National Drought Management Authority

TAITA TAVETA COUNTY
DROUGHT EARLY WARNING BULLETIN FOR JUNE 2019

NDMA

A Vision 2030 Flagship Project

KENYA VISION 2030

JUNE 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	Deteriorating
Mixed Farming: Irrigated Cropping/ Livestock/Food Crops	Normal	Stable
National Park	Normal	Deteriorating
County	**Normal**	**Deteriorating**

Drought Situation & EW Phase Classification

Biophysical Indicators

- The County experienced light rains that were within the normal range (3 Months Anomaly).
- The light showers were realized in the highlands of the county.
- The county vegetation greenness condition was above the normal range (3 Months VCI 38.58). Voi Sub County exhibited moderate vegetation deficit.

Socio Economic Indicators (Impact Indicators)

Production Indicators

- The few maize crop planted was drying up at the flowering stage. Beans crop performed poorly due to water logging of farms in the highlands and acrage put under green grams and cow peas was far much below normal.
- Livestock body condition was good for all species.
- Milk production per HH per day was above normal.

Access Indicators

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

Utilization Indicators

- The proportion of children at risk of malnutrition remained within the long term average an implication of improved nutrition status.

Biophysical Indicators	Value	Normal Range/ Value
Rainfall 3 Months Anomaly	104	80 - 120
VCI-3Month	38.58	35 - 50
Production indicators	**Value**	**Normal**
Crop Condition (maize)	Withering	Grain filling
Livestock Body Condition for cattle	Good	Good
Milk Production per HH/ day	3.3	3.1 Litres
Livestock Migration Pattern	Normal	Normal
Access Indicators	**Value**	**Normal**
Terms of Trade (Casual labour Vs maize prices)	75.6	49.5
Milk Consumption per HH/ day	1.0	1.2 Litres
Return HHs distance to water sources	2.5	2.2 Km
Water source return distance from grazing areas	2.9	3.4 Km
Cost of water (20 litres)	3.00	< Kshs 5.00
Utilization indicators	**Value**	**Normal**
Nutrition Status, MUAC (% at risk of malnutrition)	0.2	<3.0

Seasonal Calendar

▪ Short rains harvests ▪ Increased HH Food Stocks ▪ Short dry spell ▪ Reduced milk yields ▪ Land preparation	▪ Planting/Weeding ▪ Long rains ▪ High Calving Rate ▪ Milk Yields Increase ▪ Flash floods - Taveta	▪ Long rains harvests ▪ Increased HH Food Stocks ▪ A long dry spell ▪ Land preparation ▪ Kidding (Sept)	▪ Short rains ▪ Planting/weeding ▪ Flash floods - Taveta

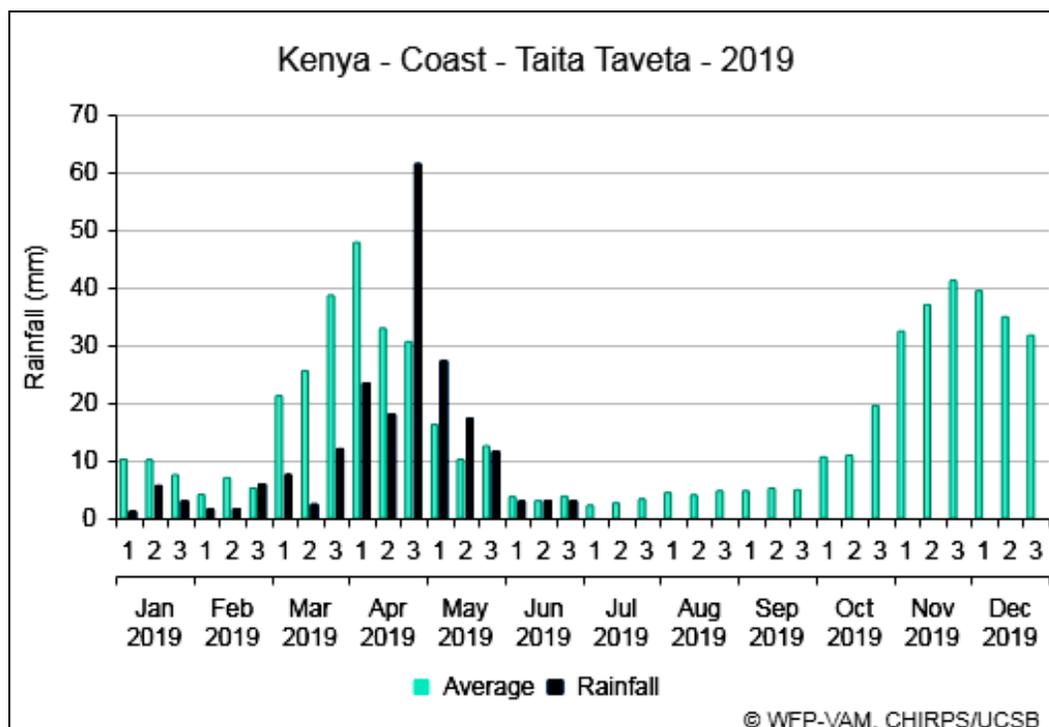| Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE
- The county experienced light showers in the month under review mainly in the highlands of the County.
- 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 92 percent.
- The precipitation was spread across the month and recorded at 8.9 mm.
- The rainfall amounts were below the long term averages by 15.2 percent.
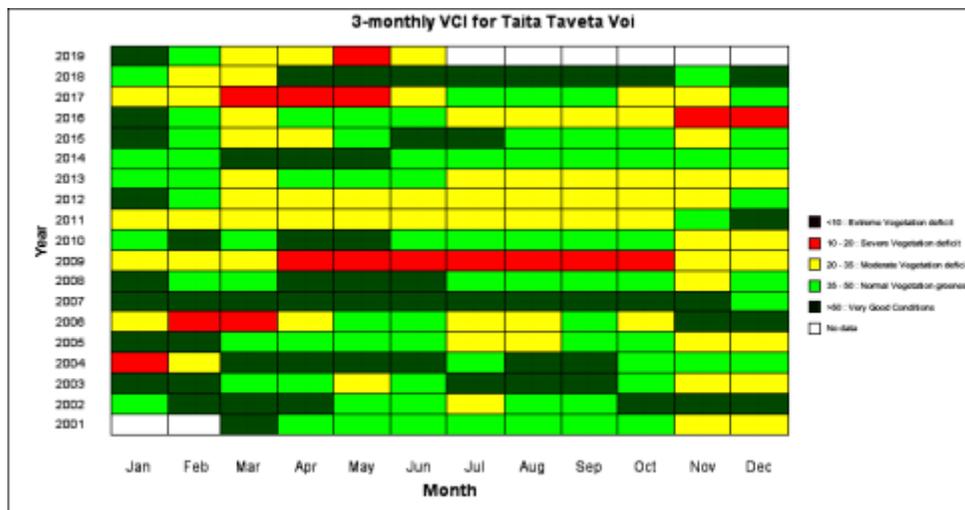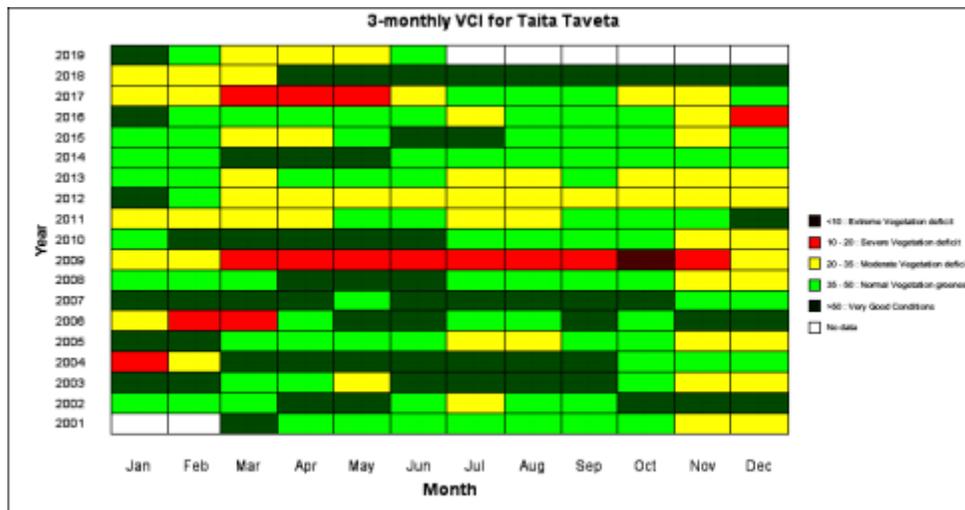
2.   IMPACTS ON VEGETATION AND WATER

2.1   VEGETATION CONDITION
2.1.1   Vegetation Condition Index (VCI)

- The vegetation greeness condition in the county was within the normal range as depicted by a 3 months vegetation condition index (3M - VCI) value of 38.58.
- All Sub Counties fell in the normal vegetation greenness band expect Voi Sub County which had 3M - VCI values of 28.4 being in the moderate vegetation deficit band.

3-monthly VCI for Taita Taveta

3-monthly VCI for Taita Taveta Voi

2.1.2   Pasture
- From the sampled communities 62, 33 and five percent reported pasture condition to have been good, fair and poor respectively. The situation was reported to be normal compared to similar season in the previous year.
- Pasture condition has deteriorated in lower parts of the county that did not receive good rains during the season. These areas are lower parts of Ngolia Ward and Marungu Ward in Voi Sub County; Mwaroko, Sangenyi, lower parts of Wumingu/Kishushe Ward in Taita Sub County; Mgeno, Msau and Kighombonyi in Mwatate Sub County, and Mata and Challa Wards in Taveta Sub County.

- In comparison to the previous month pasture situation has deteriorated and respondents reported poor pasture condition in areas of Mbaramghondi and Mwakajo.
- Pasture variation by livelihood zone indicated the situation was better in the mixed farming: horticulture/ dairy located in the highlands compared to mixed farming; food crops/ livestock and mixed farming: irrigated cropping/ livestock livelihood zones situated in the lowlands of the county.
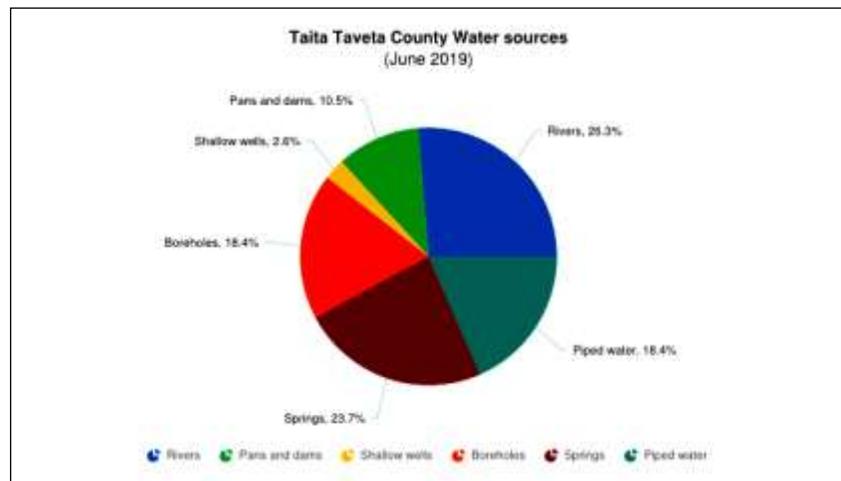
2.1.3 Browse
- From community interviews 67 and 33 percent of the respondents reported browse situation to have been good and fair respectively.
- Compared to the previous month, the browse situation deteriorated given that the number of respondents reporting good vegetation condition dropped by 14 percent.
- From community interviews 95 percent of respondents reported browse condition was normal for this time of the year while five percent reported browse condition to be above normal.
- Available browse is expected to cater for livestock for the next three months.

2.2 WATER RESOURCE
2.2.1 Sources
- The three main sources of water in use by both households and livestock were rivers, springs and piped water systems/boreholes and were relied upon by 26.3, 23.7 and 18.4 percent of the households respectively. Other sources included shallow wells and water pans.

Taita Taveta County Water sources (June 2019)

Pans and dams, 10.5%
Shallow wells, 2.6%
Rivers, 26.3%
Boreholes, 18.4%
Piped water, 18.4%
Springs, 23.7%

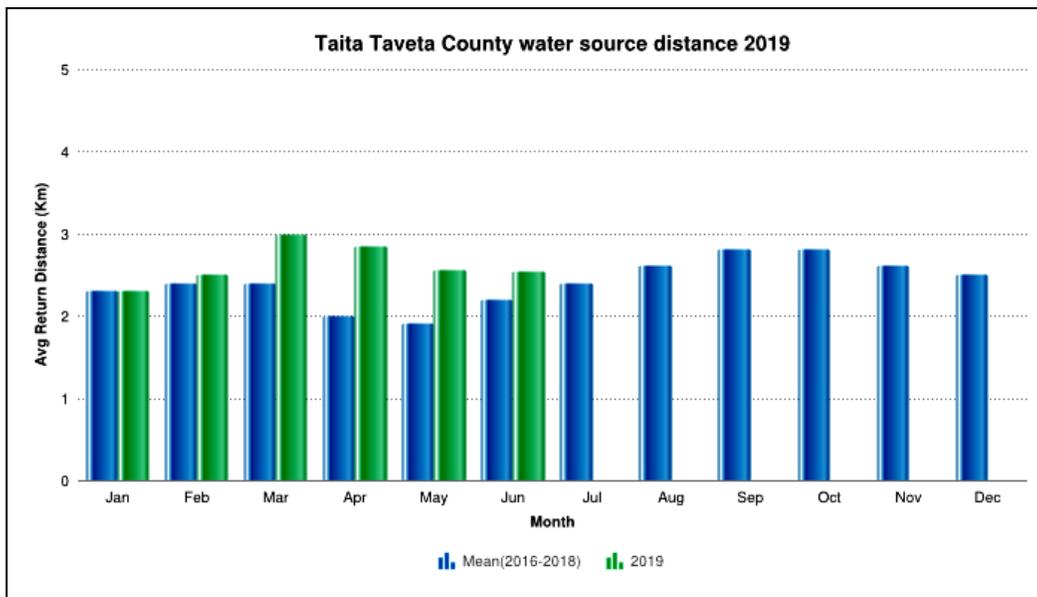Rivers ● Pans and dams ● Shallow wells ● Boreholes ● Springs ● Piped water

- The reliance on these sources slightly changed compared to the previous month where percentage of households that relied on shallow wells as their main source of water decreased by ten percent while piped water systems and boreholes rose by eight and five percent respectively due to current interventions being undertaken in the water sector.
- Water situation is expected to remain normal for the next two months in most parts of the county due to recharged water sources expect in lower parts of Ngolia and Wumingu/ Kishushe Wards and areas of Rong'e Nyika and Mgeno.

2.2.2 Household Access and Utilization of Water
- The average return distance from households to main water sources decreased to 2.5 km from 2.6 km posted in the previous month and above long term average by 14 percent. The downward trend in distances is majorly due to interventions being undertaken by stakeholders in the water sector through borehole and pipeline

development, for instance, in areas of Mlilo, Kangemi, lower Sagalla and Ndome/Mbololo.
▪ Also existing piped water systems in the county functioned normally due to recharge of major springs both in the highlands and lowlands.

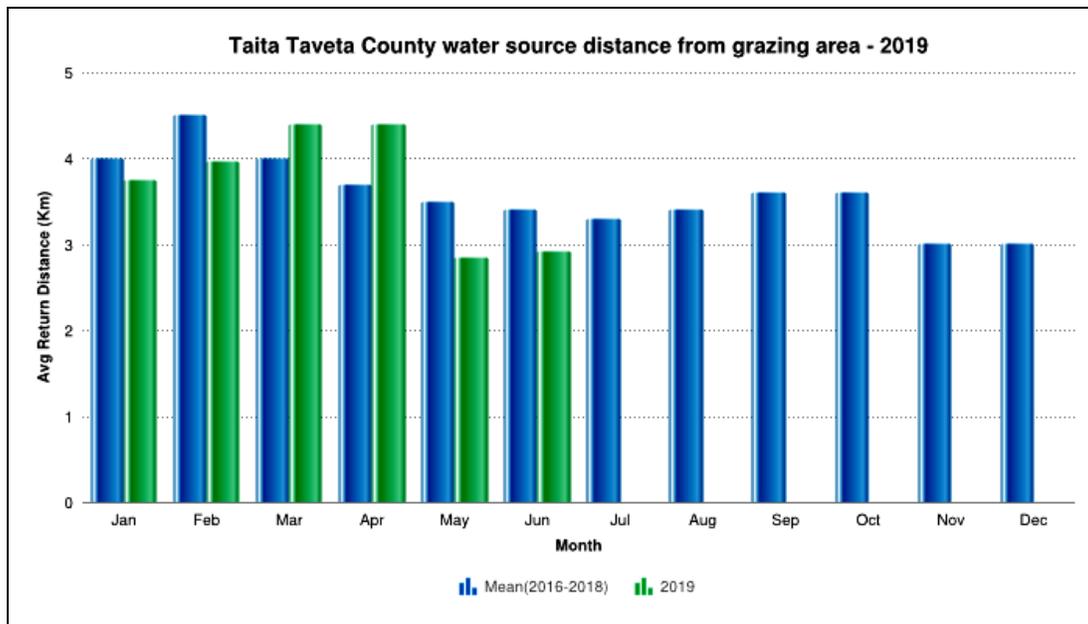Taita Taveta County water source distance 2019

n=21Key Informants

- Water consumption per person per day remained at 23, 19 and 9 litres in mixed farming: horticulture/ dairy livelihood zone, mixed farming: irrigated cropping/ livestock livelihood zone and mixed farming: food crops/ livestock livelihood zone respectively compared to 21, 19 and 10 litres posted in the past month.
- Households purchasing water was at 71 percent up from 64 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 10 - 20 Kshs from vendors in Kishushe, Mata, Chunga Unga, Mwakitau, Mwakajo, Kisimenyi and Ngambenyi. The cost of transportation was pegged on distance.
- An estimated 17 percent of the sampled households treated water before drinking. Out of these 92, 8 and 5 percent practised use of water treatment chemicals and boiling respectively compared to 76, 19 and 5 percent (water treatment chemicals, boiling and filtration) posted in the previous month.
- Households treating water before drinking by livelihood zone was as follows; Food crop/ livestock zone two percent, Horticulture/ dairy ten percent and irrigated cropping/ livestock 100 percent.

2.2.3 Livestock Trekking Distance to Water Sources from Grazing Areas
▪ Return distance to water source from grazing areas remained stable at 2.9 km as posted in the previous month and below long term average by 15 percent as indicated in the graph below. During the month under review most open water sources contained water.
▪ 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.

Taita Taveta County water source distance from grazing area - 2019

n=21Key Informants

3. PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION
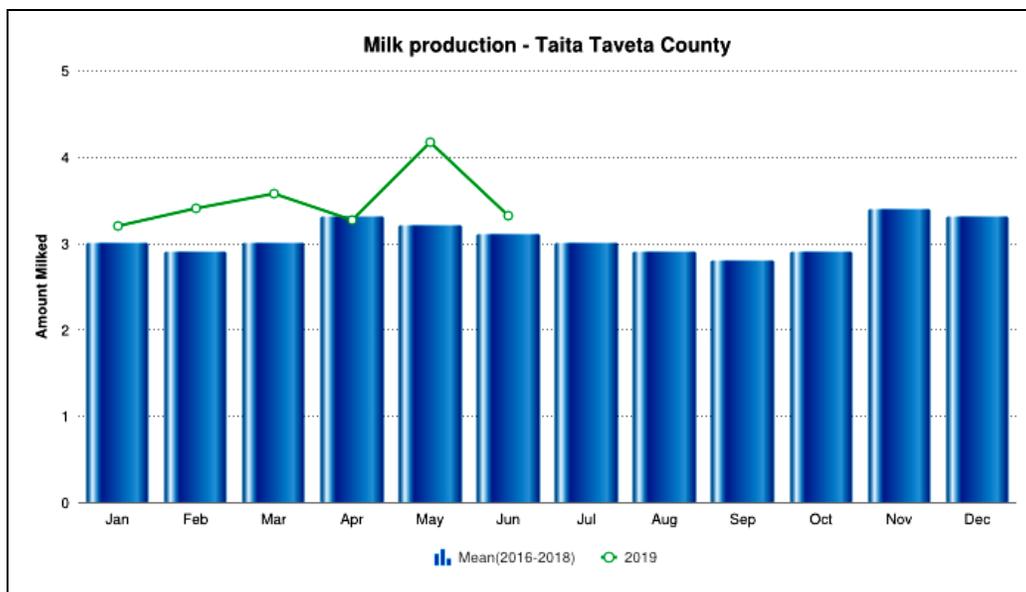#### 3.1.1 Livestock Body Condition
- The livestock body condition for all species was good across the county.
- In all livelihood zones more than 90 percent of cattle observed were in good smooth appearance and moderate, neither fat nor thin categories.
- Cattle body condition is expected to deteriorate mainly in areas where pasture scarcity was reported.
- Compared with a similar previous period pasture condition was normal.

3.1.2 Livestock Diseases
- No abnormal disease outbreak was reported.

3.1.3 Milk Production
- The average milk production (cow) per household per day dropped by 21 percent to 3.3 litres compared to the previous month. The sharp drop was reported in Wusi Ward where several households reported milking cow had reached the drying-off period therefore only a few cows were milked.

n=210 HHs

- Milk production for the month under review was above the normal by six percent.
- Relatively, quantity of milk produced per household per day was highest in the mixed farming: horticulture/ dairy livelihood zone at nine litres, in the mixed farming: irrigated cropping/ livestock livelihood zone at three litres and lowest at two litre in the mixed farming: food crop/ livestock livelihood zone compared to eight, four and two litres respectively recorded in the past month.

3.2 RAIN-FED CROP PRODUCTION
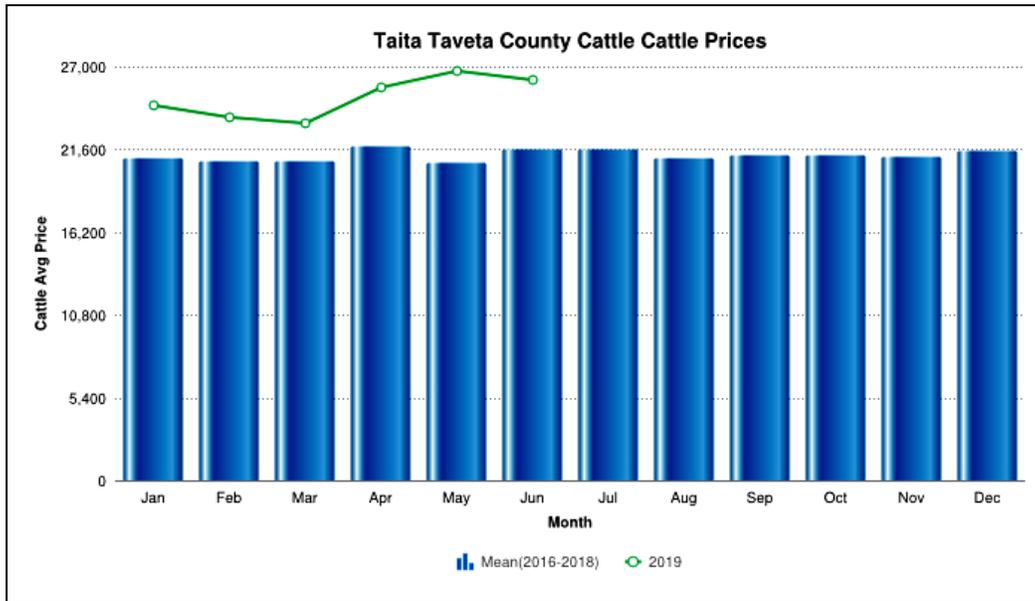#### 3.2.1 Stage and Condition of food Crops
- Maize crop was drying up during the critical stages of flowering stage and grain filling due to moisture stress.

- Beans in the highlands performed poorly due to water logging and in the lowlands of Taita Sub County where beans is the major crop planted in areas of Sangenyi and Mwaroko farmers did not plant due to unpredictable rain season. This also adversely affected green grams and cowpeas farmers.
- Other areas that planting never took place are; Paranga, Mlilo, Mbaramghondi, Mwakajo and rain fed areas of Challa Ward.
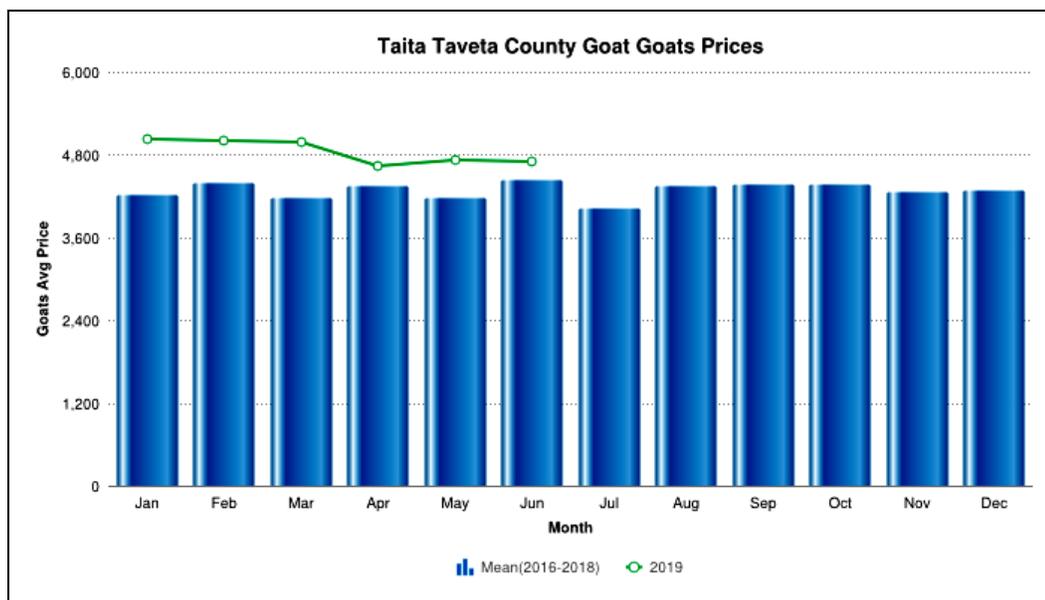
4.   MARKET PERFORMANCE

4.1   LIVESTOCK MARKETING
4.1.1   Cattle Prices

Taita Taveta County Cattle Cattle Prices

- The average market price of a three year old bull remained relatively stable at Kshs 26,000 compared to the previous month. Prevailing good body condition for cattle established good prices in the County.
- The highest prices were reported in the mixed farming: food crops/ livestock of Kshs 36,000 and horticulture/ dairy livelihood zone of Kshs 30,000 while lower prices were reported in mixed farming: irrigated cropping/ livestock livelihood zone at Kshs 21,000.
- Compared to the long term mean, the county average price was higher by 21 percent.
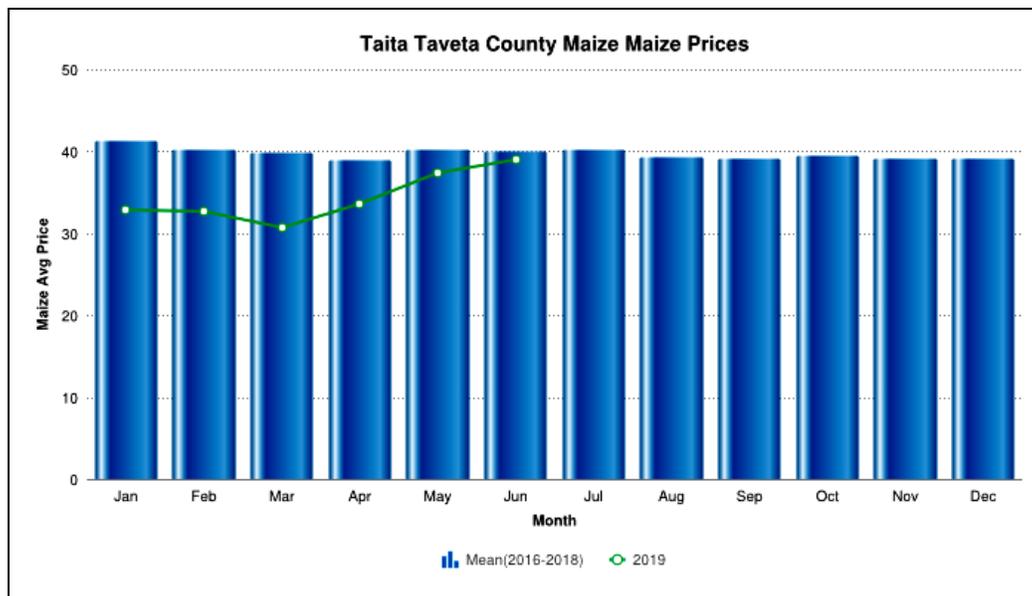
4.1.2   Goat Prices

Taita Taveta County Goat Goats Prices

- The county average market price of a two year old goat remained at Kshs 4,700 compared the price posted in the past month.
- The highest prices were reported in the mixed farming: horticulture/ dairy livelihood zone of Kshs 6,000, the lower prices were reported in mixed farming: food crop/ livestock livelihood zone and mixed farming: irrigated cropping/ livestock livelihood zone each at Kshs 4,000. The difference in price is due to improved breeds kept mainly in the highlands of the county.
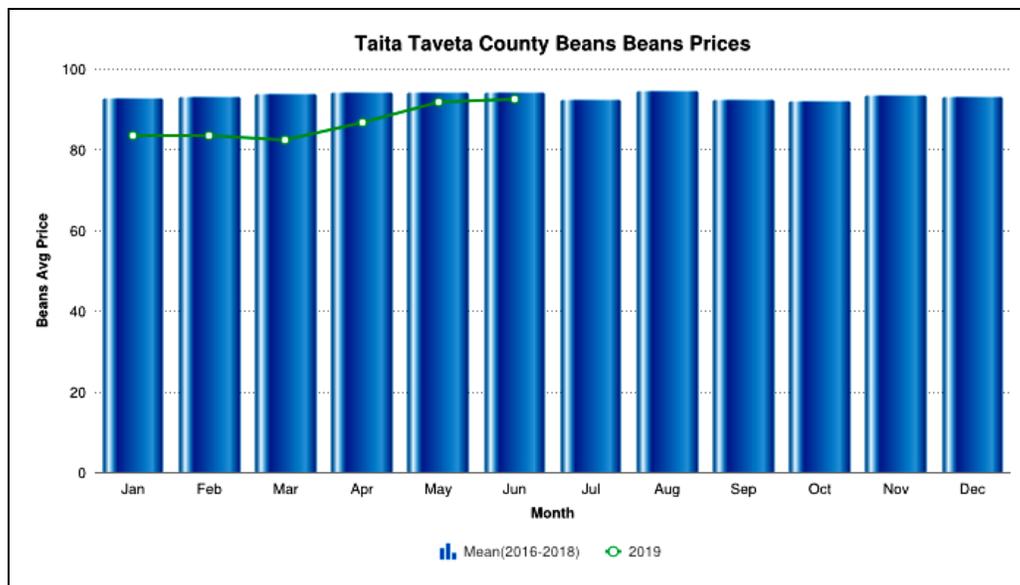- Compared to long term mean, the average price was higher by six percent.

4.2 CROP PRICES
4.2.1 Maize

Taita Taveta County Maize Maize Prices

- The average market price of a kilo of maize rose by four percent to Kshs 39 compared to the previous month and relatively similar to the long term average.
- The increase in price was a result of increased in demand for the product in the markets given that most households have depleted their maize stocks.
- Across the livelihood zones the price varied with the mixed farming: food crops/ livestock livelihood zone (Ghazi, Rukanga, Mwatate and Bura markets) recording high prices of Kshs 44.00; mixed farming: horticulture/ dairy livelihood zone (Mghambonyi) of Kshs 38; Mixed farming: irrigated/livestock livelihood zone (Mboghoni, Challa, Chumvini and Taveta markets) in Taveta Sub County reported lowest prices of Kshs 35.00 per kilo.

4.2.2   Beans

Taita Taveta County Beans Beans Prices

- The average market price of a kilo of beans rose by six percent to Kshs 91.70 compared with previous month and below the long term mean by three percent. Upward trend of price was resulted by increased demand for the product due to stocks depletion at household level.
- 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 102; Both mixed farming: horticulture/ dairy livelihood zone (Mghambonyi market) and mixed farming: irrigated/livestock livelihood zone (Mboghoni, Challa, Chumvini and Taveta markets) in Taveta Sub County reported lowest prices of Kshs 87.00 per kilo.
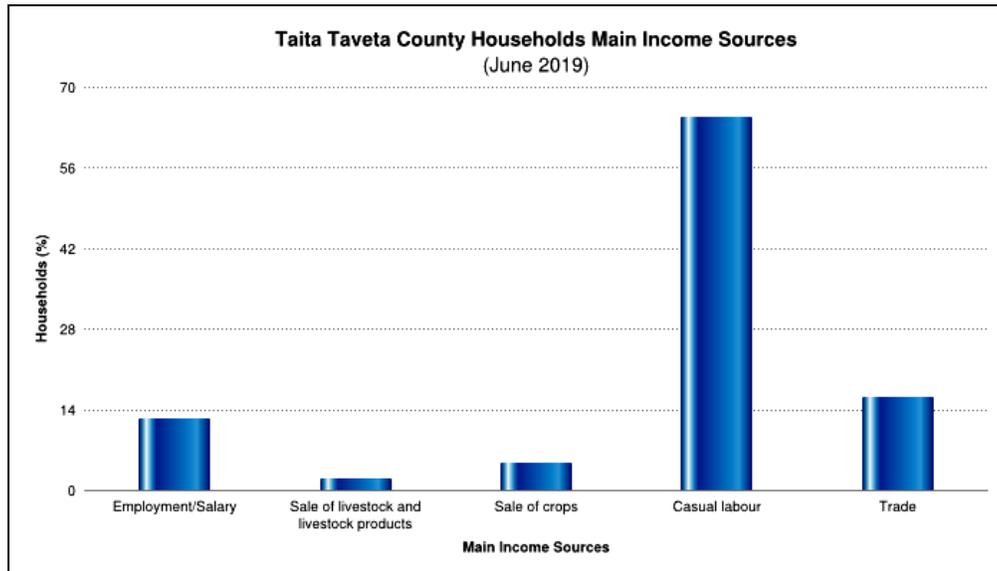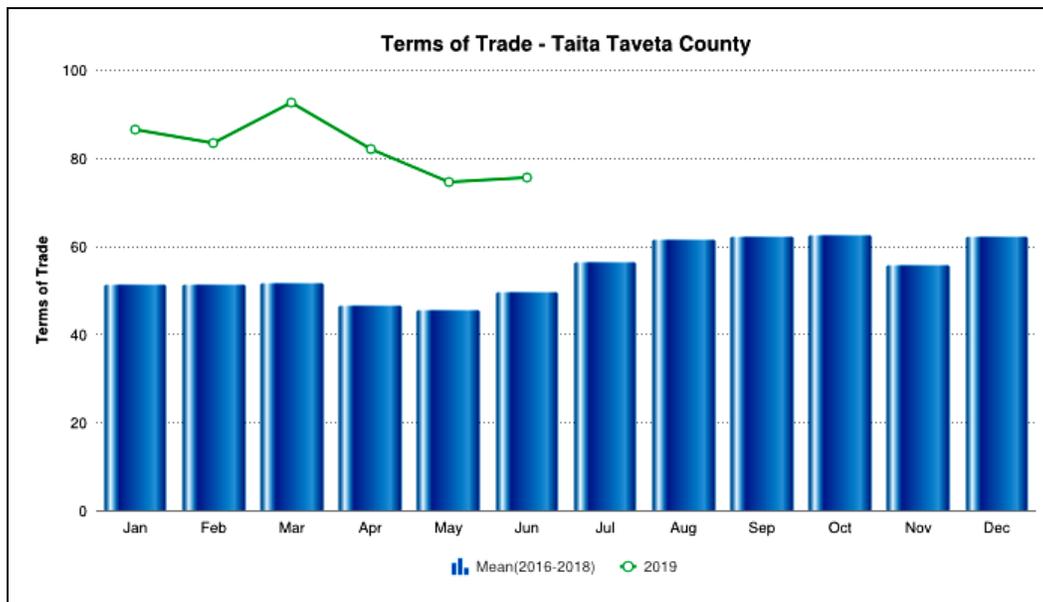
4.3   INCOME

- 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. However compared to a similar period last year sale of livestock and livestock products and sale of crops were higher by 44 and 69 percent respectively. Long rains in the previous year performed above normal.
- 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.

Taita Taveta County Households Main Income Sources (June 2019)

n=210HHs

4.4 TERMS OF TRADE (CASUAL LABOUR VERSUS MAIZE PRICES)

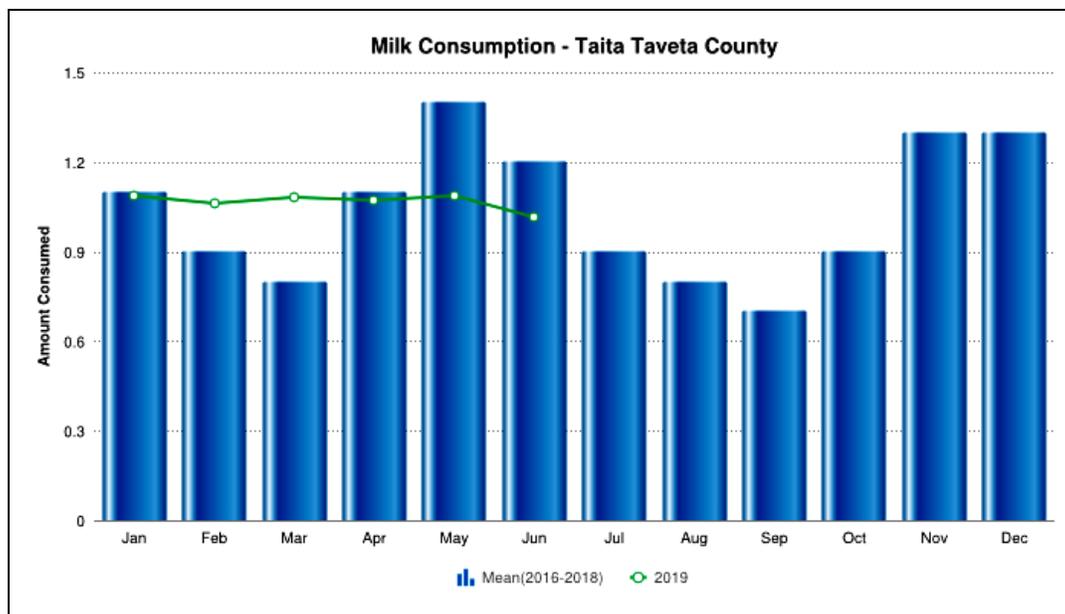Terms of Trade - Taita Taveta County

- The Terms of Trade ratio remained stable at 75 compared with the previous month and 53 percent above the long term mean implying an improved purchasing power compared to normal times.
- Highest ratio was recorded in mixed farming: irrigated cropping/livestock livelihood zone; Challa of 101.8 where casual labour opportunities are available in the irrigation farms, while lowest ratio was recorded in the mixed farming: food crops/livestock livelihood zone of 78.5. Mixed farming: horticulture/ dairy livelihood zone stood at 30.7. Low ratio of ToT in the horticulture zone was due to inadequacy of casual labour opportunities where only twenty percent of sampled households were involved in casual labouring.

5. FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- Milk consumption per household per day dropped to 1.1 litres compared to 1.2 litres posted in the previous month and lower than long term mean by seventeen percent.
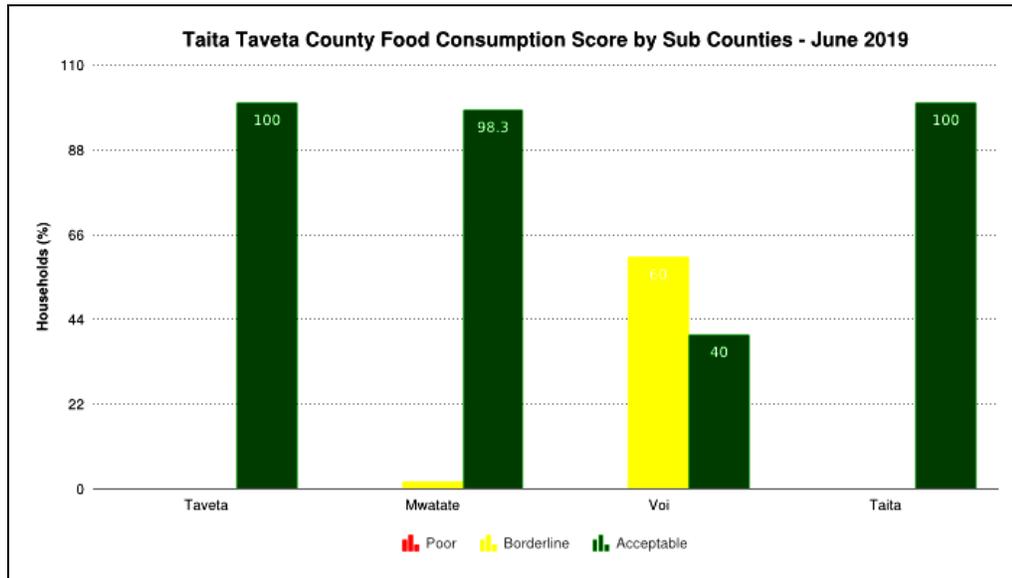

Milk Consumption - Taita Taveta County

n=210 HHs

- Milk production per household per day in regard to livelihood zones; mixed farming: food crops/livestock (0.9 litres), mixed farming: horticulture/ dairy (1.1 litres) and mixed farming: irrigated cropping/livestock (1.2 litres).
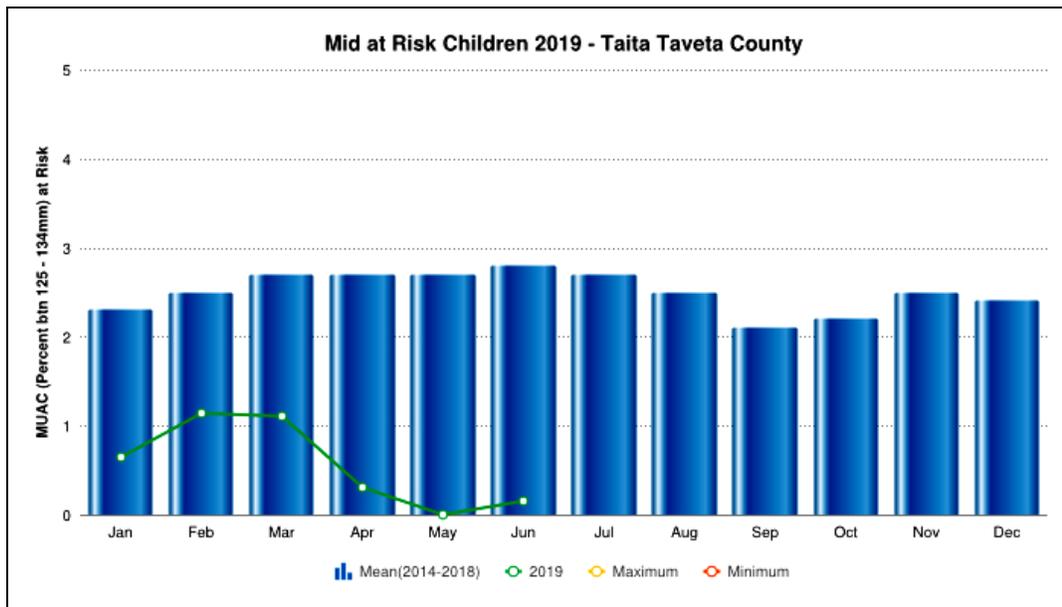
5.2 FOOD CONSUMPTION SCORE

- The prevalence of households with acceptable and borderline food consumption score (FCS) was 82.4 and 17.6 percent respectively.
- Compared with previous month, FCS in Voi Sub County improved where households categorized to be in poor FCS moved to borderline FCS.
- Compared with similar period in 2018 where prevalence was at 51.2 and 48.8 percent for borderline and acceptable 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 of 60.09 remained relatively stable compared with previous month.
- The mean FCS score was high in the mixed farming: irrigated cropping/ livestock livelihood zone recorded at 85.13 while mixed farming: horticulture/ dairy livelihood zone and mixed farming: food crop/ livestock livelihood zone recorded the lower values of 50.63 and 44.52 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.

Taita Taveta County Food Consumption Score by Sub Counties - June 2019

n=210HHs

5.3   HEALTH AND NUTRITION STATUS

▪ A total of 633 children below five years were sampled for MUAC measurement where proportion of male and female was at 57 and 43 percent respectively.

Mid at Risk Children 2019 - Taita Taveta County

5.3.1   Nutrition Status
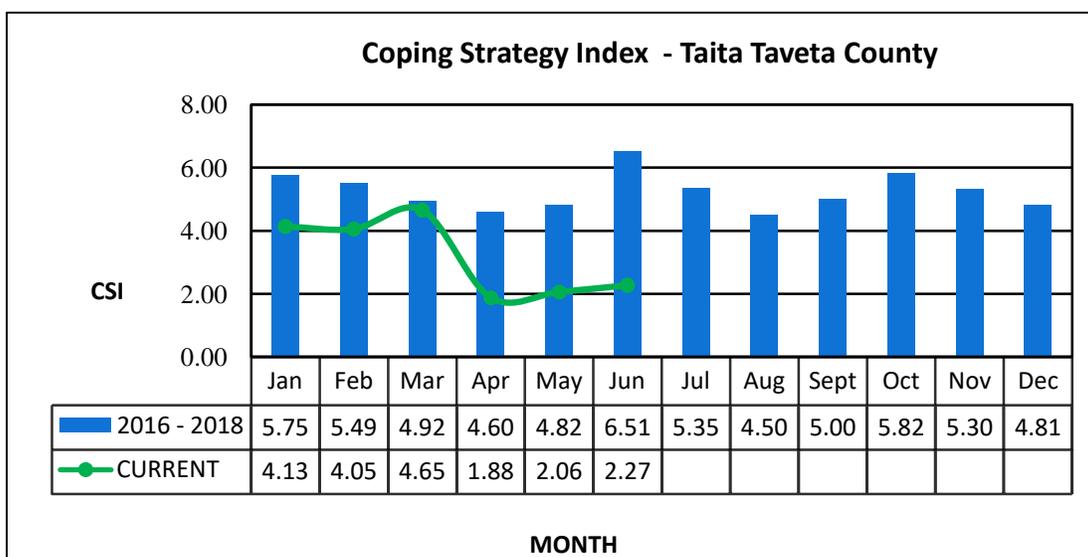▪ The proportion of children at risk of malnutrition (125 – 134 mm) rose to 0.2 percent compared none cases reported in the previous month.
▪ No cases of GAM by MUAC (115 -124 mm) and Severe<115 mm were recorded
▪ The current proportion of MUAC (125 - 134) was lower than LTM by 93 percent.
▪ Across all livelihood zones nutrition status of children below five years remained good in the seven sampled sentinel sites.

5.3.2 Health

- Out of the 633 sampled children three percent were reported to be ailing from fever with chills like malaria. These cases were reported in the mixed farming: food crop/ livestock livelihood zone and mixed farming: irrigated cropping/ livestock livelihood zone at 59 and 41 percent respectively.

5.4   COPING STRATEGIES

- The average Coping Strategy Index (CSI) for the month under review was 2.27 compared to 2.06 posted in the previous month.
- The CSI was below the long term average by 65 percent meaning household were within normal consumption based coping strategies.
- Similar period last year CSI was at 2.82 (i.e. 20 percent above) meaning households are better off this time of the year compared to similar period last year.
- Highest CSI was recorded in mixed farming: horticulture/ dairy livelihood zone at 2.97 while mixed farming: food crop/ livestock livelihood zone CSI was at 2.58. 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.

Coping Strategy Index - Taita Taveta County

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2016 - 2018	5.75	5.49	4.92	4.60	4.82	6.51	5.35	4.50	5.00	5.82	5.30	4.81
CURRENT	4.13	4.05	4.65	1.88	2.06	2.27						

MONTH

n=210HHs

6. CURRENT INTERVENTION MEASURES (ACTION)

6.1 FOOD AND NON FOOD INTERVENTIONS

6.1.1 Sectoral

Intervention	Activities	Implementers
Agriculture & Livestock Sector		
Breed improvement	Artificial insemination	Dept of Agriculture & Livestock
Disease Surveillance/Control	Disease Surveillance	Dept of Agriculture & Livestock
Provision of water for livestock	Water pan excavation in Mata Ward	Dept of Agriculture & Livestock
Food Assistance		
Relief Food Distribution	Distribution of 500 bags Maize, 200 bags beans and 50 cartons Vegetable oil in Mwatate Sub County	Min. of Interior and Coordination of NG
Water Sector		
Provision of Water	Ndara – Kale water project in Marungu Ward	TTCG
	Manga – Ndii – Mlilo water project in Ngolia and Wumingu/Kishushe wards	CWSB – Equalisation fund
Multi-Sector		
Coordination	Support to Coordination of Ending Drought Emergencies Common Programming Framework	NDMA and Technical CSG

7. EMERGING ISSUES

7.1 Insecurity/ Conflict/ Human Displacement

- Marauding elephants reported in areas of lower Tausa, Sagalla and Kasigau Wards, Voi Sub County.

7.2 Migration

- Migrations have been reported in Taveta Sub County mainly from Jipe to Rombo and Toloha in neighbouring country of Tanzania.

7.3 FOOD SECURITY PROGNOSIS

- The long rains season was unpredictable and very few farmers planted. Crops that were planted experienced moisture stress (Maize) and water logging (Beans in the highlands). Crop production is thus expected to below normal in the rain fed zone.
- Low crop production coupled with depleted household stocks is expected to result to most households depending on the markets pushing food stuff prices high.
- Livestock sector is expected to deteriorate slightly in the coming month as quality and quantity of pasture is expected to deteriorate due to prevailing high temperatures in the lowlands.

- The water sector is expected to remain stable in the coming month as households utilize normal water sources at normal distances.
- In the next one month there is likelihood of households shifting into borderline food consumption category from acceptable food consumption category especially in Voi and Mwatate sub counties.
- Nutrition status is expected to remain within normal and no mortalities are expected as a result of food insecurity.

8. RECOMMENDATIONS

Agriculture and Livestock Sector
- Disease surveillance in all stock routes and ranches in Taveta, Voi and Mwatate Sub County
- Support to Pasture conservation and storage
- Support post-harvest management for farmers who are expected to harvest

Public Health and Nutrition Sector
- Household level water treatment and provision of water treatment chemicals.

Peace and Security Sector
- KWS to enhance surveillance in areas bordering the park especially Sagalla, Kasigau and Ngolia Wards.