

National Drought Management Authority

TAITA TAVETA COUNTY

DROUGHT EARLY WARNING BULLETIN FOR APRIL 2017



A Vision 2030 Flagship Project



April EW PHASE

Drought Status: ALERT



Maandalizi ya mapema

Early Warning Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming: Food Crops/ Livestock	Alert	Improving
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	Alert	Improving
County	Alert	Improving
Biophysical Indicators	Value	Normal Range/ Value
Rainfall (% of Normal)	94	80 - 120
SPI-3Month (TAMSAT)	-0.04	-1.0 to 1.0
VCI-3Month	13.16	35-50
Production indicators	Value	Normal
Maize Crop Condition	Germination	Weeding
Livestock Body Condition	Fair	Good
Milk Production	18	48 Litres
Livestock Migration Pattern	Ranches	Ranches
Livestock deaths (drought)	None	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	91	83
Milk Consumption	4	10 litres
Return distance to water sources	3.50	<5 Km
Return distance to grazing areas	3.50	<6 Km
Cost of water (20 litres)	8	< Kshs 5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	3.3	<6.6

Drought Situation & EW Phase Classification

Biophysical Indicators

- The county registered late onset of long rains on 4th of April.
- The rains were erratic characterized by poor distribution in terms of time and space.
- The rains supported crop germination, water recharge and pasture regeneration.
- Vegetation condition index was below normal at 13.16.

Socio Economic Indicators (Impact Indicators)

Production Indicators

- Crop germination and weeding was ongoing.
- Livestock body condition was fair to good especially for cattle.
- Milk production improved but still below normal.

Access Indicators

- Most open water sources were replenished.
- Cases of human wildlife conflict dropped due to availability of resources inside the park.
- Terms of Trade remained favorable.

Utilization Indicators

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

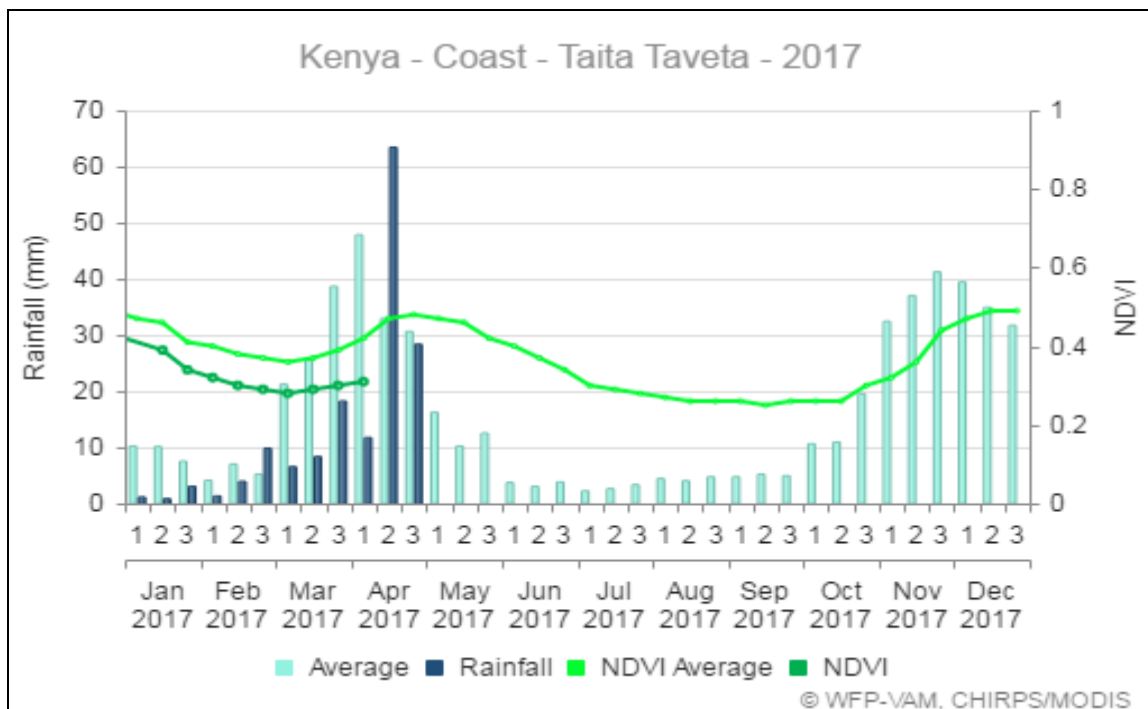
Seasonal Calendar

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

1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- In the month under review, Taveta Sub County areas of Challa and Eldoro received 7 days of rainfall. Light rainfall in the second dekad and heavy downpours amounting to an average of 53.6mm were realized in the third dekad of the month.
- Highlands of Taita Sub County areas of Mwarungu received seven days rainfall. The rains were moderate in the first and second dekad at an average of 20mm while in the third dekad the rains were heavy at an average of 61.5mm.
- Mwatate Sub County areas of Mwachawaza recorded 4 days of rainfall. 20mm, 16mm, 80mm and 12 on the 9th, 16th, 19th and 23rd of April.
- Voi Sub County areas of Rukanga and Mwakajo received two days rainfall on the 19th and 24th of April recording an average rainfall amount of 18.2mm.
- The rains are erratic and characterised by poor distribution in terms of time and space.
- The diagram below shows that both current rainfall performance and (NDVI) normalized differential vegetation index are below average.
- April rainfall anomaly is at 94% while the three month rainfall anomaly is at 72%. Expected normal is 100%.
- NDVI value for April dekad 1 id 0.31 compared to LTM of 0.42 while NDVI anomaly is 77% against a normal of 100%. Vegetation greenness is improving though at a below normal level.

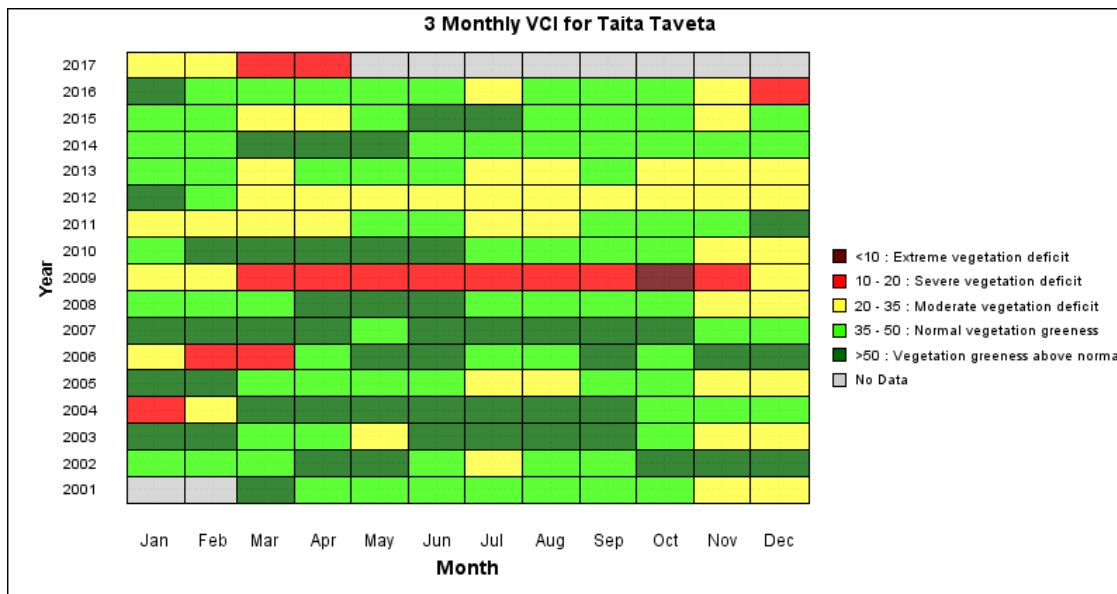


2. IMPACTS ON VEGETATION AND WATER

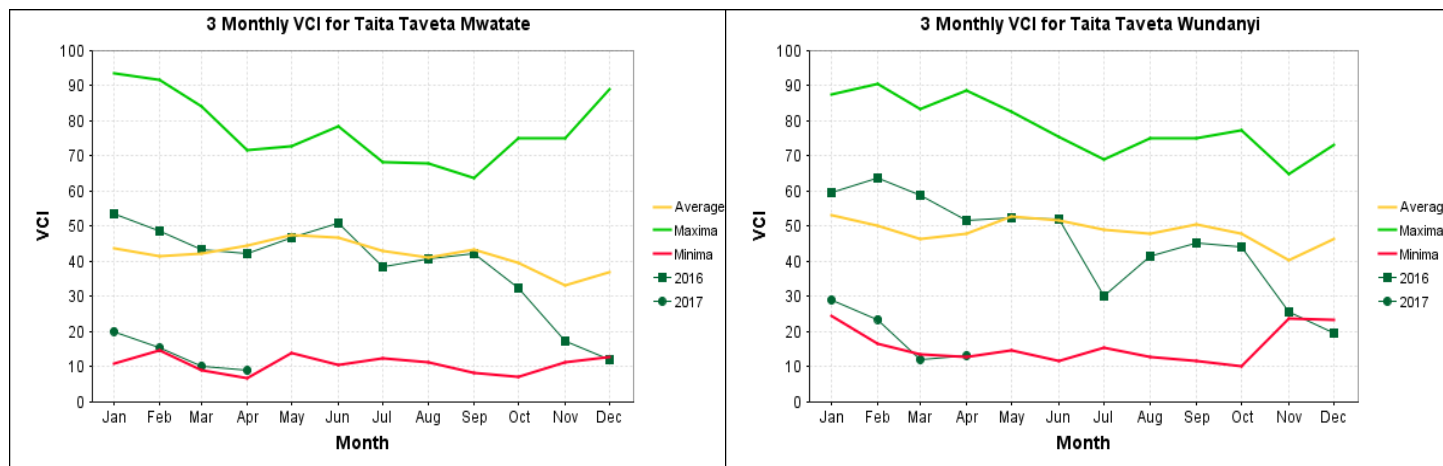
2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The VCI matrix below, which is a comparison of long term averages (15 years) show the county is at severe vegetation deficit with an aggregate VCI of 13.16.



- The VCI graphs below show Mwatate and Taita Sub Counties recorded severe vegetation deficit of 8.84 and 13.08 respectively. This indicates worsening VCI trend for the county.



2.1.2 Pasture

- Pasture condition in regard to quality and quantity was fair to good in the county.
- Pasture condition in the mixed farming: food crop/ livestock livelihood zone was fair though on an improving trend due to the rains.
- In the mixed farming: irrigated cropping/ livestock/ food crops zone pasture condition was fair to good.
- In the mixed farming: horticulture/ dairy zone pasture condition was good.

- Poor pasture regeneration was observed in Kasigau Ward, Mbulia, lower Sagalla, Jipe, Mahoo and Mata wards and areas of Mahandakini, Mgeno, Mwakitau, Msorongo, Mwachabo, Kishushe, Sangenyi and Mwaroko. Others are ranches found in Voi and Mwatate Sub Counties.
- Pasture depletion in the ranches was due to overgrazing exacerbated by influx of livestock from other regions.

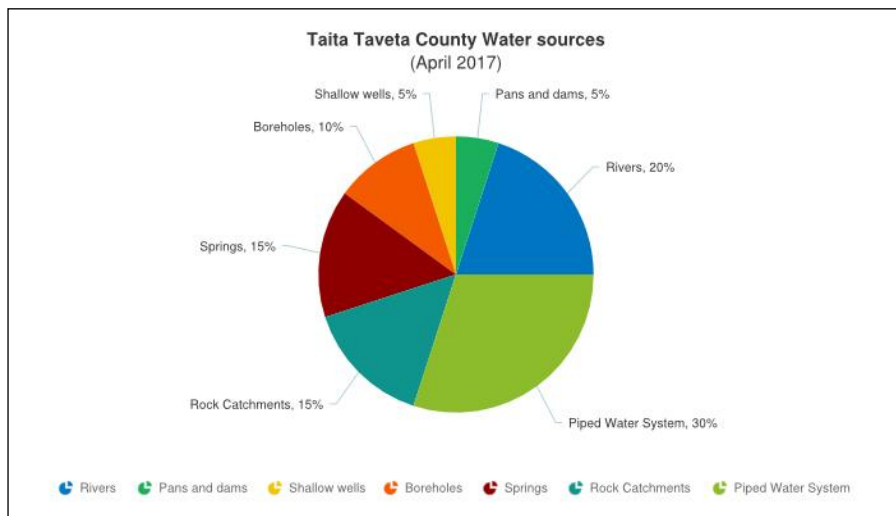
2.1.3 Browse

- Browse condition in terms of quality and quantity was fair to good in the county.
- In the mixed farming: food crop/ livestock livelihood zone browse condition was fair and on an improving trend.
- In the mixed farming: horticulture/ dairy and mixed farming: irrigated cropping/ livestock/ food crops livelihood zones browse condition was good.
- No constraints were observed in accessing browse in the month under review.

2.2 WATER RESOURCE

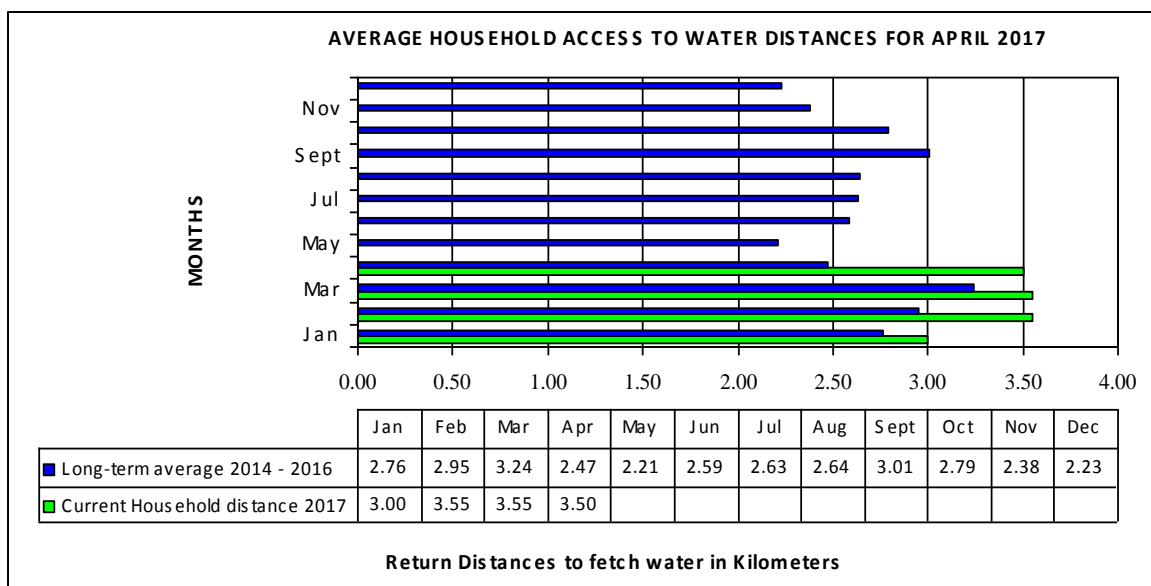
2.2.1 Sources

- The diagram below show percentage use of various water sources in the month under review. Out of the 210 households sampled usage of piped water system, rivers, rock catchment, springs, boreholes, pans and dam and shallow wells, was at 30.0%, 20.0%, 15.0%, 15.0%, 10.0%, 5.0% and 5.0% respectively.
- Compared to previous month usage of rock catchment increased by 9.7%, boreholes 4.7% and pans and dams by 5% due to rains.
- Most strategic water sources were well replenished and situation is expected to improve further due to ongoing rains.
- Areas that experienced water stress in the month under review were lower Sagalla, Kisimenyi, Rukanga, Jora, Jipe and Mata wards areas of Lessesia and Malukiloriti, Mwakitau, Mwachabo, Kishushe, Sangenyi and Mwaroko.



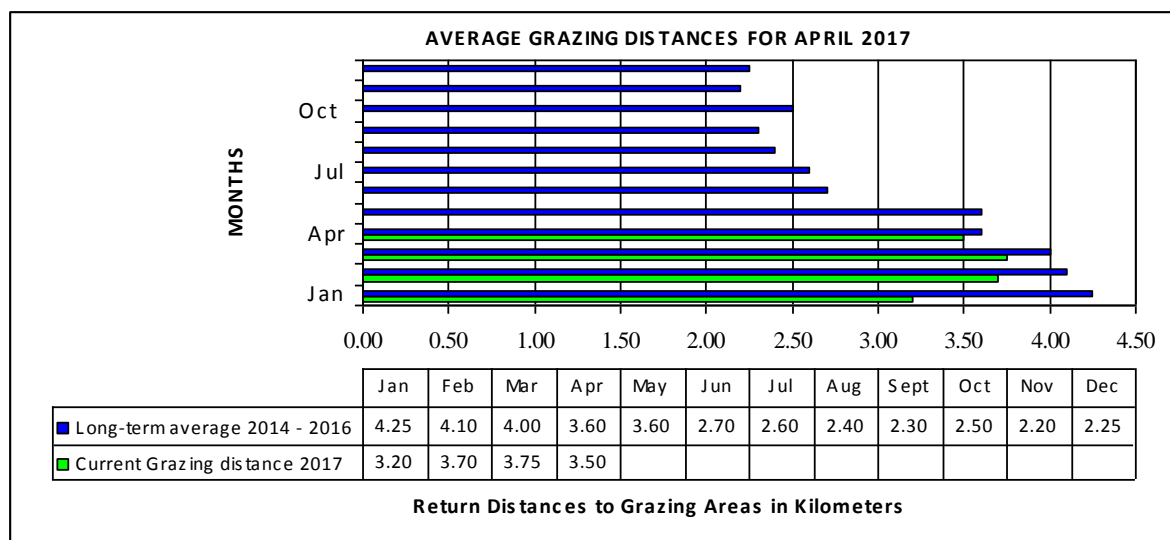
2.2.2 Household access to Water

- In the month under review, out of 210 sampled households analyzed, household distance to fetch water decreased to 3.50 km from 3.55 km. The distance recorded was longer than the LTA by 42%.
- The waiting time decreased to 3hrs from 6hrs due to minimal rains received in these areas. This is normal given that at this time of the year waiting time at water source is usually 30 – 60 minutes.
- These areas were Kishushe, Mlilo, Kasigau Ward, Mwachabo, Mwakitau, Mbulia and lower Sagalla.
- In the mixed farming: food crop/ livestock livelihood zone, the average cost of 20 litre jerrican decreased to Kshs 8 from Kshs 15.
- However, in areas that have not received considerable rains cost is at Kshs 15 - 25.
- Areas that are yet to normalize water situation are Kisimenyi, Rukanga, Jora, Zungulukani, Mgeno, Mwakitau, Mwachabo, Mwaroko, Sangenyi, Kishushe, Paranga, Mlilo, Ngongodinyi and Mbulia.



2.2.3 Livestock Access

- The graph below show average grazing distances out of 210 households sampled. Average return distance by livestock to grazing areas decreased to 3.50 km from 3.75 km realized in the previous month.
- This slight change in distance could be attributed to improving pasture quality and quantity condition in most parts of the county.
- Compared to the LTA the distance recorded to grazing areas was shorter by 3%.
- In the mixed farming: food crop/ livestock livelihood zone, return distance ranged between 1km to 5km.
- In the mixed farming: food crop/ livestock and horticulture/ dairy livelihood zones livestock watering was normal twice per day.
- Longer distances to water points were observed in Kasigau, Buguta, Zungulukani, Mwachabo, Mwakitau, Mgeno, Mwaroko, Sangenyi, Kishushe and lower Sagalla.



3. PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

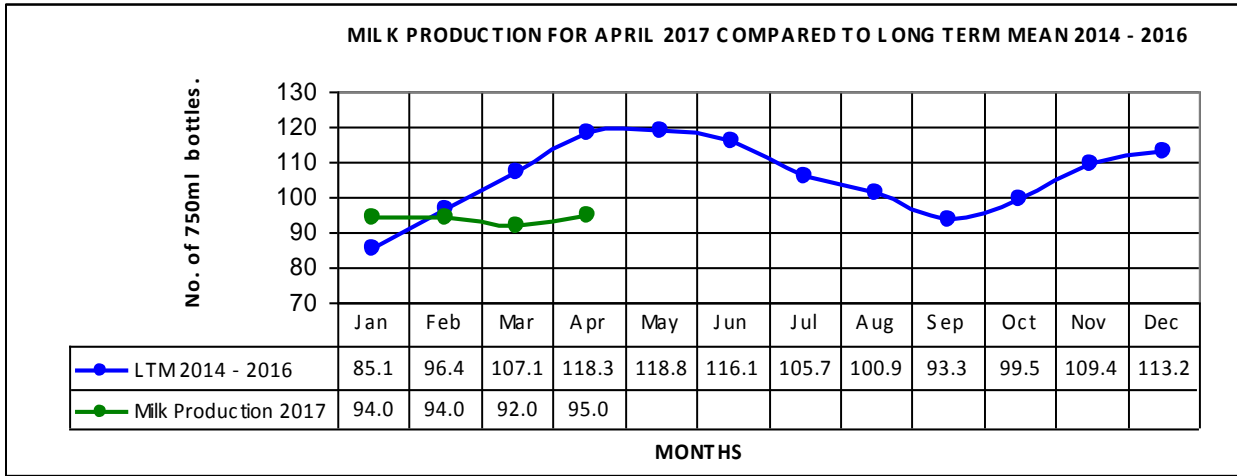
- Cattle body condition was fair to good while for goats and sheep body condition was good.
- Livestock body condition improved due to availability of pasture and water at shorter distances.
- Emaciated and recumbent cattle that were admitted in the NDMA livestock stabilization centres have tremendously improved and are now stable.
- Areas that had not received good rains and require close monitoring in regard to cattle body condition were Voi Sub County: Makwasinyi, Miasenyi, Buguta, Bungule, Kisimenyi and Rukanga; Mwatate Sub County: Mramba community grazers, Kamtonga, Mwakitau, Landi and Mwachabo; Taita Sub County: Sangenyi, Mwaroko, Mlilo, Paranga and Kishushe; Taveta Sub County: Challa (Mahandakini, Chumvini, Kidong and Kasokoni), Mata Ward and Mahoo (Kitondonyi, Lessesia and Malukiloriti).

3.1.2 Livestock Diseases

- No major cases of livestock diseases were reported. However, livestock department were undertaking vaccination of FMD, CBPP, Trypanosomiasis, CCPP, LSD and East Coast Fever.

3.1.3 Milk Production

- Average milk production per day from 210 sampled households decreased to 95 litres from 92 litres recorded in the previous month.
- In the highlands of Taita Sub County, farmers in the dairy zone areas of Wumingu Ward registered near normal milk production.
- Mixed farming: horticulture/food crops/dairy livelihood zone registered 59.4% situated on the hill masses, mixed farming: food crops/livestock livelihood zone 28.1% and casual waged labour: sisal 12.5% found in the rain fed lowlands.
- Average milk price per litre at household level decreased to Kshs 50.00.



3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

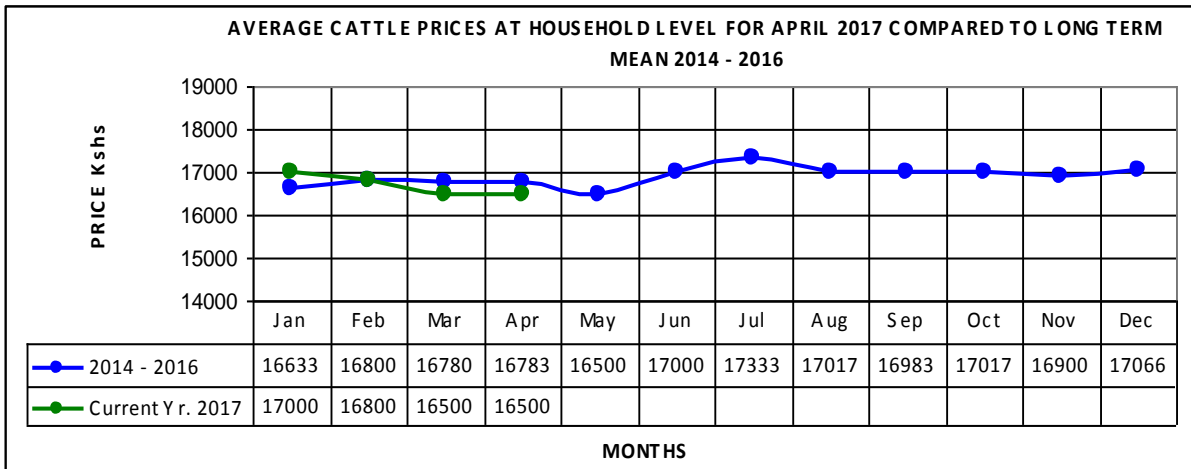
- In the mixed farming: food crops/livestock livelihood zone crops were at the germination stage.
- In the mixed farming: Irrigation livelihood zone farmers were busy weeding.
- In the mixed farming: Horticulture/ Dairy livelihood zone crops were at the germination stage. In some few areas where dry planting took place farmers were busy weeding.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

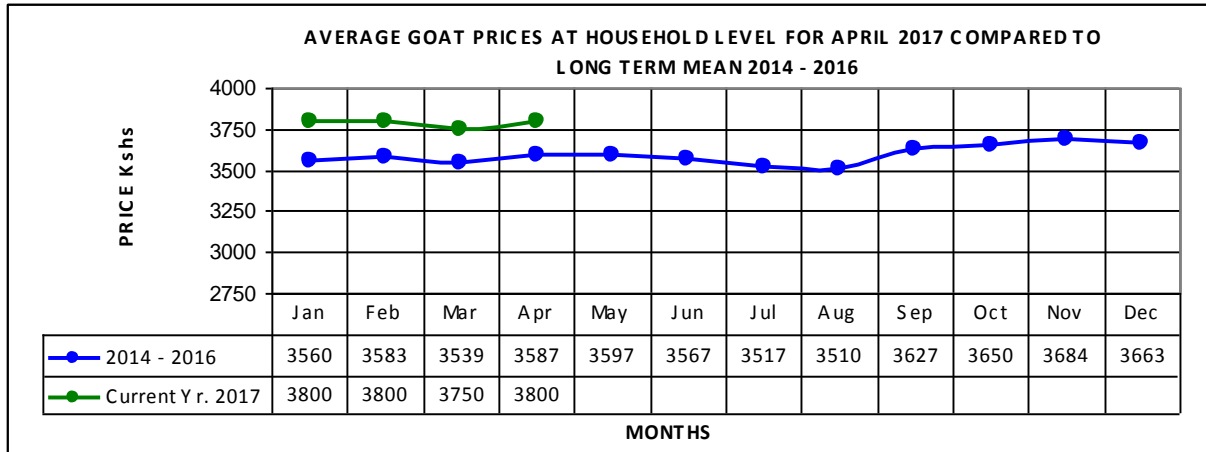
4.1.1 Cattle Prices

- Compared to previous month, the average price of a three year old bull from 210 sampled households remained at Ksh 16,500.
- Stable price could be attributed to improving cattle body condition.
- Compared to the long term mean, the average price was lower by 2%.
- Livelihood variations were notable, in the horticulture/dairy livelihood zone cattle prices range between Ksh 15,000 to 40,000, while in hotspot areas mainly in food crops/livestock livelihood zone prices ranged between Ksh 8,000 to 12,000.



4.1.2 Goat Prices

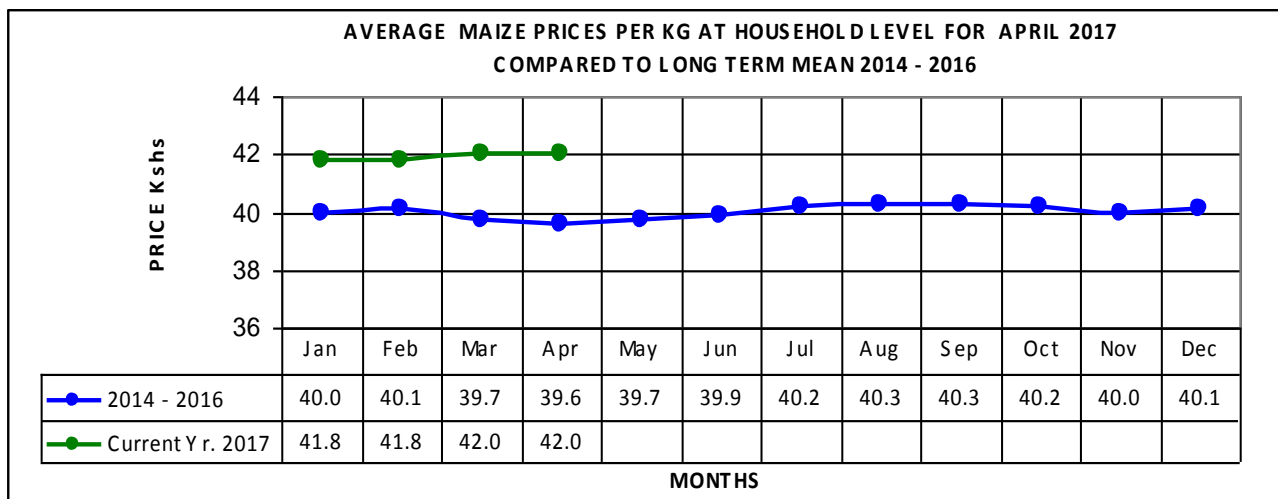
- The average price of a three year old goat from 210 sampled households increased to Kshs 3,800 from Ksh 3,750 recorded in the previous month.
- The slight price rise could be attributed to improved body condition.
- Compared to long term mean, the average price was higher by 6%.
- No significant variations in prices of goats were observed across all livelihood zones.



4.2 CROP PRICES

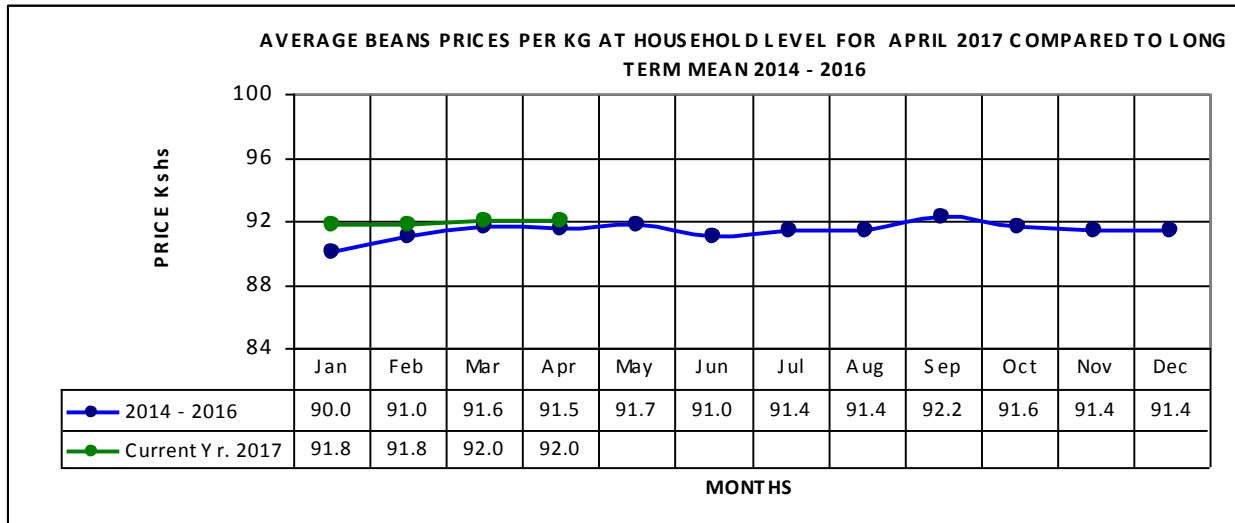
4.2.1 Maize

- Compared to the previous month, average price of maize per kg at household level remained at Kshs 42. High prices were due to shortage of maize.
- Lowest prices ranged from Ksh 30 to Ksh 35 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 Ksh 40.00 to Ksh 50.00 in Voi and Mwatate Sub Counties.
- Compared to the long term mean the price was higher by 6%.



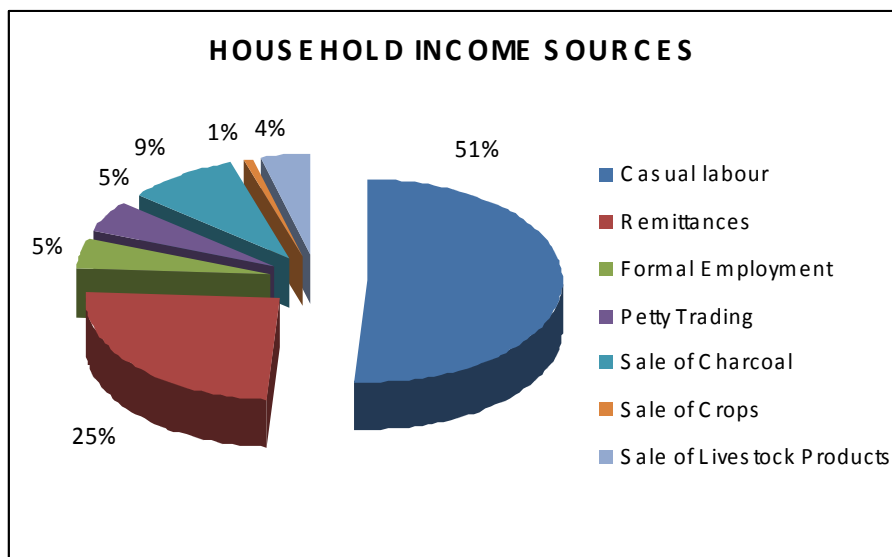
4.2.2 Beans

- Compared to the previous month, average price of beans per kg at household level remained at Kshs 92.00.
- Lowest prices were recorded in mixed farming: irrigated cropping/livestock/food crops livelihood zone; Challa at Kshs 60 to 70 due to incoming beans from the Republic of Tanzania, while high prices in the mixed farming: food crops/livestock livelihood zone Mwakajo, Mwachawaza and Rukanga at Kshs 90 to 120.
- Compared to the long term mean the price was higher by 0.5%.



4.3 INCOME

- The diagram below show analyzed income from 210 sampled households. Compared to the previous month, remittances increased by 7% while casual labour, sale of crops and sale of livestock products dropped by 5%, 1% and 1% respectively.
- Overall analysis show that a big portion of household income accrues from wages, sale of charcoal and remittances.



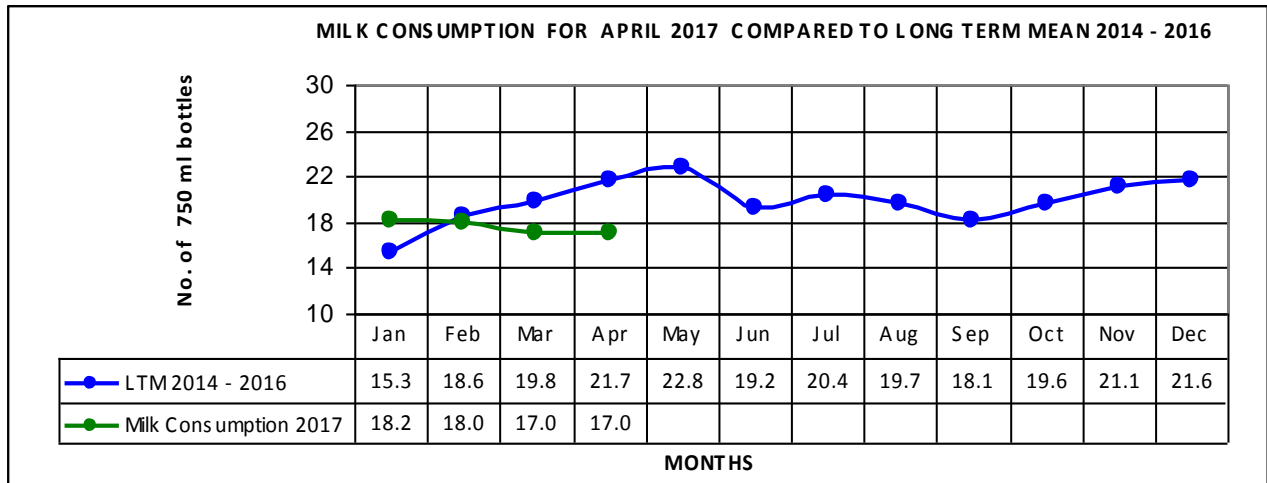
4.4 TERMS OF TRADE

- Terms of trade remained favourable from sampled households in the month under review.
- The sale of 1 goat at Kshs 3,800 resulted to purchase of 90.5 kg of maize at Kshs 42.00 per kg. This indicated a rise compared to 89.3kg posted in the previous month.
- ToT trend is expected to increase due to increase in prices of goat as drought situation improve.

5. FOOD CONSUMPTION AND NUTRITION STATUS

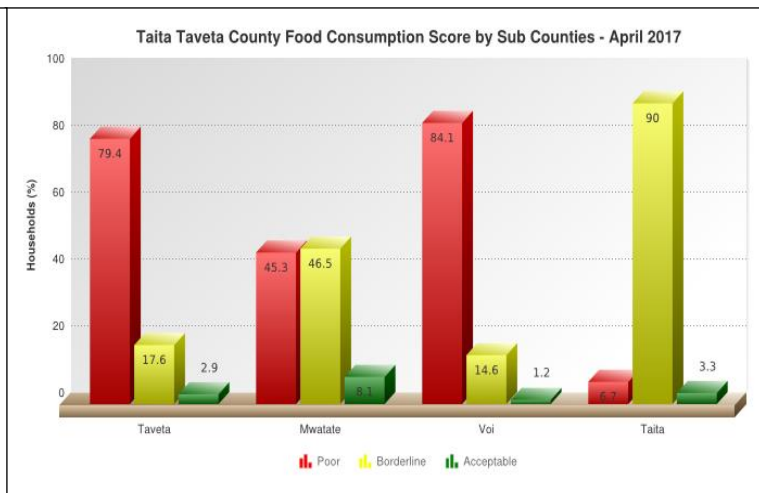
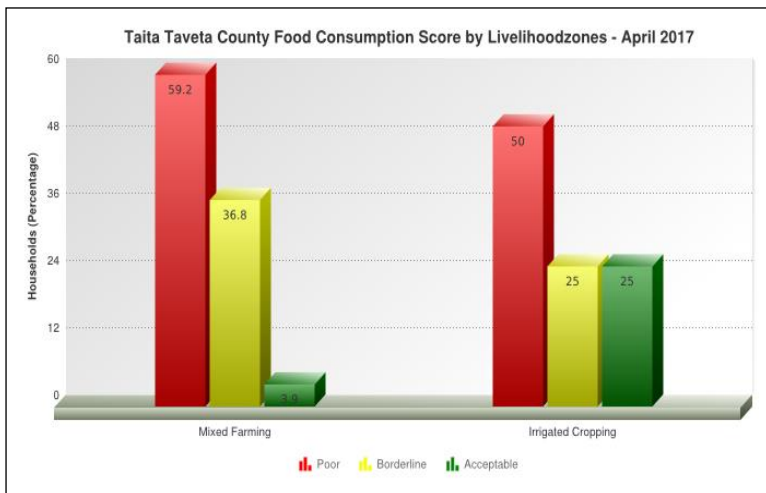
5.1 MILK CONSUMPTION

- Out of the 210 sampled households milk consumption per day remained the same at 17.0 litres as posted in the previous month.
- In the month under review the average milk consumption per household per day ranged between 0.5 – 1 litre from the normal of 1 – 2 litres per day.
- Generally most household members consumed approximately 17.9% of the total milk produced. The rest was sold to raise income.
- Compared to the long term mean, milk consumption was lower by 22%.



5.2 FOOD CONSUMPTION SCORE

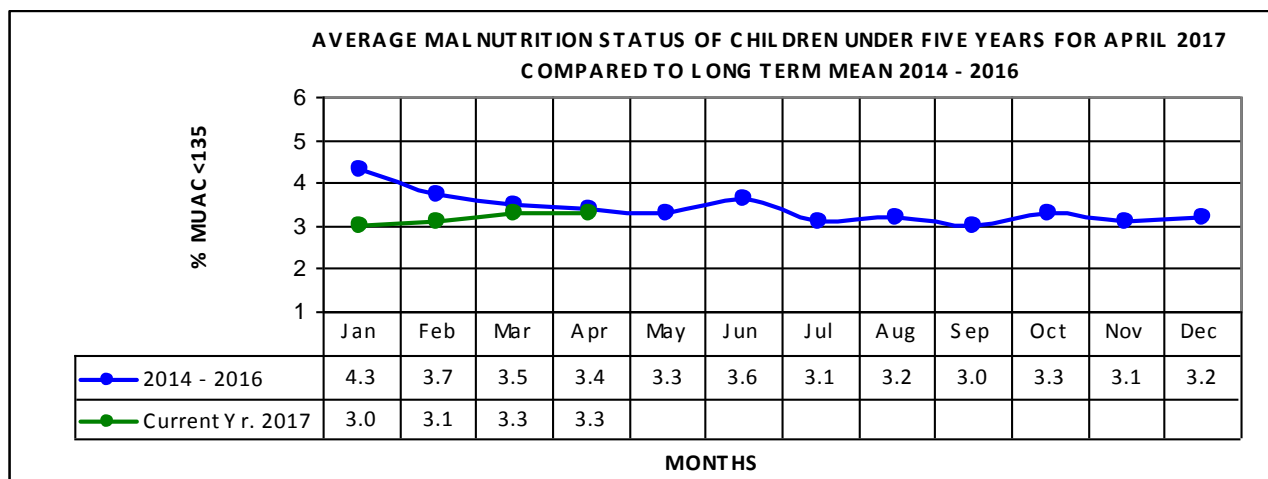
- The diagrams below show food consumption scores by livelihood zones and by sub counties for 210 sampled households for the month under review.
- Mixed farming zone that depend on rain fed agriculture was the worst hit compared to the irrigated zone.
- Those in poor category consumption score stood at 59.2% versus 50% and acceptable category 3.9% compared to 25%.
- Compared to the previous month all Sub Counties indicated deteriorating trend in terms of food consumption.
- This could be attributed to households consuming one to two meals and reduction on portion of meals.
- Main meals consumed were two food groups that are ugali and vegetables.
- Reduction of meals and poor dietary diversity might result to high levels of malnutrition.



5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- Compared to the previous month, 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 at 3.3.
- Out of 738 children under-five sampled in 7 sentinel sites, 25 were found with MUAC less than 135 mm.
- Compared to long term mean, MUAC level is lower by 3%.



5.3.2 Health

- Serious cases of malnourishment for children <5 years were observed in Kisimenyi and Sasenyi while those of the elderly in Mwakajo, Ilangenyi, Salaita and Mbulia in Voi Sub County.
- An upsurge in cases of diseases of the respiratory system, diseases of the skin, diarrhoea, Malaria and pneumonia in most facilities mainly in the lowlands. These areas were Mwakitau, Mwachabo, Mgeno, Kishushe, Mwaroko, Miasenyi, Buguta, Kasigau, Mraru, Ghazi and Mbulia.

6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 FOOD AND NON FOOD INTERVENTIONS

6.1.1 Sectoral

Response Activities

Intervention	Achievements in April 2017
Health Sector	
Intensify mass screening and disease surveillance	Integrated outreach carried out in 30 sites around the county
Health Promotion and line listing	Health promotion and line listing carried out in 30 sites around the county during the integrated outreaches
Water sampling	Water sampling in hotspot areas carried out
Purchase and distribution of 20,000 water treatment tablets	20,000 water treatment tablets purchased Distribution to sub counties and hotspots ongoing
Livestock Sector	
Disease Surveillance	Livestock Disease surveillance ongoing in Mwatate, Voi, Taita and Taveta sub counties
Support Vaccination campaign	DCF provided logistical support while the county provided technical expertise with vaccines received from the National Government Vaccination exercise commenced on 5/4/2017 carried out as below: Mwatate - 23 days Taveta - 12 days Taita - 18days
Establishment of Livestock feeding centres	<ul style="list-style-type: none"> • 2 centres set up supporting 187 cattle ongoing in Kishushe and Bungule • Centres in Ngambenyi and Taveta awaiting supplies as communities complete construction of the 'Bomas' • 150 bags of drought meal supplied • 1000 bales of hay supplied and used • 40m³ of water supplied
Distribution of Supplementary feed (2,320 bags drought meal)	Feed distributed as follows: Voi - 800bags Mwatate - 720 bags Taveta - 400 bags Taita - 400 bags
Water Sector	
Water trucking to areas that are far to reach	Installation of 10m ³ tank and base in Zungulukani Water trucking to Mbulia Health Centre (18m ³)

6.1.2 Multi Sectoral

- Ten wildlife monitors recruited into the newly established Mbulia integrated EWS Human Wildlife Conflict program through the Ngolia Preparedness project in conjunction with KWS, Kenya Conservancy and the community.
- Through these program 15 torches, 30 vuvuzelas and 50 whistles were procured and issued to the community.
- An aerial and ground patrol by KWS and Wildlife Works to monitor wildlife movement is ongoing.
- Opening up of feeder roads by county government is ongoing.

7.0 EMERGING ISSUES

7.1 MIGRATION

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

7.2 CONFLICT

- Cases of human wildlife conflict have reduced due to recharge of water sources and regeneration of pasture and browse in the park.
- Due to influx of animals from other regions during the ravaging drought, constant monitoring is mandatory to avert conflict and spread of livestock diseases.
- Predation of livestock by wild cats remain a challenge in areas of Ngolia Ward, Buguta, Sasenyi, Makwasinyi, Rukanga, Jora, Kajire, Kishamba, Ndara, Talio, Mazola, Marapu and Zongwani.
- Overgrazing, human wildlife conflict and deforestation remains a threat to food security in the county and are expected to worsen the situation.

7.3 FOOD SECURITY PROGNOSIS

- The county state of drought has improved due to rainfall received. However, the county still remains in Alert Phase with high possibilities of sliding into Alarm phase if the rains cease early as forecasted by the Meteorological department.
- This will adversely affect crop production. However, water and livestock sector will be sustained for some few months.
- Short term maturing crops like green leafy vegetables are available at household level.
 - Also, water availability and accessibility situation has improved due to the rains.
 - Pasture regeneration will reduce trekking distances improving livestock body condition.
 - Improved livestock body condition will promote milk production and stabilize livestock prices.
 - Availability of vegetables, water and pasture will improve food security.
 - Early preparations are required to respond to urgent needs of the community to avoid loss of assets.
 - Estimated Population in need of food assistance as per the short rains assessment undertaken in January is 71,212 (2009 census KNBS).

8. RECOMMENDATIONS

Social Protection Sector

- The cash program from the National Government should target the poor and the most vulnerable in the county.
- Upscale CFA and General Food Distribution beneficiaries.

Agriculture and Livestock Sector

- Livestock disease surveillance and control to curb spread of livestock diseases.
- Provision of supplementary feed.
- Promotion of pasture and browse management through bailing.
- Provision of Veterinary and Livestock frontline extension staff in all the Wards.

Water and Irrigation Sector

- Water trucking.
- Provision of water treatment tabs.
- Repair and Rehabilitation of strategic boreholes.
- Promotion of water harvesting structures at household level.

Health and Nutrition

- Strengthen malnutrition screening and active case search as well as strengthen integrated management of acute malnutrition in the community.
- Incorporate 'Beyond Zero' facility during outreaches.
- Commodities should be adequately stocked given that the Meteorological department has forecasted depressed long rains season.
- Fortified food being distributed as relief food to be issued to facilities for distribution to avoid stigmatization and segregation of TB and HIV patients.
- Enhance disease and nutritional surveillance.

Education

- Upscale and expand School Meals Program.

Peace and Security Sector

- Peace and security meetings should be enhanced in areas neighbouring the ranches and the parks.
- Establish communication channels between the community and KWS.
- KWS to enhance surveillance and patrols to contain wildlife inside the park.

Multi Sectoral

- Fast track county drought response activities to enhance resilience and reduce adverse effects of drought.
- Repair Relief GK lorry that is at the Deputy County Commissioners' office - Taita to ease transportation of relief food and livestock feeds during distribution to the community.