




A Vision 2030 Flagship Project



**National Drought Management Authority  
KILIFI COUNTY  
DROUGHT EARLY WARNING BULLETIN FOR FEBRUARY 2021**

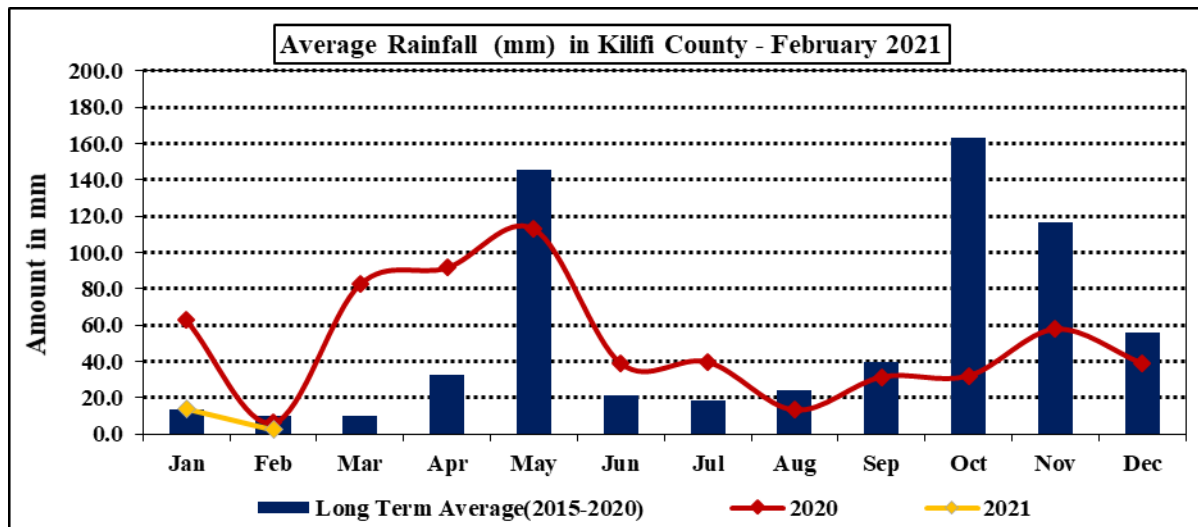
FEBRUARY EW PHASE	Early Warning Phase Classification		
<p><b>Drought Status: ALERT</b></p>  <p><b>Maandalizi ya mapema</b></p>	LIVELIHOOD ZONE	EW PHASE	TRENDS
	Marginal Mixed Farming	Alert	Worsening
	Livestock/Ranching	Alert	Worsening
	Cash Cropping/Dairy	Normal	Deteriorating
	Food Cropping	Alert	Worsening
	Mixed Farming zone	Normal	Deteriorating
	<b>County</b>	Alert	Deteriorating
<p><b>Drought Situation &amp; EW Phase Classification</b></p> <p><b>Biophysical Indicators (Environmental indicators)</b></p> <ul style="list-style-type: none"> <li>The month under review recorded some rain during the first dekad with uneven spatial distribution.</li> <li>The state of water sources on average ranged between fair to poor across the livelihood zones but below normal for this time of the year.</li> <li>The county recorded an average of normal vegetation condition with some pockets recording fair to poor condition.</li> </ul> <p><b>Socio Economic Indicators (Impact Indicators)</b></p> <p><b>Production indicators</b></p> <ul style="list-style-type: none"> <li>On average the livestock body condition ranged from fair to Poor for all species across the livelihood zone.</li> <li>Cases of intra-migration were recorded in the livestock farming zones of Ganze and Magarini sub counties during the month under review.</li> <li>There was a decrease in average milk production which was below the short term mean at this time of the year.</li> <li>Cassava crop was in good condition</li> </ul> <p><b>Access indicators</b></p> <ul style="list-style-type: none"> <li>Average cattle and goat prices recorded a decrease during the month under review compared to the previous month.</li> <li>Both maize and beans recorded a decrease in average prices/kg compared to the previous month.</li> <li>Terms of Trade were favorable during the month under review compared to the previous month.</li> </ul> <p><b>Utilization indicators</b></p> <ul style="list-style-type: none"> <li>The month under review recorded stability in the percentage of children under- five at risk of malnutrition compared to the previous month.</li> </ul>	Biophysical Indicators	Value	Normal ranges
	Rainfall (Average)	2.37	6.25
	VCI-3 month	38.7	35-50
	Average Forage Condition	Fair	Fair
	Production indicators	Value	Normal ranges
	Maize Crop Condition	Poor	Fair-Poor
	Livestock Body Condition	Moderate	Good
	Milk Production (in liters)	3.7	5.0
	Livestock Migration Pattern	Intra-migration	No migration
	Livestock Deaths (from Drought)	None	None
	Access Indicators	Value	Normal ranges
	Terms of Trade (ToT)	106.2	102.4
	Milk Consumption (in litres)	1.7	1.5
Average Distance to Water Sources (in km)	3.5	4.9	
Average Distance to Water Sources from grazing (in km)	4.4	5.3	
Utilization indicators	Value	Normal ranges	
Nutrition Status, MUAC (% at risk of malnutrition)	0	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

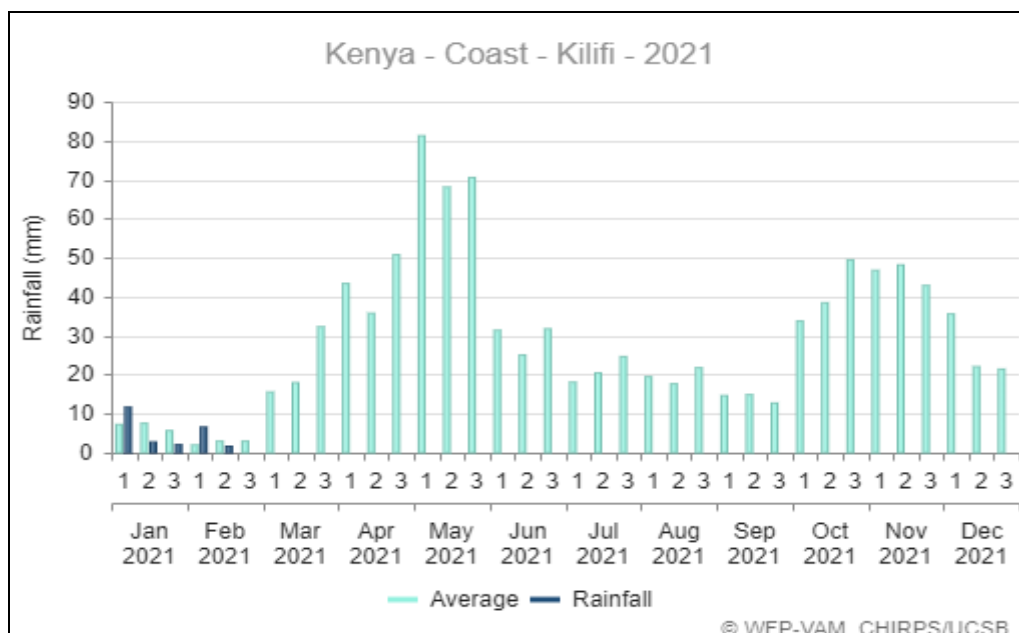
**1.0 CLIMATIC CONDITIONS**

**1.1 Rainfall performance**

- The month of February recorded an average of 2.37mm which was 62 percent lower compared to LTM
- Spatial distribution was uneven as the livestock farming zone recorded 7.5mm and cash crop Farming zone recording 9.1mm. The rest of the livelihoods didn't receive any rainfall.
- The rainfall decrease during this time of the year was normal compared to the long term mean.



- On average the month of February remained generally dry with extreme high temperatures.
- February Rainfall Estimates (RFE) recorded significant amount during the first dekad higher than the long term average while the Second were below the long term average.

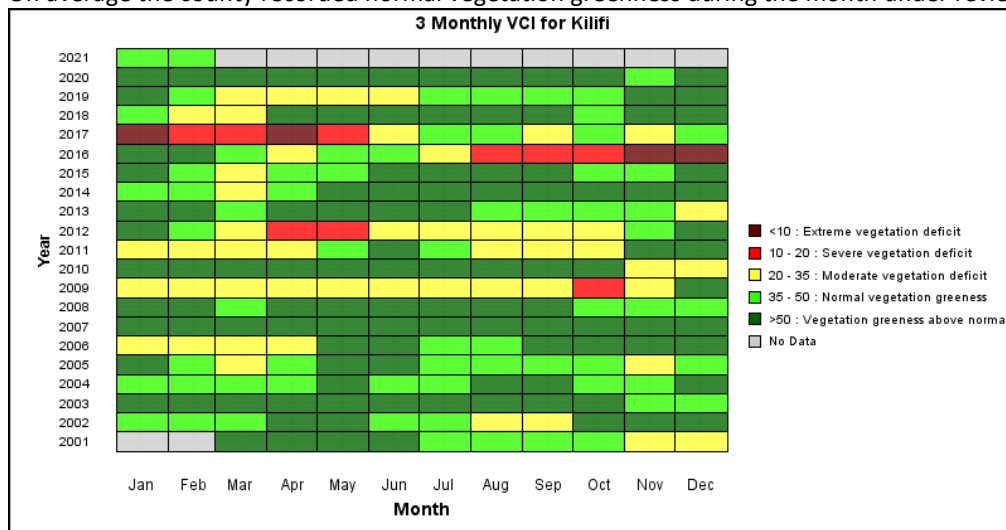


## 2.0 IMPACT ON VEGETATION

### 2.1 Vegetation Condition

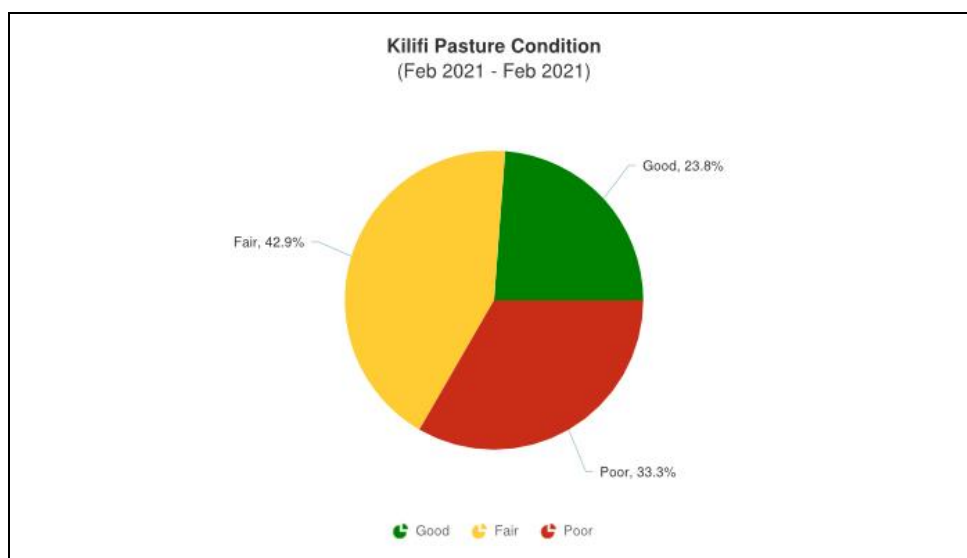
#### 2.1.1 Vegetation Condition Index [VCI]

- 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 % 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 greenness during the month under review.



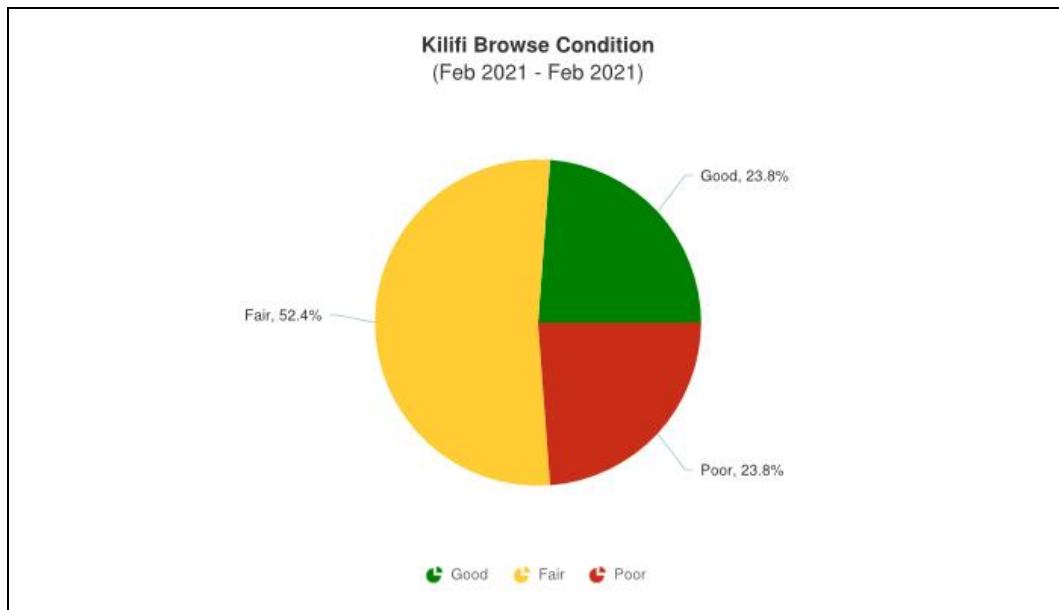
#### 2.1.2 Pasture

- Significant percentage of sampled areas across the livelihood zone (Pie Chart below) recorded between fair to poor pasture condition with the cash Cropping/dairy zones recording good pasture condition.
- The variation across the livelihood zones can be attributed to uneven spatial distribution of the rains and showers recorded in the months of January and little rains in February.
- Current condition expected to deteriorate as dry spell with extreme high temperatures continue.
- On average the current pasture condition was normal during this time of the year.



### 2.1.3 Browse

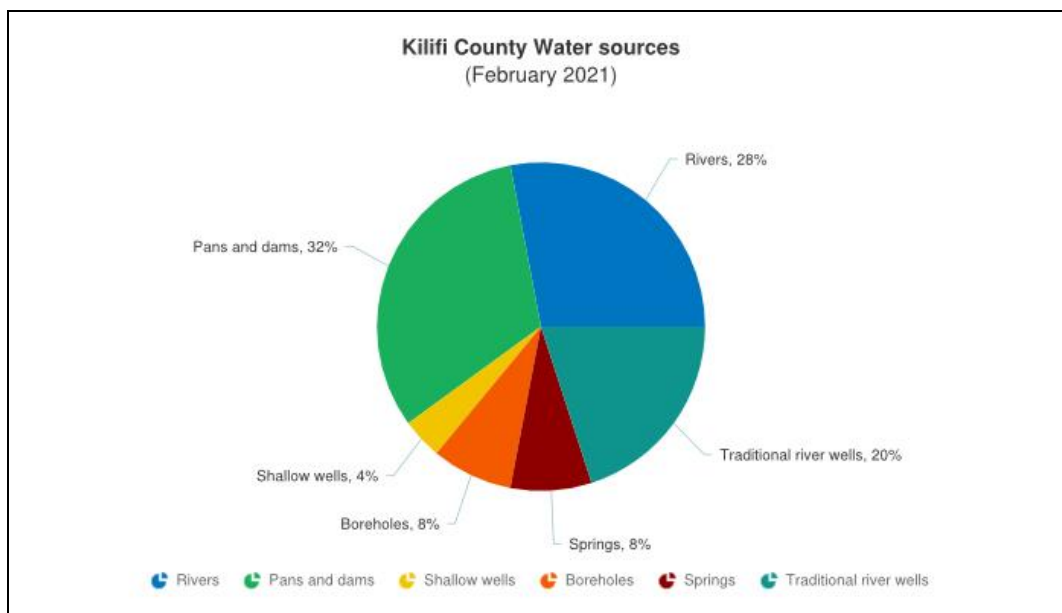
- Most livelihood zones as shown in the pie chart indicate good browse condition with some pockets in the Marginal Mixed farming, cash cropping/Dairy and livestock farming recording fair browse condition.
- Browse condition expected to decline as high temperatures continued.
- Browse condition was normal at this time of the year.



## 2.2 Water Resources

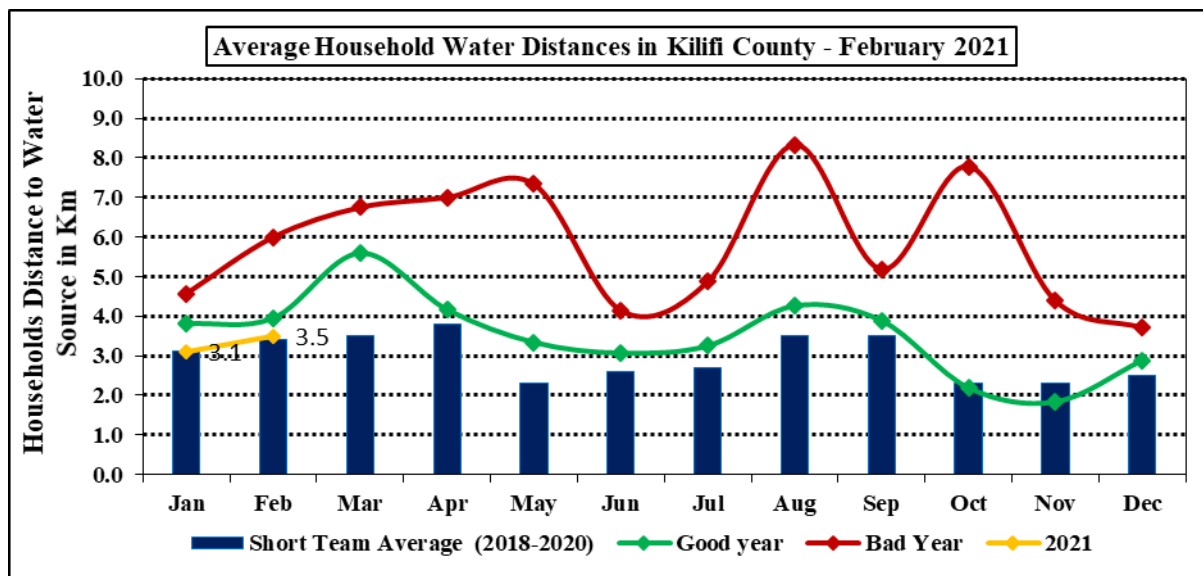
### 2.2.1 Water Sources

- The month of February recorded sampled households depending on different main water sources with 32 percent on pans and dams, 28 percent on Rivers, 20 percent on traditional river wells and the remaining percentage depending on other sources.
- Significant variation expected as the dry spell continued.
- The water sources recorded in February were normal during this time of the year.



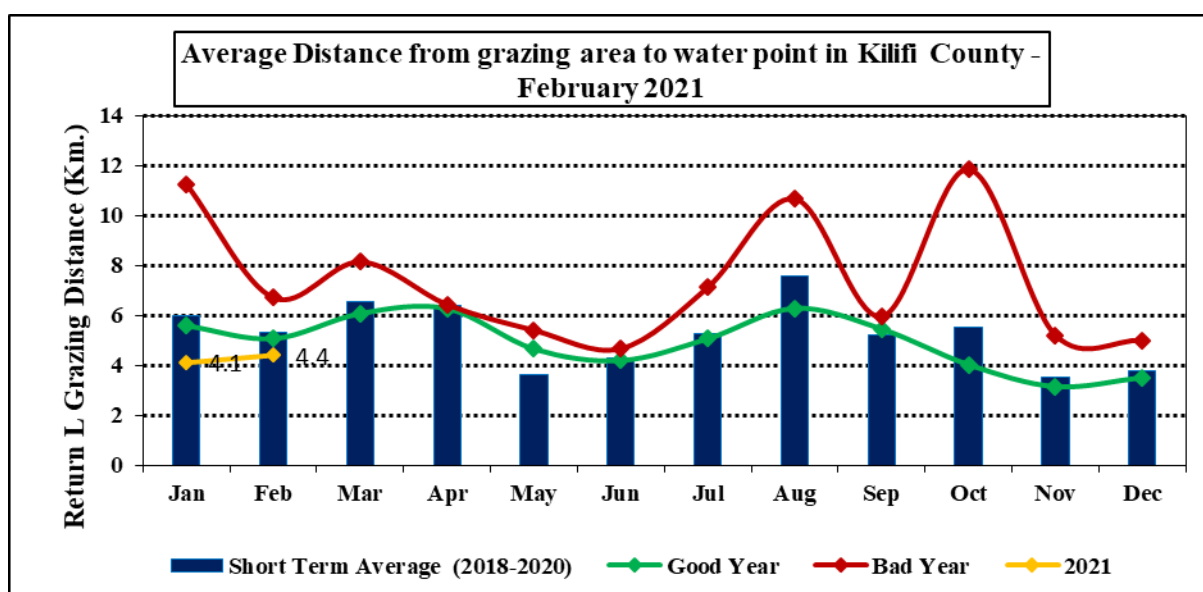
### 2.2.2 Household water access and utilization

- The average household distance to water source increased by 11.4 percent to 3.5km from 3.1km recorded during the previous month.
- The livestock farming and Marginal mixed zones recorded the highest average distance of 4kms.
- The increase can be attributed to poor recharge during the short rain season thus drying of water pans near the households with the Marginal Mixed recording the highest distance.
- Average distance expected to increase as more pans continued to dry.
- The average distance during the month under review was the same as short term average at this time of the year.



### 2.2.3 Livestock access to water

- The month under review recorded an increase of 7.3 percent in average distance to water sources compared to the previous month, from 4.1kms to 4.4kms.
- The increase can be attributed to decline in pasture quality and quantity in some parts thus necessitating long distances in search for pasture.
- The average distance during the month under review remained the same as the short term average at this time of the year.

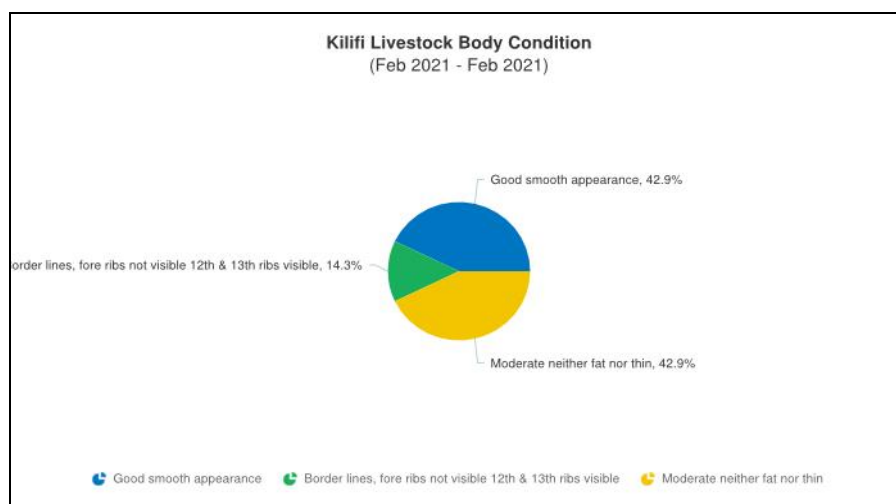


### 3.0 PRODUCTION

#### 3.1 Livestock Production

##### 3.1.1 Livestock body condition

- From sampled households in February, 42.9 percent recorded an average of good smooth appearance body condition, 42.9 percent recorded moderate neither fat nor thin body condition and 14.3 percent recorded borderlines, fore ribs not visible 12<sup>th</sup> and 13<sup>th</sup> ribs visible.
- Body condition expected to decline as the dry spell continues with decrease in pasture and water being experienced.
- Average body condition was below normal at this time of the year.



##### 3.1.2 Livestock disease

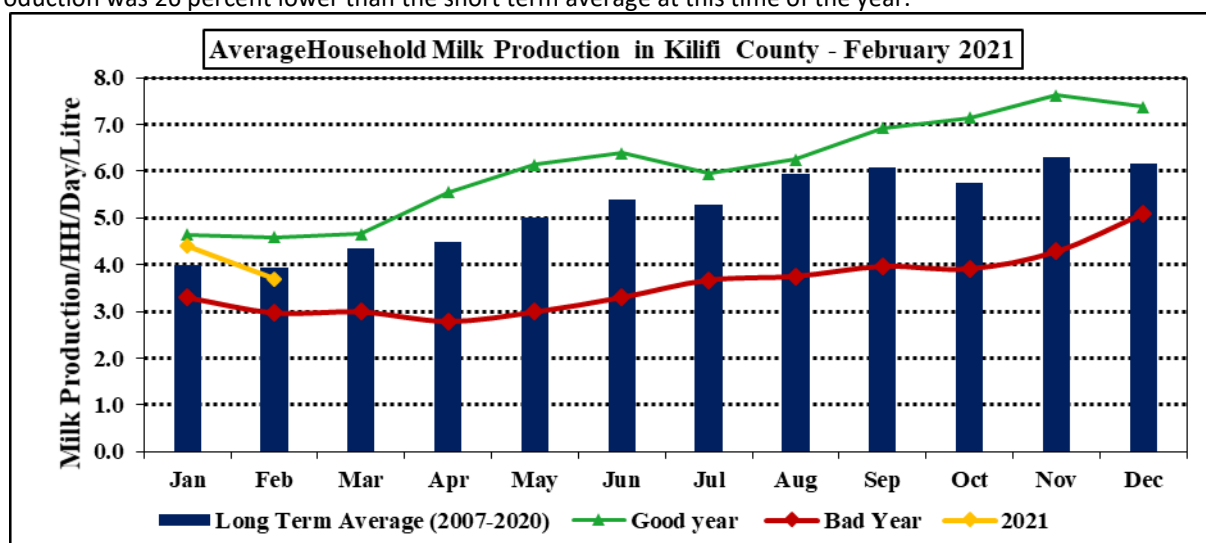
- No livestock diseases were reported during the month under review. However there is threat of disease outbreak along the livestock migratory due to expected inter-migration of livestock from neighboring counties

##### 3.1.3 Livestock Migration.

- Cases of intra-migration of cattle were reported in Ganze and Magarini sub counties in search for pasture and water.

##### 3.1.4 Milk production

- Milk production during the month of February recorded 15.9 percent decrease compared to the previous month from 4.4ltrs/hh/day to 3.7 ltrs/hh/day.
- The decrease can be attributed to deteriorating water, pasture and browse condition in most livelihood zones.
- The production was 26 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 at different stages of growth with most parts across the livelihood zones recording mature cassava crop.

#### 3.2.2. Crop Harvest

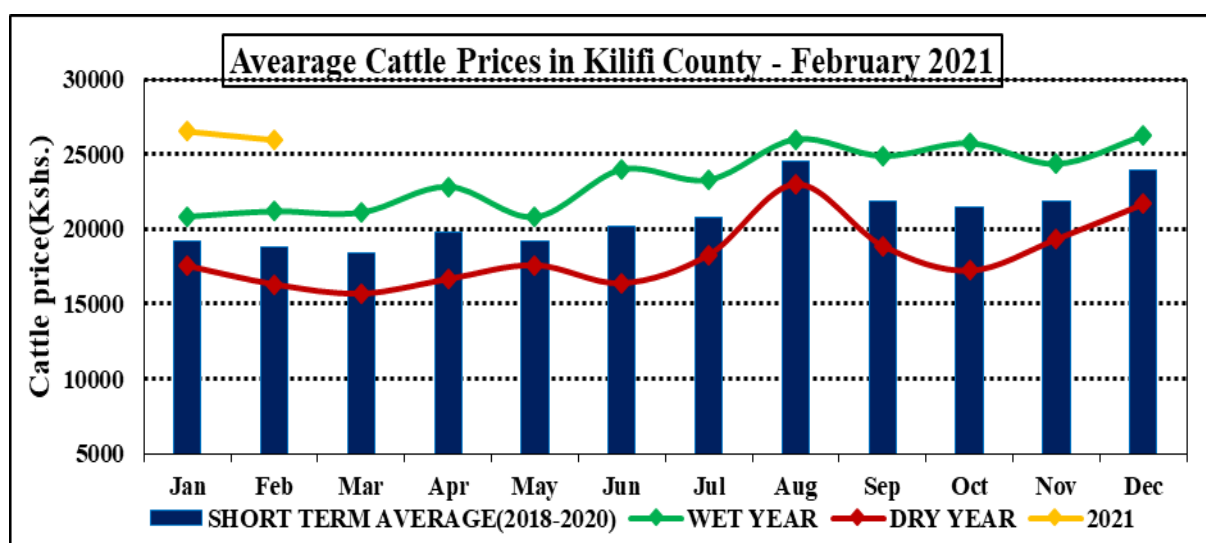
- Cassava was the main crop harvested during the month under review

## 4.0 MARKET PERFORMANCE

### 4.1. LIVESTOCK FARM GATE

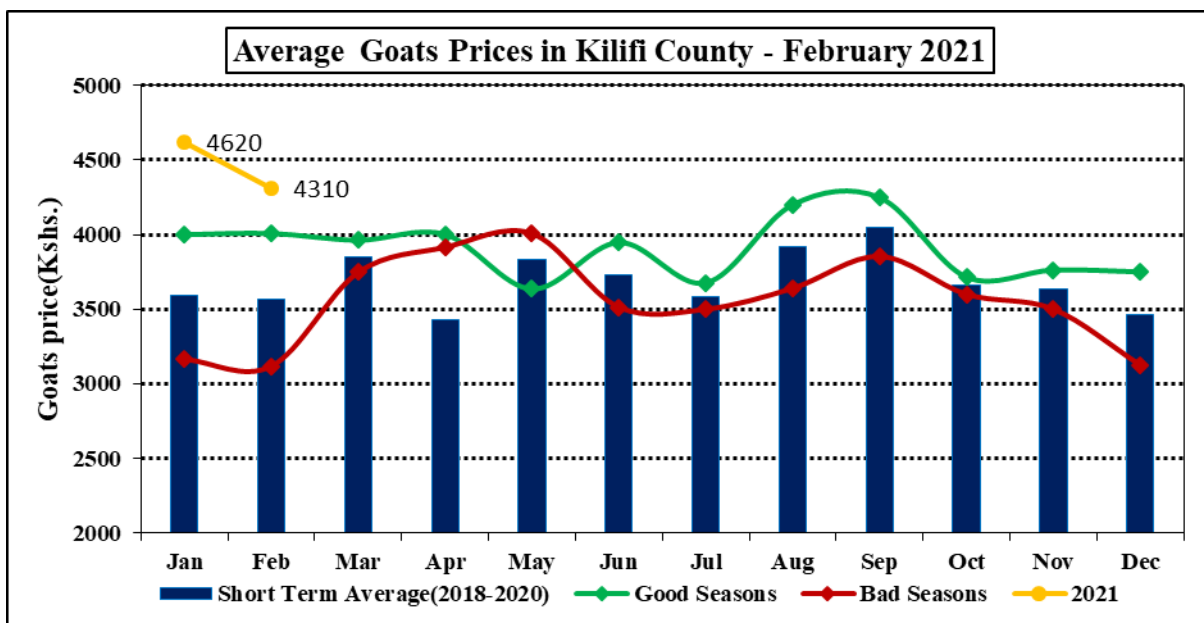
#### 4.1.1 Cattle prices.

- Average price for a 4-year old bull during the month under review recorded a 2.2 percent decrease compared to the previous month from Kshs.26, 523 to Kshs.25, 947.
- The slight decrease can be attributed to deteriorating pasture and longer distance to water sources.
- The price was 35.8 percent above the short term mean at this time of the year.



#### 4.1.2 Goat prices

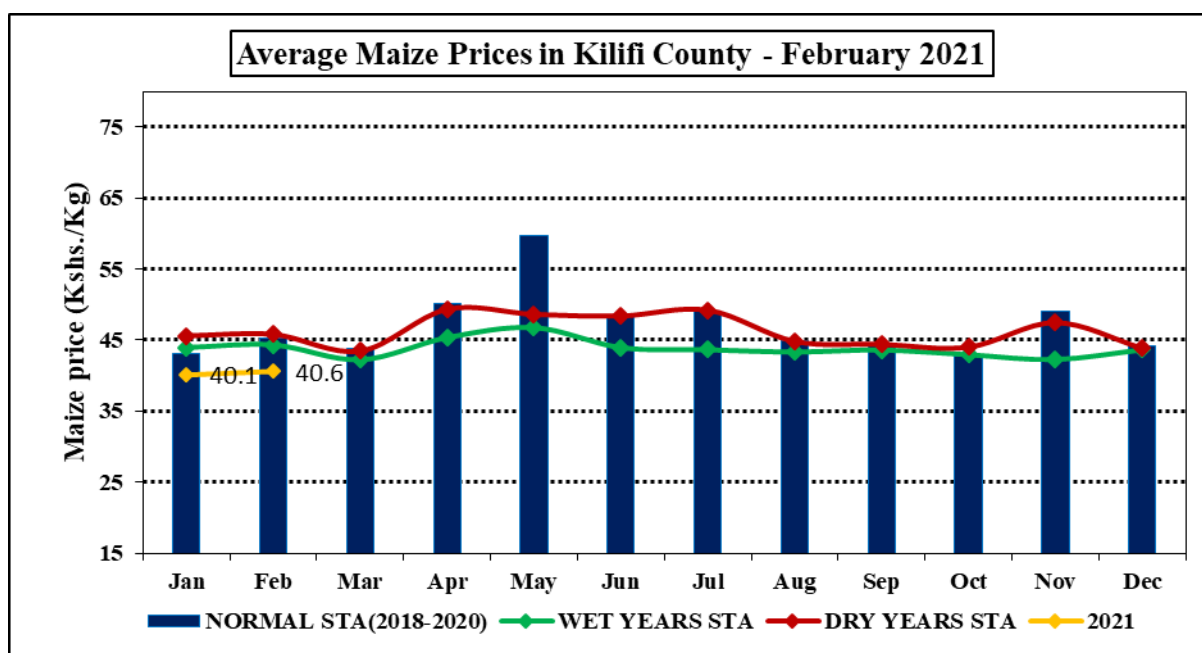
- Average goat price of a 3-year-old medium sized buck during the month under review recorded a 7.2 percent decrease to Ksh 4,310 from Ksh. 4,620 recorded in the previous month
- The decrease in average price can be attributed poor body condition, long distances to water sources and deterioration of pasture in most livelihood zones.
- The month's average price was 21.1 percent higher than the short term mean at this time of the year



## 4.2 Crop prices

### 4.2.1 Maize

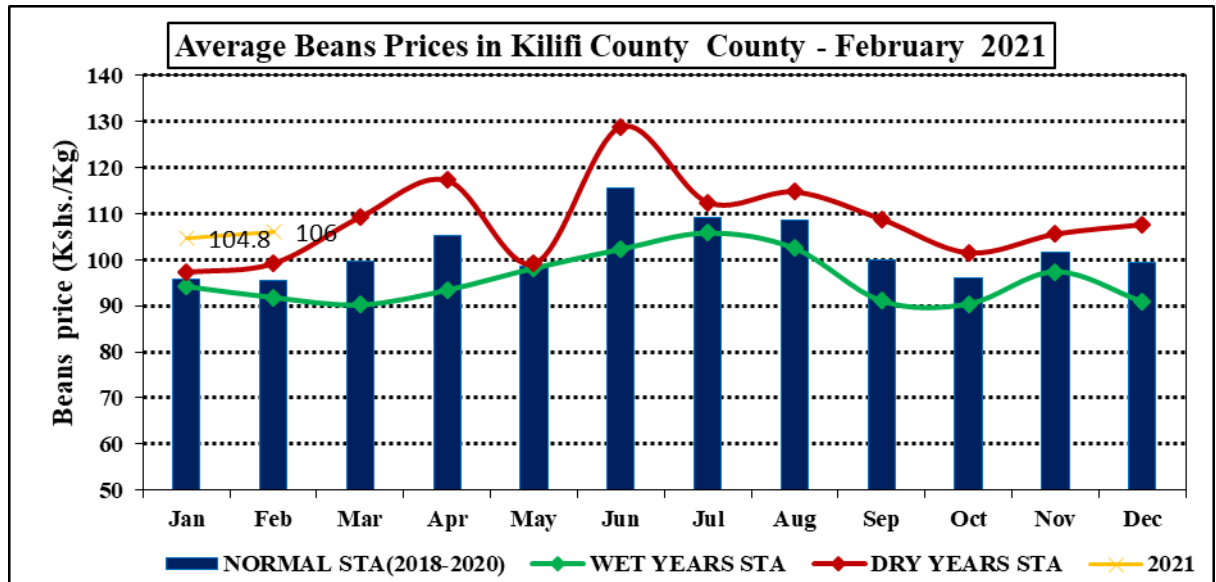
- The average price of a kilo of maize recorded during the month under review was 1.2 percent higher compared to the previous month from Kshs 40.1 to Kshs 40.6
- The slight increase can be attributed to decrease in maize supply to the market and preference for sifted maize meal and depletion of maize held at house hold levels.
- The month's average price was 10.4 percent lower compared to the short term mean at this time of the year.



### 4.2.2 Beans

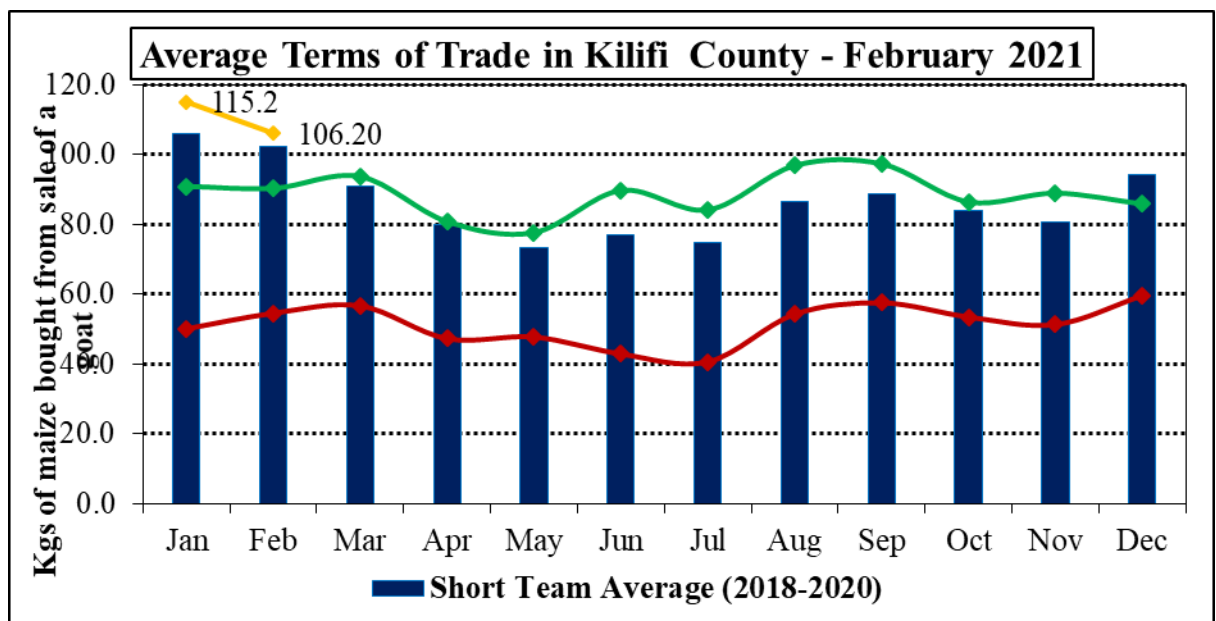
- The average price of a kilo of beans recorded a 1.1 percent price increase for the month under review compared to the previous month.
- The increase can be attributed to depletion of households stock and decrease in supply from other counties.
- The month's average price/kg was 12.5 percent higher than the short term mean at this time of the year.





### 4.3 Terms of Trade (ToT)

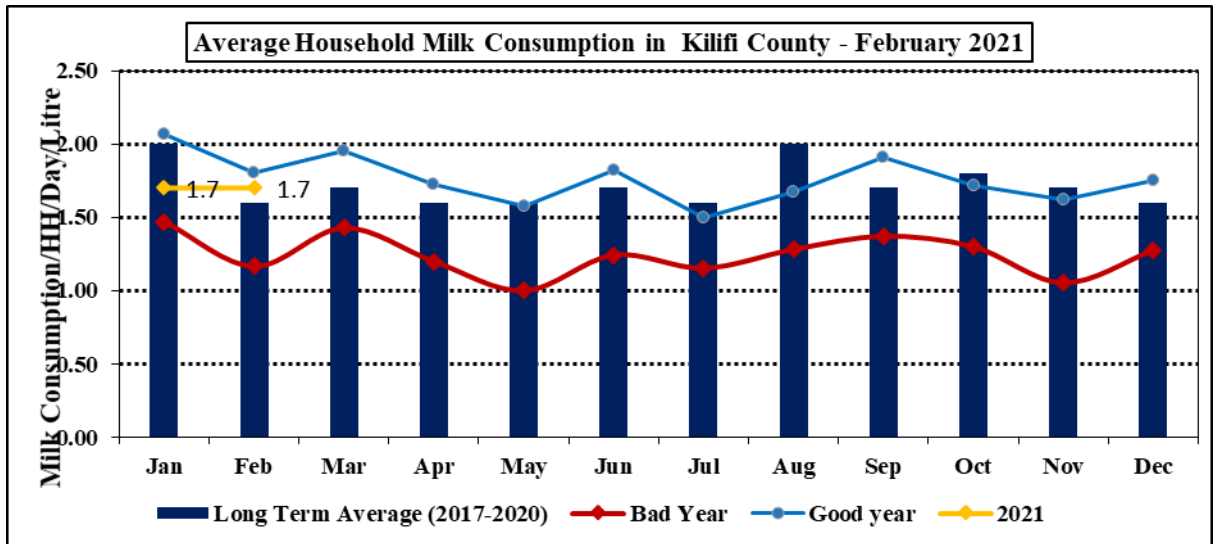
- Terms of Trade (ToT) during the month under review was still favourable where a mature goat exchanged for 106 kilos of maize as compared to 115 Kilos in the previous month.
- The decrease can be attributed to slight increase in average price of maize compared to the previous month and decrease in average price of goats.
- The ToT for the month under review was 3.7 percent higher than the short term average at this time of the year.



## 5.0 NUTRITION STATUS

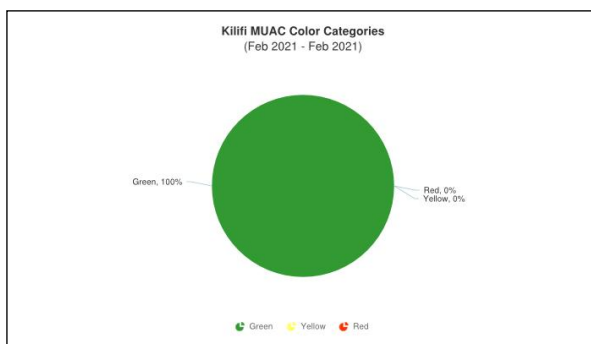
### 5.1 Milk Consumption

- Milk consumption during the month under review recorded the same as compared to the previous month at 1.7ltrs/hh/day.
- The reduction can be attributed to deterioration of water and pasture access and increased distances to water sources.
- The current production was 13.3 percent higher than the short term average.



### 5.2 Health and Nutrition Status

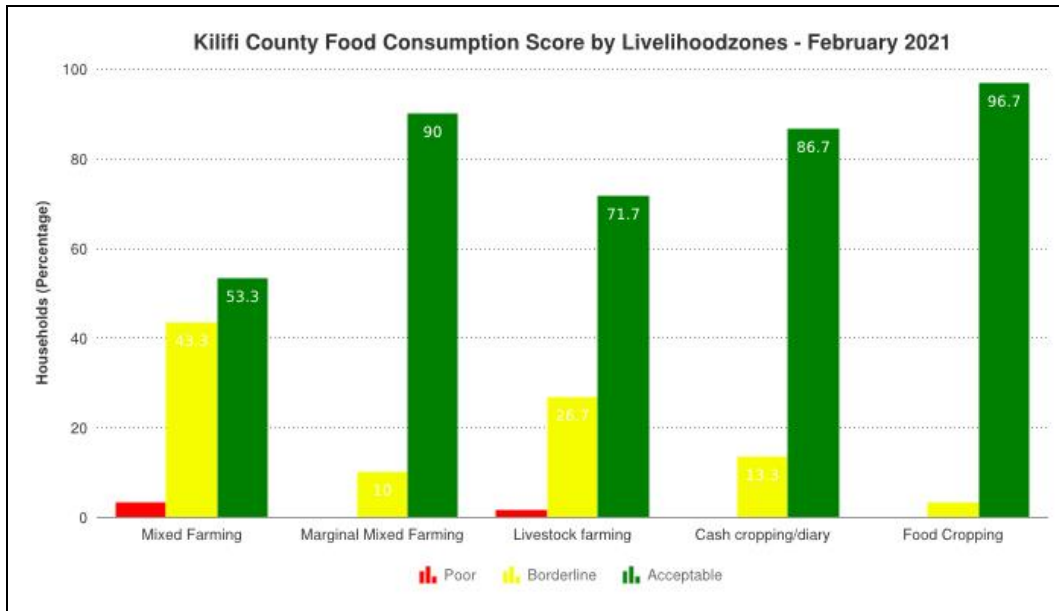
- The month under review recorded stability in the number of children at risk of malnutrition.
- The stability can be attributed to minimal change in household food security between January and February and stability too in milk consumption coupled with department of nutrition interventions at health facilities.
- The number at risk expected to increase as OND performed poorly thus likely to impact household food security negatively.



Note: (MUAC less than 110mm (11.0cm), RED COLOUR, indicates Severe Acute Malnutrition (SAM), MUAC of between 110mm (11.0cm) and 125mm (12.5cm), RED COLOUR indicates Moderate Acute Malnutrition (MAM), MUAC of between 125mm (12.5cm) and 135mm (13.5cm), YELLOW COLOUR, indicates that the child is at risk for acute malnutrition while MUAC over 135mm (13.5cm), GREEN COLOUR, indicates that the child is well nourished.)

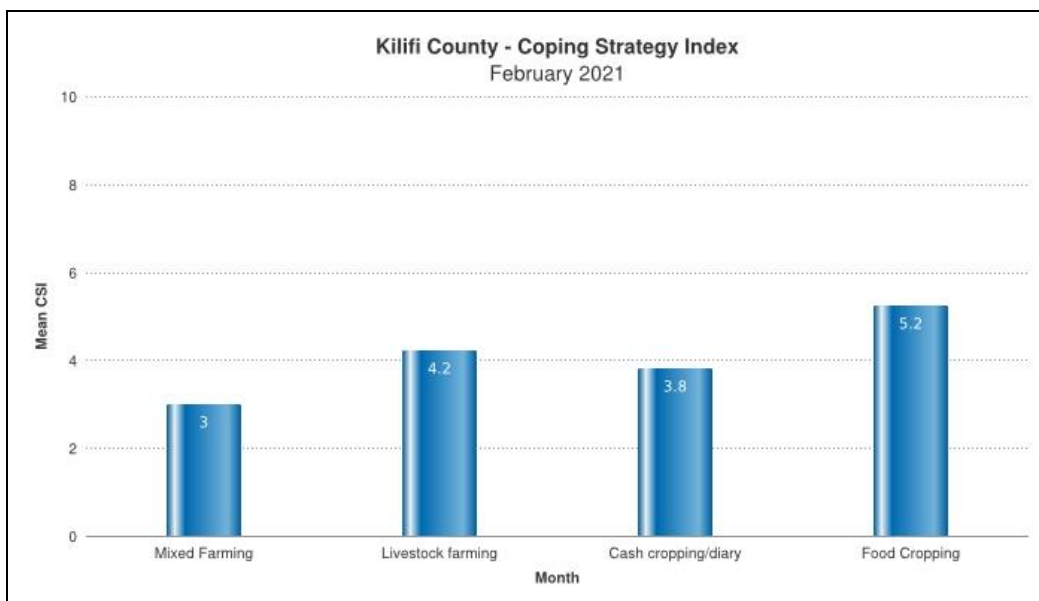
#### 5.2.2 Food Consumption Score

- A high proportion of sampled households, 80.9 percent across livelihood zones recorded acceptable food consumption with 18.0 percent recording borderline food consumption and 1.1 percent recording poor consumption.
- The livestock farming zone recorded the high percent of households at borderline and poor food consumption.
- Food consumption expected to decline as households depleted their short rains harvest.



### 5.3 COPING STRATEGIES

- February recorded an average of 3.67 coping Strategy Index (CSI) with the livestock farming zone recording the highest score followed by food cropping zone. High food shortages were experienced in this zones.
- The CSI is expected to increase as households depleted their long rains food stocks and poor short rains harvest.



## **6.0 CURRENT ONGOING INTERVENTION MEASURES**

### **6.1 Food- aid**

- Supplementary feeding at health facilities by department of nutrition in the Ministry of Health and other partners.
- Relief food distribution pregnant and lactating mothers in Ganze sub county by Self Help Africa.

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

#### **Health Sector**

- Vitamin A Supplementation in the entire county
- Zinc Supplementation + ORS in the entire county
- Therapeutic Feeding Programs to manage acute malnutrition (SFP, OTP, ITP) in the entire county
- Baby-Friendly Community Initiative in Ganze, Kaloleni and Magarini sub counties
- Baby Friendly Hospital Initiative in the entire county
- Iron Folate Supplementation among Pregnant Women in the entire county
- Deworming in the entire county
- Family MUAC Kaloleni, Ganze , Magarini, Kilifi North, Kilifi South, Malindi sub counties
- HiNi OJT , support supervision and data quality audits
- Preposition nutrition supplies (RUTF)
- Scheduled Integrated Health and Nutrition Outreaches in the entire county
- Establish defaulter tracing mechanisms in the entire county
- Provision of water treatment chemicals for use in the households and water sample collection
- Commercialization of Cassava in the entire county
- Capacity building of C/SCHMT on nutrition service delivery business continuity process in the context of COVID-19 in the entire county

#### **Agriculture Sector**

- Training and capacity building of farmers in crop husbandry across the county.
- Community and staff capacity development on Cassava, coconut value chains
- Community capacity development Sustainable Land Management
- Community support to Kitchen gardening for improved nutrition by World Vision
- Support to irrigated agriculture by ADS Pwani
- Commercialization of Cassava Value Addition by Ustadi Foundation.

#### **Livestock sector**

- Promotion on dairy production by NARGIP.
- Promotion on Poultry farming by ASDSP, Ustadi foundation.
- Promotion of meat goat production in Bamba and Adu wards by NDMA
- Disease surveillance by county government-veterinary services department.

#### **Water Sector**

- Water pipelines extension across the county government.
- Excavation of Mbomboni earth dam at Chasimba ward in Kilifi south by NDMA, CGK. CDF-Kilifi south constituency.

## **EMERGING ISSUES**

- No emerging issues were recorded during the month under review.

### **7.1 FOOD SECURITY PROGNOSIS**

- Following the poor performance of the 2020 short rains, poor production recorded, a shift to the market for food by most households.
- Due to poor recharge recorded during the 2020 short rains, water pans and dams have started drying up thus water stress being recorded as distance to water by household and livestock was recorded.
- Due increased temperatures, small pans have dried up thus increased distance to water by households and Livestock.
- Food prices expected to increase in the next months as 2020 short rains season's crop production performed poorly and long rains stocks got depleted.
- Water and pasture access expected to record increased stress as pasture deteriorated fast following poor regeneration recorded during the short rains and extreme high temperatures experienced currently.
- Livestock body condition expected to deteriorate as pasture and water stress continued across the livelizonses mostly in Kaloleni, Ganze and Magarini.

## **8. RECOMMENDATIONS**

### **Livestock Sector**

- Excavation strategic dams for drought preparedness.
- Community sensitization on fodder conservation for dry spell.
- Regular disease surveillance

### **Water Sector**

- Rehabilitation of strategic water pans and earth dams - Mrya Chakwe, Kayafungo, and Ndigiria.
- Out-scale pipeline extension to hard to reach areas in Ganze, Magarini and Kaloleni sub counties recording water stress

### **Heath Sector**

- Support to moderate malnutrition treatment across the county.
- Support Community sensitization on COVID 19 protocols to reduce household expenditure on the virus infections thus save for food.
- Close monitoring of cases of malnutrition at household level by nutrition department and other partners.

### **Agriculture Sector**

- Support irrigated production along the rivers.
- Close monitoring of locust invasion and regular updates for timely response.
- Community capacity development on rain water harvesting technologies

### **Coordination**

- Support Community sensitization on Climate Change adaptation
- Close monitoring of drought effects across the county.
- Close monitoring of locust invasion in the county.