# National Drought Management Authority
## MARSABIT COUNTY
## DROUGHT EARLY WARNING BULLETIN FOR JANUARY 2021

**NDMA**

**A Vision 2030 Flagship Project**

**KENYA VISION 2030**

## DROUGHT EW PHASE: ALERT

**Drought Status: ALERT**

**Maandalizi ya mapema**

### Drought Situation & EW Phase Classification

**Biophysical Indicators**

**Rainfall**: In the month under review, the County generally remained dry.

**Vegetation condition**: 3-months Vegetation Condition Index for the month under review was 28.15 across the County thus significant deterioration when compared to the previous months VCI of 37.11. Vegetation condition index shifted from normal vegetation greenness to moderate vegetation deficit.

### 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 below the short term average. Unusual livestock migration was reported across the County. Incidences of livestock diseases were reported across the County. Near total crop failure registered in Moyale sub-county whereas in Saku sub-county, projected harvest will fall below the long term average.

**Access indicators**: Household and livestock water distances increased across the County. Breakdown of some strategic boreholes was reported in some parts the County and in some areas households are experiencing acute water shortage. Milk consumption was below normal and terms of trade were favourable due to stable maize and goats' prices.

**Utilization indicators**. Household food consumption score remained in 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 applied. There were no notable variations in the total admissions trends for under-fives amongst the moderately and severely malnourished children across the County.

### Early Warning (EW) Phase Classification

| Livelihood Zone | Phase | Trend |
|---|---|---|
| Agro-pastoral | Alert | Deteriorating |
| Pastoral All species | Alert | Deteriorating |
| Fisher folk/Casual labour/Petty Trading | Alert | Stable |
| County | Alert | Deteriorating |
| **Biophysical Indicators** | **Value** | **Normal Range/Value** |
| Rainfall (% of Normal) | 55 | 80 -120 |
| VCI-3Month (County) | 28.15 | >35 |
| Forecast (VCI-3Month) | | >35 |
| Forecast soil moisture | 0.2 | < 0.2 |
| **Production indicators** | **Value** | **Normal** |
| Livestock Body Condition | Good-Fair | Good-Fair |
| Milk Production | 1.3 | >1.8Litres |
| Livestock Migration Pattern | Unusual | Normal |
| Livestock deaths (from drought) | No death | No death |
| **Access Indicators** | **Value** | **Normal** |
| Terms of Trade (ToT) | 83 | >77 |
| Milk Consumption | 1.1 | >1.3 Litres |
| Return distance to water | 9.1 | 0.0-5.7Km |
| **Utilization indicators** | **Value** | **Normal** |
| Nutrition Status (severe & moderate) | 7.5 | 0.0-8.5 |
| Coping Strategy Index | 17.5 | <20 |
| Food Consumption | 38.4 | >35 |

| | | | |
|---|---|---|---|
| ▪ Short rains harvests<br>▪ Short dry spell<br>▪ Reduced milk yields<br>▪ Increased HH Food Stocks<br>▪ Land preparation | ▪ Planting/Weeding<br>▪ Long rains<br>▪ High Calving Rate<br>▪ Milk Yields Increase | ▪ Long rains harvests<br>▪ A long dry spell<br>▪ Land preparation<br>▪ Increased HH Food Stocks<br>▪ Kidding (Sept) | ▪ Short rains<br>▪ Planting/weeding |

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sept | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|

# 1.0    CLIMATIC CONDITIONS
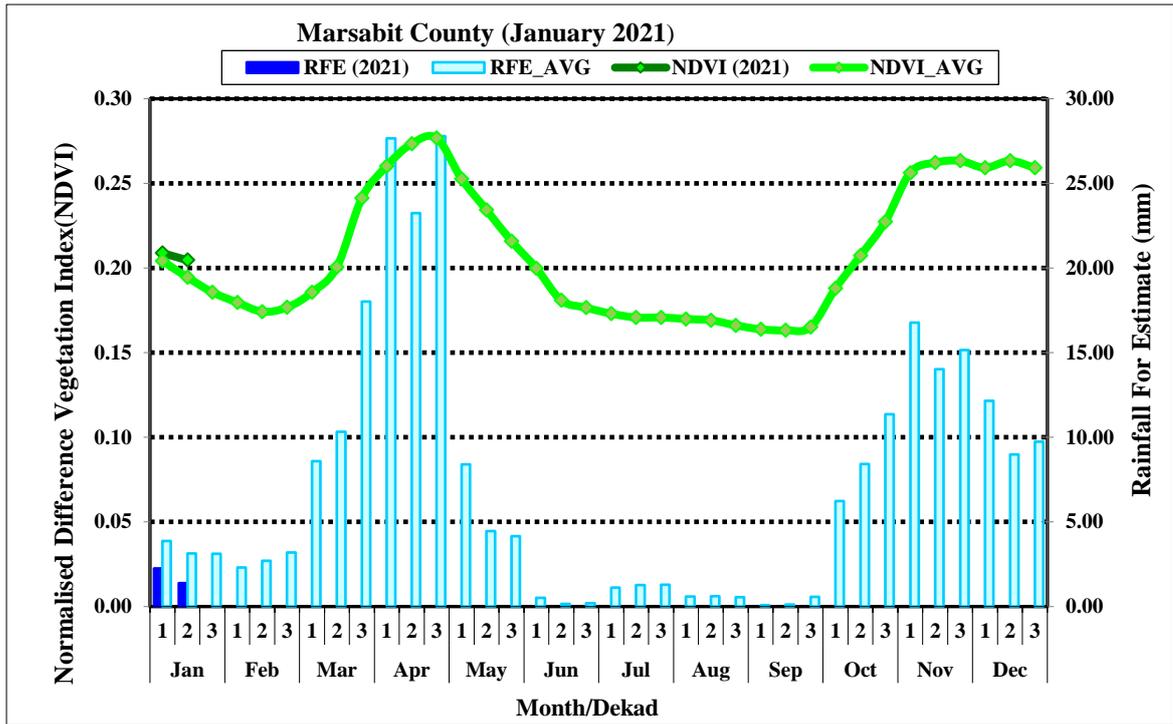## 1.1    RAINFALL PERFORMANCE



*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 and second dekads were below normal when compared to their respective long-term dekadal rainfall for estimate (RFE) averages.
- Normalized Difference Vegetation Index (NDVI) for the first and second dekads were normal when compared to their corresponding long term dekadal NDVI values.

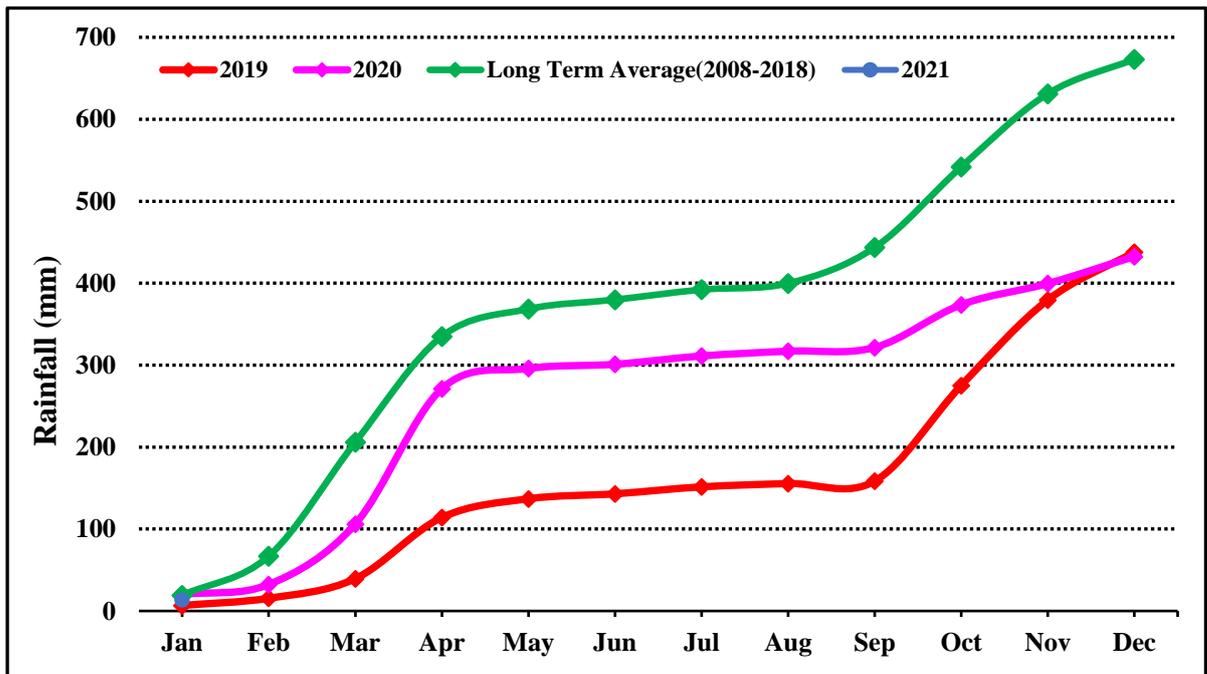## 1.2    CUMULATIVE RAINFALL



Figure 2: Cumulative Rainfall Performance (mm)

- From the figure (2) shown above, current seasonal cumulative rains are below the long-term cumulative rainfall amounts. Largely, 2019 was a dry year where the cumulative annual rains were significantly below the long term average.

## 2.0    IMPACTS ON VEGETATION AND WATER
### 2.1    VEGETATION CONDITION
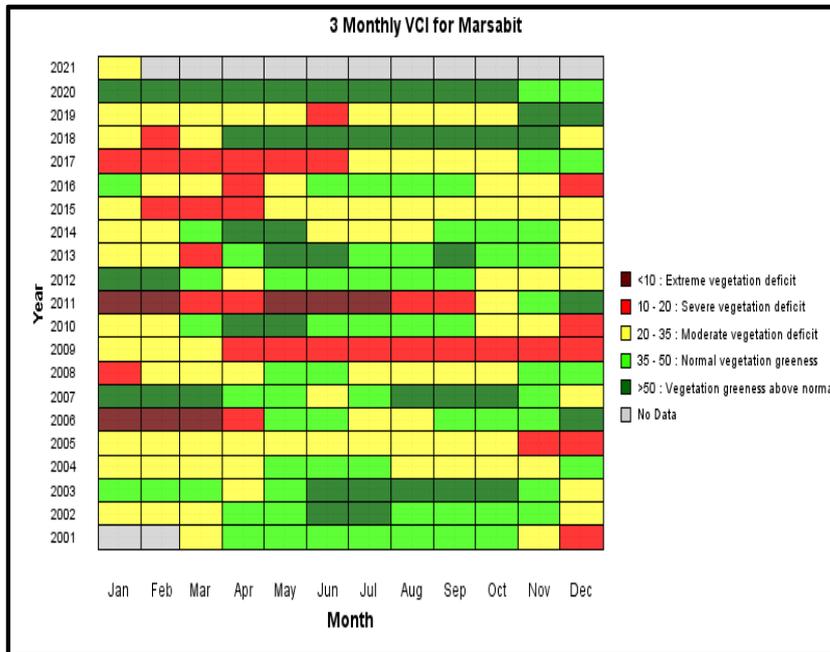### 2.1 1    Vegetation Condition Index (VCI)



Figure 3: Vegetation Condition Index across Marsabit County

From the figure 3 shown, current vegetation condition index is 28.15 hence depicted significant deterioration when compared to the preceding month's vegetation condition index of 37.11. Significant decline in vegetation condition necessitated a shift from the normal vegetation condition index in the previous month to moderate vegetation deficit in the month under review.
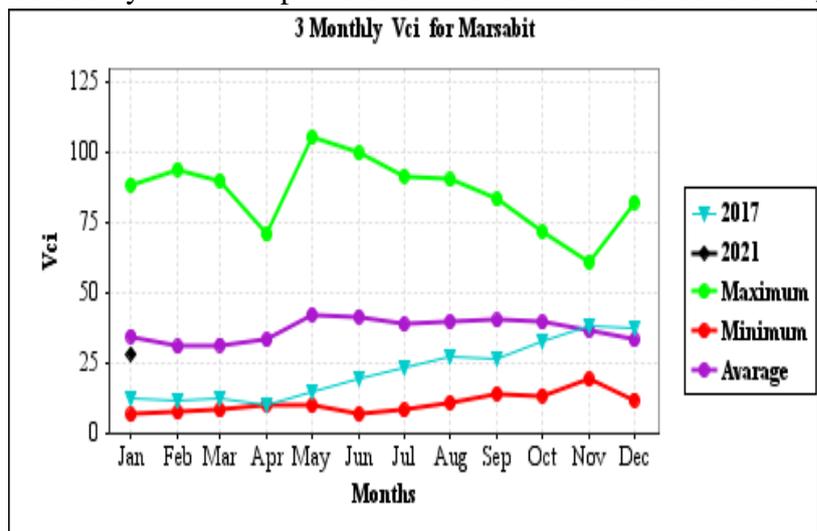
Significant decline in the vegetation condition index was attributed to generally below average cumulative seasonal rainfall amounts that didn't sufficiently invigorate vegetation cover across the County mostly in the pastoral areas of North Horr and Laisamis sub-counties and the agro-pastoral livelihood zone of Moyale sub-county. With the persistence of drier than usual conditions, the 3-months vegetation condition index will decline further in the next one month and possibly shift towards the severe vegetation deficit band. When compared based on the sub-counties, Saku sub-county illustrated a 3-months vegetation condition index of 49.85 (normal vegetation greenness), whereas Moyale, Laisamis and



Figure 4: Vegetation Condition Index Trends

North Horr sub-counties fell in the moderate vegetation deficit category and had VCI values of 30.59, 29.77 and 25.43 respectively.

Figure (4) shown above compares January 2021 vegetation condition index to January 2021 long term average, historical maximum and minimum vegetation condition index values. When compared to the long-term average, the current vegetation condition index is below normal. With expected drier than usual conditions, vegetation condition index is likely to decline further and significantly fall below the long term average in the next one month.
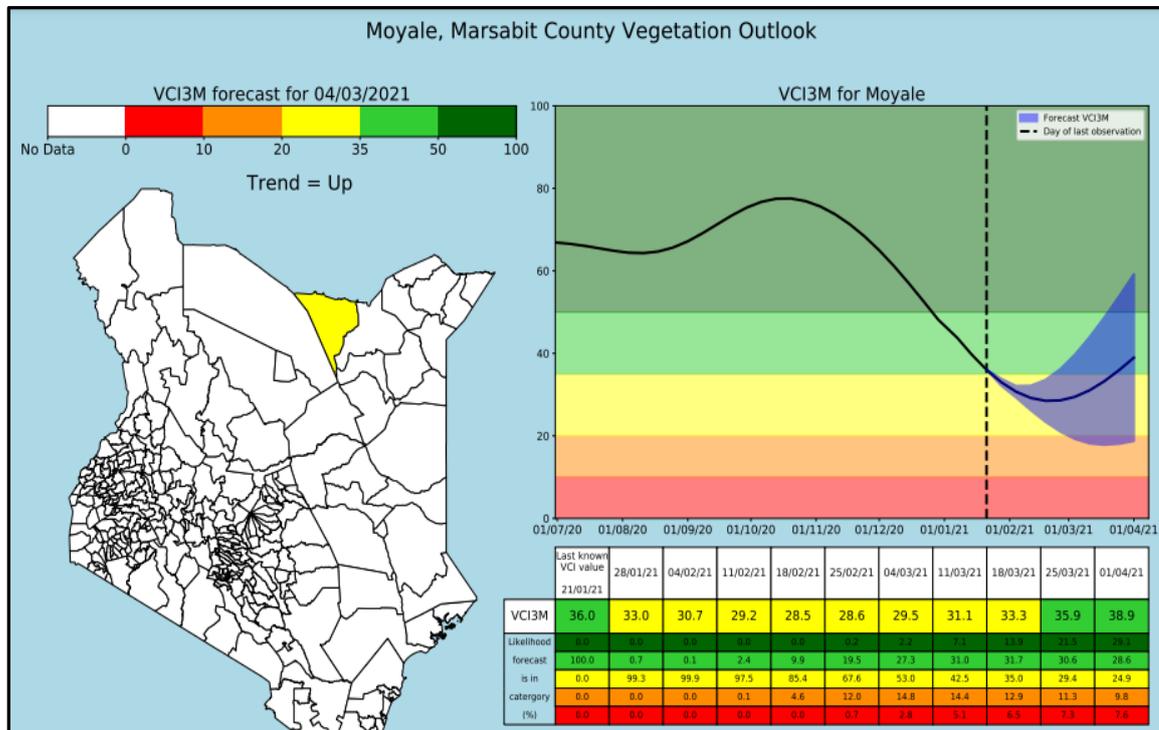


**Figure 5: Moyale sub-county vegetation condition index forecast**

- Sub-counties vegetation condition index forecasts illustrate that most parts of Moyale, North Horr and Laisamis sub-counties recorded moderate vegetation deficit. Saku sub-county is in the normal vegetation greenness band with a tendency of no shift in the next one month.

- (Figure 6) illustrates forecasted soil moisture that indicates a likelihood improvement across the County. Off-season rains received in some pockets of the County suggest soil moisture conditions for much of Marsabit will be near average. On average, there is a 0.2 probability that soil moisture will be in the lower tercile attributable to enhanced probability of near normal soil moisture quotient in the forecasted areas.
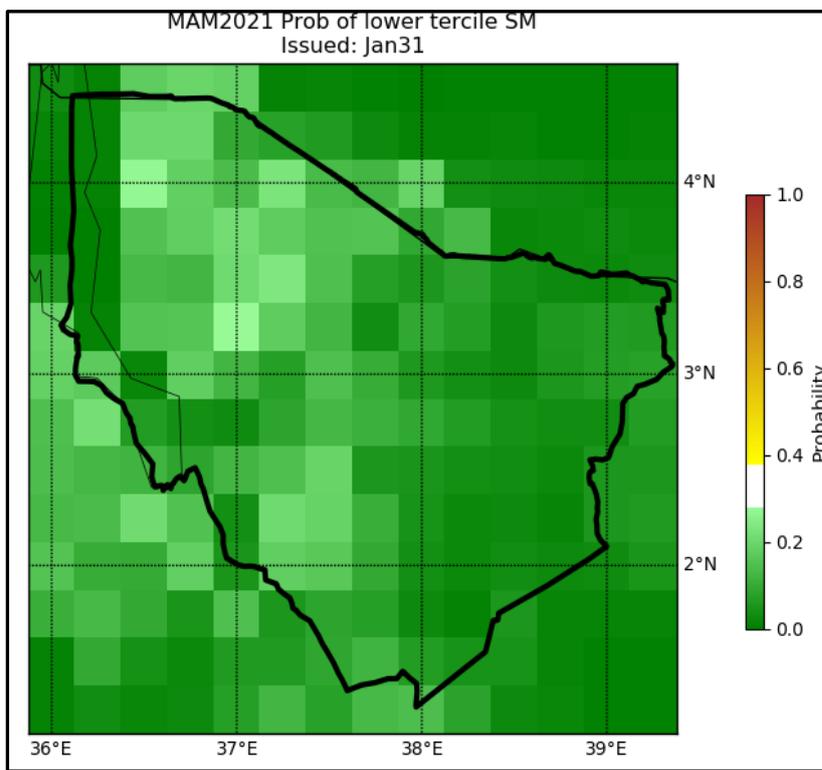

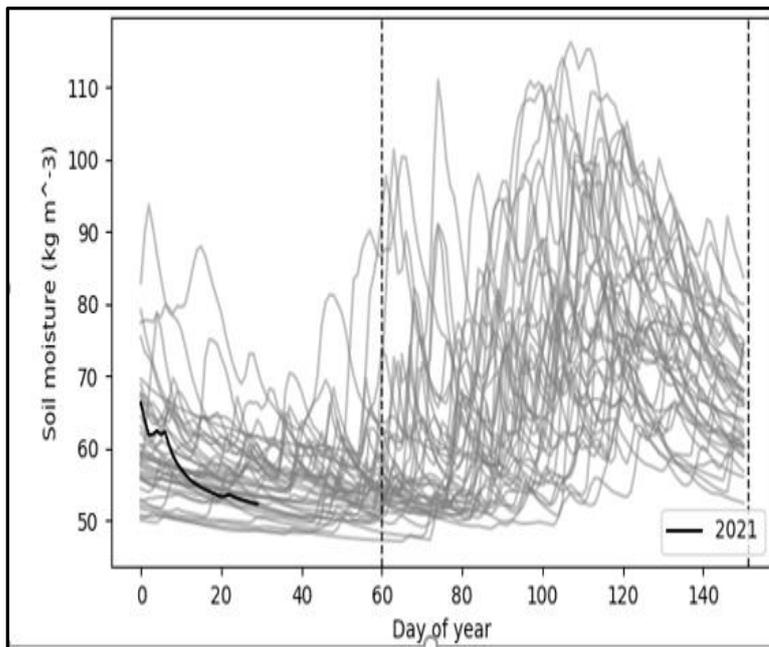
**Figure 6: Soil moisture forecast**

Figure 7 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 in 2021. The dashed vertical lines show the start (1st March) and end (31st May) of the rainy season. Generally, soil moisture has been on a declining trend in January 2021.

**Figure 7: TAMSAT-ALERT soil moisture for Marsabit County**

### 2.1.2   Pasture
- Pasture condition is fair in the pastoral livelihood zone of North Horr and Laisamis and agro-pastoral areas of Moyale sub-county while good-fair in Saku sub-county.
- Pasture condition was good in some isolated areas of Saku sub-county (Marsabit Central and Karare wards), Laisamis sub-county (Ririma, Kargi, Mt. Kulal, Soriadi, Puron, Gudas), North horr sub-county (Dukana, Hurri Hills, Sasala, Uranidera, Qarsa goresa, Chari Ashe, Lalesa, Sibiloi, Korondell), Moyale sub-county (Elle-Dimtu, Elleborr, Wayegodha, Kinisa, Teso, Guyotimo and Toi).
- When compared to similar periods, the quality and quantity of pasture is below normal in all the livelihood zones attributed to a combination of generally below normal rains and the impact of desert locust invasion on livestock rangeland.
- With prediction of drier than usual conditions, pasture is expected to last for the next 1-2 months in the pastoral livelihood zone while 1-3 months in the agro-pastoral livelihood zone.

### 2.1.3   Browse
- Generally, browse is good-fair condition in all the livelihood zones with exception of few isolated areas of Laisamis, North Horr and Moyale sub-counties where browse is poor.
- Available browse will last for 2-3 months when compared to the normal of 3-4 months. Variations in pasture and browse conditions across the livelihood zones is mainly attributed to poor temporal and uneven spatial distribution of the short rains and desert locust invasion.
- Notable emergence of non-palatable vegetation was witnessed in some parts of North Horr, Laisamis, Saku and Moyale sub-counties especially calotropis procera and bush encroachment.
- Quality and quantity of browse is good-fair in all the livelihood zones. Browse is expected to last for 2-3 months in all the livelihood zones against the normal of 3-4 months.
- Insecurity hindered access to pasture and browse across the livelihood zones especially in Elleborr, Rawana and Elledimtu in Moyale sub-county, Chari Ashe, Bulluk, Sibiloi and

Balesaru in North horr sub-county, Gof chopa, Mude, Qirisa, Dololo Dokatu, Jaldesa and Kubiqallo in Saku sub-county and the border of Laisamis and Samburu County.

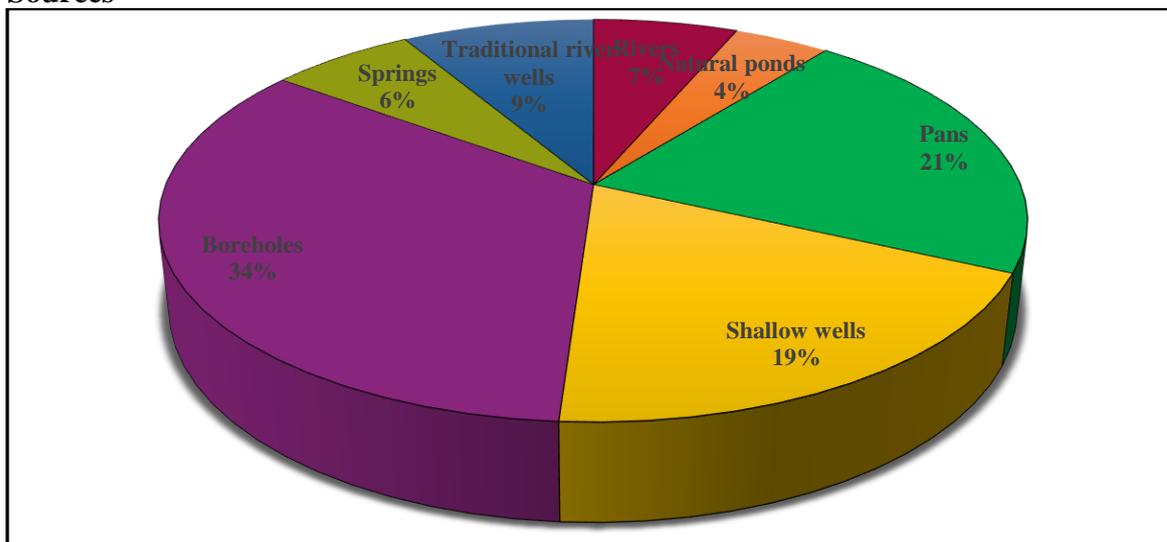## 2.2 WATER RESOURCE
### 2.2.1 Sources



*Figure 8: Main sources of water across the livelihood zones*

- From figure 8 shown above, borehole is the main water source employed by majority of the communities in all the livelihood zones as illustrated by a response rate of 34 percent.
- When compared to similar periods, water pans and boreholes are usually the main sources of water at this particular time of the year.
- Other water source applied by the communities in the month under review are water pans, shallow wells, traditional river wells, seasonal rivers, springs and natural ponds at 21 percent, 19 percent, 9 percent, 7 percent, 6 percent and 4 percent respectively.
- Generally, 85 percent of all surface water sources are currently dry and the few isolated water pans that have water are expected to last for a period of less than 1 month. Across the livelihood zones, attention is now on the permanent water sources which are boreholes, shallow wells and spring for both human and livestock consumption. This has brought about congestion and long pumping hours which has led to frequent breakdown of many strategic boreholes across all livelihood zones.

| Sub-County | Areas where water trucking is required |
|---|---|
| Saku | • Sagante/Jaldesa Ward-Boru Haro,Gar Qarsa,Qachacha,Manyatta Jillo,Dololo Dokatu, Manya Jillo Dispensary,Boru Haro Dispensary, Dub Goba Dispensary |
| | • Karare Ward-Parkishon,Karare Town, Ilpus, |
| | • Central/Mountain Ward-Public institutions(St. Theresa,Dibayu High School,Kiwanja Ndege, Badasa Mix,) |
| North Horr | • North Horr Ward-Kob Dertu,Malabot/Gorich),Kalesa, Yaa Algana, Yaa Odhola,Konon Gos,Daqane,Toricha,Mudhe and Hurri Hills |
| Moyale | • Elle Borr,Elle Dimtu,Funa Qumbi, Watiti. Laqi,Antut,Adadi,Gadha Korma |
| Laisamis | • Ulauli,Sakardalla,Kambinye,Bagasi,Namarei,Lependera,Lmooti |
| | • Merille Secondary School,TTI Laisamis,Sakardall Pry,Silapani Pry,Manyatta Lengima Pry,Namarei Pry,Lependeral Pry,Farakoren Pry,Balaah Pry,Mt. Kulal Girls Sec |

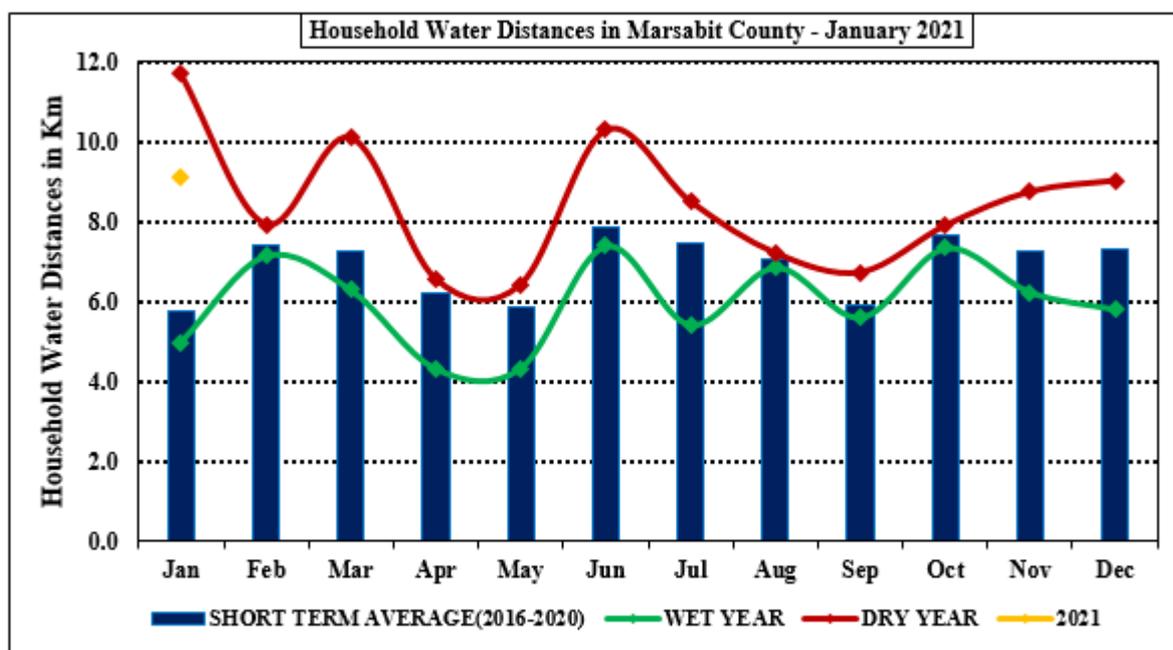### 2.2.2 Household Water Access and Utilization



*Figure 9: Current household return water distance (km) compared to Short Term Average distances (km)*

- From (Figure 9) shown above, return household water distances to the main water sources was 9.1km in the month under review which illustrates an increase when compared to the previous month's household water distance of 7.7km in all the livelihood zones. The current household water distance of 9.1km is above the short term average household water distance of 5.7km by 60 percent.
- Similarly, the current household water distances are above water distances during a wet year. There was general increase in waiting time across the livelihood zones compared to normal due to poor recharge of water facilities and breakdowns. Waiting time ranged 3-6 hours across the livelihood zones compared to 3-4 hours in agro-pastoral and 4-6 hours in pastoral livelihood zones normally. However, there were longer than normal waiting hours of between 6-8 hours in Ririma and Elbeso in Laisamis and North Horr sub-counties. Increased household waiting time at the water source across the livelihood zones was attributed to drying up of 85 percent of the open water sources.
- Water consumption per household per day was 5 litres in agro-pastoral and 6litres in pastoral livelihood zone compared to 12 and 8 litres per person per day respectively during normal times.
- With expected drier than normal conditions in the next month, household water distances will likely increase significantly thus expected long waiting time at the water source and reduced water consumption at the household level.

### 2.2.3 Livestock Access

- From (Figure 10) shown below, return livestock trekking distance from grazing areas to water points is 17.1km in all the livelihood zones which illustrates an increase when compared to the preceding month's distance of 16.8km.
- The current livestock trekking distance is below the trekking distances in a dry year and above the wet year and short term average trekking distances.

- Livestock trekking distances increased in the agro-pastoral areas of Moyale and Saku sub-counties (8-10km) whereas the pastoral areas of Laisamis and North Horr sub-counties exhibited considerable increase in livestock trekking distances (15-25km) due to low water recharge levels.
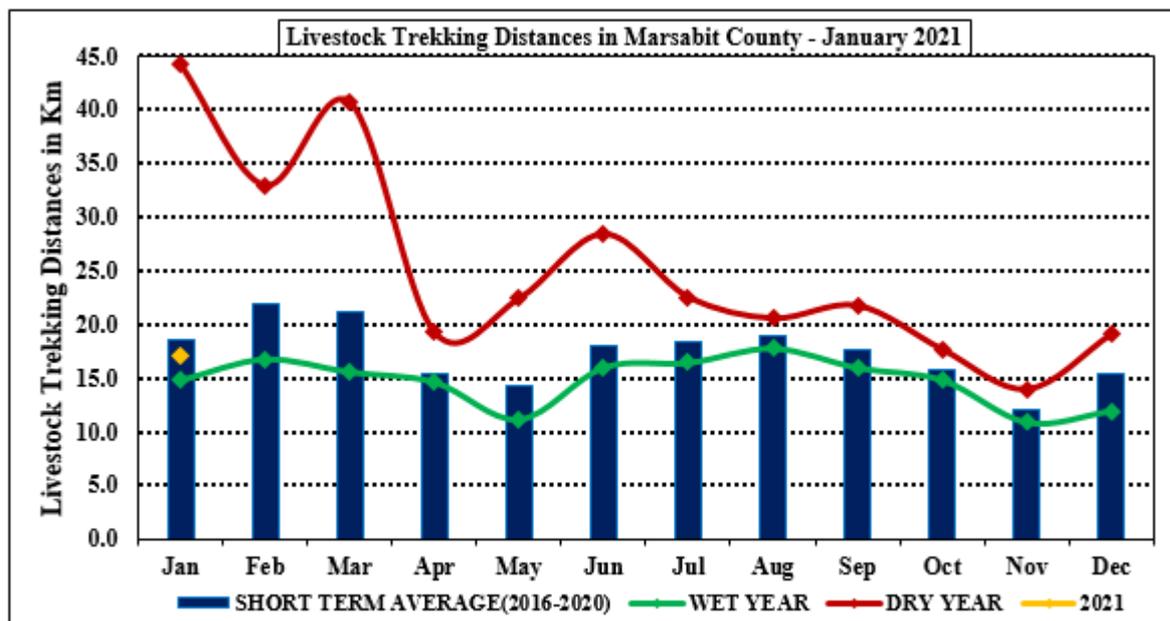


Figure 10: Current livestock trekking distances (km) compared to Short Term Average distances (km)

- Watering intervals for cattle is after 1-2 and 2-3 days in the agro-pastoral and pastoral livelihood zones respectively compared to the normal watering interval of 1-2 days. Camels watering frequency is after 5-6 days compared to the normal of 4-5 days in the agro-pastoral livelihood zone while in the pastoral livelihood zone, camels watering frequency is 8-12 days against the normal of 7-10 days. In the pastoral livelihood zone, small stock watering frequency is after 3-4 days and 2-3 days in the agro-pastoral livelihood zone compared to the normal of 2-3. With expected drier than usual conditions in the next month, watering frequencies are expected to 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-fair in all the livelihood zones which is above normal when compared to similar periods occasioned by cumulative effect of the long rains of 2020.
- In isolated areas of North Horr and Laisamis sub-counties, livestock body condition is fair-poor attributed to rapid depletion of forage and emergence of epidemic disease incidences.
- With expected drier than usual conditions, 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 sub-counties and wards has been noted as livestock migrate to areas perceived to have received rains.
- In Laisamis Sub County, livestock from Korr, Loglogo, Laisamis, Merille and Kargi are concentrated in areas of Malgis, Merille, Gudas, Ellem, Koya, Ririma, Thuur and Yell. While livestock in Loiyagalani ward have moved towards Sarima, Nangolle, Lerashi, Pallo, Gas and Sarimo.

- In-migration of livestock has been reported in North Horr sub County. In Turbi/Bubisa ward livestock have moved towards Turbi, Dossa Wachu and Maikona. In Dukana ward, livestock have migrated towards the border of Kenya –Ethiopia in areas of Garwole, Dibis, Bales-Saru, Araptis, Batha-Afar and Yibo. In Maikona ward livestock migrated to Hurri hills and Chari-Ashe while in North Horr ward livestock migrated towards Dossole, Sarimo, Sibiloi, Gidible, Darade, Qarsa-gate and Chari-Ashe.
- In Moyale sub-county, most livestock in Uran ward have migrated towards water sources of Ellebor, Walda and Gawale while most livestock from Moyale areas have moved towards Kenya/Ethiopia border and livestock from Amballo moved towards Walda.
- No notable livestock migration was witnessed in Saku sub-county in the month under review due to availability of forage. With continuation of the drier than usual conditions, intense livestock migration is expected to persist 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 2-4 tropical livestock units compared to 3-5 normally while the middle income had 6-10 compared to 10-15 normally. In the pastoral livelihood zone, poor income households had 3-5 tropical livestock units compared to 4-7 normally while the middle income had 8-14 compared to 15-20 normally. Generally, kidding and lambing was moderate across all the livelihood zones whereas calving was high in camels and cattle in the period under review.
- Due to normal kidding and lambing rates in addition to above normal calving rates, tropical livestock units have slightly increased but still below the long term average due to minimal herd recovery from the 2016-2017 extreme drought that led to massive livestock deaths and increased livestock generation intervals.

### 3.1.4 Livestock Diseases and Mortalities

- Sporadic cases of sudden death among camels in North Horr and severe congenital deformities reported among newborn camel calves. The death of these calves has milk loss implications to the affected households. High parasite (ticks, worms and flies) load and report of Rift Valley Fever in Isiolo and Mandera put the County at high risk. Incidences of livestock diseases and mortalities are normal across the livelihood zones.  In Elhadi (North Horr sub-county), a total of 30 goats died as a result of water consumption.
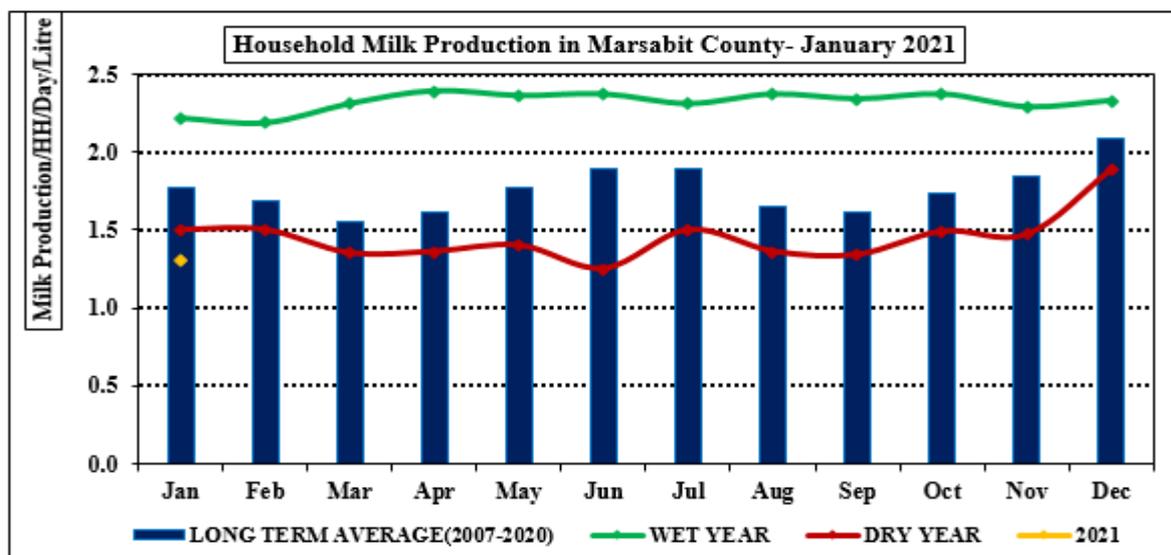
### 3.1.5 Milk Production



Figure 11: Milk production per household per day in litres across the livelihood zones

- From figure 11 shown above, household milk production per day for the month under review was 1.3 litres/household/day across the livelihood zones thus illustrates significant decrease when compared to the previous month's milk production of 2.3 litres/household/day.
- Current milk production of 1.3 litres is below the long term average milk production of 1.8 litres and also milk production in wet and dry years.
- Below normal milk production was attributed to intense livestock migration to the dry season grazing areas. As the short dry spell continues, milk production is expected to decline further in the next one month.
- Milk retailed at an average of Kshs.75-90 per litre across the livelihood zones compared to Kshs.60-75 normally which is 20-25 percent above normal.

## 3.1    RAIN-FED CROP PRODUCTION
### 3.2.1  Stage and Condition of Food Crops
- A total production of 3,590 bags of maize are projected to be harvested which is below the long term average maize production of 6,000 bags. An aggregate of 995 bags of beans will be harvested which is below the long term average beans production of 3,800 bags. However, 201 bags of green grams will be harvested hence denoting 68percent above normal when compared to the long term average of 120 bags.
- Near total crop failure in Moyale sub county was registered because of the below normal rains. Crop Production was affected by the following factors: poor temporal and spatial rainfall distribution, reduced access to farm labour and mechanized services, use of uncertified seeds by farmers, inadequate rainfall leading to low soil moisture to sustain crops life cycle in Moyale and effects of insufficient and untimely farm operations.

## 4.0   MARKET PERFORMANCE
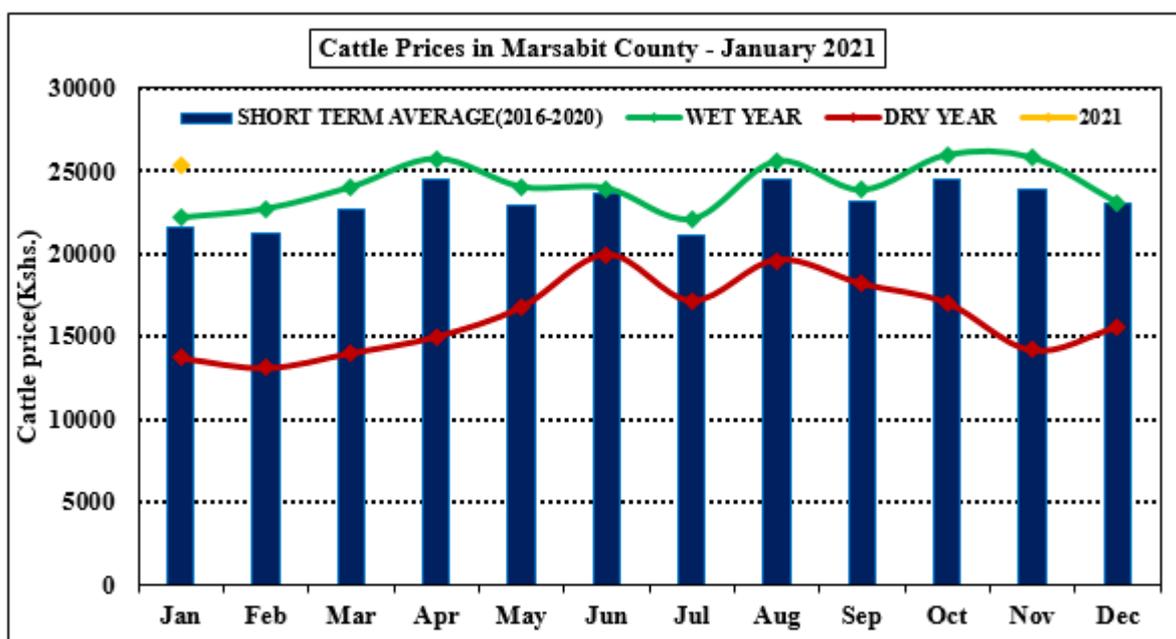### 4.1    LIVESTOCK MARKETING
### 4.1.1  Cattle Prices



Figure 12: Cattle Prices trends in Marsabit County

- From the figure (12) shown above, cattle price for the month under review was Kshs. 25,350 hence reduced when compared to the preceding months' cattle price of Kshs. 28,100.
- When compared to similar periods, current cattle price of Kshs 25,350 is above the short-term average price of Kshs 21,579 by 17percent. Above short term average cattle price is attributed to generally good body condition across the livelihood zones and vibrancy of the major livestock markets.
- Generally, the trend of cattle prices has been above the short term average prices and prices during wet and dry years.
- With the continuation of the short dry spell and expected increased supply, cattle prices are likely to gradually decline in the next one month across the livelihood zones.
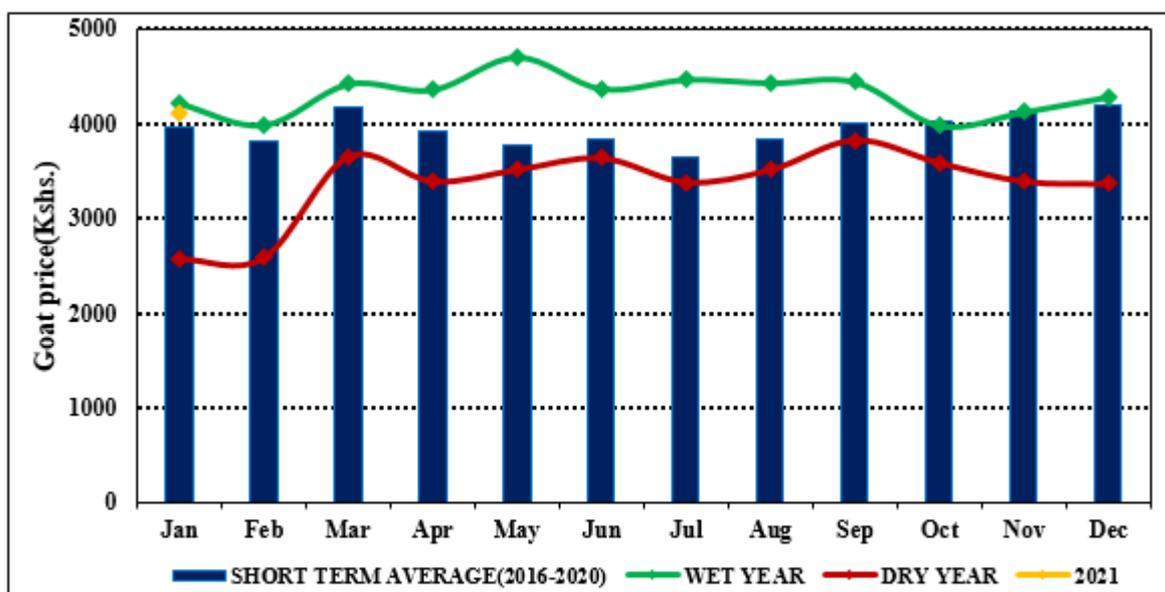
### 4.1.2 Goat Prices



Figure 13: Goat Prices Trends in Marsabit County

- The current average goat price is Kshs. 4,100 hence normal when compared to the short term average price of Kshs. 3,969 as illustrated in Figure 13 above. Normal goat prices were attributed to good-fair body condition and vibrant livestock markets. However, slightly below normal prices were depicted in major markets of pastoral areas of Laisamis and North Horr sub-counties due to disruptions of the supply chains mainly from the feeder markets.
- Moyale livestock market recorded better prices of Kshs. 4,500-5,000. The traded livestock market volumes fluctuated daily depending on demand and supply. Relaxation of the COVID-19 containment measures partially improved the livestock traded volumes.
- Approximately, 75 percent of the livestock markets were operational with exception of Forolle market in North Horr sub-county which remained closed due to insecurity and Dabel and Sololo markets in Moyale sub-county due to weak demand and poor linkages to the traders. With the progression of the short dry spell coupled with poor market integration in the pastoral areas, goat's prices are expected to gradually decline overtime.
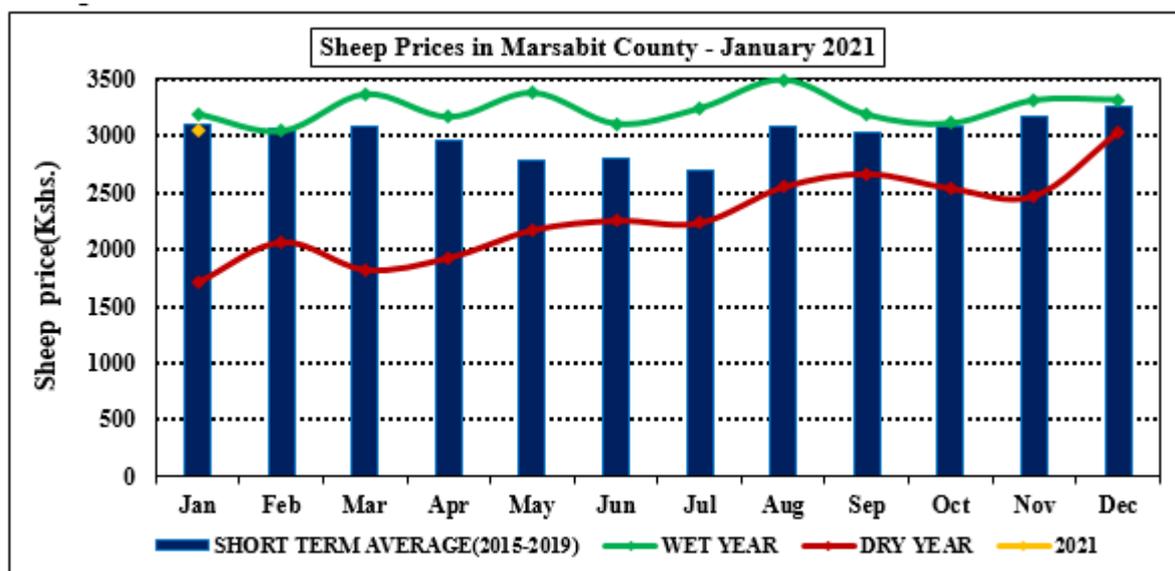
### 4.1.3 Sheep Prices



Figure 14: Current sheep prices compared to the short-term average prices (Kshs.)

- From the figure 14 shown above, sheep price for the month under review was Kshs 3,050 hence was stable when compared to the previous month's sheep price of Kshs 3,350.
- When compared to the short-term average price of Kshs 3,098, current sheep price is normal occasioned by generally good-fair body condition.
- Traded volumes for sheep 50-70 daily thus significant declined due to considerable reduction in demand of sheep in the Arabian market.
- Sheep prices are expected to gradually decline in the next one month across the livelihood zone due to the drier than usual conditions.
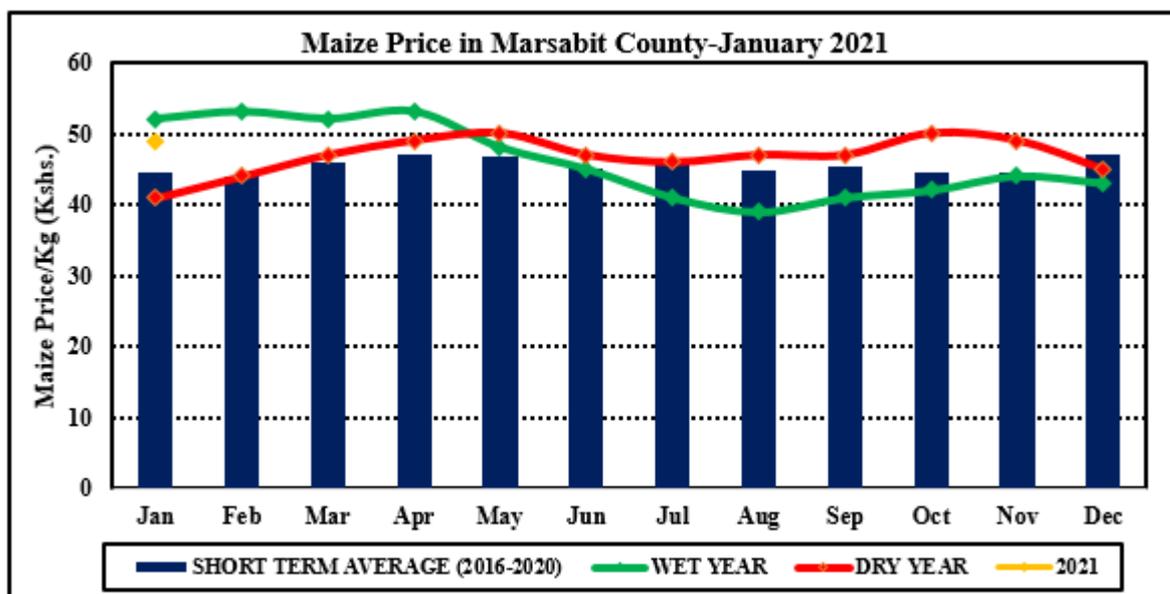
## 4.2    CROP PRICES
### 4.2.1   Maize



Figure 15: Current maize prices compared to the short-term average maize prices (Kshs.)

- The current average maize price is Ksh 49/kg which is slightly above the short term average price of Ksh 45 as illustrated in Figure 15 above.  Moyale sub-county recorded lower prices averaging at Kshs.30/kg attributed to cross border supplies from Ethiopia.

- Saku sub-county illustrated a stable maize price at Ksh.40/kg attributed to supplies from the external terminal markets of Meru and Nyahururu. However, most markets in North Horr and Laisamis sub-county recorded high maize prices of Kshs. 50-66/kg denoting 23 percent above the long term average mainly occasioned by weaker market integration and insecurity incidences. Notable considerable high maize prices were recorded in along the stretch of Lake Turkana belt in Laisamis sub-county and Forolle in North Horr sub-county at an average of Kshs. 80/kg due to unprecedented surge in water levels that completely cut-off the local settlements and cross border conflict respectively.
- With a combination of rising Lake Turkana water levels and cross border conflict in the pastoral livelihood zone, in addition to weaker demand, disruptions to local supply chains could cause distortions in local commodity markets leading to increased prices thus negatively affecting food security situation.
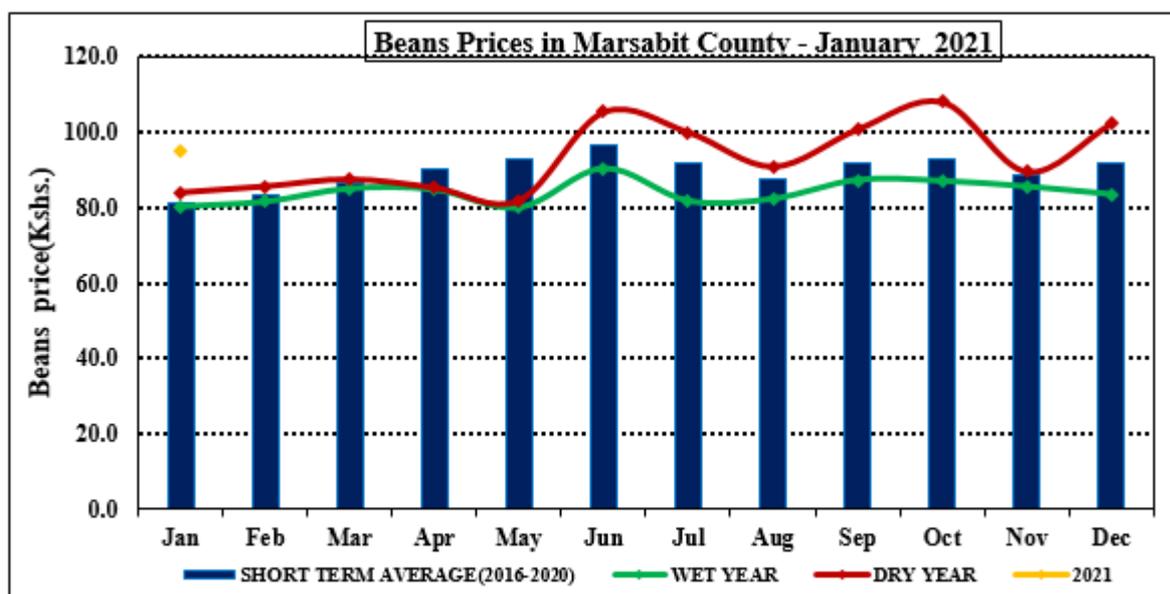
### 4.2.2 Beans



*Figure 16: Beans prices compared to the short average term average prices(Kshs.)*

- From the figure shown above, beans prices retailed at Kshs 95/kg in the month under review across the livelihood zones thus remained stable when compared to the preceding month's beans price of Kshs.91/kg. The current beans price of Kshs.95 is above the short-term average beans price of Kshs 81/kg by 17 percent.
- Moyale commodity market posted favourable beans prices averaging at Kshs 60-75/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, Laisamis and North Horr sub-counties recorded high beans prices of Kshs 100-120/kg attributed to poor commodity market integration with areas like Layeni and Komote in Laisamis sub-county posting extreme high beans prices of Kshs.140-160/kg.

### 4.2.3 Terms of Trade (TOT)
- The current terms of trade is 83 kilograms in exchange for the sale of a goat which is 8 percent above the short term average terms of trade of 77 kilograms.
- Terms of trade is favourable attributed to stable maize and goats' prices. Moyale sub-county illustrated favourable terms of trade than other sub-counties attributed to high goats' prices coupled with lower maize prices and improved market injections from the Ethiopia market.
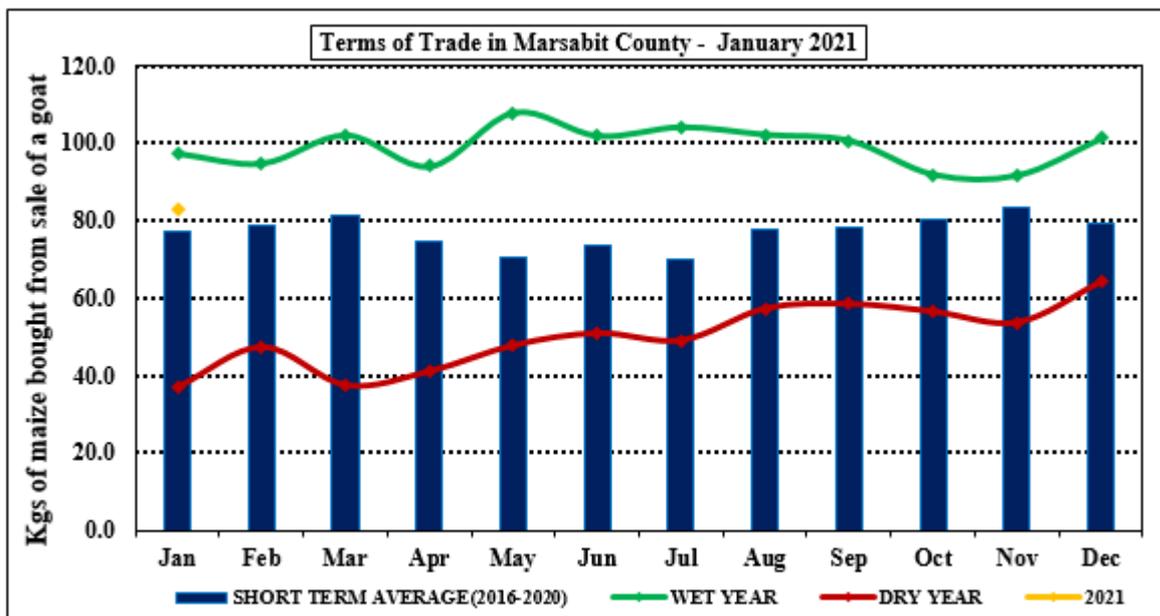
Figure 17: *Current Terms of Trade versus Short Term Average*

- 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 dry and normal years. With stable maize prices and expected reduction in goats' prices, terms of trade expected to be deteriorate in the next one month.

## 5.0    FOOD CONSUMPTION AND NUTRITION STATUS
## 5.1    Milk Consumption
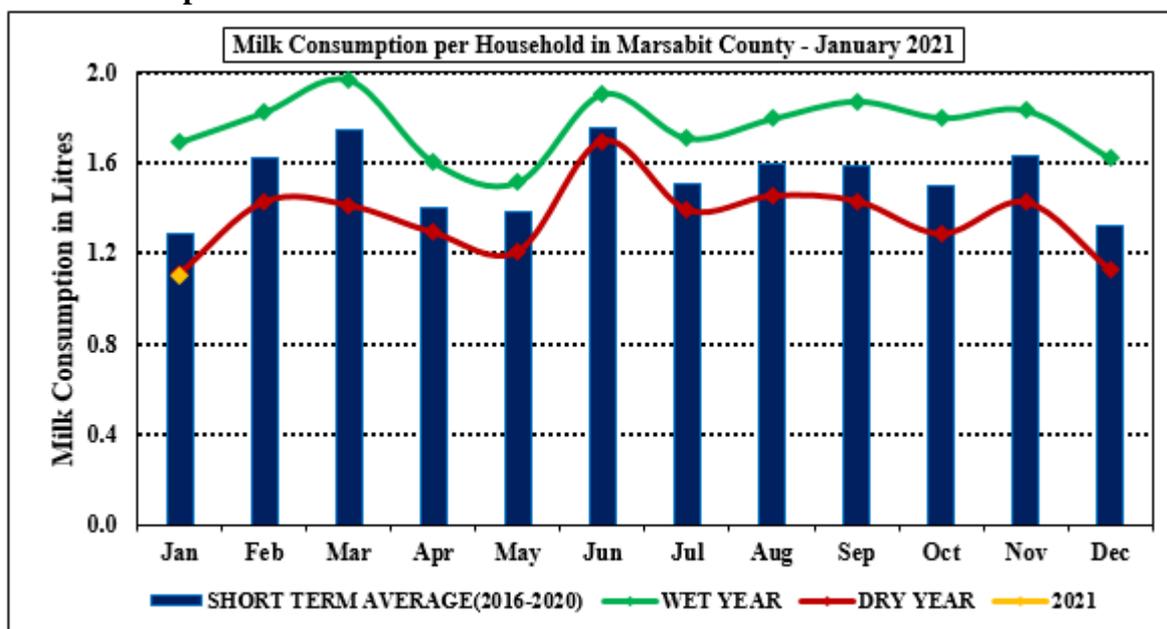


Figure 18: *Milk Consumption at household level in Litres per day*

- From the figure 18 shown above, household milk consumption is 1.1 litres/household/day in the month under review across the livelihood zones hence declined when compared to the preceding month's household milk consumption of 1.3 litres/household/day.
- When compared to the short-term average milk consumption of 1.3litres/household/day, current milk consumption is below normal attributed to inaccessibility of milk as majority of livestock have migrated to the dry season grazing areas.

- Current milk consumption equates that in a dry year but remarkably below household milk consumption in a wet year.
- As livestock migration intensify across the livelihood zones in the next one month, milk consumption will likely deteriorate further.

## 5.2 FOOD CONSUMPTION SCORE (FCS)

- The current food consumption score (FCS) across the County is 38.41 with 4 percent of households having poor food consumption while those with borderline and acceptable consumption was 37.4 percent and 58.7 percent respectively in both livelihood zones. In comparison to January 2020, a slight deterioration was noted because in the agro-pastoral livelihood zone, the proportion of households that had
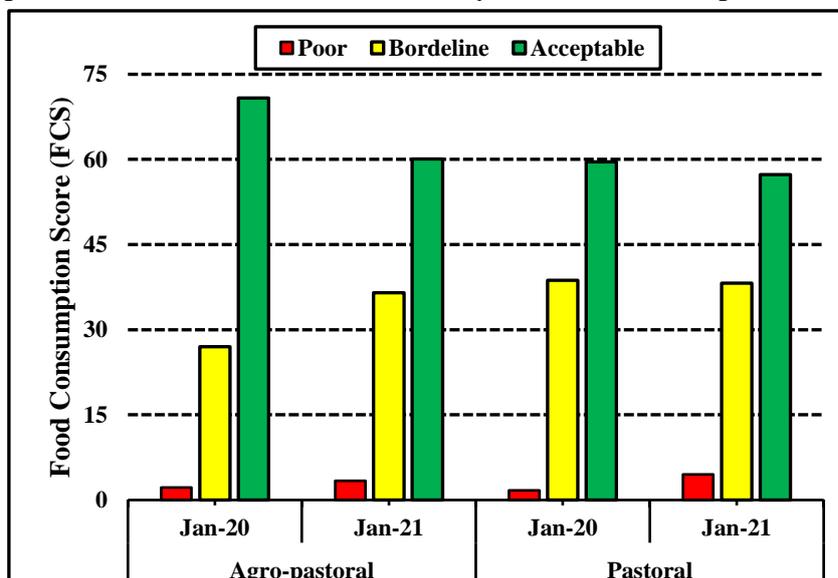


*Figure 19: Food Consumption Trends in Marsabit*

poor food consumption was 3.4 percent while those with borderline and acceptable food consumption was 36.5 percent and 60.1 percent respectively. Likewise, proportion of households in the pastoral livelihood zone that had acceptable, borderline and poor food consumption were 57.3 percent, 38.2 percent and 4.5 percent respectively. Generally, food consumption score is expected to gradually deteriorate in the next 2-3 months as the short dry spell continues.

|  | FCS Mean | Poor FCS | Borderline FCS | Acceptable FCS |
|---|---|---|---|---|
| **County** | **38.4** | **4.0%** | **37.4%** | **58.7%** |
| Golbo | 39.1 | 1.5% | 36.7% | 61.8% |
| Karare | 43.9 | 3.5% | 48.3% | 48.3% |
| Korr | 34.7 | 0.0% | 60.0% | 40.0% |
| Loiyangalani | 30.2 | 16.7% | 70.0% | 13.3% |
| Laisamis | 50.3 | 0.0% | 10.0% | 90.0% |
| Turbi | 35.5 | 0.0% | 36.7% | 63.3% |
| North Horr | 42.7 | 0.0% | 33.3% | 66.7% |
| Heillu Manyatta | 24.6 | 6.7% | 93.3% | 0.0% |
| Dukana | 29.2 | 3.3% | 75.5% | 21.2% |
| Sagante | 33.9 | 13.8% | 41.4% | 44.8% |
| Uran | 44.6 | 0.0% | 7.5% | 92.5% |

- From the table shown above, 4 percent of households consumed staples and vegetables every day and never or very rarely are consuming protein rich food such as meat and dairy. 37 percent of the households consumed staples and vegetables every day, accompanied by oil and pulses a few times a week while 59 percent 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 and Dukana wards that were in the borderline food consumption band category.

## 5.3    HEALTH AND NUTRITION STATUS
### 5.3.1   Nutrition Status
- Figure 12 depicts MUAC results of 7.50 percent of children who are moderately and severely malnourished and above the long term average in a wet year but falls within the ranges in a normal year. The proportions of children who are moderately malnourished are slightly higher than those in the wet year and normal year. For severe malnourished children, the proportions were slightly lower.
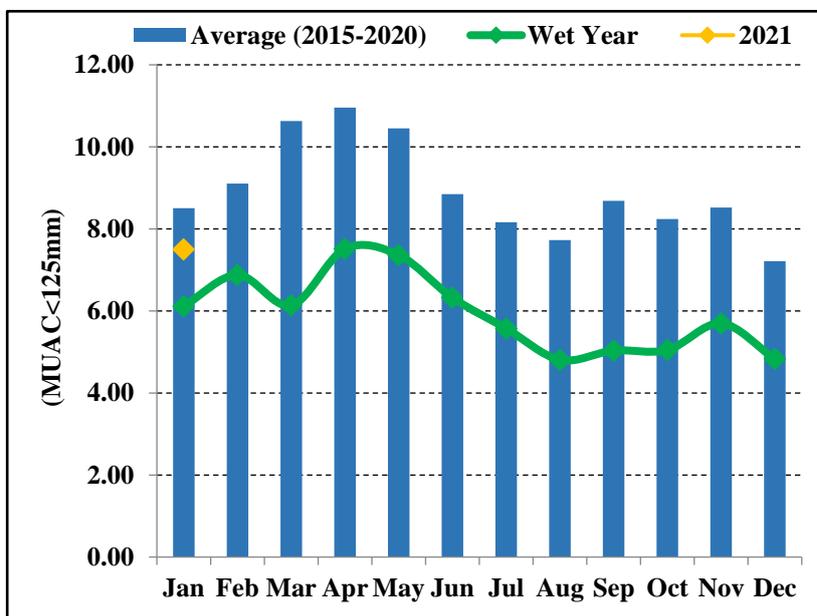


Figure 20: Proportion of Children with MUAC < 125 mm

- Mass screening conducted by M.O.H in the month of December 2020 in Illeret 4 villages indicated PC phase 5 which is extreme critical, with Global Acute Malnutrition (GAM) rates of 50.0 percent (46.5-53.5 95%Cl) and Severe Acute Malnutrition (SAM) of 17.2 percent (14.7-19.9 95%Cl).

## 5.4    COPING STRATEGIES

- From the (Figure 21) shown, the current reduced consumption based coping strategy index (rCSI) for the households is 17.5 compared to 15.1 similar period last year thus a deterioration.
- Reduced consumption based coping strategy index gradually declined from October-December 2020.
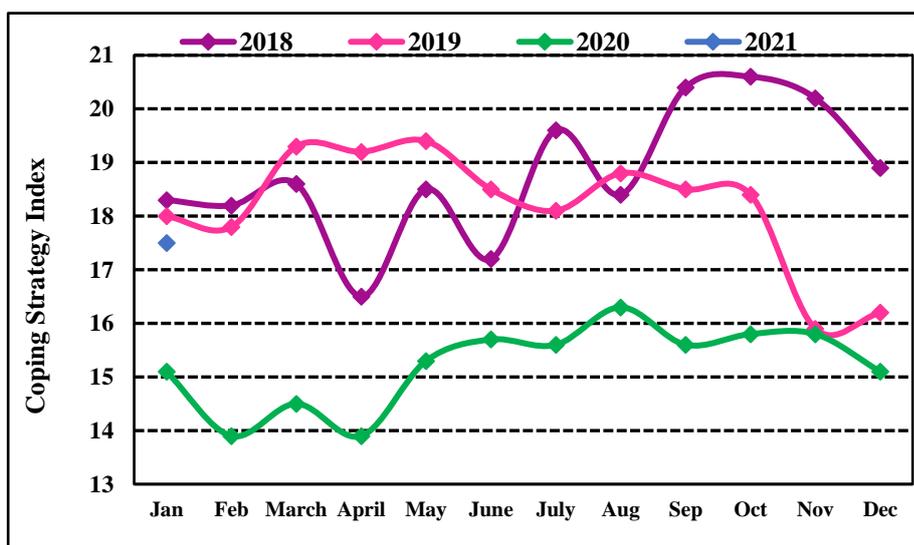


Figure 21: Coping Strategy Trends across the County

- Coping strategy index of 17.5 implies that households adopted coping strategies that were stressed, occasioned by various safety nets programmes and ongoing food distribution across the livelihood zones. Generally, households applied strategies to cope with food gaps at a more severe degree in the period under review. Notable consumption based coping strategies employed by the households

were reduced portion size of meals, reduction in frequency of food consumption and reliance on less preferred food.

- From table shown below, households in Loiyangalani and Sagante/Jaldesa wards applied crisis reduced consumption based coping strategies whereas those in Heillu Manyatta, Karare, Merille, Turbi and Uran wards adopted stressed coping strategies.

| Consumption based coping strategy index(rCSI) | | |
|---|---|---|
| Sub-county | Ward | rCSI |
| Saku | Sagante | 20.8 |
| Saku | Karare | 9.1 |
| Laisamis | Korr | 18.1 |
| Laisamis | Merille | 14.7 |
| Laisamis | Loiyangalani | 31.2 |
| North Horr | North Horr | 17.4 |
| North Horr | Turbi | 6.1 |
| North Horr | Dukana | 16.1 |
| Moyale | Uran | 10.3 |
| Moyale | Heillu Manyatta | 15.0 |
| Moyale | Golbo | 15.3 |

- It can also be deduced that 5 percent, 52 percent and 43 percent 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

- 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 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 20 vulnerable secondary schools' girls in form one with bursary. Each beneficiary received Ksh.15, 000 during the month of December. Twenty (20) vulnerable girls from the twenty (20) project schools in Maikona, Turbi, Uran and solo wards were supported with cash transfer to meet their needs during the month. Each beneficiary received Kshs. 4000 for the month of December.
- 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 Cavalera, 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.
- 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.

- SND in partnership with Terre des Hommes Netherlands, 50 families whose children are either victims or vulnerable to child trafficking were supported Kshs. 2000/month for 6 months in Moyale Sub County as part of COVID 19 response measures. In partnership with OXFAM, SND supported recruitment and training of 19 scouts/volunteers on elocust3m app. in Moyale Sub County.
- 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.
- ADS supported installation of an additional 10M$^3$ plastic water tank at Lontolio primary school and rehabilitation of Nairibi community water kiosk.

## 7.0    EMERGING ISSUES

- The County experienced a second wave of desert locust invasion from Wajir & Mandera since 21st December 2020. The report was from Golbo and Obbu areas of Moyale Sub County.  North Horr and Moyale sub counties have borne the brunt of invasion. Between 18th -24th January 2021 swarms of immature desert locust were found in Saku Sub County in rich agricultural area. The swarm devoured cereals and pulses in the field and roosted around irres filla areas of Manyatta Jillo. The cereals affected are maize, wheat, teff while legumes are cowpeas, beans, green grams. The Acacia species (Acacia zanzibarica, Acacia melifera, Acacia mobica, Acacia tortilis, and Acacia reficiens) are preferred trees/bush thickets in Marsabit County by desert locusts, which are also preferred by the browser such as goats and camels. On 25th January 2021, 10 swarms were sighted covering 1,250 ha and the area was all treated while on 26th January 2021, 422 hectares in Laisamis sub-county were affected and 351 hectares treated.
- In North Horr sub-county, 6 swarms were sighted and 311 hectares treated. In Saku sub-county, 2 swarms sighted and zero hectares treated because it is in sensitive areas. The stages of locust are immature adult and few adult while the hotspots areas are Saku, Shurr, Hurri hills, Loglogo and previously infested areas in the four sub counties. A total of 2,100 hectares of rangeland have been sprayed since December 2020.

## 8.0    FOOD SECURITY PROGNOSIS.

- Significant decline in vegetation condition necessitated a shift from the normal vegetation condition index in the previous month to moderate vegetation deficit in the month under review. Considerable decline in the vegetation condition index was attributed to generally below average cumulative seasonal rainfall amounts that didn't sufficiently invigorate vegetation cover across the County mostly in the pastoral areas of North Horr and Laisamis sub-counties and the agro-pastoral livelihood zone of Moyale sub-county. With the persistence of drier than usual conditions, the 3-months vegetation condition index will decline further in the next one month and possibly shift towards the severe vegetation deficit band.

- Below normal harvest of maize and beans crop in the agro-pastoral livelihood zone will diminish household food stock. The likely scenario under sustained desert locust invasion in Saku sub-county on green maize, the prices of maize and the stocks held by both traders and household are likely to dwindle resulting in price increases and reduced purchasing power of agro-pastoralists thus affecting access to the main staple food commodities.
- With the progression of the short dry spell, household and livestock trekking distances to water sources are expected to considerably 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, Laisamis and Moyale lowlands are likely to experience water stress thus need for water trucking.
- Livestock migration is expected to intensify increasing the likelihood of resource based conflict and occurrence of livestock disease incidences. The forage condition expected to deteriorate to fair condition and worsen further if the immature desert locust swarms persists while livestock body condition for all the livestock species is likely to deteriorate to fair condition in all the livelihood zones with exception of camels which are likely to remain in the good-fair category.
- Likelihood occurrence of rift valley fever due to reported cases in the neighbouring Counties of Isiolo and Mandera which might lead to livestock quarantine and likely closure of livestock markets.
- With stable maize and expected reduction in goat prices, terms of trade is expected to persist. Mean food consumption score gradually fell in the acceptable food consumption score band across the livelihood zones and it's likely to decline to the borderline food consumption score category in the next one month while adoption of reduced consumption based coping strategies is likely to shift to the crisis phase.
- Nutritional status of children below the age of five years is expected to gradually deteriorate due to expected limited access to milk as majority of the livestock shall have migrated to the dry season grazing areas.

## 8.0    RECOMMENDATIONS
- Continuous experts' advisory on migration patterns of the desert locust determine the direction of the swarm movement and effective control measures.
- Unconditional cash transfer to target worst hit households from desert locust invasion.
- Mass treatment for parasites and clinical cases across the County.
- Livestock commercial off-take and activation of satellite markets.
- Water department should repair the stalled water bowzers, broken down boreholes in North Horr, Laisamis and Moyale sub-counties and undertake water trucking to areas that are currently experiencing acute water shortage across the County.
- Immediate assistance to the affected fisher folk communities in all the 10 landing sites with fishing gears such as nets, hooks, boats, and floaters to revive their main source livelihood.
- Scale up mass screening and integrated medical outreaches targeting malnutrition hotspots in all the livelihood zones.
- Provision of essential health and nutrition supplies for management of acute malnutrition.