



A Vision 2030 Flagship Project



National Drought Management Authority

TURKANA COUNTY

DROUGHT EARLY WARNING BULLETIN FOR FEBRUARY 2021

FEBRUARY EW PHASE

Drought Status: **ALARM**



Mipango ya kukabiliana na ukame

Drought Situation & EW Phase Classification

Biophysical Indicators

- Dry and hot weather conditions dominated across all parts of the County during the period under review with the daytime temperature ranging between 36°C and 38°C. Consequently, total rainfall for the 6-month period (September 2020 - February 2021) represents only 48 percent of the rainfall normally recorded for that span of time.
- The condition of vegetation deteriorated significantly as evidenced by the decline in the VCI-3month and VCI-1month values. The Fisheries and Pastoral livelihood zones remained the most affected. A negative trend is projected across March.
- The water situation was equally dire across a number of areas with over 90 percent of water pans having dried up and the depth of traditional river wells increasing substantially.

Socio Economic Indicators (Impact Indicators)

- Body condition of all livestock species was poor and an increase in access distance to water source for households' and livestock was recorded in February.
- Milk produced and consumed by a negligible percentage of households was considerably low while household purchasing power was compromised due to the poor terms of trade. Livestock deaths attributed to starvation/dehydration were reported and over 75 percent of the herd had migrated.
- Proportion of households categorized as having a poor FCS increased with constraints in accessing food remaining significantly pronounced and more severe coping strategies being applied. Nutritional status equally deteriorated.

Early Warning (EW) Phase Classification

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

Biophysical Indicators	Value	Normal Range
Rainfall (% of Normal)	48	90-110
VCI-3 month (County)	50	>35
VCI-1 month (T. East)	41	>35
VCI-1 month (T. North)	34	>35
State of Water Sources	2-3	5-6

Production Indicators	Value	Normal Range
Livestock Migration Pattern	Not Normal	Normal
Livestock Body Condition	Poor	Good
Milk Production	1 Litre	> 2.2 Litres
Livestock deaths (attributed to drought)	Reported Deaths	No Deaths

Access Indicators	Value	Normal Range
Terms of Trade (ToT)	34	>37
Milk Consumption	1 Litre	>2.0 Litres
Return distance to water sources (Household)	8.3 km	< 8.7 km
Cost of Water (KSh/20L)	KSh. 5-10	<KSh .5

Utilization Indicators	Value	Normal Range
Nutrition Status, (% with MUAC: 115-124mm)	Yellow:3.6	<5.7
Food Consumption Score Proportions (%)	29 Poor: 26 Borderline: 45	>35 Poor< 30 Borderline: <47
Reduced Coping Strategy Index (rCSI)	16.6	<16.9

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

1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- During the period under review, dry and hot weather conditions dominated all parts of the County save for select few sites in the Agro-pastoral livelihood zone that reported highly depressed rainfall with a temporal distribution of only one day.

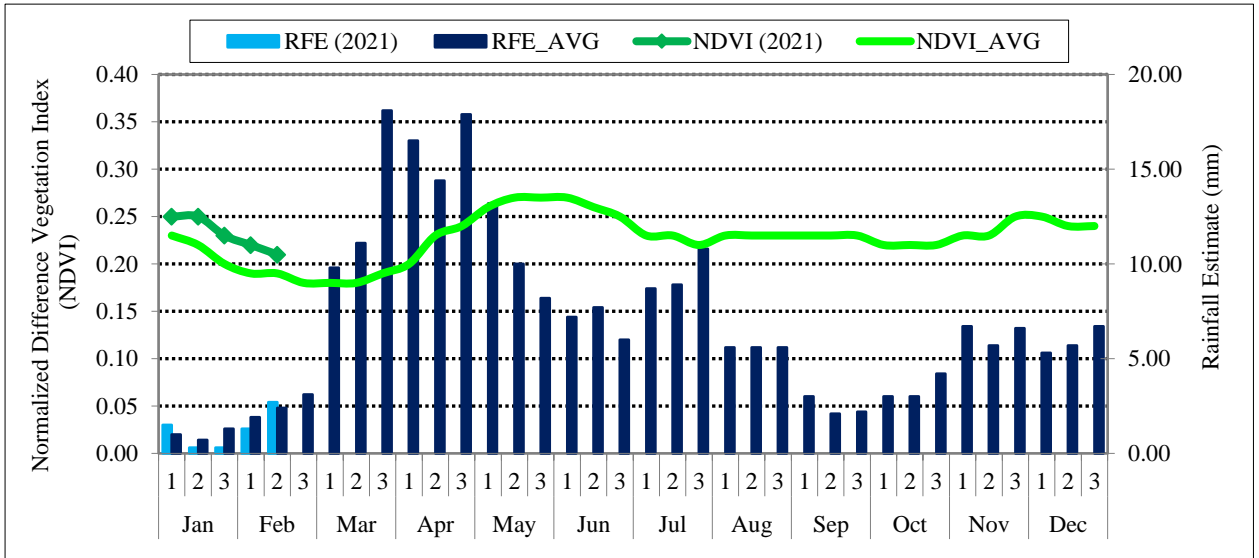


Figure 1: Dekadal Rainfall (mm) and NDVI Values Compared to the Long-Term Average
Source: VAM-World Food Programme, CHIRPS/MODIS

- Consequently, as depicted by the declining Normalized Vegetation Condition Index (NDVI), the condition of vegetation deteriorated significantly in February (Figure 1).
- The Pastoral, Fisheries and some sections of the Agro-pastoral livelihood zones were severely affected with the prevailing above average drier conditions promoting accelerated deterioration in vegetation condition more so in Turkana East, North, Central and South.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- Seasonally, the cumulative rainfall for the six-month period (September 2020-February 2021) represents only 47 percent of the normal rainfall based on a 13-year long term average for the same cycle (Figure 2).

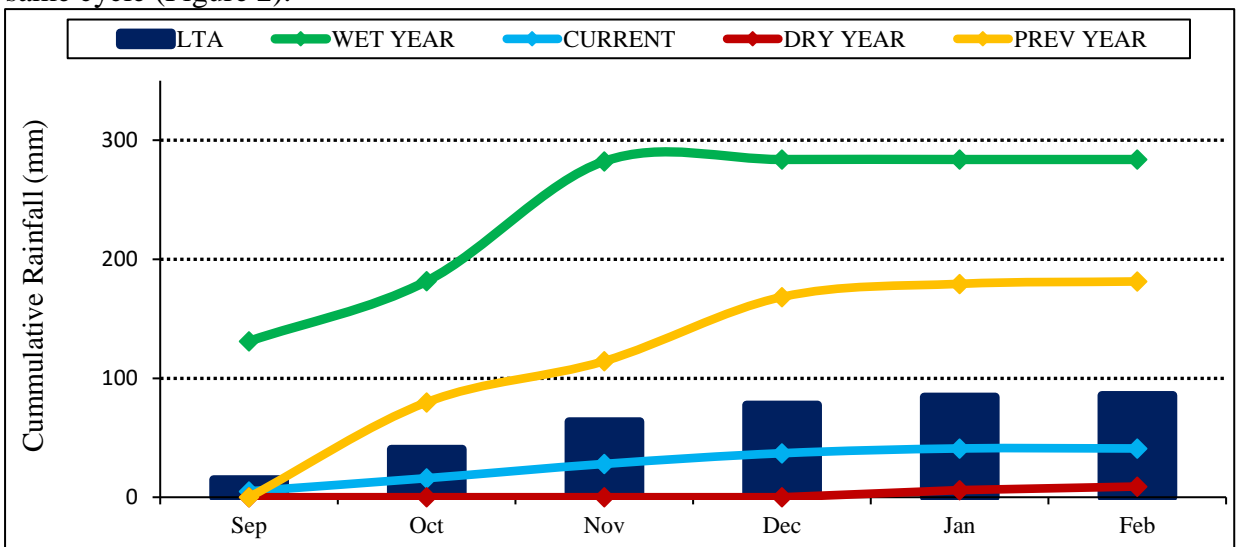


Figure 2: Six-Month Cumulative Rainfall Trend (September 2020 to February 2021)
Source: Kenya Meteorological Department (KMD)-Turkana County

- Across the Pastoral and Fisheries livelihood zones, dry and hot weather conditions prevailed in all parts during the period under review.
- The distribution in space was remarkably uneven with only two wards (Lobokat and Kaputir) in the Agro-pastoral livelihood receiving rainfall that was significantly depressed.
- Significantly high day time temperature oscillating at 38⁰C and long periods of sunny intervals throughout the day were prevalent across all the sites in the County.
- The cumulative rainfall reported for the six-month period (August 2020-February 2021) was lower than the one reported for the same period during the previous year by 58 percent. The previous year's six-month (September 2019 to February 2020) cumulative rainfall surpasses the current year's cumulative rainfall for the same period by 77 percent.
- Based on 13-year' historical data, the period between September 2016 to February 2017 was considered the driest having recorded only 10 mm of rainfall while the six-month period commencing September 2011 and ending February 2012 was considered the wettest segmental year.
- Some of the areas across all the Sub-counties that were experiencing significantly drier than normal conditions were as shown in table 1.

Table 1: Sites Experiencing Drier than Normal Conditions

Turkana Central	Turkana South	Turkana East	Turkana North	Turkana West	Loima
Kalimapus	Naaguro	Kaaruko	Kaeris,	Letea	Lorugum
Kalokol	Kaatir	Lokorkor	Kaaleng	Lokipoto	Namuruputh
Ngumuriae	Kaesamalit	Katilia	Nakalale,	Songot	Lomil,
Kangirisae,	Kapese	Lokori	Ataerika	Lokore	Lobei
Nakurio	Lochwaa	Lochakula	Lokapelpus,	Nanam	Napeillilim
Kerio, Naotin	Kangakipur,	Katamanak	Lowarengak	Kakuma	Nameyana
Lokitela,	Kalapata,	Lokwii	Kanakurudio	Kalobeyei	Nadapal
Nagetei	Kaakalel	Kangitit	Lakezone	Nakururum	Kaitese
Kapua	Lokichar	Nakukulas	Nasechabuin,		Koolioro
Namorutunga	Nakabothan	Lopii,	Epur		Nakamane
Loturerei	Kangirega	Kamuge	Lokitongaber		Lolupe
Lokaparparai	Nagetei,	Lokoriokot	Lomekwi,		Nasiger
Kalotum	Napusmoru,	Nakukulas	Karebur		
Kang'atotha	Loperot,	Lopedur	Kataboi,		
	Kaekunyuk	Ng'ilukia	Nachukui		
	Locheromoit,	Lokwomosing	Katiko,		
	Kasuroi		Narengewoi		

1.3 OTHER EVENTS

1.3.1 COVID-19 Pandemic

- The County had recorded 949 COVID-19 positive cases as at 17th February 2021 out of the 8,721 samples tested with a positivity rate of 3.3 percent.
- Total recoveries were 914 while there were no active cases but 16 absconders were recorded with cumulative mortalities remaining 19.
- Cumulatively, 2,401 contacts had been traced and currently none was on follow up while the operational isolation facilities were two (*Source: Turkana County CRRT-Disease Surveillance Secretariat*).

1.3.2 Desert Locusts Invasion

- Invasion of Desert Locusts into the County was reported in Kapedo/Napeitom ward in Turkana East during the period under review and surveillance/training of scouts was going on in the other parts of the County. However, Tree Locusts continued decimating forage and the droppings from the first invasion of the Desert Locusts had a significant negative effect on livestock health.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- Below is a visual illustration (matrix) of how months have been categorized based on the applicable VCI thresholds. Every month is linked to an appropriate vegetation deficit category 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.

• The visible greenness in vegetation during the month of February was that of invasive drought resistant species like *Prosopis Juliflora* that covered most sections of the County. The palatable species normally fed on by the livestock remained dry following the above average land surface temperature witnessed during that period.

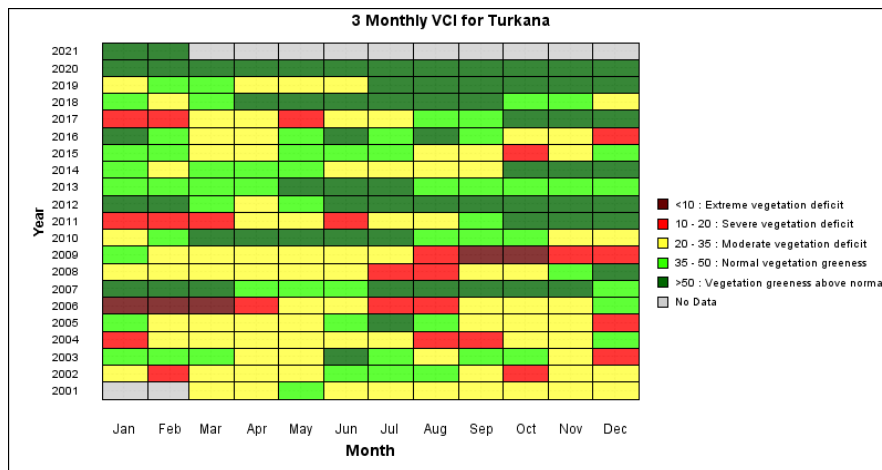


Figure 3: Vegetation Condition in Turkana County- Source: Boku

- Vegetation condition deteriorated further during the month under review as illustrated by the VCI-3month value that declined from 61 reported in January to 50.
- The observed vegetation greenness was localized to some parts of the Agro-pastoral livelihood zone along the County Peripheries like those in Katilu, Lobokat, Turkwel and Kaputir wards along the pathway of River Turkwel.
- Significant deterioration in the condition of vegetation manifested across all the Sub-counties in February as evidenced by the accelerated decline in VCI-3month values. Turkana East and North reported the lowest values of 42 and 40 respectively during the aforementioned analysis period hence the poor forage condition (Figure 4).
- In addition, Turkana North and East Sub-counties experienced the highest level of deterioration in the condition of vegetation as depicted by the VCI-1month values of 34 and 41 in that order.
- Kalapata, Lokichar, Kerio, Katilia, Lokori, Lakezone, Kanamkemer, Kang’atotha, Kaeris, Loima, Lobei/ Kotaruk, Letea, Kalobeyei, Kakuma, Kaaleng/Kaikor, Township and Songot were some of the wards across the three major livelihood zones that were experiencing significant vegetation deficit in February. Some of the factors that were advancing the observed negative trend in vegetation condition during the month of February included absence of off-season rainfall across all sites compounded by the considerably high land surface temperature.

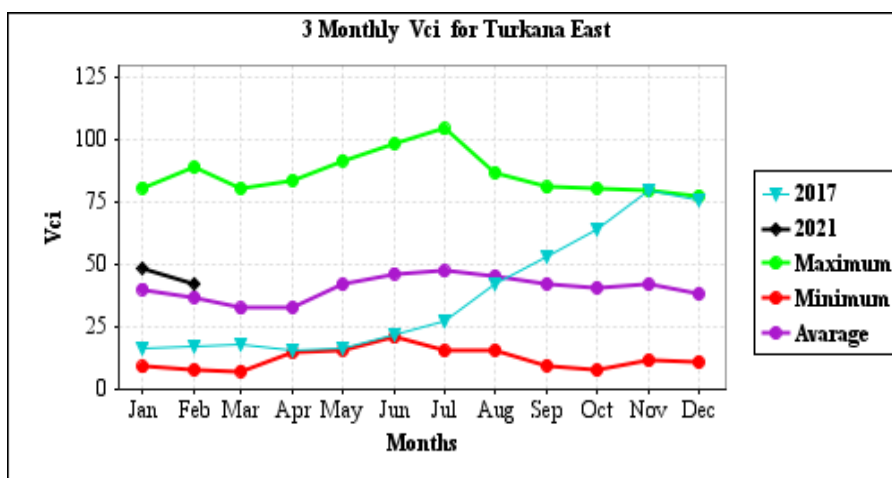


Figure 4: Vegetation Condition Trend in Turkana East- Source: Boku

February included absence of off-season rainfall across all sites compounded by the considerably high land surface temperature.

2.1.2 Field/Ground Observations: Pasture

- The condition of pasture in February as observed during the transect drive and from focussed group discussions with the community and key informants was poor save for a few areas mainly in the Agro-pastoral livelihood where it was fair but on a deteriorating trend (Figure 5).
- Pasture condition in all sites along the Pastoral and Fisheries livelihood zones was poor with the observed situation continuing to deteriorate further since December 2020 as illustrated in figure 5.
- The observed negative trend in February was as a consequence of the prevailing above average land surface temperature coupled with absence of off-season rainfall during the period under review.
- Available pasture mainly in the Agro-pastoral livelihood zone is projected to last for less than one month with a high likelihood of two weeks if the onset of the long rains season is late.
- Some of the significant impediments to pasture access during the month under analysis included high livestock disease prevalence in some convergence zones, pasture depletion occasioned by proliferation of *Prosopis Juliflora* and other invasive non-palatable species and insecurity in some sites with pasture reserves such as Kapedo/Napeitom ward where livestock normally migrated to during the dry season.
- 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.

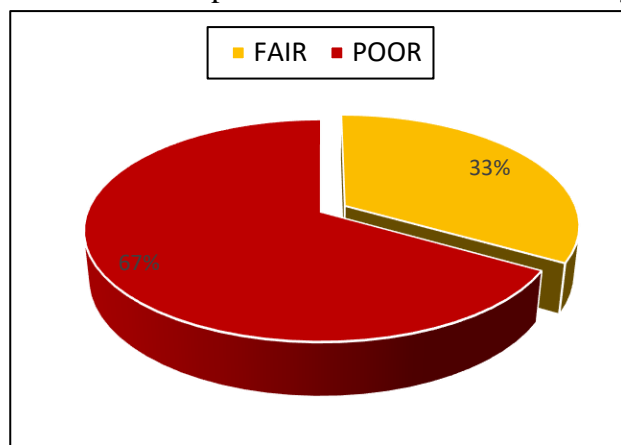


Figure 5: Pasture Condition in Turkana-February

2.1.3 Field/Ground Observations: Browse

- During the month under analysis, the condition of browse was generally poor across most sites in the County and considerably below the level normally witnessed at such a time of the year across the three livelihood zones (Figure 6). The main drivers of the observed deterioration in the condition of browse was the above average land surface temperature, absence of off-season rainfall in February and the Tree locusts that continued decimating browse especially in the Pastoral livelihood zone.
- Deterioration in browse condition more so along the Pastoral and Fisheries livelihood zones could

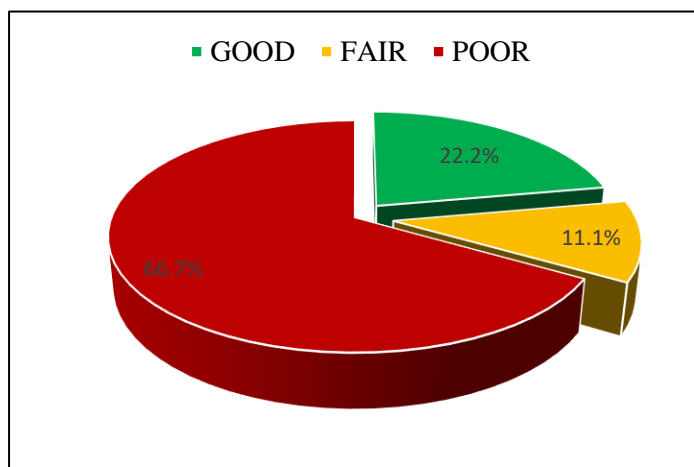


Figure 6: Browse Condition in Turkana-February 2021

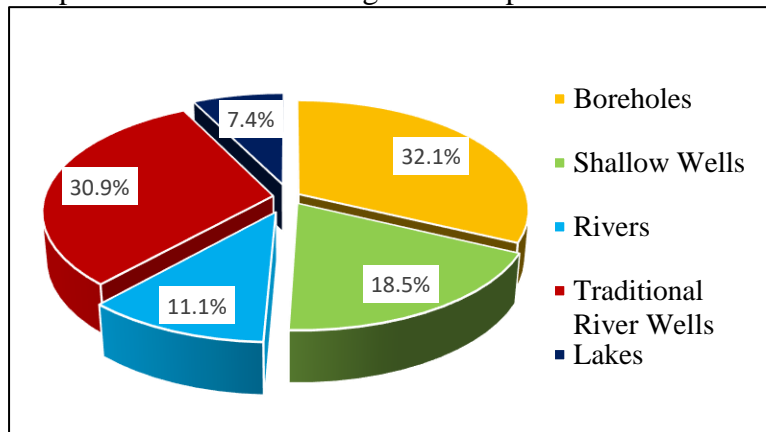
be attributed to above normal land surface temperatures prevailing during the period under review compounded by absence of off-season rainfall in February. Available browse in the Agro-pastoral livelihood zone is forecasted to last for a period of one month as opposed to two months normally. Absence of water structures, insecurity and high prevalence of notifiable diseases were some of the major constraints to browse access during the period under analysis. Variation in browse quality and quantity was witnessed with the situation in the Fisheries and Pastoral livelihood zones being a stark contrast of the one in the Agro-pastoral livelihood zone. Consequently, the canopy was dense in the latter zone compared to the former zones.

2.2 WATER RESOURCE

2.2.1 Sources

- The major sources of water during the period under review across the three livelihood zones included boreholes, traditional river wells and shallow wells (Figure 7).

- Despite boreholes remaining the most preferred water source because of the better water quality,



a considerable proportion of households were utilizing traditional water wells as their main source due to the concentration witnessed in the boreholes. Noteworthy, there was no utilization of water pans as a result of over 90 percent having dried up over the course of the month under review. Further, the operational capacity of boreholes had declined from 84 percent previously to 75 percent during the subject month under

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

review. Seasonal rivers like Kospir, Napasinyang, Kawalathe, Tarach, Kalemngorok, Lokichar, Kalobeyei and Natiira remained dry throughout the period under analysis as a consequence of no rainfall being experienced even in the neighbouring catchment areas of Uganda.

- Visual inspection of the surface water sources across the three livelihood zones revealed that most including rock catchments had dried up, the depth of traditional river wells had increased and ranged between 4-5 metres as opposed to 2-3 metres normally across these areas.
- The underground recharge capacity of the traditional river wells was declining as the depth increased and it's projected the available water would last less than a month.
- On the other hand, the underground water sources were yielding very little amounts of water with the increased breakage of boreholes worsening the situation remarkably resulting to acute water shortage in many areas especially along the Pastoral and Fisheries livelihood zones.
- There was a notable variation in the water situation in terms of level during the month of February from the normal scenario at such a time of the year. The Pastoral and Fisheries livelihood zones were the most affected compared to the Agro-pastoral livelihood zone.

2.2.2 Household access and Utilization

- Household return trekking distance to water source increased by 11 percent with respect to the previous month and averaged 8.3 km across the three major livelihood zones (Figure 8).

- The aforementioned trekking distance was at par with the long-term average distance for the month under review but lower than the one reported for the same period during the dry years by 3.7 km or 45 percent.

- Households' resident in the Pastoral livelihood zone covered a longer

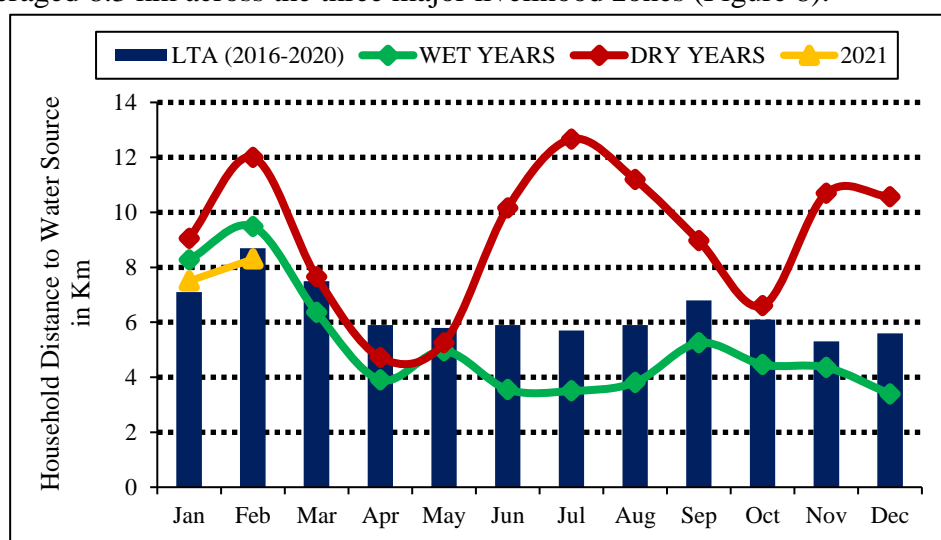


Figure 8: Household Access Distance to Water Source

distance to fetch water compared to those in the Fisheries and Agro-pastoral livelihood zones.

- Consequently, the water scenario changed considerably from the previous month with a notable increase in the distance to water access across all the livelihood zones.
- The Pastoral, Fisheries and Agro-pastoral livelihood zones recorded an average waiting time at the water source of 60-90 minutes, 45-60 minutes and 30-45 minutes as opposed to 45-60 minutes, 30-45 minutes and 15-30 minutes normally in that order.
- Household water consumption per person per day declined further with respect to the previous month and thus it averaged less than 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 Agro-pastoral livelihood zone.
- Approximately 75 percent of the households within the rural set up accessed water free of any charges but unlike previously in some area's households accessed at fee of KSh. 100 per month. For majority of the urban dwellers (eight percent), a 20-litre jerry can was being dispensed at KSh. 5-10 across the water kiosks with the cost rising up to KSh. 40 to KSh. 50 upon delivery to the household by motor bikes. The reported price was outside the normal range for February.

2.2.3 Livestock access

- The return trekking distance to water source from grazing areas increased by seven percent from the previous month and averaged 11.5 km in February across the three zones (Figure 9).
- Notably, the reported trekking distance during the month under review was slightly higher than the long-term average distance for February by five percent but lower than the one reported for the same period during the dry years by a similar margin.
- The longest distance was recorded in the Pastoral and Fisheries livelihood zones owing to the poor

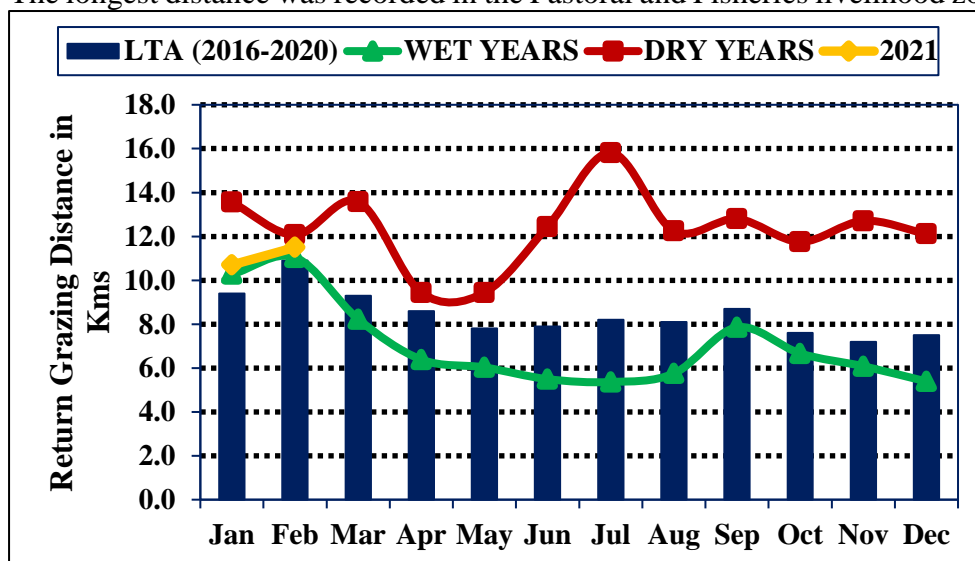


Figure 9: Return Distance to Water Source from Grazing Areas: February 2021

pasture and browse condition in those zones compared to the Agro-pastoral livelihood zone. The observed trend in the trekking distance in February was due to the deteriorating forage condition within the plains that necessitated livestock to migrate further into the dry season grazing areas along

the peripheries of the County that were normally far from water sources due to non-inhabitancy. In addition, insecurity in some areas especially in Turkana East and depletion of browse by Tree Locusts resulted to a change in the migration patterns hence the elongated distance.

- The watering frequency for large stock in the Fisheries and Pastoral livelihood zone averaged two times per week as opposed to 3-4 times per week. On the other hand, small stock in the aforementioned zones accessed water 3-4 times in a week compared to 5-6 times normally.
- Along the Agro-pastoral livelihood zone, small stock accessed water 4-5 times per week compared to 6-7 times normally with the watering frequency of the large stock being 3-4 times per week.
- The worsening water situation occasioned by break down of some boreholes due to over-use, increased depth of the traditional river wells, low water yields due to the declining water table, absence of water flow through the seasonal rivers and migration of livestock to areas without established water structures were some of the drivers of the observed negative trend in February.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- The body condition of all livestock species during the month under analysis was poor across the Pastoral and Fisheries livelihood zones but fair in the Agro-pastoral livelihood zone. Thin fore ribs were visible in goats while the sheep were very thin with no fat and bones visible. The ribs in camels along the former zones were visible with the hump not well developed.
- Livestock body condition is anticipated to deteriorate further across March owing to the depleting/diminishing pasture and browse within the reserve areas where majority had migrated to. The degeneration will most likely be faster than normal due to the prevailing above normal land surface temperature and continued decimation of forage by Tree and Desert Locusts.
- Notably the current livestock body condition lies outside the normal range for the month of February and this would be majorly attributed to constraints in accessing quality forage owing to the poor performance of the short rains and absence of off-season rainfall resulting to elongated trekking distances in search of water and forage.

3.1.2 Livestock Diseases and Mortalities

- Increased incidents of Contagious Bovine Pleuropneumonia (CBPP) and Pest Petis Ruminantes (PPR) was reported across most Pastoral areas of Turkana North, South and East during the month under review. Cases of Helminthiasis, Sheep and Goat Pox and Mange were also reported along the Fisheries and Agro-pastoral livelihood zones.
- Increased cases of livestock deaths were reported in the Fisheries and Pastoral livelihood zones during the month under analysis. The causal factors included: opportunistic diseases, dehydration and starvation with some of the affected sites being Kalapata (Naaguro), Kalokol, Lakezone (Nachukui), Lokori (Kaaruko), Lokichar (Kapese) among others.

3.1.3 Milk Production

- Quantity of milk produced by a negligible percentage (less than one percent) of the sampled households that reported on milk production during the month under analysis declined in relation to the previous month of January. Camel was the main milk producer in February. The production level mainly in the Agro-pastoral zone averaged one litre per household per day (Figure 10).
- The reported production level for February was lower than the long-term average for the period by 55 percent and the one reported during the dry years for the same period by 41 percent.
- There were no milk sales reported during the period with majority of pastoralists allowing the young ones to drink as a means of cushioning them against the effects of drought whose severity was intensifying.
- Livestock migration towards the periphery areas of the County in search of forage and low calving rates were some of the factors influencing the observed negative trend in milk production level during the month under review.

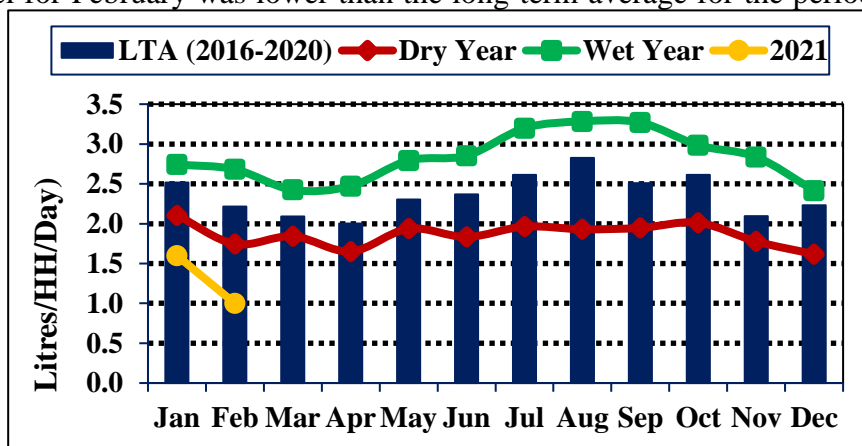


Figure 10: Milk production Trends in Turkana County-February 2021

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of Food Crops

- Land preparation was the only agricultural activity taking place during the month under review.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

- During the month of February, the market price of a 4-year old medium sized bull dropped from the one reported previously albeit by less than five percent and thus it exchanged at KSh. 13,585 across Pastoral and Agro-pastoral markets (Figure 11).
- The decline in price could mainly be ascribed to the deteriorating body condition of cattle occasioned by significantly elongated trekking distances in search of pasture along the riverine areas of the Agro-pastoral zone and the periphery Pastoral areas of the County.

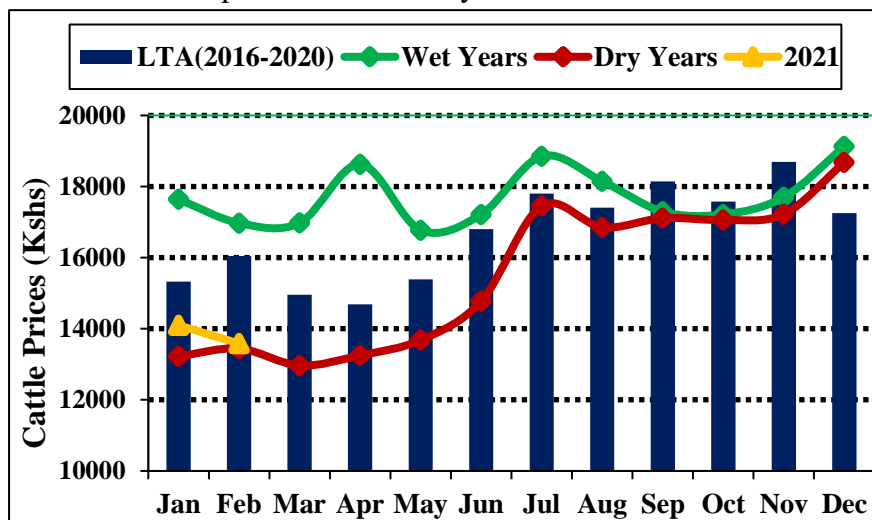


Figure 11: Cattle Price Trends in Turkana County-February 2021

The Agro-pastoral livelihood zone reported the highest price of KSh. 13,670 with the Pastoral livelihood zone recording the least price of KSh. 13,550.

The reported price of cattle during the period under review was lower than the five-year average price for the month of February by 15 percent and at par with the one reported for a similar period during the dry years.

4.1.2 Small Ruminants Prices (Goat price)

- The price of a 2-year old medium sized goat declined by 10 percent from that reported during the previous month averaging KSh. 2,320 across the three livelihood zones in February (Figure 12).
- The body condition of goat deteriorated considerably owing to constraints in accessing quality browse in adequate quantities across all the livelihood zones hence the observed price negativity in February.

- The highest price of KSh. 2,410 was recorded along the Agro-pastoral livelihood zone while the Pastoral and Fisheries livelihood zones returned an average price of KSh. 2,390 and KSh. 2,050 respectively.
- The reported price of goat in February represented 79 percent of the normal price (long-term average) and was lower than the price reported for a similar period during the dry years by eight percent.

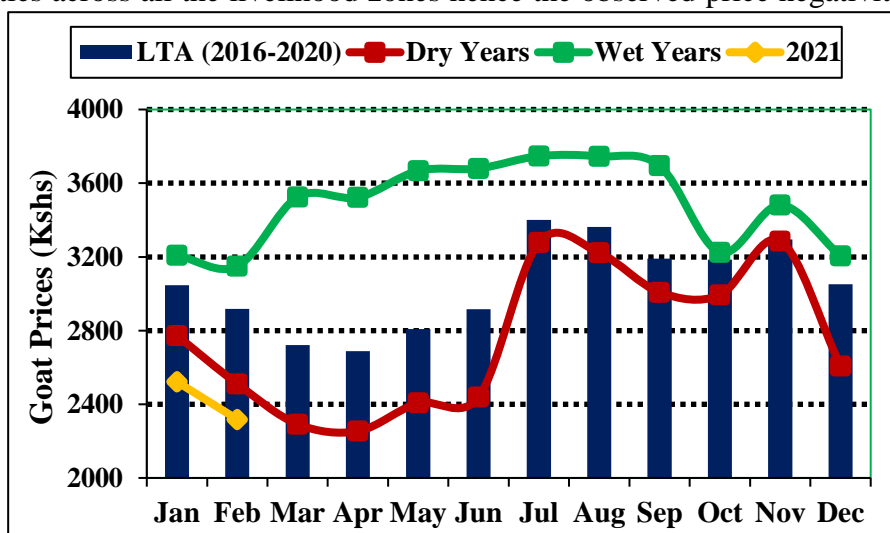


Figure 12: Goat Price Trends in Turkana County-February 2021

- The price of goat is anticipated to decline significantly across March 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. It's highly probable that the deterioration in body condition will be faster than normal if an early onset of the long rains is not witnessed.

4.1.3 Camel Prices

- The price of a 4-year old camel fluctuated slightly downwards from the one reported previously and thus it traded at KSh. 23,720 during the month under review across the Agro-pastoral and Pastoral markets where sales were recorded (Figure 13). Deteriorating body condition occasioned by browse in availability across most areas and impediments in accessing water was the major pull factor that was influencing the observed negative price trend in February.

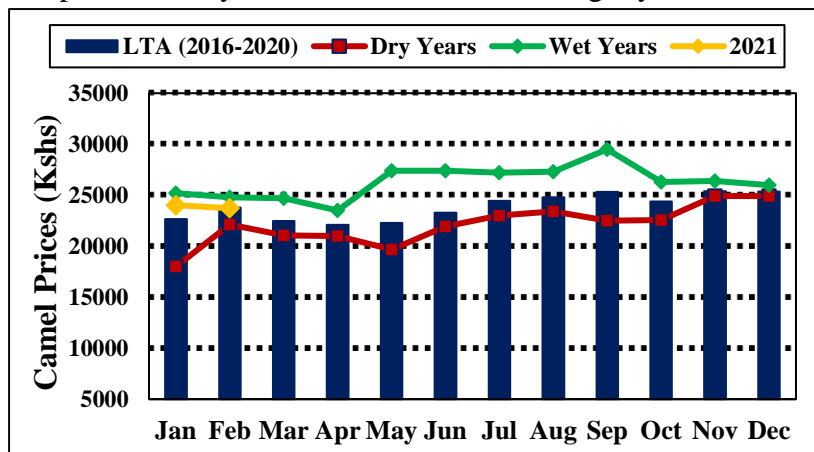


Figure 13: Camel Price Trends in Turkana-February 2021

The highest price of KSh. 23,740 was recorded along the Pastoral livelihood zone while the least price of KSh. 23,670 was reported along the Agro-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 February and the price reported for a similar period during the dry years, the reported price of camel was at par and higher by seven percent accordingly.

4.2 CROP PRICES

4.2.1 Maize

- The price of maize adjusted upwards from the one reported in January and thus a kilogram of maize traded at an average price of KSh. 68 across the three livelihood zones (Figure 14).
- Comparatively, the recorded market price during the month under review was at par with the long-term average price for the month under review but lower than the one returned for the same period during the dry years by 13 percent. There was a higher preference for maize from Kitale and Kapenguria compared to the one from Uganda.

- The Fisheries livelihood zone reported the highest price of KSh. 71 followed by the Pastoral livelihood zone at KSh. 70 while the Agro-pastoral livelihood zone posted the least price of KSh. 60 during the month under analysis.

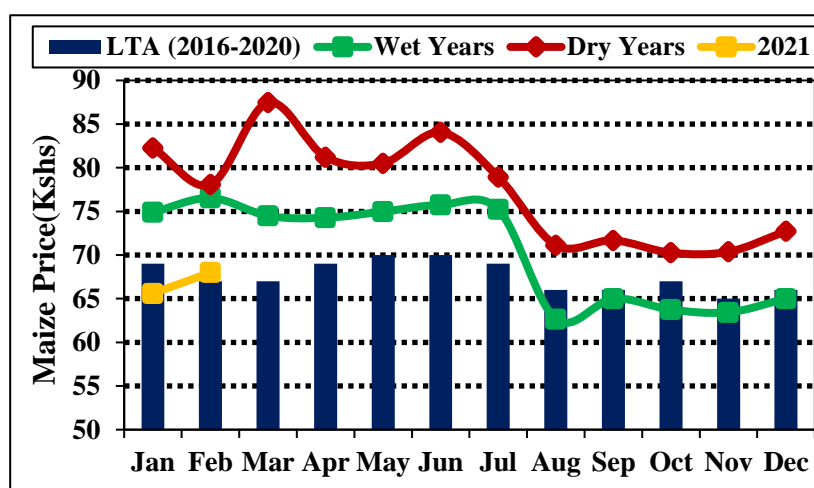


Figure 14: Maize Price Trends in Turkana County-February 2021

- However, outlier prices in the range of KSh. 100-120 were reported in the interior markets within Turkana North and East Sub counties such as Kaeris, Katilia 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 hence consumers were disadvantaged.
- The observed upward price trend was occasioned by maize scarcity in some markets, increased demand driven by depletion of internal stocks with a similar trend anticipated across March.

4.2.2 Beans

- During the month under review, the price of beans increased albeit marginally by less than five percent from the previous month of January with a kilogram trading at KSh. 119 (Figure 15).
- The increase in price could be ascribed to the reduced stocks across all the livelihood zones

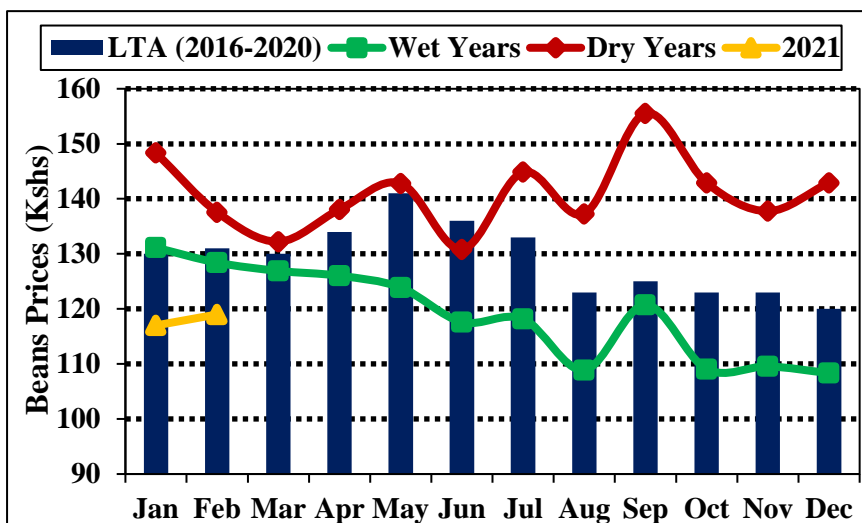


Figure 15: Trends in Beans Price in Turkana County-February

occasioned by reduced flow of the commodity from the external markets coupled by inadequate substitutes from the internal supply sources. The Fisheries, Pastoral and Agro-pastoral livelihood zones posted an average price of KSh. 124, KSh. 122 and KSh. 110 respectively. Not only was the reported price of beans in February lower than the long-term average by 10 percent but also the one reported for a similar period during the dry

years by 14 percent.

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

- The terms of trade declined significantly during the period under review with proceeds from the mostly/normally traded goat (2-year-old male) in the market sufficing to purchase only 34 kilograms of maize as opposed to 39 kilograms previously (Figure 16). Therefore, during the review period, pastoralists who are normally dependent on markets for cereals supply were disadvantaged.
- The prevailing terms of trade in February was lower than the long-term average ToT for the period by nine percent but higher than the one recorded for a similar period during the dry years by a margin of 25 percent.
- Therefore, the purchasing power of Pastoral households was considerably

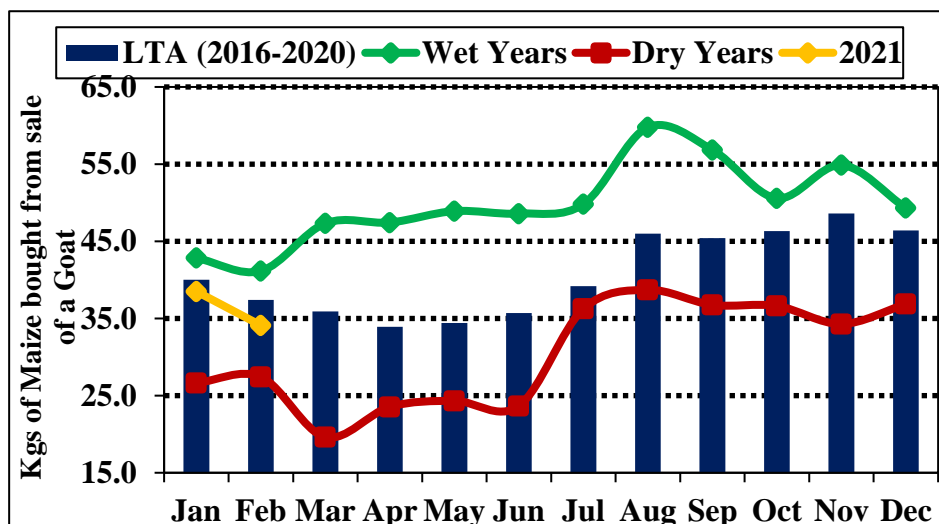


Figure 16: Terms of Trade Trend in Turkana County-February 2021

eroded during that period with a significant proportion of households' unable to purchase basic essential food stuffs that could meet dietary needs especially for the under-fives given that the high cost of transportation resulted to a further loss of sizeable kilograms of maize.

- Noteworthy, porridge and boiled maize was the major meal that majority of households across the three livelihood zones were feeding on as a way of extending availability of food.
- The notable drop in the price of goat coupled with the slight adjustment in the price of maize were the major drivers of the observed negative trend in the terms of trade in February. The negative trend is projected to persist across March as the rangeland conditions deteriorate further.
- Exceptionally low terms of trade was reported in Turkana North and Kibish Sub counties.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- From the sampled 270 households, a negligible percentage 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 January and averaged one litre per household per day in February (Figure 17).

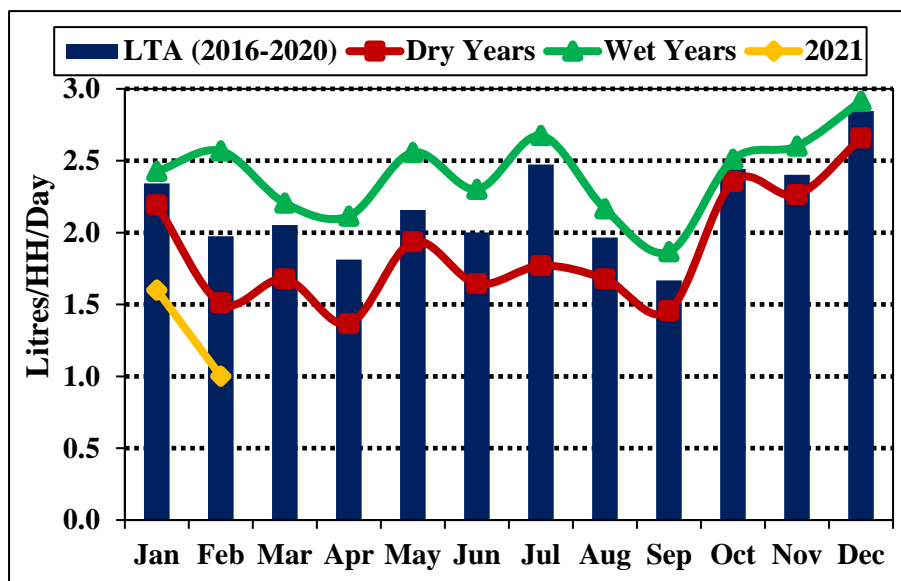


Figure 17: Milk Consumption Pattern in Turkana County-February 2021

declined in relation to the month of January and averaged one litre per household per day in February (Figure 17).

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

March based on past trends and as the effects of drought continue having a significant negative toll on livestock due to the deteriorating rangeland conditions.

- The recorded consumption level for February was not only lower than the one reported for a similar period during the dry years by approximately 33 percent but also the long-term average consumption for the month by 50 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, 45 percent and 39 percent respectively during the month of February.

- Noteworthy, with respect to the previous month of January, more households' (approximately nine percent) transitioned from the upper categories to the poor

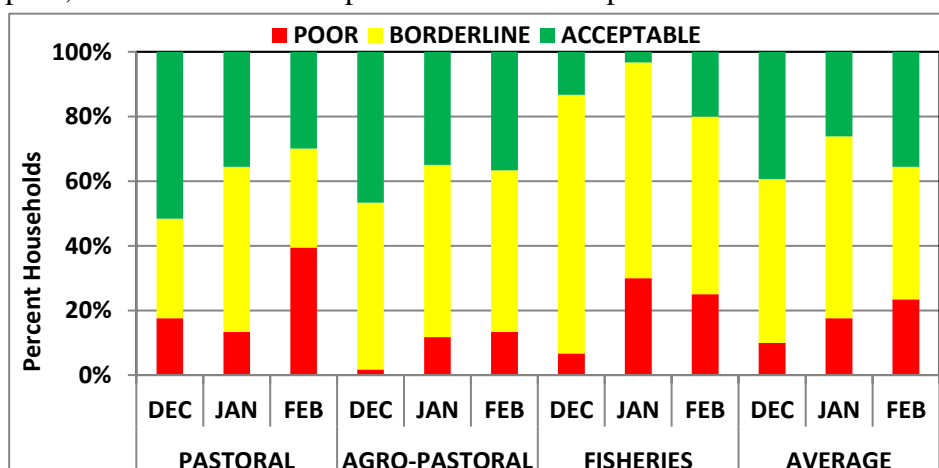


Figure 18: Food Consumption Patterns in the County-February 2021

food consumption score band especially in the Pastoral and Fisheries livelihood zones.

- 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 29 that remained relatively unchanged from the previous month.
- The highest proportion of households categorized as having a poor food consumption score could be traced to the Pastoral and Fisheries livelihood zones during that period (Figure 18).
- The food consumption pattern was particularly poor in Turkana North and Pastoral areas of Loima and that was partly due to the reduced purchasing power occasioned by poor terms of trade.

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- During the month of December, 52 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 48 percent were females.
- Proportion of the aforementioned age cohort classified as being moderately malnourished was 3.6

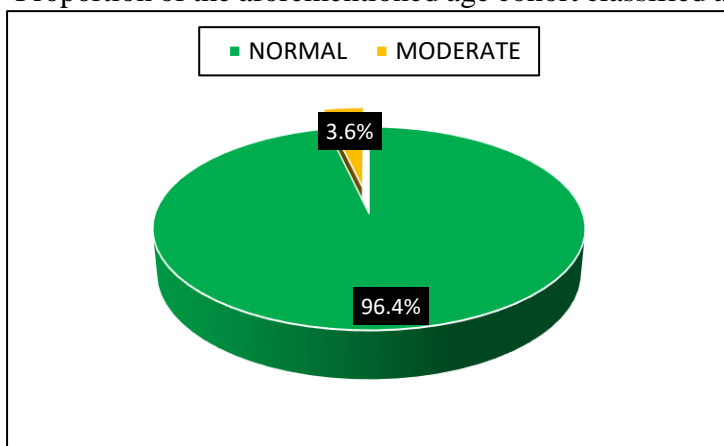


Figure 19: Malnutrition Trends in the County; n=885

percent with few 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 2.1 percent and that reported under the same band during the dry years by a margin 2.6 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 were the drivers of the observed negative trend albeit not pronounced during the period under review.

5.4 COPING STRATEGY

5.4.1 Reduced Coping Strategy Index (rCSI)

- Majority of households especially in the Fisheries and Pastoral livelihood zones were having a minimally adequate diet as illustrated by the reduced coping strategy index that was typically high at 16.6 and had notably remained stable in relation to the previous month.
- Consequently, there was no variation in the consumption based coping strategies (CBCS) applied in February from those in use during the previous month with households applying more severe ones like restricting adults for children to eat, borrowing and consumption of wild fruits.
- Proportion of households applying 'crisis' CBC strategies increased from 26 percent previously to 34 percent (Figure 20).
- Pastoral and Fisherfolk households were the most constrained in accessing food or money to buy food compared to the Agropastoralists.
- The prevalent consumption based coping strategies during the period under review in application by

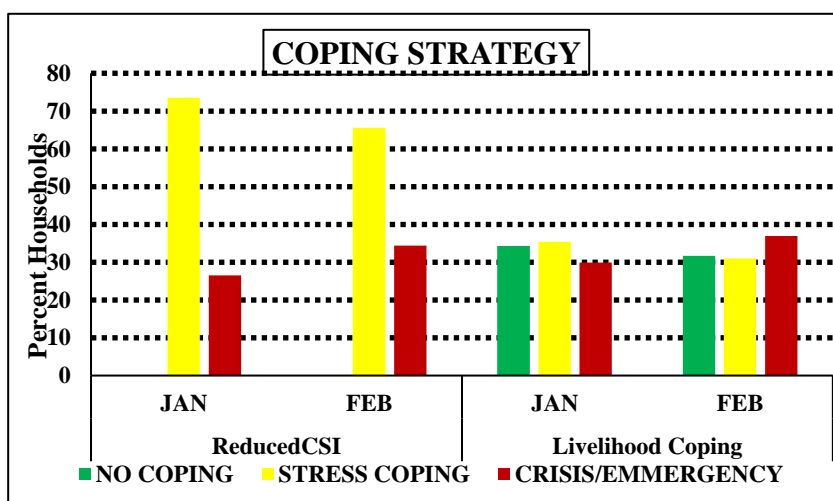


Figure 20: Trends in Consumption and Livelihood Coping

majority of households particularly along the Pastoral and Fisheries livelihood zones were reduced number of meals and reliance on less preferred/less expensive food.

- In reference to livelihood coping, proportion of the households' applying 'crisis/emergency' livelihood coping strategies increased from 29.9 reported in January to 36.9 percent during the period under review. Begging was the most prevalent livelihood coping strategy in application.

6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 FOOD

- There was no relief food distribution conducted during the period under review.

6.2 NON-FOOD

Table 2: Non-Food Interventions

Intervention	Sub County/ Ward/Location	No. of Beneficiaries	Implementer(s)
Cash transfer to vulnerable households through the Hunger Safety Net Programme (HSNP)	All the seven Sub counties	39,918	National Drought Management Authority (NDMA)
Management of Acute Malnutrition	All the seven Sub counties	27,996	MoH, UNICEF, SCI, WVI, IRC, KRCS and Afya Timiza

7.0 EMERGING ISSUES

7.1 INSECURITY

7.1.1 Conflict/Human Displacement

- During the month of February, there were no notable cases of insecurity/conflict reported save for sporadic attacks that were associated with cattle rustling in some parts of Turkana West.

7.2 MIGRATION

- Migration of livestock continued during the period under review, movement taking place was mainly from the Fisheries and Pastoral livelihood zones towards the County peripheries along the international borders of Uganda, Ethiopia and South Sudan. Significant movement of livestock through the Karamoja cluster into Uganda was witnessed in February while a good proportion of livestock from Turkana East migrated into the Agro-pastoral areas of Turkana South Sub county.
- A high concentration of livestock mainly from Kibish and Turkana North was witnessed in Loruth with a replica of the same being observed in Urum area; Loima Sub county.
- Livestock from Pastoral areas of Turkana South like Kalapata and Lokichar wards were spotted moving towards Loriu ranges despite there being some unconfirmed reports of incidents of insecurity. Approximately over 75 percent of the livestock herd had moved out of their normal grazing areas due to depletion of pasture and browse.
- Further movements are expected in March as the rangeland conditions deteriorate further owing to the significantly above normal land surface temperature being witnessed.

7.3 FOOD SECURITY PROGNOSIS

7.3.1 Food Security Outlook for March 2021

- Livestock productivity (body condition, milk production and market price) is projected to decline over the next one month as a consequence of the forecasted above average land surface temperature and re-invasion of Desert Locusts accelerating forage degeneration compounded by the late onset of the long rains.
- The likelihood of household purchasing power declining further shall remain high owing to forecasted negative trend in the ToT likely to persist across March and therefore food gaps will remain pronounced especially for households' dependent on fishing and livestock.
- The probability of malnutrition levels rising will most likely be high driven by the COVID-19 containment measures that will continue hindering roll out of nutrition interventions especially by non-state actors coupled with a declining trend in agricultural and livestock indicators.
- Consequently, a significant proportion of the population will be 'stressed' with another sizeable portion (approximately 25 percent) experiencing 'crisis' and 'emergency' food security outcomes and thus in dire need of food assistance to survive through the stressful period.

8.0 RECOMMENDED INTERVENTIONS

8.1 FOOD

Table 3: Food Related Immediate Recommended Interventions

Sector	Potential Lives Saving Actions	Sub-County/Ward	No. of Beneficiaries
Food and Safety Net	Protect lives through: <ul style="list-style-type: none"> Provision of relief food/ food assistance Cash transfer targeting vulnerable households': affected by drought, Conflict, Lake Turkana over flow, second wave of Desert Locusts and COVID-19 Outbreak. 	All the Seven Sub counties	38,600HHs

8.3 NON-FOOD

Table 4: Non-Food Immediate Recommended Interventions

Sector	Potential Livelihood Saving Actions	Sub-County/Ward	No. of Beneficiaries
Livestock/ Veterinary	<ul style="list-style-type: none"> Distribution of supplementary feeds Initiate slaughter destocking Enhance livestock disease surveillance while conducting targeted vaccination and treatment 	Kalapata, Lokichar, Katilia, Lokori, Lakezone, Lopur, Kaeris, Kangatoha Kalokol, Kerio, Kanamkemer	350,000-450,000 Shoats
Water	Enhance water availability: <ul style="list-style-type: none"> Repair of broken-down water facilities such as strategic boreholes. Conduct water trucking. 	Drought hotspots: Kalapata, Kalokol, Lokori, Lakezone, Kerio, Kanamkemer, Lokichar, Kaeris, Kaaleng	40,000HHs
Health and Nutrition	<ul style="list-style-type: none"> Mass screening for malnutrition cases Conduct integrated health outreaches in malnutrition hotspots that offer essential nutrition supplements while distributing water treatment chemicals. 	Turkana North, Kibish Turkana South Turkana Central Loima, Turkana East Turkana West	33,000 under-fives
Agriculture	Enhance food availability: <ul style="list-style-type: none"> Enhance control and surveillance measures against the second wave of Desert Locusts. 	Turkana East, Central Turkana South, Loima Turkana North	110,000HHs
Peace and Security	<ul style="list-style-type: none"> Intensifying peace meetings: inter-county & cross border for resource sharing. 	Turkana West, Loima, North, East and South	137,000-153,000
Education	<ul style="list-style-type: none"> Promote retention in schools through initiation of the food for fees programme 	Turkana North, Kibish Turkana South Turkana Central Loima, Turkana East Turkana West	10,000 Learners