

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



A Vision 2030 Flagship Project



DECEMBER EW PHASE



Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Pastoral-all species	Normal	Worsening
Agro-Pastoral	Normal	Stable
Fisheries	Normal	Stable
Formal Employment/Casual Labour	Normal	Stable
COUNTY	NORMAL	STABLE

Drought Situation & EW Phase Classification

Biophysical Indicators

- **Rainfall:** There was no rainfall received during the month.
- State of water sources are within the normal range but declining.
- **Vegetation:** The Vegetation Condition Index (VCI) is above normal but on downward trend.
- Condition of pasture and browse remains normal.

Socio Economic Indicators (Impact Indicators)

- Both irrigated and rain-fed crops on farms are fair.
- Livestock body condition is good (smooth appearance).
- Milk production remains above normal although decreasing compared to the previous month.
- Livestock trekking distance from grazing to water sources increased and is above normal.
- Household distance to water sources increased and remained above normal.
- The Terms of Trade is good (favourable) and above normal.
- The percentage of children under 5 years, who are at risk of malnutrition (MUAC less than 135 mm) increased to 15 but was below normal.
- The Coping Strategy Index was 25, remained below normal.

Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	0	60-100
VCI-3 month	69	>35
State of Water Sources	2.5	3-4
Vegetation Condition	Normal	Normal
Production indicators	Value	Normal
Livestock Migration Pattern	Normal	Normal
Livestock Body Conditions	Normal	Normal
Milk Production	189 Litres	> 138 litres
Livestock deaths (from drought)	No Deaths	No Deaths
Crops Condition	fair	Fair
Access Indicators	Value	Normal
Terms of Trade (ToT)	43	>32
Milk Consumption	168 litres	>90 litres
Return distance to water sources	11 km	<4.82 Km
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	15%	<20%
Coping Strategy Index (CSI)	25	<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

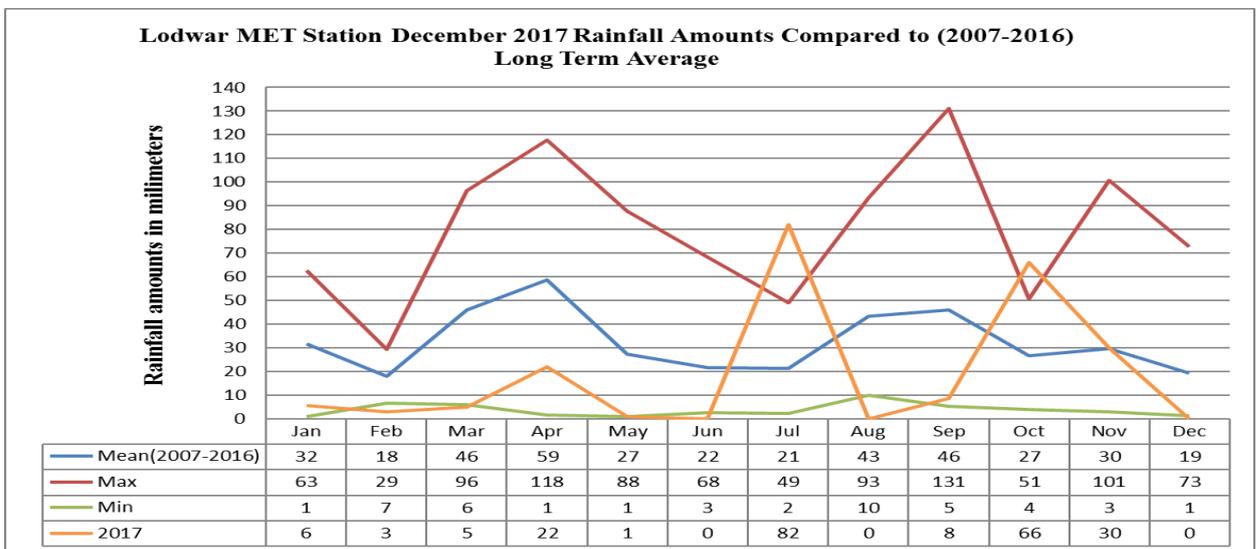
1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- There was no rainfall received in the county during the month. It was the end of the short rains season where rains were expected in the first and second weeks of the month but this was not the case, marking an early cessation.
- Compared to the previous month, rainfall performance and progression was poor as the rains ceased earlier than normal.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- During the reporting month, Lodwar Meteorological station recorded zero rainfall.
- The station recorded significantly below the mean rainfall of 19 mm for such time of the year.

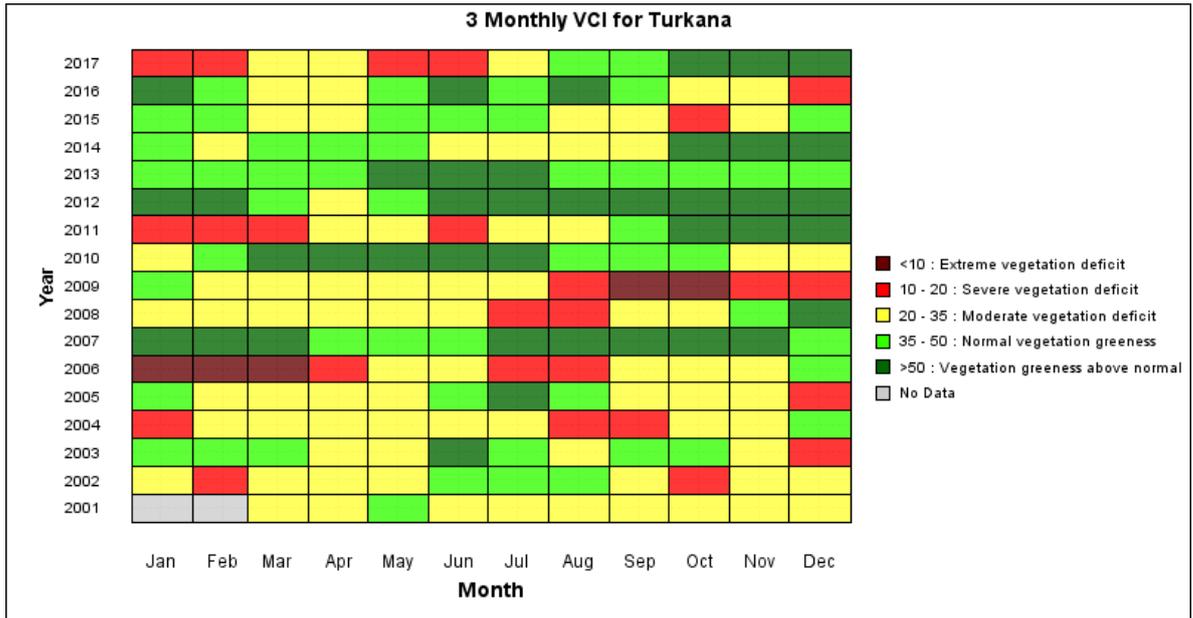


2.0 IMPACTS ON VEGETATION AND WATER

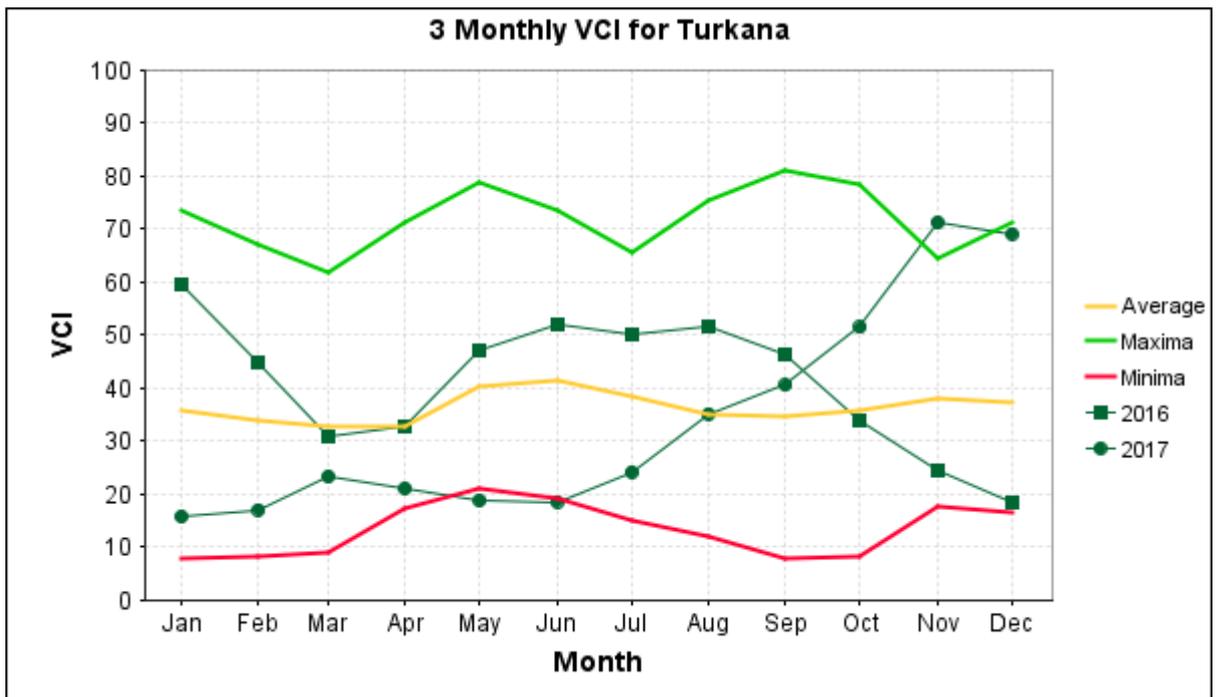
2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The VCI, which gives a picture of the vegetation greenness in the county was 69; indicating a decrease from 90 recorded in the previous month.
- The decrease in VCI is attributed to the poor rains in the previous month and the zero amount during the reporting month. The vegetation lacked rain water for improvement.
- The VCI is however above the normal of 35 (normal vegetation greenness) for such time of the year.



- The highest VCI (78) was recorded in Turkana North Sub-county while the lowest of 59 was recorded in Turkana West Sub-county.



2.1.2 Pasture

- Pasture remained of good quality and quantity across the livelihood zones.
- Fisheries livelihood zone had depressed pasture while pasture in Agro-pastoral zone was fairly good.
- Despite pasture being normal, it is gradually getting depleted in all the livelihood zones.
- The available pasture is expected to last for two months.

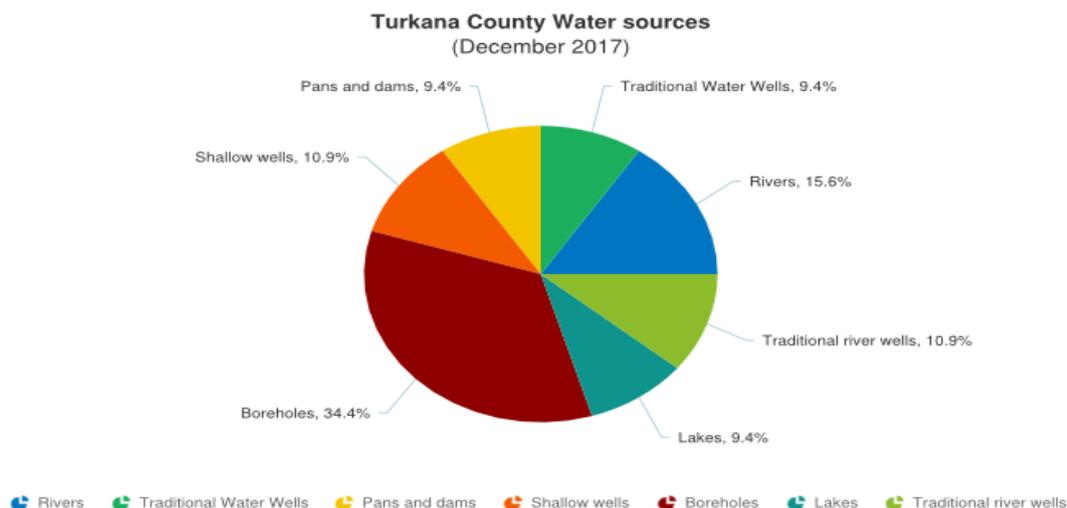
2.1.3 Browse

- The quality and quantity of browse remained good but on downward trend across the livelihood zones of the county.
- Browse was fair and tending to poor in the Fisheries livelihood zone while relatively good in the Agro-pastoral zone.
- It is expected and feared that browse will get depleted in the county much faster due to the early cessation of the short rains season.
- Despite browse being generally available, it is slightly underdeveloped compared to the previous month.

2.2 WATER RESOURCE

2.2.1 Sources: Percent of water sources in use

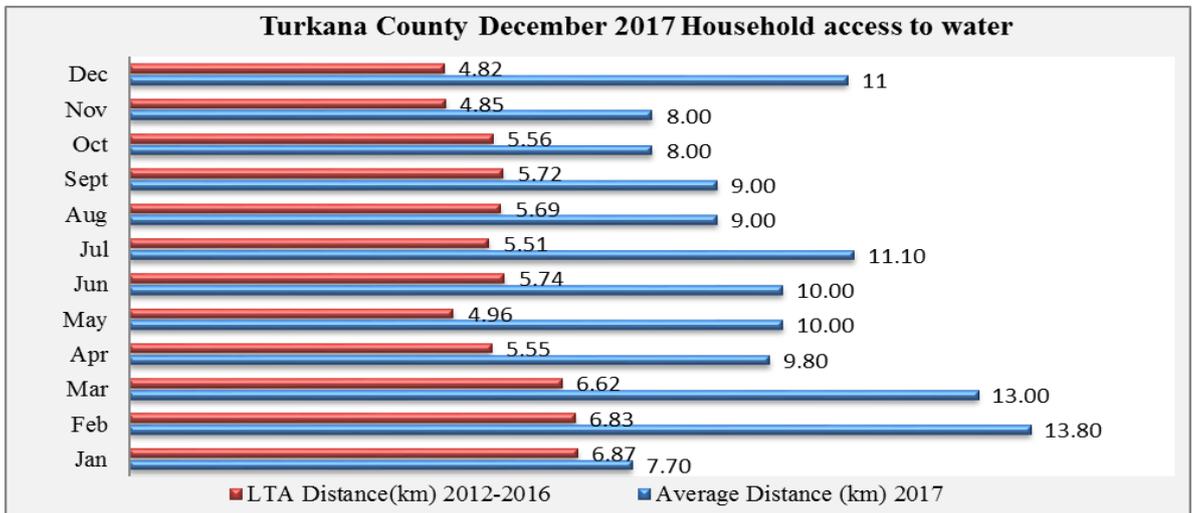
- Households and livestock used 34, 16 and 11 percent of boreholes, river and shallow well water respectively as the main water sources in the county.
- Borehole water remained the mainly used source of water as indicated on the pie chart below.



- Quantity and quality of water deteriorated compared to the previous month.
- Available water sources are expected to last for two (2) months.

2.2.2 Household access and Utilization

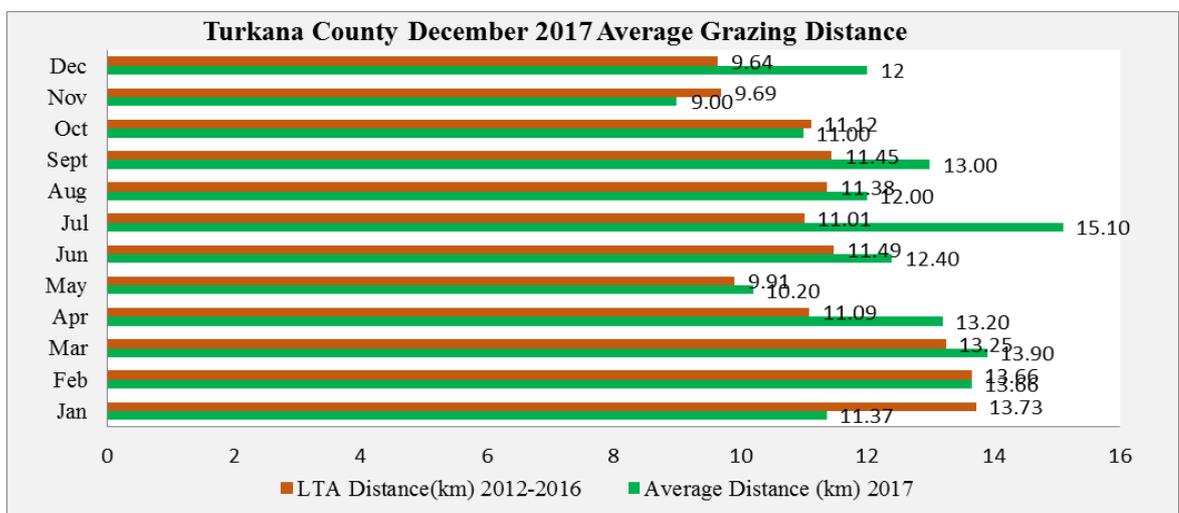
- During the month, the average return distance in Kms of households to main water sources was 11; an increase from 8 Kms recorded in the previous month.
- The increase is attributed to drying up of alternative water sources that were near households due to lack of recharge from rains as the dry spell set in during the month.



- For such time of the year, household return distance (11) is above the five-year LTA of 4.82.
- However, households in the Agro-pastoral livelihood zone consumed more water per person per day compared to households in the pastoral livelihood zone.

2.2.3 Livestock access

- The average trekking distance of livestock from grazing areas to main water sources was 12 Kms, having increased from 9 Kms recorded in the previous month.
- The increase is attributed to poor rainfall received in the previous month that led to drying up of other water sources for livestock forcing them to trek longer distances in search of pasture and browse away from water sources.



- Livestock were watered more frequently in Agro-pastoral livelihood zone compared to those in the pastoral livelihood zone.
- Compared to the LTA (9.64), the average trekking distance of livestock from grazing areas to main water sources was above normal for such time of the year.

2.3 Implication to food security

- It is expected that food security situation will deteriorate now that livestock trekking distance from grazing to water has increased; this will imply that livestock body condition will deteriorate hence poor market prices that will impact negatively to eventual food security.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

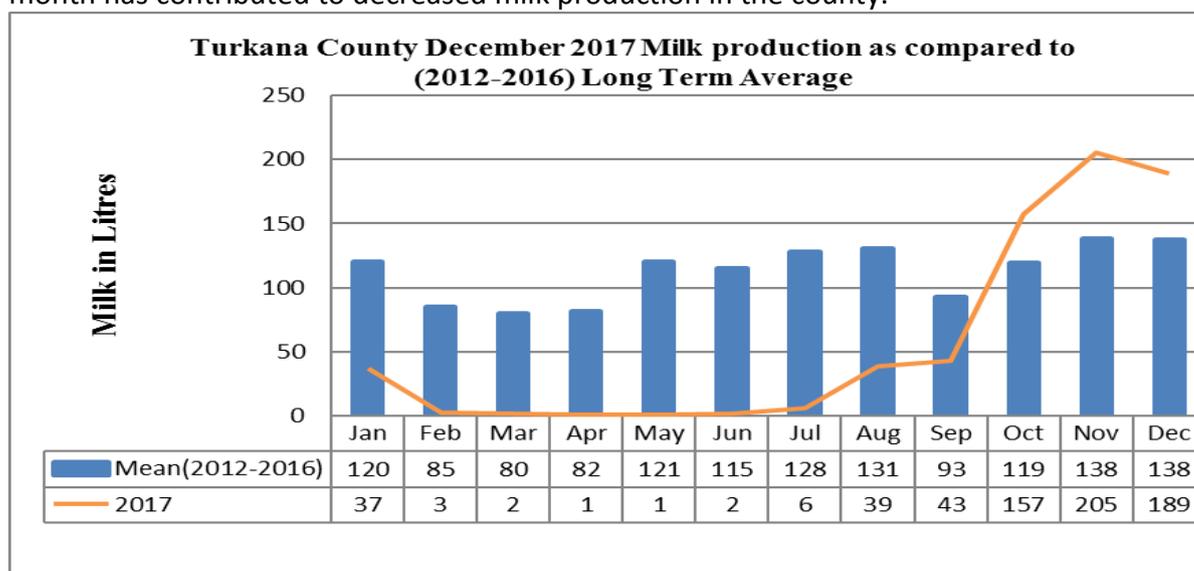
- According to Early Warning Classification system, livestock body condition is good/fair for all species.
- For such time of the year, livestock body condition is normal.
- Pastoral livelihood zone had livestock with good body condition compared to livestock in fisheries which had a relatively declining body condition.

3.1.2 Livestock Diseases

- Foot and Mouth Disease (FMD), Mange and Contagious Caprine Pleural Pneumonia (CCPP) were the main livestock diseases reported during the month.

3.1.3 Milk Production

- The county recorded 189 litres of milk, representing a decrease from 205 litres that was recorded in the previous month.
- Increase in the trekking distance to water sources occasioned by poor rains in the previous month has contributed to decreased milk production in the county.



- Agro-pastoral livelihood zone produced the highest milk compared to other zones.
- The major milk-producing species were camels and goats.
- Milk production is above the five-year mean of 138 litres for such time of the year.

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

- The rain-fed food crops are at podding/tussling stages and performing fairly well in different parts of the county.

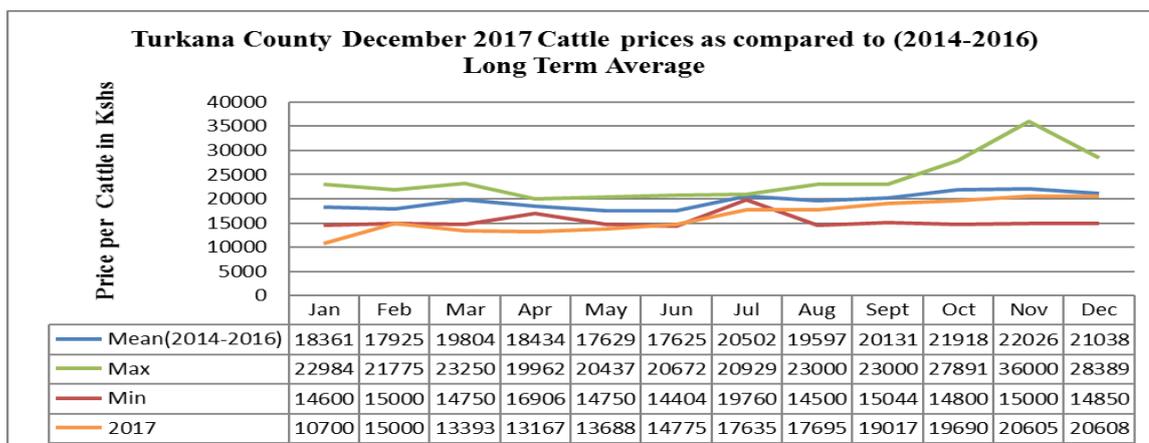
3.3 IMPLICATION OF THE ABOVE INDICATORS TO FOOD SECURITY

- The reduced milk production indicates that women and children will consume less milk hence poor food security situation.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

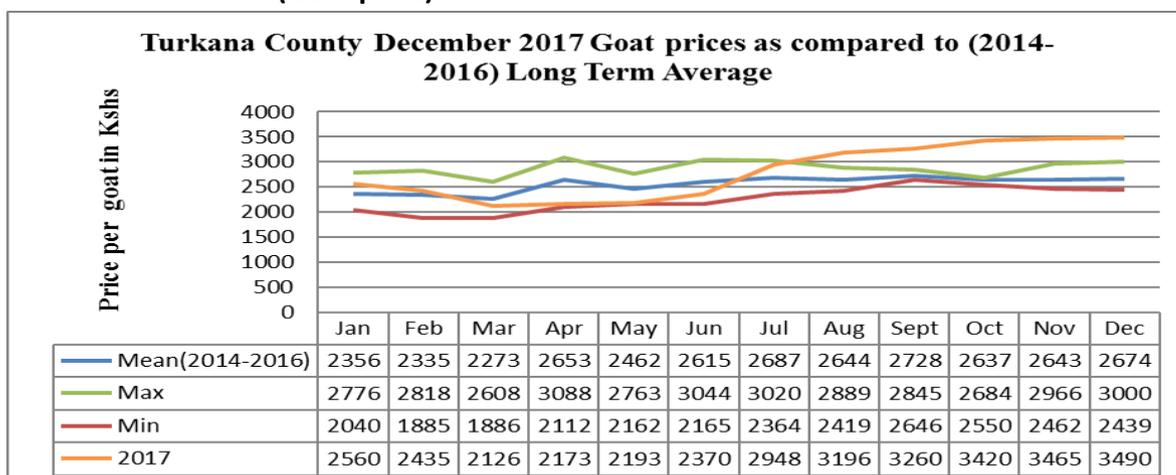


- A 4-year old medium size bull was sold at Kshs 20,608; typically, similar to the previous month.
- Pastoral livelihood zone recorded the highest cattle price of Kshs 20,729 while Agro-pastoral zone recorded the lowest of Kshs 20,300.
- Compared to the three-year mean (Kshs 21,038), the current cattle price is below normal for such time of the year.

4.1.2 Other outstanding observations

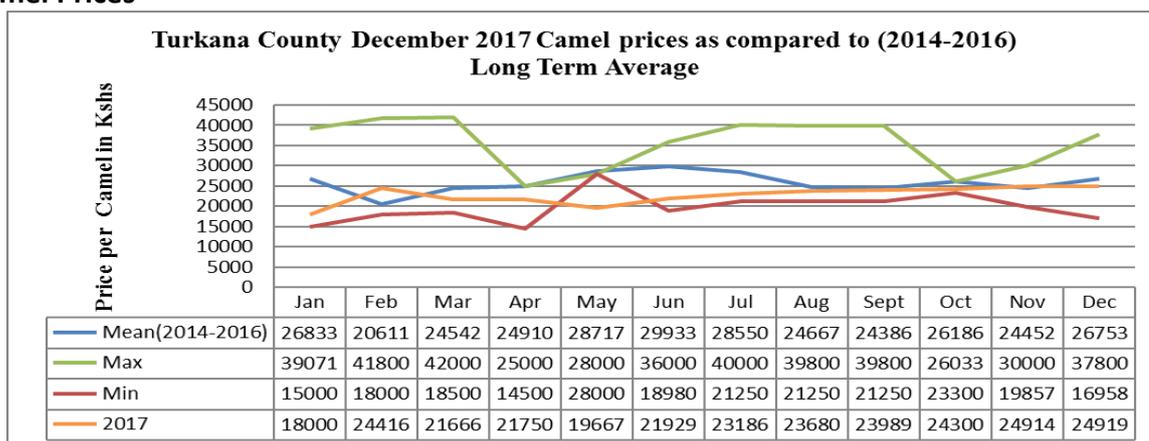
- There were no cattle sales made in fisheries livelihood zone.
- Cattle remained relatively unavailable in markets.

4.1.3 Small Ruminants Prices (Goat price)



- The county sold a 2-year old medium size goat at Kshs 3,490; which was a slight increase from Kshs 3,465 recorded in the previous month.
- The price increase is attributed to the comparatively good goat body condition that attracted favourable market prices.
- The highest goat price (Kshs 3,493) was recorded in Agro-pastoral livelihood zone and the lowest (Kshs 3,480) was recorded in pastoral zone; showing a minimal variation.
- Goat price is above the three-year mean (Kshs 2,674) for such time of the year.

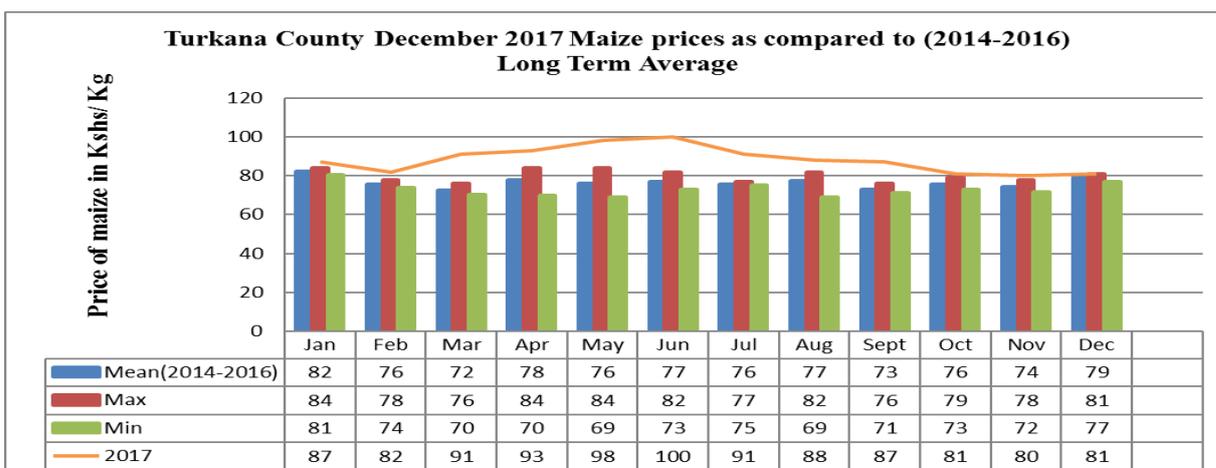
4.1.4 Camel Prices



- During the month, a 4-year old camel was sold at an average price of Kshs 24,919; a slight increase from Kshs 24,914 recorded in the previous month.
- The upward tendency in the price of camel is attributed to the persistent good camel body condition in the county that helped to fetch considerably good market prices.
- Fisheries livelihood zone recorded the highest camel price (Kshs 25,000) while the lowest (Kshs 24,867) was recorded in Agro-pastoral zone.
- Camel price is however below the three-year mean of Kshs 26,753 for such time of the year.

4.2 CROP PRICES

4.2.1 Maize



- During the month, the average price of maize was Kshs 81 per Kg, representing a slight increase from Kshs 80 that was sold in the previous month.
- The observed increase, though slight, is attributed to the decreasing maize stocks in markets and supplementing cereal (sorghum) still on farms.
- Pastoral livelihood zone recorded the highest maize price of Kshs 85 while the lowest price of Kshs 78 was recorded in Agro-pastoral zone.
- Compared to the three-year LTA, maize price is above the mean (Kshs 79) for such time of the year.

4.2.1.1 Other outstanding observations

- Maize price is expected to increase in the next two months if the current crops (sorghum and maize) on farms will fail due to lack of rainfall.

4.2.2 Posho (Maize Meal)

- The county recorded the price of posho at Kshs 100; similar to the price sold in the previous month.
- The price of posho is above the normal for such time of the year.

4.2.2.1 Other outstanding observations

- Posho stocks in markets are expected to reduce in the next two months and this will increase the price of posho.

4.2.3 Beans

- The county recorded a sale of beans per Kg at Kshs 146, a similar price as the one recorded in the previous month.
- The price stability is attributed to fair availability of beans in markets across all livelihood zones in the county.
- The highest beans price of Kshs 155 was recorded in the pastoral livelihood zone and the lowest (Kshs 143) was recorded in the Agro-pastoral zone.

4.3 Livestock Price Ratio/Terms of Trade



- Terms of Trade (ToT) was 43, which is similar to that of the previous month.
- The stability in ToT is attributed to both goat and maize prices undergoing a corresponding slight increase as to the ones for the previous month.
- Agro-pastoral livelihood zone recorded the highest ToT (Kshs 45) and Pastoral zone recorded the lowest (Kshs 41).
- The ToT is above the five-year mean of 32 for such time of the year.

4.4 Implication of the above indicators to food security

- Food security situation will remain stable since farmers will access similar amounts of cereal for a sale of a similar size of goat as the previous month. The higher ToT relative to the norm implies better food security in the county.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

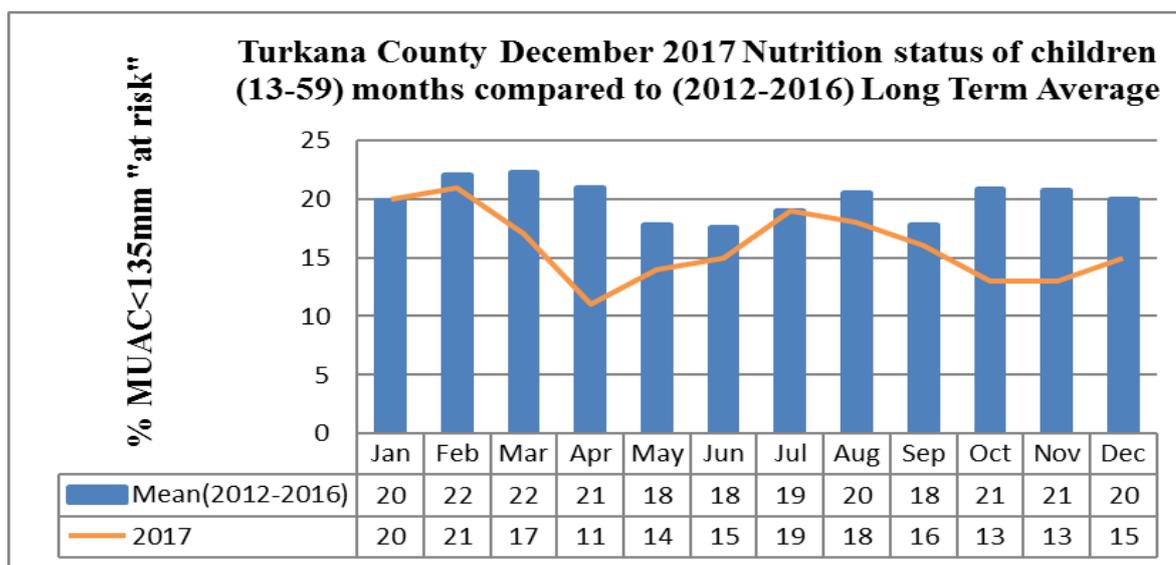
5.1 MILK CONSUMPTION

- The county recorded milk consumption of 168 litres; a decrease from 187 litres recorded in the previous month.
- The highest milk consumption was recorded in Agro-pastoral livelihood zone while the least was recorded in fisheries zone.
- For such time of the year, milk consumption is above normal (90 Litres).

5.2 HEALTH AND NUTRITION STATUS

- The proportion by gender of sampled children was 47.5 and 52.5 percent males and females respectively.

5.2.1 Nutrition Status



- During the month, children who are at risk of malnutrition, whose Mid Upper Arm Circumference (MUAC) is less than 135 mm, were 15 percent of the sampled population, having increased from 13 percent recorded in the previous month.
- The increase is attributed to children consuming less milk compared to the previous month.
- The percentage of children with MUAC less than 135 mm is below the five-year mean of 20 percent for such time of the year.

5.2.2 Health

- There were No major epidemic disease outbreaks reported during the month.

5.3 COPING STRATEGIES

- The Coping Strategy Index (CSI) was 25, being an increase from 16 recorded in the previous month.
- The upward trend in the CSI is attributed to households engaging other ways of getting food because milk, which would supplement food supply, was decreasing and was mostly consumed by children, whereas maize price was slightly going up.
- Fisheries livelihood zone had the highest CSI of 21, while Agro-pastoral zone had the lowest (11).
- Despite the increase, the CSI remained below normal (32) for such time of the year.

5.4 Implication of the above indicators to food security

- Owing to the increase in CSI coupled with reduced milk consumption, food security situation is expected to worsen in the next three months.

6.0 CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

- Vegetation assessment in Loima and Turkana West sub-counties for grazing of livestock as well as wood resource availability **by KEFRI**.
- Treatment and vaccination of 67,725 livestock heads in Turkana West and North sub-counties, including training of 38 Community Disease Reporters and conducting participator disease surveillance **by VSF-Germany** in collaboration with Turkana County Directorate of Veterinary Services
- Protection Ration Roll-out (cash transfers) targeting Malnourished under 5 Children and Pregnant & Lactating Women in about 45,000 households in Turkana County **by World Food Programme (WFP)**.
- Emergency unconditional cash transfer program targeting 3,000 vulnerable households in Turkana North, Kibish and Turkana Central with each household receiving a monthly cash grant of Kshs 4,000 **by Save The Children**.
- Rehabilitation of 10 and 7 shallow wells in Turkana North and Turkana West respectively **by VSF Germany**, with the support from the Ministry of Water.
- Undertaking of Integrated nutrition outreach activities in Turkana North, Kibish and Turkana Central under IMAM program that reached 5,400 children **by Save the Children**.
- Cash transfers to regular and emergency beneficiaries for Hunger Safety Net Programme targets **by NDMA**.
- Cash transfer in Turkana East sub-county targeting 5,911 Households **by Kenya Red Cross**.
- WASH activities in Turkana North, Kibish and Turkana central sub-counties which comprised election and capacity building of water management committees **by Save The Children**.

6.2.1 FOOD AID

- Food aid to 900 Households of older persons and people with disabilities in Lochwaa (300 Households), Kataboi (200 Households), Lorengelup (204 Households) and Kangagetei (196 Households) **by Help Age International**.
- Food distribution in Turkana East, Turkana North and Loima Sub-counties **by Kenya Red Cross**.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- During the month, No major insecurity occurrences were reported.

7.2 Migration

- There were No major migration cases reported during the month.

7.3 FOOD SECURITY PROGNOSIS

- Food security situation will worsen because milk production and consumption have reduced as livestock trek for long distances in search of browse and water.
- Most crops on farms will perform poorly now that no rains were received during the month; this will affect food security situation negatively in the county.
- Despite long livestock trekking distance, livestock body condition remains good. This will enable farmers sell livestock at favourable prices and buy good amounts of food hence improve food security.
- The stable ToT imply that farmers will buy a similar amount of cereal for a sale of a goat thus impact positively to the overall food security situation.

8.0 RECOMMENDATIONS

- Desilting of canals and in-takes to be done in irrigated farms especially in Turkana East and South Sub-counties. Most of them have blocked and no longer allow water flow thus irrigation hampered. (Ministry of Agriculture to take lead).
- Both governmental and non-governmental agencies should embark on developing resilience projects in the county, such as rehabilitation of water pans and dams, sinking of boreholes and promoting alternative income diversification projects.
- The ministry of livestock and line agencies to support vaccination and deworming for livestock across all livelihoods in the county.
- The Ministry of Health and the line partner agencies should strengthen health stabilization centres located in various parts of the county.