



A Vision 2030 Flagship Project



# National Drought Management Authority TURKANA COUNTY

## DROUGHT EARLY WARNING BULLETIN FOR JANUARY 2021

### JANUARY EW PHASE

**Drought Status: ALERT**



**Maandalizi ya mapema**

### Drought Situation & EW Phase Classification

#### Biophysical Indicators

- The County did not experience any significant rainfall in January with dry and hot weather conditions (34°C-36°C) dominating across all livelihood zones. Cumulative rainfall for the 6-month period (August 2020 - January 2021) accounted for only 56 percent of the normal rainfall for the period.
- Considerable deterioration in the vegetation condition was observed as supported by the decline in the VCI-3month index across all the Sub-counties. The Pastoral and Fisheries livelihood zones were severely affected.
- Significant deterioration in the water levels was witnessed with most water pans being below 25 capacity and the depth of the traditional river wells increasing by 50 percent in January.

#### Socio Economic Indicators (Impact Indicators)

- Livestock body condition for browsers was fair while that of grazers was poor in some sites and deteriorating. Increase in household access distance to water source and return distance to water points for livestock was recorded during the month.
- Milk production and consumption level was below normal while the terms of trade declined further and was at par with the long-term average. Out-migration was observed but there was no livestock deaths attributed to starvation/dehydration.
- Proportion of under-fives who were moderately malnourished increased with majority of the households having a minimally adequate diet and applying 'stress' and 'crisis' coping strategies. Additionally, proportion of households categorized as having a poor FCS was typically high for the period.

### Early Warning (EW) Phase Classification

LIVELIHOOD ZONE	PHASE	TREND
PASTORAL-ALL SPECIES	ALERT	WORSENING
AGRO-PASTORAL	ALERT	WORSENING
FISHERIES	ALERT	WORSENING
COUNTY	ALERT	WORSENING

Biophysical Indicators	Value	Normal Range
Rainfall (% of Normal)	56	90-110
VCI-3 month (County)	61	>35
VCI-1 month (T. North)	38	>35
VCI-1 month (T. East)	41	>35
State of Water Sources	3-4	5-6

Production Indicators	Value	Normal Range
Livestock Migration Pattern	Not Normal	Normal
Livestock Body Condition	Fair	Good
Milk Production	1.6Litres	> 2.5 Litres
Livestock deaths (attributed to drought)	No Deaths	No Deaths

Access Indicators	Value	Normal Range
Terms of Trade (ToT)	38	>40
Milk Consumption	1.6Litres	>2.3 Litres
Return distance to water sources (Household)	7.5 km	< 8.2 km
Cost of Water (KSh/20L)	KSh. 5-10	<KSh .5

Utilization Indicators	Value	Normal Range
Nutrition Status, (% with MUAC: 115-124mm)	Yellow:6.1	<6.3
Food Consumption Score Proportions (%)	28 Poor: 30 Borderline: 46	>35 Poor< 26 Borderline: <43
Reduced Coping Strategy Index (rCSI)	16.6	<17.0

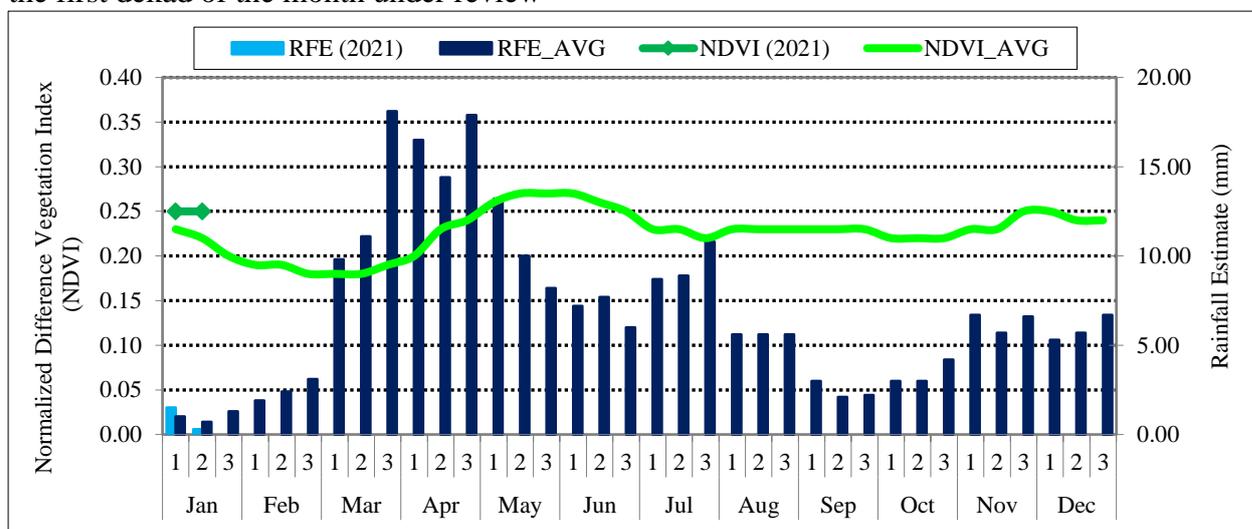
<ul style="list-style-type: none"> <li>Short rains harvests</li> <li>Short dry spell</li> <li>Reduced milk yields</li> <li>Increased HH Food Stocks</li> <li>Land preparation</li> </ul>	<ul style="list-style-type: none"> <li>Planting/Weeding</li> <li>Long rains</li> <li>High Calving Rate</li> <li>Milk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

### 1.1 RAINFALL PERFORMANCE

- The County did not experience any significant rainfall during the month of January. Consequently, dry and hot weather conditions dominated across most sections of the County. Nonetheless, select areas in Turkana South received depressed rainfall with a temporal distribution of one day during the first dekad of the month under review

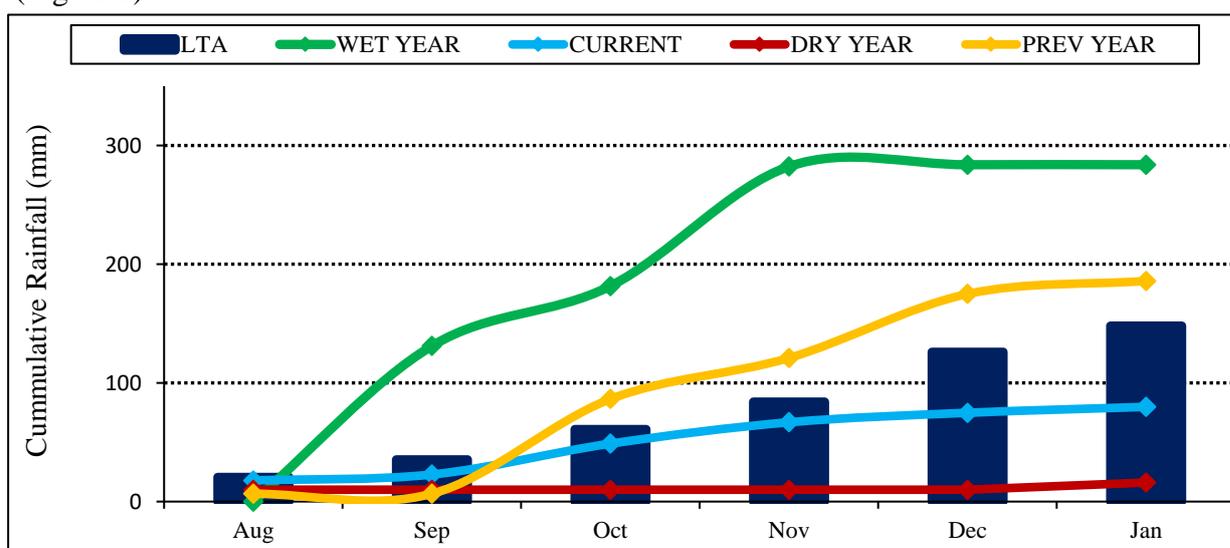


**Figure 1: Dekadal Rainfall (mm) and NDVI Values Compared to the Long Term Average**  
 Source: VAM-World Food Programme, CHIRPS/MODIS

- Following the early cessation of the Short Rains witnessed during the previous month, there was no positive effect on the condition of vegetation witnessed as evidenced by the Normalized Vegetation Condition Index (NDVI) that did not adjust upwards (Figure 1).
- Most sections of the Fisheries and Pastoral livelihood zones along the Eastern part of the County constituting Turkana East, Central, South, Central and North Sub-counties remained significantly dry during the period under review.

### 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- Based on the period starting August 2020 and extending to January 2021, cumulative rainfall recorded accounted for 56 percent of the long-term average (LTA) rainfall for that span of time (Figure 2).



**Figure 2: Six-Month Cumulative Rainfall Trend (August 2020 to January 2021)**  
 Source: Kenya Meteorological Department (KMD)-Turkana County

- Dry and hot weather conditions prevailed across most parts of the County especially the Pastoral and Fisheries livelihood zones.

- The spatial distribution was considerably uneven with for instance six out of the seven Sub-counties exhibiting drier than normal weather conditions across the entire month.
- Extended periods of sunny intervals throughout the day were prevalent across all the sites in the County with a high of 36<sup>0</sup>C during the day.
- The cumulative rainfall reported for the six-month period (August 2020-January 2021) was lower than the one reported for the same period during the previous year by 58 percent.
- Based on 13-year’ historical data, the period between August 2011 to January 2012 was considered the wettest while the six-month period commencing August 2016 and ending January 2017 was considered the driest segmental year having recorded only 16mm of rainfall.
- As a consequence of not receiving any significant rainfall throughout the October-November-December (OND) season and January, the listed sites in table 1 were severely affected in terms of the vegetation condition remaining poor.

**Table 1: Sites Experiencing Drier than Normal Conditions**

Turkana East	Turkana North	Turkana Central	Turkana South	Loima
Lochakula	Lakezone ward	Kangirisae, Nakurio	Kangakipur,	Lomil, Lobei
Katamanak	(Nasechabuin, Epur	Kerio, Naotin,	Kalapata,	Napeillilim
Lokori,Lokwii	Lokitongaber	Ngimuriae	Lokichar	Nameyana
Kangitit	Lomekwi, Karebur	Lokitela,	Nakabothan	Nadapal
Lopii,Kamuge	Kataboi, Nachukui	Nagetei	Kangirega	Kaitese
Lokoriokot	Katiko,	Kalokol,	Nagetei,	Koolioro
Lokwomosing	Narengewoi)	Kapua	Napusmoru,	Nakamane
Nakukulas	Kaeris, Kaaleng	Namorutunga	Loperot,	Lorugum
Lokorkor	Nakalale, Ataerika	Loturerei	Kaekunyuk	Lolupe
Lopedur	Lokapelpus,	Lokaparparai	Locheromoit,	Namuruputh
Ng’ilukia	Kanakurudio	Kalotum	Lochwaa	
			Kaakalel	

### 1.3 OTHER EVENTS

#### 1.3.1 COVID-19 Pandemic

- The County had recorded 921 COVID-19 positive cases as at 20th January 2021 out of the 8,282 samples tested with a positivity rate of 4.6 percent mainly for Turkana West Sub County.
- Total recoveries were 882 while the active nine cases were localized to Turkana West. Additionally, 16 absconders were reported with cumulative mortalities remaining 19.
- Cumulatively, 2,342 contacts had been traced and currently none was on follow up while the operational isolation facilities were three (*Source: Turkana County CRRT-Disease Surveillance Secretariat*).

#### 1.3.2 Desert Locusts Invasion

- There were no reports of Desert Locusts in the County during the month under review and with the likelihood of re-invasion remaining high given new swarms had been reported in the neighbouring Counties, the surveillance team was on high alert and preparedness had been enhanced.
- However, Tree Locusts continued decimating large tracts of forage land with their droppings having a negative effect on the livestock in terms of disease and mortalities in some sites.

#### 1.3.3 Flooding

- There were no floods or flash floods reported across all sites in the County during the period under review. However, the storm witnessed in various parts of the County such as Kangakipur, Lokori, Mlima tatu, Kalobeyei, Nakalale, Kang’atotha and most parts of Township ward led to uprooting of vegetation and precipitated the spread of fire in Kaawoi resulting to destruction of large tracts of pasture land where livestock had migrated to from other parts of the County.

## 2.0 IMPACTS ON VEGETATION AND WATER

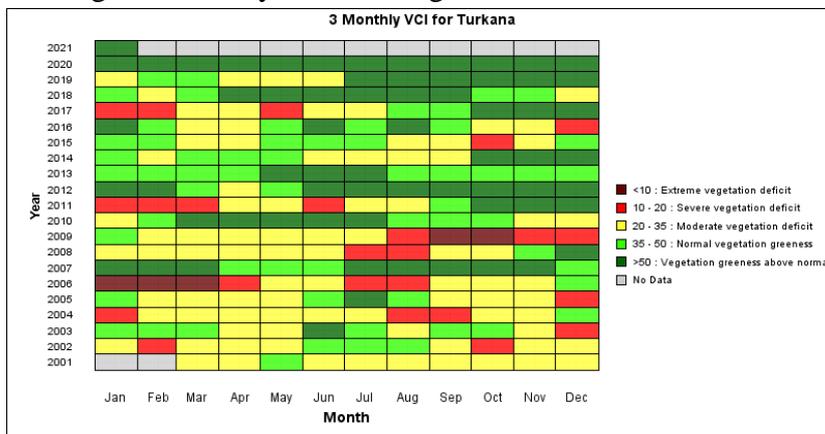
### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index (VCI)

- Based on the applicable VCI thresholds, the matrix (Figure 3) illustrates how various months have been classified upon conducting a retrogressive analysis of the vegetation condition.

- The basis for VCI is comparison of the relative change in NDVI value with respect to the minima NDVI value historically.

- The overhead vegetation species along the seasonal rivers and Prosopis Juliflora that had invaded most areas in Turkana West, North, East and South remained ever green during the period under review.

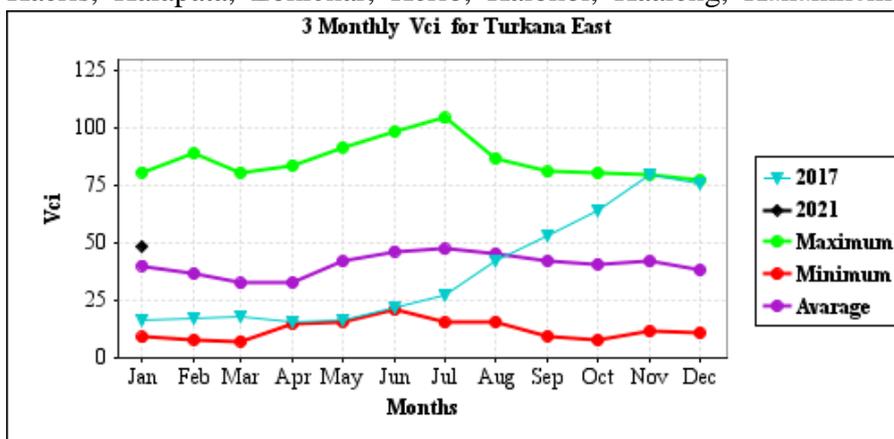


**Figure 3: Vegetation Condition in Turkana County- Source: Boku**  
palatable species normally fed on by livestock had dried across most areas as a consequence of the poor performance of the Short Rains.

- Generally, the condition of vegetation deteriorated across January as evidenced by the VCI-3month value that declined to 61 from 81.
- Sites depicting normal vegetation greenness were those along the peripheries of the County including those in Turkana West, Loima, Kibish and some sections of Turkana South that are predominantly Agro-pastoral with a significant manifestation of drought resistant species.
- Deterioration in vegetation condition with respect to the previous month was evident in all the Sub-counties as evidenced by the rapidly declining VCI-3month values. For instance, during the month under analysis, Turkana North and East reported the lowest values of 55 and 48 accordingly (Figure 4).

- Similarly, during the month under review, Turkana East and North experienced the highest level of deterioration as evidenced by the VCI-1-month values of 40 and 38 reported respectively.

- Some of the wards that were experiencing significant vegetation deficit in January included: Kaeris, Kalapata, Lokichar, Kerio, Kalokol, Kaaleng, Kanamkemer, Township, Kang'atotha,



**Figure 4: Vegetation Condition Trend in Turkana East- Source: Boku**

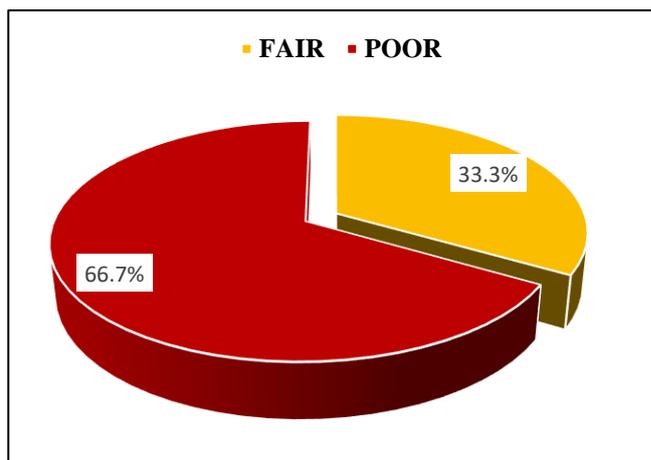
period under review.

- Noteworthy, proliferation of Prosopis Juliflora and other invasive species contributed massively towards the greenness observed in vegetation across most sites in the Agro-pastoral and Pastoral livelihood zones.

Lakezone, Lokori, Turkwel, Lopur, Songot and Katilia. Below average rainfall during the OND 2020, absence of off-season rainfall across most areas season coupled with remarkably high land surface temperature were some of the factors that accelerated deterioration in the condition of vegetation during the

### 2.1.2 Field/Ground Observations: Pasture

- Generally, the condition of pasture was poor within the plains but fair along the peripheries of the County as observed during the transect drive and from focussed group discussions with nine communities and 27 key informants held in January (Figure 5).
- The pasture level witnessed across majority of the areas in January was considerably below the one normally observed at such a time of the year across these areas.
- Absence of off-season rainfall in January coupled with the significantly high land surface temperature were the major factors influencing the observed trend during the period under analysis.
- Available pasture in the Agro-pastoral and some sections of the Pastoral zone is anticipated to last for a period of one month.

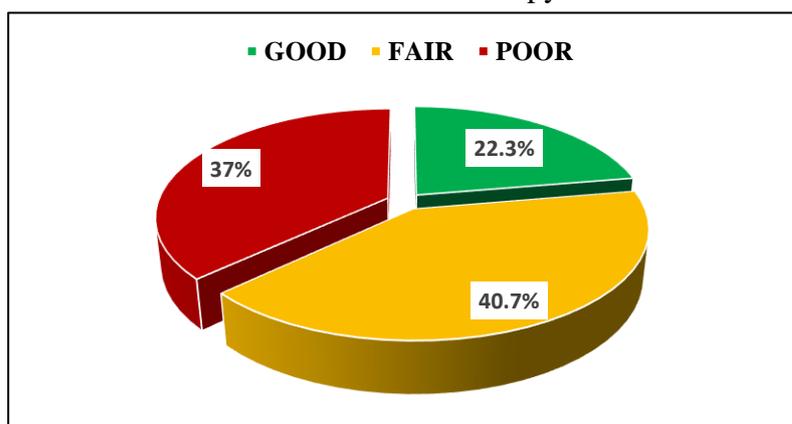


**Figure 5: Pasture Condition in Turkana-January 2021**

- However, if the current dry and hot weather conditions continue dominating most parts, its likely to last less than one month in majority of the sites along the Pastoral livelihood zone.
- Insecurity along the conflict zones of Todonyang, Lokichoggio, Urum-Lokipoto, Kapedo/Napeitom, Lokori/Kochodin and Kibish, pasture depletion occasioned by proliferation of *Prosopis Juliflora* and other invasive non-palatable species and high disease prevalence were some of the notable constraints to pasture access in January.
  - Variation in the quality and quantity of pasture was evident across the three livelihood zones; whereas the Agro-pastoral livelihood zone had some reserves, most sites in Fisheries and Pastoral livelihood zones had significantly low amounts of dry pasture.

### 2.1.3 Field/Ground Observations: Browse

- Browse condition during the month under review was generally fair with some select areas in the plains exhibiting browse whose condition was poor (Figure 6). Continued decimating of browse by the Tree Locusts in some sections of the Pastoral zone coupled with the prevailing drier than normal conditions across most areas were the major drivers of the observed browse condition.
- Compared to the previous month of December, there was no significant improvement recorded but rather deterioration and thus the canopy was less dense in comparison to normal seasons.



**Figure 6: Browse Condition in Turkana County-January 2021**

- Available browse mainly in the Agro-pastoral and some sections of the Pastoral livelihood zones is forecasted to last for a period of 1-2 months and less if, the current dry and hot weather conditions persist across January with no showers being experienced. Notable constraints to browse access during the period under review were insecurity, water scarcity in some sites with browse and the high prevalence of notifiable diseases in convergence zones.
- Whereas fairly dense canopies were observed in the Agro-pastoral livelihood zone, the situation was different in the Fisheries and Pastoral livelihood zones where thin canopies were evident during the period under review.

## 2.2 WATER RESOURCE

### 2.2.1 Sources

- Boreholes, shallow wells with a pumping mechanism and traditional water wells were the main sources of water in use by the community during the month of January and thus the situation did not shift significantly from the previous month (Figure 7).
- Proportion of households accessing water from these water sources remained unchanged with respect to the previous month. However, concentration was witnessed in some boreholes occasioned dry up of other alternative water sources like water pans occasioned by the poor recharge during the Short Rains season. The operational capacity of boreholes was 84 percent during the subject month under analysis.

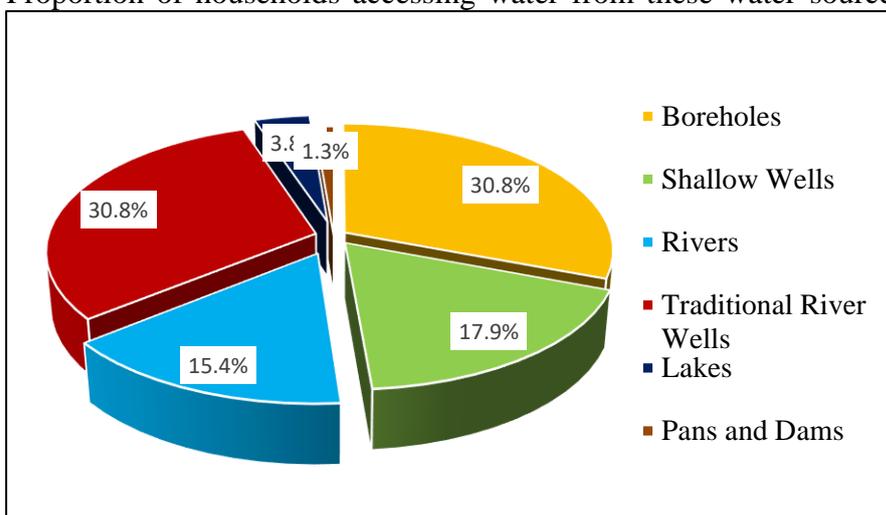


Figure 7: Sources of Water in Turkana County; January 2021

Kawalathe, Kospir, Tarach, Kalemngorok, Lokichar, Napasinyang, Natiira and Kalobeyei remained dry throughout the month under review.

- Majority of the open water sources in all the three livelihood zones were below 25 percent capacity with siltation being noted as a major problem across these water sources. In addition, the water quality in these open water sources was noted to be bad due to direct utilization by the livestock.
- The depth of the traditional river wells had increased and averaged 3-4 metres with the available water expected to last for a period less than one month compared to 2-3 months normally.
- Variation in the water situation in terms of level with respect to the normal scenario at such a time of the year was evident in January with the Fisheries and Pastoral livelihood zones being the most affected in terms of water availability and access.

### 2.2.2 Household access and Utilization

- Household trekking distance to water source increased by 41 percent and consequently averaged 7.5 km across the three major livelihood zones in the County (Figure 8).
- Compared to the long-term average trekking distance and the one recorded for a similar period during the wet years, the recorded distance was lower by a paltry nine percent.

- The Pastoral livelihood zone reported the longest distance while the shortest was reported along the Fisheries livelihood zone during the month of January.
- Consequently, a changed scenario in terms of distance covered to water source was observed

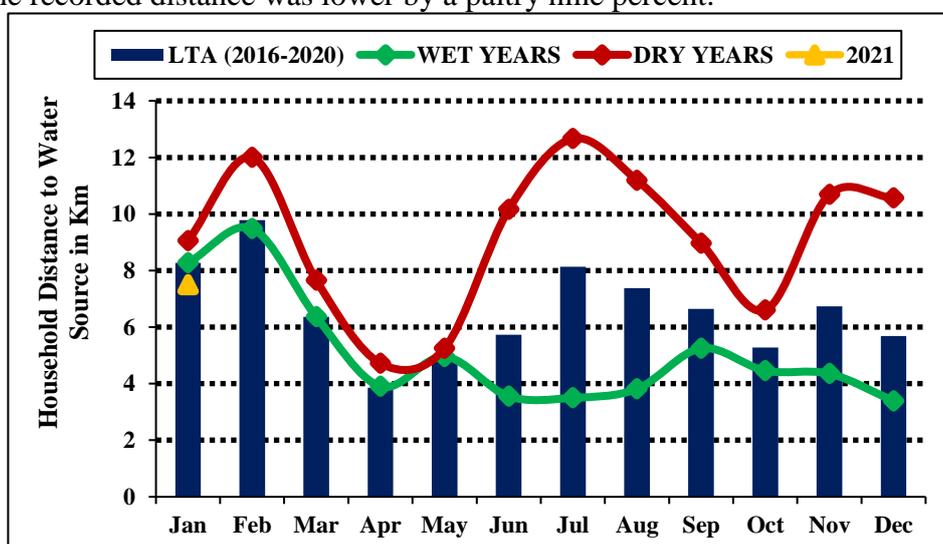


Figure 8: Household Access Distance to Water Source

in January especially along the Pastoral livelihood zone.

- The waiting time at the water source was relatively high, households in the Pastoral, Fisheries and Agro-pastoral livelihood zones spent an average of 45-60, 30-45 and 30 minutes as opposed to 30-45, 30, and 20 minutes accordingly at the water source.
- Water consumption per person per day averaged 5-10 litres along the Pastoral and Fisheries livelihood zones and 10 litres in the Agro-pastoral livelihood zone as opposed to 10-15 litres in the former zones and 20 litres in the latter.
- Unlike previously, even at community level some water charges were being levied with a 20 litre jerrican being sold at three shillings. Approximately eight percent of the population residing in urban centres purchased a 20 litre jerrican at KSh. 5-10 with the cost rising to KSh 20-30 once delivered to the household by the motor bike riders. The price was outside the normal range in some areas like Naduat where it was dispensed at KSh. 50.

### 2.2.3 Livestock access

- The return trekking distance to water source from grazing areas increased slightly with respect to the previous month and thus averaged 10.7 km in January (Figure 9).
- The reported distance in January was at par with the one reported for the same period during the wet years but lower than the long-term average for January by seven percent.
- The Pastoral livelihood zone returned the longest trekking distance while the shortest was recorded

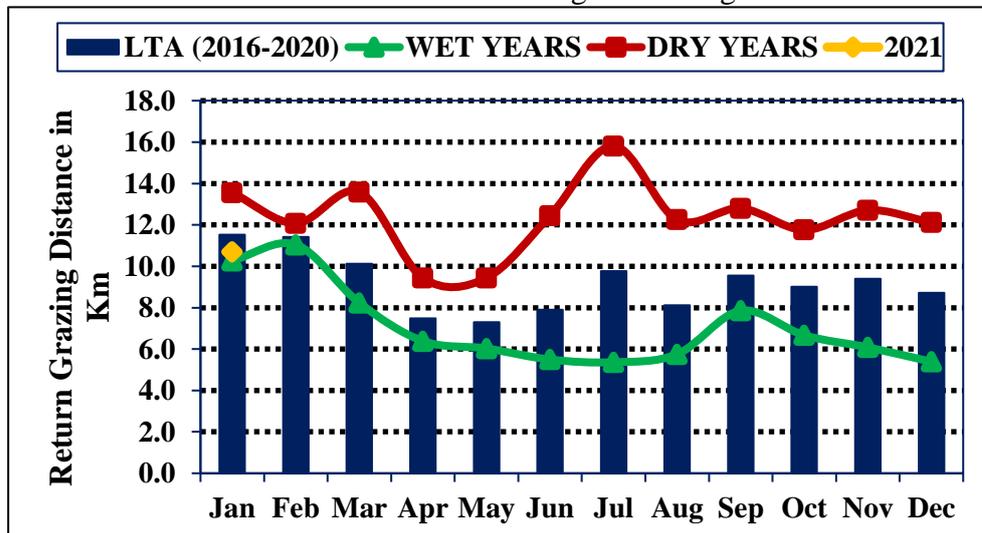


Figure 9: Return Distance to Water Source from Grazing Areas: January 2021

of the County.

- Further, the observed trend in the trekking distance in January was generally as a result of the deteriorating rangeland conditions within the plains that necessitated livestock to migrate further into the dry season grazing areas that were normally far from water sources due to non-inhabitancy. In addition, the elongated distance especially in Turkana East was due to the insecurity attributed to sporadic attacks and cattle rustling witnessed in some sites.
- Livestock watering frequency was below the normal level with all livestock species in the three major livelihood zones in the County accessing water 1-3 times per week. The shoats in the Pastoral and Fisheries livelihood zones accessed water three times compared to 5-6 times per week normally while the camels were taken to water points once per week. On the other hand, cattle in the Agro-pastoral livelihood zone accessed water three times per week as opposed to five times normally.
- Decreased water availability occasioned by drying up of some sources, increased number of borehole breakdowns, increased depth of traditional river wells, cessation of water flow through the seasonal rivers and migration of livestock to areas without established water structures were some of the factors that were influencing the observed trend during the month of January.

along the Agro-pastoral livelihood zone. The observed scenario could be attributed to the fact that the pasture condition in the former zone was generally poor hence the elongated distance in search of pasture/browse in sites far away from water points along the borders

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- Livestock body condition during the month under review was fair but on a deteriorating trend across the three livelihood zones. For cattle along the Pastoral livelihood zone, the borderline fore-ribs were not visible but the 12<sup>th</sup> and 13<sup>th</sup> ribs were visible. Goats and camels in the Agro-pastoral livelihood zone had a moderate body condition; neither fat nor thin but along the Fisheries livelihood zone, thin fore ribs were visible in small stock especially sheep.
- Across February the body condition of livestock is anticipated to deteriorate faster than normal owing to the accelerated diminishing pasture levels driven by the above normal land surface temperatures and continued decimating of the browse by the Tree Locusts.
- The body condition of livestock currently lies outside the normal range for the period under review and this would be ascribed to impediments in accessing quality forage owing to the poor performance of the short rains leading to elongated trekking distances.

##### 3.1.2 Livestock Diseases

- During the month under review livestock diseases reported across various parts of the County included: Pestes des Petits Ruminants (PPR), Contagious Caprine Pleuro Pneumonia (CCPP), Helminthiasis, Sheep and Goat Pox, Mange, Haemorrhagic septicaemia, Abortions and Anaplasmosis. Notably, migration of livestock was enhancing the spread of these diseases.
- The prevalence of these diseases especially Contagious Caprine Pleuro Pneumonia and Mange was typically high at 21.5 and 23 percent in that order. However, targeted vaccination campaigns by Turkana County Government (TCG) and other stakeholders were on-going. (Source: e-Surveillance- Veterinary Department, Turkana County Government)

##### 3.1.3 Milk Production

- During the period under review, only nine percent of the sampled 270 households reported on own milk production and that represented a decline from the 17 percent that returned a positive response previously. Amount of milk produced mainly by camels averaged 1.6 litres in January (Figure 10).
- The reported production level for January was considerably lower with respect to the long-term average for the period and the production level recorded for the period during the wet years by 36 and 40 percent accordingly.
- The price of milk per litre along the Fisheries, Pastoral and Agro-pastoral livelihood zones was KSh. 90, KSh. 80, KSh. 60 compared to KSh. 80, KSh. 60 and KSh. 40 normally across sites that reported sales.
- The observed trend was as a consequence of the reduced livestock productivity occasioned by the deteriorating rangeland conditions coupled with the on-going out migration.

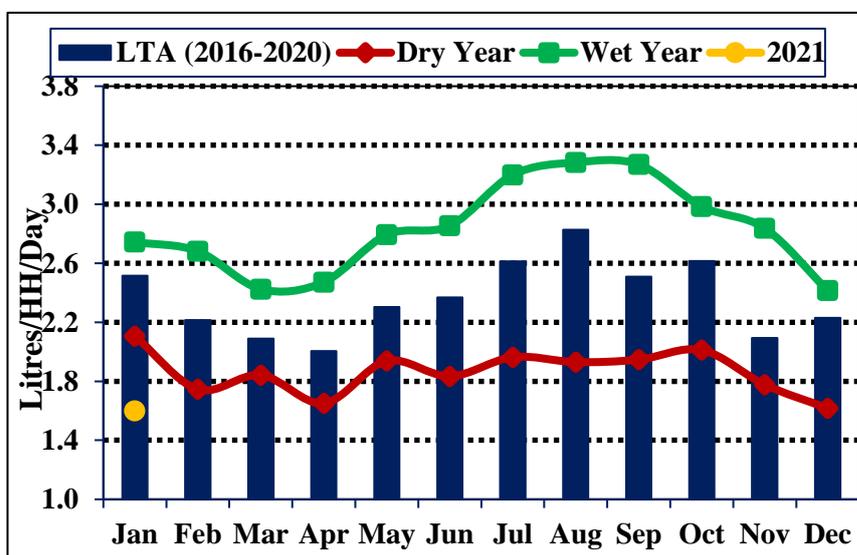


Figure 9: Milk production Trends in Turkana County-January 2021

### 3.2 RAIN-FED CROP PRODUCTION

#### 3.2.1 Stage and Condition of Food Crops

- There were no significant agricultural activities taking place during the month of January.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

- The price of a 4-year-old medium sized bull during the period under analysis declined by eight percent with respect to the previous month and hence it traded at KSh. 14,095 across the Pastoral and Agro-pastoral markets (Figure 11).
- The decline in price could majorly be attributed to the deteriorating body condition of cattle occasioned by elongated trekking distances in search of pasture along the riverine and the periphery Pastoral areas of the County.

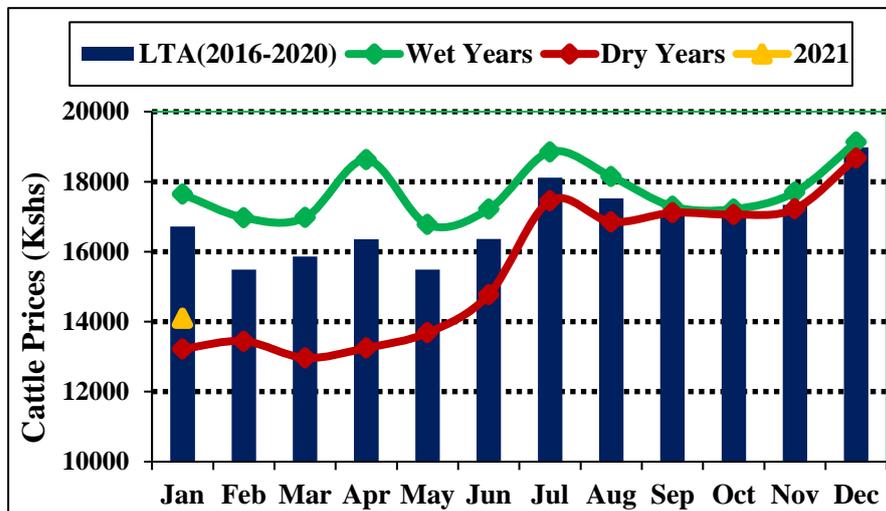


Figure 10: Cattle Price Trends in Turkana County-January 2021

occasioned by elongated trekking distances in search of pasture along the riverine and the periphery Pastoral areas of the County.

The Pastoral and Agro-pastoral zones reported an average price of KSh. 14,100 and KSh. 14,080 accordingly during the period under review.

Relative to the long-term average and the price for the same period during the wet years, the reported price during the month under review was lower by 16 and 20 percent in that order.

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

- During the month under review, the price of a 2-year-old medium sized goat adjusted downwards to KSh. 2,520 from KSh. 2,770 reported in December across all the livelihood zones (Figure 12).

- The decrease in price during the month of January could be ascribed to the deteriorating body condition driven by in availability of quality palatable browse across most sites in the county adjacent to households and water points. Further, increased supplies in the market occasioned by the urgent need to raise schools' fees after the resumption of education contributed towards the observed declining trend in market price of a goat.

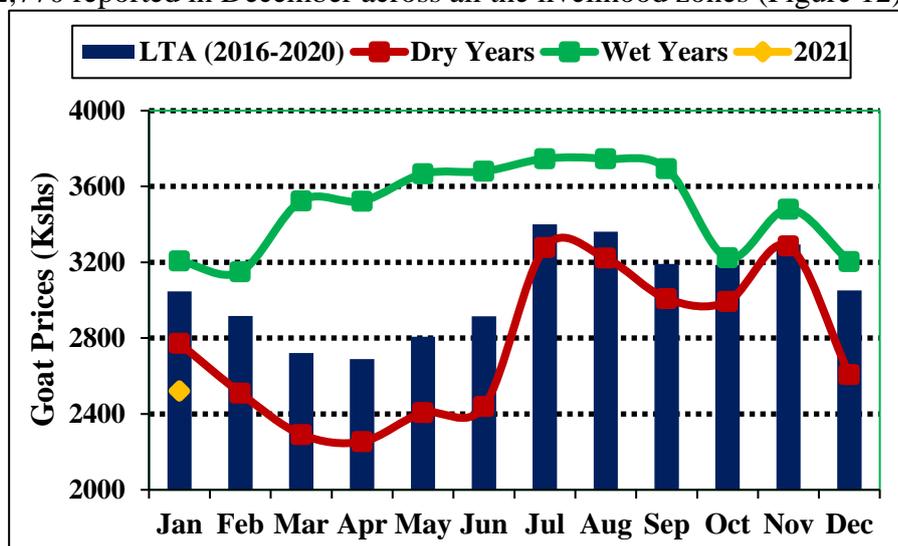


Figure 11: Goat Price Trends in Turkana County-January 2021

- Along the Fisheries, Pastoral and Agro-pastoral livelihood zones, an average trading price of KSh. 2,000, KSh. 2,600 and KSh. 2,830 respectively was recorded in January.
- The reported price of goat during the period under analysis was lower than the long-term average for the month of January by 18 percent and the one reported for a similar period during the wet years by approximately 22 percent.
- Across February, the price of goat is projected to decline further as the browse reserves deplete across the Agro-pastoral and Pastoral sites in the County.

### 4.1.3 Camel Prices

- The price of a 4-year-old camel declined slightly during the period under review with the Pastoral and Agro-pastoral livelihood zones where sales were reported returning an average price of KSh. 24,020 (Figure 13).

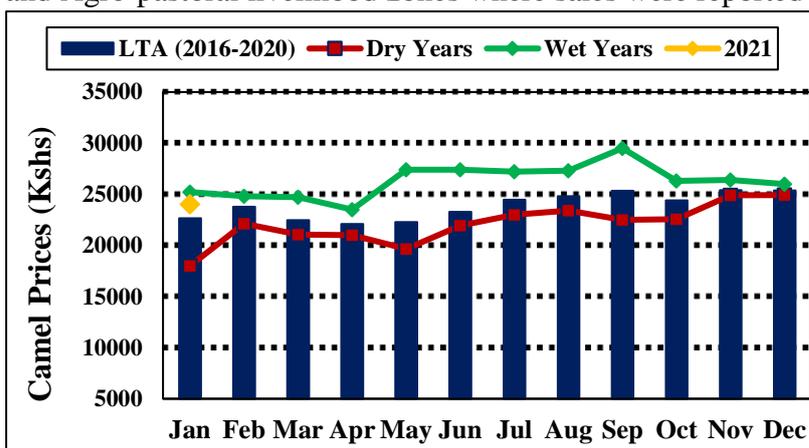


Figure 12: Camel Price Trends in Turkana-January 2021

24,020 (Figure 13).

Deteriorating body condition occasioned by browse in availability across most areas and constraints in accessing water was the major pull factor that was influencing the observed price trend.

The Pastoral and Agro-pastoral livelihood zones reported an average price of KSh. 24,000 and KSh. 24,080 respectively. There were no sales in the Fisheries livelihood zone.

- The reported price during the period under analysis was higher than the long-term average by six percent but lower than the price reported for a similar period during the wet years by a similar margin. The negative trend in market price is expected across February.

## 4.2 CROP PRICES

### 4.2.1 Maize

- Stabilization in the price of maize with respect to the previous month was noted and thus a kilogram retailed at an average price of KSh. 66 across the three livelihood zones (Figure 14).
- The recorded market price during the month under analysis was lower than the long-term average price and the one recorded for a similar period during the wet years by 13 percent.

- Majority of households had a higher preference for maize from Trans Nzoia as opposed to the imports from the neighbouring Uganda.

- The highest price of KSh. 68 was reported along the Pastoral livelihood zone while the Fisheries and Agro-pastoral livelihood zones reported an average price of KSh. 65 and KSh. 60 in that order.

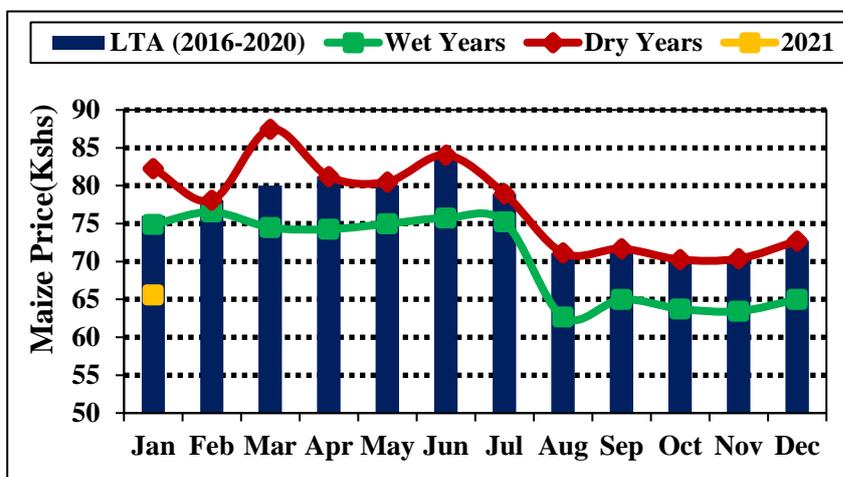


Figure 13: Maize Price Trends in Turkana County-January 2021

- However, outlier prices in the range of KSh. 100 to KSh. 120 were reported in the interior markets within Turkana North Sub County such as Kaeris, Kaaleng, Kokuro and Lokitaung. Prevailing insecurity, monopolization of the markets by few traders and the high cost of transportation were some of the drivers of the observed price trend.
- In addition, it was also noted that the actual unit of measurement at the market was not an exact kilogram and therefore buyers were disadvantaged.
- Stabilization in price across most terminal markets was as a result of the continued flow of maize from external markets in Trans Nzoia and West Pokot coupled with the cross-border imports from Uganda. Generally, the traded volume of maize was high especially in the Agro-pastoral areas.
- Nevertheless, an upward trend is anticipated across February driven by over-reliance on external supplies and imports occasioned by absence of internal supplies that can regulate the market price.

#### 4.2.2 Beans

- The price of beans in January increased from the one reported previously and thus a kilogram traded at an average price of KSh. 117 across all the livelihood zones (Figure 15).

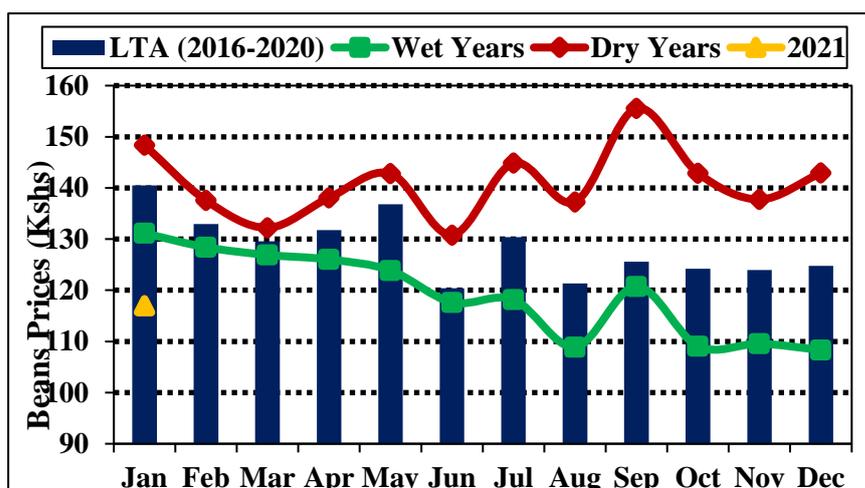


Figure 14: Trends in Beans Price in Turkana County-January

The increase in price could be ascribed to depletion of stocks for substitute pulses at the household level that led to increased demand for beans sourced externally hence the price shift.

The highest price of KSh. 119 was recorded along the Pastoral livelihood zone with the Fisheries and Agro-pastoral livelihood zones returning an average price of KSh. 115 and KSh. 113 respectively.

- Not only was the reported price of beans in January lower than the long-term average by approximately 17 percent but also the one recorded for a similar period during the wet years by 11 percent. The upward trend in price is expected to continue across February.

#### 4.3 LIVESTOCK: CEREAL PRICE RATIO/TERMS OF TRADE (ToT)

- During the period under review, a decline in the terms of trade was recorded and consequently proceeds obtained upon sale of the commonly traded medium sized goat of two years enabled pastoralists to acquire 38 kilograms of maize from the market (Figure 16).

- The reported terms of trade was almost at par with the long-term average ToT but slightly lower than the one posted for a similar period during the wet years by 10 percent.
- Therefore, the purchasing power of Pastoral households during the subject month under review was compromised with respect to the previous month.

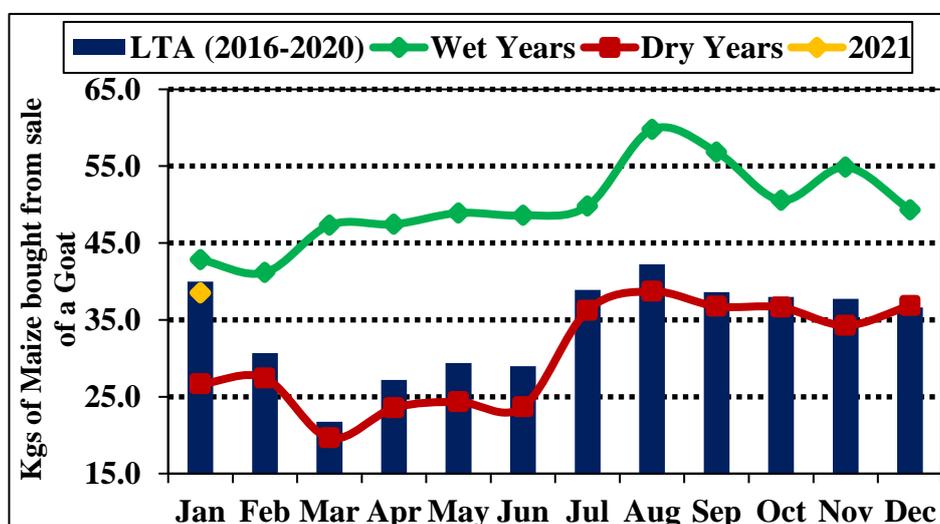


Figure 15: Terms of Trade Trend in Turkana County-January 2021

- Noteworthy, approximately 5-10 percent of the goat proceeds were used in defraying transportation costs that remained significantly high since the outbreak of COVID-19 pandemic and thus household dietary diversity could not be achieved with porridge consumption being preferred as a means of economically utilizing the few kilograms of maize acquired.
- Exceptionally low terms of trade in the range of 27-31 was reported in Turkana North and Turkana West as a result of the high cost of maize and low goat price accordingly with a similar negative trend being noted in Turkana Central Sub County.
- Declining goat price was the major driver of the observed trend in ToT and the negative trend is forecasted to continue as the body condition of goat deteriorates further with the price of maize projected to rise gradually across February as the demand soars.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

- The proportion of households reporting to have consumed milk during the month under review was only nine percent and thus it declined from those that reported on the same previously based on the 270 sampled households.

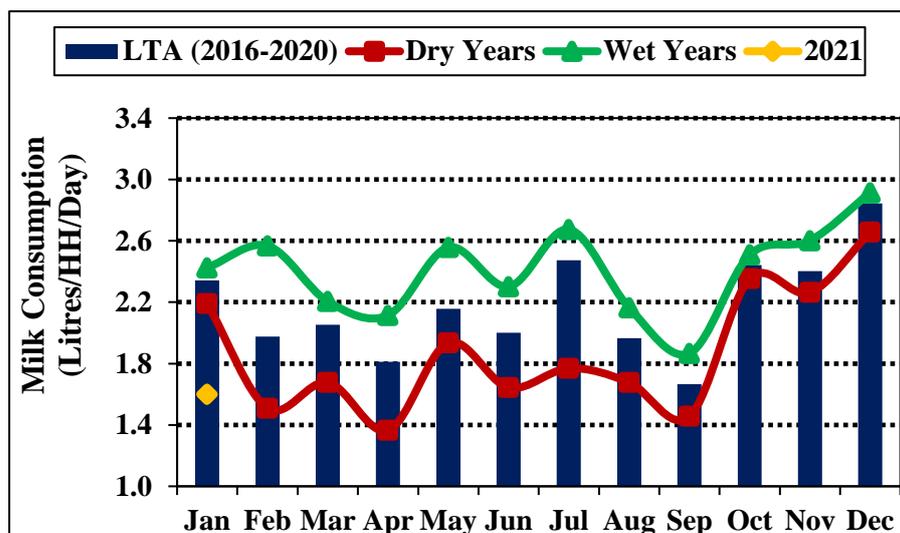


Figure 16: Milk Consumption Pattern in Turkana County-January 2021

Amount of milk consumed was low and averaged 1.6 litres per household per day in January (Figure 17).

The low consumption level was as a result of the drop in yield per animal owing to constraints in accessing forage, low calving rates, reduced milking herd size occasioned by out migration and prioritization of the young ones to drink as a

way of cushioning them against the negative effects of drought. Following the continued deterioration of the rangeland conditions across all the livelihood zones, milk consumption is anticipated to decline further across February based on historical trends.

- Compared to the normal consumption level for the month under review, the reported consumption was lower by 31 percent and also the one recorded for the same month during the wet years by 34 percent.

### 5.2 FOOD CONSUMPTION SCORE (FCS)

- During the month under review, proportion of households categorized as having a poor, borderline and acceptable food consumption score was 30 percent, 46 percent and 24 percent accordingly across the Pastoral, Fisheries and Agro-pastoral livelihood zones.

- Evidently in relation to the previous month, a shift in the proportions across the classes was observed with an estimated proportion of four and five percent transitioning into the poor and borderline FCS categories respectively.

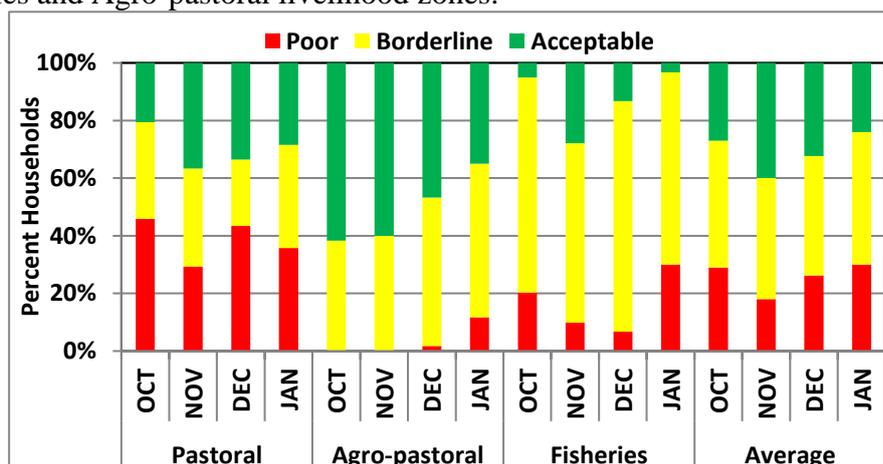


Figure 17: Food Consumption Patterns in the County-January 2021

majority of households were consuming staples and vegetables every day, accompanied by oil and pulses a few times in a week as evidenced by the food consumption score of 28 that notably declined from the FCS of 32 reported in December.

- The Pastoral livelihood zone posted the highest proportion of households categorized as having a poor food consumption score (Figure 18). The food consumption pattern was also notably poor in Turkana Central, South and Loima Sub-counties.

## 5.3 HEALTH AND NUTRITION STATUS

### 5.3.1 Nutrition Status

- From the sampled children aged 6-59 months across all sentinel sites located in the three livelihood zones whose Mid Upper Arm Circumference (colour MUAC) measurements was taken 49 percent constituted females while 51 percent were males.
- Consequently, the proportion of the aforementioned age cohort categorized as being moderately malnourished was 6.1 percent and that was a notable increase from 2.7 percent reported in December (Figure 19). The recorded proportion of children aged 6-59 months classified as being moderately malnourished during the month under review was at par with the long-term average proportion of children within the same cohort categorized as being moderately malnourished and that reported under the same band during the wet years.

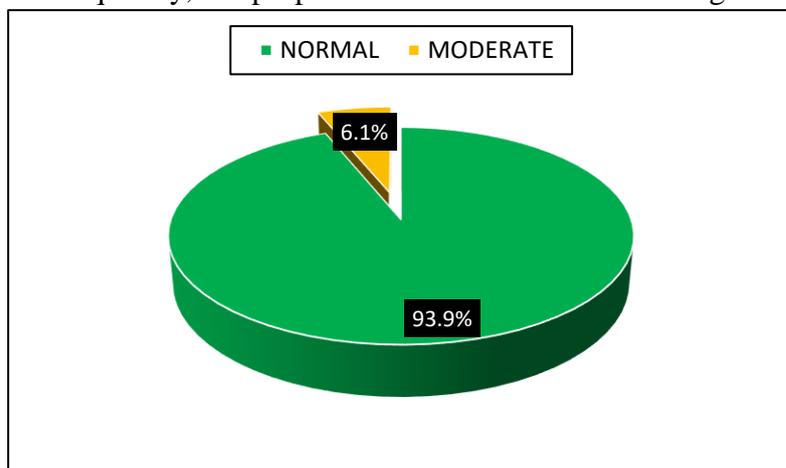


Figure 18: Malnutrition Trends in the County-January 2021; n=887

- Reduced household incomes that impeded on access to a diverse variety of foods through the market, low milk consumption levels and absence of sufficient humanitarian interventions especially in the malnutrition hotspots were some of the factors that influenced the observed trend during the month under review.

## 5.4 COPING STRATEGY

### 5.4.1 Reduced Coping Strategy Index (rCSI)

- The reduced coping strategy index remained unchanged from the one reported in December but was typically high at 16.6 implying majority of the households especially in the Pastoral and Fisheries livelihood zones were having a minimally adequate diet.
- Therefore, consumption based coping strategies (CBCS) applied in January were similar to those in use during the month of December across the three livelihood zones. However, these CBCS were more severe like over-reliance on borrowing and even limiting consumption for the adults for the children to eat. Proportion of households applying 'stress' and 'crisis' CBC strategies was approximately 73.5 percent and 26.5 percent respectively (Figure 20).

- Households resident in the Pastoral livelihood zones remained the most constrained in accessing food or money to buy food through the markets compared to those in the Fisheries and Agro-pastoral livelihood zone.
- Majority of households relied on less expensive/preferred food and reduced number of meals as a means of coping.

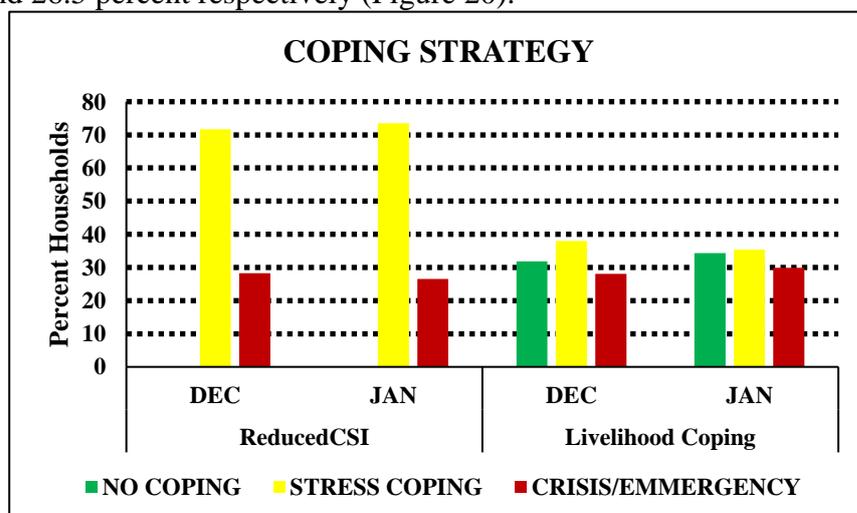


Figure 19: Trends in Consumption and Livelihood Coping

- On the other hand, proportion of the households applying 'stress' and 'crisis' livelihood coping strategies in January was 35.4 percent and 29.9 percent respectively.

## 6.0 CURRENT INTERVENTION MEASURES (ACTION)

### 6.1 FOOD

- Provision of relief food to vulnerable households affected by conflict/insecurity in Kapedo/Napeitom ward (Lomelo, Ngilukia, Kaamuge, Napeitom and Kangiteitei villages); Turkana East by Turkana County government. Approximately 1,200 households were targeted with 77.7 metric tonnes of assorted cereals and cooking oil.

### 6.2 NON-FOOD

**Table 2: Non-Food Interventions**

Intervention	Sub County/ Ward/Location	No. of Beneficiaries	Implementer(s)
Cash transfer programme (KSh. 5,500 per household)	Katilu, Lokichar, Lobei/Kotaruk, Township and Kalokol	380HH	International Refugee Council (IRC)
Provision of livestock feed (5,000 bags of supplementary feed)	Turkana North, East, Central, South, Loima	2,862 HH	Food and Agriculture Organization (FAO), ACTED, Welt Hunger Hilfe (WHH)
Repair and servicing of broken-down water points and systems	All Sub-counties	60,000	Turkana County Government (TCG)
Sensitization and capacity building of youth and administrators on desert locust biology, behaviour, surveillance and reporting	Lokori, Kochodin	17,350	MOA, FAO
Management of Acute Malnutrition	All Sub-counties	33,277	TCG-MoH & Partners
Supply of ESP desks to the schools	All public primary schools and ECDE centres in all Sub-counties	ECDE- 86,581 Primary- 162,238, Secondary 18,032	MoE, TCG

## 7.0 EMERGING ISSUES

### 7.1 INSECURITY

#### 7.1.1 Conflict/Human Displacement

- Turkana East experienced a significant number of insecurity incidents involving cattle rustling and frequent attacks by bandits in Kapedo/Napeitom ward. Businesses had been closed in Kapedo and Lomelo markets and also the main road connecting Marigat-Chemolingot-Kapedo and Lokori-Lomelo-Kepedo was inaccessible due to the ongoing GSU/RDU operations.
- A total of 10 households had lost their shelter after being torched down by the bandits with one primary school in Kapedo being burnt down too during that arson attack.

### 7.2 MIGRATION

- Livestock migration from the Pastoral and Fisheries livelihood zones continued during the month under review as a consequence of the deteriorating pasture and browse condition in most parts of the aforementioned zones in the County.
- Livestock from some parts of Turkana North and West migrated to Loruth, Natelo and Katiende areas near South Sudan border while those from Loima ward (Lorugum and Namuruputh) and

some parts of Turkwel ward like Lomil, Napeililim and Lomeyana had moved towards Kotaruk and Lopuke bordering West Pokot County.

- Livestock from Turkana Central were migrating towards Loima and Loriu hills. On the other hand, those from Lakezone ward in Turkana North were moving towards Todonyang, Lokitipi plains and Lokwanamour ranges despite the reported insecurity incidents.
- Migration of livestock from some interior parts of Turkana East such as Katilia and Lokori wards towards the grazing reserves in Kapedo, Napeitom and Lomelo was greatly hampered by insecurity and thus there was a change in the migration patterns towards Kakong, Natot, Eris, Lokitoe, kirion, Kalemngorok, Natooteris, Lokoropus, Kangiregae, Kaekunyuk, Nakabosan, Nabeye, Naragae, Apa lima and Kapel in Turkana South
- Approximately 50-75 percent of all livestock species from the affected 16 wards that experienced below average OND rains and conflict prone sites had migrated in search of forage and water.
- The trend is projected to continue across February as more sites become affected by drought necessitating livestock to move in search of pasture, browse and water within other parts of the County and also across the border into Uganda.

## **7.3 FOOD SECURITY PROGNOSIS**

### **7.3.1 Assumptions**

- According to the Kenya Meteorological Department (KMD), dry and extended periods of sunny intervals will prevail across February with the maximum temperature rising to 34<sup>0</sup>C-36<sup>0</sup>C.
- Food prices are expected to continue rising by 5-10 percent across February following the minimal agricultural activities witnessed during the Short Rains period in the County and that will most likely have a remarkable negative impact on the household purchasing power.
- Based on forecasts from NOAA/CPC and USGS, March to May long rains performance will most likely be below average.
- Resumption of pre-COVID-19 tax rates will reduce household income by 25 percent and food access as the cost of food and non-food commodities increase to reflect the adjusted tax rates from February 2021 onwards.
- According to the desert locust global forecast by FAO, the likelihood of re-invasion of the Desert Locusts into the county from the neighbouring counties and Ethiopia in February 2021 shall remain high and therefore significant damage (25-30 percent loss) to crops and forage may occur during the outlook period.
- Based on available information from the Ministry of Health and World Health Organization (WHO), new strains of severe COVID-19 are likely to emerge and coupled with the relaxation of the COVID-19 containment measures, COVID-19 risk index shall remain high across February.
- As per the veterinary department; TCG livestock diseases e-surveillance system, the likelihood of an upsurge in livestock diseases with a prevalence of 20-30 percent driven by convergence in dry season grazing areas will most likely be witnessed across the outlook period.
- Cattle rustling and banditry attacks forecasted to increase across February especially in the conflict hotspots where livestock have converged in search of forage and water and that will exacerbate vulnerability of households.

### **7.3.2 Food Security Outlook for February 2021**

- Likelihood of household food stocks for Agro-pastoralists depleting earlier than normal owing to the minimal agricultural activity and subsequent crop failure witnessed during the OND 2020 shall remain high across the outlook period.
- Livestock productivity (body condition, milk production and market price) is forecasted to decline further over the next one month as a consequence of the prevailing below normal soil moisture, likely negative impact of the Desert/Tree Locust coupled with the above normal temperature accelerating forage degeneration across the dry season.

- It's highly probable that the rising commodity prices and the upsurge of livestock diseases will negatively impact on the household dietary diversity as attention shifts to treatment and therefore the available income will not suffice in meeting household needs through the market.
- The likelihood of household purchasing power declining further shall remain high owing to forecasted negative trend in the ToT likely to persist across February and therefore significant food gaps are likely to emerge especially for households' dependent on fishing and livestock.
- The probability of malnutrition trends persisting on an upward trajectory will most likely be high driven by the COVID-19 containment measures that will continue limiting the level of interventions rolled out especially by non-state actors.
- Household vulnerabilities especially for residents of conflict hotspots will most likely be exacerbated by sporadic attacks that more often than not lead to disruption of livelihood through loss of livestock.
- Consequently, a significant proportion of the population will be 'stressed' with another sizeable portion (approximately 20 percent) experiencing 'Crisis' and 'Emergency' food security outcomes hence in urgent need of food assistance.

**Table 3: Hotspots (Wards) to be targeted with Immediate Interventions**

Turkana North	Turkana Central	Turkana East	Turkana South	Loima	Turkana West
Lakezone Kaaleng/Kaikor Kaeris Nakalale	Kalokol Kerio Kang'atotha Kanamkemer Township	Katilia Kapedo/Napeitom Lokori/Kochodin	Kalapata, Lokichar	Turkwel Loima	Songot Lopur Kalobeyei

## 8.0 RECOMMENDED INTERVENTIONS

### 8.1 DROUGHT RISK MANAGEMENT

**Table 4: Coordination Related Immediate Recommended Interventions**

Sector	Potential Early Actions	Sub-County/Ward	No. of Beneficiaries
Coordination	-Activation of Drought Contingency Plan: Drawing Response/Action Plan. - Resource Mobilization by all stakeholders -Guide/Initiate roll out of Interventions	All affected Hotspots	77,250 HHs

### 8.2 FOOD

**Table 5: Food Related Immediate Recommended Interventions**

Sector	Potential Early Actions	Sub-County/Ward	No. of Beneficiaries
Food and Safety Net	Protect lives through: -Provision of relief food/ food assistance -Cash transfer targeting vulnerable households': affected by drought, COVID-19 outbreak, Lake Turkana over flow, first wave of desert locusts invasion and Conflict.	All the Seven Sub counties	38,600HHs

### 8.3 NON-FOOD

**Table 6: Non-Food Immediate Recommended Interventions**

Sector	Potential Early Actions	Sub-County/Ward	No. of Beneficiaries
Water	Enhance water availability: - Repair of broken-down water facilities such as strategic boreholes	County wide; drought hotspots: Kalapata, Nanam, Kalokol, Turkwel-	76,800 Learners

	<ul style="list-style-type: none"> <li>-Installation of plastic water tanks in key strategic institutions</li> <li>-Repair/ servicing of Water Bowsers</li> <li>-Initiation of water trucking</li> </ul>	Lomil, Napeililim, Lomeyana, Loima-Lorugum, Namuruputh, Napusmoru, Lakezone, Kerio, Lochwaangamatak, Nasinyono, Loturerei, Lokori	48,000HHs
Livestock/ Veterinary	<ul style="list-style-type: none"> <li>-Prepositioning of supplementary livestock feed within the strategic reserves.</li> <li>-Provision of supplementary feeds</li> <li>-Promotion of commercial destocking/marketing</li> <li>-Enhance livestock disease surveillance</li> <li>-Targeted vaccination and treatment against PPR, CCPP and CBPP in receiving zones.</li> </ul>	Kaaleng, Turkwel, Kalapata, Lokichar, Katilia, Lokori, Lakezone, Lopur, Kaeris, Kangatotha Kalokol, Kerio, Kanamkemer	335,000-420,000 Shoats/Cattle  250,000-300,000 Cattle and Shoats
Health and Nutrition	<ul style="list-style-type: none"> <li>-Hygiene promotion; COVID-19</li> <li>-Prepositioning essential water treatment chemicals; Cholera Hotspots</li> <li>-Mass screening for malnutrition cases</li> <li>-Initiation of integrated health outreaches in malnutrition hotspots</li> <li>-provision of essential nutrition supplements to referral cases.</li> </ul>	Turkana North Kibish Turkana South Turkana Central Loima Turkana East Turkana West	365,700 HHs  33,000 under-fives
Peace and Security	<ul style="list-style-type: none"> <li>-Intensifying peace meetings: inter-county &amp; cross border for resource sharing.</li> </ul>	Kibish, Lokichoggio, Kalobeyei, Letea, Kapedo/Napeitom, Lokori/Kochodin, Katilia, Lokirama/Lorengipi, Lobokat, Kaputir, Katilu	137,000-153,000
Agriculture	<ul style="list-style-type: none"> <li>Enhance food availability:</li> <li>-Enhance surveillance and sensitization on the second wave Desert Locust (DL) invasion while prepositioning essential chemicals for effective control of the DLs.</li> </ul>	Turkana East Turkana South Loima Turkana North Turkana Central	150,000HHs