

A Vision 2030 Flagship Project



National Drought Management Authority SAMBURU COUNTY

DROUGHT EARLY WARNING BULLETIN FOR FEBRUARY 2021

FEBRUARY 2021 EW PHASE

Drought Status: ALERT



Maandalizi ya mapema

Early Warning Phase Classification

LIVELIHOOD ZONE	EW PHASE	TRENDS
Agro-pastoral	Normal	Worsening
Pastoral (North)	Normal	Worsening
Pastoral (East)	Alert	Worsening
County	Alert	Worsening

Drought Situation & EW Phase Classification

Biophysical Indicators

- Sunny and dry weather conditions prevailed with few places receiving erratic and depressed rainfall not lasting for 30 minutes.
- Vegetation cover and surface water resources remained on downward trends.
- Open surface water sources in pastoral areas have dried up with few holding around 10 percent of their capacity while in Agro pastoral livelihood open sources are holding about 40 percent full.

Socio Economic Indicators Details

- The body condition for all livestock species ranges between borderline to thin body. Further increase was noticed in both households and livestock trekking d. Mass migration of cattle to dry grazing season areas.
- Decline was recorded in milk production and consumption at household. Livestock selling prices decreased compared to last month.
- Maize/*posho* prices maintained stable trends and terms of trade decreased however remained above long-term average.
- Prevalence of severely malnourished children under five was 0.6 percent and moderately malnourished at 15 percent as measured by family Mid Upper Arm Circumference (MUAC).

Biophysical Indicators	Value	Normal range/Value	
VCI-3month (County)	33.77	35-50	
VCI-3month (Samburu east)	26.49	35-50	
Production indicators	Value	Normal ranges	
Livestock Migration Pattern	Intra & inter Migration	No Migration	
Livestock Body Conditions	Borderline to thin body	Good Smooth appearance	
Milk Production (Litres/Household/day)	1.6	>1.62	
Livestock deaths due to drought	No death.	No death	
Access Indicators	Value	Normal ranges	
Terms of Trade (TOT)	62	>60.37	
Milk Consumption (Litres/Household/day)	1.2	>1.36	
Return distance (km)	Household	7.1	<5.3
	Livestock	11.6	<12.6
Utilization indicators	Value	Normal ranges	
MUAC (%) Severely Malnourished	0.6	2.1	
FCS (%)	Poor	3.5	0 - 21
	Borderline	40.8	21.5 - 35
	Acceptable	55.6	>35

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

1.0 CLIMATIC CONDITIONS

1.1 Rainfall Performance

The month of February was predominantly sunny and dry across the county. A few areas in the county received intermittent showers for about 1 – 2 days with amounts ranging between 2 – 10 mm towards the third dekad. Day-time (maximum) temperatures increased and night-time (minimum) temperatures decreased during the month under review. February is normally a dry month across the livelihood zones.

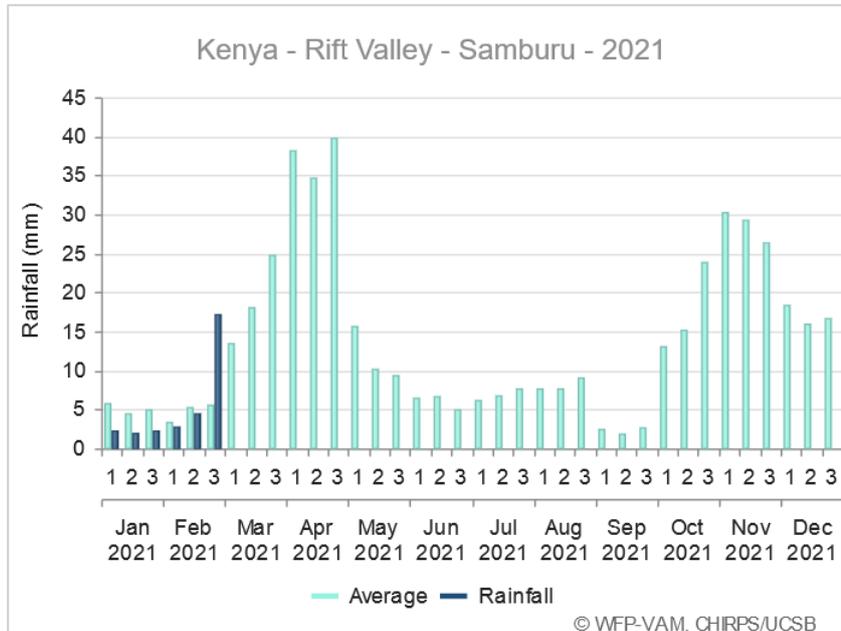


Figure 1: Dekadal Rainfall Estimate Trends

showers were 18 percent and 15 percent below the long-term average during the first and second dekads respectively. In the third dekad few pockets of the county received 1-2 days rainfall of about 211 percent above the long-term average for less than 30 minutes (Figure 1).

Temporal distribution was poor and spatial distribution was uneven across the livelihood zones.

1.3 Other Shocks and Hazards

1.3.1 Locust Invasion

- Mature swarms of migrating desert locust were reported in several places across the county however the impact on forage was insignificant.
- According to FAO locust situation update (3rd March 2021), suggests likelihood that the showers that fell during the last week of February 2021 may allow swarms to mature rapidly in northern Kenya and lay eggs that could hatch in late March, causing small hopper bands to form. However, breeding this spring is likely to be limited as control operations continue to reduce current infestations and well below-normal rains are forecasted

2.0 IMPACTS ON VEGETATION AND WATER

2.1 Vegetation Condition

2.1.1 Vegetation Condition Index (3 month-VCI)

- The ongoing sunny and dry conditions across the livelihood zones coupled with convergence of livestock in areas with little pasture has occasioned further depletion of rangeland conditions. The situation is likely to deteriorate till the 2021 long rains sets in.
- The satellite drive data for the month of February 2021, indicates that on average the vegetation condition index slid to moderate vegetation deficit for the county. Several parts of Samburu East have been degraded and heavily affected by alien plants especially *Acacia Reficiens* (*Lchurai*).
- The current VCI-3month for the county was 33.77 which is slightly below the normal range of 35-50. In Samburu East subcounty, the VCI has been declining currently standing at 26.49 which is 6.49 to severe vegetation deficit.
- Based on cumulative satellite driven vegetation data, the VCI for the county below the long-term average in the month of February 2021 (Figure 2).

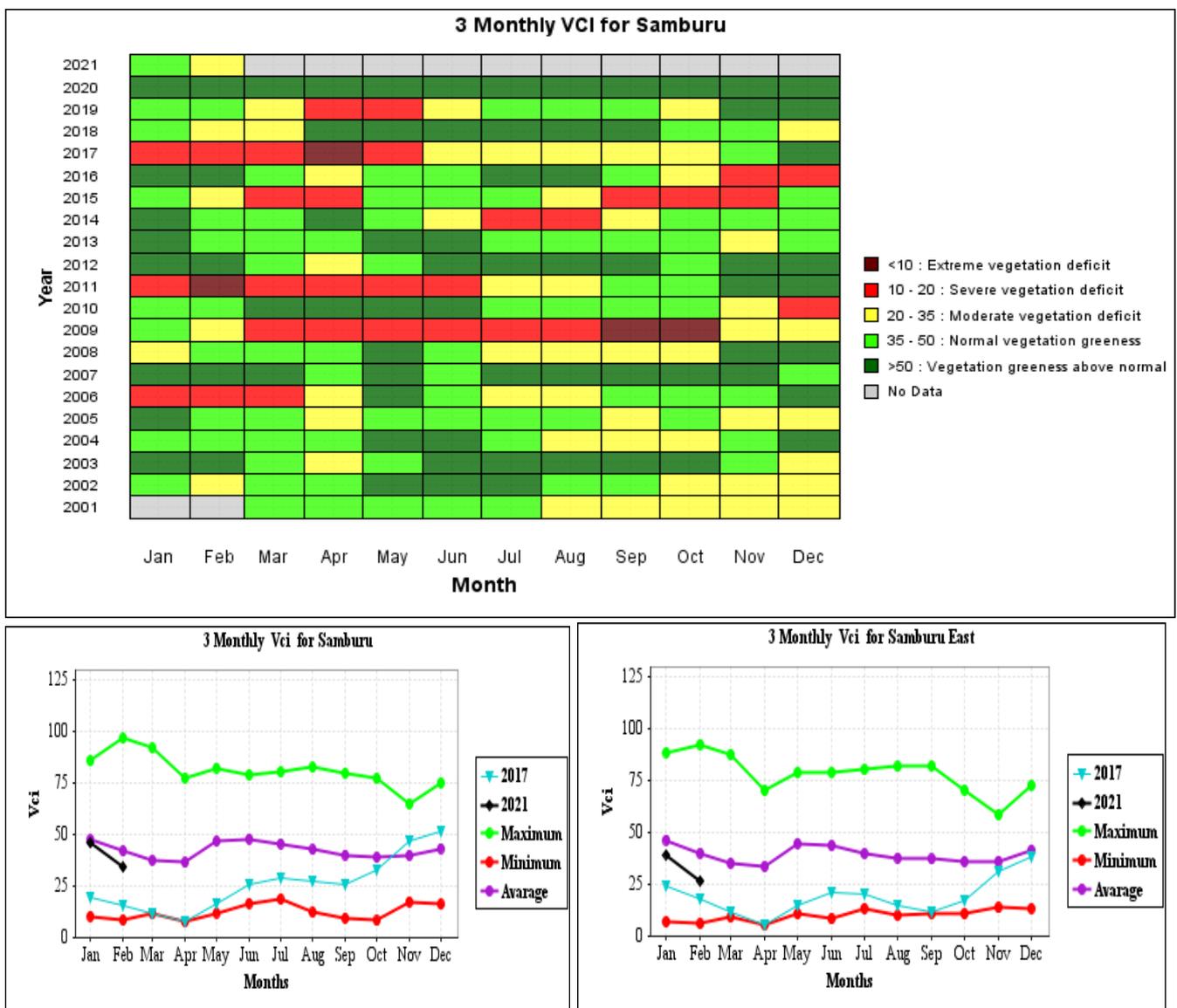


Figure 2: VCI Trends for Samburu County and Samburu East Subcounty
(Source: Boku University)

2.1.2 Forecast for Vegetation Condition (3 month-VCI)

Satellite driven data from ASTROCAST suggests potential further deterioration of vegetation cover and water sources through mid-March 2021. The projected deterioration is attributed to rising temperatures coupled with south-easterly winds exacerbating transpiration. The VCI-3M index is forecasted to deteriorate to 26.6 in Samburu East which is below the normal range of 35-50. In Samburu West and North sub-counties, the VCI is likely to decline to 40.7 and 41.2 respectively which is within the normal range.

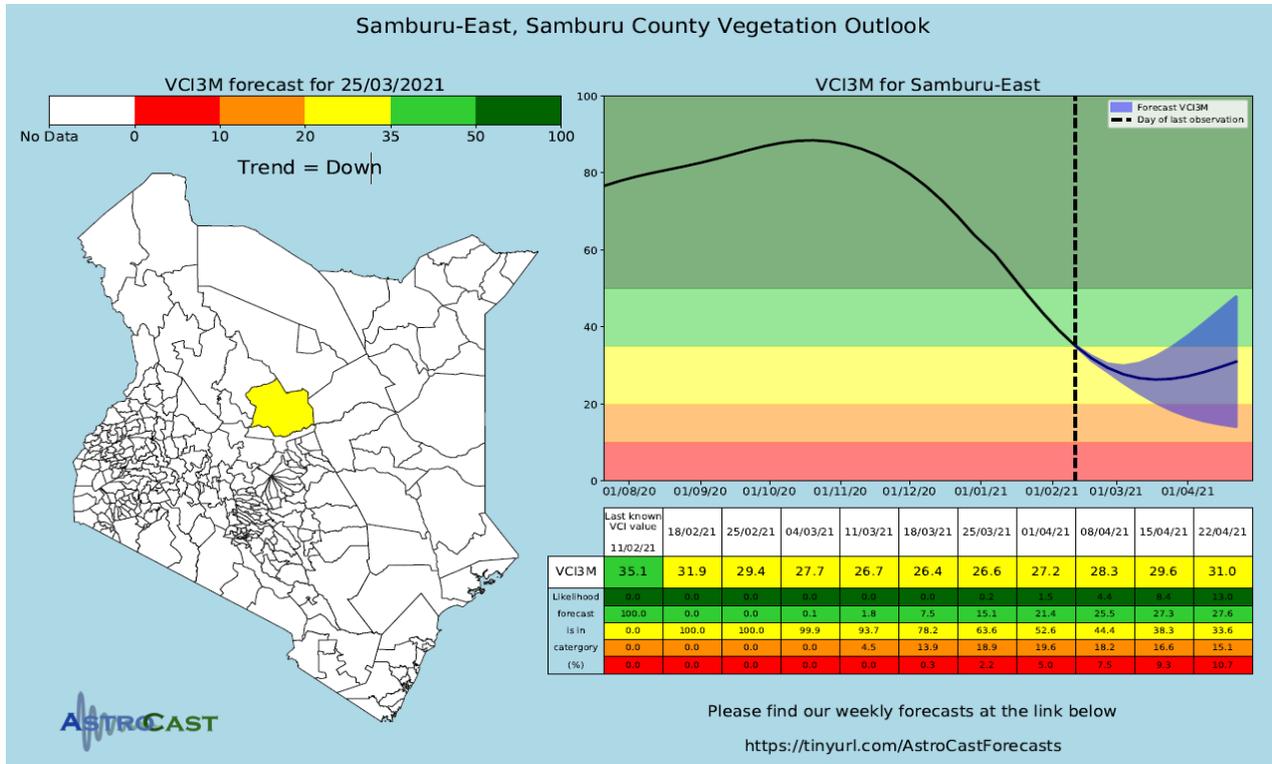


Figure 3: VCI Forecast Outlook for Samburu East Sub-county

2.1.2 Field Observations (Pasture and Browse Conditions)

Quality and Quantity

Vegetation cover continued to deteriorate across the livelihood zones attributed to dry and sunny weather conditions coupled with south-easterly driving wilting of pasture and browse across the livelihood zones.

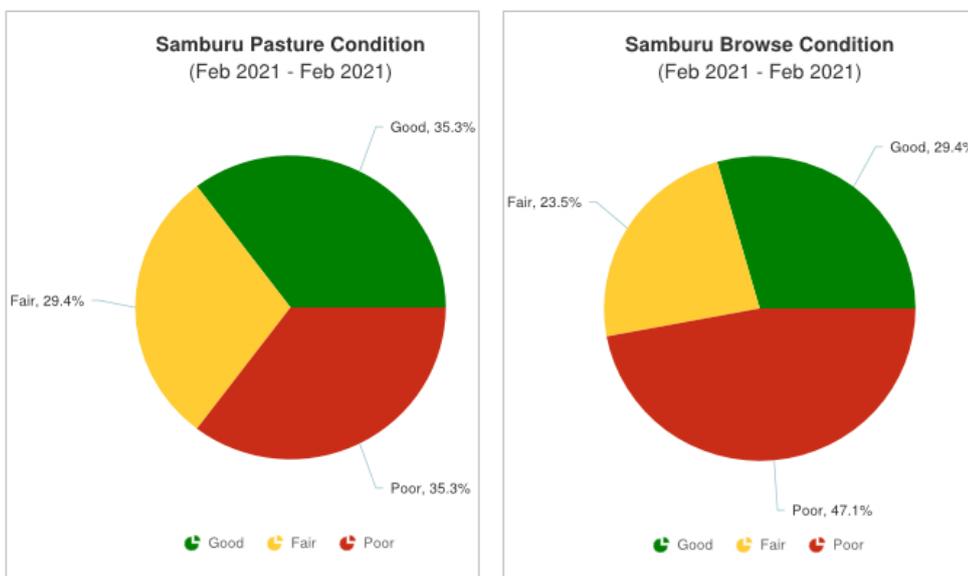


Figure 4: Pasture and Browse Condition

Substantial amount of dry grass is available in conflict prone areas of Mbukoi, Marti and Angata Sikira. Bushfire has been reported to have burn wild vegetation in dry season fallback areas of Kawop plains in Samburu North sub-county. According to community key informant, majority of respondents approximately 65 - 70

percent reported that pasture and browse was ranging between fair to poor in several parts of the county (Figure 4).

2.2. Water Resource

2.2.1 Sources

Surface water sources wells, pans and dam were more relied by both livestock and households. Natural and hand dung wells were used by about 46.9 percent of the households across the livelihood zones. Pans and dams were relied by 21.9 percent of the sampled population. Boreholes usage increased to 15.6 percent from last month proportion 10.5 percent recorded in January 2021. A proportion of 9.4 percent got water from springs especially from Ndoto wards due to existence of spring along the Ndoto hills. Majority of water pans in Pastoral livelihood have dried up and in Agro pastoral livelihood zone water pans are currently holding about 20 - 40 percent of their capacity.

A number of boreholes that were reported broken have not yet repaired. The boreholes include Lorian, Nkopeliani, Loosuk, Garma, Ngamata, Lchoro Lelerai, Lesuwua, Lorukoti, Lailela, Nachola, Tankar,

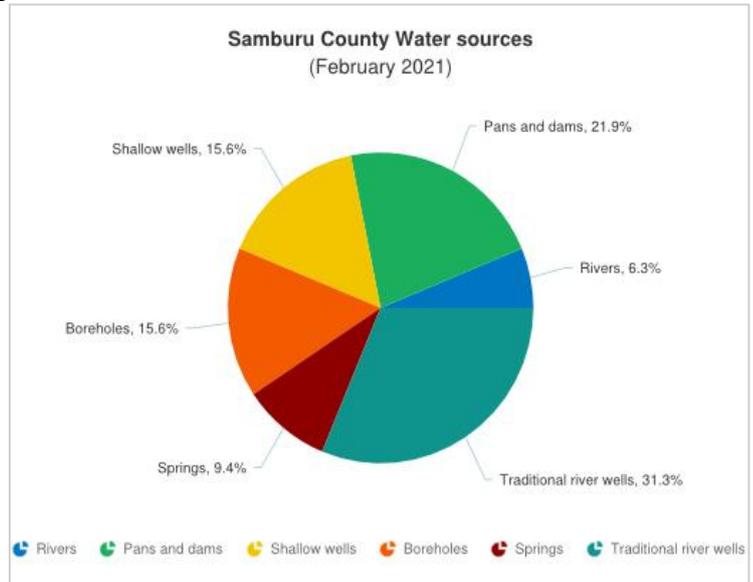


Figure 5: Frequently used Water Sources

Lenkusaka, Ntepes, Nkutuk Elmuget, Louwa, and Lemolog are not operational due to breakages, abandoned due to high fluoride and inaccessibility due to insecurity (Kawop). Households do store drinking water in closed 20 litres jerrican. Households in urban centres are using water treatment chemical and other boil drinking. Household water consumption was averaging between 5 – 12 litres per person per day in Agro pastoral livelihood zone and 4 – 8 litres per person per day in Pastoral livelihood zone. The cost of water in pastoral livelihood zone was Ksh 5-10 per 20 litre jerrican while in Agro pastoral was Ksh 2-5 per 20 litre jerrican which is normal. In urban centres of Maralal, Wamba, Kisima and Archers, vendors are supplying water at a cost of Ksh 10 – 20 per 20 litres jerrican inclusive of vendors transportation cost while in Baragoi, a 20 litre jerrican is going for up to Ksh 40.

2.2.2 Household Access and Utilization

- The ongoing dry and sunny weather conditions has led to drying up of surface water points forcing households to rely mainly on underground water sources. This has occasion increase in households' distances to water points with current average return distance of 7.1 km up from 6 km recorded in last month.
- Households in Wamba West and Wamba North wards reported to have trekked long distance of about 11 – 12.7 km in search of water for domestic use.
- In comparison to 2018-2020 average, the current household return average distance was 42 percent above normal distance at this period of the year (Figure 6).

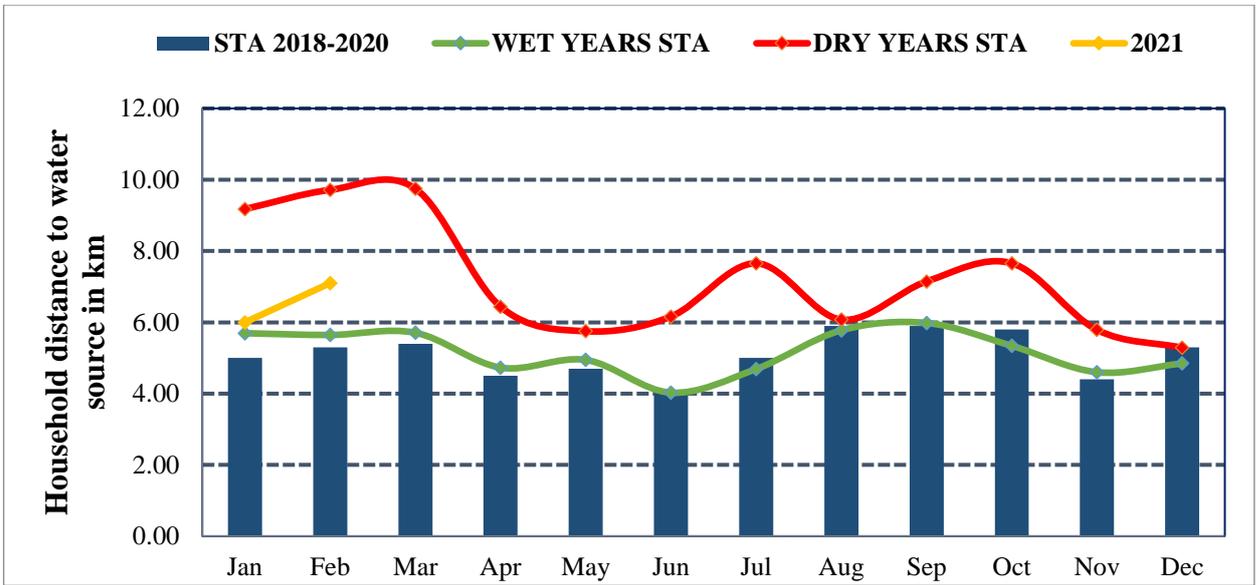


Figure 6: Average Distance Travelled by Households in Search of Water

2.2.3 Livestock Access (Grazing Distances to Water Points)

- Livestock continued to trek long distances in search water and pasture driven by shortage of water and forage as a result of ongoing dry spell. The current return average distance remained stable at 11.6 km compared to 11.2 km recorded in last month.
- Longest distances were reported in areas of Wamba West and Wamba North wards ranging between 14 – 23 km from grazing fields to watering points. The distances are projected to likely remain high as the received showers had insignificant impact on vegetation cover and water resources.
- The current return grazing distances are comparable to 2018 – 2020 average at the same time of the year (Figure 7).

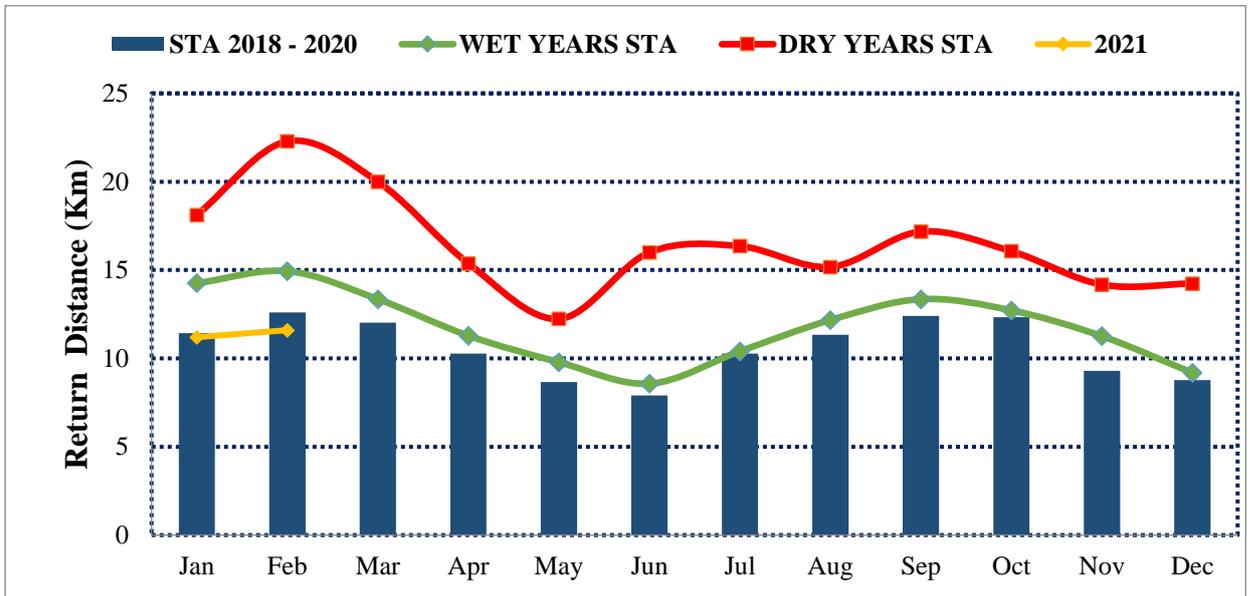


Figure 7: Distance Travelled from Grazing Areas to Water Points

3.0 PRODUCTION INDICATORS

3.1 Livestock Production

3.1.1 Livestock Body Condition

- Cattle body condition have demonstrated rapid deterioration driven by shortage of forage and water resources. In addition, livestock have been trekking long distances in search of pasture and water and even some skipping watering for a day or two. Cattle body condition is ranging between borderline (3 to 5 ribs visible) to thin body condition (slight muscle atrophy).
- Body condition for browser especially goats and camels are ranging between Moderate, good overall appearance to thin body condition due to availability of acacia pods which is more nutritious.
- The body condition is projected to decline till onset of 2021 long rains as available pastures and water resources in dry grazing areas diminish due to influx of livestock in search of forage as the dry spell persist.

3.1.2 Livestock Diseases and Deaths

- Recurring livestock diseases especially Foot and Mouth Disease (FMD) for cattle continued to be reported by community members. Outbreak of Newcastle has been controlled by the department of veterinary and vaccination undertaken.
- Endemic diseases such as contagious caprine pleuropneumonia (CCPP), Enterotoxaemia, Sheep and goat Pox were reported across the livelihood zones. No unusual occurrence of livestock mortalities reported across the livelihood zones.

3.1.3 Milk Production

- Milk production remained stable at 1.6 litres per household per day compared to 1.7 litres recorded in last month. The production decrease can be linked to cattle migrations to dry season grazing areas coupled with decline in livestock body condition.
- The current average amount of litres procure is equivalent to the long-term average as shown in figure 8 below.

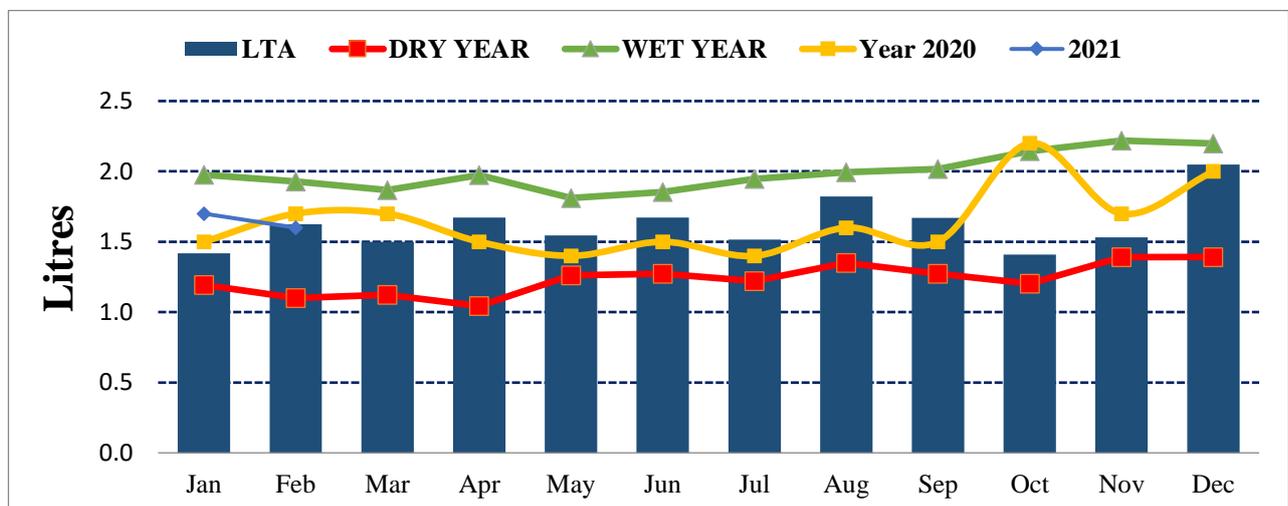


Figure 8: Trends in Milk Production per Household

3.2 Rain Fed Crop Production

3.2.1 Stage and Condition of Food Crops

- Land preparation is ongoing for maize and beans production in Agro Pastoral livelihood zones in readiness for long rains season.

3.2.2 Harvest of Crop

- No harvest was experience during the month under review.

4.0 MARKET PERFORMANCE

4.1 Livestock Prices

4.1.1 Cattle Prices

- The main monitored markets which include Maralal, Lekuru, Lolkuniani, Tangar and Latakweny are functional. However, volumes of livestock trade declined in some markets occasioned by migrations to *foras* in search of pastures.
- The current average cattle price decreased to Ksh 17,670 from Ksh 21,530 attributed to deterioration in cattle body condition. High prices were recorded in Lolkuniani and Lpus markets at an average of about Ksh 19,600 – 20,000 for a medium sized bull. Illaut market recorded the lowest price of around Ksh 15,000 for a medium sized bull.
- The current average price of Ksh 17,670 was below the 2018-2020 average by nine percent at the same time of the year (Figure 9).

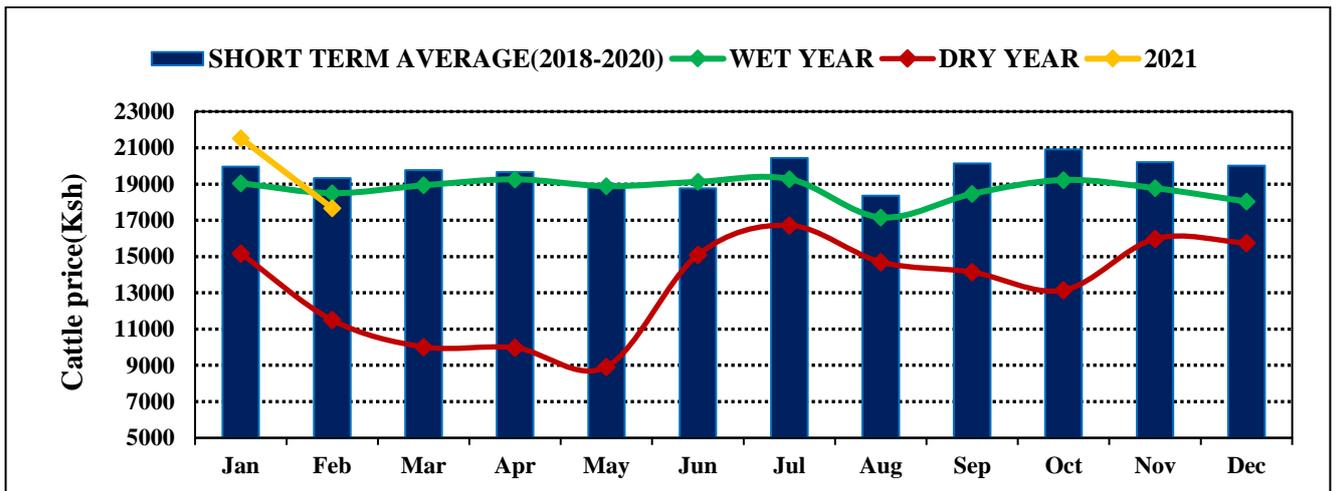


Figure 9: Cattle Selling Price Trends at Market Level

4.1.2 Goat Prices

- The goat prices like cattle prices also decreased owing to probably decline in body condition. The current average decreased by 13 percent to Ksh 2,920 from 3,339 in the month of January 2021. The decrease is likely associated slight deterioration of the body conditions.
- Lolkuniani market which is a terminal market recorded a high price averaging at Ksh 4,067 for a medium sized goat and Illaut market continued to reported low price of about Ksh 2,000 for a mature goat. The current average goat price of Ksh 2,920 is comparable to 2018-2020 average at same period of the year (Figure 10).

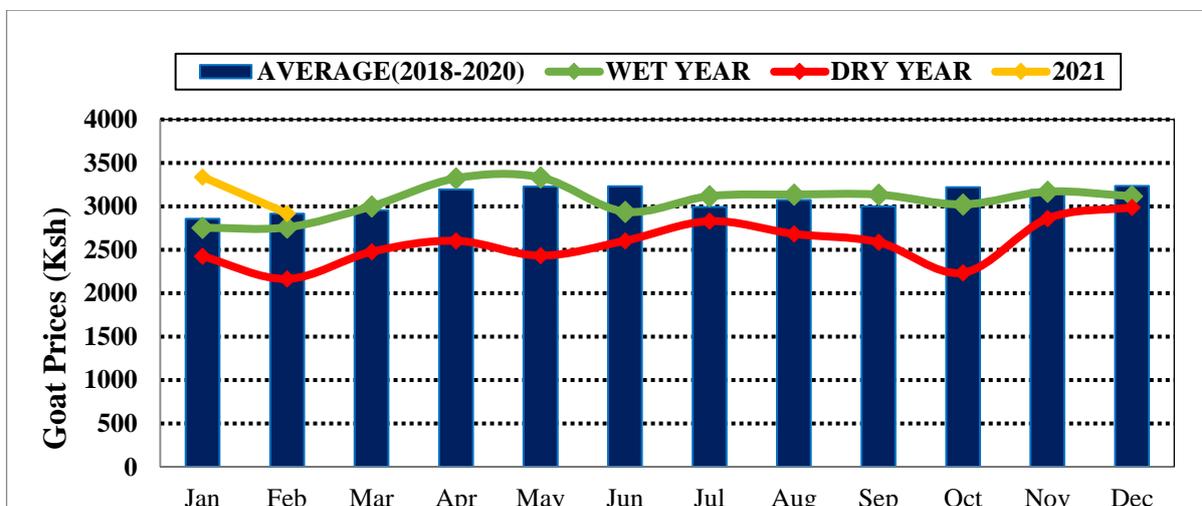


Figure 10: Goats' Selling Price Trends at market Level

4.1.3 Sheep Prices

- Sheep market and farmgate selling prices have also shown a notable decline trend as compared to last month reported average price. The decline is attributed to probably deterioration in body condition as the distances to access pasture and water increased as the dry spell persist.
- The current average price was Ksh 2,490 for a mature sheep which is nine percent lower than last month average price of Ksh 2,730.
- Key informant responses indicated that the highest sheep price of Ksh 3,000 was recorded in Lekuru market in Agro Pastoral livelihood zone. Low prices were reported in pastoral markets of Illaut and Baragoi at an average price of Ksh 2,000 for a sheep.
- The current average sheep price of Ksh 2,490 was comparable to the 2018-2020 average of Ksh 2,403 at this period of the year (Figure 11).

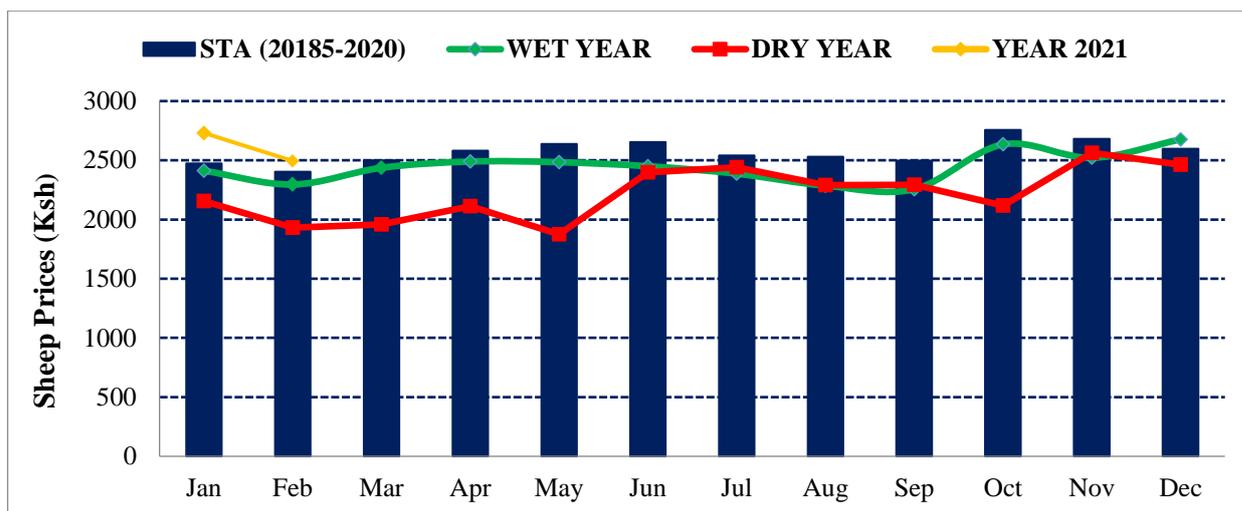


Figure 11: Sheep Selling Price Trends at Market Level

4.2 Crop Prices

4.2.1 Posho (Maize)

- Stability trends have been noticed in maize prices over a period of time attributed to availability of cereals in the markets driven by local harvests from the long rains harvest coupled with imports by traders from Meru, Nakuru and Uasin Gishu counties.
- The current average selling price was similar to that of last month at Ksh 46.7 per kilogram. Majority of sampled markets indicated selling price of Ksh 50 per kilogram with few remote markets reporting selling price of Ksh 60 per kilogram.
- The current average price of Ksh 46.7 was within the 2018 -2020 average of Ksh 48.2 at the same period of the year (Figure 12).

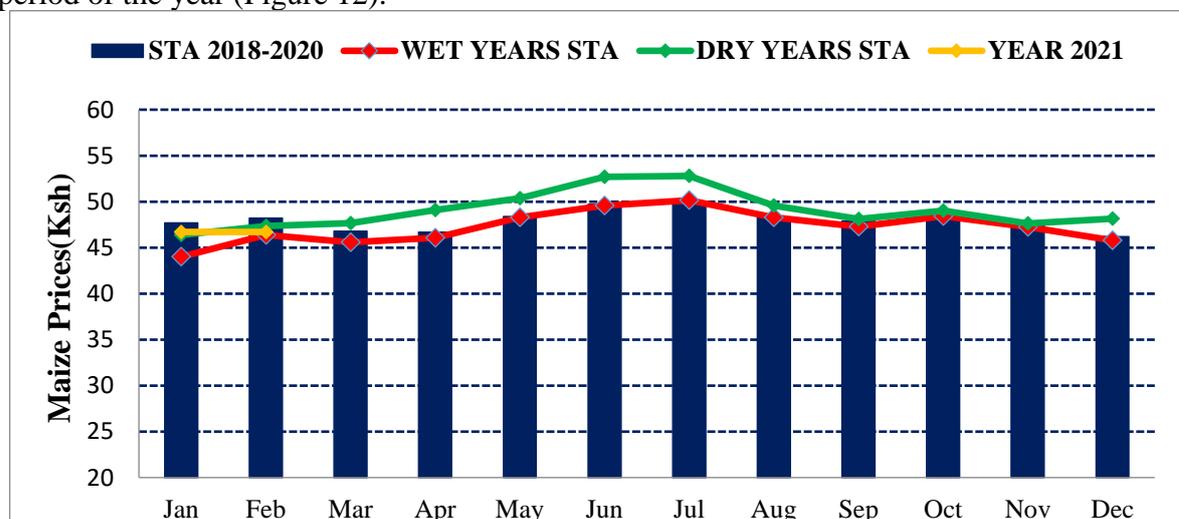


Figure 12: Maize Meal Price Trends

4.3 Terms of Trade (TOT)

- The goat to maize ratio decreased by about 12 percent standing at 63.2 kilograms of cereals from last month average of 71.5 kilograms obtained from income from mature goat. The decrease is attributed to decline in livestock market prices as a result of deterioration in livestock body condition.
- The highest goat to maize ratio was recorded in the Agro Pastoral livelihood zone at about 84.1 kilograms of cereals exchanged for a mature goat whereas households in Pastoral livelihood were able to obtain 72.2 kilograms of maize from income got by selling one mature goat.
- Despite the decrease, the current terms of trade are still favourable and comparable to 2018 – 2020 short term average at the same period of the year (Figure 13).

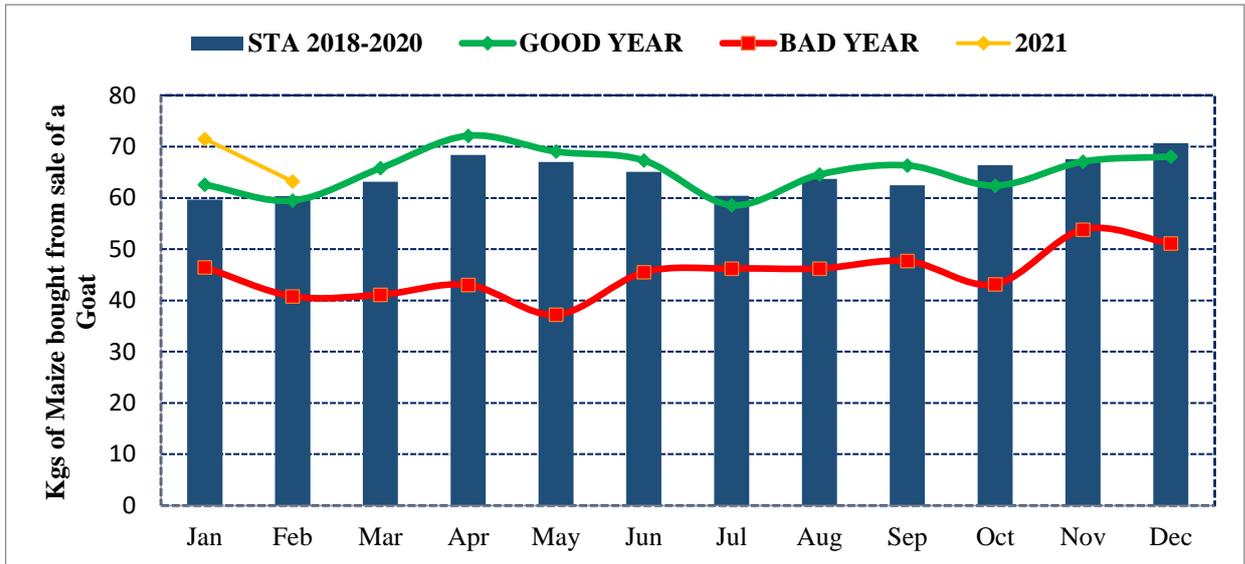


Figure 13: Trends in Terms of Trade (TOT)

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk Consumption

- Milk consumption remained stable compared to last month at around 1.2 litres per household per day. Consumption is currently restricted to under fives children and the old persons.
- A few households hawked milk in urban centres selling at Ksh 60 per litre except in a few pastoral areas selling camel milk at around Ksh 90 – 100 per litre.
- Milk consumption at household level was 12 percent below the long-term average at similar period of the year (Figure 14).

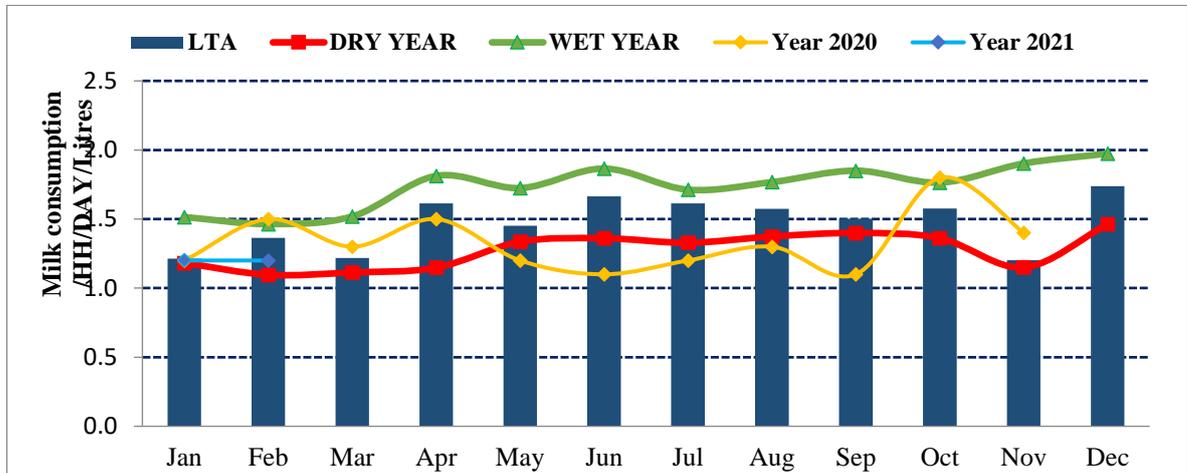


Figure 14: Trends in Milk Consumption per Household

5.2 Food Consumption Score (FCS)

- Generally, about 8.5 percent of households shifted from accepted band to borderline food consumption band. Households food stocks have depleted and likelihood of some households facing limited income to access food in the markets thus likely reduction of consumed food groups.
- The larger proportion of households had acceptable food consumption at around 73.3 percent in Agro Pastoral livelihood zone and 50.9 percent in Pastoral livelihood zone. Acceptable food consumption suggests that household are consuming staples and vegetables every day, frequently accompanied by oil and pulses and occasionally meat, fish and dairy.
- About 44.6 percent and 26.7 percent of the households had borderline food consumption in Pastoral and Agro Pastoral livelihood zones respectively implies HH consuming staples and vegetables every day, accompanied by oil and pulses a few times a week. Only 4.5 percent of the households had poor food consumption indicating consumption of staples and vegetables only daily in a week.

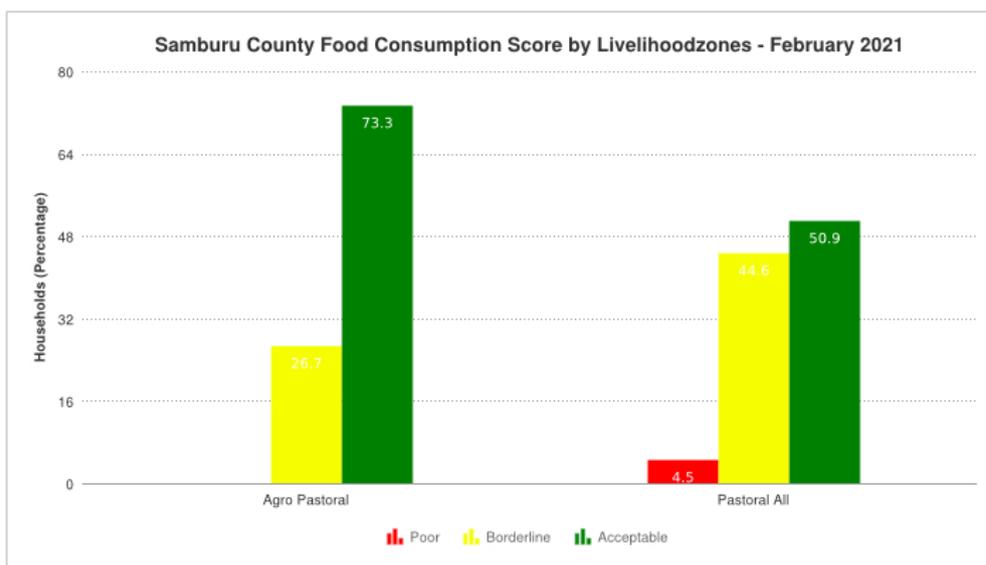


Figure 15: FCS Per Livelihood zone

5.3 Health and Nutrition Status

5.3.1 MID Upper-Arm Circumference (MUAC 125-134 mm)

- The proportion of severe and moderately (at risk) malnourished under five sampled children stand at 0.6 percent and 15 percent respectively. The malnutrition rates remained high due to poor maternal child care practices.
- Waso and Wamba North wards reported high rates of children at risk of malnutrition attributed to shortage of milk as livestock have migrated to Koom and Mathew ranges.

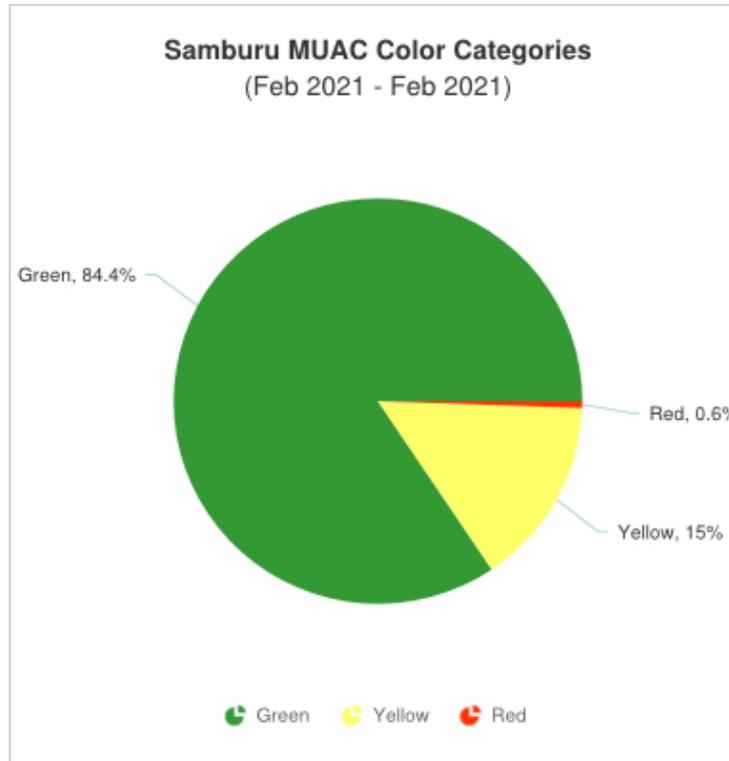


Figure 16: Nutritional Status (Family MUAC) for Children Under Five

5.3.2 Health

- Based on sampled households, majority of children reported to have had fever with breathing difficulties followed fever with chills like malaria. Other illness reported include Pneumonia and coughing.

5.4 Reduced Coping Strategies Index (rCSI)

- The mean coping index was 10.34 which was relatively stable compared to 10.57 recorded in last month. Households frequently relied on less preferred and/or less expensive food and reduced the portion of meals taken in a day and borrow from the neighbours.

6.0 CURRENT INTERVENTIONS AND RECOMMENDATIONS

6.1 Non-Food On-going Interventions

Table 1: Non-food On-going Interventions

SECTOR	INTERVENTION	IMPLEMENTERS
Livestock	<ul style="list-style-type: none">Vaccination against PPR and Newcastle	County Department of Veterinary, RPLRP
Water	<ul style="list-style-type: none">Water truckingRepair and servicing of the non-functional boreholes	County Government and Partners
Agriculture	<ul style="list-style-type: none">Ongoing construction of Kurungu livestock sale yard	DRSLP
Health	<ul style="list-style-type: none">Community led total sanitation (CLTS)	MOH

6.2 FOOD AID

- There was no humanitarian relief food aid distributed during the period under review.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- Recurring communal conflicts continued to be reported in the areas surrounding Baragoi between the Samburu and Turkana communities living in Samburu north sub county. However, the incidences were minimal during the month of February 2021 but tension is high as herder's scuffle for available rangeland resources. The conflicts have led to loss of lives, livelihoods and limited access to grazing fields with pastures.

7.2 Migration

- Livestock especially cattle are still grazing in dry season fields especially in Kirisia hills, Matthew ranges, areas of Marti, Suiyan, Elbarta plains, Ndoto and Nyiro hills. A number of livestock from Samburu East migrated towards Koom along the border of Samburu and Isiolo counties.

7.3 Food Security Prognosis

- According to Kenya Meteorology monthly forecast, the first two weeks of the March are likely to be sunny and dry. High temperatures (30°C to 40°C) are expected to prevail in most places during the month.
- The condition of pasture and water resources are likely to deplete further in the next two weeks and likely to improve if the expected long rains onset sets in as forecasted to start in 3rd or 4th week of the month.
- Body condition may likely deteriorate through end of March 2021 consequence negatively affecting livestock market prices and milk production.
- Livestock migration likely to intensify in search of pastures and water through end of March 2021 when the March to May 2021 long rains is expected to commence.
- According to FAO locust situation update (3rd March 2021), suggests likelihood that the showers that fell during the last week of February 2021 may allow swarms to mature rapidly in northern Kenya and lay eggs that could hatch in late March, causing small hopper bands to form. However, breeding this spring is likely to be limited as control operations continue to reduce current infestations and well below-normal rains are forecasted.

RECOMMENDATIONS

Table 2: Proposed Interventions per Sector

SECTOR	INTERVENTION	Areas
Water	<ul style="list-style-type: none"> • Water trucking to schools and provision of fuel subsidy strategic boreholes. 	<ul style="list-style-type: none"> • Samburu north and east sub counties
Agriculture	<ul style="list-style-type: none"> • Repair and maintenance of community tractors. 	<ul style="list-style-type: none"> • Samburu central
Livestock	<ul style="list-style-type: none"> • FMD ring vaccination • Facilitate peaceful access to pastures in conflict prone areas 	<ul style="list-style-type: none"> • County wide
Health and Nutrition	<ul style="list-style-type: none"> • Integrated medical outreaches to hard-to-reach areas in the county. 	<ul style="list-style-type: none"> • Health Facilities
Peace and Security	<ul style="list-style-type: none"> • Continuous inclusive peace dialogue initiatives in warring communities. 	<ul style="list-style-type: none"> • Samburu north
Social Protection	<ul style="list-style-type: none"> • Upscaling of cash transfers to more vulnerable households 	<ul style="list-style-type: none"> • County wide