

National Drought Management Authority

TAITA TAVETA COUNTY

DROUGHT EARLY WARNING BULLETIN FOR SEPTEMBER 2021



A Vision 2030 Flagship Project



SEPTEMBER 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	Alert	Deteriorating
	Mixed Farming: Food Crops/ Horticulture/Dairy	Normal	Stable
	Mixed Farming: Irrigated Cropping/ Livestock/Food Crops	Normal	Stable
	National Park	Normal	Deteriorating
	County	Normal	Deteriorating
<p>Drought Situation & EW Phase Classification</p> <p>Biophysical Indicators</p> <ul style="list-style-type: none"> The County received light rains that were normal compared to long term average and mainly reported in the highlands. The county vegetation greenness condition was above the normal range (VCI-1Month; 61.84) and according to ASTROCAST forecast, vegetation is projected to be below normal during the short rains. ForPac project high chances of below normal short rains. <p>Socio Economic Indicators (Impact Indicators)</p> <p>Production Indicators</p> <ul style="list-style-type: none"> No major agricultural activities were being undertaken during the month under review. Livestock body condition was good for all species except in food crop/ livestock zone where cattle was in fair condition. Average milk production per HH per day was below normal. <p>Access Indicators</p> <ul style="list-style-type: none"> Terms of Trade were slightly below normal. Milk consumption per HH per day was normal. Household return distances to water sources were above normal. Distances to water sources from grazing areas were above 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 1Month Anomaly	95	80 – 120
	VCI-1Month	61.84	>35
	Production indicators	Value	Normal
	Crop Condition	Fair	Good
	Livestock Body Condition for cattle	Good to Fair	Good
	Milk Production per HH/ day	3.2 Litres	3.5 Litres
	Livestock Migration Pattern	Normal	Normal
	Access Indicators	Value	Normal
	Terms of Trade (Maize price vs Goat price)	123.6	125.9
	Milk Consumption per HH/ day	1.2 Litres	1.2 Litres
	Return HHs distance to water sources	3.3 km	2.6 Km
	Water source return distance from grazing areas	4.5 km	3.5 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	2.0

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 Landslides - Taita 								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

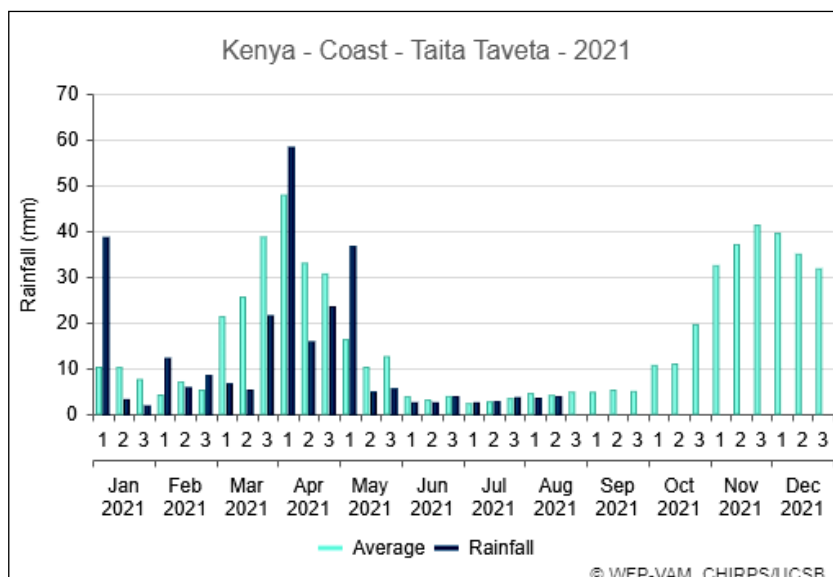
1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The County received light rains that were normal compared to long term average and were mainly reported in the highlands.
- On average, most areas experienced less than two wet days as reported by various rainfall stations.
- Higher rainfall amounts were reported in the mixed farming: horticulture/ dairy livelihood zone of the county.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- According to WFP-VAM, Climate Hazards Group InfraRed (CHIRPS), the county recorded a one-month rainfall anomaly of 95 percent.
- The estimated total precipitation for the month under review was 15.3 mm and higher than the LTM by 21 percent as indicated below.



2. IMPACTS ON VEGETATION AND WATER

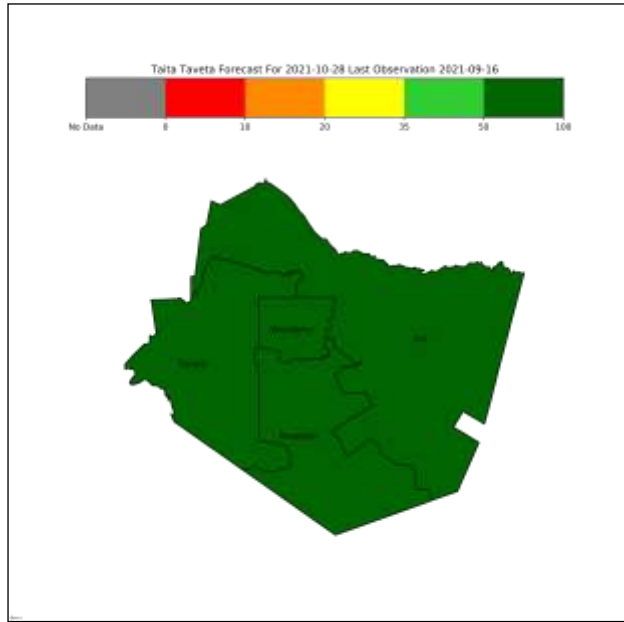
2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The vegetation greenness condition in the county was in the normal range as depicted by a one-month vegetation condition index of 61.84.
- All livelihood zones depicted vegetation to be in normal condition except in the mixed farming: Food Crop/ Livestock livelihood zone that was in the moderate drought category.

2.1.2 Vegetation Condition Index (VCI) - Forecast

- According to Forecast-Based Preparedness Action (ForPac) vegetation outlook, all the Sub Counties are expected to be in the very good condition category in the months of October and November 2021.

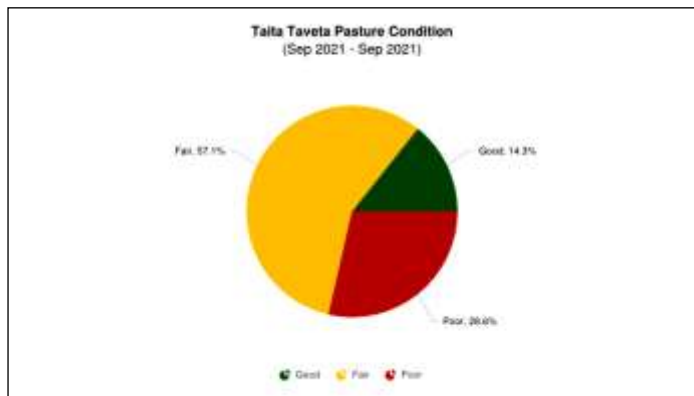


2.1.3 Soil Moisture Percentage Climatology

- According to TAMSAT-ALERT the forecast for soil moisture percentage climatology for October, November, December short rains 2021 will be below to near normal.

2.1.4 Pasture

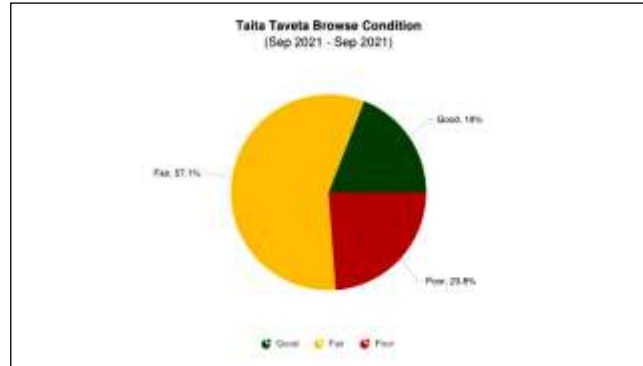
- From community interviews, an estimated 14, 57 and 29 percent of the respondents reported that pasture condition was good, fair and poor respectively and below normal compared to a time like this last year
- Other areas observed during field visits to have poor pasture condition were lower parts of Ngolia and Sagalla Wards and Marungu and Kasigau Wards in Voi Sub County, lower zones of Taita Sub County and Mata Ward in Taveta Sub County.



- Available pasture is expected to cater for livestock for the next one month.

2.1.5 Browse

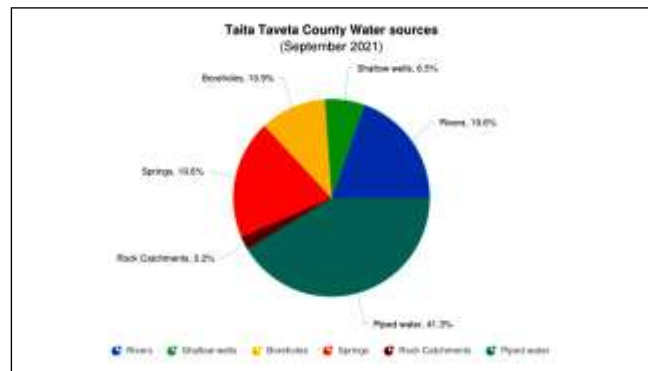
- From community interviews, an estimated 19, 57 and 24 percent of the respondents reported browse condition was good, fair, poor respectively and below normal.
- Available browse is likely to cater for livestock for the next one to two months.



2.2 WATER RESOURCE

2.2.1 Sources

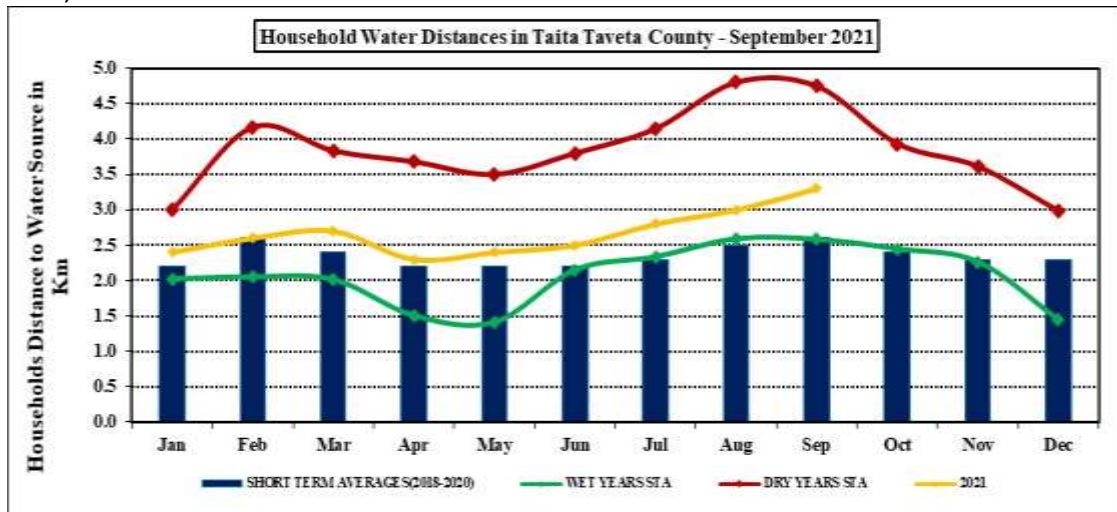
- The main sources of water currently in use by both human beings and livestock were piped water systems, springs, rivers, boreholes, shallow wells and rock catchments.
- They were relied upon by 41, 20, 20, 11, 6 and 2 percent of the households respectively.
- In comparison to previous month, water sources remained relatively the same.



- In all livelihood zones, water from the main sources is expected to cater for households for at least the next two months. In Voi Sub County most open water sources are dry.

2.2.2 Household Access and Utilization of Water

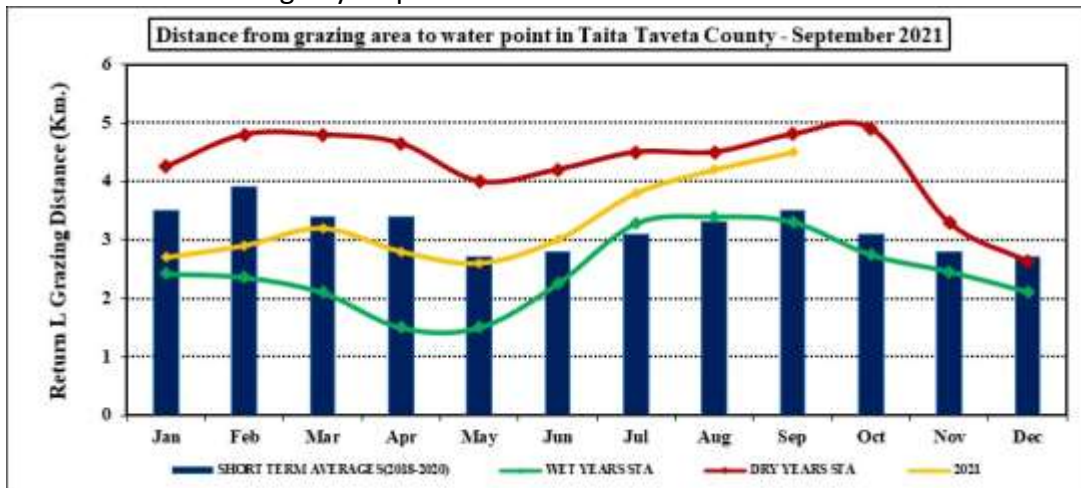
- The average return distance from households to main water sources increased slightly to 3.3 km from 3 km reported in the previous month and above the short-term average by 27 percent. This is due to drying up of major open water sources like water pans and dams, rock catchments and seasonal rivers.



- The county average water consumption per person per day (pppd) was at 15 litres, compared to 16 litres in the previous month and varied across livelihood zones.
- Households in mixed farming: horticulture/ dairy livelihood zone and mixed farming: irrigated cropping/ livestock livelihood zone reported 16.8 and 16.3 litres pppd respectively compared to 14.4 litres pppd in mixed farming: food crops/ livestock livelihood zone.
- Water retailed at Kshs 2 per 20 litre jerry-can at source and approximately 62 percent of the households purchased water compared to 64 percent in the previous month. Price per jerry can at private water points ranged from Kshs 3 - 5.
- Overall, 14 percent of the households treated drinking water at home and this mainly was in the mixed farming; irrigated cropping/livestock livelihood zone and used water treatment chemicals like water guard. In this area water is usually contaminated due to occasional flooding and agricultural activities.
- Water used by households in the horticulture/dairy and food crop/livestock livelihood zones is piped and normally 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 4.5 km compared to 4.2 km posted in the previous month and above the short-term average by 29 percent.



- The increase in distance was as a result of drying up of open water sources mentioned above (2.2.2).
- Frequency of watering livestock was not normal especially in the food crop/ livestock livelihood zone where it was done three to five times in a week instead of seven.
- However, in the other livelihood zones watering remained normal that is twice daily for seven days.

3. PRODUCTION INDICATORS

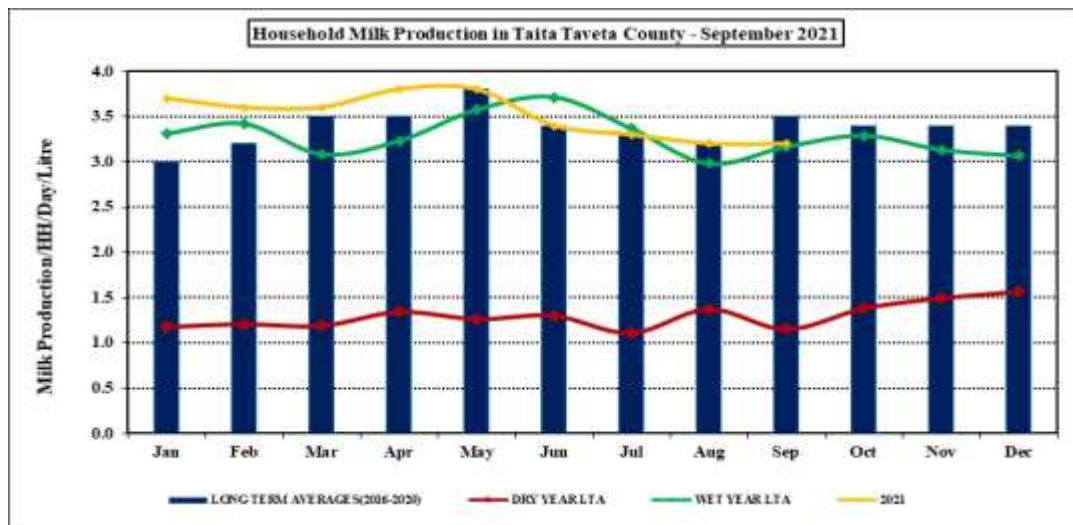
3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Livestock body condition for all species was good across all livelihood zones. However, in the mixed farming: Food Crop/ Livestock zone cattle body condition ranged from good to fair but on a deteriorating trend.
- Increased grazing and water source distances for livestock was noted to contribute to poor livestock health among other factors.
- Livestock body condition is projected to remain good in the horticulture/ dairy and irrigated cropping/ livestock livelihood zones over the next two months.

3.1.2 Milk Production

- The average milk production (cow) per household was recorded at 3.2 litres same as the previous month and below the long-term average by nine percent.



- The downward trend is attributed to deteriorating body condition of cattle mainly in the mixed farming: Food Crop/ Livestock zone.
- Mixed farming: horticulture/ dairy livelihood zone milk production was at 7 litres, 1.7 litres in the mixed farming: irrigated cropping/ livestock livelihood zone at three litres and 1.8 litres in the mixed farming: food crop/ livestock livelihood zone.

3.2 RAIN-FED CROP PRODUCTION

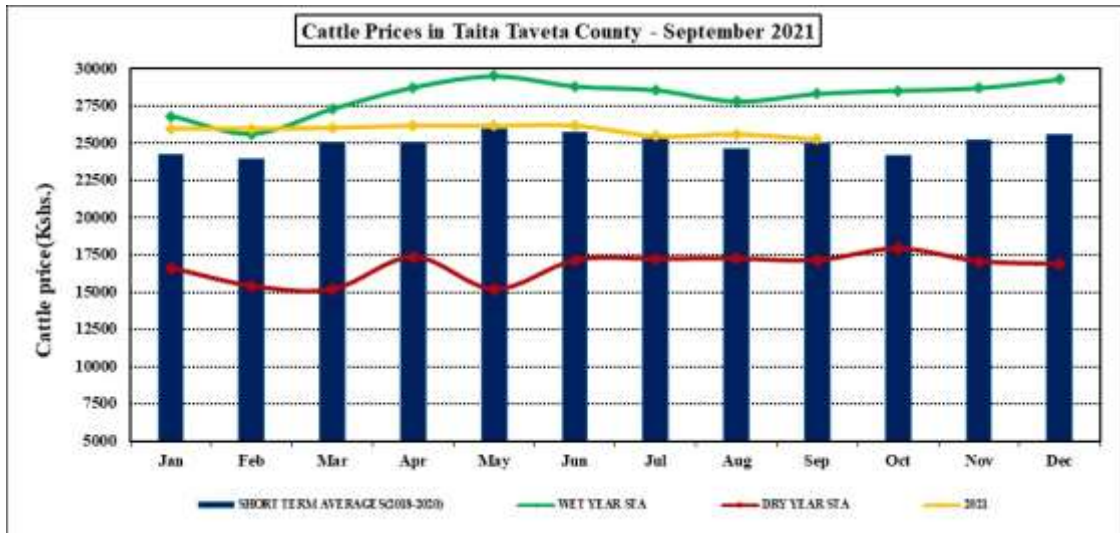
3.2.1 Stage and Condition of food Crops

- In both the Mixed farming: horticulture/ dairy and mixed farming: food crop/ livestock zones, a few farmers were preparing their farms for the planting season.
- In the mixed farming: irrigated/livestock livelihood maize and beans were at the knee high and flowering stage and in good condition.

4. MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

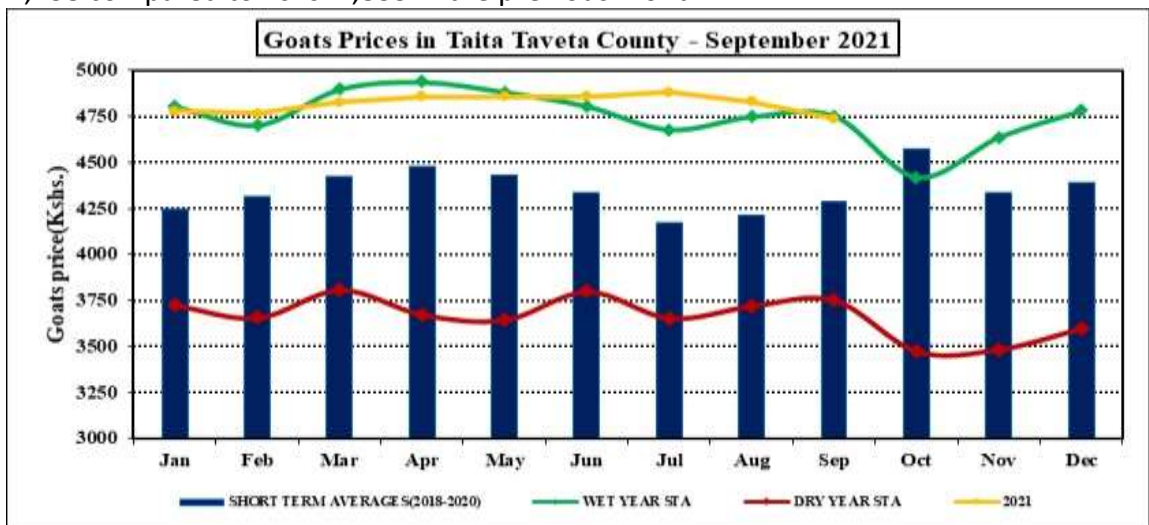
4.1.1 Cattle Prices



- The average market price of a three-year-old bull was recorded at Kshs. 25,200, compared to Kshs. 25,600 in the previous month and above the STA by one percent.
- The relatively low price is attributed to deteriorating livestock body condition reported in the mixed farming: food crop/ livestock livelihood zone.
- The highest prices were reported in the mixed farming: horticulture/ dairy at Kshs 30,000 and Kshs 24,600 in mixed farming/: food crop/livestock livelihood zone while lower prices were also reported in mixed farming: irrigated/livestock livelihood at Kshs 23,000.

4.1.2 Goat Prices

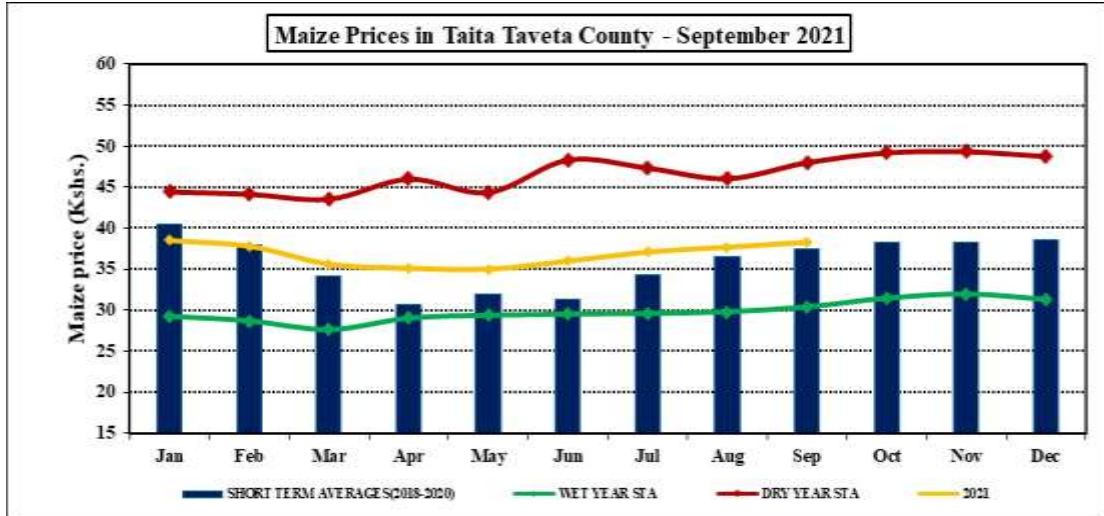
- The county average market price of a two-year-old goat decreased marginally to Kshs. 4,738 compared to Kshs. 4,833 in the previous month.



- 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 4,300 and Kshs 4,500 were reported in mixed farming: irrigated/livestock livelihood zone and mixed farming: food crop/ livestock livelihood zone respectively.
- Compared to short term average, the price was higher by 10 percent.

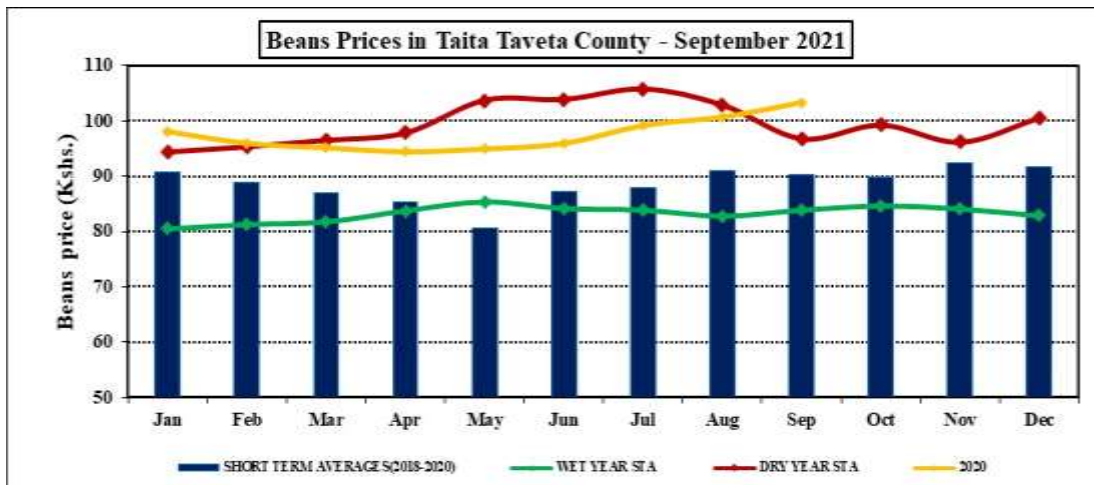
4.2 CROP PRICES

4.2.1 Maize



- The average market price for a kilo of maize was recorded at Kshs 38.3 compared to Kshs 37.7 reported in the previous month and above the short-term average by two percent.
- The slight increase in price is due to high demand of maize in the market as a result of dwindling household food stocks experienced in the previous season.
- Prices in both the mixed farming; food crops/ livestock (Ghazi, Bura, Rukanga, Mwatate and Chumvini markets) and horticulture/dairy livelihood zones (Mghambonyi market) ranged between Kshs 38 -40 while in the mixed farming: irrigated/livestock livelihood zone (Taveta Town) was at Kshs 35.

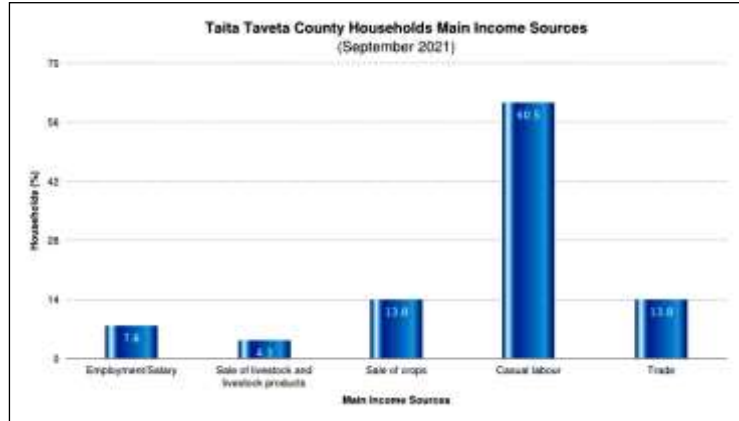
4.2.2 Beans



- The average market price of a kilo of beans increased to Kshs 103.3 compared to Kshs 100.7 in posted in the previous month and above the short-term average by 14 percent.
- The increase was due to dwindling stocks at household level resulting to an increase in demand in the markets.
- Across the livelihood zones, the prices varied with the mixed farming: food crop/ livestock livelihood zone recording a price of Kshs. 110 while mixed farming: horticulture/dairy livelihood zone and mixed farming: irrigated/ livestock livelihood zones recorded prices of Kshs. 100 and Kshs. 80 respectively.

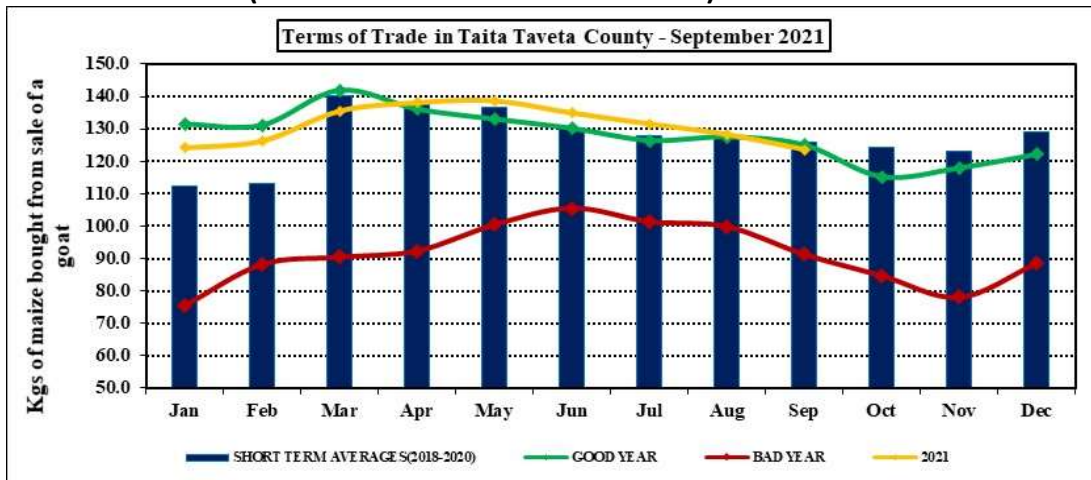
4.3 INCOME

- 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 3,150 compared to Kshs 3,100 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.

4.4 TERMS OF TRADE (GOAT PRICE VERSUS MAIZE PRICE)

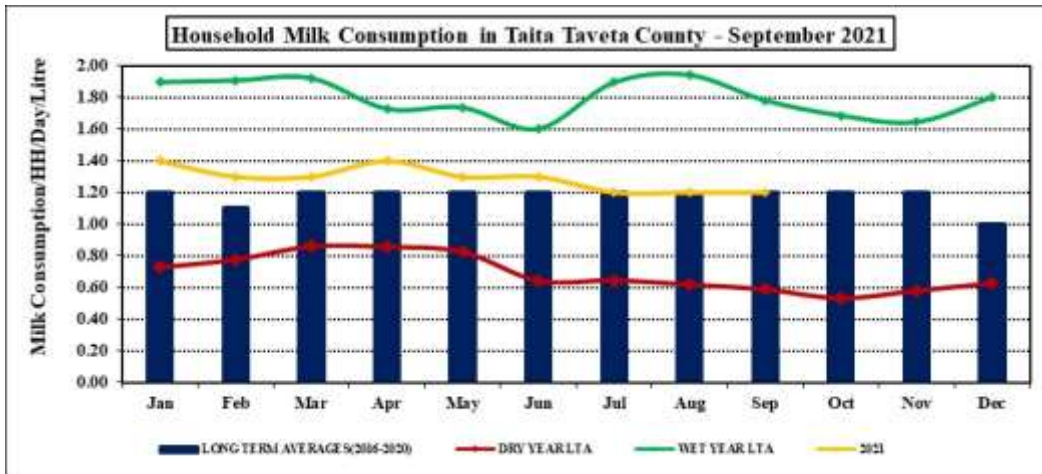


- Terms of trade (ToT) were marginally favourable and proceeds of sale of goat could purchase 124 kilograms of maize compared to 128 reported last month and below STA by two percent.
- The mixed farming: horticulture/ dairy livelihood zone posted a ToT ratio of 150 while mixed farming: food crops/livestock and mixed farming: irrigated cropping/livestock livelihood zones posted ToT ratios of 119 and 124 respectively.

5. FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

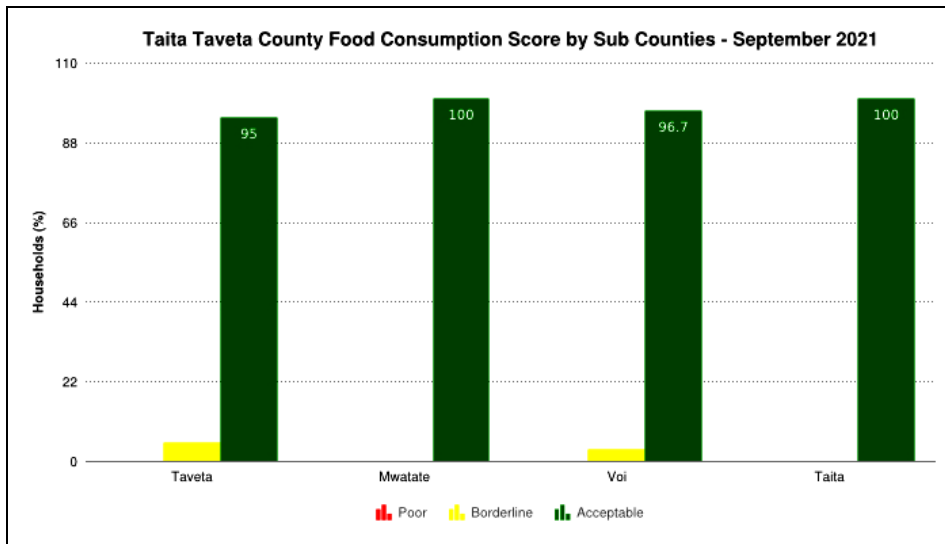
- The average milk consumption per household per day was recorded at 1.2 litres same as the previous month and the long-term mean. The downward trend is due to decrease in milk production mainly in the lowlands.



- Milk consumption per household per day with 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 at (1.6 litres).

5.2 FOOD CONSUMPTION SCORE

- An estimated 97.6 and 2.4 percent of households sampled were in the acceptable and borderline food consumption score (FCS) depicting a deteriorating trend in comparison to the previous month.
- An estimated 35 percent of households were holding food stocks from the previous seasons and these households were mainly in the horticulture/ dairy and irrigation zone.
- Compared to a similar period in 2020 where prevalence was 100 percent for acceptable FCS, household food consumption for the month under review dropped slightly to borderline category.
- The current mean food consumption score stood at 70.3 compared to 71.6 in the previous month.
- The mean FCS score was high in the mixed farming: horticulture/ dairy livelihood zone recorded at 78 followed by mixed farming: irrigated cropping/livestock zone at 75 and mixed farming; food crop/livestock livelihood zone at 58.
- In all the zones, households consumed three food groups i.e., 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 Mbogholi and Challa wards in Taveta Sub County due to fishing activities in both Lake Challa and Lake Jipe.
- Source of food consumed varied from own production to purchases; in the mixed farming: irrigated cropping/ livestock livelihood zone 70 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.



5.3 HEALTH AND NUTRITION STATUS

- A total of 421 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

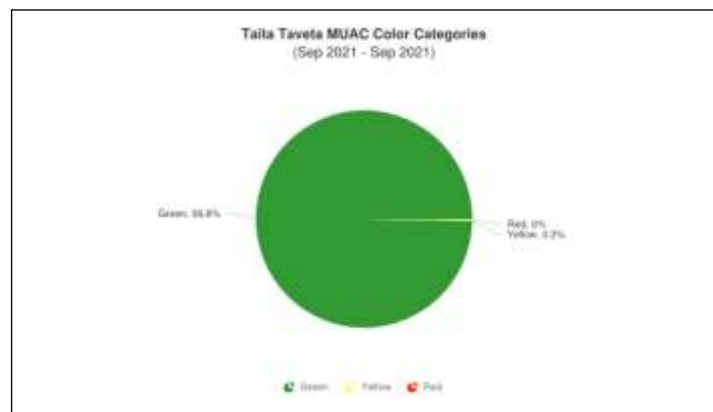
- In the month under review, 0.3 percent (one case) of children aged below five years were found with MUAC - at risk of malnutrition (125 – 134 mm).
- This case was from Ngolia in Voi Sub County.
- Across all livelihood zones nutrition status of children below five years remained relatively good in the seven sampled sentinel sites.

5.3.2 Health

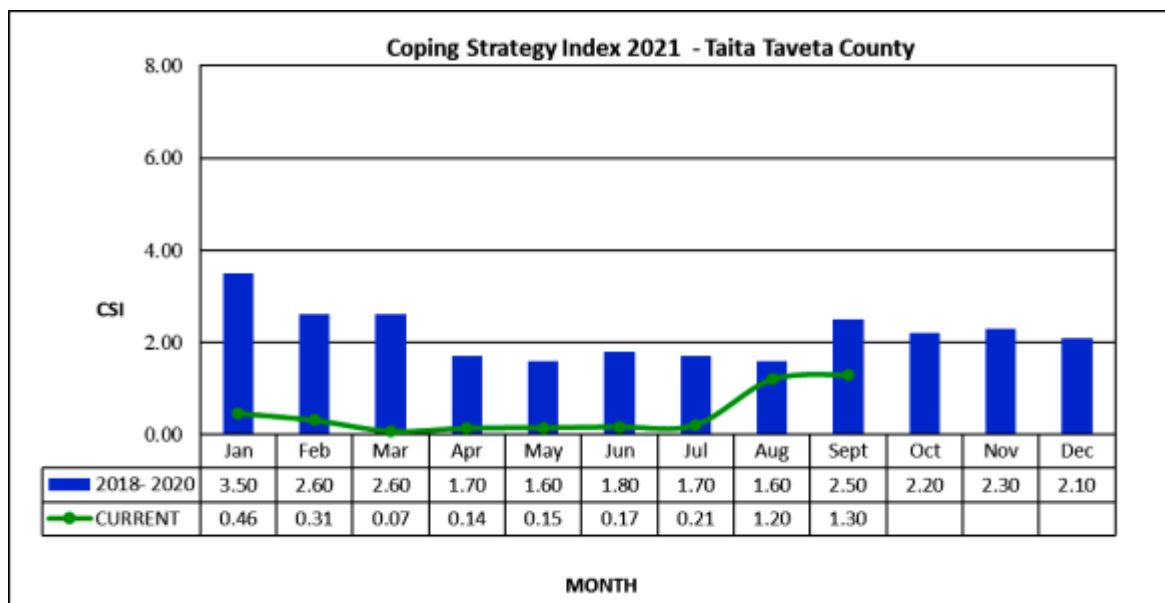
- Out of the sample size of 421 children, 1 percent were reported to suffer from fever with chills like malaria.
- These cases were from Kasigau in Voi Sub- County.

5.4 COPING STRATEGIES

- There were minimal consumption-based coping strategies that were employed by households interviewed in the month under review and were recorded in the mixed farming: food crop/ livestock livelihood zone with a mean CSI of 1.3. An estimated 35 percent of households were holding stocks from the previous



season while the rest relied on markets. The upward Coping Strategy Index (CSI) indicates that the situation will deteriorate as households deplete their food stocks.



6. CURRENT INTERVENTION MEASURES (ACTION)

6.1 FOOD AND NON-FOOD INTERVENTIONS

6.1.1 Sectoral

Intervention	Activities	Implementers
Health Sector		
Provision of good health and Nutrition	<ul style="list-style-type: none"> • Purchase of personal protective equipment (PPEs) • Provision of mosquito nets for mothers 	County Government Department of Health and Nutrition
	<ul style="list-style-type: none"> • Integrated Management of Acute Malnutrition (IMAM) 	
Agriculture and Livestock Sector		
Provision of food security	<ul style="list-style-type: none"> • Sensitizing farmers on crop insurance 	Department of Agriculture
	<ul style="list-style-type: none"> • Poultry vaccinations and capacity building and Artificial Insemination (AI) 	Department of livestock
Water and Environment Sector		
Provision of clean and safe drinking water and environmental conservation	<ul style="list-style-type: none"> • Equipping of Mwasinenyi second borehole 	National Irrigation Authority
	<ul style="list-style-type: none"> • Rehabilitation of Nyangoro - Mwakitau water project in Mwatate Sub County is ongoing 	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 extension of KIMWA pipeline development 	EU, NDMA, STE and County Government
	<ul style="list-style-type: none"> • ASALs counties livelihood zones review 	NG, CG, WFP, NDMA and Community

7. EMERGING ISSUES

7.1 Insecurity/ Conflict/ Human Displacement

- Cases of human wildlife conflicts (Elephants and Buffaloes) resulting in destruction of property and damaging of crops were being reported in parts of Ngolia, Sagalla, Kishushe and Kasigau where community together with KWS and partners were in collaboration to keep the wildlife away from their farms and properties.
- The COVID-19 pandemic continues to negatively affect off-farm income-earning opportunities like non-farm casual labour, petty trade, and remittances.

7.2 Migration

- In the month under review cases of in migration were reported in Voi Sub County areas of Sagalla and Rukinga ranch.

7.3 Food Security Prognosis

- According to KMD forecast and Forecast-Based Preparedness Action (ForPAC), the short rains are expected to be depressed.
- Also, TAMSAT-ALERT forecast indicates soil moisture percentage climatology for October, November, December short rains 2021 will be below to near normal.
- Based on the above the Mixed Farming: Food Crop/ Livestock livelihood zone of Voi and Taveta Sub counties is expected to be severely affected due to inadequate rains experienced during the long rains season that resulted to crop failure, poor pasture regeneration and low-level recharge of open water sources.
- This is expected to adversely affect livestock body condition especially cattle due to long trekking distances in search of pasture and water.
- The decline in food stocks at household level mainly in the Mixed Farming: Food Crop/ Livestock livelihood zone is expected to result to increased consumption-based coping strategies.
- Market prices are expected to be on an upward trend as demand for food stuffs increase.

8. RECOMMENDATIONS

Health sector

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

Agriculture and Livestock Sector

- Distribution of drought tolerant crops.

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.
- Water trucking in areas of Kisimenyi and Ngambenyi (Kasigau Ward) in Voi Sub County.

Multi-Sectoral

- Undertake a rapid assessment in the Mixed Farming: Food Crop/ Livestock livelihood zone to flag out the affected areas.
- KWS and Partners to enhance surveillance and protect communities bordering the national parks from wildlife especially elephants and buffaloes.
- Provision of face masks to school going children to curb spread of COVID-19.
- Continuous updates to 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.