



A Vision 2030 Flagship Project



## National Drought Management Authority KITUI COUNTY DROUGHT EARLY WARNING BULLETIN FOR JUNE 2020

JUNE EW PHASE	Early Warning Phase Classification		
<p><b>Drought Status: NORMAL</b></p> <p><b>Shughull za kawaida</b></p>	LIVELIHOOD ZONE	EW PHASE	TRENDS
	Marginal Mixed Farming	Normal	Stable
	Mixed Farming	Normal	Stable
	<b>County</b>	Normal	Stable

### Drought Situation & EW Phase Classification

#### Biophysical Indicators

- The month of June was dry in most parts of the county and this is normal.
- The vegetation greenness was above normal.

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

##### Production Indicators

- Harvesting of food crops was on-going across the livelihood zone. However, wilting of late planted crops was reported.
- Livestock body condition was good to fair with no abnormal cases of livestock migration and deaths as a result of drought. However, suspected cases of contagious caprine pleuro pneumonia disease were reported.
- Milk production was below normal.

##### Access Indicators

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

##### Utilization Indicators

- The percentage of children at risk of malnutrition was within normal range.
- Households employed consumption based coping mechanisms less frequently compared to normal.

Biophysical Indicators	Value	Normal ranges
Rainfall (% of normal)	103	80-120
VCI-3 month	84.27	35-50
Forage Condition	Good to fair	Good to fair
Production indicators	Value	Normal ranges
Maize Crop Condition	Fair to poor	Good to fair
Livestock Body Condition	Good to fair	Good to fair
Milk Production (in litres)	0.8	≥ 1.6
Livestock Migration Pattern	Normal	Normal
Livestock Deaths (from Drought)	No death	No death
Access Indicators	Value	Normal ranges
Terms of Trade (ToT)	105	≥ 90
Milk Consumption (in litres)	0.7	≥ 0.9
Return Distance to Water Sources (in km)	4.7	≤ 6.2
Cost of Water at Source (20 litres Jerry can)	2-5	≤ 5Ksh
Utilization indicators	Value	Normal ranges
Nutrition Status, MUAC (% at risk of malnutrition)	5.3	≤ 7.1
Coping Strategy Index (rCSI)	3.2	≤ 5.8

<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>								
<b>Dry Season</b>	<b>Long Rains</b>	<b>Dry Cool Season</b>	<b>Short Rains Season</b>								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

## 1.0 CLIMATIC CONDITIONS

### 1.1 RAINFALL PERFORMANCE

- The month of June was generally dry across the livelihood zones as shown in figure 1.
- On average the county recorded 1.3 and 0.8 millimetres of rainfall in first and second dekad of June compared to 1.1 and 0.4 millimetres normally. This was 103 percent of normal rainfall recorded in June.

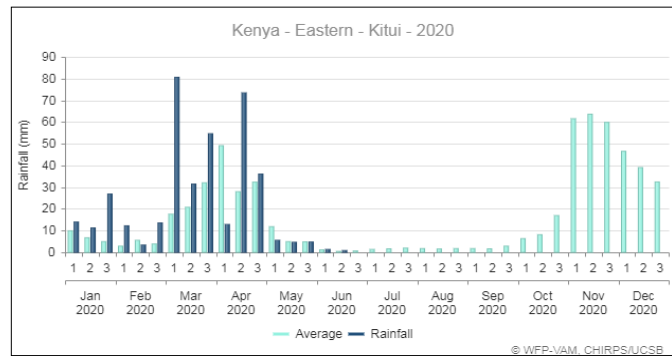


Figure 1: Rainfall Distribution for the Year 2020

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index (VCI)

- The county vegetation greenness declined marginally by four percent to stand at a 3 month VCI of 84.27 in June from 87.54 in previous month. This is an indication of vegetation greenness above normal as shown in figure 2.
- Mwingi West, Kitui East and Kitui Rural sub counties recorded the highest 3 month VCI at 89.08, 88.77 and 88.24 respectively while Mwingi North sub county recorded the lowest vegetation greenness at a 3 month VCI of 71.03.
- The county vegetation greenness is above the long term average and within the maximum recorded value as shown in figure 3.

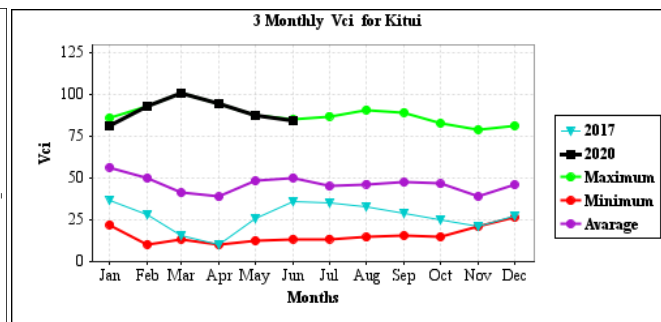
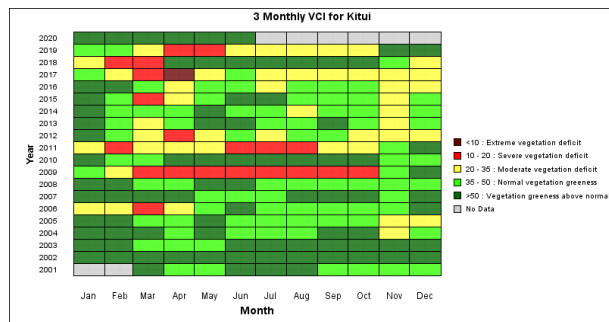


Figure 2: Kitui County 3 Month VCI Matrix

Figure 3: Kitui County 3 Month VCI Trend

#### 2.1.2 Pasture

- Pasture condition ranged from good to fair across the livelihood zones with a declining trend.
- In the month of June, about 67 percent of pasture was considered good compared to 78 percent in previous month. The remaining 33 percent of pasture was fair in both quality and quantity.
- The available pasture is expected to last for 2-3 months compared to 1-2 months normally.

#### 2.1.3 Browse

- Browse condition was good to fair across the livelihood zones with a declining trend.
- About 85 percent of browse was considered good in both quality and quantity in June compared to 91 percent in previous month. The remaining 15 percent of browse was fair in both quality and quantity.
- This situation is better compared to normal season.

## 2.2 WATER RESOURCE

### 2.2.1 Sources

- The main water sources for both human and livestock consumption were pans & dams, boreholes, traditional river wells and shallow wells as shown in figure 4.
- This situation is better than normal at this time of the year.
- Most of open water facilities are past 40 percent of their capacity and they are likely to last for 2-3 months across the livelihood zones.

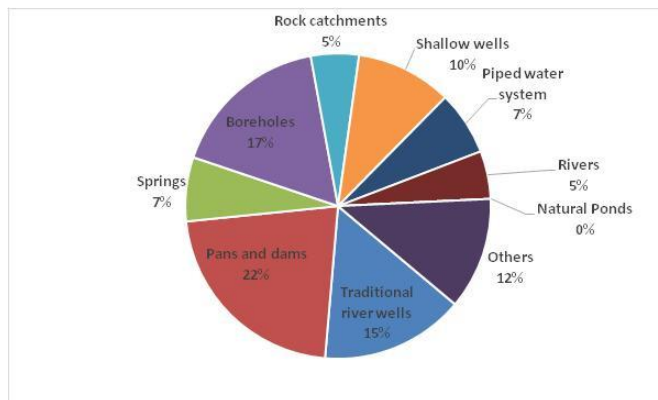


Figure 4: Major Water Sources in Kitui County

### 2.2.2 Household Access and Utilization

- The average return distances from the households to water sources rose by 47 percent to stand at 4.7km in June from 3.2km in previous month.
- Households in Marginal Mixed Farming livelihood zone trekked an average of 5.5km compared to 3.3km in Mixed Farming livelihood zone.
- The current water distance is lower than the long-term mean and the distance for wet year by 24 and two percent respectively as shown in figure 5.
- Water consumption per person per day remained stable at 17 litres in June from 16 litres in previous month and about 11 percent of household were treating their water before consuming in June compared to nine percent in previous month. Water treatment chemicals (10 percent) and boiling (one percent) were the most preferable treatment methods.
- The proportion of households buying water stood at 38 percent in June compared to 17 percent in previous month.
- The average price of water per 20-litre Jerry can at source was normal at 2-5 shillings. In some areas, the price of water was one shilling.

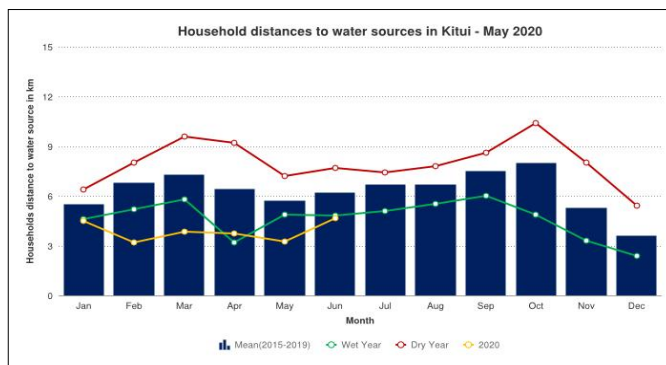


Figure 5: Household Access to Water

### 2.2.3 Livestock Access

- The average return distances from livestock grazing areas to watering points rose by 28 percent to stand at 4.6km in June from 3.6km in previous month.
- Livestock in Marginal Mixed Farming livelihood zone trekked a distance of 5.5km compared to 3.2km in Mixed Farming livelihood zone.
- Livestock were being watered daily across the livelihood zones and this is normal at this time of the year.
- The current average distance from livestock grazing areas to watering points is 16 and six percent lower than the long-term mean and the distance for wet year respectively as shown in figure 6.

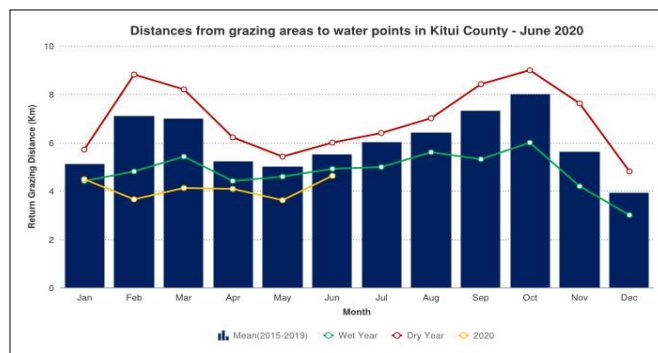


Figure 6: Average-Grazing Distances

## 2.3 Implication of the Above Indicators to Food Security

- Declining availability of water and forage is likely to impact negatively on livestock productivity hence household purchasing power.

## 3.0 PRODUCTION INDICATORS

### 3.1 LIVESTOCK PRODUCTION

#### 3.1.1 Livestock Body Condition

- Livestock body condition was good to fair for all species across the livelihood zones with a deteriorating trend.
- On average, 89 percent of cattle had good smooth appearance body condition in June compared to 83 percent in previous month. The remaining 11 percent of livestock had moderate (neither fat nor thin) body condition.

#### 3.1.2 Livestock Diseases

- It is suspected that about 19 and 18 goats in Kitui East (Zombe and Kyamatu) and Mwingi North (Tseikuru) sub counties respectively died as a result of contagious caprine pleuro pneumonia (CCPP).

#### 3.1.3 Milk Production

- The average daily milk production per household declined by 27 percent to stand at 0.8 litres in June compared to 1.1 litres in previous month.
- Households in Marginal Mixed Farming livelihood zone produced an average of 1.2 litres per day compared to 0.8 litres in Mixed Farming livelihood zone.
- The current average daily milk production per household is lower than the long-term average and wet year by 50 and 68 percent respectively as shown in figure 7. This is mainly attributed to household preference of holding bulls for farming and reduced calving rates.

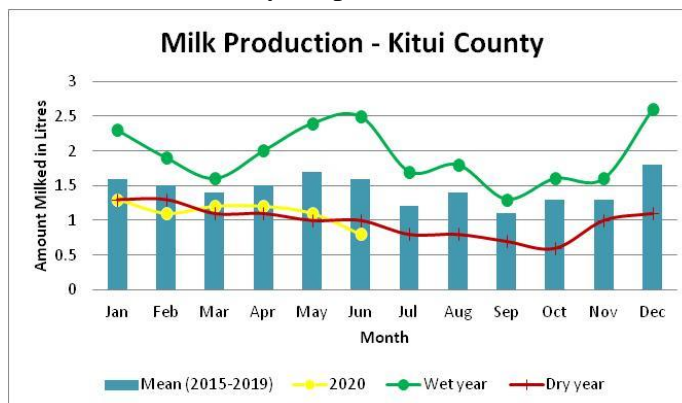


Figure 7: Milk Production per Household per Day

## 3.2 RAIN-FED CROP PRODUCTION

### 3.2.1 Stage and Condition of Food Crops

- The major crops planted in Mixed Farming livelihood zone were maize, cowpeas, beans, pigeon peas and green grams while green grams, sorghum, millet, cowpeas and maize were planted in the Marginal Mixed Farming livelihood zone.
- Majority of crops were at harvesting stage and in fair condition.
- However, some crops mainly cowpeas and maize wilted due to moisture stress.
- In addition to rain-fed cropping, farmers along main rivers (Athi, Tana, Tiva and Thua) had horticultural crops that were at various stages of development.

## 3.3 Implication of the above indicators to food security

- Harvesting of food crops is expected to boost household food stocks hence reduce overreliance of market for food commodities. This will stabilize household purchasing power.
- However, cases of livestock diseases and reduced milk availability at household level might have a negative impact on household food consumption patterns.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

- The average market price of cattle rose by 14 percent to stand at Ksh.28,611 in June from Ksh.25,143 in previous month. This is attributed to stability in cattle body condition.
- Cattle prices were higher in Mixed Farming livelihood zone at Ksh.30,111 compared to Ksh.27,111 in Marginal Mixed Farming livelihood zone.
- The current market price of cattle is normal compared to the long-term mean as shown in figure 8.

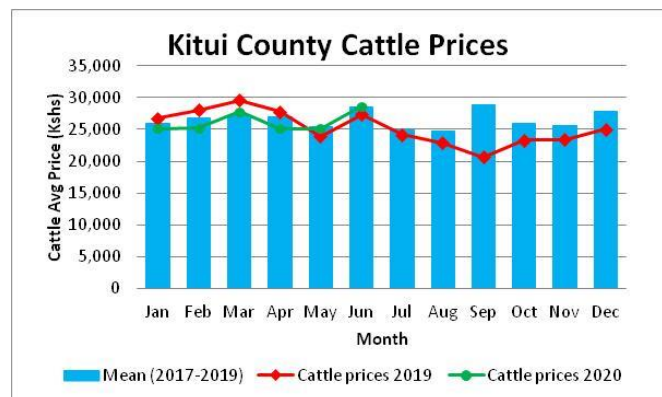


Figure 8: Cattle Prices

#### 4.1.2 Small Ruminants Prices (Goat price)

- The average market price of goat remained stable at Ksh.3,476 in June from Ksh.3,471 in previous month. This is attributed to stability in goat body condition as a result of availability of browse and water.
- Marginal Mixed Farming livelihood zone recorded a higher price of Ksh.3,550 compared to Ksh.3,378 in Mixed Farming livelihood zone.
- The current market price of goat is normal at this time of the year as shown in figure 9.

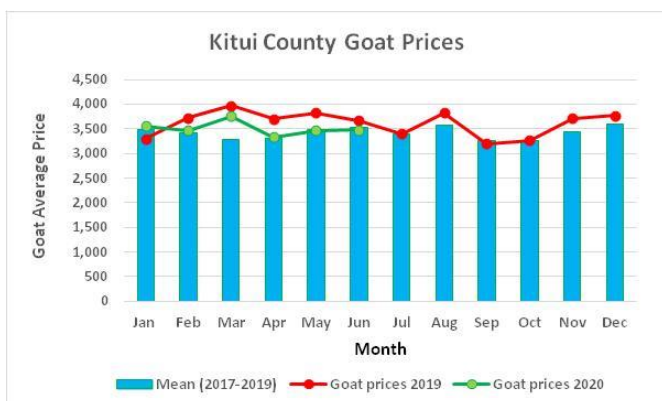


Figure 9: Goat Prices

## 4.2 CROP PRICES

#### 4.2.1 Maize

- The average market price of maize per kilogram remained stable at Ksh.33 in June from Ksh.34 in previous month.
- Mixed Farming livelihood zone recorded a higher price of Ksh.35 compared to Ksh.31 in Marginal Mixed Farming livelihood zone.
- The current market price of maize is 23 and 20 percent lower than the long-term average and 2019 price respectively as shown in figure 10. This is due to increased stock at household level and availability of the commodity in the market from outside the county.

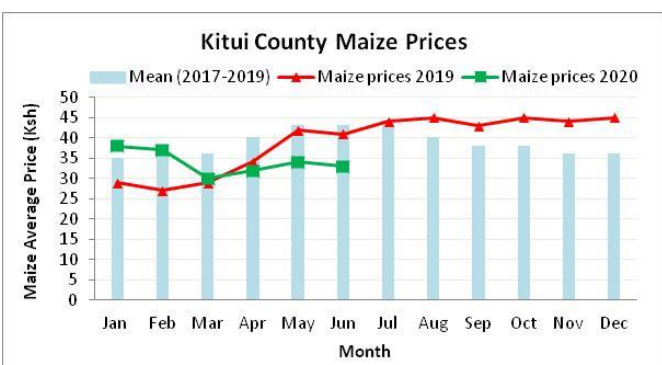


Figure 10: Maize Prices

### 4.2.2 Beans

- The average market price of beans remained stable at Ksh.95 in June from Ksh.92 in previous month.
- Beans price was higher in Marginal Mixed Farming livelihood zone at Ksh.103 compared to Ksh.88 in Mixed Farming livelihood zone.
- The current beans price is 14 and 12 percent higher than the long-term mean and 2019 price as shown in figure 11. This could be attributed to increased demand of the commodity by both traders and households.

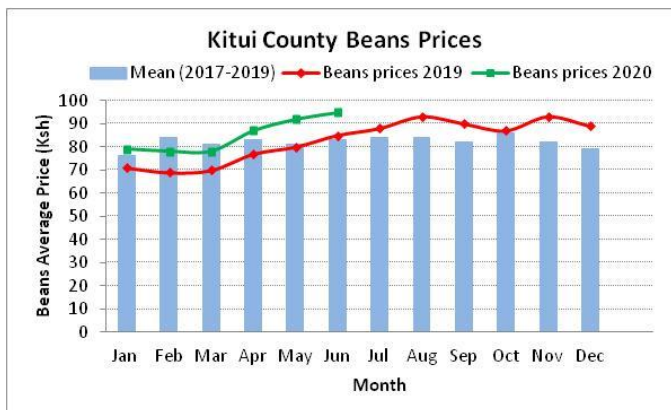


Figure 11: Beans Prices

### 4.3 Livestock Price Ratio/Terms of Trade

- Terms of trade remained stable to stand at 105 in June compared to 102 in previous month. This implies that, households were able to purchase 105 kilos of maize from earnings of a goat in June compared to 102 kilos in previous month.
- The sale of one goat would enable a household in Mixed Farming livelihood zone to purchase 108 kilos of maize compared to 101 kilos in Marginal Mixed Farming livelihood zone.
- The current terms of trade is 17 percent higher than the long term mean but 16 percent lower than the wet year as shown in figure 12.

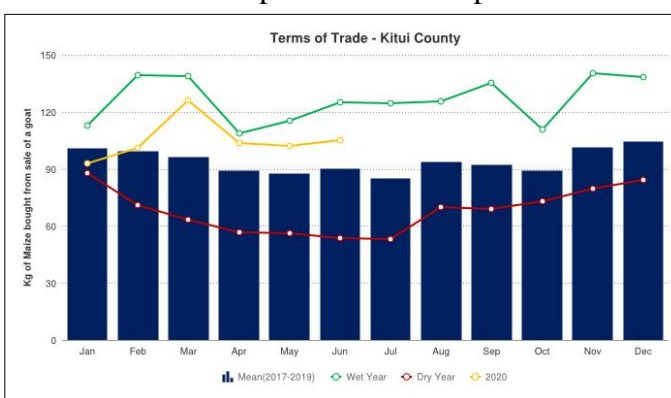


Figure 12: Terms of Trade

### 4.4 Implication of the above indicators to food security

- On-going harvest of food crops and stability of both crop and livestock prices is likely to boost household purchasing power.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

- The average daily milk consumption per household remained stable to stand at 0.7 litres in June from 0.8 litres in previous month.
- Milk consumption was higher in Marginal Mixed Farming livelihood zone at 0.8 litres compared to 0.7 litres in Mixed Farming livelihood zone.
- The current milk consumption is 22 and 42 percent lower than the long term average and 2019 litres respectively as shown in figure 13 and this is due to low milk produced compared to normal.

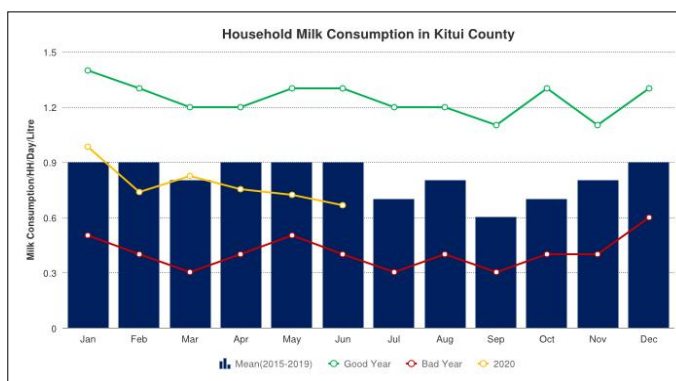


Figure 13: Milk Consumption per Household per Day

## 5.2 FOOD CONSUMPTION SCORE

- The proportion of households in acceptable food consumption category rose to 84 percent in June from 81 percent in previous month. This is an indication of improved household dietary diversity.
- The remaining 16 percent of the households were in borderline food consumption category as shown in figure 14.
- Majority (87 percent) of households in Mixed Farming livelihood zone were in acceptable food consumption category compared to 83 percent in Marginal Mixed Farming livelihood zone.

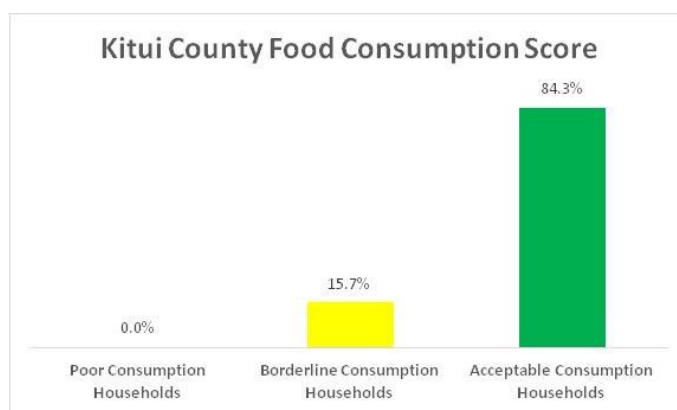


Figure 14: Food Consumption Score

## 5.3 HEALTH AND NUTRITION STATUS

### 5.3.1 Nutrition Status

- The proportion of children mid at risk of malnutrition (MUAC 125-134mm) declined to 5.3 percent in June from 5.5 percent in previous month. This is attributed to improved availability of diversified food commodities at household level and nutrition interventions.
- However, 0.6 percent of the children were moderately (MUAC 115-124mm) malnourished but none of the children was severely (MUAC<115mm) malnourished.
- The current level of children mid at risk of malnutrition is 1.8 percent lower than the long term mean as shown in figure 15.

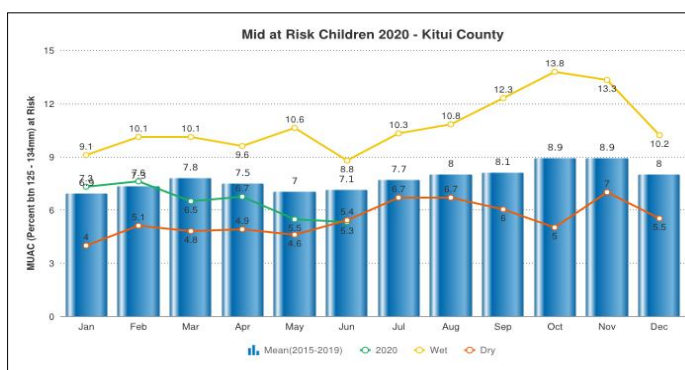


Figure 15: Children at Risk of Malnutrition

### 5.3.2 Health

- The proportion of children suspected to have fever with chills like malaria, fever with breathing difficulties and diarrhoea stood at 0.9, 5.2 and 0.6 percent in June compared to 3.3, 2.5 and 0.4 percent in previous month respectively.

## 5.4 COPING STRATEGIES

- The mean of reduced coping strategy index (rCSI) remained stable at 3.2 in June from 3.0 in previous month.
- Households in Marginal Mixed Farming livelihood zone had a high rCSI of 5.1 compared to 0.9 in Mixed Farming livelihood zone. Reliance on less preferred or less expensive food and reduced portion size of meals were the most frequent coping mechanisms adopted across the livelihood zones.
- The current rCSI is 45 percent lower than the long term mean as shown in figure 16.

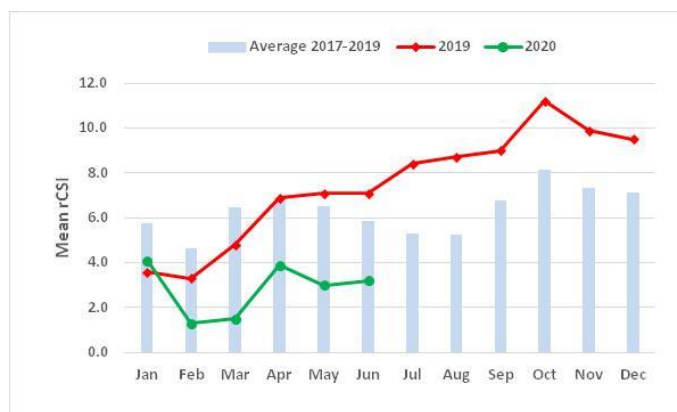


Figure 16: Reduced Coping Strategy Index (rCSI)

- Moreover, about 84 percent of the households were employing none or minimal coping mechanisms to cope with lack of food or money to buy food in June compared to 86 percent in previous month. The remaining 6 and 9 percent of the households were employing stress and crisis coping mechanisms respectively.

## **6.0 CURRENT INTERVENTION MEASURES**

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

- Baby friendly community initiatives targeting all sub counties apart from Kitui Rural by County Government of Kitui in collaboration with World Vision Kenya.
- Development and distribution of weather advisories by Kenya Meteorological Department.
- Culling of mature stocks and urgent harvesting of pasture and storage by County Government of Kitui targeting all sub counties.

### **6.2 FOOD INTERVENTIONS**

- Therapeutic integrated management of acute malnutrition for the under-fives, pregnant and lactating mothers [supplementary feeding program (SFP)], Outpatient therapeutic program (OTP) and Stabilization centres by Ministry of Health supported by several partners.

## **7.0 EMERGING ISSUES**

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

- No abnormal incidences of insecurity, conflict or human displacement were reported in the county.

### **7.2 FOOD SECURITY PROGNOSIS**

- The weather outlook for the June-July-August (JJA) 2020 rainfall season published by Kenya Meteorological Department, issued on 27<sup>th</sup> May 2020 indicates that, the county is likely to remain generally sunny and dry throughout the forecasted period. This might lead to wilting of late planted crops hence reduced crop production. However, ongoing crop harvest will boost household food stocks hence impact positively on household food consumption patterns and reduce overreliance on market for staple food supplies.
- Price of staple food commodities is expected to remain stable following increased stocks at household level however, presence of corona virus (COVID-19) pandemic will lead to market interruptions hence impact negatively on household food security.
- Availability and accessibility of fodder and water will boost livestock productivity hence stabilize household purchasing power. However, presence of livestock diseases might impact negatively on household food security.

## **8.0 RECOMMENDATIONS**

### **Immediate/Short term**

- Intensify livestock disease control measures.
- Routine monitoring of locust invasion situation.
- Promote home-based water treatment and conservation measures such as storage facilities.
- Repair and maintenance of water points.
- Promotion of water harvesting, storage and management.
- Promotion of post-harvest management.
- Promotion of livestock feed storage and management practices.
- Community sensitization on COVID-19 preventive measures.
- Mapping of vulnerable and at-risk households, affected food systems and responding through safety-nets.



## **Medium and Long term**

### **Water Sector**

- Promotion of water harvesting, storage and management.
- Create awareness on the importance of protecting water sources.

### **Agriculture Sector**

- Capacity building on safe use of chemicals by National Government, County Government and development partners.
- Enhance asset creation for households especially Farm ponds and water pans for food production by National Government, County Government and development partners.
- Enhance irrigated Agriculture by conducting Soil analysis and crops suitability surveys in all by National Government, County Government and development partners.
- Community sensitization on soil conservation structures.

### **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**

- Sensitization on hygiene and sanitation at household level with emphasis on Water treatment.
- Carry out routine disease surveillance.
- Improve Vitamin A supplementation and de-worming to children under five years
- Improve vector control activities.
- Promotion and sensitization of kitchen garden
- Continuous sensitization on staying safe from the COVID-19 as the infections are continuously rising

### **Education Sector**

- Promotion of water harvesting, storage and management in schools.
- Enhance HGSMP in all public institutions.

### **Peace Building Initiatives**

- Peace building and conflict management initiatives.