

# National Drought Management Authority

## MARSABIT COUNTY

### DROUGHT EARLY WARNING BULLETIN FOR NOVEMBER 2020



A Vision 2030 Flagship Project



#### DROUGHT EW PHASE: NORMAL

Drought Status: **NORMAL**



Shughull za kawaida

#### Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Agro-pastoral	Normal	Improving
Pastoral All species	Normal	Deteriorating
Fisher folk/Casual labour/Petty Trading	Normal	Deteriorating
County	Normal	Deteriorating
Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	84	80 -120
VCI-3Month (County)	49.08	>35
Forecast (VCI-3Month)	52.71	>35
Forecast SPI3 (OND)	-0.09 to -0.98	> Zero
Forecast Soil Moisture	>0.33	< 0.33
Production indicators	Value	Normal
Livestock Body Condition	Good-Fair	Good
Milk Production	2.1	>1.8Litres
Livestock Migration Pattern	Unusual	Normal
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	97	>70
Milk Consumption	1.8	>1.6 Litres
Return distance to water	6.7	0.0-7.3Kkm
Utilization indicators	Value	Normal
Nutrition Status (severe & moderate)	11.7	7.2
Coping Strategy Index	15.8	<20
Food Consumption	40.0	>35

#### Drought Situation & EW Phase Classification

##### Biophysical Indicators

**Rainfall:** In the month under review, agro-pastoral areas received near average rains whereas most parts of pastoral areas recorded below average.

**Vegetation condition:** 3-months Vegetation Condition Index for the month under review was 49.08 across the County hence significant deterioration when compared to the previous month's VCI of 63.27.

##### Socio-Economic Indicators (Impact Indicators)

**Production indicators:** Livestock body condition was good-fair for all the livestock species in all the livelihood zones. Milk production was above the short term average. Unusual livestock migration was reported in North Horr and Laisamis sub-counties. Incidences of livestock diseases were reported across the County especially rabies and foot and mouth. Maize is at knee high to tasselling stage whereas beans are at flowering stage. Mass calving in camel was observed across the livelihood zones.

**Access indicators:** Household and livestock water distances were within the normal ranges. Breakdown of some strategic boreholes was reported in some parts of the County and in some isolated areas households are experiencing water stress. Milk consumption was above normal and terms of trade are above average attributed to stable maize and goats' prices.

**Utilization indicators.** Household food consumption score remained within the acceptable band whereas consumption based coping strategies applied by households were stressed in all the livelihood zones. There were no notable variations in livelihood coping strategies employed. Total admissions trends for under-fives increased amongst the severely malnourished children across the County.

- Short rains harvests
- Short dry spell
- Reduced milk yields
- Increased HH Food Stocks
- Land preparation

- Planting/Weeding
- Long rains
- High Calving Rate
- Milk Yields Increase

- Long rains harvests
- A long dry spell
- Land preparation
- Increased HH Food Stocks
- Kidding (Sept)

- Short rains
- Planting/weeding

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
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## 1.0 CLIMATIC CONDITIONS

### 1.1 RAINFALL PERFORMANCE

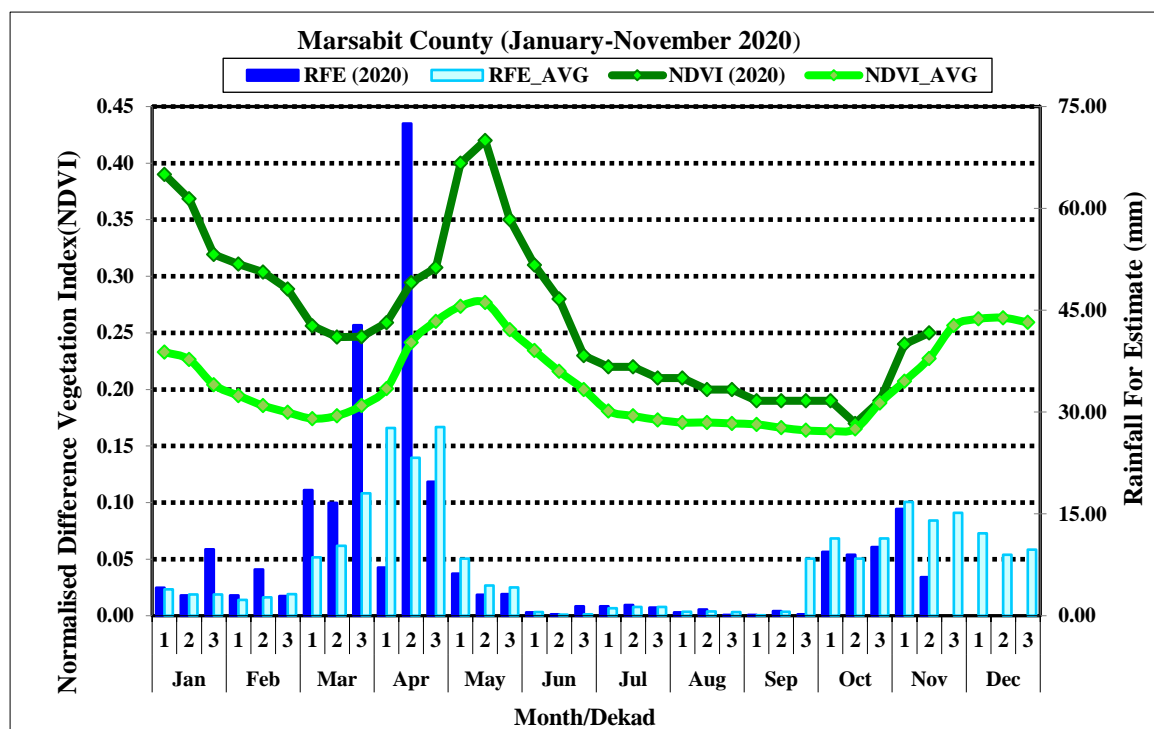


Figure 1: Dekadal Rainfall (mm) and NDVI values compared to the Long Term Average

Source: WFP-VAM, CHIRPS/MODIS

- From the figure 1 shown above, dekadal rainfall for estimate (RFE) amounts for the first dekad was normal while for the second dekad was below normal when compared to their corresponding long-term dekadal rainfall for estimate (RFE) averages.
- Normalized Difference Vegetation Index (NDVI) for the first and second dekads were slightly above normal when compared to their respective long term dekadal NDVI values.

### 1.2 Onset of the Short Rains

- Onset of the short rains was timely as it occurred in the third dekad of the month thus a normal onset.

### 1.3 Amounts received

- In the month under review, Marsabit Mountain received 141.3mm of rainfall in 14 rainy days with the maximum amount received on 7<sup>th</sup> November at 35.8mm. Likewise, Moyale Township received 114.2mm of rainfall in 7 rainy days with the highest amount recorded on 11<sup>th</sup> November at 20.3mm. Most parts of North Horr sub-county received rains in the third dekad of the month that were near average in Dukana, El-hadi, Balesa and Gas recording rainfall amounts of 45mm, 29mm, 32mm and 14mm respectively in 3-6 rainy days as illustrated in figure 2 below. However, Malabot received average to slightly above average rainfall of 39mm in 3 rainy days. North western parts of Laisamis and North Horr sub-counties received above average rains.

### 1.4 Spatial and temporal distribution

- Distribution of the November rains was poor both temporally and spatially across most parts of the County. However, Saku and Moyale sub-counties received near average rains that were well distributed in space and time. In Laisamis sub-county (Loglogo, Laisamis, Merille, Namarei, Illaut, Lepandera, Ngurnit, South Horr, Sarima and Mt. Kulal) received slightly enhanced rains whereas Loiyangalani, Kargi and Korr received fair-poor rains. In

North Horr sub-county (Dukana, Hurri Hills, Forole, Illeret, Turbi, Shurr, Gas, Sarimo, Darade and Malabot) received near average to slightly above average rains while El-gade, Horonderi, Kalacha, Maikona and Bubisa received poor rains in a few days.

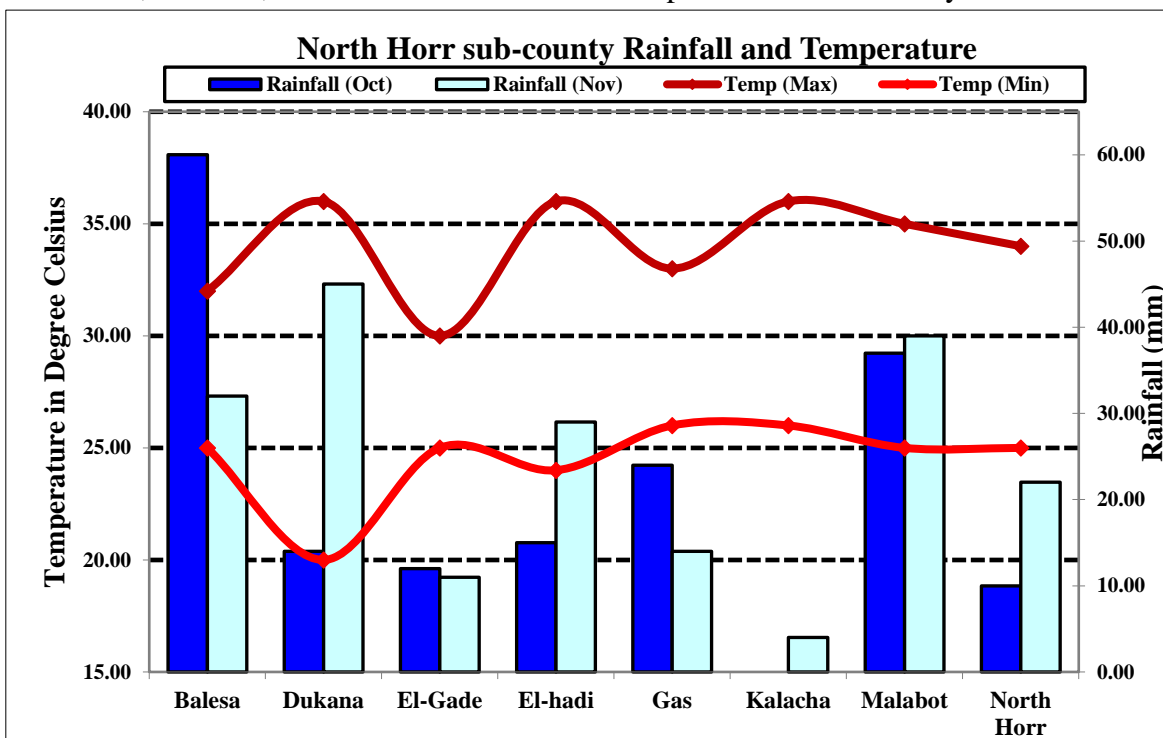


Figure 2: Rainfall amounts and Temperature at health facilities under One Health Project:

- When compared based on the livelihood zones, agro-pastoral areas of Moyale and Saku sub-counties received near average rains whereas pastoral areas of North Horr and Laisamis sub-counties received below normal rains. Generally, pastoral areas of Laisamis and North Horr sub-counties received rains in 1-6 days while agro-pastoral areas of Moyale and Saku sub-counties received rains in 6-14 rainy days in the month under review.

### 1.5 CUMULATIVE RAINFALL AMOUNTS

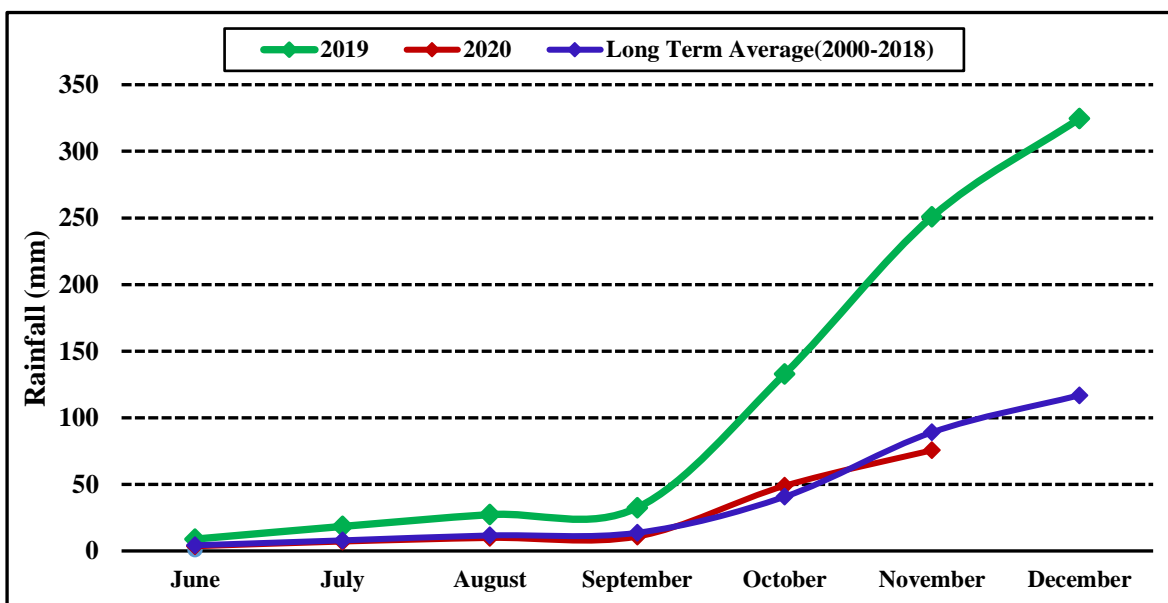


Figure 3: Marsabit County Cumulative Rainfall Amounts (mm)

- From the figure (3) shown above, current seasonal cumulative rains are slightly below the long-term cumulative rainfall amounts. Generally, 2019 short rains were a wet season with

cumulative rainfall amounts exceedingly above normal and more than double the seasonal long term average.

- The current cumulative rainfall amounts are below the long term cumulative rainfall amounts due to the depressed rains that were received in most parts of North Horr and Laisamis sub-counties that crowded out the near average rains recorded in Moyale and Saku sub-counties.

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index (VCI)

From the figure 4 shown below, current vegetation condition index is 49.08 hence illustrated significant deterioration when compared to the previous month's vegetation condition index of 63.27. Current vegetation condition index is within the normal vegetation greenness band thus a decline from the above normal vegetation greenness band recorded in the preceding month. Normal vegetation greenness was attributed to generally below average cumulative

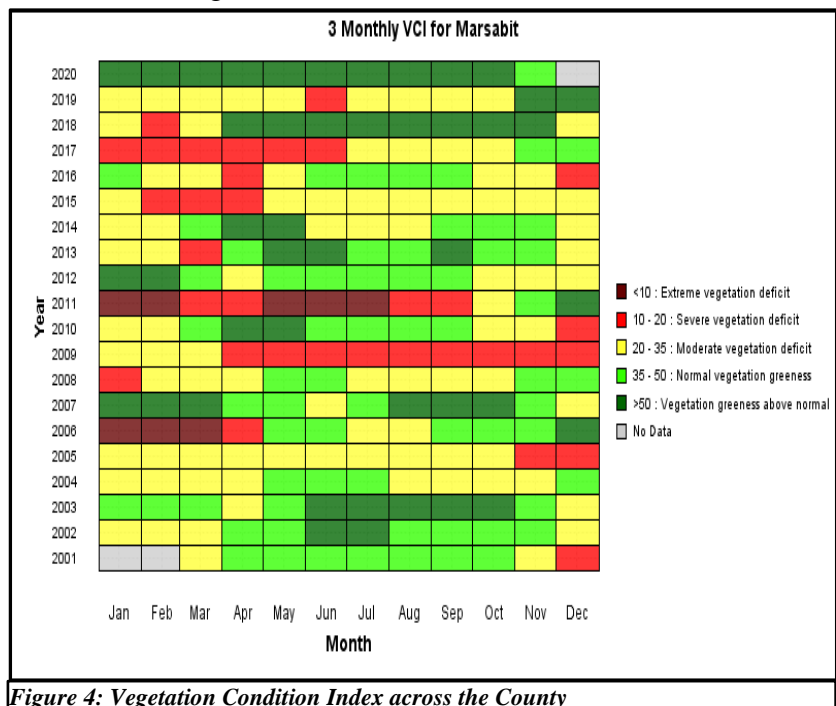


Figure 4: Vegetation Condition Index across the County

seasonal rainfall amounts that didn't sufficiently invigorate vegetation cover across the County particularly in the pastoral areas of North Horr and Laisamis sub-counties.

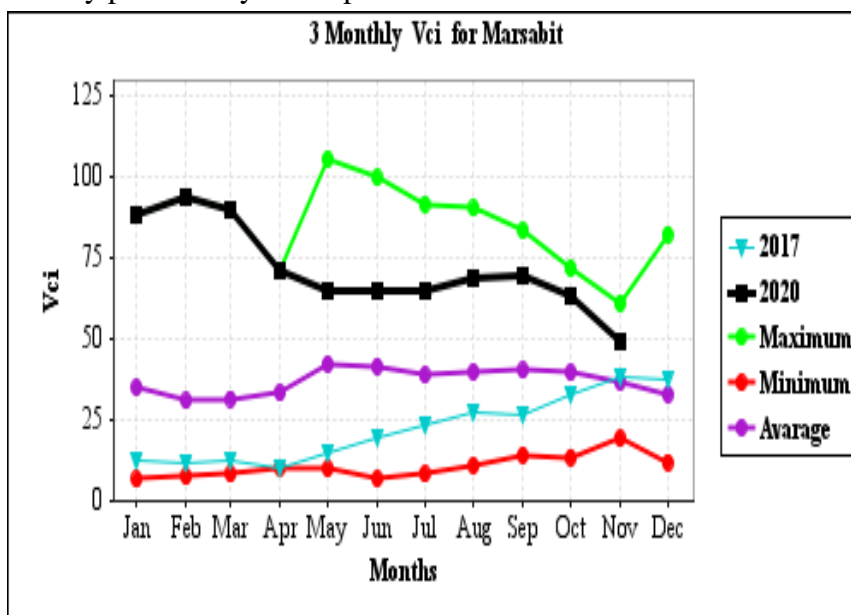


Figure 5: Vegetation Condition Index Trends across the County

With drier than usual conditions and sporadic rainfall expected, the 3-months vegetation condition index will decline further in the next one month and remain in the normal vegetation greenness band.

When compared based on the sub-counties, Moyale and North-Horr sub-counties

exhibited a 3-months vegetation condition index of 39.57 and 48.63 respectively thus in the normal vegetation greenness band. However, Laisamis and Saku sub-counties posted 3-months vegetation condition index of 53.8 and 52.7 as a result falling within the above normal vegetation greenness band.

- Figure (5) shown above compares November 2020 vegetation condition index to November 2020 long term average, historical maximum and minimum vegetation condition index values. When compared to the long-term average, the current vegetation condition index is above the long term average but slightly below the maximum value ever recorded at this particular time of the year. With expected drier than usual conditions, vegetation condition index is likely to considerably decline and fall slightly below the long term average.

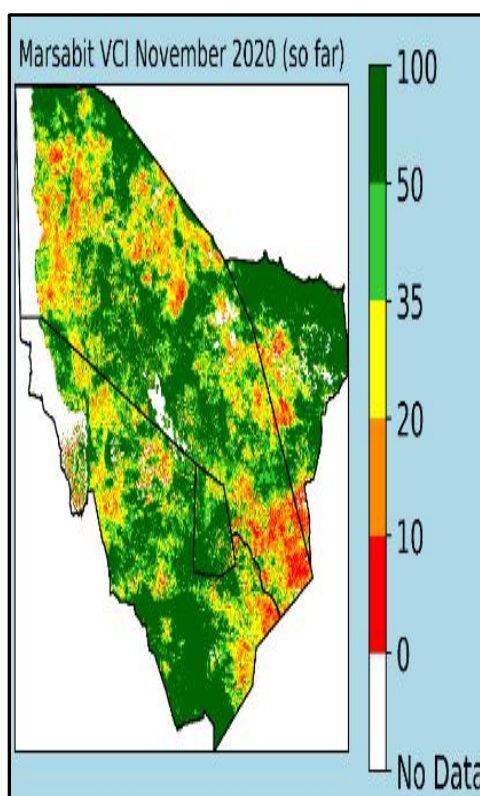


Figure 6: Marsabit County Monthly VCI

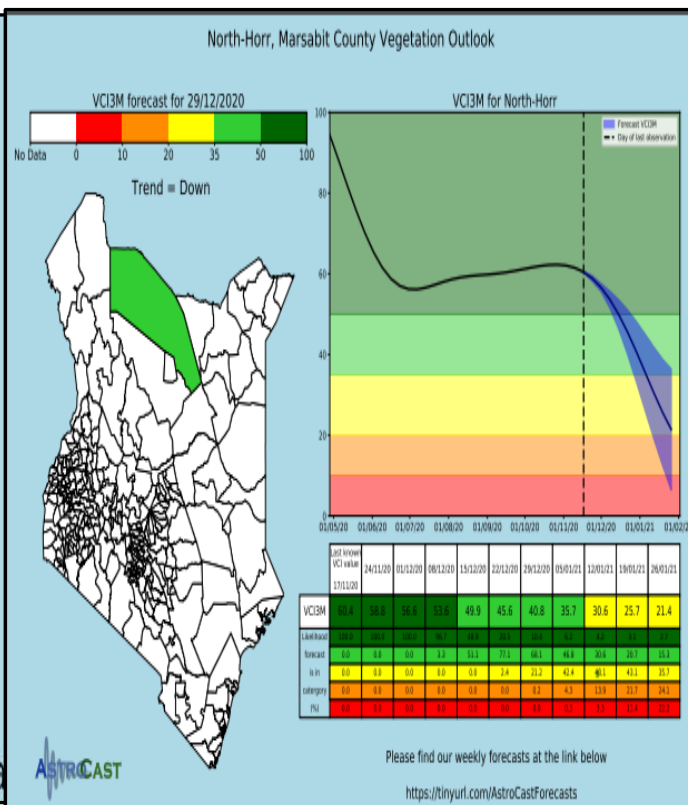
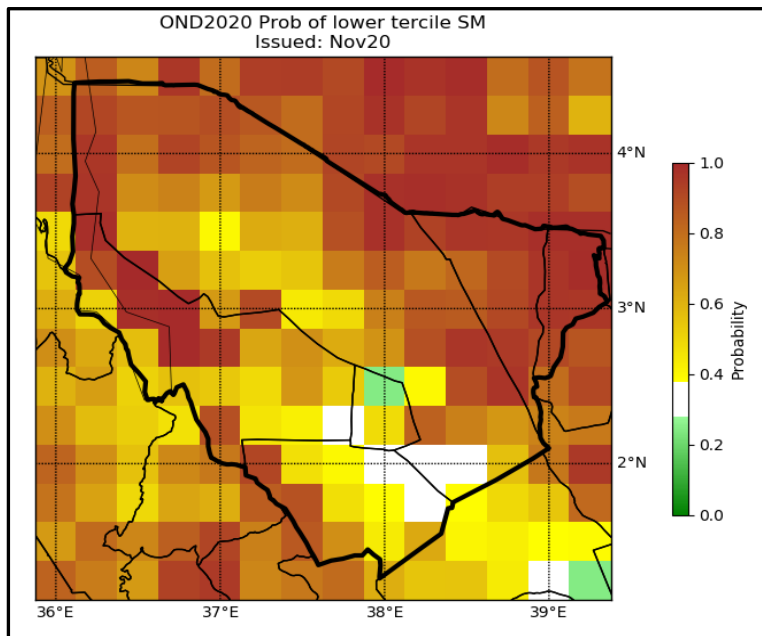


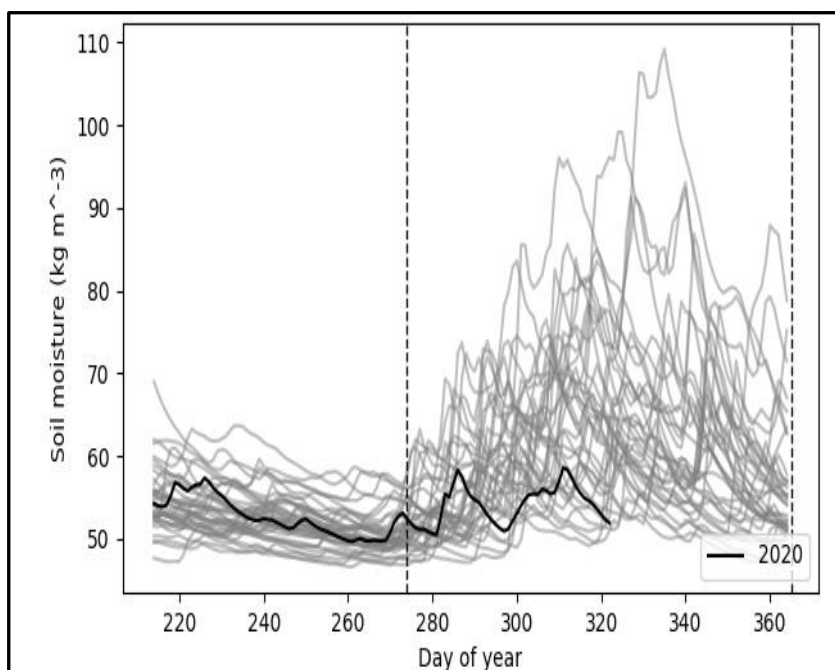
Figure 7: 3-months VCI forecast for North Horr sub-county

- Figure 6 shown above illustrates sub-counties forecasts vegetation condition index which indicates that most parts of North Horr sub-counties recorded VCI values oscillating between normal vegetation greenness and moderate vegetation deficit categories. Most parts of Moyale, Saku and Laisamis sub-counties were in the above normal vegetation greenness band with exceptions of south western parts of Moyale and northern parts of Laisamis which exhibited moderate vegetation deficit.
- From (Figure 7) shown above, the 3month vegetation condition index forecast for North Horr sub-county in the month of November indicates normal vegetation greenness. However, when compared to Saku and Moyale sub-counties, VCI-3 months' prediction depicts above normal vegetation condition index in the forecasted period.



**Figure 8: Probability of lower tercile soil moisture in Marsabit County** moisture in the above mentioned areas in the month of November. General deterioration across Marsabit County will likely be exacerbated by forecasted occasional rains in December and drier than usual conditions.

(Figure 8) illustrates forecasted lower terciles soil moisture that indicates a general decline in the vegetation condition across the County. A late start of the rains across Marsabit and the dry rainfall forecast suggest soil moisture conditions for much of Marsabit will be below the long-term average. On average, there is a 0.33 probability that soil moisture will be in the lowest tercile attributable to enhanced probability of below soil



**Figure 9: TAMSAT-ALERT soil moisture for Marsabit County**

Figure 9 shows TAMSAT-ALERT soil moisture time series for Marsabit County. The grey lines show the progression of soil moisture throughout historic years (1983-2019). The black lines show the progression of soil moisture throughout 2020. The dashed vertical lines show the start (1<sup>st</sup> October) and end (31<sup>st</sup> December) of the rainy season.

### 2.1.2 Pasture

- Pasture condition is good-fair in the pastoral livelihood zone of North Horr and Laisamis sub-counties whereas good in the agro-pastoral areas of Moyale and Saku sub-counties.
- Pasture condition is good in the agro-pastoral livelihood zone attributed to near average rains that revitalized pasture whereas in the pastoral livelihood zone, pasture condition is good-fair occasioned by below normal cumulative rainfall amounts that led to partial regeneration.
- Areas that exhibited good pasture condition in North Horr sub counties are; Illeret, Turbi area, Shurr, Hurri-Hills, Forolle and Dukana while in Kalacha, Maikona, Bubisa, Balesa and parts of North Horr ward pasture is generally poor. In Laisamis sub county pasture is good

in Merille, Laisamis, Loglogo, Namarei, Ngurnit, Illaut and Gatab while poor in Korr and Kargi.

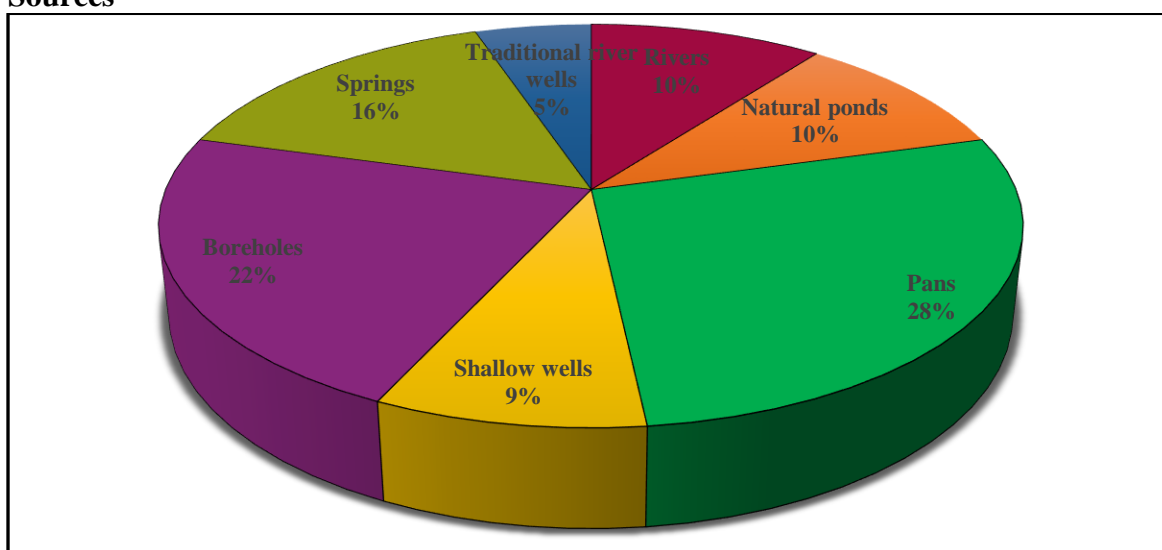
- When compared to similar periods, the quality and quantity of pasture is above normal in all the livelihood zones attributed to spill-over effect of the exceedingly good performance of the last long rains season.
- With prediction of the occasional December rains coupled with drier than usual conditions, pasture is expected to last 2-3 months in the pastoral livelihood zone while 3-4 months in the agro-pastoral livelihood zone.

### 2.1.3 Browse

- Browse condition is fair in the pastoral livelihood zone while good-fair in the agro-pastoral livelihood zone. However, there is rapid emergence of non-palatable vegetation in Moyale, North Horr and Laisamis sub-counties especially *calotropis procera* and bush encroachment attributed to environmental degradation.
- Prevalence of notifiable diseases were some of the main hindrance towards access to browse in the month under review.
- Quality and quantity of browse is fair in all the livelihood zones. Generally, in the agro-pastoral areas, browse will last 2-3 months whereas in the pastoral livelihood zone browse is likely to last 3 months if drier than usual conditions persist.

## 2.2 WATER RESOURCE

### 2.2.1 Sources



**Figure 10: Main sources of water across the livelihood zones**

- From figure 10 shown above, water pans and borehole are the main water sources applied by majority of the communities in all the livelihood zones as depicted by a response rate of 28percent and 22percent respectively.
- When compared to similar periods, water pans are usually the main source of water at this particular time of the year.
- Other water sources applied by the communities in the month under review are springs, natural ponds, seasonal rivers, shallow wells and traditional river wells at 16percent, 10percent, 10percent, 9percent and 5percent respectively.
- In the agro-pastoral areas of Moyale and Saku sub-counties, 75percent of sub-surface water sources have recharged due to the near average rains that were received in the month under review. However, in the pastoral livelihood zone of North Horr and Laisamis sub-counties,

recharge level of open water sources is at 45percent prompted by depressed rains that were received and high evapo-transpiration rate.

	Laisamis	North Horr	Moyale
Communities that require water trucking	Ulauli, Weltei, Sakardalla, Kargi, Kambinye, Bagasi, Korr, Namarei, Lmooti and Lependera	Yaa Odhola, Yaa Sharbana, Konon Gas and Kalesa Manyatta	Funan Idha, Funan Qumbi, Elle Dimtu, Lafen, Ogga, Amballo, Godhe and Badanrero.
Boreholes that have broken down	<ul style="list-style-type: none"> <li>• Ulauli</li> <li>• Ndikir 2</li> <li>• Weltei</li> <li>• Laisamis w/s</li> <li>• Lapikutuk</li> </ul> All the above boreholes require motor	N/A	<ul style="list-style-type: none"> <li>• Lafen</li> <li>• Ramole</li> </ul>
Vehicles requiring repairs	GKA 491D, GKA 671T, KBZ 868D, KBZ 754D and GKA 722S		

## 2.2.2 Household Access and Utilization

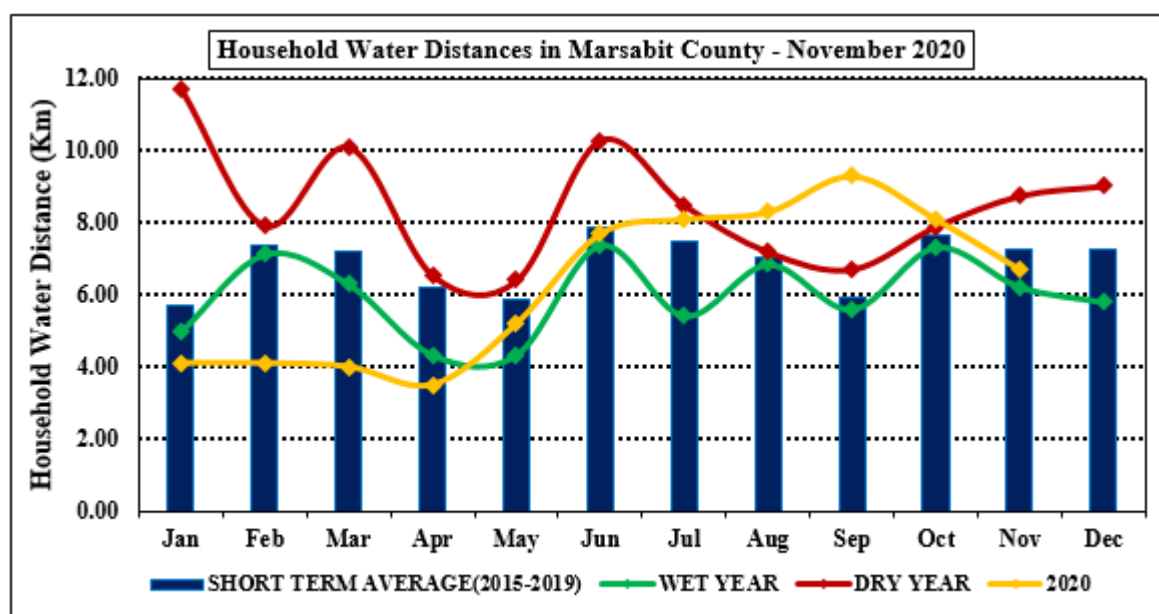


Figure 11: Current household return water distance (km) compared to Short Term Average distances (km)

- From (Figure 11) shown above, return household water distances to the main water sources was 6.7km in the month under review which exhibits a steady decline when compared to the preceding month's household water distance of 8.1km in all the livelihood zones. The current household water distance of 6.7km is below the short term average household water distance of 7.2km by 7percent.
- The current household water distances coincide with the water distance during a wet year. Current waiting time in the agro-pastoral livelihood zone varied between 10-15 minutes which is below the long term average of 30-45 minutes whereas in the pastoral livelihood zone, waiting time was 30-60 minutes compared to 45-60 minutes normally. Short household waiting time at the water source in the agro-pastoral areas was attributed to near



average rains whereas waiting time in the pastoral livelihood zone was occasioned by depressed rainfall amounts.

- In the agro-pastoral livelihood zone, water consumption per person per day was 12-15 litres while in the pastoral livelihood zone, water consumption per person per day was 8-10 litres.
- With expected drier than normal conditions in the next month, household water distances will likely gradually increase as a result leading to increased waiting time at the water source and reduced water consumption at the household level.

### 2.2.3 Livestock Access

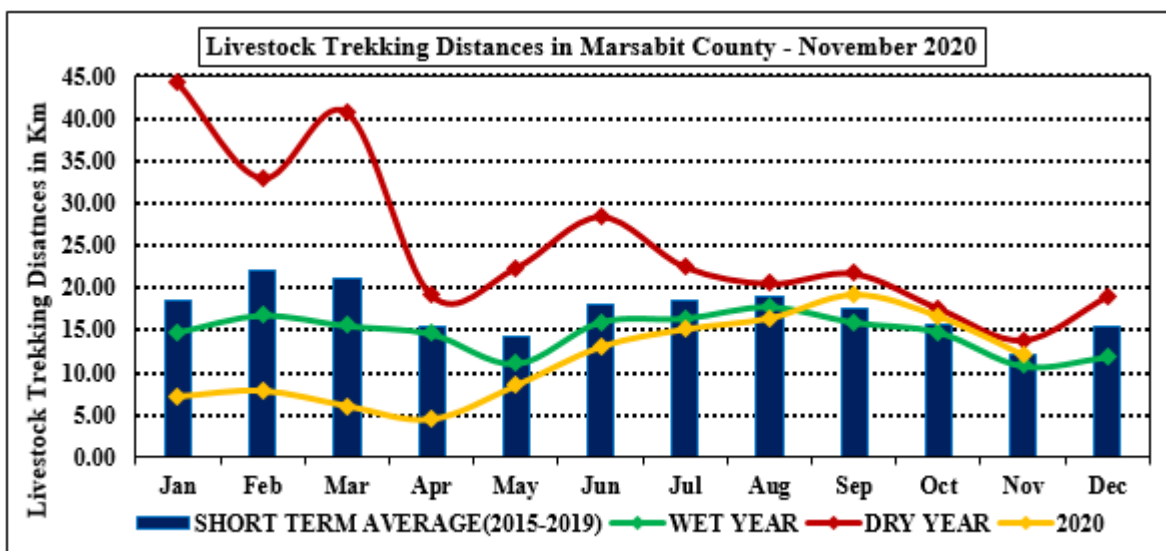


Figure 12: Current livestock trekking distances (km) compared to Short Term Average distances (km)

- From (Figure 12) shown above, return livestock trekking distance from grazing areas to water points is 12.1km in all the livelihood zones which illustrates a reduction when compared to the previous month's distance of 16.7km.
- The current livestock trekking distance equates to the wet year and short term average trekking distances.
- Livestock trekking distances declined considerably in the agro-pastoral areas of Moyale and Saku sub-counties (2-3km) whereas the pastoral areas of Laisamis and North Horr sub-counties posted gradual reduction in livestock trekking distances due to partial recharge of sub-surface water sources.
- Livestock watering frequencies have gradually increased due to reduced concentration of livestock at water points and decline in livestock trekking distances. Small stock are watered after 2-3 days, cattle after 1-2 days and camels after 7-10 days in all the livelihood zones.
- With expected drier than usual conditions in the next month, watering frequencies are expected to slightly reduce for all the livestock species across the livelihood zones.

## 3.0 PRODUCTION INDICATORS

### 3.1 LIVESTOCK PRODUCTION

#### 3.1.1 Livestock Body Condition

- Generally, livestock body condition is good in all the livelihood zones which is above normal when compared to similar periods occasioned by availability of forage. However, body condition of small stock is good-fair in all the livelihood zones.

- In isolated areas of North Horr and Laisamis sub-counties, livestock body condition is fair-poor attributed to deterioration of forage and emergence of epidemic disease incidences.
- With the expected sporadic rains in the next month, livestock body condition is likely to gradually deteriorate especially in the pastoral livelihood zone.

### **3.1.2 Livestock Migration**

- In-migration of livestock within the County is intense during the month as pastoralist migrated to areas that received better rains. In Laisamis sub county, livestock from Korr, Loglogo, Laisamis and Merille wards are concentrated in areas of Malgis, Merille, Ellem, Koya, Burro, Kurkum, Ririma, Thurusi and Yell. While livestock in Loiyangalani ward have migrated towards Sarima, Nangolle, Lerashi, Civikon, Fallam, Civicon, Luwai, Pallo and Dakaye
- In-migration of livestock is high in North Horr sub County. Livestock in Turbi ward are concentrated in Shurr. In Dukana ward livestock have migrated towards Garwole, Dibis, Balesaru and Batha Afar.
- In Maikona ward, livestock majorly moved to Hurri hills and Chari-Ashe while in North Horr ward livestock have migrated towards Dosole, Darade, Qarsa-gate and Chari-Gollo.
- No notable livestock migration was witnessed in Saku and Moyale sub counties in the month under review due to good recharge of open water sources and availability of forage.
- With likely cession of the short rains in the first dekad of December, increased livestock migration is expected in North Horr and Laisamis sub-counties.

### **3.1.3 Tropical Livestock Units (TLU) and Calving & Kidding Rates**

- In the agro-pastoral livelihood zone, poor income households had 3-4 tropical livestock units compared to 3-5 normally while the middle income had 6-12 compared to 10-17 normally. In the pastoral livelihood zone, poor income households had 3-6 tropical livestock units compared to 5-8 normally while the middle income had 9-15 compared to 15-20 normally.
- Calving is high in both cattle and camels across all the livelihood zones.

### **3.1.4 Livestock Diseases and Mortalities**

- Livestock disease incidences have been reported in some parts of Saku, Laisamis and North Horr sub-counties. In Malabot of North Horr sub-county, sudden death of the lambs and kids were reported.
- There has been an upward trend of outbreaks of camel diseases which begun with camel respiratory syndrome and outbreak of rabies. Rabies outbreak in Marsabit County was occasioned by the nomadic nature of the pastoralist community. Occasionally they get infected with rabies as they interact with wild foxes causing outbreaks thus posing a great danger to human life and livelihoods. Most affected areas are Civicon and Mt. Kulal of Laisamis sub-county, Gas and Illeret of North Horr sub-county.
- Foot and Mouth disease outbreak was reported in Jaldesa of Saku sub-county and Hurri hills of North Horr sub-county.
- In North Horr sub-county, approximately 706, 2,525 and 1,158 sheep and goats in Dukana, Maikona and Turbi died of hypothermia due to the rapid and significant decrease of the minimum temperature while in Laisamis sub-county, approximately 2000 livestock for 117 households in the areas of Lontolio, Korr, Nairibi, Losidan, Dikir, Ulauli, Silipani and Kamatonyi also died due to hypothermia.

### 3.1.5 Milk Production

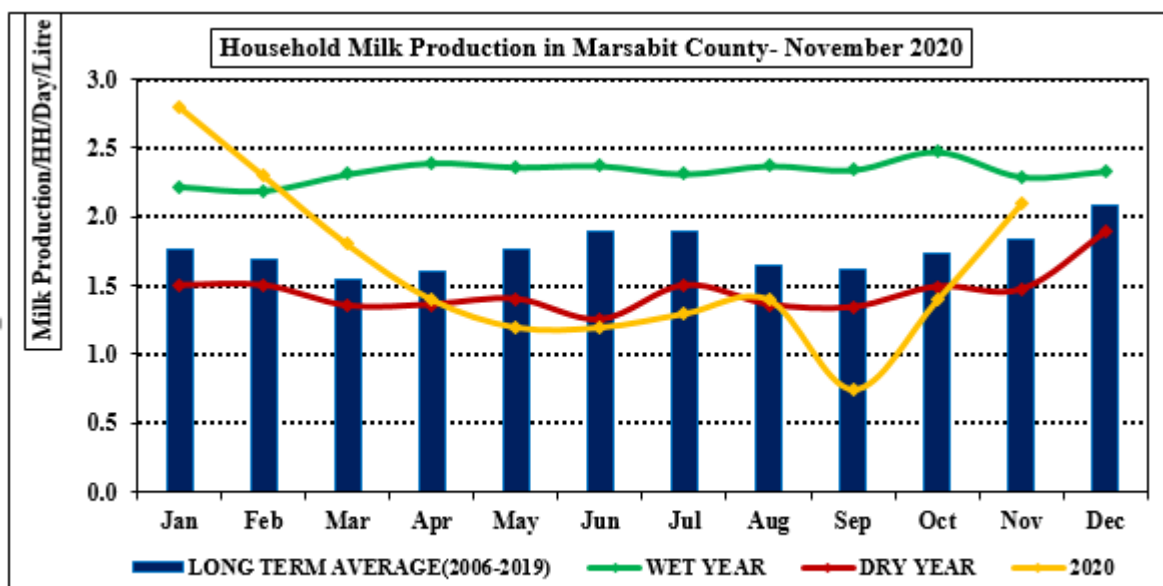


Figure 13: Milk production per household per day in litres across the livelihood zones

- From figure 13 shown above, household milk production per day for the month under review was 2.1litre/household/day across the livelihood zones thus significant increase when compared to the previous month's milk production of 1.4litre/household/day.
- Current milk production of 2.1litres is above normal when compared to the long term average milk production of 1.8litres and slightly lower than average milk production of 2.3litres in a wet year.
- Above normal milk production was attributed to mass calving in camel across the livelihood zones. Milk production is expected to increase further in the next one month due to likely progression of calving.
- Milk retailed at an average of Kshs 75-90 per litre in all the livelihood zones which is the normal price.

## 3.1 RAIN-FED CROP PRODUCTION

### 3.2.1 Stage and Condition of Food Crops

- Agro pastoral areas had prepared their land and planted main rainfed crops. The main rainfed crops grown are maize, beans, sorghum and cowpeas. Total area under crop cultivation in the agro-pastoral areas of Moyale and Saku sub-counties are 2700 acres for maize, 800 acres under beans, 400 acres for sorghum, 200 acres under cowpeas, 200 acres under green grams, 80 acres for kales 15 acres' tomatoes and 10 acres' spinach.
- Currently, maize is at knee high to tasseling stage while beans are at flowering stage. No farmers reported any outbreak but suspected isolated cases of Fall Army Worm that require monitoring and scouting.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

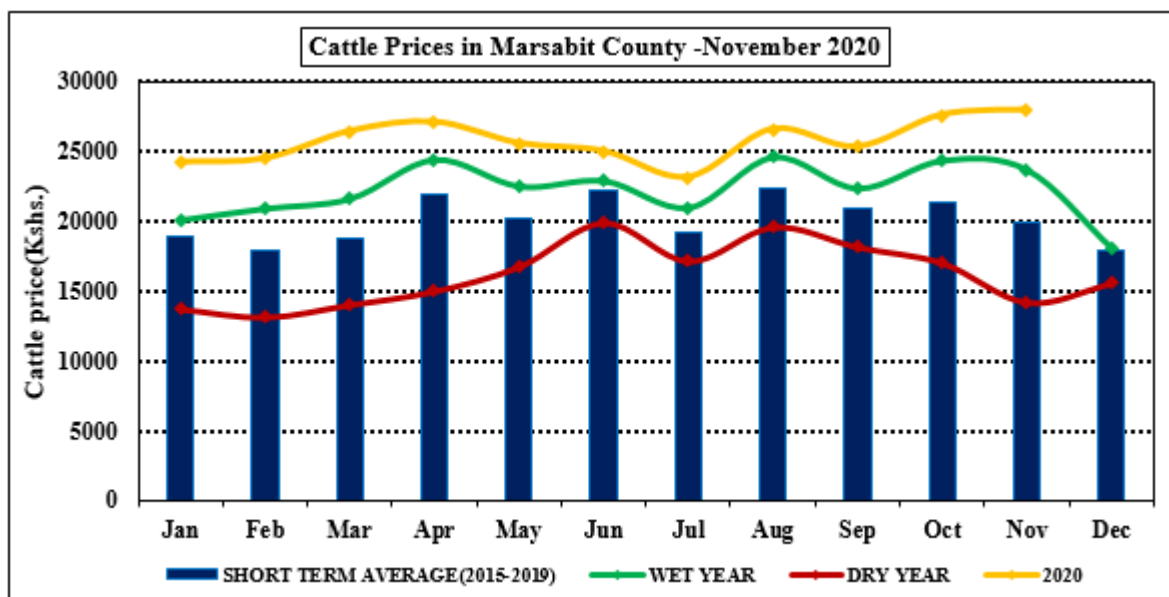


Figure 14: Current cattle prices compared to the short term average prices

- From the figure (14) shown above, cattle price for the month under review was Kshs. 27,950 hence remained stable when compared to the preceding months’ cattle price of Kshs. 27,590.
- When compared to similar periods, current cattle price of Kshs 27,950 is above the short-term average price of Kshs 19,856 by 41percent. Above short term average cattle price is attributed to generally good body condition across the livelihood zones.
- Generally, the trend of cattle prices has been above the short term average prices and prices during wet and dry years since January-November 2020.
- Current traded volumes of cattle in the livestock markets increased by 5-10percent when compared to the preceding month.
- With generally good cattle body condition and expected increase in demand during December festive season, cattle prices are expected to increase across the livelihood zones.

#### 4.1.2 Goat prices

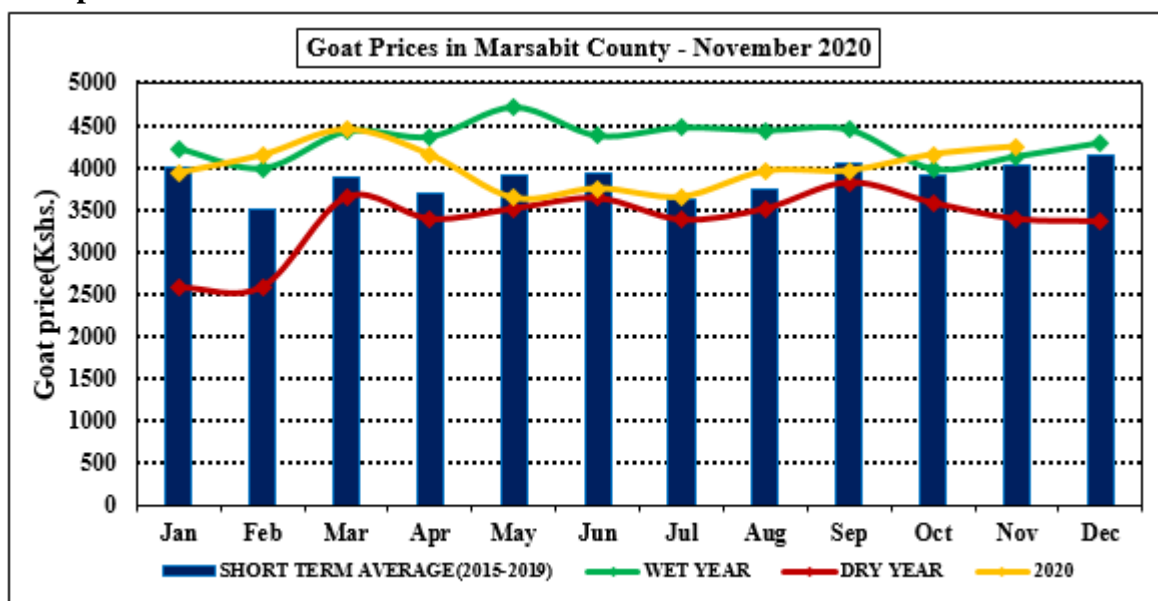


Figure 15: Current goat prices compared to short term average prices

- From the figure (15) shown above, goat price for the month under review was Kshs. 4,250 thus relatively remained stable when compared to the previous months' goat price of Kshs. 4,155.
- The current average goat price of Kshs. 4,250 equates to the short term average price and prices in a wet year. Normal goat prices were attributed to good body condition and intensified operations in the terminal and feeder livestock markets.
- However, slightly below normal goat prices were recorded in major livestock markets of North Horr and Laisamis sub-county due to poor market integration. Along the fisher folk area that has experienced surging water levels in Lake Turkana, there is no organized livestock market along the eastern shores of Lake Turkana which has led to unfavourable goat prices.
- Moyale livestock market exhibited above average goat prices of Kshs 4500 due to a favourable Ethiopia market with daily traded volumes oscillating between 120 and 140 compared to normal daily traded volumes of 150-200 goats.
- With improved vibrancy of the livestock markets and expected increase in demand of goats during the festive season, goat prices are likely to increase in the next one month.

#### 4.1.3 Sheep Prices

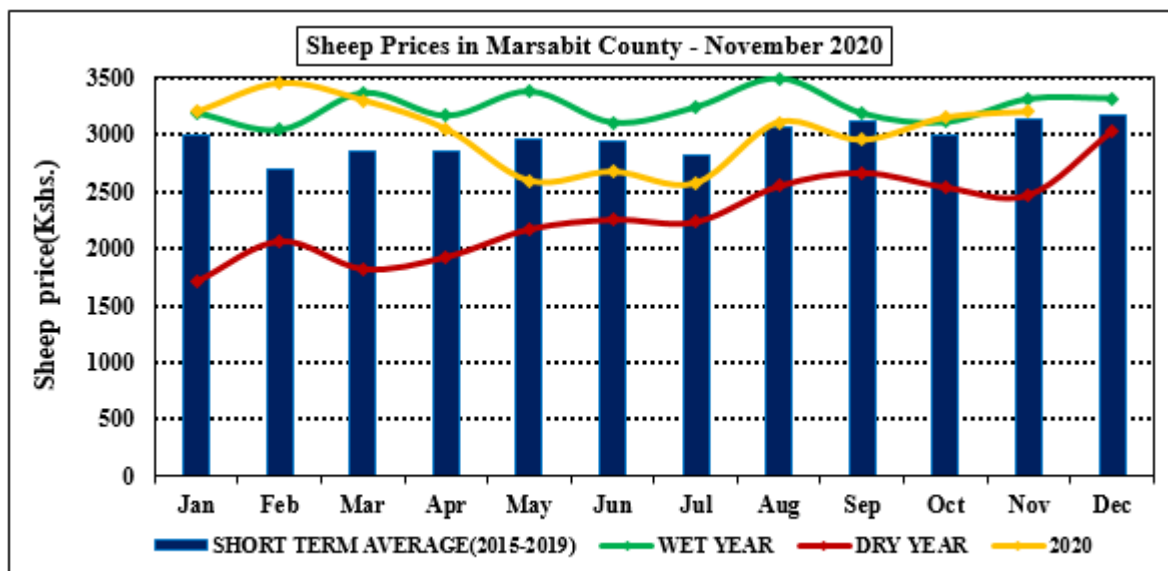


Figure 16: Current sheep prices compared to the short-term average prices (Kshs.)

- From the figure 16 shown above, sheep price for the month under review was Kshs 3,200 hence remained constant when compared to the previous month's sheep price of Kshs 3,150.
- When compared to the short-term average price of Kshs 3,136, current sheep price is normal attributed to generally good-fair body condition and equals to sheep prices in a wet year.
- Traded volumes for sheep has significantly declined due to considerable reduction of sheep demand in the Arabian market.
- Sheep prices are expected to remain stable in the next one month across the livelihood zone due to enhanced vibrancy of the livestock markets.
- Significant improvement of livestock prices was recorded in primary markets of Dukana, Gatab, Korr, Turbi and Dambala Fachana which led to an improvement in performance of major markets in Saku, Moyale and Merille in the month under review.

## 4.2 CROP PRICES

### 4.2.1 Maize

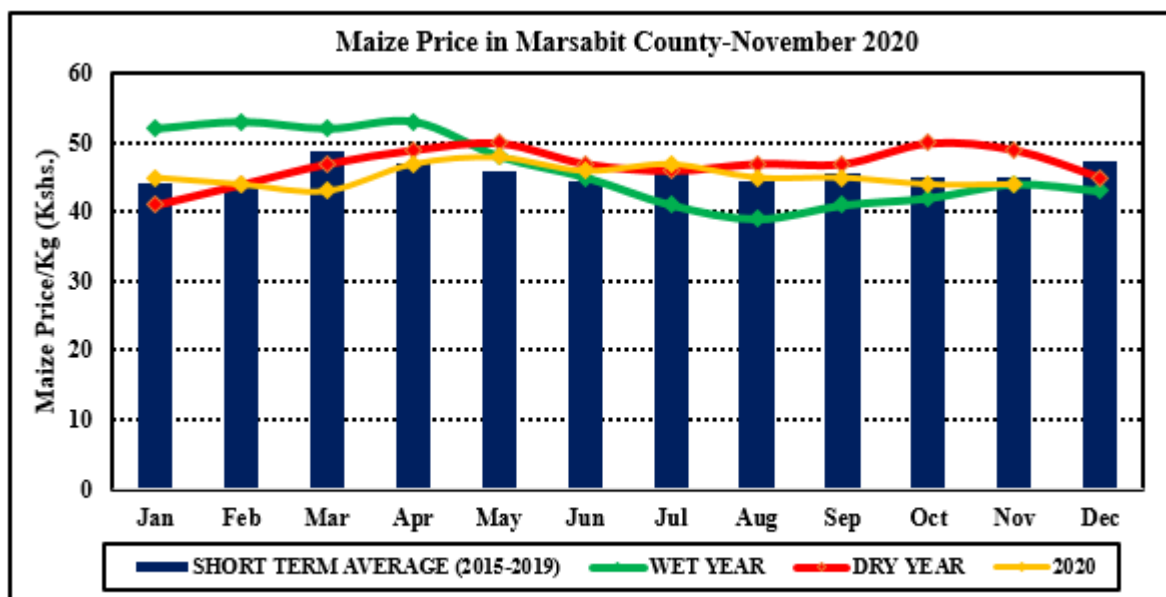


Figure 17: Current maize prices compared to the short-term average maize prices (Kshs.)

- The current average maize price is Kshs. 44/kg which is normal when compared to the long term average price of Kshs 45/kg. The current maize price equates with the maize prices in the wet and normal years but below the maize price in a dry year.
- Moyale sub-county recorded better maize prices averaging at Kshs 30/kg due to generally improved cross border supplies from Ethiopia and good market integration.
- Saku sub-county posted stable maize price at Kshs 40/kg attributed to injections from external markets of Meru, Nanyuki and Nyahururu.
- Conversely, most markets in Laisamis and North Horr sub-counties recorded largely high maize prices of Kshs 55-60/kg depicting 28percent above the short term average attributed to poor market integration.
- Notable high maize prices were recorded in some parts of Laisamis (Komote village) especially along Lake Turkana where a kilogram of maize retailed at Kshs.80 aggravated by unprecedented surge in water levels that completely curtailed movements.

### 4.2.2 Beans

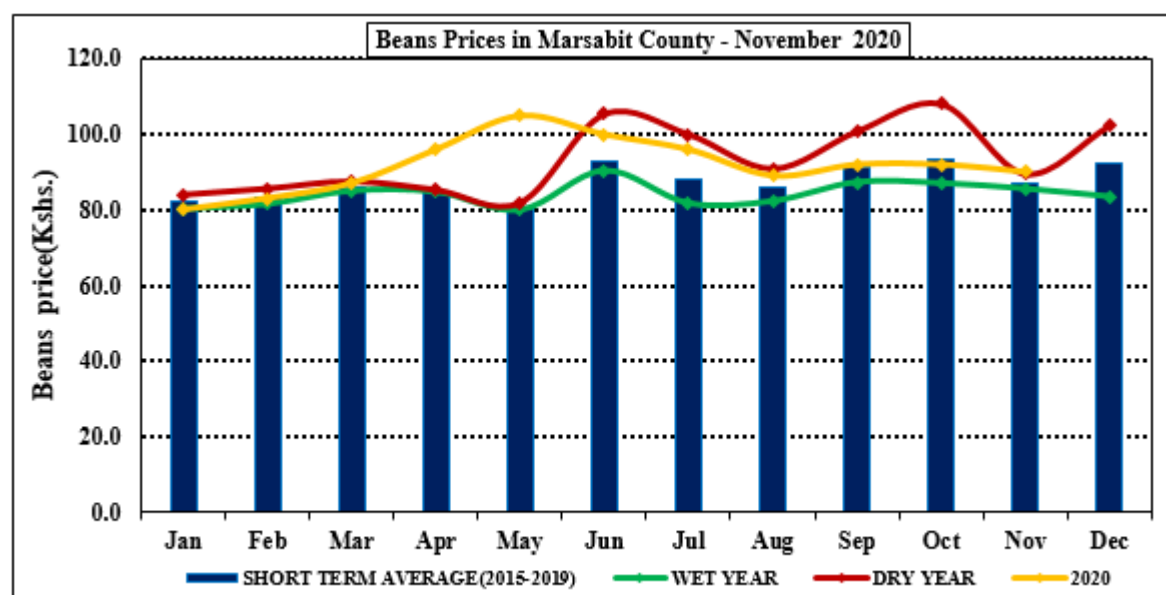


Figure 18: Beans prices compared to the short average term average prices(Kshs.)

- From the figure shown above, beans prices retailed at Kshs 90/kg in the month under review across the livelihood zones hence remained stable when compared to the preceding month's beans price. The current beans price of Kshs.90 is normal when compared to the short-term average beans price of Kshs 87/kg.
- Moyale commodity market posted favourable beans prices averaging at Kshs 60/kg. Favourable beans prices in Moyale commodity market was attributed to improved supplies from the neighbouring Ethiopia market coupled with effective market integration system.
- However, North Horr and Laisamis sub-counties recorded high beans prices of Kshs 100-120 attributed to poor commodity market integration.

#### 4.2.3 Terms of Trade (TOT)

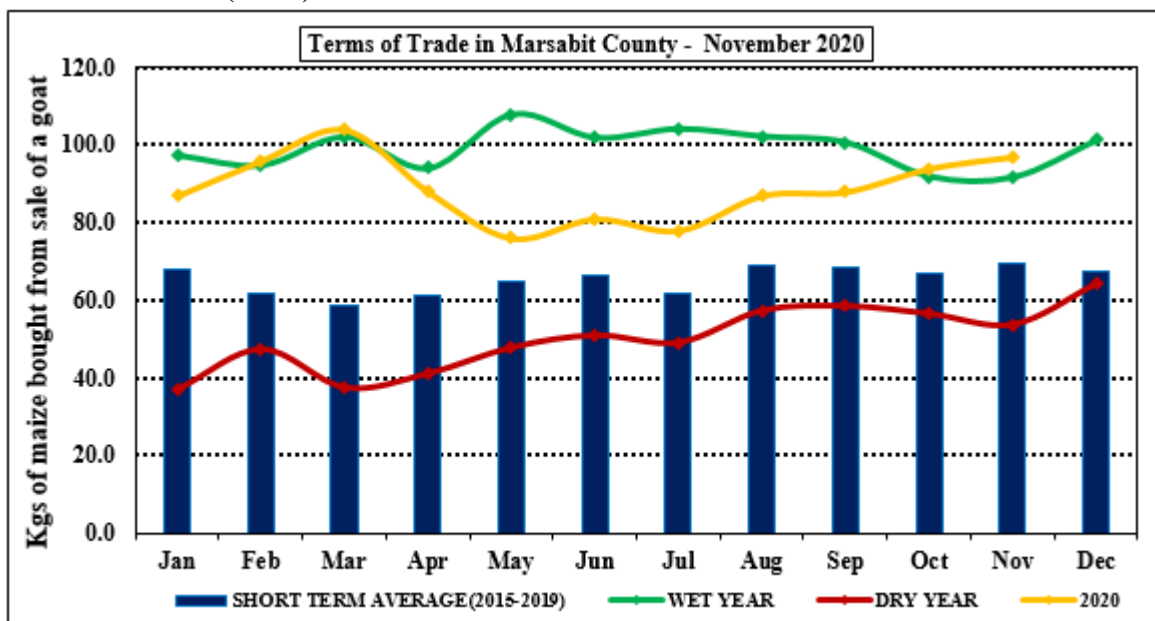


Figure 19: Current terms of trade versus short term average terms of trade

- The current terms of trade is 97 kilograms in exchange for the sale of a goat which is 39 percent above the long term average terms of trade of 70 kilograms.
- Terms of trade is above normal attributed to increased livestock market operations, good livestock body condition and stable goat prices.
- Moyale sub-county recorded better terms of trade than other sub-counties occasioned by favorable goats' prices coupled with below average maize prices and increased market supplies from the Ethiopia market.
- However, terms of trade for Laisamis and North Horr sub-counties were below the short term average mainly attributed to poor market integration and high cereal prices.
- Current term of trade surpasses the terms of trade in a wet and dry years. With normal maize prices, stable goat prices and improved vibrancy of the livestock markets, terms of trade are expected to be much favourable in the next one month.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 Milk Consumption

- From the figure 20 shown below, household milk consumption is 1.8 litre/household/day in the month under review across the livelihood zones hence increased when compared to the preceding month's household milk consumption of 1.1 litre/household/day.
- When compared to the short-term average milk consumption of 1.6litres/household/day, current milk consumption is above normal by 13percent.

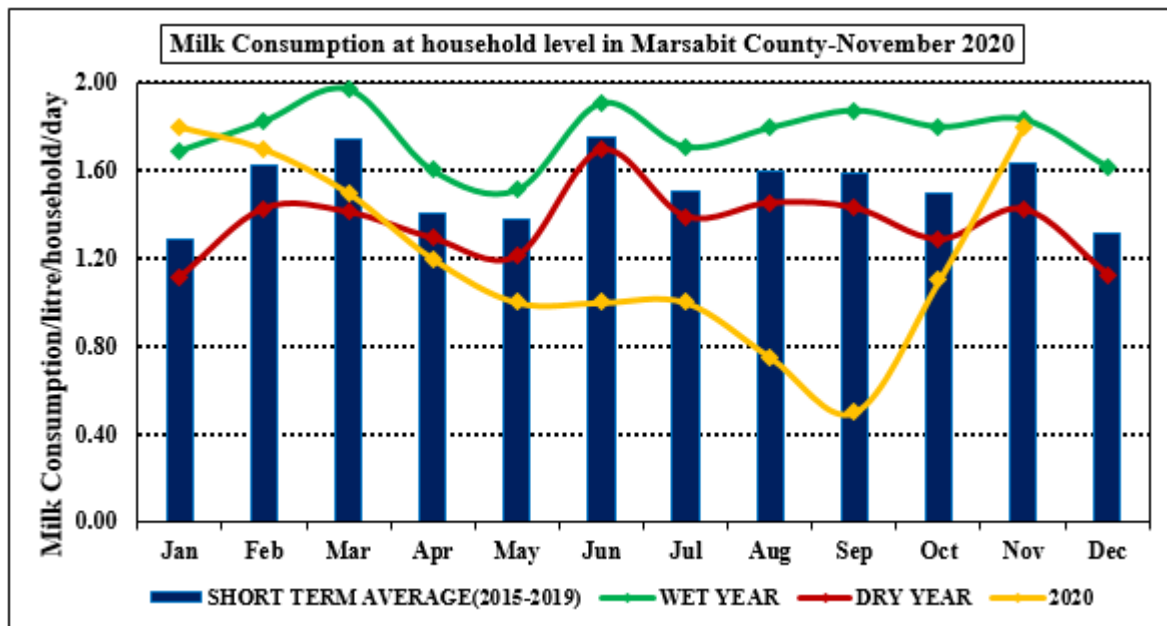


Figure 20: Milk Consumption at household level in Litres per day

- Current milk consumption equates that of a wet year but higher than milk consumption in a dry year. Above normal milk consumption at the household level was attributed to mass calving of camel in all the livelihood zones that led to increased milk production. With expected increase in milk production in the next one month, milk consumption will likely increase further.

## 5.2 FOOD CONSUMPTION SCORE (FCS)

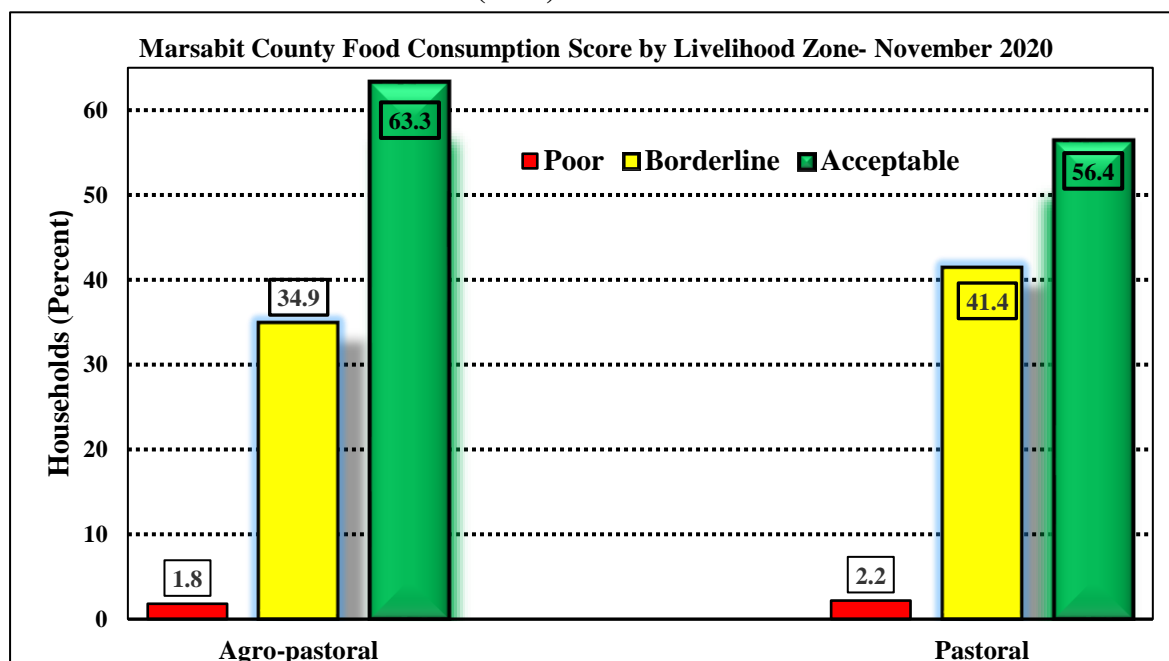


Figure 21: Food Consumption Score across the livelihood zones

- In the month under review, food consumption score is 40.0 in all the livelihood zones thus steadily declined when compared to the previous month's food consumption score of 37.6.
- Agro-pastoral and pastoral livelihood zones posted food consumption score of 43.8 and 39.1 respectively. Proportion of households in the agro-pastoral livelihood zone that were within acceptable, borderline and poor food consumption score were 63.3percent, 34.9percent and 1.8percent respectively. Likewise, proportion of households in the pastoral livelihood zone



that were within the acceptable, borderline and poor food consumption scores were 56.4percent, 41.4percent and 2.2percent respectively.

	FCS Mean	Poor FCS	Borderline FCS	Acceptable FCS
<b>County</b>	<b>40.0</b>	<b>2.1%</b>	<b>39.4%</b>	<b>58.5%</b>
Dukana	36.8	0.0%	46.7%	53.3%
Golbo	63.5	0.0%	2.5%	97.5%
Karare	51.7	0.0%	4.6%	95.4%
Korr	36.9	0.0%	38.6%	61.5%
Loiyangalani	28.1	13.3%	73.3%	13.4%
Logologo	47.5	0.0%	3.5%	96.5%
Turbi	44.3	0.0%	15.4%	84.6%
North Horr	38.4	3.6%	46.4%	50.0%
Heillu Manyatta	28.7	0.0%	96.0%	4.0%
Sagante	34.9	3.3%	53.3%	43.4%
Uran	52.3	0.0%	5.0%	95.0%

- From the table shown above, 2.1percent of households consumed staples and vegetables every day and never or very rarely are consuming protein rich food such as meat and dairy. 39.4percent of the households consumed staples and vegetables every day, accompanied by oil and pulses a few times a week while 58.5percent consumed staples and vegetables every day, regularly accompanied by oil and pulses and occasionally meat or dairy product.
- All wards across the County fell in the acceptable food consumption band with exception of Loiyangalani, Heillu Manyatta and Sagante/Jaldesa wards that were in the borderline food consumption band category.

## 5.3 HEALTH AND NUTRITION STATUS

### 5.3.1 Nutrition Status

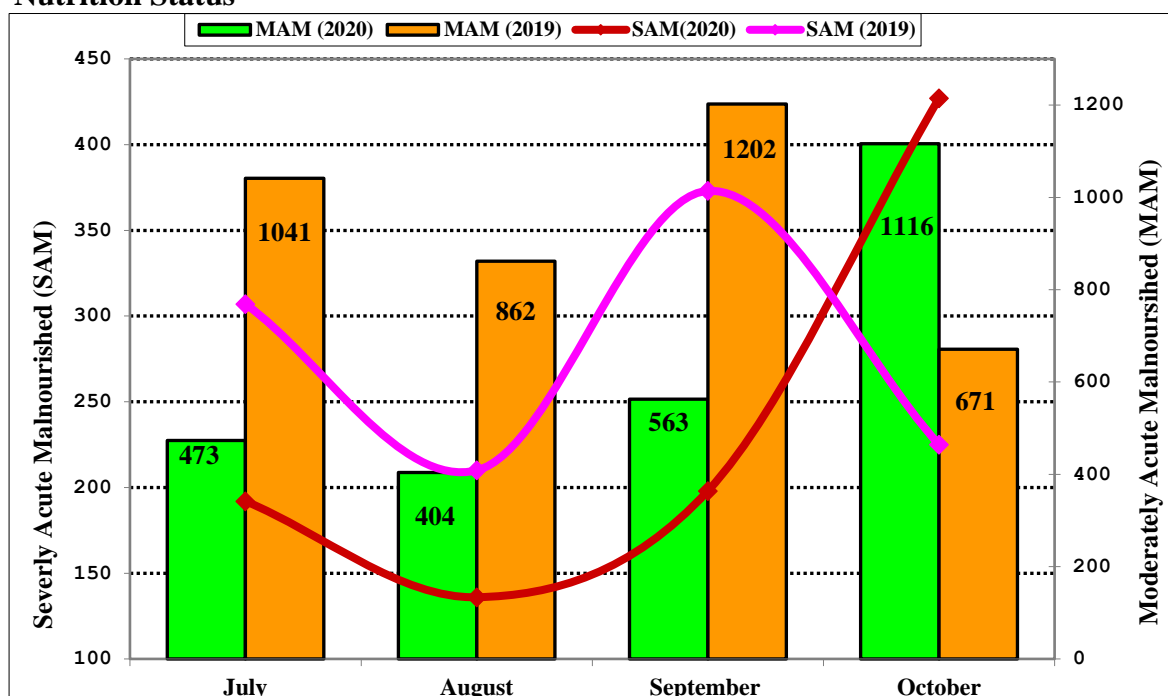


Figure 22: Marsabit County Total Admissions-Kenya Health Information System

- From figure 22 shown above, significant increase in total admission was noted in the month of October when compared to the month of September possibly due to increased cases of diarrheal diseases that was reported from September and a sharp increase in October 2020.

Total admissions are much higher compared to the same period last year probably attributed to the fact that 2019 short rains remarkably performed than 2020. The common disease reported across the sentinel sites amongst the under-fives are diarrhea, malaria, fever and pneumonia.

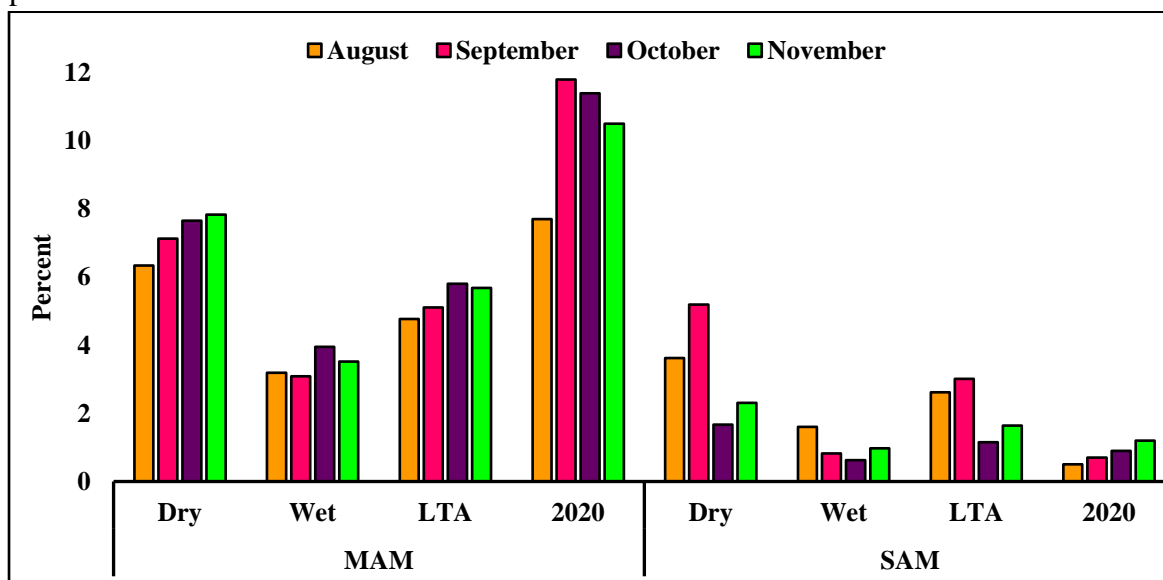


Figure 23: Family MUAC\_Under Fives in Percent

- Figure 23 above exhibits caregiver’s family MUAC results which indicates that 10.5percent and 1.2percent of the under-fives are moderately and severely malnourished respectively. The proportions of children who are moderately malnourished are higher than those in the dry year, wet year and normal year. For severe malnourished children, no significant variation was noted from August-November 2020.

#### 5.4 COPING STRATEGIES

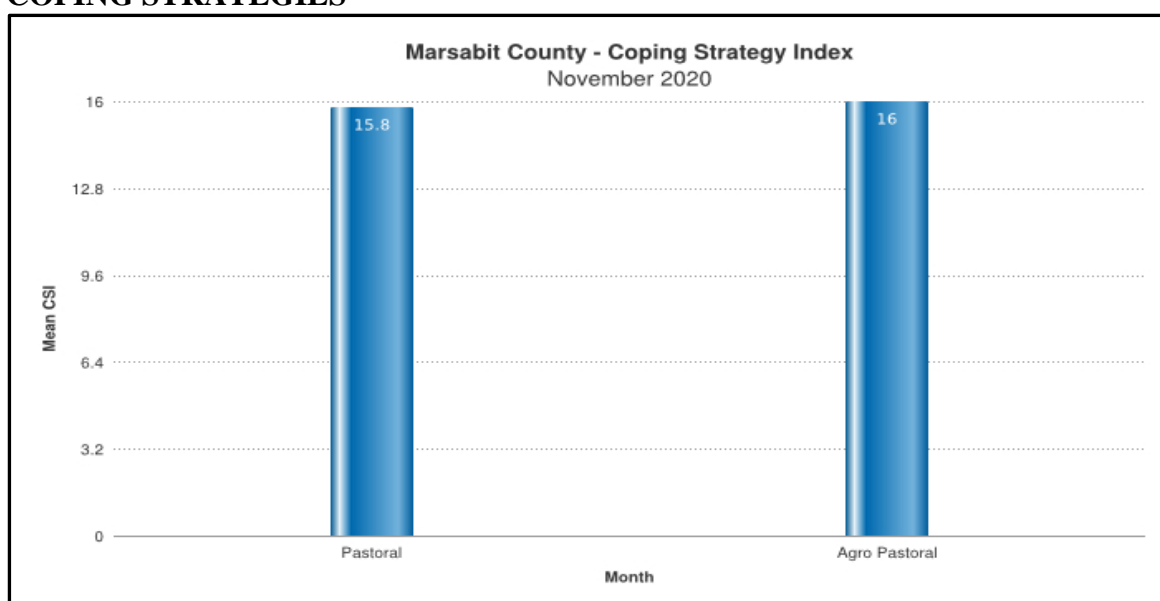


Figure 22: Coping Strategy Index across livelihood zones

- From figure 22 shown above, reduced coping strategy index(rCSI) for the pastoral and agro-pastoral livelihood zones was 15.8 and 16.0 respectively thus majority of households applied stressed reduced food consumption based coping strategies in all the livelihood zones.
- Reduced consumption based coping strategy index (rCSI) for the month under review is 15.8 thus no change when compared to the previous months rCSI.

- 94.1percent of the households applied coping mechanisms while a paltry 5.9percent of the households didn't apply any of the reduced coping strategies in the month under review.
- From table shown below, households in Golbo, Dukana, Sagante and Loiyangalani wards applied crisis reduced consumption based coping strategies whereas those in Heillu Manyatta, Karare, Logologo, Turbi and Uran wards adopted stressed coping strategies.

<b>Consumption based coping strategy index(rCSI)</b>		
<b>Sub-county</b>	<b>Ward</b>	<b>rCSI</b>
Saku	Sagante	21.3
Saku	Karare	9.0
Laisamis	Korr	16.1
Laisamis	Logologo	10.1
Laisamis	Loiyangalani	31.1
North Horr	North Horr	19.1
North Horr	Turbi	9.8
North Horr	Dukana	23.3
Moyale	Uran	10.4
Moyale	Heillu Manyatta	14.4
Moyale	Golbo	24.0

- It can also be deduced that 10.9percent, 53.9percent and 35.2percent of the households applied reduced consumption based coping strategies that were minimal, stressed and crisis respectively.
- Notable reduced consumption based coping strategies employed by the households were reduction in frequency of food consumption, reduced portion size of meals and reliance on less preferred food in all the livelihood zones.

## **6.0 CURRENT INTERVENTION MEASURES**

### **6.1 Food Aid**

- USAID/WFP through SND distributed food rations to 38,310 beneficiaries across the County under the Sustainable Food System Programme which comprised of 319.25Mts of cereal, 70.24Mts of pulses and 22.87Mts of vegetable oil.
- Kenya Red Cross Society through the flood emergency project, distributed food items to 510 households in Maikona, North Horr sub-county.

### **6.2 Non-Food Aid**

- Unconditional Cash transfer to HSNP II beneficiaries through National Drought Management Authority targeting 20,452 households received Kshs.5, 400 each totalling to Kshs. 110,440,800.
- FAO supported training of 40 youths drawn from the four sub-counties on Desert locust surveillance in Laisamis. The scouts are already in the field, distributed across all the 4 -sub-counties, and reporting using the e-Locust3M. The scouts are being facilitated by CARITAS DOM contracted by FAO to implement desert locust post recovery activities.
- FAO distributed assorted vegetable seeds & cereals-sorghum gaddam. Kitchen gardens have been set up and thriving well across the 4 -sub-counties.
- VSF Germany provided unconditional cash transfers: 200 vulnerable (Illeret -95 HH and Loiyangalani- 105 HH) households for a period of 2 months. @ HH Ksh 3000 per month.
- CCM together with VSF Germany under One Health Project supported Integrated One Health mobile outreach services in Elhadi, Balesa and North-Horr zone. Conducted 6days rabies control sensitisation campaign in Gas, Barambate and Malabot zone, supported

ongoing animal vaccination activities in North Horr sub-county and dogs and livestock vaccination against rabies.

- FH-K distributed 26 Beehives to four groups in Jaldesa and extension service on bee farming. Revisit and extension to water users, wash support to school, medical support to children, organized and supported RRT in Sololo, Saku and North Horr.
- FH-K supported child sponsorship programmes in Sololo, Saku, North Horr and Kargi in Laisamis.
- Kenya Red Cross Society through cholera prevention and MNCH project funded by Norwegian Red Cross implemented in Laisamis and Moyale sub-counties, conducted hygiene promotion in 13 community units in Moyale and Laisamis sub-counties. Community Led Total Sanitation triggering done in Sololo Makutano and Uran targeting 6 villages in Moyale and 6 villages in Laisamis which certification is on progress.
- Kenya Red Cross Society supported outreaches in hard to reach areas, hygiene promotions in the 13 community units, support to 10 community health assistants and a nutritionist from each community unit in providing health services, hygiene and sanitation education, community dialogue days in the community units, sensitization of COVID 19 among others.
- Kenya Red Cross supported epidemic control for Volunteers TOT training sensitization done for CHMT and the training done for sub county teams. Micro planning for link facilities and water quality assessment and result dissemination. The organization through COVID 19 intervention also supported health department in screening and sensitizations.
- Concern World Wide supported the County agriculture department to undertake monthly extension services to 1500 Households targeted with nutrition sensitive agriculture through kitchen gardens. Supported the livestock production officers to undertake monthly extension services on best livestock production practices. In partnership with the department of Livestock, undertook a joint monitoring activity to assess impact of livestock interventions in the county and areas of improvement.
- Concern World Wide supported 3090 households with cash transfer value of Kshs. 4616 under food security intervention to desert locust affected communities. Distributed Livestock feeds of 50Kg to 200 households in Moyale sub-county as part of asset protection through livestock feeding. Logistical support to the veterinary department with vehicles to support mass vaccination and treatment in Laisamis, North Horr and Moyale sub-counties.
- Concern World Wide supported six hundred and ninety-four (694) pupils (190 boys, 504 girls) from fourteen (14) primary schools; Segel, Turbi, Turbi Nomadic, Bubisa, Bishop Cavallera, Rawana, Funan Qumbi, Walda, Dadach Elele, Elgadhe, Maikona, Kalacha, Forole, Baqaqa and Hurri Hills were given psychosocial support by the sub county children officer from the department of children service and also sensitised on Covid -19 and its prevention measures as per Ministry of Health guideline. Twenty (20) vulnerable girls from the twenty (20) project schools were supported with cash transfer to meet their needs during the month. Each beneficiary received Kshs. 4000 for the month of November.
- Concern World Wide successfully conducted IMAM Surge assessments in 16 of possible 17 IMAM surge health facilities with MOH in North Horr Sub-county and 15 out of 19 in Laisamis sub county. The team supported the SCHMT to conduct High Impact Nutrition Interventions (HiNi) gap assessment in 23 Health Facilities (14 Laisamis & 9 North Horr). Some of the key interventions assessed included; Management of SAM (in-patient & out-patient), Infant and Young Child Feeding (IYCF), Micronutrient supplementation, De-worming and Improved Hygiene.
- Concern World Wide supported health and nutrition team supported and participated in conducting Technical support to MOH - SCHMT to assess gaps in IMAM surge implementation in both Laisamis and North Horr Sub Counties. A total of 31 health facilities (16 North Horr, 15 Laisamis) were assessed.
- Concern World Wide supported NDMA and County teams with logistics to undertake a PDRA activity in Illeret as part of participatory scenario for County Contingency planning.

- CRS procured 325 handwashing booths and 5000 litres of liquid soap for onward distribution to county ECDE. Supported department of health on Covid-19 Infection, Prevention and Control through capacity building of health care workers, community health workers, provision of hand washing supplies to health facilities across the county (225 handwashing booths, 10,000 litres of liquid soaps and 1080 litres of chlorine), public prevention messaging using radio talk shows, radio spots and vehicle mounted Public Address Systems (PAS).
- CRS in collaboration with Caritas and the County Department of Agriculture, Livestock and Fisheries, procured and distributed crop seeds to farmers affected by the desert locust invasion. Supported range land rehabilitation through cash for work program. Supported regular desert locust coordination meetings under the leadership of DoAL&F and facilitated county led joint support supervision to monitor the progress of DL activity implementation.
- Welthungerhilfe through desert locust recovery programme, provided cash transfer to 500 households in Laisamis and North Horr sub-counties with Kshs. 5000 per household. 500 farmers in Saku sub-county were supported with farm inputs.
- Welthungerhilfe supported 500 households in Moyale, Laisamis and Saku sub-counties with a cash transfer of Kshs.5000 per household under the COVID-19 recovery project. Cash voucher assistance (CVA)- small animal breeding for 300 households in Laisamis sub-counties @ Kshs. 6000.

## **7.0 EMERGING ISSUES**

- The overall desert locust situation in the county is calm except for the scattered swarmlets which was reported in Nairibi on 13th November 2020 & in Namarei on 14th November 2020, all in Laisamis sub-county. These swarmlets are remnants of the adult locusts which had laid eggs in Samburu County and destined to die naturally thus no need for alarm. There are reports of desert locust infestation in Uran ward in Matarba, Golja Qalaguchi towards Elledimtu all in Moyale sub-county. However, by mid-December 2020 we expect immature swarms from Ethiopia and Somalia
- Fisher folk livelihood was disrupted, outbreak of water borne diseases, incidences of livestock diseases, reduction in grazing areas and loss of fishing gears. If the surging water levels persists, then the food security situation of the local communities might be threatened.
- Conflict between two worrying communities reported during the month with a number of small stock taken by bandits and casualties reported in Saku Sub County.

## **8.0 FOOD SECURITY PROGNOSIS.**

- Current cumulative rainfall amounts are below the long term cumulative rainfall amounts due to the depressed rain that were received in most parts of North Horr and Laisamis sub-counties that crowded out the near average rains recorded in Moyale and Saku sub-counties and if the rains in the month of December are occasionally, then the seasonal rainfall amounts will likely be below the long term average.
- Vegetation condition index is within the normal vegetation greenness band thus a decline from the above normal vegetation greenness band recorded in the preceding month. With drier than usual conditions and sporadic rainfall expected, the 3-months vegetation condition index will decline further in the next one month but likely remain in the normal vegetation greenness band.
- A late start to the rains across Marsabit and the dry rainfall forecast suggest soil moisture conditions for much of Marsabit will be below the long-term average thus enhanced probability that soil moisture will be in the lowest tercile.

- With expected cessation of the short rains in the first dekad of December, household and livestock trekking distances to water sources are expected to gradually increase consequently leading to a reduction in livestock watering frequencies for all the livestock species in the next one month. Communities in parts of North Horr and Laisamis sub-counties are likely to experience water stress thus need for water trucking.
- Generally, mass calving in camel is expected to increase further in the next one month across the livelihood zones thus likely increase in milk production and consumption across the County.
- The County is much more prepared than it was previously to manage the next looming Locust invasion. County has enough PPE's and pesticides (EC, ULV & Bio pesticide) to start off any control efforts. Aerial apparatus for surveillance is ready awaiting activation hence predicted second emergence of desert locust is likely to be contained.
- With stable maize and goat prices and resurgence of the livestock markets, stability of the terms of trade is expected to persist.
- The mean food consumption score gradually fell in the acceptable food consumption score band in all the livelihood zones and it's likely to be stable in the next one month while adoption of reduced consumption based coping strategies is likely to remain in the stressed phase.
- Nutritional status of children below the age of five years has been on a gradual deteriorating trend mainly for the severely malnourished children. Milk consumption will likely improve further in the next one month thus a possible nutrition improvement of the under-fives in the next 2-months.

## **8.0 RECOMMENDATIONS**

- Provision of personal protective gears, face masks, hand sanitizers, training of public health officers, continuous awareness campaigns across the County on COVID-19.
- Continuous experts' advisory on migration patterns of the desert locust to determine the direction of the swarm movement and effective control measures.
- Unconditional Cash Transfer to target worst hit households from desert locust invasion.
- Livestock disease surveillance and vaccination against endemic disease incidences across the County.
- Water department should repair the stalled water bowsers, broken down boreholes in North Horr, Laisamis and Moyale sub-counties and undertake water trucking to areas that are currently experiencing acute water shortage.
- Immediate assistance to the affected fisher folk communities in all the 10 landing sites with fishing gears such as nets, hooks, boats, twines and floaters to revive their main source of livelihood.
- Enhanced sensitization by the National and County Governments to the communities living along Lake Turkana belt to move to higher ground.
- The department of livestock should carry out disease surveillance, testing, vaccination, treatment and deworming along the shore.
- Scale up mass screening and integrated medical outreaches targeting malnutrition hotspots in all the livelihood zones.
- The County Government should lead and coordinate reconciliation efforts at all levels. In addition, develop and update negotiated and agreed land use and range management plans and continue research on current grazing patterns to prevent sporadic violence.