A Vision 2030 Flagship Project

National Drought Management Authority

TAITA TAVETA COUNTY

DROUGHT EARLY WARNING BULLETIN FOR JUNE 2024

JUNE 2024 EW PHASE



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**

Drought Situation & EW Phase Classification

Biophysical Indicators

- The county registered normal rains during the month under review coupled with low temperatures.
- The county vegetation greenness condition was within the normal range depicting very good vegetation condition (VCI-one Month; 55.0). All the Sub Counties indicated normal vegetation condition.

Socio Economic Indicators (Impact Indicators)

Production Indicators

- Livestock body condition was good and no livestock in or out migration was reported.
- Most maize crop was at the grain filling stage, others tasseling stage while pulses were at the pod formation.
- Average milk production per HH per day was within normal ranges.

Access Indicators

- Terms of Trade were within the normal range.
- Milk consumption per HH per day was normal.
- Household return distance to water sources was within the normal range.
- Livestock trekking distance to water sources from grazing areas was within the normal range.

Utilization Indicators

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

Biophysical Indicators		Value	Normal Range/ Value
Rainfall 3-month anomaly		83.38	80 – 120
VCI-One Month		55.0	20-35
Production indicators		**Value**	**Normal**
Crop Condition-maize		Grain filling-Fair	Grain filling
Livestock Body Condition for cattle		Good	Good
Milk Production per HH/ day		3.0 Litres	3.0-4.0 Litres
Livestock Migration Pattern		Normal	Normal
Access Indicators		**Value**	**Normal**
Terms of Trade (Maize price vs Goat price)		124	54-130
Milk Consumption per HH/ day		1 Litre	0.96-1.10 Litres
Return HHs distance to water sources		3.6 km	2.2-3.8 Km
Water source return distance from grazing areas		4.9 km	1.95-6.11 Km
Cost of water (20 litres)		Kshs 5.00	< Kshs 5.00
Utilization indicators		**Value**	**Normal**
Nutrition Status, MUAC (% at risk of malnutrition)		0	1.0-2.9
Coping Strategy Index (CSI)		1.01	1.33-6.70
Food Consumption Score (FCS) in %	Mean	71.7	≥35
	Acceptable	98.6	≥80
	Borderline	1.40	≤20
	Poor	0	0

Seasonal Calendar

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

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

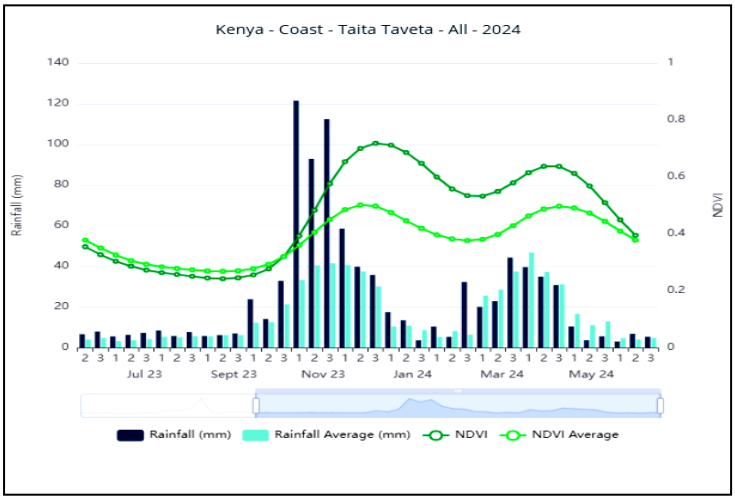
1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- In the month under review the county received normal rains that were characterized by poor and uneven distribution in terms of time and space respectively.
- The highlands of the county experienced two wet days of light to moderate rains amounting to 11.4 mm, while the lowlands experienced light rains.
- Low temperatures prevailed during the month under review.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- According to WFP-VAM, Climate Hazards Group InfraRed (CHIRPS), the county recorded 83.38 percent three month anomaly.
- The estimated total precipitation for the month under review was 15.0 mm and above the LTM by 10.4 percent.
- Normalized Differential Vegetation Index (NDVI) was above normal but on a downward trend.

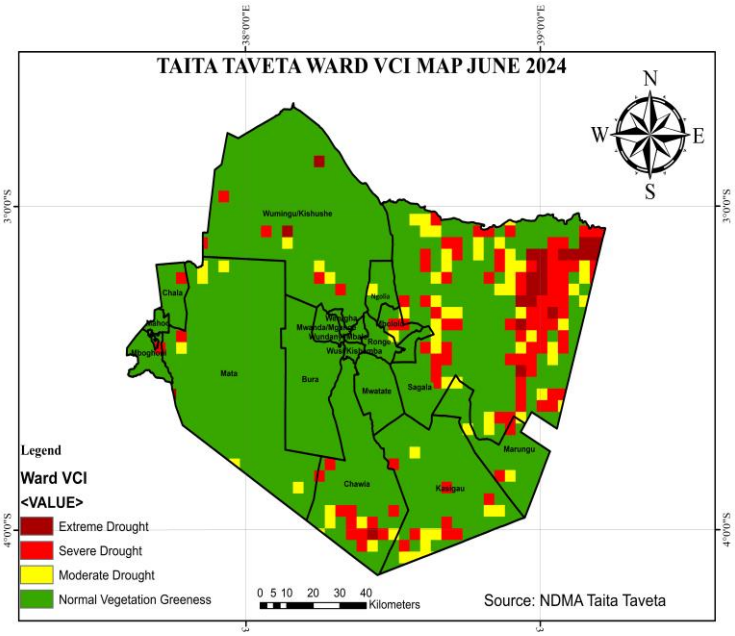


2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

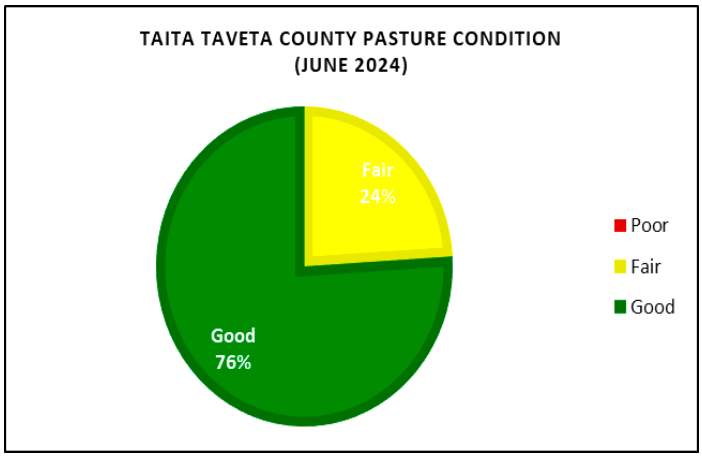
2.1.1 Vegetation Condition Index (VCI)

- The vegetation greenness condition in the county was in the very good condition category as depicted by a three-month vegetation condition index of 55.0.
- All the wards were in the normal vegetation greeness except for Ngolia, Mbololo and Sagalla Wards that were in moderate Drought category.
- Severe to extreme drought was observed mainly in the Tsavo East and Southern parts of Tsavo West of the county areas bordering Kwale County.



2.1.2 Pasture

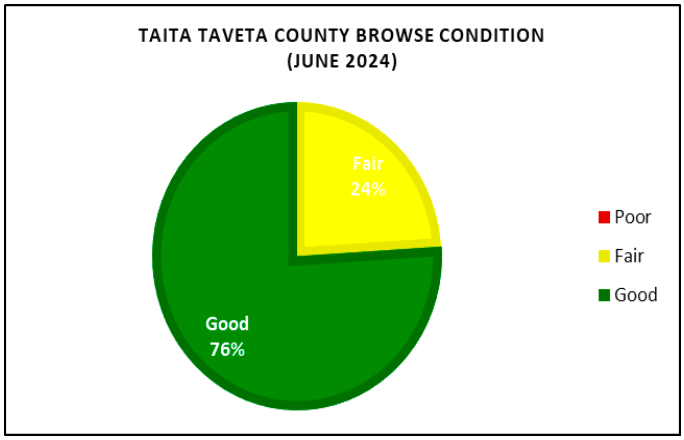
- From community interviews, an estimated 76 and 24 percent of the respondents reported that pasture condition was good and fair respectively and was above normal compared to a time like this last year.
- The pasture condition has improved compared to previous year due to the ongoing off seasonal rains being experienced.



- Available pasture is expected to cater for livestock for the next three months in exception of areas in Ngolia, Mbololo and Sagalla Wards where pasture condition has deteriorated significantly.

2.1.3 Browse

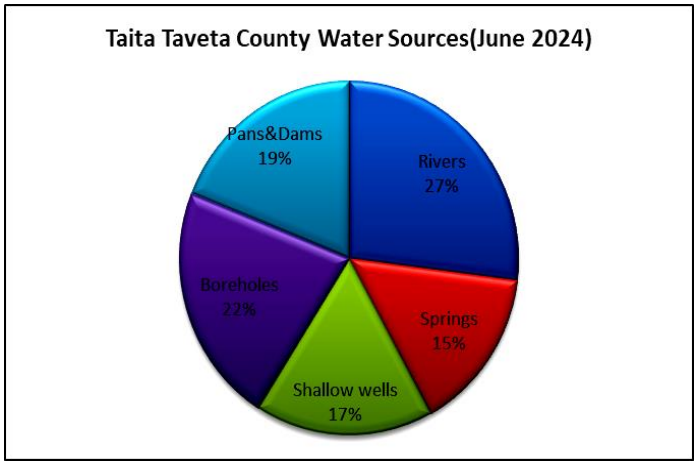
- From community interviews, an estimated 76 and 24 percent of the respondents reported that browse condition was good and fair respectively and was above normal compared to a time like this last year.
- Compared, to the previous month, browse condition improved due to the off seasonal rains being experienced.
- Available browse is expected to cater for livestock for the next four months.



2.2 WATER RESOURCE

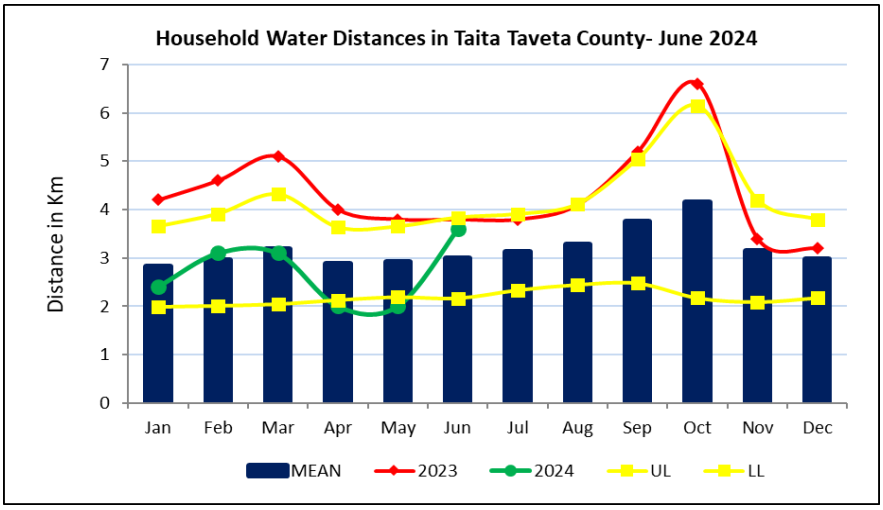
2.2.1 Sources

- The main sources of water currently in use by both human beings and livestock were rivers, springs, Shallow wells, boreholes and pans &dams.
- They were relied upon by 27, 15, 17, 22 and 19 percent of the households respectively.
- In terms of proportions, reliance on main water sources remained the same though reliance on open surface water dropped due to dwindling amounts of water in sources that have reduced the capacity due to siltation.



2.2.2 Household Access and Utilization of Water

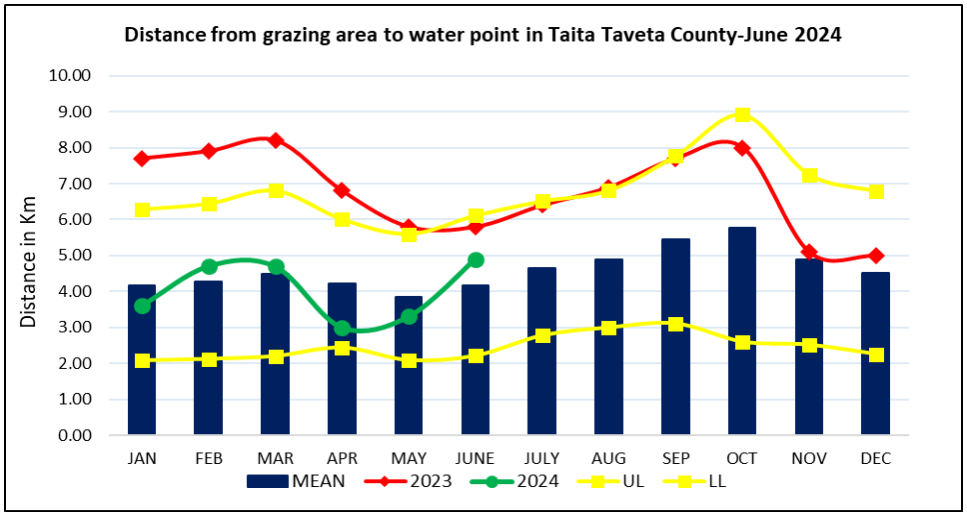
- The average return distance from households to main water sources increased from two kilometres to 3.6 kilometres when compared to the previous month. The average distance was below the normal range.



- The increase of water distances was owing to reduce of intensity of the off seasonal rains.
- The county average water consumption per person per day (pppd) was recorded at 17 litres as posted in this month.
- Households in mixed farming: irrigated cropping/ livestock livelihood zone and mixed farming: horticulture/ dairy livelihood zone reported 19 litres and 21 litres pppd respectively compared to 16 litres pppd in mixed farming: food crops/ livestock livelihood zone.
- A 20-litre jerry-can of water retailed at 3-5 shillings at source and an estimated 71 percent of the households paid for water.
- Households purchased portable water from vendors mainly for household uses like drinking and cooking. Price per jerrican at private water points ranged from Kshs 10-20.
- Overall, 14.3 percent of the households treated drinking water at home which was same percent as posted in the previous month.
- This was mainly in the mixed farming; irrigated cropping/livestock livelihood zone where water treatment chemicals like water guard were used. In this area water is usually contaminated due to occasional flooding and agricultural activities.
- All households that treated drinking water used water treatment chemicals method.
- Water used by households in the horticulture/dairy and food crop/livestock livelihood zones is mostly 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 increased from 3.3 kilometres to 4.9 kilometres when compared with the previous month and was within the normal range.
- The open water sources are expected to cater for livestock for the next three months.
- Frequency of watering livestock was normal in the lowlands, that is, once per day, while in the upper zone livestock watering frequency was normal at twice per day.



3. PRODUCTION INDICATORS

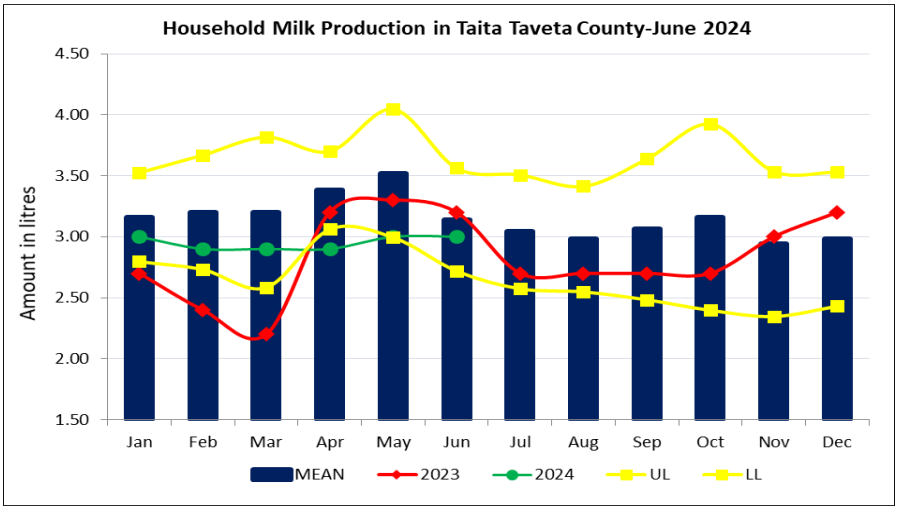
3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Livestock body condition for all species was good across all livelihood zones.

3.1.2 Milk Production

The average milk production (cow) per household was within the normal range, recorded at three litres stable when compared with previous month. The milk production was below the LTA by 4.5 percent.



- In the Mixed farming: horticulture/ dairy livelihood zone, milk production was at five litres; mixed farming: irrigated cropping/ livestock zone (1.5 litres): and mixed farming: food crop/ livestock livelihood zone (4.6 litre).

3.2 RAIN-FED CROP PRODUCTION

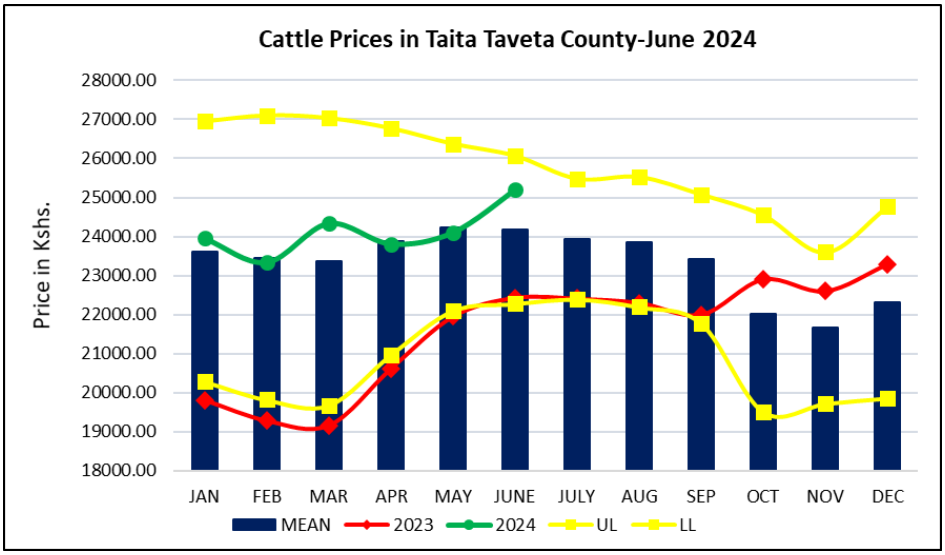
3.2.1 Stage and Condition of food Crops

- In both the Mixed Farming: Food Crop/ Livestock and Horticulture/ Dairy livelihood zones, maize crop was at various stages of crop development ranging from tasseling stage to grain filling stage, while harvesting of pulses was ongoing for crops that were planted late. In the mixed farming: irrigated/livestock livelihood zone maize crop was at the grain filling stage, beans and kales were being harvested.

4. MARKET PERFORMANCE

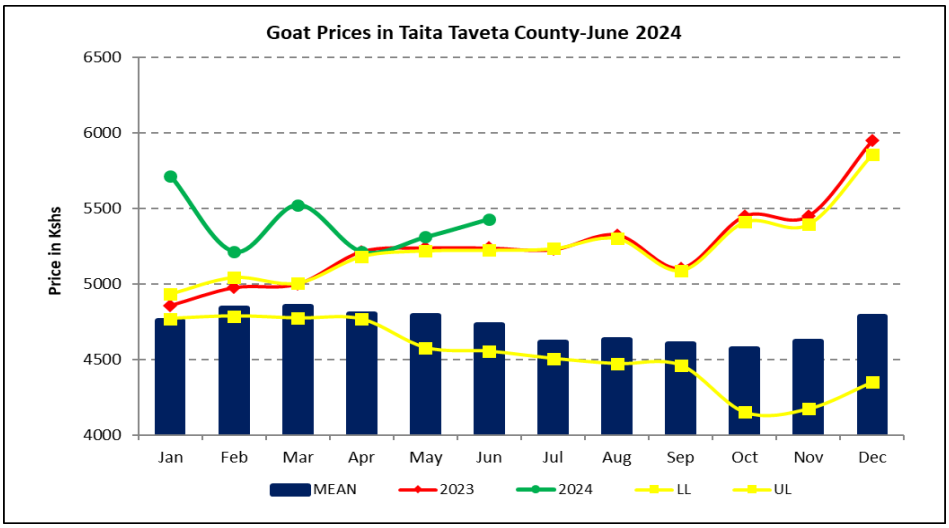
4.1.1 LIVESTOCK MARKETING

4.1.2 Cattle Prices



- The average market price of a three-year-old bull was recorded at Kshs 25,191 compared to Kshs 24,095 in the previous month and was within the normal range.
- The increase reported was due to forces of demand and supply in the markets.
- The highest prices were reported in the mixed farming: food crop/livestock livelihood zone at Kshs 38,333 while the lowest prices were reported in mixed farming irrigated cropping/ livestock zone at Kshs 21,667.

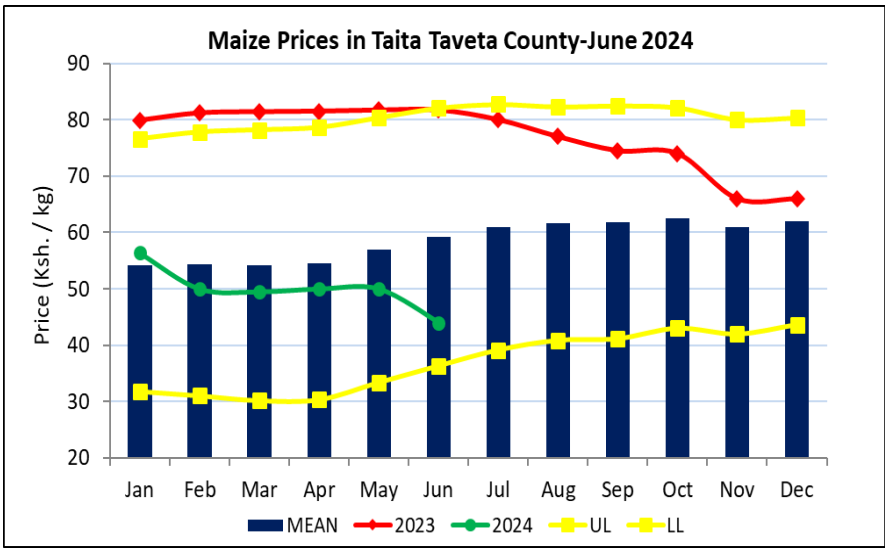
4.1.3 Goat Prices



- The county average market price of a goat was at Kshs 5,429 an increase from Kshs 5,310 documented in the previous month and above the normal range. The increase was due to high demand and low supply in the markets. Price was above the short-term average by 16 percent.
- The highest prices were reported in the mixed farming: food crop/ livestock livelihood zone up to Kshs 6,167 where farmers keep a few animals for special events, while lower prices of Kshs 5,000 were reported in the mixed farming: irrigated/livestock livelihood zone and lowest at Kshs 4,667 in mixed farming: food crop/ livestock livelihood zone.

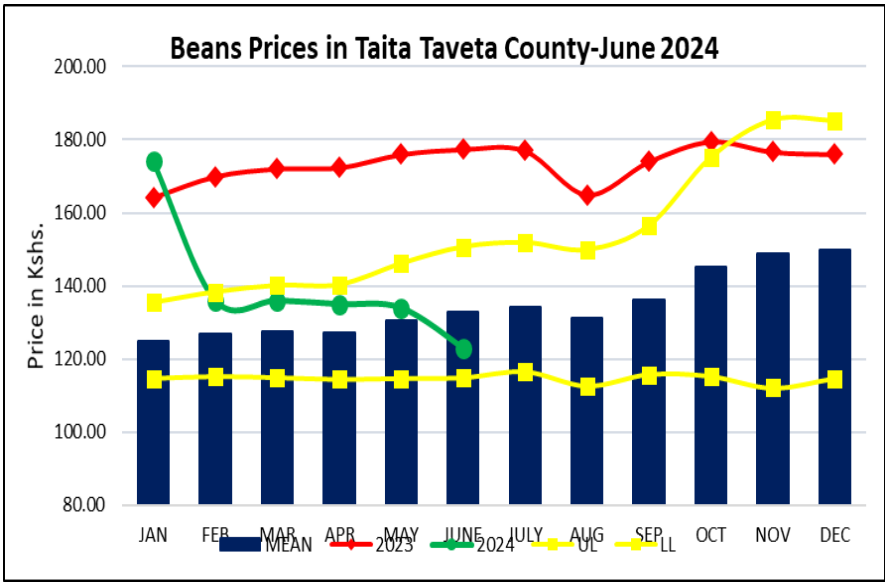
4.2 CROP PRICES

4.2.1 Maize Prices



- The average market price for a kilogram of maize decreased from Kshs 50 to Kshs 44 when compared previous month and within the normal range.
- The decrease was attributed to the ongoing harvest and market trends. The price is below LTA by 25 percent.
- Prices in both the mixed farming: irrigated/livestock livelihood zone (Taveta Town and Chumvini markets) and mixed farming: horticulture/dairy livelihood zones (Mghambonyi market) ranged between Kshs 40-45 while in the mixed farming: food crops/ livestock (Bura and Mwatate markets) prices ranged between Kshs 45-50.

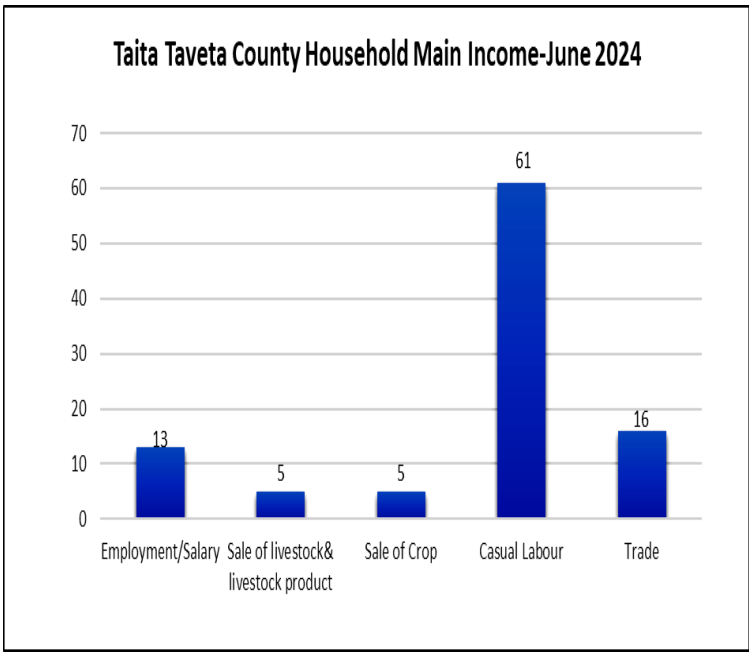
4.2.2 Beans Prices



- The average market price of a kilogram of beans slightly decreased to Kshs 123 when compared to the previous month and within the normal range. The price is below the LTA by 7.5 percent.
- This was due to availability of food stocks at household level that has resulted to decreased quantity demanded in the markets.
- Across the livelihood zones, the prices varied with the mixed farming: food crop/ livestock livelihood zone recording a price of Kshs 84-127 while mixed farming: horticulture/dairy livelihood zone and mixed farming: irrigated/ livestock livelihood zones recorded prices of Kshs 117-135.

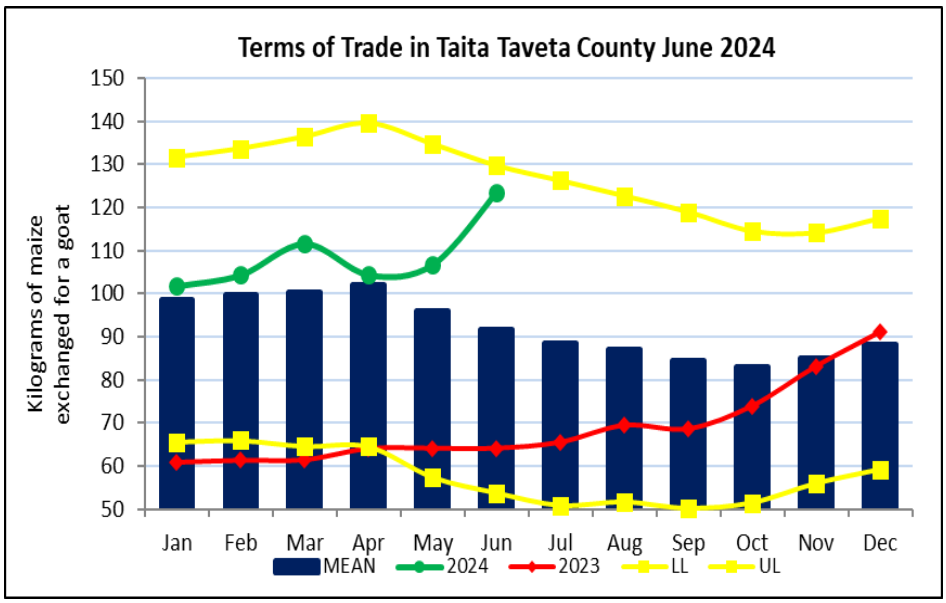
4.3 INCOME

- 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 3,563 compared to 3,655 in the previous month.
- Sources of income remained relatively stable when compared to the previous months.
- Casual labour opportunities in the rural areas were available in the sisal and banana plantations, irrigation schemes, mining sites, herding and ranches while in the urban areas, opportunities were in construction sites and cleaning services in towns.



4.4 TERMS OF TRADE (GOAT PRICE VERSUS MAIZE PRICE)

- Household purchasing power has increased to 123.5 compared to 106.7 documented in the previous month and within the normal range. This implies that, households were able to purchase 124 kilograms of maize from exchange of a goat.

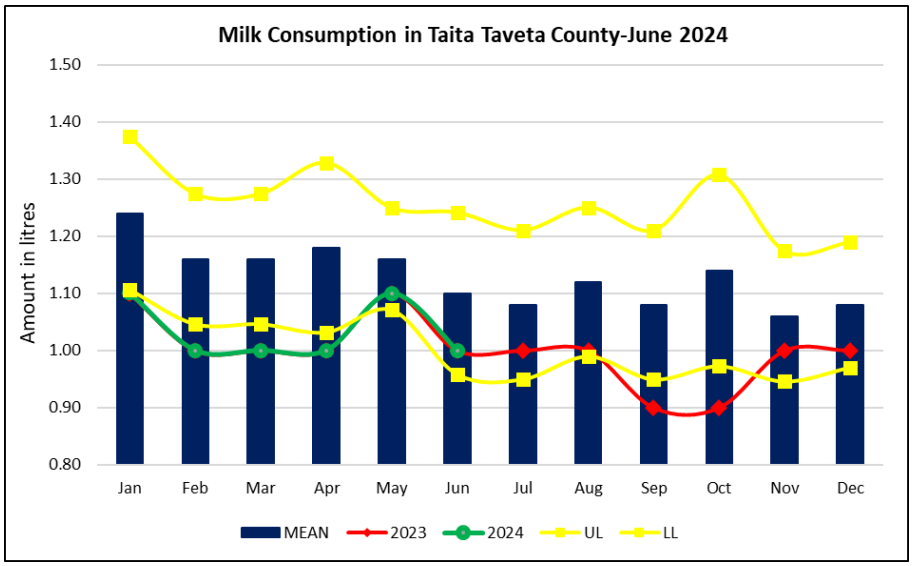


- This increase was due to reduction of maize prices in the markets and increased demand of meat goat that led to price increase.
- The mixed farming: horticulture/ dairy livelihood zone posted a ToT ratio of 122 while mixed farming: irrigated cropping/livestock livelihood and mixed farming: food crops/livestock zones and posted ToT ratios of 127.1 and 118.5 respectively.

5. FOOD CONSUMPTION AND NUTRITION STATUS

5.1.1 MILK CONSUMPTION

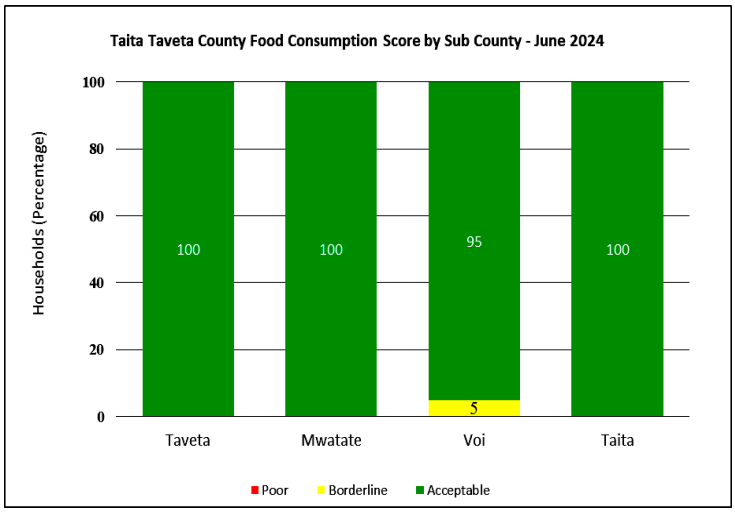
- The average milk consumption per household per day was within the normal ranges recorded at one litre, slightly decreased when compared with the previous month and below the mean by nine percent.



- Milk consumption per household per day with regard to livelihood zones was as follows; mixed farming: food crops/livestock (one litre), mixed farming: horticulture/ dairy (1.8 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, depicting an improving trend in comparison to the previous month.



- The current food consumption score indicates a significant improvement compared to similar period in 2023 where 59.0, 30.0 and 11.0 percent were in the acceptable FCS, borderline FCS and poor FCS respectively.
- The current mean for food consumption score stood at 71.7, compared to 73.5 in the previous month. The FCS mean was high in both the Mixed Farming: Irrigated Cropping/ Livestock and Horticulture/ Dairy livelihood zones at 77.1 and 75.1 respectively, while a low value was recorded in the Mixed Farming; Food Crop/Livestock livelihood zone at 62.9.
- In all the zones, households consumed three meal a day consisting of two to three food groups i.e., either ugali and beans or ugali and vegetables and in addition 30 percent of the households interviewed consumed meat (fish/beef) at least once during the seven-day recall period.

- Source of food consumed varied from own production to purchases, for instance, in the mixed farming: irrigated cropping/ livestock zone all households consumed food from own production while in both mixed farming: horticulture/ dairy and mixed farming: food crop/ livestock livelihood zones, five percent of households purchased grains for consumption while almost all households consumed pulses and vegetables that were from own production.

5.3 HEALTH AND NUTRITION STATUS

- A total of 366 children below five years were sampled for MUAC measurement where the proportion of male and female was 51 to 49 percent respectively.

5.3.1 Nutrition Status

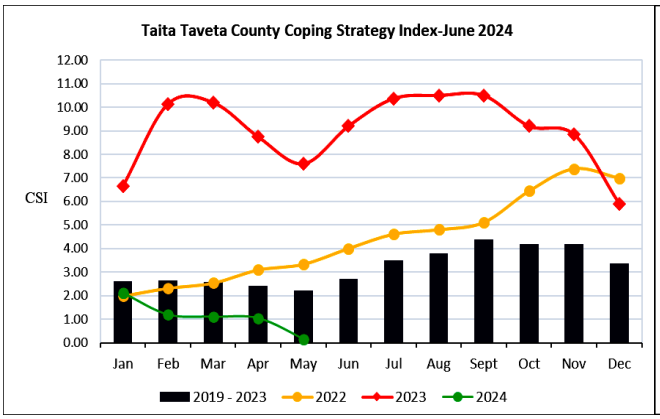
- In the month under review, no children aged below five years were found to be at risk of malnutrition (125 – 134 mm) in the seven sampled sentinel sites.

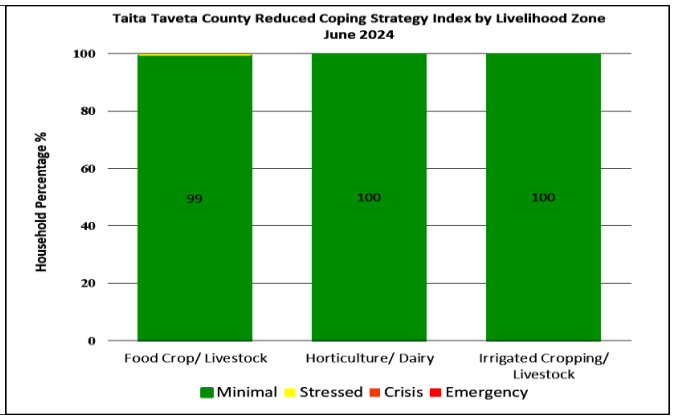
5.3.2 Health

- Out of the sample size of 366 children, two percent (five cases) were reported to suffer from fever with chills like malaria.
- These cases were from Kasigau and Challa Wards in Voi and Taveta Sub Counties respectively and were referred to hospitals and dispensaries.

5.4 COPING STRATEGIES

- The reduced coping strategy index (rCSI) dropped to 0.16 compared to 1.03 documented in the previous month.
- The low index being documented is attributed to availability of food at the household level and accessibility due to decrease in food prices.
- In all livelihoods zones households were employing normal consumption based coping strategies.





6. CURRENT INTERVENTION MEASURES (ACTION)

6.1 FOOD AND NON-FOOD INTERVENTIONS

6.1.1 Sectoral

Food and Non-Food Interventions

Intervention	Activities	Implementers
Agriculture Sector		
Improve food security	• Support water harvesting initiative through excavation of farm ponds and purchase of dam liners	• IFAD. CG and community
Livestock Sector		
Provision of good livestock health and Nutrition	• Routine livestock surveillance and risk-based vaccination is ongoing	Veterinary Department
Water Sector		
Provision of portable water	• Construction of Miasenyi water pan and Bafwe water pan both in Voi Sub County	KCEP-CRAL, County Government Department of Water
	• KE-TAVEVO-82761-CW-RFB / Upgrade of Water Distribution systems for Voi, Mwatate, Taveta and Wundanyi towns	World Bank and CG
	• Rehabilitation, installation of solar powered pumps and pipeline development of Ngolia-Mbololo water project (NDEF) is ongoing and at the tendering stage	National Drought Emergency Fund, TAVEVO and CG
Health Sector		
Provision of good health and Nutrition	• Integrated Management of Acute Malnutrition (IMAM) in all health facilities	County Government Department of Health and Nutrition
Multi-Sectoral		
Building community drought resilience	• Compilation of project documents for Kasigau, Bura and Mwanda/Mghange Wards (DCADR) in readiness of procurement process	County Government and NDMA

7. EMERGING ISSUES

7.1 Insecurity/ Conflict/ Human Displacement

- Ngolia, Mbololo and Sagalla Wards remain areas to be constantly monitored since these areas received minimal rains during the long rains season.
- Human wildlife conflict was reported in areas of Sagalla Ward in Voi Sub County.

7.2 Livestock Diseases

- No outbreak of livestock diseases reported during the month under review.

7.3 Migration

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

7.4 Food Security Prognosis

- According to KMD forecast, the month of July is projected to be occasional cool and cloudy conditions with periodical light rains expected. Temperatures are likely to be warmer than average for July across the entire county.
- Availability of maize and pulses at household level is expected to improve food and nutrition security and household members' purchasing power.
- Open water sources are expected to start diminishing as the dry season progress resulting to an increase in trekking distances for both households and livestock in the long run.
- Livestock good body condition is expected to prevail in the next coming months due to availability of pasture and fodder trees.
- Nutrition status of children below five years is expected to be good due to availability of milk both at household and market level.
- No cases of mortalities are expected as a result of food insecurity.
- Cases of human wildlife conflict are expected to be on an upward trend due to dwindling water sources and diminishing pasture availability inside the national parks as depicted by the VCI.

8. RECOMMENDATIONS

Agriculture and Livestock Sector

- Sensitize farmers on post-harvest management and support farmers with hermetic bags.
- Communities to be sensitized on pasture and hay conservation.
- Surveillance on livestock diseases associated with excessive dust and cold conditions.

Water Sector

- Sensitize communities on rain water harvesting techniques through barazas and FM radio station due to periodical light rains expected.

Multi-Sectorial

- KWS and Partners to enhance surveillance in order to protect elephants from entering community area.