



A Vision 2030 Flagship Project



# National Drought Management Authority TURKANA COUNTY

## DROUGHT EARLY WARNING BULLETIN FOR DECEMBER 2020

### DECEMBER EW PHASE

**Drought Status: ALERT**



**Maandalizi ya mapema**

### Drought Situation & EW Phase Classification

#### Biophysical Indicators

- Select few areas on the Western side of the County received highly depressed rainfall for 1-2 days culminating to cessation during dekad one of December. Noteworthy, total rainfall for the 6-month period (July-December 2020) represents only 72 percent of the rainfall normally received within that duration. Further, the weather outlook for January points to the likelihood of maximum temperatures exceeding 36<sup>o</sup> C.
- Deterioration in the condition of vegetation was witnessed as evidenced by the shift in the VCI-3month index downwards from the previous month. The Fisheries and the Eastern areas of the Pastoral livelihood zones remained the most affected.
- The water situation was declining and inadequate especially in sites not well served with boreholes. In addition, most open water sources were below 25 percent capacity in December.

#### Socio Economic Indicators (Impact Indicators)

- Save for the Fisheries zone, the body condition for all species was fair while the household return distance to water source was stable but for livestock it increased albeit marginally.
- Milk production and consumption level declined and was outside the seasonal range. Terms of trade remained stable but exceptionally low in Turkana North and despite out-migration being witnessed, there were no deaths attributed to starvation.
- Proportion of households' categorized as having a poor FCS increased but there was no significant shift in the proportion of moderately malnourished under-fives. Notably, households' were applying more severe coping strategies in December.

### Early Warning (EW) Phase Classification

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

Biophysical Indicators	Value	Normal Range
Rainfall (% of Normal)	72	90-110
VCI-3 month (County)	81	>35
VCI-1 month (T. East)	43	>35
VCI-1 month (T. Central)	47	>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	1Litre	> 2.2 Litres
Livestock deaths (attributed to drought)	No Deaths	No Deaths

Access Indicators	Value	Normal Range
Terms of Trade (ToT)	42	>36
Milk Consumption	1Litre	>2.1 Litres
Return distance to water sources (Household)	5.3 km	< 5.6 km
Cost of Water(KSh/20L)	KSh. 0-5	<KSh .5

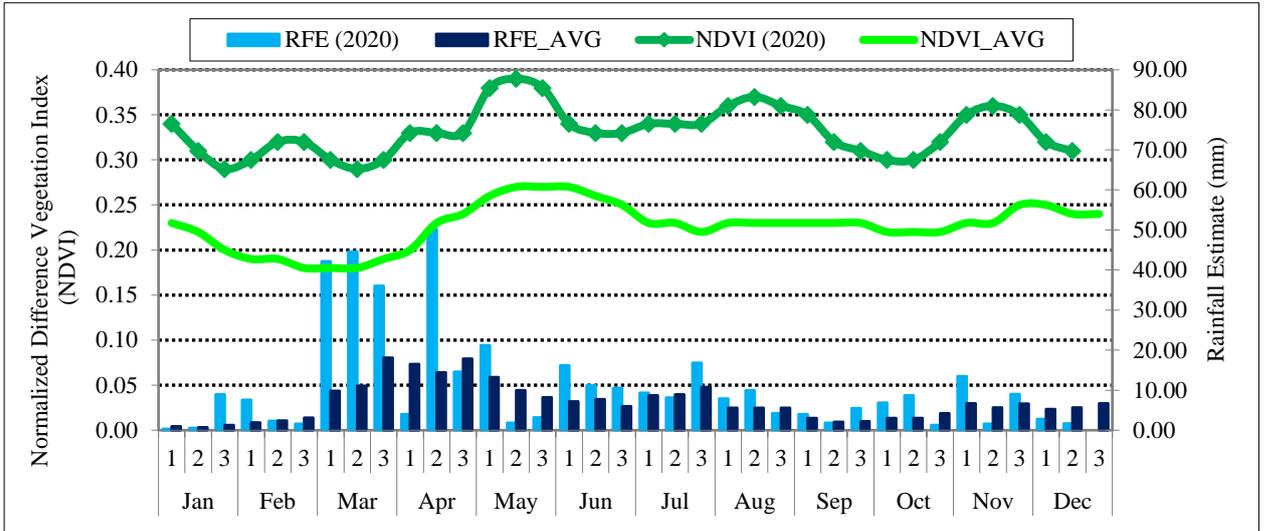
Utilization Indicators	Value	Normal Range
Nutrition Status, (% with MUAC : 115-124mm)	Yellow:2.7	<6.1
Food Consumption Score Proportions (%)	32 Poor: 26 Borderline: 41	>35 Poor< 31 Borderline: <46
Reduced Coping Strategy Index (rCSI)	16.6	<16.9

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

# 1.0 CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

- During the subject month under analysis, most parts of the County did not experience rainfall. However, rainfall received in some select parts of Turkana South (Lobokat, Kaputir and Katilu wards) and Turkana West (Lokichoggio, Lopur and Songot wards) was significantly depressed.

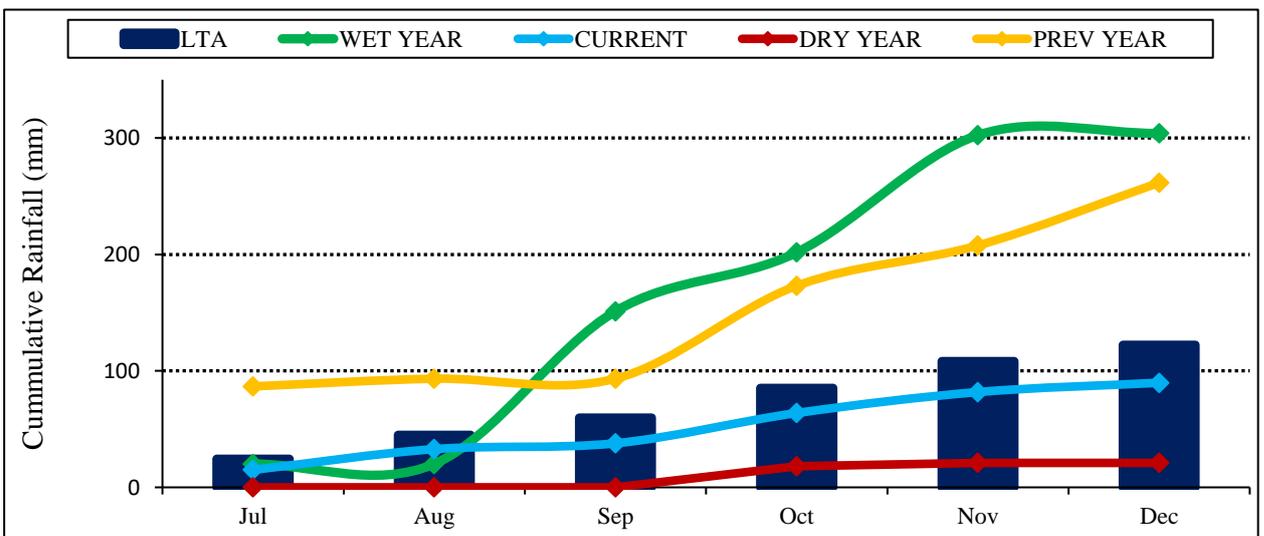


**Figure 1: Dekadal Rainfall (mm) and NDVI Values Compared to the Long Term Average**  
**Source: VAM-World Food Programme, CHIRPS/MODIS**

- Rainfall distribution in time within sites that received light showers in dekad one was 1-2 days with an early cessation being witnessed during the first dekad of December. Across dekad two and three, dry and hot weather conditions prevailed in the entire County.
- The poor performance of the short rains 2020 especially in November (peak month) and December was reflected in the Normalized Vegetation Condition Index (NDVI) that assumed a negative trend since dekad three of November (Figure 1).
- The Eastern wing of the County that stretches from Turkana East, some sections of Turkana South (Kalapata, Lokichar wards), Turkana Central, Turkana North (Lakezone) did not experience rainfall since the second dekad of November and thus remained considerably dry.

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- The cumulative rainfall for the period commencing July 2020 and ending December 2020 represents 72 percent of the total rainfall received for the 6-month period normally (Figure 2).



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

- In reference to Lodwar Meteorological Station, rainfall recorded in December 2020 accounted for only 57 percent of the normal rainfall for the period.
- Extended periods of sunny intervals throughout the day were prevalent across all the sites in the County with areas falling within zone one and two in the Fisheries and Pastoral livelihood zones recording remarkably high temperatures in the range of 34<sup>0</sup>C to 36<sup>0</sup>C during the day and falling down to 24<sup>0</sup>C to 26<sup>0</sup>C at night.
- During the period under review, the distribution in space of rainfall was considerably uneven with most areas experiencing dry and hot weather conditions.
- Compared to the cumulative rainfall for the previous year (July 2019 to December 2019), the current years' cumulative rainfall is lower by a significant margin of 172mm.
- Based on the 13-year historical period, the period between July to December 2009 is considered the bad year as illustrated in figure 2 having recorded only 21mm while that between July to December 2012 is rated as the wettest with cumulative rainfall of 303.9mm.
- The listed sites in table 1 were experiencing remarkably dry and hot weather conditions not only during the period under review but throughout the October-November-December (OND) season as a consequence of not receiving rainfall for long periods and that led to a considerable deterioration in the condition of vegetation.

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

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

### 1.3 OTHER EVENTS

#### 1.3.1 COVID-19 Pandemic

- The County had recorded 906 COVID-19 positive cases as at 30th December 2020 out of the 7,818 samples tested with a positivity rate of 13.2 percent mainly for Turkana West Sub County.
- Total recoveries were 637 while the active six cases were localized to Turkana West- 5 and Turkana Central- one. Additionally, 16 absconders were reported with cumulative mortalities being 19.
- Cumulatively, 2,342 contacts had been traced and currently 35 were 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.

#### 1.3.3 Flooding

- There were no floods or flash floods reported across all sites in the County during the period under review. However, strong winds were witnessed in various parts of the County such as Kangakipur, Mlima tatu, Nakalale, Kangatoha and most parts of Township ward but did not result to any significant destruction.

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index (VCI)

- The matrix (Figure 3) depicts how various months have been categorized based on the applicable VCI thresholds upon conducting a retrogressive analysis of the vegetation condition.
- The relative change in NDVI value with respect to the minima NDVI value historically forms the basis for VCI.

As illustrated, the County was not experiencing remarkable vegetation deficit with the prevailing vegetation greenness during the period being that of the overhead species along the numerous seasonal rivers criss-crossing all parts of the County that are normally drought tolerant.

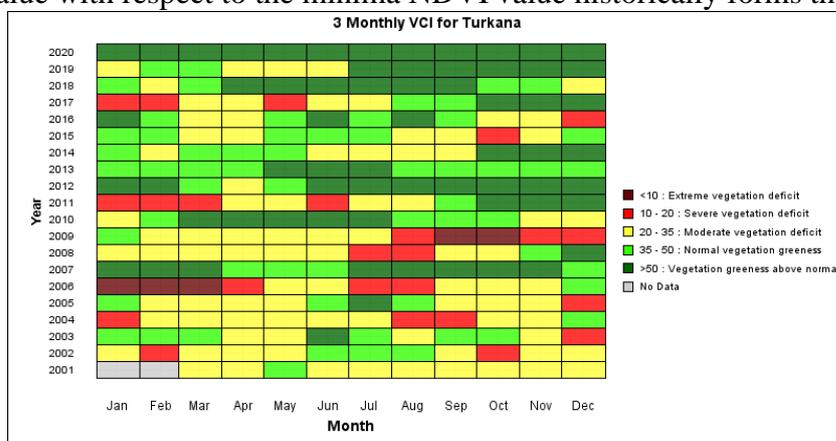


Figure 3: Vegetation Condition in Turkana County- Source: Boku

- Overall, a deterioration in the condition of vegetation was witnessed during the month of December as evidenced by the shift in the VCI-3month value from 93 previously to 81.
- Sites depicting above normal vegetation greenness were mainly those in climatic zone three and four such as areas in Turkana West, Loima, Kibish and some sections of Turkana South that are predominantly Agro-pastoral.
- Save for Turkana West, deterioration in vegetation condition with respect to the previous month was evident in all the Sub counties as supported by the rapidly declining VCI-3month values. For instance, during the month under analysis, Turkana East and Central reported the lowest values of 61 and 67 respectively (Figure 4).
- Similarly, during the month under review, Turkana East, Central and North experienced the highest level of deterioration as evidenced by the VCI-1 month values of 43, 49 and 57 reported accordingly.
- Kalapata, Lokichar, Kerio, Kalokol, Kanamkemer, Township, Kang’atotha, Lakezone, Lokori and Katilia were some of the wards that were experiencing considerable vegetation deficit in December. Below average rainfall during the OND 2020 season coupled with high sub surface temperature were some of the factors that accelerated deterioration in the condition of vegetation

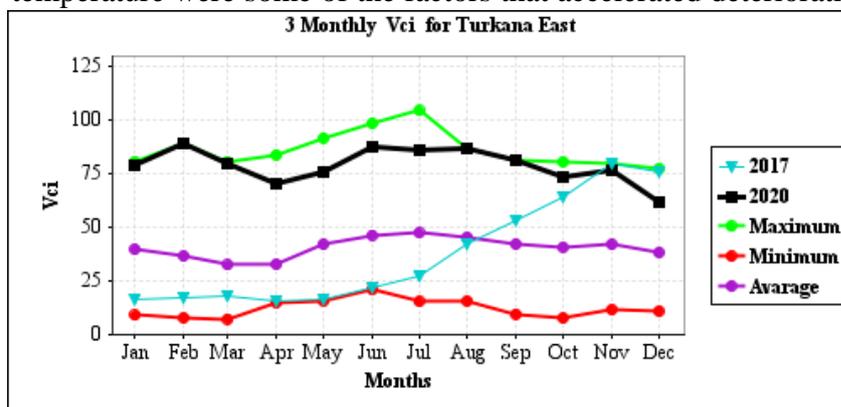


Figure 4: Vegetation Condition Trend in Turkana East- Source: Boku

during the period under analysis.

Noteworthy, proliferation of invasive unpalatable species like Prosopis Juliflora following good past two seasons (OND 2019 and March-April-May 2020) contributed massively towards the greenness observed in vegetation along the Western wing of the County.

#### 2.1.2 Field/Ground Observations: Pasture

- The condition of pasture in December as observed during the transect drive and from focussed group discussions with the community and key informants was generally poor save for a few areas where it was fair (Figure 5).

- Pasture condition in all sites along the Fisheries and the Eastern sector of the Pastoral livelihood zones was poor with the observed situation not improving significantly since August as illustrated in figure 5.

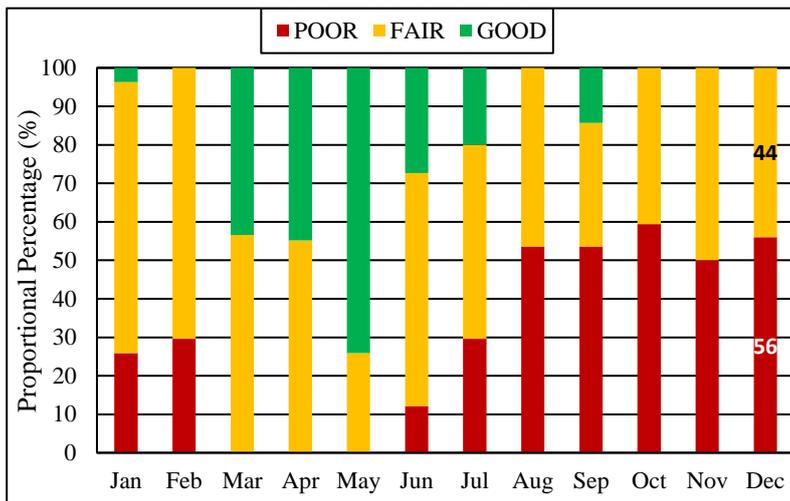


Figure 5: Pasture Condition Trend in Turkana; January to December 2020

- The observed trend in December was as a consequence of the early cessation that was preceded by below normal OND rainfall coupled with the high temperatures that led to loss of soil moisture through evaporation hence no significant regeneration was realized and or sustained.
- Available pasture mainly in the Agro-pastoral and the Pastoral periphery zones is projected to last for one month with a likelihood of less than one month as the onset of the dry season sets in.
- Insecurity along the conflict zones of Kapedo/Napeitom, Lokori/Kochodin and Kibish, pasture depletion by invasive non-palatable species and high disease prevalence were some of the notable impediments to pasture access in December.
- Across the three livelihood zones, there was remarkable variation in the quantity and quality of pasture with that in the Fisheries livelihood zone being significantly poor.

### 2.1.3 Field/Ground Observations: Browse

- During the month under analysis, the condition of browse was generally fair across most sites in the County but below the level normally witnessed at such a time of the year across the three livelihood zones (Figure 6).
- Compared to the previous month of November, there was no significant improvement recorded but rather deterioration and thus the canopy was less dense in comparison to normal seasons.
- Below normal rainfall during the month of October and November, coupled with the early cessation during the first dekad of December hindered regeneration of browse with the situation being compounded by the remarkably high temperatures that promoted drying of browse because of below normal soil moisture.
- Available browse mainly in the Agro-pastoral and some sections of the Pastoral livelihood zones is forecasted to last for a maximum period of two months and less if, the current dry and hot weather conditions persist across January with no showers being experienced.

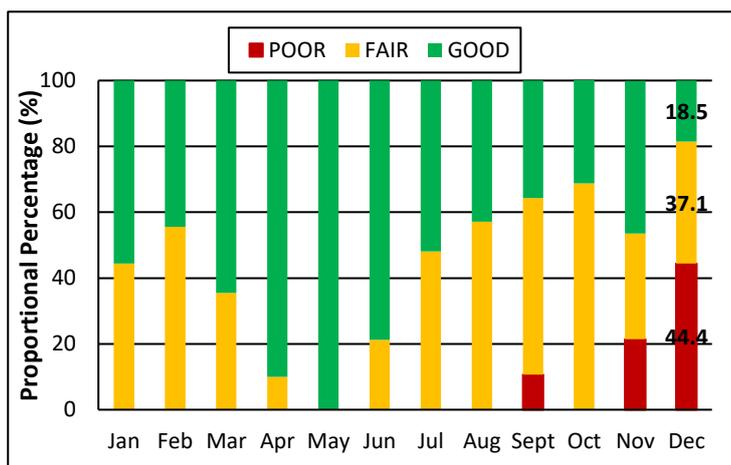


Figure 6: Browse Condition Trend in Turkana; Jan to Dec 2020

- The major constraints to browse access during the period under review were water scarcity in some sites with browse, insecurity and the high prevalence of notifiable diseases in convergence zones.
- There was a notable variation in the quality and quantity of browse across the three livelihood zones. The Fisheries livelihood zone and some parts of the Pastoral livelihood zone had low levels of dry browse compared to the Agro-pastoral livelihood zone.

## 2.2 WATER RESOURCE

### 2.2.1 Sources

- Boreholes, shallow wells and traditional water wells were the three major sources of water in use by the community during the period under analysis and hence there was no major shift from the situation witnessed during the previous month of November and October (Figure 7).
- Despite boreholes remaining the most preferred water source because of the better water quality, a significant proportion of households (11 percent) resorted to use of traditional water wells as their main source as a result of the concentration witnessed in the boreholes. Notably, utilization of water pans was nil and that was as a result of the below normal rainfall received during the short rains seasons not sufficing in recharging open water sources even to 25 percent capacity.

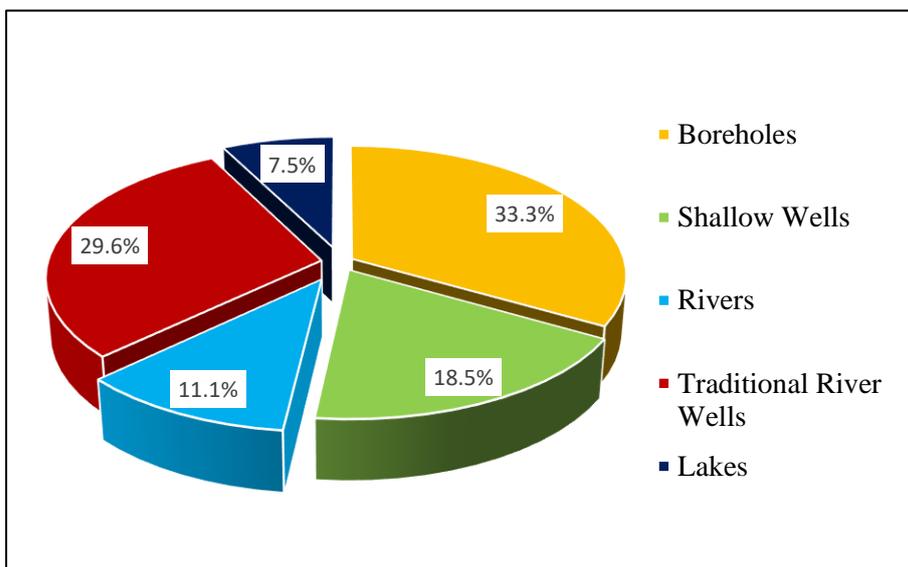


Figure 7: Sources of Water in Turkana County; December 2020

- Seasonal rivers including Tarach, Kalemngorok, Lokichar, Napasinyang, Natiira, Kalobeyei, and Kawalase remained dry throughout the month under review.
- Through direct observation on a number of open water sources across the three livelihood zones, it was established that besides most of them being below 25 percent capacity, the water quality was equally not good. The depth of the traditional river wells had increased to three metres with the available water in pans and rock catchments forecasted to last for one month.
- Although not significant, there was some variation in the water situation in terms of level during the month of December from the normal scenario at such a time of the year. The Eastern wing of the Pastoral livelihood zone and Fisheries livelihood zone were the most affected.

### 2.2.2 Household access and Utilization

- Household return trekking distance to water source remained the same as the one reported in November and averaged 5.3 km across the three major livelihood zones in the County (Figure 8).
- The aforementioned trekking distance was almost at par with the long-term average distance for the period under review but higher than the one reported for the same period during the wet years by 60 percent.
- Households resident in the Pastoral livelihood zone covered a longer distance to fetch water compared to those in the Fisheries and Agro-pastoral livelihood zones during the month of December.

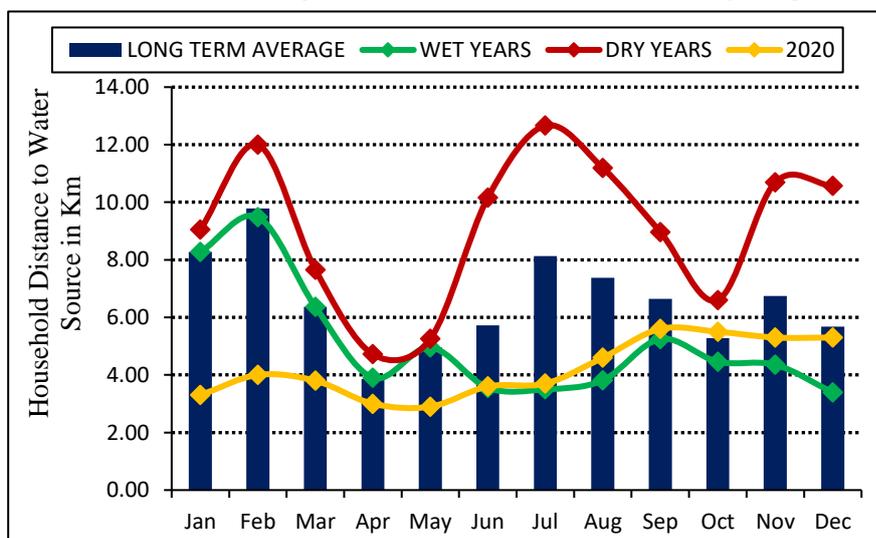


Figure 8: Household Access Distance to Water Source

- Consequently, although the scenario did not change considerably from the previous month, there was a notable increase in the distance Pastoral households covered to access water.
- The Pastoral, Fisheries and Agro-pastoral livelihood zones recorded an average waiting time at the water source of 45 minutes, 30 minutes and 20 minutes as opposed to 30 minutes, 20 minutes and 10 minutes normally in that order.
- Household water consumption per person per day declined in comparison to November and thus it 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.
- Majority of the households within the rural set up accessed water free of any charges but a small segment of the population residing in urban areas (eight percent) purchased a 20-litre jerry can at five shillings across the water kiosks with the cost rising up to KSh. 30 to KSh. 40 upon delivery to the household by motor bikes. The price was within the normal range for December.

### 2.2.3 Livestock access

- The return trekking distance to water source from grazing areas increased by 18 percent from the previous month and averaged 9.1 km in December (Figure 9).
- Notably, the recorded trekking distance during the period under analysis was higher than the long-term average distance for December by five percent and the one reported for the same period during the wet years by a significant margin of 71 percent.
- The longest distance was reported in the Fisheries livelihood zone owing to the poor pasture and browse condition in the zone followed by that along the Pastoral livelihood zone while the Agro-pastoral livelihood zone returned the least distance.

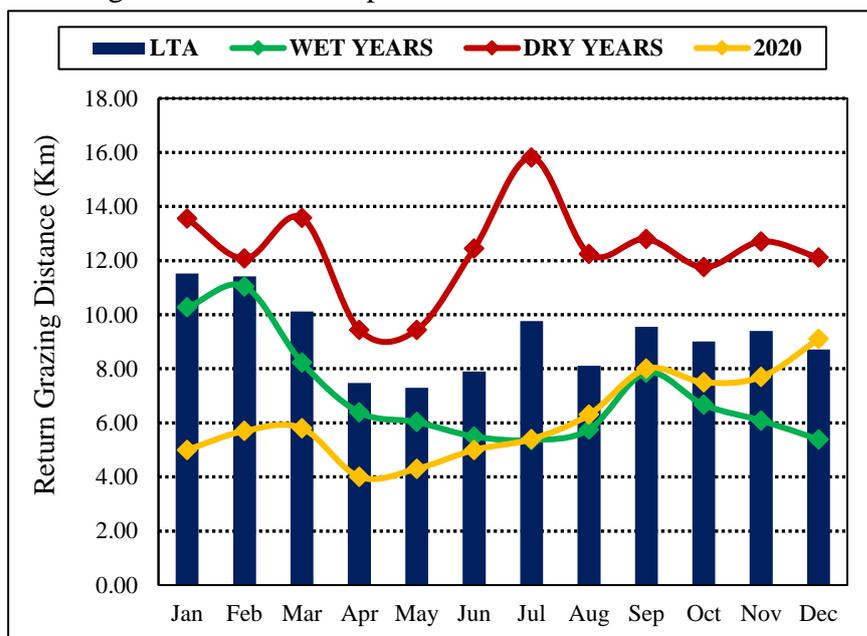


Figure 9: Return Distance to Water Source from Grazing Areas: December 2020

- The watering frequency for large stock in the Pastoral livelihood zone averaged three times per week while in the Fisheries livelihood zone it was two times per week as opposed to 4-5 times per week. On the other hand, small stock in the aforementioned zones accessed water four times in a week compared to 6-7 times normally.
- Along the Agro-pastoral livelihood zone, small stock accessed water five times per week with the watering frequency of the large stock being four times per week during the month under review.
- Deteriorating water situation occasioned by break down of some boreholes due to over-use, increased depth of the traditional river wells, low water levels and poor water quality in water pans, 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 period under review.

The observed trend in the trekking distance in December was 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.

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- The body condition of livestock during the month under analysis was fair across the three livelihood zones. The borderline fore-ribs in cattle along the Pastoral livelihood zone 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.
- Livestock body condition is expected to deteriorate further across January owing to the diminishing pasture and browse whose degeneration will most likely be accelerated by the high temperatures during the dry season.
- Notably the current livestock body condition lies outside the normal range for the month under review and this would be majorly attributed to constraints in accessing quality forage owing to the poor performance of the short rains leading to elongated trekking distances.

##### 3.1.2 Livestock Diseases

- High worm load was reported across most sites in the County with some incidents of Contagious Caprine Pleuropneumonia (CCPP) being reported in Lokichar, Lokori and Kalemngorok during the month under review.
- Cases of Contagious Bovine Pleuropneumonia (CBPP) and Pest Petis Ruminantes (PPR) were also reported along the Fisheries livelihood zone in sites such as Kalokol and some sections of the Pastoral livelihood zone like Lorugum.

##### 3.1.3 Milk Production

- Quantity of milk produced based on 17 percent of the sampled households that reported on milk production during the month under analysis declined in relation to the previous month of November. Camel was the major milk producer in December.
- The production level mainly in the Agro-pastoral and Pastoral livelihood zones averaged one litre per household per day (Figure 10).
- The reported production level for December was lower than the long-term average for the period by 56 percent and the one reported during the wet years for the same period by 59 percent.
- An average price of KSh.90 per litre of milk was reported in markets where milk sales were recorded like Lokichoggio, Turkwel, Letea and Kalemngorok.
- Livestock migration towards the periphery areas of the County in search of forage and low calving rates were some of the factors dictating the observed trend during the month under review.

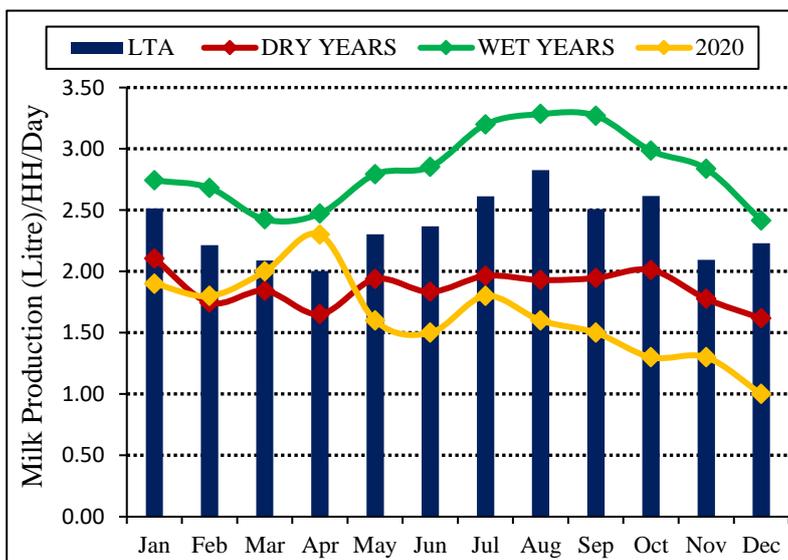


Figure 10: Average Amount of Milk Produced Per Household

### 3.2 RAIN-FED CROP PRODUCTION

#### 3.2.1 Stage and Condition of Food Crops

- During the month under review, there was no rain-fed agricultural activity taking place as a consequence of the farmers mainly along the Agro-pastoral livelihood zone who normally plant maize, sorghum and cowpeas not cultivating any due to the poor performance of the October to December 2020 rainfall. Notably, farms remained infested with *Prosopis Juliflora*.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

- During the month of December, the market price of a 4-year old medium sized bull did not adjust significantly from the one reported previously and hence it exchanged at KSh. 15,170 across Pastoral and Agro-pastoral markets (Figure 11).
- Despite the body condition of cattle deteriorating in December, the increased demand for the same

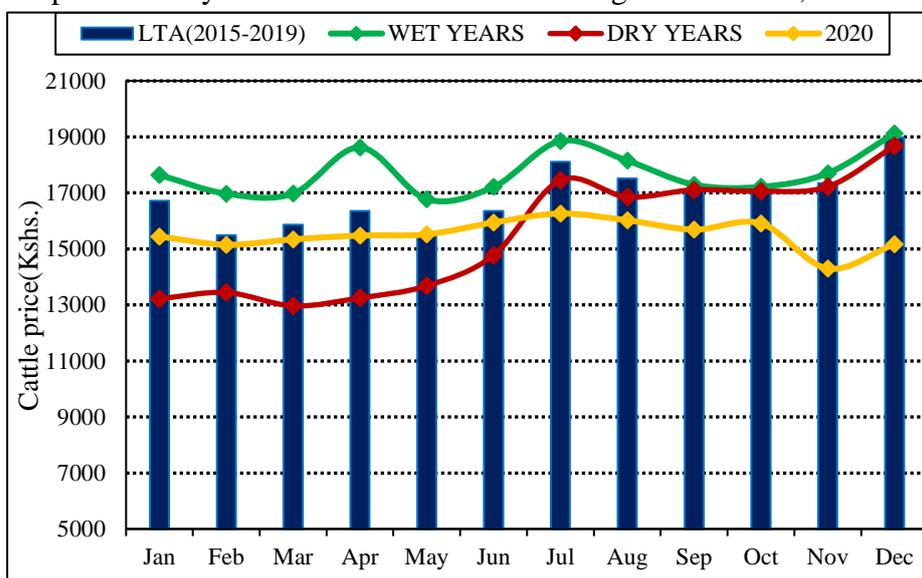


Figure 11: Cattle Price Trends in Turkana County

lower than the five-year average price for the month of December by 21 percent and the one reported for a similar period during the wet years by the same margin.

species especially within the external markets during the festive period played a significant role in the price stabilization.

The Agro-pastoral livelihood zone reported the highest price of KSh. 15,500 with the Pastoral livelihood zone recording the least price of KSh. 15,030.

The reported price of cattle during the period under review was

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

- The price of a 2-year old medium sized goat remained the same as the previous month and averaged KSh. 2,770 across all the livelihood zones (Figure 12).
- The stability in price during the month of December could be attributed to the increased demand for goat internally and externally during the festive season and hence despite the body condition of goat deteriorating, it did not have a remarkable negative effect on price.
- The highest price of KSh. 3,000 was recorded along the Agro-pastoral livelihood zone while the Pastoral and Fisheries livelihood zones returned an average price of KSh. 2,770 and KSh. 2,550 respectively.
- The reported price of goat in December represented 90 percent of the normal price (long-term average) and was lower than the price reported for a similar period during the wet years by 16 percent.

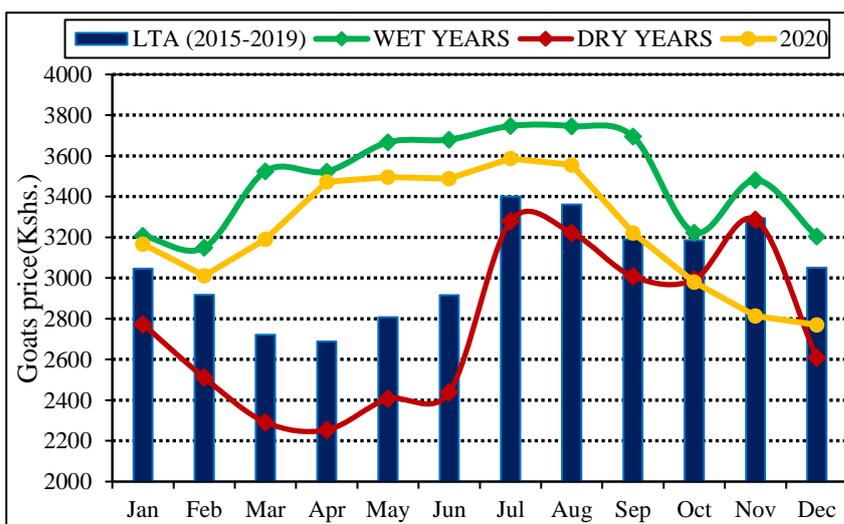


Figure 12: Goat Price Trends in Turkana County

- The price of goat is anticipated to decline significantly across January as the body condition of goat deteriorates further due to in availability of quality palatable browse within most sites in the County especially in the plains.

### 4.1.3 Camel Prices

- Continued stability in the price of a 4-year old camel was witnessed during the period under review with the Agro-pastoral and Pastoral livelihood zones where sales were reported posting an average price of KSh. 24,330 (Figure 13).
- The observed stability could be ascribed to absence of any significant pull factors that could influence the price negatively during the month under review.

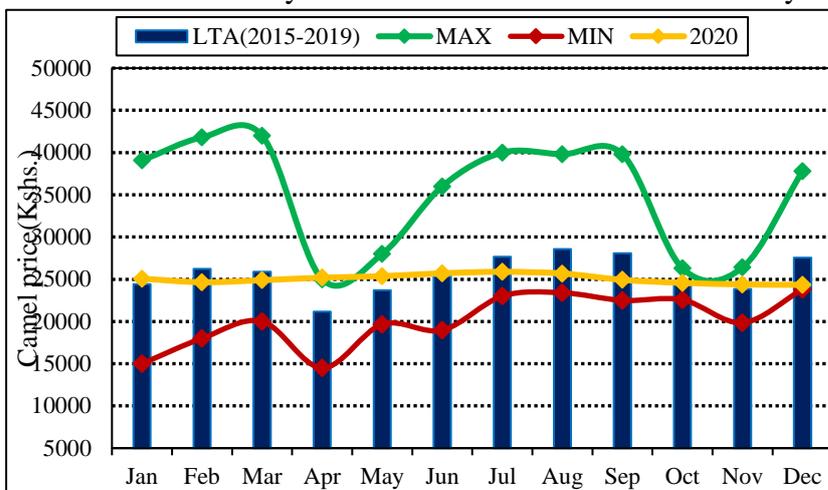


Figure 13: Camel Prices Trend in Turkana County

Although, the performance of the short rains was poor, the little showers received sufficed in sustaining the greenness of the overhead canopy that camels normally feed on hence the observed trend.

The highest price of KSh. 24,580 was recorded along the Agro-pastoral livelihood zone while the least price of KSh. 24,230 was reported along the Pastoral livelihood zone during

the period under review. There were no sales in the Fisheries livelihood zone.

- With respect to the long-term average price for the month of December and the price reported for a similar period during the wet years, the reported price of camel was lower by 12 percent and 29 percent in that order.

## 4.2 CROP PRICES

### 4.2.1 Maize

- The price of maize remained unchanged from the one reported in November and thus a kilogram of maize traded at an average price of KSh. 65 across the three livelihood zones (Figure 14).
- Comparatively, the recorded market price during the month under review was at par with the one returned for the same period during the wet years but lower than the five-year average price for December by 11 percent. There was a higher preference for maize from Kitale and Kapenguria.
- The Fisheries livelihood zone reported the highest price of KSh. 71 followed by the Pastoral livelihood zone at KSh. 67 while the Agro-pastoral livelihood zone posted the least price of KSh. 55 during the month under analysis.

Noteworthy though, outlier prices in the range of KSh. 100 to KSh. 110 were reported in the interior markets within Turkana North Sub County such as Kaeris and Lokitaung. The observed scenario was as a result of the high cost of transportation, monopolization of the markets by few traders and inaccessibility occasioned by insecurity. It was also observed that the actual unit of measurement was not an exact kilogram.

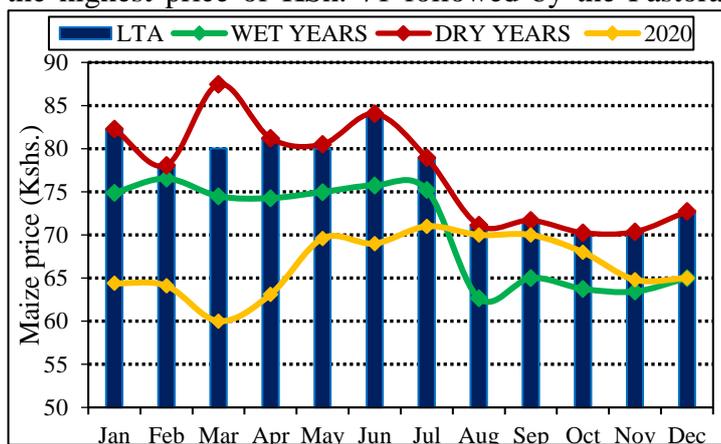


Figure 14: Maize Price Trend in Turkana County

- Continued flow of maize from external markets in Trans Nzoia and West Pokot and in the form of cross-border imports from Uganda following harvesting were the factors that promoted the stabilization in price observed in December across all markets in the County.
- However, an upward trend is expected across January 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

- During the month under review, the price of beans declined albeit marginally by five percent from the previous month of November with a kilogram trading at KSh. 109 (Figure 15).

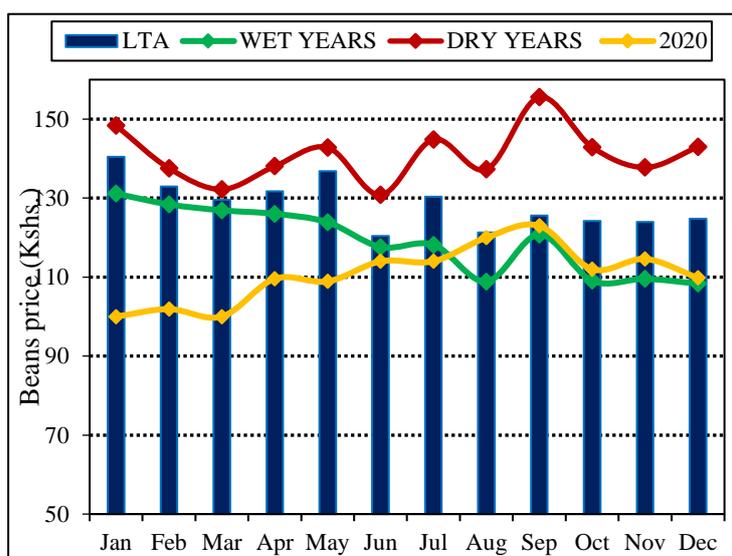


Figure 15: Beans Price Trend in Turkana; December 2020

The decline in price could be attributed to availability of other substitute pulses like cowpeas internally with households also prioritizing acquisition of cereals leading to a low demand.

The Fisheries and Pastoral livelihood zones posted an average price of KSh. 110 while along the Agro-pastoral livelihood zone, a kilogram exchanged at KSh. 108.

The reported price of beans in December was at par with the price reported for a similar period during the wet years but lower than the long-term average price for the month under review by 13 percent.

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

- The terms of trade did not change from the previous month and thus proceeds obtained upon sale of the commonly traded medium sized goat of two years enabled pastoralists to acquire 42 kilograms of maize from the market (Figure 16).
- The prevailing terms of trade in December was higher than the long-term average ToT for the period by 17 percent but lower than the one recorded for a similar period during the wet years by a margin of 15 percent.
- Despite the reported ToT being superior to the normally reported ToT for the month under review, the purchasing power of households was still compromised by the high cost of transportation to market occasioned by the poor road infrastructure, COVID-19 and insecurity in some sites. Consequently, based on interviews held at markets, it was established that at least an average of 8-10 kilograms was lost and hence did not benefit households directly.
- Exceptionally low terms of trade (30) was recorded in Turkana North as a result of the high cost of maize with a similar negative trend being evident in Turkana Central and East Sub counties.
- Household dietary diversity was thus affected with the expanded household size occasioned by continued closure of schools putting extra pressure on the available meagre resources.
- Nonetheless, the observed stability was as a result of no significant shift in the price of goat or maize being witnessed during the month under review across most markets in the County.
- However, a negative trend in the terms of trade is forecasted across January mainly influenced by the most likely increase in maize price coinciding with the declining goat price occasioned by a deteriorating body condition resulting from poor browse condition.

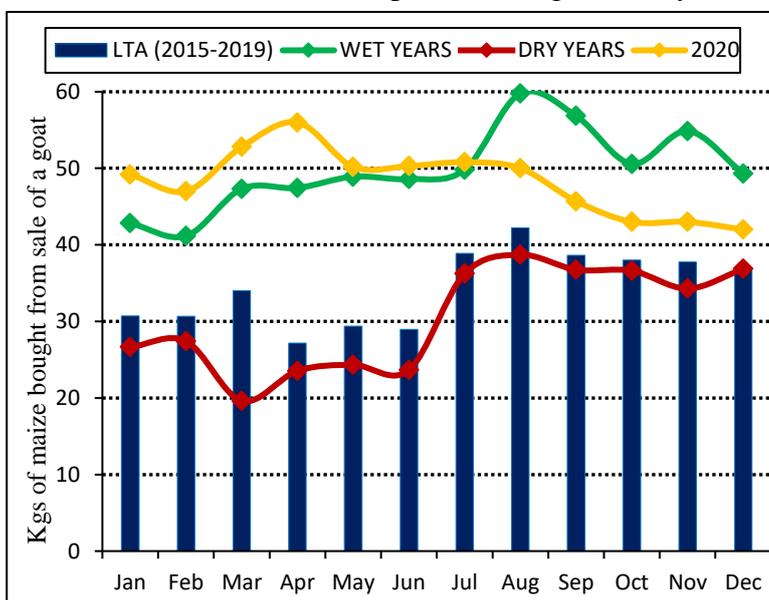


Figure 16: Terms of Trade Trend in Turkana County

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

- From the sampled 270 households, only 17 percent reported to have consumed milk out of own production during the month under analysis. Additionally, the amount of milk consumed declined in relation to the month of November and averaged one litre per household per day in December (Figure 17).

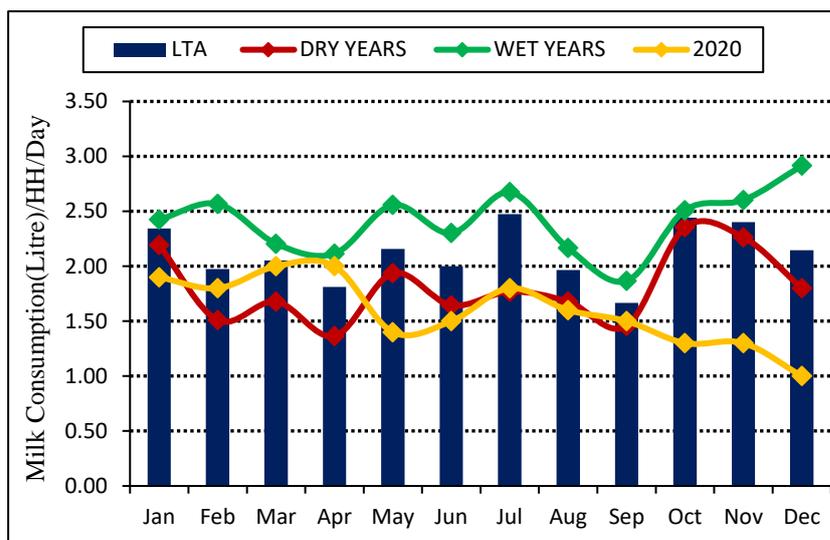


Figure 17: Milk Consumption Pattern in Turkana County

The drop in yield per animal owing to constraints in accessing forage, reduced milking herd size occasioned by out migration and low calving rates are some of the drivers that impacted on the available milk at household level for consumption. Milk consumption is projected to decline further across January based on past trends and as the effects of the dry spell begin to

take a toll on livestock due to the deteriorating rangeland conditions.

- The recorded consumption level for December was not only lower than the one reported for a similar period during the wet years by approximately 66 percent but also the long-term average consumption for the month by 53 percent.

### 5.2 FOOD CONSUMPTION SCORE (FCS)

- Proportion of the households across the Pastoral, Fisheries and Agro-pastoral livelihood zones classified as having a poor, borderline and acceptable food consumption score constituted 26 percent, 41 percent and 32 percent respectively during the month of December.
- Noteworthy, with respect to the previous month of November, more households (approximately eight percent) transitioned from the upper categories to the poor food consumption score band.
- Majority of households during the period under review 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 32 that equally remained relatively unchanged from the FCS of 34 reported in November.
- The highest proportion of households categorized as having a poor food consumption score could be traced to the Pastoral livelihood zone during that period (Figure 18).

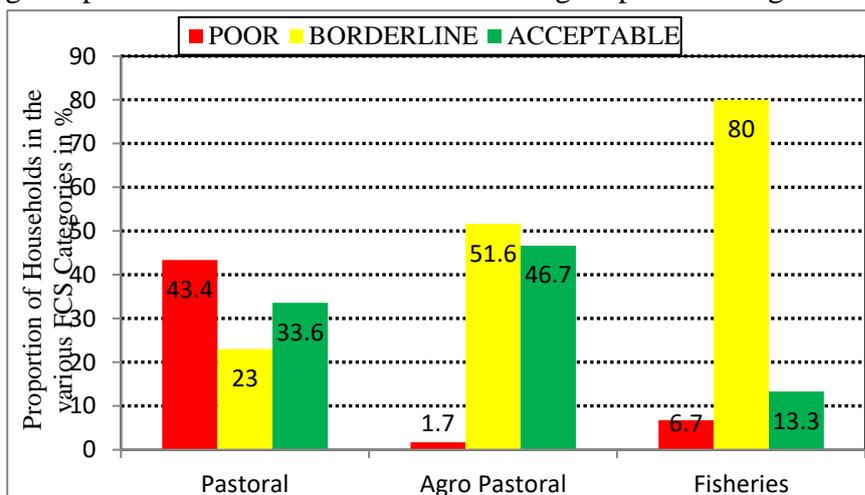


Figure 18: Food Consumption Pattern; December 2020

- The least FCS hence a worse of situation was recorded in the Fisheries and Pastoral livelihood zones with a score of 29 and 30 in that order while that of the Agro-pastoral zone was 36.
- The food consumption pattern was also notably poor in Turkana North, Pastoral areas of Loima and Turkana South and that was partly due to the minimal agricultural activities witnessed.

## 5.3 HEALTH AND NUTRITION STATUS

### 5.3.1 Nutrition Status

- During the month of December, 55 percent of 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 constituted males while 45 percent were females.
- Proportion of the aforementioned age cohort classified as being moderately malnourished was 2.7

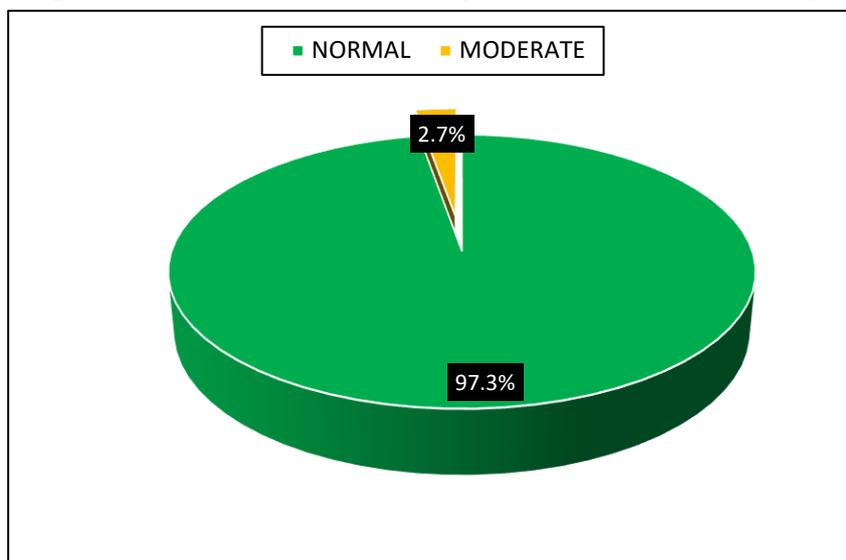


Figure 19: Malnutrition Trends in Turkana County- December 2020: n=942

percent and there was no notable cases of severely malnourished children (Figure 19). The recorded proportion of children aged 6-59 months classified, as being moderately malnourished during the month under analysis was lower than the long-term average proportion of children within the same cohort categorized as being moderately malnourished by 3.4 percent and that reported under the same band during the wet years by a margin of 2.2 percent.

- Declining milk availability hence low consumption levels, poor dietary diversity, fewer number of integrated medical services delivering essential nutrition services to malnutrition hotspots and poor health seeking behaviour occasioned by COVID-19 outbreak were the drivers of the observed negative trend albeit not magnified during the period under review.

## 5.4 COPING STRATEGY

### 5.4.1 Reduced Coping Strategy Index (rCSI)

- Majority of households especially in the Pastoral and Fisheries livelihood zones were having a minimally adequate diet as evidenced by the reduced coping strategy index that was typically high at 16.6 and had notably adjusted upwards from the one reported in November albeit slightly.

- Consequently, there was a slight variation in the consumption based coping strategies (CBCS) applied in December from those in use during the previous months with households applying more severe ones like borrowing and consumption of wild fruits like ‘palm fruit’.
- Proportion of households applying ‘stress’ and ‘crisis’ CBC strategies was approximately 56 percent and 27 percent accordingly.

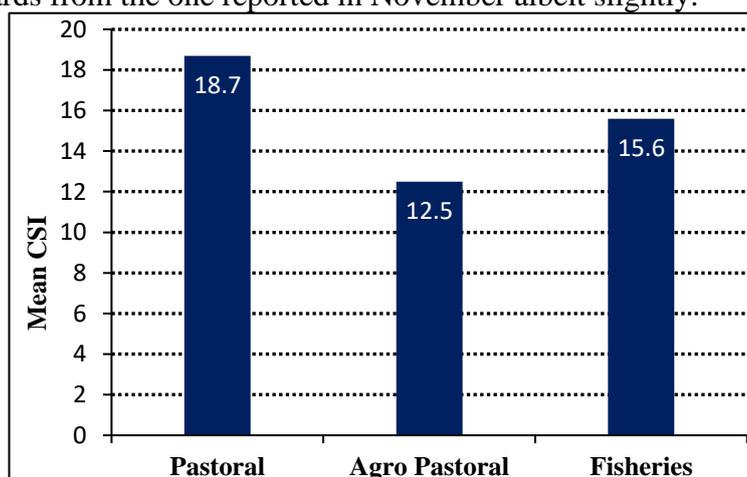


Figure 20: Reduced CSI for Turkana County; December 2020

- Households resident in the Pastoral and Fisheries livelihood zones remained the most constrained in accessing food or money to buy food through the markets compared to those in the Agro-pastoral livelihood zone (Figure 20).
- The prevalent consumption based coping strategies during the period under review in application by majority of households particularly along the Pastoral and Fisheries livelihood zones were reduced number of meals and reliance on less preferred/less expensive food.

## 6.0 CURRENT INTERVENTION MEASURES (ACTION)

### 6.1 FOOD

- There was no relief food distribution that was conducted during the month under review across all the Sub counties.

### 6.2 NON-FOOD

**Table 2: Non-Food Interventions**

Intervention	Sub County/ Ward/Location	No. of Beneficiaries	Implementer(s)
Inauguration of the Information Technology (IT) platform for management of ECDE staff, learners and Supplies (TECDEMIS)	All the seven Sub counties	107,721	Turkana County Government
Provision of personal protective Equipment (PPEs)	All Sub counties	50 full PPEs, 100 packets of surgical gloves, 200 bottles of sanitizers 100 sample collection kits 250 surgical face masks	United Nations Development Programme (UNDP)
Training of Administrators on Disaster Risk Reduction	All Sub Counties	30	TCG/Save the Children
Training on pastoral field schools	Oropoi, Kalobeyei ward	32	TCG/ Regional Pastoral Livelihoods Resilience Project (RPLRP)

## 7.0 EMERGING ISSUES

### 7.1 INSECURITY

#### 7.1.1 Conflict/Human Displacement

- Incidences of insecurity entailing sporadic attacks and cattle rustling were reported in some parts of Turkana East during the period under analysis.

### 7.2 MIGRATION

- Livestock migration that had began earlier than normal continued during the month under review more so from the Fisheries and some sections of the Pastoral livelihood zones along the Eastern wing. The observed out migration was as a result of the dwindling/depleted pasture and browse in some parts of the county within the plains.
- Consequently, livestock from Kibish Sub County had converged in Natelo, Loruth and Katiende areas near South Sudan border livestock 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 had migrated into Loima and Loriu hills while those from Turkana East had migrated into Kakong, Loriu ranges and Nakukulas. On the other hand, those from Turkana North were in Todonyang, Lokitipi plains and Lokwanamour ranges.
- Estimated 50 percent of cattle and 25 percent of the small stock from the affected areas had migrated in search of forage and water.
- The trend is projected to continue across January 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 January with the maximum temperature rising to 34<sup>0</sup>C-36<sup>0</sup>C.
- According to the Food and Agriculture Organization (FAO), it is highly probable that a second wave of desert locusts will invade the County in January 2020 from Somalia through the neighbouring Counties.
- The return of the pre-COVID-19 tax rates to further magnify the negative effects of COVID-19 in areas with a high positivity rate like Turkana West and Central.
- As per the e-surveillance system, the likelihood of an upsurge in livestock diseases driven by convergence in dry season grazing areas will most likely be witnessed.
- Cattle rustling and banditry attacks forecasted to increase across the outlook period especially in the conflict hotspots where livestock have converged in search of forage and water.

### 7.3.2 Food Security Outlook for January 2021

- The likelihood of available maize stocks among the Agro-pastoralists depleting earlier than normal shall remain high as a consequence of the minimal agricultural activity witnessed during the OND 2020 season whose performance was exceptionally poor.
- As a consequence of the below normal short rains that did not promote regeneration of forage to adequate levels, livestock productivity in terms of milk production, body condition hence market return value will most likely decline marginally across the outlook period.
- It's highly probable that the household purchasing power will be significantly compromised as a result of the expected negative trend in the terms of trade influenced by the declining goat price coinciding with the rising food commodity prices and therefore considerable food gaps will most likely emerge especially in the Fisheries and Pastoral livelihood zones.
- The probability of malnutrition levels increasing shall be skewed towards 'one' as a result of the reduced household incomes not sufficing in meeting the dietary needs more so among children aged 6-59 months with the COVID-19 containment measures continuing to curtail roll out of essential nutrition interventions especially by non-state actors.
- Household vulnerabilities will most likely be exacerbated by sporadic attacks that more often than not lead to disruption of livelihood through loss of livestock.
- Therefore, a significant proportion of the population will be 'stressed' with another sizeable portion experiencing IPC phase 3 and above food security outcomes and hence shall be in need of food assistance for at least three months.

## 8.0 RECOMMENDED INTERVENTIONS

### 8.1 DROUGHT RISK MANAGEMENT

**Table 3: Coordination Related Immediate Recommended Interventions**

Sector	Potential Early Actions	Sub-County/Ward	No. of Beneficiaries
Coordination	-Convene Sub County Steering Group Meetings -Convene County Steering Group Meeting -Issuance of Drought Advisory: Media/Barazas -Convene Technical Working Group Meetings (Livelihoods/WASH/Nutrition/Food & CTs). -Conduct a Drought Rapid Assessment to establish the severity of drought & affected sites -Activation of Drought Contingency Plan: Drawing Response/Action Plan. - Resource Mobilization by all stakeholders	T. East/North  Turkana Central  Turkana Central  7-Sub Counties  Turkana Central/East/North	64,800 HHs

## 8.2 FOOD

**Table 4: 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	35,000 - 45,000 HHs

## 8.3 NON-FOOD

**Table 5: Non-Food Immediate Recommended Interventions**

Sector	Potential Early Actions	Sub-County/Ward	No. of Beneficiaries
Livestock	-Prepositioning of supplementary livestock feed within the strategic reserves. -Promotion of commercial destocking/marketing -Enhance livestock disease surveillance -Targeted vaccination and treatment against PPR, CCPP and CBPP in receiving zones.	Kalapata, Lokichar, Katilia, Lokori, Lakezone, Kaaleng, Kaeris, Kangattha Kalokol, Kerio, Kanamkemer	315,000-338,000 Shoats/Cattle  250,000-300,000 Cattle and Shoats
Water	Enhance water availability: -Activation of rapid response teams -Prepositioning of fast-moving spare parts - Repair of broken down water facilities such as strategic boreholes -Installation of plastic water tanks in key strategic institutions -Repair/ servicing of Water Bowsers	County wide; drought hotspots: Kalapata, Nanam, Kalokol, Turkwel-Lomil, Napeililim, Lomeyana, Loima-Lorugum, Namuruputh, Napusmoru, Lakezone, Kerio, Lochwaangamatak, Nasinyono, Loturerei, Lokori	73,500 Learners  41,000HHs
Peace and Security	-Intensifying peace meetings: inter-county & cross border for resource sharing.	Kibish, Lokichoggio, Kalobeyei, Letea, Kapedo/Napeitom, Lokori/Kochodin, Katilia, Lokirama/Lorengipi, Lobokat, Kaputir, Katilu	137,000-153,000
Health and Nutrition	-Hygiene promotion; COVID-19 -Prepositioning essential water treatment chemicals; Cholera Hotspots -Mass screening for malnutrition cases; -provision of essential nutrition supplements to referral cases.	Turkana North Kibish Turkana South Turkana Central Loima Turkana East Turkana West	365,700 HHs  38,000 under-fives
Agriculture	Enhance food availability: -Enhance surveillance and sensitization on the second wave Desert Locust invasion	Turkana East Turkana South Loima	60,750HHs