




A Vision 2030 Flagship Project
National Drought Management Authority
SAMBURU COUNTY
DROUGHT EARLY WARNING BULLETIN FOR MAY 2020

MAY 2020 EW PHASE

Drought Status: **NORMAL**



Shughuli za kawaida

Early Warning Phase Classification

| LIVELIHOOD ZONE | EW PHASE | TRENDS |
|------------------|----------|--------|
| Agro-pastoral | Normal | Stable |
| Pastoral (North) | Normal | Stable |
| Pastoral (East) | Normal | Stable |
| County | Normal | Stable |

| Biophysical Indicators | Value | Normal range/Value |
|---------------------------|-------|--------------------|
| VCI-3month (County) | 74.58 | 35-50 |
| VCI-3month -Samburu East | 69.34 | 35-50 |
| VCI-3month -Samburu North | 78.89 | 35-50 |
| VCI-3month-Samburu West | 81.14 | 35-50 |

| Production indicators | Value | Normal ranges |
|---------------------------------|------------------------------------|------------------------|
| Livestock Migration Pattern | No Migration | No Migration |
| Livestock Body Conditions | Moderate to Good smooth appearance | Good Smooth appearance |
| Milk Production | 1.4 | >1.55 |
| Livestock deaths due to drought | No death. | No death |

| Access Indicators | Value | Normal ranges | |
|----------------------|---------------|---------------|--------|
| Terms of Trade (TOT) | 73.2 | >44.58 | |
| Milk Consumption | 1.2 | >1.45 | |
| Return distance (km) | Household | 4.2 | <5.23 |
| | Livestock | 6.7 | <10.64 |
| Acceptable FCS (%) | Pastoral | 59.7 | 100 |
| | Agro pastoral | 86.7 | 100 |

| Utilization indicators | Value | Normal ranges | |
|------------------------|-------|---------------|-----|
| MUAC (%) | 26.2 | <15.82 | |
| crisp | Mean | 11.05 | <56 |

Drought Situation & EW Phase Classification

Biophysical Indicators

- Long rains cessation was timely occurring in the last dekad of May.
- Pasture and browse conditions have remained good both in terms of quality and quantity across the livelihoods. The vegetation condition index indicates above normal vegetation greenness.

Socio Economic Indicators Details

- Trekking distances for household and livestock have remained below the long-term average.
- No migrations of livestock reported as a result of lack of pasture.
- Slight decrease was noticed in milk production and consumption at household level.
- Livestock body conditions remained good to fair.
- Market prices for all livestock species remained above normal during the period under review.
- Prices for maize/*posho* remained stable compared to last month prices.
- Favourable terms of trade continued to be noticed across the livelihood zones.
- The rate of children under five years of age worsened as measured by Mid Upper Arm Circumference (MUAC).

| | | | | | | | | | | | |
|--|---|---|---|-----|-----|-----|-----|------|-----|-----|-----|
| <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 March – April – May 2020 rainfall season had a false onset on the first and third dekads of March which eventually set in fully on the second dekad of April which was late as compared to normally third dekad of March. During the month of May, above normal rainfall was received in the first dekad although subsidize to below normal in the second dekad. The third dekad was predominantly characterized by dry weather conditions.
- The county experienced timely cessation for the March – April – May 2020 rainfall season in the third dekad (last week) of the month of May.

1.2 Amount of Rainfall and Spatial Distribution

- The rainfall amounts received in the first dekad was 120 percent above normal however it subsidized to below normal by 31 percent in both second and decades as per the satellite rainfall estimates. The total cumulative rainfall received on average in month of May according to Climate Hazards Group InfraRed Precipitation with Station data (CHIRPS) was 51.176 mm (Figure 1).
- During the period under review, rainfall received had fair spatial and temporal distribution across the county.

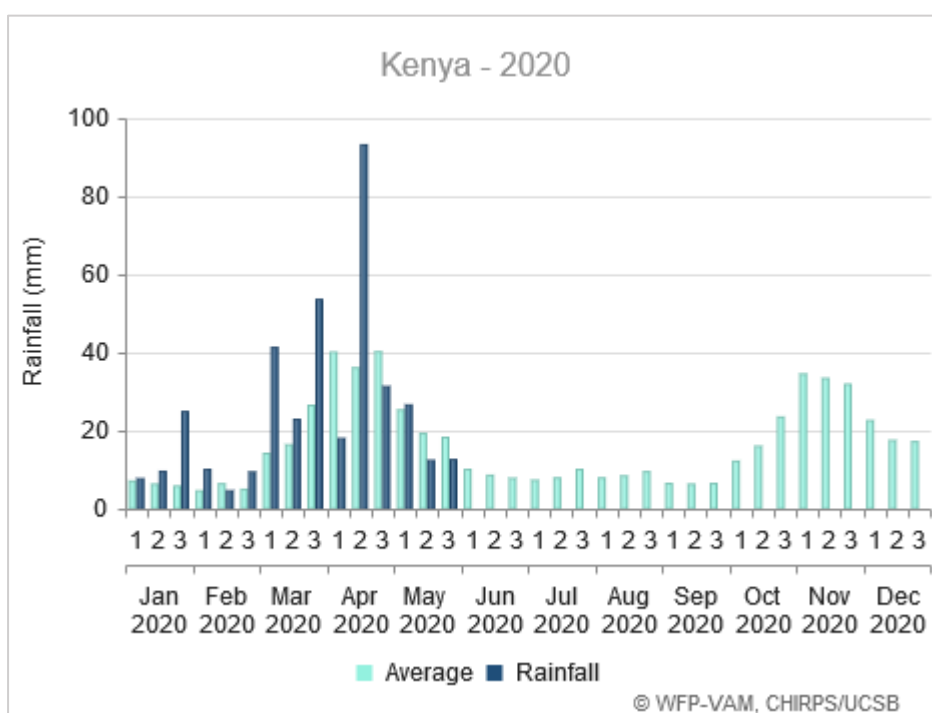


Figure 1: Graph Showing Rainfall Estimates (RFE) Trends for Samburu County (Source : WFP-VAM, CHIRPS/UCSB)

1.3 Other Events

1.3.1 Desert Locust Invasion

- Swarms of desert locust were sighted in parts of Nyiro, Ndoto and Wamba west wards. Aerial spray was conducted in areas where swarms of locust were reported.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 Vegetation Condition

2.1.1 Vegetation Condition Index (3 month-VCI)

- Vegetation condition remained relatively good across the county attributed to enhanced long rains that replenished the vegetation cover both in terms of quality and quantity.
- According to satellite imagery, the vegetation cover greenness remained above normal across the livelihood zones. Pasture and browse are likely to deteriorate in the next month as the long rain ceased.

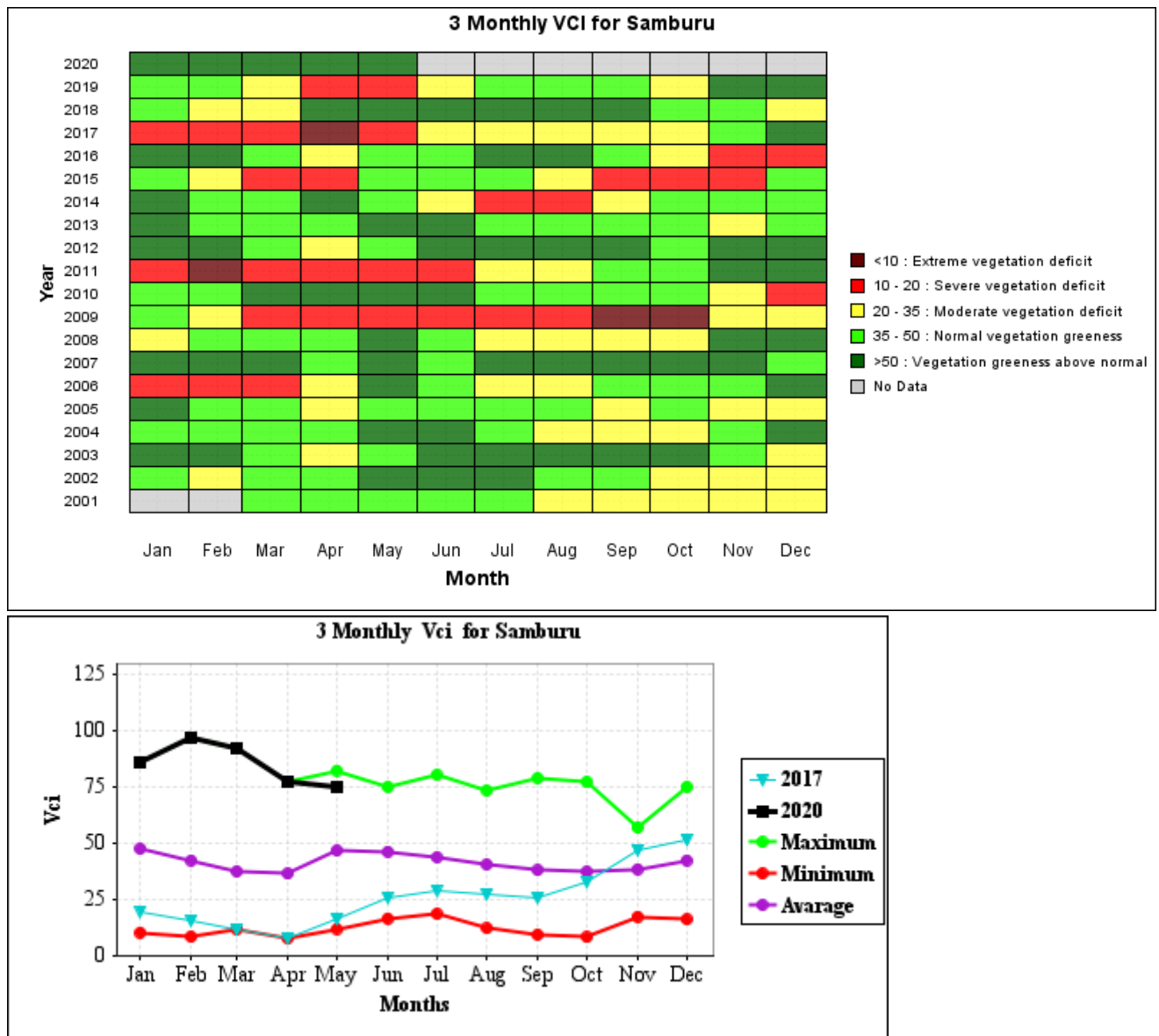


Figure 2: Matrix and Graph Showing VCI Trends for Samburu County
(Source: Boku University)

2.1.2 Field Observations (Pasture and Browse Conditions)

Quality and Quantity

- The precipitation received in the towards end of April that progressed into the month of May supported rejuvenation of rangeland resources across the county.
- According to interviewed key informants, vegetation has improved with 94.7 percent of respondents reporting pasture was good which was an improvement from 77.3 percent reported last month. Majority of key informants approximately 89.5 percent reported browse was good (Figure 3).

- Forage condition has remained above the normal at this time of the year due to good performance of the 2019 October to December and the 2020 March to May 2020 rainfall seasons.

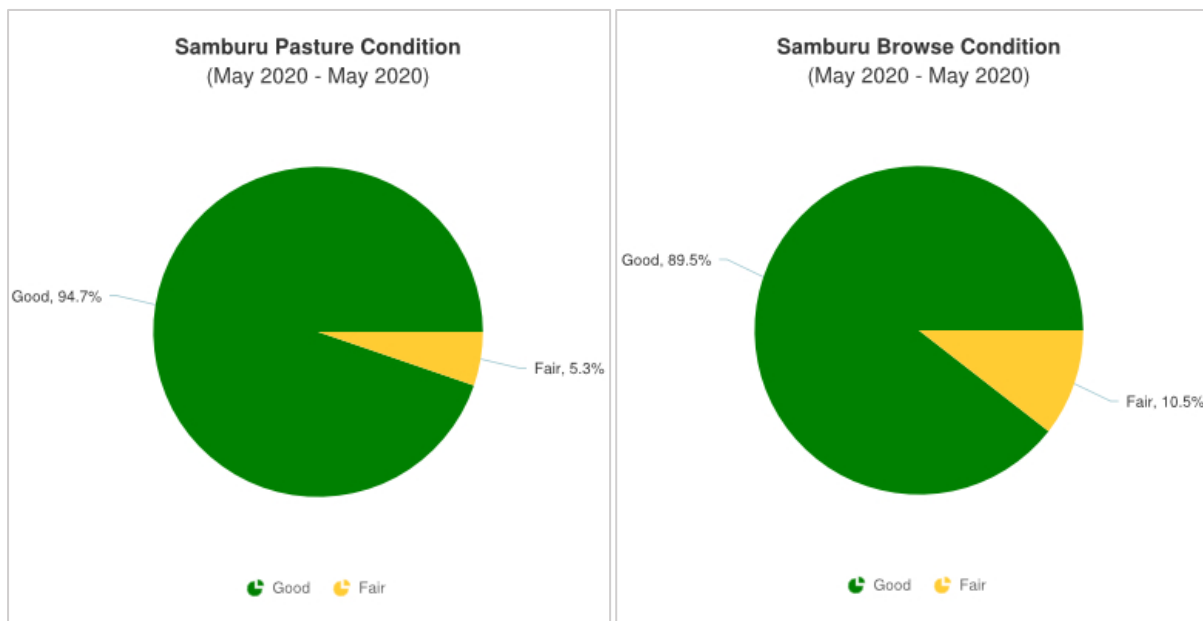


Figure 3: Pasture and Browse Condition

2.2. Water Resource

2.2.1 Sources

- Water resources especially surface water sources have remained fully recharge supported by surface runoff as a result of the enhance rainfall. Majority of households approximately 46.6 percent reported getting water from Natural ponds and hand dung for both domestic and livestock use. The water in open surface sources is of high turbid due to soil erosion resulting of heavy surface runoff.
- Other water sources that were used by households include water pans and boreholes accounting for 22.2 and 11.1 percent of the water sources (Figure 4).
- Currently used water sources both for domestic and livestock use are normal at this season of the year.

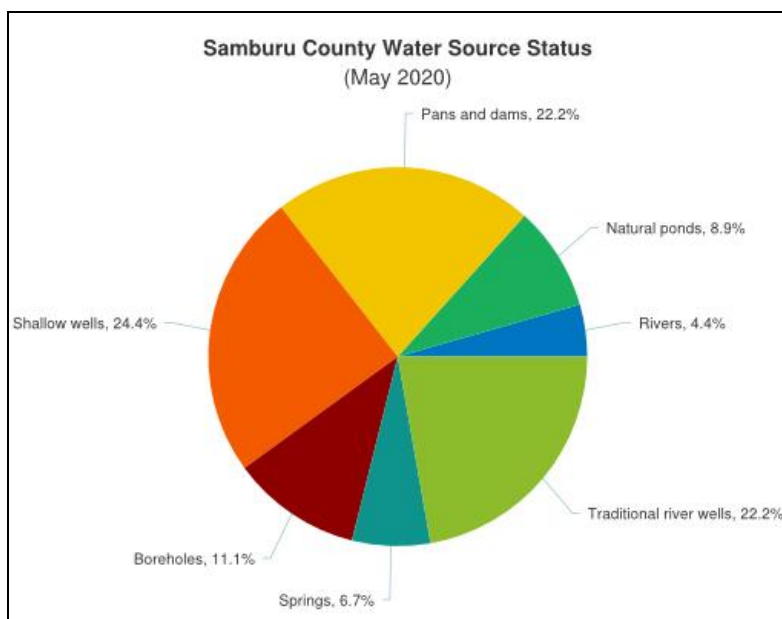


Figure 4: Common Water Sources

2.2.2 Household Access and Utilization

- A slight increase was noticed in household trekking distances to water points. The increase can be attributed to turbidity in surface water sources occasioning household to seek water from boreholes and underground sources for cooking and drinking.
- Current average trekking distance for household was 4.2 km compared to 3.2 km reported in the month of April.
- The current average distance of 4.2 km was below the long-term average by 20 percent at the same period of the year (Figure 5).

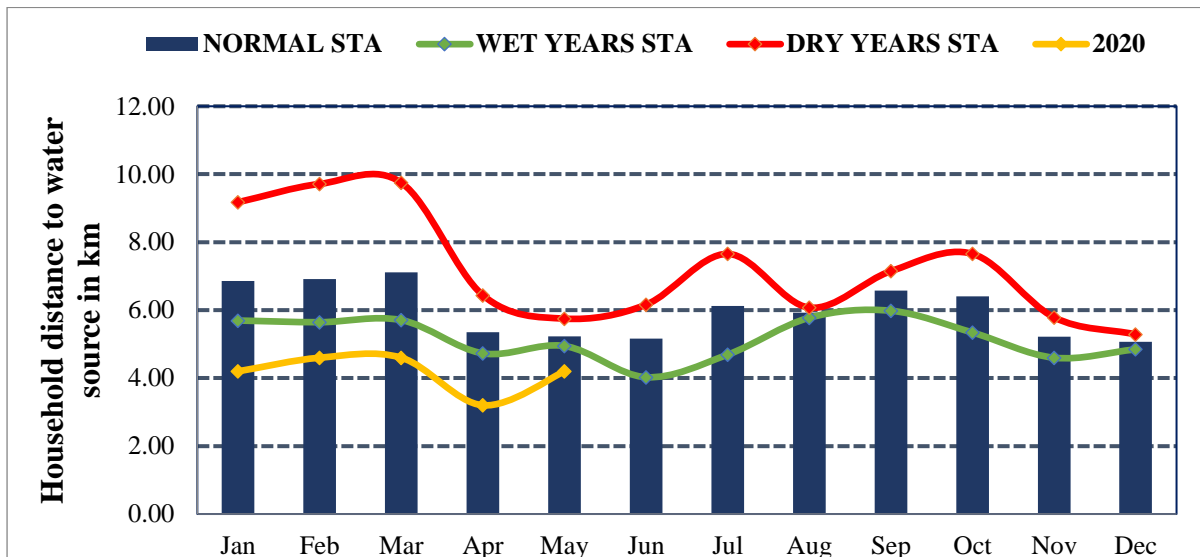


Figure 5: Average Distance Travelled by Households in Search of Water

2.2.3 Livestock Access (Grazing Distances to Water Points)

- Downward trend has been observed in livestock trekking distance since the onset of the long rains in the county. The near average rainfall with tendency to above normal has supported improvement in rangeland resources thus resulting in reduction in trekking distances.
- According to sampled key informants, majority of livestock keepers reported an average distance of 6.7 km from grazing fields to watering points down from 8.6 km recorded last month.
- High trekking distances continued to be reported in Wamba west and Waso wards ranging between 8 – 10 km.
- In comparison to the long-term average, the current average trekking of 6.7 km remained below the short-term average by 37 percent at similar time of the year (Figure 6).

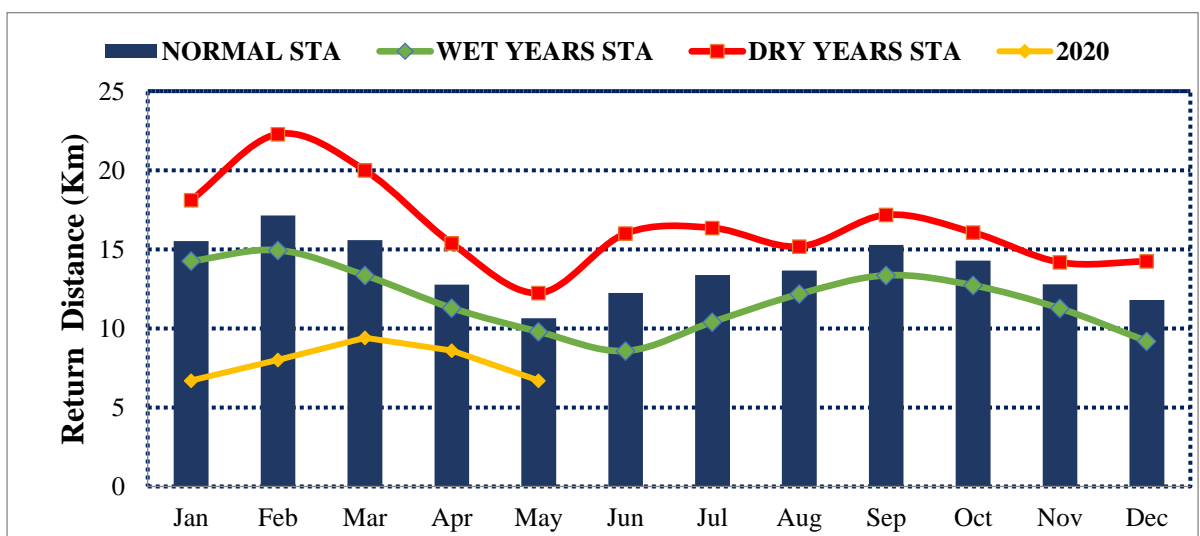


Figure 6: Distance Travelled from Grazing Areas to Water Points

3.0 PRODUCTION INDICATORS

3.1 Livestock Production

3.1.1 Livestock Body Condition

- Livestock body conditions for all species have remained relatively good across the livelihood zones supported by improved rangeland resources especially pasture, browse and water. The current body condition is very good smooth with fat over back and tail head as per the livestock body condition scoring chart (Annex 1).

3.1.2 Livestock Diseases and Deaths

- There was an upsurge of East Coast Fever (ECF) in Samburu central with few reported fatalities of cattle. Endemic diseases such as contagious caprine pleuropneumonia (CCPP), Trypanosomiasis and Mange were reported across the county. No unusual occurrence of livestock mortalities reported across the livelihood zones.

3.1.3 Milk Production

- Milk production was stable compared to last month with current production averaging at 1.4 litres per household per day compared to 1.5 litres in the month of April. The current production was nine percent below the long-term average. Majority of cattle are currently in gestation period resulting in weaning of calves.

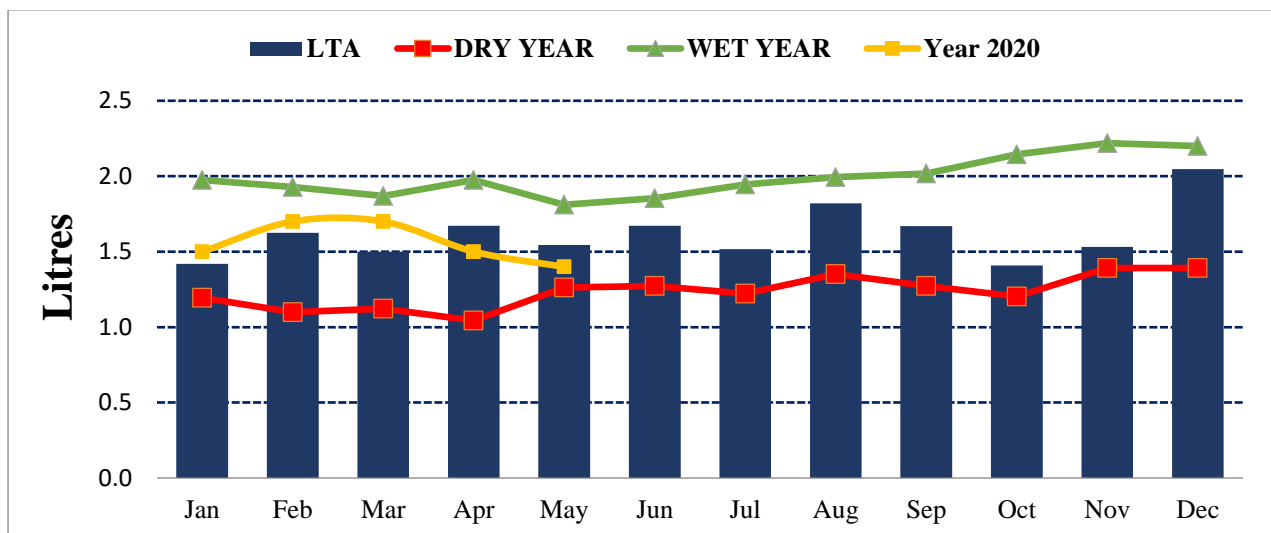


Figure 7: Trends in Milk Production per Household

3.2 Rain Fed Crop Production

3.2.1 Stage and Condition of Food Crops

- Crops planted earlier before the start of the long rains are currently knee high for maize and flowering for beans while others are at germination stage.
- Majority of farmers are still doing first weeding with a few that dry planted doing second weeding at their farms.

3.2.2 Harvest of Crop

- Currently no harvest realized in the month of May.

4.0 MARKET PERFORMANCE

4.1 Livestock Prices

4.1.1 Cattle Prices

- There was a slight decline in cattle average selling price from last month average selling price however remained above the long-term average at the same time. The decline was attributed to low operationalization of markets due to COVID 19 government directives on social distancing and avoiding overcrowding that affected market operations.
- Currently sampled main markets reported an average selling price of Ksh 18,800 for a medium sized bull down from Ksh 20,300 recorded in the month of April.
- Lolkuniani market which is a terminal market to feeder markets in the pastoral livelihood zone continued to record high prices averaging at Ksh 25,500 and Baragoi market situated in conflict prone zone had the lowest price of Ksh 13,000.
- The current price was 24 percent above the 2015 – 2019 long term average at similar time of the year (Figure 8).

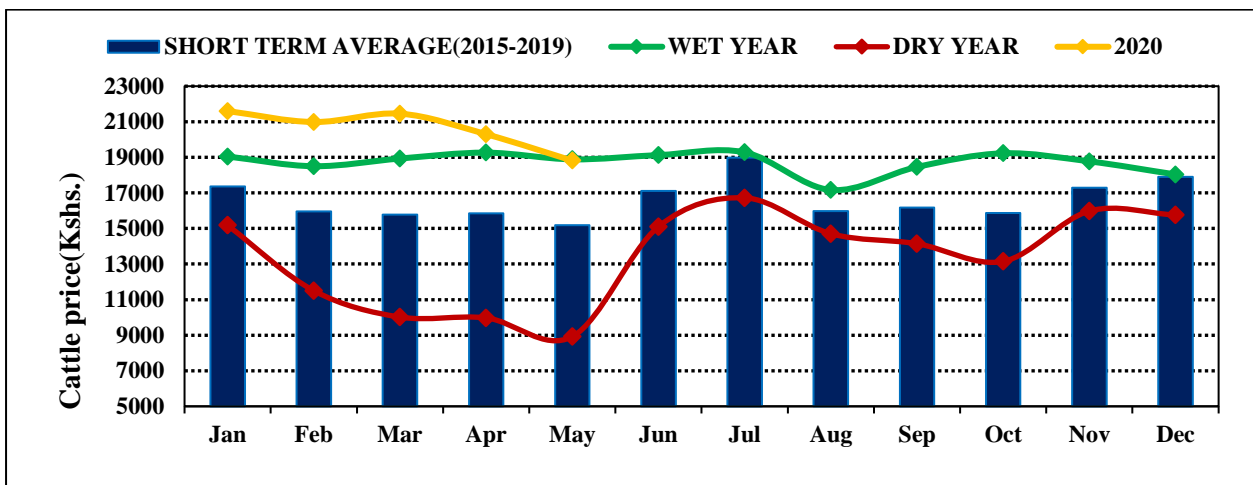


Figure 8: Graph Showing Cattle Selling Price Trends at Market Level

4.1.2 Goat Prices

- The body condition for goats have generally remained good driven by favourable weather conditions that supported good forage conditions across the livelihood zones. This has supported good market prices for goats in the markets. The current average market selling price for a medium sized goat has stabilised at Ksh 3,570 as compared to Ksh 3,560 reported in last month. High prices for mature goat were noticed in terminal market of Lolkuniani averaging at Ksh 4,625 and lowest average price recorded in Baragoi at Ksh 2,800.

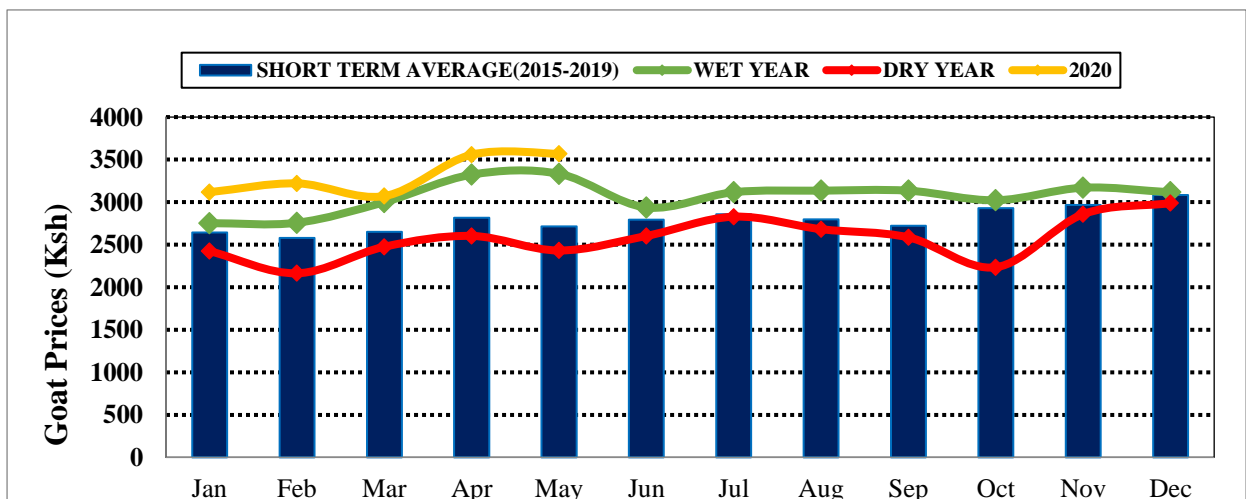


Figure 9: Graph Showing Goats' Selling Price Trends at market Level

4.1.3 Sheep Prices

- Gradual upward trend has been noticed in sheep prices at the market due to good body conditions as a result of favourable rangeland resources. The current average price stand at Ksh 2,900 compared to Ksh 2,730 recorded last month.
- Like cattle and sheep, high sheep prices were recorded in Lolkuniani market with an average price of Ksh 3,150 and lowest in Baragoi market at Ksh 2,500.
- Comparison to 2015 – 2019 long term average, the current price was 27 percent above the long-term average at the same time of the year.

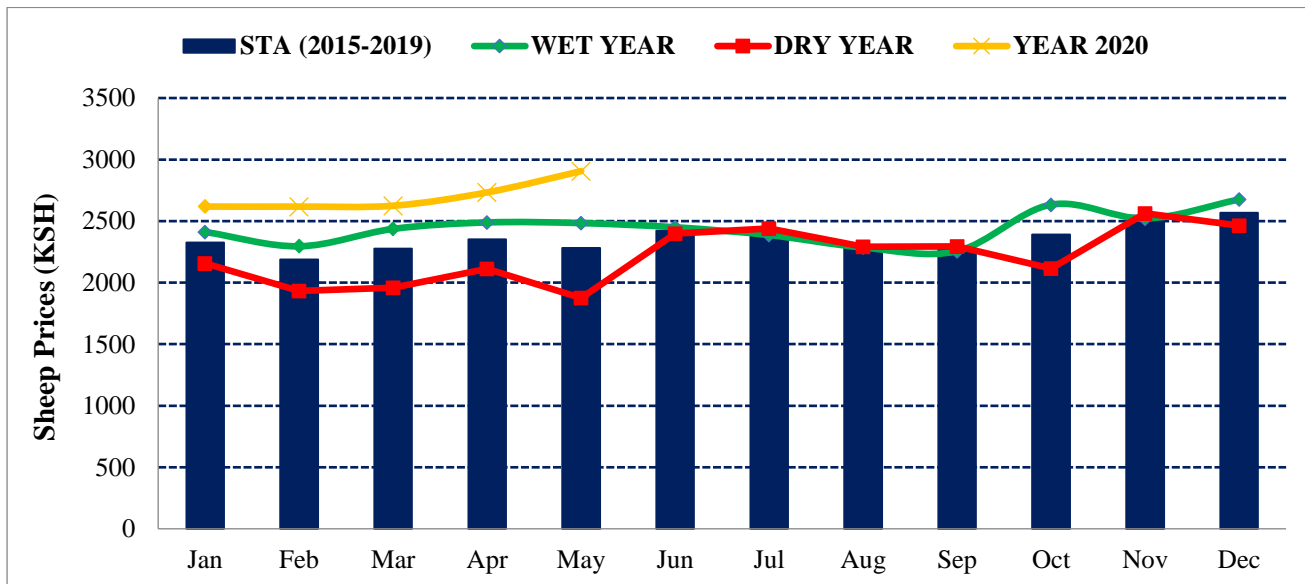


Figure 10: Graph Showing Sheep Selling Price Trends at Market Level

4.2 Crop Prices

4.2.1 Posho (Milled Maize)

- Maize prices have been relatively stable since March with the current average price of Ksh 49 per kilogram (Kg) compared to Ksh 48 per Kg recorded last month.
- The stable prices have been attributed to last two season harvest and imports by traders from Meru, Nakuru and Uasin Gishu counties.
- Sampled main market in the county reported selling price of Ksh 50 per Kg except Archers post market that reported a price of Ksh 40 per Kg attributed to its close proximity to Meru and Nanyuki connected by a tarmac road.

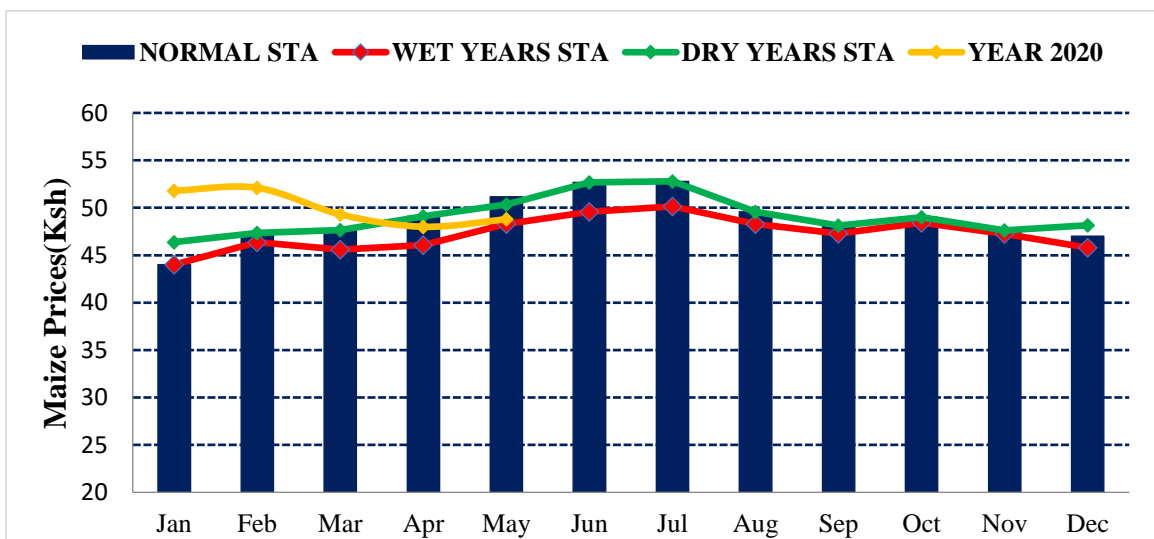


Figure 11: Graph Showing Maize Meal Price Trends

4.3 Livestock Price Ratio/Terms of Trade (TOT)

- The current goat to maize ration is stable compared to last month with households currently exchanging a medium sized goat with 73.2 kilograms of maize.
- Terms of trade have been favourable for livestock keepers as they have been above the long-term average due to good livestock body conditions thus fetching better price at the markets.
- Households in agro pastoral were able to purchase 88.3 kilograms of cereals from proceeds of one goat attributed to improved livestock breeds thus attracting better price while pastoral households fetched 66.2 kilograms.
- During the period under review, terms of trade was 64 percent above the long-term average at the same period of the year (Figure 12).

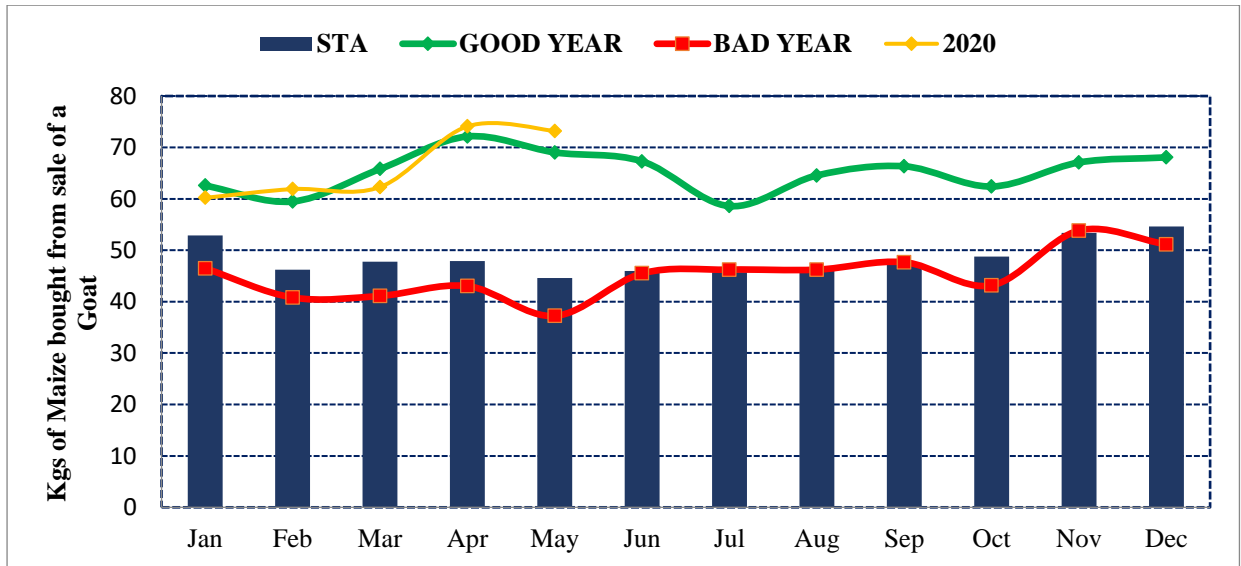


Figure 12: Trends in Terms of Trade (TOT)

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk Consumption

- Slight decline was noticed in mil consumption at household level attributed to low milk production due to a number of livestock being in gestation period thus weaning calves.
- According to community interviews, most households reported that available milk was consumed by children under five and the elderly. The remaining amount of milk was sold at around Ksh 60 – 70 per litres and in some areas, camel milk is sold at Ksh 80 – 100 per litre.

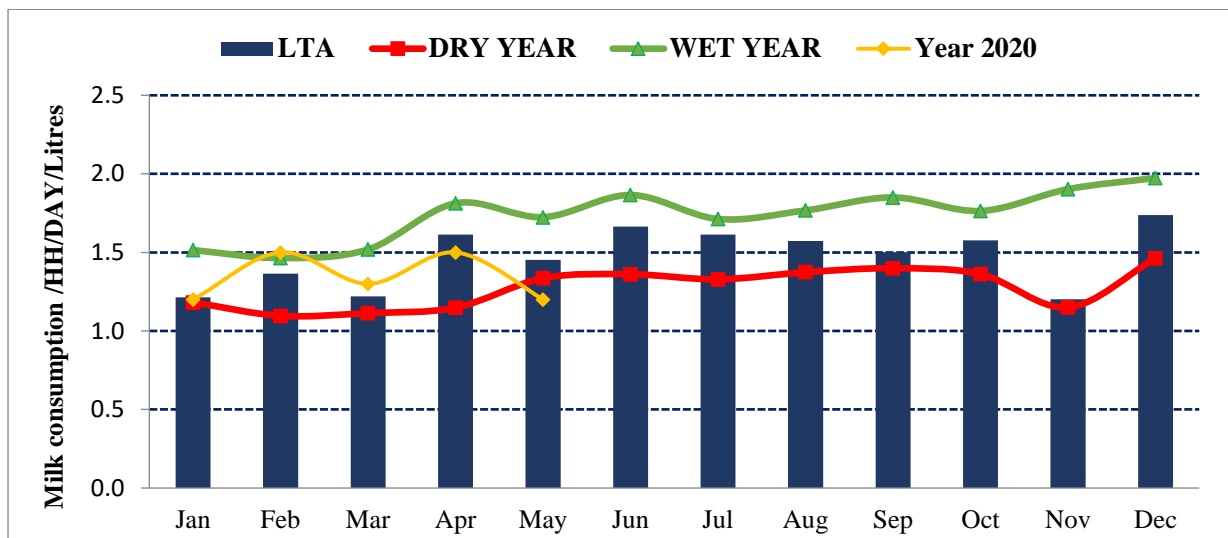


Figure 13: Trends in Milk Consumption per Household

5.2 Food Consumption Score (FCS)

- Household food consumption patterns have improved in agro pastoral livelihood zone due to improved dietary diversity. The proportion of households with acceptable food consumption score improved to 86.7 percent up from 77.8 percent in last month. The improvement was attributed to availability of green traditional vegetables, cereals and milk at household and market level.
- In pastoral livelihood, a slight shift of 12.1 percent towards borderline with the proportion of households in acceptable band standing at 59.7 percent compared to 64.5 percent in the month of April. Households in pastoral areas are entirely market dependants for food commodities which are currently not fully provisioned with food items due to COVID 19 restrictions.

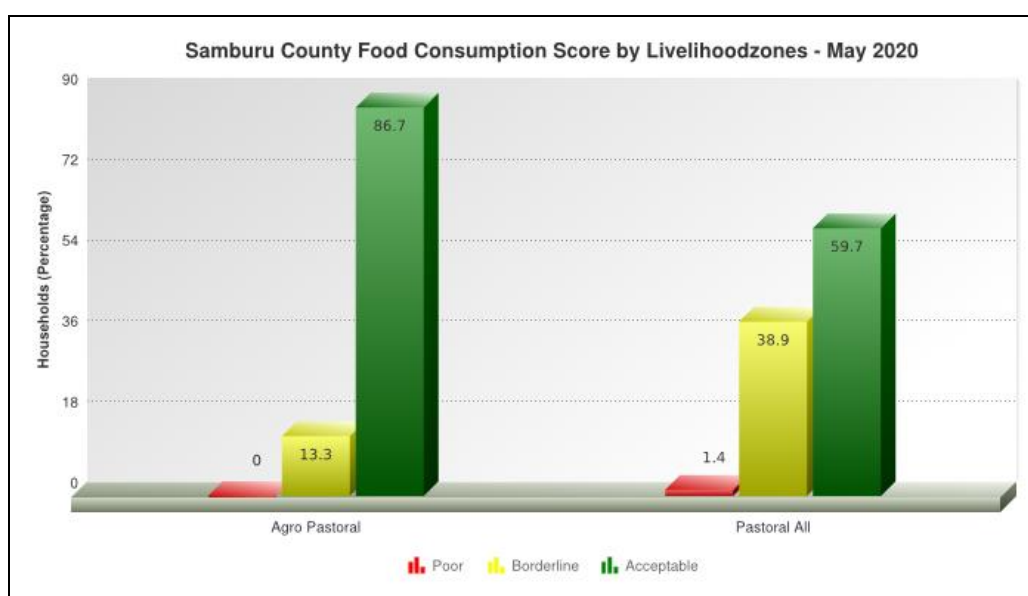


Figure 14: Bar Chart Showing FCS Per Livelihood zone

5.3 Health and Nutrition Status

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

- The proportion of children at risk of malnutrition has maintained upward trend for the last three months. The increase was attributed low access to health services due to fear of transmission of COVID 19 thus some caregivers are not taking their children for routine services.
- Current rate of children at risk of malnutrition stands at 26.2 percent which indicates that majority of children are at risk for acute malnutrition.
- High rates of children at risk of malnutrition were noticed in Ndoto, Nachola and Wamba West ranging between 32.7 and 38.7 percent.

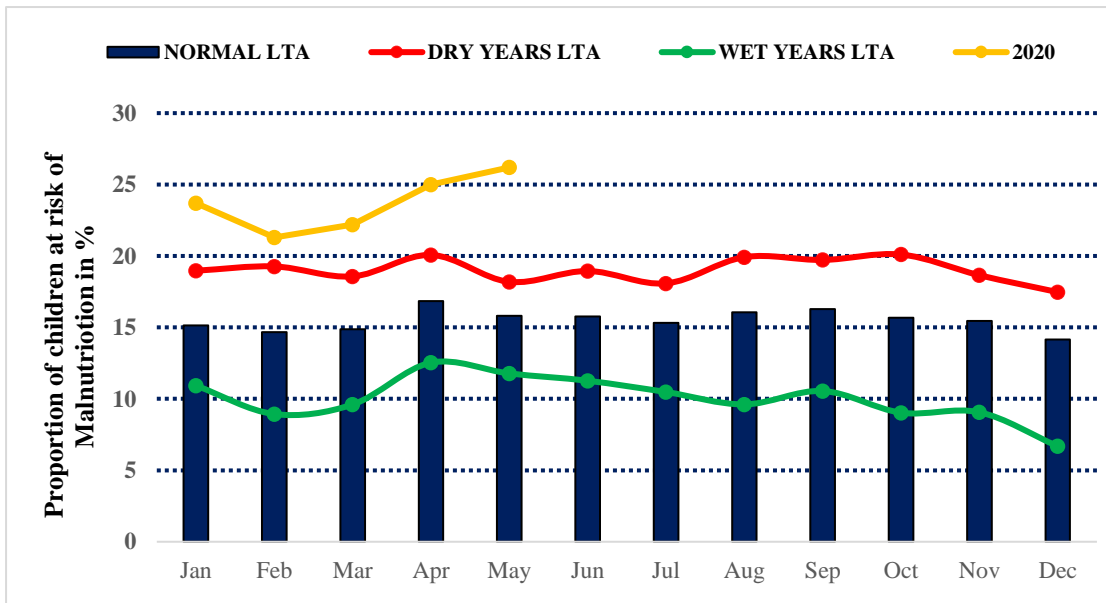


Figure 15: Graph showing average Nutritional status (MUAC)

5.3.2 Health

- The most common reported illness at facility level include upper respiratory tract infections (URTI), diarrhoea and pneumonia for both under five and general population as per Kenya Health Information System (KHIS) monthly data.

5.4 Reduced Coping Strategies Index (rCSI)

- Coping mechanisms at community level was stable compared to last month with rCSI average of 11.05 from 10.81 recorded last month.
- Coping strategy index for pastoral households remained similar as last month at 11.4 while households in agro pastoral livelihoods employing less severe strategies with an index of 9.2 from 9.8 reported last month.
- Households reported frequently employing the following which include 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"> Provision of pasture seeds to farmers in Samburu central | County department of Livestock |
| | <ul style="list-style-type: none"> Completion of grain warehouse at Lolmolog in Suguta ward and livestock sale at Lpus in Wamba west ward. | RPLRP |
| Water | <ul style="list-style-type: none"> Equipping of drilled boreholes | County Government |
| Agriculture | <ul style="list-style-type: none"> Ongoing Aerial and ground spray of desert locust in Samburu east sub county | County Government, National Government, FAO, NYS, KDF |
| Health | <ul style="list-style-type: none"> Community sensitization on prevention of COVID 19 pandemic | MOH and Partners |
| | <ul style="list-style-type: none"> Distribution of masks, Hand washing buckets and sanitizers | KDEF |
| Public Works | <ul style="list-style-type: none"> Grading and gravelling of Marram roads | County Government, KeRRA |

6.2 FOOD AID

- Kenya Dryland Education Fund (KDEF) distribution food items to vulnerable households in Loosuk, Lodokejek and Suguta wards

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- No incidences of cattle rustling reported in the month of May however few isolated cases of road banditry were reported along the Maralal – Wamba road and Maralal – Posta highway.

7.2 Migration

- A larger proportion of cattle in Kirisia forest have migrated to Laikipia north sub county and others to Angata Nanyukie ward due to government order through Kenya Forest Service to evict people from water towers or catchment areas.
- Livestock in other areas are currently grazing within the homesteads in the wet season grazing areas.

7.3 Food Security Prognosis

- The June 2020 weather outlook indicates that the highlands west of the Rift Valley and parts of central and southern Rift Valley are likely to receive near normal rainfall tending to above normal rainfall. This rainfall may occasionally spread eastwards into the Highlands East of the Rift Valley and Nairobi as per Kenya Meteorology department.
- Forage condition is expected to remained good to fair through end June 2020 across the livelihood zones thus supporting enhanced livestock productivity.
- Maize market prices are likely to remain typically stable and near average to above average for the next one month.
- Slow operation of markets due to fears of COVID 19 pandemic is likely negatively affect livestock market prices.
- The ongoing locust invasion that laid eggs and hatched nymphs is projected to cause ravage to forage and expected long rains crops to be planted in March.

8.0 RECOMMENDATIONS

Table 2: Proposed Interventions per Sector

| SECTOR | INTERVENTION | Areas |
|--------------------|--|---|
| Agriculture | <ul style="list-style-type: none">• Upscaling aerial and ground spraying of desert locust across the county to control spread of Nymphs (Hoppers) | <ul style="list-style-type: none">• County wide |
| Livestock | <ul style="list-style-type: none">• Vaccination against FMD, CCPP, Enterotoxaemia diseases | <ul style="list-style-type: none">• Pastoral livelihood zones |
| Health | <ul style="list-style-type: none">• Sensitization of good hygiene (hand washing), social distancing and symptoms of COVID 19.• Sensitization on treatment of drinking water as most households are accessing water from unprotected sources | <ul style="list-style-type: none">• County wide |

Annexes

Table 3: Livestock Body Condition Scoring Chart

| Score | Body Condition | Warning Stage |
|-------|--|-----------------------|
| 1 | Emaciated, little muscle left | Emergency |
| 2 | Very thin no fat, bones visible | |
| 3 | Thin fore ribs visible | Alert Worsening/Alarm |
| 4 | Borderline fore-ribs not visible. 12th & 13th ribs visible | Alert |
| 5 | Moderate. neither fat nor thin | Normal/Alert |
| 6 | Good smooth appearance | |
| 7 | Very Good Smooth with fat over back and tail head | Normal |
| 8 | Fat, Blocky. Bone over back not visible | |
| 9 | Very Fat Tail buried and in fat | |