

National Drought Management Authority

TAITA TAVETA COUNTY

DROUGHT EARLY WARNING BULLETIN FOR FEBRUARY 2020



A Vision 2030 Flagship Project



FEBRUARY 2020 EW PHASE

Drought Status: **NORMAL**



Shughuli za kawaida

Early Warning Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming: Food Crops/ Livestock	Normal	Stable
Mixed Farming: Food Crops/ Horticulture/Dairy	Normal	Stable
Mixed Farming: Irrigated Cropping/ Livestock/Food Crops	Normal	Stable
National Park	Normal	Stable
County	Normal	Stable
Biophysical Indicators	Value	Normal Range/ Value
Rainfall 3 Months Anomaly	190	80 – 120
VCI-3Month	96.8	35 – 50
Production indicators	Value	Normal
Crop Condition (maize)	Harvesting	Harvesting
Livestock Body Condition for cattle	Good	Good
Milk Production per HH/ day	3.4 Litres	2.9 Litres
Livestock Migration Pattern	Normal	Normal
Access Indicators	Value	Normal
Terms of Trade (Casual labour Vs maize prices)	112.1	103.2
Milk Consumption per HH/ day	1.3 Litres	1.1 Litres
Return HHs distance to water sources	2.2 km	2.4 Km
Water source return distance from grazing areas	2.5 km	4.7 Km
Cost of water (20 litres)	Kshs 3.00	< Kshs 5.00
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	0.2	<1.9

Drought Situation & EW Phase Classification

Biophysical Indicators

- The County continued to experience intermittent rains that were above normal and were recorded in both the highlands and lowlands.
- The county vegetation greenness condition was above the normal range (3 Months VCI 96.8).

Socio Economic Indicators (Impact Indicators)

Production Indicators

- Crop production was above average and farmers were busy harvesting maize, beans, green grams and cowpeas.
- 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 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 range.
- Distances to water sources from grazing areas were below normal.

Utilization Indicators

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

Seasonal Calendar

<ul style="list-style-type: none"> 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

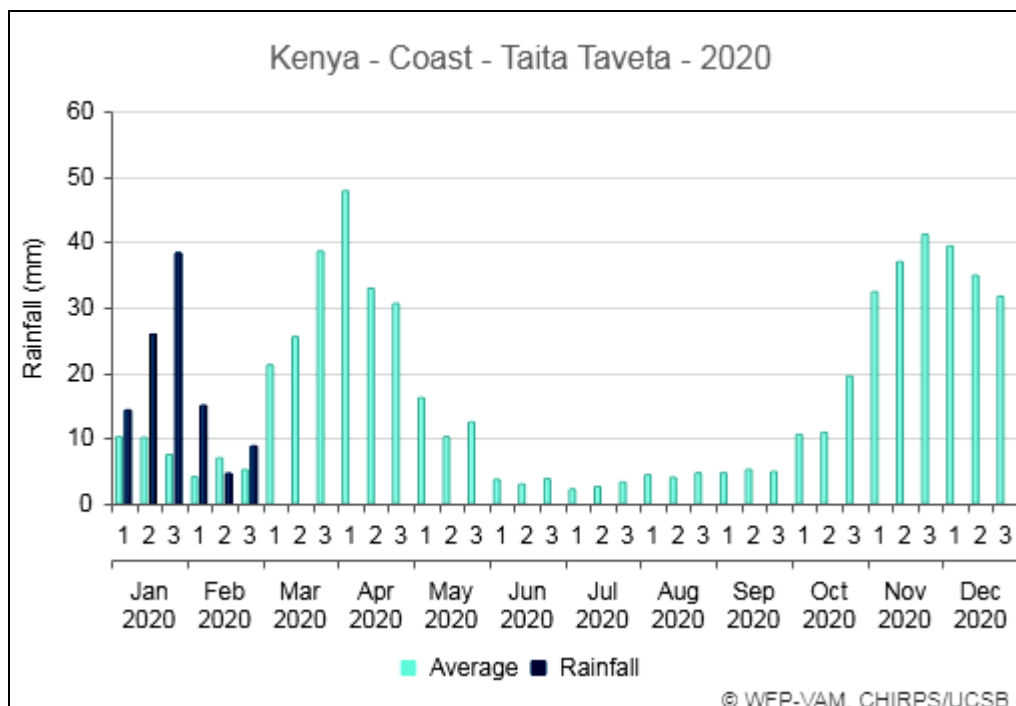
- The county experienced above normal off season rains in the month under review and were characterized by good temporal distribution and even spatial distribution. Rainfall amounts are shown in the table below.

Kenya Meteorological Department Rainfall Data

No.	Rainfall Station	Livelihood Zone	Wet Days	Amount (mm)
1.	Ngerenyi	Mixed farming: horticulture/dairy	6	66.1
2.	Wundanyi	Mixed farming: horticulture/dairy	5	62.4
3.	Wumingu	Mixed farming: horticulture/dairy	5	50.0
4.	Werugha	Mixed farming: horticulture/dairy	5	53.0
5.	Rukanga	Mixed Farming; food crop/livestock	6	39.0
6.	Voi Meteorology Station	Mixed Farming; food crop/livestock	5	36.4

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- According to WFP-VAM, Climate Hazards Group InfraRed Precipitation with Station Data (CHIRPS) three months rainfall anomaly was 190 percent.
- The estimated total precipitation for the month under review was 28.4 mm and above LTM by 74 percent. The rains were well distributed as indicated in the chart below;

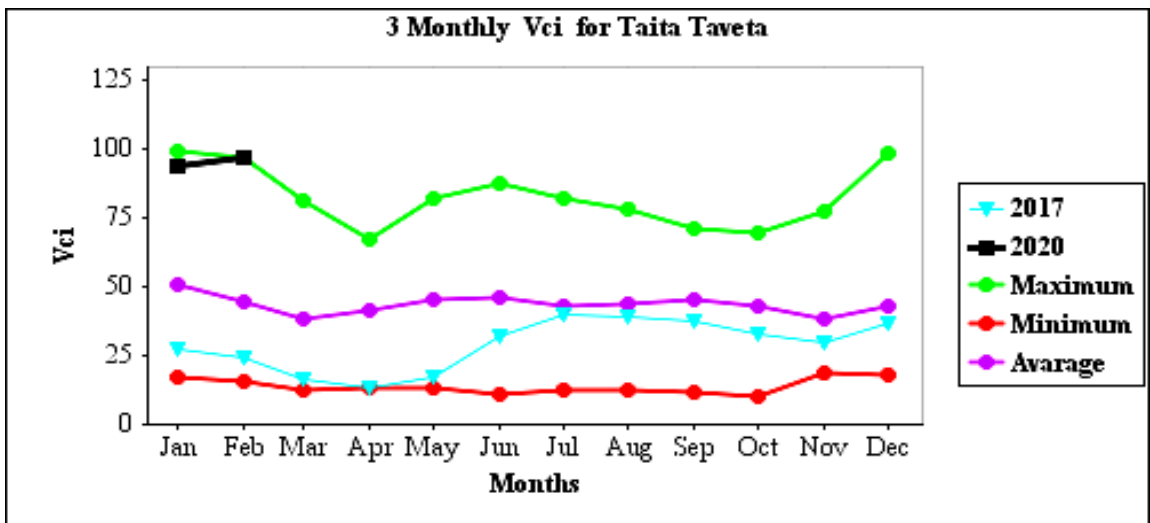
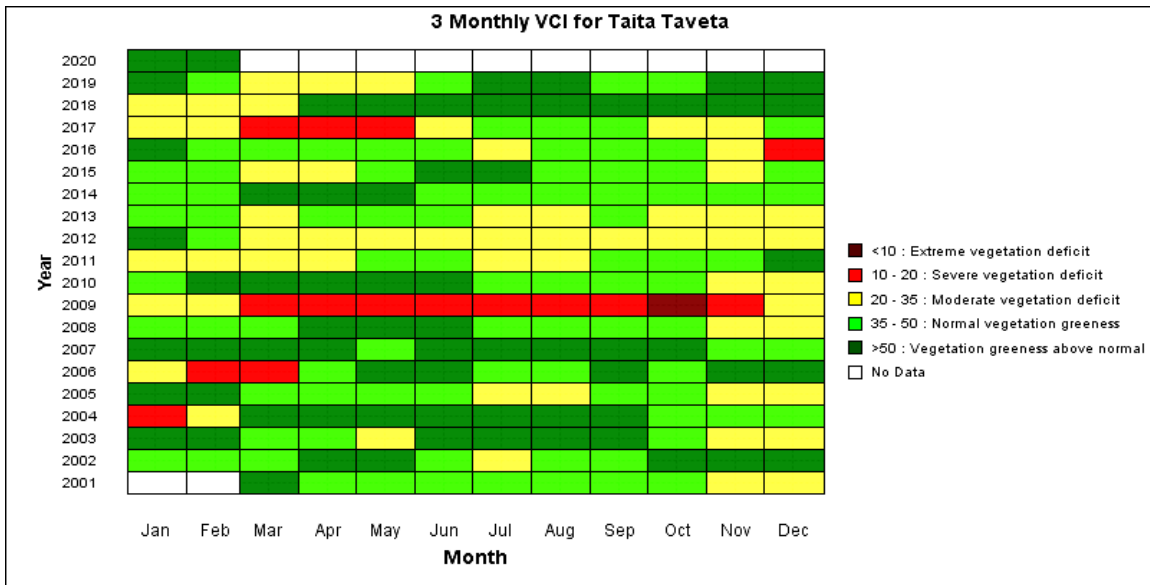


2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

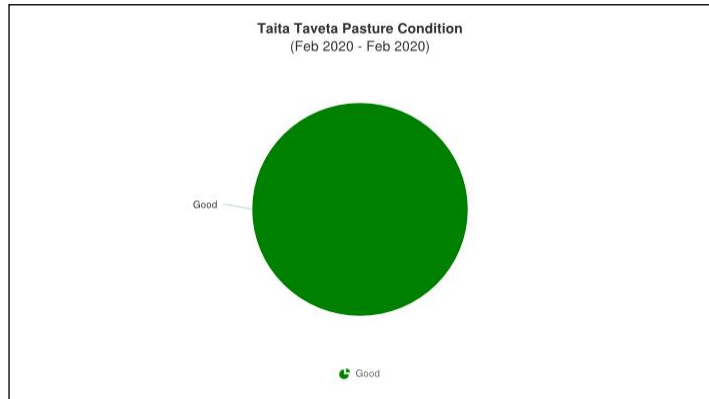
2.1.1 Vegetation Condition Index (VCI)

- The vegetation greenness condition in the county was above the normal range as depicted by a three months vegetation condition index (3M - VCI) of 96.8 (Figure below).
- All livelihood zones depicted vegetation greenness above normal.



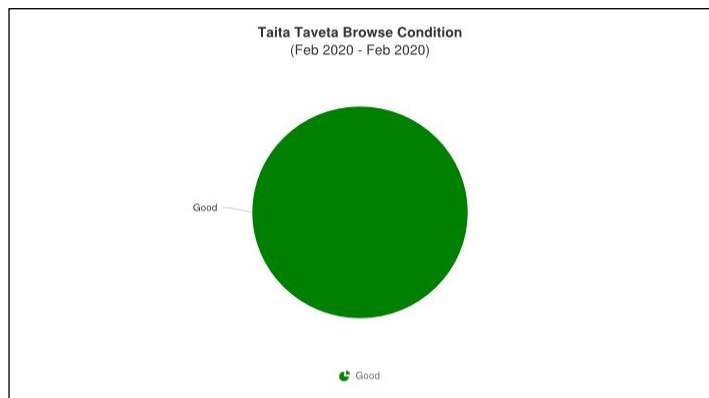
2.1.2 Pasture

- From community interviews all respondents reported pasture condition was good as a result of the rains and the pasture condition was above normal.
- In comparison to the previous month, pasture condition remained good.
- Available pasture is expected to cater for livestock for the next three to four months.



2.1.3 Browse

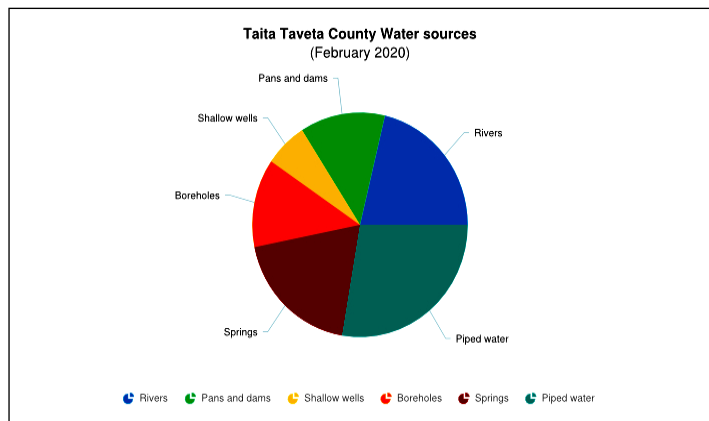
- From community interviews 100 percent of the respondents reported browse condition was good and above normal.
- Compared to the previous month, the browse condition remained good.
- Available browse is expected to cater for livestock for the next four to five months.



2.2 WATER RESOURCE

2.2.1 Sources

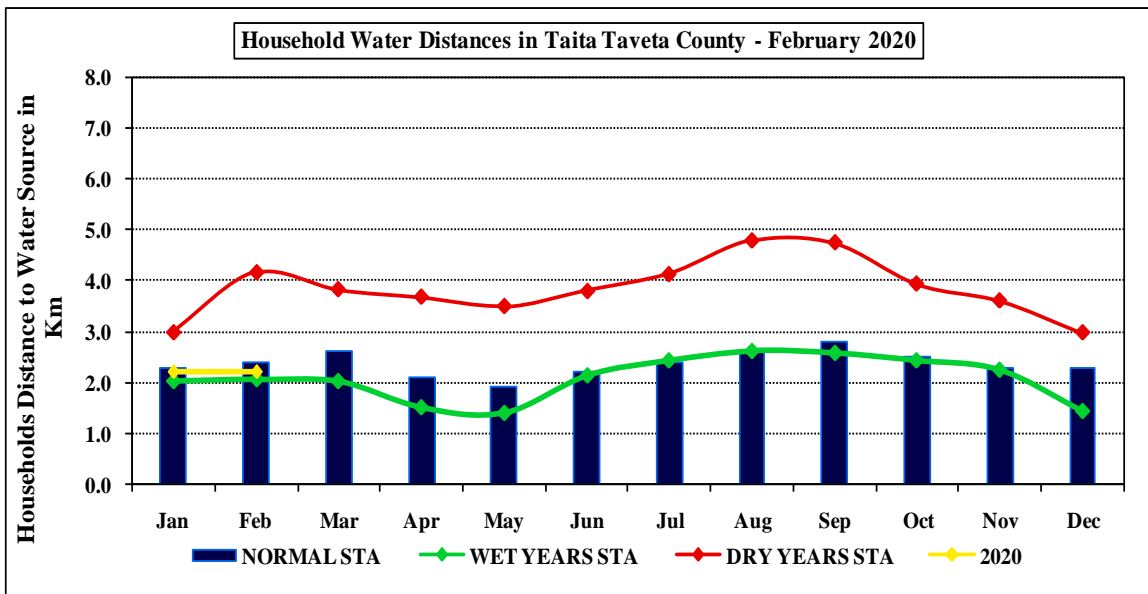
- The main sources of water currently in use by both human beings and livestock were piped water systems, rivers, boreholes, springs, pans and dams and shallow wells and were relied upon by 27.7, 21.3, 12.8, 19.1, 12.8 and 6.4 percent of the households respectively.
- In comparison to previous month, proportion of those using springs rose by four percent while the same proportion declined in those using boreholes.
- In all livelihood zones water from the main sources is expected to cater for households for the next three to four months.



2.2.2 Household Access and Utilization of Water

- The average return distance from households to main water sources remained stable at 2.2 km compared to the previous month and below long term average by eight percent

as indicated in the graph below. The short distances reported were due to recharge of water sources resulting from the rains received in the month under review.

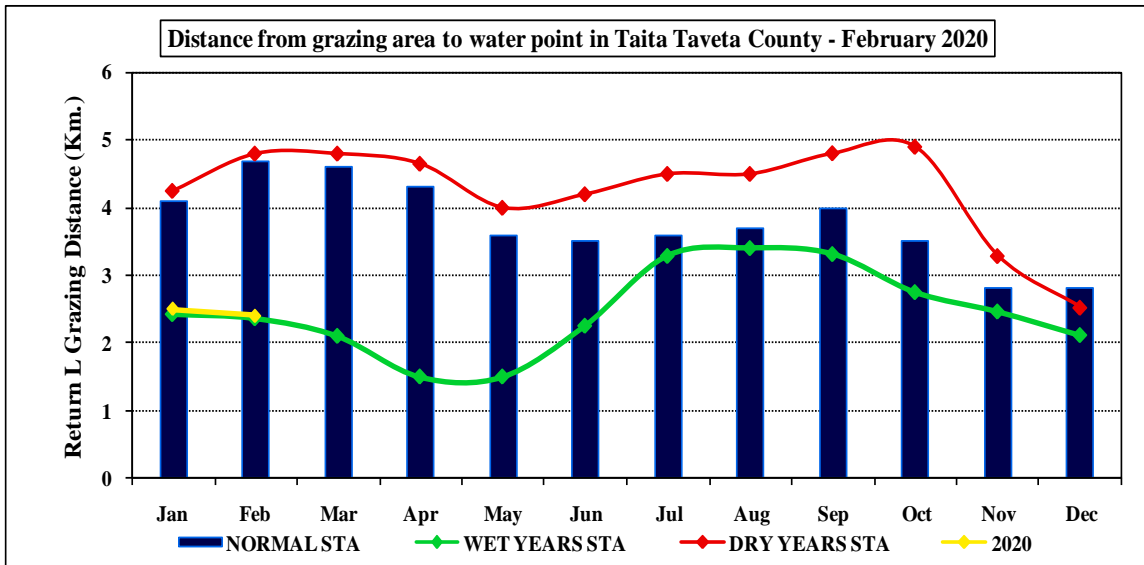


n=21 Key Informants

- The county average water consumption per person per day (pppd) remained stable at 18 litres and varied across livelihood zones with households in mixed farming: horticulture/ dairy livelihood zone and mixed farming: irrigated cropping/ livestock livelihood zone reporting 18 litres pppd compared to 17 litres pppd in mixed farming: food crops/ livestock livelihood zone.
- Water retailed at Kshs 2 per 20 litre jerry can at source and approximately 65 percent of the households purchased water. Another estimated two percent of the population relied on vendors for water supply and price per jerry can ranged from Kshs 5-20 depending on distances and this was noted mainly in Bura Ward.
- Overall, the number of households treating drinking water dropped from an estimated 33 percent in January to 17 percent in February. The main treatment methods were application of chemicals and boiling and were practised by 94 and 6 percent respectively of the households treating drinking water.
- Relatively, in the irrigated cropping/ livestock zone all households surveyed treated water before drinking compared to 2.7 percent in food crop/ livestock zone and 3.3 percent in horticulture/ dairy zone

2.2.3 Livestock Trekking Distance to Water Sources from Grazing Areas

- The average livestock trekking return distance from grazing areas to main water sources was recorded at 2.4 km compared to 2.5 km posted in the previous month and below the long term average by 49 percent as indicated in the graph below. Distance below long term mean was due to availability of water near grazing areas.
- In all livelihood zones, frequency of watering livestock remained normal; once per day in the lowlands and twice per day in the highlands.



n=21Key Informants

3. PRODUCTION INDICATORS

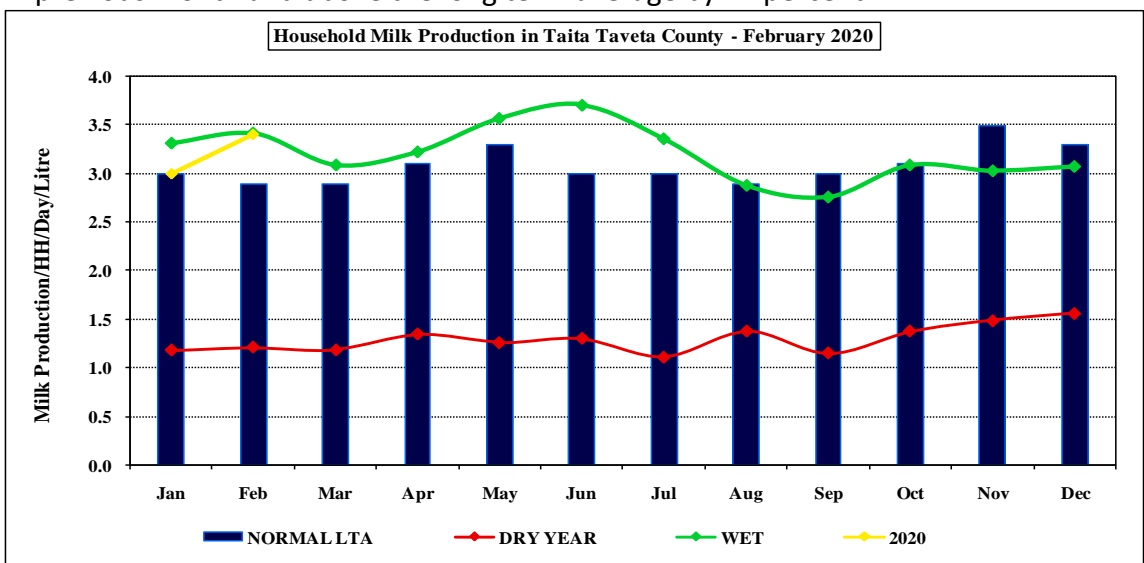
3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Livestock body condition for all species was good across all livelihood zones.
- Compared to the previous month livestock body condition remained good.
- Generally, livestock body condition for all livestock species was good across all livelihood zones despite sporadic incidences of Lumpy Skin Disease (LSD), Foot and Mouth Diseases (FMD) and Contagious Pleuropneumonia (CCPP) having been reported in Voi and Taveta Sub counties in January. The same is projected to remain good for the next five months due to the availability of forage and impact positively on the prices of the animals, milk production and consumption.

3.1.2 Milk Production

- The average milk production (cow) per household increased to 3.4 litres from 3.0 litres in previous month and above the long term average by 17 percent.



n=210 HHs

- Mixed farming: horticulture/ dairy livelihood zone milk production was at 4.6 litres, in the mixed farming: irrigated cropping/ livestock livelihood zone at 3.6 litres and lowest at 2.3 litres in the mixed farming: food crop/ livestock livelihood zone.

3.2 RAIN-FED CROP PRODUCTION

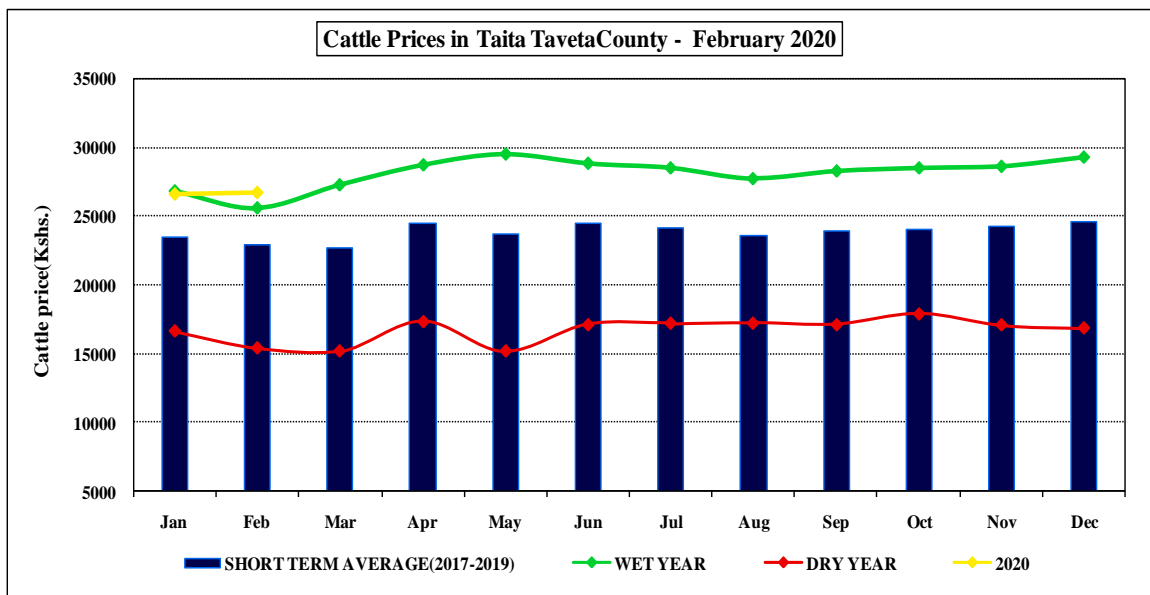
3.2.1 Stage and Condition of food Crops

- Crops in the field matured fully and were in good condition.
- Farmers were harvesting green maize, beans, green grams and cowpeas while others were already preparing their land in anticipation of the next rain season.
- However, following sustained off season rains during the month the risk of aflatoxin contamination in cereals remained high.

4. MARKET PERFORMANCE

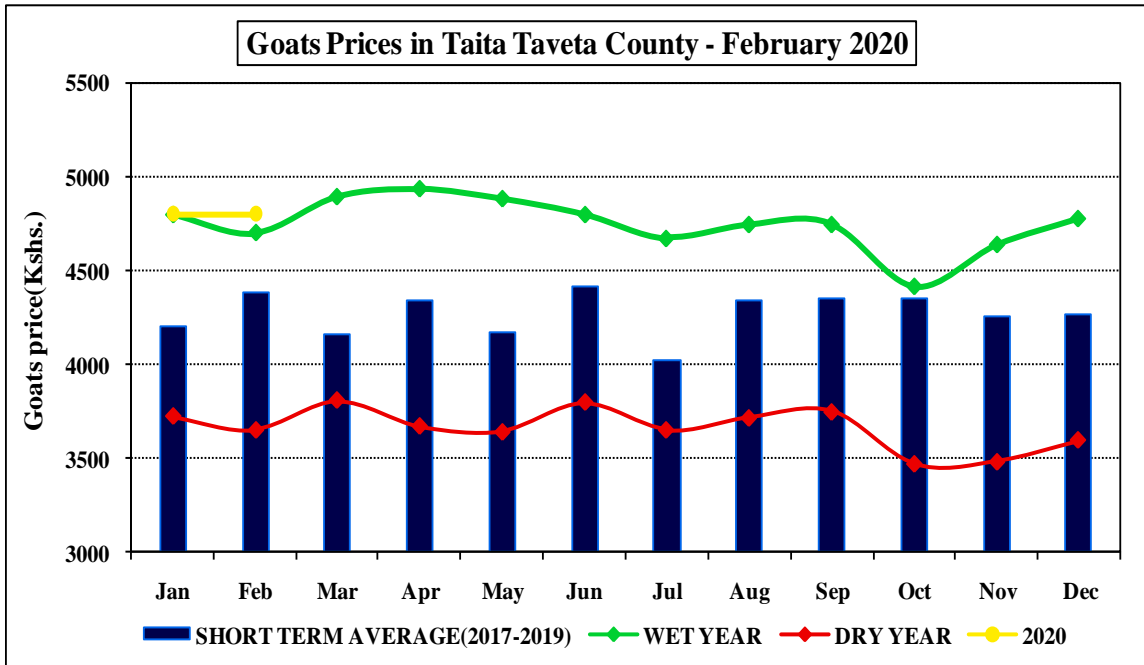
4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices



- The average market price of a three year old bull was Kshs 26,762, a slight increase compared to Kshs 26,619 posted in the previous month. Prevailing high price as illustrated in the graph above is due to good body condition of cattle promoted by forage availability at short distances.
- The highest prices were reported in the mixed farming: horticulture/ dairy at Kshs 34,000 and Kshs 26,267 in mixed farming/: food crop/livestock livelihood zone while lower prices were also reported in mixed farming: irrigated/livestock livelihood at Kshs 22,000.
- Compared to the long term mean, the county average price was higher by 14 percent.

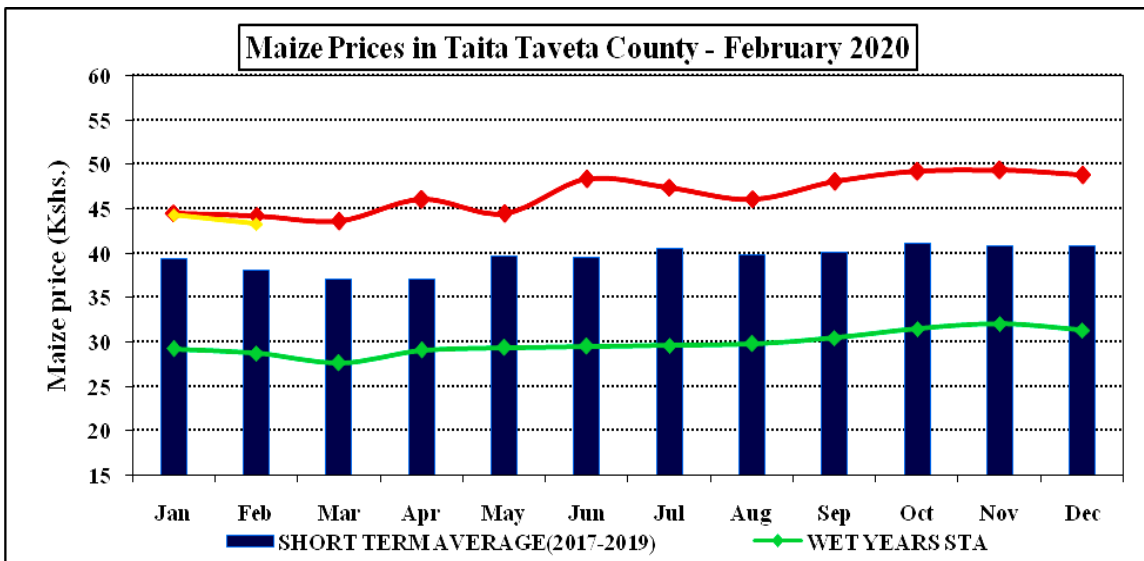
4.1.2 Goat Prices



- The county average market price of a two year old goat remained stable at Kshs 4,800.
- The highest prices were reported in the mixed farming: horticulture/ dairy livelihood zone of Kshs 6,000 where farmers keep a few animals for special events while lower prices of Kshs 4,700 and Kshs 4,000 were reported in mixed farming: food crop/ livestock livelihood zone and mixed farming: irrigated/livestock livelihood zone.
- Compared to long term mean, the average price was higher by 4.3 percent.

4.2 CROP PRICES

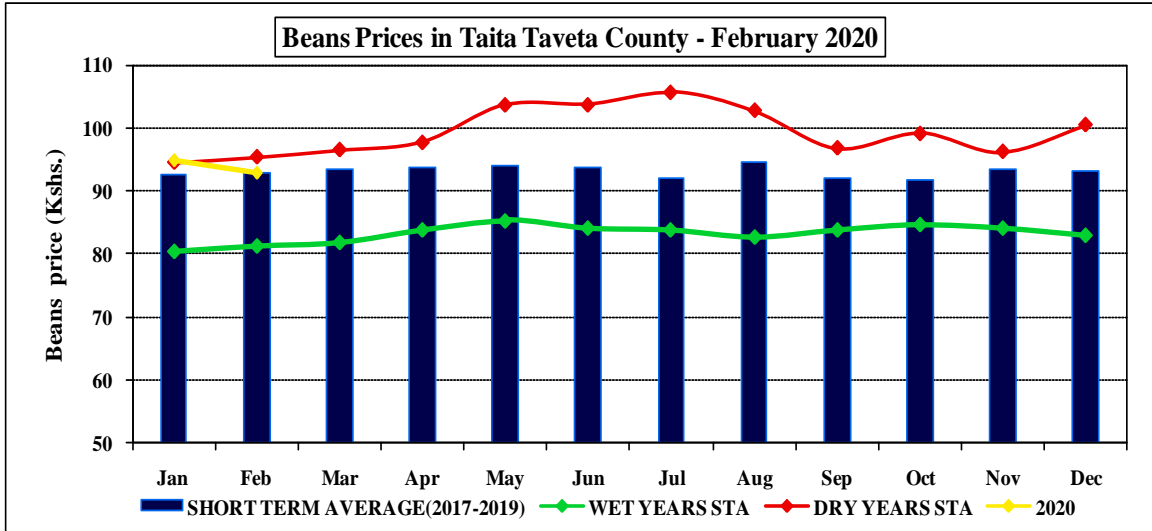
4.2.1 Maize



- The average market price of a kilo of maize dropped to Kshs 43.3 from Kshs 44.3 posted in the previous month and above the long term average by 10 percent.

- The drop in maize price is due to decrease in demand for the product in the market as a result of ongoing harvests in the county.
- 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 45.00 while horticulture/dairy livelihood zone (Mghambonyi market) and mixed farming: irrigated/livestock livelihood zone (Taveta Town) at Kshs 40.

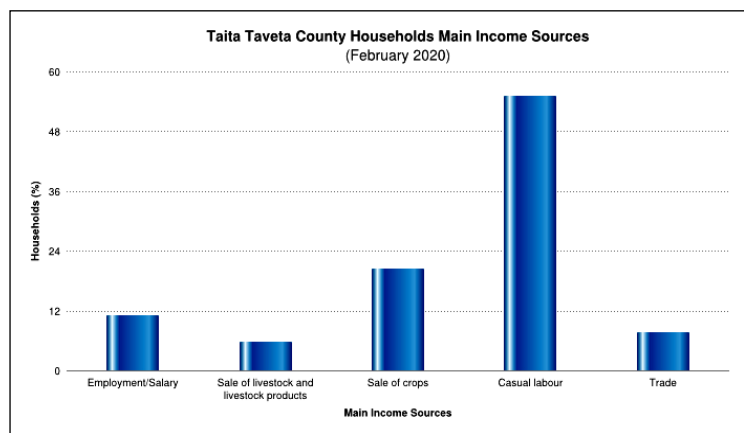
4.2.2 Beans



- The average market price of a kilo of beans decreased to Kshs.92.9 compared to Kshs.94.8 recorded in the previous month and above the long term mean by 3 percent. The drop in beans price was attributed to drop in demand for beans in the market due to ongoing harvests across the county.
- Across the livelihood zones the price varied with the mixed farming: irrigated/ livestock livelihood zone recording the highest price of Kshs 95 while mixed farming: food crop/ livestock livelihood zone and mixed farming: horticulture/dairy livelihood zone recorded a price of Kshs 92 and Kshs.90 respectively.

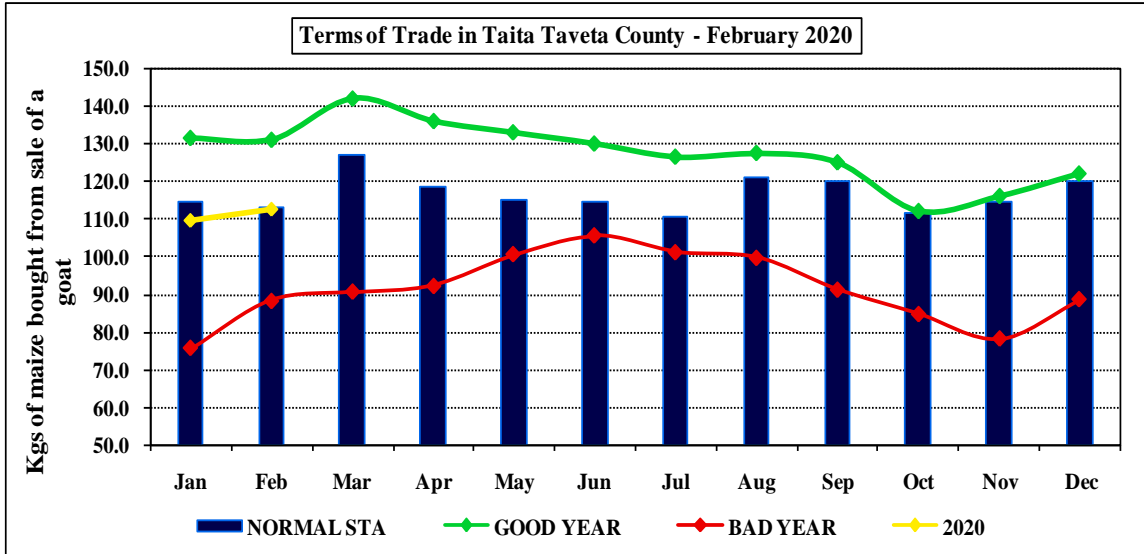
4.3 INCOME

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.



- 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, bush clearing on road reserves and town centres.

4.4 TERMS OF TRADE (GOAT PRICE VERSUS MAIZE PRICES)

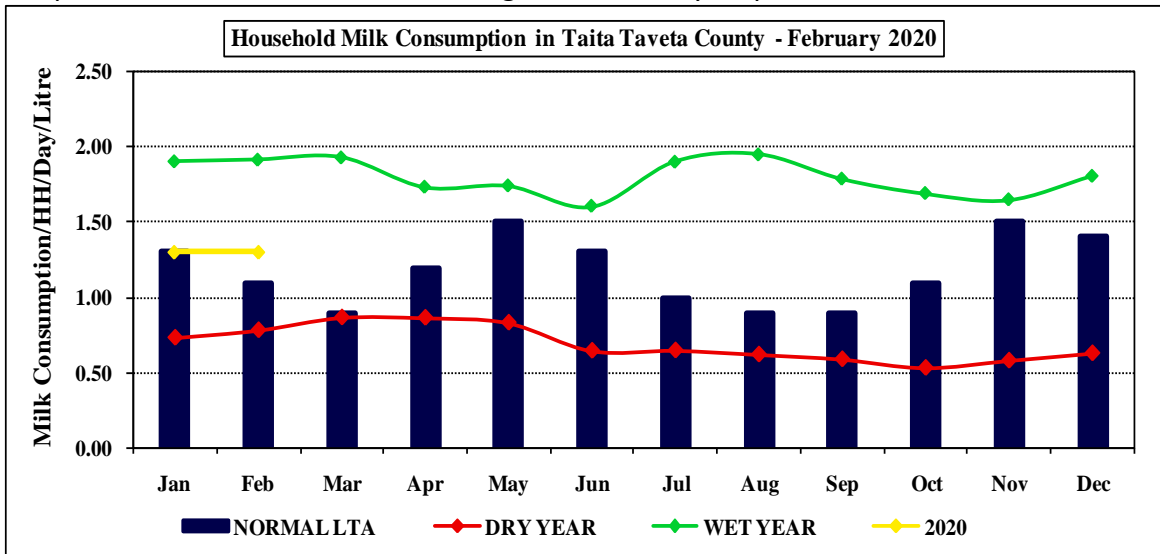


- Terms of trade were favourable and proceeds of sale of goat could purchase 112.6 kilograms of maize compared to 109.6 posted in the previous month and near normal STA.
- ToT ratios by livelihood zone were as follows; mixed farming: horticulture/ dairy livelihood zone at 162.5, mixed farming: food crops/livestock livelihood zone at 105.2 and mixed farming: irrigated cropping/livestock livelihood zone recorded at 100.

5. FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- The average milk consumption per household per day remained at 1.3 litres as posted in the previous month and above the long term mean by 18 percent.

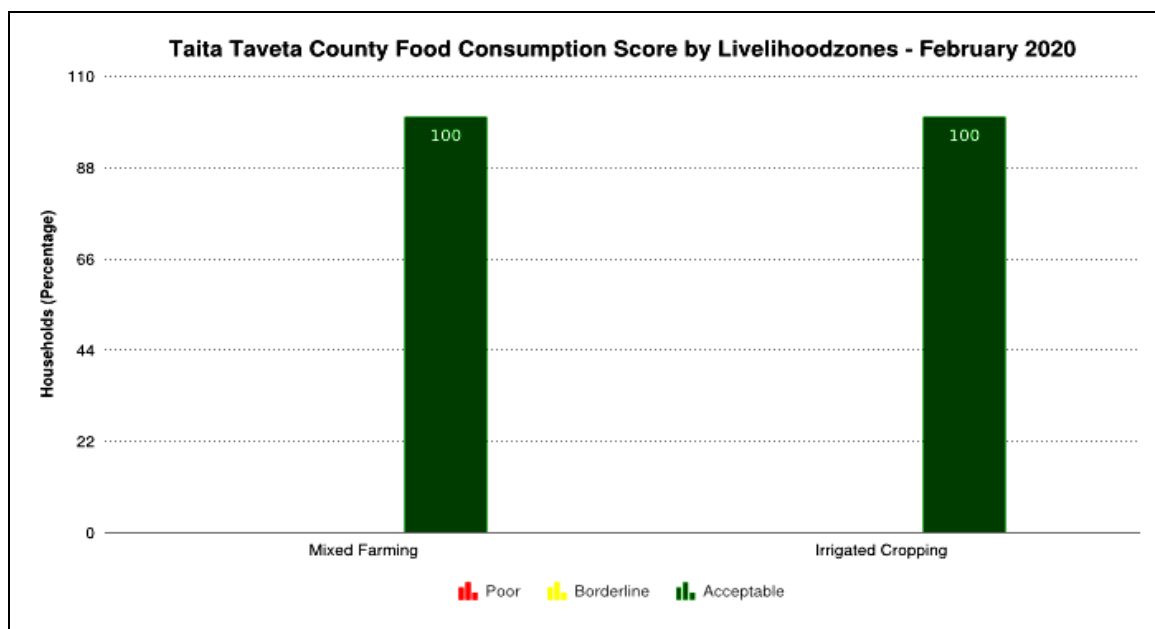


n=210 HHs

- Milk consumption per household per day in regard to livelihood zones; mixed farming: food crops/livestock (1.2 litres), mixed farming: horticulture/ dairy (1.3 litres) and mixed farming: irrigated cropping/livestock (1.1 litres).

5.2 FOOD CONSUMPTION SCORE

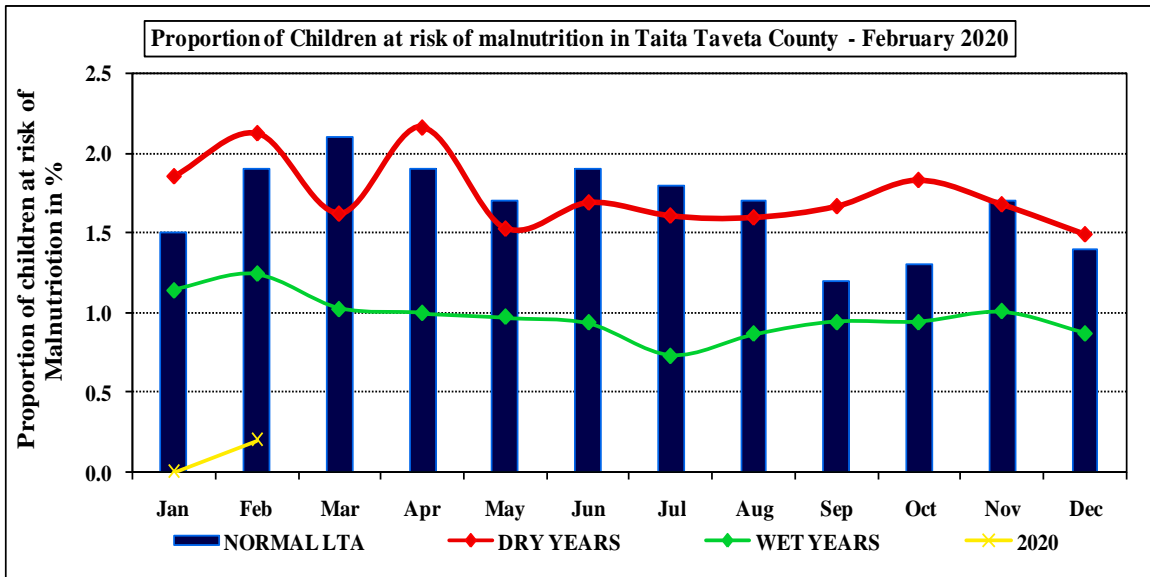
- The prevalence of households with acceptable, borderline and poor food consumption score (FCS) was at 100, 0.00 and 0.00 percent respectively and relatively stable compared to the previous month mainly due to ongoing harvests in the county.
- Compared to a similar period in 2019 where prevalence was at 46.2, 51.9 and 1.9 percent for acceptable, borderline and poor FCS respectively, household consumption for the month under review was much better given that more households were in the acceptable food consumption category.
- The current mean food consumption score depicted an improving trend at 68.8 compared to 62.0 posted in the previous month.
- The mean FCS score was high in the mixed farming: irrigated cropping/ livestock livelihood zone recorded at 82.2 followed by mixed farming: horticulture/ dairy livelihood zone at 71.8 and mixed farming; food crop/ livestock livelihood zone at 64.1. In all the zones, 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 598 children below five years were sampled for MUAC measurement where proportion of male and female was at 58 and 42 percent respectively.

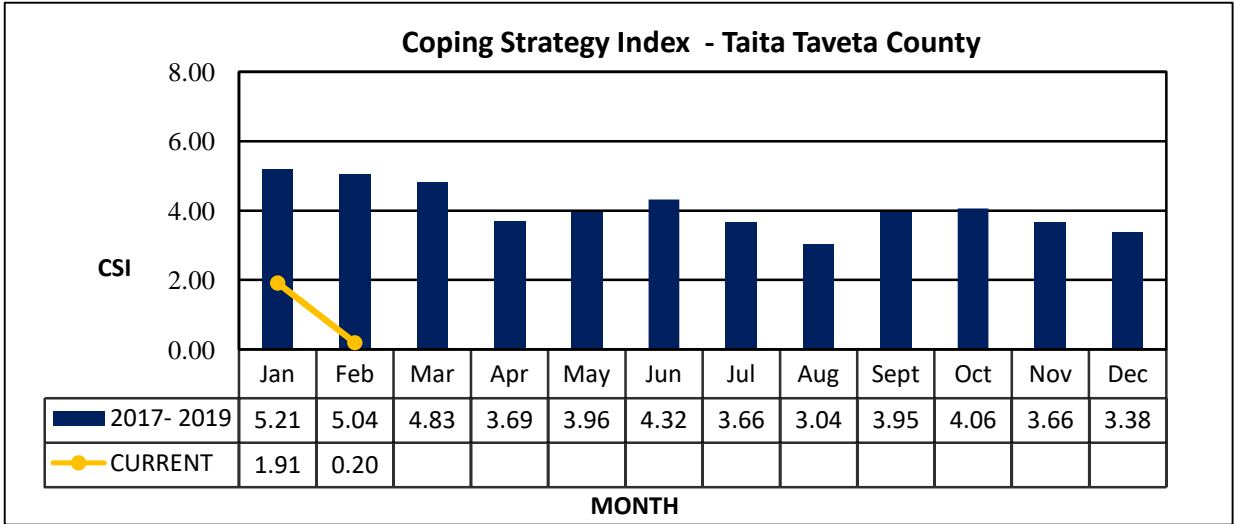


5.3.1 Nutrition Status

- MUAC -children at risk of malnutrition (125 – 134 mm) reported was at 0.2 percent and below the long term average by 90 percent as shown in the graph above. It also indicated a slight rise compared to the previous month where no cases were reported.
- Also 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.

5.4 COPING STRATEGIES

- The average Coping Strategy Index (CSI) decreased to 0.2 compared to 1.91 posted in the previous month and below the long term average by 96 percent. This positive adjustment in consumption based coping strategies was due to availability of food at household level due to ongoing harvests.
- Generally most sampled households employed consumption based coping strategies that were within the normal range.
- The current CSI indicate that households were coping less compared to similar period last year where CSI was at 4.05.
- CSI was recorded at 0.23 in the mixed farming: horticulture/dairy livelihood and the food crop/ livestock livelihood zone at 0.22. 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 Sector		
Enhance food security in the county	<ul style="list-style-type: none">Farmer capacity building on post-harvest managementDistribution of assorted seedlings (Macadamia, Mango and Avocado)	Department of Agriculture
Livestock Sector		
Improving livestock husbandry	<ul style="list-style-type: none">Capacity building on pasture and fodder conservation through trainings and field days	Department of Livestock
Water Sector		
Provision of clean and safe drinking water and environment conservation	<ul style="list-style-type: none">Construction of 100M3 masonry water tank at Mbewa water project with its associated piping system – Modambogho/ Landi	World Vision in Collaboration with Department of Water, Environment and Sanitation

7. EMERGING ISSUES

7.1 Insecurity/ Conflict/ Human Displacement

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

7.2 Migration

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

7.3 FOOD SECURITY PROGNOSIS

- The long rains are expected to be above normal according to the forecast issued by the Meteorological department. The rains are expected to support both cropping and forage growth.
- The above normal harvests being experienced in the county are expected to provide farmers with food and income.
- Increased livestock products such as milk are expected to improve nutrition of household members.
- Prices of all livestock species are projected to remain above normal due to good body condition.
- Water availability and accessibility is projected to be good and distances to remain below the long term average.
- Increased income will result to consumption of food groups with high value like milk, meat, eggs and fruits and hence promote nutritional levels.

8. RECOMMENDATIONS

Agriculture and Livestock Sector

- Capacity build farmers on post-harvest management
- Capacity build farmers on pasture and fodder conservation

Water Sector

- Promote water harvesting at household level
- Promote roof water catchment through installation of gutters in all learning and health institutions

Health and Nutrition Sector

- Household level water treatment and storage to increase access to clean and safe drinking water.