

**National Drought Management Authority  
KILIFI COUNTY  
DROUGHT EARLY WARNING BULLETIN FOR JULY 2018**



A Vision 2030 Flagship Project



**JULY EW PHASE**



**Drought situation and phase classification**

**Biophysical Indicators (Environmental indicators)**

- Below normal rains were recorded during the month under review.
- The state of water sources was normal at this time of the year.
- The 3-month Vegetation Condition Index (VCI) in July recorded above normal vegetation greenness as compared to the long term mean at this time of the year.

**Socio Economic Indicators (Impact Indicators)**

**Production indicators**

- Livestock body condition remained good for all livestock species across the all livelihood zones.
- Milk production recorded a decreased in July.
- Harvesting of rain fed crops was recorded during the month under review.

**Access indicators**

- Milk consumption recorded a decrease in July.
- The average household distances one way to water sources recorded a decrease.
- The average distance to water sources for livestock recorded some slightly increase compared to the previous month.
- The average food prices recorded a decrease during the month under review.
- The Terms of Trade were above the long term mean in the month of July.

**Utilization indicators**

- The number of sampled children under five at risk of malnutrition in the County remained stable in July compared to the previous month.
- Significant number of sampled households recorded acceptable food consumption.

**Early Warning(EW) Phase Classification and trends**

Livelihood Zone	Stage	Trend
Marginal Mixed farming	Normal	Stable
Livestock/Ranching	Normal	Stables
Cash Cropping/Dairy	Normal	Stable
Food Cropping	Normal	Stable
<b>COUNTY</b>	Normal	Stable
Biophysical Indicators	Value	Normal
Average Rainfall (mm)	16.5	26.9
VCI-3month	71.61	35-50
Production indicators	Value	Normal
Livestock Migration Pattern	No-migration	No intra-migration
Livestock Body Conditions	6-8	6-8
Milk Production ltr/hh/day	3.9	≥3.5
Crop condition	Good to fair	Good
Access Indicators	Value	Normal
Terms of Trade (ToT)	92.8	≥50.8
Milk Consumption (% range)	1.6	≥1.3
Average Water Distance for Households (Km)	2.7	≤2.0
Average Grazing-Water point Distance (Km)	4.9	≤ 4.3
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	5.6	6.3

<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>▪ Long rains</li> <li>▪ Planting/Weeding</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

# 1.0 CLIMATIC CONDITIONS

## 1.1 Rainfall performance

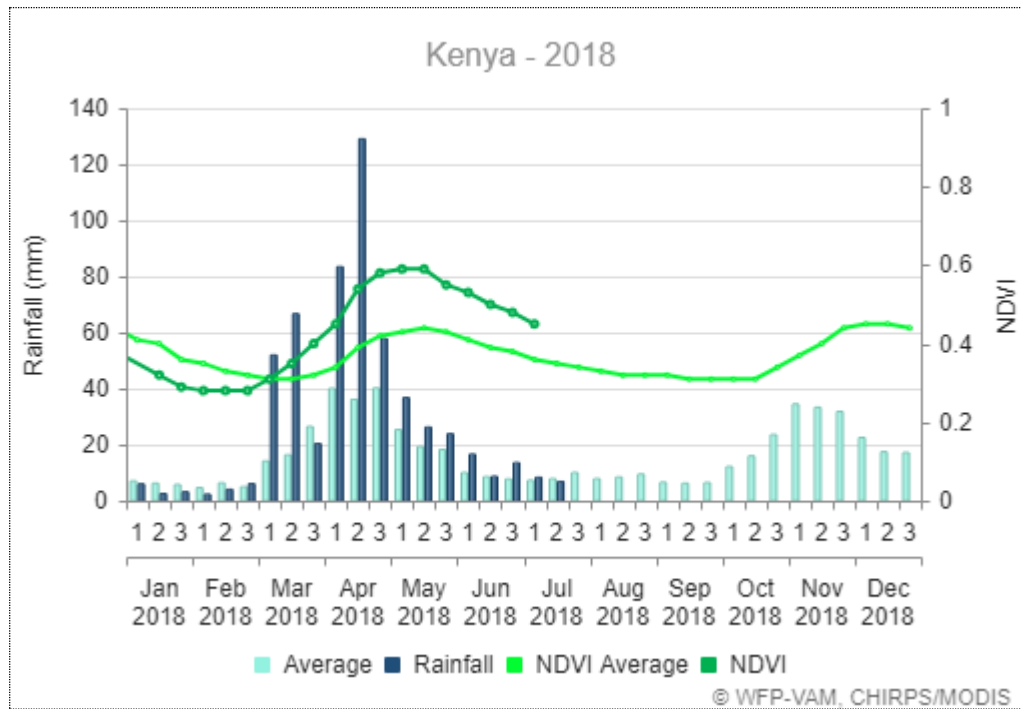


Figure 1a: Rainfall estimates and Normalized Difference Vegetation Index

- The month of July recorded a decreasing trend in the amount of rainfall as compared to the previous month.

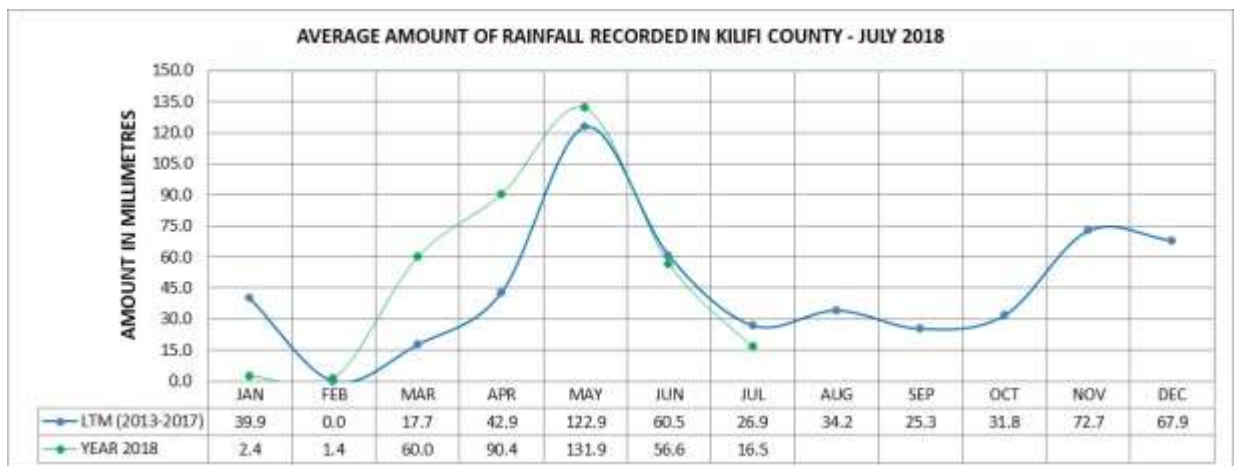


Figure 1b: Average Rainfall

- The amount of rainfall received during the month under review recorded a significant drop of 71.8 percent compared to previous month and was below the long term mean.

- The decrease was normal during this time of the year when compared to the long term mean.

## 2.0 IMPACT ON VEGETATION AND WATER

### 2.1 Vegetation Condition

#### 2.1.1 Vegetation Condition Index [VCI]

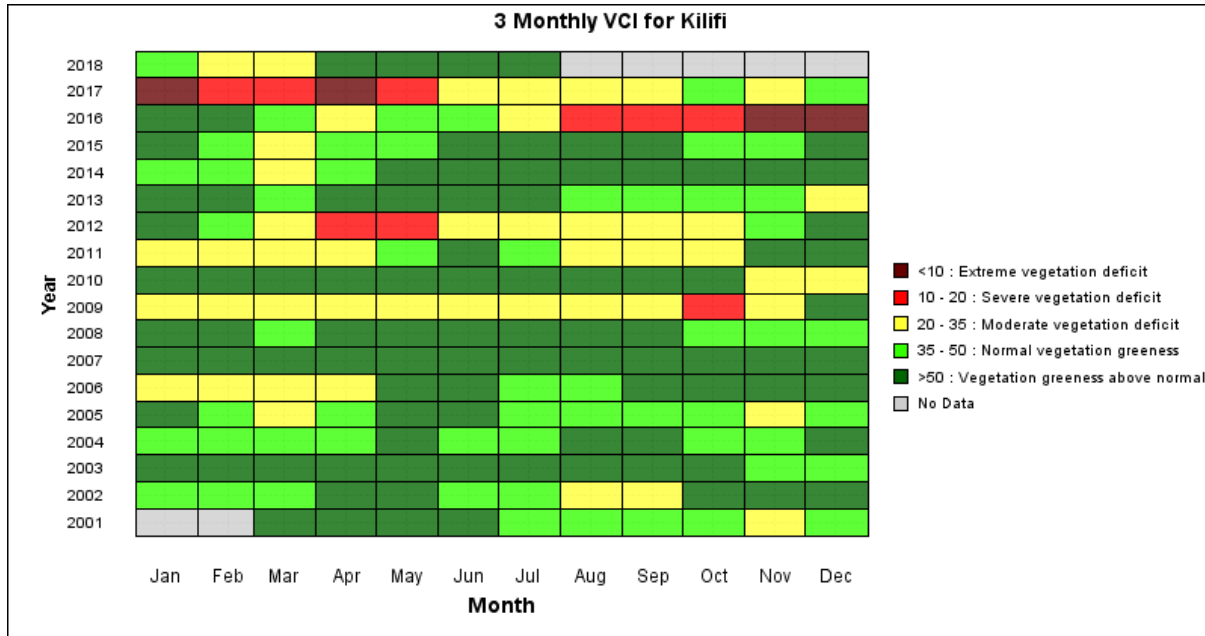


Figure 2a: Sub County 3-month Vegetation Condition Index analysis [Source: Boku University - Austria]

- The 3-months Vegetation Condition Index for July recorded vegetation greenness above normal for the county.
- All the seven sub counties on average recorded 3-months Vegetation Condition Index with vegetation greenness above normal despite some decrease in quality and quantity and quality in some parts of Magarini sub county.

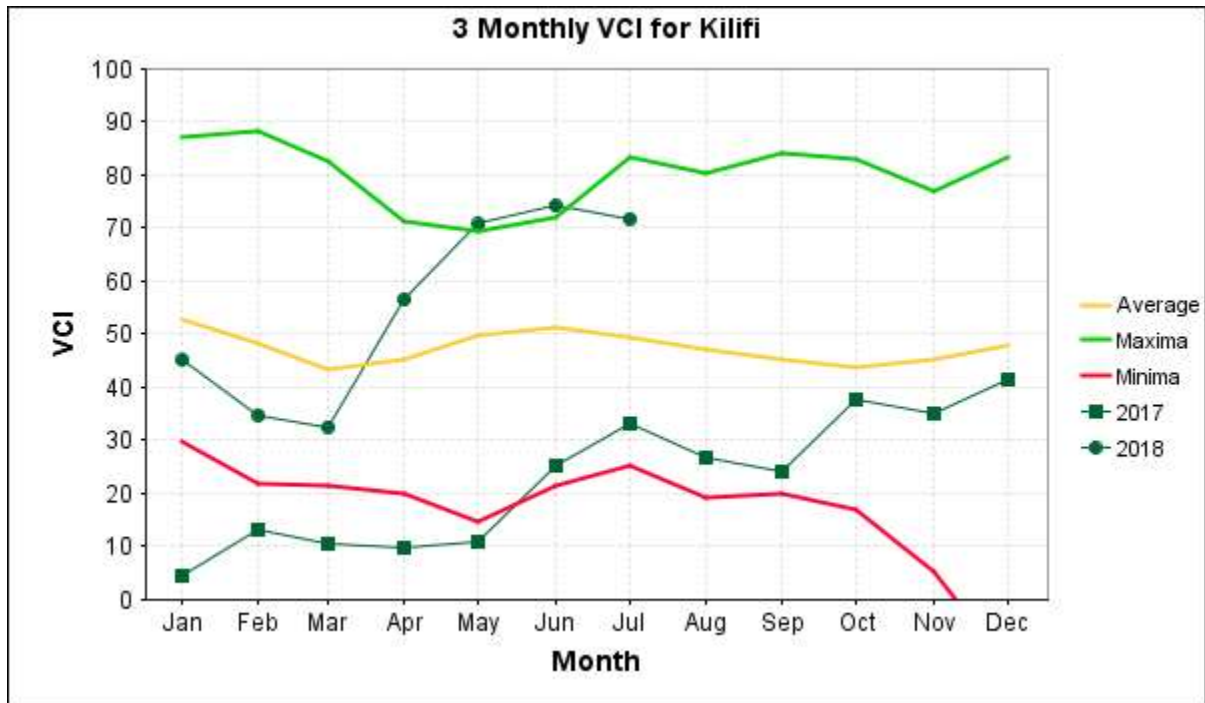


Figure 2b: Kilifi county 3-month Vegetation Condition Index time series analysis [Source: Boku University -Austria]

- Figure 2b shows a time series analysis of the county’s 3-month Vegetation Condition Index, July recorded lower value than the maximum ever recorded in the same month for the last 17 years but above the long term mean.

### 2.1.2 Pasture

- The pasture condition across all the livelihood zones during the month under review ranged between good to fair in quality with 57 percent of sampled households recording good condition and 43 percent recording fair condition.
- The decline in pasture quality and quantity was recorded in the ranching zone.
- The quantity of pasture available currently is expected to last in coming 2 months.

### 2.1.3 Browse

- Browse condition recorded a decline in July as compare to the previous month.
- Significant percentage of 62 of sampled households recorded good condition with 38 percent recording fair browse condition.

## 2.2 Water Resources

### 2.2.1 Sources

- The main water sources for domestic and livestock use for the month under review were pans/dams(32.4%) rivers (21.4%), traditional river wells (10.7%), Lakes (7.1%), springs, boreholes and shallow wells and across all livelihood zones.

### 2.2.2 Household water access and utilization

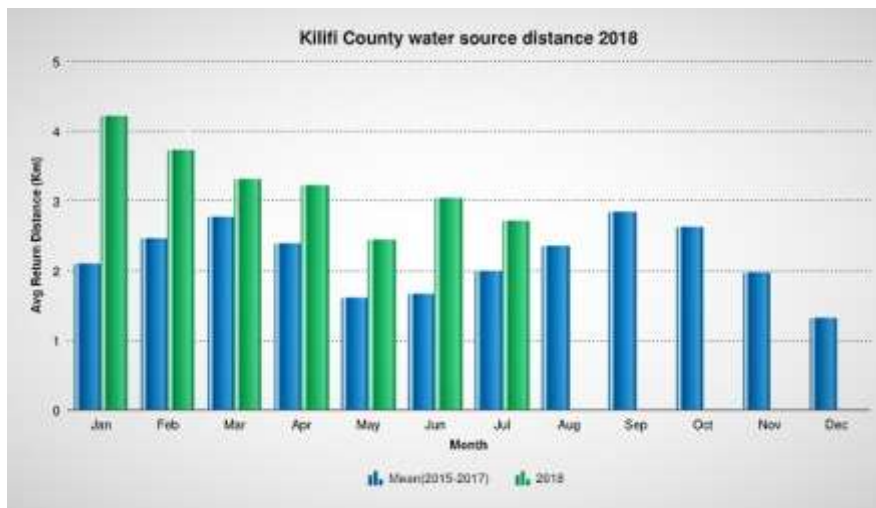


Figure 3: Households average distance to water points.

- The average return distance to water sources for the households during the month of July recorded some decrease.
- The current distance was 35 percent higher than the long term mean at this time of the year.

### 2.2.3 Livestock access to water

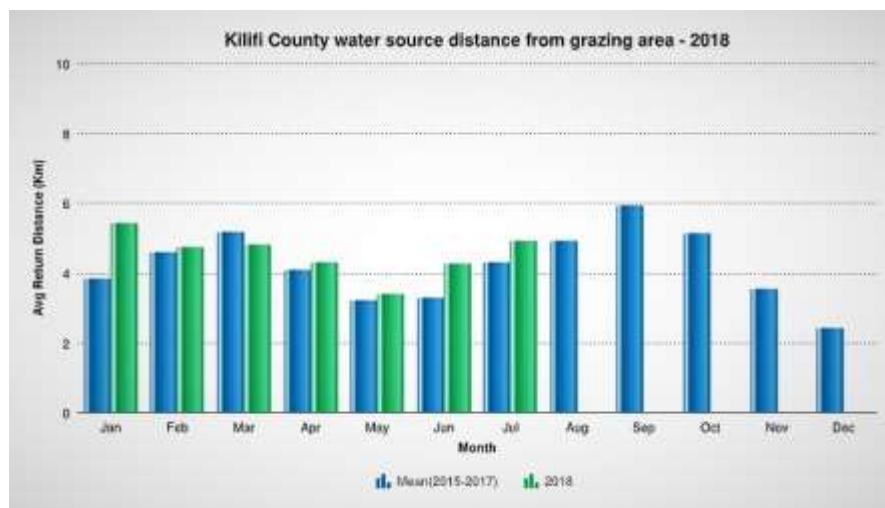


Figure 4: Average livestock return distance to water point from grazing area.

- The increase in trekking distance to the water sources is attributed to increase in grazing distance in some areas due to decline in pasture quality and quantity in some areas of Magarini Sub County.
- The ranching livelihood zone recorded the highest average distance of 3kms.
- The average distance to water sources from grazing areas during the month of July was 12 percent higher compared to the long term mean at this time of the year.
- The average distance is expected to increase in subsequent month as the dry spell kicked in which will contribute to decrease in pasture quality and quantity.

## PRODUCTION INDICATORS

### 3.0 Livestock Production

#### 3.1.1 Livestock body condition

- The Livestock body condition across all livelihood zones was good for all species during the month under review.
- The body condition is expected to range between good to fair in subsequent months as pasture quality and quanting recorded declining trend.

#### 3.1.2 Livestock disease

- No major livestock diseases were recorded in July.

#### 3.1.3 Livestock Migration.

- No major livestock migration observed during the month under review.

#### 3.1.4 Milk production

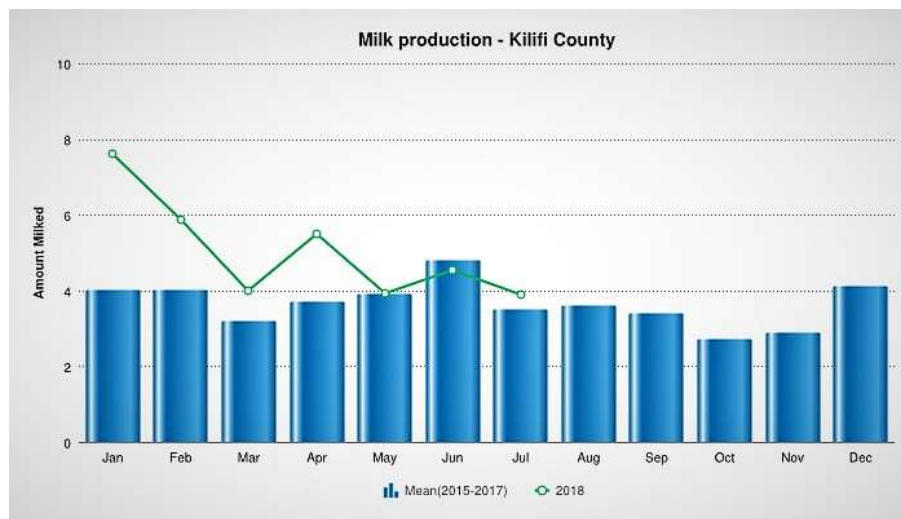


Figure 5: Average Milk Production

- During the month under review the average milk production per day per households recorded a decline compared to the previous month.
- The decrease can be attributed to increased average distance from grazing areas.
- The average milk production during the month of July was 3.9litres down from 4.5litres recorded in the previous month.
- The average milk production during the month is slightly above the long term mean. of 3.5litres at this time of the year due to availability of water and pasture.

### 3.2 RAIN FED CROP PRODUCTION

#### 3.2.1 Stage and condition of food crops

- The green grams and cow peas planted in June were in good condition in July.
- Late planted maize which was grain filling stage recorded was in poor condition following pest infestation.

#### 3.2.2. Crop Harvest

- The main activity during the month of July was maize, green grams and cow peas harvesting.
- Despite the good rains, Arm warm infestation has impacted negatively on the maize crop production.

### 4.0 MARKET PERFORMANCE

#### 4.1. LIVESTOCK MARKET

##### 4.1.1 Cattle prices

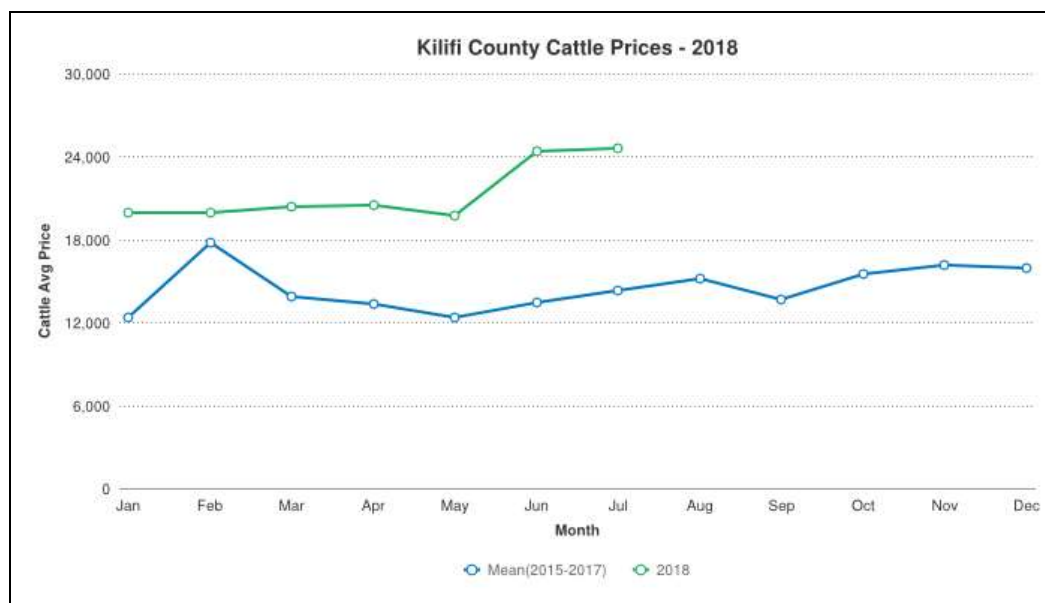


Figure 6: Average cattle price (4 year bull/steer) in major livestock markets in Kilifi County.

- The average cattle price during the month under review remained stable following good body condition.
- The highest market price was recorded in mixed farming zone of Kakuyuni, Malindi Sub County at Kshs.27,200 and lowest price recorded in cash cropping/dairy of Mwawesa, Rabai Sub County at Kshs.18,833
- The July average price was 72 percent higher compared to the long term mean at this time of the year.



#### 4.1.2 Goat prices.

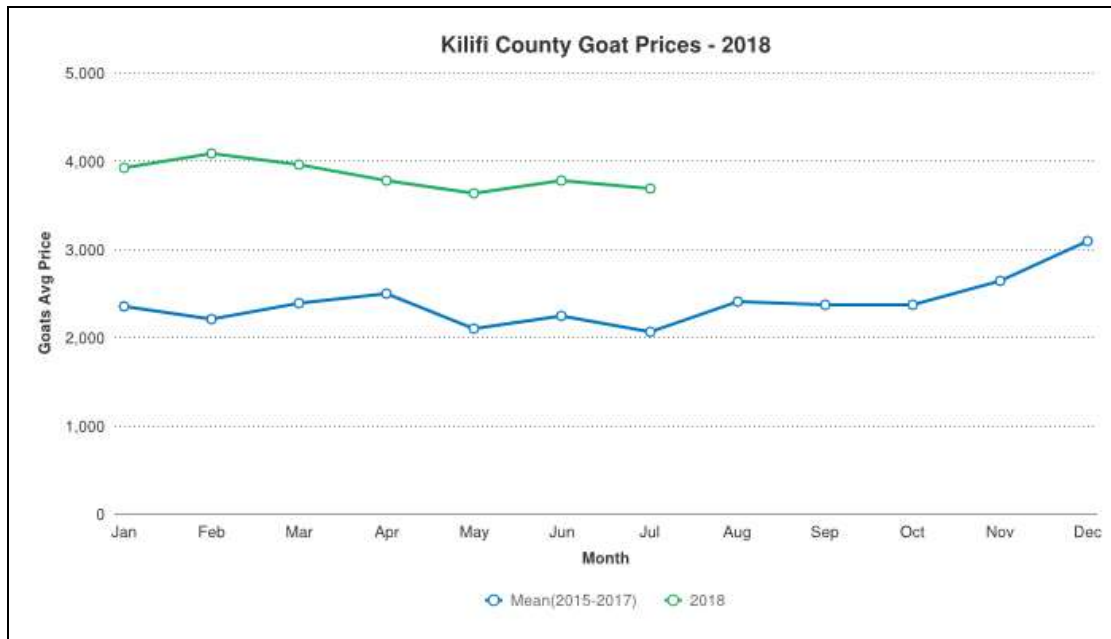


Figure 7: Average goat price (3 year old) at market level in Kilifi County.

- Average price of a 3 years old medium size goat in July remained stable as compared to the previous month.
- The average price recorded during the month was 79 percent higher compared to the long term average at this time of the year.

## 4.2 Crop prices

### 4.2.1 Maize

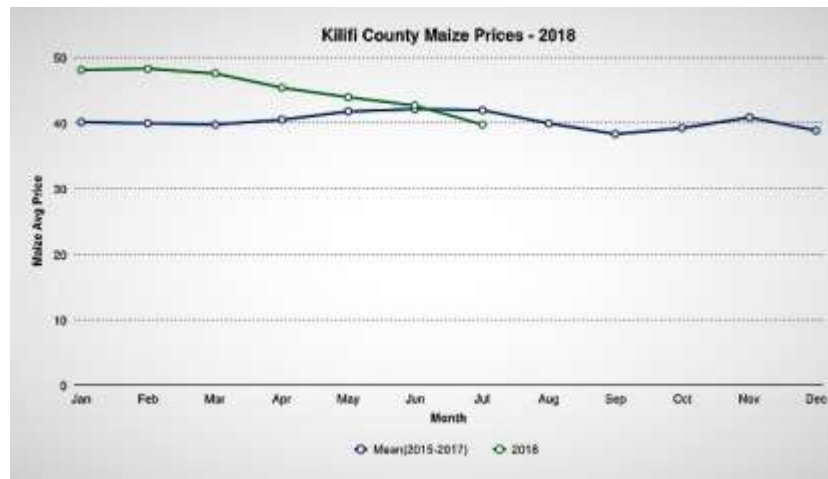
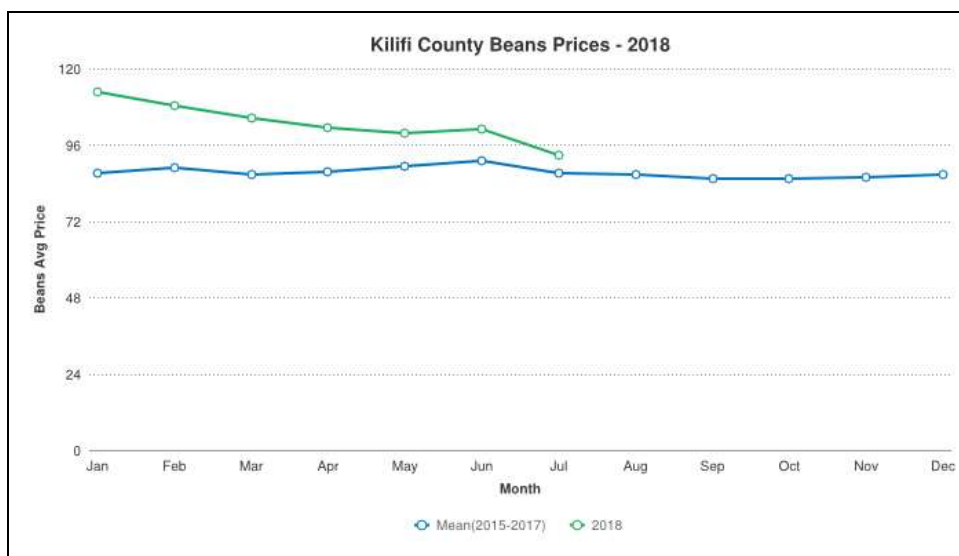


Figure 8: Average maize price in Kilifi County.

- Average maize price per kilogram in the month of July recorded minimal decrease as compared to the previous month.
- The decrease can be attributed to the start of long rains maize harvesting which was recorded across all livelihood zones.
- The average maize price during the month of July was slightly below the long term mean at this time of the year.

### 4.2.2 Beans

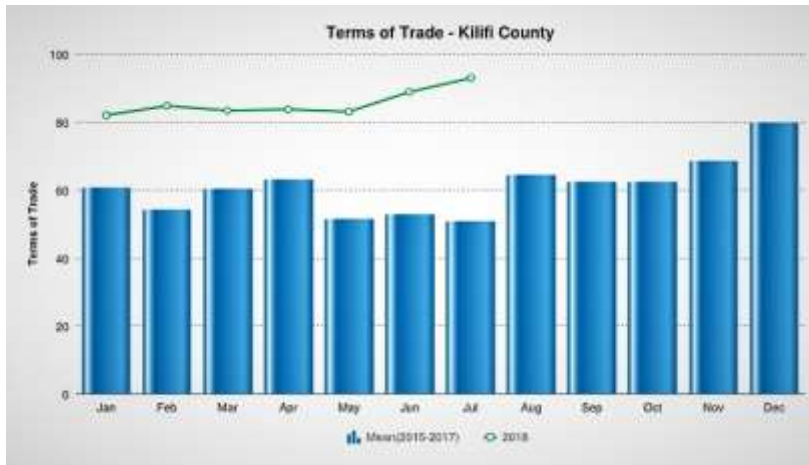


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*Figure 9: Average beans price in Kilifi County.*

- The average price per kilogram of beans during the month under review recorded a decrease compared to the previous month.
- The decrease in price can be attributed to harvesting of green grams and cowpeas recorded in July.
- The highest average price is recorded in Kaloleni at Kshs.104 per kilogram and lowest in Kakuyuni traded at Kshs 82 per kilogram.
- The current average price was 7 percent higher compared to the long term mean at this time of the year.

### 4.3 TERMS OF TRADE



*Figure 10: Terms of Trade for Kilifi County.*

- The terms of trade improved slightly by 5 percent from previous month of 88.6 to 92.8 in July.
- Households in July purchase 92.8kgs of maize with the sale of one goat which was a slight improvement compared the previous month.
- July Terms of Trade were 45 percent above the long term mean.
- The increase can attributed to a decrease in average maize price in the market.

## 5.0 NUTRITION STATUS

### 5.1 MILK CONSUMPTION

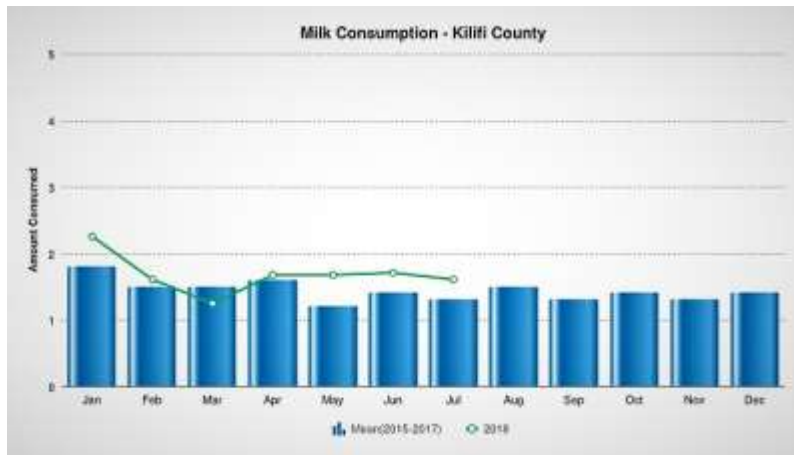


Figure 11: Milk consumption chart

- The average milk consumption during the month under review remained stable at 1.6litres per household per day compared to previous month of 1.7litres.
- The current average milk consumption per household per day was slightly above long term mean at this time of the year.

## 5.2 Health and Nutrition Status

### 5.2.1 Mid Upper Arm Circumstance (MUAC)

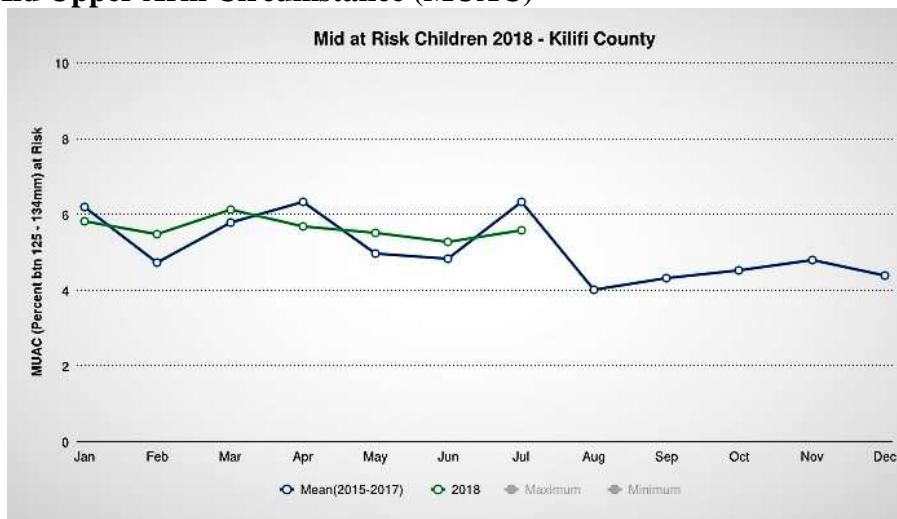
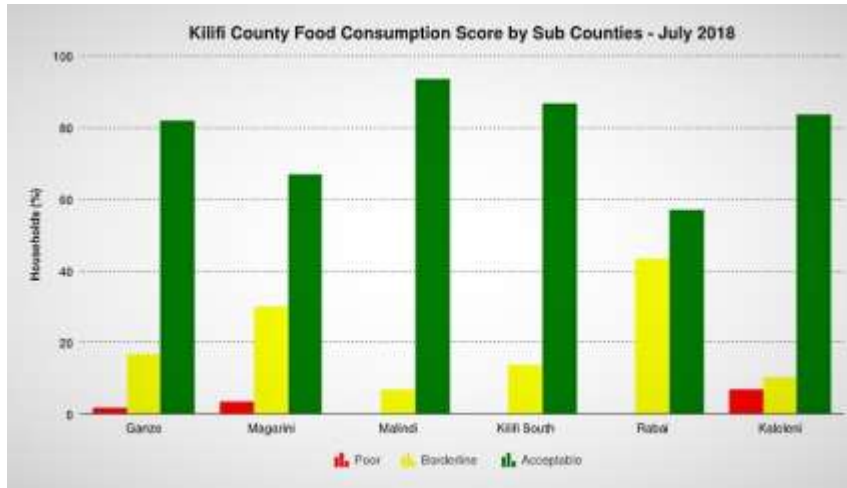


Figure 12: Proportion of children under five years at risk of malnutrition.

- The percentage of children under five years at risk of malnutrition from the sampled households remained stable in July compared to previous month.

- The percentage of children under five years at risk of malnutrition in July was slightly below long term average at this time of the year.

### 5.2.2 Food Consumption Score.

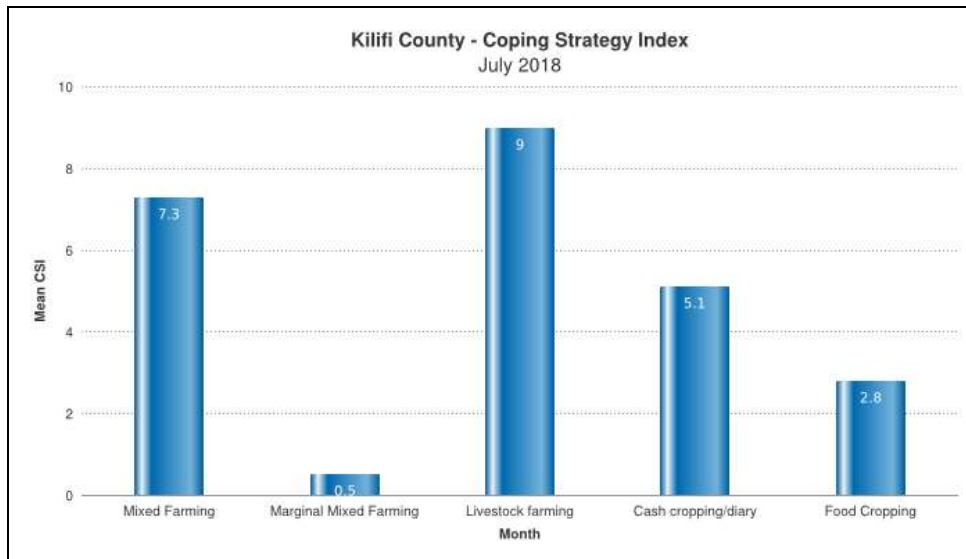


*Figure 13: Food Consumption Score.*

- Majority of households in the County during the month under review recorded acceptable food consumption with Malindi sub county recording lowest cases of households at poor food consumption.
- Mixed farming zones recorded significantly good number of households at 93.3 percent in acceptable food consumption while cash cropping zones recorded 43.3 percent number of households in acceptable food consumption score.

## 5.3 COPING STRATEGIES

### 5.3.1 Coping Strategy Index



*Figure 14: Coping Strategy Index for Kilifi County*

- The mean Coping Strategy Index (CSI) for the month of July was 3.9.
- The livestock farming zone recorded the highest score with the marginal mixed farming zone recording the lowest.

## **6.0 CURRENT ONGOING INTERVENTION MEASURES**

### **6.1 Food- aid**

- Home Grown School Meals Programme in selected schools in Ganze, Kaloleni and Magarini sub counties by National government
- Relief food to population affected by flood in Magarini and Malindi sub counties by different stakeholders

### **6.2 Non-food aid**

#### **Social- Protection**

- Community capacity building on Disaster Risk Reduction in Ganze and Magarini sub counties by NDMA
- Support to the Elderly across the county by the National Government

#### **Agriculture sector**

- Distribution of Cashew nuts seedlings for farmers across the county by Agriculture department
- Community sensitization on Kitchen garden in Kaloleni sub county by Islamic Relief, Kenya.
- Rehabilitation of Degudegu in Sokoke ward and Sukulamkani in Ganze ward irrigation schemes ongoing by Plan international, Kenya.

#### **Livestock Sector**

- Promotion of pasture production – WFP and CGK
- Support to apiculture – CGK, World Vision, KRCS
- Support to poultry production – UNDP/NDMA/ CGK

#### **Health Sector**

- Community sensitization on nutrition sensitive programme by WFP, WV and KRCS
- Community affected by floods and still in camps food consumption assessment by World Renew
- Nutrition mass screening and integrated medical outreaches in Kaloleni, Ganze and Magarini supported by World Vision and Kenya Red Cross Society.

#### **Education**

- Survey on Home Grown School Meals Programme in schools implementing the programme for necessary decision for improvement and technical support by WFP

#### **Water sector**

- Mobile water treatment plants by KRCs.
- Extension of pipelines – CGK, KRCS, WV
- Construction of bulk water main pipelines Langobaya-Kilifi and Langobaya- Marereni – CGK, MoW, World Bank

- Support to WASH activities – PLAN, WV,KRCS, ACTION AID, SNV,CRS

## **7.0 EMERGING ISSUES**

- Infestation by fall armyworms across livelihood zones contributing to below normal long rains harvest.

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## **7.1 FOOD SECURITY PROGNOSIS**

- Following the above normal rains from April to June, harvesting of maize, green grams and cowpeas had started thus improved household food availability and access.
- Livestock body condition is expected to remain good as pasture, browse and water access recorded minimal constraints.
- Milk production and consumption expected to remain stable and easily available in the market following good livestock body condition.
- Following a decrease in food prices, household who depended on the market will be able to access food.
- The under-five years at risk of malnutrition is expected to remain stable as food security recorded a boost from long rains harvest.

## **8. RECOMMENDATIONS**

### **Water Sector**

- Assessment of surface water sources for preparedness across the county.
- Investment in water infrastructure both for household use and irrigation

### **Livestock Sector**

- Sensitization and support on fodder and pasture production and conservation in both the ranching and marginal mixed farming zones.
- Community sensitization on commercial destocking and animal husbandry

### **Health Sector**

- Community sensitization on food and nutrition security across all livelihood zones

### **Agriculture Sector**

- Provision of farm inputs for households affected by floods along river Sabaki to boost their future food security and increase food availability in the market.
- Community sensitization on post-harvesting management