

National Drought Management Authority

TAITA TAVETA COUNTY

DROUGHT EARLY WARNING BULLETIN FOR JANUARY 2021



A Vision 2030 Flagship Project



JANUARY 2021 EW PHASE		Early Warning Phase Classification		
<p>Drought Status: NORMAL</p> <p>Shughuli za kawaida</p>	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	
<p>Drought Situation & EW Phase Classification</p> <p>Biophysical Indicators</p> <ul style="list-style-type: none"> The County received rains that were within the normal range in the first dekad of the month. The rains were well distributed in both the lowlands and the highlands. The county vegetation greenness condition was above the normal range (VCI-3Month; 64.17) and as forecasted by ASTROCAST vegetation is projected to be for the next two months. <p>Socio Economic Indicators (Impact Indicators)</p> <p>Production Indicators</p> <ul style="list-style-type: none"> Maize is at the drying stage for harvesting while beans, green grams and cowpeas were being harvested. Livestock body condition was good for all species across all livelihood zones and no migration was reported. Average milk production per HH per day was above normal. <p>Access Indicators</p> <ul style="list-style-type: none"> Terms of Trade were favorable. Milk consumption per HH per day was above normal. Household return distances to water sources were normal. Distances to water sources from grazing areas were below normal. <p>Utilization Indicators</p> <ul style="list-style-type: none"> The proportion of children at risk of malnutrition was within the normal range 	Biophysical Indicators	Value	Normal Range/ Value	
	Rainfall 3Months Anomaly	117	80 – 120	
	VCI-3Month	64.17	<50	
	Production indicators	Value	Normal	
	Crop Condition (maize)	Maturity	Maturity	
	Livestock Body Condition for cattle	Good	Good	
	Milk Production per HH/ day	3.7 Litres	3.1 Litres	
	Livestock Migration Pattern	Normal	Normal	
	Access Indicators	Value	Normal	
	Terms of Trade (Maize price vs Goat price)	124.1	112.3	
	Milk Consumption per HH/ day	1.4 Litres	1.3 Litres	
	Return HHs distance to water sources	2.4 km	2.3 Km	
	Water source return distance from grazing areas	2.7 km	4.0 Km	
	Cost of water (20 litres)	Kshs 3.00	< Kshs 5.00	
	Utilization indicators	Value	Normal	
	Nutrition Status, MUAC (% at risk of malnutrition)	0	1.4	

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

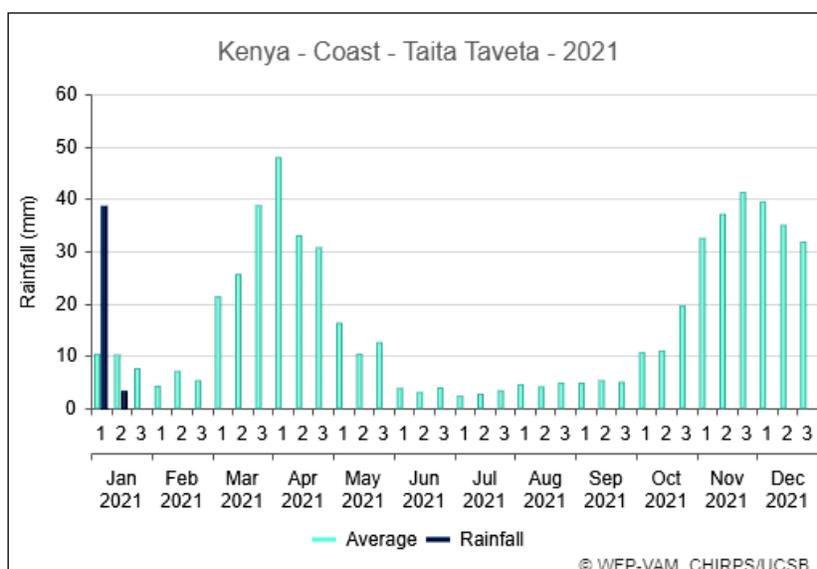
- The county received rains that were within the normal range and recorded most wet days in the mixed farming; food crop/ livestock livelihood zone ranging from 49.2 mm in Wumari/Sechu to 21.0 mm in Voi Met Station. The table below show rainfall precipitation at various stations;

Kenya Meteorological Department Rainfall Data

No.	Rainfall Station	Livelihood Zone	Wet Days	Amount (mm)
1.	Wumari/ Sechu	Mixed Farming: food crop/livestock	4	49.2
2.	Mtakuja	Mixed Farming: food crop/livestock	4	46.8
3.	Marungu	Mixed Farming: food crop/livestock	2	24.0
4.	Voi Met. Station	Mixed Farming: food crop/livestock	2	21.0
5.	Wumingu	Mixed farming: horticulture/dairy	4	20.6

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 rainfall anomaly of 108 percent.
- The estimated total precipitation for the first twenty days of the month under review was 41.6 mm and above LTM by 105 percent.

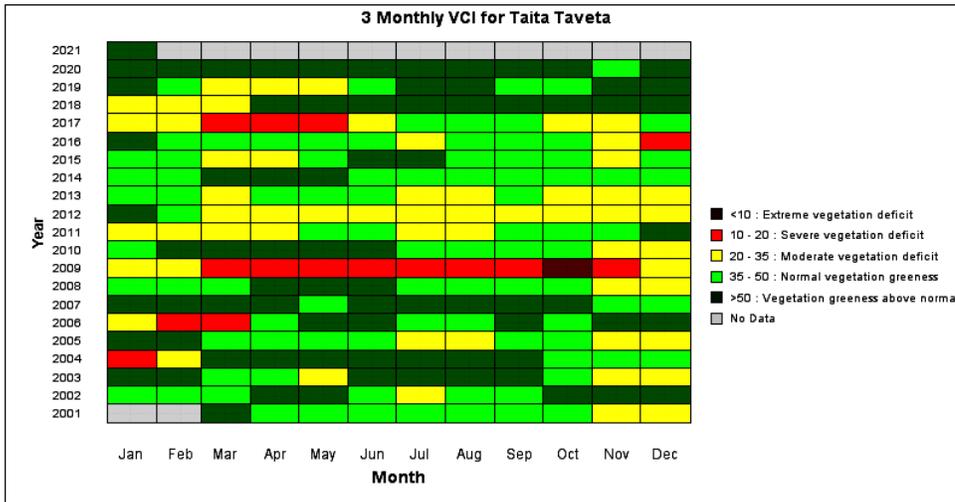


2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

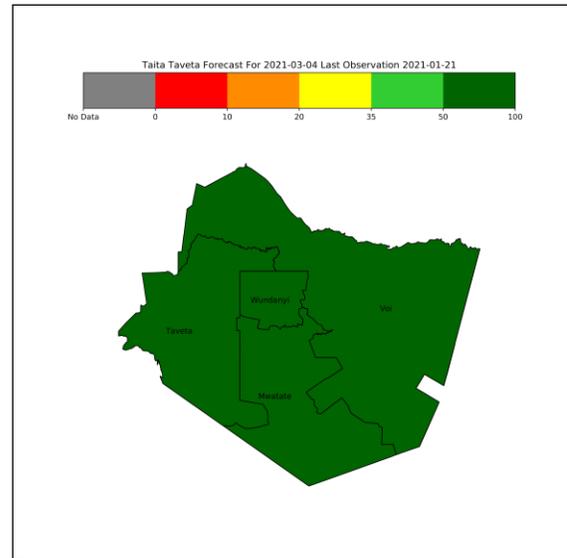
2.1.1 Vegetation Condition Index (VCI)

- The vegetation greenness condition in the county was above the normal range as depicted by a three months vegetation condition index (3M - VCI) of 53.89 (Figure below).
- All livelihood zones depicted vegetation greenness above normal.



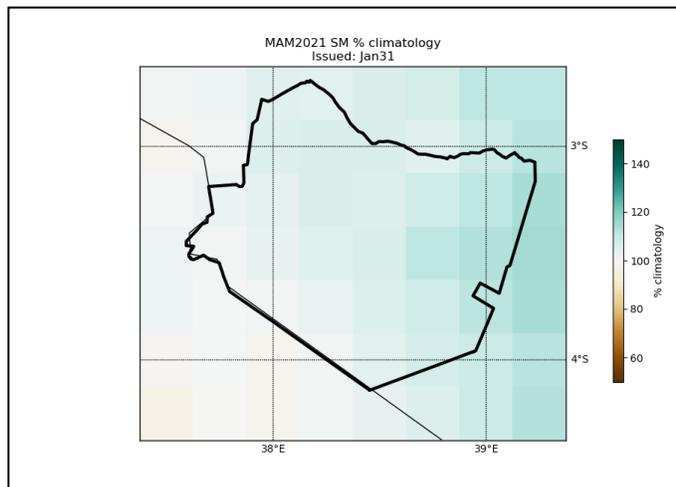
2.1.2 Vegetation Condition Index (VCI) - Forecast

According to Forecast-Based Preparedness Action (ForPAC) vegetation greenness condition in the county is forecasted to remain above average for the next two months.



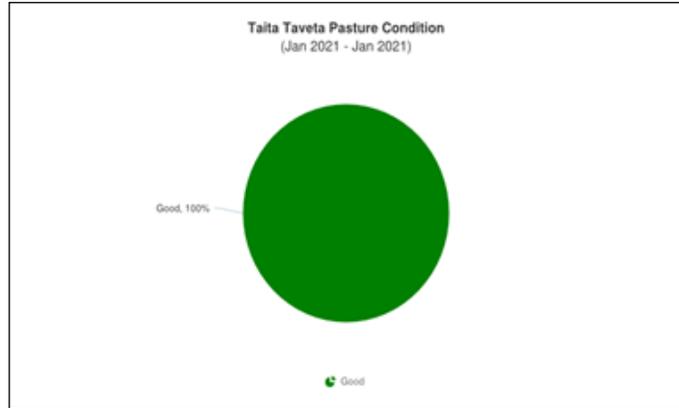
2.1.3 Soil Moisture Percentage Climatology

- According to TAMSAT-ALERT the forecast for soil moisture percentage climatology for the month of February will be normal. The soil moisture levels being recorded are capable of regenerating and sustaining natural vegetation and pasture.
- Forecast for MAM show that the county will continue to experience average soil moisture with eastern part of the county seeing slightly above average soil moisture percentage climatology (Tsavo East National Park).



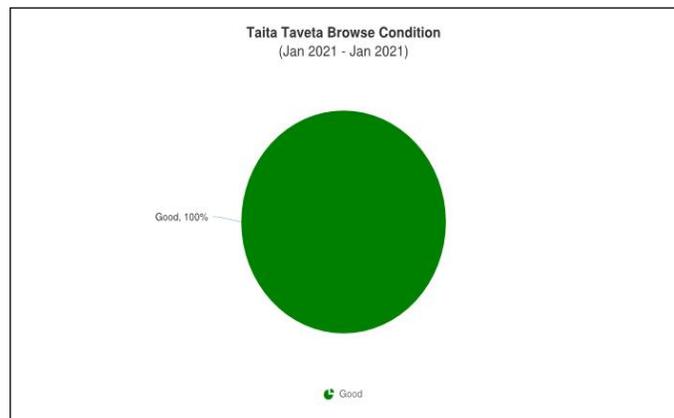
2.1.4 Pasture

- From community interviews, all the respondents reported that pasture condition was good and normal compared to a time like this last year.
- In comparison to the previous month, pasture condition had improved significantly.
- Available pasture is expected to cater for livestock for the next three months.



2.1.5 Browse

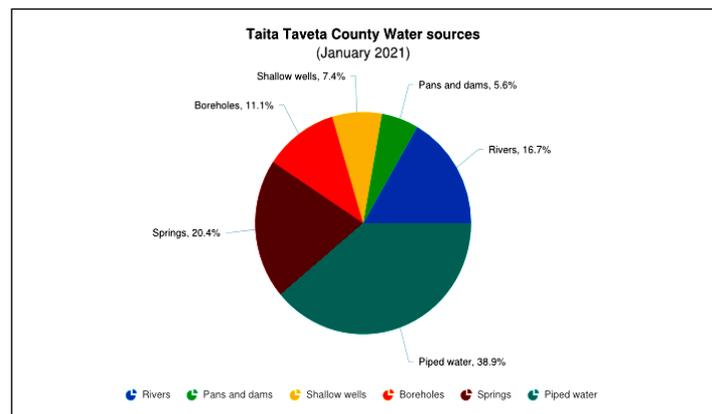
- From community interviews, 100 percent of the respondents reported browse condition was good and normal.
- Compared to the previous month, the browse condition remained generally good.
- Available browse is expected to cater for livestock for the next three months.



2.2 WATER RESOURCE

2.2.1 Sources

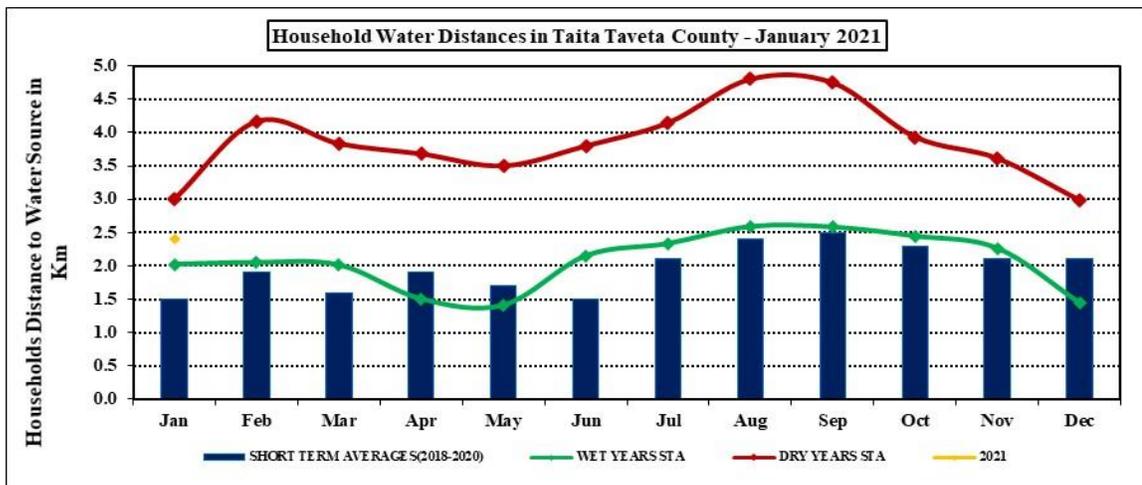
- The main sources of water currently in use by both human beings and livestock were piped water systems, springs, rivers, shallow wells, boreholes, pans and rock catchments.
- They were relied upon by 39, 20, 17, 11, seven and six percent of the households respectively.
- Notably, water pans and rock catchments had recharged during the rains hence increased water availability.



- In comparison to previous month, the proportions remained relatively the same.
- In all livelihood zones, water from the main sources is expected to cater for households for the next two to three months.

2.2.2 Household Access and Utilization of Water

- The average return distance from households to main water sources remained stable at 2.4 km same as the previous month and above the short-term average by 60 percent as shown in the graph below.

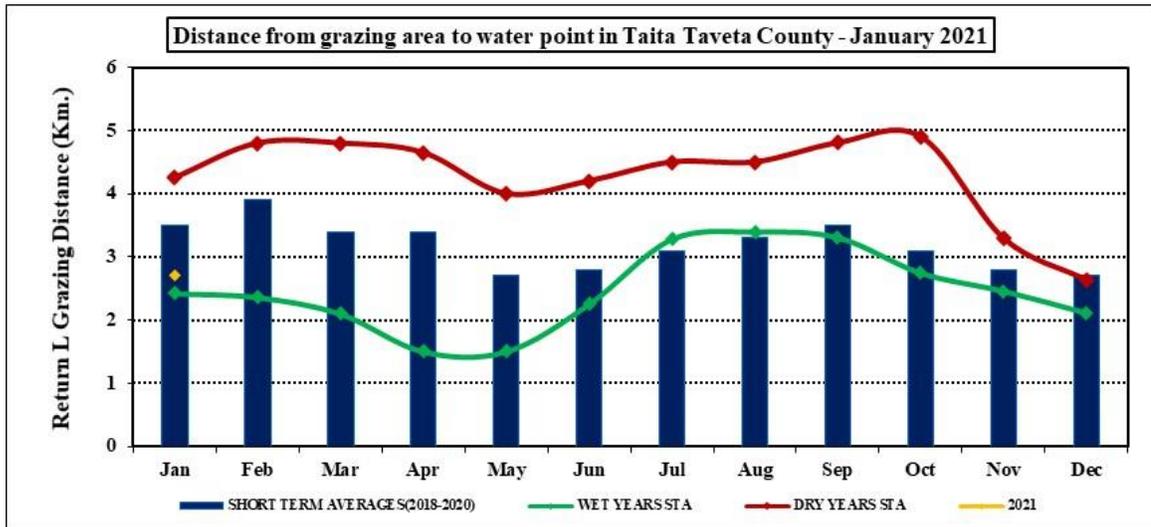


n=21 Key Informants

- The county average water consumption per person per day (pppd) was at 17 litres, similar to the previous month and varied across livelihood zones.
- Households in mixed farming: horticulture/ dairy livelihood zone and mixed farming: irrigated cropping/ livestock livelihood zone reporting 17 and 24 litres pppd respectively compared to 16 litres pppd in mixed farming: food crops/ livestock livelihood zone.
- Water retailed at Kshs 2 per 20 litre jerry-can at source and approximately 49 percent of the households purchased water compared to 55 percent in the previous month. Price per jerry can at private water points ranged from Kshs 3 - 5.
- Overall, the number of households treating drinking water was at 15 percent (31 households) similar to the previous month.
- The households were in the mixed farming: irrigated cropping/ livestock livelihood zone. (30) and 1 in mixed farming (food crop livestock livelihood zone-Ngolia).
- The main treatment methods were the use of chemicals and boiling and were used by 97 percent (30) and 3 percent (1) of the households respectively. Most households in the horticulture/dairy and food crop/livestock livelihood zones relied on water from piped water system which is treated at the source.

2.2.3 Livestock Trekking Distance to Water Sources from Grazing Areas

- The average livestock trekking return distance from grazing areas to main water sources was recorded at 2.7 similar to the previous month and below the short-term average by 33 percent as indicated in the graph below. The stable distance 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

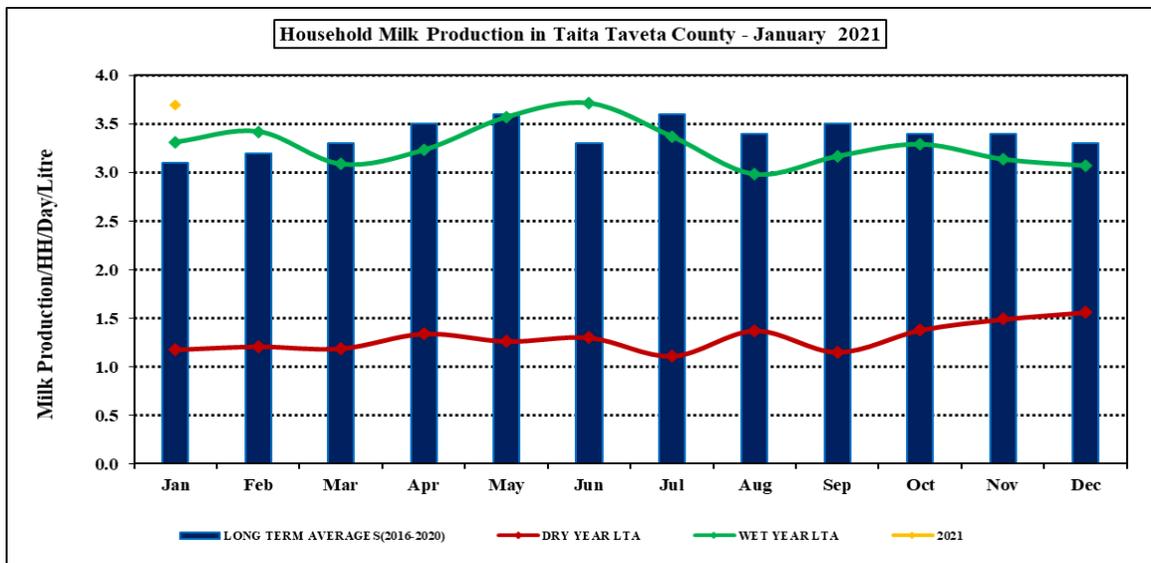
3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Livestock body condition for all species was generally good across all livelihood zones and similar to the previous month due to availability of forage.
- Livestock body condition is projected to remain good due to availability of forage and water at shorter distances.

3.1.2 Milk Production

- The average milk production (cow) per household was recorded at 3.7 litres compared to 3.2 litres recorded in the previous month and above the long-term average by 19 percent.



n=210 HHs

- Mixed farming: horticulture/ dairy livelihood zone milk production was at seven litres, in the mixed farming: irrigated cropping/ livestock livelihood zone at 3.5 litres and lowest at 2.8 litres in the mixed farming: food crop/ livestock livelihood zone.

3.2 RAIN-FED CROP PRODUCTION

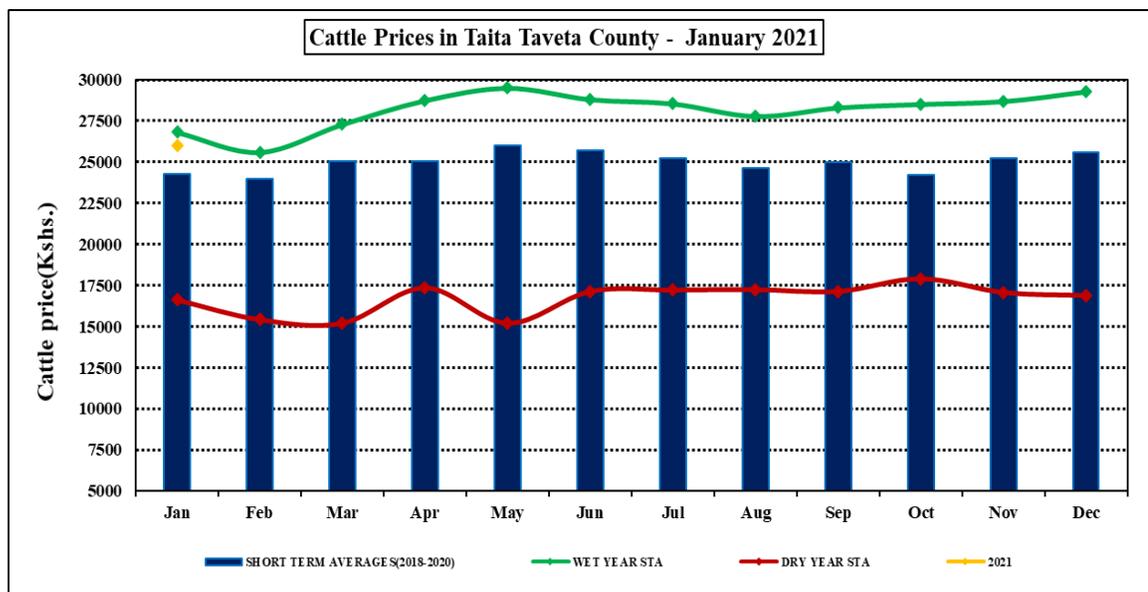
3.2.1 Stage and Condition of food Crops

- In the mixed farming: horticulture/ dairy and mixed farming: food crop/ livestock zones, maize reached maturity stage and was drying for harvesting whilst green grams, cowpeas and beans were being harvested. However, some pockets in the county experienced crop failure for instance Bura Ward and Mwachabo location, areas of Kasigau and Marungu Wards and lower parts of Sagalla Ward areas of Kajire.
- In the mixed farming: irrigated cropping/ livestock livelihood zone, maize crop was in good condition and a few farmers were selling green maize while others were busy harvesting dry maize and horticulture products.

4. MARKET PERFORMANCE

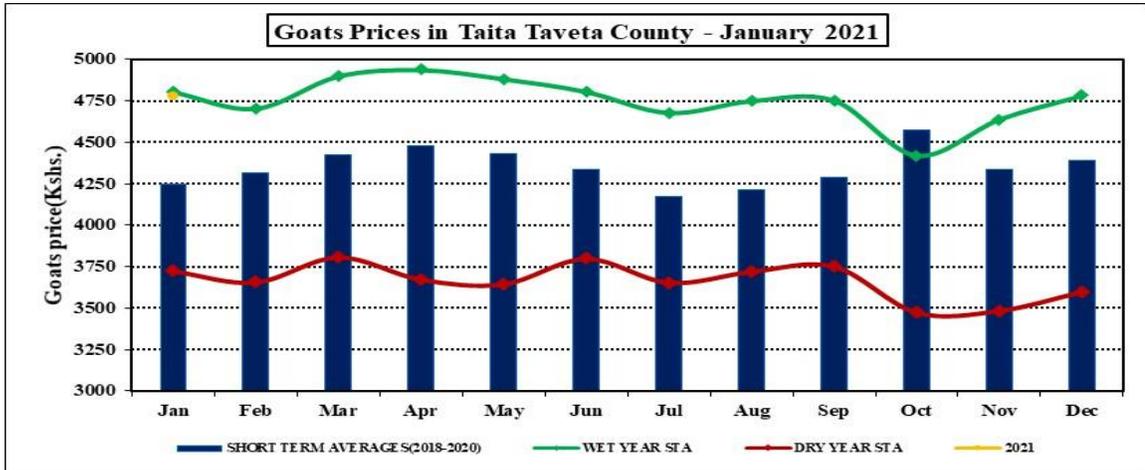
4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices



- The average market price of a three-year-old bull was recorded at Kshs. 26,000, same as the previous month.
- The relatively fair to high prices were as a result of the good livestock body condition reported across all livelihood zones.
- The highest prices were reported in the mixed farming: horticulture/ dairy at Kshs 30,000 and Kshs 25,600 in mixed farming/: food crop/livestock livelihood zone while lower prices were also reported in mixed farming: irrigated/livestock livelihood at Kshs 24,000. Compared to the short-term average, the county average price was higher by 7 percent.

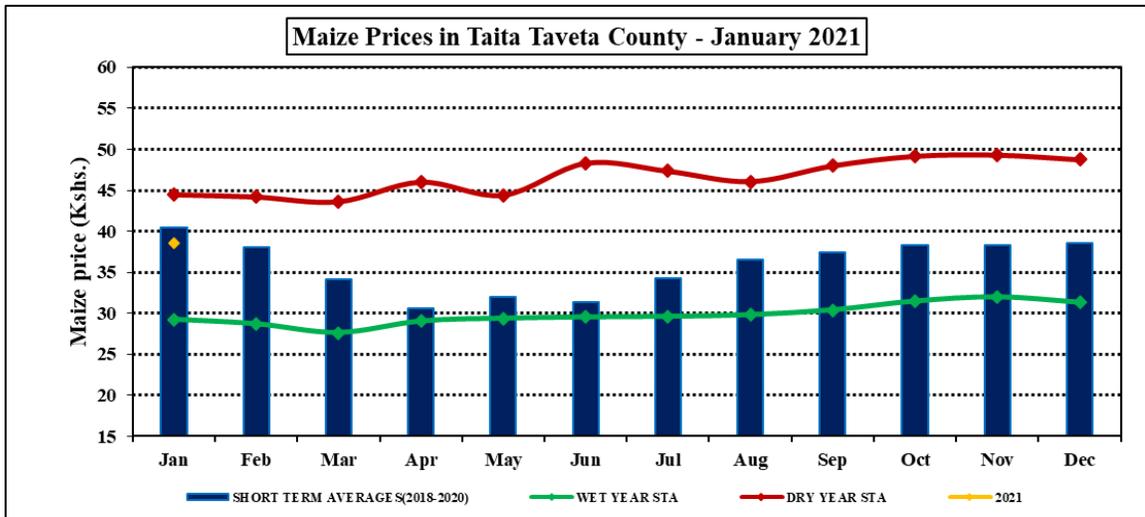
4.1.2 Goat Prices



- The county average market price of a two-year-old goat remained stable at Kshs 4,757 as posted last month. 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 4,693 and Kshs 4,000 were reported in mixed farming: food crop/ livestock livelihood zone and mixed farming: irrigated/livestock livelihood zone.
- The improved prices were as a result of the good livestock body condition reported from all livelihood zones.
- Compared to short term average, the price was higher by 13 percent.

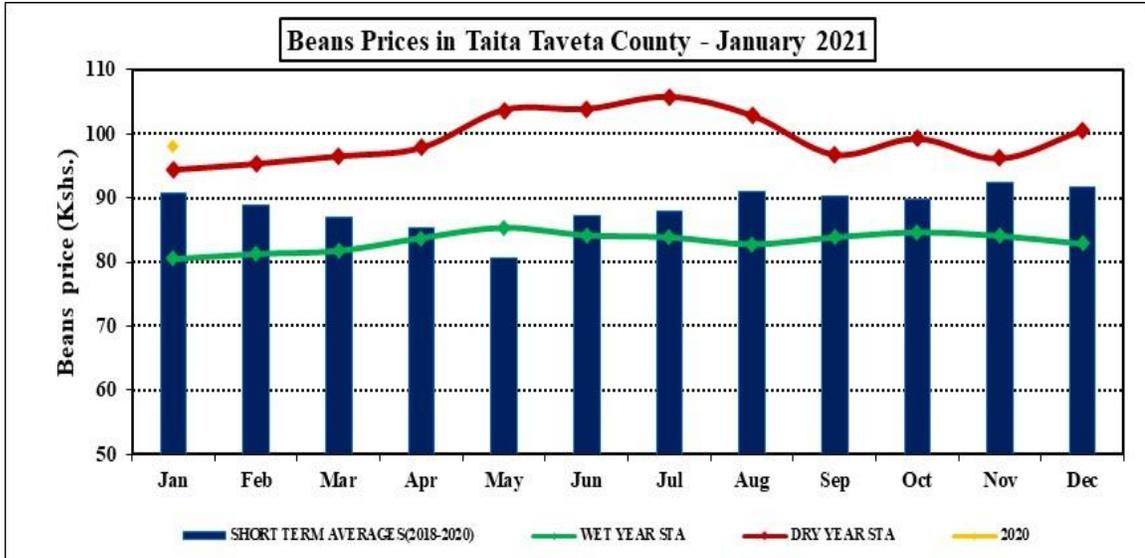
4.2 CROP PRICES

4.2.1 Maize



- The average market price of a kilo of maize was recorded at Kshs 38.5 compared to Kshs. 37.8 posted in the previous month and below the short-term average by 5 percent.
- The stable maize price was due to availability of supplies of maize in the market from previous season harvests.
- Across the livelihood zones the prices were recorded in the mixed farming; food crops/ livestock livelihood zone (Ghazi, Bura, Rukanga, Mwatate and Chumvini markets) at Kshs 40 while horticulture/dairy livelihood zone (Mghambonyi market) and mixed farming: irrigated/livestock livelihood zone (Taveta Town) at Kshs 38 and Kshs 32 respectively.

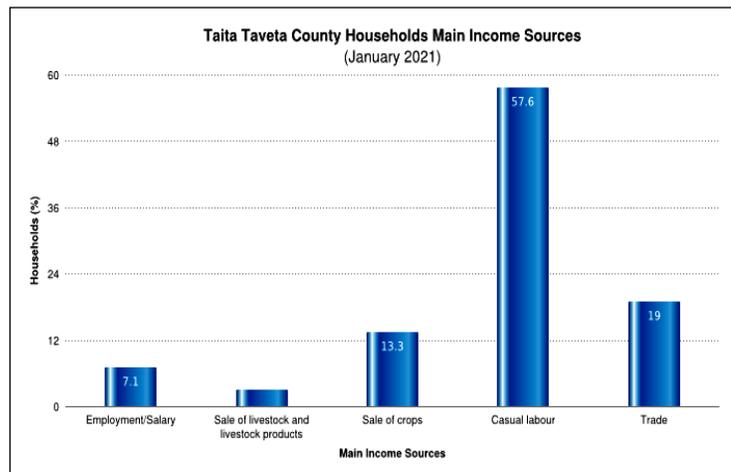
4.2.2 Beans



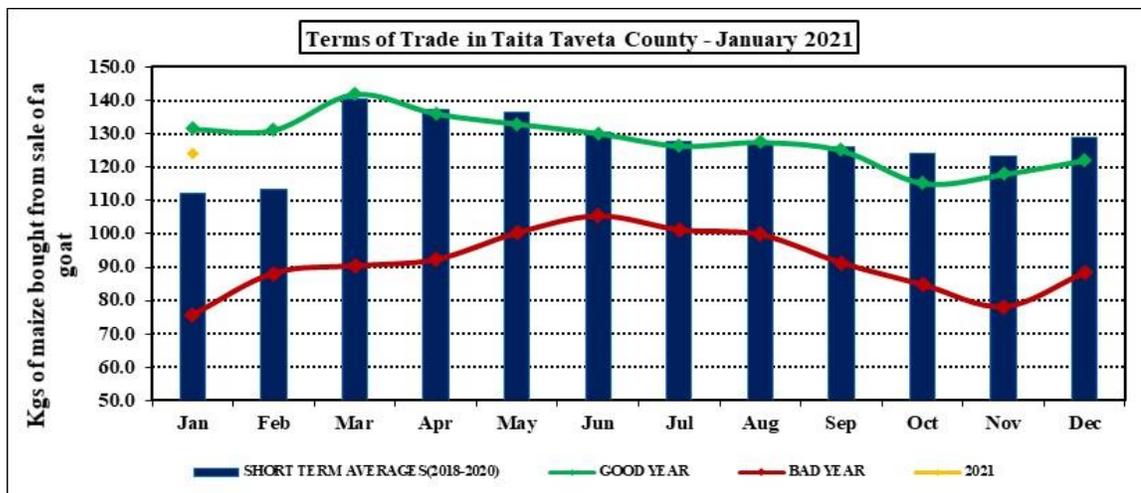
- The average market price of a kilo of beans was Kshs 97.1 similar to the previous month and above the short-term average by 7 percent. The stable prices are due to availability of the product at both household and market level from the previous harvest.
- Across the livelihood zones the price varied with the mixed farming: food crop/ livestock livelihood zone recording a price of Kshs 99 while mixed farming: irrigated/ livestock livelihood zone and mixed farming: horticulture/dairy livelihood zone both recorded a price of Kshs 85 and Kshs.100 respectively.

4.3 INCOME

- The main source of income was casual labour. Others included; trade, employment, and sale of livestock and livestock products and sale of crops at lower proportions. The average casual labour wage for the county for the month under review was Kshs 3,200 similar to that posted in the previous month.
- Compared to previous month sources of income remained relatively stable.
- Casual labour opportunities in the rural areas were available in the sisal and banana plantations, irrigation schemes, herding and ranches while in the urban areas, opportunities were in the construction sites and cleaning services in towns.
- Measures put in place by Ministry of Health to curb spread of COVID-19 led to closure of various businesses adversely affecting sources of income for households in towns.



4.4 TERMS OF TRADE (GOAT PRICE VERSUS MAIZE PRICE)

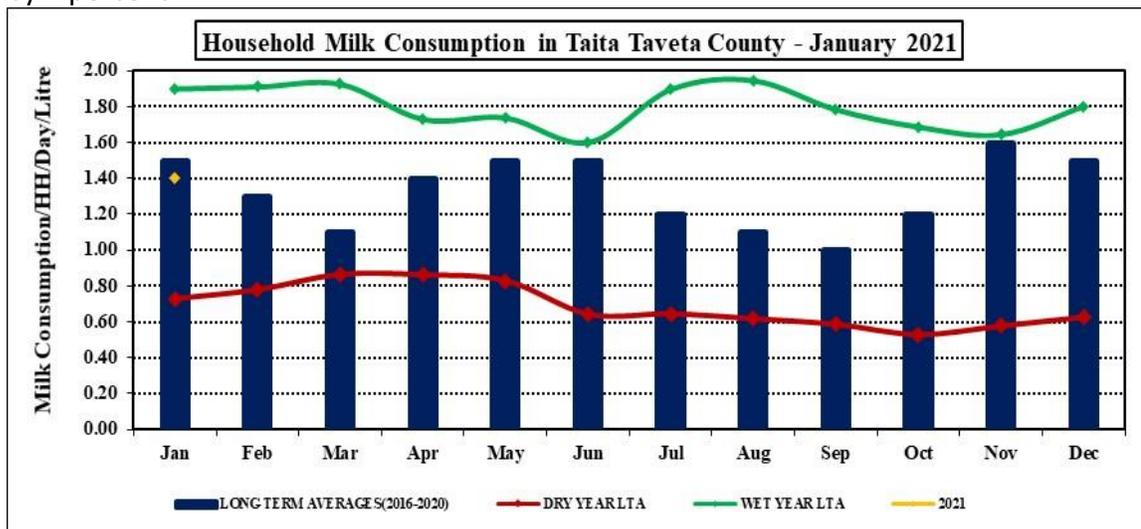


- Terms of trade (ToT) were favourable and proceeds of sale of goat could purchase 124 kilograms of maize compared to 135 posted in the previous month and above the short-term average by eleven percent.
- ToT ratios by livelihood zone were as follows; mixed farming: horticulture/ dairy livelihood zone at 158, mixed farming: food crops/livestock livelihood zone at 117 and mixed farming: irrigated cropping/livestock livelihood zone recorded at 126.

5. FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- The average milk consumption per household per day remained stable at 1.4 litres, compared to 1.2 litres recorded in the previous month and below the long term mean by 7 percent.

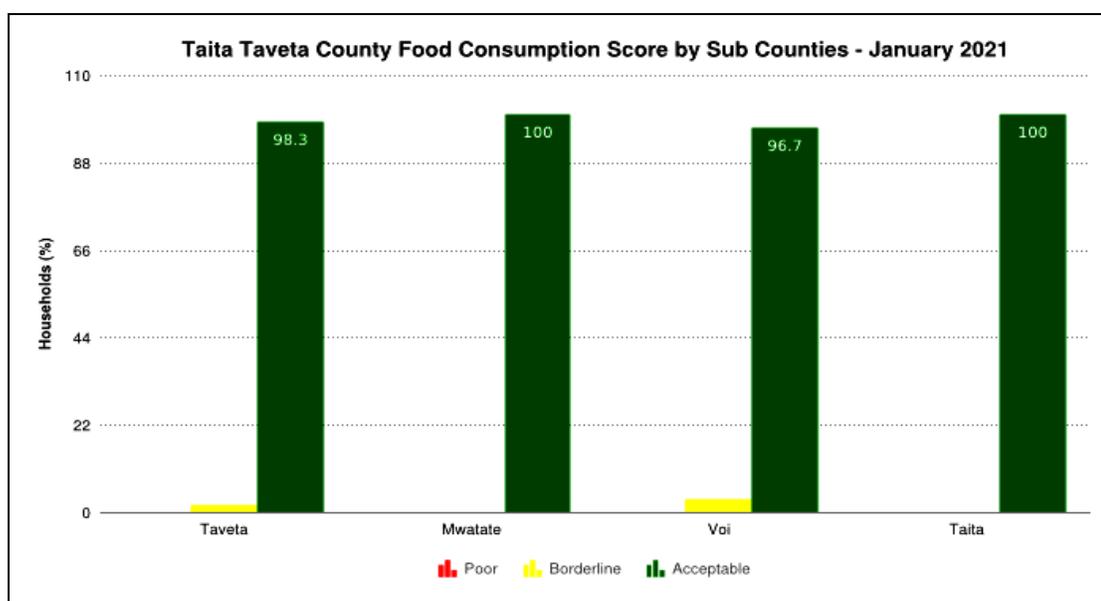


n=210 HHs

- Milk consumption per household per day in regard to livelihood zones; mixed farming: food crops/livestock (1.2 litres), mixed farming: horticulture/ dairy (1.9 litres) and mixed farming: irrigated cropping/livestock at 1.2 litres.

5.2 FOOD CONSUMPTION SCORE

- An estimated 98.6 and 1.4 percent of households sampled were in the acceptable and borderline food consumption score (FCS) respectively compared to 100 percent reported in the past month. The slight decrease was due to dwindling stocks held at household level from previous season.
- Compared to a similar period in 2019 where prevalence was at 83 and 17 percent for acceptable and borderline, household consumption for the month under review was much better.
- The current mean food consumption score depicted a stable trend at 76.8 compared to 76.2 in the previous month.
- The mean FCS score was high in the mixed farming: irrigated cropping/ livestock livelihood zone recorded at 92 followed by mixed farming: horticulture/dairy livelihood zone at 79 and mixed farming; food crop/livestock livelihood zone at 60.
- In all the zones, households consumed three food groups that is, maize, pulses and vegetables and in addition 70 percent of the households interviewed consumed meat (fish/beef) at least once during the seven-day recall period. Fish was served for three to five days in a week in households of Mboghoni and Challa wards in Taveta Sub County due to fishing activities in both Lake Challa and Lake Jipe. Other foods consumed were fruits and milk.
- Source of food consumed varied from own production to purchases; in the mixed farming: irrigated cropping/ livestock livelihood zone 90 percent of households consumed grains, pulses and vegetables that were from own production, mixed farming: horticulture/dairy livelihood zone grains (73), pulses (43) and vegetables (70) percent and mixed farming; food crop/livestock livelihood zone grains (79), pulses (56) and vegetables (7) percent. Higher proportion of households relying on purchases was observed in Ngolia Ward at 53 percent for grains and 100 percent for vegetables.



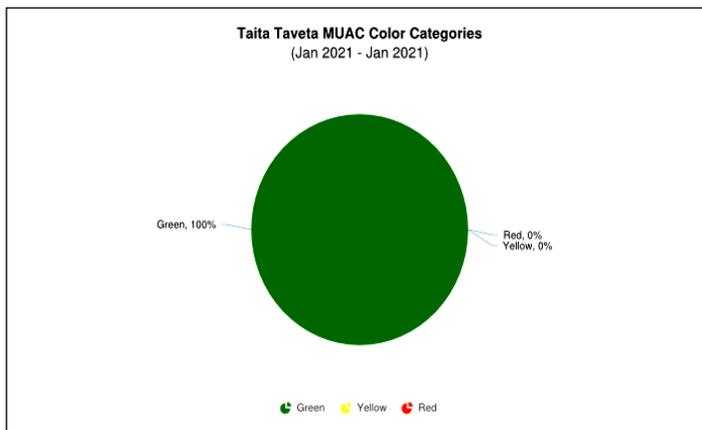
n=210HHs

5.3 HEALTH AND NUTRITION STATUS

- A total of 446 children below five years were sampled for MUAC measurement where proportion of male and female was at 52 and 48 percent respectively.

5.3.1 Nutrition Status

- In the month under review, no children aged below five years were found with MUAC - at risk of malnutrition (125 – 134 mm).
- There were no cases reported to be with MUAC (moderate 115-124mm) or (Severe<115).
- Across all livelihood zones nutrition status of children below five years remained relatively good in the seven sampled sentinel sites.

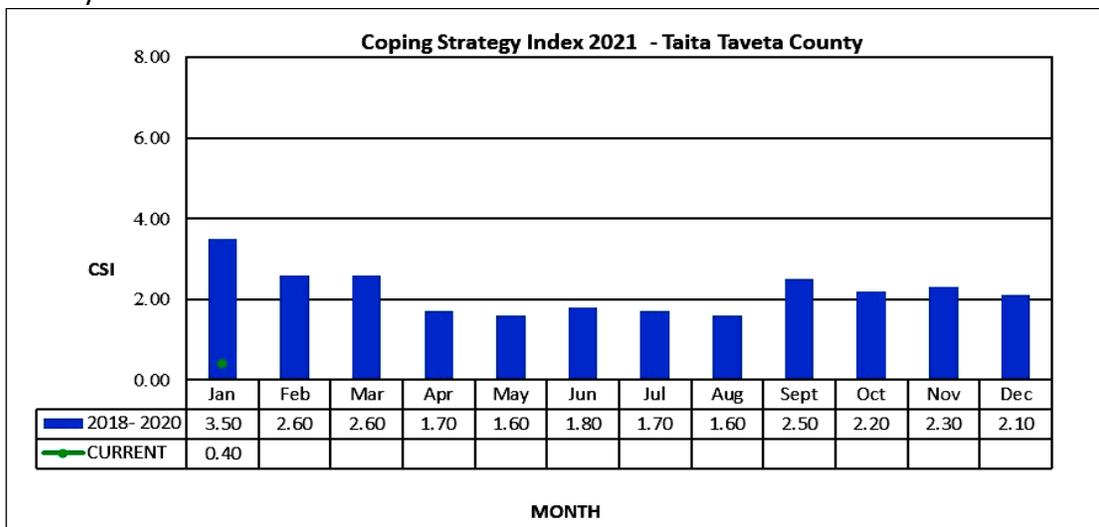


5.3.2 Health

- Out of the 446 sampled children only 0.4 percent (2 cases) was found to be ailing from fever with chills like malaria. The reported cases were from Voi Sub-county (Kasigau).

5.4 COPING STRATEGIES

- There were no consumption-based coping strategies employed from households interviewed in the month under review since households relied on previous season harvests (46 percent HHs holding stocks) and also prices were lower at the household level. The current Coping Strategy Index (CSI) indicates that the situation is much better compared to similar month last year where CSI was at 1.91.
- The graph below shows 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
Health Sector		
Provision of health equipment	<ul style="list-style-type: none"> Purchase of personal protective equipment (PPEs), sanitizers, thermo guns, respirators, chlorine, overalls clothes, helmets and spraying pumps 	County Government Department of Health
Water and Environment Sector		
Provision of clean and safe drinking water and environmental conservation	<ul style="list-style-type: none"> Continuous supply of adequate water and soap to all hand washing points to address the issue of COVID-19 pandemic 	County and National Government
	<ul style="list-style-type: none"> Water pipeline extension (1.88 km) from Kishenyi tunnel to Vipalo waters tanks in Mghange/ Mwanda Ward in Taita Sub County 90 percent complete 	EU, NDMA and County Government
	<ul style="list-style-type: none"> Drilling and equipping of Mwashuma borehole in Bura Ward 	County Government (Dept of Water)
	<ul style="list-style-type: none"> Rehabilitation of Nyangoro - Mwakitau water project in Mwatate Sub County 	Water Sector Trust Fund and County Government
Multi-Sectoral		
Support livelihoods through various enterprises and information	<ul style="list-style-type: none"> Implementation of Sagalla Ward integrated livelihood drought preparedness project is ongoing (Poultry, Sunflower, ABEC, Seedlings and Beekeeping and pipeline development 	EU, NDMA, STE and County Government
	<ul style="list-style-type: none"> Inception of Sustainable Food Systems Program in the county 	WFP/ WV & County Government
	<ul style="list-style-type: none"> 2020 Short rains Food and Nutrition Security Assessment 	Kenya Food Security Steering Group and Technical CSG

7. EMERGING ISSUES

7.1 Insecurity/ Conflict/ Human Displacement

- The COVID-19 pandemic continues to negatively impact off-farm income-earning opportunities like non-farm casual labour, petty trade, and remittances.

7.2 Migration

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

7.3 FOOD SECURITY PROGNOSIS

- The KMD forecast indicate that the first half of the month of February is expected to remain dry but with occasional light showers while the other half will remain dry. The dry condition will support drying of cereals and pulses for proper storage.
- Food will be available at household level due to harvest, however farmers who experienced crop failure and had exhausted their stocks will be forced to rely on stocks in the markets hence reduce their income.
- Forecasted normal soil moisture levels are expected to sustain pasture and browse growth and support tree seedlings planted during the season until onset of long rains.
- Forage condition is expected to be good and available at shorter distances and hence maintain good livestock body condition.
- Water situation is projected to cater for the communities until the next season.
- Minimal consumption-based coping strategies are expected to be employed by households that experienced crop failure and had depleted their food stocks.

8. RECOMMENDATIONS

Health sector

- Provision of PPEs, sanitizers and health equipment for healthcare workers.

Agriculture and Livestock Sector

- Sensitize farmers on post-harvest management.
- Provision of certified planting seeds for farmers who experienced crop failure.

Water Sector

- Provide adequate supply of water in all learning institutions, crowded places like bus stages and market places to enhance hand washing especially during this period of fighting COVID-19.

Multi-Sectoral

- Provision of face masks to school going children to curb spread of COVID-19
- Sensitize all population on the COVID-19 pandemic and its prevention
- Provision of food assistance and cash transfers among the vulnerable groups impacted negatively by effects of COVID-19 pandemic.