | | |
| | | | | | | | | | | | |
| **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sept** | **Oct** | **Nov** | **Dec** |

# 1.0 CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

- March-April-May (MAM) 2018 seasonal ceasation was in the second week of May . This was early as opposed to third week
- In the month of May, light showers were recorded in some parts of the county in a span of 1-2 days as shown in figure 1. This was 77.4 percent of the total amount expected in the region at this particular time of the year

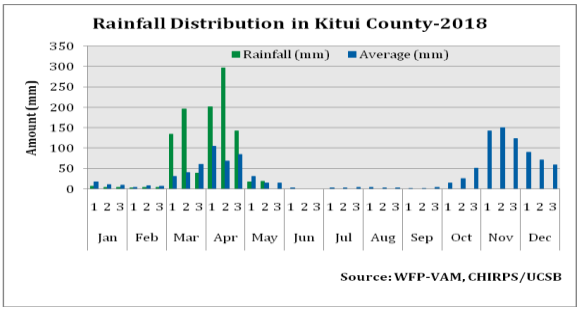


Figure 1: Kitui County Rainfall Distribution May 2018

# 2.0 IMPACTS ON VEGETATION AND WATER

## 2.1 VEGETATION CONDITIONS

### 2.1 1 Vegetation Condition Index (VCI)

- The vegetation greenness increased from 51.37 percent to stand at a 3 month VCI of 79.07 in May. This is an indication of above normal vegetation greeness as shown in figure 2 and 3.

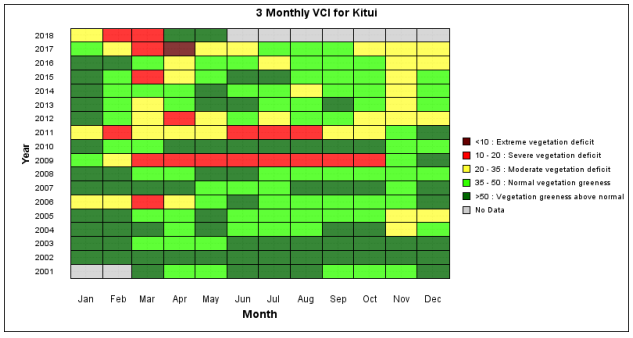


Figure 3: Kitui County 3 Monthly VCI

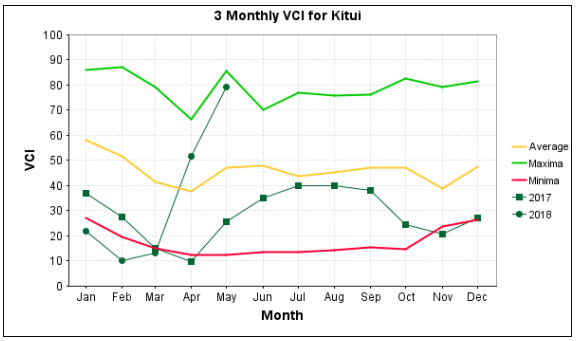


Figure 2: Kitui County 3 Monthly VCI Chart

### 2.1.2 Pasture

- Pasture condition ranged from fair to good across the livelihood zones.
- During community interviews, 75 percent of the pasture was considered good while the remaining 25 percent was fair in both quality and quantity. This was an improvement compared to previous month.
- In the Mixed Farming livelihood zones, 50 percent of the pastures were considered good while the remaining 50 percent of the pastures were fair while in Marginal Mixed Farming livelihood zones the pastures were largely considered good.
- Pasture condition was above normal for this time of the year and the available pasture is expected to last for 3-5 months.

### 2.1.3 Browse

- During the month, according to Community interviews conducted 87.5 percent of browse was considered good in quality and quantity. The remaining 12.5 percent of browse was considered fair and this is an improvement compared to previous month.

- In the Mixed Farming livelihood zones, 75 percent of the browse was considered good while the remaining 25 percent of them were considered fair while in Marginal Mixed Farming livelihood zones, the browses were largely good across the county.
- Browse condition is normal for this time of the year and the available browse is expected to last for 4-6 months.

## 2.2 WATER RESOURCE

### 2.2.1 Sources

- The main water sources for both human and livestock consumption were pans & dams, traditional river wells and Boreholes as shown in figure 4 and this is normal at this time of the year.
- Most of water sources had 70 percent recharge level across the livelihood zones in-exception of water sources in Nguni ward.
- The quantity of water improved in May compared to the previous month.

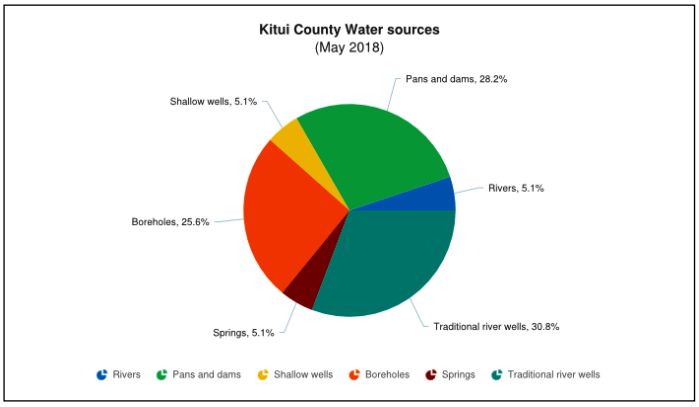

Figure 4:Kitui County Water Sources

### 2.2.2 Household Access and Utilization

- The average return distance from the households to water sources increased to 4.9 km in May 2018 from 3.2 km recorded in previous month.
- Households in the Marginal Mixed Farming livelihood zones trekked 1.6 km to main water sources compared to 1.3 km trekked in the Mixed Farming livelihood zones.
- This variation of the trekked distances across the livelihood zones was attributed to reduced recharge levels.

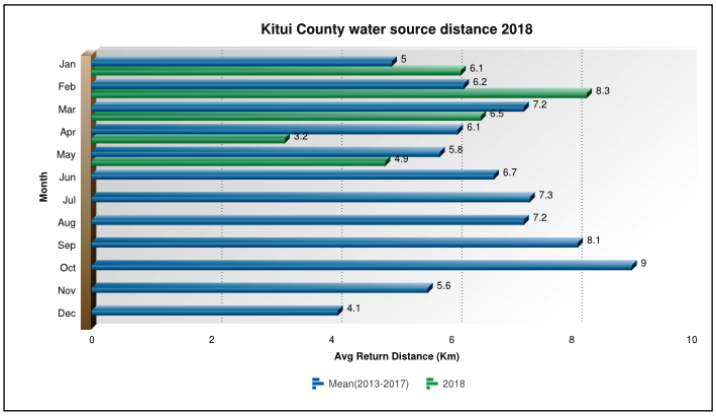

Figure 5: Kitui County Household Water Access

- The current average water distance is 16 percent below the long term mean as shown in figure 5.
- Water consumption per person per day remained at 13 litres in May as it was last month.
- The percentage of household buying water increased to 10 percent in April from five percent in previous month.
- The average price of water per 20 litre Jerry can at the source ranged from 2 to 5 shillings and this is normal.

### 2.2.3 Livestock Access

- Livestock average return distances from grazing areas to watering points increased by 10 percent to stand at 4.9km in May from 4.4km in previous month.
- There was no variation of distance across the livelihood zone, since they accessed equal distances to water from the grazing area.
- The current average distance from the livestock grazing areas to watering points is 7 percent below the long term mean as shown in figure 6.

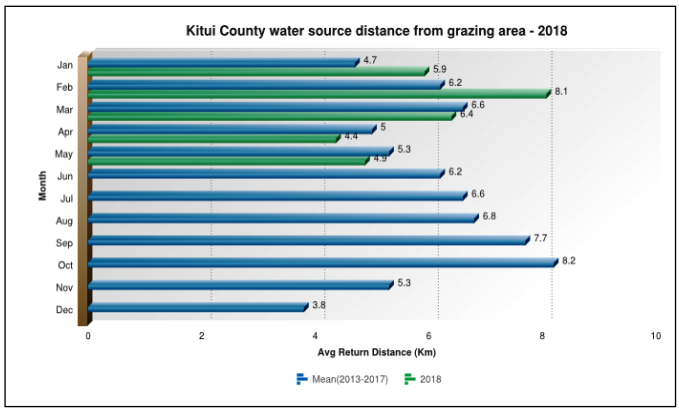


Figure 6: Kitui County Water Source access from Grazing Area

## 2.3 Implication to Food Security

- Food security situation is expected to stabilize due to slight increase in water distances and improving forage condition. However, owing to cumulative effects of losses due heavy rains which affected the infrastructures, this may have a negative impact on food security.

# 3.0 PRODUCTION INDICATORS

## 3.1 LIVESTOCK PRODUCTION

### 3.1.1 Livestock Body Condition

- Following improving forage condition and reduced water distances, Livestock body condition improved across the livelihood zones. The improvement has been from fair to good.
- Majority of livestock (54 percent) had good smooth appearance body condition. The remaining 46 percent had moderate; neither fat nor thin body condition and this is normal at this time of the year.
- Goats' body conditions were good and stable while cattle/sheep ranged from fair to good with significant signs of improving in most areas in the county.

### 3.1.2 Livestock Diseases

- No major cases of livestock disease outbreak were reported.
- Internal and external parasites remained a challenge in most of the livestock across the livelihood zones.

### 3.1.3 Milk Production

- The average daily milk production per household increased by 21 percent to stand at 1.4litres in May from 1.1litres in previous month. The increase has been attributed to improved forage condition and water availability.
- Households in Marginal Mixed Farming livelihood zone produced an average of 1.8 litres compared to 1.1 litres in Mixed Farming livelihood zone.
- The current milk production is 33 percent below the long term mean as shown in figure 7.

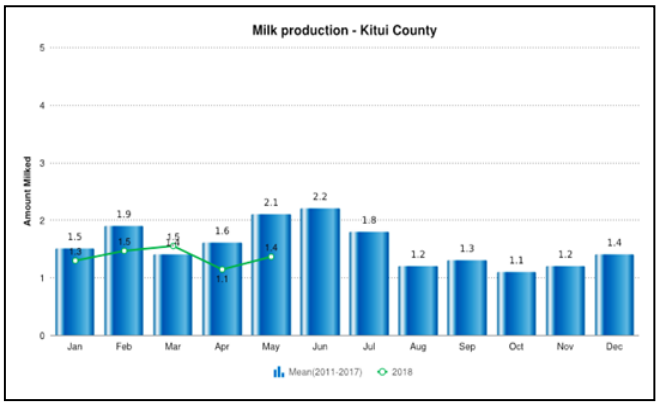

Figure 7: Milk Production

## 3.2 RAIN-FED CROP PRODUCTION

### 3.2.1 Stage and Condition of Food Crops

- Maize, cow peas, pigeon peas, green grams and beans were the main rain-fed crops planted in Mixed farming livelihood zone. In the Marginal Mixed farming livelihood zone, farmers planted mainly millet, cow peas, green grams, sorghum and maize.
- Most of these crops were at grain filling and harvesting for green grams, sorghum and cow peas. Those at grain filling are doing well.
- Fall army worm was also reported across the livelihood zones.

## 3.3 Implication of the Above Indicators to Food Security

- Improving livestock body condition and crops condition might have a positive impact on food security.
- Outbreak of fall army worm might impact negatively on the food security.

# 4.0 MARKET PERFORMANCE

## 4.1 LIVESTOCK MARKETING

### 4.1.1 Cattle Prices

- The average market price of cattle increased to stand at Ksh. 27,562 in May from Ksh. 26,358 in previous month and this could have been attributed to a stability in cattle body condition and reduced livestock volumes in the markets.
- A higher price was recorded in Mixed Farming livelihood zone at Ksh.29,900 compared to Ksh.23,667 in Marginal Mixed Farming livelihood zone.
- The current price of cattle is 1.5 percent below the long term mean as shown in figure 8.

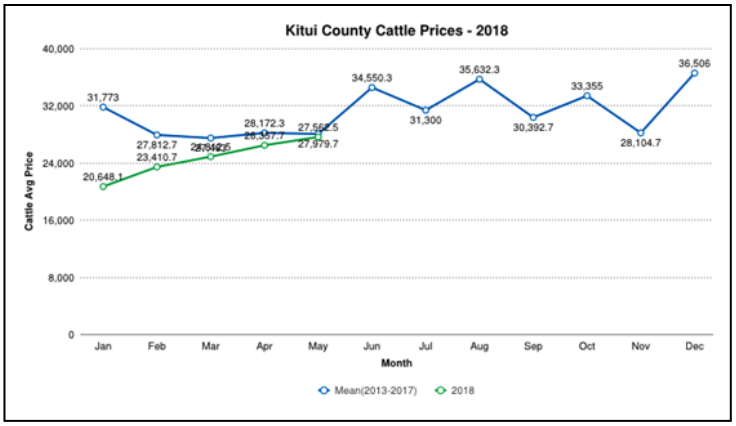


Figure 8: Cattle Prices

### 4.1.2 Small Ruminants Prices (Goat price)

- The average market price of goat increased to stand at Ksh. 3,373 from Ksh. 3,150 in previous month. This was attributed by improved goats body condition and reduced market volumes of livestock species.
- The average goat price was higher in Mixed Farming livelihood zone at Ksh.3,530 compared to Ksh.3,111 in Marginal Mixed Farming livelihood zone.
- The current price of goat is 7 percent above the long term mean as shown in figure 9.

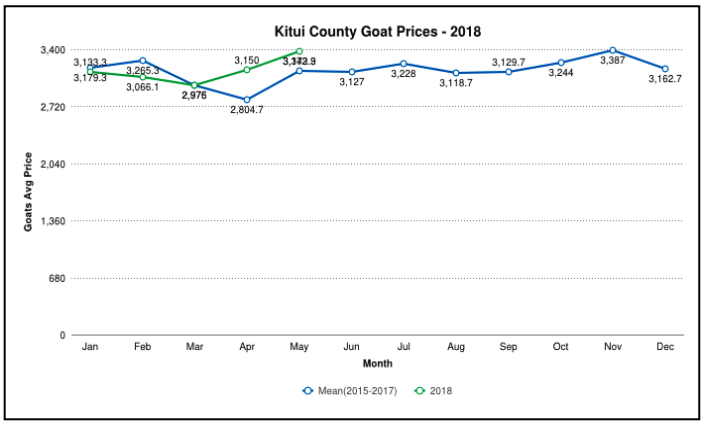


Figure 9: Goat Prices

## 4.2 CROP PRICES

### 4.2.1 Maize

- The average market price of maize per kilogram decrease to stand at Ksh.29 in May from Ksh.31 in previous month. The reduction in prices could have attributed to harvests realized across the county.
- A higher price of Ksh.30 was recorded in Marginal Mixed Farming livelihood zone compared to Ksh.29 in Mixed Farming livelihood zone.
- The current price of maize is 21

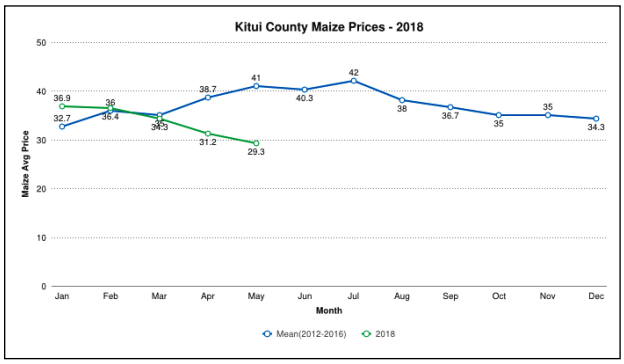


Figure 10: Maize Prices

percent below the long term mean as shown in figure 10.

### 4.2.3 Beans

- The average beans price remained stable at Ksh.72 in May from Ksh.79 in previous month and this could have been attributed to on-going harvest of the commodity and other substitutes at the household level.
- A higher price of Ksh.80 was recorded in Marginal Mixed Farming livelihood zone compared to Ksh.65 in Mixed Farming livelihood zone.

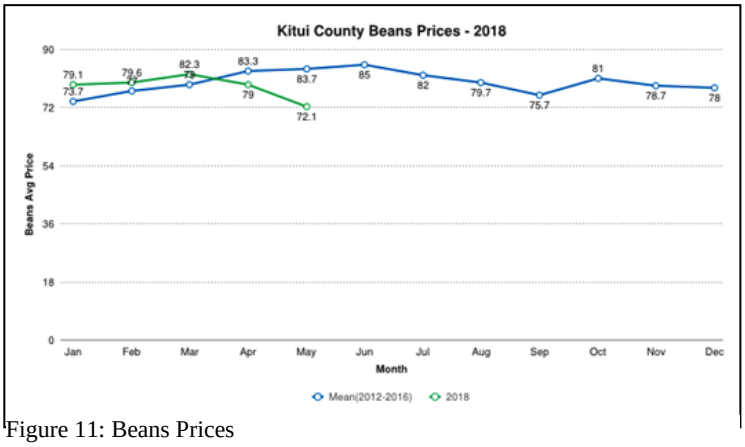

Figure 11: Beans Prices

- The current bean price is 14 percent below the long term mean as shown in figure 11

## 4.3 Livestock Price Ratio/Terms of Trade

- Terms of trade rose by 14 percent to stand at 115 in May from 101 in previous month. This implies that, households were able to purchase 115 kg of maize from earnings of a goat in May compared to 101 kg of maize in previous month. This was attributed to stability in both goat and maize prices.
- The sale of one goat would enable a household in Mixed Farming livelihood zone to purchase 122 kg of maize compared to 104 kg in Marginal Mixed Farming livelihood zone.

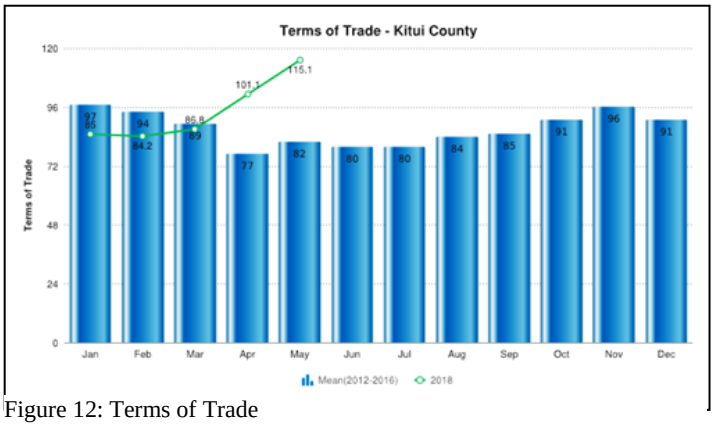

Figure 12: Terms of Trade

- The current terms of trade are 40 percent above the long term mean as shown in figure 12.

## 4.4 Implication of the Above Indicators to Food Security

- A stability in livestock and crop prices is likely to impact positively on household purchasing power hence improve the food security situation.

# 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

## 5.1 MILK CONSUMPTION

- The average daily milk consumption per household increased to stand at 1.2 litres in May from 1.1 litres recorded in previous month.
- Households in Marginal Mixed Farming livelihood zone consumed an average of 1.3litres per day compared to 1.0 litre in Mixed Farming livelihood zone.
- The current milk consumption is 8 percent below the long term mean as shown in figure 13.

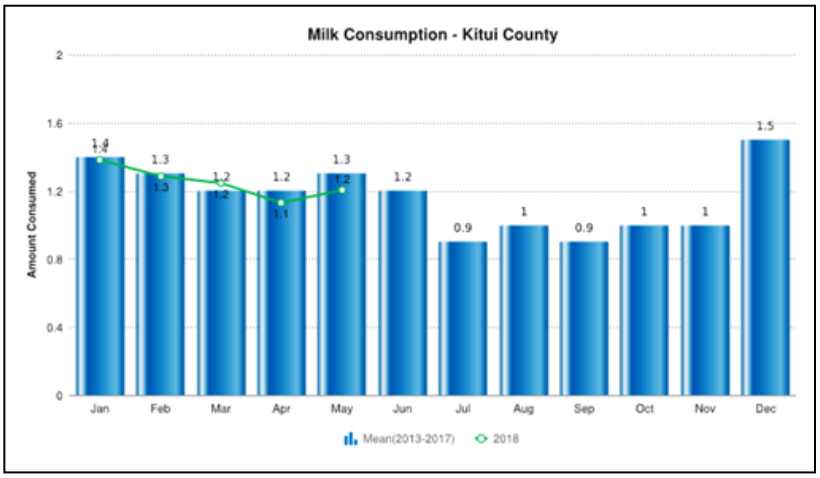


Figure 13: Milk Production

## 5.2 FOOD CONSUMPTION SCORE

- The percentage of households in acceptable food consumption category increased to stand at 80.2 percent in May from 68.1 percent in previous month. This could have been due available food owed by ongoing harvests.
- However, the proportion of households in poor and borderline food consumption category were at 0 and 19.8 percent respectively as shown in figure 14.
- Majority of households (90 percent) in Mixed Farming livelihood zone were in acceptable food consumption category compared to 72 percent in Marginal Mixed Farming livelihood zone.

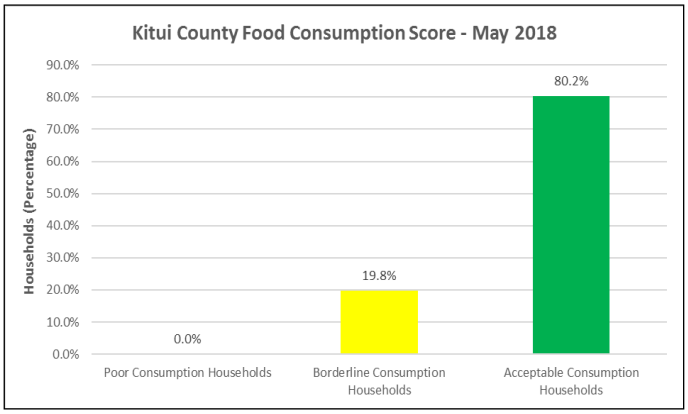


Figure 14: Food Consumption Score

## 5.3 HEALTH AND NUTRITION STATUS

### 5.3.1 Nutrition Status

- The proportion of children at risk of malnutrition (MUAC < 135mm) increased to 9.2 percent in May from 8.7 percent in previous month. This could have been attributed to increase of respiratory diseases.
- The proportion of mid at risk (MUAC 125-134mm) and severely (MUAC<115mm) malnourished children was 8.8 and 0.4 percent respectively.
- The current level of children at risk of malnutrition is above normal compared to long term mean as shown in figure 15.

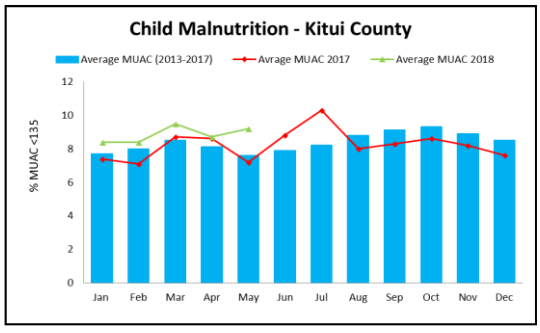


Figure 15: Children Risk of Malnutrition

### 5.3.2 Health

- During the month children were suspected to have fever with chills like malaria, fever with breathing difficulties and diarrhoea in May stand at 1.9, 1.4 and 0.9 percent respectively. This is the same as previous month.

## 5.4 COPING STRATEGIES

- The mean coping strategy index (CSI) declined by 14 percent to stand at 7.4 in May from 8.6 in previous month. This implies that, households employed less coping mechanisms in May compared to previous month to cope with lack of food or money to buy food.
- Households in Marginal Mixed Farming livelihood zone registered high CSI of 8.7 compared to 6 in Mixed Farming livelihood zone.
- The current CSI is 13 percent lower than the 2017 CSI at this particular time of the year as shown in figure 16.

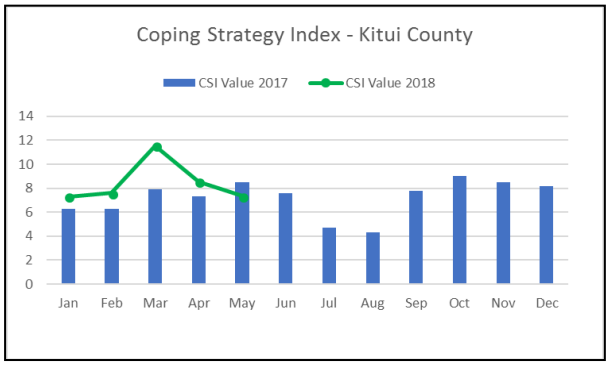


Figure 16: Coping Strategy Index

# 6.0 CURRENT INTERVENTION MEASURES

## 6.1 NON-FOOD INTERVENTIONS

- **Construction of auxiliaries in Mathima integrated drought preparedness project** in Kitui South Sub County by a joint partnership of National Drought Management Authority (NDMA), County Government of Kitui, Mathima community members and Anglican Development Services Eastern (ADSE). The activity is targeting 8,283 people (3,909 male and 4,374 female), 2100 cattle and 30,000 goats.
- **Cash for assets programme** by the National Government of Kenya through Action Aid, National Drought Management Authority, Caritas Kitui and United Nations World Food Programme targeting 22,220 beneficiaries in Kitui South, Kitui East, Mwingi Central and Mwingi North sub counties.
- **Vector control, deworming and treatment by County Government of Kitui in collaboration with State Department of Livestock.**The activity targets all livestock species across the county.
- **Extension services and eradication of fall army worm** by the County Government of Kitui.

## 6.2 FOOD AID

- Therapeutic Integrated Management of Acute Malnutrition for the Under-fives, Pregnant and Lactating Mothers (Supplementary Feeding Program (SFP), Out Patient Therapeutic Program (OTP) & Stabilization Centres by Ministry of Health supported by several partners.

# 7.0 EMERGING ISSUES

## 7.1 Insecurity/Conflict/Human Displacement

- No major incidences of resource-based conflict were reported.

## 7.2 FOOD SECURITY PROGNOSIS

- The cessation of long rains will impact positively on crop since it will support grain filling. This will substantially improve household income. Although crop production might be hampered by the presence of fall army worm.
- Cordial co-existence between pastoralists and locals will propel economic activities hence impact positively on food security.

# 8.0 RECOMMENDATIONS

## Immediate/Short term

- Promote home based water treatment and conservation measures such as storage facilities.
- Integrated health outreach programs.
- Provide food supplements to children under five years and lactating mothers
- Repair and rehabilitation of water pans, boreholes and gen sets across the county.
- Crop protection against pest and diseases.
- Training farmers on post-harvest handling techniques.
- Community sensitization on the importance of fodder preservation and controlled grazing.

## Medium and Long term

**Water Sector**

- Promotion of water harvesting, storage and management.
- Create awareness on the importance of protecting water sources.
- De-silting of earth dams and rock catchment.

**Agriculture Sector**

- Training of farmers on utilization and value addition of locally produced foods
- Training on post-harvest handling techniques
- Up scaling of current crop production improvement programs

**Livestock Sector**

- Community sensitization on the importance of fodder preservation and controlled grazing.
- Pasture establishment and seed bulking.
- Livestock development programs to improve production (goats, chicken, cattle).

**Health and Sanitation Sector**

- Support to Mobile outreach immunization.
- Formation of mother to mother support groups.
- Sensitization on hygiene and sanitation at household level.
- Carry out routine disease surveillance.
- Improve Vitamin A supplementation to children under five years and de-worming
- Improve vector control activities.

**Education Sector**

- Drilling of shallow wells and boreholes in schools.
- Expand HGSMP to all public schools.

**Peace Building Initiatives**

- Peace building and conflict management activities.