

# National Drought Management Authority


TAITA TAVETA COUNTY

DROUGHT EARLY WARNING BULLETIN FOR DECEMBER 2017



A Vision 2030 Flagship Project



December EW PHASE		Early Warning Phase Classification		
<p><b>Drought Status: ALERT</b></p>  <p><b>Maandalizi ya mapema</b></p>	<b>Livelihood Zone</b>	<b>Phase</b>	<b>Trend</b>	
	Mixed Farming: Food Crops/ Livestock	Alert	Deteriorating	
	Mixed Farming: Food Crops/ Horticulture/Dairy	Alert	Improving	
	Mixed Farming: Irrigated Cropping/ Livestock/Food Crops	Alert	Improving	
	Casual Waged Labour: Sisal Farms	Alert	Improving	
	National Park	Alert	Improving	
	Trade/Business	Normal	Stable	
	<b>County</b>	<b>Alert</b>	<b>Improving</b>	
	<b>Biophysical Indicators</b>	<b>Value</b>	<b>Normal Range/ Value</b>	
	Rainfall (% of Normal)	68	80 - 120	
SPI-3Month (TAMSAT)	-0.04	-1.0 to 1.0		
VCI-3Month	36.27	35-50		
<b>Production indicators</b>	<b>Value</b>	<b>Normal</b>		
Maize Crop Condition	Flowering	Grain filling		
Livestock Body Condition	Fair	Good		
Milk Production	15.0	21.6 Litres		
Livestock Migration Pattern	Normal	Normal		
Livestock deaths (drought)	No death	No death		
<b>Access Indicators</b>	<b>Value</b>	<b>Normal</b>		
Terms of Trade (ToT)	99.0	89.2		
Milk Consumption	6.10	6.1 litres		
Return distance to water sources	2.90	2.23 Km		
Return distance to grazing areas	3.20	2.25 Km		
Cost of water (20 litres)	5.00	< Kshs 5.00		
<b>Utilization indicators</b>	<b>Value</b>	<b>Normal</b>		
Nutrition Status, MUAC (% at risk of malnutrition)	2.30	<3.20		

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- The county received light showers in the month under review.
- The rains were uneven and poor in regard to spatial and temporal distribution respectively.
- The rains improved pasture and browse condition plus recharge of water sources.
- Vegetation condition index stood at 36.27 depicting normal vegetation greenness.

**Socio Economic Indicators (Impact Indicators)**

**Production Indicators**

- Maize crop at flowering stage drying due to moisture stress.
- Livestock body condition was fair especially for cattle.
- Milk production was below normal. However, there was an improvement compared to previous month.
- Livestock migration was normal and no deaths were reported.

**Access Indicators**

- Terms of Trade were favourable and above the normal range.
- Milk consumption was below normal.
- Livestock grazing distances were above the normal range.

**Utilization Indicators**

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

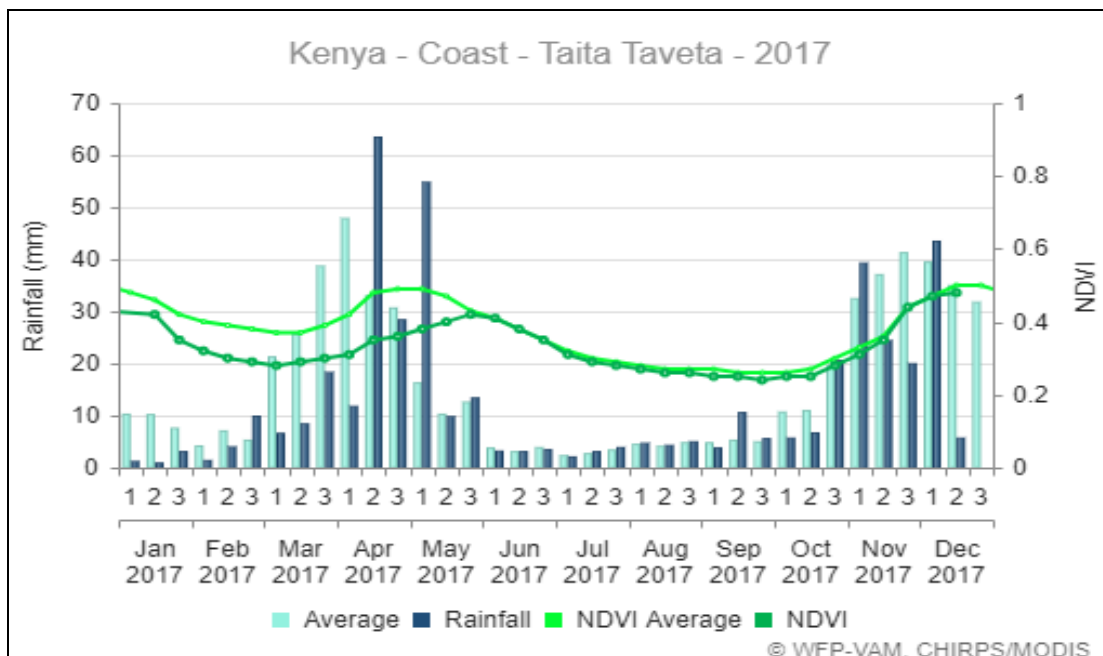
## Seasonal Calendar

<ul style="list-style-type: none"> <li>Short rains harvests</li> <li>Increased HH Food Stocks</li> <li>Short dry spell</li> <li>Reduced milk yields</li> <li>Land preparation</li> </ul>	<ul style="list-style-type: none"> <li>Planting/Weeding</li> <li>Long rains</li> <li>High Calving Rate</li> <li>Milk Yields Increase</li> </ul>	<ul style="list-style-type: none"> <li>Long rains harvests</li> <li>Increased HH Food Stocks</li> <li>A long dry spell</li> <li>Land preparation</li> <li>Kidding (Sept)</li> </ul>	<ul style="list-style-type: none"> <li>Short rains</li> <li>Planting/weeding</li> </ul>								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

# 1. CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

- The highlands of the county received moderate rains while the lowlands realized light rains in the month under review.
- The county recorded an average of five rainy days. However the highlands experienced more rainy days than the lowlands.
- Mixed farming: food crops/livestock zone recorded 71.0 mm of rainfall, mixed farming: horticulture/ dairy zone 51.8 mm and mixed farming: irrigation/ livestock zone 22.0 mm.
- According to WFP-VAM, Climate Hazards Group InfraRed Precipitation with Station Data (CHIRPS) chart below, both rainfall estimates and NDVI averages are below the normal range. Dekad two three months rainfall anomaly was at 68% while NDVI at 95%.



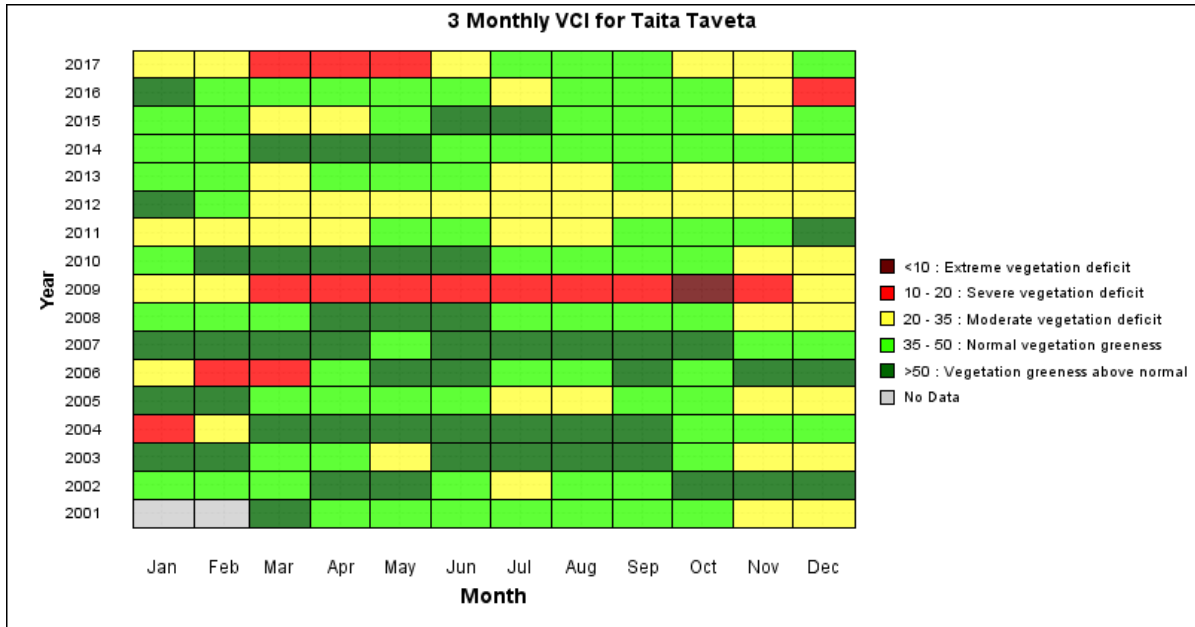
## 2. IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

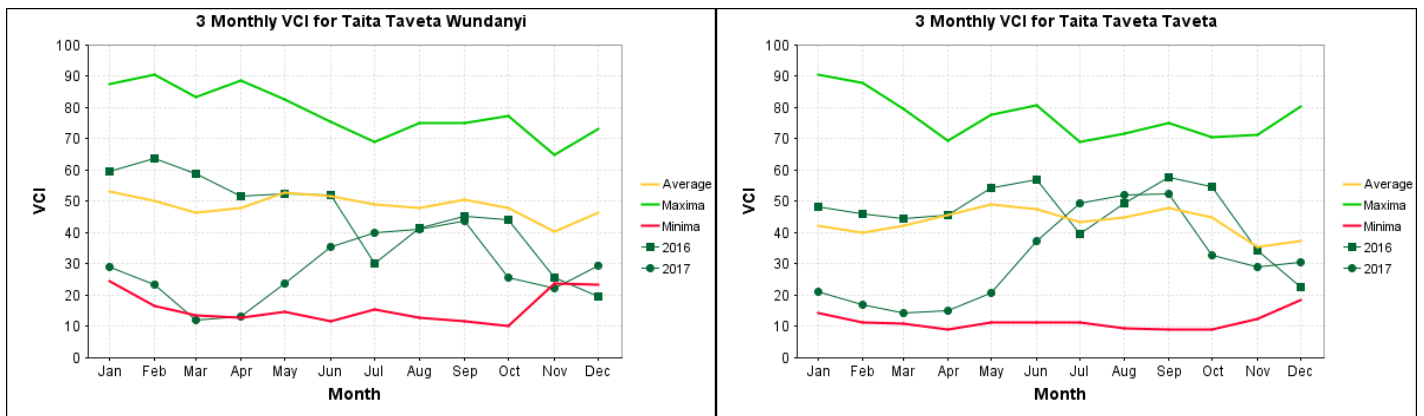
#### 2.1.1 Vegetation Condition Index (VCI)

- The county recorded an average VCI value of 36.27 depicting normal vegetation greenness. However, Wundanyi, Taveta and Mwatate Sub Counties depicted moderate vegetation deficit with vegetation condition index values of 29.42, 30.42 and 32.92 respectively.

### 3 monthly VCI for the County



### 3 monthly VCI for Wundanyi and Taveta Sub Counties

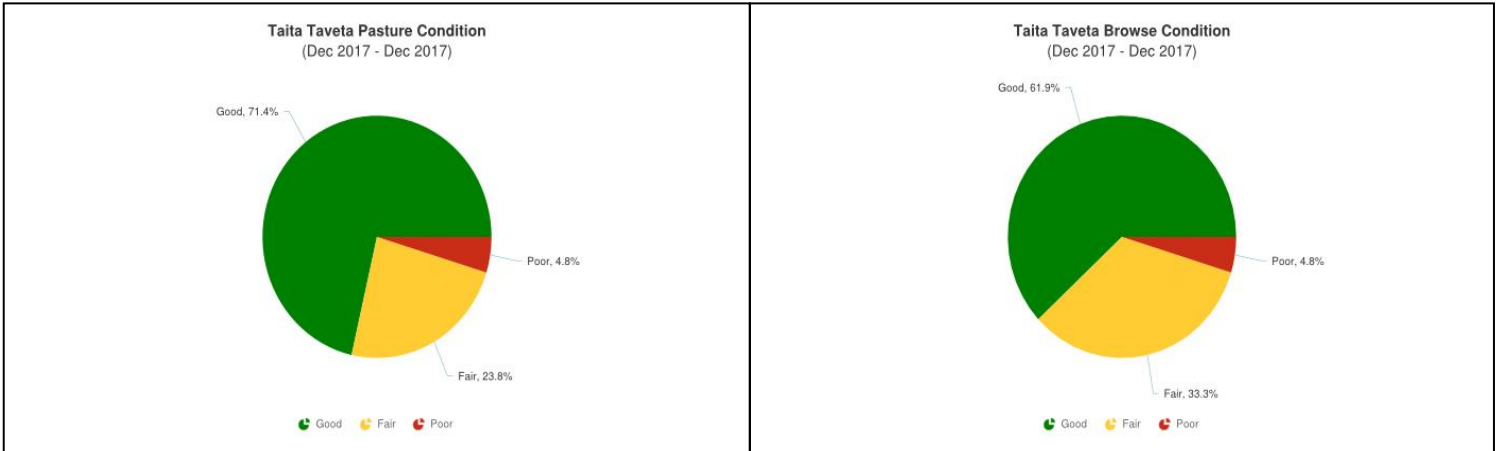


#### 2.1.2 Pasture

- Based on community interviews pasture condition was generally good to fair.
- Community interviews conducted indicated 71.4%, 23.8% and 4.8% of pasture condition was good, fair and poor respectively compared to 18.2%, 63.6% and 18.2% good, fair and poor respectively in the previous month.
- This shows an improvement in quality and quantity condition of pasture but the situation is below normal for this time of the year.
- However, based on field observations conducted, pasture stress is evident in areas of Kishushe in Werugha Ward, Kajire in Sagalla Ward, Marungu Ward and Mahandakini in Challa Ward and Orkung in Mata Ward.

### 2.1.3 Browse

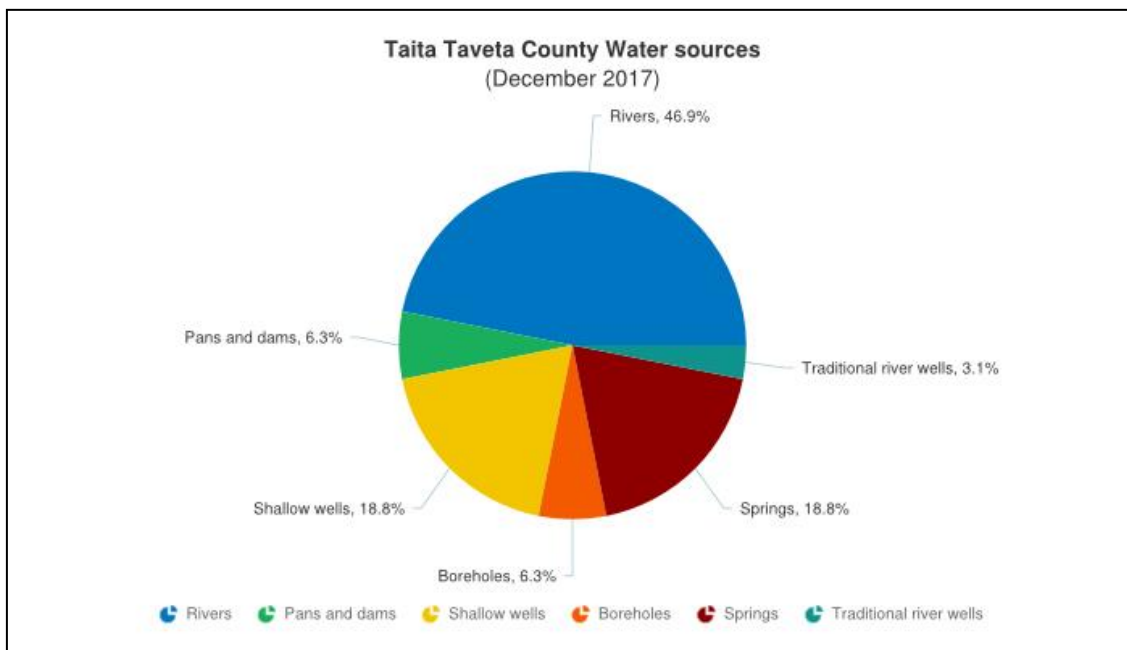
- Generally, the browse condition was good. Community interviews conducted indicated 61.9%, 33.3% and 4.8% of browse condition was good, fair and poor respectively compared to 71.4%, 23.8% and 4.8% good, fair and poor respectively in the previous month.
- This shows an improvement but the situation is below normal for this time of the year.
- No constraints were observed in accessing browse in the month under review.



## 2.2 WATER RESOURCE

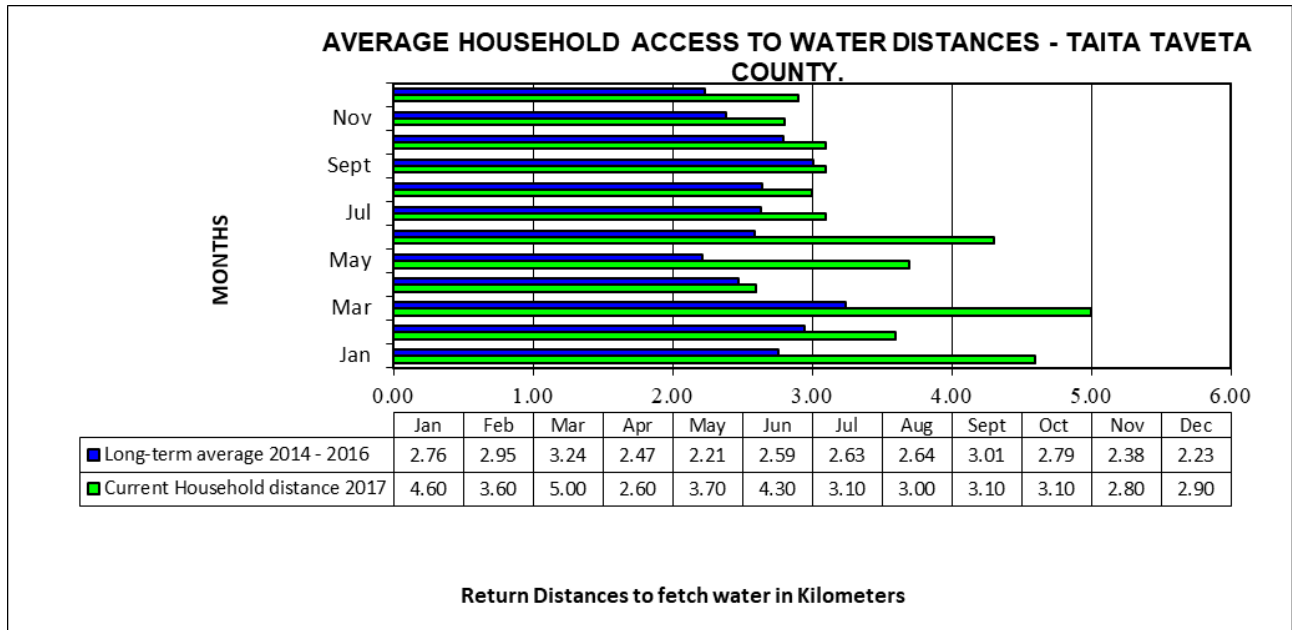
### 2.2.1 Sources

- The main water sources were rivers, springs, bore holes, shallow wells and pans & dams at 46.9%, 18.8%, 6.3%, 18.8% and 6.3% respectively.
- Out of field observation Mwatate dam and Manoa water pan were well recharged to about 70%. This is below normal at this time of the year.



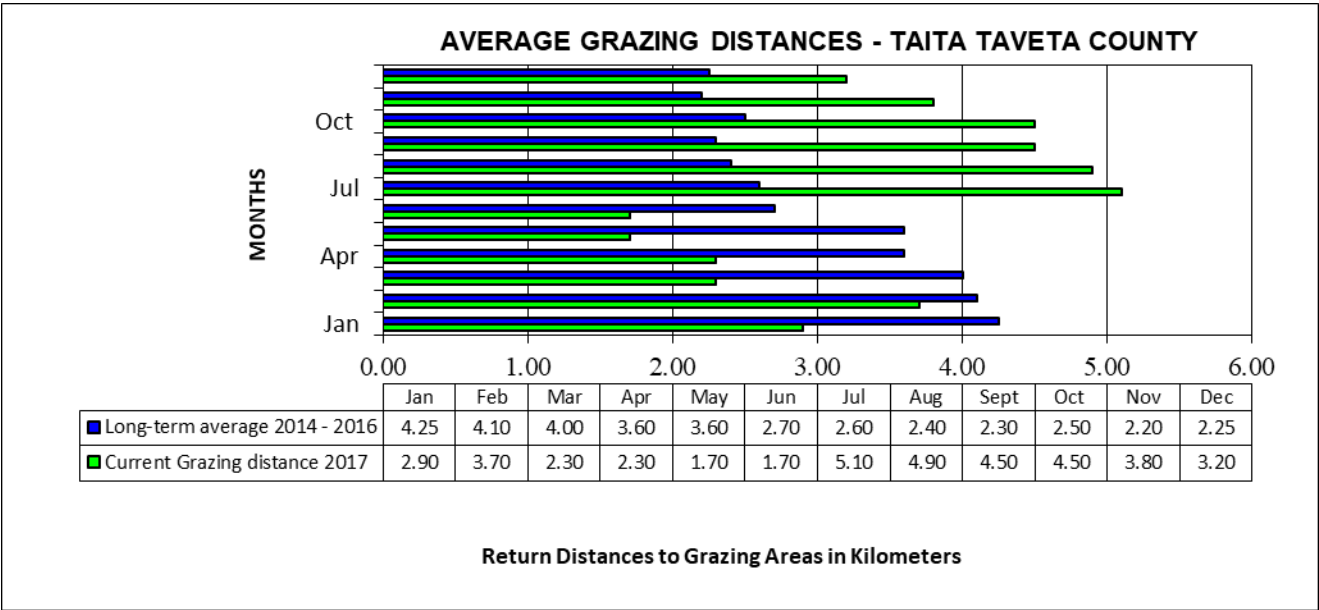
### 2.2.2 Household access to Water

- Compared to the previous month, return distance to water sources slightly increased to 2.9 km but above the long term average by 21.8 percent. This could be attributed to breakdown of Godoma borehole in Mwakitau during the month under review.
- The average cost of 20 litre jerry can was at Kshs 5 which is normal at this time of the year.
- Approximately, 55 percent of the households purchased water compared to 64 percent in the previous month.
- Water consumption per day per person was at 12.0 litres compared to 11.4 litres in the previous month.



### 2.2.3 Livestock Trekking distances to Grazing Areas

- Compared to previous month average return distance by livestock to grazing areas reduced to 3.2 km from 3.8 km. The distance was longer than long term average by 42 percent.
- Long trekking distances were reported in Ngolia, Bura and Challa Wards in the mixed farming: food crop/ livestock livelihood zone.
- In the mixed farming: horticulture/ dairy and mixed farming: irrigated cropping/ livestock livelihood zones livestock trekking distances remained normal.
- Livestock watering in these zones was twice per day which is normal at this time of the year.



**3. PRODUCTION INDICATORS**

**3.1 LIVESTOCK PRODUCTION**

**3.1.1 Livestock Body Condition**

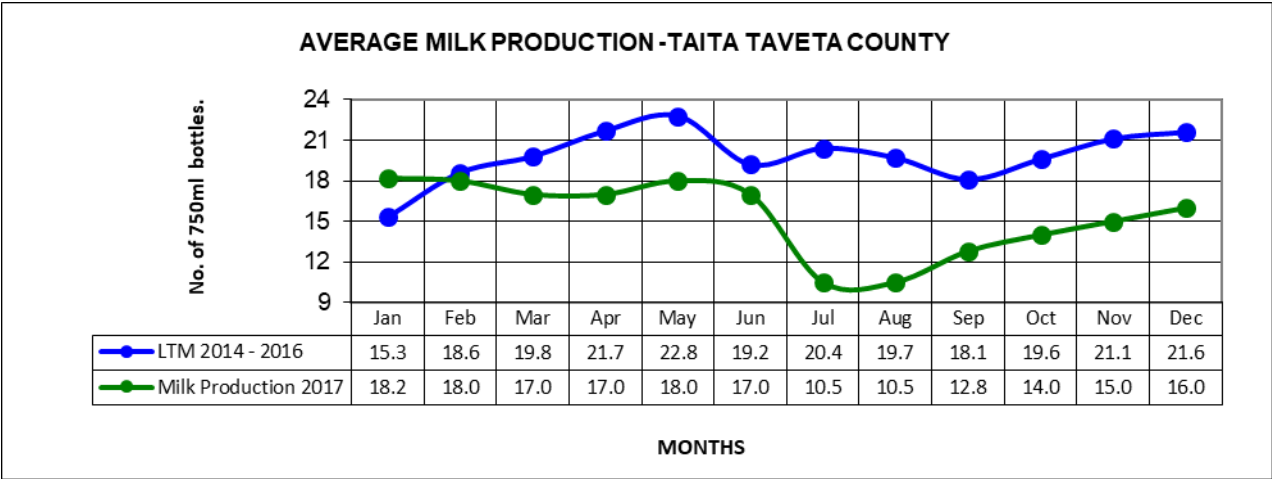
- In the mixed farming: horticulture/ dairy and mixed farming: irrigated cropping/ livestock livelihood zones cattle body condition was fair while that of goat was good.
- In the mixed farming: food crop/livestock livelihood zone the cattle body condition was categorized as good, fair and poor.
- Based on field visits, poor body condition especially for cattle was observed in Werugha, Jipe and Marungu Wards.

**3.1.2 Livestock Diseases**

- No major cases of livestock diseases were reported.

**3.1.3 Milk Production**

- The average milk production per day increased to 16 litres from 15 litres posted in the previous month.
- Out of 210 households sampled milk production in Mboghoni, Wusi, Kasigau, Wumingu, Bura and Ngolia wards was at 31.4%, 31.4%, 18.6%, 10.0%, 5.7% and 2.9% respectively. Sampled households in Challa ward did not record milk production.
- Milk production was high in Mboghoni Ward since farmers have embraced zero grazing while low production was reported in rain fed areas of Ngolia Ward where quality and quantity of pasture is below normal.
- Average milk price per litre at household level remained at Kshs 62.5.



**3.2 RAIN-FED CROP PRODUCTION**

**3.2.1 Stage and Condition of food Crops**

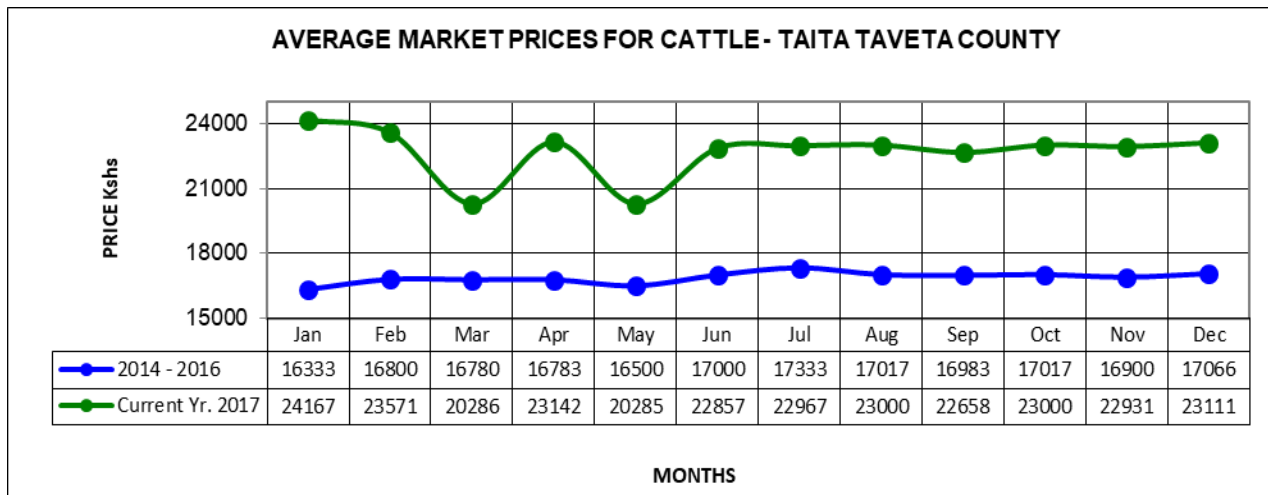
- In the mixed farming: food crop/ livestock livelihood zones the maize crop was drying up at flowering stage due to moisture stress.
- In the mixed farming: food crop/ livestock and horticulture/dairy livelihood zones the maize crop is at flowering stage and in good condition. However, if the rains do not progress then farmers will experience poor harvest.
- In the mixed farming: Irrigated cropping/ livestock livelihood zone farmers were busy weeding. Preparation of rice seed beds was ongoing plus harvesting of tomatoes.
- Army worms destroyed maize crop in most farms in the county.

**4.0 MARKET PERFORMANCE**

**4.1 LIVESTOCK MARKETING**

**4.1.1 Cattle Prices**

- The average market price of a three year old bull increased to Kshs 23,111 from Kshs 22,931 recorded in the previous month and the trend is normal at this time of the year.
- Increase in price could be attributed to increased demand for beef during the festive season while no change in supply resulting to competition among buyers.
- Compared to the long term mean, the average price was higher by 35.4%.



#### 4.1.2 Goat Prices

- The average market price of goat increased to Kshs 4,383 from Kshs 4,327 in the previous month and this is not normal during this time of the year.
- Slight change in price could be attributed to improved body condition and increase in demand for chevon during the festive season.
- Compared to long term mean, the average price was higher by 19.7%.

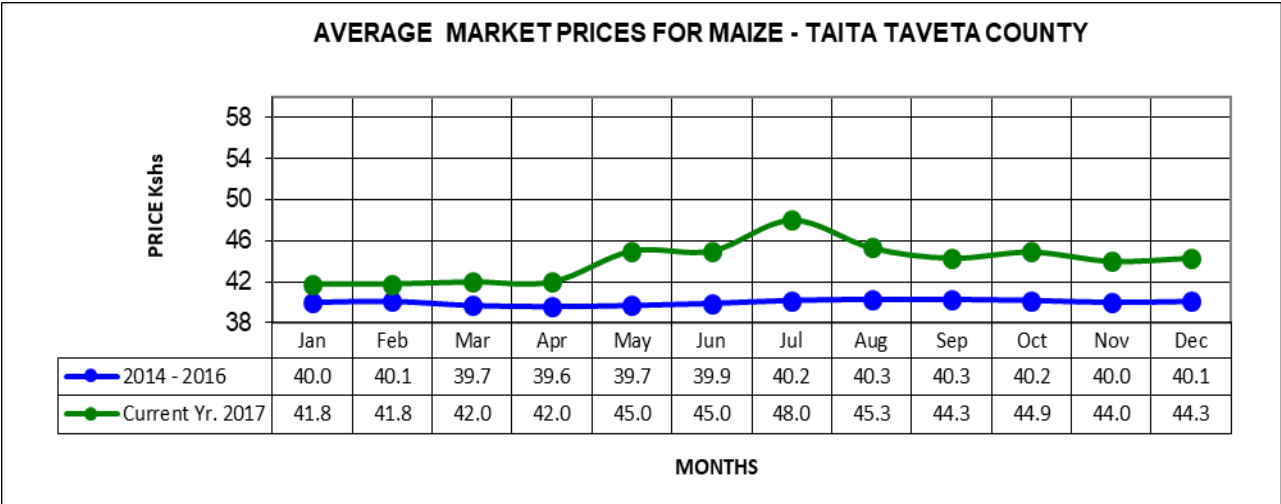


## 4.2 CROP PRICES

### 4.2.1 Maize

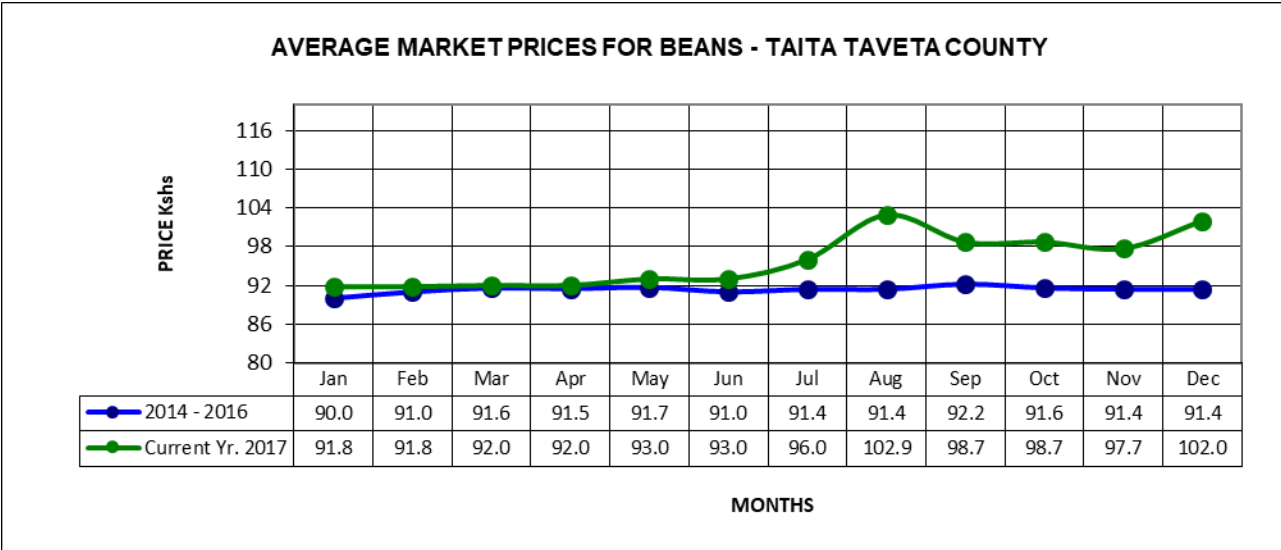
- The average market price of a kilo of maize slightly increased to Kshs 44.3 from Kshs 44.0 in the previous month.
- The prices ranged from Kshs 42.00 to Kshs 45.00 in the mixed farming: irrigated cropping/livestock livelihood zone, areas of Challa and Eldoro in Taveta Sub County.
- Highest prices were recorded in the mixed farming: food crops/livestock livelihood zone, Mwakajo, Rukanga and Mwachawaza at Kshs 48.00 to Kshs 54.00 in Voi and Mwatate Sub Counties. These areas depend on the market due to depleted food stocks at household level.
- Compared to the long term mean the price trend is normal and higher by 10.5%.





**4.2.2 Beans**

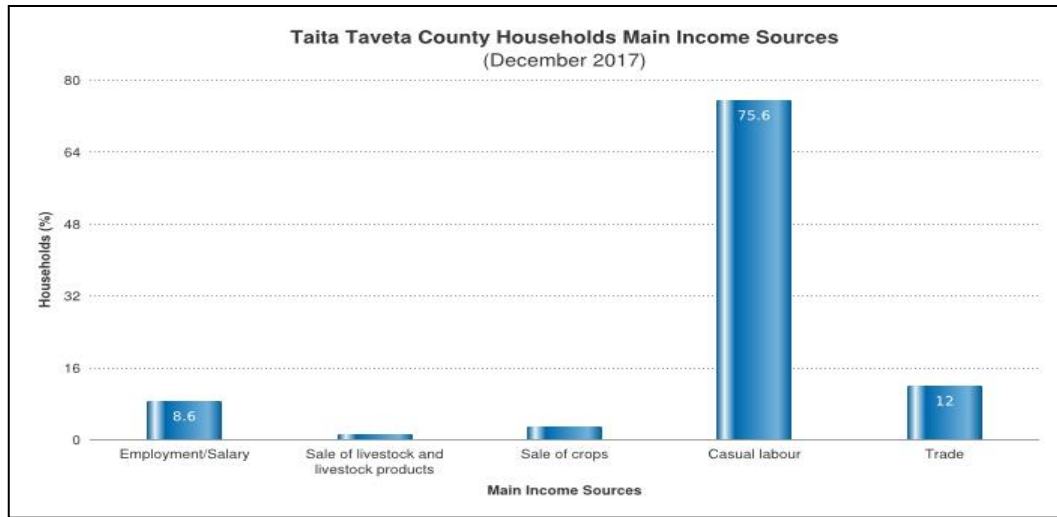
- Average price of a kilo of beans retailed at Kshs 102.0 compared to Kshs 97.7 posted in the previous month.
- This was due to shortage of beans been experienced in the county mainly in Taveta market after Tanzania Administration banned export of cereals.
- Lowest prices were recorded in mixed farming: irrigated cropping/livestock/food crops livelihood zone; Challa at Kshs 80 - 95 due to harvests from irrigation schemes, while high prices were recorded in the mixed farming: food crops/livestock livelihood zone of Kshs 100 to 120 in Mwakajo, Mwachawaza and Rukanga markets.
- Compared to the long term mean the price was higher by 11.6%.



**4.3 INCOME**

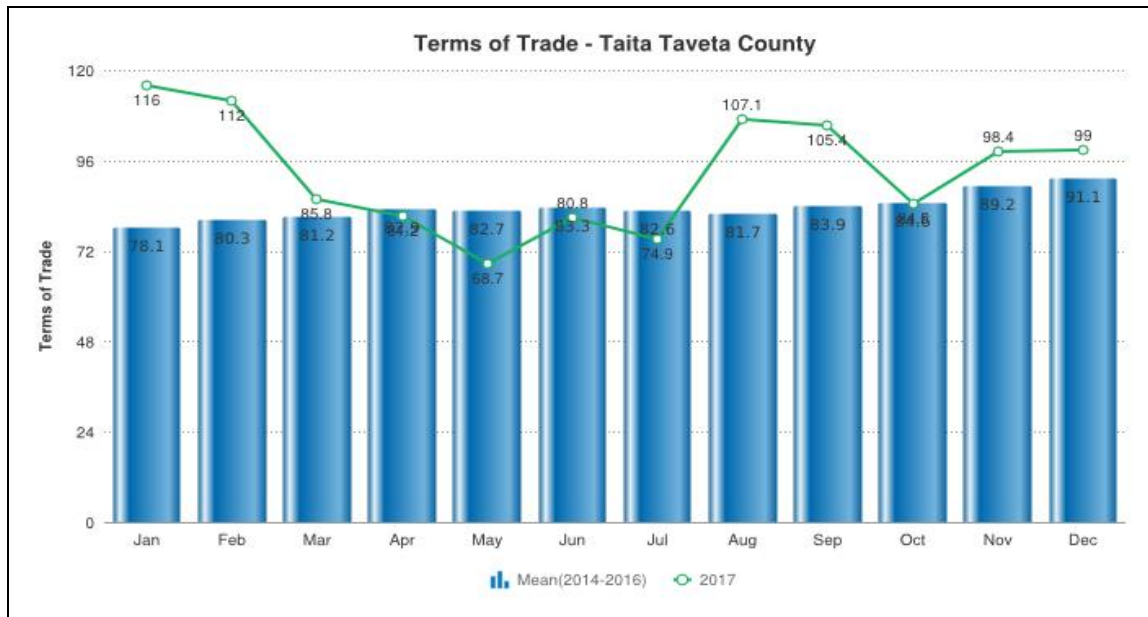
- Household main sources of income were casual labour, trade, employment, sale of crops and sale of livestock products at 75.6%, 12.0%, and 8.6%, 0.5% and 0.5% respectively.

- Casual labour opportunities were available in the sisal and banana plantations, mining sector, irrigation schemes, ranches, building sites and town centres.



#### 4.4 TERMS OF TRADE

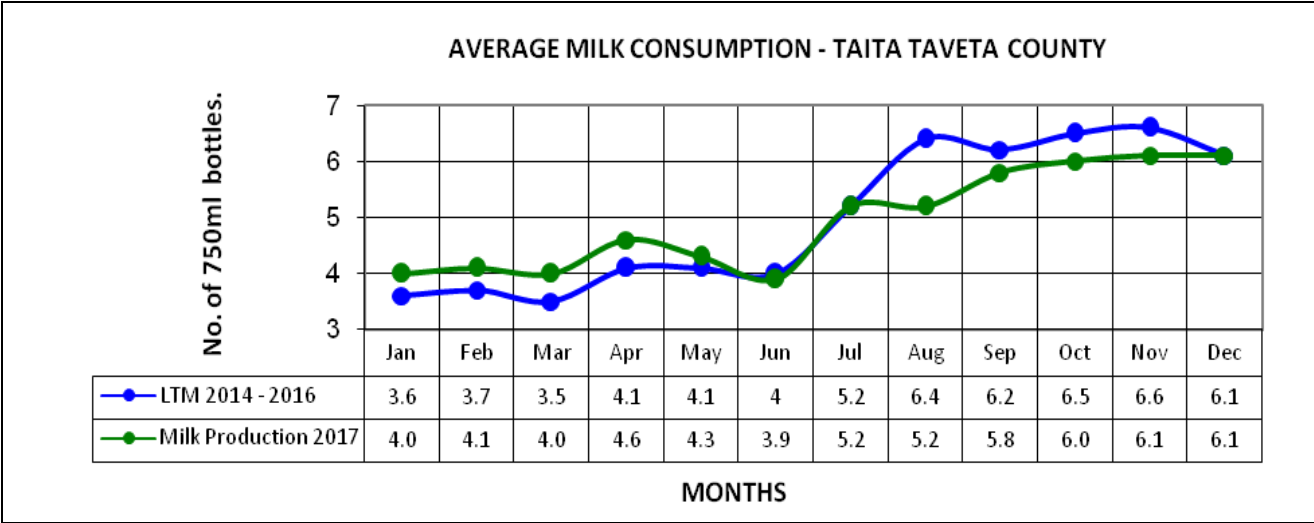
- Terms of trade were favourable and above the LTM. Proceeds of a sale of goat purchased 99.0 kg of maize compared to 98.4 kg during the previous month.



## 5. FOOD CONSUMPTION AND NUTRITION STATUS

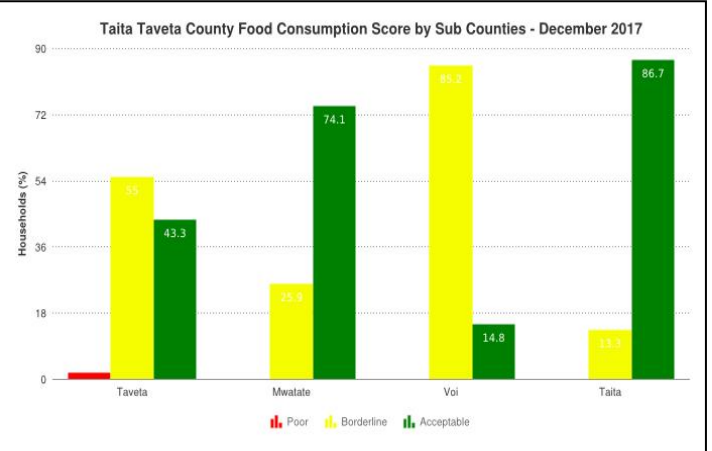
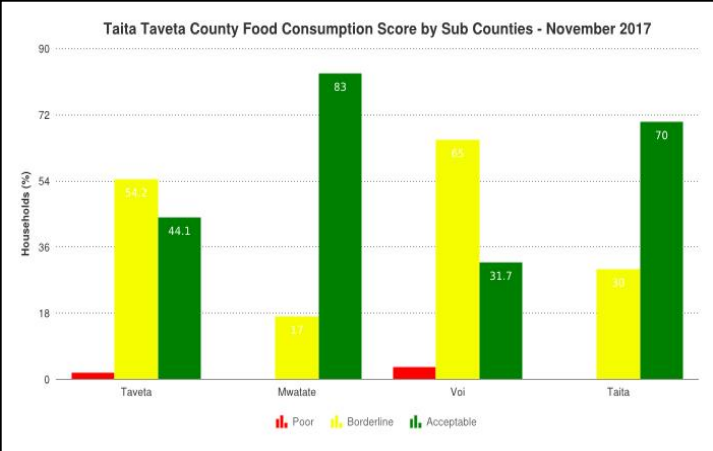
### 5.1 MILK CONSUMPTION

- The milk consumption per day from thirty sampled households remained at 6.1 litres as posted in the previous month.
- The quantity of milk consumed was high in mixed farming: horticulture/ dairy livelihood zone Wumingu and Mboghoni Wards, while low consumption was recorded in the mixed farming: food crops/livestock livelihood zone Ngolia, Wusi, Kasigau and Challa Wards.



**5.2 FOOD CONSUMPTION SCORE**

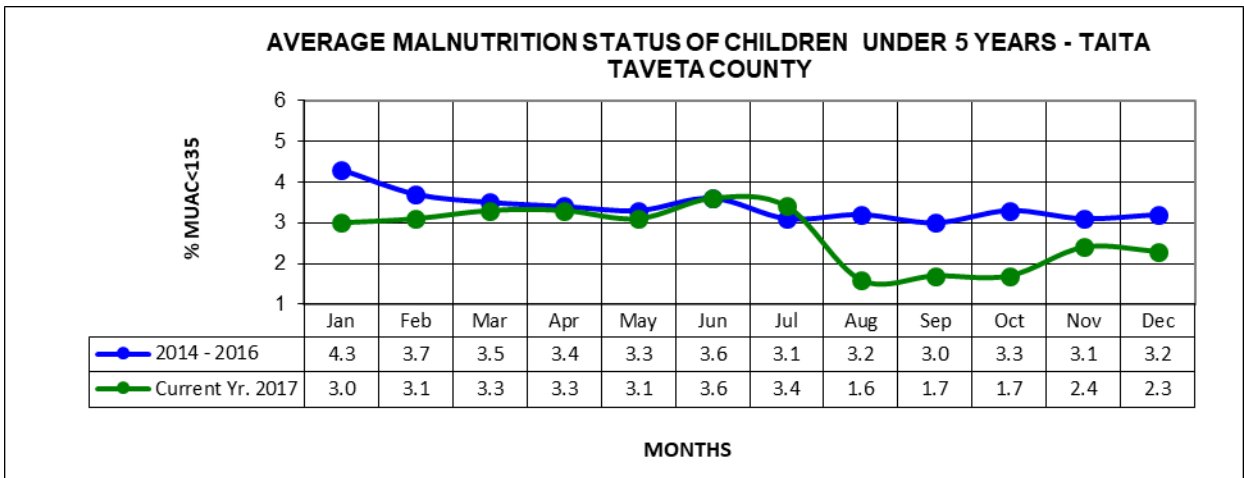
- The category of households with acceptable, borderline and poor food consumption score during the month was at 54.72, 44.85 and 0.43 percent respectively compared to 57.0, 41.8 and 1.2 percent respectively reported in the previous month.
- An improvement was noted in Taita Sub County where 16.7% of households graduated to acceptable FCS from borderline and in Voi Sub County 3.3% of households moved to borderline FCS from poor category.
- However, in Mwatate Sub County 8.9% of households dropped to borderline FCS from acceptable FCS.



**5.3 HEALTH AND NUTRITION STATUS**

**5.3.1 Nutrition Status**

- Mid Upper Arm Circumference (MUAC) measurement for nutrition status of children below five years percentage of those rated as being at risk of malnutrition decreased to 2.3 from 2.4.
- Compared to long term mean MUAC level is lower by 28.1% and the trend is not normal this time of the year.

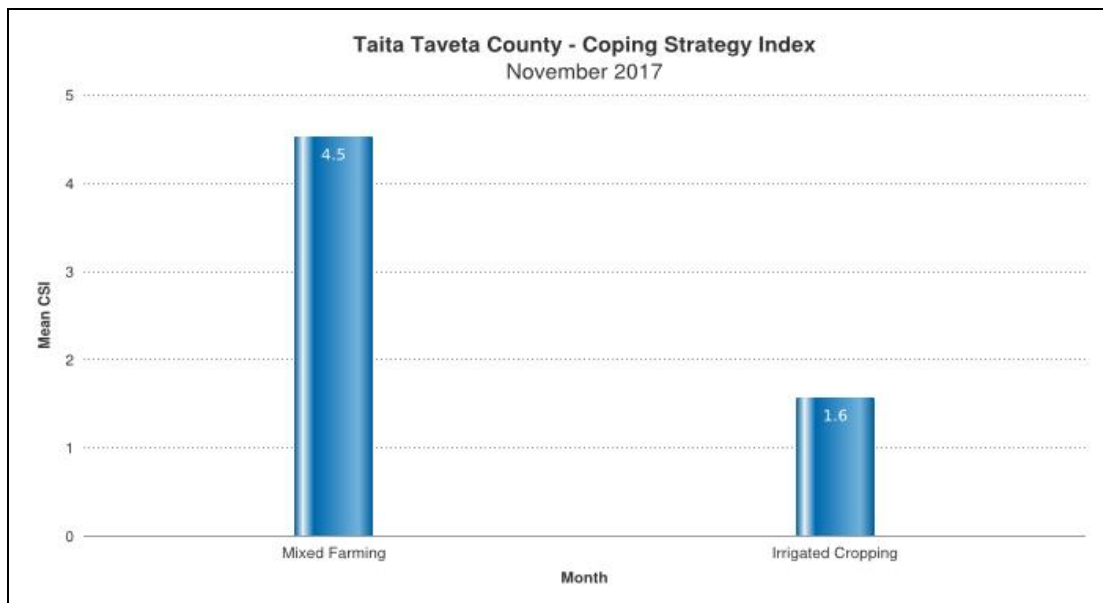


### 5.3.2 Health

- Cases of fever with chills like malaria and fever with breathing difficulties were at 3.8% and 0.5% respectively compared to 4.0% and 1.0% that was posted in the previous month.

### 5.3.3 Coping Strategies.

- The CSI for the month under review was recorded at 4.16 compared to 4.10 posted in the previous month. This indicates households employed the same coping strategies to address issues of drought as compared with the previous month.
- This was due to availability of short term maturing crops for instance green leafy vegetables.



## 6.0 CURRENT INTERVENTION MEASURES (ACTION)

### 6.1 FOOD AND NON FOOD INTERVENTIONS

#### 6.1.1 Sectoral

Intervention	Achievements in August 2017
<b>Social Protection</b>	
Asset Creation Program	<ul style="list-style-type: none"><li>• CFA program was ongoing</li></ul>
Cash Transfers	<ul style="list-style-type: none"><li>• Chakula Kwa Jamii (CKJ) unconditional cash was ongoing</li></ul>

## 7.0 EMERGING ISSUES

### 7.1 HOTSPOTS

- Areas that experienced long dry spell since December 2016 plus minimal rains during the short rains 2017 and require constant food or non food assistance are Kishushe, Mwaroko, Sangenyi and Mlilo in Werugha Ward, Mbulia in Ngolia Ward, Marungu Ward, Kajire, Ndara, in Sagalla Ward, Mgeno in Mwatate Ward and Mahandakini in Challa Ward and Mata Ward.

### 7.2 MIGRATION

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

### 7.3 CONFLICT

- Elephant menace continued to be reported in areas bordering the park.

### 7.3 FOOD SECURITY PROGNOSIS

- In the next three months food security situation is expected to deteriorate due to poor performance of short rains.
- The situation exacerbated by army worm invasion and moisture stress resulting to poor harvest of maize.
- Prices of pulses are projected to go up due to poor harvests expected in the month of January plus ban of exports from Tanzania.
- Open water sources are expected to dwindle at high rate due to high temperatures forecasted by the Meteorological department.
- Depletion of pasture is expected especially in areas where rains performed poorly.
- Livestock body condition will be adversely affected and production will drop.
- Intake of livestock products will decrease and hence affect utilization of children under five years.
- Household members will employ more coping strategies resulting to less care for the young ones and the elderly hence room for diseases.
  - Response plans to be put in place in order for sectors to be able to address the drought situation as it unfolds.
  - Preparedness activities should be implemented to promote resilience of the community during the drought period.
  - LRA 2017 population in need of food assistance was at 77,694 (2009 census KNBS).

## **8. RECOMMENDATIONS**

### **Agriculture and Livestock Sector**

- Pesticides to address the issue of army worms destroying crops.
- Provision of post harvest management services to safe harvest expected.
- Crop protection especially in irrigated zone.
- Pasture conservation where pasture condition is good.
- Provision of supplementary livestock feeds.

### **Water and Irrigation Sector**

- Provision of water treatment tabs mainly in rain fed lowlands.
- Purchase of water storage tanks.

### **Health and Nutrition**

- Strengthen malnutrition screening and active case search and integrated management of acute malnutrition especially in the lowlands of the county.