

# National Drought Management Authority

TAITA TAVETA COUNTY

DROUGHT EARLY WARNING BULLETIN FOR JUNE 2020



A Vision 2030 Flagship Project



## JUNE 2020 EW PHASE

Drought Status: **NORMAL**



Shughuli za kawaida

## Early Warning Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming: Food Crops/ Livestock	Normal	Stable
Mixed Farming: Food Crops/ Horticulture/Dairy	Normal	Stable
Mixed Farming: Irrigated Cropping/ Livestock/Food Crops	Normal	Stable
National Park	Normal	Stable
<b>County</b>	<b>Normal</b>	<b>Stable</b>
Biophysical Indicators	Value	Normal Range/ Value
Rainfall one Month Anomaly	82	80 – 120
VCI-3Month	95.9	35 –50
Production indicators	Value	Normal
Crop Condition(maize)	Harvesting	Harvesting
Livestock Body Condition for cattle	Good	Good
Milk Production per HH/ day	3.4 Litres	3.0 Litres
Livestock Migration Pattern	Normal	Normal
Access Indicators	Value	Normal
Terms of Trade (Maize price vs Goat price)	128.2	114.5
Milk Consumption per HH/ day	1.2 Litres	1.3 Litres
Return HHs distance to water sources	2.2 km	2.2 Km
Water source return distance from grazing areas	2.4 km	3.5 Km
Cost of water (20 litres)	Kshs 3.00	< Kshs 5.00
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	0.0	1.7

### Drought Situation & EW Phase Classification

#### Biophysical Indicators

- The county received light rains in the highlands coupled with very low temperatures while the lowlands remained dry and windy.
- The county vegetation greenness condition was above the normal range (3 Months VCI; 95.9).

#### Socio Economic Indicators (Impact Indicators)

#### Production Indicators

- Farmers were harvesting maize though the crop was in fair condition since it experienced moisture stress.
- Livestock body condition was good for all species across all livelihood zones and no migration was reported.
- Average milk production per HH per day was above normal.

#### Access Indicators

- Terms of Trade were favorable.
- Milk consumption per HH per day was below normal.
- Return distances to water sources were within normal range.
- Distances to water sources from grazing areas were below normal.

#### Utilization Indicators

- The proportion of children at risk of malnutrition was within the normal range.

### Seasonal Calendar

<ul style="list-style-type: none"> <li>▪ Short rains harvests</li> <li>▪ Increased HH Food Stocks</li> <li>▪ Short dry spell</li> <li>▪ Reduced milk yields</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> <li>▪ Flash floods - Taveta</li> </ul>	<ul style="list-style-type: none"> <li>▪ Long rains harvests</li> <li>▪ Increased HH Food Stocks</li> <li>▪ A long dry spell</li> <li>▪ Land preparation</li> <li>▪ Kidding (Sept)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Short rains</li> <li>▪ Planting/weeding</li> <li>▪ Flash floods - Taveta</li> </ul>								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

# 1. CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

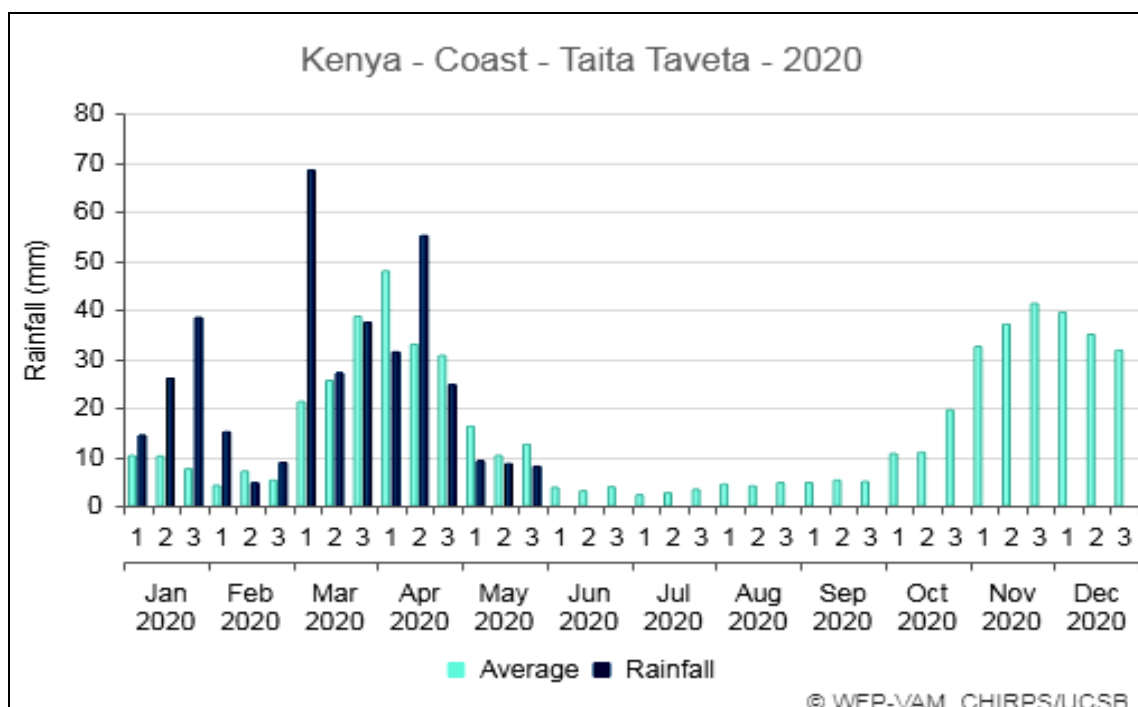
- The county registered near normal rainfall amounts that were characterized by poor temporal distribution and uneven spatial distribution. The table below show rainfall precipitation at various stations;

**Kenya Meteorological Department Rainfall Data**

No.	Rainfall Station	Livelihood Zone	Wet Days	Amount (mm)
1.	Mghange	Mixed farming: horticulture/dairy	2	23.0
2.	Wundanyi	Mixed farming: horticulture/dairy	2	30.5
3.	Wumingu	Mixed farming: horticulture/dairy	3	17.0
4.	Shigharo	Mixed farming: horticulture/dairy	1	17.5
5.	Mruru	Mixed Farming: food crop/livestock	2	5.8
6.	Mwatate Livestock Farm	Mixed Farming: food crop/livestock	1	5.6
7.	Kitobo Seed	Mixed Farming: food crop/livestock	1	5.0
8.	Marungu	Mixed Farming: food crop/livestock	1	3.0
9.	Rukanga	Mixed Farming: food crop/livestock	0	0.0
10.	Voi Meteorology Station	Mixed Farming: food crop/livestock	0	0.0

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- According to WFP-VAM, Climate Hazards Group InfraRed Precipitation with Station Data (CHIRPS) indicated a one month's rainfall anomaly of 83 percent.
- The estimated total precipitation for the first twenty days of the month under review was 6.4 mm and lower than the LTM by four percent as indicated in the chart below;

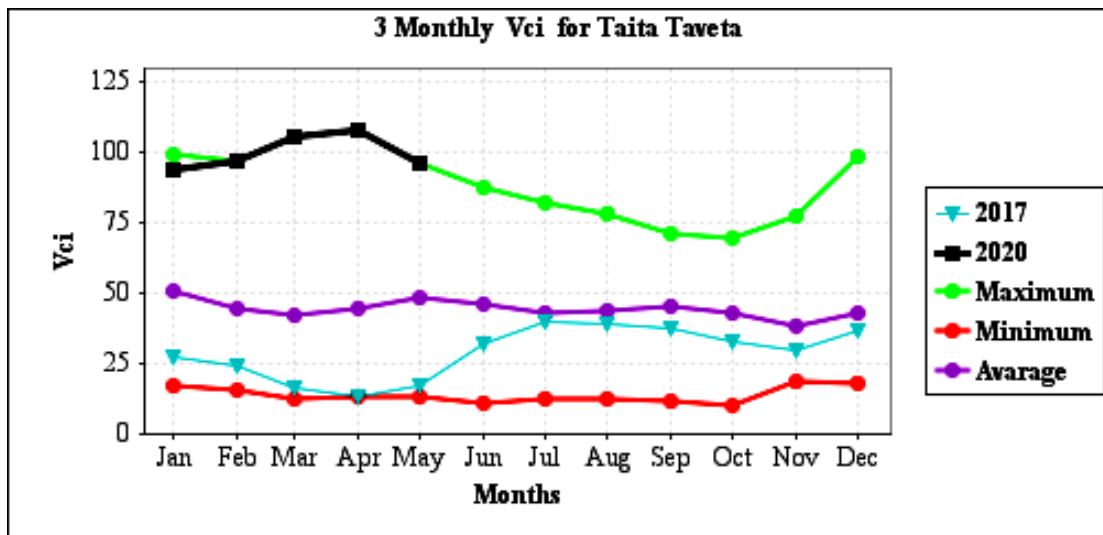
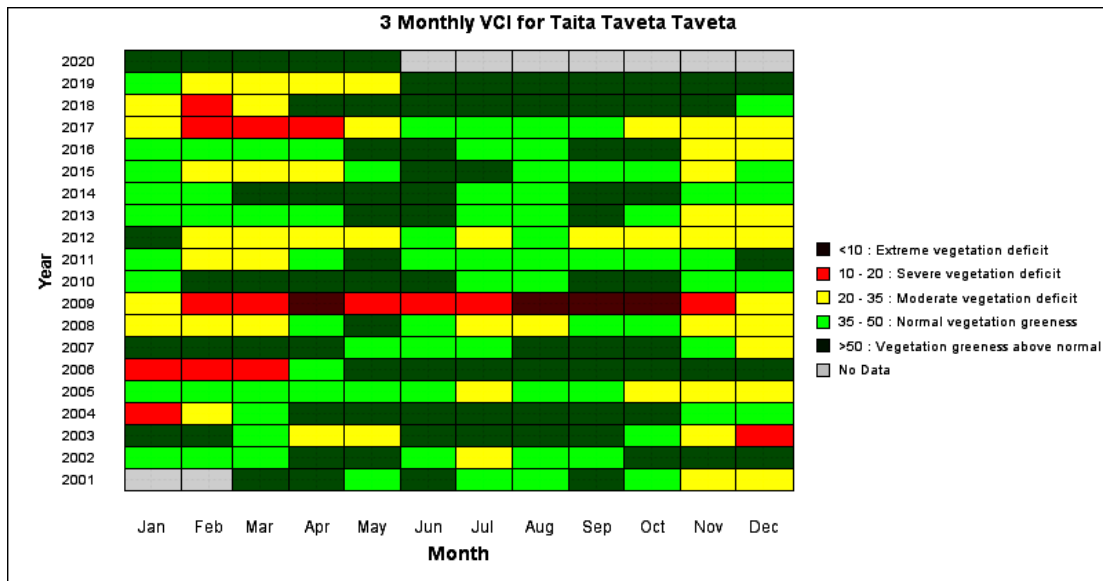


## 2. IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

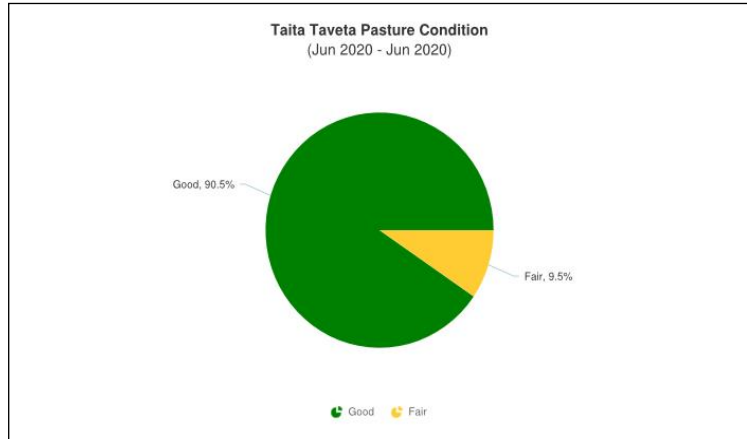
#### 2.1.1 Vegetation Condition Index (VCI)

- The vegetation greenness condition in the county was above the normal range as depicted by a three months vegetation condition index (3M - VCI) of 95.9 (Figure below).
- All livelihood zones depicted vegetation greenness above normal.



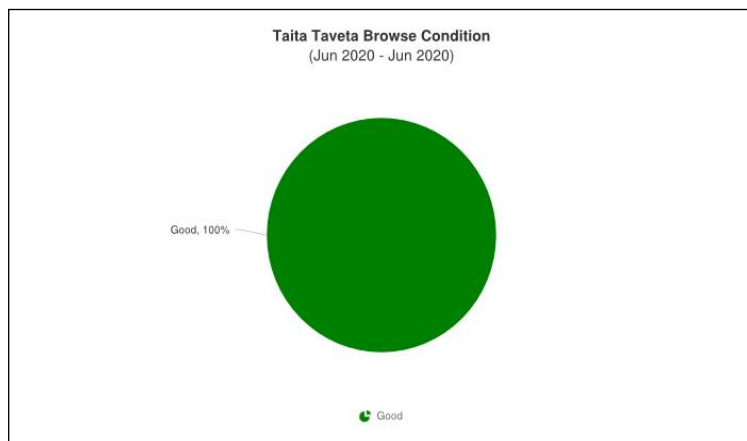
### 2.1.2 Pasture

- From community interviews 90.5 percent of the respondents reported pasture condition was good as a result of the rains and the pasture condition was above normal.
- Pastures were reported to be fair by 9.5 percent of the respondents in areas like Challa.
- In comparison to the previous month, pasture condition deteriorated marginally.
- Available pasture is expected to cater for livestock for the next two months.



### 2.1.3 Browse

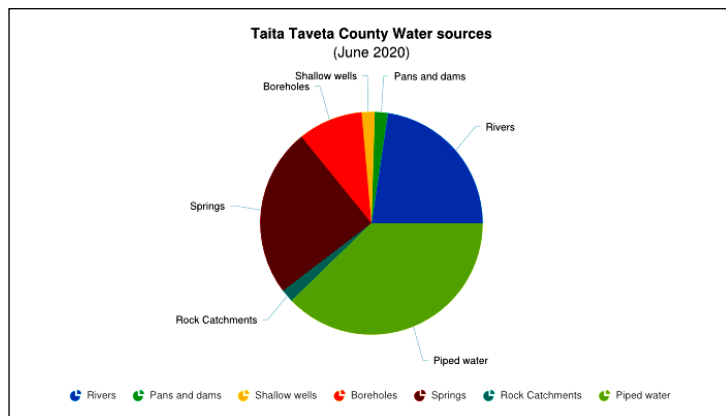
- From community interviews 100 percent of the respondents reported browse condition was good and above normal.
- Compared to the previous month, the browse condition remained good.
- Available browse is expected to cater for livestock for the next three months.



## 2.2 WATER RESOURCE

### 2.2.1 Sources

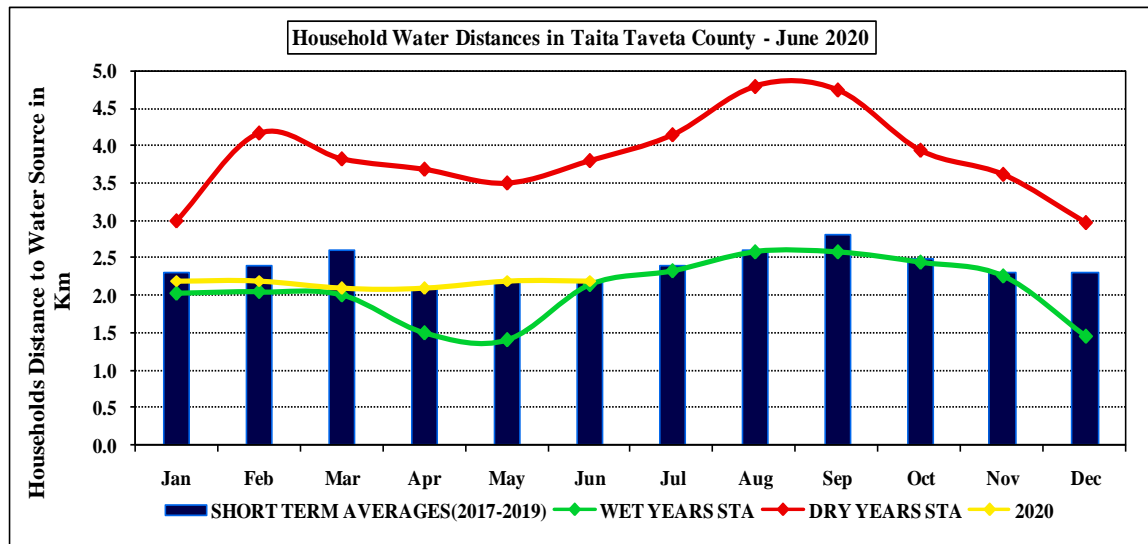
- The main sources of water currently in use by both human beings and livestock were piped water systems, springs, rivers, pans and dams, shallow wells and boreholes and were relied upon by 38, 25, 23, 2, 2, 2 and 9 percent of the households respectively.
- In comparison to previous month, proportion of those that relied on piped water system rose by eight percent.



- In all livelihood zones water from the main sources is expected to cater for households for the next two to three months.

### 2.2.2 Household Access and Utilization of Water

- The average return distance from households to main water sources remained stable at 2.2 km as posted in the previous month and similar to the short term average shown in the graph below.

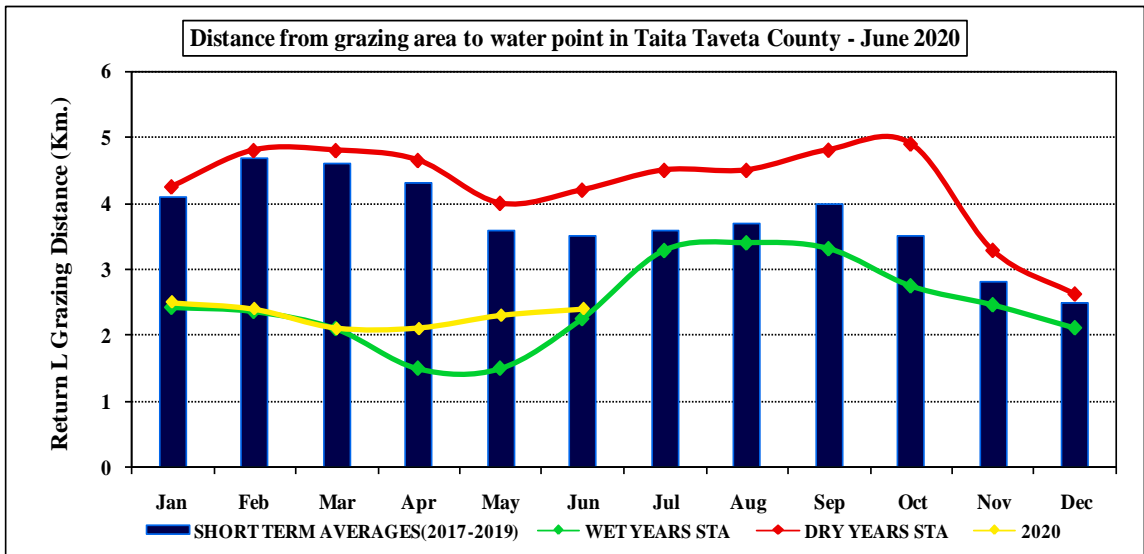


n=21 Key Informants

- The county average water consumption per person per day (pppd) was at 17.2 litres compared to 16.0 litres recorded last month and varied across livelihood zones with households in mixed farming: horticulture/ dairy livelihood zone and mixed farming: irrigated cropping/ livestock livelihood zone reporting 16.4 and 18.2 litres pppd respectively compared to 16.7 litres pppd in mixed farming: food crops/ livestock livelihood zone.
- Water retailed at Kshs 2 per 20 litre jerry can at source and approximately 49 percent of the households purchased water down from 51 percent posted in the previous month. Price per jerry can at private water points ranged from Kshs 3 - 5.
- Overall, the number of households treating drinking water dropped to 14 percent compared to 16 percent posted in previous month due to development of piped water systems. The main treatment method used was the use of chemicals and was done by all the households in the mixed farming: irrigated cropping/livestock livelihood zone.
- Most households in the horticulture/dairy and food crop/livestock livelihood zones relied on water from piped water system which is treated at the source.

### 2.2.3 Livestock Trekking Distance to Water Sources from Grazing Areas

- The average livestock trekking return distance from grazing areas to main water sources was recorded at 2.4 km compared to 2.3 km posted in the previous month and below the short term average by 31 percent as indicated in the graph below. Distance below long term mean was due to availability of water near grazing areas.
- In all livelihood zones, frequency of watering livestock remained normal; once per day in the lowlands and twice per day in the highlands.



n=21Key Informants

### 3. PRODUCTION INDICATORS

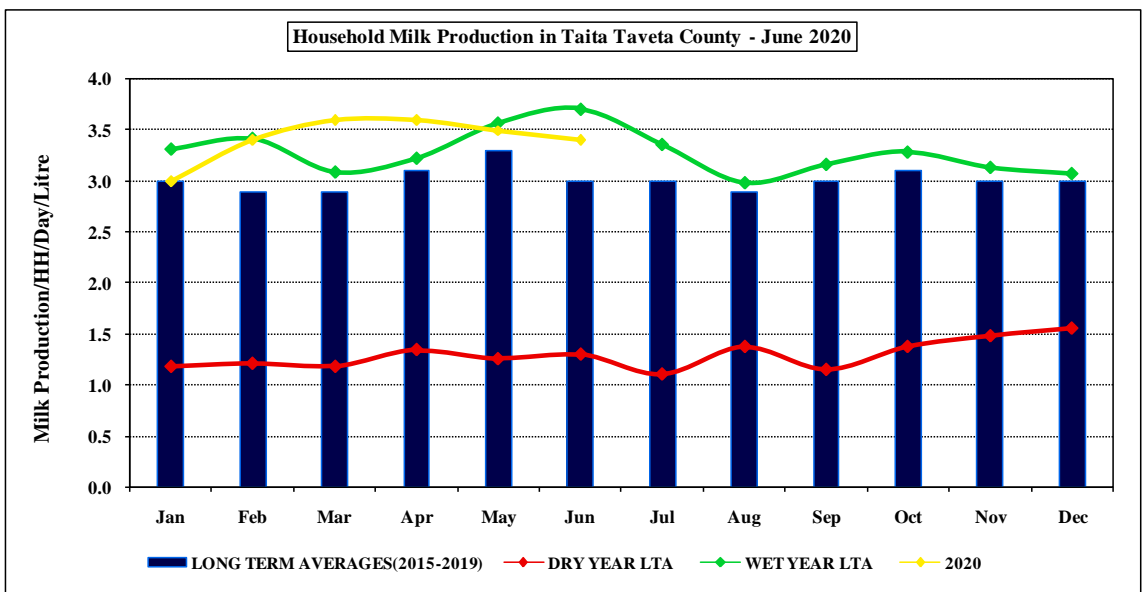
#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- Livestock body condition for all species was good across all livelihood zones and similar as previous month.
- Good livestock body condition is projected to remain good for the next two to three months due to the availability of forage.

##### 3.1.2 Milk Production

- The average milk production (cow) per household decreased slightly to 3.4 litres compared to 3.5 litres recorded in the previous month and above the long term average by three percent.



n=210 HHs

- Mixed farming: horticulture/ dairy livelihood zone milk production was at 5.7 litres, in the mixed farming: irrigated cropping/ livestock livelihood zone at 3.6 litres and lowest at 2.4 litres in the mixed farming: food crop/ livestock livelihood zone.

### 3.2 RAIN-FED CROP PRODUCTION

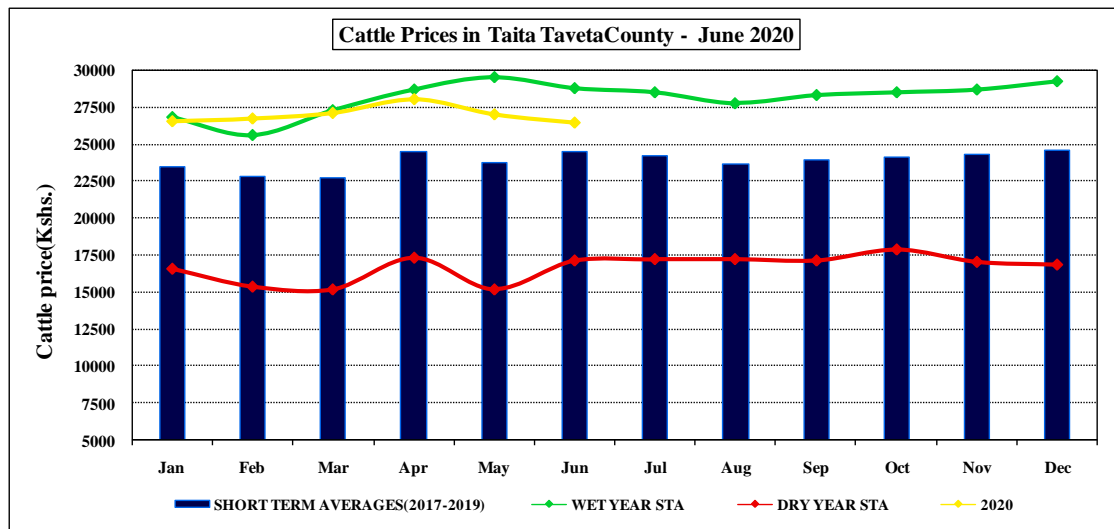
#### 3.2.1 Stage and Condition of food Crops

- Maize crop planted in February matured fully and was being harvested while late planted maize was in fair condition drying for harvest in the month of July.
- Farmers who planted beans, green grams and cowpeas were busy harvesting.
- In the highlands some farmers were harvesting green maize while others were waiting for it to dry for proper storage.

## 4. MARKET PERFORMANCE

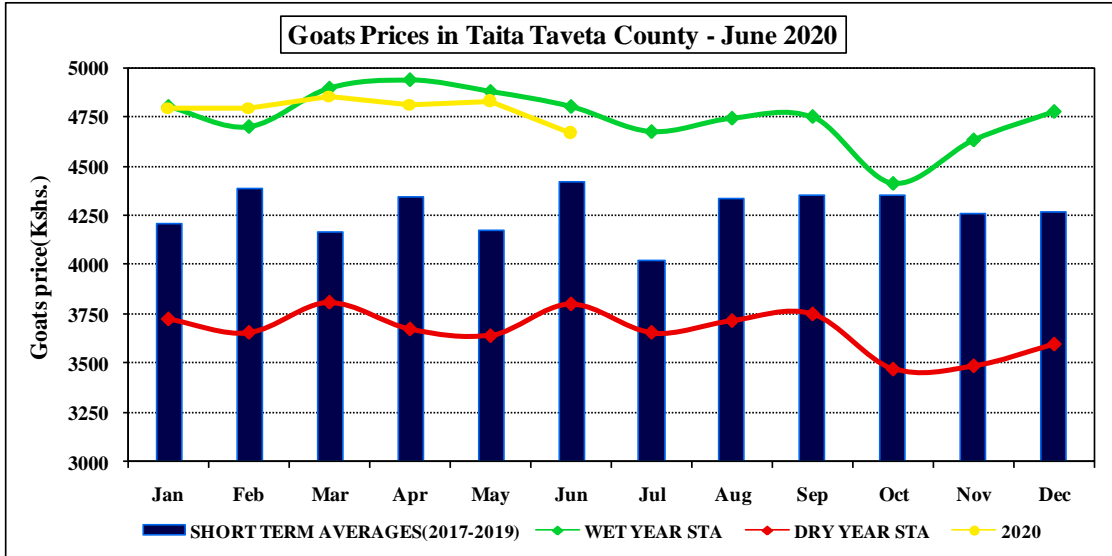
### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices



- The average market price of a three year old bull dropped to Kshs 26,500 from Kshs 27,100 posted in the previous month. The fall in prices was due to closure of livestock markets and movement restrictions put in place to curb spread of COVID-19 resulting to decrease in demand hence increase in supply.
- The highest prices were reported in the mixed farming: horticulture/ dairy at Kshs 32,000 and Kshs 26,000 in mixed farming/: food crop/livestock livelihood zone while lower prices were also reported in mixed farming: irrigated/livestock livelihood at Kshs 24,000.
- Compared to the short term Average, the county average price was higher by nine percent.

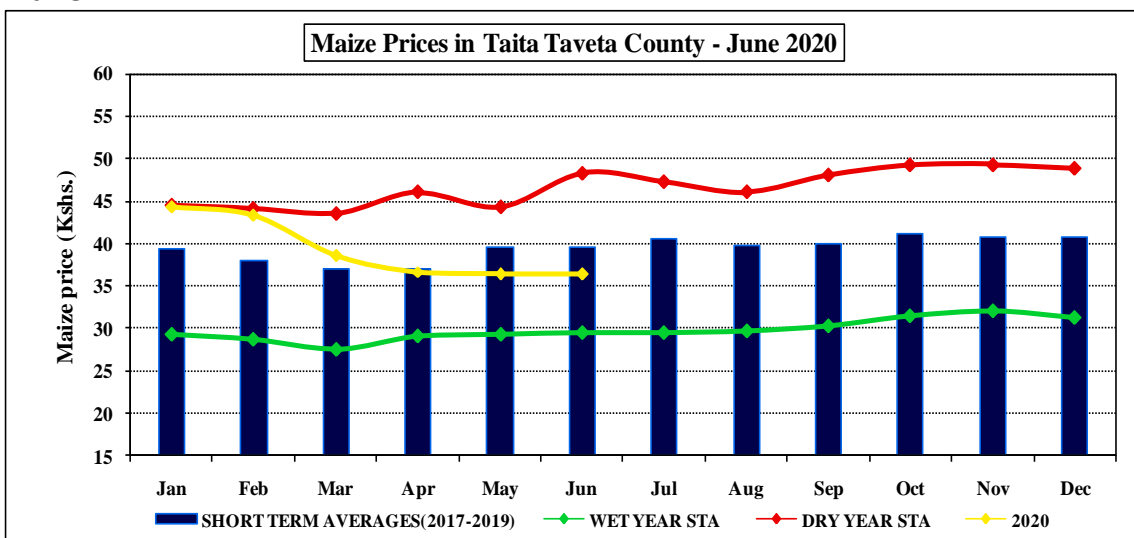
#### 4.1.2 Goat Prices



- The county average market price of a two year old goat decreased to Kshs 4,700 compared to Kshs 4,900 posted last month. The drop in price was due to decreased demand after closure of livestock markets and economic effects due to movement restriction measures put in place to curb spread of COVID-19.
- The highest prices were reported in the mixed farming: horticulture/ dairy livelihood zone of Kshs 5,300 where farmers keep a few animals for special events while lower prices of Kshs 4,600 and Kshs 4,300 were reported in mixed farming: food crop/ livestock livelihood zone and mixed farming: irrigated/livestock livelihood zone.
- Compared to short term average, the price was higher by six percent.

#### 4.2 CROP PRICES

##### 4.2.1 Maize

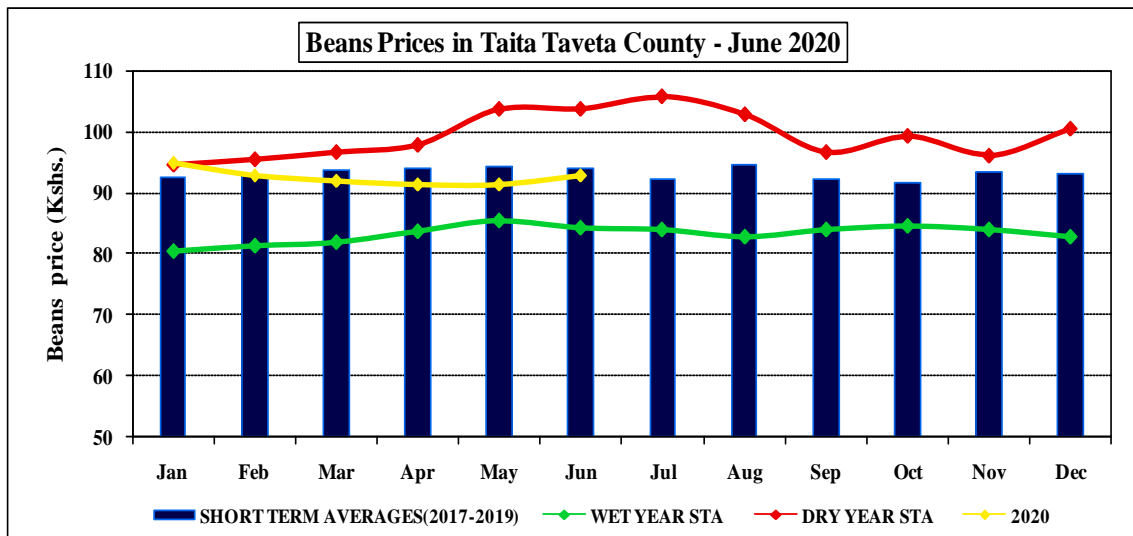


- The average market price of a kilo of maize was recorded at Kshs 36.0 similar to prices posted in the previous month and below the short term average by eight percent.
- The stable maize price was due to availability of supplies of maize in the market from previous season harvests and ongoing harvest as well.



- Across the livelihood zones the prices were recorded in the mixed farming; food crops/ livestock livelihood zone (Ghazi, Bura, Rukanga, Mwatate and Chumvini markets) at Kshs 40 while horticulture/dairy livelihood zone (Mghambonyi market) and mixed farming: irrigated/livestock livelihood zone (Taveta Town) at Kshs 25.

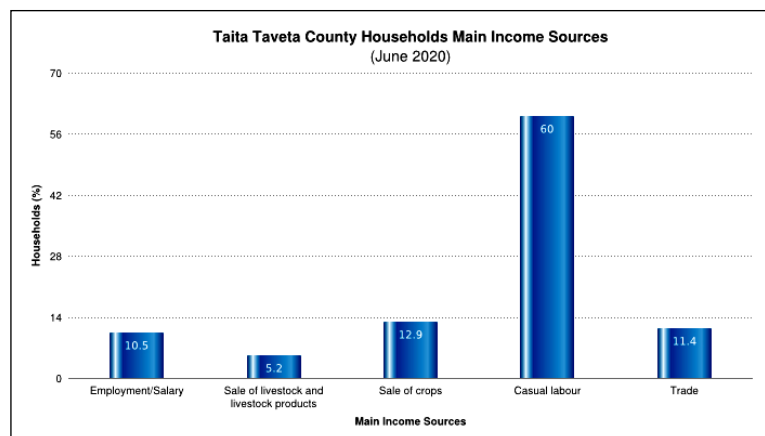
#### 4.2.2 Beans



- The average market price of a kilo of beans increased slightly to Kshs 92.9 compared to Kshs. 91.4 recorded in the previous month and marginally below the short term average. The stable prices are due to availability of the product at both household and market level from the previous harvest.
- Across the livelihood zones the price varied with the mixed farming: food crop/ livestock livelihood zone recording a price of Kshs 94 while mixed farming: irrigated/ livestock livelihood zone and mixed farming: horticulture/dairy livelihood zone both recorded a price of Kshs 90.

#### 4.3 INCOME

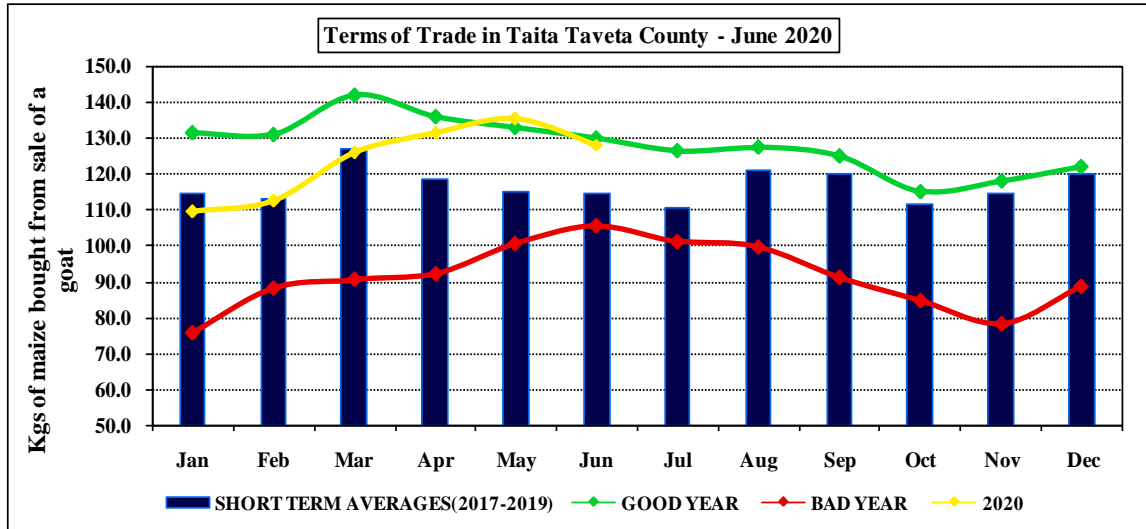
- The main source of income was casual labour. Others included; trade, employment, and sale of livestock and livestock products and sale of crops at lower proportions. The average casual labour wage for the county for the month under review was Kshs 3,200 similar to that posted in the previous month.



- Compared to previous month sources of income remained relatively stable.

- Casual labour opportunities in the rural areas were available in the sisal and banana plantations, irrigation schemes, herding and ranches while in the urban areas opportunities were in the construction sites and cleaning services in towns.
- Measures put in place by Ministry of Health to curb spread of COVID-19 led to closure of various businesses adversely affecting sources of income for many households.

#### 4.4 TERMS OF TRADE (GOAT PRICE VERSUS MAIZE PRICE)

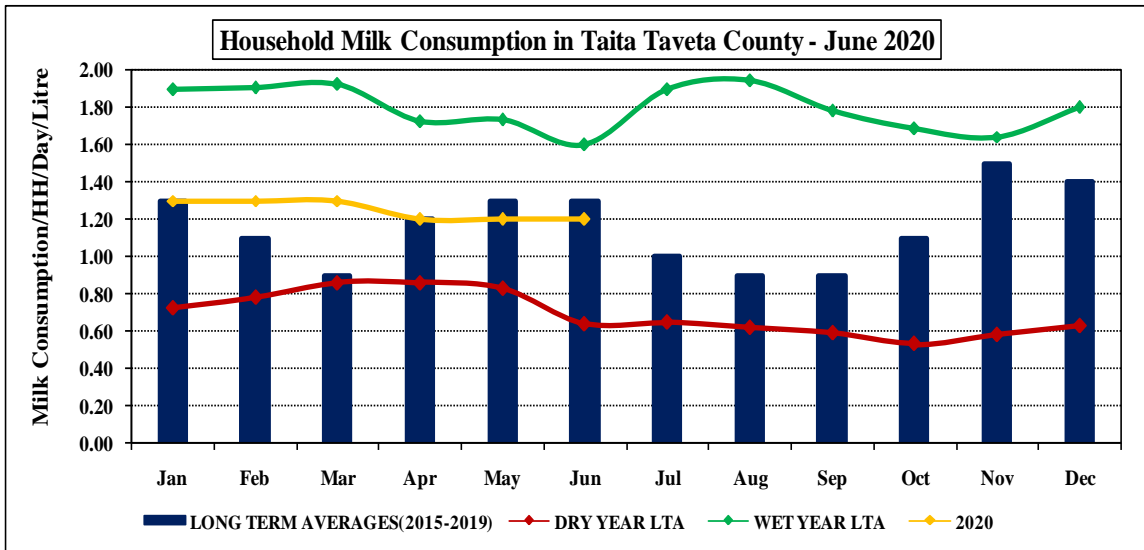


- Terms of trade (ToT) were favourable and proceeds of sale of goat could purchase 128.2 kilograms of maize compared to 135.4 posted in the previous month and above the short term average by 12 percent. The drop in ToT was due to drop in prices of goats.
- ToT ratios by livelihood zone were as follows; mixed farming: horticulture/ dairy livelihood zone at 178, mixed farming: food crops/livestock livelihood zone at 118 and mixed farming: irrigated cropping/livestock livelihood zone recorded at 144.

## 5. FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

- The average milk consumption per household per day remained stable at 1.2 litres as posted in the previous month and below the long term mean by eight percent.

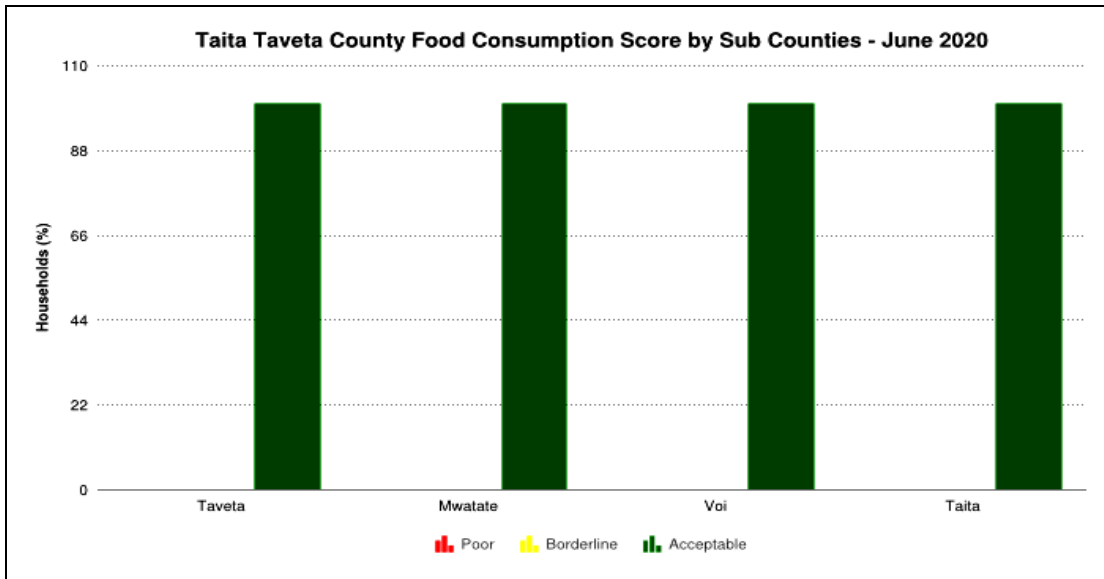


n=210 HHs

- Milk consumption per household per day in regard to livelihood zones; mixed farming: food crops/livestock (1.2 litres), mixed farming: horticulture/ dairy (1.3 litres) and mixed farming: irrigated cropping/livestock (one litre).

## 5.2 FOOD CONSUMPTION SCORE

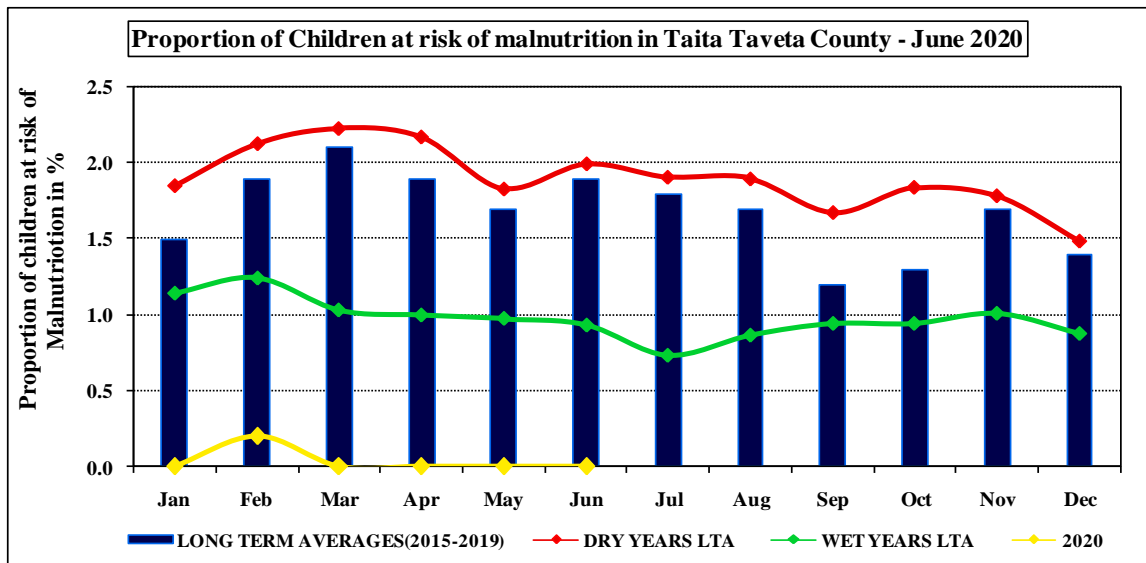
- All households remained in the acceptable food consumption score (FCS) due to availability and accessibility of food at household level. Sampled households indicated that 84 percent were still holding food stocks from the previous season.
- Compared to a similar period in 2019 where prevalence was at 83 and 17 percent for acceptable and borderline FCS respectively, household consumption for the month under review was much better given that all households were in the acceptable food consumption category.
- The current mean food consumption score depicted a stable trend at 75, same as the previous month.
- The mean FCS score was high in the mixed farming: irrigated cropping/ livestock livelihood zone recorded at 88 followed by mixed farming: horticulture/dairy livelihood zone at 77 and mixed farming; food crop/livestock livelihood zone at 61. In all the zones, households consumed three food groups i.e. maize, pulses and vegetables and in addition 67 percent of the households interviewed consumed meat (fish/beef) at least once during the seven days recall period. Fish was served for three to five days in a week in households of Mboghoni and Challa wards in Taveta Sub County due to fishing activities in both Lake Challa and Lake Jipe. Other foods consumed were fruits and milk.



n=210HHs

### 5.3 HEALTH AND NUTRITION STATUS

- A total of 475 children below five years were sampled for MUAC measurement where proportion of male and female was at 55 and 45 percent respectively.



#### 5.3.1 Nutrition Status

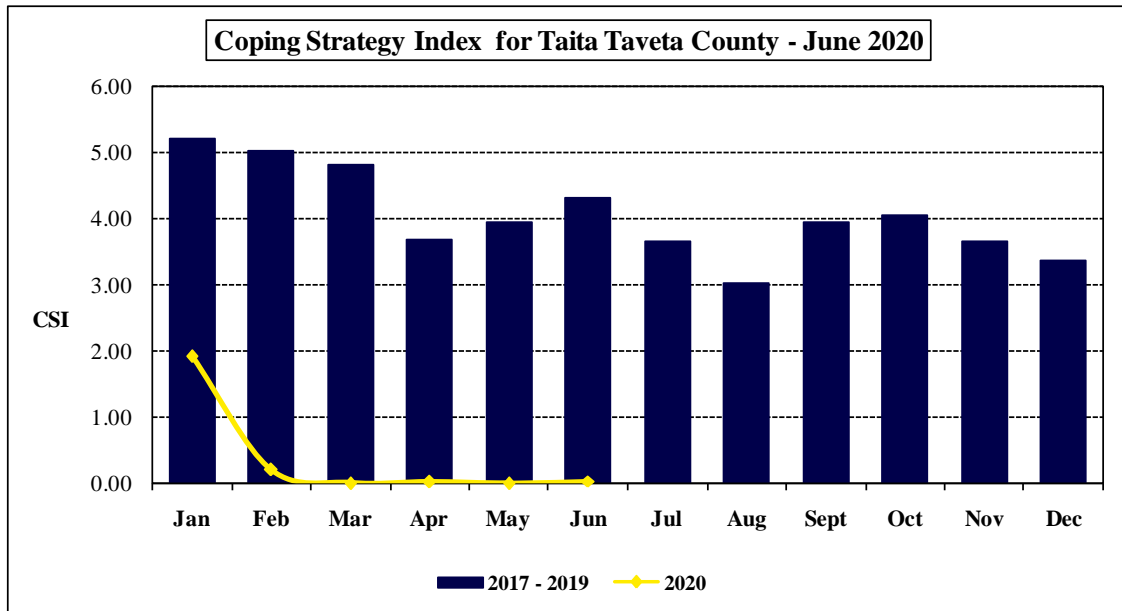
- In the month under review, there were no cases of children aged below five years with MUAC - at risk of malnutrition (125 – 134 mm) as shown in the graph above.
- No cases of GAM by MUAC (moderate 115-124mm) and (Severe<115) were reported.
- Across all livelihood zones nutrition status of children below five years remained good in the seven sampled sentinel sites.

#### 5.3.2 Health

- Out of the 474 sampled children two percent were reported to be ailing from fever with chills like malaria. Approximately 50 percent of these cases were from Challa Ward.

#### 5.4 COPING STRATEGIES

- There were no consumption based coping strategies employed from households interviewed in the month under review since households relied on previous season harvests (84 percent HHs holding stocks) and also prices were lower at the household level.
- The current Coping Strategy Index (CSI) indicates that the situation is much better compared to similar month last year where CSI was at 2.23.
- The graph below show trend of consumption based coping strategy index in the county.



n=210HHs

## 6. CURRENT INTERVENTION MEASURES (ACTION)

### 6.1 FOOD AND NON FOOD INTERVENTIONS

#### 6.1.1 Sectoral

Intervention	Activities	Implementers
<b>Health Sector</b>		
Provision of health equipments	<ul style="list-style-type: none"> <li>• Purchase of personal protective equipment (PPEs), sanitizers, thermo guns, respirators, chlorine, overalls clothes, helmets and spraying pumps</li> </ul>	County Government Department of Health
<b>Water Sector</b>		
Provision of clean and safe drinking water	<ul style="list-style-type: none"> <li>• Continuous supply of adequate water and soap to all hand washing points to address the issue of COVID-19 pandemic</li> </ul>	County and National Government
<b>Multi-Sectoral</b>		
Coordination - Integrated approach to address issues affecting the county	<ul style="list-style-type: none"> <li>• Preparation of Sub County Drought Contingency Plans and review of the County Drought Contingency Plan</li> </ul>	NDMA and Sub Counties Technical Working Groups
	<ul style="list-style-type: none"> <li>• County Rapid Response meetings to address COVID-19 pandemic</li> </ul>	Department of Health, Ministry of Interior, Partners and Stakeholders

## 7. EMERGING ISSUES

### 7.1 Insecurity/ Conflict/ Human Displacement

- Marauding elephants reported to have damaged crops in areas of Kishushe.
- Movement restrictions due to COVID-19 pandemic have had negative economic impact across all sectors and the hard hit populations are the urban poor who rely on casual labour or work in the informal sector majorly in towns. These households continued to experience decline in income and food access.
- Mass vaccination activities and livestock markets activities continued to be suspended in the county resulting to limited routine vaccination and livestock incomes.

### 7.2 Migration

- No cases of in or out migration were reported in the month under review.

### 7.3 FOOD SECURITY PROGNOSIS

- The long dry season has commenced and low temperatures being experienced are expected to favour the well developed forage to last a little longer than normal.

- Food stocks are available at the household level due to ongoing harvests and food prices in the county are expected to remain stable in the month of July.
- Water availability and accessibility is projected to be good and distances to remain below the long term average, however significant changes in distances are expected in the month of August.
- Livestock body condition is expected to be good due to availability of forage and water at shorter distances.
- Prices of livestock species are projected to be on a downward trend due to closure of main livestock markets in the county.

## **8. RECOMMENDATIONS**

### **Health sector**

- Enhance preparedness measures through provision of PPEs, sanitizers and health equipments for healthcare workers to combat the COVID-19 pandemic

### **Agriculture and Livestock Sector**

- Crop protection against pest and diseases
- Sensitize farmers on post harvest management techniques and pasture and fodder conservation

### **Water Sector**

- Provide adequate supply of water in all areas to enhance hand washing especially during this period of fighting COVID-19

### **Multi-Sectoral**

- Sensitize all population on the COVID-19 pandemic and its prevention
- Provision of food assistance and cash transfers among the poor urban households
- Kenya Wildlife Services to repair solar electric fence (bordering Kishushe settlements and the Tsavo West National Park) damaged by flood waters