

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



A Vision 2030 Flagship Project



**OCTOBER EW PHASE**



**Early Warning (EW) Phase Classification**

| Livelihood Zone                 | Phase         | Trend            |
|---------------------------------|---------------|------------------|
| Pastoral-all species            | Normal        | Improving        |
| Agro-Pastoral                   | Normal        | Improving        |
| Fisheries                       | Normal        | improving        |
| Formal Employment/Casual Labour | Normal        | Improving        |
| <b>COUNTY</b>                   | <b>NORMAL</b> | <b>IMPROVING</b> |

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- **Rainfall:** Onset was timely on between the second and third week. Good amounts were received (178% of normal) well spread in time and space.
- The state of water sources remained within the normal range.
- **Vegetation:** The Vegetation Condition Index (VCI) was above the normal across all the livelihoods.
- Browse and pasture are in good condition and normal.

**Socio Economic Indicators (Impact Indicators)**

- Crops were performing well in all cropping areas.
- Livestock body condition was good and no deaths reported.
- Milk production improved significantly; above normal.
- Livestock distance from grazing to water sources decreased.
- Households return distance to water sources decreased.
- Terms of Trade were good and remained above normal.
- The percentage of children under five years, with MUAC less than 135 mm, decreased and was below normal.
- Coping Strategy Index (CSI) decreased and was below normal.

| Biophysical Indicators                             | Value      | Normal Range/Value |
|--|------------|--------------------|
| Rainfall (% of Normal)                             | 178        | 60-100             |
| VCI-3 month  | 51         | >35                |
| State of Water Sources                             | 4          | 3-4                |
| Vegetation Condition                               | Normal     | Normal             |
| Production indicators                              | Value      | Normal             |
| Livestock Migration Pattern                        | Normal     | Normal             |
| Livestock Body Conditions                          | Normal     | Normal             |
| Milk Production                                    | 157 Litres | > 128 litres       |
| Livestock deaths (from drought)                    | No Deaths  | No Deaths          |
| Crops Condition                                    | fair       | Fair               |
| Access Indicators                                  | Value      | Normal             |
| Terms of Trade (ToT)                               | 42         | >33                |
| Milk Consumption                                   | 142 litres | >50 litres         |
| Return distance to water sources                   | 8 km       | <5.56 Km           |
| Utilization indicators                             | Value      | Normal             |
| Nutrition Status, MUAC (% at risk of malnutrition) | 13%        | <21%               |
| Coping Strategy Index (CSI)                        | 13         | <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 |
|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|

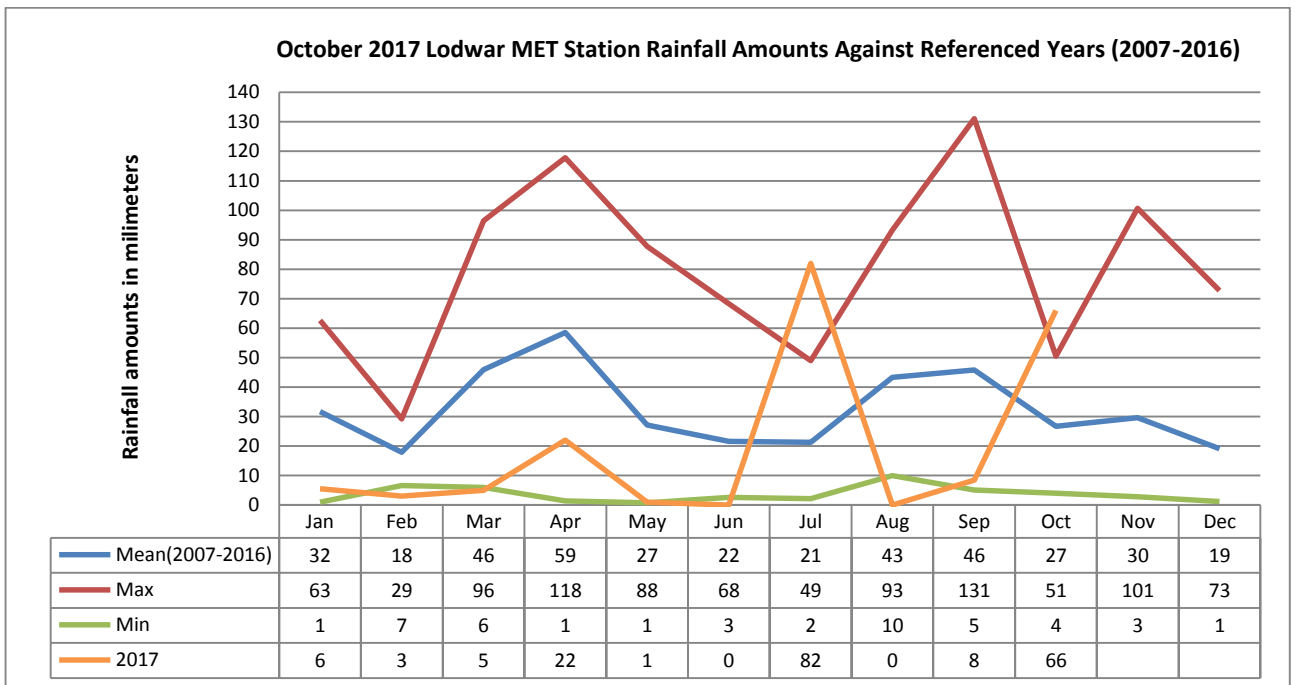
# 1.0 CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

- October marks the onset of the short rains, which has occurred as expected.
- The onset was timely (normal); between the second and the third week of October 2017.
- The county recorded an average rainfall amount of 31.94 mm, compared to the normal 17.90 mm; constituting a 78 percent above normal rainfall (178 %).
- The rains were fairly distributed, with good progression over the month.
- The rains were off-season and were received during the first and third week of the month.

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- During the month, Lodwar meteorological station recorded a total of 66 mm of rainfall for 9 days on 12<sup>th</sup> (4.1 mm), 13<sup>th</sup> (1.0 mm), 15<sup>th</sup> (1.1 mm), 19<sup>th</sup> (34.1 mm), 20<sup>th</sup> (0.9 mm), 21<sup>st</sup> (11.8 mm), 22<sup>nd</sup> (11.6 mm), 25<sup>th</sup> (0.3 mm) and 26<sup>th</sup> (0.8 mm).
- Compared to the ten-year mean, rainfall is above the average of 27 mm for such time of the year.

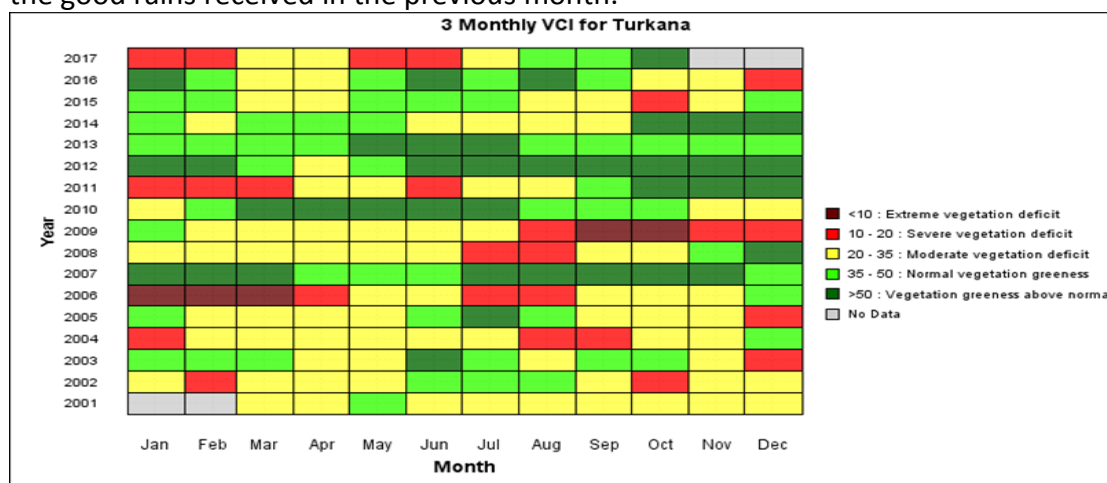


## 2.0 IMPACTS ON VEGETATION AND WATER

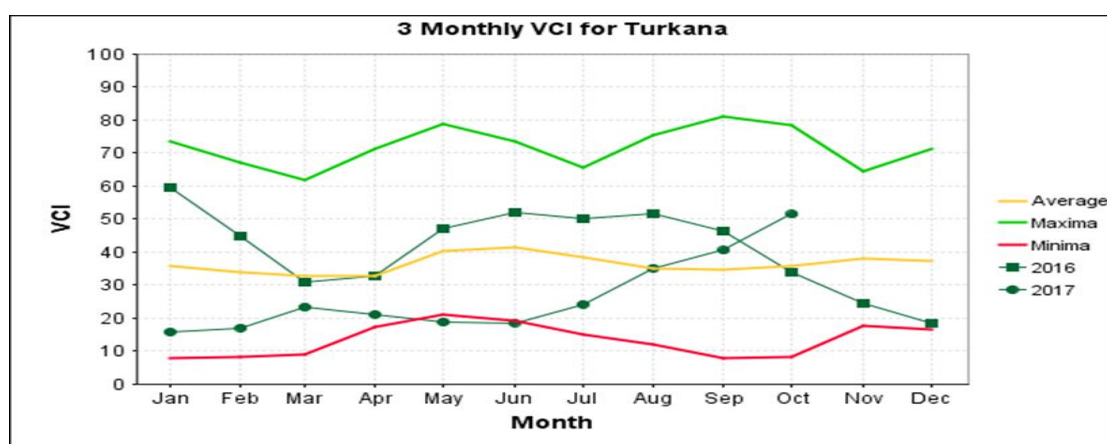
### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index (VCI)

- The VCI, which indicates the vegetation greenness for the county was 51 (Wet Agricultural Drought Category), representing an increase from 40 recorded in the previous month and above the normal value of 35.
- The increase in VCI is attributed to the good rains received in the previous month that enhanced vegetation improvement in the county.
- The VCI is significantly above average for such time of the year and is attributed to the good rains received in the previous month.



- The highest VCI (64) was recorded in Turkana East Sub-County and the lowest (44) was recorded in Loima Sub-County.



#### 2.1.2 Pasture

- The quality and quantity of pasture was good across all the livelihood zones, a show of an improvement from the previous month.
- Pasture was better in agro-pastoral livelihood zone than other zones.
- It is expected that the available pasture will last for three (3) months.
- Compared to the average for such time of a normal year, pasture has improved.

#### 2.1.3 Browse

- Both quantity and quality of browse was good across all the livelihood zones.
- Browse was better (mostly green and leafy) in agro-pastoral zone compared to the other

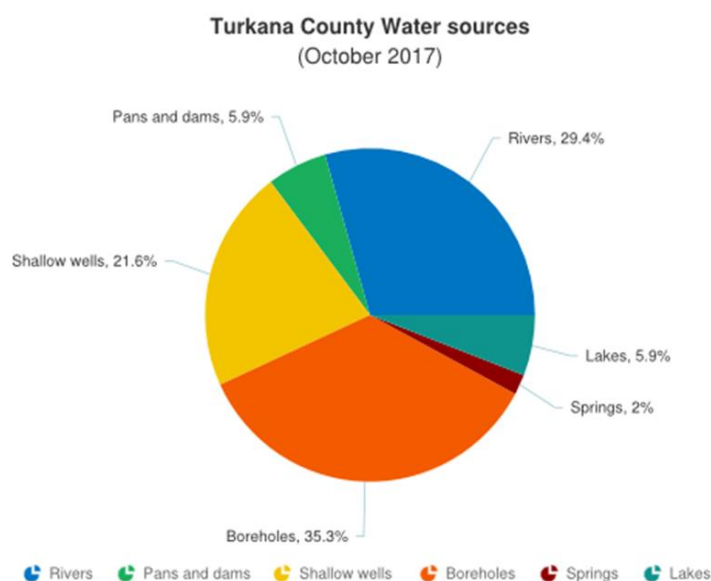
livelihood zones.

- The situation of browse improved compared to the previous month.
- The improved browse is attributed to good rains received in the previous month.
- Compared to an average for such time of a normal year, browse condition is above normal.
- The available browse is expected to last for at least three (3) months.

## 2.2 WATER RESOURCE

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

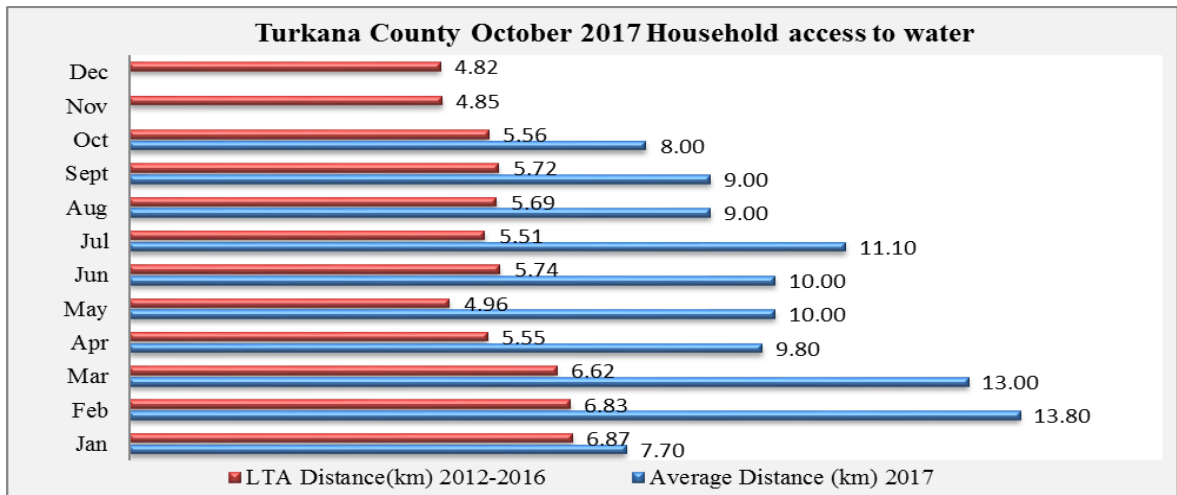
- Boreholes (35%), Rivers (29%) and Shallow wells (22%) were the main current water sources used by households and livestock during the month.
- As indicated in the pie chart below, Boreholes were the main water sources used, while springs (2%) were the least used.



- Compared to the previous month, the quality and quantity of water improved and increased respectively. The improvement is attributed to the rains received in the previous month that recharged most water sources.
- It is expected that the current available water sources will last for at least three (3) months.

### 2.2.2 Household access and Utilization

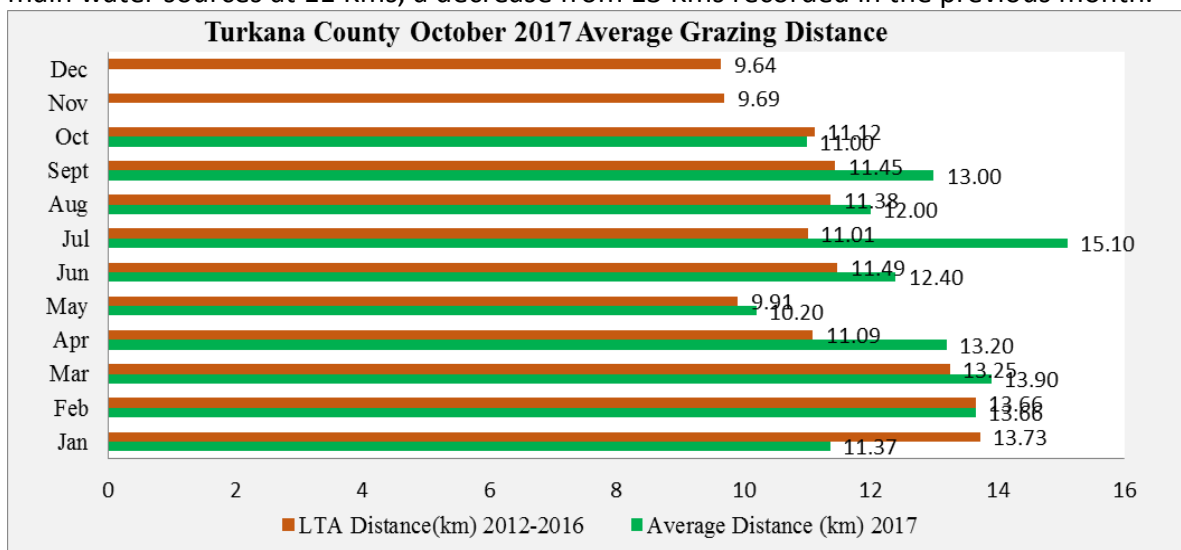
- During the month, the average return distance to main water sources by households was 8 Kms, a decrease from 9 Kms recorded in the previous month.
- The observed decrease in households return distance to water is attributed to recharge of main water sources used by households following the rains received in the previous month (Households fetched water near their residences).



- Compared to a five-year Long Term Average for such time of the year, the average return distance to main water sources by households remains above the mean (5.56 Kms).
- Households in agro-pastoral livelihood zone had the highest consumption of water per person per day while households in pastoral zone had the lowest consumption.

### 2.2.3 Livestock access

- The county recorded the average return trekking distance of livestock from grazing areas to main water sources at 11 Kms, a decrease from 13 Kms recorded in the previous month.



- The decrease is attributed to the rains received in the previous month which led to sprouting of browse across all livelihood zones hence livestock grazed near water sources.
- Pastoralists in agro-pastoral livelihood zone watered livestock (goats and sheep) more frequently than those in other livelihood zones.
- Compared to such time of a normal year, the average return trekking distance of livestock from grazing areas to main water sources is below the five-year average of 11.12 Kms.

### 2.3 Implication to food security

- The decrease in the average return trekking distance of livestock from grazing areas to main water sources coupled with good forage condition will enable livestock to improve in the body condition. As such, livestock will sell at better prices enabling famers to access considerably more food commodities and hence improvement in food security.

## 3.0 PRODUCTION INDICATORS

### 3.1 LIVESTOCK PRODUCTION

#### 3.1.1 Livestock Body Condition

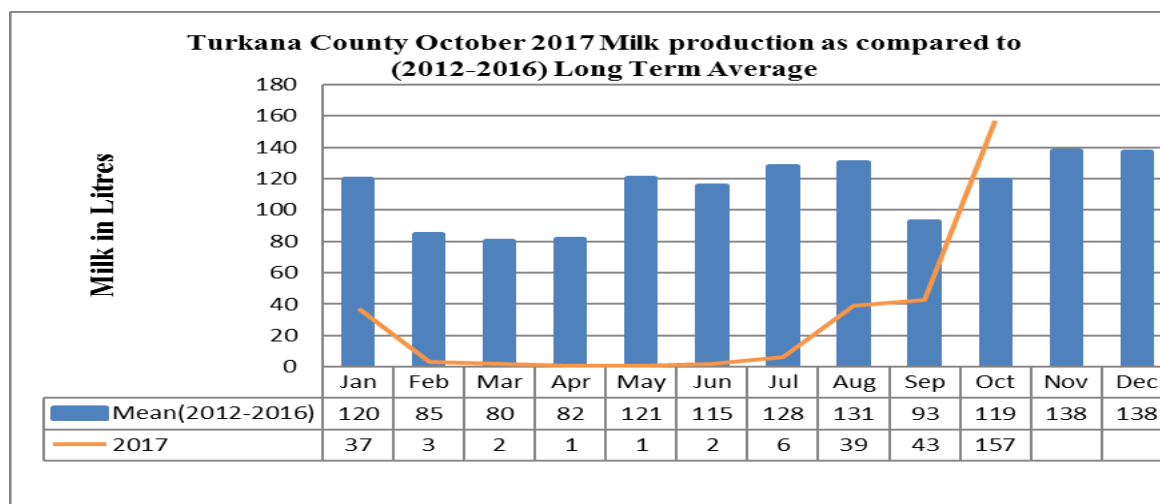
- According to the Early Warning System Classification, livestock body condition is good with smooth body condition across all livelihood zones for ALL species.
- Pastoral livelihood zone had livestock with better body condition while fisheries had moderately fair livestock body condition.
- Compared to the previous month, livestock body condition has improved.
- The improvement in livestock body condition is attributed to the enhanced quality and quantity of browse and pasture.

#### 3.1.2 Livestock Diseases

- Foot and Mouth Disease (reported during the month), Mange, Contagious Bovine Pleural Pneumonia (CBPP) and Contagious Caprine Pleural Pneumonia (CCPP) were the main diseases reported.
- No major livestock deaths reported.

#### 3.1.3 Milk Production

- The county produced 157 litres of milk, being an increase from 43 litres recorded in the previous month.
- Increased milk production is attributed to the good water and forage situation with good livestock body condition.



- Agro-pastoral livelihood zone recorded the highest milk production while fisheries recorded the lowest.
- Major livestock milked were camels and goats.
- Milk produced is above the 5-year average (119 litres) for such time of the year.

## 3.2 RAIN-FED CROP PRODUCTION

### 3.2.1 Stage and Condition of food Crops

- Most rain-fed crops were at knee high/flowering stage and in fair condition (in Turkana South Sub-County) and at germination and in fair condition in Kabulokor ward (along Turkwel Riverine).
- There were No major crop pests and diseases reported.

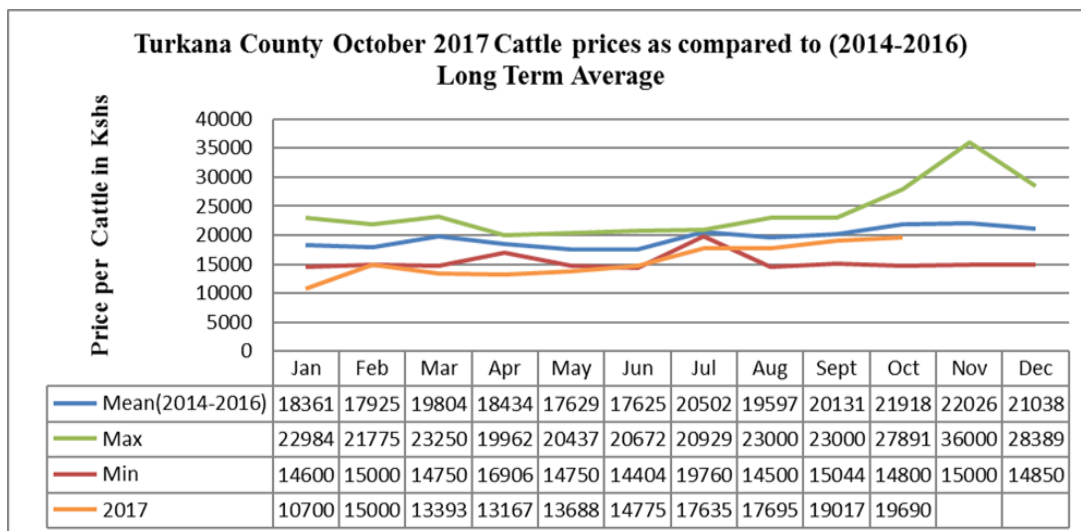
### **3.3 IMPLICATION OF THE ABOVE INDICATORS TO FOOD SECURITY**

- Food security will improve now that farmers will sell livestock at favourable market prices and buy enough food.
- The improved milk production coupled with the fair crops condition will also improve food security as harvests are expected in the next few months and thus avail food to households.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

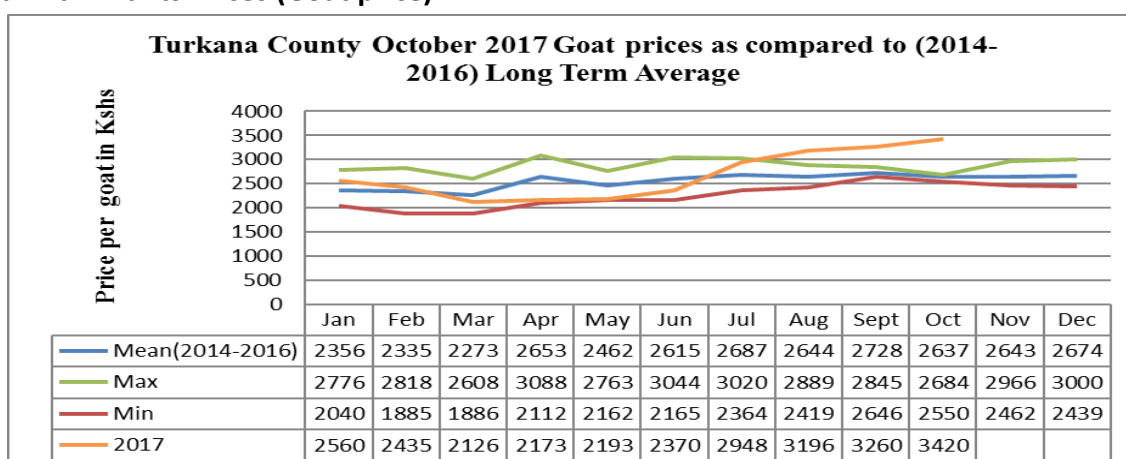


- The county recorded a sale of a 4-year old medium size bull at Kshs 19,690, which is an increase from Kshs 19,017 recorded in the previous month.
- Pastoral livelihood zone recorded the highest cattle price of Kshs 19,787 while agro-pastoral zone recorded the lowest at Kshs 19,333.
- The increase in cattle price is due to the improved body condition that fetched a favourable market price.
- Compared to a three-year mean for such a time of the year, cattle price is below the average of Kshs 21,918.

#### 4.1.2 Other outstanding observations

- Although the cattle prices were upward, most farmers preferred to keep cattle for production rather than sell, hence fewer animals were readily available in markets (this also contributed to the high cattle price).
- Fisheries livelihood zone made no cattle sales.

#### 4.1.3 Small Ruminants Prices (Goat price)

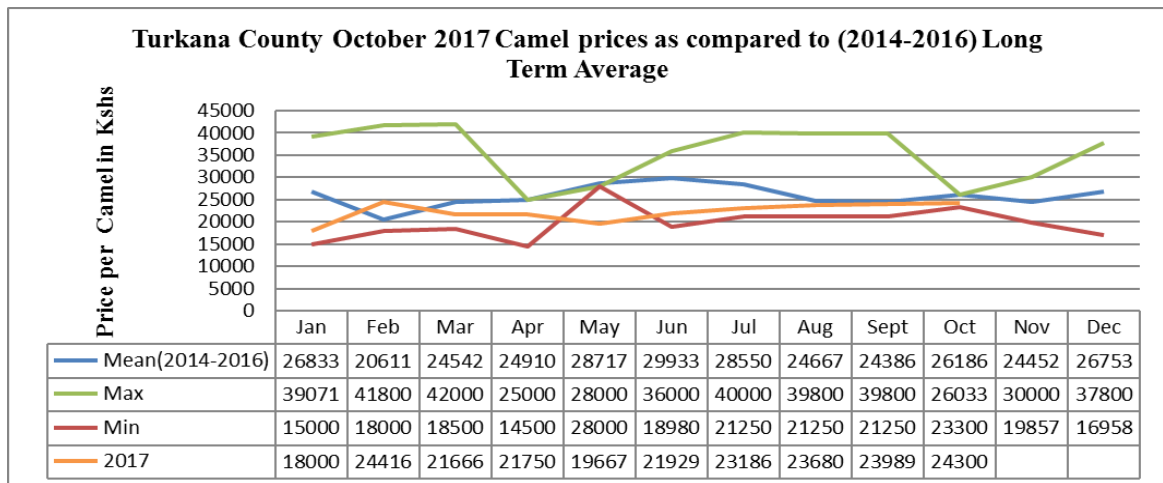


- During the month, the county sold a 2-year old medium size goat at Kshs 3,420, depicting an increase from Kshs 3,260 recorded in the previous month.
- The price increase is attributed to the good body condition that attracted better prices.
- The highest goat price (Kshs 3,473) was recorded in Pastoral livelihood zone and the lowest (Kshs 3,263) was recorded in fisheries zone.



- Goat price is above the three-year average of Kshs 2,637 for such of the year.

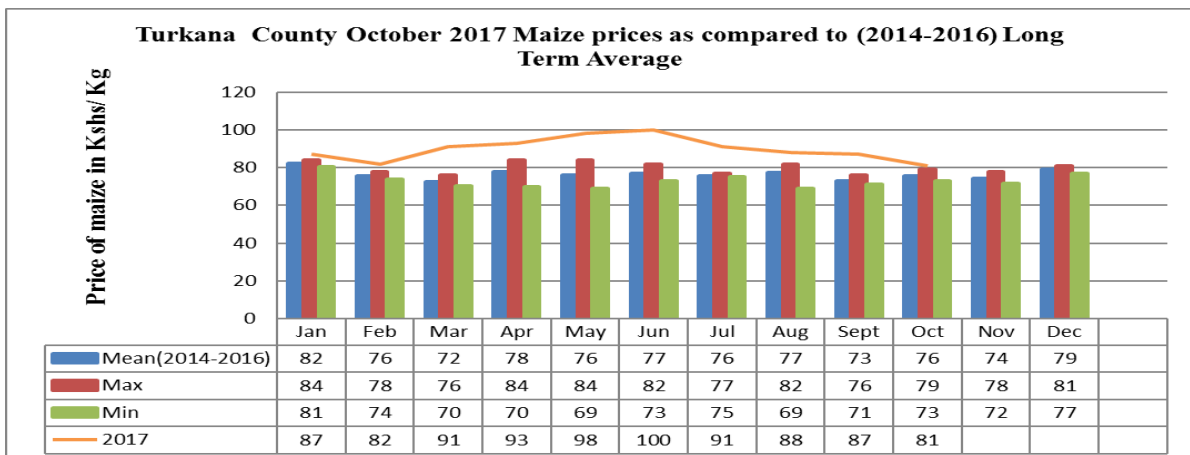
#### 4.1.4 Camel Prices



- A four-year old camel went at Kshs 24,300, an increase from Kshs 23,989 recorded in the previous month.
- The increase in camel price is attributed to the good body condition that fetched favourable market prices.
- Pastoral livelihood zone recorded the highest camel price (Kshs 24,400) and fisheries recorded the lowest price (Kshs 24,200)
- Camel price is below the three-year average of Kshs 26,186 for such a time of the year.

## 4.2 CROP PRICES

### 4.2.1 Maize



- Maize was sold at Kshs 81 per kg, being a decrease from Kshs 87 recorded in the previous month.
- The decrease in maize price is attributed to the availability of maize in markets across the county thus maize sold at a relatively low price.
- The agro-pastoral livelihood zone recorded the lowest maize price of Kshs 80 per kg while fisheries recorded the highest of Kshs 83 per kg.
- Compared to a three-year mean, maize price is above the average (Kshs 76) for such of the year.

#### 4.2.1.1 Other outstanding observations

- Maize remained readily available across all livelihood zones despite varied prices.

#### 4.2.2 Posho (Maize Meal)

- The county recorded Posho price at Kshs 100, indicating a decrease from Kshs 110 recorded in the previous month.
- Posho price is above the average for such time of the year.

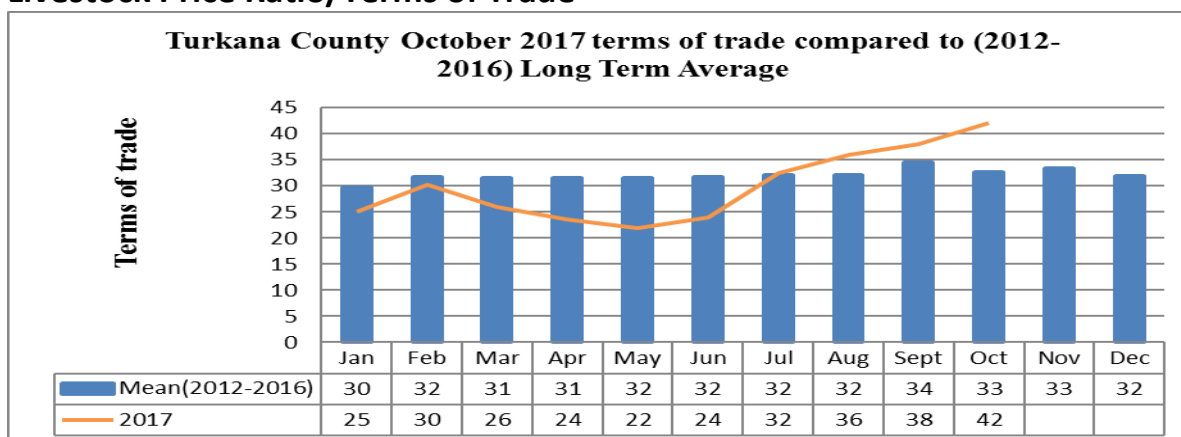
#### 4.2.2.1 Other outstanding observations

- During the month, Posho remained available in markets.

#### 4.2.3 Beans

- The county recorded a sale of one kg of beans at Kshs 146, depicting a decrease from Kshs 156 per kg compared to the previous month.
- The decrease in beans price is attributed to relatively increased supply of beans in markets.
- The highest beans price (Kshs 149) was recorded in pastoral livelihood zone while the lowest (Kshs 137) was recorded in agro-pastoral livelihood zone.

### 4.3 Livestock Price Ratio/Terms of Trade



- During the month, the Terms of Trade (ToT) was 42; an increase from 38 recorded in the previous month.
- ToT was highest (43) in pastoral livelihood zone and lowest (41) in fisheries zone.
- The observed increase in ToT, is attributed to the general good market price of goat in the county along with the decreased maize price.
- ToT is above the five-year average of 33 for such time of the year.

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

- The improvement in ToT, indicates that for a sale of a goat, households are able to buy more cereals than before, hence a boost to the food security situation.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

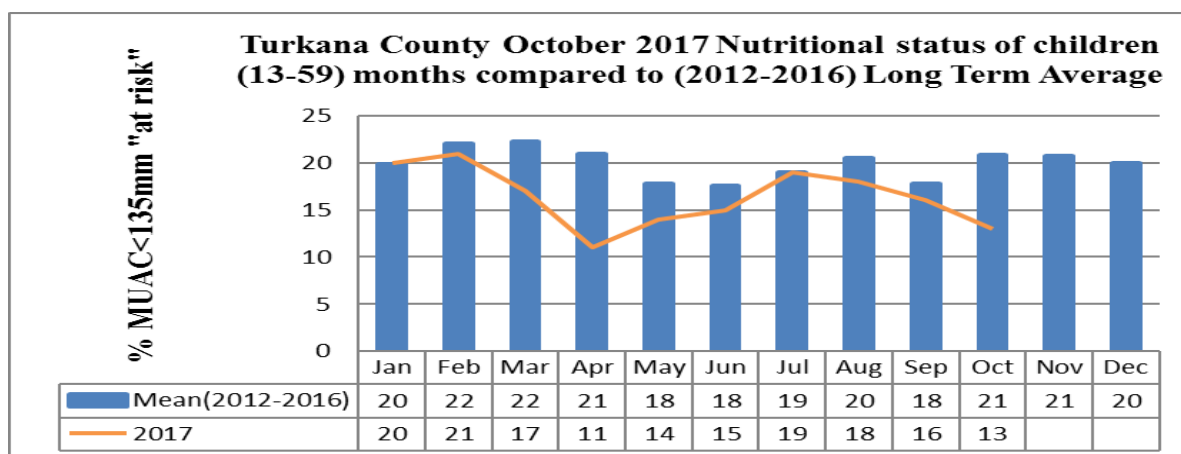
### 5.1 MILK CONSUMPTION

- The county recorded an average milk consumption at 142 litres, connoting a significant increase from 43 litres recorded in the previous month.
- The highest milk consumption was reported in agro-pastoral livelihood zone and the lowest consumption reported in fisheries zone.
- During the month, milk consumption was above the normal (50 litres).

### 5.2 HEALTH AND NUTRITION STATUS

- The sampled population of children by gender was 47 and 53 percent, males and females respectively.

#### 5.2.1 Nutrition Status



- Children who are under five years who are at risk of malnutrition (Indicated by Mid Upper Arm Circumference - MUAC, less than 135 mm) is 13 percent of the sampled children population, revealing a decrease from 16 percent recorded in the previous month.
- The percent decrease in MUAC less than 135 mm, is attributed to the increase in milk consumption at household level, coupled with better access to food by lactating mothers.
- The percentage of children with MUAC less than 135 mm is below the five-year average of 21 percent for a similar time of the year.

#### 5.2.2 Health

- During the reporting month, there were no major epidemic disease outbreaks reported.
- However, there were several cases of unconfirmed Malaria outbreaks reported.

### 5.3 COPING STRATEGIES

- The county had a Coping Strategy Index (CSI) of 13, which was a decrease from 14 recorded in the previous month.
- The decrease in CSI shows that households applied less severe strategies to acquire food.
- Fisheries livelihood zone recorded the highest CSI (15) while the agro-pastoral one recorded the least index (12).
- CSI is below the normal (32) for such a time of the year for the county.

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

- Now that milk consumption has increased whereas CSI decreased, food security will improve accordingly.

## 6.0 CURRENT INTERVENTION MEASURES

### 6.1 NON-FOOD INTERVENTIONS

- Cash transfers to regular and emergency beneficiaries for Hunger Safety Net Programme targets **by NDMA.**
- Livestock deworming and vaccination against CBPP in Turkana West, Turkana North, Kibish and Loima sub-counties **by Regional Pastoral Livelihood Resilience Project (RPLRP).**
- Reseeding of degraded areas in Kaapus and Turkwel wards in Loima sub-county **by RPLRP.**
- Emergency Cash Transfers in Turkana Central **by Save the Children.**
- Cash Transfers in Turkana North (in Lake Zone, Kaikor, Lokitaung, Lowarengak and Kaeris) **by World Relief Kenya.**
- Integrated health and nutrition services in Turkana Central and Loima **by International Rescue Committee (IRC).**
- Support to integrated nutrition outreaches for in Kerio division in Turkana Central; Supplying hygiene kits during outreaches and is targeting unconditional Cash Transfers to 3,000 households in November and December 2017 in Kibish, Turkana North and Turkana Central **by Save the Children.**
- Supporting training of Water Management Committees in compliance with new water laws in Kibish and Turkana Central **by Save the Children.**
- Supply and development of 10,000 litre tank to Lolupe primary school **by Water Resource Authority.**

#### 6.2.1 FOOD AID

- Blanket Supplementary Feeding Program in the county **by World Food Programme (WFP),** with the support of: **Save the Children, World Vision, IRC and German Agro-Action.**
- Support in retaining pupils at schools through distribution of food to public primary schools (wheat pellets, beans and cooking oil) Loima Sub County: Nakamane, Kabulokor and Kotela primary schools **by Girl Child Network (GCN) - Kenya Equity for Primary Education Project (KEEP).**
- Support emergency nutrition for one year in Turkana South sub-county **by World Vision Kenya.**

## **7.0 EMERGING ISSUES**

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

- There were no major insecurity occurrences reported.
- However, there was havoc in Turkana South Sub-County where rumours emerged that Pokot bandits threatened to raid (No evidence reported so far). Tension had been at Kakuma after school killings by one student, who was in turn also killed in revenge. The situation since calmed.

### **7.2 Migration**

- Livestock remained in their normal grazing fields (No major in or out migration incidences reported).

### **7.3 FOOD SECURITY PROGNOSIS**

- Due to the improved and generally good livestock body condition, famers will sell livestock at favourable market prices and thus access good amounts of food for their households, leading to an improvement in food security in the next three months.
- It is expected that food security situation will improve in the next three months since milk production has significantly increased, thus consumption at household level.
- Food security will improve now that famers are able to buy more cereals upon selling goat as indicated by the increased ToT.
- The fair condition of crops, although at germination and Knee stages, is expected to improve food security situation since famers are assured of promising harvests in the next three or four months.

## 8.0 RECOMMENDATIONS

- Farmers need to be supplied with early maturing crops seeds varieties.
- The Ministry of livestock together with line agencies and stakeholders should strengthen vaccination and deworming of all livestock species across the county.
- Livestock disease surveillance coverage should be increased so as to identify any emerging or existing livestock diseases in the county.
- All stakeholders working towards humanitarian development in the county, should embark on projects that are geared towards building and strengthening resilience of the communities.
- Strengthening of the existing Stabilization Centres in Turkana South (Katilu Health Centre), Turkana West (Lopiding Hospital) and Turkana East (Lokori AIC Health Centre).
- The Ministry of health should supply enough human drugs to all health centres and facilities across the county.
- Peace initiatives should be reinforced along the borders of the county and where insecurity rumours are heard.