

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



A Vision 2030 Flagship Project



APRIL EW PHASE



Drought Situation & EW Phase Classification

Biophysical Indicators

- Relatively good rainfall amount was received in the second and third dekads of the month. Rainfall had a poor start for the long rains season.
- Pasture and browse condition remained poor in most areas. The situation is below normal, but with expectation to improvement.
- 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, with both unusual pattern and grazing routes (to dry season grazing areas). The livestock body condition was poor in most areas of the county, with few maintaining fair body condition.
- Distance to both, grazing to water and household to water decreased.
- The Terms of Trade were poor in all the livelihood zones except in the agro-pastoral zones (fair). The situation was below normal.
- Percentage of children at risk of malnutrition decreased significantly.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Pastoral-all species	Alarm	Stable
Agro-Pastoral	Alarm	Stable
Fisheries	Alarm	Stable
Formal Employment/Casual Labour	Alarm	Stable
COUNTY	ALARM	STABLE

Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	53	60-100
VCI-3 month	17	>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)	More	No Deaths
Crops Condition (Sorghum)	Fair	Fair
Access Indicators	Value	Normal
Terms of Trade (ToT)	24	>32
Milk Consumption	1	>85 litres
Return distance to water sources	9.8 km	<6.83 Km
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	11	<20
Coping Strategy Index (CSI)	20.6	<32

<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

- The county generally received some rains, whereby few areas received mere showers.
- The rains concentrated mostly in the northern and western parts of the county, constituting an increase from previous month.
- The rains were characterised by good temporal and spatial distribution although poor progression.

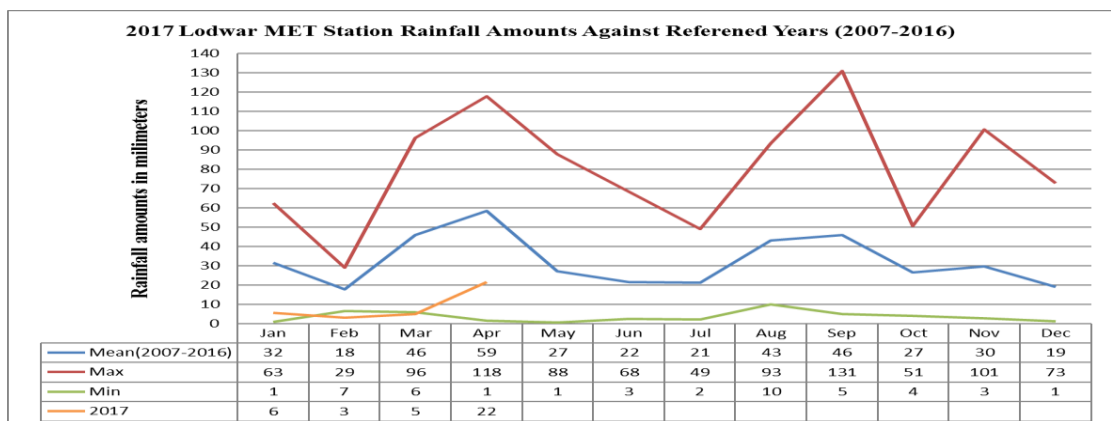
1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- The County received an average of 53 percent of Normal rainfall, having increased from 48 percent recorded in previous month. This was below normal.
- The highest amounts of rains were received in Kalokol that fall in Turkana Central that recorded 75mm.
- The amount of rainfall was below normal and well distributed besides fair progression across the county.



Figure 1 March 2017 Sum of Rainfall Amounts

- The Lodwar Meteorological station recorded 22 mm of rainfall in April 2017, which indicated an increase from 5.4 mm recorded in March 2017 as shown in the graph below. The rains were recorded on 17th, 18th, 29th and 30th for values trace, 1.4mm, 19.0mm and 1.1mm respectively.

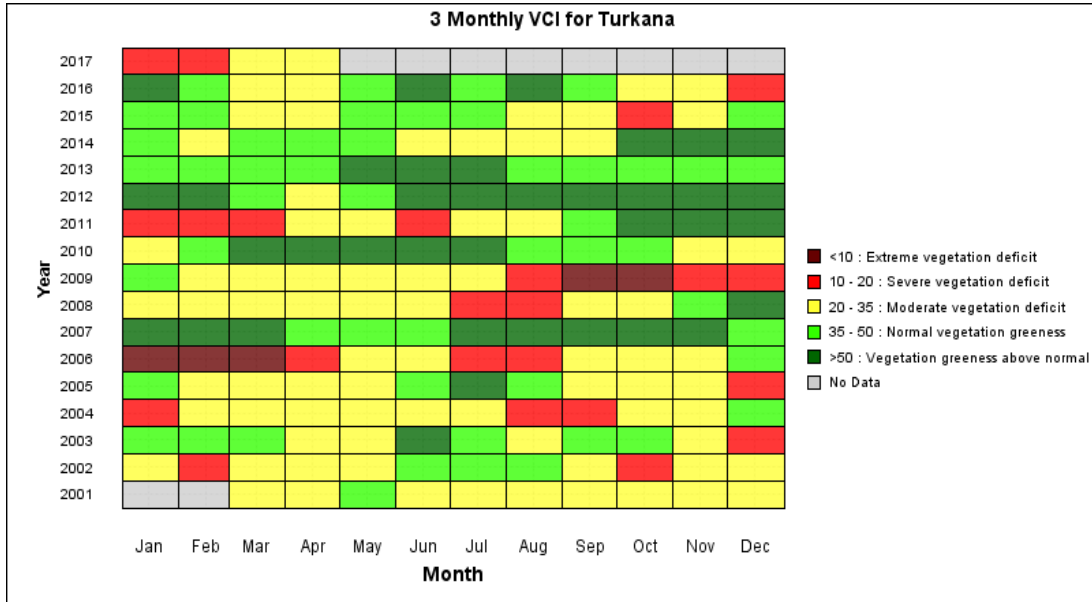


2.0 IMPACTS ON VEGETATION AND WATER

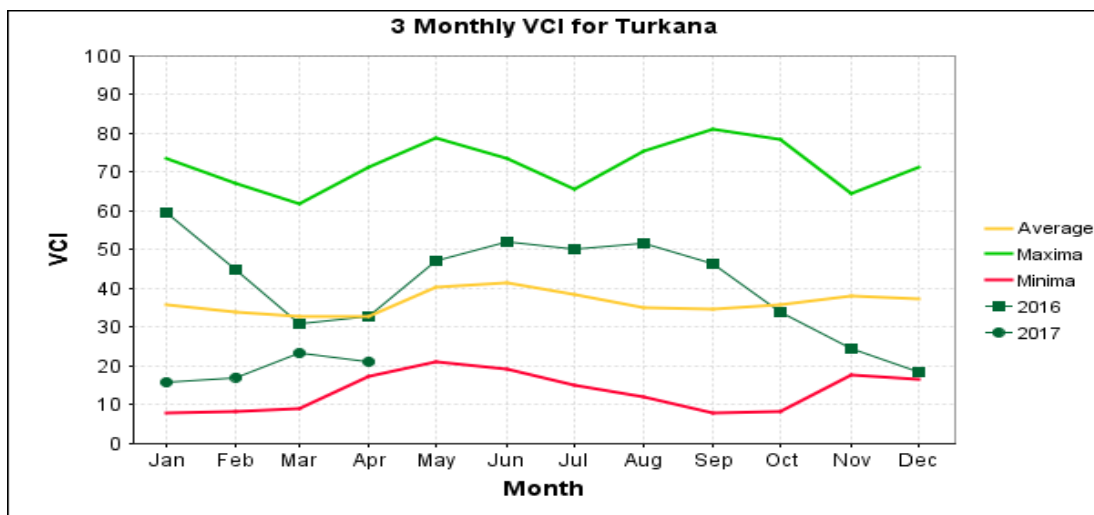
2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The county's VCI for April 2017 was 27, which indicates that its vegetation greenness decreased from 32 that was recorded in the previous month, showing a further decrease from the normal value of 35.



- The highest VCI was recorded in Turkana Central (30) while Lowest was recorded in Turkana East (13).
- The situation is below normal, as the VCI indicates poor vegetation greenness despite the little showers received in some parts of the county.



2.1.2 Pasture

- The quality and quantity of Pasture during the month of April 2017 was poor in agro-pastoral livelihood zones (along River Turkwel and River Kerio), while remained poorest in most pastoral areas. The pasture situation was poor compared to the previous

month and is attributed to the late onset of rainfall. The situation was below normal for such a time of the year.

- The little available pasture is expected to last for one month in all the livelihood zones considering the effect of the rains received at the end of April, 2017.

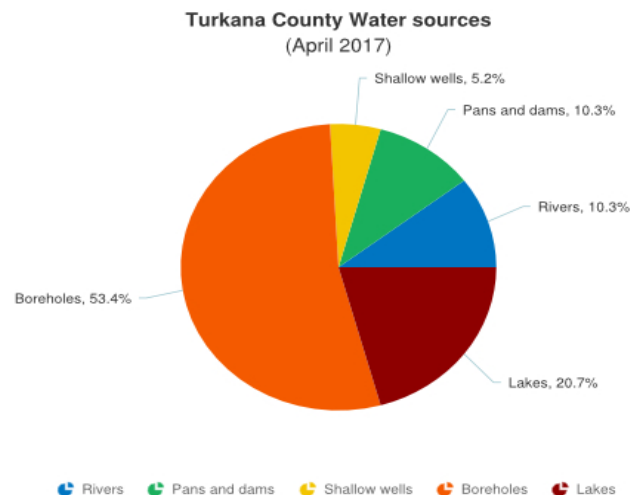
2.1.3 Browse

- The quality and quantity of browse remained fair in Agro-pastoral zones while poor in the pastoral livelihoods. The situation is below normal at this time of the year but it is expected to improve during May 2017 due to the little rain received across the county.
- The available browse is expected to last for at least one month taking into account of the little rains received towards the end of the month.

2.2 WATER RESOURCE

2.2.1 Sources: Percent of water sources in use

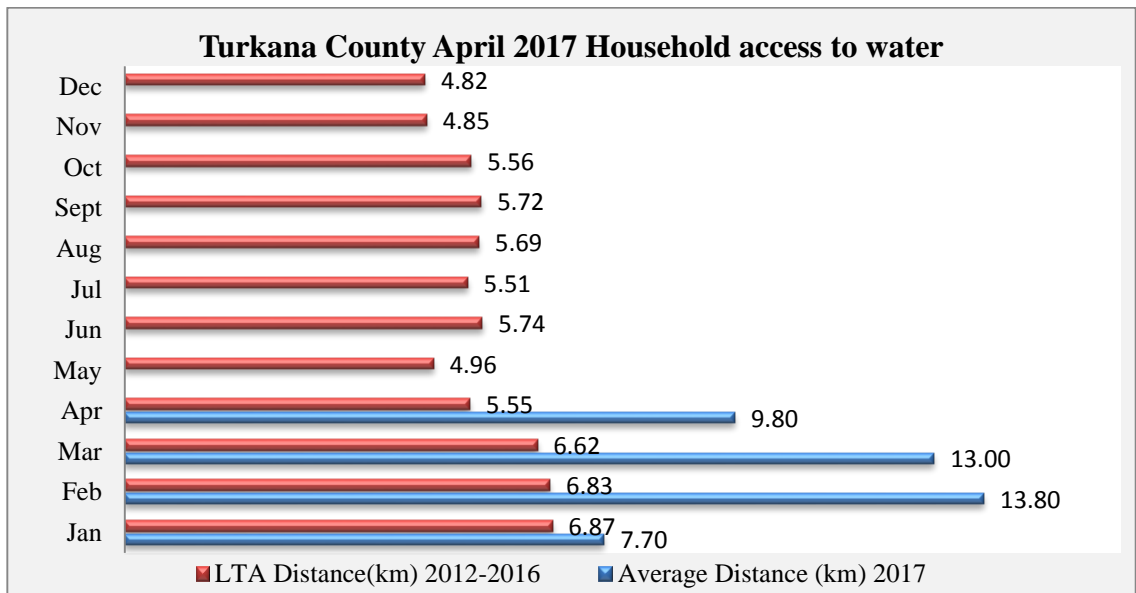
- Percent use of Boreholes, Lake water and Rivers as current water sources for both livestock and domestic consumption were 53.4, 20.6 and 10.3 percent respectively. Boreholes and rivers were mainly used in the pastoral and agro-pastoral livelihood zones.



- The increased use of Boreholes was attributed unavailability of other water sources.
- The above water sources are under pressure due to high dependency of livestock and humans.
- The boreholes occasionally breakdown because of overuse. The volume of the rivers is also low although slightly increased following the rains.
- The number of the remaining water sources is small and below normal across the county although the situation is expected to improve if rains increase over time.

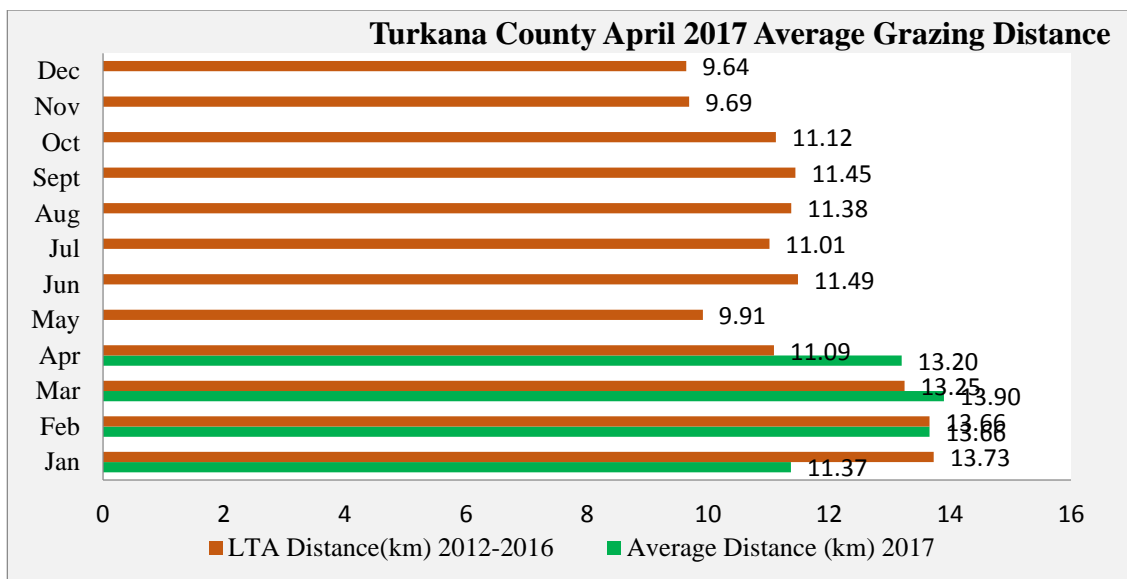
2.2.2 Household access and Utilization

- The current average return distance is 9.8 km from households to main water sources for all livelihood zones, which is a decrease from 13 km recorded in previous month. This is attributed to the ongoing water intervention activities in the county and most households tending to migrate towards riverine areas in some cases.



- Water consumption per person per day is highest in the agro-pastoral livelihood zone while the lowest being in the pastoral livelihood zone. The consumption is still generally low due to the water scarcity that had been occasioned by the drought spell.

2.2.3 Livestock access



- Relative to the previous month, the grazing distance was less 13.20 km; with a slight decrease from 13.9 km recorded last month, where the decrease is attributed to recent recharge realised over the early month of April 2017.

2.3 Implication to food security

- The indicated livestock trekking distance to water, coupled with poor vegetation condition, have negatively affected livestock body condition and production, if the rains perform poorly, there will be continued low or lack of milk hence worsening of food the security situation.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

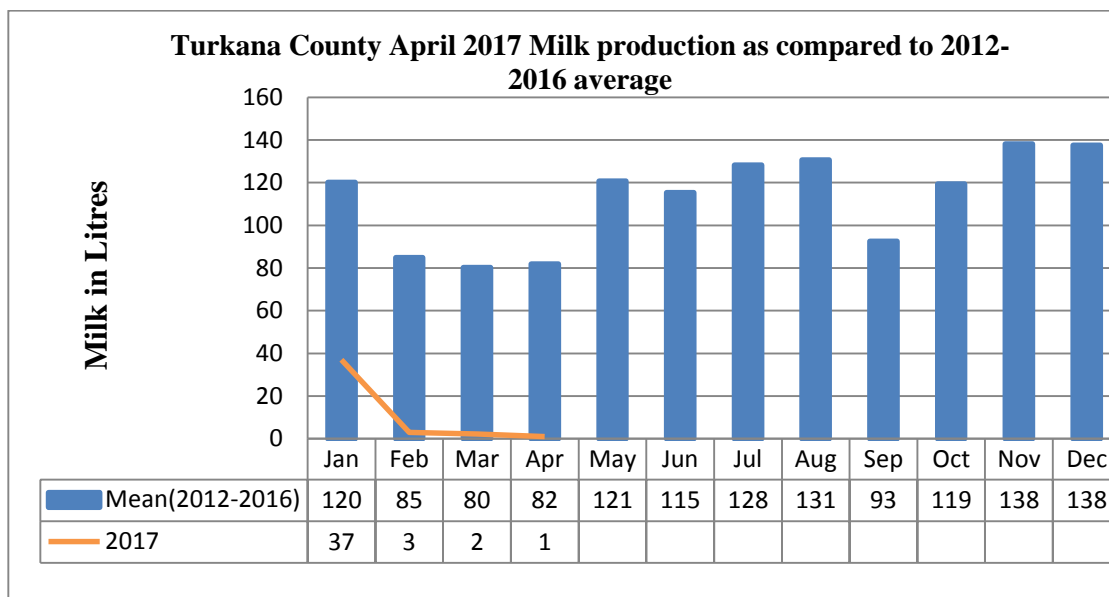
- Livestock body condition based on the EWS classification remains fair/poor across the county, where camel species maintained good body condition especially in areas along the riverine.
- Most livestock across all livelihood zones are thin. Goats seemed fair close to camel in terms of preferable body condition.
- In comparison to a similar period during a normal year, the current livestock body condition is poor.
- Goats and sheep were fair for Agro-Pastoral livelihood zone, appearing slightly better than those in other livelihoods.
- Cattle body condition was fair in the Agro-pastoral areas while the rest remained thin.

3.1.2 Livestock Diseases

- Livestock disease incidents included Mange and Trypanosomiasis in camels, including Contagious Caprine Pleural Pneumonia (CCPP) in goats.
- Trypanomiasis and Contagious Bovine Pleural Pneumonia (CBPP) in cattle was also reported.
- Worms and Tick borne infections were as well reported during the month.
- Incidences of livestock deaths particularly small stocks continued to be reported, attributed to abrupt change of weather following the recent rains that came after a long drought period.

3.1.3 Milk Production

- The average household milk production during the month of April 2017 was 1 litre. The milk was essentially produced from camel.



- Milk production has decreased from 2 litres recorded in the previous month to 1 litre.
- Comparing with the same period during a normal year, milk availability decreased, and was far much below normal (82 litres) for such a time of the year.
- The milk produced was recorded in Agro-pastoral livelihood zone, while none was recorded in other livelihood zones.

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

- Crops planted in areas of Kabulokor of Loima Sub-County are at knee stage for maize while sorghum being at flowering stage with the help of irrigation along Turkwel river.
- The acreage is relative smaller than what is normally planted due to limited water from the river.

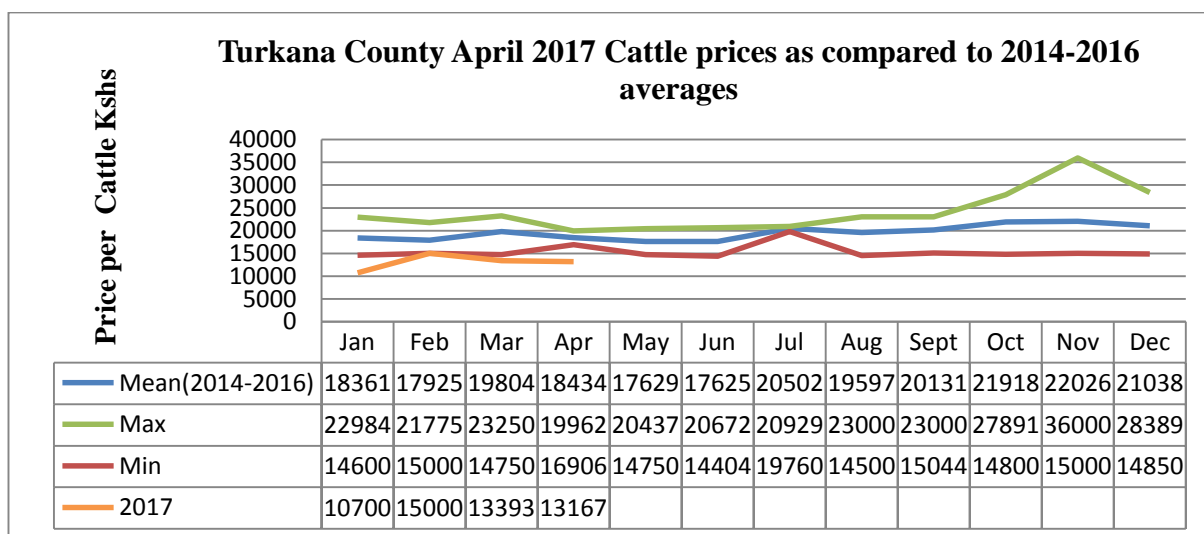
3.3 IMPLICATION OF THE ABOVE INDICATORS TO FOOD SECURITY

- It is expected that the food security situation worsens, especially if the livestock body condition will continue to be affected by diseases and pasture and browse limitation, especially if the recently started rains perform poorly. It is not the main cropping season for the farming areas thus the effect of poor rainfall performance will not be very serious, although low river volumes have affected irrigation dependent producers forcing them to reduce the areas planted.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

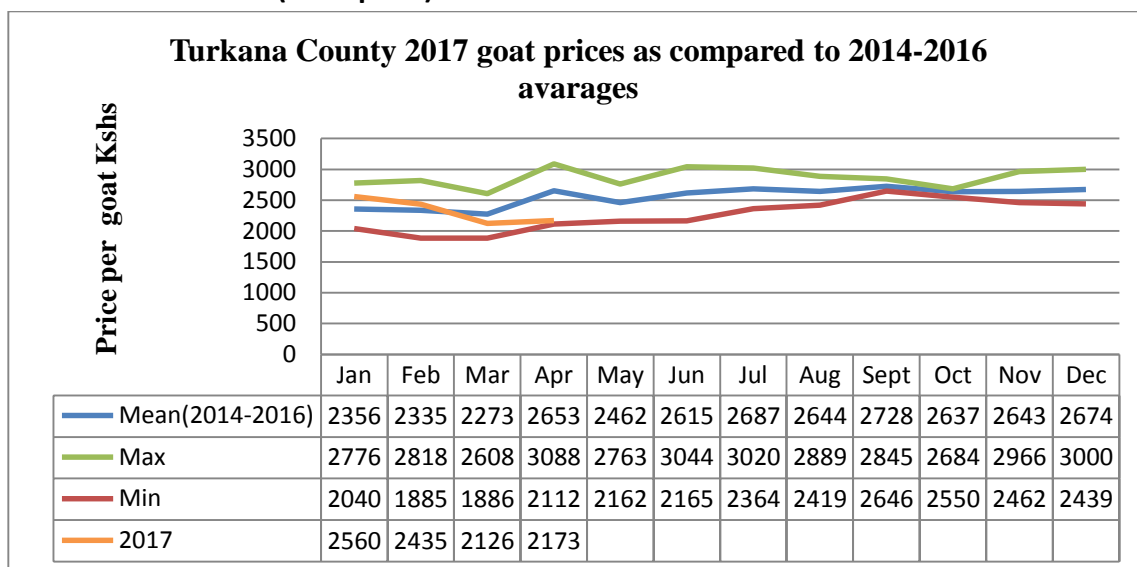


- Households reported a sale of an average size cattle at Kshs 13,167, indicating a slight decrease from Kshs 13,393 reported in the previous month.
- The cattle price was highest (kshs. 15,667) in Agro-pastoral and Lowest (Kshs. 12,125) in fisheries livelihoods.
- The general decrease in cattle price is attributed to poor purchasing power by households, poor body condition and a bad season for restocking as pastures and water are still limited.
- The cattle prices are below normal (kshs. 18,434) for such a time of the year.

4.1.2 Other outstanding observations.

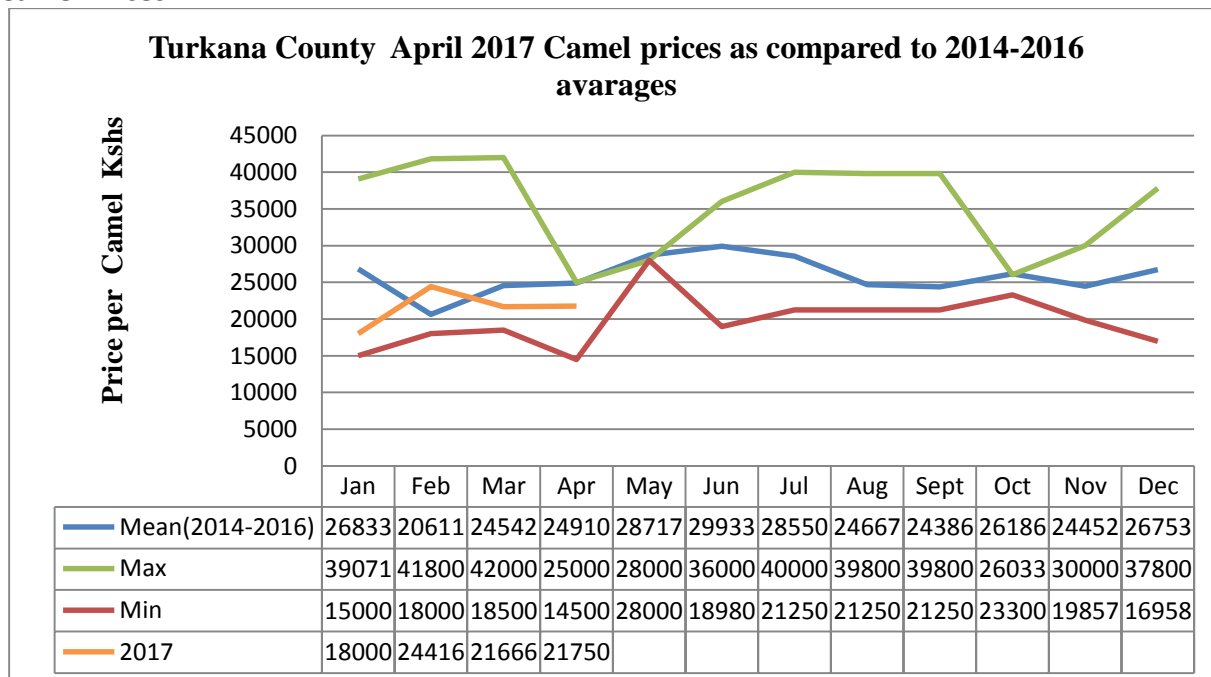
- Goats are the main sources of cash for household economy thus preference on sale of cattle was low. Low sales were recorded as the household economy was weak, coupled with weakening stock due to drought effects.

4.1.3 Small Ruminants Prices (Goat price)



- Households sold a medium size goat at Kshs 2,173 on average across the county, making a very slight increase from an average of Kshs 2,126 recorded in March 2017.
- The seemingly constant price of goat sale is attributed to the slight showers received in the county with very small improvement in body condition of goats as a result of the slight improvement in pasture and water across the county.
- The agro-pastoral livelihood zone recorded the highest average price at Kshs 2,500 whereas the lowest price was recorded in fisheries livelihood zone at Kshs 1,875.

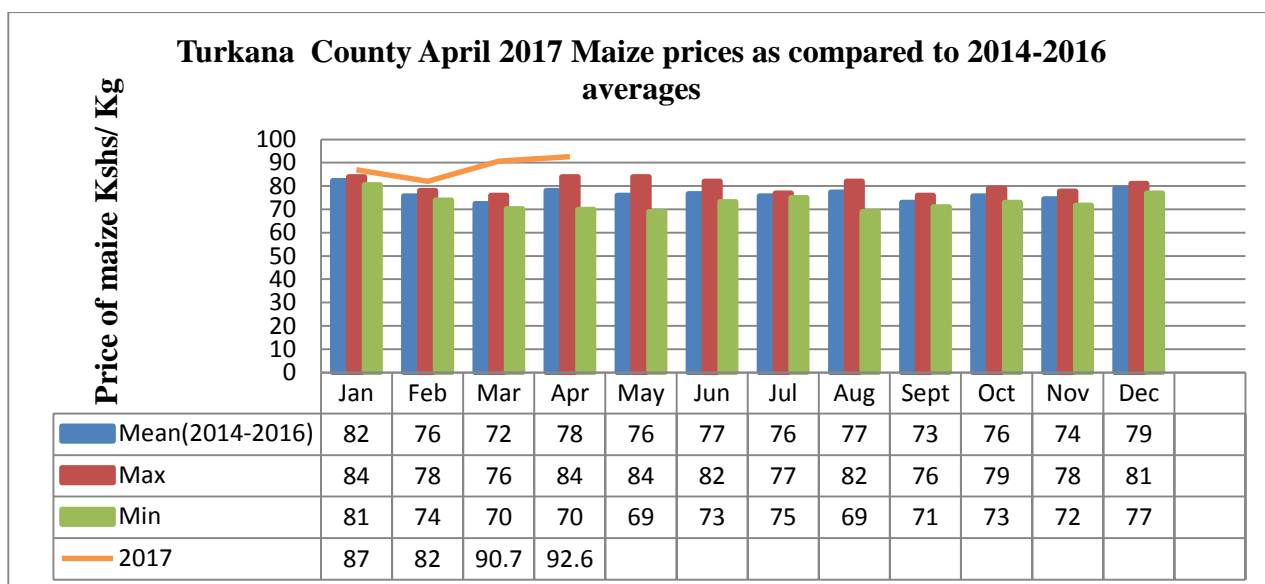
4.1.3 Camel Prices



- The average camel price was Kshs 21,750, indicating a slight increase from Kshs 21,666 recorded in the previous month.
- The camel price was highest (Kshs 24,833) in the Agro-pastoral livelihood zone and lowest (Kshs. 20,000) in pastoral zones while fisheries recorded no sale.
- The price is below normal (Kshs 24,910) for this time of the year.

4.2 CROP PRICES

4.2.1 Maize



- The county recorded an average maize price of Kshs 92.6 per Kg, representing a slight increase from Kshs 90.7 recorded in March 2017.
- The highest price of Maize was recorded in Fisheries livelihood zone at Kshs 96 while the lowest being in the Agro-pastoral zone at Kshs 90.25. The highest price was attributed to unavailability of Maize stock.
- Compared with the three-year average, the Maize prices were above normal (Kshs 78) for the time of the year.

4.2.1.1 Other outstanding observations

- Increase in prices of maize is attributed to scarcity of cereals in general and made worse by the poor body condition of goats which attracted low prices at the market arising from the adverse effects of the drought on farms across the county, making maize unavailable at the markets.

4.2.2 Posho (Maize Meal)

- Maize meal (Posho) was accessible and available during the month of April 2017 as depicted by the availability of maize in the markets across the county, although its price was much higher than that of maize.

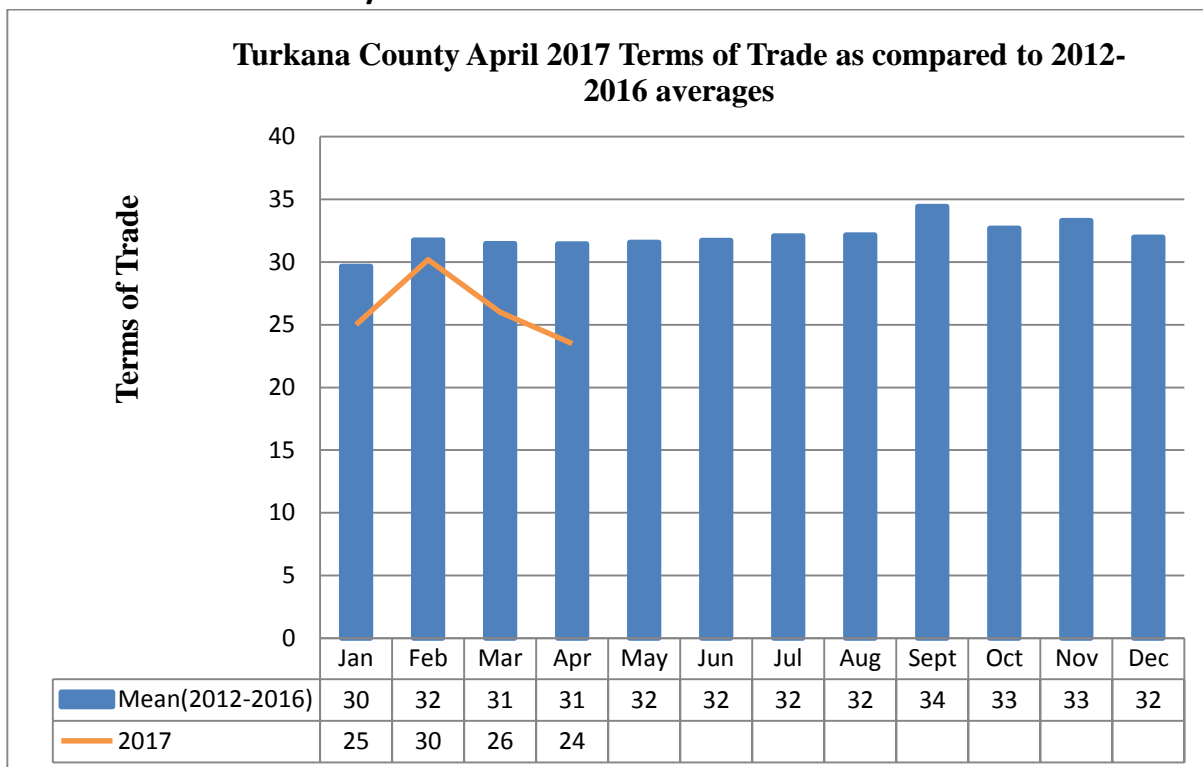
4.2.2.1 Other outstanding observations

- The cost of Posho is very high in the pastoral livelihood attributed to the cost of transportation to the interior parts of the county, due to the poor roads network.

4.2.3 Beans

- The average market price of Beans across the county during the month was Kshs 155 per Kg being an increase from Kshs 140 recorded in the previous month.
- The average market price of beans was highest at Ksh.160 as recorded in Fisheries livelihood zone and was lowest in the agro-pastoral livelihood zone (Kshs 140).

4.3 Livestock Price Ratio/Terms of Trade



- Household Terms of Trade (ToT) decreased from 26 kg to 24 kg of maize for an exchange of a goat recorded in March 2017 and April 2017 respectively. This is below the ToT recorded at such a time of the year (31 kg).
- The ToT were favorable in Agro-pastoral livelihood zone with 32.7 kg compared to the Fisheries livelihood of 22.9 kg. The favorable ToT were observed in Agro-pastoral zones attributed to relatively low maize prices alongside the comparatively higher goat price.
- The ToT were below normal for this time of the year in comparison to the long term average.

4.4 Implication of the above indicators to food security

- The food security situation is expected to worsen or remain this low owing to the decreasing ToT despite the recent rain showers received in the county that give hope of the improving livestock body condition. If then the body condition improves, the ToT may easily increase and boost the food security.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

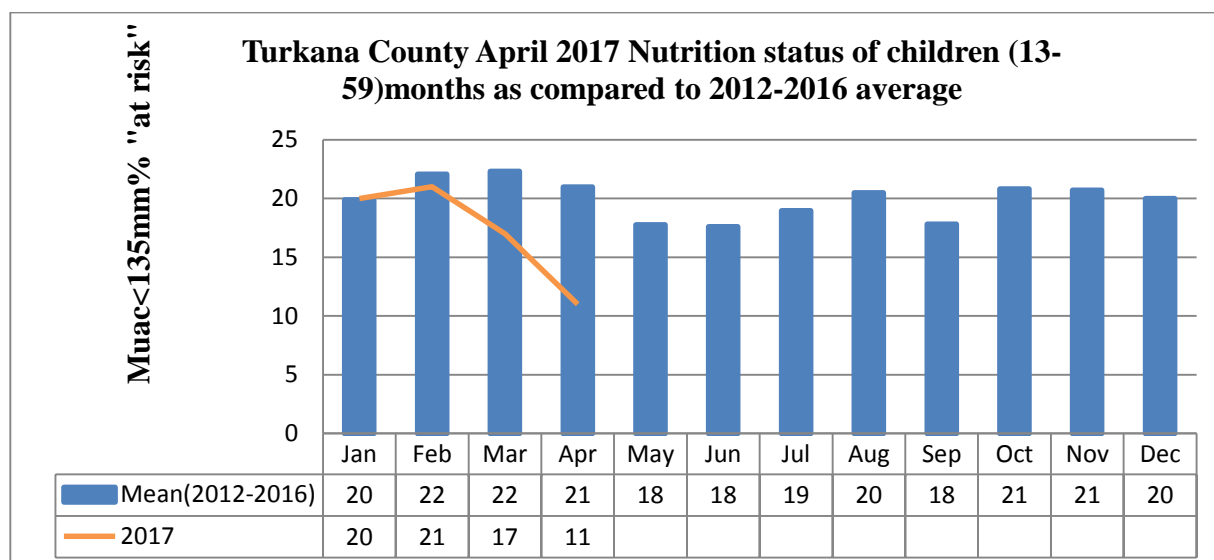
5.1 MILK CONSUMPTION

- In April 2017, the average household milk consumption was one litre as recorded in the county.
- The milk consumption decreased significantly compared to the previous month which was 3 litres produced.

5.2 HEALTH AND NUTRITION STATUS

- During the month of April, the proportion by gender of children sampled was 52 percent boys and 48 percent girls.

5.2.1 Nutrition Status



- The nutrition status of children under five years, indicated by the Mid Upper Arm Circumference (MUAC) measurement falling below 135 mm, representing the percent of those at risk of malnutrition decreased to 11, compared to 17 recorded in the previous month.
- The children who were moderately at risk were 4 percent. The trend of the proportion of children at risk of being malnourished is likely to increase as food security is threatened by the increasing maize prices and decreasing milk availability, especially in the pastoral livelihood zones, that tended to have a higher percent of children at risk than the rest.

5.2.2 Health

- The major diseases reported for the sampled children were: confirmed Malaria and coughing.
- Most affected areas are along the lake (fisheries) and riverine (agro-pastoral).
- During the month, there were no major outbreaks reported.

5.3 COPING STRATEGIES

- The Coping Strategies Index (CSI) decreased from 21.49 recorded in March 2017 to 20.63 recorded in April 2017. This was below normal strategy of 32.
- The highest index was recorded in Agro-pastoral livelihood zone (25.6) while lowest in the fisheries livelihood zones (16.7).
- The decrease in the CSI is attributed to the ongoing drought response activities across the county by various partner agencies led by the National Drought Management Authority (NDMA) and the Turkana County Government (TCG).

5.4. Implication of the above indicators to food security

- On the whole, the food security situation is likely to worsen as a result of declining milk consumption and poor body condition of livestock together with increasing cereal prices.

6.0 CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

- Facilitation of one peace meeting at Kenya-Ethiopia border **by NDMA.**
- Upscaling of the hunger safety network programme targets **by NDMA.**
- Livestock deworming and treatment implemented **by TCG.**
- Repair of broken hand pumps, servicing of gensets, purchase of spare parts and water trucking implemented **TCG.**
- Post-harvest management training **by TCG personnel supported by Childfund Kenya and World food Programme (WFP).**
- Distribution of drought tolerant crops seeds, mechanized land preparation **by TCG, NDMA/United Nations Development Program (UNDP).**

6.2 FOOD AID

- Provision of food for Fees to most affected targets **by NDMA.**
- Supporting outreaches on high impact nutrition intervention **by NDMA.**
- Therapeutic Integrated Management of Acute Malnutrition for the Under-fives, Pregnant and Lactating Mothers (Supplementary Feeding Program (SFP), Out Patient Therapeutic Program (OTP) and Stabilization Centres) by MOH supported **by World Food Programme (WFP), UNICEF, Save the Children and Kenya Red Cross Society.**
- Food for Assets (FFA) program **by NDMA and County Government ministries, Child Fund Kenya and WVK, supported by WFP.**

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- No conflicts were reported during the month.

7.2 Migration

- Most livestock had migrated to Uganda and neighbouring counties, especially from Loima, Turkana North and East sub-counties in search of pastures and water.

7.3 FOOD SECURITY PROGNOSIS

- In April 2017, the likely effect of changes in rainfall/water situation on food security is likely to improve the situation as some long rains were received all over the county.
- In the next three months, the forage condition is expected to be fair/poor and 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 worsening of livestock body condition, decreased milk availability and worsening of the food security situation if the rains do not perform better than what was received in the last two weeks of April 2017.
- If the forage would be available (preferably due to the recent rain showers received across the county) then migration and insecurity would be minimal thus enhanced food security in the county.
- Sub-counties/wards that need particular attention include Turkana East, Turkana North, Kibish and parts of Turkana West (Areas towards Nanam).

8.0 RECOMMENDATIONS

- Initiating livestock disease surveillance in areas with disease rumours (CCPP, CBPP, Mange and Trips disease).
- Preparing for awareness creation on floods in areas likely to be affected.
- Seed distribution should be done to famers depending on the rainfed crops in Letea and those doing irrigated crop farming along river Turkwel and Kerio to enable them plant in preparation of the coming rains.
- Supporting initiatives aimed at promoting peaceful co-existing at likely resource conflict hotspots.
- Monitoring and repair of broken down boreholes to be enhanced.
- Supporting nutrition supplements in more affected areas.
- Livestock treatment and deworming.
- Restore outreach services in Turkana North, Kibish, Loima and South (Lokichar).
- Strengthen existing Stabilization Centers in Turkana South (Katilu Health Centre), Turkana West (Lopiding Hospital) and Turkana East (Lokori AIC Health Centre).
- Scale up safety net programmes to cushion more pastoralists in case the expected rains cause floods and drown livestock, especially to pastoralists along river Turkwel and Kerio.