

National Drought Management Authority

MARSABIT COUNTY

DROUGHT EARLY WARNING BULLETIN FOR JULY 2017



A Vision 2030 Flagship Project



JULY 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.
- **Vegetation condition:** Vegetation condition index gradually improved from 19.05 depicted in June to 26.66 in July hence departure from the severe to moderate vegetation deficit band. Pasture condition is fair in Agro-pastoral livelihood zone whereas poor in Pastoral livelihood zone. Browse condition is good-fair and fair in Agro-pastoral and Pastoral livelihood zones respectively.

Socio Economic Indicators (Impact Indicators)

- **Production indicators:** Across all livelihood zones body condition of all livestock species have deteriorated and range from poor to fair for cattle and sheep/goats and good for camels. Milk production per household per day was 1.6Litres against the normal 1.9 Litres. Migration of livestock was generally unusual and intense in Saku and Moyale. Dismal harvest of maize and beans were noted in Saku and Moyale sub-counties. No cases of livestock deaths attributed to drought reported however cases of CBPP, PPR and diarrhoea were 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 improved to 16.8. Food consumption score relatively remained stable whereas coping strategies declined and were less frequent across the livelihood zones.

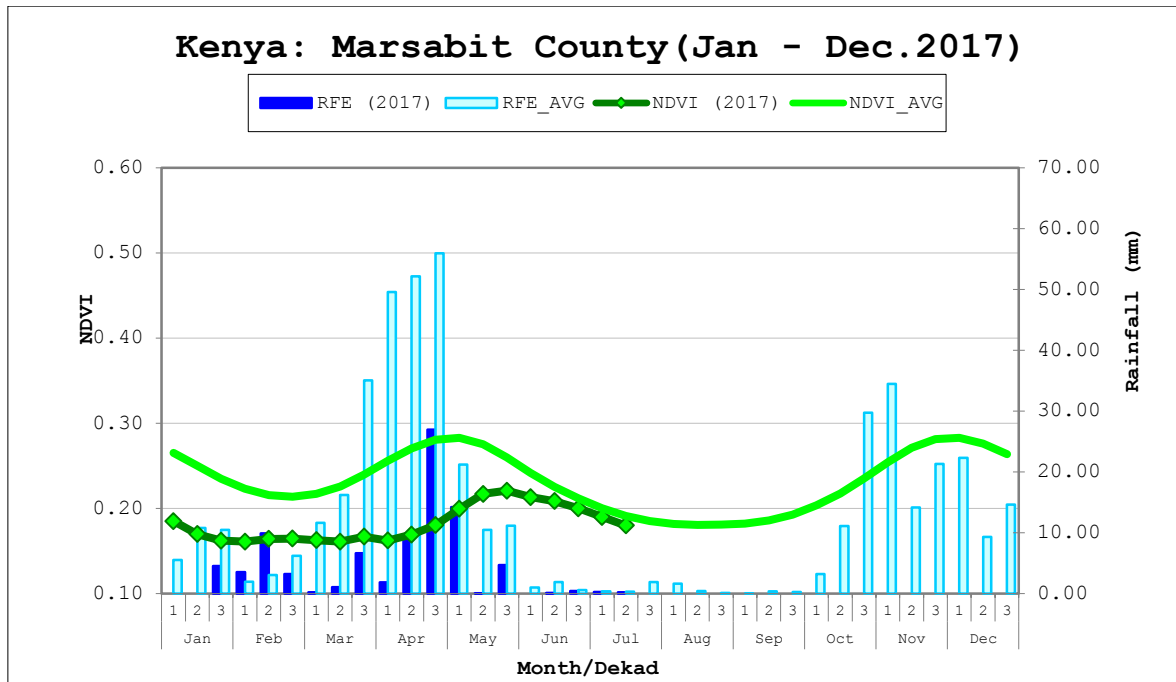
Early Warning (EW) Phase Classification

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	26.66	>35
Forage condition	Fair	Good
Production indicators	Value	Normal
Livestock Body Condition	Fair	Good
Milk Production	1.6	>1.9 litres
Livestock Migration Pattern	Unusual	Normal
Livestock deaths	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	54	>77
Milk Consumption	1.1	>1.3 litres
Return distance to water sources	3.3	0.0-3.5 Km
Cost of water	0-5	<5 Ksh
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	16.8	0.0-18.7
Coping Strategy Index (CSI)	17.9	<20
Food Consumption Score	21.7	>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

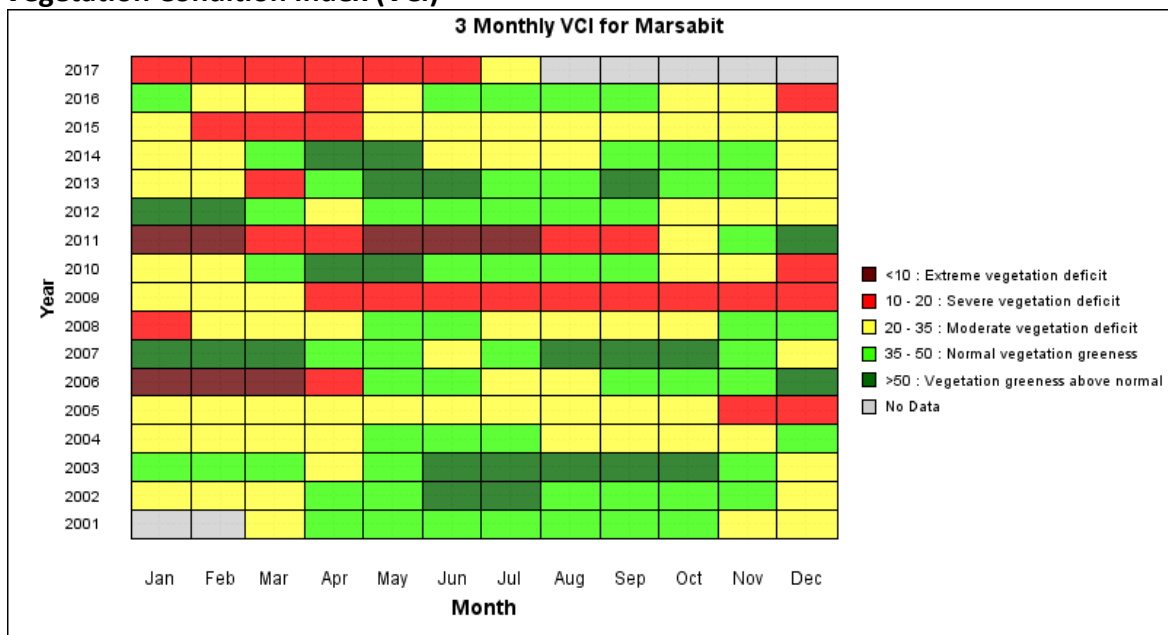


- From the figure shown above, Marsabit County did not receive rainfall amounts in the month under review. Rainfall pattern is normal compared to same period. Normalised Difference Vegetation Index (NDVI) of 0.21 is below the Long term NDVI value of 0.23. Cessation of the long rains occurred in the third dekad of May.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

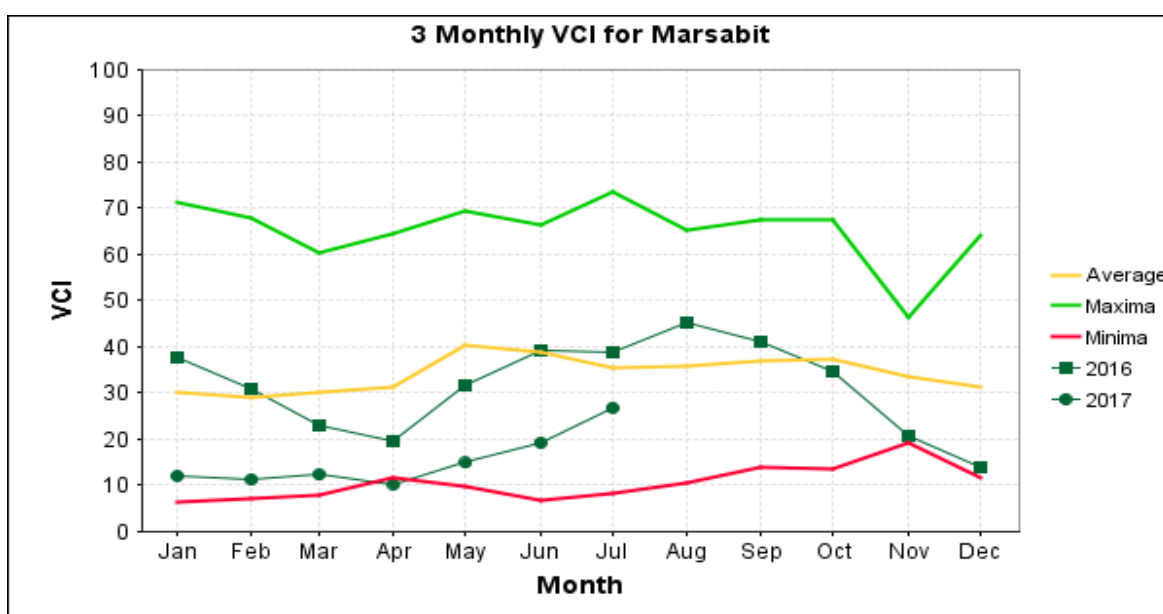
2.1.1 Vegetation Condition Index (VCI)



- The matrix shown above illustrates classification of the months in terms of agricultural drought based on indicated VCI thresholds. The vegetation condition has been analysed

retrospectively and characterized under suitable vegetation deficit band for the month under review.

- The foundation for the vegetation condition index encompasses comparison of the relative NDVI (Normalised Difference Vegetation Index) change with respect to minimum and maximum historical NDVI values.
- In the month of July, Vegetation Condition Index (VCI-3month) was 26.66 across the county hence departure from severe to moderate vegetation deficit band.
- The vegetation condition index improved from 19.05 noted in the month of June to 26.66 in July due to cumulative regeneration of vegetation across the county.
- Vegetation improvements' were noted in the entire county where Laisamis and North Horr sub-counties drifted from severe to moderate vegetation bands. But the VCI-3 months is still below normal when compared to a normal period.



- 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.
- Below normal VCI-3 months have been noted from January 2017 to July 2017 due to the prolonged drought experienced which did not sufficiently rejuvenate vegetation cover.

2.1.2 Pasture

- In the Agro-pastoral livelihood zone, pasture condition is fair whereas poor in the Pastoral livelihood zone. Pasture condition is below normal when compared to a normal period. The below normal pasture condition is generally attributed to depressed rainfall experienced in the county coupled with prolonged severe drought situation. Regeneration of non-palatable forage for all livestock species is eminent.
- Quantity and quality of pasture is good-fair in the Agro-pastoral areas of Moyale sub-county (Uran, Rawana, Wahegodha, Bori, Dambala Fachana and Township), Saku sub-

county (Jaldesa, Songa, Kiturini, Karare), South Horr, Mount Kulal, Huri Hills and in the Pastoral areas of Dukana, southern Laisamis and Bulluk. However, in the Pastoral areas of Malabot, Farakoen, Bubisa, Gas, Dabel, El-hadi, Bubisa, Elbeso, Qorqa and Balesa.

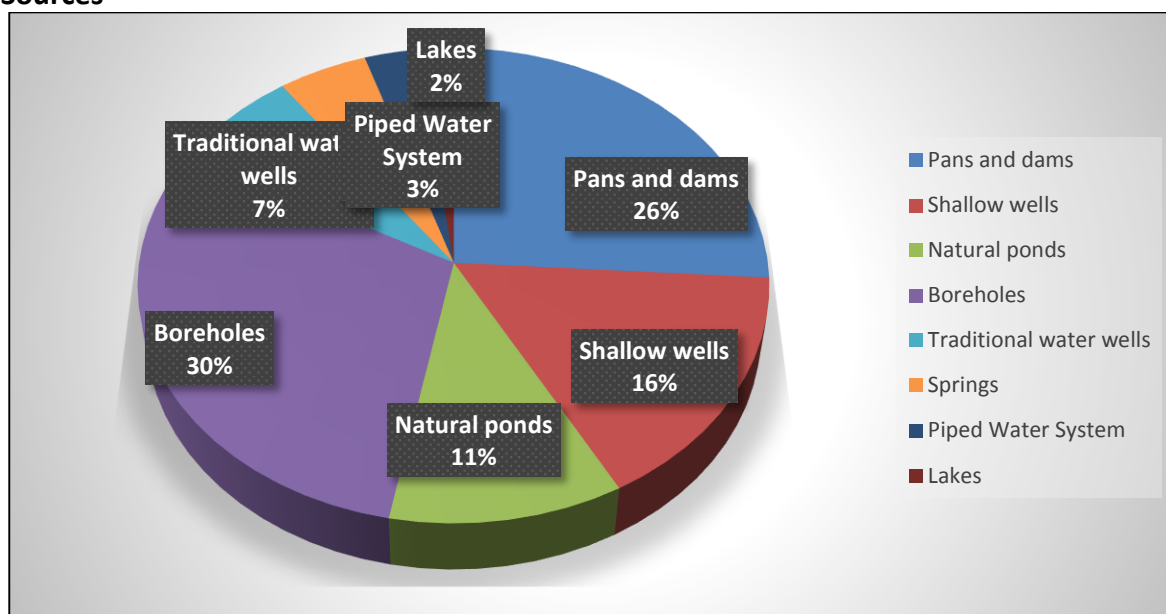
- The available pasture is expected to last for one and half months against the normal two-three months.

2.1.3 Browse

- Browse condition is good in Saku and Moyale sub Counties. However, in a few insulated areas of North Horr and Laisamis sub-counties browse condition is poor. Poor browse condition in few insulated 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 against the normal 4 months whereas in the Pastoral areas of North Horr and Laisamis sub-counties browse is expected to last for the next 2 months against the normal 3 months.
- Below normal browse condition in the Agro-pastoral areas of Moyale and Saku sub-counties is due to massive in-migration of livestock from Isiolo, Wajir and Southern Ethiopia. Regeneration of invasive browse which isn't palatable was noted.

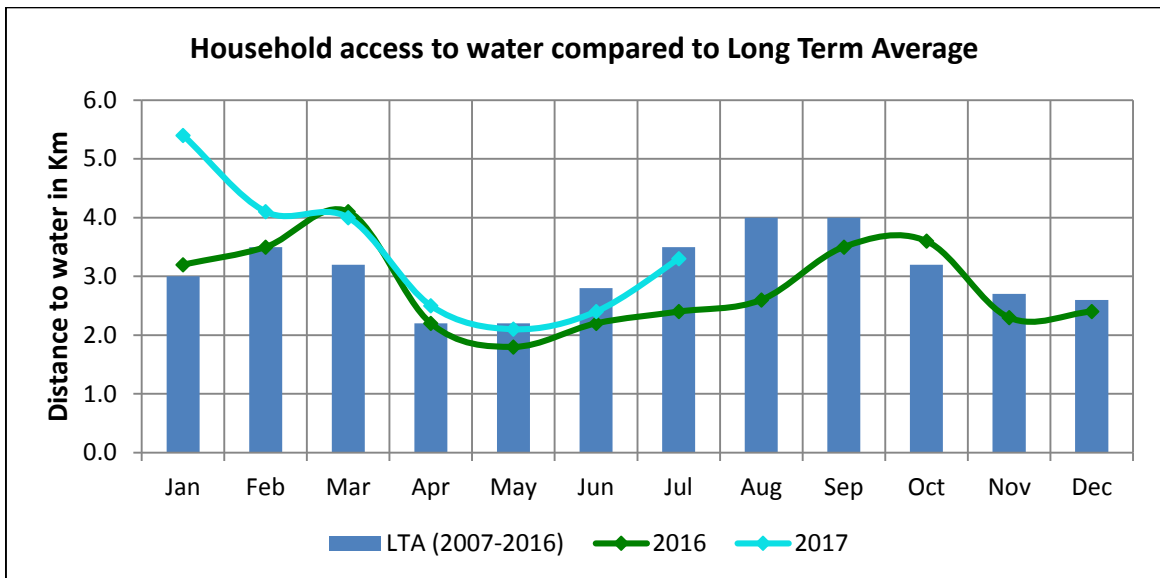
2.2 WATER RESOURCE

2.2.1 Sources



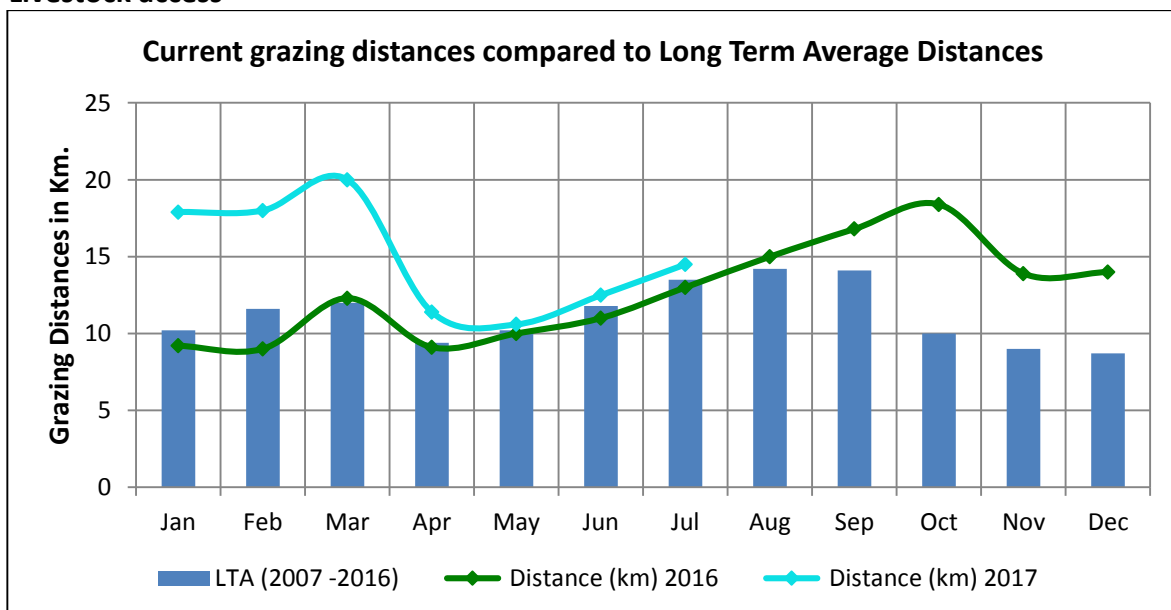
- From the pie-chart shown above, 30percent of the communities interviewed used boreholes for water consumption. The main water sources were boreholes, water pans and shallow wells across the livelihood zones which are the normal water sources.
- However, a paltry proportion of the communities at 11percent, 7percent and 3percent used natural ponds, traditional water wells and piped water systems respectively for both household and livestock consumption.
- In comparison to the preceding month, quantity of water declined due to massive in-migration of livestock from Isiolo, Wajir North and Southern Ethiopia.

2.2.2 Household access and Utilization



- From the figure shown above, household return distance to main water sources was 3.3 km exhibiting an increase from 2.4km recorded in the previous month. Notably, households in the Pastoral livelihood zone trekked shorter distances to access water than those in the Agro-pastoral livelihood zone.
- An increase in household water access distance was attributed to drying up of some open water sources. The current household water distance is within the normal ranges.
- Household water waiting time at the water 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 6-8 litres in the Pastoral zone whereas in the Agro pastoral zone is 5-7 litres per person per day.
- Cost of water ranges between Ksh. 0-5/20 litres jerry can across the county with exception of Marsabit and Moyale towns where water retailed at Ksh. 50 per 20 litres jerry can.

2.2.3 Livestock access



- From the figure shown above, return livestock trekking distance from grazing areas to water sources was 14.5Km hence displaying an increase from 12.5Km noted in the prior

month. When compared to the normal grazing distance of 13.5Km, current trekking distance is 7 percent above the long term livestock trekking distance.

- Livestock grazing distances in Agro-pastoral livelihood zone is within the normal ranges. However, in some pockets of the pastoral livelihood zone, return trekking distance was reported longer than 40kms.
- Longer trekking distances is a major factor limiting access especially in areas of Bubisa, Kargi, Farakoren, Malabot, Gas, Qorqa, El-hadi, Balesa and Dukana.
- 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. 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

- Livestock body condition is fair across the livelihood zones with exception of Camel which exhibit good body condition.
- Livestock majorly in Saku and Moyale sub-counties paints a good-fair body condition due to significant forage regeneration. The Northern part of North Horr sub-county and Southern Laisamis sub-county livestock had generally fair body condition. However, in the Pastoral areas of Elbeso, 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. Significant variations in livestock body condition in the livelihood zones was attributed to longer trekking distances.
- Livestock body condition is not normal when compared to a normal season. Livestock body condition is expected to deteriorate as the long dry spell persists.

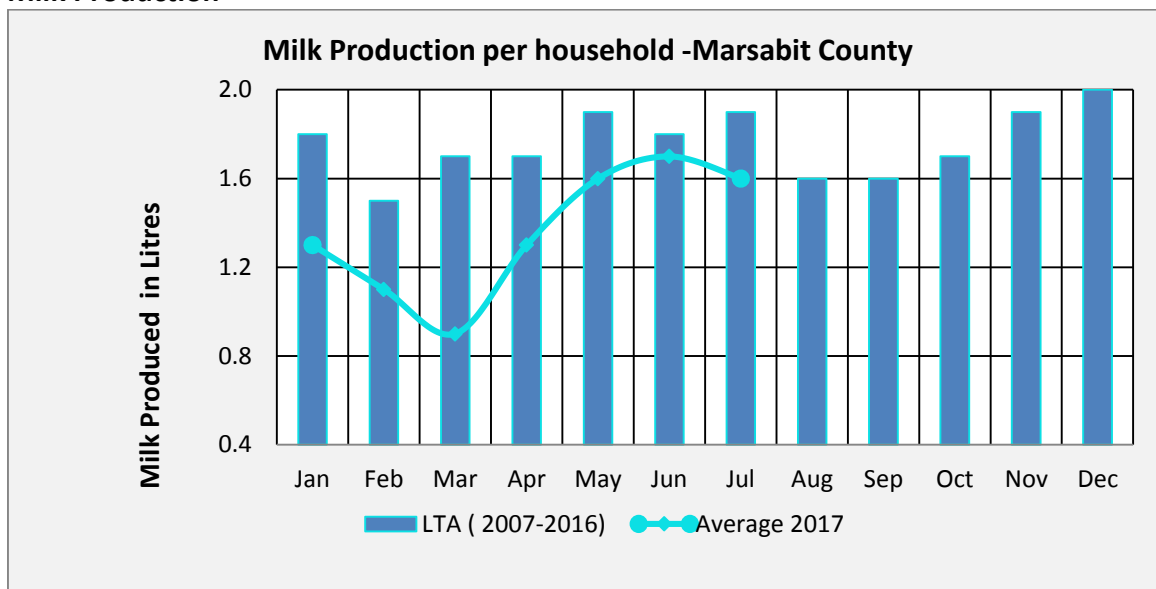
3.1.2 Livestock Migration

- Massive livestock migration reported from Isiolo County (Waso) to Saku, Badanrero, Laqi and Amballo. In-migration from southern Ethiopia to Badan-Rero, Bori and Laqi, Wajir to Moyale was noted. Other in-migration routes were from Samburu County to the southern parts of Marsabit County.
- About 70 percent of the livestock have migrated to satellite camps while only 30 percent have remained in homesteads (mostly milking herds).
- Out migration routes include Malabot to Sabare and Tao in southern Ethiopia. Most livestock from North Horr are concentrated around Darade, Bulluk, Hurri Hills, Dukana, Shurr and Hawaye, Lalesa 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 and Saku sub-counties will lead to drastic depletion of forage and water sources.

3.1.2 Livestock Diseases

- In the month under review, there were no reported cases of livestock disease outbreak across the county. There were cases of Lumpy Skin Disease for cattle, diarrhoea in goats in Farakoen, Contagious Caprine Pleuropneumonia (CCPP), and Contagious Bovine Pleuro-Pneumonia (CBPP) in Moyale, PPR in Karare and Laisamis and across the county.

3.1.3 Milk Production



- In the figure shown above, average milk production at household level per liter was 1.6. When compared to the preceding month, there was no significant decline in milk production per household. In comparison to a normal period, milk production was 16 percent below normal. Milk produced was majorly from the Agro-pastoral areas.
- The below normal milk production per household in the agro-pastoral zone was attributed to minimal calving for all livestock species as a result of the previous drought which prevented the pastoralists from breeding most of their livestock.
- Below normal milk production led to an upsurge in milk prices and was retailing between Ksh.100-120 per litre.

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.

3.2.2 Stage and Condition of food Crops

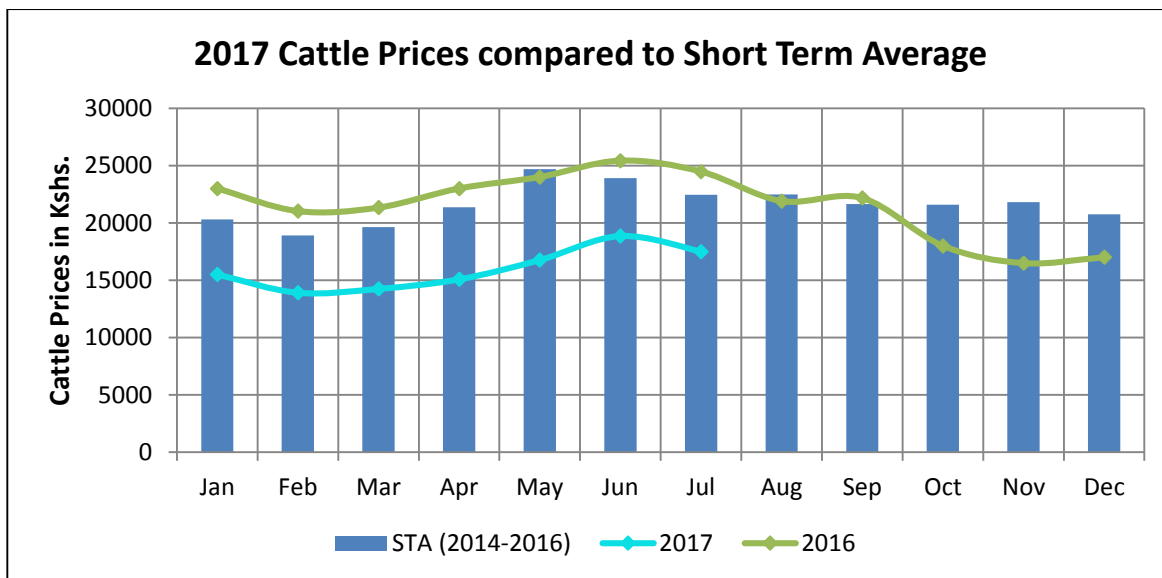
- Below normal production realized for beans, maize and green grams are attributed to: Inadequate and poorly distributed rainfall, reduced acreage cultivated under food crops, late planting that led to withering, expensive farm labour which resulted to untimely weed control, invasion of army worms and maize stalk borer on maize plantation, and massive crop destruction by elephants in Karare ward in Saku sub-county.

- However, significant variations were noted in various areas within the same agro-pastoral livelihood zone. For instance, fair harvest was realized in areas like Uran, Sololo, Mado adhi, Wahedodha, Songa and Badassa whereas Kubi Bagassa, Goro Rukesa, Parkishon, Bori, Godoma recorded dismal harvests.

4.0 MARKET PERFORMANCE

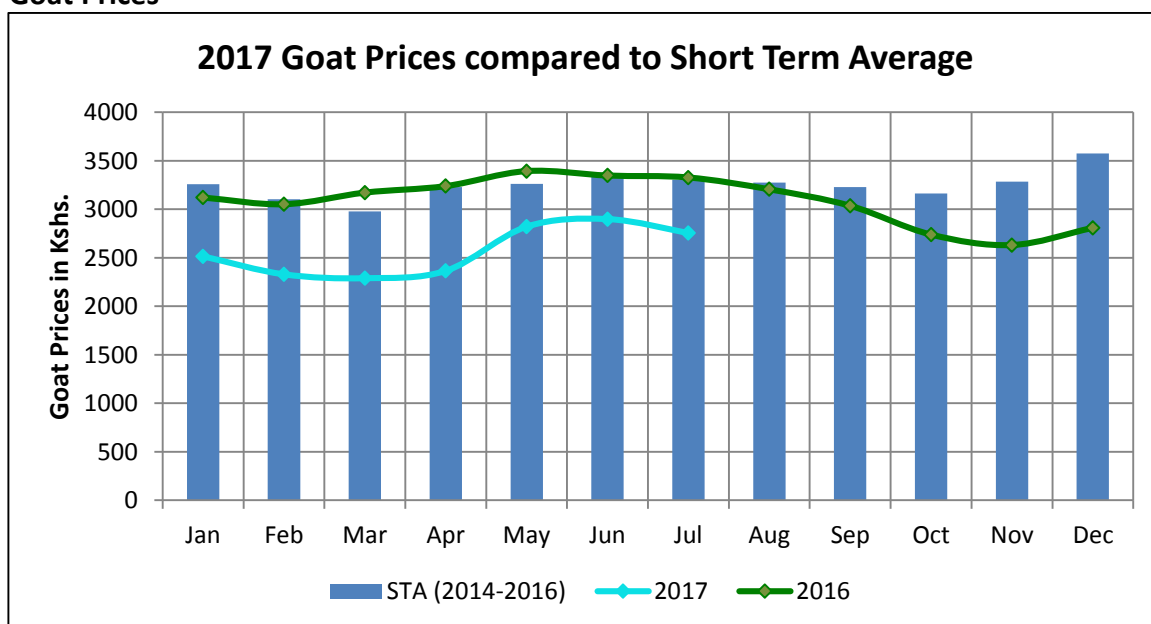
4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices



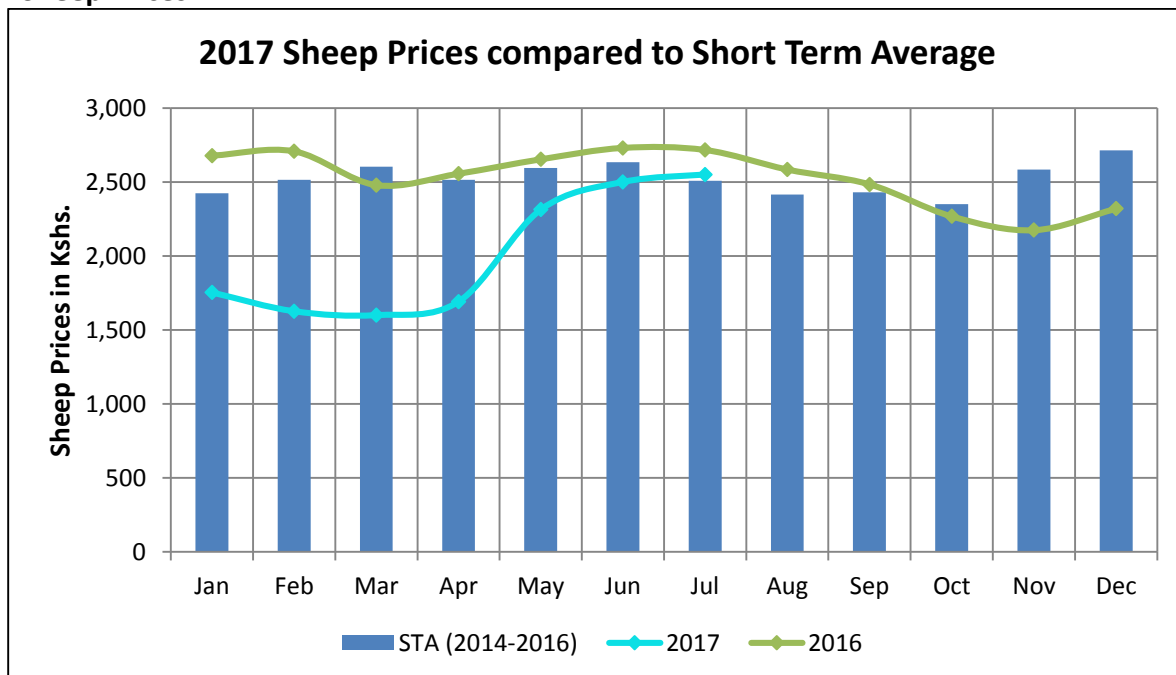
- From the figure shown above, average cattle prices slightly from Kshs.18, 857 in the preceding month to Kshs.17, 500 in the month under review across the livelihood zones. Declining cattle prices was attributed to deteriorating cattle body condition majorly in the Pastoral livelihood zone.
- When compared to the short term average price of Kshs.22, 470, current average cattle price was 22percent below normal.

4.1.2 Goat Prices



- The figure shown above exhibits average price of a medium sized goat at Kshs.2, 755 in the month under review hence no significant change in goat prices for three consecutive months.
- However, when compared to a normal price of Kshs.3, 305, the current goat price is 17percent below the short term average price.
- In the livestock market of Merille and Moyale the prices were favourable at Ksh. 3,000 as opposed to the pastoral zones of North Horr sub-county which posted unfavourable goat prices due to the severe drought situations that impacted negatively on the body conditions of the livestock.

4.1.3 Sheep Prices

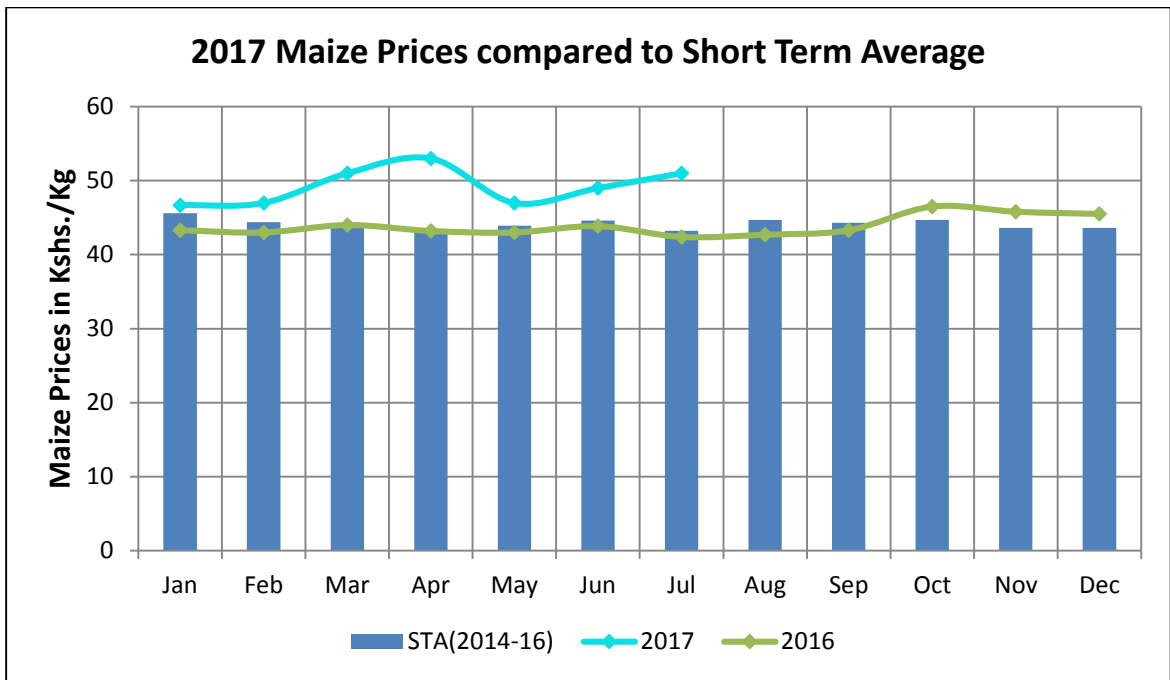


- From the figure shown below, average selling price of sheep in the month under review was Ksh2, 550. When compared to sheep price of Kshs.2, 500 recorded in the preceding month, there was no change noted.
- When compared to the short term average price of Kshs.2507 the current sheep price is 5 percent below the short term average.

4.2 CROP PRICES

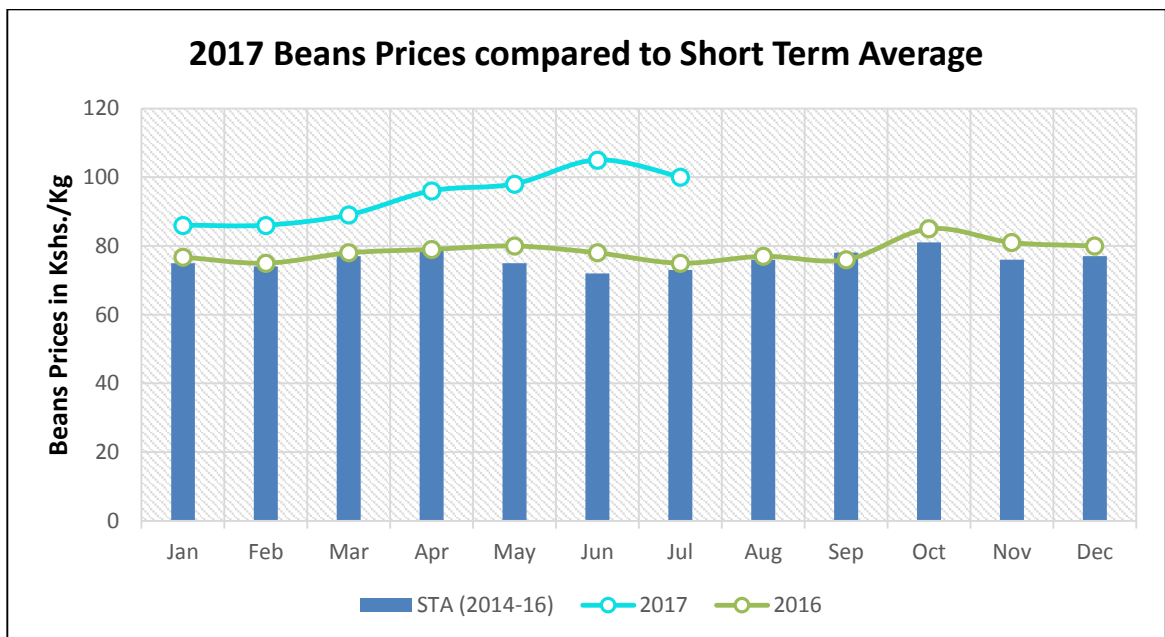
4.2.1 Maize

- From the figure shown below, average price of maize for the month under review was Ksh.51. When compared to the preceding month, there was no notable change in maize prices from the preceding month of Kshs.49.
- When compared to the short term average price of Kshs.43, the current maize price is 19% above the normal price.
- Above normal maize prices were mainly attributed to near maize failure in the Agro-pastoral areas of Moyale and Saku sub-counties.
- High maize prices were noted in Elmolo, Farakoen, Malabot, Turbi, Loyangalani and Kargi with prices averaging at Kshs.60/kg.

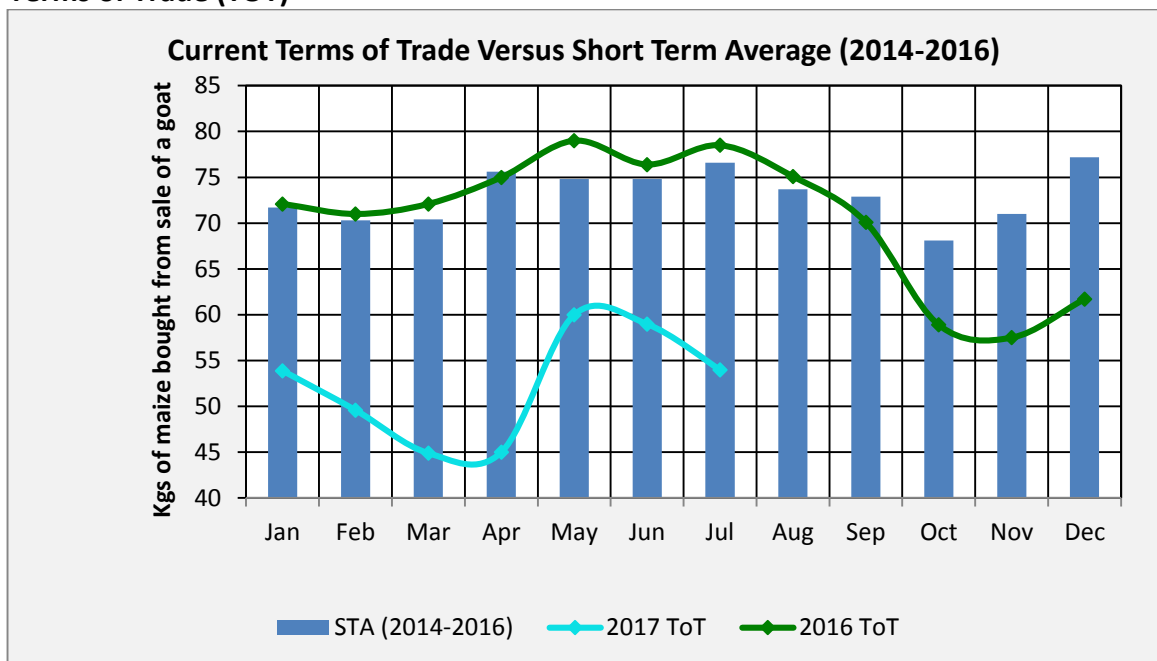


4.2.3 Beans

- From the figure shown below, the average beans price was retailing at Kshs.100. When compared to the preceding month, beans prices slightly declined from Kshs.105.
- Beans prices were favourable in Moyale Township, Sololo, Marsabit Town and Turbi town because of 5percent harvest of beans and improved supply from neighbouring Ethiopia and Meru.
- Higher beans prices were noted in Elmolo, North Horr, Korr, Kargi, Farakoen and Malabot with beans prices averaging between Kshs.120/kg.
- The current average beans price of Kshs.100 is above the short term beans price by 37 percent.

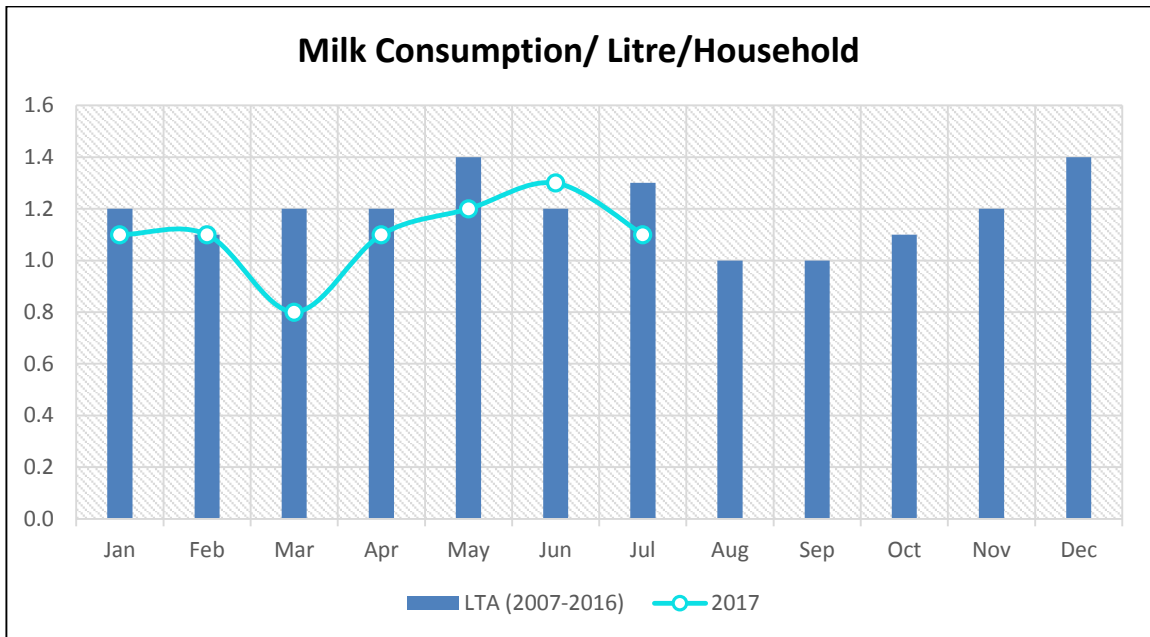


4.3 Terms of Trade (TOT)



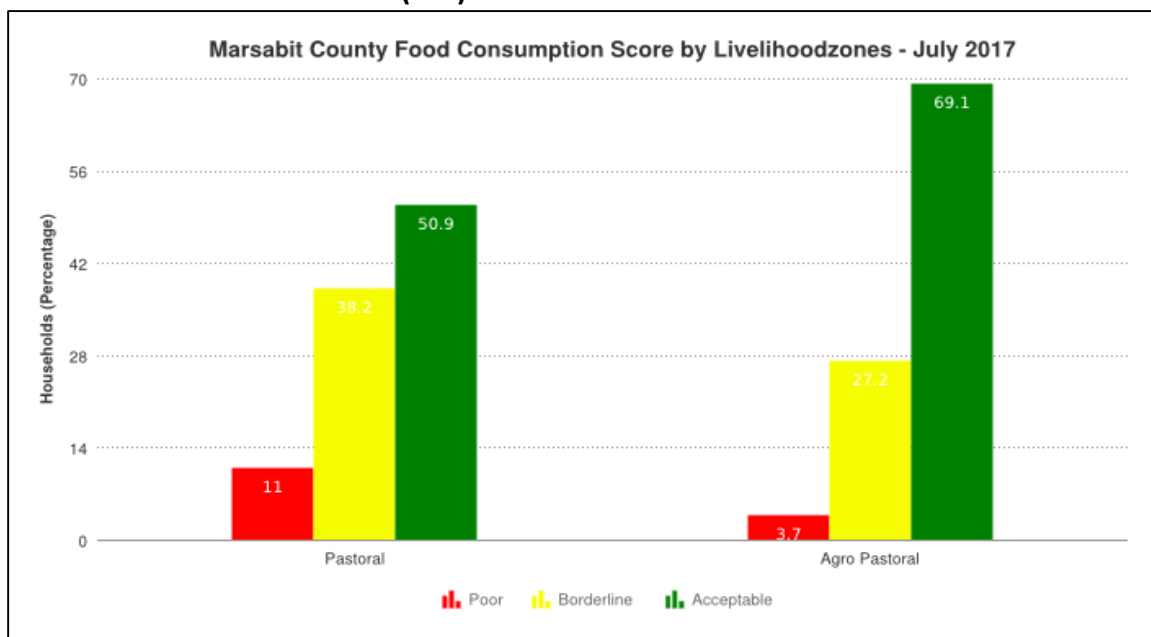
- Terms of trade declined and was unfavourable at 54. The terms of trade declined from 59 recorded in the preceding month to 54 in July due to slight increase in maize prices. Therefore, pastoralists derived less quantities of maize from a sale of a goat when compared to a normal season.
- When compared to a normal period, the current terms of trade is 30percent below the short term average .
- Unfavourable and below normal terms of trade from January to July 2017 was due to the severe drought witnessed coupled with near maize failure from the long rains harvest.
- Terms of Trade is expected to worsen further because the body condition of goats is expected to deteriorate hence unfavourable and low goats' prices.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS
5.1 MILK CONSUMPTION



- From the figure shown above, average household milk consumption declined from 1.3Litres in the preceding month to 1.1Litres in July across the Agro-pastoral livelihood zone. However, in most of the Pastoral livelihood zone there was near to zero milk consumption at the household level.
- When compared to the long term average household milk consumption of 1.3Litres, current household milk consumption is lower by 15 percent.
- Milk consumption gradually declined mainly in the Agro-pastoral livelihood zone of Saku and Moyale sub-counties.
- Declining milk consumption at household level was attributed to no notable change in milk production due to below normal vegetation cover and longer livestock trekking distances.

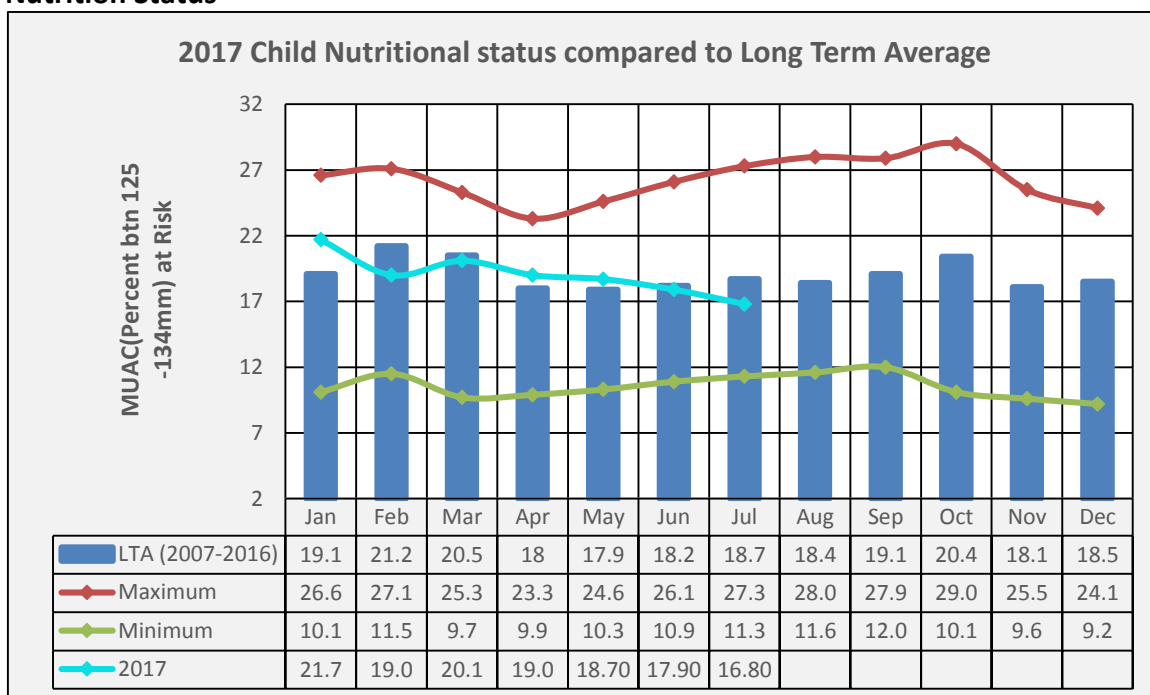
5.2 FOOD CONSUMPTION SCORE (FCS)



- From the figure shown above, in the Agro-pastoral livelihood zone; proportion of households that were within the poor, borderline and acceptable food consumption group categories were 3.7percent, 27.2percent and 69.1percent respectively. When compared to the Pastoral livelihood zone, 11percent, 38.1percent and 50.9percent of the households had poor, borderline and acceptable food consumption scores respectively.
- Hence households in the Agro-pastoral livelihood zone had better food consumption groups than those in Pastoral livelihood zone hence more food secure.
- The mean food consumption score for the month under review was 21.7 across the livelihood zone falling within the borderline food consumption score band hence depicted no significant improvement when compared to food consumption score of 21.5 recorded in the month of June.
- Food consumption score was better in Agro-pastoral than Pastoral livelihood zone with a mean of 23 and 20 respectively.
- Households in the Agro-pastoral livelihood zone had better food consumption score than those in the Pastoral livelihood zone because of paltry harvest of beans and maize in addition to petite milk consumption.

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 17.9percent in June to 16.8percent in July due to ongoing massive nutritional interventions and HSNP 11 unconditional cash transfers across the county. When compared to the long term average, current MUAC levels are within the normal range.
- Higher malnutrition rates amongst under-fives were recorded in Laisamis sub-county where 29.2percent of the under-fives were 'at risk' of malnutrition. Notable improvement

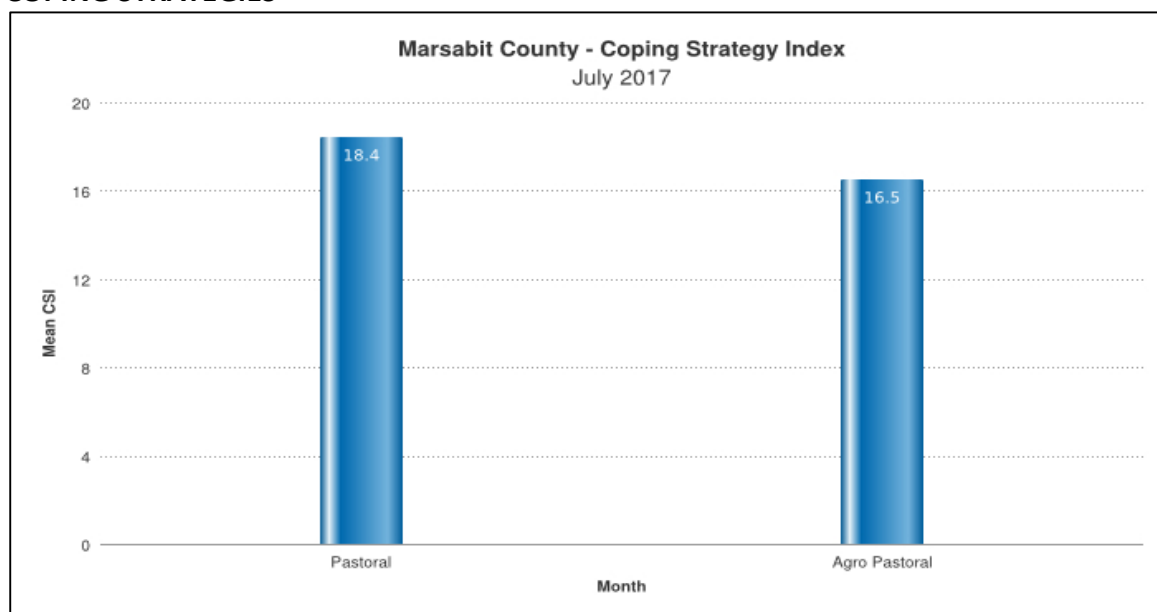
was recorded in North Horr sub-county due to the ongoing blanket supplementary feeding program.

- Lower malnutrition rates amongst the under-fives in Moyale and Saku sub-counties 10.1percent and 1percent respectively due to favourable environmental indicators and paltry improvement in production indicators.
- From the SMART survey results, Global Acute Malnutrition (GAM) prevalence for the county based on the weighted average was 16.9 percent which classifies the county as Critical, Nutrition IPC Phase 4. However there were significant variances across the sub counties. North Horr had a GAM of 31.0 percent which is IPC Phase 5: Extremely critical.
- Laisamis GAM was 24.8 percent IPC Phase 4: Critical, Moyale GAM of 5.4 percent IPC Phase 2 and Saku 7.5 percent IPC Phase 2. Notably, there was an increase in GAM prevalence in North Horr compared with the same period last year when 22.8 percent was recorded.

5.3.2 Health

- There were no reported cases of human disease outbreak. However, 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 17.9. Coping strategy index slightly declined from 23.1 noted in the previous month. Hence households employed less severe and irreversible coping mechanisms. Agro Pastoral livelihood zone recorded a coping strategy index of 16.5 in comparison to the 18.4 in Pastoral zone hence household in Pastoral zone were more food insecure.
- Proportion of households who employed coping strategies in the month under review was 70 percent and this was a decline from the 79 percent recorded in the previous month.
- Notable consumption based coping strategies were 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 NDMA, World Food Programme, County Government, Concern WorldWide, 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

- 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, UNICEF 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.

7.0 EMERGING ISSUES

7.1 INSECURITY/CONFLICT/HUMAN DISPLACEMENT

- Insecurity cases were reported in Illeret.

7.1 FOOD SECURITY PROGNOSIS.

- The food security situation is expected to further worsen in the Pastoral livelihood zone of North Horr and Laisamis sub-counties. The food security situation in the county is projected to deteriorate across all livelihood zones. Households maize stocks are expected to decline as the harvest was a paltry five percent of the long term average maize harvest in addition to dismal beans harvest. Households' dietary diversity is projected to remain stable. As most open water sources are expected to dry as the long dry spell persists, pasture and browse condition will probably depleted.
- Livestock body condition is expected to deteriorate across all the livelihood zones due to expected forage depletion. The terms of trade is expected to worsen further with the expected fall in goat prices and high maize prices due to near maize harvest failure from the long rains harvest. Markets are expected to a major limitation and poor environmental management and regulation will predisposes the county to further climatic shocks. Food security situation is likely to deteriorate in the Agro-pastoral areas of Moyale and Saku sub-counties due to massive in-migration of livestock from Isiolo County, Wajir County, southern Ethiopia and North Horr sub-county.

- North Horr and Laisamis will probably be the mostly affected by food insecurity situation, water shortage, frequent socks, poor access to health services compounded by perennial drought episodes. Drought will continue to impact heavily on the livelihoods of the communities. While communities will continue engaging in other forms of livelihood opportunities, expected earnings will be less in terms of economic returns.
- Households are expected to employ irreversible and more severe coping strategies as the long dry spell continues. Nutrition amongst under-fives is expected to improve due to intense 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 drought from expected decline in food security situation of households across the county.

8.0 RECOMMENDATIONS

- Support preparedness program for the current long dry spell and emergency borehole rapid response team.
- Procurement of major spare parts for rehabilitation and repair of existing genset and continued water trucking to worst affected areas.
- Coordination of Nutrition technical working groups(SCNTF, CNTF)
- Initiation of commercial livestock offtake, provision supplementary feeds and livestock vaccination in some critical pockets of North Horr and Laisamis sub-counties.
- Urgent roll-out of blanket supplementary feeding program in Laisamis sub-county.
- Coordination of cash transfers programmes undertaken by various implementers.