

National Drought Management Authority

TAITA TAVETA COUNTY

DROUGHT EARLY WARNING BULLETIN FOR AUGUST 2019



A Vision 2030 Flagship Project



AUGUST 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
County	Normal	Deteriorating
Biophysical Indicators	Value	Normal Range/ Value
Rainfall 3 Months Anomaly	-	80 - 120
VCI-3Month	55.02	35 - 50
Production indicators	Value	Normal
Crop Condition (maize)	No crop	No crop
Livestock Body Condition for cattle	Good	Good
Milk Production per HH/ day	3.5	2.7 Litres
Livestock Migration Pattern	Normal	Normal
Access Indicators	Value	Normal
Terms of Trade (Casual labour Vs maize prices)	65.2	61.3
Milk Consumption per HH/ day	1.1	0.8 Litres
Return HHs distance to water sources	2.8	2.6 Km
Water source return distance from grazing areas	3.8	3.4 Km
Cost of water (20 litres)	3.00	< Kshs 5.00
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	0.5	<3.0

Drought Situation & EW Phase Classification

Biophysical Indicators

- The County recorded light rains coupled with low temperatures. The rains were above within the normal.
- The county vegetation greenness condition was above the normal range (3 Months VCI 55.02).

Socio Economic Indicators (Impact Indicators)

Production Indicators

- No farming activities were being undertaken.
- 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 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"> Short rains harvests Increased HH Food Stocks Short dry spell Reduced milk yields Land preparation 	<ul style="list-style-type: none"> Planting/Weeding Long rains High Calving Rate Milk Yields Increase Flash floods - Taveta 	<ul style="list-style-type: none"> Long rains harvests Increased HH Food Stocks A long dry spell Land preparation Kidding (Sept) 	<ul style="list-style-type: none"> Short rains Planting/weeding Flash floods - Taveta 								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

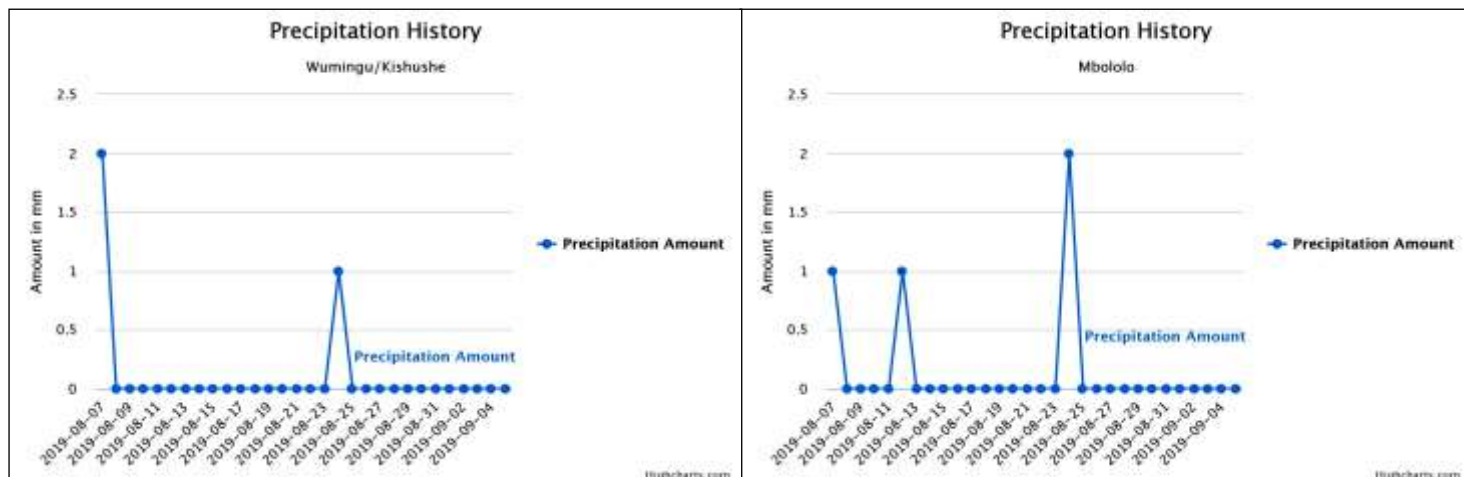
1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The county experienced light rains and low temperatures in the month under review mainly in the highlands of the County. Wumingu station recorded two wet days with an average rainfall amount of 10mm.
- No rainfall was recorded in the lowlands of the county.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- According to Kenya Agriculture Observatory Platform (KAOP) the county recorded four wet days spreading throughout the month in the fourteen wards.
- The precipitation across the month was recorded at 33 mm.
- The rainfall amounts were above the long term averages by 150 percent.
- The charts below show two wards that recorded the highest rainfall amounts in the month under review.

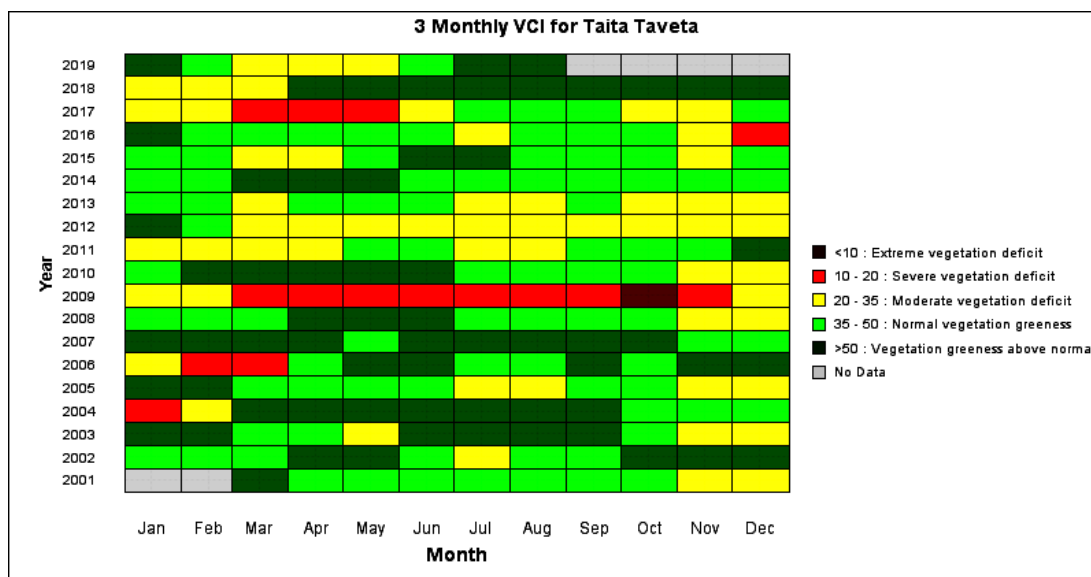


2. IMPACTS ON VEGETATION AND WATER

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 55.02.
- This was due to off season rains being experienced and prevailing low temperatures.



2.1.2 Pasture

- From the sampled communities 24, 43 and 33 percent reported pasture condition was good, fair and poor respectively. Compared to similar season in the previous year respondents reported situation to be normal apart from areas of Ngolia and Challa Wards where long rains performed poorly it was reported pasture situation was below normal.
- In comparison to the previous month pasture situation had deteriorated where proportionate of respondents that reported pasture condition was in good and fair category dropped by five and 14 percent respectively while those that reported pasture condition was poor rose by 19 percent.
- Areas where pasture condition was observed to be poor are lower parts of Ngolia Ward and Marungu Ward in Voi Sub County; Mwaroko, Sangenyi, lower parts of Kishushe location in Taita Sub County; Mgeno, Mzwanenyi, Msau and Kighombonyi in Mwatate Sub County and Challa Wards in Taveta Sub County.
- Pasture variation by livelihood zone indicated the 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.

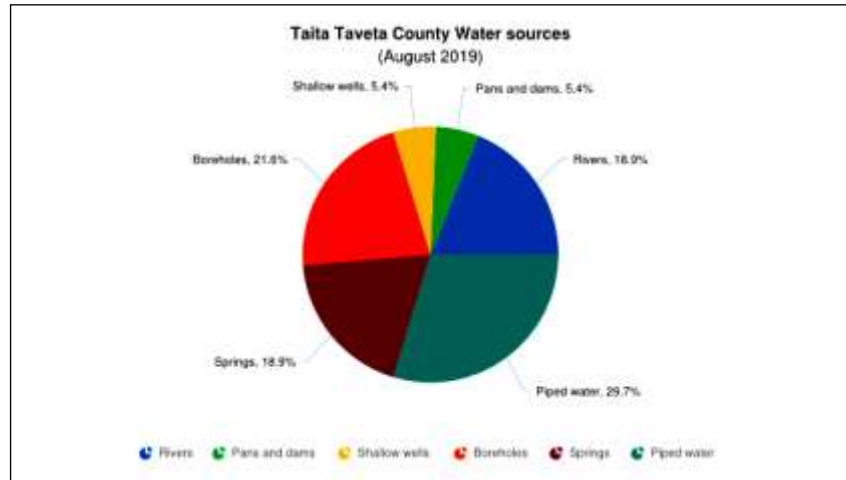
2.1.3 Browse

- From community interviews 19, 62 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 14 percent.
- Compared to long term mean the browse condition was normal.
- Available browse is expected to cater for livestock for the next three months.

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, boreholes, springs and rivers and were relied upon by 25.7, 25.7, 22.9 and 14.3 percent of the households respectively. Other

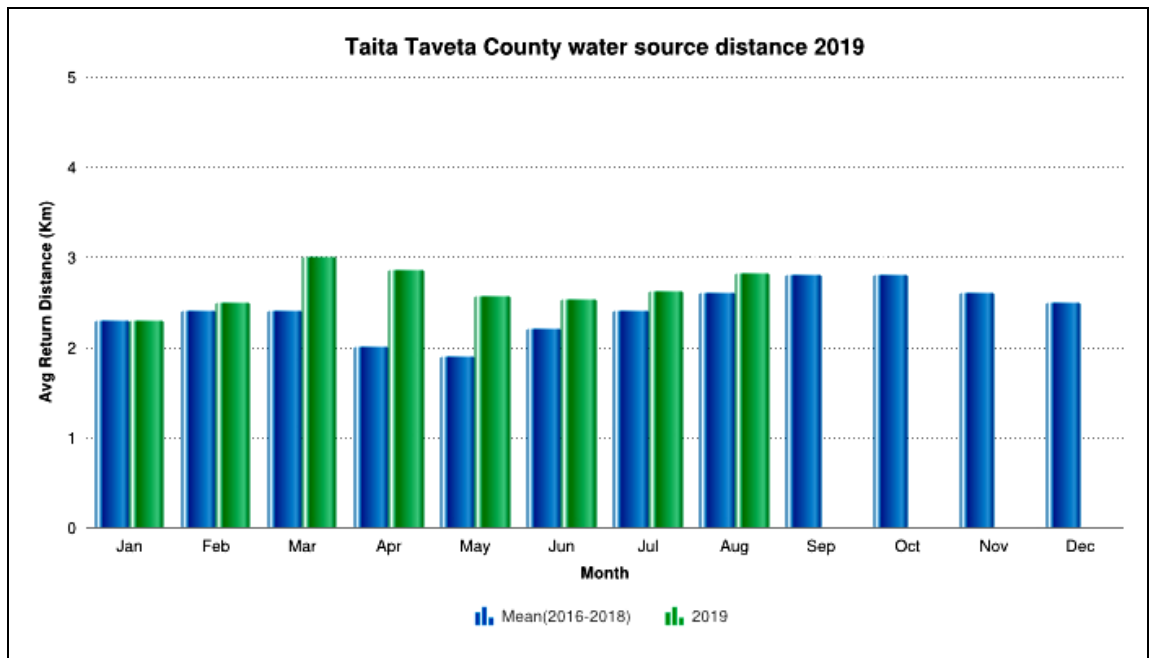


sources included shallow wells and water pans.

- Proportion of those using piped water systems increased by seven percent while those using rivers and springs each dropped by seven 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 that 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 2.8 km from 2.6 km posted in the previous month and above long term average by eight percent. The increase in distance was due to drying up of water pans in Kasigau Ward and shallow wells in Ngolia Ward.

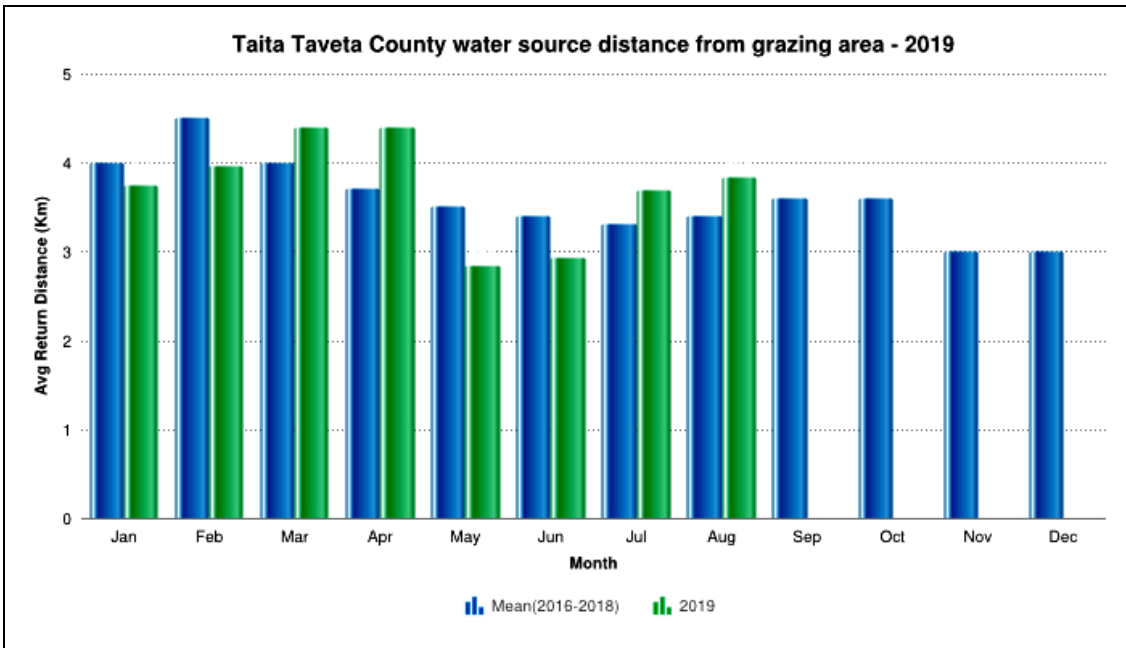


n=21Key Informants

- The county average water consumption per person per day was at 16.7 litres and represented as follows; mixed farming: horticulture/ dairy livelihood zone at 24.2 litres, mixed farming: irrigated cropping/ livestock livelihood zone at 20.4 litres and mixed farming: food crops/ livestock livelihood zone at 15.2 litres.
- Proportion of households purchasing water was at 73 percent compared to 71 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 - 25 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 79, 11 and 10 percent practised use of water treatment chemicals, filtration and boiling respectively compared to 88, 5 and 7 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 ten 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 remained relatively stable at 3.8 km compared to the previous month and below long term average by 12 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

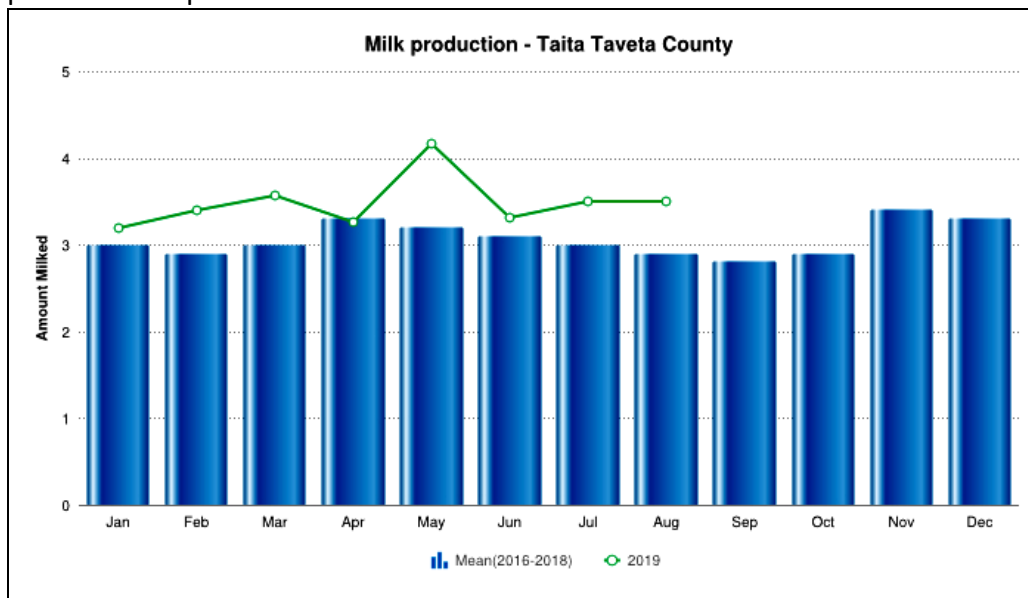
- The livestock body condition for all species was good across the county.
- In all livelihood zones more than 90 percent of cattle observed were in good smooth appearance and moderate body condition categories. Compared to previous month livestock body condition remained the same.
- Livestock body condition for all species remained normal compared with a similar period last year.

3.1.2 Livestock Diseases

- Cases of Foot and Mouth Disease confirmed and quarantine issued in the following areas; Mata, Mboghoni and Bomeni Wards in Taveta Sub County, Bura and Wusi/ Kishamba Wards in Mwatate Sub County and Kasigau Ward in Voi Sub County.

3.1.3 Milk Production

- The average milk production (cow) per household per day remained at 3.5 litres as posted in the previous month.



n=210 HHs

- Milk production for the month under review was above the normal by 30 percent.
- Relatively, quantity of milk produced per household per day remained stable compared to previous month; 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 litres in the mixed farming: food crop/ livestock livelihood zone.

3.2 RAIN-FED CROP PRODUCTION

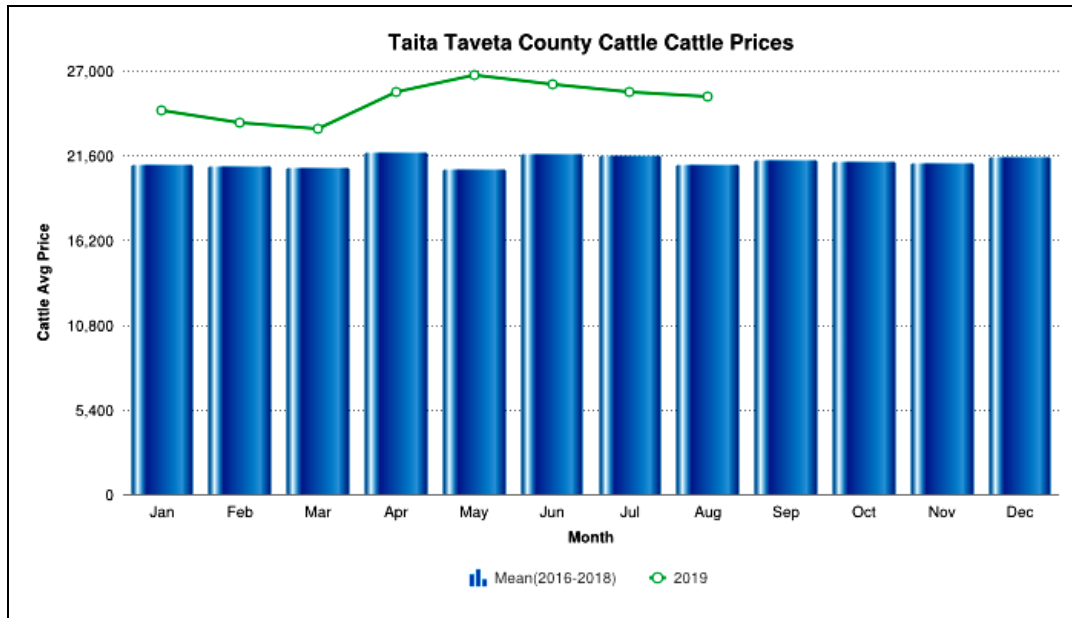
3.2.1 Stage and Condition of food Crops

- No farming activities were observed in rain fed farming zones during the month under review. However, in the irrigated zone farmers were busy planting maize and beans.

4. MARKET PERFORMANCE

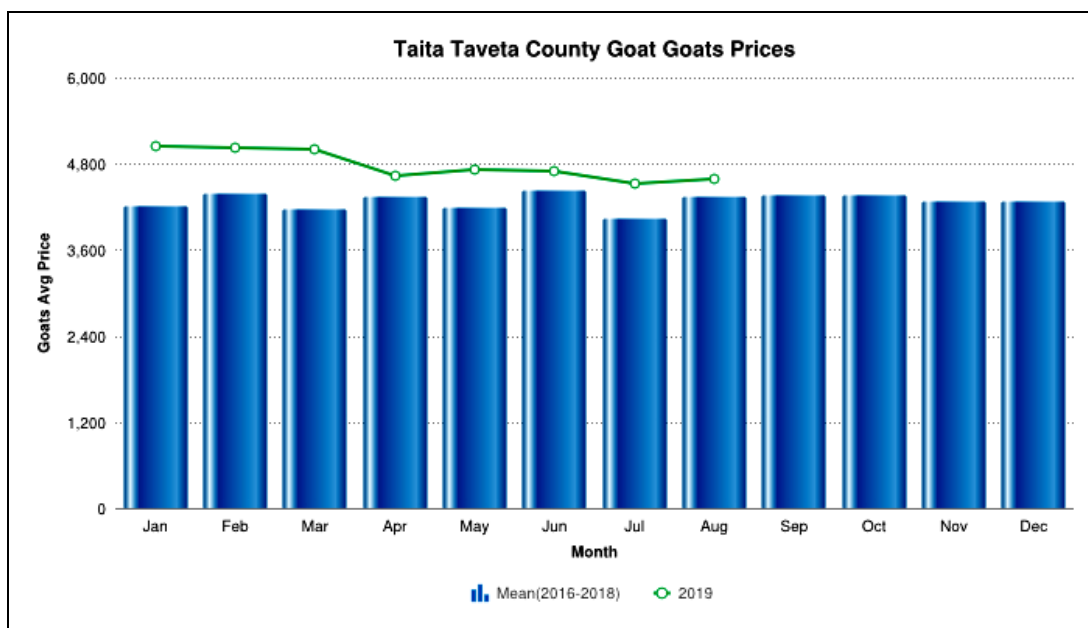
4.1 LIVESTOCK MARKETING

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 25,000 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 19 percent.

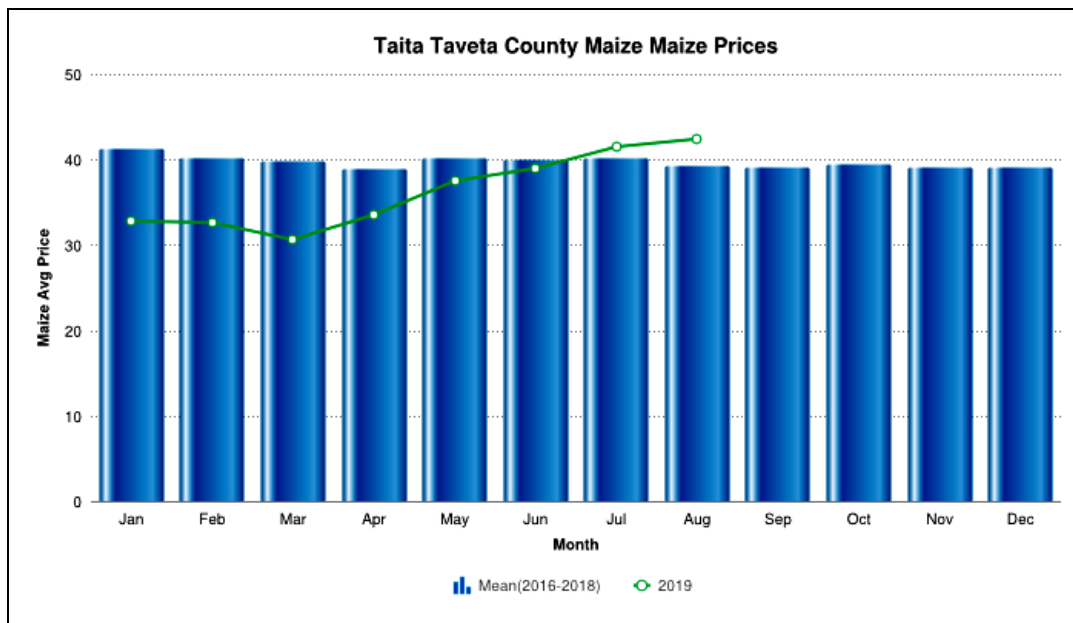
4.1.2 Goat Prices



- The county average market price of a two year old goat decreased to Kshs 4,600 from Kshs 4,500 posted in the past month.
- 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 4,000 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 seven percent.

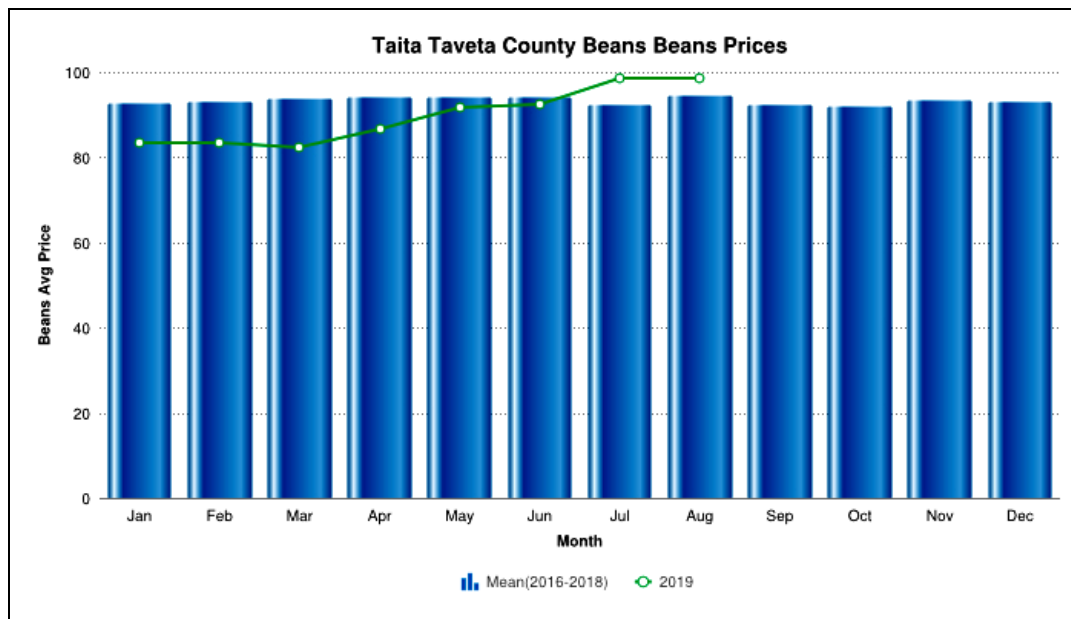
4.2 CROP PRICES

4.2.1 Maize



- The average market price of a kilo of maize remained relatively stable at Kshs 42 compared to the previous month and above the long term average by eight 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 63 percent relied on markets and 31 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 44.00; mixed farming: horticulture/ dairy livelihood zone (Mghambonyi) of Kshs 42; 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.

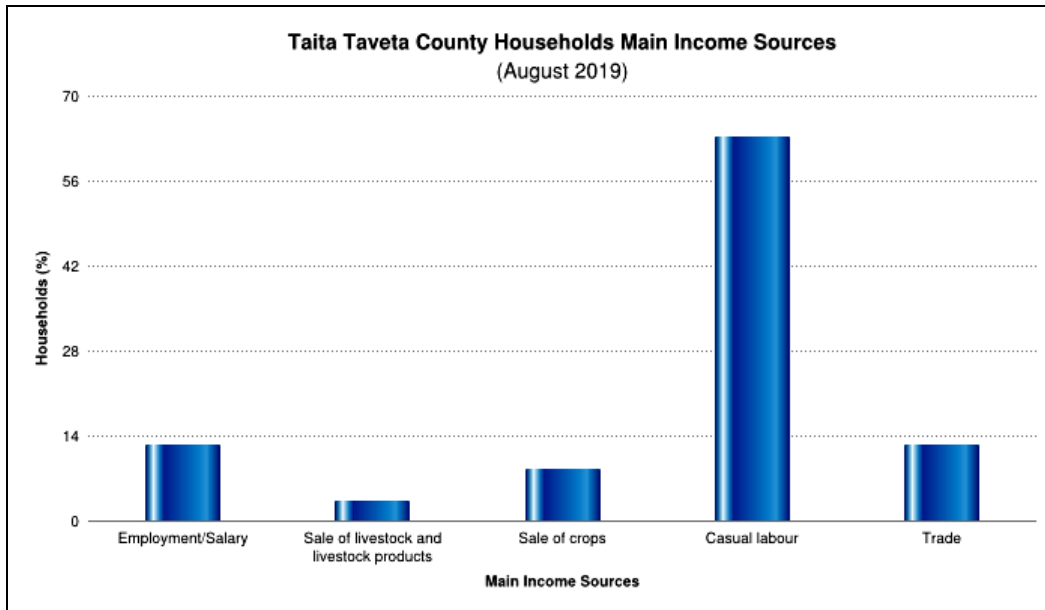
4.2.2 Beans



- The average market price of a kilo of beans remained at Kshs 99 compared with previous month and above the long term mean by five percent. Above normal price was due to increased demand at the market level emanating from depleted bean stocks at household level where 63 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 83 and mixed farming: irrigated/livestock livelihood zone (Mboghoni, Challa, Chumvini and Taveta markets) in Taveta Sub County of Kshs 90.00 per kilo.

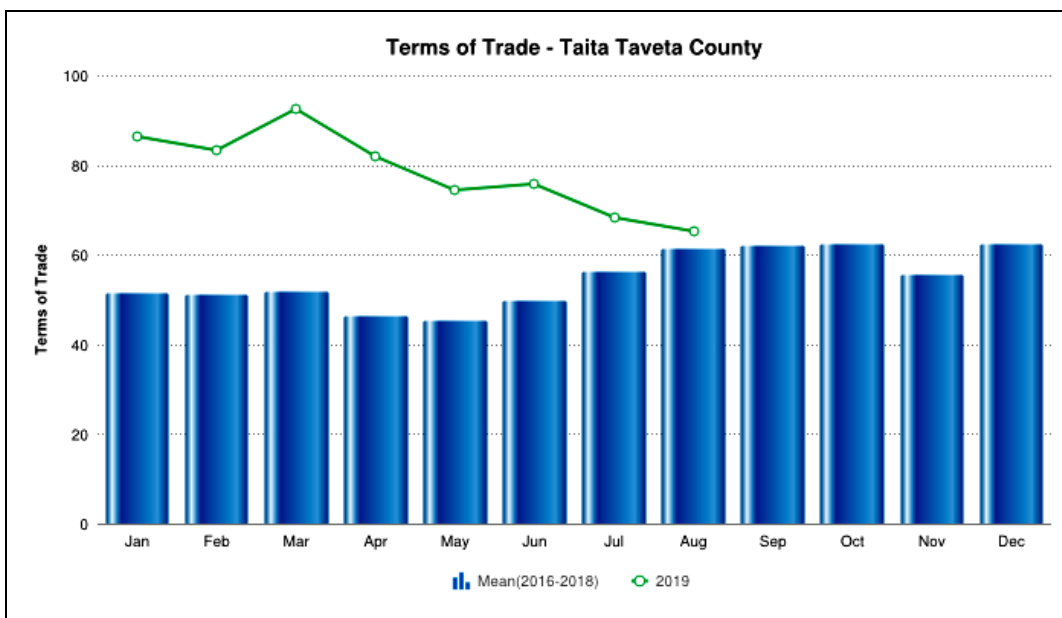
4.3 INCOME

- 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)

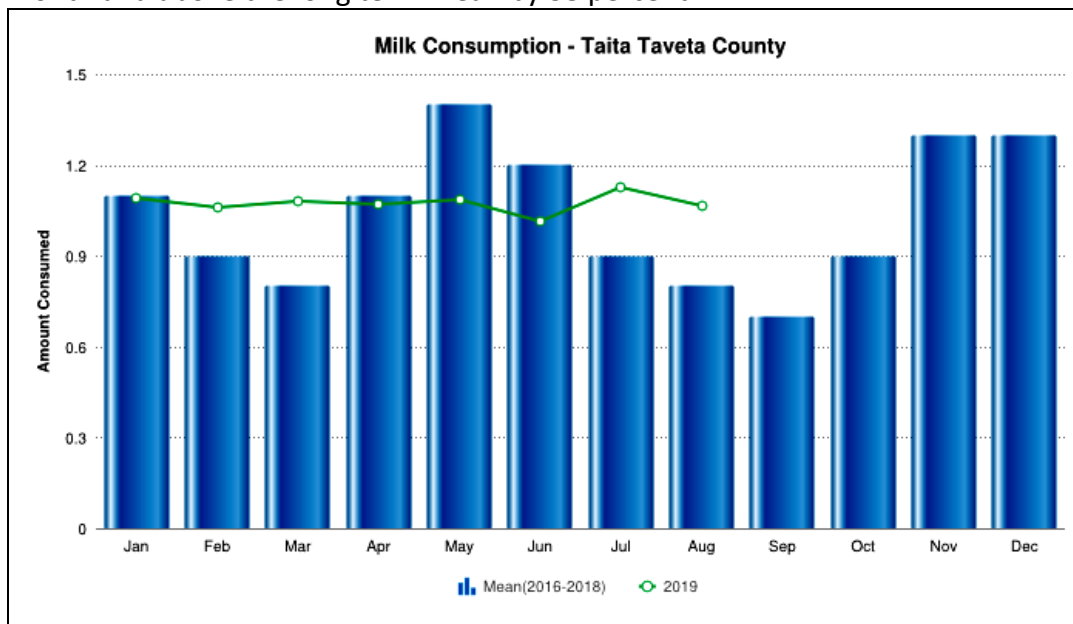


- The Terms of Trade (ToT) ratios dropped by five percent to 65 and above the long term mean six percent implying an unfavourable ToT due to increased prices of maize which resulted to reduced purchasing power of household members.
- ToT ratios by livelihood zones were as follows; mixed farming: irrigated cropping/livestock livelihood zone at 103, mixed farming: food crops/livestock livelihood zone at 59 and mixed farming: horticulture/ dairy livelihood zone at 58.

5. FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- Milk consumption per household per day stood at 1.1 litres compared to the previous month and above the long term mean by 38 percent.

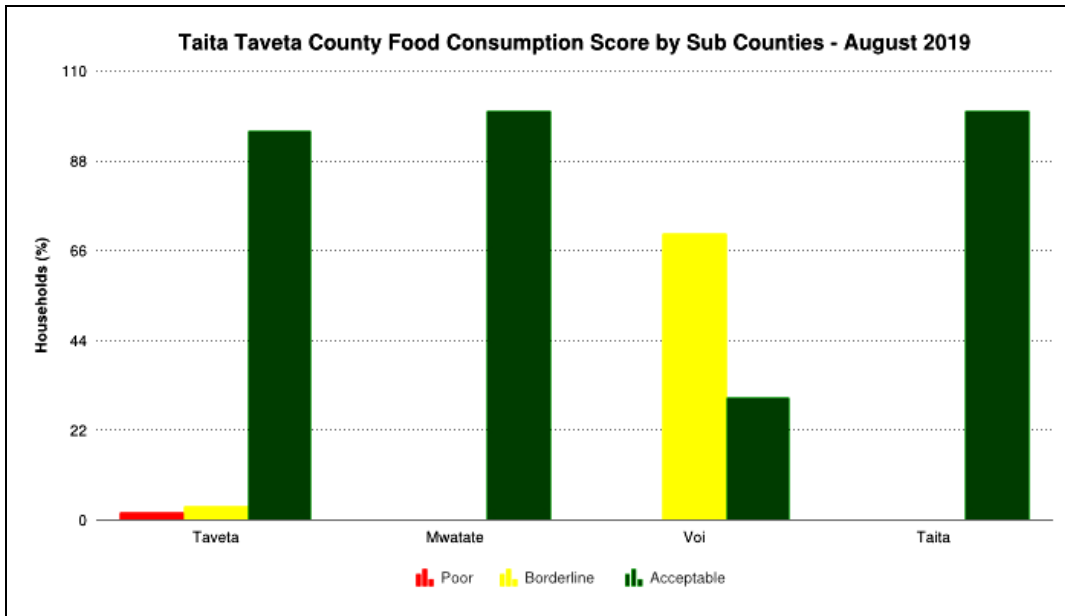


n=210 HHs

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

5.2 FOOD CONSUMPTION SCORE

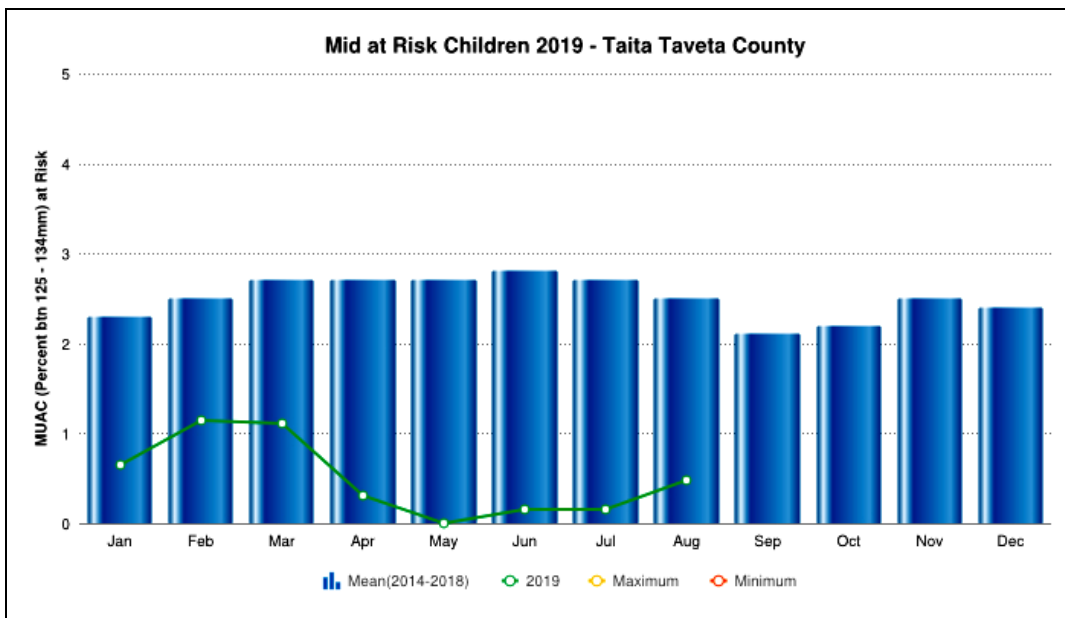
- The prevalence of households with acceptable, borderline and poor food consumption score (FCS) was 78.5, 21.0 and 0.5 percent respectively.
- Compared with previous month, food consumption in terms of dietary diversity in the county dropped where three percent of households categorized to be in acceptable FCS moved to borderline FCS.
- Compared with similar period in 2018 where prevalence was at 55, 43 and two 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 stood at 49.3 compared to 56.2 posted in the previous month and the drop was reflected in Taveta Sub County where food consumption patterns deteriorated.
- The mean FCS score was high in the mixed farming: irrigated cropping/ livestock livelihood zone recorded at 76.3 while mixed farming: horticulture/ dairy livelihood zone and mixed farming: food crop/ livestock livelihood zone recorded the lower values of 46.5 and 44.4 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 617 children below five years were sampled for MUAC measurement where proportion of male and female was at 58 and 42 percent respectively.



5.3.1 Nutrition Status

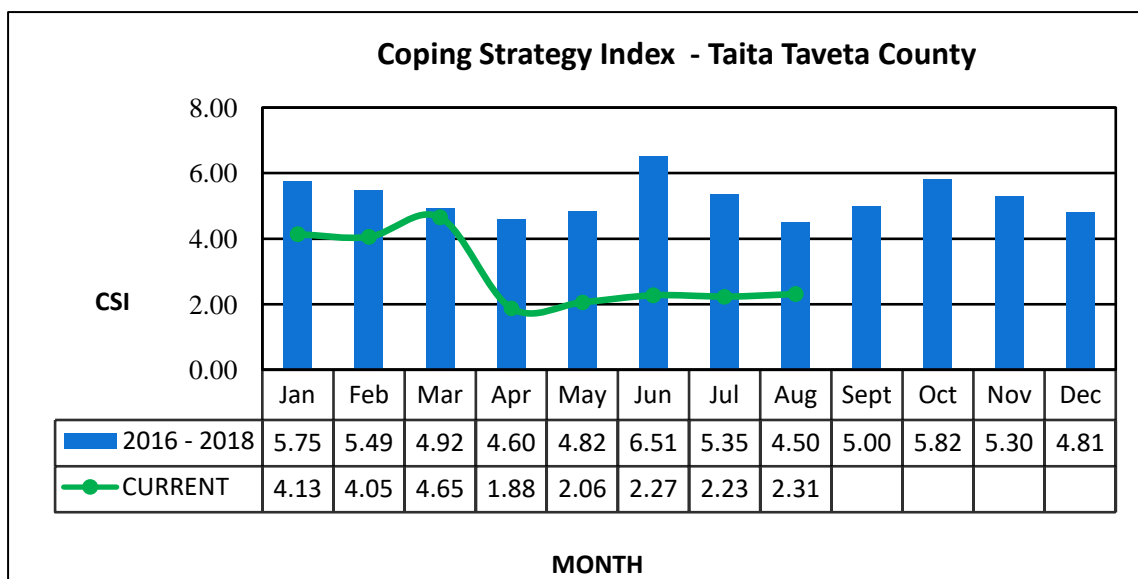
- The proportion of children at risk of malnutrition (125 – 134 mm) increased to 0.5 percent from 0.2 percent recorded in the previous month.
- No cases of GAM by MUAC (115 -124 mm) and Severe<115 mm were recorded
- The current proportion of MUAC (125 - 134) was lower than LTM by 80 percent.
- Across 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 617 sampled children two percent were reported to be ailing from fever with chills like malaria.

5.4 COPING STRATEGIES

- The average Coping Strategy Index (CSI) remained relatively stable at 2.31 compared to 2.23 posted in the previous month and below the long term average by 49 percent.
- This implied household frequency of employing consumption based coping strategies was within the normal range.
- The situation remains the same compared to similar period last year where CSI was at 2.41.
- Highest CSI was recorded in mixed farming: horticulture/ dairy livelihood zone at 2.86 while mixed farming: food crop/ livestock livelihood zone CSI was at 2.66. 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
Agriculture & Livestock Sector		
Rehabilitation of Njoro Kubwa canal	Desiltation of drainage canal and construction of floods control walls	Dept of Agriculture, Livestock & Irrigation – KCSAP
Promotion of Banana production, Transformation and Transportation	Construction of Banana Marketing and Processing Plant	Dept of Agriculture & Livestock – EU

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

- No abnormal livestock migration patterns reported in the month of August.

7.3 FOOD SECURITY PROGNOSIS

- The county experienced minimal food harvests and most households rely on markets where prices are on an upward trend.
- Household food consumption score is expected to deteriorate with majority of households moving to borderline food consumption score. Increased severe consumption based coping strategies are likely to be employed such as borrowing food or relying on friends and relatives hence impacting negatively on nutritional status of children under five years.
- Livestock body condition especially for cattle is expected to deteriorate in the coming month as quality and quantity of pasture is expected to deteriorate as temperatures get hotter during the dry season.
- The water situation is expected to deteriorate especially in the lowlands where households depend on open water sources.
- No mortalities are expected as a result of food insecurity.

8. RECOMMENDATIONS

Agriculture and Livestock Sector

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