

**National Drought Management Authority**  
**KILIFI COUNTY**  
**DROUGHT EARLY WARNING BULLETIN FOR MARCH 2022**



A Vision 2030 Flagship Project



**MARCH EW PHASE**

**Early Warning Phase Classification**



LIVELIHOOD ZONE	EW PHASE	TRENDS
Marginal Mixed Farming	Alarm	Worsening
Livestock/Ranching	Alarm	Worsening
Cash Cropping/Dairy	Alert	Worsening
Food Cropping	Alert	Worsening
Mixed Farming zone	Alarm	Worsening
<b>County</b>	<b>Alert</b>	<b>Worsening</b>

**Drought Situation & EW Phase Classification**

**Biophysical Indicators (Environmental indicators)**

- The month under review recorded no rains.
- On average, the state of water sources was fair across the livelihood zones but below normal for this time of the year.
- The county recorded an average of Normal vegetation condition.

**Socio Economic Indicators (Impact Indicators)**

**Production indicators**

- On average the livestock body condition for all species ranged between fair to good across the livelihood zone.
- Milk production recorded a decreased for the month under review.
- No migration was recorded during the month under review.

**Access indicators**

- There was an increase in average distance to water sources by households and livestock for the month under review.
- Cattle and goat average prices recorded a decrease for the month under review.
- The average maize price recorded an increase compared to last month.
- Average Terms of Trade recorded a decrease compared to the previous month.

**Utilization indicators**

- The month under review recorded zero point six percent children under -five years at risk of malnutrition.
- Some households in the livestock farming zone were in poor food consumption band.
- Households continued to employ various consumption coping strategies as food security remained strained.

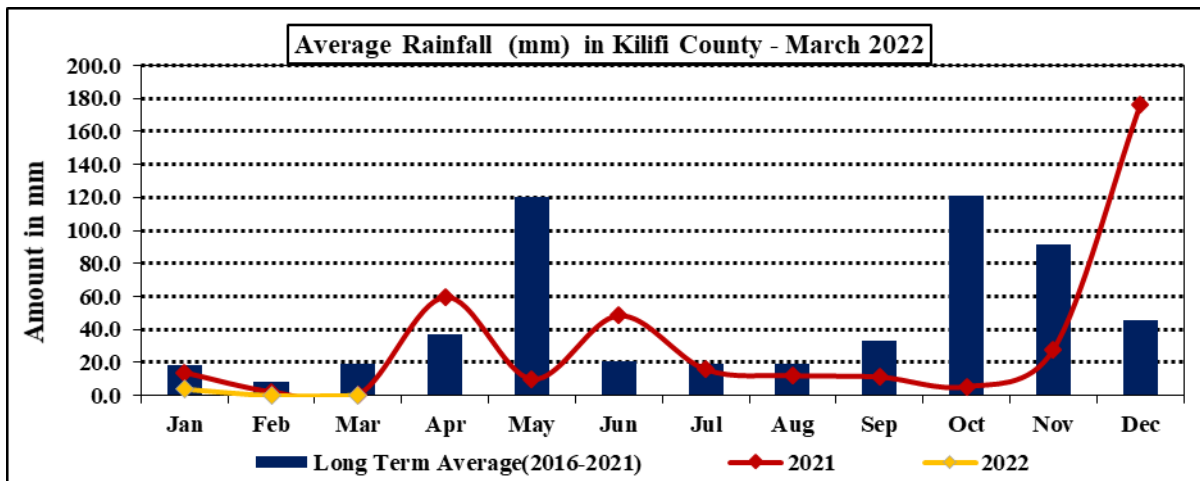
Biophysical Indicators	Value	Normal ranges
Rainfall (Average)	0.0	18.9
VCI-3 month	40.08	35-50
Average Forage Condition	Fair	Good
Production indicators	Value	Normal ranges
Maize Crop Condition	No Crops	harvest
Livestock Body Condition	Fair	Good
Milk Production (in liters)	1.5	4.2
Livestock Migration Pattern	No Migration	No migration
Livestock Deaths (from Drought)	None	None
Access Indicators	Value	Normal ranges
Terms of Trade (ToT)	96.0	90.8
Milk Consumption (in litres)	1.1	1.5
Average Distance to Water Sources (in km)	3.1	5.5
Average Distance to Water Sources from grazing (in km)	3.2	6.6
Utilization indicators	Value	Normal ranges
Nutrition Status, MUAC (% at risk of malnutrition)	0.6	0-3

<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/pest control/</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

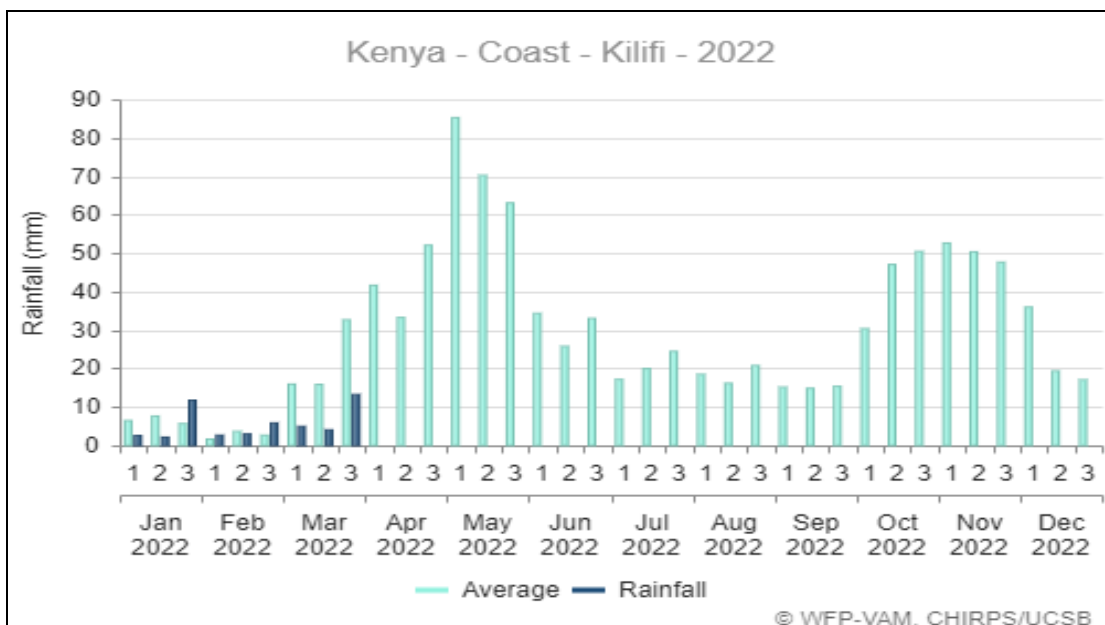
**1.0 CLIMATIC CONDITIONS**

**1.1 Rainfall performance**

- The month under review recorded no rainfall; it remained dry with extreme high temperatures during the day and cold weather at night.
- The amount recorded during the month under review was below the Long Term Average at this time of the year.



- According to the Rainfall Estimates from satellite images, the month of March remained generally dry.

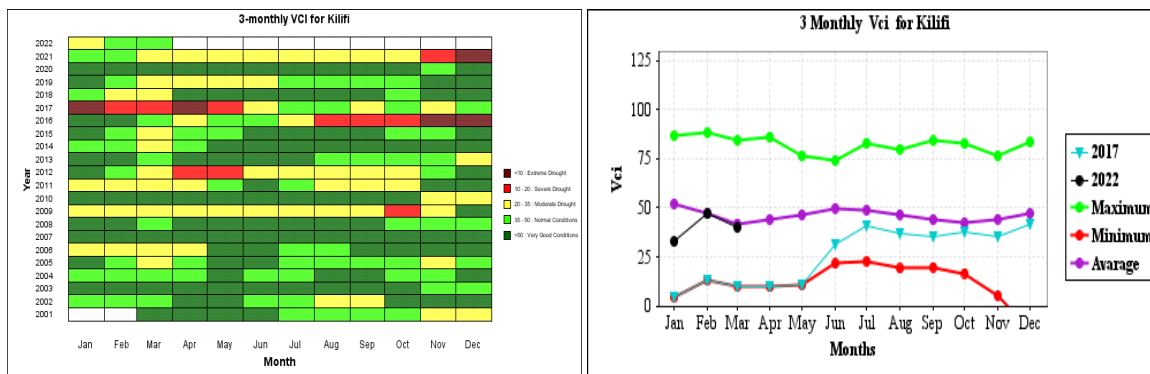


## 2.0 IMPACT ON VEGETATION

### 2.1 Vegetation Condition

#### 2.1.1 Vegetation Condition Index [VCI]

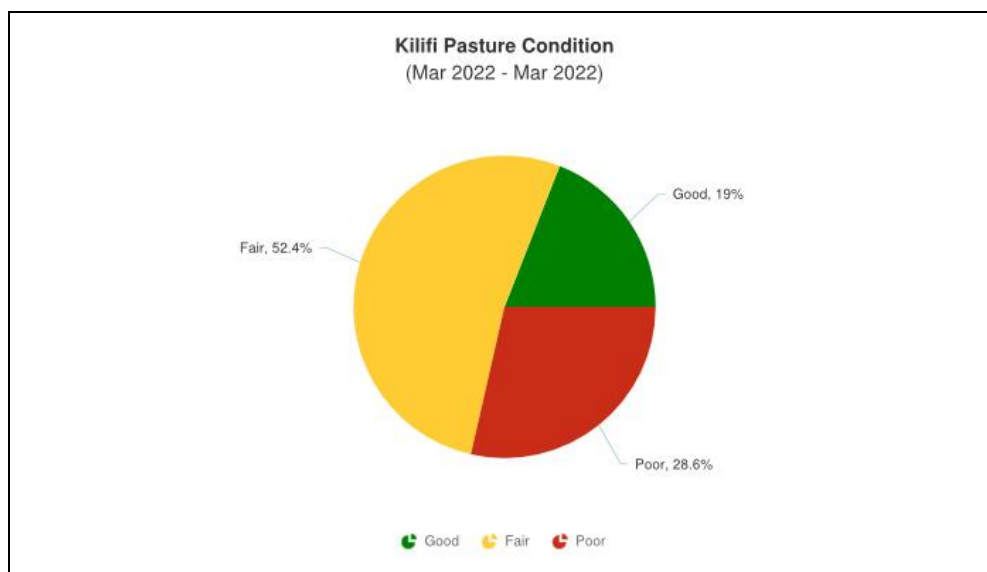
- The Vegetation Condition Index (VCI) compares the current NDVI to the range of values observed in the same period in previous years. The VCI is expressed in percentage and gives the position of the observed value within extreme values (minimum and maximum) in the previous years.



- On average, the county recorded normal vegetation condition during the month under review with a score of 40.08
- Rabai and Kilifi South Sub Counties recorded severe drought condition with a score of 13.82 and 17.74 respectively. Kaloleni and Kilifi North sub counties recorded moderate drought condition with score of 22.97 and 26.65 respectively.
- The vegetation condition was above compared to the previous year at this time of the year.
- Despite an average of Normal vegetation condition, in Ganze, Magarini and Malindi sub counties recorded depleted pastures following minimal rains recorded in the month of December 2021.

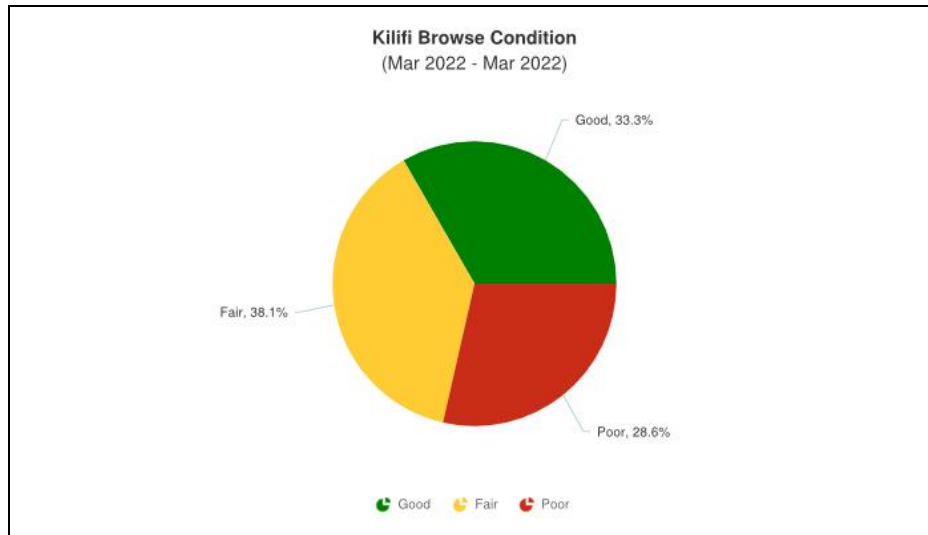
#### 2.1.2 Pasture

- Pasture condition ranged between poor to good with fair condition scoring the highest percentage (52.4) in areas of Rabai, Magarini, parts of Malindi, Kilifi North and parts of Kaloleni sub counties.
- Pasture condition expected to deteriorate across the livelihood zones following the high temperatures and conditions prevailing currently.
- On average the current pasture condition was below normal during this time of the year.



### 2.1.3 Browse

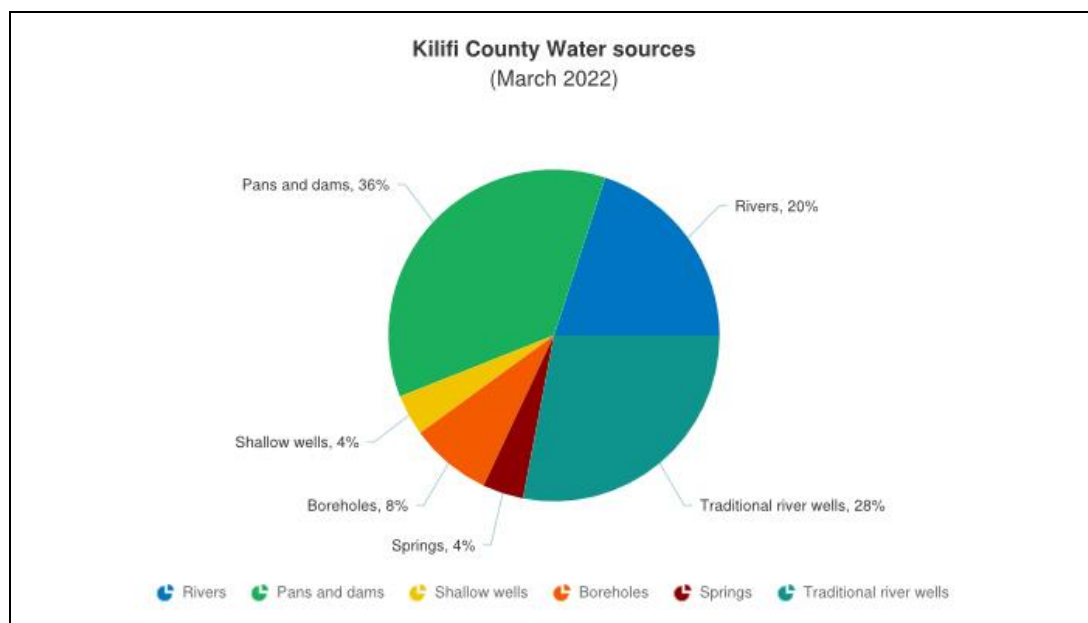
- During the month under review, 38.1 percent of sampled households across the livelihood zones recorded fair browse condition while 33.3 percent recorded fair condition and 28.6 percent poor.
- Browse condition expected to continue deteriorate across the livelihood zones following the current prevailing high temperatures and windy condition.
- The current browse projected to last 1-1.5 months.
- Browse condition was below normal at this time of the year.



## 2.2 Water Resources

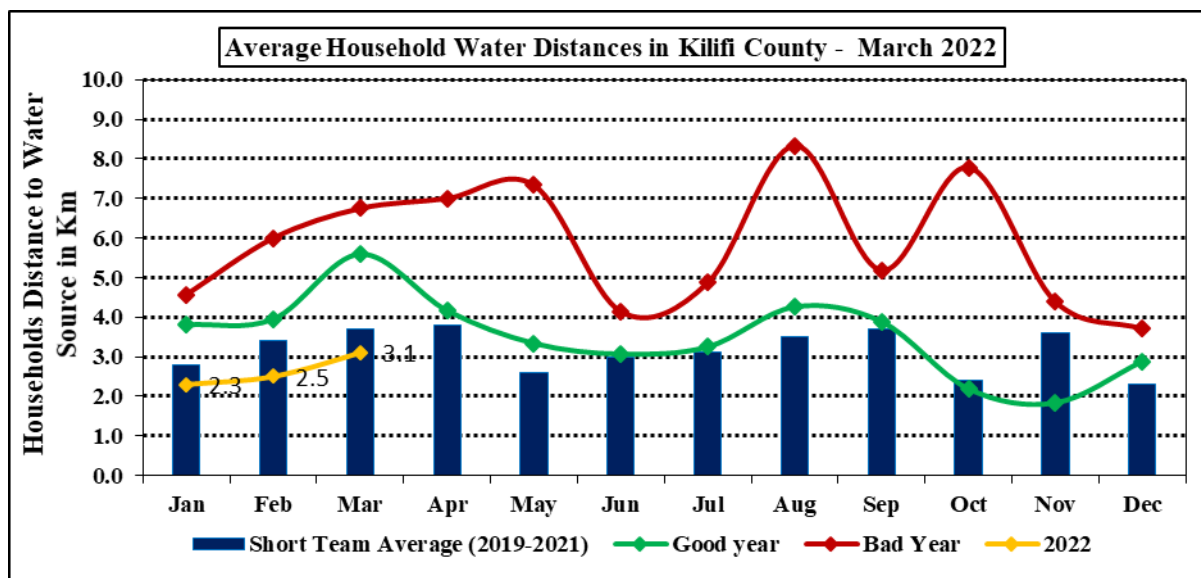
### 2.2.1 Water Sources

- During the month under review, 36 percent of sampled households depended on pans and dams for water supply, 20 percent depended on rivers with 28 percent depending on traditional river wells.
- Most population in urban and peri-urban areas of the county depended on piped water.
- Rationing was more frequent during the period under review.
- Significant percentage of pans and dams across the livelihood zone had some water following December 2021 rains as some remained dry.
- The water condition at the water sources was below normal during this time of the year following poor recharge recorded for the last two seasons.



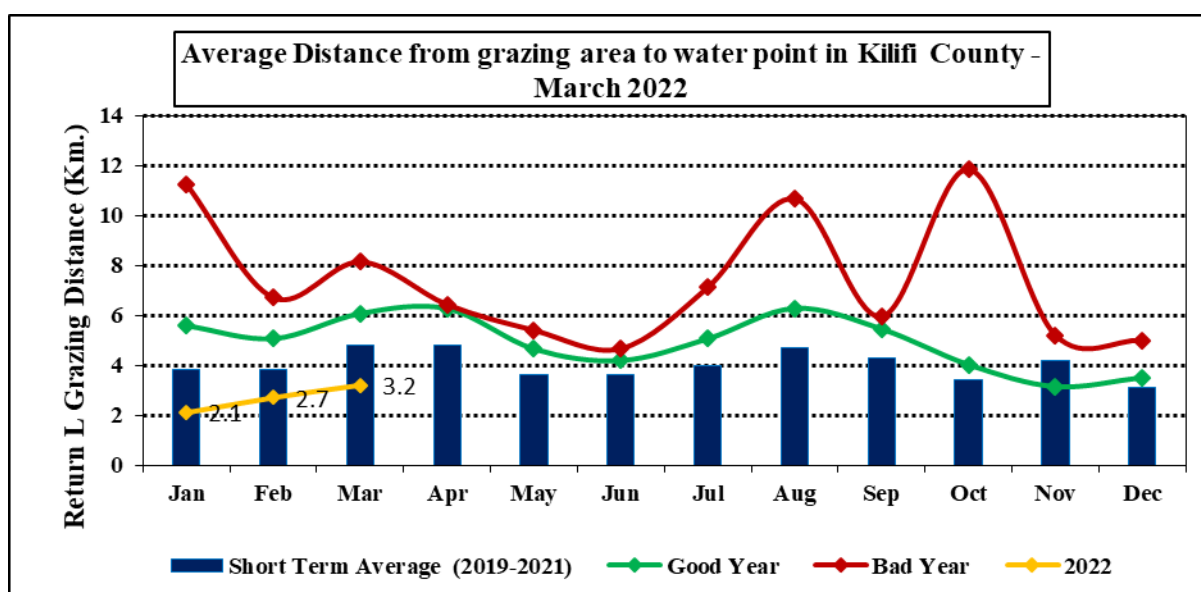
### 2.2.2 Household water access and utilization

- The average household distance to water sources for the month under review increased by 24 percent compared to the previous month to 3.1kms from 2.5kms.
- The increase can be attributed to long distances in search for water at the pans and dams still holding water.
- The Cash Cropping and Marginal Mixed Farming zones recorded the highest average distance of 0.5km and 4.0kms respectively.
- The average distance during the month under review was 43.6 percent lower compared to the short term average at this time of the year.



### 2.2.3 Livestock access to water

- The month under review recorded an increase of 18.5 percent in average distance to water sources from 2.7 kms for the previous month to 3.2kms.
- The increase can be attributed to deterioration of pasture condition in some parts thus increased average distance to water sources.
- The average distance during the month under review was 51.5 percent below the short term average at this time of the year.

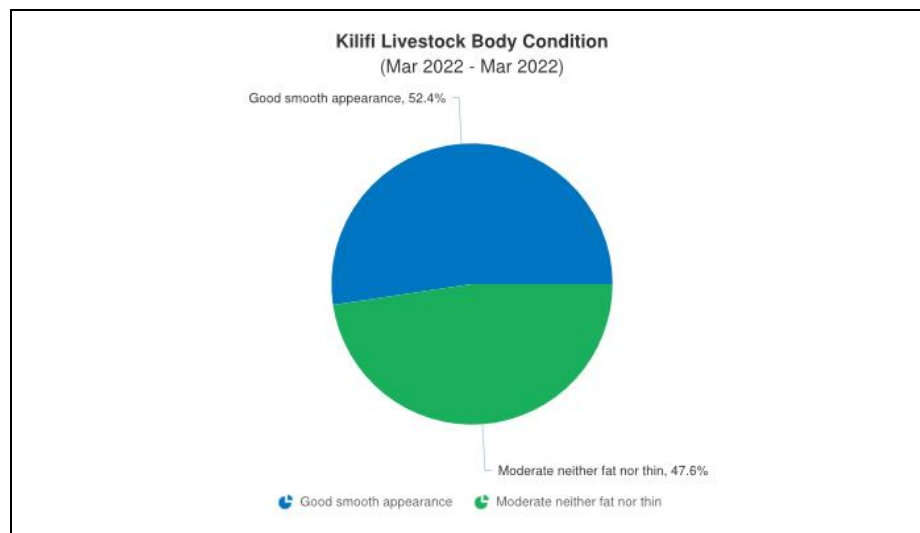


### 3.0 PRODUCTION

#### 3.1 Livestock Production

##### 3.1.1 Livestock body condition

- On average livestock body condition ranged between fair to good across the livelihood zones.
- On average, 47.6 percent recorded moderate neither fat nor thin body condition while 52.4 percent of the sampled household recorded good body condition in parts of Kilifi South and Rabai sub counties.
- Body condition expected to deteriorate across the livelihood zones as pasture quality and quantity continued declining.
- Average body condition was below normal at this time of the year.



##### 3.1.2 Livestock disease

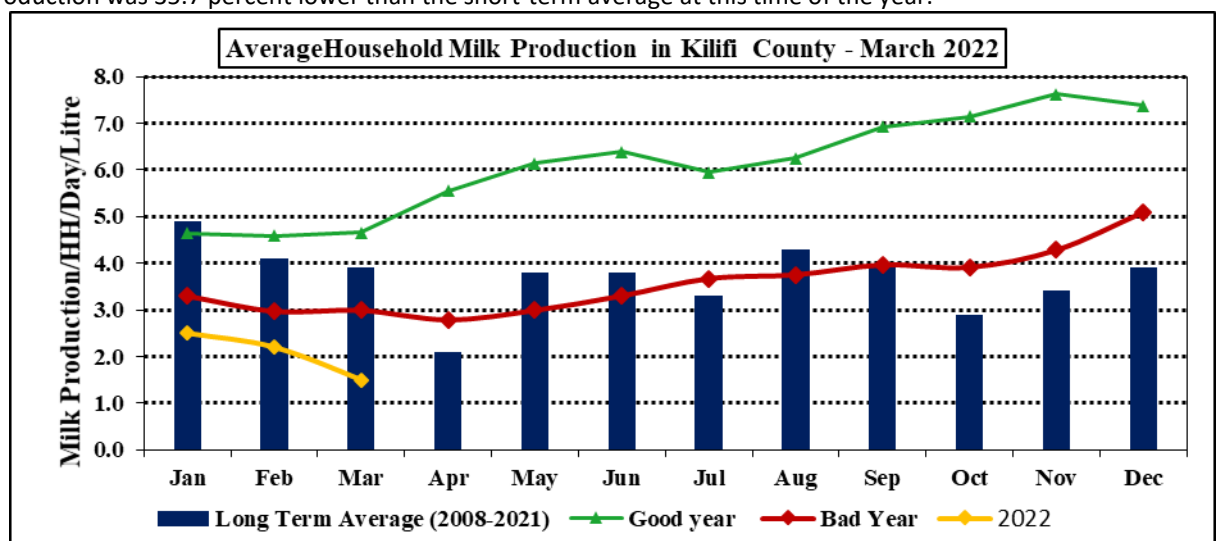
- No reported cases.

##### 3.1.3 Livestock Migration.

- No cases of livestock migration was reported.

##### 3.1.4 Milk production

- Milk production during the month of March recorded a decrease of 31.8 percent compared to the previous month to 1.5ltrs/hh/day.
- The decrease can be attributed to fair livestock body condition following pasture stress in some areas.
- The production was 35.7 percent lower than the short-term average at this time of the year.



### 3.2 Rain Fed Crop Production

#### 3.2.1 Stage and condition of food crops

- Cassava was the main crop in the farms.

#### 3.2.2. Crop Harvest

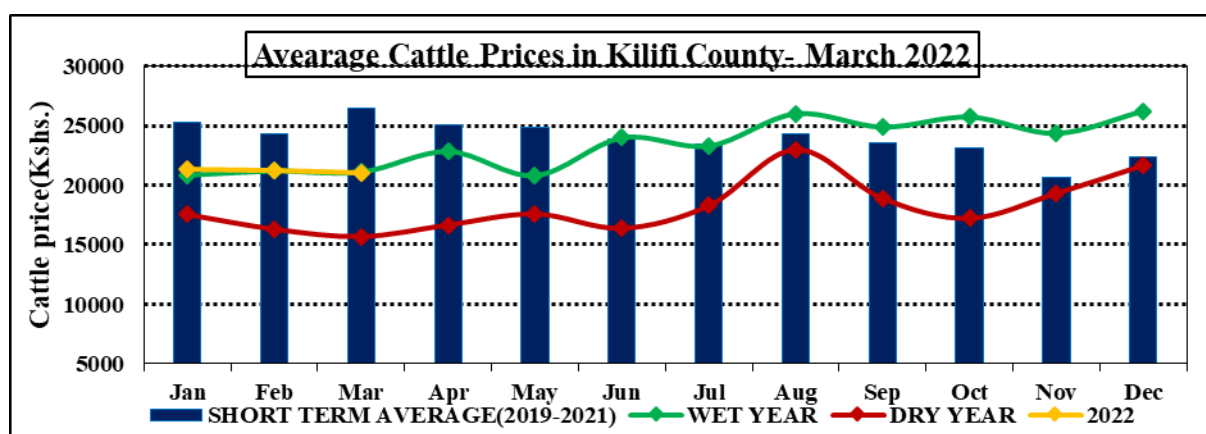
- Mangoes, pineapples and some melons were the main crop harvested during the month under review.

## 4.0 MARKET PERFORMANCE

### 4.1. LIVESTOCK MARKET

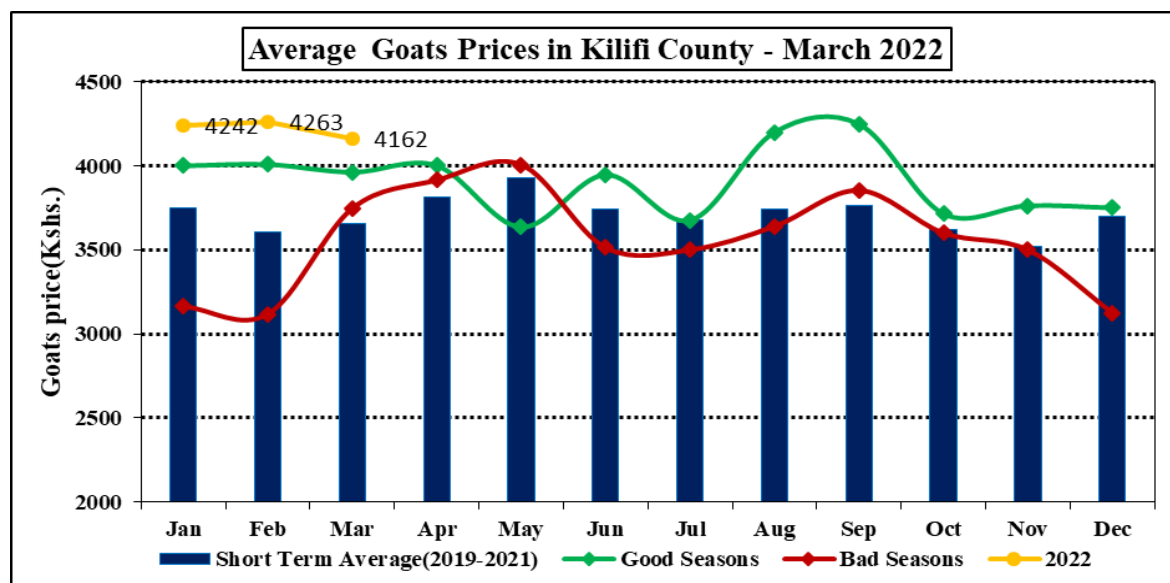
#### 4.1.1 Cattle prices.

- Average price for a 4-year old bull during the month under review recorded a decrease of 0.9 percent to Kshs. 21,047 compared to the previous month which recorded an average of Kshs.21, 237.
- The decrease can be attributed to high supply in the market as household food security continued declining.
- The price was 48.1 percent below the short term mean at this time of the year.



#### 4.1.2 Goat prices

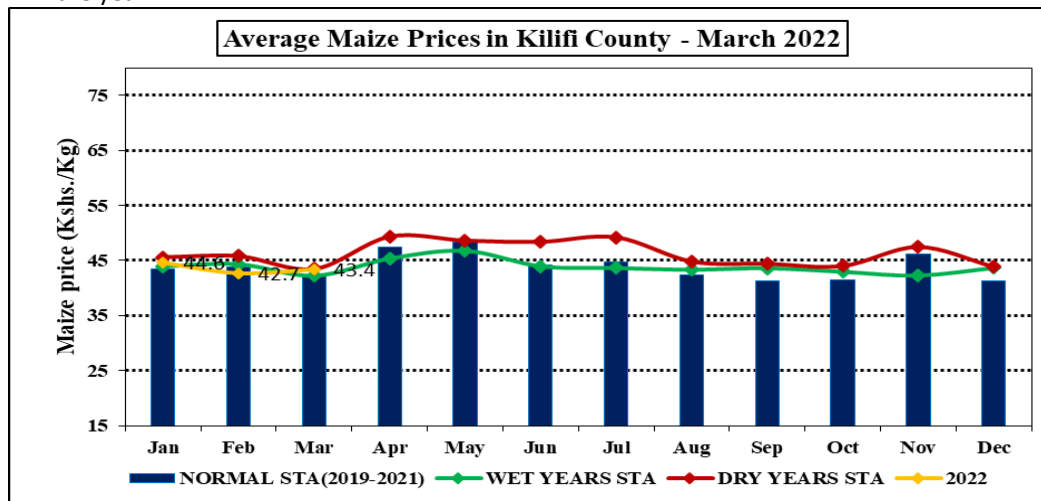
- Average price of a 3-year-old medium sized buck during the month under review decreased of 2.4 percent to Ksh 4,162 from Ksh 4,263 recorded in the previous month.
- The decrease can be attributed to deteriorating browse condition and longer distances across all the livelihood zone.
- The month's average price was 31.7 percent higher than the short term mean at this time of the year.



## 4.2 Crop prices

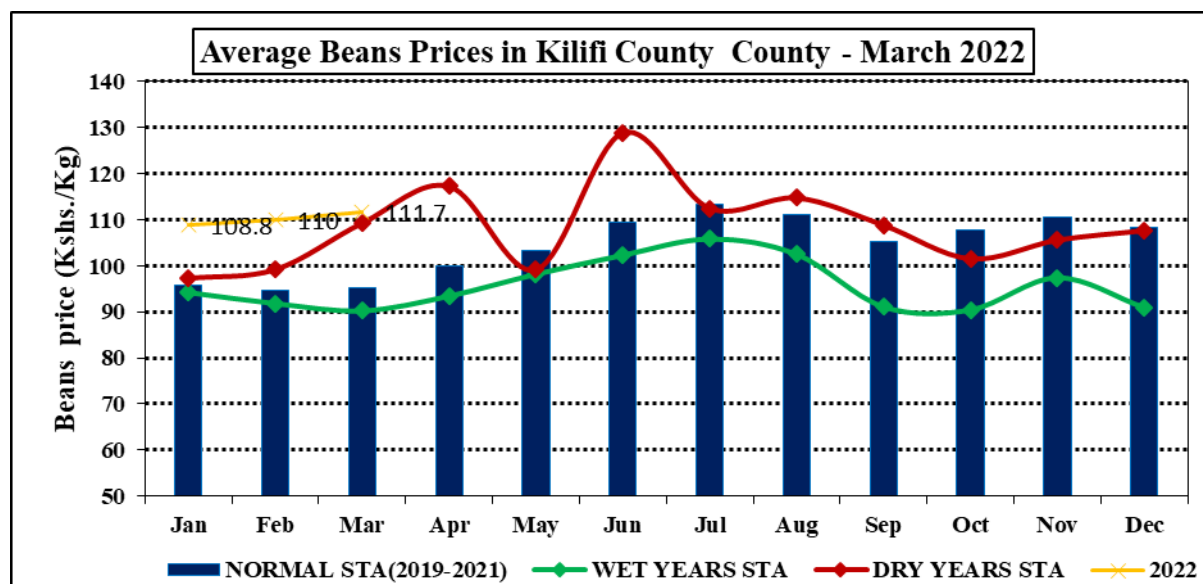
### 4.2.1 Maize

- Average price per kilo of maize recorded a 1.6 percent increase compared to the previous month to Kshs 43.40 from Ksh 42.70.
- The increase can be attributed to high demand and decreased supply in the market from outside the county.
- The month's average price was 0.7 percent lower compared to the short term mean at this time of the year.



### 4.2.2 Beans

- The average price per kilo of beans recorded 1.1 percent increase compared to the previous month from Kshs. 110.0 to Kshs 111.70.
- The increase can be attributed to increase in demand following the prolonged dry spell thus minimal access to vegetables by households.
- The month's average price/kg was 1.5 percent higher than the short term mean at this time of the year.

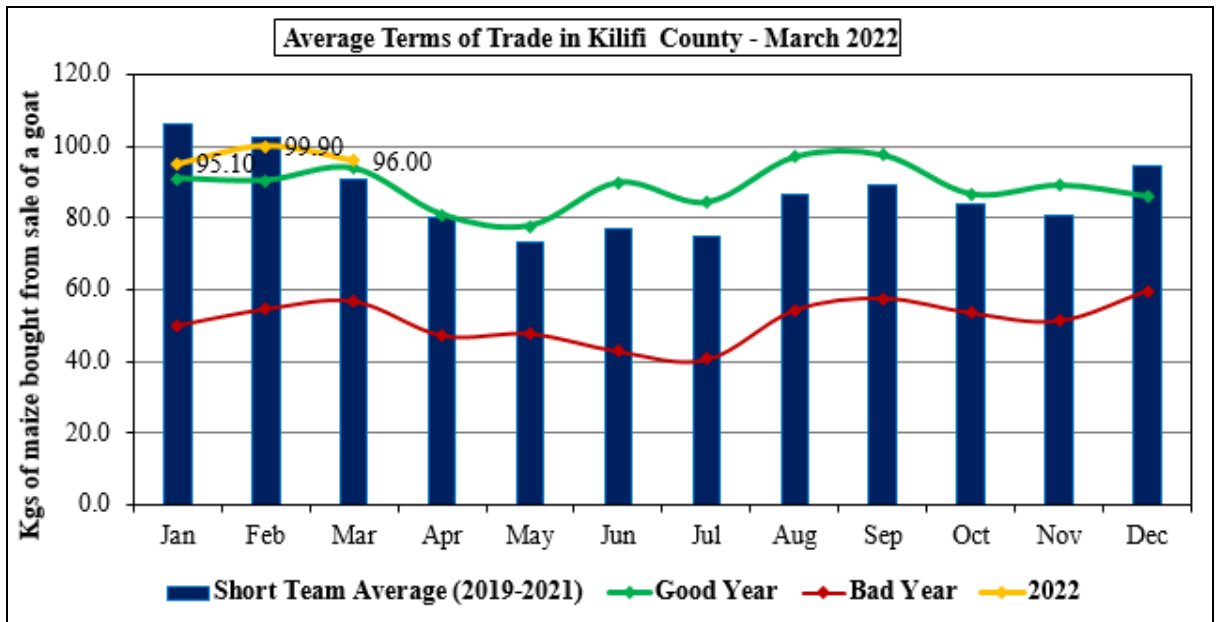


## 4.3 Terms of Trade (ToT)

- The month under review recorded increase of 3.9 percent in ToT compared to the previous month.
- The increase can be attributed to an increase in average maize prices of maize with decrease average goats price.



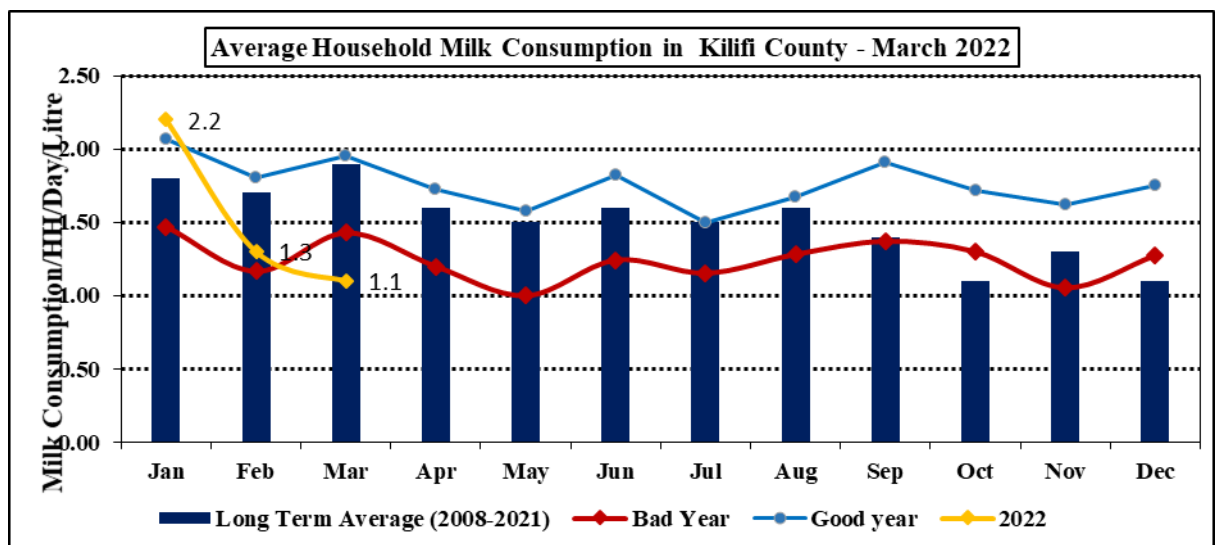
- The ToT for the month under review was 5.7 percent lower than the short term average at this time of the year.



## 5.0 NUTRITION STATUS

### 5.1 Milk Consumption

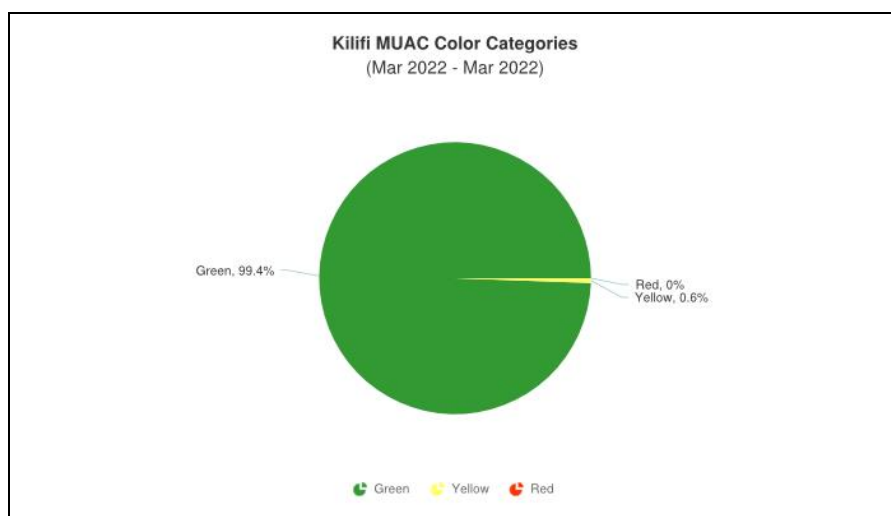
- Average milk consumption per household per day during the month under review recorded a decrease to 1.1ltrs/hh/day from 1.3ltrs/hh/day when compared to the previous month.
- The decrease can be attributed a decrease in production during the month under review.
- The current consumption was 13.3 percent lower as compared to Long Term Average at this time of the year.



### 5.2 Health and Nutrition Status

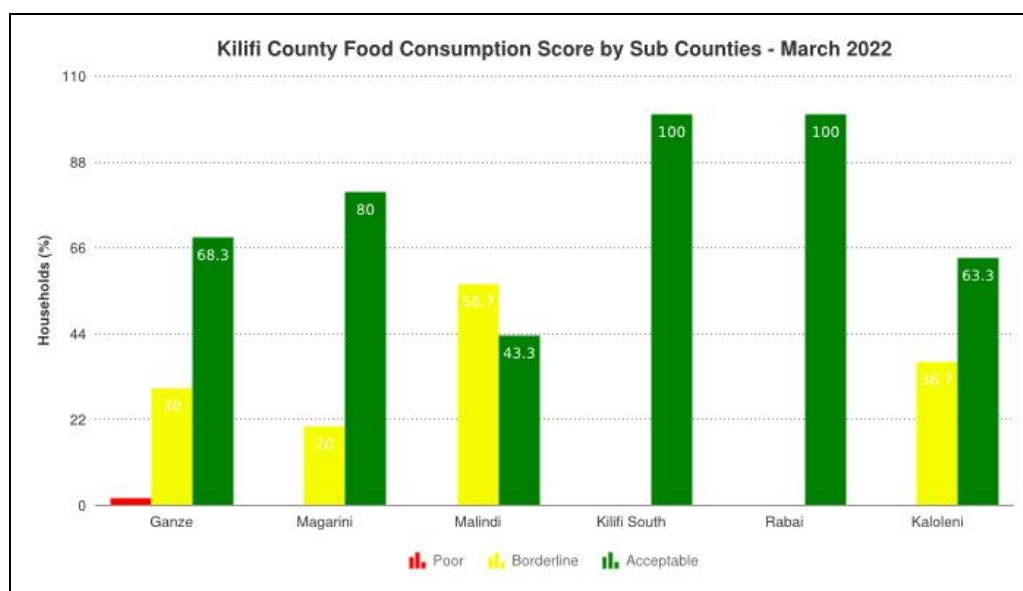
- The month under review recorded a zero point six percent under five from sampled households were at risk of malnutrition.
- The stability can be attributed to ongoing relief interventions, nutritional outreaches across the county though hard to reach areas continued to record high cases of malnutrition from the health records. Most cases of malnutrition were reported in Dodosa village in Bamba ward, Ganze sub county.

- Cases of malnutrition expected to rise following continued decline in household food security following failure of the last two seasons and limited income sources.



### 5.2.2 Food Consumption Score

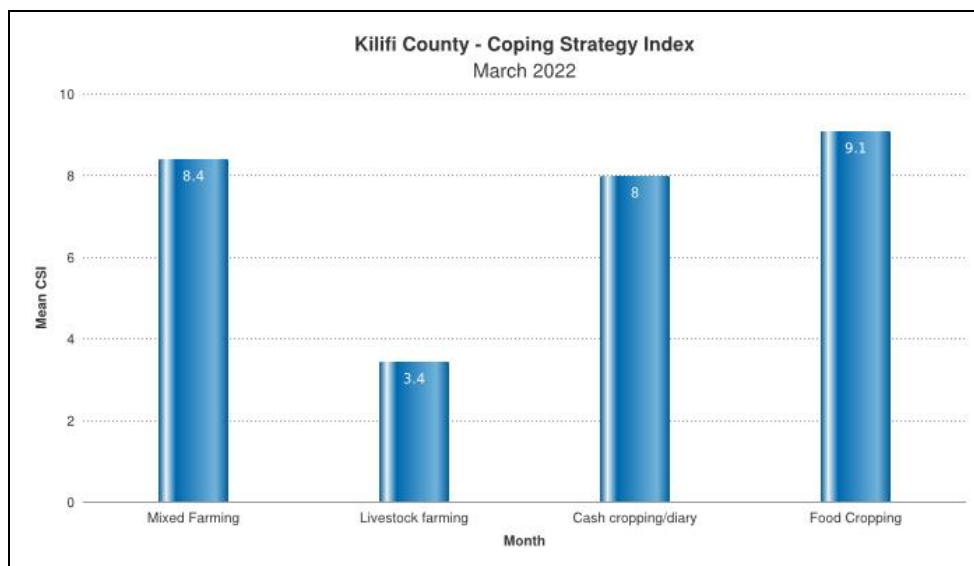
- A high proportion of sampled households, 74.8 percent across livelihood zones recorded acceptable food consumption with 24.8 percent recording borderline food consumption and 0.4 percent recording poor consumption as relief food distribution and cash transfer programmes continued during the month under review.
- Following poor seasons recorded across the livelihood zones for the last two years, significant percentage of households had shifted to charcoal burning and firewood selling for food purchase.
- The livestock farming, Mixed Farming and Marginal mixed farming zones recorded the highest percent of households at borderline band on food consumption with only the livestock farming zone recording some households in the poor consumption band.
- Minimal improvement expected on household Food consumption till next good rains harvest.



### 5.3 COPING STRATEGIES

- The month under review recorded an average of 5.91 Coping Strategy Index (CSI) with Food cropping zone recording the highest score at 9.1 while the livestock farming recorded the lowest at 3.4.
- Reduction in the number of meals and portion was the main consumption strategy employed.

- On average the CSI is expected to increase across the livelihood zones due to minimal season's contribution to household food security.



## **6.0 CURRENT ONGOING INTERVENTION MEASURES**

### **6.1 Food- aid**

- Food assistance by plan-international to seven schools in Ganze Sub County.

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

#### **Health Sector**

- Integrated Medical outreaches in parts of Ganze and Magarini sub counties by MoH and World Vision.

#### **Crops Sector**

- Community capacity development on Sustainable Land Management and coconut, Dairy farming by NARIGP.

#### **Water Sector**

- Pipeline extension in parts of Ganze and Magarini sub counties by County water department

## **7.0 EMERGING ISSUES**

- Elephant and hippopotamus crop destruction in Chakama location in Adu ward along river Galana.

### **7.1 FOOD SECURITY PROGNOSIS**

- Pasture and browse condition expected to continue declining as dry spell continued.
- Average grazing distance to water sources expected to increase as pasture condition deteriorate across the livelihood zones.
- Food prices expected to remain high following failed 2021 short rains thus no harvest during the month under review.
- Livestock body condition expected to deteriorate as pasture and browse condition declined.
- Household food security to continue declining till the next good rains harvest as schools closed.

## **8. RECOMMENDATIONS**

### **Coordination**

- Close monitoring of drought situation and household food and nutrition security by National and County Governments.

### **Crop Sector**

- Investment in irrigated agriculture along Rivers.
- Rain Water harvesting for crop production.
- Cash transfers to households to cushion them against the current food insecurity.

### **Livestock Sector**

- Livestock feed supplementation in parts of Ganze, Magarini and Kaloleni sub counties

### **Water Sector**

- Investment in rain water harvesting to reduce pressure on existing borehole to ensure continuous water supply by water department
- Close monitoring of water situation in areas of Marginal mixed farming zone and livestock farming due to recording minimal rains thus minimal recharge of water sources.
- Water trucking.

### **Health Sector**

- Close monitoring of nutritional status of the under-fives, pregnant and lactating women as household food security remained low-by Health department