

# National Drought Management Authority

TAITA TAVETA COUNTY

DROUGHT EARLY WARNING BULLETIN FOR JULY 2020



A Vision 2030 Flagship Project



## JULY 2020 EW PHASE

Drought Status: **NORMAL**



Shughuli za kawaida

## Early Warning Phase Classification

| Livelihood Zone   | Phase         | Trend               |
|---|---------------|---------------------|
| Mixed Farming: Food Crops/<br>Livestock                                     | Normal        | Stable              |
| Mixed Farming: Food Crops/<br>Horticulture/Dairy                            | Normal        | Stable              |
| Mixed Farming: Irrigated Cropping/<br>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  | 119           | 80 – 120            |
| VCI (one Month)   | 82.0          | 35 –50              |
| Production indicators   | Value         | Normal              |
| Crop Condition(maize)   | Harvesting    | Harvesting          |
| Livestock Body Condition for cattle   | Good          | Good                |
| Milk Production per HH/ day   | 3.3 Litres    | 3.0 Litres          |
| Livestock Migration Pattern   | Normal        | Normal              |
| Access Indicators   | Value         | Normal              |
| Terms of Trade (Maize price vs Goat price)                                  | 126.0         | 110.8               |
| Milk Consumption per HH/ day  | 1.2 Litres    | 1.0 Litres          |
| Return HHs distance to water sources  | 2.3 km        | 2.4 Km              |
| Water source return distance from grazing areas                             | 2.5 km        | 3.6 Km              |
| Cost of water (20 litres)   | Kshs 3.00     | < Kshs 5.00         |
| Utilization indicators  | Value         | Normal              |
| Nutrition Status children below five years (MUAC % at risk of malnutrition) | 0.0           | 1.8                 |

### 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 situation is forecasted to be dry with occasional light rains, windy and cold.
- The county vegetation greenness condition was above the normal range (one month VCI; 82.0) and is projected to remain good until September.
- The soil moisture climatology was normal and expected to remain within that range until September.

#### Socio Economic Indicators (Impact Indicators)

##### Production Indicators

- Farmers were harvesting dry maize and stocking stovers for animal feeds.
- 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 above normal.
- Return distances to water sources were below normal.
- Distances to water sources from grazing areas were below normal.

##### Utilization Indicators

- % of children at risk of malnutrition was within 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

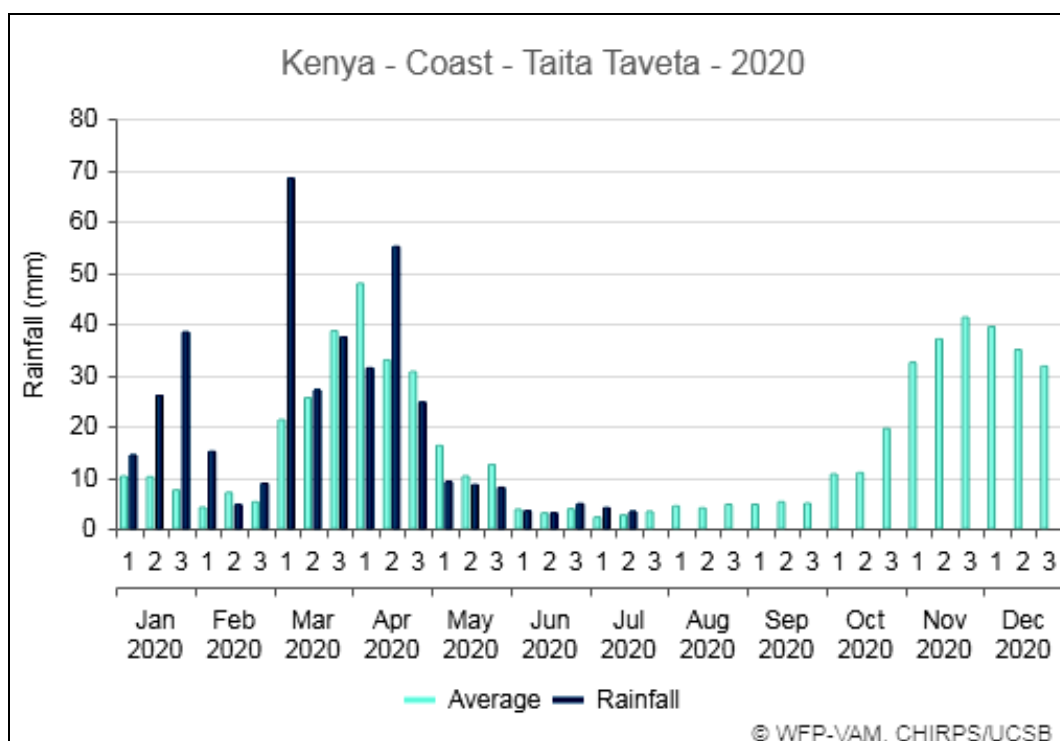
- The county received light rains that were above normal and mainly reported in the mixed farming; horticulture/dairy livelihood zone ranging from 13 mm in Mghange to 24 mm in Wumingu. The table below show rainfall precipitation at various stations;

**Kenya Meteorological Department Rainfall Data**

| No. | Rainfall Station        | Livelihood Zone                    | Wet Days | Amount (mm) |
|-----|-------------------------|------------------------------------|----------|-------------|
| 1.  | Mghange                 | Mixed farming: horticulture/dairy  | 2        | 13.0        |
| 2.  | Wundanyi                | Mixed farming: horticulture/dairy  | 2        | 20.5        |
| 3.  | Wumingu                 | Mixed farming: horticulture/dairy  | 3        | 24.2        |
| 4.  | Mwatate Livestock Farm  | Mixed Farming: food crop/livestock | 0        | 0           |
| 5.  | Kitobo Seed             | Mixed Farming: food crop/livestock | 0        | 0.0         |
| 6.  | Rukanga                 | Mixed Farming: food crop/livestock | 0        | 0.0         |
| 7.  | 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 119 percent.
- The estimated total precipitation for the first twenty days of the month under review was 7.3 mm and above the LTM by 52 percent as indicated in the chart below;
- Based on Standard Precipitation Index (SPI<-0.09) projection, the short rains are likely to be below to near normal.

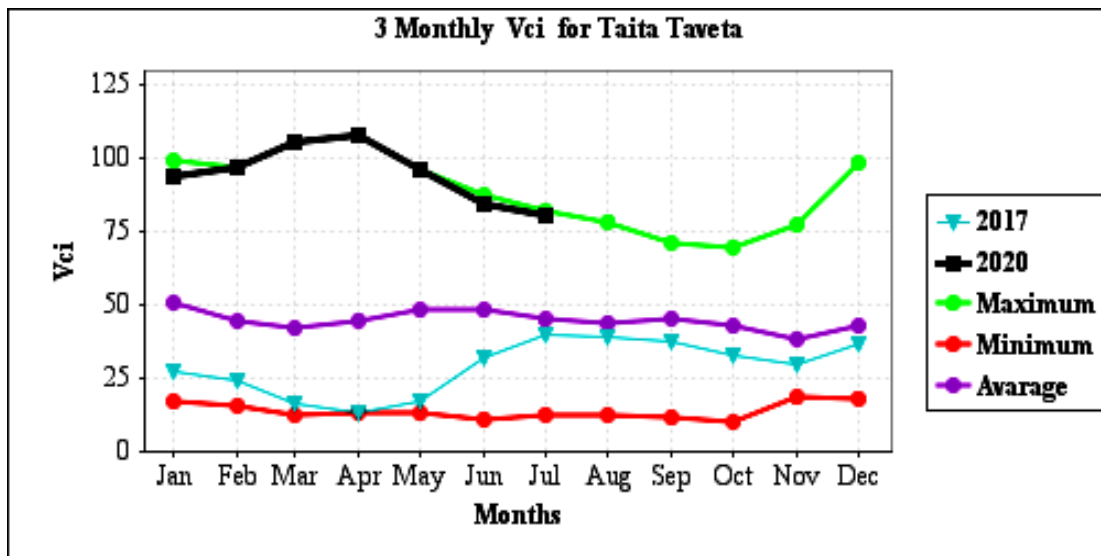
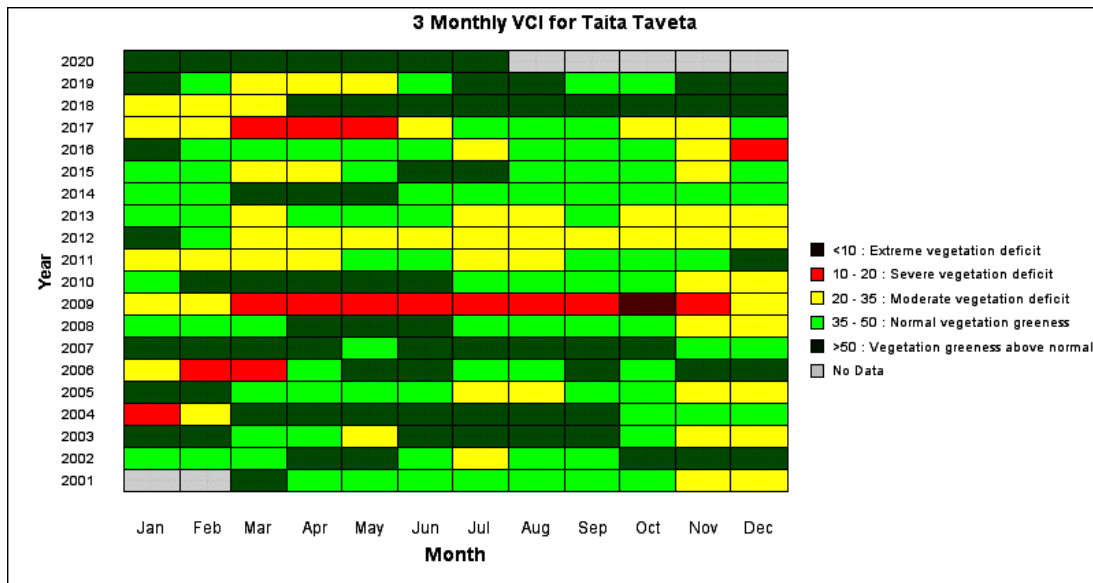


## 2. IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

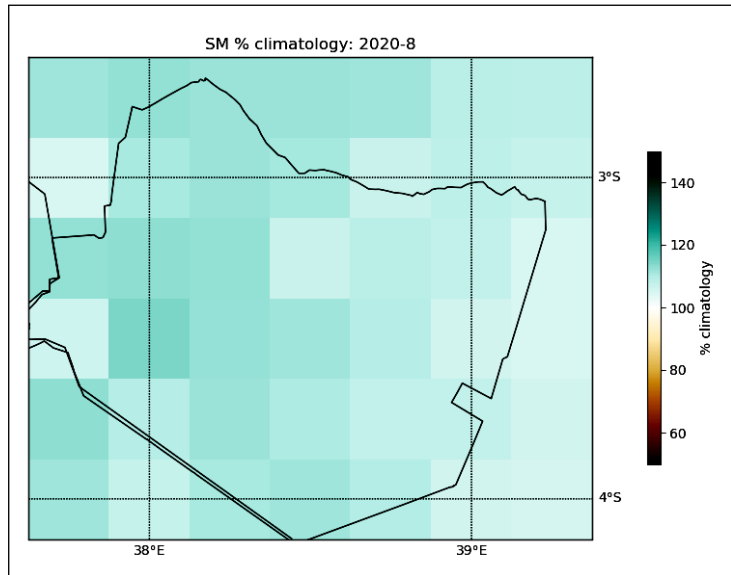
#### 2.1.1 Vegetation Condition Index (VCI)

- The vegetation greenness condition in the county was above the normal range as depicted by a three months vegetation condition index (3M - VCI) of 80.6 (Figure below) and is expected to remain good until September.
- All livelihood zones depicted vegetation greenness above normal.



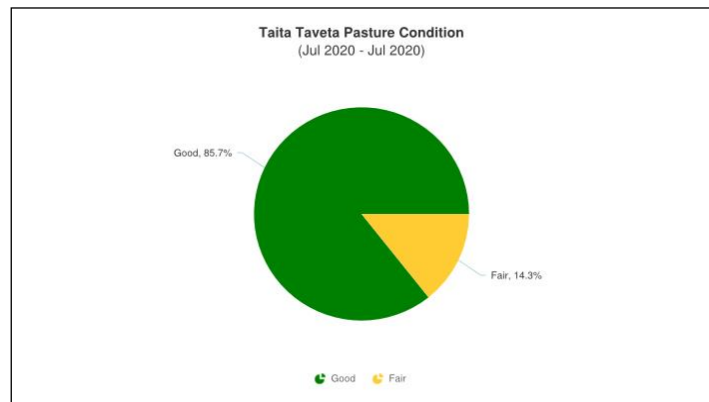
### 2.1.2 Soil Moisture Percentage Climatology

- According to TAMSAT-ALERT the forecast for the month of August indicates that the soil moisture percentage of climatology will be above average meaning that the soils will continue supporting natural vegetation and pasture in the county.



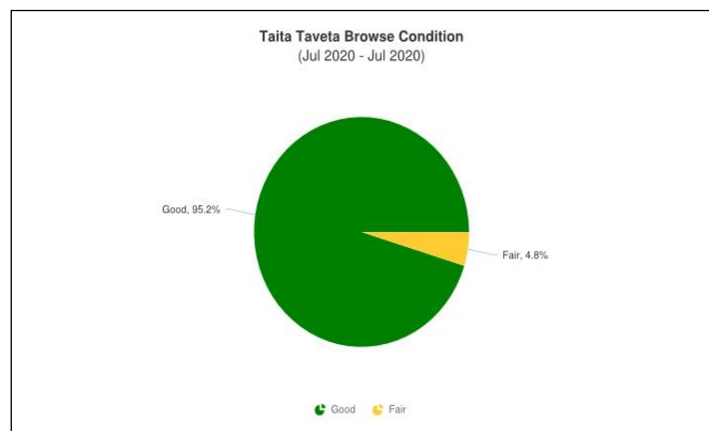
### 2.1.3 Pasture

- From community interviews 85.7 percent of the respondents reported pasture condition was good above normal due to the two good consecutive seasons.
- Pastures were reported to be fair by 14.3 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.



### 2.1.4 Browse

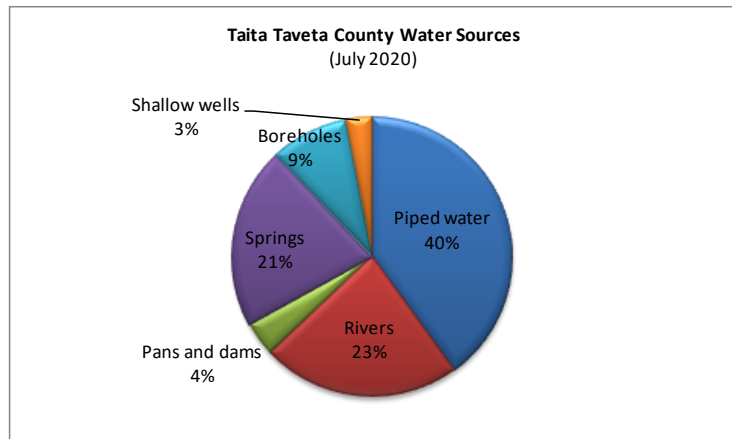
- From community interviews 95.2 percent of the respondents reported browse condition was good and above normal while 4.8 percent reported that browse condition was fair.
- Compared to the previous month, the browse condition remained good.
- Available browse is expected to cater for livestock for the next three months.



## 2.2 WATER RESOURCE

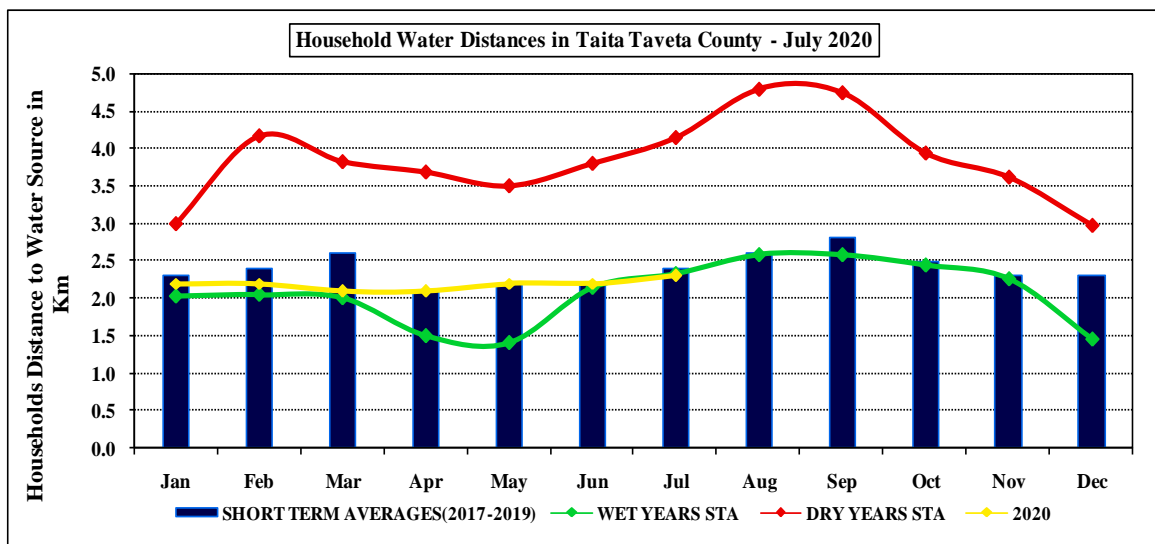
### 2.2.1 Sources

- 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 40, 21, 23, 4, 3 and 9 percent of the households respectively.
- In comparison to previous month, the proportions remained relatively the same.
- In all livelihood zones water from the main sources is expected to cater for households for the next two months.



### 2.2.2 Household Access and Utilization of Water

- The average return distance from households to main water sources was at 2.3 compared to 2.2 km as posted in the previous month and four percent shorter than the short term average shown in the graph below.



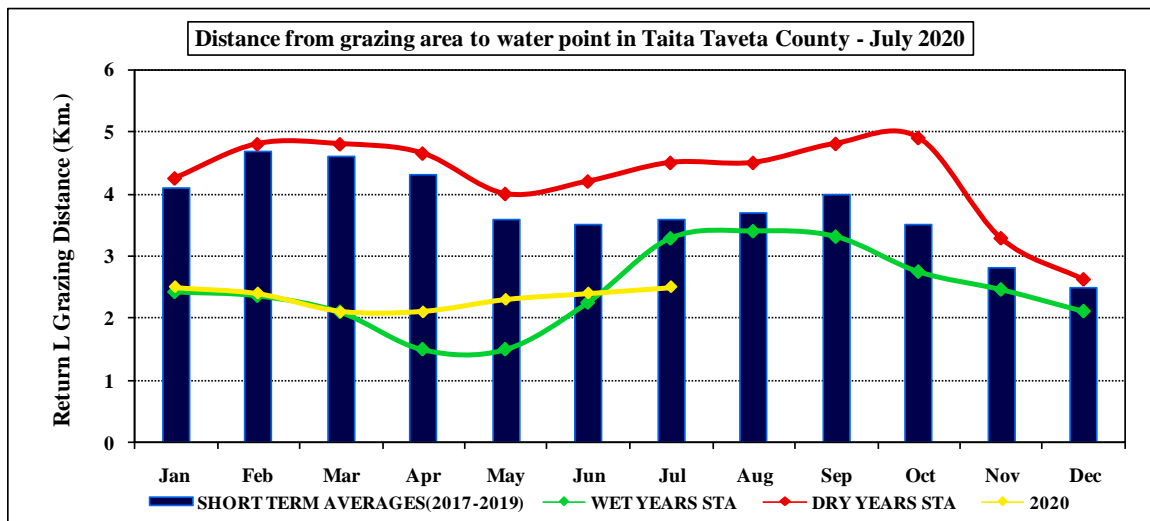
n=21 Key Informants

- The county average water consumption per person per day (pppd) was at 17.3 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 similar to the previous month. Price per jerry can at private water points ranged from Kshs 3 - 5.
- Overall, the number of households treating drinking water stood at 14 percent as posted in the previous month. 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 2.5 km compared to 2.4 km posted in the previous month and below the short term average by 31 percent as indicated in the graph below.
- 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

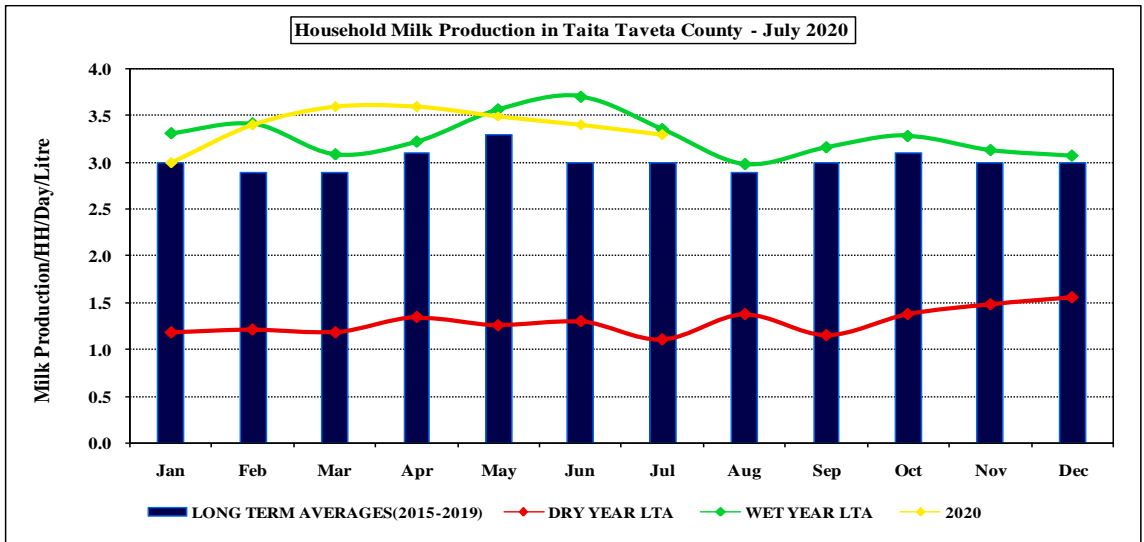
### 3.1 LIVESTOCK PRODUCTION

#### 3.1.1 Livestock Body Condition

- Livestock body condition for all species was good across all livelihood zones and similar to the 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 3.3 litres compared to 3.4 litres recorded in the previous month and above the long term average by ten percent.



n=210 HHs

- Mixed farming: horticulture/ dairy livelihood zone milk production was at 4.7 litres, in the mixed farming: irrigated cropping/ livestock livelihood zone at 3.9 litres and lowest at 2.3 litres in the mixed farming: food crop/ livestock livelihood zone.

### 3.2 RAIN-FED CROP PRODUCTION

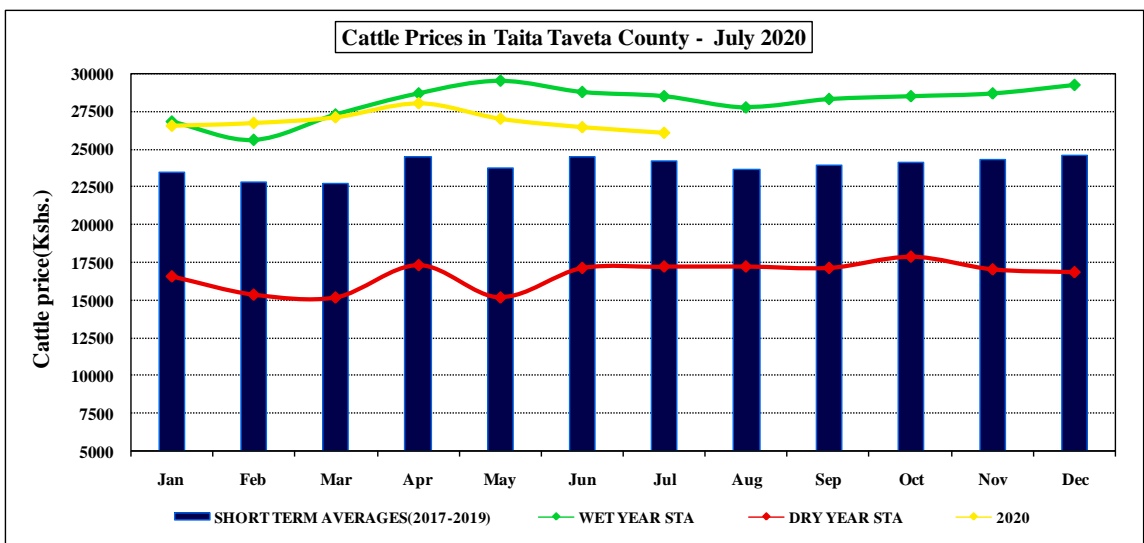
#### 3.2.1 Stage and Condition of food Crops

- Dry maize was being harvested in both the highlands and the lowlands.
- Maize stovers were being used as feeds for livestock.

## 4. MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

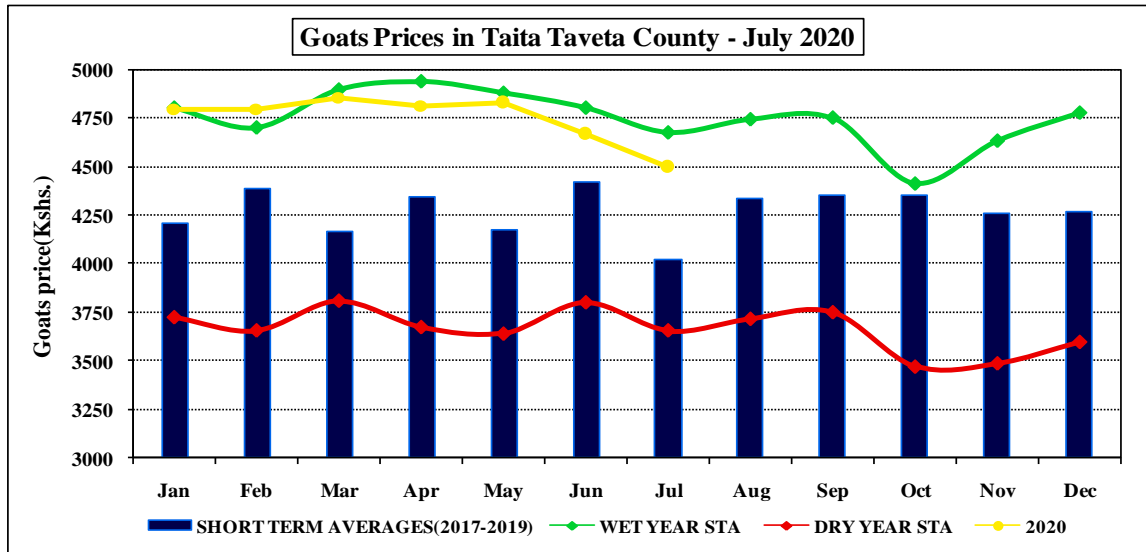


- The average market price of a three year old bull dropped to Kshs 26,095 from Kshs 26,500 posted in the previous month. The fall in prices was due to increase in supply of

cattle emanating from closure of livestock markets and movement restrictions put in place to curb spread of COVID-19.

- The highest prices were reported in the mixed farming: horticulture/ dairy at Kshs 30,667 and Kshs 25,600 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 eight percent.

#### 4.1.2 Goat Prices

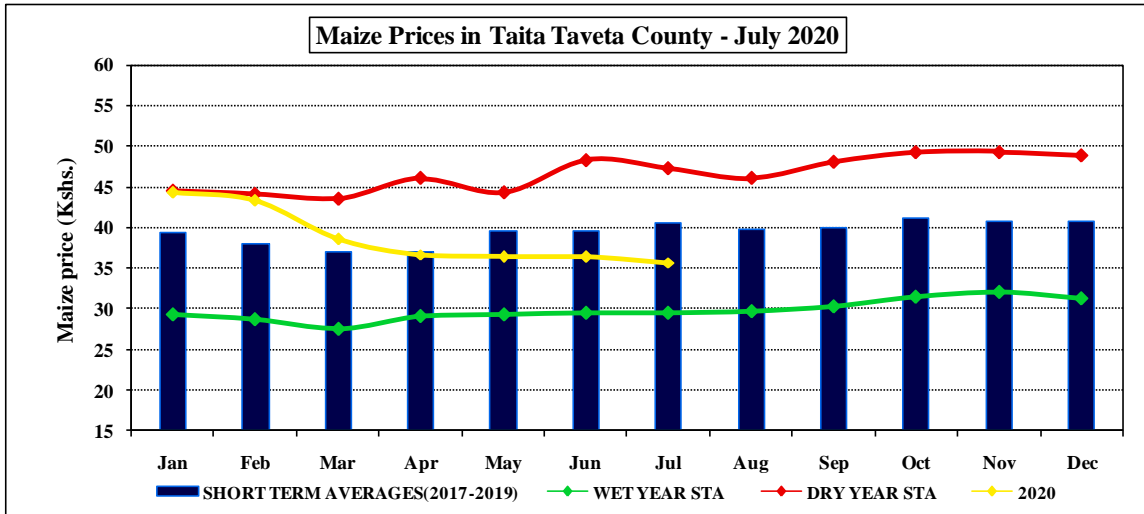


- The county average market price of a two year old goat decreased to Kshs 4,500 compared to Kshs 4,700 posted last month. The drop in price was due to increased supply as a result of closure of livestock markets and other related economic effects arising from movement restriction measures put in place to curb spread of COVID-19.
- The highest prices were reported in the mixed farming: horticulture/ dairy livelihood zone of Kshs 5,000 where farmers keep a few animals for special events while lower prices of Kshs 4,500 and Kshs 4,000 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 12 percent.



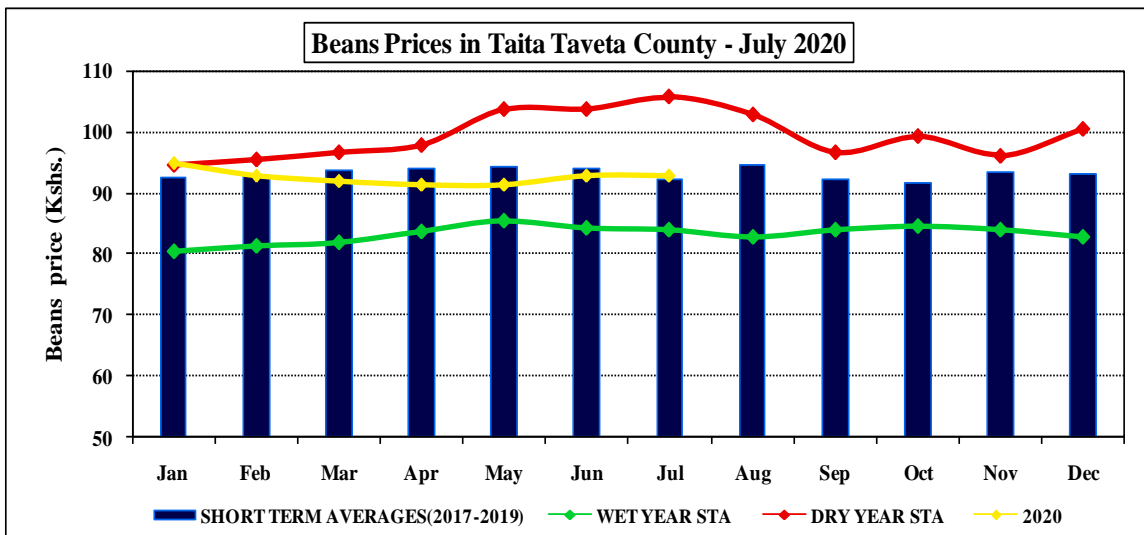
## 4.2 CROP PRICES

### 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 12 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

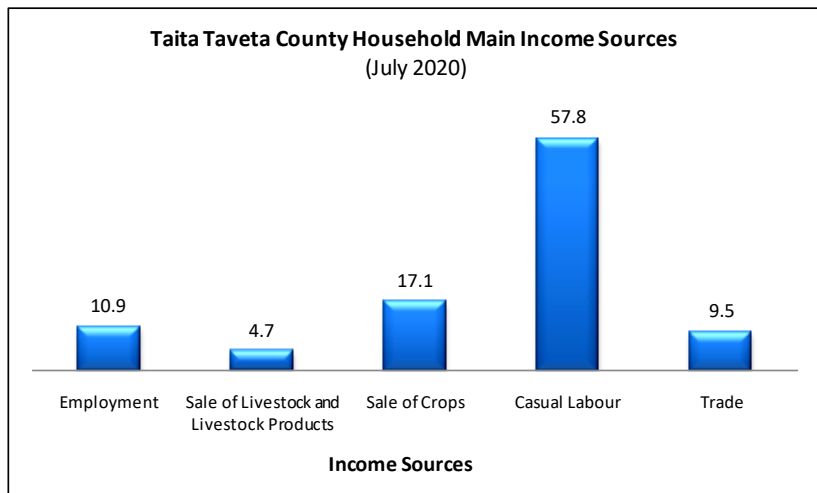


- The average market price of a kilo of beans remained at Kshs 92.9 as posted in the previous month and marginally below the short term average. The stable prices are due to availability of the product at both household and market level from the previous harvest.
- Across the livelihood zones the price varied with the mixed farming: food crop/ livestock livelihood zone recording a price of Kshs 92 while mixed farming: irrigated/ livestock

livelihood zone and mixed farming: horticulture/dairy livelihood zone at Kshs 90 and Kshs100 respectively.

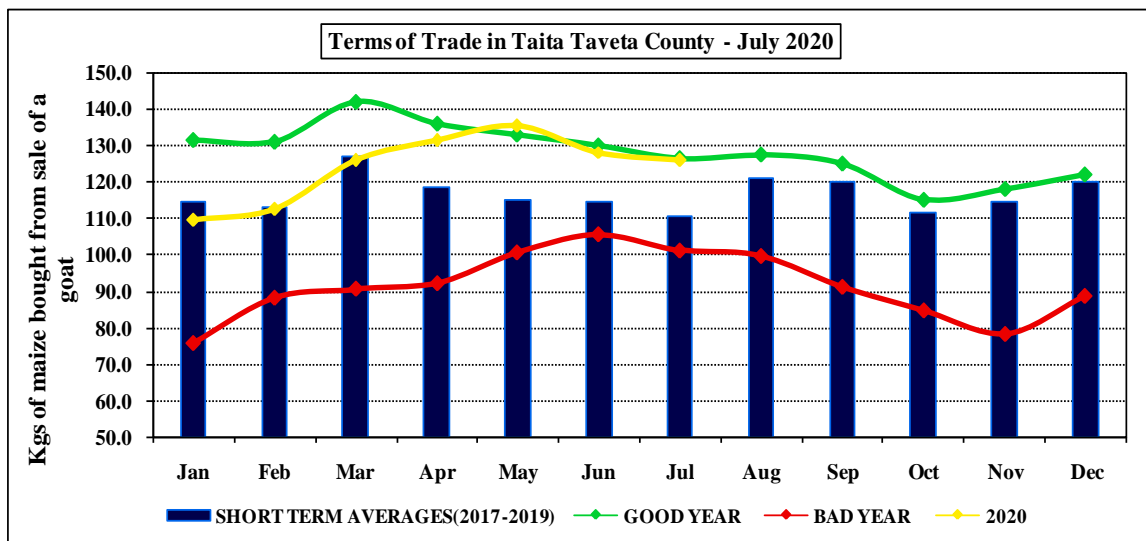
### 4.3 INCOME

- 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 especially in major towns.

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



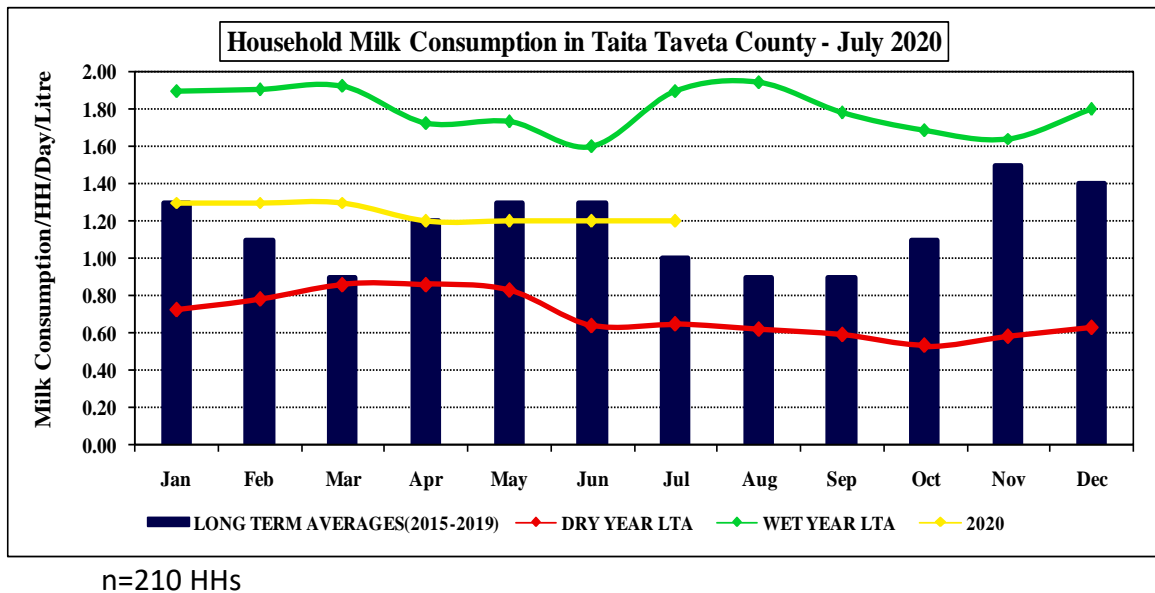
- Terms of trade (ToT) were favourable and proceeds of sale of goat could purchase 126 kilograms of maize compared to 128.2 posted in the previous month and above the short term average by 14 percent. The drop in ToT was due to drop in prices of goats.

- ToT ratios by livelihood zone were as follows; mixed farming: horticulture/ dairy livelihood zone at 167, mixed farming: food crops/livestock livelihood zone at 120 and mixed farming: irrigated cropping/livestock livelihood zone recorded at 133.

## 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 12 percent.

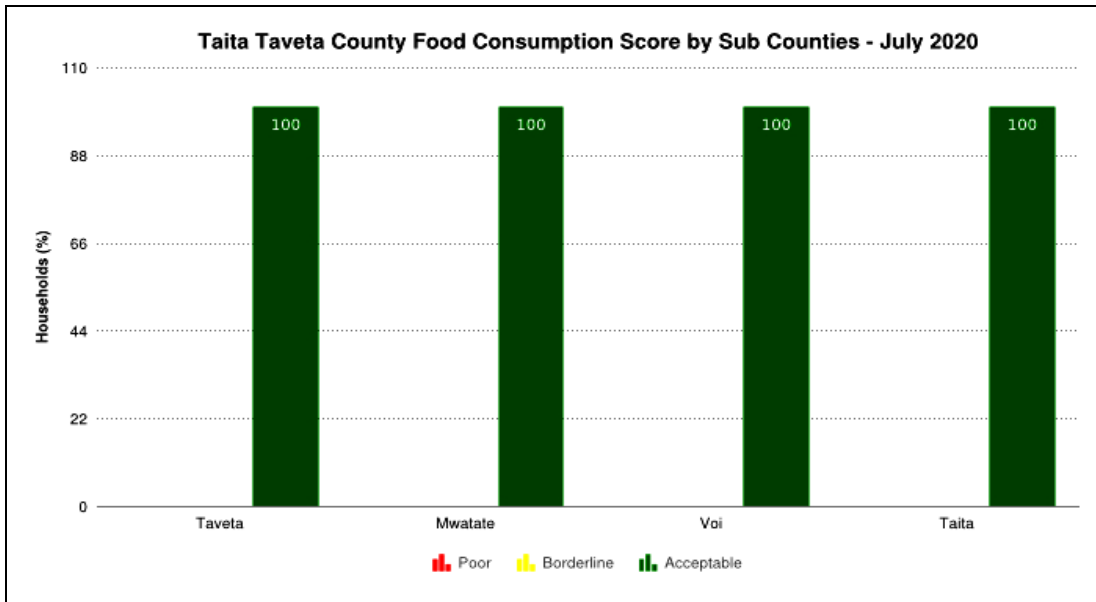


- Milk consumption per household per day in regard to livelihood zones; mixed farming: food crops/livestock (1.1 litres), mixed farming: horticulture/ dairy (1.4 litres) and mixed farming: irrigated cropping/livestock at 1.3 litres.

### 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 81, 18.5 and 0.5 percent for acceptable, borderline and poor 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 89 followed by mixed farming: horticulture/dairy livelihood zone at 76 and mixed farming; food crop/livestock livelihood zone at 60. 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

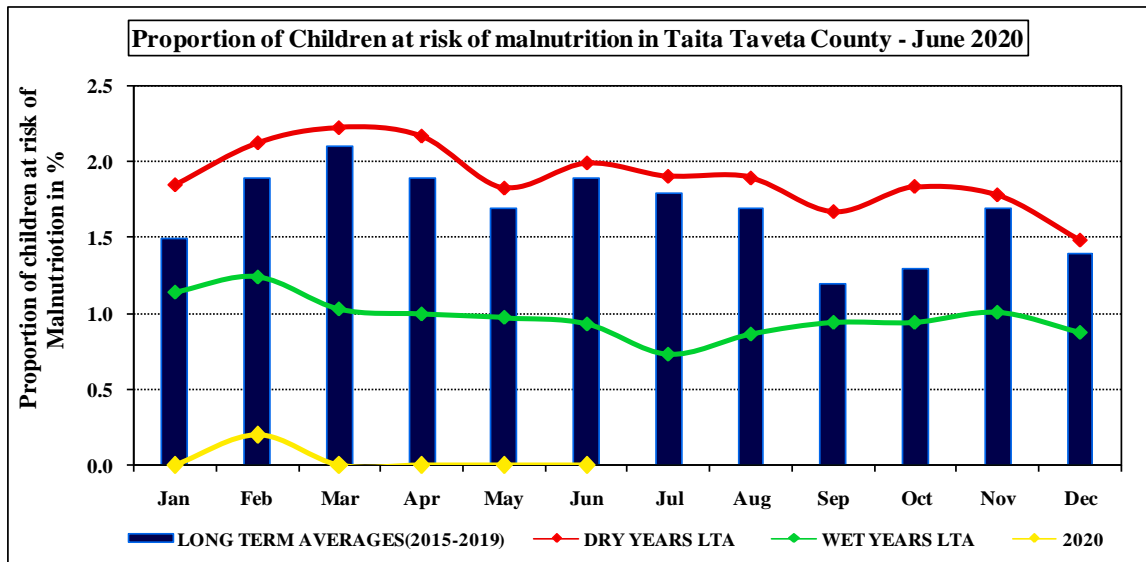
week in households of Mboghoni and Challa wards in Taveta Sub County due to fishing activities in both Lake Challa and Lake Jipe. Other foods consumed were fruits and milk.



n=210HHs

### 5.3 HEALTH AND NUTRITION STATUS

- A total of 458 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

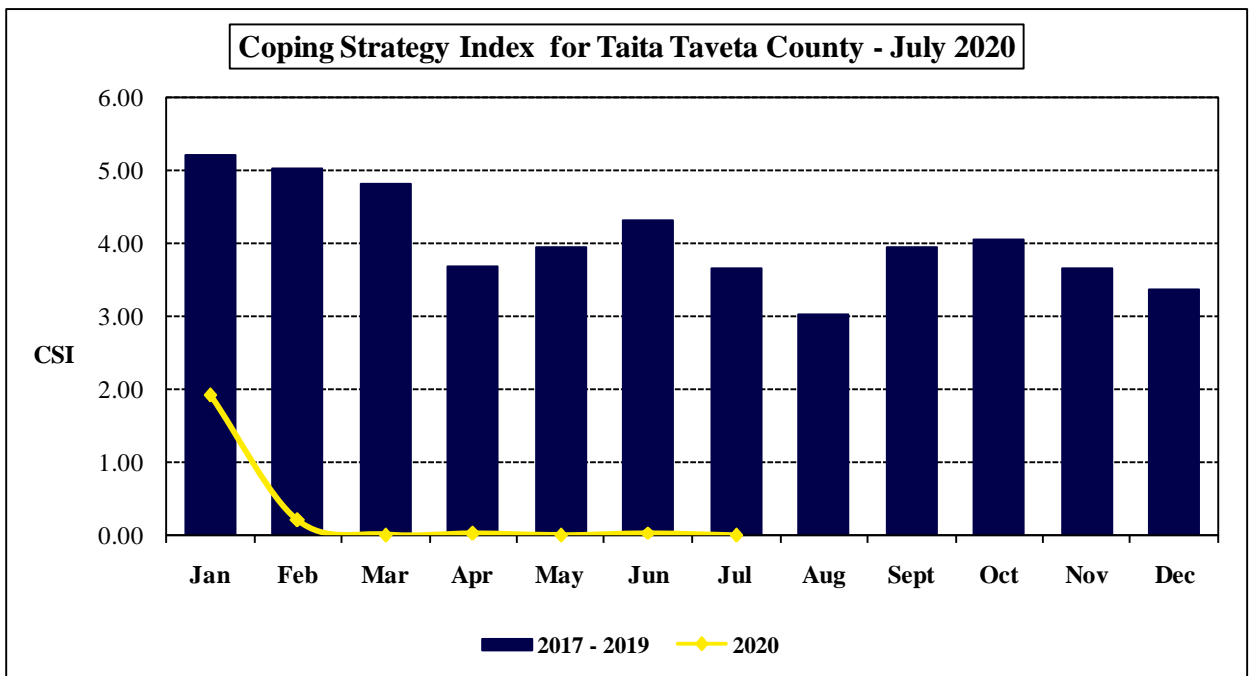
- In the month under review, there were no cases of children aged below five years with MUAC - at risk of malnutrition (125 – 134 mm) as shown in the graph above.
- No cases of GAM by MUAC (moderate 115-124mm) and (Severe<115) were reported.
- Across all livelihood zones nutrition status of children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

### 5.3.2 Health

- Out of the 458 sampled children only one percent were reported to be ailing from fever with chills like malaria with 83 percent (5 cases) being reported in Rukanga, Voi Sub County and 17 percent (1 case) in Mwachawaza, Mwatate Sub County.

### 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 lower prices of food stuffs continued to be reported 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>Agriculture and Livestock Sectors</b>        |  |   |
| Improve food security                           | <ul style="list-style-type: none"> <li>Micro Grants to Community Micro Projects focusing on farmers</li> </ul>   | KCSAP   |
|   | <ul style="list-style-type: none"> <li>Promotion of improved poultry production and beekeeping.</li> </ul>   | Department of livestock and Veterinary Services                       |
| <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>                           |  |   |
| National Food and Nutrition Security assessment | <ul style="list-style-type: none"> <li>Long rains assessment</li> </ul>  | KFSSG and technical CSG   |
| Coordination                                    | <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

- Rampant wildfires were reported in the Tsavo National park destroying pasture and browse and if not checked this will escalate cases of human wildlife conflict.
- Measures being implemented to curb spread of 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.
- Suspension of mass vaccination activities continue to impact negatively on routine vaccination.

### 7.2 Migration

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

### 7.3 FOOD SECURITY PROGNOSIS

- The Kenya Meteorological Department August forecast show that the county will be generally dry with occasional light rains, windy and cold.
- County vegetation outlook is projected to be above normal in August and also TAMSAT-ALERT forecast indicate that the soil moisture will be above average and due to this factors this is expected to favour the well developed forage to last until the onset of short rains in mid October.
- 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 August. However, Prices of livestock species are projected to be on a downward trend due to disruption of main livestock markets in the county.
- Water availability and accessibility is projected to be good and distances to remain below the long term average due to low rates of evaporation and newly developed piped water systems in the county.
- Livestock body condition is expected to be good due to availability of forage and water at shorter distances.

## 8. RECOMMENDATIONS

### Health sector

- Due to countrywide spike of COVID-19 positive cases, preparedness measures should be enhanced through provision of PPEs, sanitizers and health equipments for healthcare workers.

### 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
- Constant surveillance by KWS officers and community members neighbouring the parks in order to address the issue of wildfires in the parks.