National Drought Management Authority
TAITA TAVETA COUNTY
DROUGHT EARLY WARNING BULLETIN FOR JANUARY 2018

NDMA

A Vision 2030 Flagship Project

KENYA VISION 2030

JANUARY 2018 EW PHASE

Drought Status: ALERT

Maandalizi ya mapema

Drought Situation & EW Phase Classification
Biophysical Indicators

- The county received off season rains in the first dekad of the month under review.
- The rains were minimal and were experienced both in the highlands and lowlands.
- The pasture and browse condition is good to fair and on a deteriorating trend.
- Vegetation condition index is below normal depicting moderate vegetation deficit.

Socio Economic Indicators (Impact Indicators)
Production Indicators
- Maize crop performed below average due to moisture stress and Fall Army Worm invasion.
- Livestock body condition remained good to fair.
- Milk production was below normal.
- Livestock migration was normal and no deaths were reported.

Access Indicators
- Terms of Trade were favourable and above the normal range.
- Milk consumption per HH per day was above normal.
- Livestock grazing distances were above the normal range.

Utilization Indicators
- The proportion of children at risk of malnutrition remained within the normal range.

Early Warning Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming: Food Crops/ Livestock	Alert	Worsening
Mixed Farming: Food Crops/ Horticulture/Dairy	Alert	Stable
Mixed Farming: Irrigated Cropping/ Livestock/Food Crops	Alert	Stable
Casual Waged Labour: Sisal Farms	Alert	Stable
National Park	Alert	Stable
Trade/Business	Normal	Stable
County	**Alert**	**Worsening**
Biophysical Indicators	**Value**	**Normal Range/ Value**
Rainfall (% of Normal)	91	80 - 120
VCI-3Month	33.78	35-50
Production indicators	**Value**	**Normal**
Maize Crop Condition	Poor	Harvesting
Livestock Body Condition	Fair	Good
Milk Production per HH/ day	2.9	3.1 Litres
Livestock Migration Pattern	Normal	Normal
Livestock deaths (drought)	No death	No death
Access Indicators	**Value**	**Normal**
Terms of Trade (ToT)	117.9	79.2
Milk Consumption per HH/ day	1.4	1.0 Litres
Return distance to water sources	2.20	2.4 Km
Return distance to grazing areas	4.30	3.8 Km
Cost of water (20 litres)	5.00	< Kshs 5.00
Utilization indicators	**Value**	**Normal**
Nutrition Status, MUAC (% at risk of malnutrition)	2.30	<3.20

Seasonal Calendar

|			
▪ Short rains harvests ▪ Increased HH Food Stocks ▪ Short dry spell ▪ Reduced milk yields ▪ Land preparation	▪ Planting/Weeding ▪ Long rains ▪ High Calving Rate ▪ Milk Yields Increase	▪ Long rains harvests ▪ Increased HH Food ▪ A long dry spell ▪ Land preparation ▪ Kidding (Sept)	▪ Short rains ▪ Planting/weeding
Jan Feb Mar	Apr May Jun	Jul Aug Sept Oct	Nov Dec

1.   CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE
- The county received off season rains in the first dekad of the month under review.
- The rains were minimal and partially recharged open water sources and replenished springs and boreholes.
- The rains supported growth of pasture and browse in some pockets.
- The rains had more impact in the mixed farming: food crops/livestock livelihood zone given that this zone registered early cessation of short rains.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION
- According to WFP-VAM, Climate Hazards Group InfraRed Precipitation with Station Data (CHIRPS) three months rainfall anomaly for dekad one was at 92% and dekad two 91%.
- The rains received in the first dekad were above normal compared to the long term average while below normal for dekad two.
- The rains were recorded in both the highlands and lowlands.
- However, a few pockets in the mixed farming: food crops/livestock zone did not experience these rains.
- These areas were Challa, Mata, Kishushe, Mbulia, Kasigau and lower Sagalla.
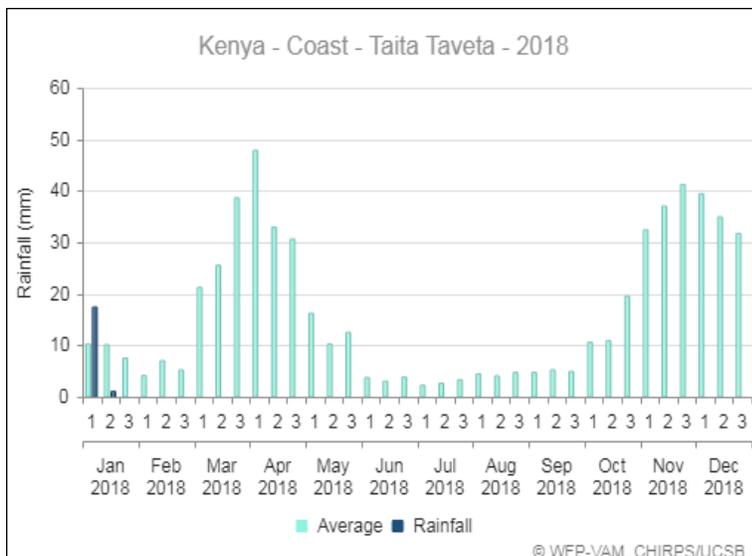
2.   IMPACTS ON VEGETATION AND WATER

2.1   VEGETATION CONDITION
2.1.1   Vegetation Condition Index (VCI)
- The county vegetation greenness remained stable compared to the previous month.
- Recording an average VCI value of 33.78 depicting moderate vegetation greenness. Compared to same time in 2017 the situation is similar.
- All Sub Counties are in the moderate vegetation deficit except Voi which remained in the normal band.
- Taveta, Wundanyi and Mwatate Sub Counties are showing a deteriorating trend compared to previous month.
- This is shown in figure 1 where Taveta and Wundanyi Sub Counties recorded the lowest VCI of 27.12 and 30.41 respectively.
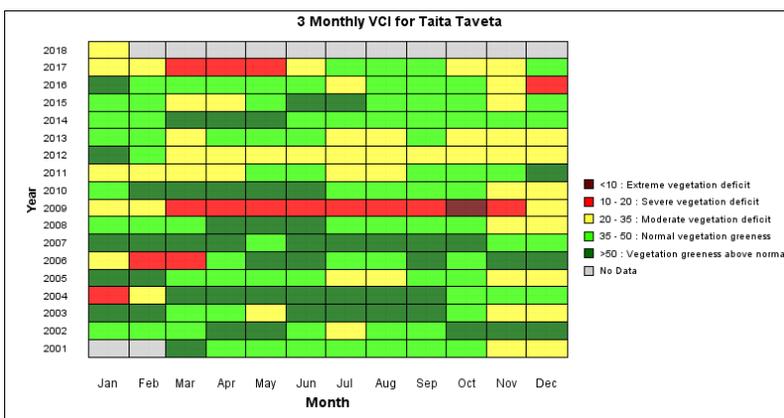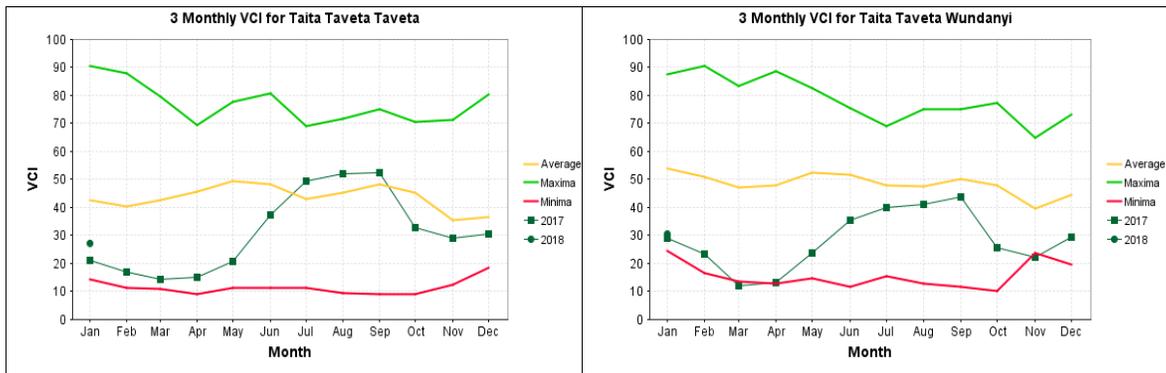
**Figure 1: Three months Vegetation Condition Index**

2.1.2 Pasture
- Based on community interviews conducted pasture condition was good to fair.
- Out of these interviews 55%, 30% and 15% indicated pasture 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 deterioration in quality and quantity condition of pasture.
- Pasture condition is below normal for this time of the year.
- Available pasture is expected to last for the next two months

- Relatively, pasture stress is evident in areas of Kishushe in Wumingu Ward, Kajire in Sagalla Ward, Marungu Ward, Mbulia in Ngolia Ward, Mahandakini in Challa Ward and Orkung in Mata Ward.
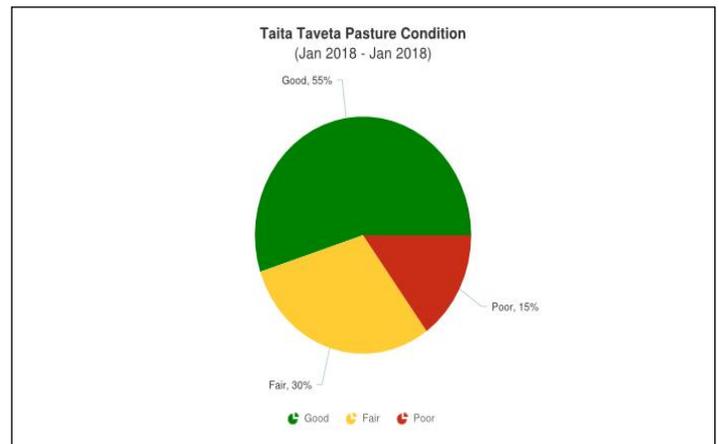
2.1.3 Browse
- The browse condition ranged from good to fair.
- In regard to proportions during community interviews 50%, 35% and 15% indicated browse condition was good, fair and poor respectively compared to 61.9%, 33.3% and 4.8% respectively in the previous month.
- This shows a deteriorating trend and this is below normal for this time of the year.
- The available browse is expected to last for at least three months.
- No constraints were observed in accessing browse in the month under review.

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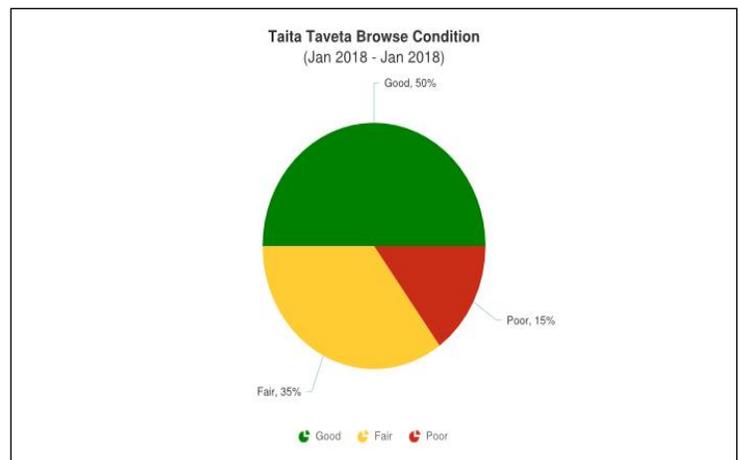
2.2   WATER RESOURCE
2.2.1   Sources
- The major sources of water were rivers, springs and shallow wells.
- Out of field observation recharge of open water sources ranged between 60 and 75 percent with the exception of mixed farming: food crop/ livestock livelihood zone where it was 45 – 55 percent.
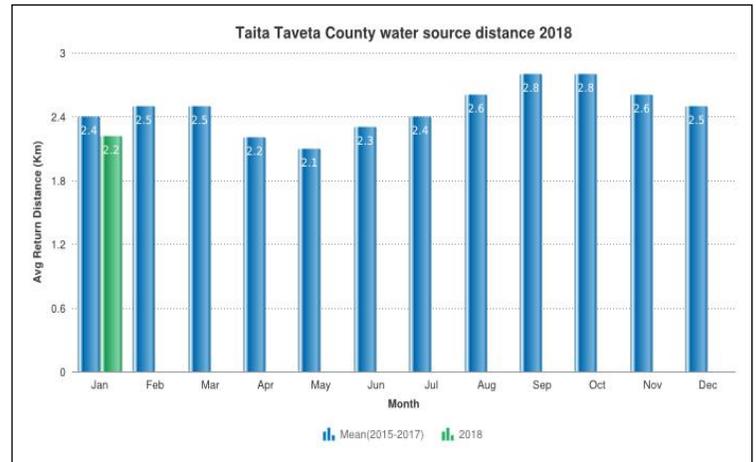- The recharge improved water availability and access.
- Water in the open water sources is expected to last until the end of March.
- Strategic water sources like Mwatate dam and Manoa water pan have reduced in water levels to below normal at this time of the year.

Taita Taveta County Water sources
(January 2018)

Rivers, 45.5%
Pans and dams, 3%
Piped Water System, 6.1%
Shallow wells, 18.2%
Boreholes, 6.1%
Springs, 21.2%

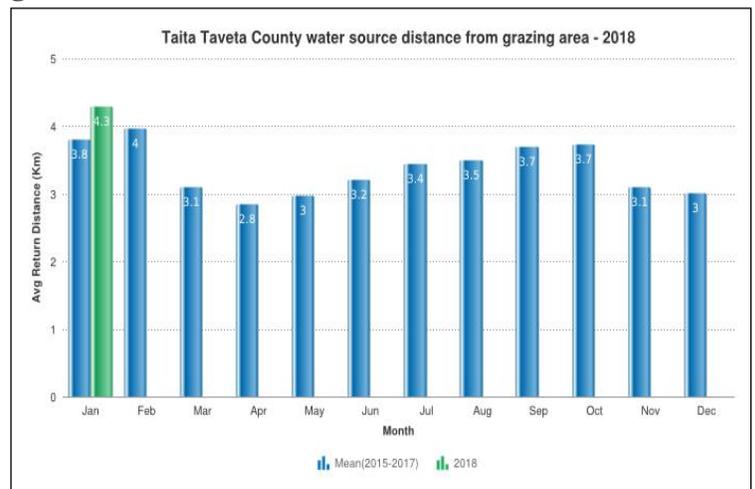Rivers • Pans and dams • Shallow wells • Boreholes • Springs • Piped Water System
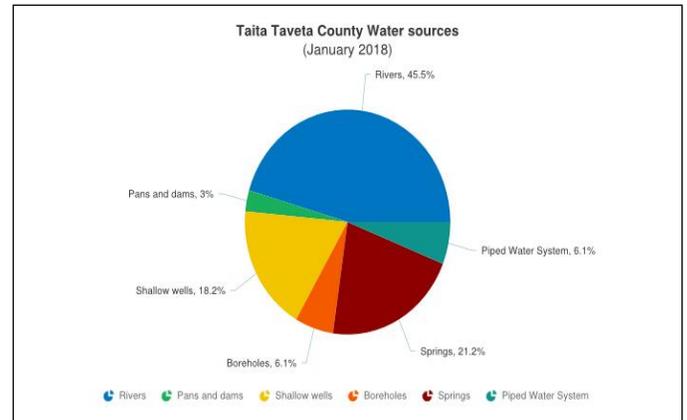
2.2.2   Household access to Water
- Return distances dropped to 2.2 km from 2.9 km in the previous month. Indicative of 24% drop.
- The distance is shorter by 8% compared to the long term average.
- This could be attributed to off season rains experienced early in the month.
- The average cost of 20 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.

Taita Taveta County water source distance 2018

Jan 2.4/2.2, Feb 2.5, Mar 2.5, Apr 2.2, May 2.1, Jun 2.3, Jul 2.4, Aug 2.6, Sep 2.8, Oct 2.8, Nov 2.6, Dec 2.5

Mean(2015-2017)   2018

2.2.3   Livestock Trekking distances to Grazing Areas
- Compared to previous month average return distance by livestock to grazing areas rose by 34% to reach 4.3 km from 3.2 km.
- The distance is shorter by 13% compared to the long term average.
- Long trekking distances were reported in Ngolia, Kasigau and Challa Wards in the mixed farming: food crop/ livestock livelihood zone.
- In 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.

Taita Taveta County water source distance from grazing area - 2018

Jan 3.8/4.3, Feb 4, Mar 3.1, Apr 2.8, May 3, Jun 3.2, Jul 3.4, Aug 3.5, Sep 3.7, Oct 3.7, Nov 3.1, Dec 3

Mean(2015-2017)   2018

3. PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION
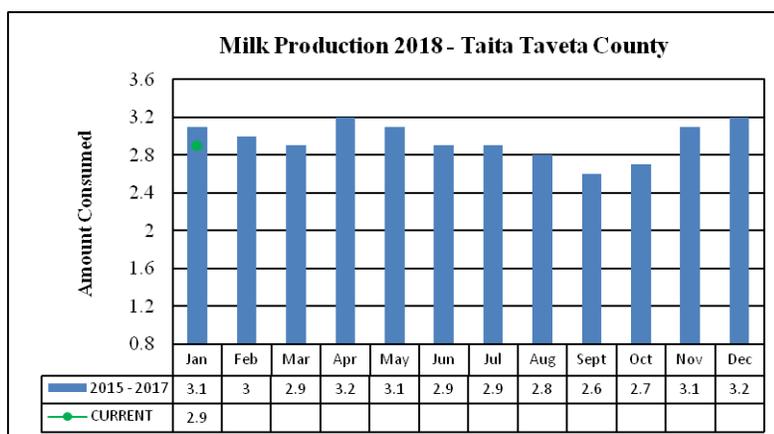### 3.1.1 Livestock Body Condition
- In the mixed farming: horticulture/ dairy and mixed farming: irrigated cropping/ livestock livelihood zones cattle body condition was fair while that of goat was good.
- In the mixed farming: food crop/livestock livelihood zone the cattle body condition was categorized as good, fair and poor.
- Based on field visits, poor body condition especially for cattle was observed in Kishushe/Wumingu, Mata, Ngolia and Marungu Wards plus lower parts of Sagalla.

3.1.2 Livestock Diseases
- No major cases of livestock diseases were reported.

3.1.3 Milk Production
- The average milk production per household per day was 2.9 litres.
- Milk production was high in the upper zone of Wumingu 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 is at Ksh 42.00

Milk Production 2018 - Taita Taveta County

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2015 - 2017	3.1	3	2.9	3.2	3.1	2.9	2.9	2.8	2.6	2.7	3.1	3.2
CURRENT	2.9											

3.2 RAIN-FED CROP PRODUCTION
3.2.1 Stage and Condition of food Crops
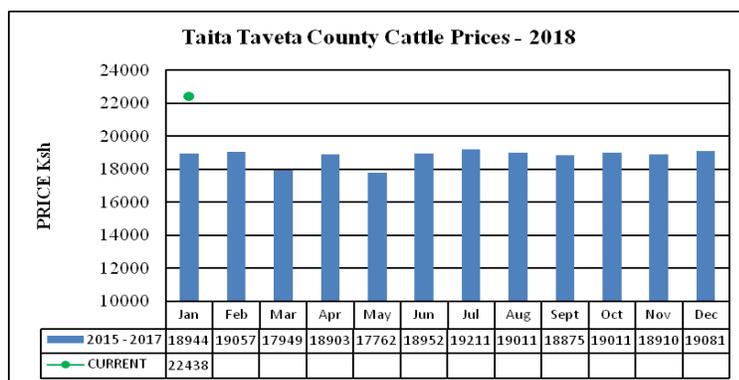- In the mixed farming: food crop/ livestock livelihood zones no major farming activity was taking place. However, farmers are preserving maize stovers for livestock feeding.
- In the mixed farming: horticulture/dairy livelihood zone farmers are harvesting maize and kales.
- In the mixed farming: Irrigated cropping/ livestock livelihood zone farmers are busy harvesting maize.

4.0   MARKET PERFORMANCE
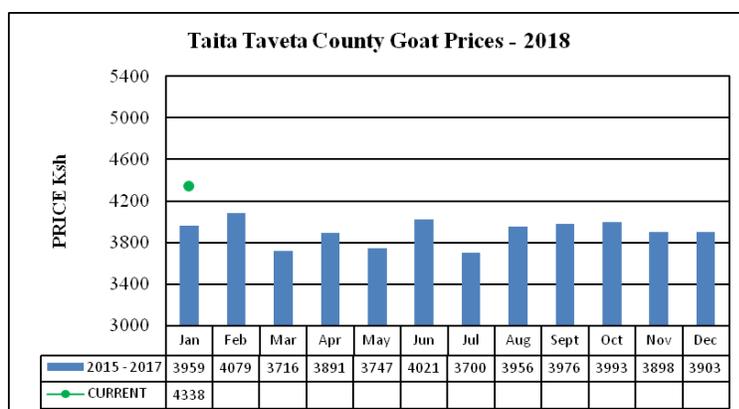
4.1   LIVESTOCK MARKETING
4.1.1   Cattle Prices
- The average market price of a three year old bull remained stable at Kshs 22,438.
- The price is above normal at this time of the year.
- This could be attributed to good body condition of cattle.
- Compared to the long term mean, the average price was higher by 18%.

Taita Taveta County Cattle Prices - 2018

|	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2015 - 2017	18944	19057	17949	18903	17762	18952	19211	19011	18875	19011	18910	19081
CURRENT	22438											

4.1.2   Goat Prices
- The average market price of two year goat remained stable at Kshs 4,338.
- The price is above normal at this time of the year.
- This could be attributed to good body condition of goats in all livelihood zones.
- Compared to long term mean, the average price was higher by 19.7%.

Taita Taveta County Goat Prices - 2018

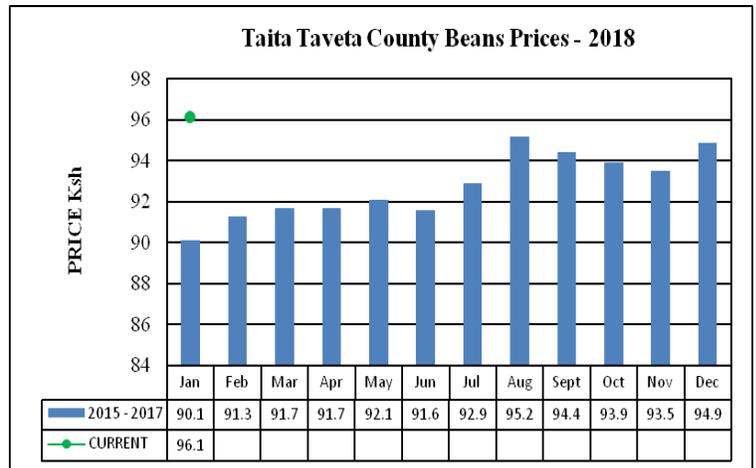|	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2015 - 2017	3959	4079	3716	3891	3747	4021	3700	3956	3976	3993	3898	3903
CURRENT	4338											

4.2   CROP PRICES
4.2.1   Maize
- The average market price of a kilo of maize remained stable at Kshs 41.10.
- The prices ranged from Kshs 38.00 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 40.00 to Kshs 50.00 in Voi and Mwatate Sub Counties. These areas depend on the market supply due to poor harvests.

Taita Taveta County Maize Prices

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2015 - 2017	40.6	40.7	40.5	40.4	41.5	41.6	42.8	42.0	41.6	41.8	41.3	41.5
CURRENT	41.1											

- During the season maize production was also affected by invasion of Fall Army Worm.
- Price is on a downward trend and compared to the long term mean the price is higher by 1.2%.
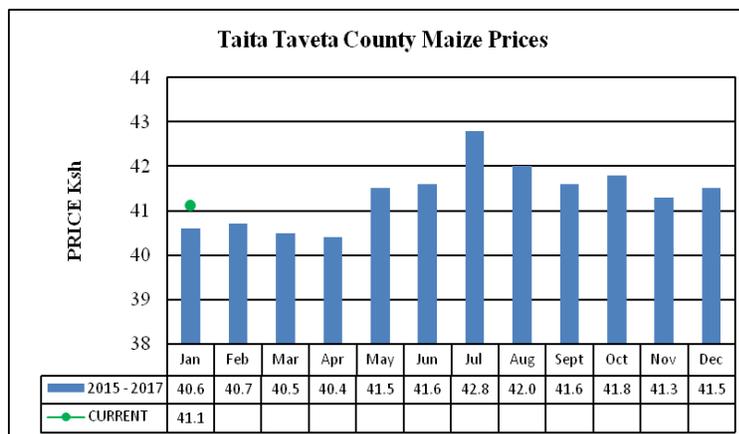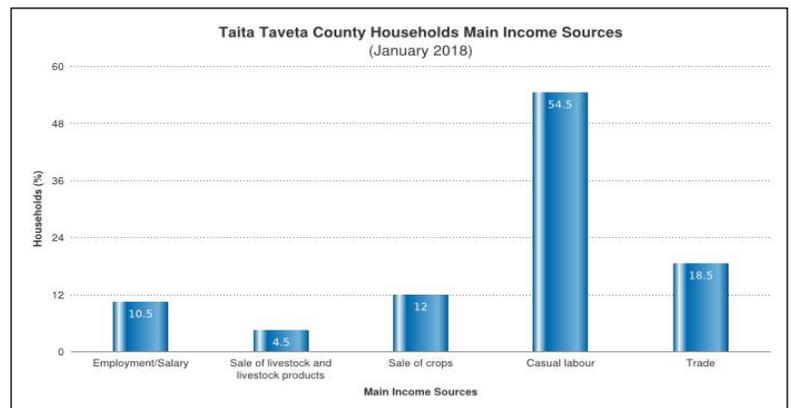
4.2.2 Beans

- Average price of a kilo of beans remained stable at Kshs 96.10.
- The downward trend from previous month is normal at this time of the year due to harvests.
- Lowest prices were recorded in mixed farming: irrigated cropping/livestock/food crops livelihood zone; Challa at Kshs 90 - 100 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 6.0%.

Taita Taveta County Beans Prices - 2018

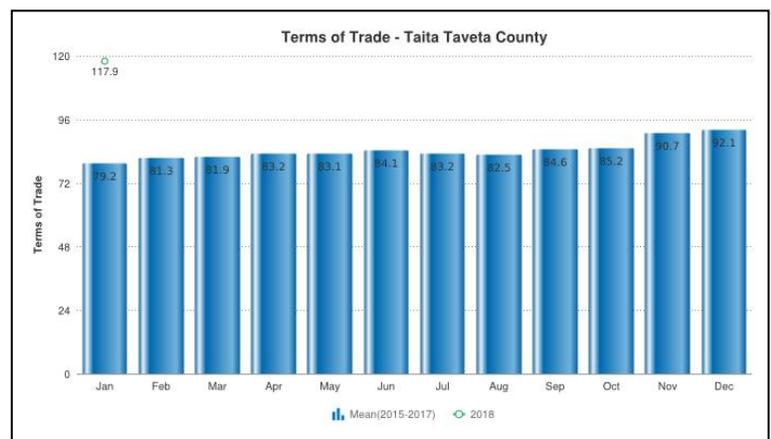|	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2015 - 2017	90.1	91.3	91.7	91.7	92.1	91.6	92.9	95.2	94.4	93.9	93.5	94.9
CURRENT	96.1											

4.3 INCOME

- Household main sources of income were casual labour and trade. Others were sale of crops, employment and sale of livestock products at lower proportions.
- Sources of income compared to previous month remained stable.
- Casual labour opportunities were available in the sisal and banana plantations, mining sector, irrigation schemes, ranches, building sites and town centres.

Taita Taveta County Households Main Income Sources (January 2018)

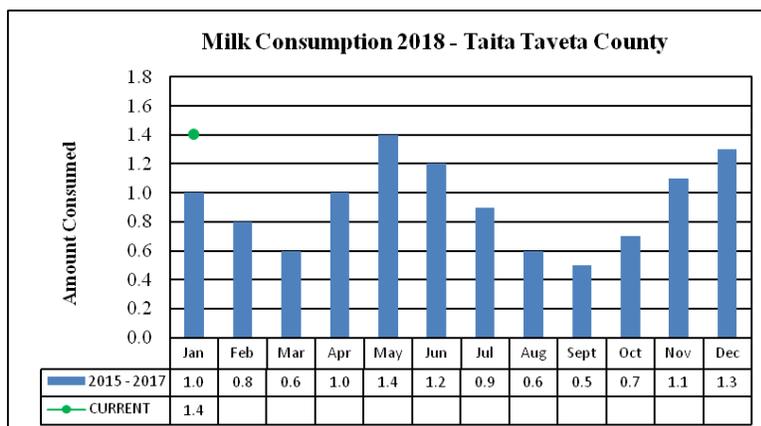| Main Income Source	Households (%)
Employment/Salary	10.5
Sale of livestock and livestock products	4.5
Sale of crops	12
Casual labour	54.5
Trade	18.5

4.4 TERMS OF TRADE

- Terms of trade were favourable and on an upward trend.
- This is normal at this time of the year given that goat prices remain stable due to good body condition while those of maize are declining.
- Proceeds of sale of goat purchased 117.90 kg of maize.
- Terms of Trade were above the LTM by 19%.

Terms of Trade - Taita Taveta County

2018: 117.9

|	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean(2015-2017)	79.2	81.3	81.9	83.2	83.1	84.1	83.2	82.5	84.6	85.2	90.7	92.1

5. FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION
- The milk consumption per household per day remained stable at 1.4 litres.
- Milk consumption was high by 40 percent compared to LTM.
- The quantity of milk consumed was high in mixed farming: horticulture/ dairy livelihood zone Wumingu Ward, while low consumption was recorded in the mixed farming: food crops/livestock livelihood zone Ngolia, Wusi, Kasigau and Challa Wards.

Milk Consumption 2018 - Taita Taveta County

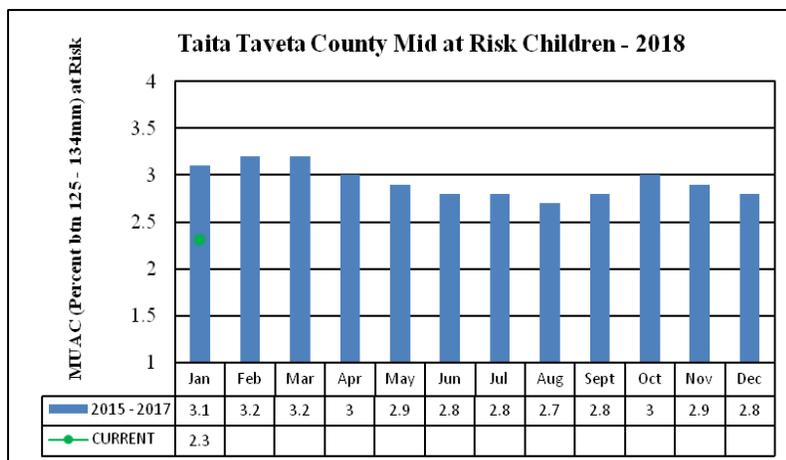|	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2015 - 2017	1.0	0.8	0.6	1.0	1.4	1.2	0.9	0.6	0.5	0.7	1.1	1.3
CURRENT	1.4											

5.2 FOOD CONSUMPTION SCORE
- Most households (65.5 percent) were consuming an acceptable diet in terms of meal frequency, dietary diversity, nutritional value and amount, and had acceptable food consumption scores. The proportion of households with borderline and poor food consumption scores were 31.2 percent and 3.3 percent respectively.
- Food consumption remained stable compared to previous month, where 54.7 percent of households had acceptable food consumption and 44.9 percent were in borderline food consumption category.

Taita Taveta County Food Consumption Score by Sub Counties - January 2018
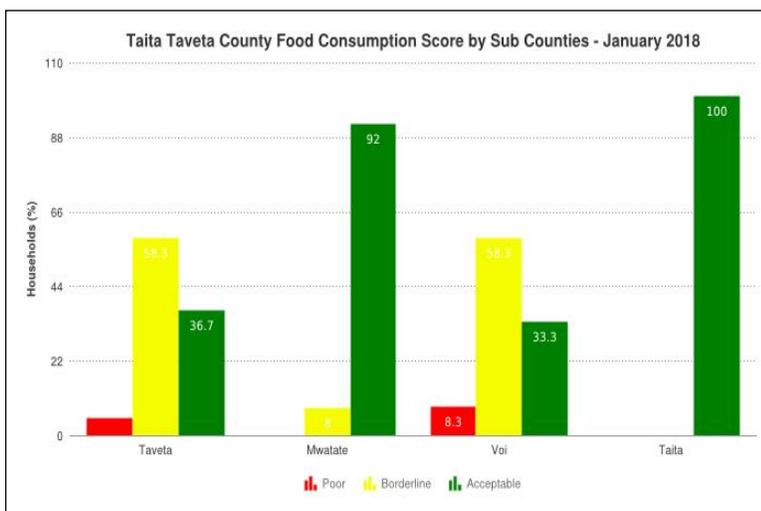
5.3 HEALTH AND NUTRITION STATUS
5.3.1 Nutrition Status
- Mid Upper Arm Circumference (MUAC) measurement for nutrition status of children below five years percentage of those rated as being at risk of malnutrition remained stable at 2.3.
- Compared to long term mean MUAC level is lower by 26% and on a downward trend which is normal at this time of the year.

Taita Taveta County Mid at Risk Children - 2018

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2015 - 2017	3.1	3.2	3.2	3	2.9	2.8	2.8	2.7	2.8	3	2.9	2.8
CURRENT	2.3											

5.3.2 Health
- Cases of fever with chills like malaria were at 6.4% compared to 3.8% that was posted in the previous month.

5.3.3 Coping Strategies
- The CSI for the month under review was recorded at 4.56 compared to 4.16 posted in the previous month.
- This change was relatively small indicating households employed same coping strategies.
- This could be attributed to availability of food at household level resulting from harvest of short term maturing crops and pulses.
- Households engaged in various coping strategies including charcoal burning, petty trade and casual waged labour.

Taita Taveta County - Coping Strategy Index
January 2018
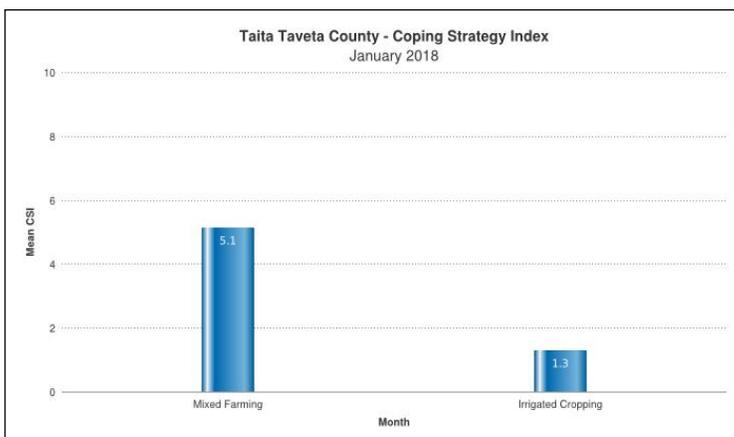
6.0   CURRENT INTERVENTION MEASURES (ACTION)

6.1   FOOD AND NON FOOD INTERVENTIONS
6.1.1   Sectoral

Intervention	Activities
Social Protection	
Asset Creation Program	• CFA program was ongoing marking the onset of lean months
Multi - Sectoral	• Mainstreaming EDE to CIDP II plus integrated planning through public participation

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 one month food security situation is expected to deteriorate due to poor performance of short rains and onset of dry season.
- Harvest was below average due to inadequate rains and Fall Army Worm invasion.
- Food prices are projected to go up due to poor harvest plus ban of exports of cereals and legumes by Tanzania Administration.
- Open water sources are expected to dwindle 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 livestock production will drop.
- Milk production will drop and impact negatively on utilization of children under five years.
- Household members will employ more coping strategies resulting to less care for the young ones and the elderly.
- Reduced number of meals and food portions will adversely affect the health of adults.
- Response plans to be put in place in order for sectors to act swiftly during the drought period.
- 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
- Provision of post harvest management services.
- Crop protection especially in irrigated zone.
- Pasture conservation where pasture condition is good.
- Provision of supplementary livestock feeds in hot spot areas.

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.