

National Drought Management Authority

TAITA TAVETA COUNTY

DROUGHT EARLY WARNING BULLETIN FOR MAY 2017



A Vision 2030 Flagship Project



May 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)	91	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	Knee high	Tasseling
Livestock Body Condition	Fair	Good
Milk Production	73	80 Litres
Livestock Migration Pattern	Ranches	Ranches
Livestock deaths (drought)	None	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	84	83
Milk Consumption	13.5	16 litres
Return distance to water sources	3.00	<5 Km
Return distance to grazing areas	3.15	<6 Km
Cost of water (20 litres)	8	< Kshs 5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	3.1	<6.6

Drought Situation & EW Phase Classification

Biophysical Indicators

- The county registered timely cessation of long rains in second dekad of May.
- The rains were depressed, erratic and more importantly 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 16.88.

Socio Economic Indicators (Impact Indicators)

Production Indicators

- Maize crop was at various stages ranging from knee high to tasseling while pulses are at podding stage.
- 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.
- There were reduced cases reported of human wildlife conflict.
- Terms of Trade remained favorable.

Utilization Indicators

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

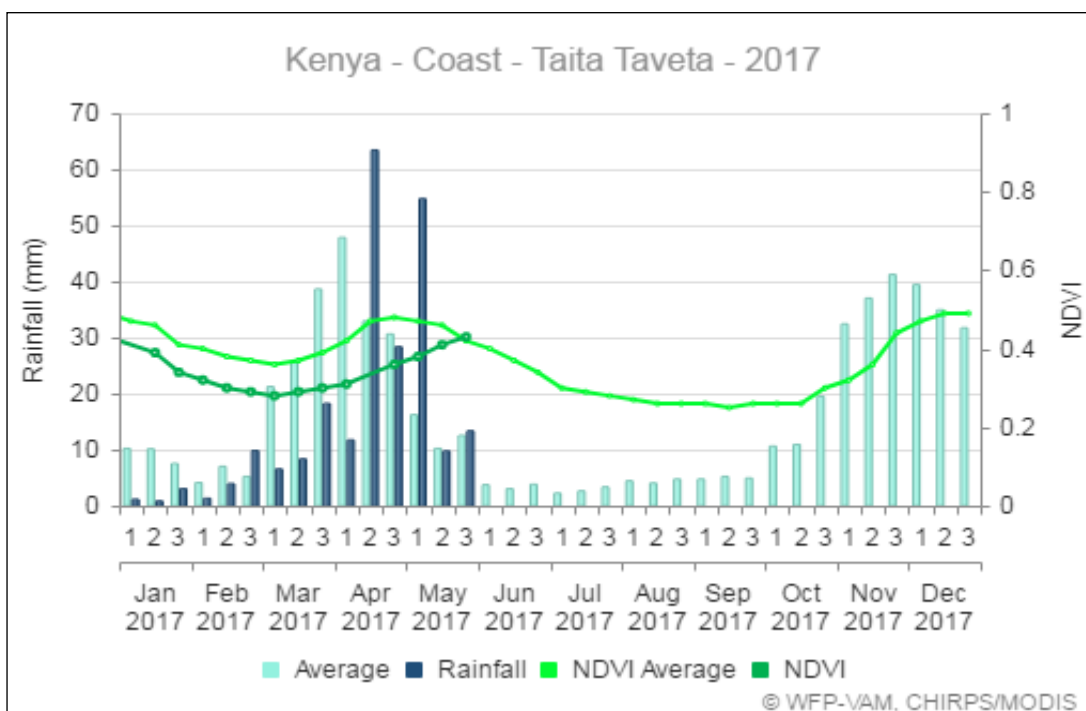
Seasonal Calendar

<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

- The county registered timely cessation in second dekad of May.
- In the month under review, Taveta Sub County areas of Challa and Eldoro received 2 days of rainfall. Light rainfall in the second and third dekad averaging 5.8 mm.
- 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 20 mm while in the third dekad the rains were heavy at an average of 25 mm.
- Mwatate Sub County areas of Mwachawaza recorded 5 days of rainfall at an average of 8.4 mm.
- Voi Sub County areas of Rukanga and Mwakajo received 5 days recording an average rainfall amount of 16.8 mm.
- The rains were erratic 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.
- May rainfall anomaly was above normal at 179% while the three month rainfall anomaly was at 91% compared to expected normal of 100%.
- Average RFE was at 25.9 mm compared to LTM of 13.0 mm
- NDVI average for the month under review was 0.41 compared to LTM of 0.45 while NDVI anomaly is 101% against a normal of 100%. Vegetation greenness is improving.

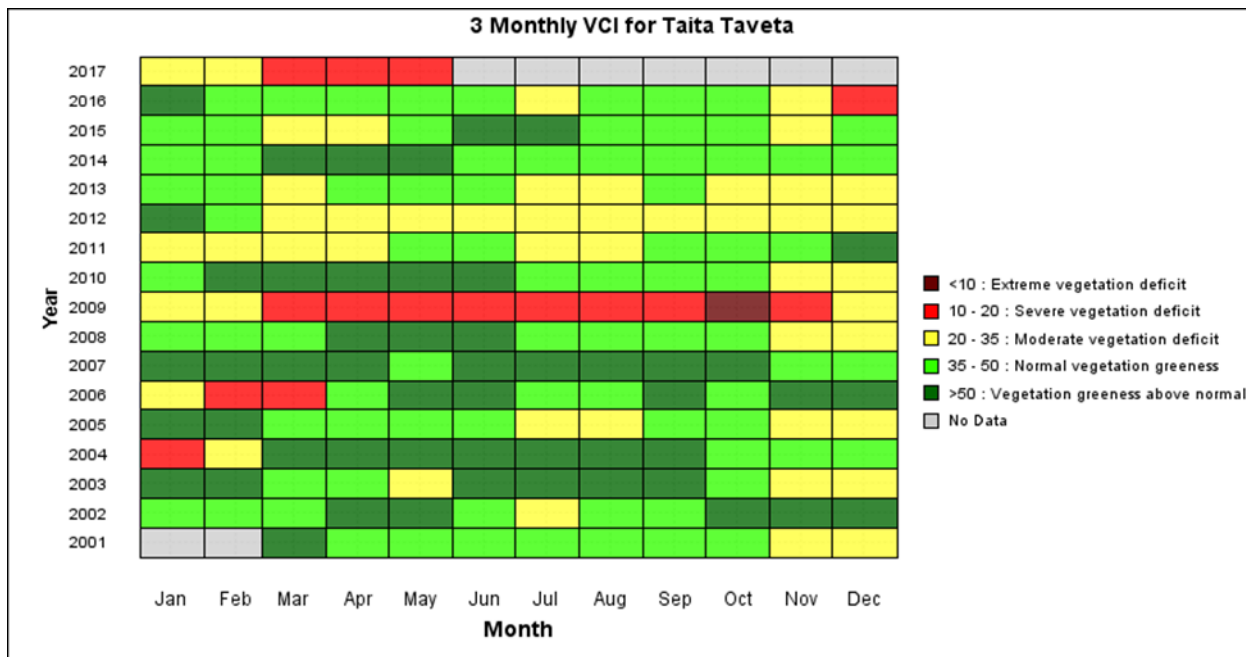


2. IMPACTS ON VEGETATION AND WATER

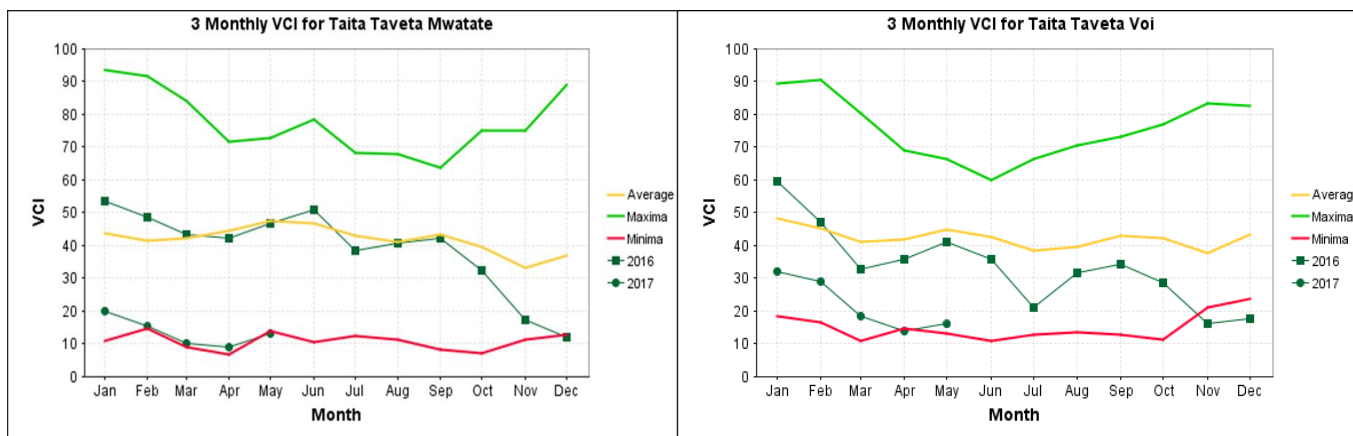
2.1 VEGETATION CONDITION

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 16.88.



- The VCI graphs below show Mwatate and Taita Sub Counties recorded severe vegetation deficit of 13.02 and 15.85 respectively. This indicates improving VCI trend for the county.



2.1.2 Pasture

- Pasture condition in regard to quality and quantity was good in the county.
- Pasture condition in the mixed farming: food crop/ livestock livelihood zone was fair to good.

- In the mixed farming: irrigated cropping/ livestock/ food crops and horticulture/ dairy zones pasture condition was good.
- Poor pasture regeneration was observed in Kasigau Ward, Mbulia, lower Sagalla, Jipe, Mahoo and Mata wards, Mgeno, Mwakitau, Msorong, Mwachabo, Kishushe, Sangenyi and Mwaroko.
- Others are ranches found in Voi and Mwatate Sub Counties.

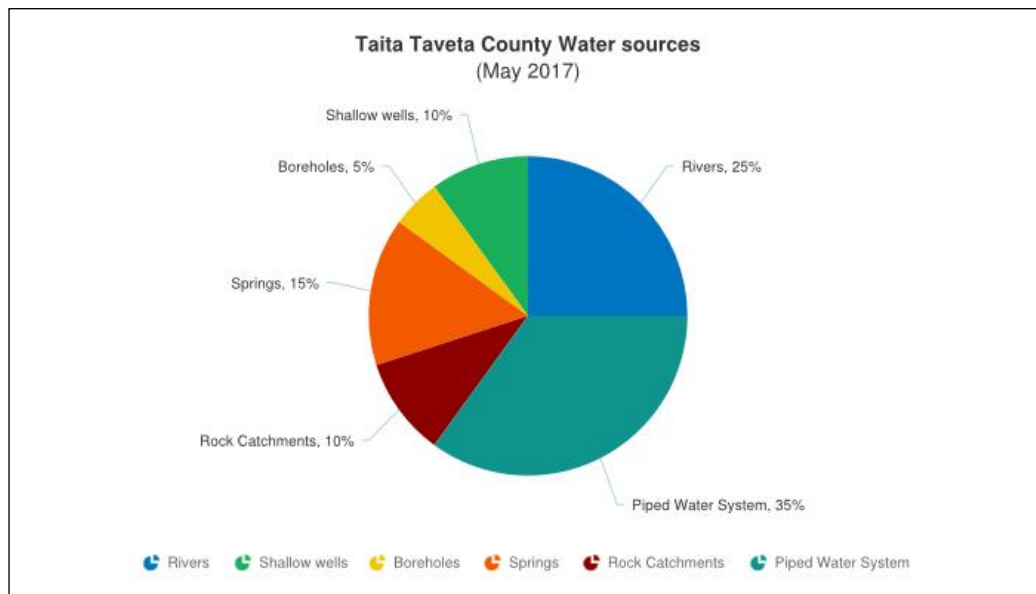
2.1.3 Browse

- Browse condition in terms of quality and quantity was good in the county.
- In the mixed farming: food crop/ livestock livelihood zone browse condition was fair to good.
- 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

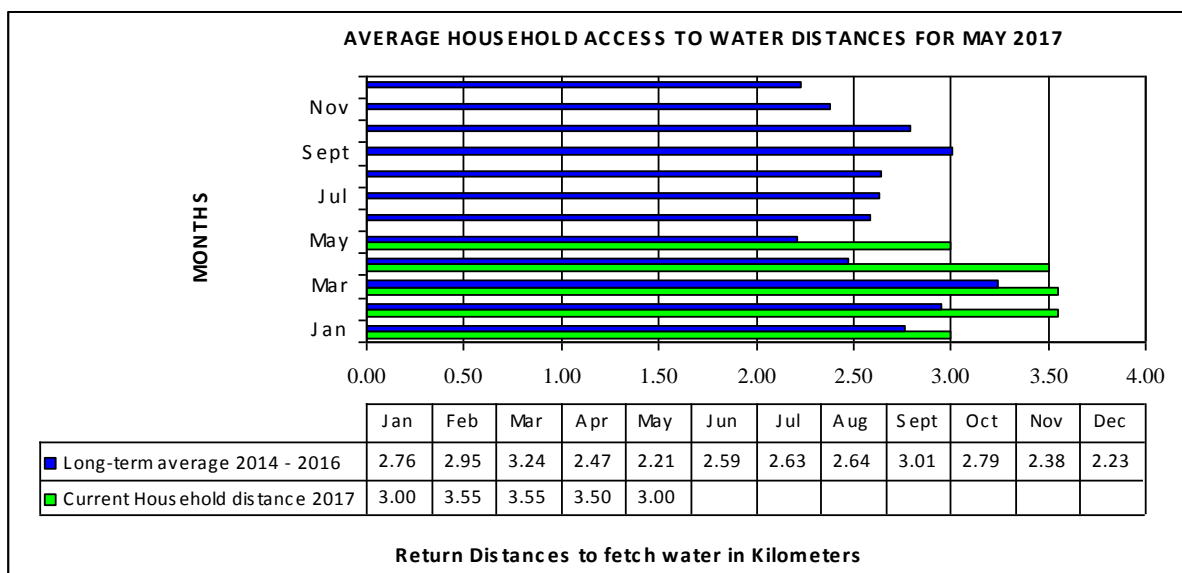
2.2.1 Sources

- The diagram below show percentage use of various water sources in the month under review. Out of the 210 household sampled usages of piped water system, rivers, shallow wells, Bore holes, springs, and Rock catchments was at 35.0%, 25.0%, 10.0%, 10.0%, 15.0% and 10.0% respectively.
- Most strategic water sources were well replenished.
- Areas that experienced water stress in the month under review were Lessesia, Malukiloriti, Ndara, Rahasi, Kajire, Kisimenyi, Rukanga, Jora, Zungulukani, Mgeno, Mwakitau, Mwachabo, Mwaroko, Sangenyi, Kishushe, Paranga, Mlilo, Ngongodinyi and Mbulia.



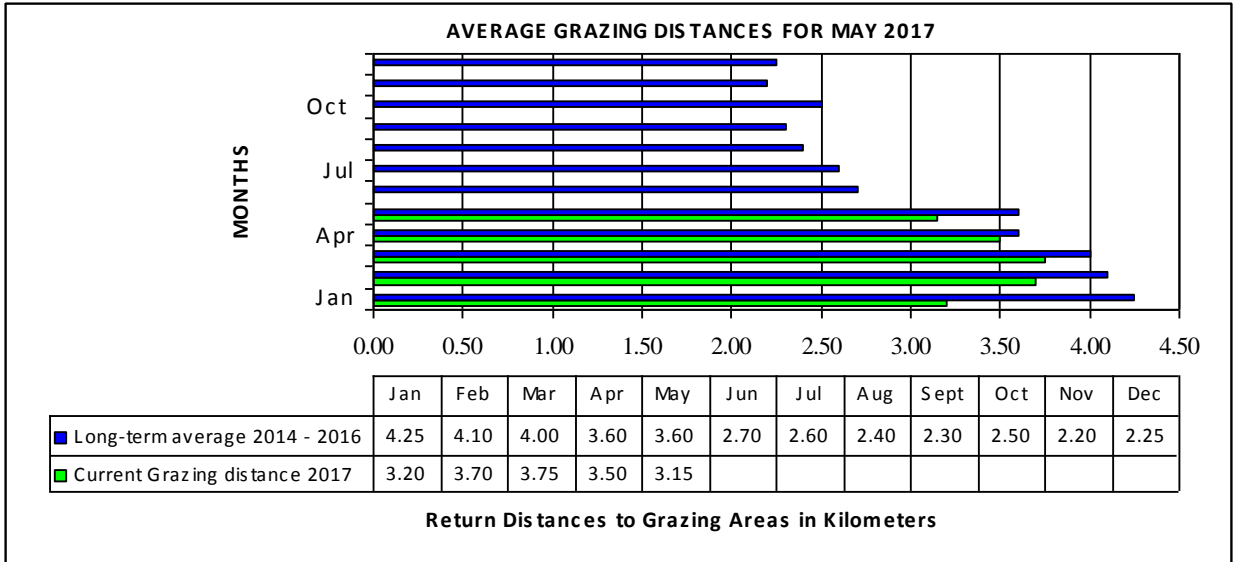
2.2.2 Household access to Water

- In the month under review, out of 210 sampled households, household distance to fetch water decreased to 3.00 km from 3.50 km. The distance recorded was longer than the LTA by 26%.
- The waiting time decreased to 2hrs from 3hrs due to recharge of water bodies in these areas. However, this is not 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 5 from Kshs 8.
- However, in areas that have not received considerable rains cost is at Kshs 8 - 20.
- Areas that are yet to normalize water situation are Ndara, Rahasi, Kajire, 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 3.15 km from 3.50 km realized in the previous month.
- The drop 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 35.7%.
- 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 Kishushe NDMA livestock stabilization centres have not yet recovered and require more food and non food assistance.
- Other stabilization centres animals have 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).

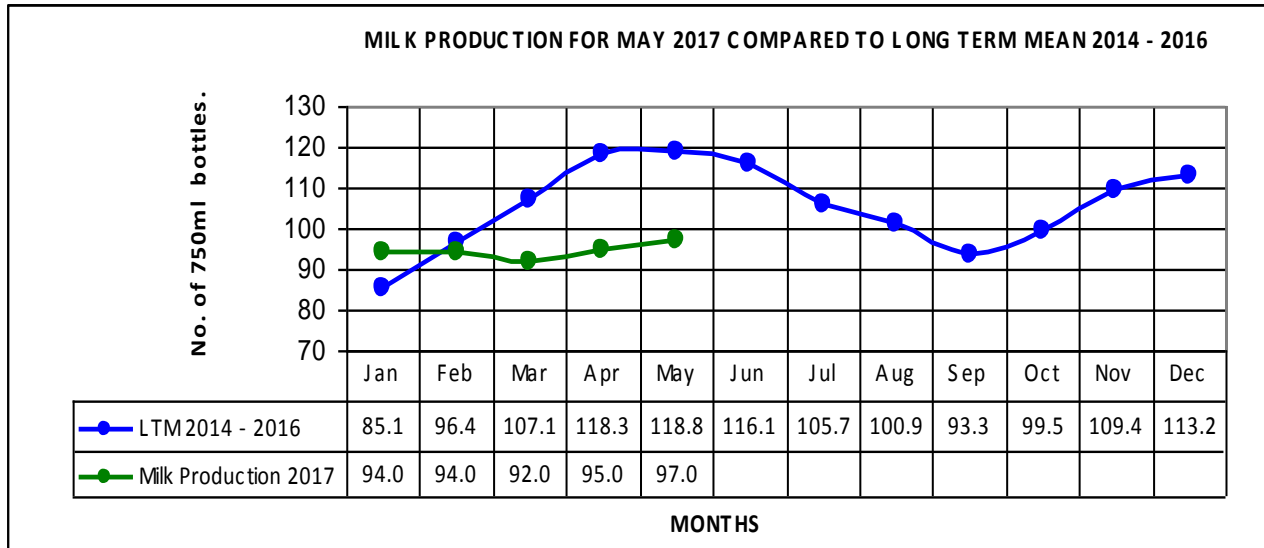
3.1.2 Livestock Diseases

- 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 increased to 97 litres from 95 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 60.3% situated on the hill masses, mixed farming: food crops/livestock livelihood zone 26.9% and casual waged labour: sisal 12.8% found in the rain fed lowlands.
- Average milk price per litre at household level increased to Kshs 50.00



3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

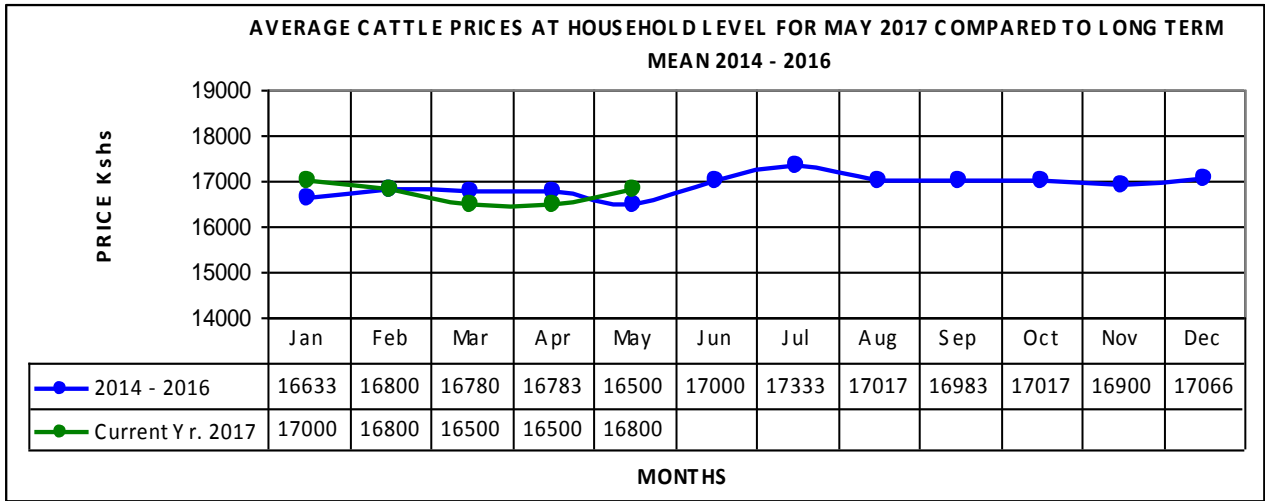
- In the mixed farming: food crops/livestock livelihood zone maize crop was at various stages ranging from knee high level to tasseling while pulses are at podding stage.
- In the mixed farming: Irrigation livelihood zone maize crop was at the tasseling stage.
- In the mixed farming: Horticulture/ Dairy livelihood zone maize crop was at the tasseling stage.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

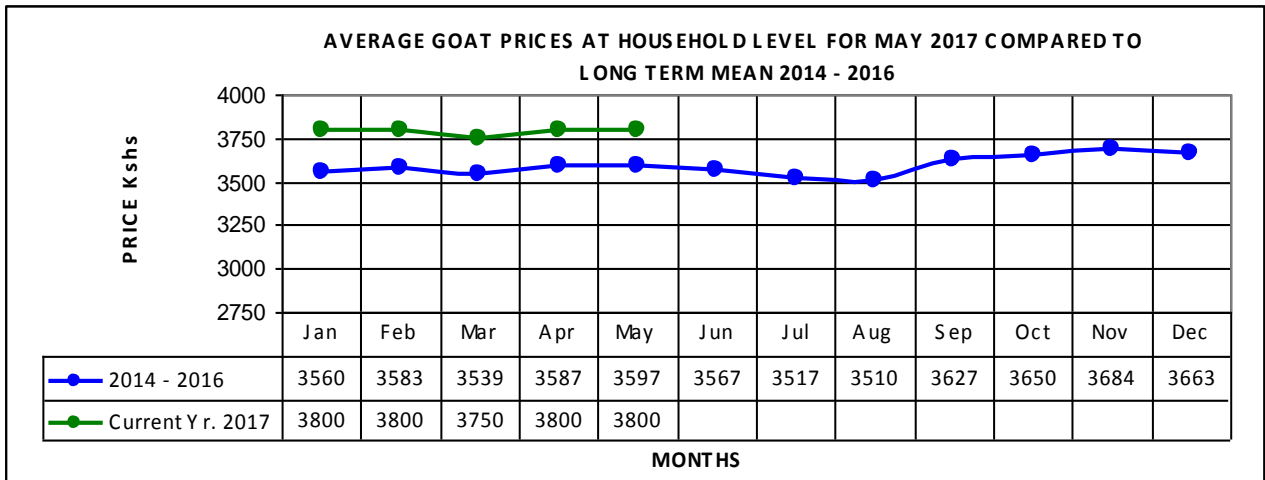
4.1.1 Cattle Prices

- The average price of a three year old bull from 210 sampled households increased to Kshs 16,800 from Kshs 16,500.
- This increase in price could be attributed to improved cattle body condition.
- Compared to the long term mean, the average price was lower by 1.8%.
- Livelihood variations were notable, in the horticulture/dairy livelihood zone cattle prices ranged between Kshs 15,000 to 40,000, while in hotspot areas mainly in food crops/livestock livelihood zone prices ranged between Kshs 8,000 to 12,000.



4.1.2 Goat Prices

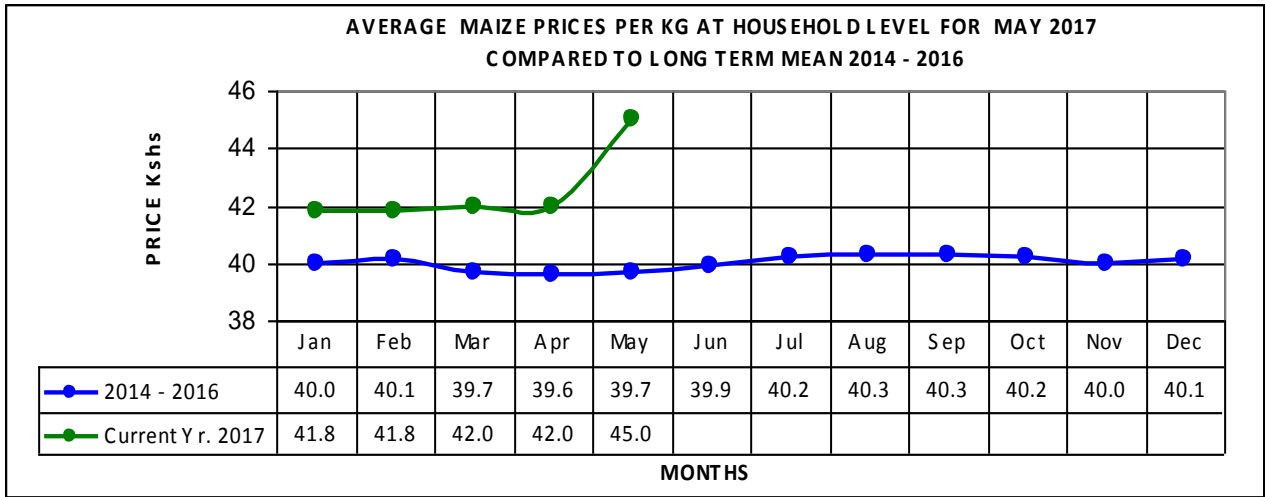
- The average price of a three year old goat from 210 sampled households remained the same at Kshs 3,800.
- The price is expected to remain the same or drop given that most farmers will be forced to sell goat to get income to purchase food like maize and pulses.
- Compared to long term mean, the average price was higher by 5.6%.
- No significant variations in prices of goats were observed across all livelihood zones.



4.2 CROP PRICES

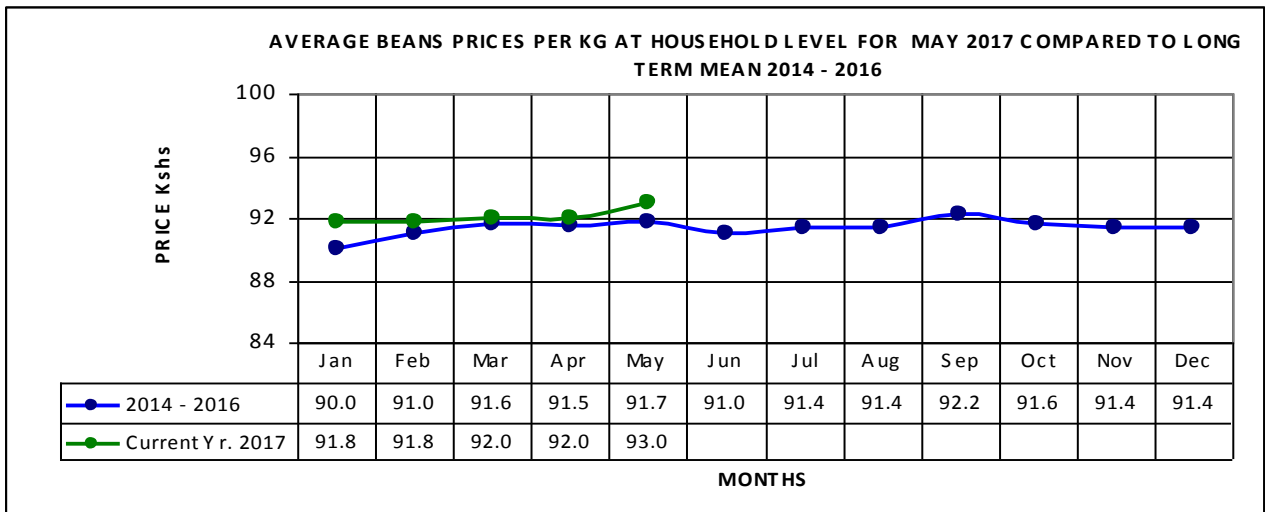
4.2.1 Maize

- Compared to the previous month, average price of maize per kg at household level escalated to Kshs 45.00 from Kshs 42. High prices were due to shortage of maize.
- Lowest prices ranged from Kshs 38 to Kshs 42 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, Mghange Dawida, Mwakajo, Rukanga and Mwachawaza at Kshs 48.00 to Kshs 75.00 in Voi and Mwatate Sub Counties.
- Compared to the long term mean the price was higher by 13.3%.



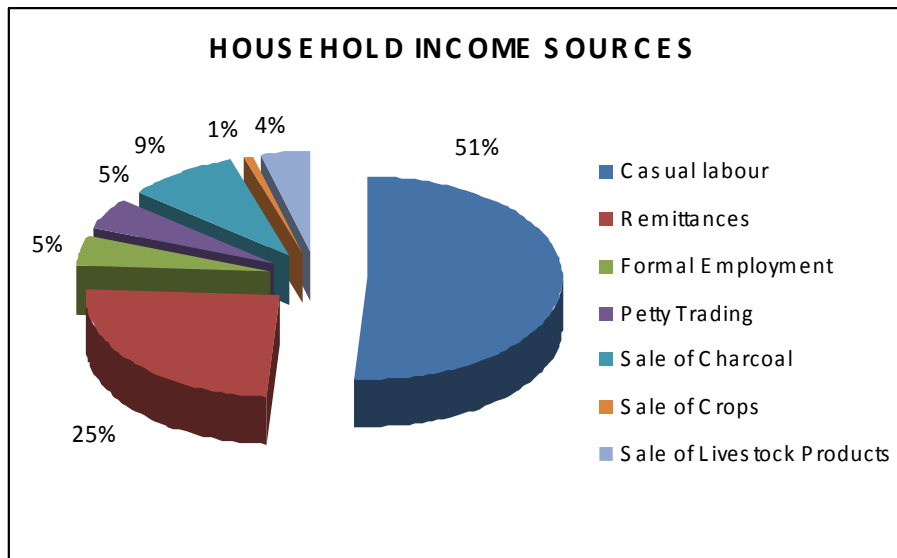
4.2.2 Beans

- Average price of beans per kg at household level increased to Kshs 93.00 from Kshs 92.0 posted in the previous month.
- Lowest prices were recorded in mixed farming: irrigated cropping/livestock/food crops livelihood zone; Challa at Kshs 65 to Kshs 78 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 Kshs 120.
- Compared to the long term mean the price was higher by 1.4%.



4.3 INCOME

- The diagram below show analyzed income from 210 households sampled. Compared to the previous month percentage of income sources remained the same.
- Casual labour, remittances, sale of charcoal and formal employment at 51%, 25%, 9% and 5% respectively.
- Others were petty trading, sale of livestock products and sale of crops at 5%, 4% and 1% respectively.
- Overall analysis show that a big portion of household income accrues from wages, sale of charcoal and remittances.



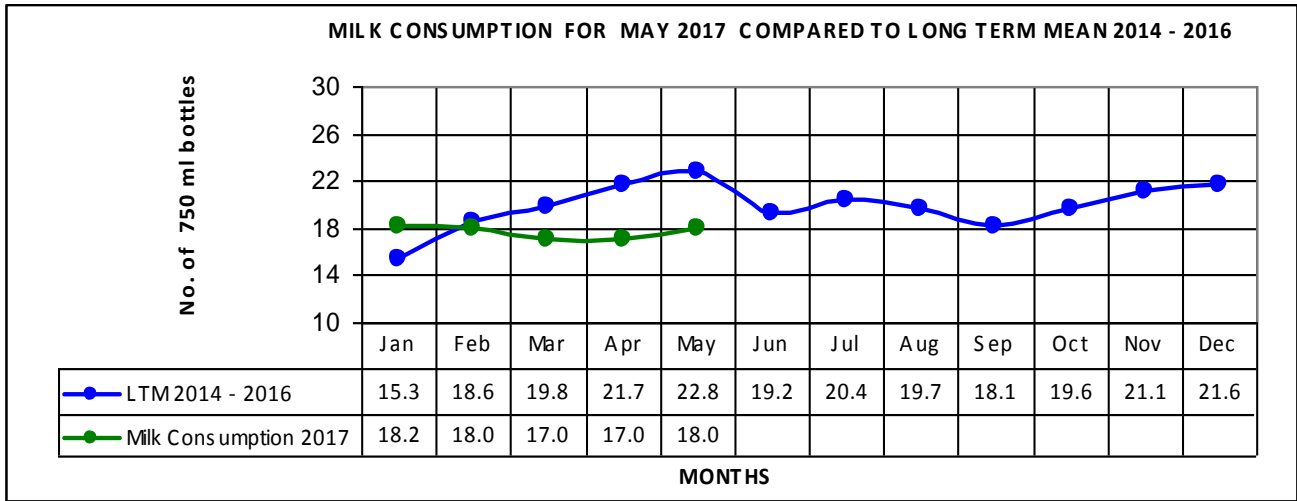
4.4 TERMS OF TRADE

- Terms of trade remained favourable from households sampled in the month under review.
- The sale of 1 goat at Kshs 3,800 resulted to purchase of 84.4 kg of maize at Kshs 45.00 per kg. This indicated a drop compared to 90.5 kg posted in the previous month.
- ToT trend declined due to scarcity of maize in the country due to poor harvest experienced during the short rain season.
- The situation is expected to worsen if prices of goat decrease while those of maize continue to escalate.

5. FOOD CONSUMPTION AND NUTRITION STATUS

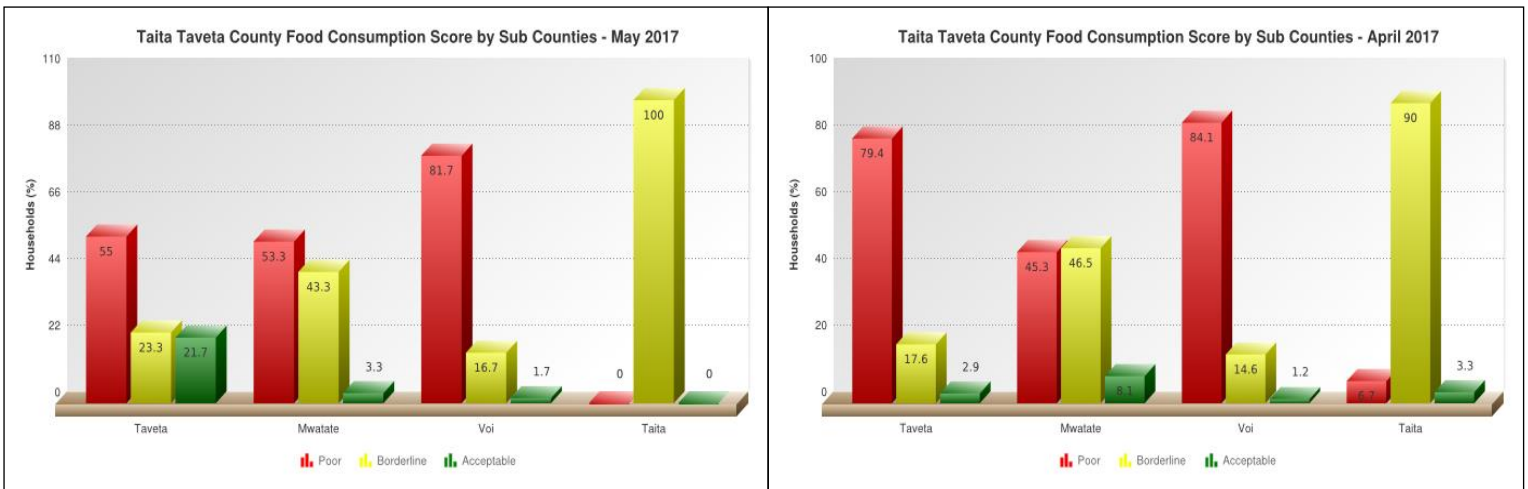
5.1 MILK CONSUMPTION

- Out of the 210 households sampled milk consumption per day increased to 18.0 litres from 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 18.6% of the total milk produced. The rest was sold to raise income.
- Compared to the long term mean, milk consumption was lower by 21%.



5.2 FOOD CONSUMPTION SCORE

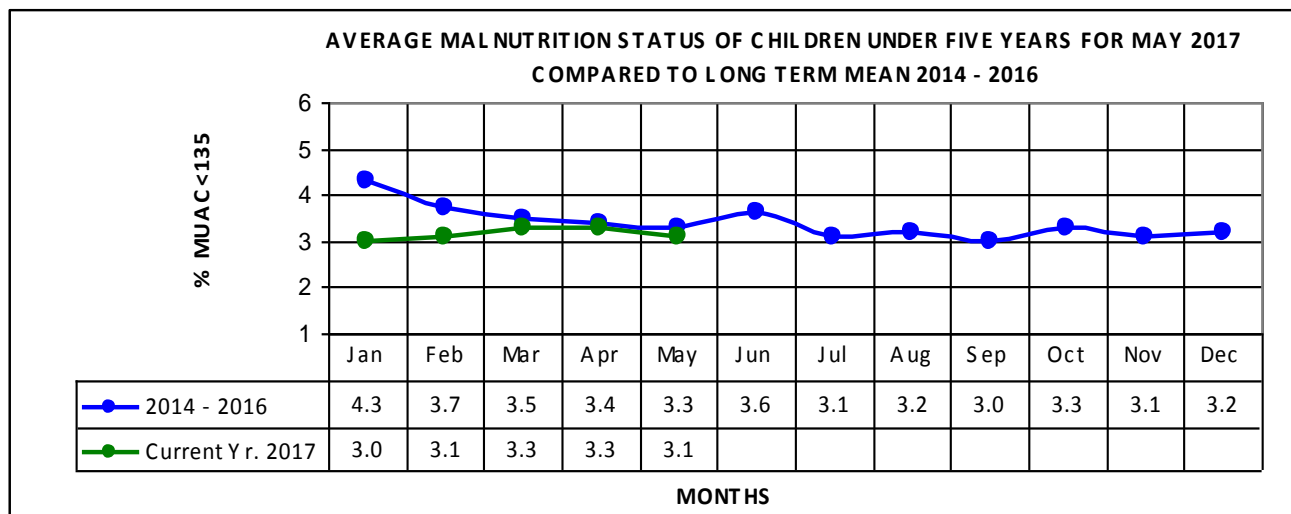
- The diagrams below show comparison of two months food consumption scores from 210 households sampled.
- Voi Sub County was the worst hit in regard to food consumption with those in poor category at 81.7%, borderline at 16.7% and acceptable at 1.7%.
- In Mwatate Sub County, 8% slide into poor category given that 3.2% and 4.8% were removed from borderline and acceptable categories respectively. This shows deteriorating food consumption.
- Compared to the previous month all Sub Counties except Taita indicated deteriorating trend in terms of food consumption.
- These households are mainly in the rain fed lowlands where harvests are yet to be experienced for numerous consecutive seasons.
- 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 like reported in Marungu Ward.



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 decreased to 3.1 from 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 Marungu Ward.
- 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 May 2017
Health Sector	
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 County provided technical expertise with vaccines received from the National Government

	Vaccination exercise that commenced on 5/4/2017 carried out was completed this month Animals vaccinated against LSD,CCPP, RVF Mwatate - 23 days; Taveta - 12 days; Taita - 18days
Establishment of Livestock feeding centres	<ul style="list-style-type: none"> • 5 centres supported during the month (Kishushe A and B, Ngambenyi, Bungule, Taveta but closed later in the month • Centres supplied with drought Meal. Hay, water and Acaricide (Bayticol) • Kishushe A and B continue to operate
Water Sector	
Water trucking to areas far to reach	Handing over of 10m3 tank and base in Zungulukani

6.1.2 Multi Sectoral

- 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, Sасыny, 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 rains have reduced severity of drought in the county.
- Due to late onset and timely cessation of the season the county remains in Alert Phase with high possibilities of sliding into Alarm phase.
- This has adversely affected crop production especially maize. However, water and livestock sector in regard to pasture will be sustained for the next three months.
- Short term maturing crops like green leafy vegetables are available at household level. However, scarcity of maize grain and flour continues to adversely affect feeding habits.
 - High prices of food stuffs have reduced household purchasing power.
 - Water availability and accessibility situation has improved due to the rains.
 - Pasture regeneration will reduce trekking distances improving livestock body condition.

- In areas that received good amounts of rainfall, livestock body condition has improved and this will ultimately enhance milk production and stabilize livestock prices.
- Availability of vegetables, water and pasture will improve food security.
- Drought response activities to continue mainly in areas that have not received rains like Mwaroko, Kishushe, Mlilo and Paranga.
- Early implementation of preparedness activities in the county will help address issues of drought given that we are heading to a long dry spell till onset of short rains in mid October.
- This will ultimately avoid loss of community 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

- Crop protection.
- Livestock disease surveillance and control to curb spread of livestock diseases.
- Provision of supplementary feed in areas experiencing pasture stress.
- Promotion of pasture and browse management through bailing.

Water and Irrigation Sector

- 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 especially in Marungu Ward.
- 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 especially in Taita Sub County.

Peace and Security Sector

- Peace and security meetings should be enhanced in community areas neighbouring the ranches and the parks.

- Strengthen EWS - Wildlife Monitors established by NDMA in conjunction with KWS funded by European Union.
- KWS to enhance surveillance and patrols to contain wildlife inside the park.

Multi Sectoral

- Fast track county drought preparedness and 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.