

National Drought Management Authority

MARSABIT COUNTY

DROUGHT EARLY WARNING BULLETIN FOR JUNE 2017



A Vision 2030 Flagship Project



JUNE EW PHASE: ALERT

Drought Status: ALERT

Maandalizi ya mapema

Drought Situation & EW Phase Classification

Biophysical Indicators

- **Rainfall:** Generally the County didn't receive rainfall in the month under review. However, there were traced amounts in Marsabit Mountain and Moyale Township.
- **Vegetation condition:** Vegetation condition index slightly improved from 14.73 in May to 19.05 in June but still stands within the severe vegetation deficit band. Pasture and browse is fair-good in Agro-pastoral zone while poor in Pastoral livelihood zone.

Socio Economic Indicators (Impact Indicators)

- **Production indicators:** Livestock body condition was fair in all the livelihood zones with exception of camels which exhibited generally good body condition. Milk production per household was 1.7Litres but still below normal. Migration of livestock was generally unusual. Paltry harvest of beans noted in Saku and Moyale sub-counties. No cases of livestock deaths attributed to drought reported.
- **Access indicators:** Household water distances slightly increased and are within the normal ranges. Terms of trade was unfavourable across the livelihood zones. No notable improvement in milk production at household level. Market prices are at an all-time low when compared to normal seasons.
- **Utilization indicators:** Children rated at risk of malnutrition slightly reduced to 17.9 but still outside the normal range of below 18.2. Food consumption score slightly decreased while coping strategy index increased.

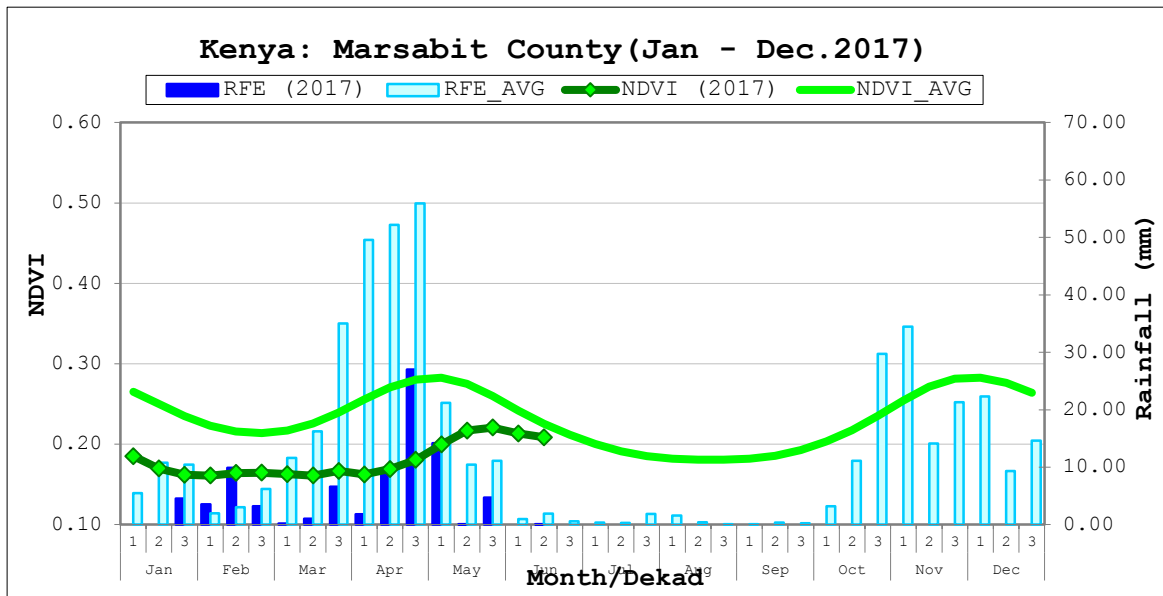
Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Agro-pastoral	Alert	Worsening
Pastoral All species	Alarm	Stable
Fisherfolk/ Casual labour	Alert	Worsening
County	Alert	Worsening
Biophysical Indicators	Value	Normal Range
Rainfall (% of Normal)		80 -120
VCI-3Month	19.05	>35
Forage condition	Fair	Good
Production indicators	Value	Normal
Livestock Body Condition	Fair	Good
Milk Production	1.7	>1.8 litres
Livestock Migration Pattern	Unusual	Normal
Livestock deaths	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	59	>75
Milk Consumption	1.3	>1.5 litres
Return distance to water sources	2.4	0.0-2.8 Km
Cost of water	0-5	<5 Ksh
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	17.9	0.0-18.2
Coping Strategy Index (CSI)	23.1	<18
Food Consumption Score	21.5	>35

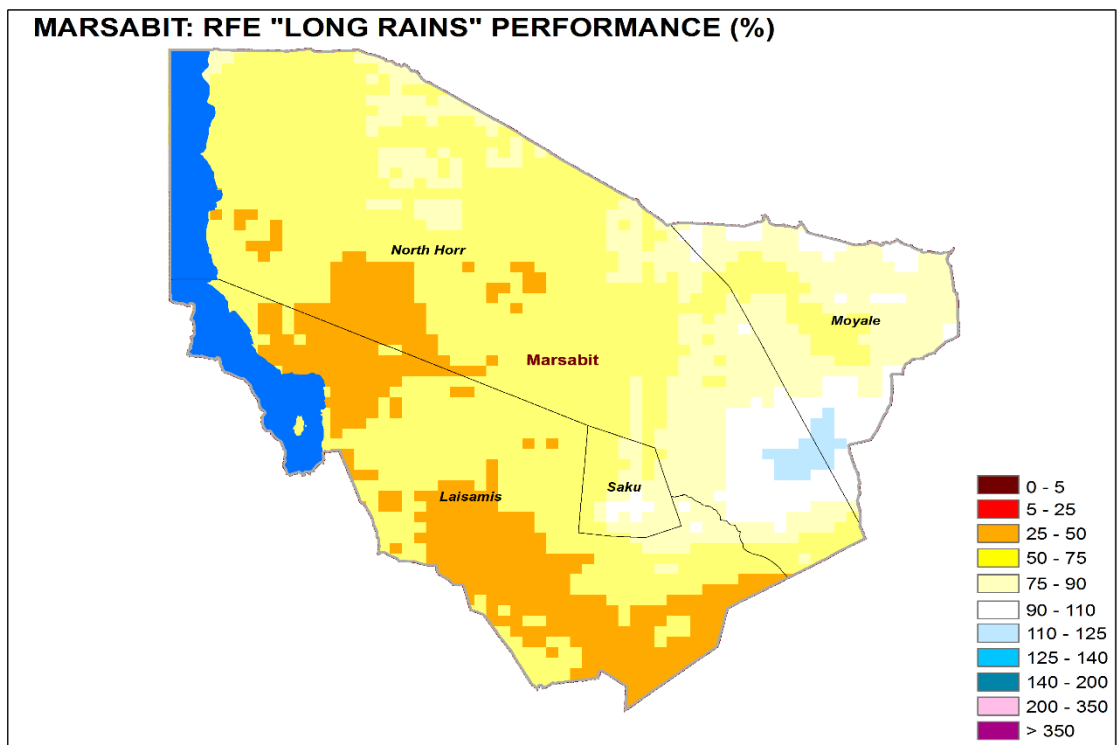
<ul style="list-style-type: none"> ▪ Short rains harvests ▪ Short dry spell ▪ Reduced milk yields ▪ Increased HH Food Stocks ▪ Land preparation 	<ul style="list-style-type: none"> ▪ Planting/Weeding ▪ Long rains ▪ High Calving Rate ▪ Milk Yields Increase 	<ul style="list-style-type: none"> ▪ Long rains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

1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE



- From the figure shown above, Marsabit County did not receive rainfall amounts in the month under review. However, traced amounts were noted in the second dekad of the month. Normalised Difference Vegetation Index (NDVI) of 0.21 is below the Long term NDVI value of 0.23. Cessation of the long rains occurred in the third dekad of May.



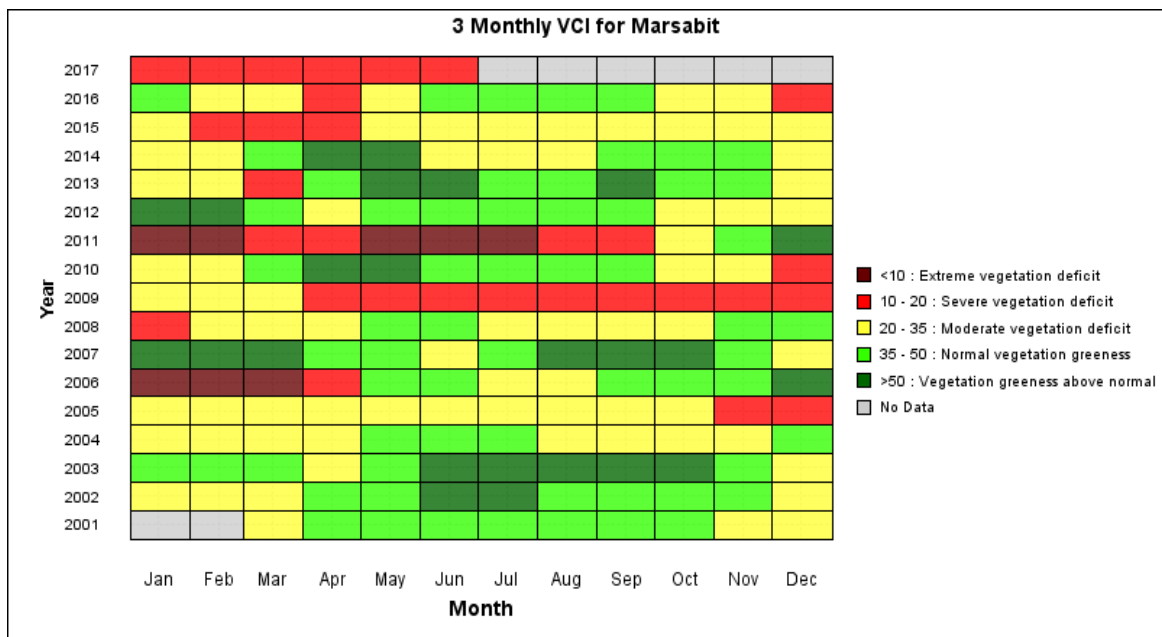
- From the figure shown above, most parts of the county received depressed rainfall amounts majorly 25-50% and 50-75% of the long rains. However, Moyale and Saku received enhanced rainfall amounts in the month of May.

2.0 IMPACTS ON VEGETATION AND WATER

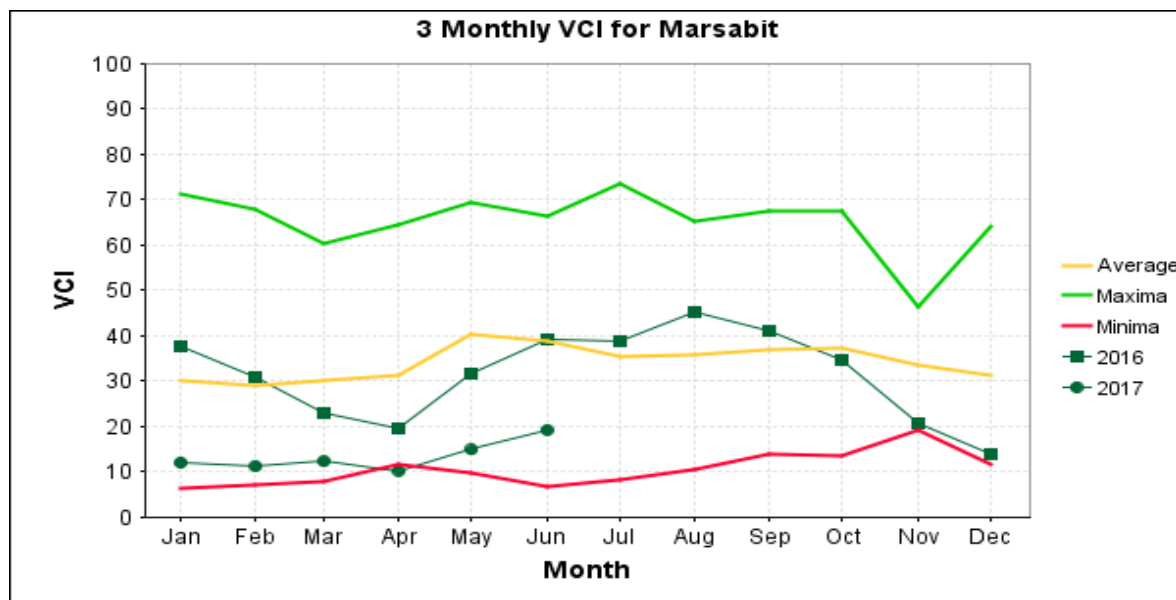
2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- Below is a county matrix that depicts how each month from January to December has been classified in terms of agricultural drought based on VCI thresholds indicated. The vegetation condition has been analysed retrospectively and categorized under an appropriate vegetation deficit band for the month under review.
- The basis for the vegetation condition index involves comparison of the relative NDVI (Normalised Difference Vegetation Index) change with respect to minimum and maximum historical NDVI value.



- In the month under review, Vegetation Condition Index (VCI-3month) was 19.05 across the county hence falling within the severe vegetation deficit band. The county has been in a severe vegetation deficit band since the beginning of the year.
- The vegetation condition index gradually improved from 14.73 recorded in the previous month to 19.05 in the month under review as a result of forage rejuvenation across the county.
- The vegetation condition index in North Horr worsened from 14.36 exhibited from the month of May to 12.14 in June hence stagnated at severe vegetation deficit band approaching extreme situation.
- Significant improvements were noted in Moyale and Saku sub-counties as there VCI-3month improved from a VCI of 22.41 and 21.65 to 32.63 and 31.69 respectively. Significant improvements in Saku and Moyale sub-counties was a result of cumulative long rains received hence forage rejuvenation.



- The graph shown above compares 2017 VCI trend to 2016, long term average and gives maximum and minimum values ever recorded. The current VCI is below the historical VCI value. Similar below normal VCI values have been exhibited since the beginning of the year to date.

2.1.2 Pasture

- Pasture condition is generally fair across the Agro-pastoral livelihood zone whereas poor in the Pastoral livelihood zone. Poor pasture condition in the pastoral livelihood zone was due to depressed and poorly distributed long rains received which had minimal impact in pasture regeneration. Pasture condition is below normal when compared to a normal period.
- Quantity and quality of pasture is good in the Agro-pastoral areas of Moyale sub-county (Sololo, MadoAdhi, Bori, Dambala Fachana), Saku sub-county (Kiturini, Karare) Mount Kulal, Huri Hills, South Horr and fair in the Pastoral areas of Dukana, Laisamis, Logolo and Bulluk. However, in the Pastoral areas of Bubisa, Dabel, El-hadi, Elbeso and larger North Horr sub-county pasture condition is poor.
- Available pasture is expected to last for 2 months in the Agro-pastoral livelihood zone whereas 1 month in the Pastoral livelihood zone.

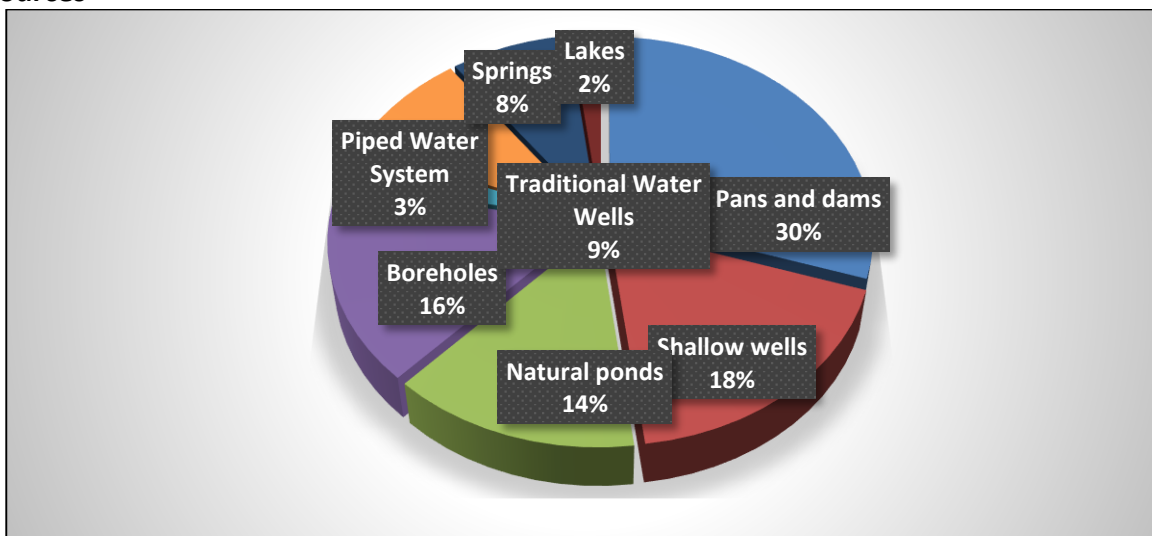
2.1.3 Browse

- Browse condition is good in Saku and Moyale sub Counties. However, in some few isolated areas of North Horr and Laisamis sub-counties browse condition is poor. Poor browse condition in the isolated areas was mainly attributed to erratic and below normal long rains received in the season.
- Agro-pastoral areas of Moyale and Saku sub-counties browse is expected to last for the next 3 months whereas in the Pastoral areas of North Horr and Laisamis sub-counties browse is expected to last for the next 2 and 2 and half months respectively. Browse is expected to last for only 3 months in the Agro-pastoral areas because of intense in-migration of livestock. Herbaceous vegetation is still depleted and unavailable for grazing

livestock. Therefore, quantity and quality of browse is below normal when compared to a normal season.

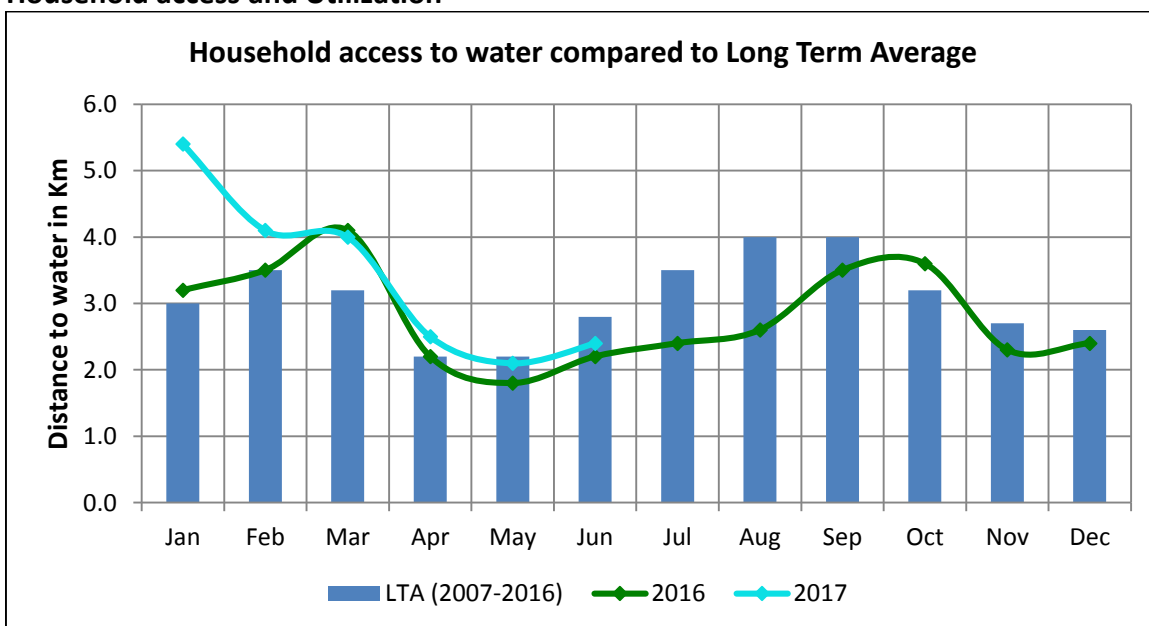
2.2 WATER RESOURCE

2.2.1 Sources



- From the pie-chart shown above, 30% of the communities interviewed used pans and dams for water consumption as a result of partial recharge. This is due to high recharge levels of pans and dams in Moyale and Saku as a result of cumulative long rains received and partially recharged the service water sources. However, only 18%, 16% and 14% of the communities used shallow wells, boreholes and natural ponds respectively for household and livestock consumption.
- In comparison to the preceding month, quantity of water declined due to in-tense migration of livestock from Isiolo, Wajir North and North Horr. The above water sources are normal when compared to a normal season.

2.2.2 Household access and Utilization

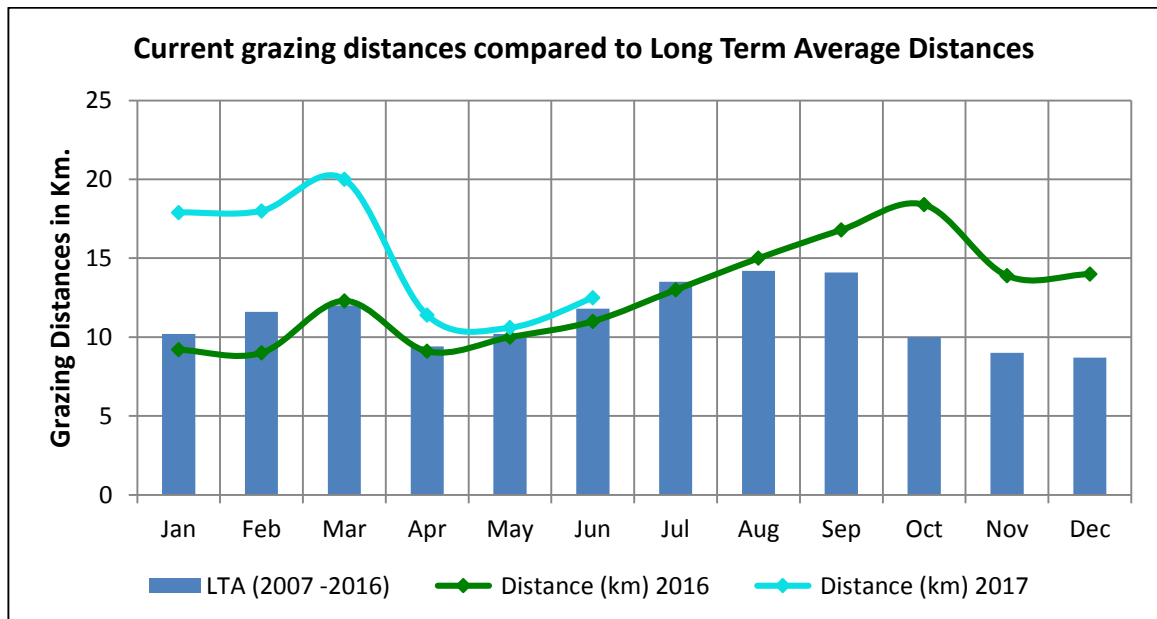


- From the figure shown above, household return distance to main water sources was 2.4 km illustrating a gradual increase for household water access distance of 2.1km recorded

in the previous month. Households in Pastoral livelihood zone trekked longer distances to access water than those in the Agro-pastoral livelihood zone.

- Slight increase in household water access distance was mainly because of no rains received in the month of June. The current household water distance is within the normal ranges.
- Household water waiting time at the source was 30-45 minutes across all livelihood zones which is above the normal waiting time of 15-30 minutes at this time of year.
- The average household water consumption per person per day is 4-7 litres in the Pastoral zone whereas in the Agro-pastoral zone is 8-10 litres per person per day.
- Cost of water is within the normal ranges of Ksh 0-5 per 20 litre jerrican at the source.

2.2.3 Livestock access



- Return livestock trekking distance from grazing areas to water sources was 12.5 Km, exhibiting an increase from 10.6Km recorded in the preceding month. When compared to the normal grazing distance of 11.8Km, current trekking distance is 6 percent above the long term grazing distance.
- Livestock grazing distances is farther in Pastoral livelihood zone with some areas exhibiting distances greater than 15km. Notably, the grazing distances in Agro-pastoral livelihood zone is within the normal ranges.
- Watering frequency for the livestock species varies also in the livelihood zones. In the Agro-pastoral zone, watering frequency for cattle/shoats and camel is daily and 4 days respectively albeit in the Pastoral livelihood zone watering frequency for cattle/shoats and camel is after 2 days and 6 days respectively.
- The watering frequencies are normal in the Agro-pastoral and not normal in the Pastoral livelihood zones.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

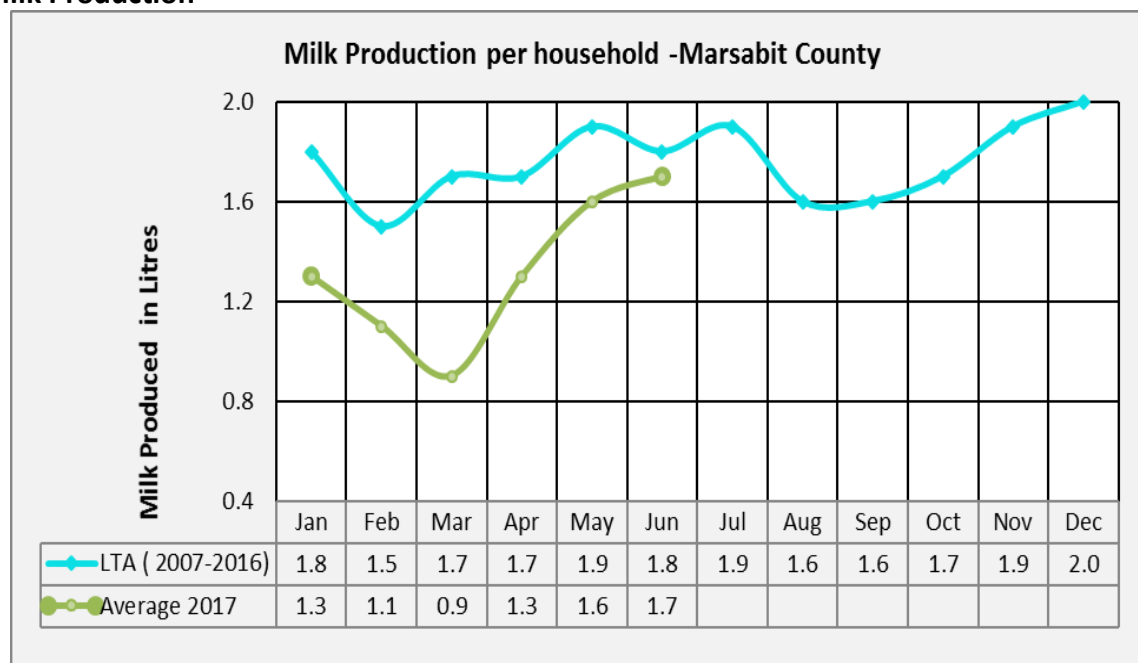
3.1.1 Livestock Body Condition

- Generally, livestock body condition is fair across the livelihood zones.
- Livestock in Moyale, Saku sub-counties depicts good body condition due to the rejuvenated vegetation cover. In the Northern stretch of North Horr sub-county and Southern parts of Laisamis sub-county livestock illustrated fair body condition. However, in the Pastoral areas of Mallabot, Elbeso, Kargi, El-Hadi, Farakoren, Dabel, Burgabo and Bubisa livestock body condition was generally poor with an exception of camel which exhibited fair body condition. Variations in livestock body condition in the aforementioned areas was attributed to minimal forage regeneration.
- In Saku and Moyale and parts of Laisamis sub-counties livestock were within their normal migration routes. However, most Livestock in North Horr sub-county have migrated towards Darade, Bulluk, Hurri Hills, Dukana, Shurr and Hawaje whereas in some parts of Laisamis sub-county livestock have migrated towards Koya, Behai, Mount Kulal, South Horr, Ogicho and Nyiro ranges.
- Livestock body condition is not normal when compared to a normal season. Livestock body condition is expected to improve if the long rains continue.

3.1.2 Livestock Diseases

- In the month under review, there were no reported cases of livestock disease outbreak across the county.

3.1.3 Milk Production



- In the graph shown above, average milk production at household level per liter was 1.7 Litres. When compared to the preceding month, average milk production relatively stabilized within the consecutive months.
- In comparison to a normal period, milk production was 6 percent below normal.
- Stabilized household milk production level of 1.7litres was attributed to significant herd sizes returning to their normal grazing areas and improved forage condition mainly in the Agro-pastoral zone.

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Area under cultivation

- Approximately 290 ha of land were planted under maize, 220 ha under beans during the planting season thereby denoting decline by 61%, 71.1% and 40.48% for maize, beans and green grams crops respectively. Drastic decline in area under crop cultivation was attributed to: delayed on-set of the rain season, failure of two consecutive seasons, lack of certified seeds for pulses in the local markets and late land preparation.

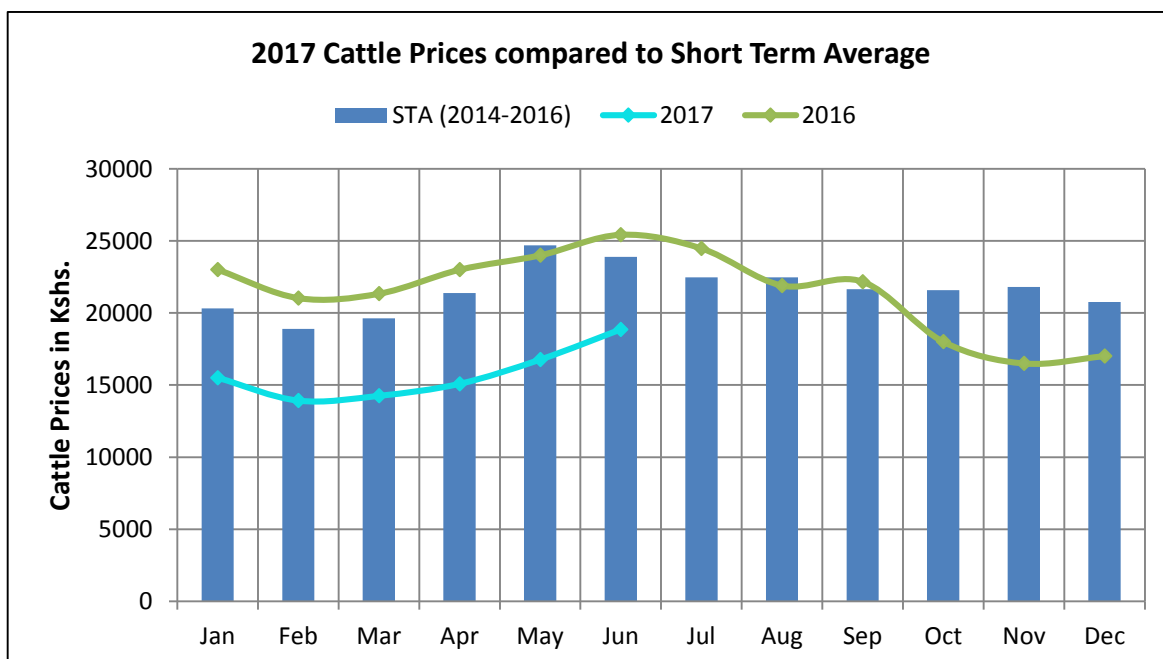
Stage and Condition of food Crops

- There were significant variations in the Agro pastoral livelihood zone, e.g. fair harvest of beans in areas of Moyale, Songa and Badassa as compared to foot slopes like Kubi Bagassa, Goro Rukesa and Parkishon with very dismal harvests in Saku sub county. Generally, variations within the two sub-counties were attributed to difference in distribution of rains within the same livelihood zone and variations in uptake of crop farming owing to culture of communities in these places.

4.0 MARKET PERFORMANCE

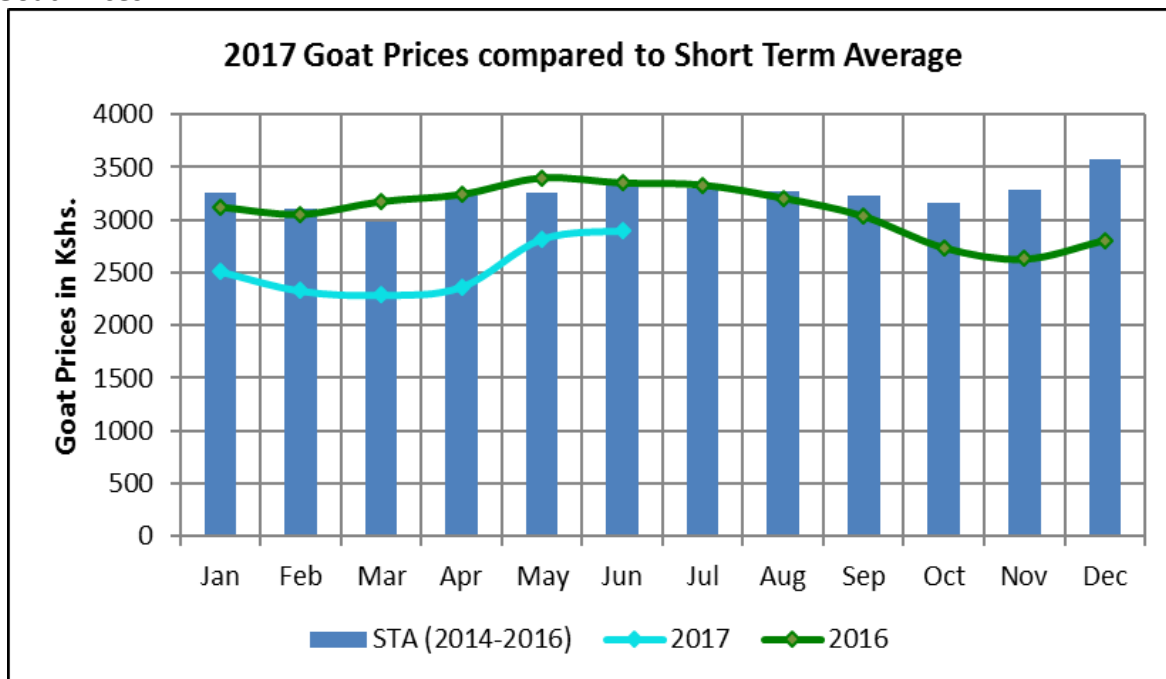
4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices



- Average cattle prices increased from Kshs.16, 762 in May to Kshs.18, 857 in June across the livelihood zones. Increase in market prices of Cattle was attributed to vibrant livestock markets in Merille and Moyale.
- Compared to short term average price of Kshs.23, 896, average cattle price was lower by 21percent.

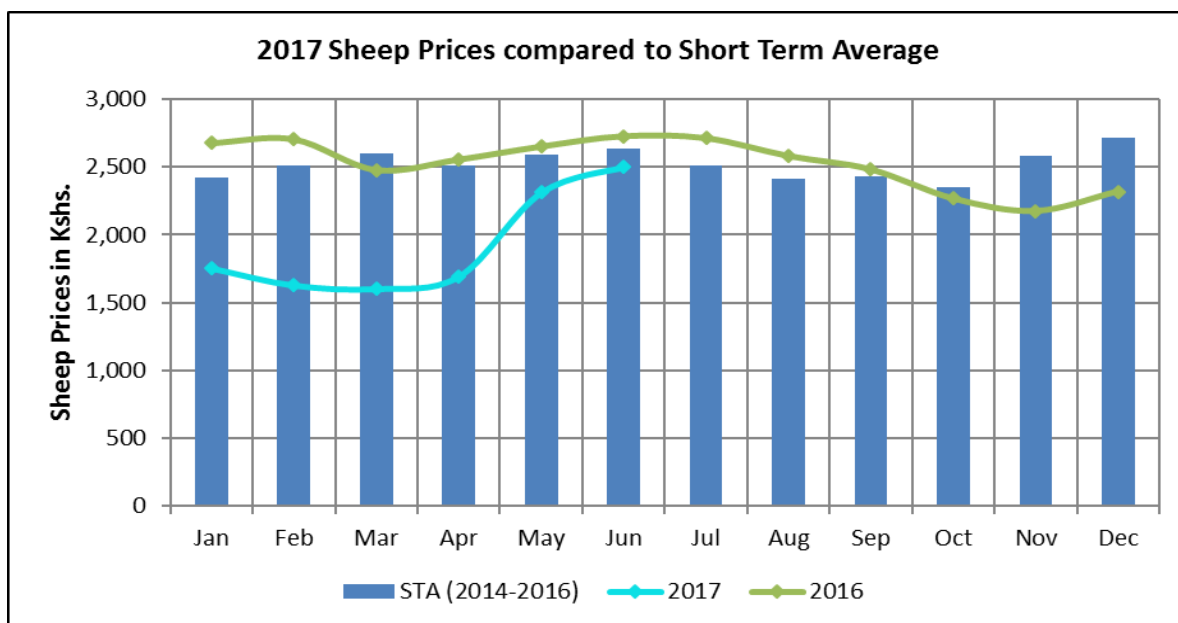
4.1.2 Goat Prices



- The figure graph above exhibits average price of a medium sized goat as Kshs.2, 900 in the month under review hence no notable change in goat prices from the previous month.
- Livestock markets in Merille, Moyale and Sololo posted goat prices not less than Kshs.3, 00 as opposed to the other markets mainly in the Pastoral areas of North Horr sub-county which posted unfavourable goat prices due to the severe drought situation.
- When compared to a normal price of Kshs.3, 353, the current goat price is 14 percent below the short term average price.

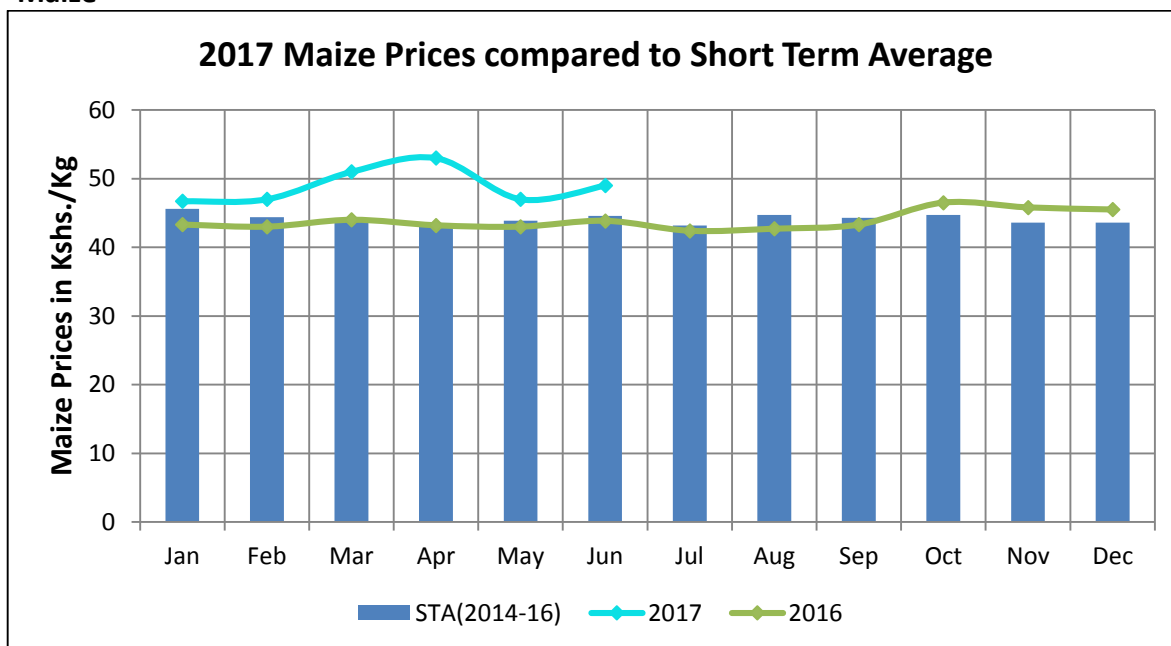
4.1.3 Sheep Prices

- From the figure shown below, average selling price of sheep in the month under review was Ksh2, 500. When compared to sheep price in the preceding month, there was improvement from Kshs.2, 313 recorded in the month of May.
- When compared to a normal season, the current sheep price is 5 percent below the short term average.
- Improvement in sheep prices was mainly attributed to vibrant livestock markets in Merille, Sololo and Moyale.



4.2 CROP PRICES

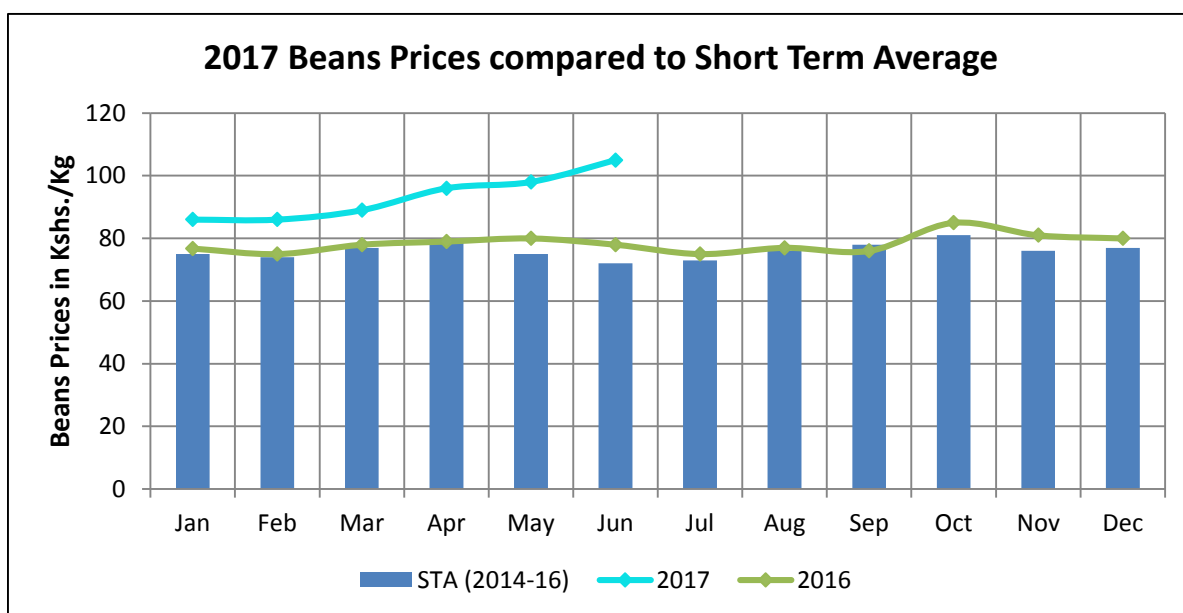
4.2.1 Maize



- From the figure shown above, average price of maize for the month under review was Ksh.49. When compared to the preceding month, maize prices were stable as exhibited by Kshs.47 in the month of May.
- Stable maize prices were mainly attributed to increased injection in the local markets from the neighbouring Ethiopia and Meru coupled by maize price control policy.
- When compared to the short term average price of Kshs.45, the current maize price is 9% above the normal price.
- Favourable maize prices were noted in Moyale Township, Saku and Sololo markets which were selling maize at prices between Kshs.38-45/Kg. Notably, higher prices were depicted in Turbi and Loyangalani with prices averaging at Kshs.60/kg.

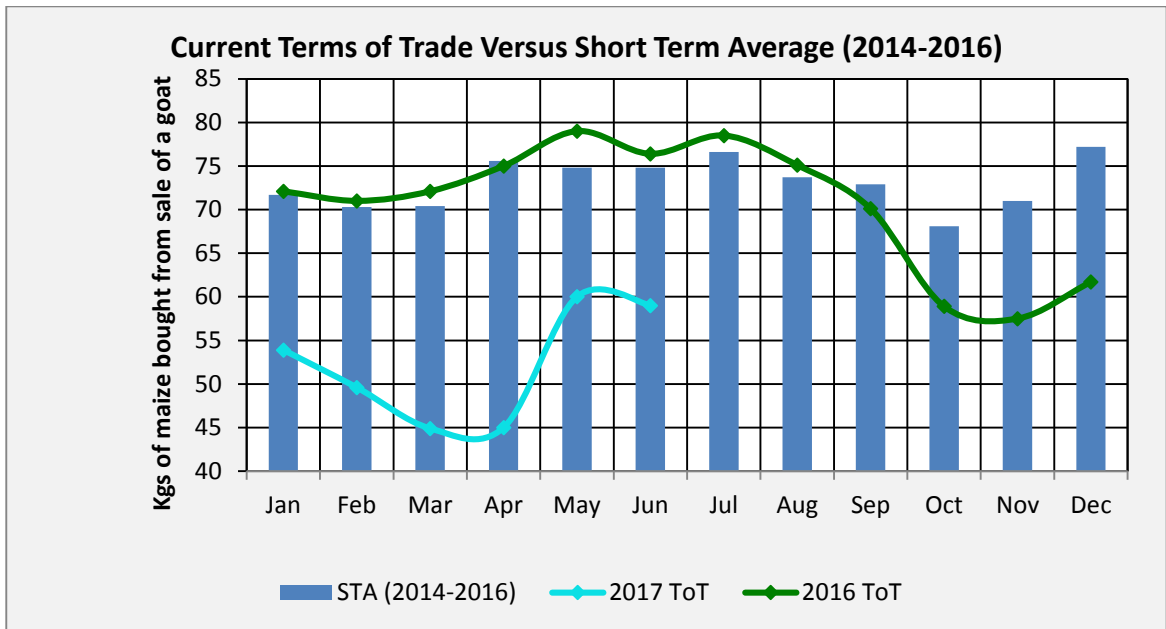
4.2.3 Beans

- From the figure shown below, the average beans price was retailing at Kshs.105. When compared to the previous month, beans prices gradually increased from Kshs.98.
- Beans prices were much favourable in Moyale Township, Sololo, Marsabit Town because of increased supply from Meru and the neighbouring Ethiopia whereas much higher in Loiyangalani, North Horr and Elmolo.
- The current average beans price of Kshs.105 is above the normal beans price by 46 percent.



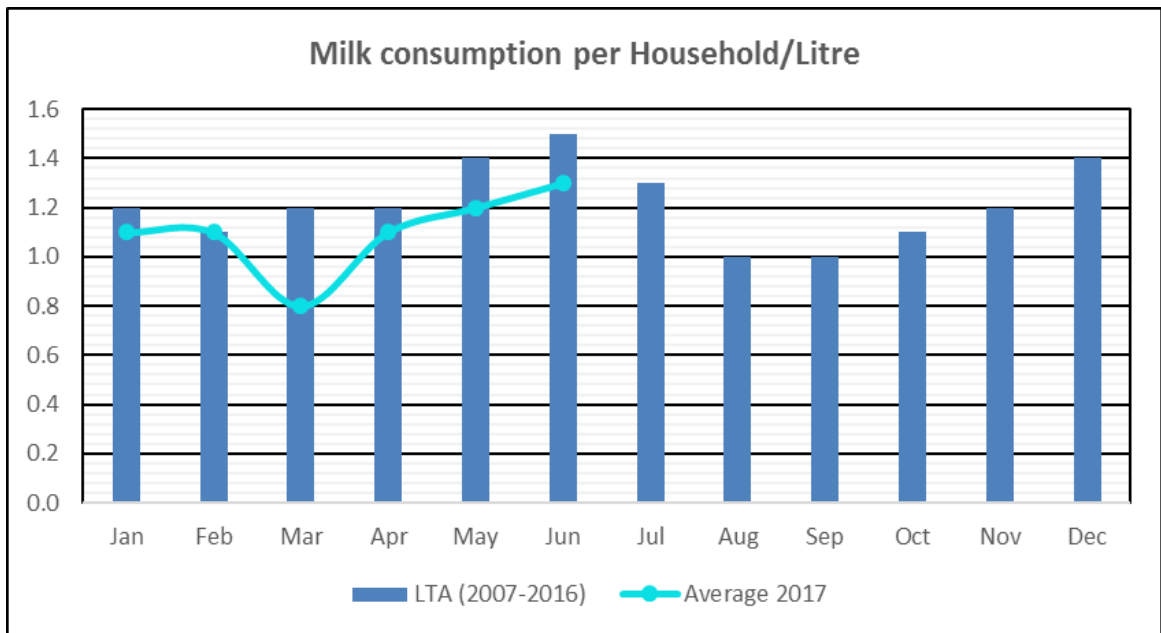
4.3 Terms of Trade (TOT)

- Terms of trade remained unfavourable at 59 hence pastoralists derived less quantities of maize when compared to a normal season. The terms of trade relatively remained the same from 60 recorded in May to 59 in May due to stable maize prices.
- When compared to a normal period, the current terms of trade is 21 percent below the short term average .
- Unfavourable and below normal terms of trade since the beginning of the year has mainly been caused by the biting drought situation lately experienced.
- Terms of Trade is expected to slightly improve if goat prices increase further and maize prices declines.



5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION



- From the figure shown above, average household milk consumption gradually improved from 1.2Litres in May to 1.3Litres in June across the Agro-pastoral livelihood zone. However, in most of the Pastoral livelihood zone there was no improvement in milk production.
- When compared to the long term average household milk consumption of 1.5Litres, current household milk consumption is lower by 13 percent.
- Milk consumption improved mainly in the Agro-pastoral livelihood zone of Saku and Moyale and in some parts of Pastoral livelihood zone of Laisamis sub-county. Slight

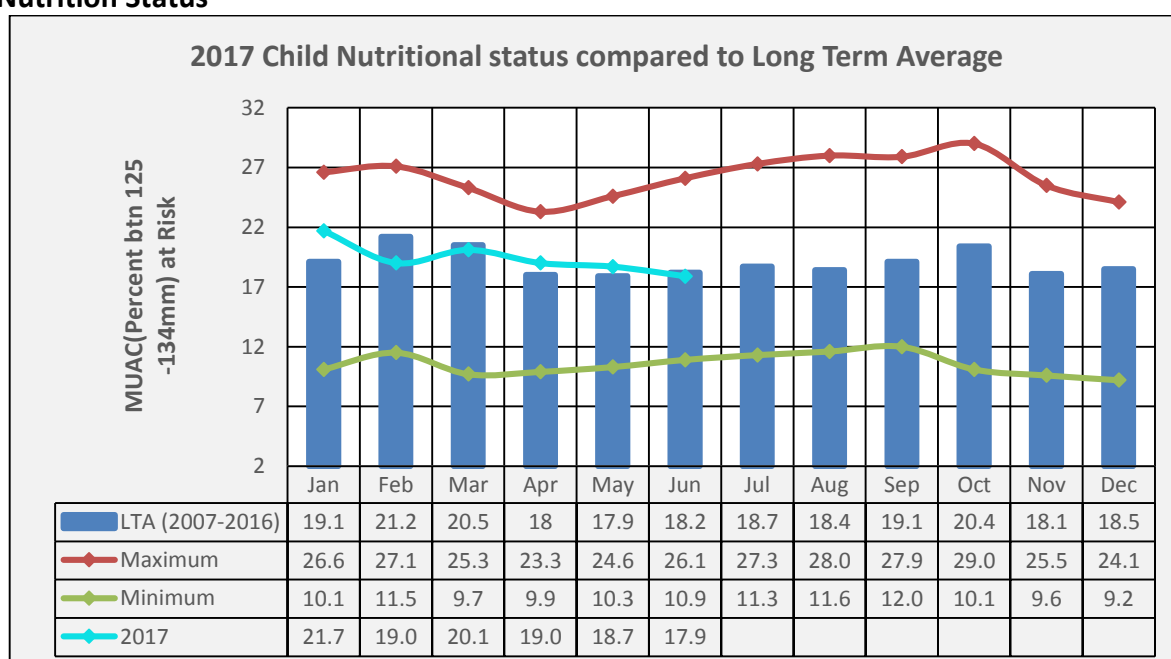
Improvement in milk consumption was attributed to improved milk production as a result of improved 3 monthly vegetation condition index in Saku and Moyale sub-counties.

5.2 FOOD CONSUMPTION SCORE (FCS)

- The mean food consumption score for the month under review was 21.5 across the livelihood zone falling within the borderline food consumption score band hence depicted a decline when compared to food consumption score of previous month of 24.6.
- Food consumption score was better in Agro-pastoral than Pastoral livelihood zone with a mean of 25 and 18 respectively.
- Proportion of households that were within the poor, borderline and acceptable food consumption score categories were 20 percent, 50 percent and 30 percent respectively. When compared to the previous month food consumption score categories, 21 percent, 45 percent and 34 percent of the households fell within poor, borderline and acceptable food consumption score categories.
- Slight decline in food consumption score may be attributed to gradual increase in prices of cereals and maize coupled by poor feeding practices at household level.

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status



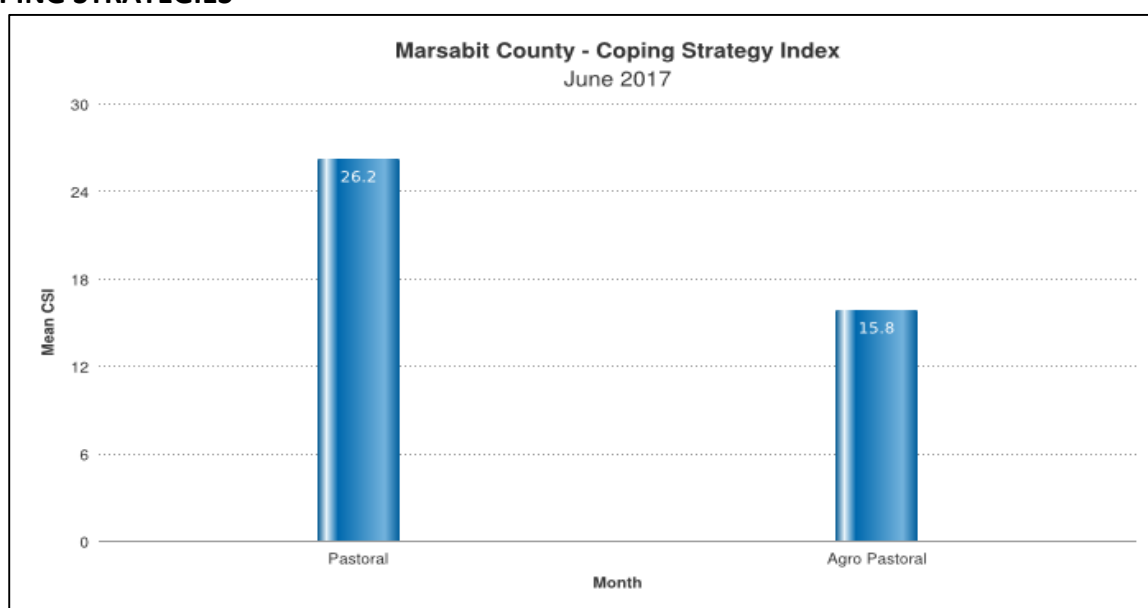
- From the figure shown above, children rated 'at risk' of malnutrition slightly declined from 18.7 percent to 17.9 percent. Gradual and steady improvement in nutritional quotient for the under-fives was as a result of light decline was attributed to ongoing nutritional interventions across the livelihood zones.
- Lower malnutrition rates amongst under-fives were recorded lower in Saku and Moyale sub-counties at 7.3 percent and 11.2 percent respectively. However, Laisamis sub-county (Loyangalani, Olturot, Korr, Elmolo and Logologo) registered higher malnutrition rates at 35.5 percent. Notable improvements in MUAC in two consecutive months were recorded in North Horr sub-county due to blanket supplementary feeding programmes and other

food related interventions undertaken. Malnutrition rates amongst the under-fives were normal in Moyale and Saku sub-counties as a result of enhanced rainfall which rejuvenated forage cover hence an increase in milk production. 0.7 percent and 2.5 percent children below the age of five years were severely and moderately malnourished respectively in the month under review.

5.3.2 Health

- There were reported cases of human disease outbreak in the county. The leading cases of outbreak in morbidity for both children under five years and the general population for the month were; Upper Respiratory Tract Infections (URTI), diarrhoea, Pneumonia and fever.

5.4 COPING STRATEGIES



- In the month under review, coping strategy index was 23.1 Coping strategy index increased from 19.8 recorded in May hence households employed coping strategies that were more severe and frequently.
- Agro Pastoral livelihood zone recorded a coping strategy index of 15.8 in comparison to the 26.2 in Pastoral livelihood zone. Reduced coping strategy index mainly in Agro-pastoral livelihood zone was due to small harvest mainly in beans and improved livestock body condition.
- Proportion of households who employed coping strategies in the month under review was 79 percent and this was an increase from the 76 percent in the previous month.
- Notable consumption based coping strategies employed by majority of the households during the month included reduced portion size of meals, reduced frequency in food consumption and reliance on less preferred/less expensive food.

6. CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

- Cash transfers by World Food Programme, County Government, Concern WorldWide, NDMA, VSF, PACIDA, Social Services Department and Kenya Red Cross.
- Integrated outreaches and screening across the County.
- Supply of hay to some locations in Laisamis and North Horr sub-counties by CIFA.
- Water trucking in some few hotspots which received erratic rainfall.

6.2 FOOD AID

- General Relief food distribution across the County by various implementing partners.
- Food for Asset (FFA) in Moyale and Sololo done by WFP, NDMA and WVK targeting 4,067 households.
- Blanket supplementary feeding programme in North Horr targeting children less than five years, pregnant and lactating women supported by WFP, Concern WW and Sub County health management team.
- Therapeutic Integrated Management of Acute Malnutrition for the Under-fives, Pregnant and Lactating Mothers (Supplementary Feeding Program (SFP), Out Patient Therapeutic Program (OTP) by MOH supported by WFP, UNICEF, CONCERN WW and FHK.
- WFP supported 179 public primary school with adequate stock for 70 school days in Term II, 30 days in-kind food provided by GOK, 40 days Cash transfer to schools provided by WFP. The enrolment is 48,000 school going children.

7. EMERGING ISSUES

7.1 INSECURITY/CONFLICT/HUMAN DISPLACEMENT

- There were reported cases of insecurity in Laisamis, Songa and towards Loyangalani. However, the situation was contained as a result no cases of human displacement was noted.

7.1 Migration

- There is intense livestock migration from Waso(Isiolo) to Saku, Badanrero, Laqi and Amballo. Southern Ethiopia to Badanrero, Bori and Laqi, Wajir to Moyale. Most livestock from North Horr are concentrated around Darade, Bulluk, Hurri Hills, Dukana, Shurr and Hawaje whereas livestock in Laisamis sub-county are concentrated in Koya, Gudas, Behai, Mount Kulal, South Horr, Ogicho and Nyiro ranges.
- Massive Increase in livestock migration mainly in Moyale sub-county will likely lead to faster depletion of forage and water sources.

7.2 FOOD SECURITY PROGNOSIS.

- Due to failure of the long rains, the food security situation is expected to worsen in the Pastoral livelihood zone of North Horr and Laisamis sub-counties and in addition to the severe vegetation deficit in North Horr sub-county which is approaching the extreme vegetation deficit band. However, food security situation is likely to be favorable in the Agro- pastoral areas of Moyale and Saku sub-counties where in some parts long rains received enhanced at 110-125 percent of the normal. Likewise, in the northern parts of North Horr and Southern parts of Laisamis vegetation and open water sources will also deplete faster than normal due to livestock concentration.
- Currently, Pastoralists are rebuilding their herds sizes and are also likely to continue accessing livestock products until when the drought situation becomes severe and thereafter households could employ unusual coping mechanisms to access food. Insignificant harvest of crops mainly beans which is below normal will lead to decline in food security situation of households in the Agro-pastoral livelihood zone. Terms of trade is expected to further worsen mainly in the Pastoral livelihood zone as a result of unfavorable cereals and livestock prices. Nutrition amongst under-fives has improved and is expected to improve further due to massive food and nutritional interventions by different nutritional implementers in the county. Ongoing cash transfers interventions and other food security related interventions will likely lessen adverse effects of households from expected decline in food security situation of households across the county.

8.0 RECOMMENDATIONS

- Initiation of commercial livestock offtake, provision supplementary feeds and livestock vaccination in some critical pockets of North Horr and Laisamis sub-counties.
- Continuous peace building initiatives in identified hotspots.
- Development of livestock feeds and water resources.
- Continued provision of supplementary feeds to malnourished children.
- Continued cash transfers programmes.
- Continuous water tankering in identified hotspots in North Horr and Laisamis sub-counties and continued stock piling of fast moving spare parts.