

# National Drought Management Authority

TAITA TAVETA COUNTY

DROUGHT EARLY WARNING BULLETIN FOR SEPTEMBER 2019



A Vision 2030 Flagship Project



## SEPTEMBER 2019 EW PHASE

**Drought Status: NORMAL**

Shughuli za kawaida

## Early Warning Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming: Food Crops/ Livestock	Normal	Deteriorating
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>Deteriorating</b>
Biophysical Indicators	Value	Normal Range/ Value
Rainfall 3 Months Anomaly	117	80 - 120
VCI-3Month	45.36	35 - 50
Production indicators	Value	Normal
Crop Condition (maize)	Preparation	Preparation
Livestock Body Condition for cattle	Good	Good
Milk Production per HH/ day	3.8	2.8 Litres
Livestock Migration Pattern	Normal	Normal
Access Indicators	Value	Normal
Terms of Trade (Casual labour Vs maize prices)	61.2	62.0
Milk Consumption per HH/ day	1.1	0.7 Litres
Return HHs distance to water sources	2.9	2.8 Km
Water source return distance from grazing areas	4.1	3.6 Km
Cost of water (20 litres)	3.00	< Kshs 5.00
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	0.3	<3.0

## Drought Situation & EW Phase Classification

### Biophysical Indicators

- The County recorded light rains coupled with low temperatures. The off season rains were within the normal range.
- The county vegetation greenness condition was above the normal range (3 Months VCI 45.36).

### Socio Economic Indicators (Impact Indicators)

#### Production Indicators

- Land preparation was ongoing in the lowlands while in the upper zone some farmers had planted maize.
- Livestock body condition was good for all species except for a few pockets in Ngolia ward where they in poor condition.
- Average milk production per HH per day was above normal.

#### Access Indicators

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

#### Utilization Indicators

- The proportion of children at risk of malnutrition was within the long term average.

## 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

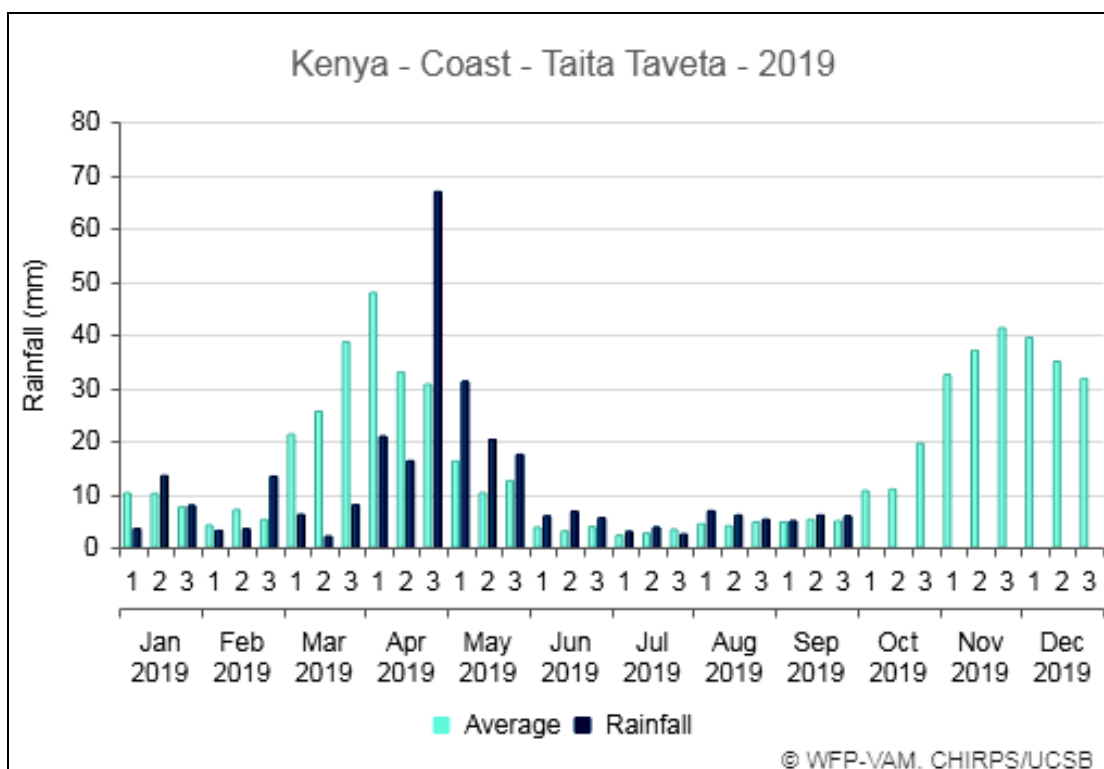
# 1. CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

- The county experienced light rains and low temperatures in the month under review mainly in the highlands of the County. Wumingu station recorded three wet days with an average rainfall amount of 6 mm.
- No rainfall was recorded in the lowlands of the county.

## 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 108 percent.
- The precipitation was spread across the month and recorded at 16.7 mm.
- The rainfall amounts were above the long term averages by 13 percent.

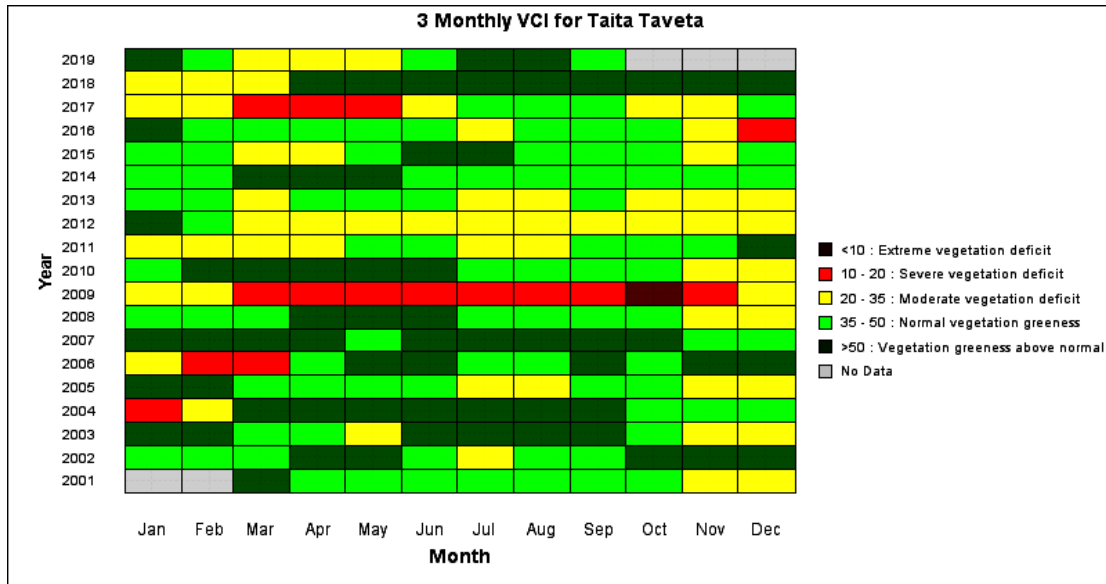


## 2. IMPACTS ON VEGETATION AND WATER

### 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 3 months' vegetation condition index (3M - VCI) value of 45.36.
- This was due to off season rains being experienced and prevailing low temperatures.



#### 2.1.2 Pasture

- From the sampled communities 19, 52 and 29 percent reported pasture condition was good, fair and poor respectively. Compared to a similar season in the previous year respondents reported situation to be normal apart from areas of Ngolia Ward where pasture situation was below normal.
- In comparison to the previous month pasture situation had deteriorated where proportionate of respondents that reported pasture condition was good dropped by 5 percent whereas those that reported pasture to be fair rose by 10 percent.
- Areas where pasture condition was observed to be below normal are lower parts of Ngolia Ward and Marungu Ward in Voi Sub County; Mwaroko, Sangenyi, lower parts of Kishushe location in Taita Sub County and Mgeno, Mzwanenyi, Msau and Kighombonyi in Mwatate Sub County.
- Pasture variation by livelihood zone indicated that pasture condition was good in the mixed farming: horticulture/ dairy located in the highlands and fair to poor in the mixed farming; food crops/ livestock livelihood zone in the lowlands. In the mixed farming: irrigated cropping/ livestock livelihood zone bigger proportion of farmers practise zero grazing and rely on crop residues from the irrigated farms and Napier grass along the drainage canals.

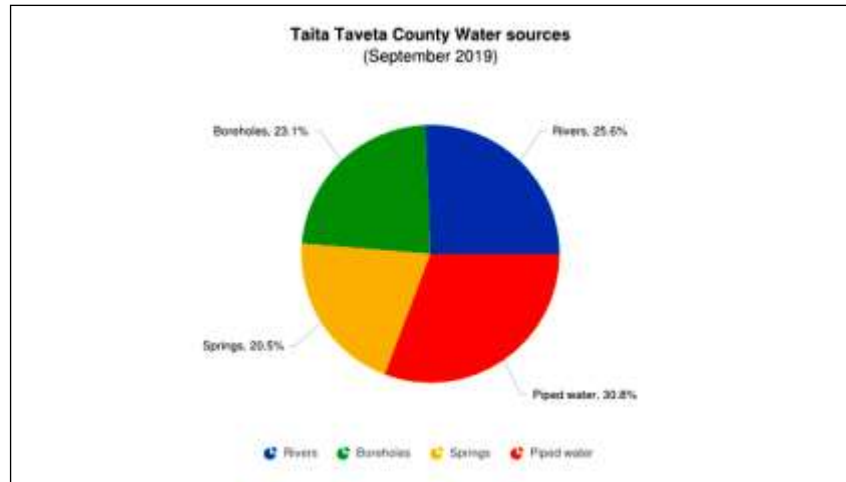
### 2.1.3 Browse

- From community interviews 14, 67 and 19 percent of the respondents reported browse situation was good, fair and poor respectively.
- Compared to the previous month, the browse situation deteriorated given that proportion of respondents that reported good vegetation condition dropped by 5 percent.
- Compared to long term mean the browse condition was normal.
- Available browse is expected to cater for livestock until onset of short rains.

## 2.2 WATER RESOURCE

### 2.2.1 Sources

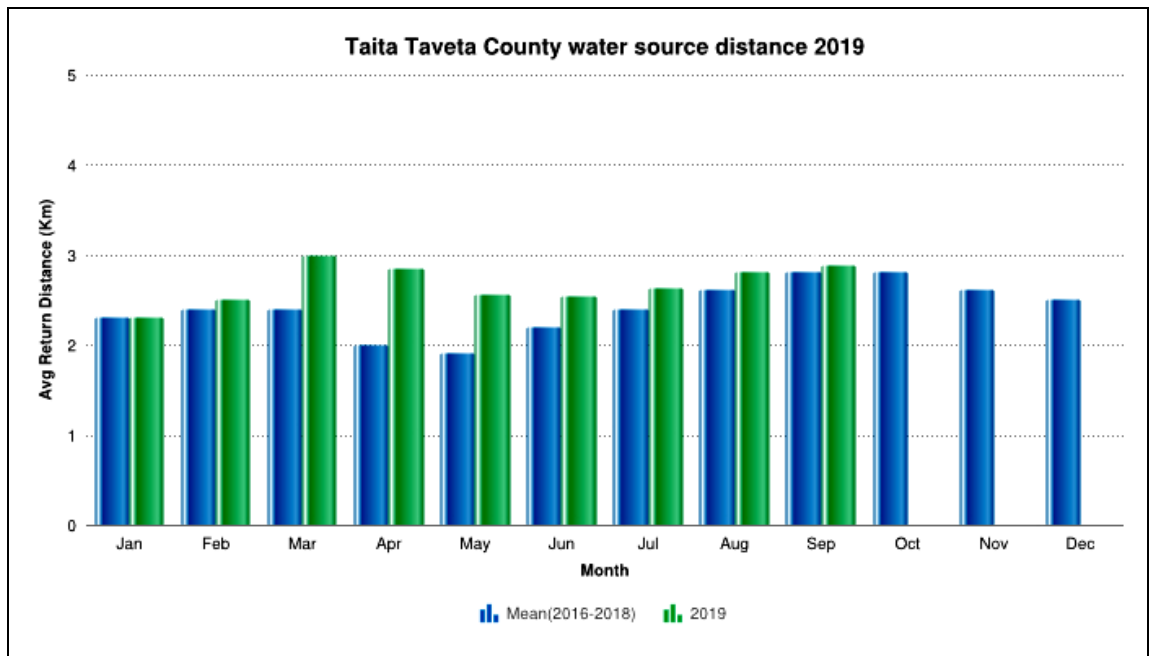
- The four main sources of water in use by both households and livestock were piped water systems, rivers, boreholes and springs and were relied upon by 30.8, 25.6, 23.1 and 17.9 percent of the households respectively. Other sources are water trucking.



- Proportion of those using piped water systems, rivers and boreholes increased by 1, 7 and 2 percent respectively while those using springs dropped by 1 percent.
- Water situation in the highlands was good and expected to last until the onset of short rains.
- Water stress was reported in Kasigau Ward and lower parts of Ngolia Ward due to drying up of water pans and shallow wells; other areas where water stress was observed are Sangenyi, Mwaroko, Kishushe, Mbaramghondi, Mgeno and Orkung.

### 2.2.2 Household Access and Utilization of Water

- The average return distance from households to main water sources increased to 2.9 km from 2.8 km posted in the previous month and above long term average by four percent. The increase in distance was due to drying up of water pans in Kasigau Ward and shallow wells in Ngolia Ward.

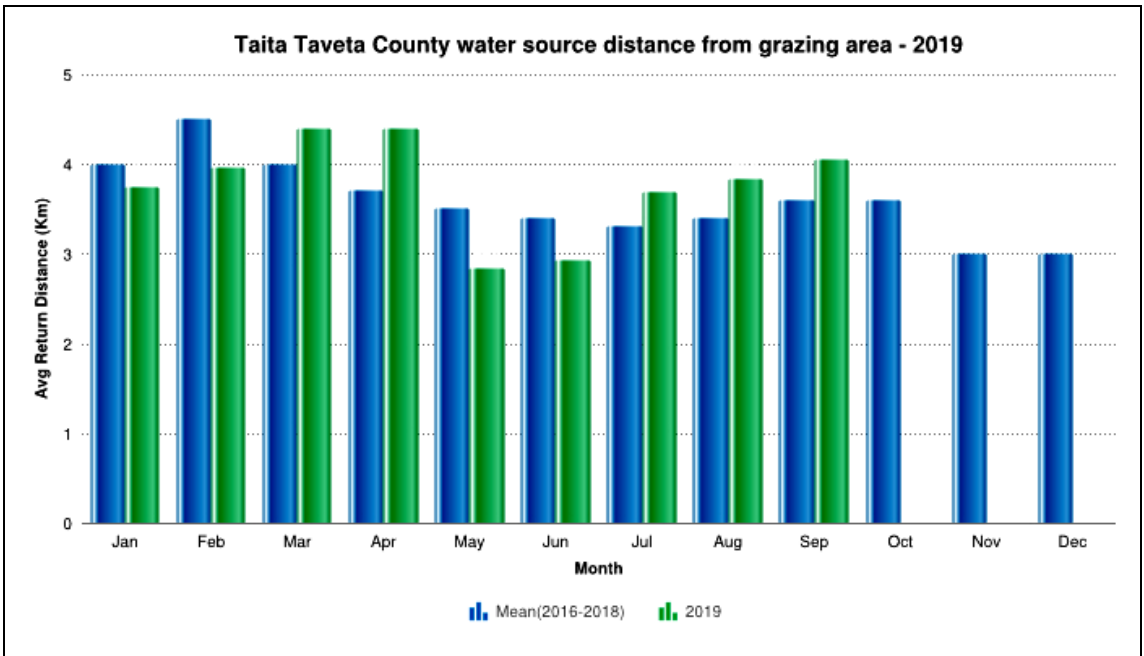


n=21Key Informants

- The county average water consumption per person per day was at 16.5 litres and represented as follows; mixed farming: horticulture/ dairy livelihood zone at 25.1 litres, mixed farming: irrigated cropping/ livestock livelihood zone at 20.7 litres and mixed farming: food crops/ livestock livelihood zone at 14.7 litres.
- Proportion of households purchasing water was at 83 percent compared to 73 percent posted in the previous month and price per 20 litre Jerry can ranged between Kshs 1 - 5 at source across all livelihood zones and Kshs 10 - 30 from vendors in Mata, Ngolia and Kasigau Wards due to varying distances.
- An estimated 20 percent of the sampled households treated water before drinking. Out of these 83, 7 and 10 percent practised use of water treatment chemicals, filtration and boiling respectively compared to 79, 12 and 9 percent that used water treatment chemicals, filtration and boiling respectively posted in the previous month.
- Households treating water before drinking by livelihood zone was as follows; Food crop/ livestock zone 8 percent, irrigated cropping/ livestock zone 100 percent and in Horticulture/ dairy zone no household treated water given that piped water system was treated at the source.

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

- Return distance to water source from grazing areas increased to 4.1 km from 3.8 km and above long term average by 14 percent as indicated in the graph below.
- In all livelihood zones frequency of watering was maintained at once per day for cattle and goats as compared to the past month.
- However, in the mixed farming: horticulture/ dairy livelihood zone watering for cattle and sheep was twice a day.



n=21Key Informants

### 3. PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

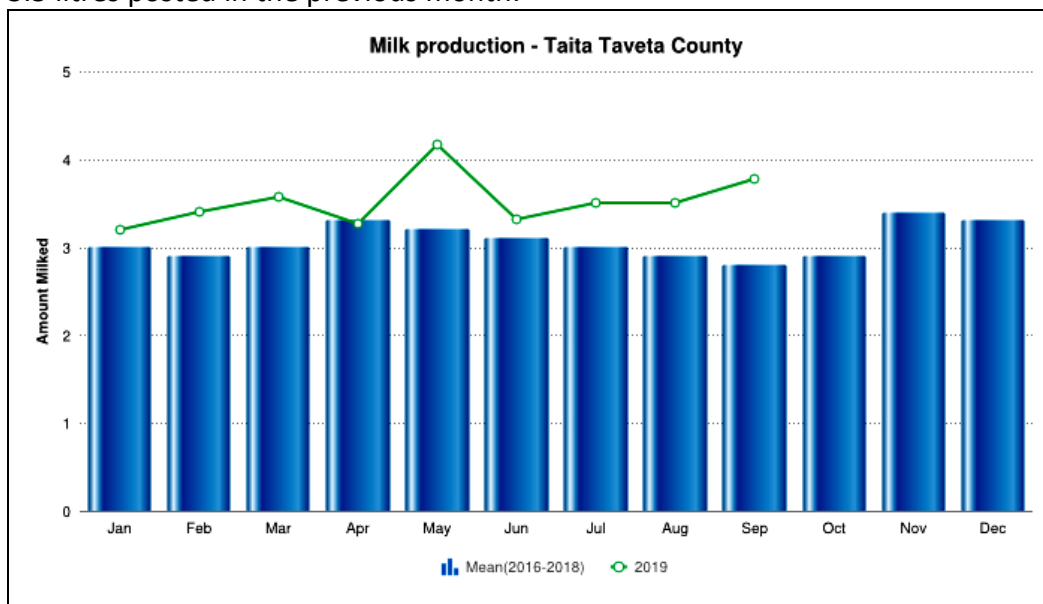
- The livestock body condition for all species was good across the county in exception of a few pockets in Ngolia ward where cattle body condition was poor.
- In all livelihood zones more than 90 percent of cattle observed were in good body condition.
- Livestock body condition for all species remained normal compared to previous month.

##### 3.1.2 Livestock Diseases

- Cases of Foot and Mouth disease were reported in Kishushe and CCPP in Taveta Sub County. Outbreaks of FMD and clinically confirmed LSD last month resulted to quarantine being enforced to restrict movement in Mwatate, Taveta, Kasigau Ward and Taita areas of Mwanda – Mghange and Wundanyi – Mbale Wards.

##### 3.1.3 Milk Production

- The average milk production (cow) per household per day rose to 3.8 litres compared to 3.5 litres posted in the previous month.



n=210 HHs

- Milk production for the month under review was above normal by 36 percent.
- Mixed farming: horticulture/ dairy livelihood zone milk production was at 7.5 litres, in the mixed farming: irrigated cropping/ livestock livelihood zone at 3.7 litres and lowest at 3.2 litres in the mixed farming: food crop/ livestock livelihood zone.

#### 3.2 RAIN-FED CROP PRODUCTION

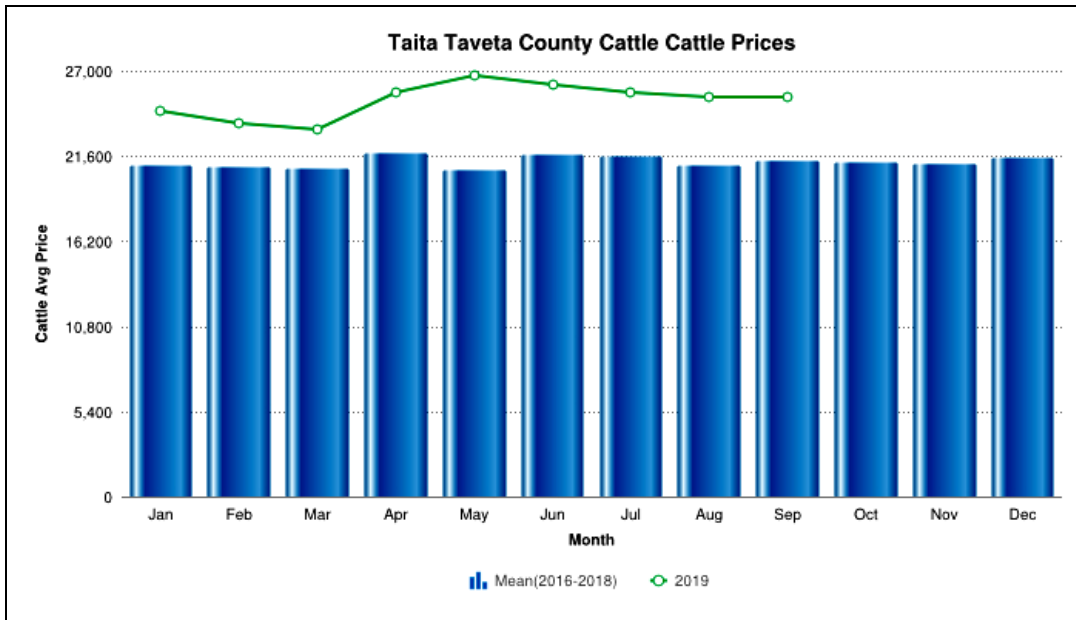
##### 3.2.1 Stage and Condition of food Crops

- Farmers were busy preparing their land in rain fed farming zones during the month under review. In the irrigated zone, farmers were busy harvesting tomatoes.

#### 4. MARKET PERFORMANCE

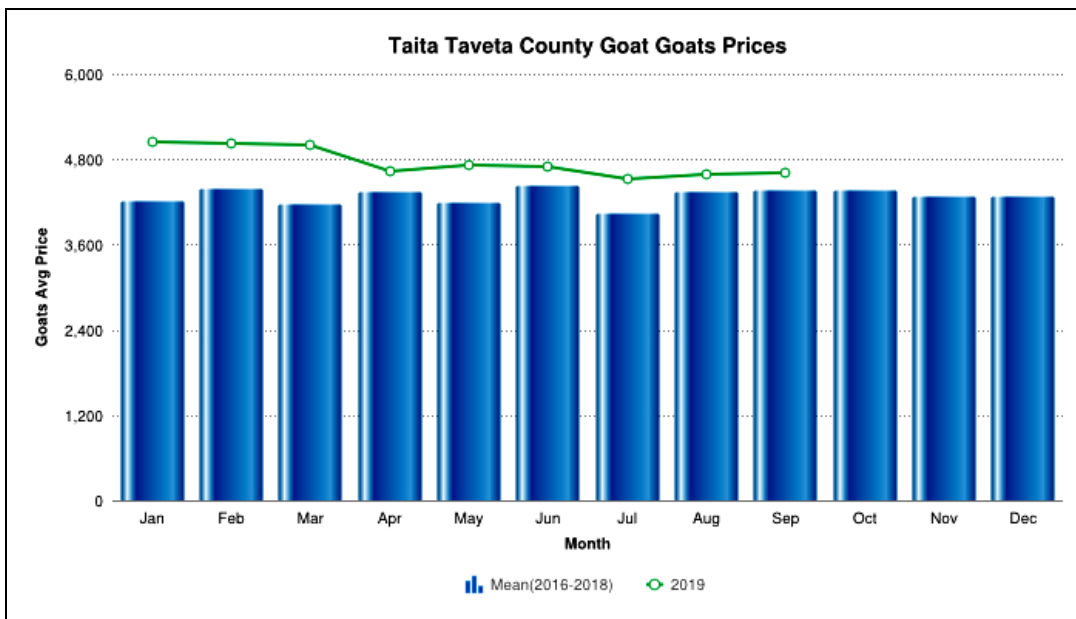
##### 4.1 LIVESTOCK MARKETING

##### 4.1.1 Cattle Prices



- The average market price of a three-year-old bull remained relatively stable at Kshs 26,000 compared to the previous month.
- The highest prices were reported in the mixed farming: horticulture/ dairy livelihood zone of Kshs 30,000 and food crops/ livestock of Kshs. 35,000 while lower prices were reported in mixed farming: irrigated cropping/ livestock livelihood zone at Kshs 22,000.
- Compared to the long term mean, the county average price was higher by 20 percent.

##### 4.1.2 Goat Prices

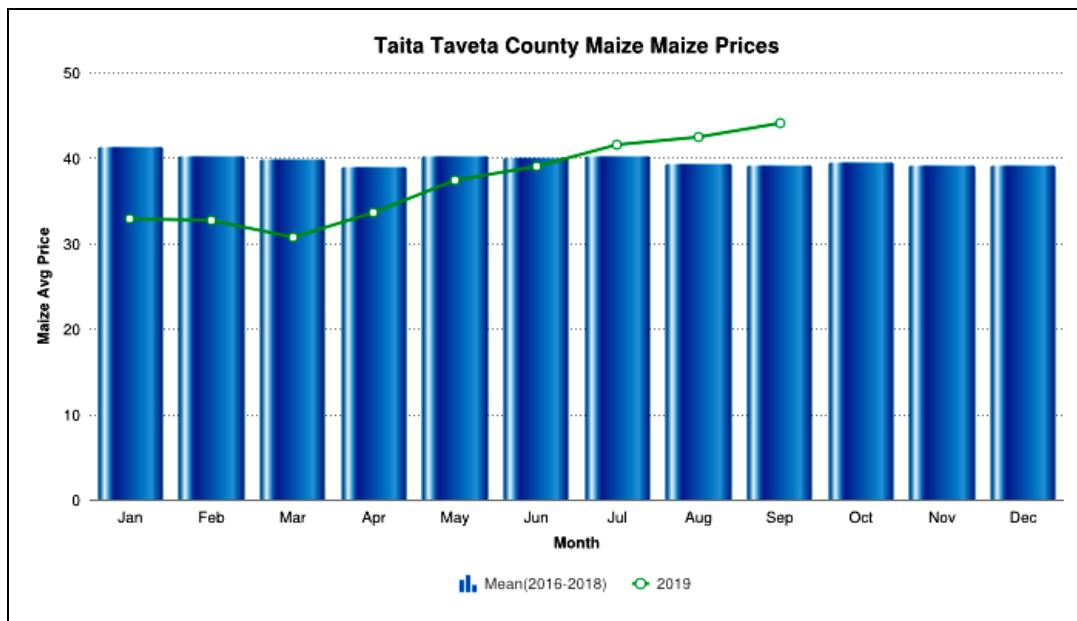




- The county average market price of a two-year-old goat remained relatively stable at Kshs 4,600.
- The highest prices were reported in the mixed farming: horticulture/ dairy livelihood zone of Kshs 6,000 where farmers keep improved breeds that can withstand climatic conditions in the highlands, while lower prices of Kshs 3,500 were reported in both mixed farming: food crop/ livestock livelihood zone and mixed farming: irrigated cropping/ livestock livelihood zone.
- Compared to long term mean, the average price was higher by six percent.

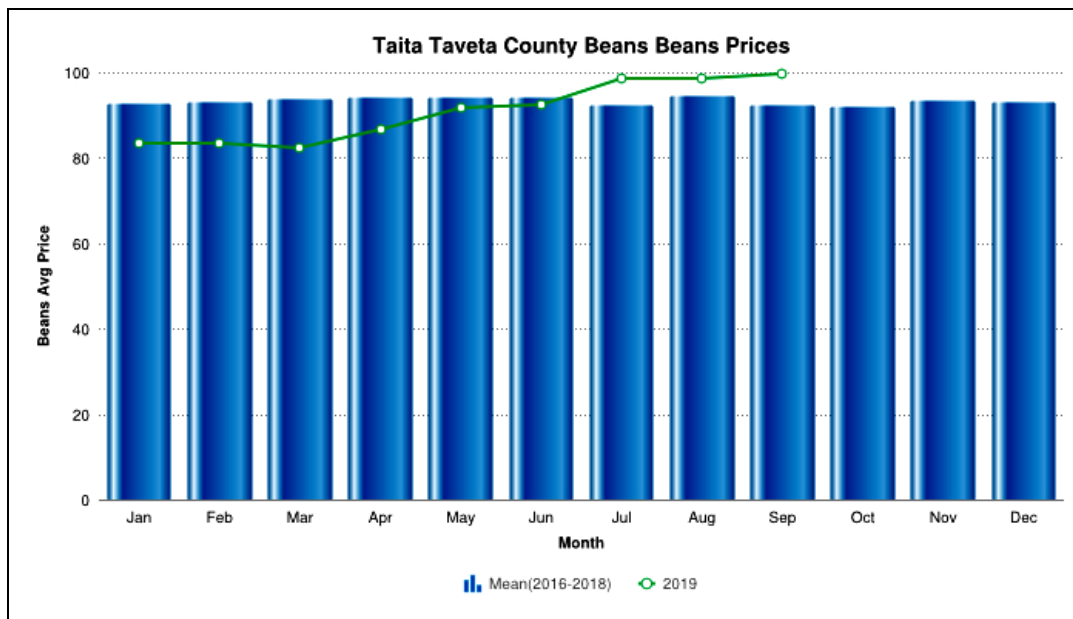
## 4.2 CROP PRICES

### 4.2.1 Maize



- The average market price of a kilo of maize increased to Kshs 44 compared to Kshs 42 posted in the previous month and above the long term average by 13 percent.
- Above average prices were reported due to increased demand for the product in the markets given that most households have depleted their maize stocks. From household interviews 65 percent relied on markets and 35 percent on own production.
- Across the livelihood zones the price varied with the mixed farming: food crops/ livestock livelihood zone (Ghazi, Rukanga and Mwatate markets) recording high prices of Kshs 46.00; mixed farming: horticulture/ dairy livelihood zone (Mghambonyi) of Kshs 40; Mixed farming: irrigated/livestock livelihood zone (Mboghoni, Challa, Chumvini and Taveta markets) in Taveta Sub County reported prices of Kshs 43.00 per kilo.

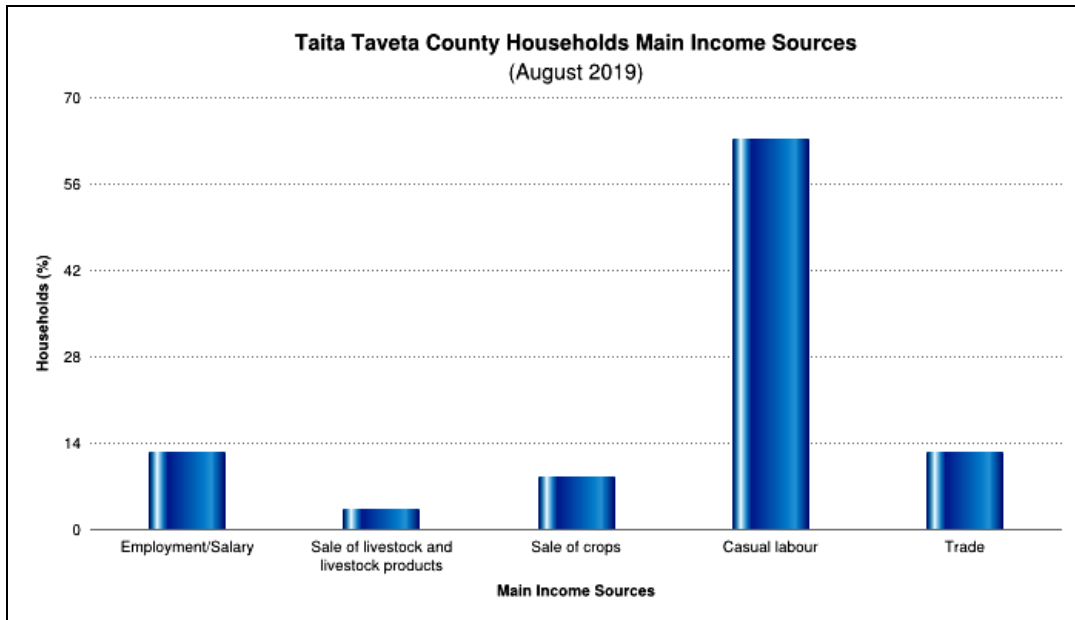
## 4.2.2 Beans



- The average market price of a kilo of beans increased to Kshs 100 compared with Kshs 99 posted in the previous month and above the long term mean by 8 percent. Above normal price was due to increased demand at the market level emanating from depleted bean stocks at household level where 65 percent of household interviewed relied on purchase of food while the rest relied on own production.
- Across the livelihood zones the price varied with the mixed farming: food crops/ livestock livelihood zone (Ghazi, Rukanga, Mwatate and Bura markets) recorded the highest price of Kshs 100; mixed farming: horticulture/ dairy livelihood zone (Mghambonyi market) of Kshs 90 and mixed farming: irrigated/livestock livelihood zone (Mboghoni, Challa, Chumvini and Taveta markets) in Taveta Sub County of Kshs 100.00 per kilo.

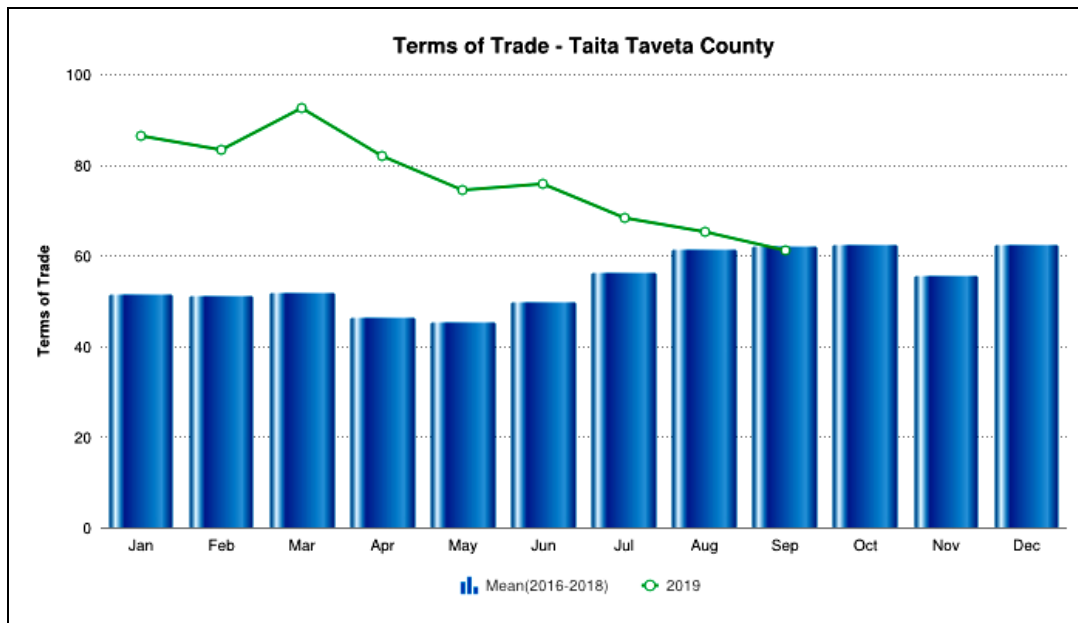
## 4.3 INCOME

- 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.
- Compared to previous month sources of income remained relatively stable.
- Casual labour opportunities were available in the sisal and banana plantations, irrigation schemes, mining sector, herding, ranches, building sites, road bush clearing and town centres.



n=210HHs

#### 4.4 TERMS OF TRADE (CASUAL LABOUR VERSUS MAIZE PRICES)

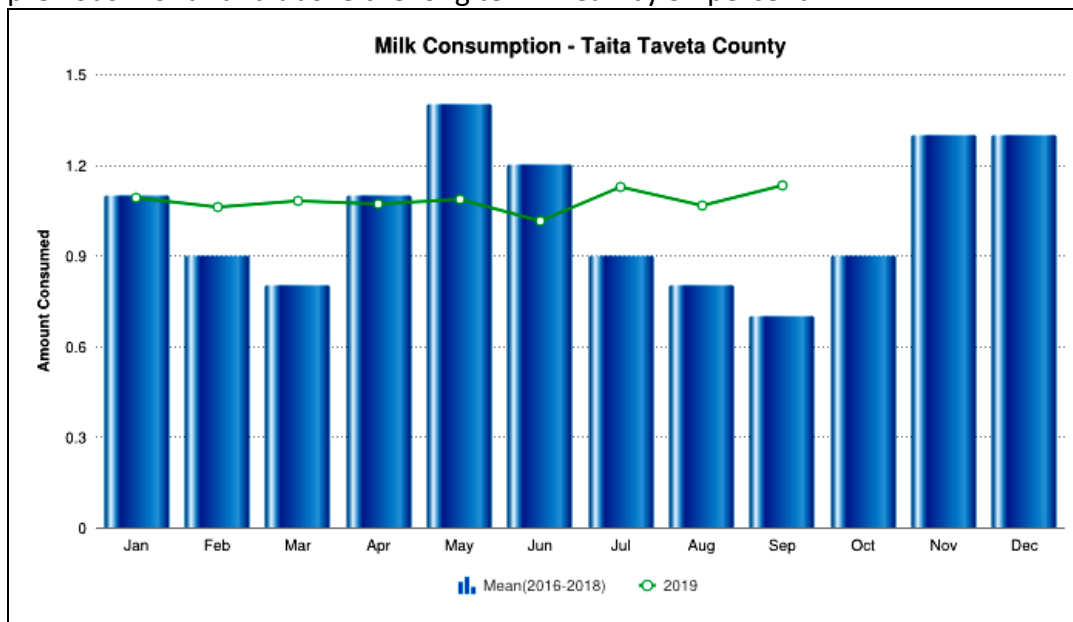


- The Terms of Trade (ToT) ratios dropped by six percent to 61 and relatively same to the long term mean, implying an unfavourable ToT due to increased prices of maize which have resulted to reduced purchasing power of household members.
- ToT ratios by livelihood zones were as follows; mixed farming: irrigated cropping/livestock livelihood zone at 96, mixed farming: food crops/livestock livelihood zone at 64 and mixed farming: horticulture/ dairy livelihood zone at 57.

## 5. FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

- Milk consumption per household per day stood stable at 1.1 litres compared to the previous month and above the long term mean by 57 percent.

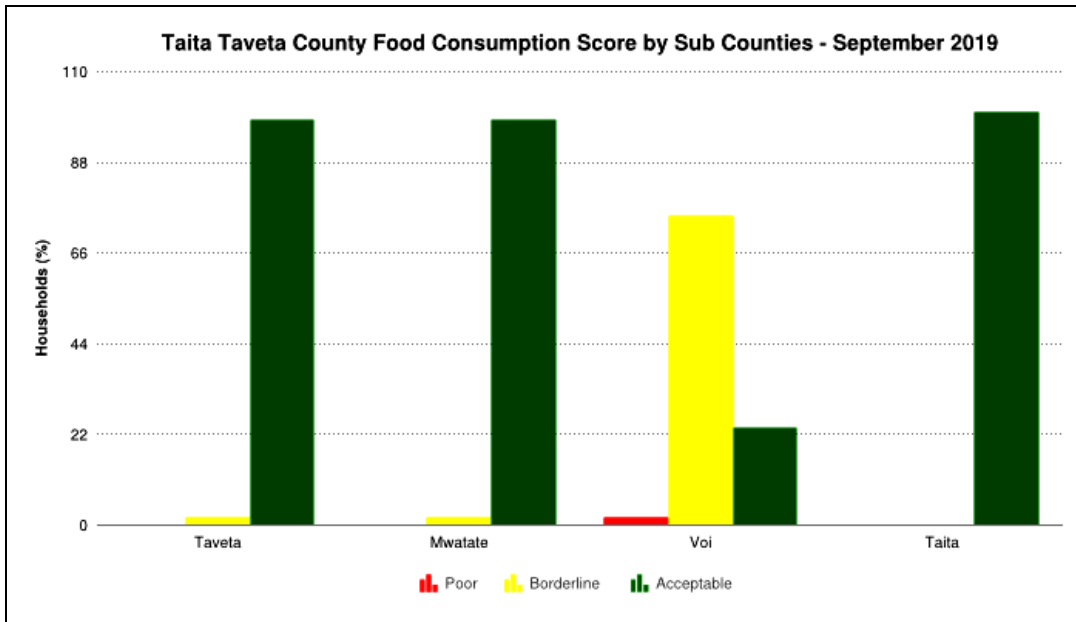


n=210 HHs

- Milk consumption per household per day in regard to livelihood zones; mixed farming: food crops/livestock (1.0 litre), mixed farming: horticulture/ dairy (1.1 litres) and mixed farming: irrigated cropping/livestock (1.4 litres).

### 5.2 FOOD CONSUMPTION SCORE

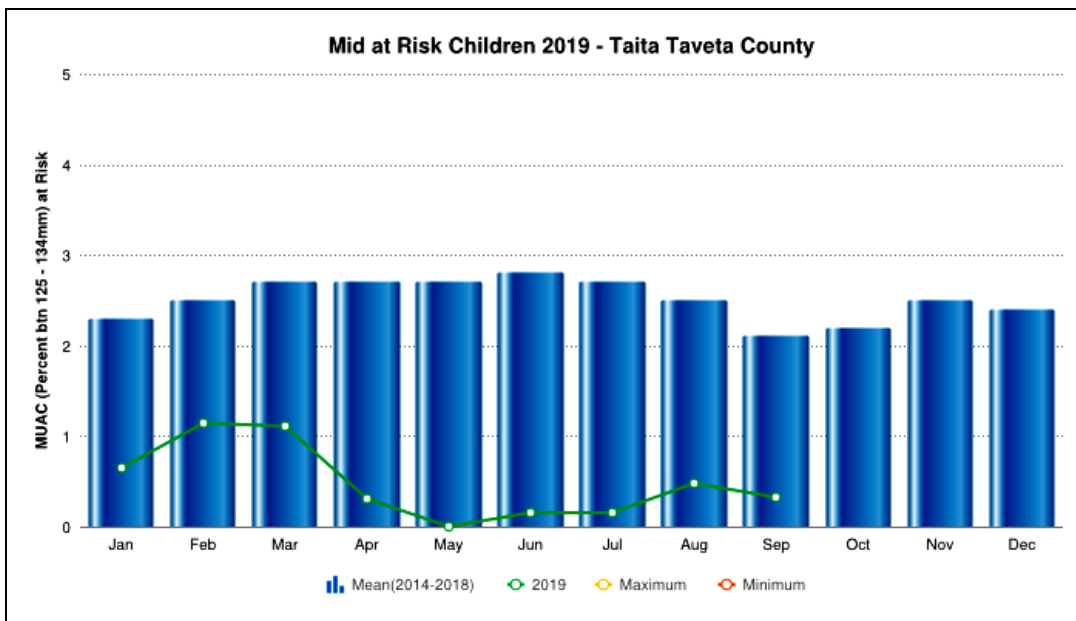
- The prevalence of households with acceptable, borderline and poor food consumption score (FCS) was at 77.1, 22.4 and 0.48 percent respectively.
- Compared with previous month, food consumption in terms of dietary diversity in the county remained the same.
- Compared with similar period in 2018 where prevalence was at 50, 45 and 2 percent for borderline, acceptable and poor FCS respectively, household consumption is currently much better given that more households are in the acceptable food consumption category.
- The current mean food consumption score remained stable at 49.4 compared to 49.3 posted in the previous month.
- The mean FCS score was high in the mixed farming: irrigated cropping/ livestock livelihood zone recorded at 80.9 while mixed farming: horticulture/ dairy livelihood zone and mixed farming: food crop/ livestock livelihood zone recorded the lower values of 48.1 and 43.4 respectively. In all the zones most households consumed three food groups i.e. maize, pulses and vegetables and in addition meat and milk was served during the seven days recall period.



n=210HHs

### 5.3 HEALTH AND NUTRITION STATUS

- A total of 623 children below five years were sampled for MUAC measurement where proportion of male and female was at 56 and 44 percent respectively.



#### 5.3.1 Nutrition Status

- The proportion of children at risk of malnutrition (125 – 134 mm) decreased to 0.3 percent from 0.5 percent recorded in the previous month due to ongoing health and nutrition interventions.
- No cases of GAM by MUAC (moderate 115-124mm) and (Severe<115) were recorded.
- The current proportion of MUAC (125 - 134) was lower than LTM by 86 percent.

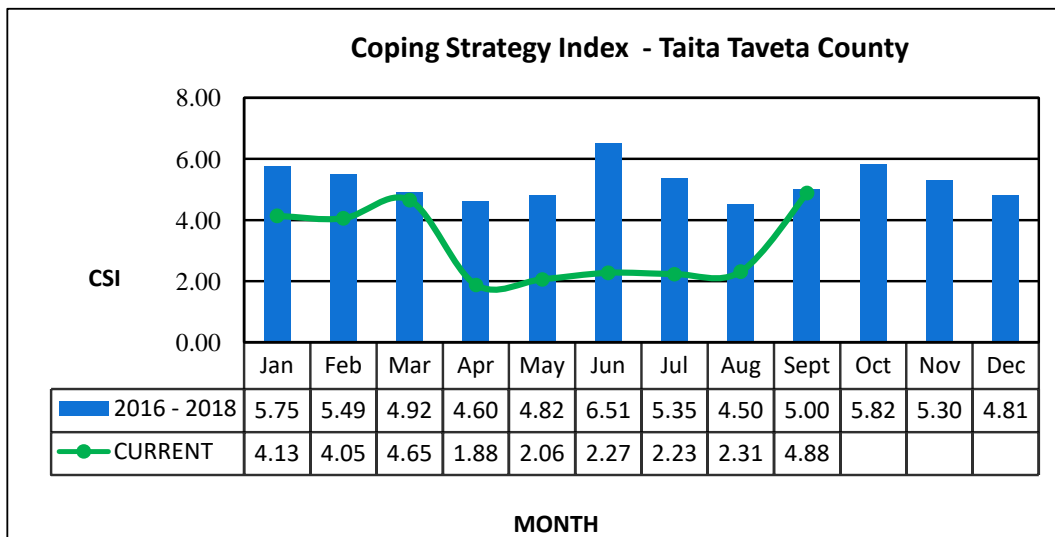
- Across all livelihood zones nutrition status of children below five years remained good in the seven sampled sentinel sites.

### 5.3.2 Health

- Out of the 623 sampled children three percent were reported to be ailing from fever with chills like malaria.

### 5.4 COPING STRATEGIES

- The average Coping Strategy Index (CSI) increased to 4.88 compared to 2.31 posted in the previous month and relatively same to the long term average. The significant increase in consumption based coping strategies was reported in Ngolia Ward areas of Mwakajo.
- Generally, most sampled households employed consumption based coping strategies that were within the normal range.
- The current CSI indicate that households are coping more compared to similar period last year where CSI was at 2.59.
- Highest CSI was recorded in mixed farming: food crop/ livestock livelihood zone at 4 while in the mixed farming: horticulture/ dairy livelihood zone CSI was at 3. None of the consumption based coping strategies were employed by households in the mixed farming: irrigated cropping/ livestock livelihood zone.
- 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 and Nutrition Sector</b>		
Improve Health and Nutrition	<ul style="list-style-type: none"> <li>• Distribution of micronutrients powders for home fortification</li> <li>• Capacity building on Agrinutrition - A total of 597 HHs (with children 6 – 23 months) reached</li> <li>• Received assorted nutrition commodities from KEMSA for management of acute malnutrition</li> <li>• Launched adolescent nutrition programme in Mlilo and Mwanyambo schools</li> </ul>	Dept of Health and Nutrition
<b>Agriculture and Livestock Sector</b>		
Provision of water for irrigation	<ul style="list-style-type: none"> <li>• Excavation of Mkuru water pan in Kishushe</li> </ul>	Dept of Agriculture, Livestock & Irrigation
Promotion of Banana production, Transformation and Transportation	<ul style="list-style-type: none"> <li>• Construction of Banana Marketing and Processing Plant</li> </ul>	Dept of Agriculture & Livestock – EU
Improved livestock health and nutrition	<ul style="list-style-type: none"> <li>• Procurement of vaccines complete – logistics for delivery underway</li> </ul>	Dept of Agriculture, Livestock & Irrigation
<b>Department of water</b>		
Provision for water	<ul style="list-style-type: none"> <li>• Water trucking; Voi-Upper Ikanga, Whitehouse (Kwa Ziro), Kajire. Mwatate- Mkuki, Jhombo, Mgheno, parts of Landi. Taita- Kishushe.</li> </ul>	Department of Water

## 7. EMERGING ISSUES

### 7.1 Insecurity/ Conflict/ Human Displacement

- No major cases of conflict or human wildlife conflict reported in the month under review.

### 7.2 Migration

- In migration reported in Challa Ward where herders from Rombo were renting grazing areas.

### 7.3 FOOD SECURITY PROGNOSIS

- The meteorological department forecasted early onset and above normal short rains.
- Availability of short term maturing crops due to short rains is expected to improve food situation in the county. Relieve farmers from the burden of purchasing food that is of high prices.

- Water situation is expected to improve given that most open water sources will be replenished due to the rains plus household level water harvesting structures will be recharged.
- Livestock body condition is expected to improve due to regeneration of pasture and browse.
- Nutrition status of children below five years is expected to be good.

## **8. RECOMMENDATIONS**

### **Agriculture and Livestock Sector**

- Surveillance, prevention and control on FMD, CCPP, LSD, RVF.
- Up scaling of fodder and pastures conservation and preservation.

### **Multi-sectoral**

- Rapid drought assessment targeting hotspots of Ngolia Ward.