



A Vision 2030 Flagship Project



**National Drought Management Authority  
KILIFI COUNTY  
DROUGHT EARLY WARNING BULLETIN FOR APRIL 2023**

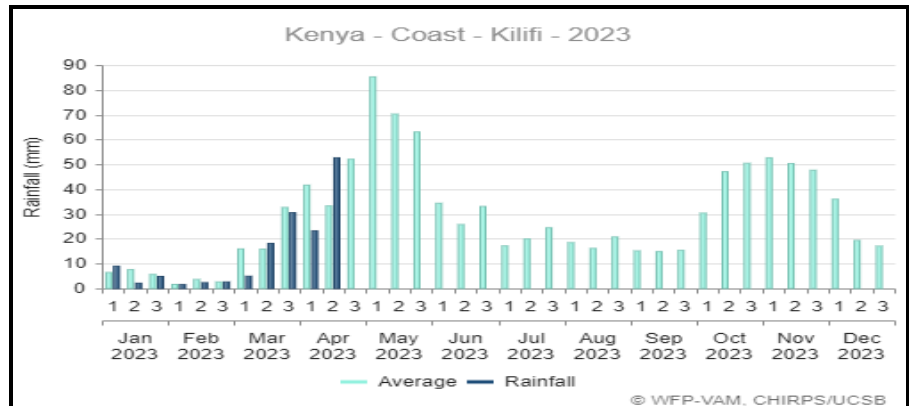
APRIL EW PHASE	Early Warning Phase Classification		
<div style="background-color: #e0f0e0; padding: 10px; border: 1px solid #ccc;"> <p><b>Drought status: RECOVERY</b></p> <p><b>Mipango ya ahueni</b></p> </div>	LIVELIHOOD ZONE	EW PHASE	TRENDS
	Marginal Mixed Farming	Recovery	Improving
	Livestock/Ranching	Recovery	Improving
	Cash Cropping/Dairy	Recovery	Improving
	Food Cropping	Recovery	Improving
	Mixed Farming zone	Recovery	Improving
	<b>County</b>	<b>Recovery</b>	<b>Improving</b>
<p><b><u>Drought Situation &amp; EW Phase Classification</u></b></p> <p><b>Biophysical Indicators</b></p> <ul style="list-style-type: none"> <li><b>Rainfall report.</b> The month under review recorded high rains across all the livelihood zones that wa above normal.</li> <li><b>Vegetation Condition:</b> The vegetation condition Index (VCI) for the month was 30.2. Malindi and Kilifi North sub counties recorded extreme drought condition.</li> <li>Generally, the Pasture and browse conditions ranged from fair to good across the livelihood zones.</li> </ul> <p><b>Socio Economic Indicators (Impact Indicators)</b></p> <p><b>Production indicators:</b> On average the livestock body condition for all species was moderate across all livelihood zones. Low milk production was recorded. There were no disease outbreak reported. Land preparation, planting and weeding for MAM 2023 season was ongoing across all livelihood zones.</p> <p><b>Access indicators;</b> Average distance to water sources by households and livestock trekking average distances recorded a decrease as compared to previous month and above normal. Milk consumption increased as compared to the previous month. The cost of water for remained stable. Terms of Trade were unfavorable at this time of the year. Livestock prices remained below average while prices for maize and beans were above average.</p> <p><b>Utilization indicators;</b> Malnutrition cases were on the rise. Low dietary diversity with employment of coping strategies.</p>	Biophysical Indicators	Value	Normal value/ranges /condition
	Rainfall mm (Average)	145.62	48.99
	VCI-3 month	30.20	35-50
	Average Forage Condition	Fair	Fair
	Production indicators	Value	Normal ranges
	Maize Crop Condition	Planting	weeding
	Livestock Body Condition	Moderate	Good
	Milk Production (in litres)	1.0	4.4
	Livestock Migration Pattern	No migration	No migration
	Livestock Deaths (from Drought)	No deaths	No deaths
	Access Indicators	Value	Normal ranges
	Terms of Trade (ToT)	70.70	80.00
	Milk Consumption (in litres)	0.8	1.6
	Return Distance to Water Sources (in km)	4.2	5.6
	Return Distance to Water Sources from grazing (km)	5.2	6.6
	Cost of water at source (20ltrs)	Kshs 5	< Kshs 5
	Utilization indicators	Value	Normal ranges
	MUAC (% at risk)	0.6	2.6
	Coping strategy Index (CSI)	6.64	6.23
	Food Consumption Score (FCS)	4.2	7.78

<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>
Dry Season	Long Rains	Dry Cool Season	Short Rains Season

## 1.0 CLIMATIC CONDITIONS

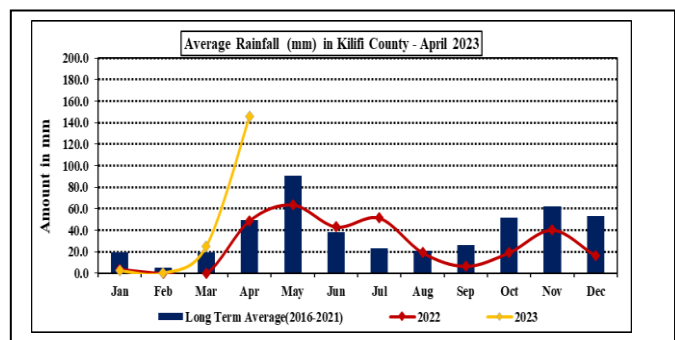
### 1.1 Rainfall performance

The onset of the long rains was on third Dekad of March 2023. The month under review recorded high rains across all the livelihood zones that was above the long-term average.



### 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- The month under review remained generally wet with low to medium temperatures with heavy rains recorded during the last dekad of the month.
- The county received an average of 145.62 mm with the highest rainfall being received in the livestock farming livelihood zone 206.00 mm and least in the mixed farming at 96.10 mm.
- Distribution was good in terms of space and time

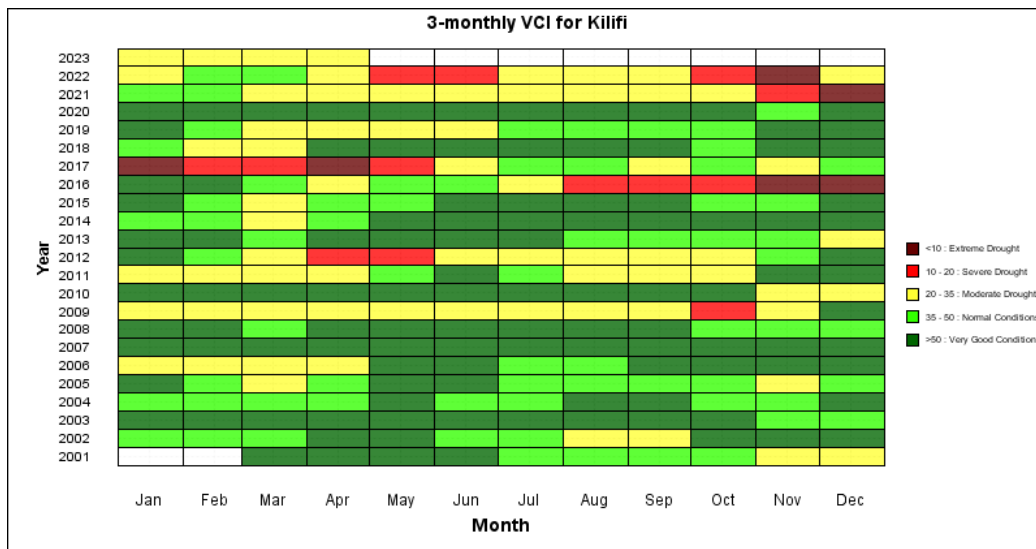


## 2.0 IMPACT ON VEGETATION

### 2.1 Vegetation Condition

#### 2.1.1 Vegetation Condition Index [VCI]

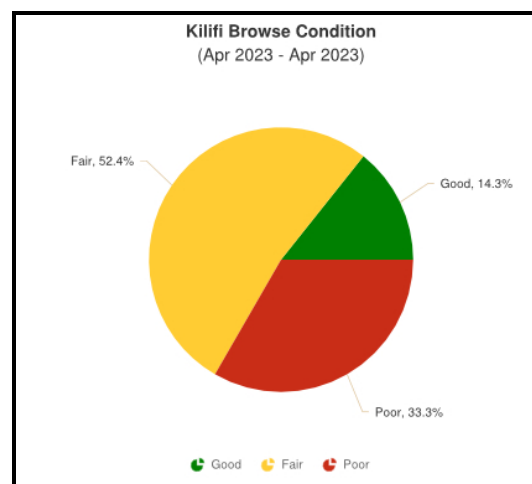
- The Vegetation Condition Index (VCI) compares the current NDVI to the range of values observed in the same period in previous years. The VCI is expressed in percentage and gives the position of the observed value within extreme values (minimum and maximum) in the previous years.



- On average, the county recorded moderate drought condition during the month under review with a score of 30.2.
- Ganze Sub County recorded normal drought condition with a score of 45.00.
- Rabai, Ganze and Kaloleni sub counties recorded normal drought condition with a score of 35.3, 48.25 and 41.42 respectively.
- Malindi and Kilifi North sub counties recorded extreme drought condition with a score of 9.33 and 0.36 respectively.

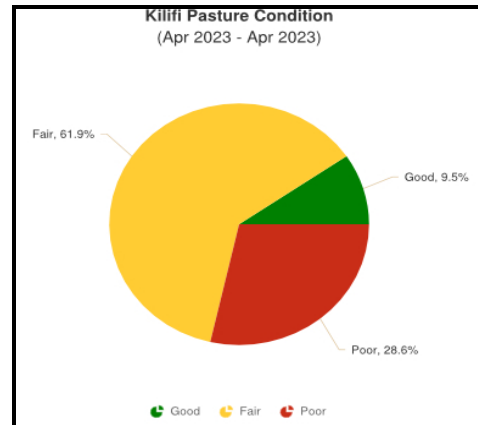
#### 2.1.2 Pasture

- During the month under review, 59.1 percent of sampled households recorded fair pasture condition while 31.8 and 9.1 percent recorded poor and good respectively.
- Pasture condition varied across the livelihood zones with the livestock and marginal mixed farming livelihood zones recording good pasture condition while mixed farming and dairy livelihood zones recording fair pasture condition.
- The pasture condition was below the long-term average at this time of the year but expected to improve in the coming weeks across the livelihood zones.



### 2.1.3 Browse

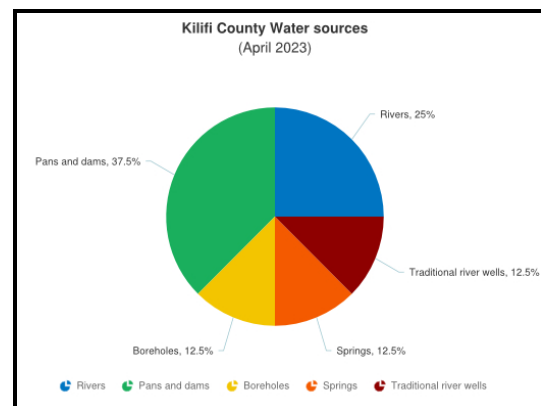
- During the month under review, 50 percent of sampled households recorded fair and 13.6, 36.4 percent recorded good and poor browse condition respectively. Browse condition expected to improve as moderate rains were experienced across the livelihood zones.
- Browse condition varied across the livelihood zones with the livestock and marginal mixed farming livelihood zones recording fair to poor browse condition while mixed farming and dairy livelihood zones recording good condition
- The browse condition was below the long-term average at this time of the year.



## 2.2 Water Resources

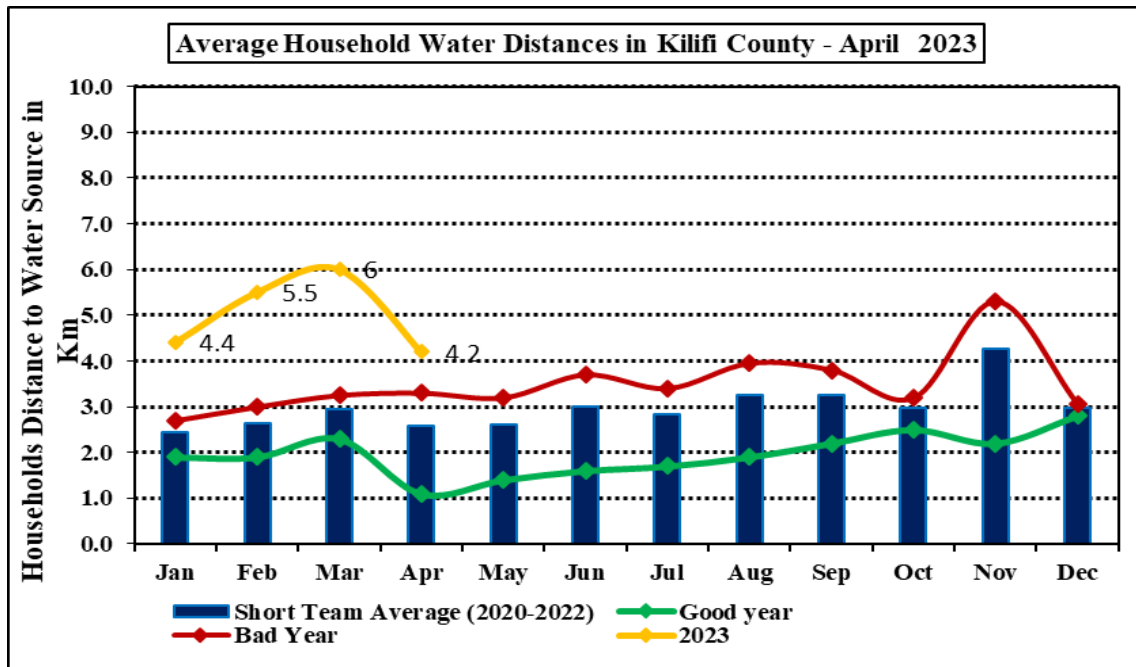
### 2.2.1 Water Sources

- During the month under review, pans & dams, rivers and traditional river wells were the main source of water.
- Water quality and quantity at the water pans and dams continued to decline as most water pans have recharge to different levels across all the livelihood zones.
- Water rationing was experienced in areas with piped water especially in towns and centers.
- The condition of water sources was below normal at this time of the year



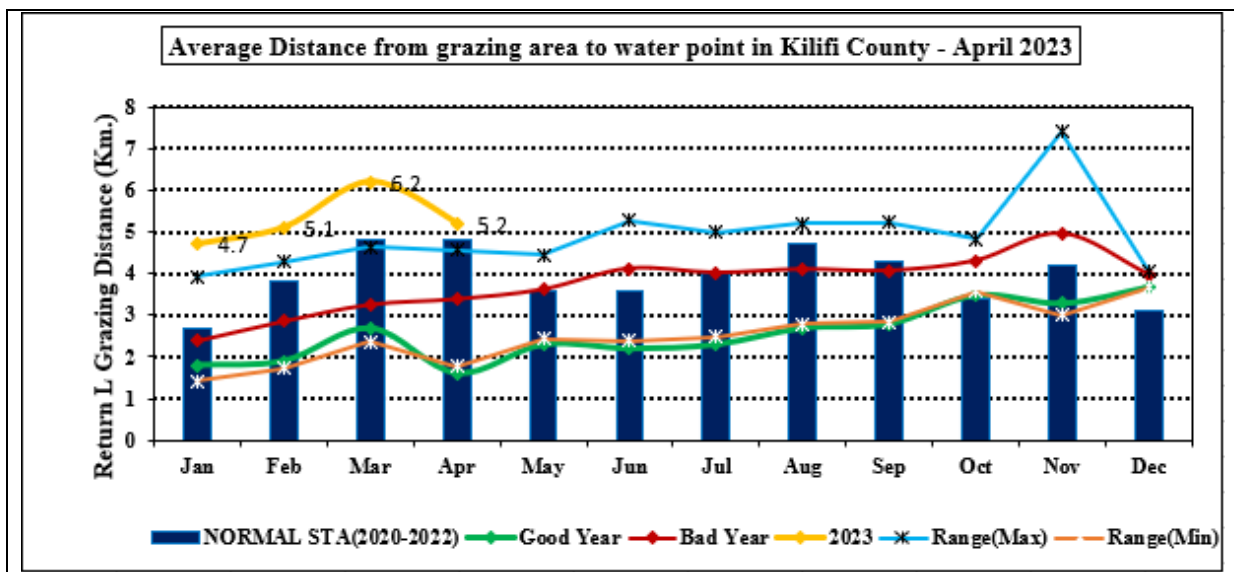
### 2.2.2 Household water access and utilization

- The average household return distance to water sources for the month under review recorded a decrease of 30 percent from 6.0km to 4.2km which can be attributed to moderate rains across all livelihood zones.
- The livestock farming zone recorded the highest average return distance of 5 kms. Water consumption per person per day ranged between 20-30 litres across the livelihood zones. Average price of water for the 20litre jerry can at source was Kshs 5. Transportation cost to households made water more expensive at an average cost of Kshs 25 for the 20-litre jerry can.
- On average, 19.1 percent of the sampled households treated their drinking water, water stress expected to improve due to moderate rains received.
- The average distance covered by households in accessing water was above the normal range during this time of the year.



### 2.2.3 Livestock access to water

- The month under review recorded a 16.1 percent decrease in average return trekking distance to water sources by livestock to 5.2 kms compared to the previous month which recorded an average of 6.2 kms and this can be attributed to moderate rains which has recharge pans and dams to different levels across all livelihood zones.
- On average, cattle were being watered four times in a week while goats were three times a week.
- The average trekking distance was slightly above the short-term average during this time of the year and above the bad year average.

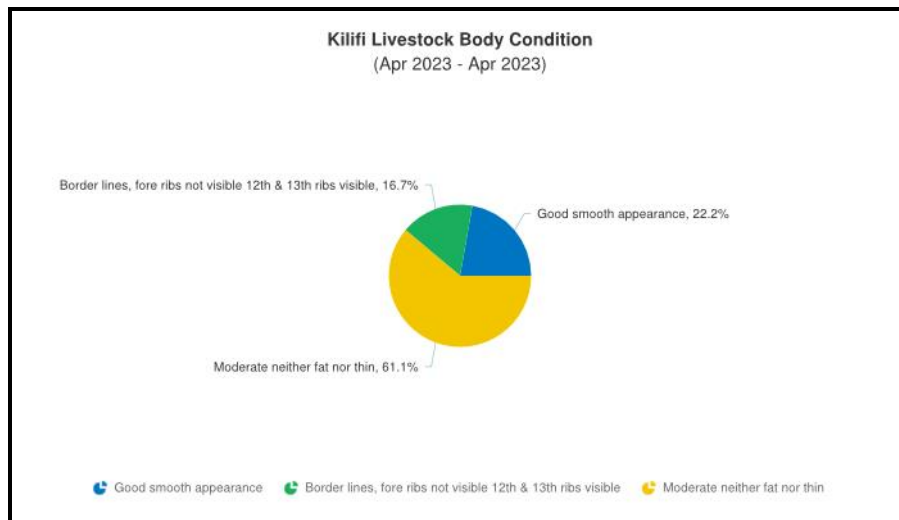


### 3.0 PRODUCTION

#### 3.1 Livestock Production

##### 3.1.1 Livestock body condition

- Livestock body condition varied across the livelihood zones with 61.5 percent recording moderate neither fat nor thin body condition, 22.2 percent have good Smooth appearance and 16.7 percent recording borderline, fore ribs not visible 12<sup>th</sup>&13<sup>th</sup> rib visible, this can be attributed to regeneration of pasture and browse conditions.
- On average, the body condition for all species was moderate across the livelihood zones with some pockets of Malindi and Magarini sub counties recording poor livestock body condition.
- The average body condition is expected to improve as pasture and browse conditions regenerates.



##### 3.1.2 Livestock disease

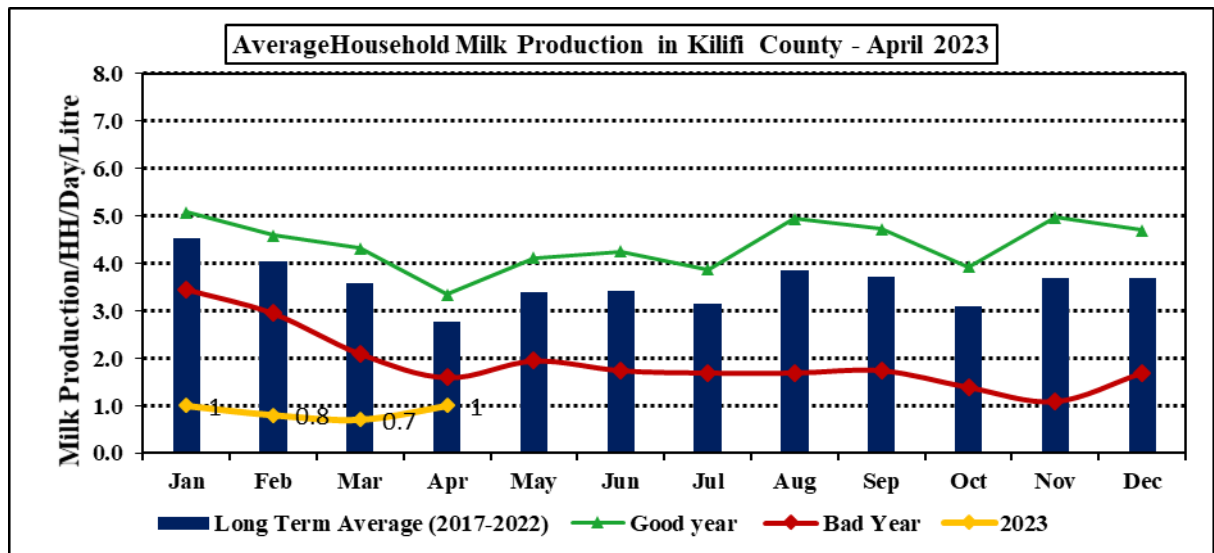
- No cases of disease outbreak reported in the county.

##### 3.1.3 Livestock Migration.

- No migration was recorded during the period under review as livestock from neighboring counties were already in the county and intra-migrated livestock were in the areas migrated to.

##### 3.1.4 Milk production

- Average milk production during the month under review was 1.0litres /HH/day an increase of 42.9 percent compared to the previous month production of 0.7litre/HH/day. This was mainly within the mixed farming and livestock livelihood zones.
- The increase can be attributed to regeneration of pasture and browse condition and shorter distance in search for water and pasture across the livelihood zones as compared to previous month.
- The current production was significantly below the long-term average for this time of the year.



### 3.2 Rain Fed Crop Production

#### 3.2.1 Stage and condition of food crop

- Most farmers have their maize crop germinated and few are weeding the crop. At the moment the crop was doing extremely well. Cow peas were less planted across all livelihood as compared to Maize crop.

#### 3.2.2. Crop Harvest

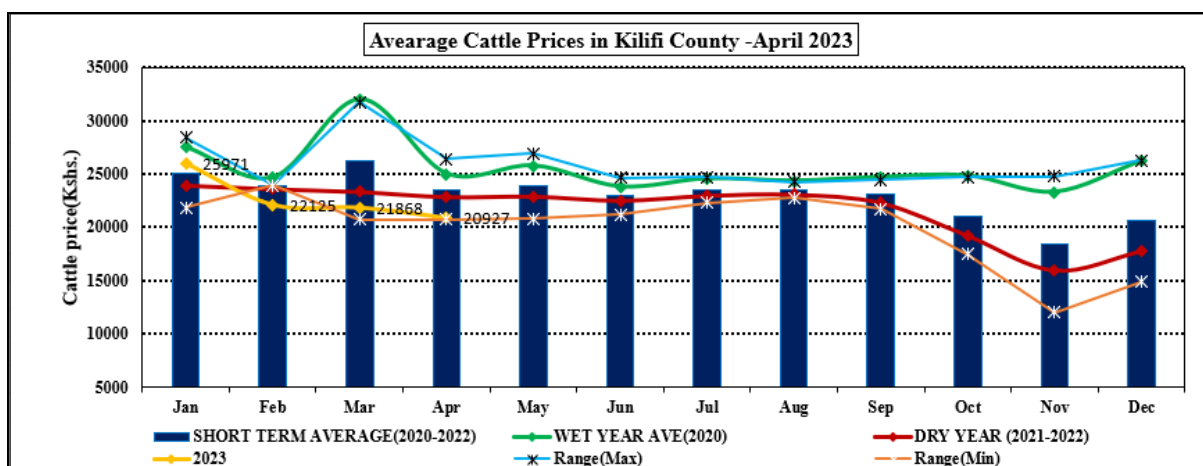
- Minimal harvest of pineapples from Magarini Sub County, mangoes along the coastal strip and some vegetables and watermelons were recorded during the month under review.

## 4.0 MARKET PERFORMANCE

### 4.1. LIVESTOCK MARKET

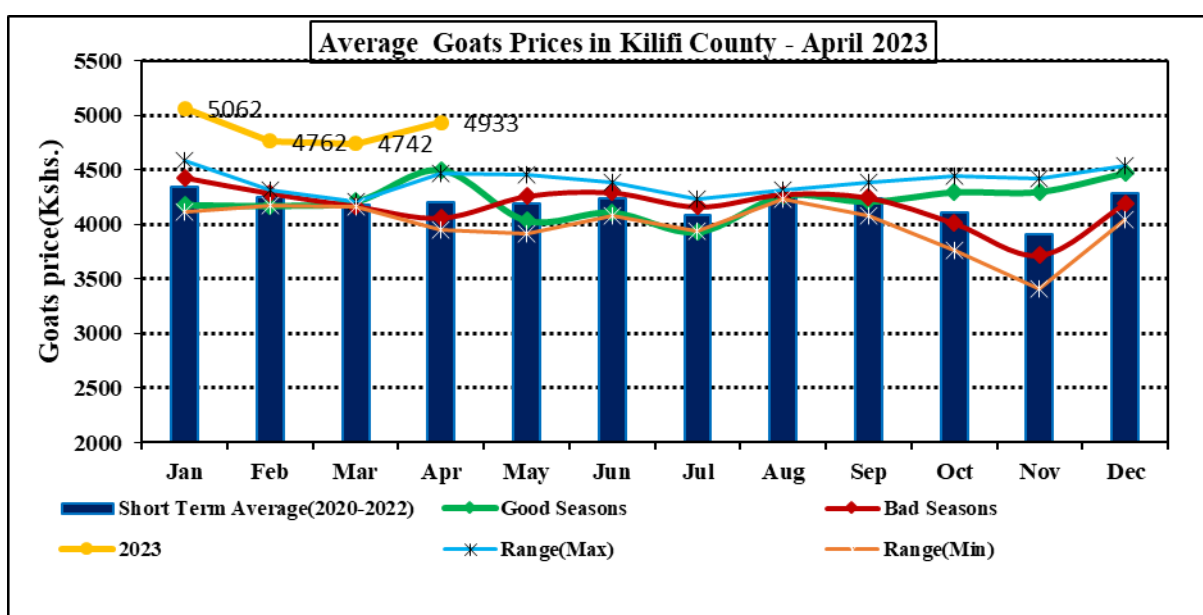
#### 4.1.1 Cattle prices.

- Average price for a 4-year-old bull during the month under review recorded a decrease of 4.3 percent from Ksh 21,868 in the previous month to Ksh 20,927.
- The decrease can be attributed to declining body condition of the livestock supplied to the market due to pasture and water stress. The average cattle price varied across the livelihood zone with the livestock livelihood zone recording the highest average price while mixed farming livelihood zone recording the lowest average price.
- The average cattle prices are expected to increase as pasture and water continue to improve following onset on long rains.
- The average price was below the short-term average at this time of the year but within the normal ranges.



#### 4.1.2 Goat prices

- Average price of a 3-year-old medium sized buck during the month under review increased to Ksh 4,933 from Ksh 4,742 recorded in the previous month, the stability can be attributed to demand of meat goat during Ramadhan and stability in body condition.
- The month's average price was 50 percent higher than the short term mean at this time of the year and outside the normal ranges.

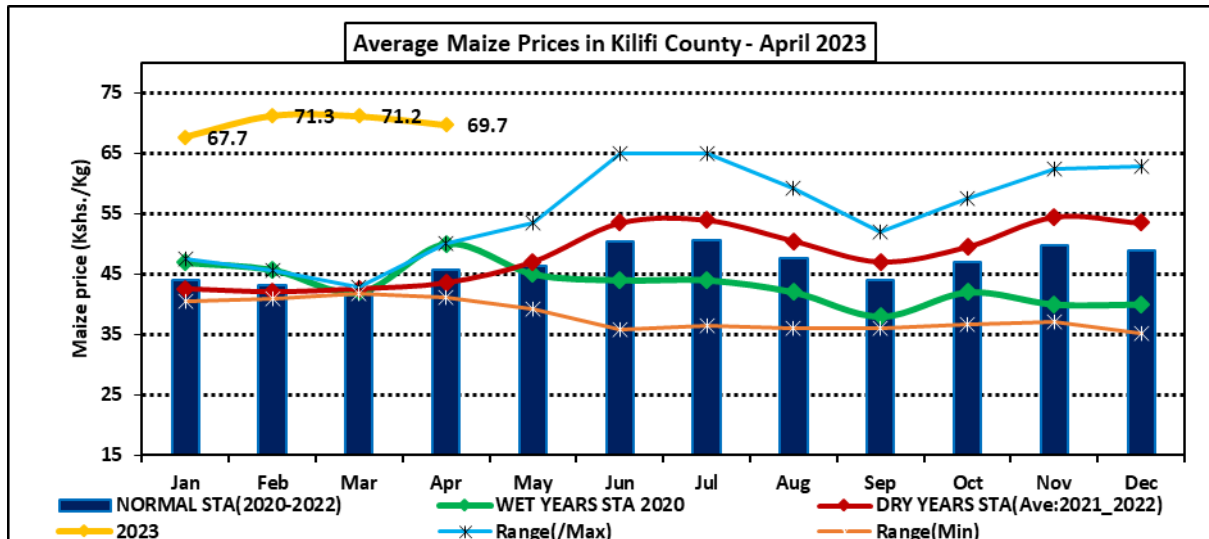




## 4.2 Crop prices

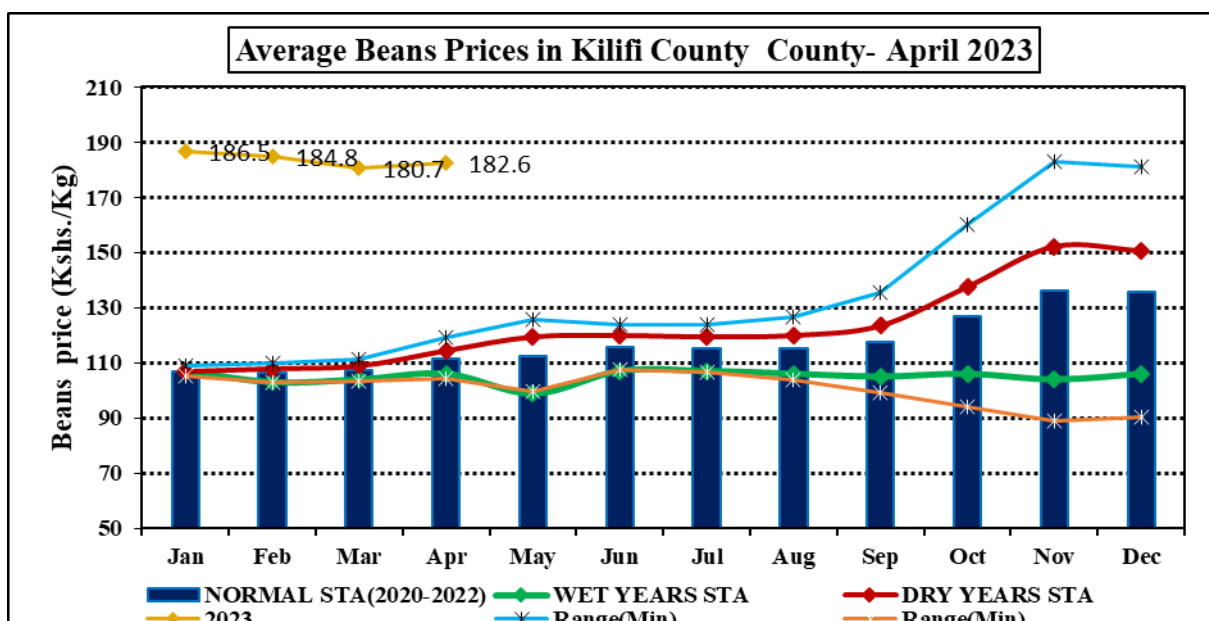
### 4.2.1 Maize

- Average price per kilo of maize for the month under review recorded Kshs.69.70 as compared to the previous month at Kshs.71.20. The high prices were due to importation of the maize from outside the county.
- Average maize price expected to remain high as maize importation remained the main source of market supply following poor crop performance in the county for more than four consecutive seasons in most parts of the county. The average prices were significantly higher than the short-term average at this time of the year and outside the normal ranges and indication of a significant high food prices.



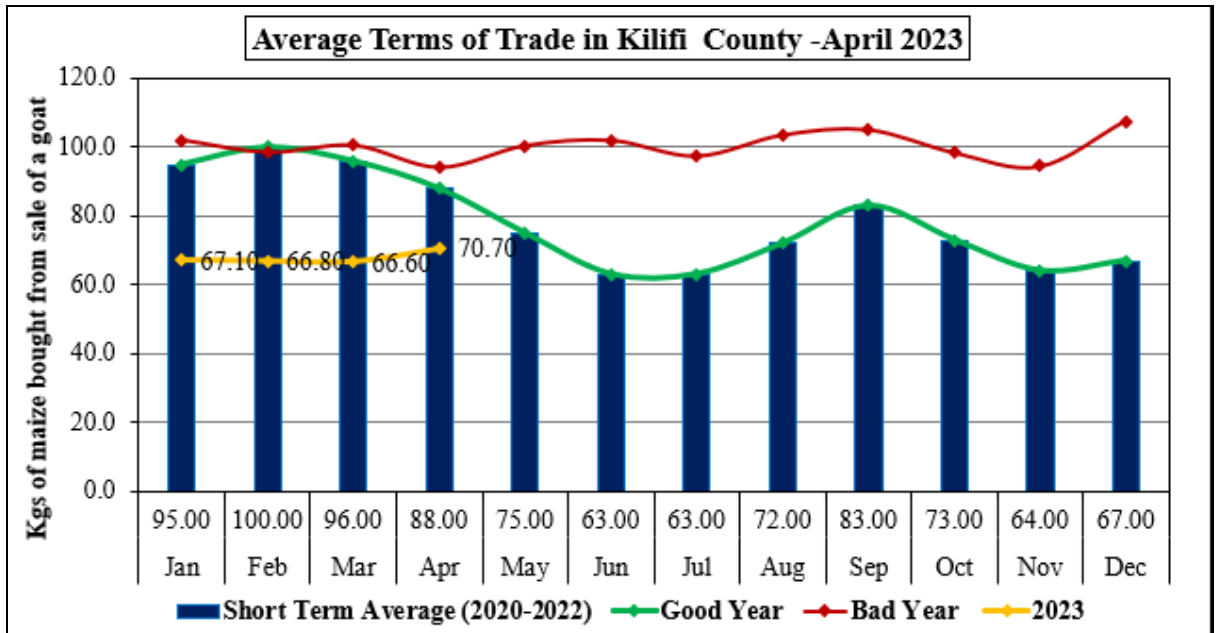
### 4.2.2 Beans

- The average price per kilo of beans increases by 1.1 percent from Ksh 180.70 recorded previous month to Ksh 182.60 and this can be attributed to increase purchase of rice as alternative as the maize price remains unavoidable by the many.
- Average price expected to remain high as the demand for the commodity increased following poor harvest of pulses for the last seasons thus no stocks at household level.
- The month's average price/kg was 74.3 percent above the short term mean at this time of the year and significantly outside the normal ranges.



### 4.3 Terms of Trade (ToT)

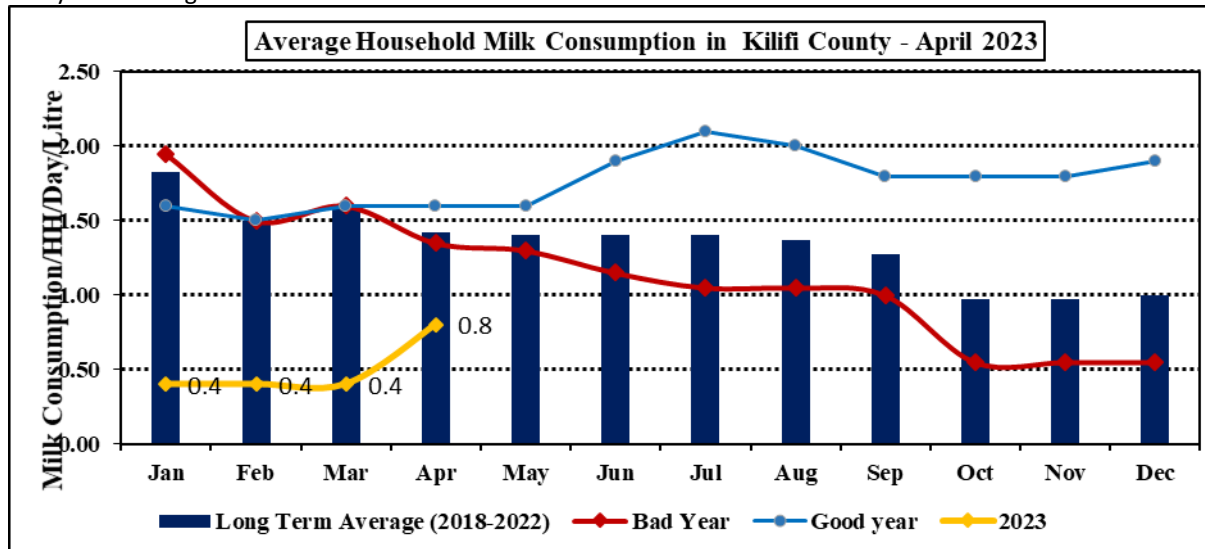
- The month under review recorded increased in average ToT from 66.8kg recorded in the previous month to Kshs. 70.70. This was attributed to an increase in average goat prices as the average maize price recorded a decrease as compared to the previous month.
- The ToT for the month under review was below the short-term average at this time of the year due high maize price.



## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

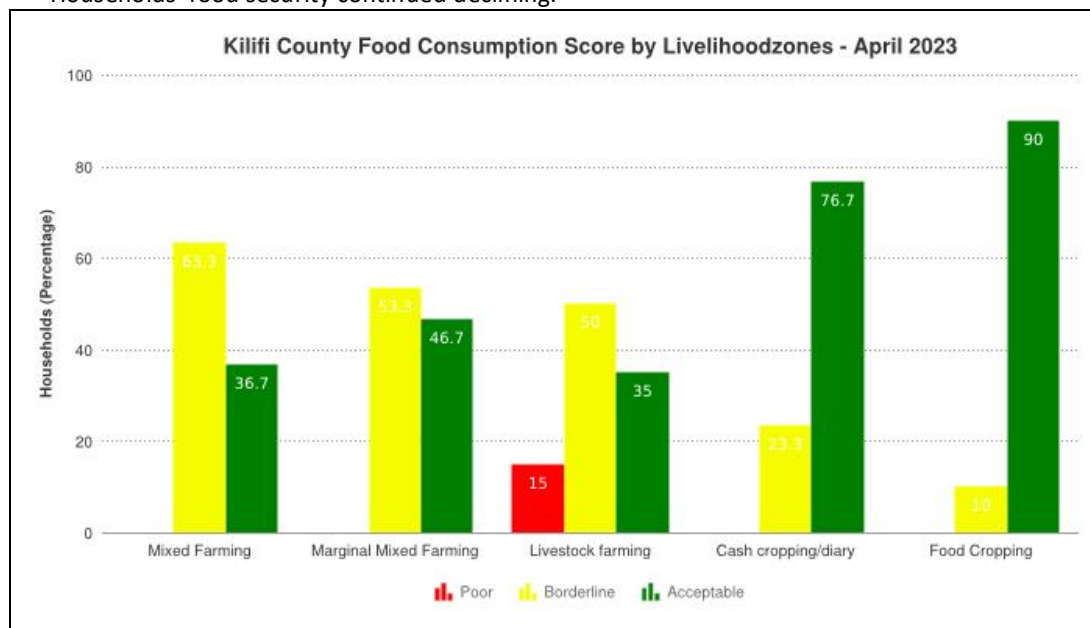
### 5.1 Milk Consumption

- Average milk consumption per household per day during the month under review have increased to 0.8ltrs/hh/day from 0.4ltrs/hh/day as compared to the previous month.
- This higher consumption can be attributed to higher production following regeneration of pasture conditions and reduced distances to water points across the livelihood zones.
- The consumption was significantly below the long-term average, significantly low compared to the bad year's average.



### 5.2 Food Consumption Score

- During the month under review, 37.1 percent of sampled households recorded borderline food consumption with 4.3 percent recording poor food consumption.
- Percentage of households under poor and borderline food consumption continued to increase with the livestock farming zone recording the highest percentage. Some households in the Marginal mixed and food cropping zones remains at borderline food consumption.
- Compared to the previous month, the dietary diversity continued declining as food prices remained significantly high.
- Households' food security continued declining.



### 5.3 Health and Nutrition Status

- The sample proportion of child whose Mid Upper Arm Circumference (MUAC) was measured was 50.3% male and 49.6% female.

#### 5.3.1 Nutritional status

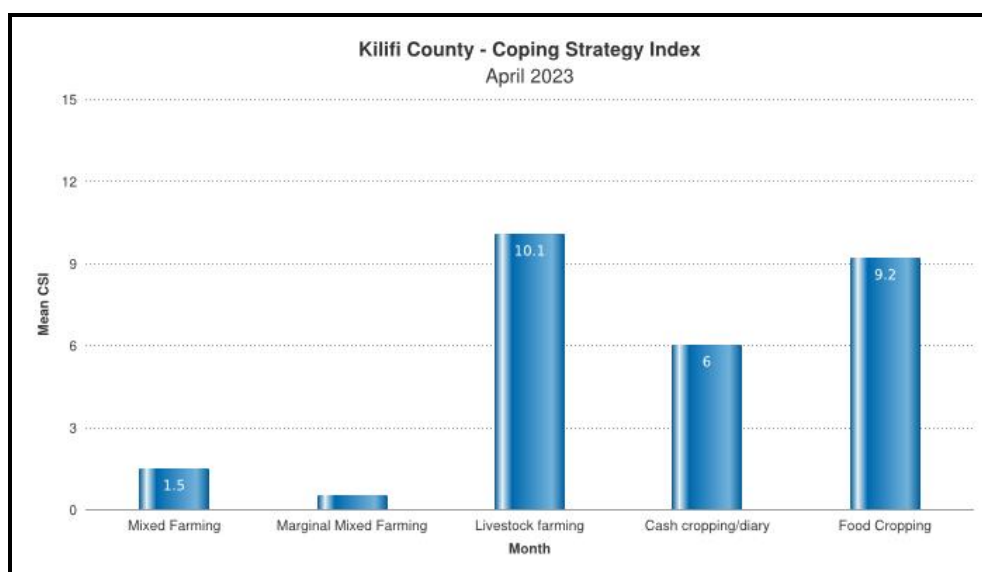
- The percentage of children at risk of malnutrition remained and expected to increase as household food security deteriorated. More case expected from Ganze, Kaloleni and Magarini sub counties where more than five consecutive seasons have failed thus poor food insecurity as food prices remained high. Schools with the number expected to increase as drought situation continued coupled with high food price and limited income activities.
- Following the mass screening conducted in the county Ganze sub county recorded highest cases children between 6-59 months with Severe Acute Malnutrition and Moderate Acute Malnutrition followed by Magarini and finally Kaloleni. High cases of defaulters as households prioritized food purchase to seeking health services at facilities.

#### 5.3.2 Health

- No major diseases were reported in the month under review, cases of skin infection and coughing were evident in areas recording water stress and dusty due to poor sanitation and hygiene conditions.

### 5.4 COPING STRATEGIES

- The month under review recorded an average of 6.64 Coping Strategy Index (CSI) stable compared to the previous month an indication that household's food shortages continued and households were coping using mainly consumption coping strategies. The food cropping and the livestock farming livelihood zones recorded the highest coping score of 9.2 and 10.1 respectively an indication of food shortages at household level.



## 6.0 CURRENT INTERVENTION MEASURES

### 6.1 Non-food aid

Activity Description	Status	Planned Budget	Targeted locations
<b>MoH/UNICEF/WFP/WV/KRCS</b>			
Therapeutic Feeding Programs to manage acute malnutrition (OTP, ITP)	ongoing	14,887,212	Across the county
Support for RUSF and Roll out of moderate acute malnutrition program	ongoing	Not available	Magarini, Kaloleni and Ganze sub counties
Scheduled integrated health and nutrition outreaches and mass screening	ongoing	Not available	Ganze, Magarini, Kaloleni, Malindi
Baby-Friendly Community Initiative- NICHE through JIM Grant	ongoing	Not available	Kaloleni S.C (Mtsengo Cu and Kibwabwani CU) Ganze SC (Mirihini, Jila Midoina Rimarapera, & Jaribuni CUs) Magarini SC (Marikebuni CU, Kadzandani ,& Dakaach) Rabai Sub-County
<b>Agriculture department</b>			
Distribution of 6.6tons of relief maize seed to farmers	Ongoing	Not available	Malindi, Kilifi North and South
<b>NDMA</b>			
Water trucking to public primary schools and health Facilities.	Ongoing	2.9M	Kaloleni and Magarini sub counties
<b>County government, NARIGP, ASDSP, KEMFSED</b>			
Capacity building of livestock farmers on all enterprises with the aim of increasing production targeting 500 farmers	Ongoing	3M	Rabai sub counties
Farmers Trainings on various livestock husbandry practices for improved production targeting 600 farmers	Ongoing	5M	Rabai, Kilifi North sub counties
<b>County Government of Kilifi (CGK), WV-Ongoing</b>			
Pipeline extension	ongoing	100M	Magarini sub counties
Water trucking	CGK, World Vision, MAWASCO-ongoing	Not available	Ganze, Magarini sub counties
Tsangatsini Water pipeline development	CGK-ongoing	Not available	Tsangatsini-Kaloleni
<b>GiveDirectly</b>			
Unconditional cash transfers to 3800-Mwanamwinga ward (flow payment Kshs 3400/month per beneficiary)	Ongoing	At the end of the project (2021-2026)	Mwanamwinga (Kibwabwani and Viragoni sublocations)
Large transfers Jan-March, 622 households – Vitengeni division (Sokoce ward)-Kshs 110,000			Vitengeni division (Sokoce ward)-

per household in two tranches (324-First tranche already received)		Kshs. 775,200, 00	
		68,4200 00	

## 6.2 Food- aid

Intervention	Details	Implementing Agency/Organisation	Area
Support to School Meals Program	Support to 28 schools with school meals	Plan International	Ganze sub county
	Support to 12 Schools with school meals	World Vision	Ganze sub County
Support to School Meals Program	School meals	MoE (Homegrown school meals)	Few schools in Ganze, Kaloleni and Magarini
Relief food distribution	Distribution of 11,780 bags of 50kg Rice, and 2900 bags of 50kg Beans	Ministry of Interior and Coordination of NG	All 9 sub counties
Support to School Meals Program	Distribution of assorted food to 140HH	Caritas	Bamba

### **7.1 FOOD SECURITY PROGNOSIS**

- Food prices expected to remain high as most households depended on the market for their food supplies across the livelihood zones with the livestock, marginal mixed and cash cropping being the most affected.
- Average return distance by households and livestock expected to remain high following the delay of the 2023 MAM rains season.
- Average livestock prices expected to remain low due to decline in body condition following the ongoing pasture and water stress across the livelihood zones.
- Following MAM 2023 forecast indicating a depressed season with poor temporal and uneven spatial distribution, areas of Ganze, Magarini, Kaloleni, Rabai and parts of Malindi sub counties which depended on OND rains which failed for the fifth time, likely to continue experiencing household food security.
- More households at borderline food consumption likely to graduate to poor food consumption as dietary diversity remained low.
- Cases of malnourished children, pregnant and lactating women expected to rise as household food security declined.

## **8. RECOMMENDATIONS**

### **Coordination**

- Close monitoring of MAM 2023 season for timely and appropriate interventions.

### **Crop Sector**

- Distribution of relief drought tolerant seeds.
- Community capacity development on conservation agriculture as the rains remained erratic.
- Investment in irrigated agriculture along Rivers for increased production.
- Community sensitization on irrigation farming using borehole and shallow wells.
- Community sensitization on adaptation to Climate Change technologies for food production

### **Livestock Sector**

- Community sensitization of livestock rearing technologies in a changing Climate to reduce the risks of livestock mortalities due to drought.
- Continued Community capacity development of fodder planting and conservation

### **Water Sector**

- Intensive water harvesting from households to community as the forecast indicates some storms expected.
- Expansion of water pipeline from Raukani in Makongeni sub location to Bofu areas which has continued to record water stress over the years.

### **Health Sector**

- Close monitoring of nutritional status of the under-fives, pregnant and lactating women as household food security remained low-by Health department.
- Provision of supplementary food to malnourished children, pregnant and lactating women.
- Conduct integrated medical outreaches mainly in areas of Ganze, Magarini and Kaloleni sub counties where malnutrition cases remained high.

### **Education sector**

- Activation of school meals programme for improved enrollment and retention
- Provision of milk and meals for ECDs centers.