

# National Drought Management Authority

## MARSABIT COUNTY

### DROUGHT EARLY WARNING BULLETIN FOR JANUARY 2017



A Vision 2030 Flagship Project



#### JANUARY EW PHASE: ALARM



#### Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Agro-pastoral	Alarm	Worsening
Pastoral All species	Alarm	Worsening
Fisherfolk/ Casual labour /Petty Trading	Normal	Stable
County	Alarm	Worsening
Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	0	80 -120
VCI-3Month	11.87	>35
Forage condition	poor	Good
Production indicators	Value	Normal
Crop production (Maize)	Poor	Good
Livestock Body Condition	Poor	Good
Milk Production	14	>14Litres
Livestock Migration Pattern	Not Normal	Normal
Livestock deaths (from drought)	Deaths reported	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	53.5	>71.7
Milk Consumption	9	>9 litres
Return distance to water sources	5.4	< 3.6 Km
Cost of water at source (20 litres)	0-5	<5 Ksh
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	21.9	<23.3
Coping Strategy Index (CSI)	1.8	<1.5

#### Drought Situation & EW Phase Classification

##### Biophysical Indicators

- **Rainfall report:** No amount of rainfall were recorded in Marsabit and Moyale Stations.
- **Vegetation condition;** Pasture and browse condition is fair in agro pastoral livelihood and poor in most areas in pastoral livelihood zone as confirmed by VCI which shows severe vegetation deficit for County.

##### Socio Economic Indicators (Impact Indicators)

- **Production indicators;** there was total crop failure in agro pastoral livelihood zone. Livestock body condition is fair in agro pastoral livelihood zone and fair to poor in pastoral livelihood for all the species
- Milk production has significantly reduced in all livelihood zones. Livestock Migration patterns is not normal. In and out migration was reported in the County. Livestock deaths as a result of drought have been reported.
- **Access indicators;** Terms of trade has significantly reduced due to decrease in goat prices. Return distance to water sources for human depict significant increase in January. Milk consumption has decreased especially in all livelihood zones. Cost of water (20 litres) is within normal ranges of Ksh 0-5.
- **Utilization Indicators;** malnutrition levels in the County was 21.9% children less than 5 years at risk of malnutrition. Coping strategies index has stabilized when compared to last month although still remains above the normal ranges.

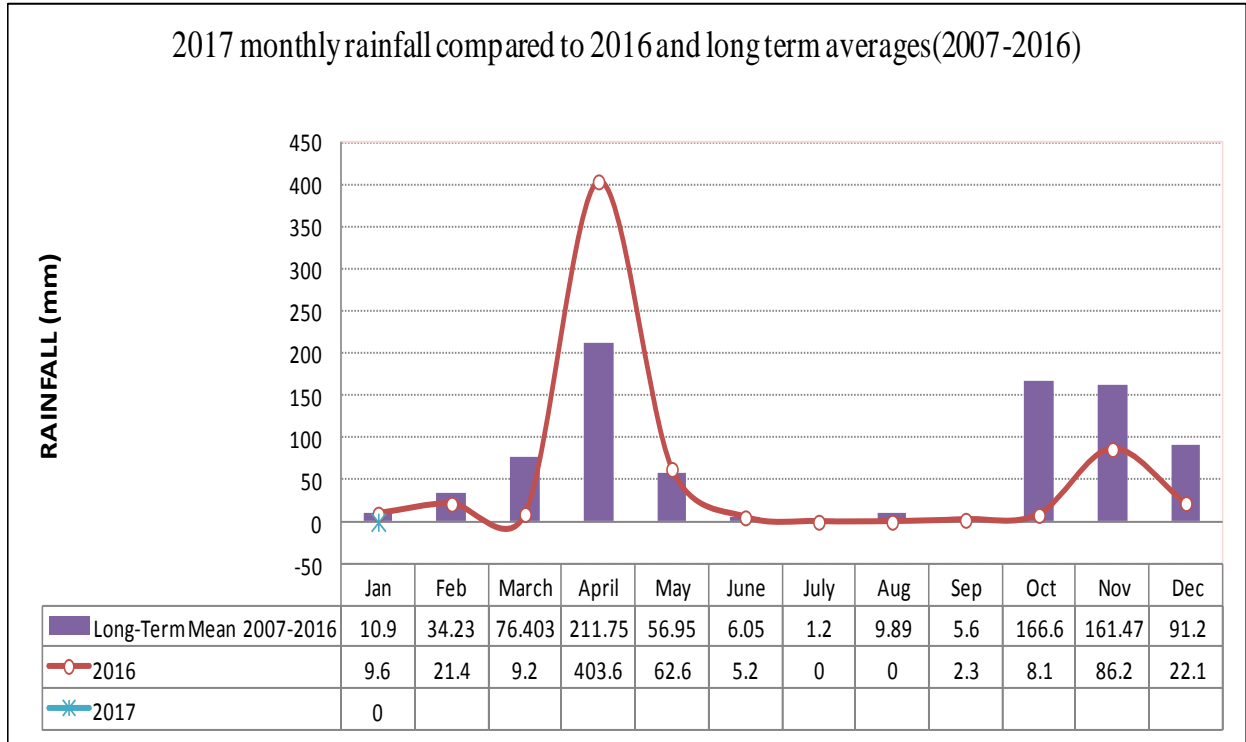
<ul style="list-style-type: none"> <li>▪ Short rains harvests</li> <li>▪ Short dry spell</li> <li>▪ Reduced milk yields</li> <li>▪ Increased HH Food Stocks</li> <li>▪ Land preparation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Planting/Weeding</li> <li>▪ Long rains</li> <li>▪ High Calving Rate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

**Seasonal Calendar**

# 1. CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

The graph below shows 2017 rainfall recorded in the Marsabit and Moyale Station and compared to 2016 as well as long term average.



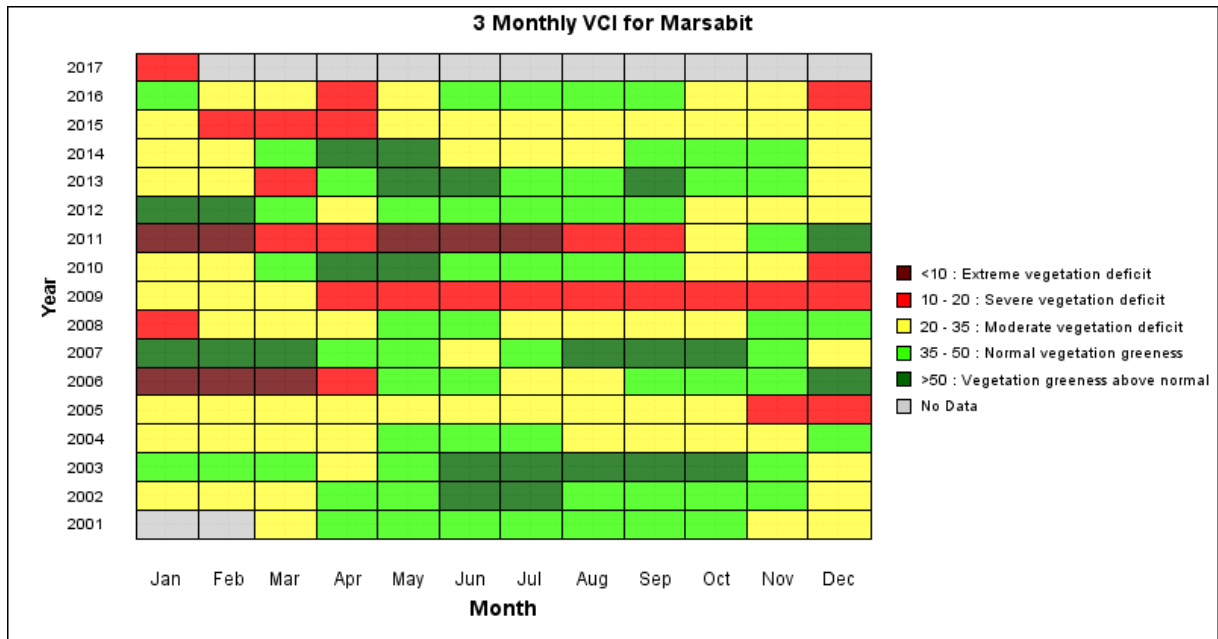
No rainfall was recorded in the Marsabit and Moyale stations. The county remained dry throughout the month.

## 2. IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

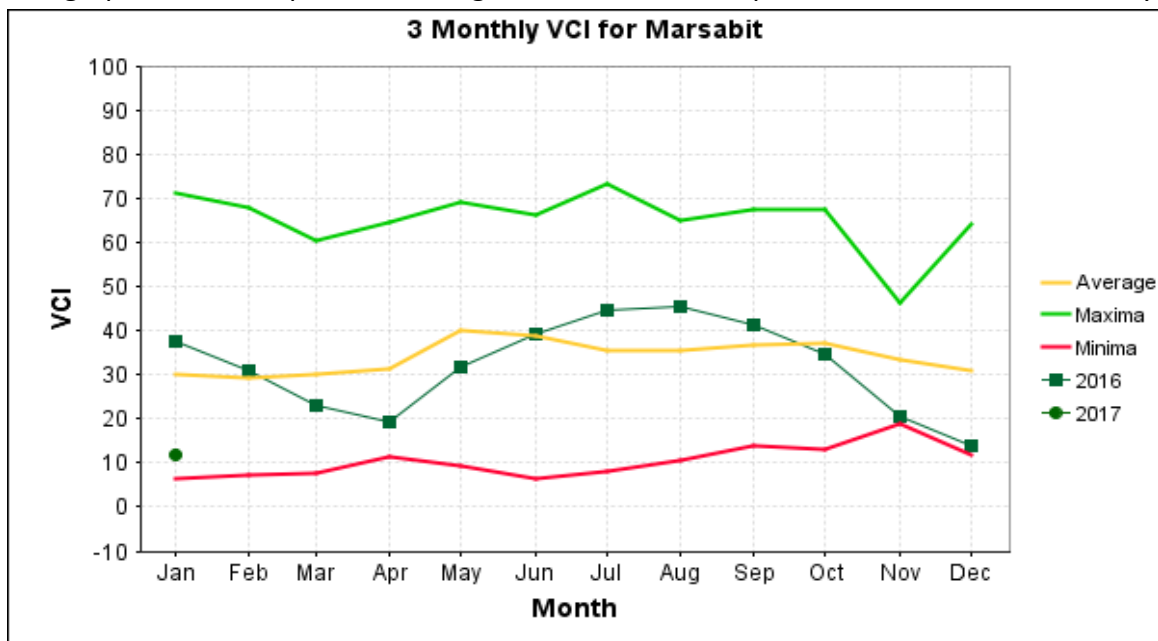
#### 2.1.1 Vegetation Condition Index (VCI)

- The matrix below shows VCI trend 2017 and long term average. The overall vegetation condition for the county is worsening as confirmed by VCI Index.



- The overall Vegetation Condition Index for the County in January was 11.87 placing the County in Severe vegetation deficit band. All the sub counties are also in severe vegetation deficit category apart from North Horr which is in severe vegetation deficit band.

The graph below compares 2017 vegetation condition to previous seasons in the County



- It can be observed that VCI has been decreasing from August 2016. VCI for the month is below the long term average and close to the minimum value ever recorded signifying a worse situation compared to similar periods which is not normal.

### 2.1.2 Pasture

- In agro pastoral livelihood zones of Saku and Moyale, pasture is fair to poor and poor in pastoral livelihood zone. Pasture is completely depleted in some places in the pastoral livelihood zone such as Forakoren, Gas, Mbarambate, Qorqa, Kargi, Kurkum, El-hadi, Balesa, Funan-Kumbi, Burgabo, Ambalo, Dabel and Dukana which was not normal. This is attributed to poor regeneration of the rangelands and overstocking.
- The quality and quantity of pasture is below normal which is not normal at this time of the year and season.
- Where little pasture is available in areas such as Mt. Marsabit, Hurri Hills, Shurr, Badanrero pastures are expected to last for one month

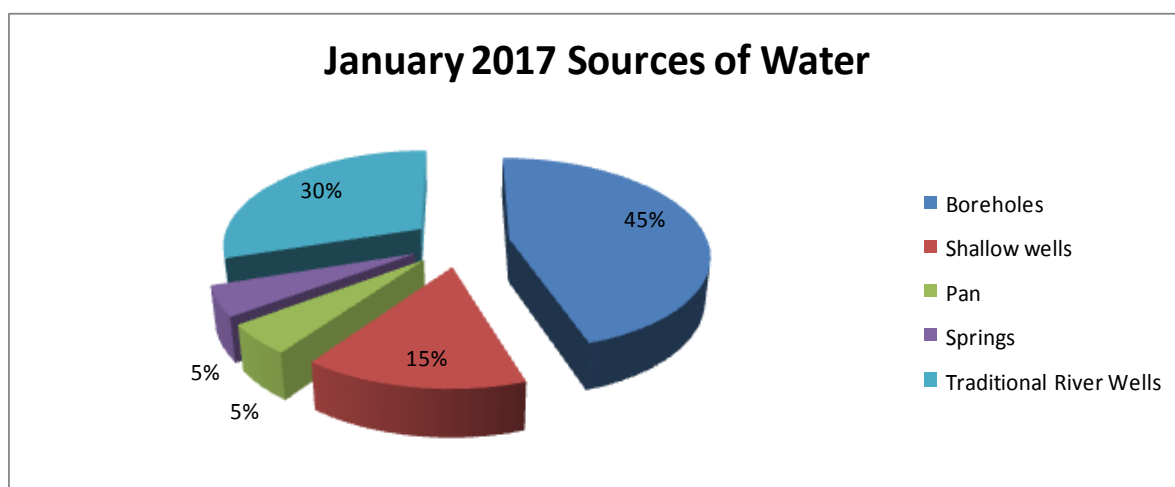
### 2.1.3 Browse

- Browse condition is fair in Agro pastoral and poor in pastoral Livelihood zones across the County. Browse has also been depleted in most areas especially North Horr and Laisamis.
- Browse condition is fair in Saku and Moyale Township as well as close environs but deteriorating in pastoral livelihood zone. This is due to poor rains received in the lowlands which had insignificant effect in pasture and browse regeneration.
- Browse is expected to last 1-2 months in Saku and Moyale townships (mainly agro pastoral areas) and one month in pastoral livelihood zones.
- The situation is below normal at this time of the year and season.

## 2.2 WATER RESOURCE

### 2.2.1 Sources

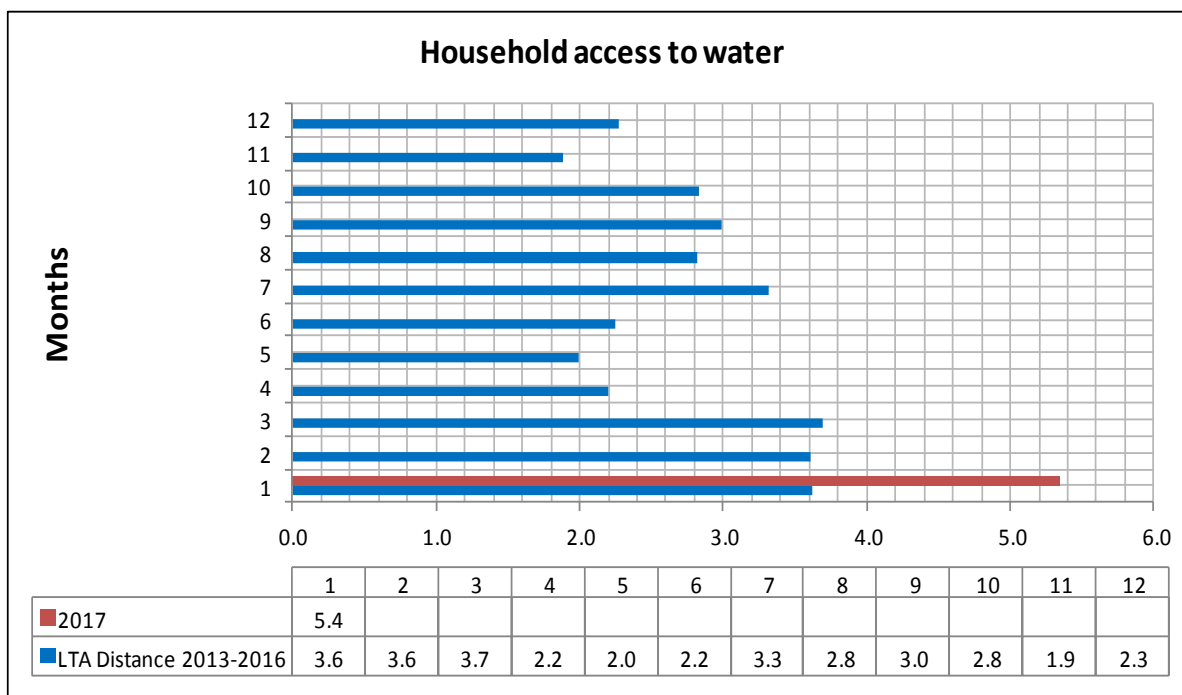
- The major water source for domestic and livestock use in the County in the different livelihood zones were boreholes. Other sources of water included Water pan, Traditional river wells, springs and shallow wells. The various water sources during the month were as showed in the pie chart below;



- Major water source for the month was boreholes while it's usually water pan at this time of the year. This is due to poor performance of short rains where some pans didn't accumulate water.
- 80% of the open water mostly pans are dry. None of the pans had recharged fully while others didn't recharge any water. The open water sources are expected to last for less than a month as most of than pan dried up.

### 2.2.2 Household access and Utilization

- The current average return distance from households to main water sources is 5.4 km while the same was 2.4 km in December 2016 depicting significant increase in distance to water sources. The average return walking distances are shown in the graph below;

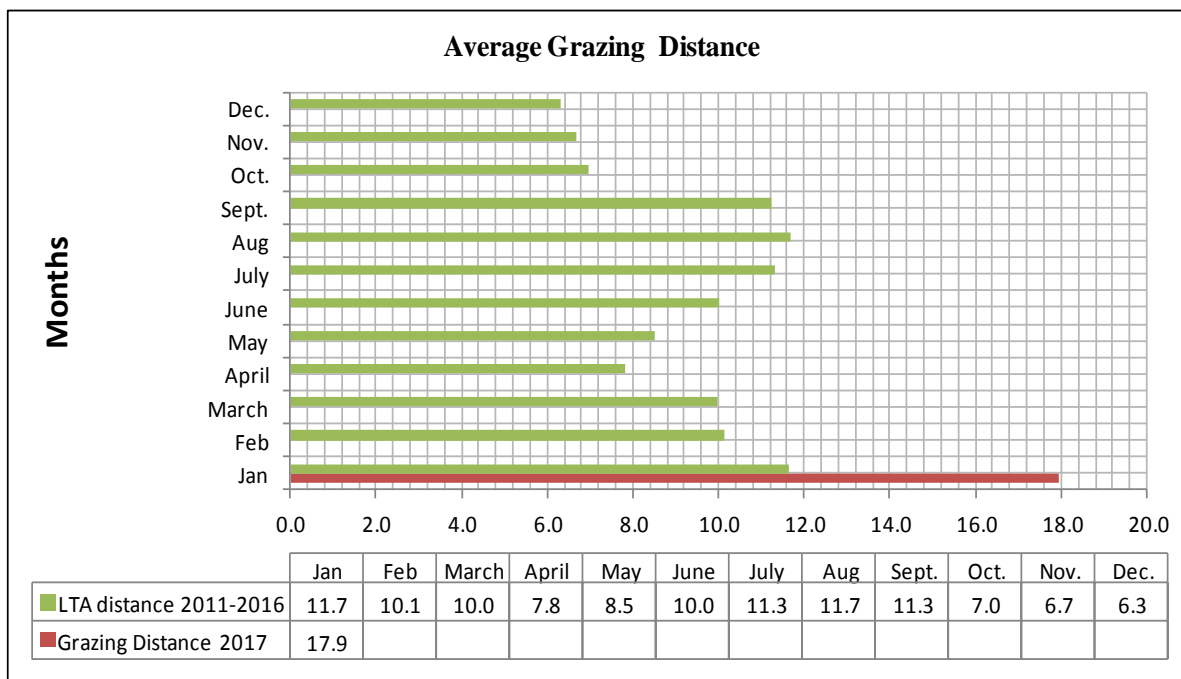


- The average return distance is 50% higher compared to the long term average which is not normal. In agro pastoral area of Sagante and pastoral areas of Farakoren, Lekuchula Tigo and Qattamurr among others, exceptional return distances of 20 to 24 kilometres were reported. Longer distances were attributed to the drying of pans countywide across all livelihood zones.
- Waiting time ranged between 60 to 120 minutes across all livelihood zone which is above the normal period of 20 to 30 minutes at this time of year. Exceptional high waiting times of 2 to 4 hours were reported in Sagante, Gatab and Elebor.
- Cost of water is Ksh 2-5 per 20 litre jerrican at the source. Vendors sell water for Ksh 20-40 per 20 litre jerrican especially at Marsabit and Moyale town. A higher cost of Kshs.50 to 70 per 20 litre jerrican was observed in the pastoral areas of Huri Hills, Elle Borr and QattaMurr where private water trucking is carried out by individuals. The situation is not normal when compared to previous seasons.

### 2.2.3 Livestock access

- The average distance from grazing areas to water points was 17.9 km depicting significant increase when compared to last month's 14 km.

The graph below compares trekking distances with short term average.



- Compared to short term average, distances from grazing areas to water sources are 53% higher which is not normal.
- The return trekking distances from grazing areas to water points were 50-70kilometres for camels, 20-30 kilometres for cattle and 15-25 kilometres for small stock in agro pastoral and pastoral livelihood zones.
- Watering frequency for livestock was 4 – 5 days for small stock and cattle, and 10 – 14 days for camels, which were not normal at this time of the year.
- The average waiting time at watering points was 6-8 hours for camel, 3-5 hours for both cattle and small stock with the exception of areas such as Luai, Arge, Burgabo, and El-Hadi where waiting times were up to 10 hours.

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- Livestock body condition was poor in sheep, cattle and goat while it was fair for camels in all livelihood zones which is not normal at this time of the year.
- Body condition is worsening in all the species attributed to insufficient pasture and browse availability as well as long trekking distances. In some areas such as Farakoren, Arge, Gas, Gatab, Burgabo, Dukana, Eleborr, Illeret, Barambate and Balesa livestock body condition was emaciated with deaths reported.

##### 3.1.2 Livestock Diseases

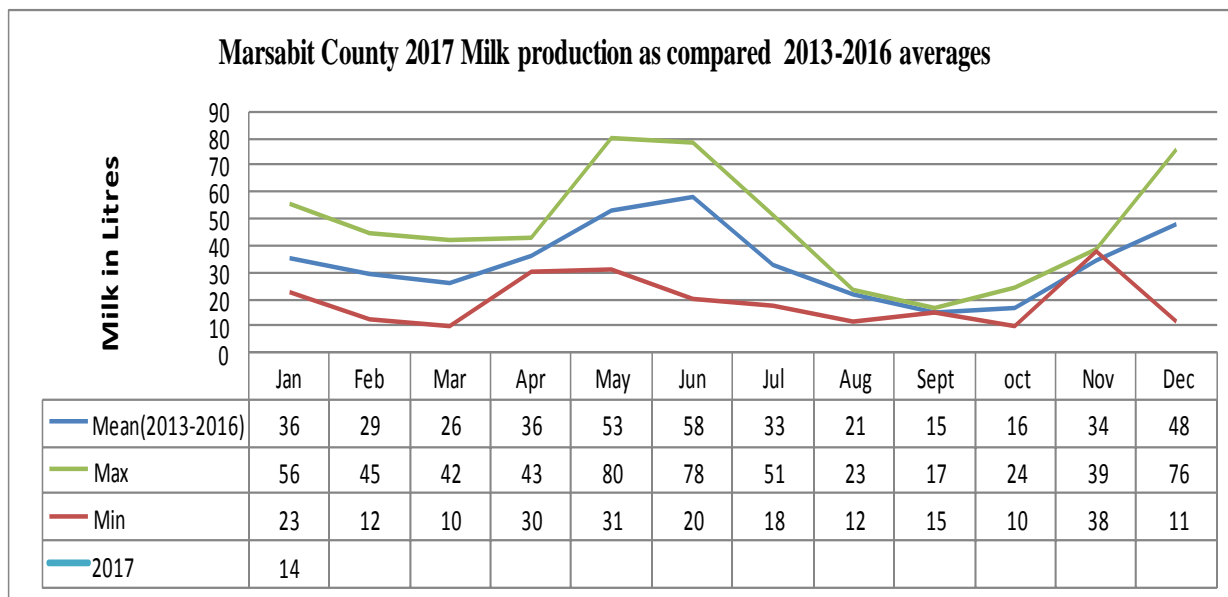
- There were no reported outbreaks of livestock diseases. However endemic diseases reported included, Contagious Caprine Pleuropneumonia (CCPP), Contagious Bovine Pleuro-pneumonia (CBPP) and Peste des Petits Ruminants (PPR) across the county. Foot and Mouth disease was reported in Songa, Karare and Mt. Kulal.

- Livestock mortality rates due to drought were 15-20 percent for small stock and 3-5 percent of cattle. However, in areas such as Gas, Dukana, Balesa, Barambate and Qorqa, mortality rates were approximately 25-30 percent.

### 3.1.3 Milk Production

- Milk production has slightly decreased when compared to last month. An average of 14 Litres was produced in the month under review compared to last month's 18 and 61% below normal ranges.

The graph below compares 2017 milk production to that of respective long term average.



**n= 330 HH**

- The production is mainly in Saku, Moyale and Turbi. Most parts in Laisamis and North Horr sub Counties didn't report milk production.

## 3.2 RAIN-FED CROP PRODUCTION

### 3.2.1 Stage and Condition of food Crops

- Total crop failure was reported in maize and 99% crop failure in beans. This is a result of poor performance of the short rains.

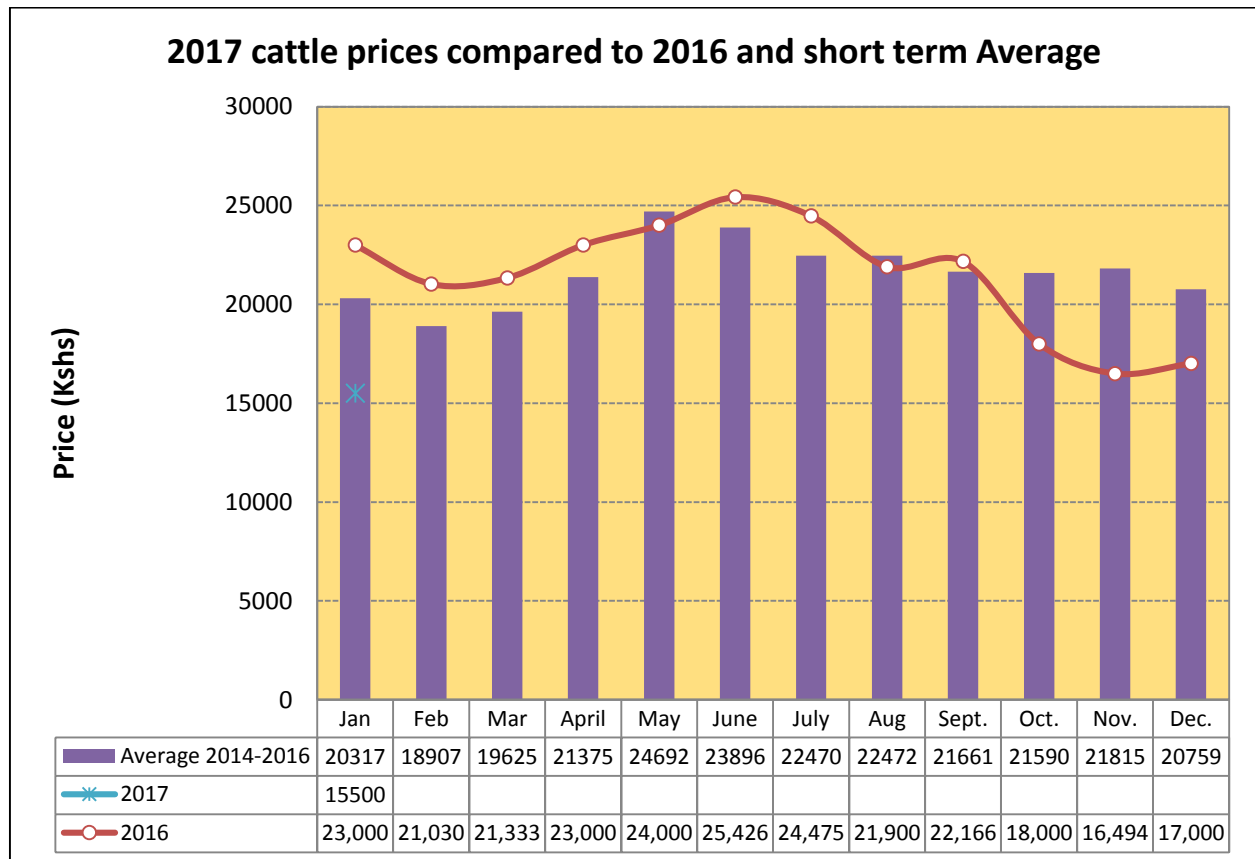
## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

- The average price of medium size cattle in the County was Ksh15, 500 while the same was sold at Ksh17, 000 in December 2016 showing price decrease.

The graph below compares 2017 monthly price with 2016 as well as three year price averages.



n=330 HH

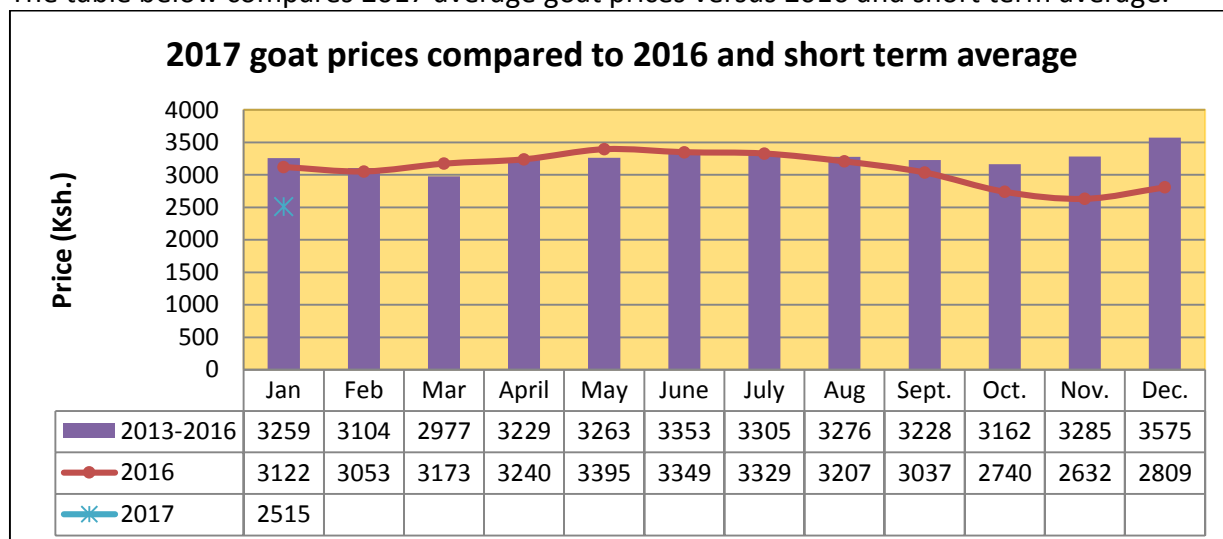
- January 2017 prices are lower than January 2016 and 24% below the short term average.
- Prices of medium sized cattle ranged between Ksh 15,000 -20,000 but were lower than Ksh 15,000 in some areas.
- Price decrease may be attributed to poor cattle body condition and lack of markets.



### 4.1.2 Goat Prices

Average selling price of a medium sized goat was Ksh 2,515 while the same was sold at Ksh2809 in December depicting price decrease of 10%.

The table below compares 2017 average goat prices versus 2016 and short term average.

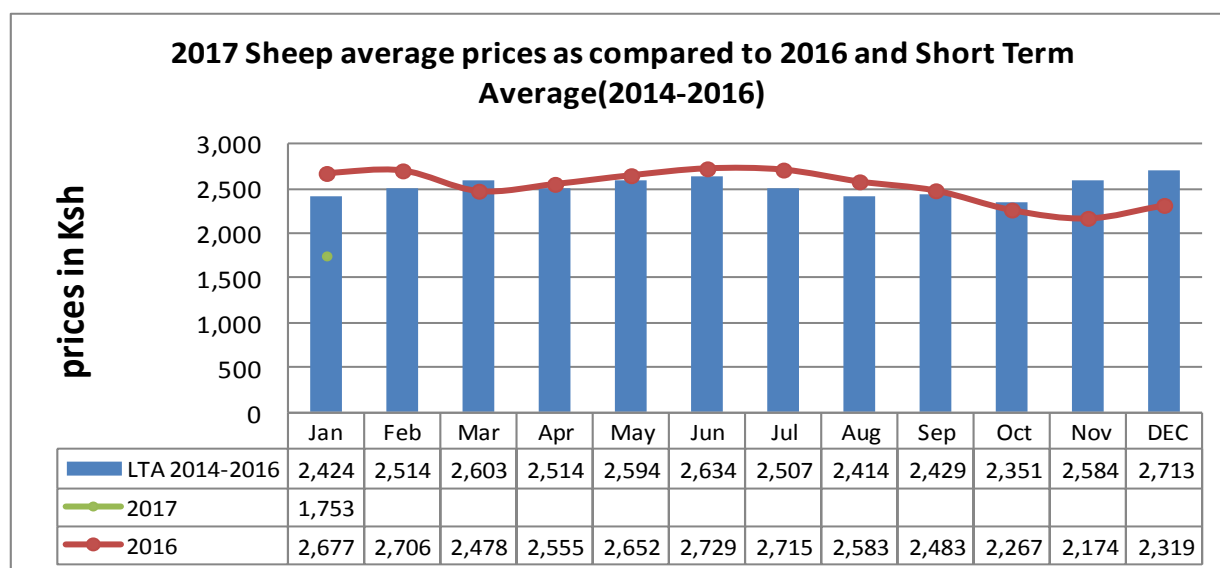


n=330 HH

- Highest goat prices were recorded in Moyale and Marsabit markets ranging between Ksh 2,500-3,000 while the lowest were noted in Balesa, North Horr, Loiyangalani and Dukana going for as low as Ksh 1,500.
- Comparing to the short term average, the price is 31% below the normal ranges, which is not normal at this time.
- Decrease in price may be attributed to poor body condition as most of the small stock are weak with high mortality rate

### 4.1.3 Sheep Prices

The graph below compares 2017 selling prices to 2016 prices as well as three years average.



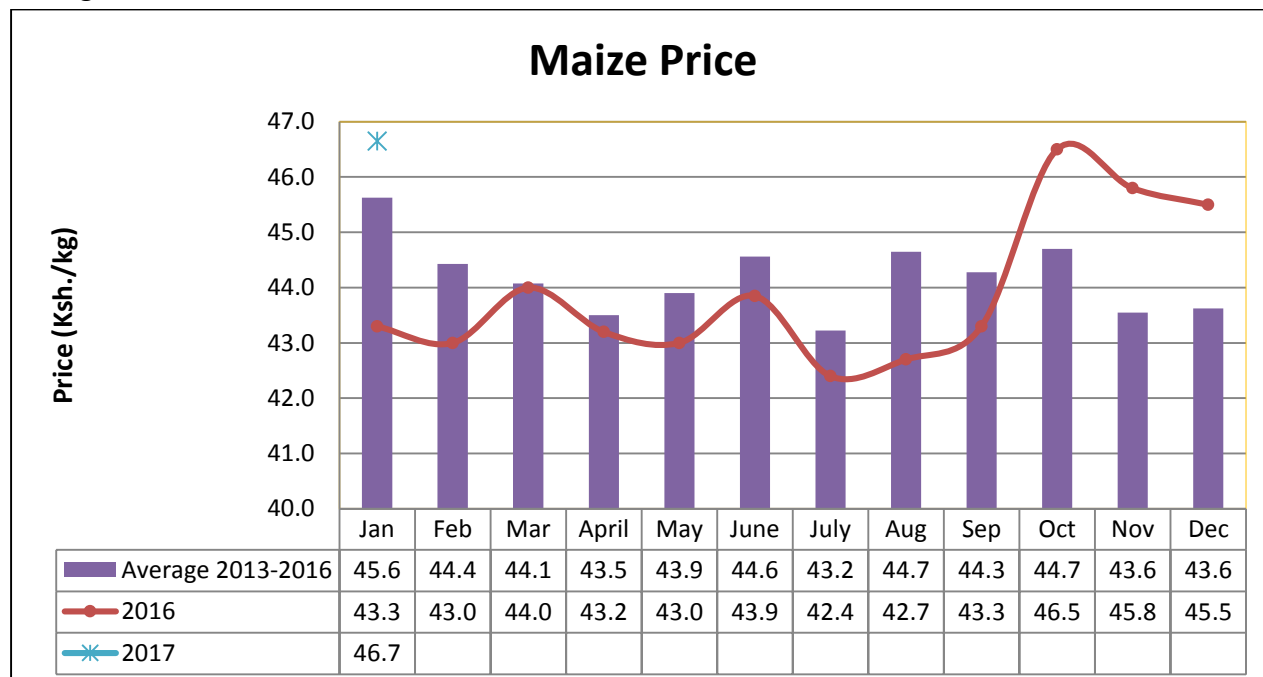
n=330 HH

- Average selling price of a medium sized sheep in January was Ksh1, 753 depicting a price decrease of 24% when compared to last month and 28% below the short term average.
- Price decrease may be attributed to sheep poor condition and low price at market.

## 4.2 CROP PRICES

### 4.2.1 Maize

The graph below compares the average monthly prices of maize in 2017 to 2016 and three year average.



n=330 HH

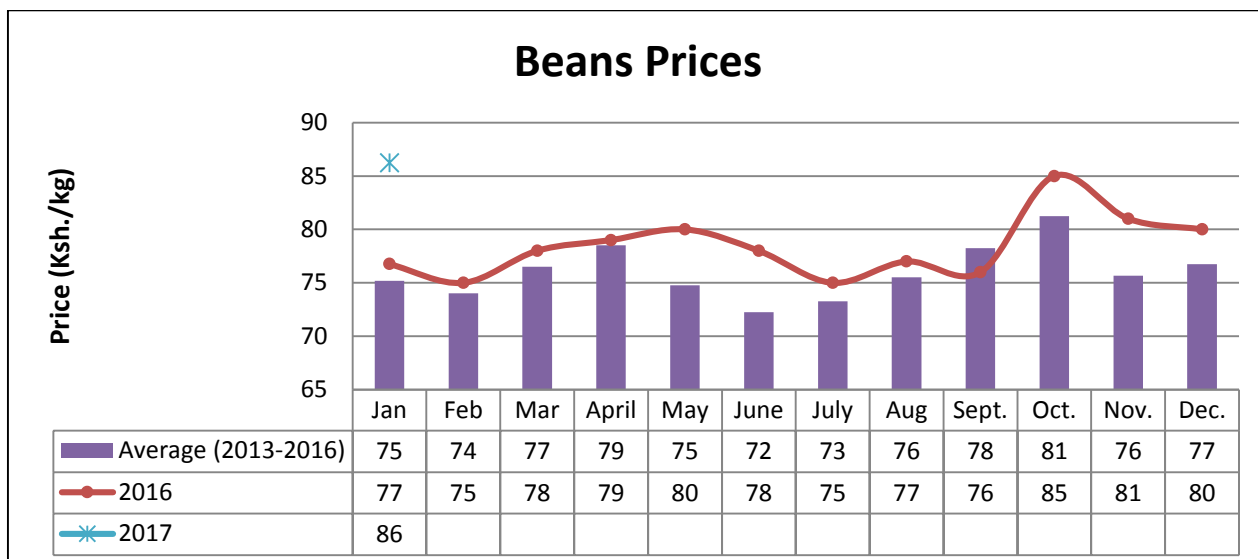
- Average Maize price in the month under review was Ksh 46.70 while the same was Ksh 45.50 in December depicting insignificant price change.
- Maize prices are stable although slightly above the short term average. However supplies are stable from major markets like Ethiopia, Isiolo and Meru.
- Lower maize Prices are noted in Saku (Agro pastoral Livelihood zones) and border towns of Moyale Central, Forolle, Elhadi and Dukana where a kilo goes for Ksh 30-40. Highest prices are recorded in Elmolo, Sarima and Olturot where a kilo goes for Ksh 60.

### 4.2.2 Posho (Maize Meal)

- The average price of Posho was Ksh 57 in January 2017 and retailed at Ksh 55 in December 2016 showing insignificant price increase. The price is stable in all major towns.

### 4.2.3 Beans

- The average price of a Kg of beans in January was Ksh 86 while the same retailed at an average of Ksh 80 in December showing significant price increase. The graph below compares 2017 beans prices to 2016 as well as three years average.

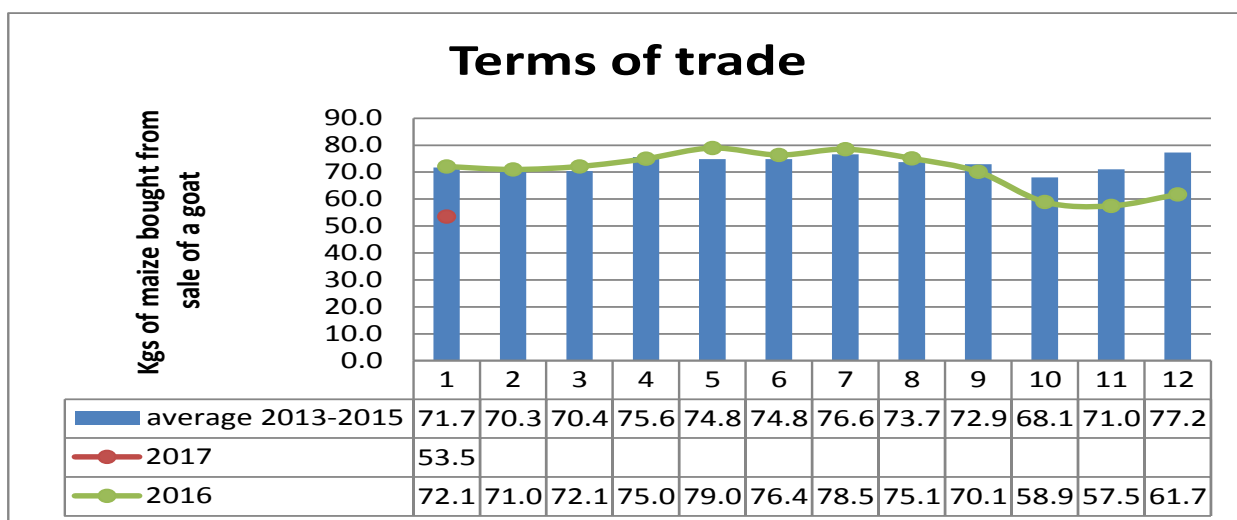


n=330

- Beans are cheaper in Marsabit and Moyale towns retailing between Ksh 60-70 and highest in Loiyangalani, Laisamis and Ngurnit where a kilo retails at Ksh 90-110.
- Compared to respective three year average, January 2017 prices are 15% above the normal ranges.
- However, food prices in far flung Manyattas/villages and villages are 20-30% much higher compared to the local market for the same commodities.

#### 4.3 Terms of Trade (TOT)

The graph below shows 2017 TOT compared to 2016 and corresponding short term average.



n=330 HH

- Households' terms of trade in the month under review were 53.5 while the same was 61.7 in December indicating a decrease of 13% in pastoralist purchasing power. When compared to short term average, January 2017 TOT is 25.4% below the short term average.
- Significant decrease in Terms of trade compared to short term average is attributed to decrease in goat prices and increase in maize price. This negatively affects pastoralists' food security and household income.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

- On average, Milk Consumption was very low in all livelihood zones and has continuously declined. This is due to decrease in milk production caused by livestock migration and poor body condition.
- Most of the urban population and other centres are depending on packet or powder milk from local kiosks.

### 5.2 FOOD CONSUMPTION SCORE

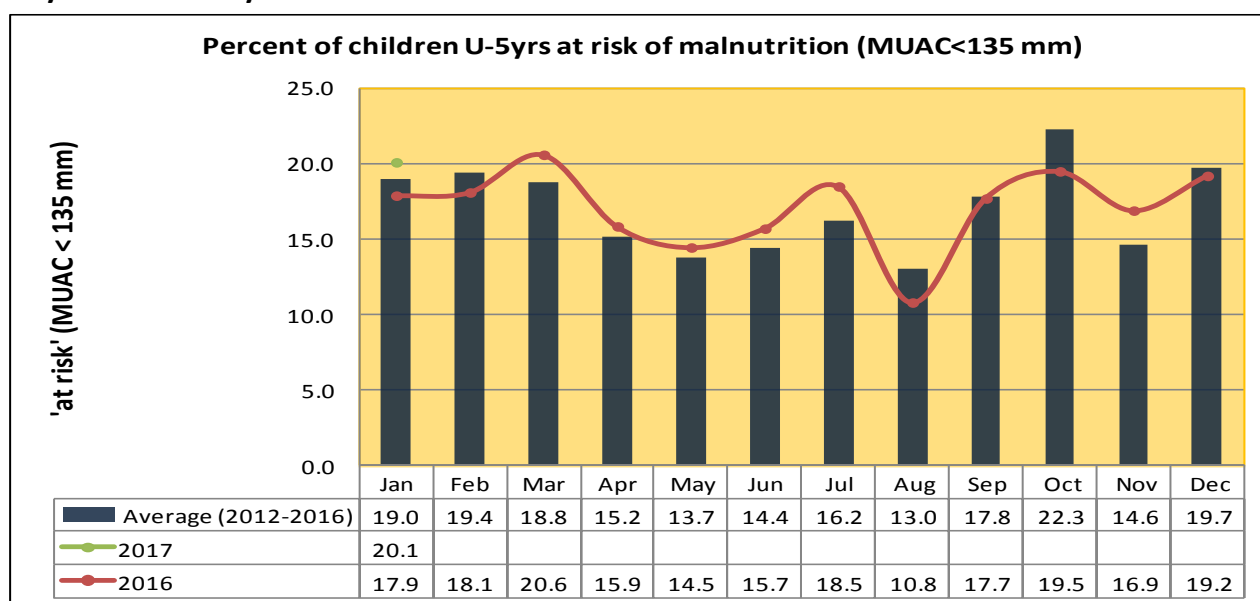
- Food consumption for poor and border line are 34 and 51 percent respectively. Currently, most households reported consuming one meal per day instead of the usual two meals per day. Children consumed two meals per day mainly porridge and one other meal in a day. The dietary diversity is poor with most households consuming only maize and occasionally beans, vegetables, and rice. Milk consumption is very low which negatively affects household food security situation.
- This is not normal for the month since milk is usually in plenty.

### 5.3 HEALTH AND NUTRITION STATUS

- At Marsabit a total of 700 children (6-59 months) were sampled where 335 were boys and 365 were girls and assessed for malnutrition using MUAC tape.
- From the sampled children, 21.9% were at risk of malnutrition (MUAC <135 mm) showing increase in children at risk of malnutrition when compared to last month.
- At Moyale Sub County a total of 340 children (6-59 months) were sampled where 162 were boys and 178 were girls and assessed for malnutrition using MUAC tape.
- From the sampled children, 20.1% were at risk of malnutrition (MUAC <135 mm).

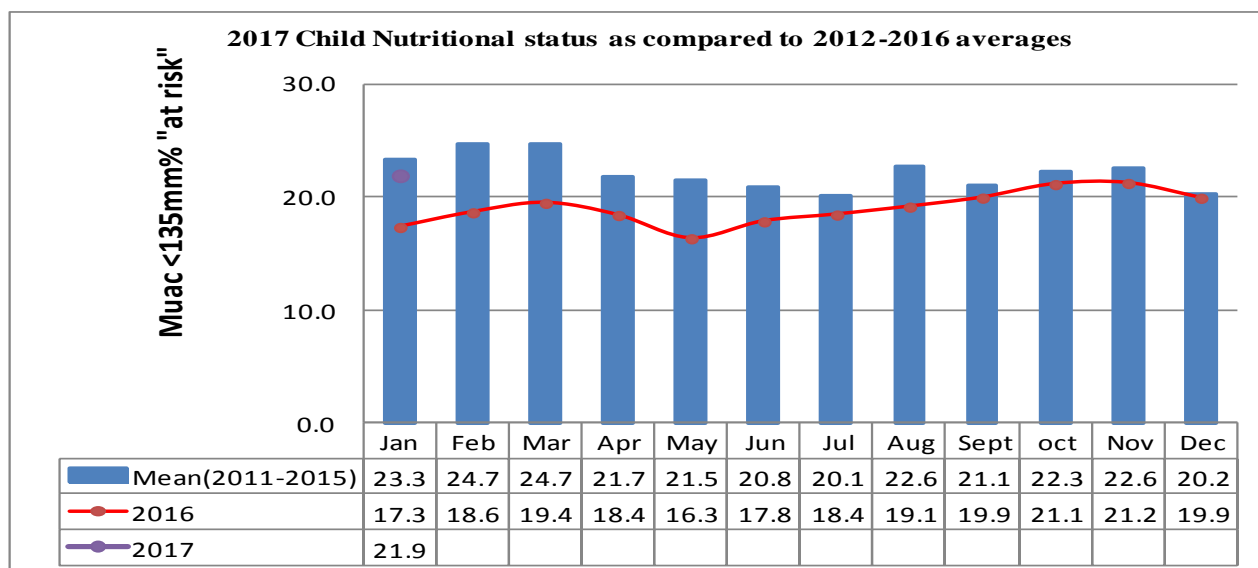
#### 5.3.1 Nutrition Status

##### Moyale Sub County



n=340

## Saku, Laisamis and North Horr Sub Counties



n=700 children

- Increase in children at risk of malnutrition is noted in the county. According to SMART survey (January 2017) GAM rates of 31.5 and 24.7 percent were recorded in North Horr and Laisamis Sub-counties respectively.

### 5.3.2 Health

- There were no diseases outbreaks reported during the period. The leading causes of morbidity for both children under five years and the general population for the month were; Upper Respiratory Tract Infections (URTI), diarrhoea, Pneumonia, eye infection and fever.

### 5.4 COPING STRATEGIES

The Coping Strategies Index (CSI) in January was 1.75 while it was 1.8 in December depicting slight improvement. The CSI is above the normal ranges which imply that households are frequently applying coping strategies this month compared to similar periods. CSI is higher in Pastoral livelihood zones than Agro pastoral Livelihood zones.

The main coping strategies currently employed were;

- Relying on less expensive and/or less expensive food.
- Borrowing food or relied on help from friends or relatives.
- Reducing the portion and number of meals eaten per day
- Reducing the quantity of food consumed by adults/mothers to ensure that children had enough to eat.
- Skip food for entire day
- Purchasing on credit.

## 6. CURRENT INTERVENTION MEASURES

### 6.1 NON-FOOD INTERVENTIONS

- Routine Vaccination, deworming and treatment of sick livestock.
- Integrated management of acute malnutrition and IYCN Interventions.

- Rehabilitation, servicing and equipping of Boreholes.
- Servicing and Fuel subsidy to strategic boreholes.
- Cash transfer programmes done by County Government, Social development office, Children department and KRCS
- Provision of water treatment chemicals/purifiers.
- Disbursement of NDCF and implementation of response activities by NDMA in collaboration with County Departments.

## **6.2 FOOD AID**

- General Relief food distribution by Special programmes Department through County Commissioner's office. County Government, PACIDA, CARITAS and African Muslim Agency (AMA) also gave relief food across the County.
- Food for Asset (FFA) in Moyale and Sololo done by WVI, NDMA and WFP to 4,067 HH undertaking asset creation activities in 28 areas on monthly basis.
- 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 World Food Programme (WFP), UNICEF and other actors.

## **7. EMERGING ISSUES**

### **7.1 Insecurity**

- Insecurity incidences were reported near Dabel along the Wajir/Marsabit border. There is pasture between Illeret, Darade and Buluk (North Horr Sub County) but it is not accessible due to insecurity.
- However, conflict is likely to arise in areas with a high concentration of livestock. Areas perceived as hot spots include QubiQallo, Leyai, Buluk, Darade, Gudas, Hawaye, Badanrero, Yamicha/Duma, Kom and Chari Ashe.

### **7.2 Migration**

- In-migration was reported to Shurr, Badan-Rero and Ntursi areas from Wajir County and southern Ethiopia.
- Out migration to south-east Ethiopia from El hadi, Dukana and Illeret, to Yamicha and Kom in Isiolo from Kargi, Merille and Jaldesa, and to Baragoi and Seera areas in Samburu county from South Horr, Ngurnit and Illaut.
- Within the county, livestock are concentrated around Aradhe and Badhanrero in Moyale sub county; Shurr, Gudas, Kom, Ntursi and Thorongong' in Laisamis sub-county; Elboji, Huri hills, Chari Ache and Sibilo in North Horr sub-county; Songa and Sabarwawa for Saku sub county.
- These livestock movements were not normal for this time of the year.

### **7.3 FOOD SECURITY PROGNOSIS.**

- The food security situation is expected to worsen across all the livelihood zones. Household food stocks are expected to diminish further thereby causing gradual increase in the market price of staple food commodities.
- Browse and pasture in fall- back grazing areas where livestock are currently concentrated will deplete by the end of February, with ever increasing distances to water, livestock body conditions for all species in all the livelihood zones will worsen leading to ,intense migration, further decline in livestock prices , livestock mortality and continued loss of other livelihood assets.
- Milk production will decline significantly, which will further lower dietary diversity and food consumption. Coupled with reduced water intake, continued deteriorating sanitary situation this will lead to increased malnutrition and disease outbreaks for children under five years.
- Onset of the long rains will be a reprieve to the communities since some indicators will improve immediately. However, food security situation will likely improve when impacts of long rains is realized probably in June to July.

## **8. RECOMMENDATIONS**

### **Agriculture**

- Provision of relief food to most vulnerable Households.
- Up scaling of cash transfer programmes.

### **Water**

- Provision of water treatment chemicals e.g. chlorine, aqua tabs for household use.
- Provision of fuel subsidy on demand for strategic boreholes.
- Regular maintenance of boreholes
- Provision of fast moving spare parts

### **Livestock**

- Supportive treatment for the sick and weak animals.
- Commercial offtake in Laisamis, Saku and Moyale
- Livestock treatment and deworming
- Slaughter offtake in North Horr and Loiyangalani
- Provision of livestock feeds

### **Health and nutrition**

- Fast track nutritional supplies delivery to all health facilities.
- Water trucking to areas facing acute water shortage and institutions like schools and health facilities.
- Intensify integrated outreaches

### **Education**

- Food for fees to schools
- Support to low cost boarding
- Water trucking to schools facing water shortage