

**National Drought Management Authority**  
**TURKANA COUNTY**  
**DROUGHT EARLY WARNING BULLETIN FOR MAY 2017**



A Vision 2030 Flagship Project



**MAY EW PHASE**



**Early Warning (EW) Phase Classification**

Livelihood Zone	Phase	Trend
Pastoral-all species	Alarm	Stable
Agro-Pastoral	Alarm	Improving
Fisheries	Alarm	Stable
Formal Employment/Casual Labour	Alarm	Stable
<b>COUNTY</b>	<b>ALARM</b>	<b>IMPROVING</b>

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- Rainfall had a poor start and progression for the long rains season and was received on the last week of the month.
- Pasture and browse condition remained poor in most livelihoods and slightly fair in Agro-Pastoral. The situation is below normal, but with expectation to improve due to some lately received rains.
- The state of water remained inadequate in main sources and the situation remains below normal.

**Socio Economic Indicators (Impact Indicators)**

- Livestock migration remains above normal across the county, with both unusual pattern and grazing routes (to dry season grazing areas). The livestock body condition was poor in most areas, with few maintaining fair body condition in Agro-pastoral livelihood zone, especially camels.
- Distance of grazing to water sources decreased slightly, especially in Northern parts of the county.
- The Terms of Trade declined in all the livelihood zones, but more pronounced in the pastoral livelihood zone.
- Percentage of children at risk of malnutrition increased from 11 to 14.

Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	Trace (1)	60-100
VCI-3 month	20	>35
State of Water Sources	2	3-4
Vegetation Condition	Below Normal	Normal
Production indicators	Value	Normal
Livestock Migration Pattern	Above Normal	Normal
Livestock Body Conditions	Poor	Normal
Milk Production	1	>85 litres
Livestock deaths (from drought)	Fair	No Deaths
Crops Condition (Sorghum, cow peas)	Fair	Fair
Access Indicators	Value	Normal
Terms of Trade (ToT)	22	>32
Milk Consumption	1	>50 litres
Return distance to water sources	10 km	<4.96 Km
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	14	<18
Coping Strategy Index (CSI)	19	<32

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

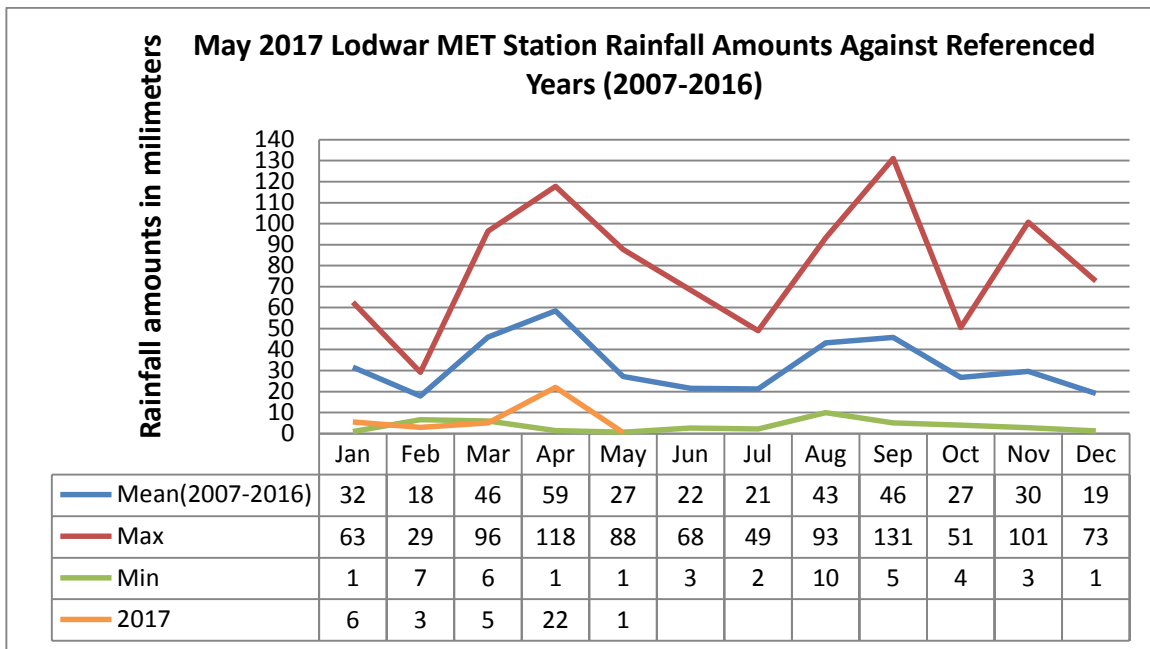
# 1.0 CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

- The county did not receive rains for the most part of May 2017 except until during the last week of the month (29/05/2017) onwards that the rains commenced as trace amounts, proceeding into June.
- The rains were pronounced in the Northern and Western parts of the county, which led to Rivers Kawalase and Turkwel flooding.

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- The county generally received trace amounts of Normal rainfall received late in the month. However, Rivers Kawalase and Turkwel flooded due to extensive run-off from the rains over the hills of Loima that ended up in flash floods.
- The amount of rainfall was below normal and poorly distributed across the county.
- The Lodwar Meteorological station, constituting the Central part of the County, recorded trace amounts (1 mm) of rainfall in May 2017, which indicated a decrease from 22 mm recorded in April 2017 as shown in the graph below. The rains were recorded on 28<sup>th</sup> and 29<sup>th</sup> May 2017. This is below normal (27 mm) for such time of a normal year.

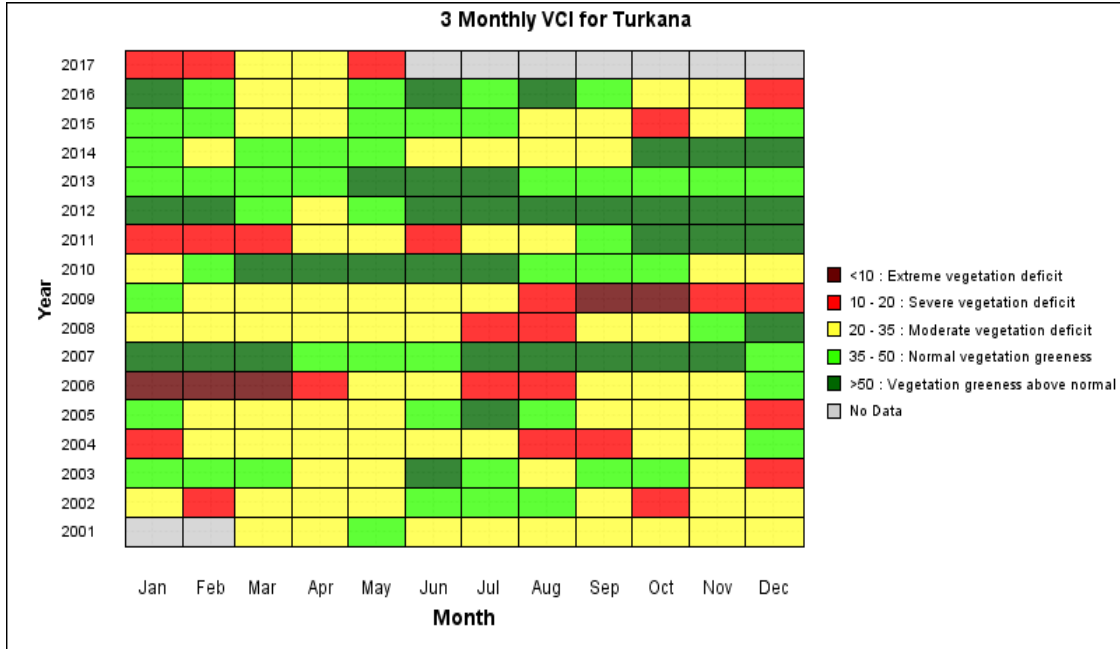


## 2.0 IMPACTS ON VEGETATION AND WATER

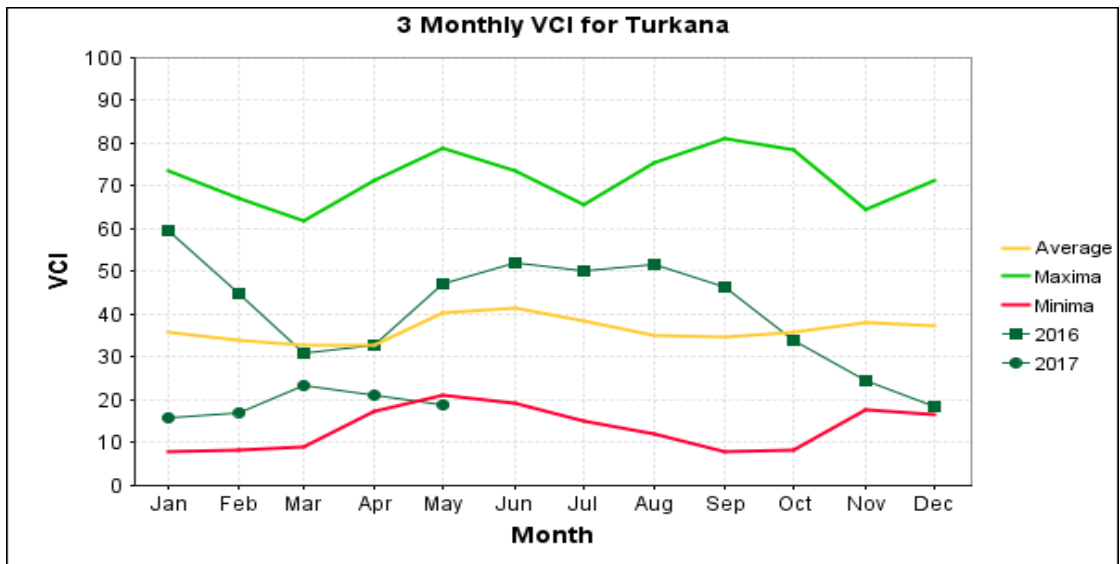
### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index (VCI)

- The county's VCI (indicating the vegetation greenness) for May 2017 was 20, which indicates a deterioration from 27 that was recorded in the previous month. The VCI dropped further below normal (35) for such time of the year.



- The highest VCI was recorded in Turkana North (26) and the Lowest recorded in Turkana West (15).
- The VCI indicates that the county's vegetation greenness is below normal.



## 2.1.2 Pasture

- The quality and quantity of Pasture during the month of May 2017 remained poor in all livelihood zones with the exception of the Agro-Pastoral livelihood zone (along River Turkwel and River Kerio), which was fair. The pasture situation, though poor, was slightly better compared to the previous month and is attributed to the some rains received in April 2017. The situation was still below normal for such a time of the year.
- The little available pasture is expected to last for about one month in all the livelihood zones considering the effect of the little rains received at end of May 2017.

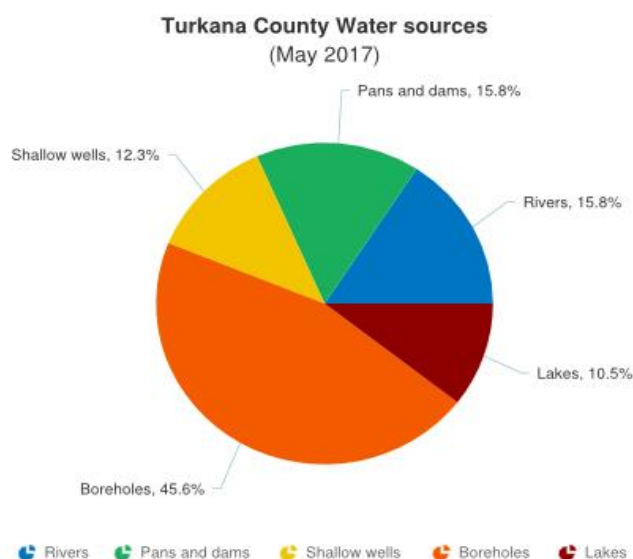
## 2.1.3 Browse

- The quality and quantity of browse was fair in Agro-pastoral zones while poor in the pastoral livelihoods. The situation is below normal at this time of the year although expected to improve in most parts of the county, owing to the rains that commenced at the end of May 2017 across the county.
- The available browse is expected to last for at least one month taking into account the little rains received towards the end of the month.

## 2.2 WATER RESOURCE

### 2.2.1 Sources: Percent of water sources in use

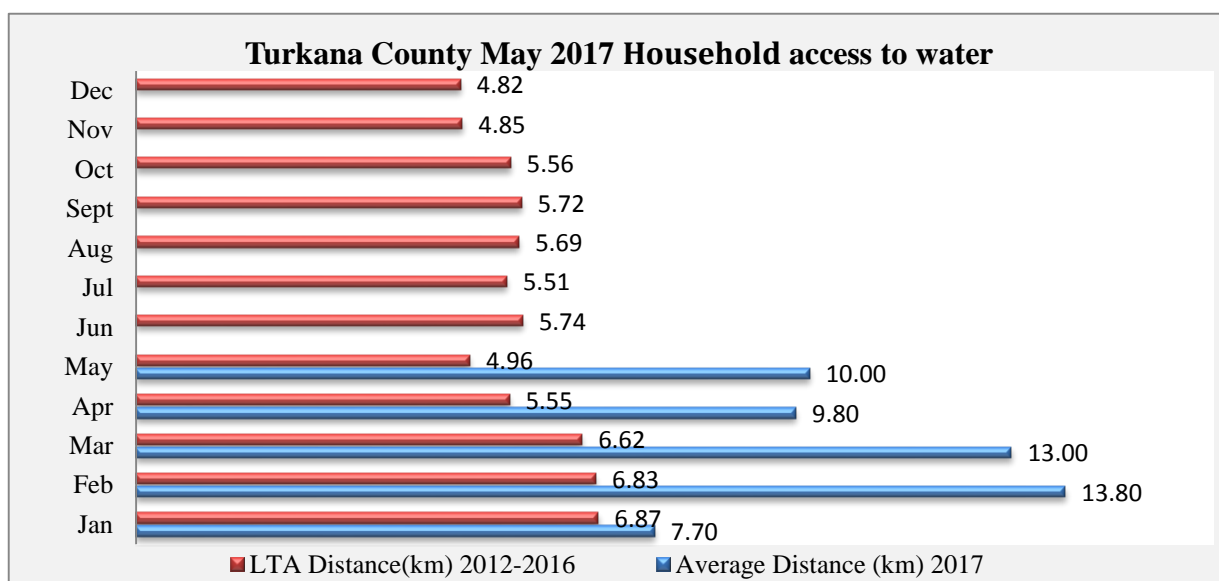
- Percent of Boreholes, Lake water and Rivers in use as the current main water sources for both livestock and domestic were 46, 11 and 16 percent respectively. Boreholes and rivers were the most used in the pastoral and Agro-pastoral livelihood zones whereas fisheries relied on Lake water.



- Boreholes were the main water source for both households and livestock across the county.
- The water volume of the rivers is expected to rise due to the lately received rains and so other water sources are expected to improve.

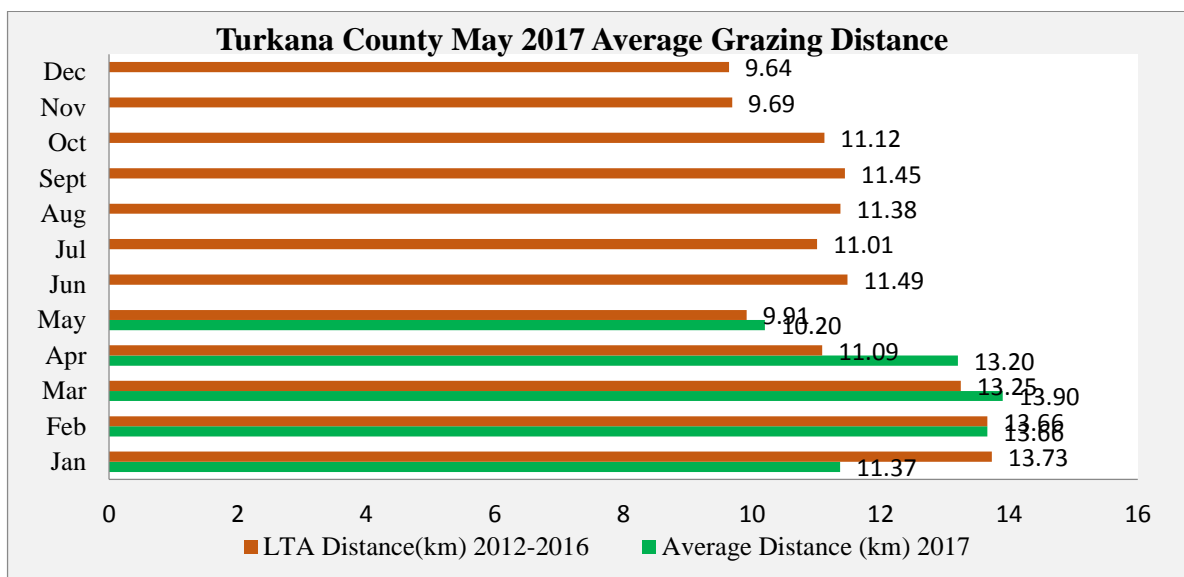
### 2.2.2 Household access and Utilization

- The average return distance of households to main water sources is 10 Km across the livelihood zones, which is a slight increase from 9.8 km recorded in the previous month. The increase is attributed to cessation of some water interventions that had been on in the previous month (such as water trucking).



- Water consumption per person per day was highest in the Agro-pastoral livelihood zone as most households concentrated along the riverine areas. The consumption per person per day was lowest in pastoral areas due to water scarcity.

### 2.2.3 Livestock access



- The average grazing return distance was 10.2 Km, which is a decrease from 13.2 Km (previous month). This is due to the slight improvement in pasture resulting from the rains received in April 2017, which lead to pasture establishing near water sources.

### 2.3 Implication to food security

- Owing to the decreasing livestock trekking distance to grazing areas and the recently received rains, it is expected that there will be an improvement in livestock body condition that will attract good market prices. Milk production is also expected to improve and thus improve food security across the county.

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

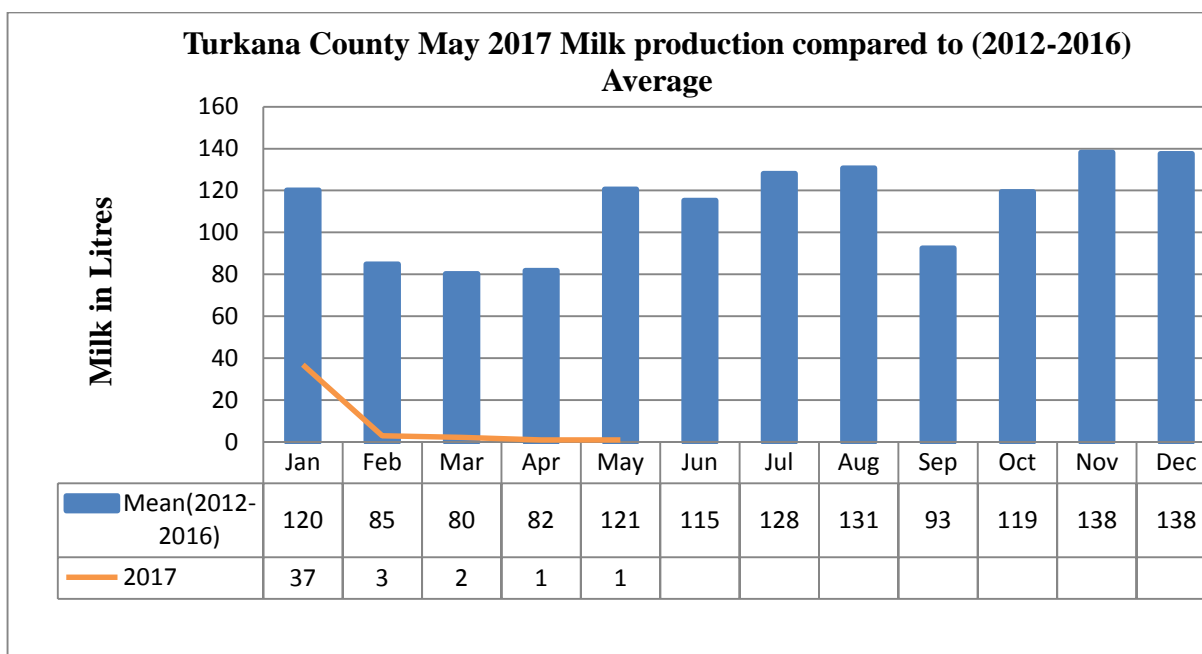
- Livestock body condition remained poor countywide, especially for cattle, with the exception of camel along riverine areas in the Agro-pastoral zone, which had a good body condition. Cattle in the Agro-pastoral livelihood remained in a fair body condition.
- The current livestock body condition is slightly better than the previous.
- Goats and sheep body condition remained fair in Agro-Pastoral livelihood zone compared to other livelihoods that was still poor.

##### 3.1.2 Livestock Diseases

- Livestock diseases reported during the month are Mange, Contagious Bovine Pleural Pneumonia (CBPP), Contagious Caprine Pleural Pneumonia (CCPP) and Trypanosomiasis.
- Worms and Tick-borne infections also remained prevalent across the county with high cases reported along Turkwel riverine. This is presumed to be due to the freshly sprouting browse that does support worms.
- Livestock deaths reported during the month were due to above mentioned diseases and conditions. However, fewer cases of deaths due to drought/starvation were reported.

##### 3.1.3 Milk Production

- The average milk production during the month of May 2017 was one (1) litre across the county, similar to the amount produced in the previous month.



- Comparing with the same period during a normal year, milk production was far much lower and below normal (121 litres) for such a time of the year.
- Milk production is expected to improve in case more rains are received consistently so as to improve the pasture and water conditions.

## **3.2 RAIN-FED CROP PRODUCTION**

### **3.2.1 Stage and Condition of food Crops**

- Crop production was still a challenge; for instance, farmers in Kalemng'orok (Turkana South Sub-County) had done land preparation in anticipation of the rains expected in May 2017, but the delayed rains left their farms unplanted and soils compacted and no progress made.
- The county has generally performed poorly on rain-fed cropping so far.

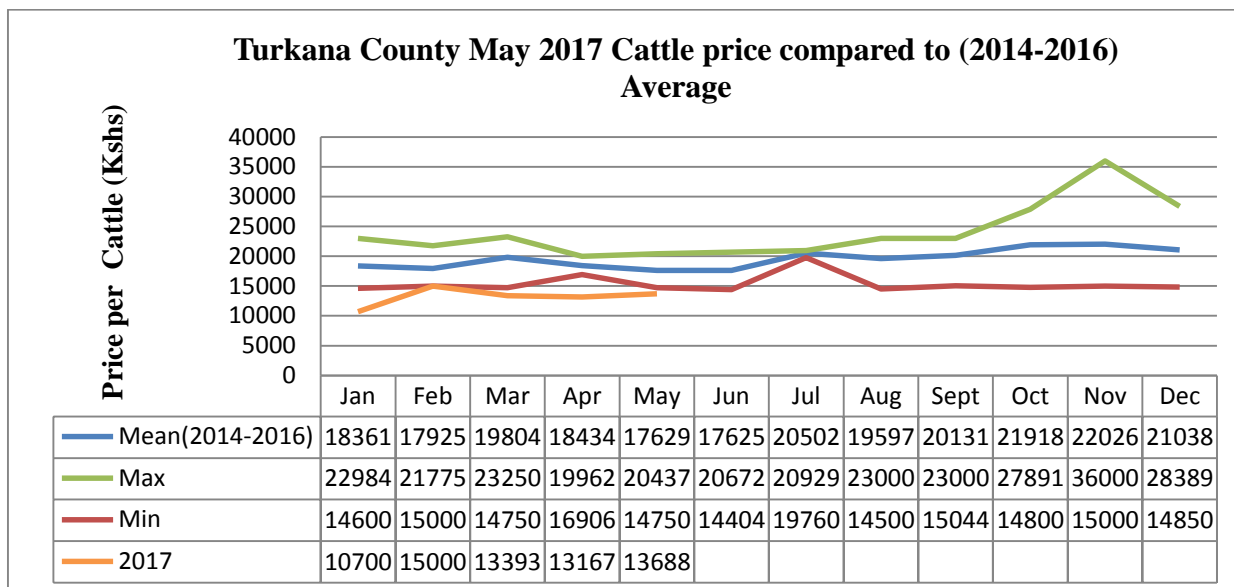
## **3.3 IMPLICATION OF THE ABOVE INDICATORS TO FOOD SECURITY**

- The non-performance/none production of rain-fed crops across the county, will negatively impact on food production and hence result in poor food security in the county.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices



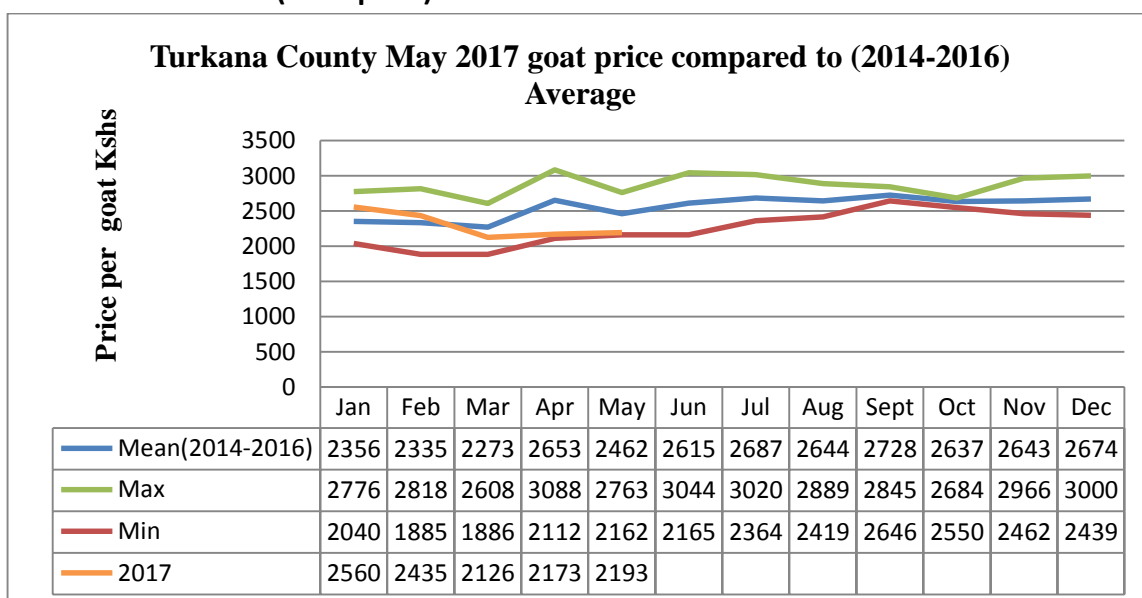
- The county reported a sale of a 4-year old medium size bull at an average price of Kshs 13,688, indicating a slight increase from Kshs 13,167 reported in the previous month.
- The cattle price was highest (kshs. 14,500) in Agro-pastoral and Lowest (Kshs. 13,333) in fisheries livelihoods.
- The general increase in cattle price is attributed to the expected boost in body condition as a result of slight improvement in pasture due to the rains experienced in April 2017. The prices could also have been influenced by speculations of more rains and the urge to restock instead of destocking.
- However, cattle price is still below normal (Kshs. 17,629) for such a time of the year.

#### 4.1.2 Other outstanding observations

- Cattle was least preferred livestock species for trade by households across the county.

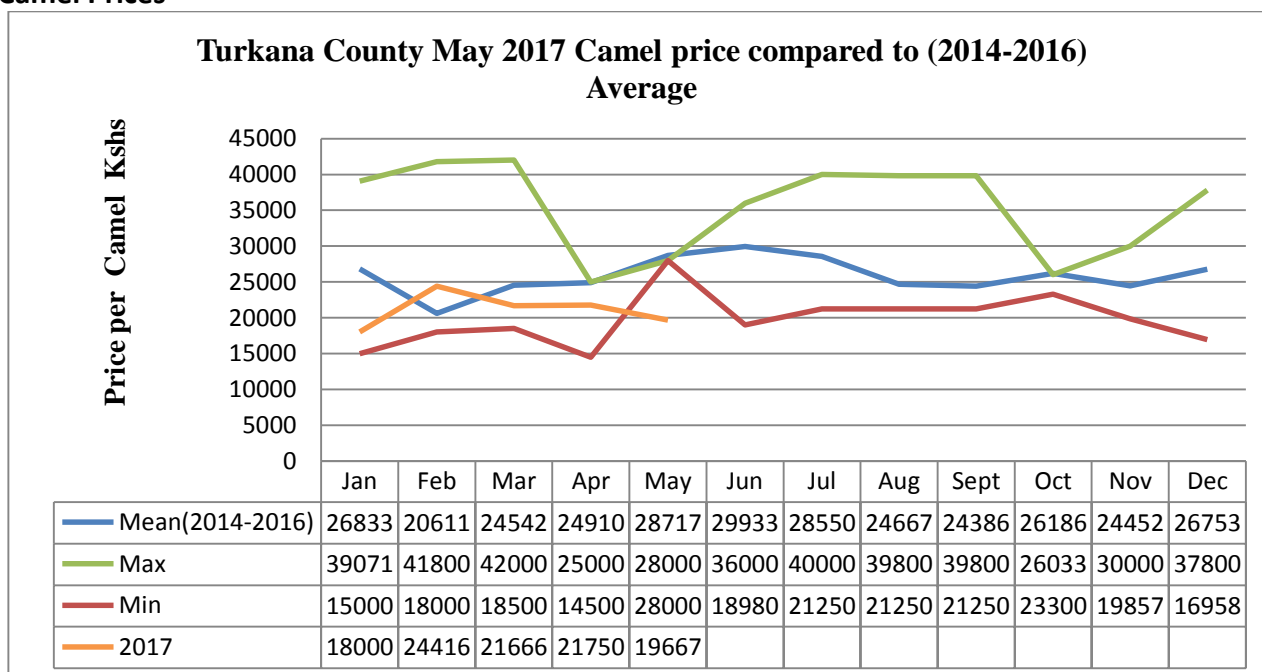


### 4.1.3 Small Ruminants Prices (Goat price)



- Households sold a medium size goat at an average of Kshs 2,193, compared to an average price of Kshs 2,173 recorded in April 2017.
- The upward trend in the price of goat is attributed to the relatively low sales arising from speculations of browse improvement hence low propensity to sell. There was a high tendency to restock leading to price increase across the county.
- Goat price was highest in Agro-pastoral livelihood zone (Kshs 2,367) and lowest in Pastoral livelihood zone (Kshs 2,090).

### 4.1.3 Camel Prices

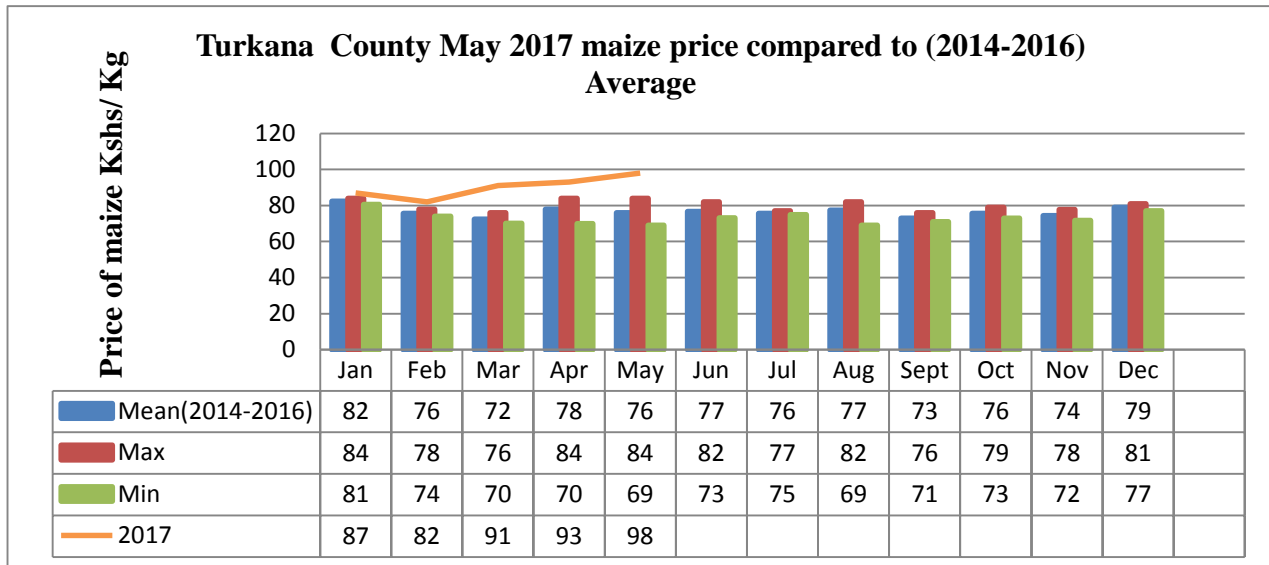


- The average camel price was Kshs 19,667, indicating a decrease from Kshs 21,750 recorded in the previous month. The observed decrease in the camel price is attributed to the fact that most households preferred to purchase and sale goats and not camels thus the market for camels was low considering the currently low purchasing power of the pastoralists. The sales recorded were desperate thus the poor price realized.
- The camel price was highest (Kshs 20,000) in the Agro-pastoral livelihood zone and lowest (Kshs. 19,667) in pastoral zones while fisheries recorded no sale during the month.

- The price is below normal (Kshs 28,717) for this time of the year.

## 4.2 CROP PRICES

### 4.2.1 Maize



- The county recorded an average maize price of Kshs 98 per Kg, representing an increase from Kshs 93 recorded in April 2017.
- The highest price of Maize was recorded in Fisheries livelihood zone at Kshs 103 while the lowest being in the Agro-pastoral zone at Kshs 96. The increase in price is attributed to unavailability of maize stock in markets across the county.
- Compared with the three-year average, the maize prices were above normal (Kshs 76) for such time of the year.

#### 4.2.1.1 Other outstanding observations

- Maize price was relatively low in Agro-pastoral livelihood zone, especially in Kabulokor due to the recent harvests of sorghum and green grams in the region.

### 4.2.2 Posho (Maize Meal)

- Maize meal (Posho) was sold at Kshs 120 in the county although less accessible and hardly available during the month.
- Posho price is above normal for such time of the year.

#### 4.2.2.1 Other outstanding observations

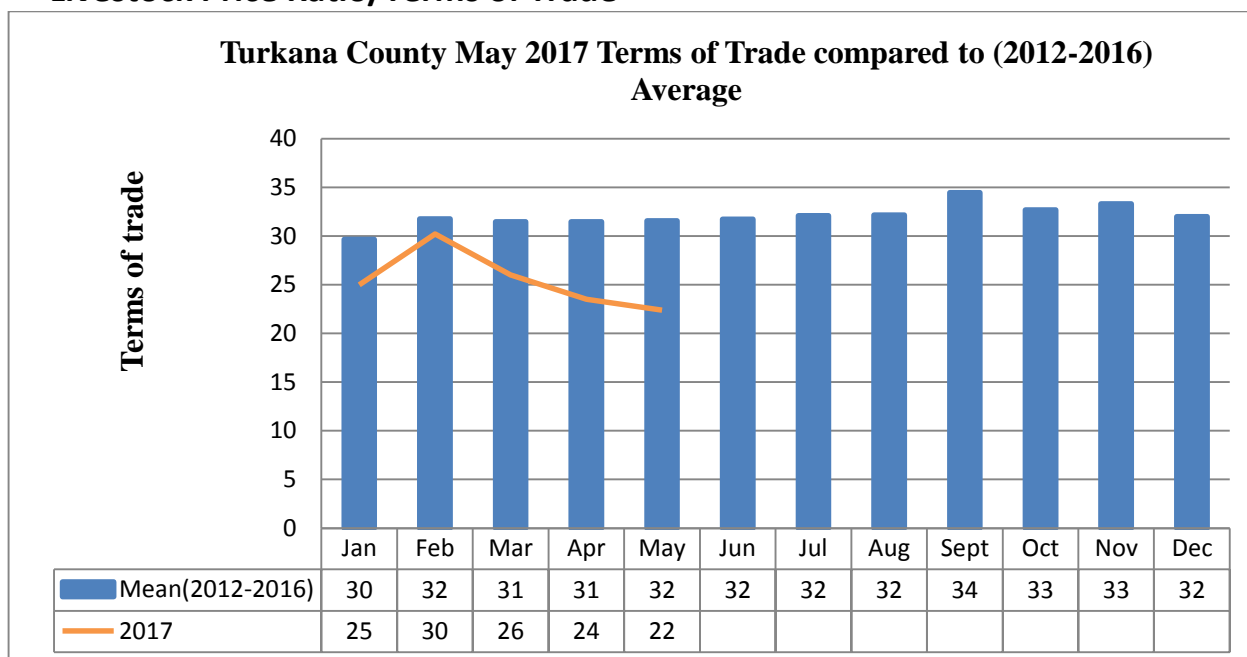
- Posho price rose significantly across the county. The price of Posho is slightly lower in Agro-pastoral than pastoral livelihood zone across the county.

### 4.2.3 Beans

- The average market price of Beans across the county during the month was Kshs 175 per Kg being an increase from Kshs 155 recorded in the previous month.
- The average market price of beans was highest at Ksh.180 in Pastoral livelihood zone and was lowest in the Agro-pastoral livelihood zone (Kshs 160), while no sales were recorded in

Fisheries livelihoods. Beans prices have generally increased across livelihood zones, which is attributed to the decreased supply alongside low production of beans across the county.

### 4.3 Livestock Price Ratio/Terms of Trade



- Terms of Trade (ToT) for households decreased from 24 kg of maize for an exchange of a goat to 22 kg recorded in May 2017. The ToT is below normal for such a time of the year (32 kg).
- The ToT was lowest in pastoral livelihood zone at 20 kg compared to the most favorable ToT in Agro-pastoral zones (23 kg). The unfavorable ToT observed in the pastoral livelihood zones is attributed to the relatively low goat price against higher maize price.

### 4.4 Implication of the above indicators to food security

- The declining Terms of Trade shall negatively affect the county's food security situation as more goats would be sold to access the similar amount of cereals compared to normal.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

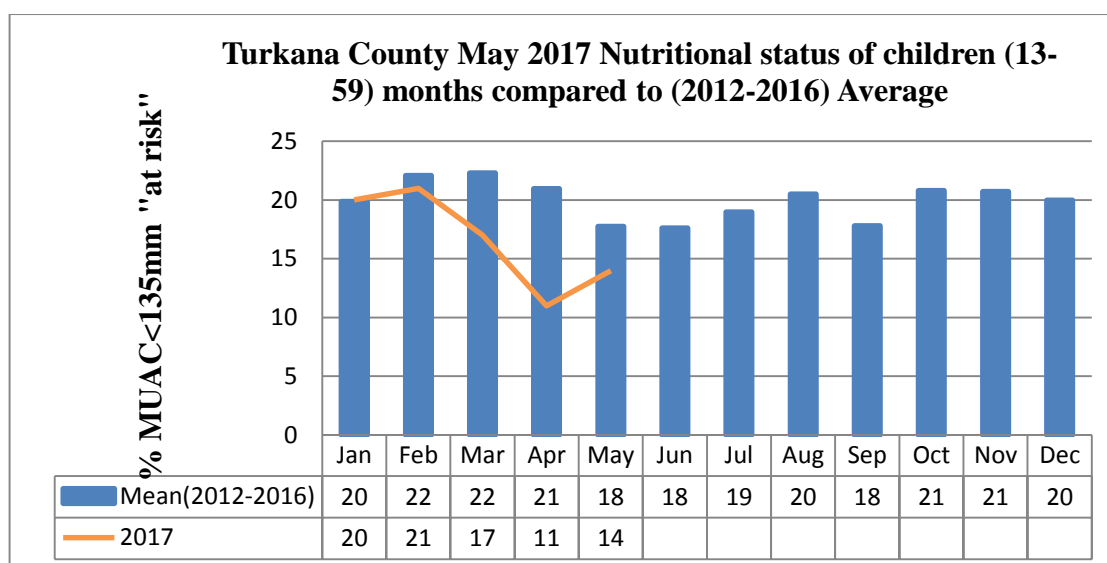
### 5.1 MILK CONSUMPTION

- In May 2017, the county recorded average milk consumption at one (1), similar to the one recorded in the previous month. The milk consumption is lower than normal.
- The persistently low milk consumption is attributed to the poor access to pasture and water resources over the months.

### 5.2 HEALTH AND NUTRITION STATUS

- During the month of May 2017, the proportion by gender of children sampled was 51 and 49 percent boys and girls respectively.

#### 5.2.1 Nutrition Status



- The nutrition status of children under five years, indicated by the Mid Upper Arm Circumference (MUAC) falling below 135 mm, representing the percent of those at risk of malnutrition increased to 14, as compared to 11 recorded in the previous month.
- The MUAC is however below the long term mean (18) for the county for such a time of the year.
- The increase in percent of children at risk of malnutrition is partly attributed to incidences of Malaria and Coughing reported since the end of April 2017. The low milk availability is likely to influence increase in MUAC level over time.

#### 5.2.2 Health

- In May 2017, the major diseases reported for the sampled children remained as Malaria and coughing, similar to the previous month.
- There were no major epidemic diseases outbreaks reported during the month, apart from Cholera outbreak in Turkana West sub-county (Kakuma refugee camp).

### 5.3 COPING STRATEGIES

- The Coping Strategies Index (CSI) decreased from 20 recorded in April 2017 to 19 in May 2017, however, this was below the normal index of 32.
- The highest index was recorded in Pastoral livelihood zone (22) while lowest in the Agro-pastoral livelihood zone (17).

- Households employed more usual ways to cope with food insecurity in Pastoral livelihoods than they did in other zones.

#### **5.4. Implication of the above indicators to food security**

- The decreasing CSI implied less mechanisms currently employed to access food by households, thus a less distress situation than before. Most households also employed less severe ways of accessing food than before. There was a negative impact on food security.

## **6.0 CURRENT INTERVENTION MEASURES**

### **6.1 NON-FOOD INTERVENTIONS**

- Upscaling of emergency beneficiaries for hunger safety network programme targets **by NDMA.**
- Repair and replacement of broken hand pumps and water trucking implemented **by TCG.**
- Outreach on implementation of High Impact Nutrition Intervention **by NDMA and MoH.**

### **6.2 FOOD AID**

- General food aid distribution being done **by Red Cross Kenya.**
- Supporting school meals programme **by World Food Programme (WFP).**
- Food for Assets (FFA) program **by NDMA and County Government ministries, Child Fund Kenya and WVK.**

## **7.0 EMERGING ISSUES**

### **7.1 Insecurity/Conflict/Human Displacement**

- There were cattle raids reported in Turkana east sub-county along the West Pokot border.

### **7.2 Migration**

- Livestock continue to reside in their migration areas that also received good amounts of rainfall, especially those that had migrated outside the county and country.

### **7.3 FOOD SECURITY PROGNOSIS**

- In May 2017, the likely effect of changes in rainfall/water situation on food security is expected to improve the situation as some rains were received across the county.
- In the next three months, the forage condition is expected to remain fair/poor but below normal if the current rains stop.
- If the conditions prevail the forage would be depleted and hardly be available in the next three months.
- The effect of deprived forage in the next three months on livestock would result in deterioration of livestock body condition, decreased milk availability and worsening of the food security situation.
- If the forage would be available (preferably due to the recent rain received across the county) then migrated animals would return and provide milk, fetching better prices thus enhanced food security in the county.

## **8.0 RECOMMENDATIONS**

- Sustaining livestock disease surveillance in areas with disease rumours.
- Seed distribution should be done to farmers depending on the rain-fed crops in Letea and those doing irrigated crop farming along river Turkwel and Kerio to enable them plant should the rains improve.
- Supporting initiatives aimed at promoting peaceful co-existing at conflict prone areas (Turkana East sub-county).
- Supporting nutrition supplements in more affected areas (Turkana Central, Loima and Turkana West sub-counties).
- Livestock treatment and deworming.
- Strengthen existing Stabilization Centres in Turkana South (Katilu Health Centre), Turkana West (Lopiding Hospital) and Turkana East (Lokori AIC Health Centre).