

National Drought Management Authority SAMBURU COUNTY



A Vision 2030 Flagship Project



DROUGHT EARLY WARNING BULLETIN FOR JANUARY 2018

JANUARY 2018 EW PHASE

Drought Status: NORMAL



Shughuli za kawaida

Drought Situation & EW Phase Classification

Biophysical Indicators

- Sunny, dry and hot weather conditions prevailed throughout the month with erratic and depressed showers in marginal pockets.
- Vegetation cover deteriorated across the county but remained slightly above normal threshold except for Samburu east.
- Water levels for both open and underground sources have declined attributed to high daytime temperatures resulting to high evaporations and lack of rainfall for recharge.

Socio Economic Indicators Details

- Movement to dry season grazing areas of Marti plain, Matthew ranges, Kiromun plain in Laikipia north Sub County being slowly witnessed on small proportions.
- Trekking distances to water points both livestock and household remained high compared to normal similar period.
- Slight decreased was recorded in milk production and consumption as compared to last month.
- Livestock body conditions remained stable with browsers retaining good body conditions while grazers ranging between good and fair.
- Posho/maize prices stabilized attributed to long rains season harvest and imports from neighbouring counties.
- Terms of Trade (TOT) declined with income from sale of a goat exchanged for 55 kg of cereals compared to 61 kg recorded last month.
- Proportion of children at risk of malnutrition further increased to 19.9 percent from 17.2 percent recorded last month.

Early Warning Phase Classification

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

Biophysical Indicators	Value	Normal range/Value	
VCI-3month (County)	36.11	35-50	
VCI-3month -Samburu East	26.8	35-50	
VCI-3month -Samburu North	41.9	35-50	
VCI-3month-Samburu West	54.25	35-50	
Production indicators	Value	Normal ranges	
Livestock Migration Pattern	Intra Migration	No Migration	
Livestock Body Conditions	Good with fat over back and tail	Fat & Smooth appearance	
Milk Production	1.5	>1.8	
Livestock deaths due to drought	No Deaths	No death	
Access Indicators	Value	Normal ranges	
Terms of Trade (TOT)	55	>54.3	
Milk Consumption	1.3	>1.6	
Return distance (km)	Household	5.1	<4.2
	Livestock	14.6	<8.2
Acceptable FCS (%)	Pastoral	44.1	35-100
	Agro pastoral	93.3	35-100
Utilization indicators	Value	Normal ranges	
MUAC (%)	19.9	<20.74	
Mean CSI	Pastoral	14.8	<56
	Agro pastoral	0.7	<56

<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

- Rainfall of negligible amount which lasted for a few minutes was experienced in some parts of the county which is normal at this period of the year. However dry weather conditions prevailed in most parts of the county for the better part of the month.

1.2 Amount of Rainfall and Spatial Distribution

- Depressed and erratic showers were occasionally received in the 1st and 2nd dekads respectively. The average amounts received were below the Long Term Average (LTA) of at similar period of the year (Figure 1).
- The showers were experienced in parts of Wamba North and Kirisia hills for a few minutes for a day.
- Generally rainfall distribution for the period under review, both in space and time was poor and uneven across the livelihood zones.

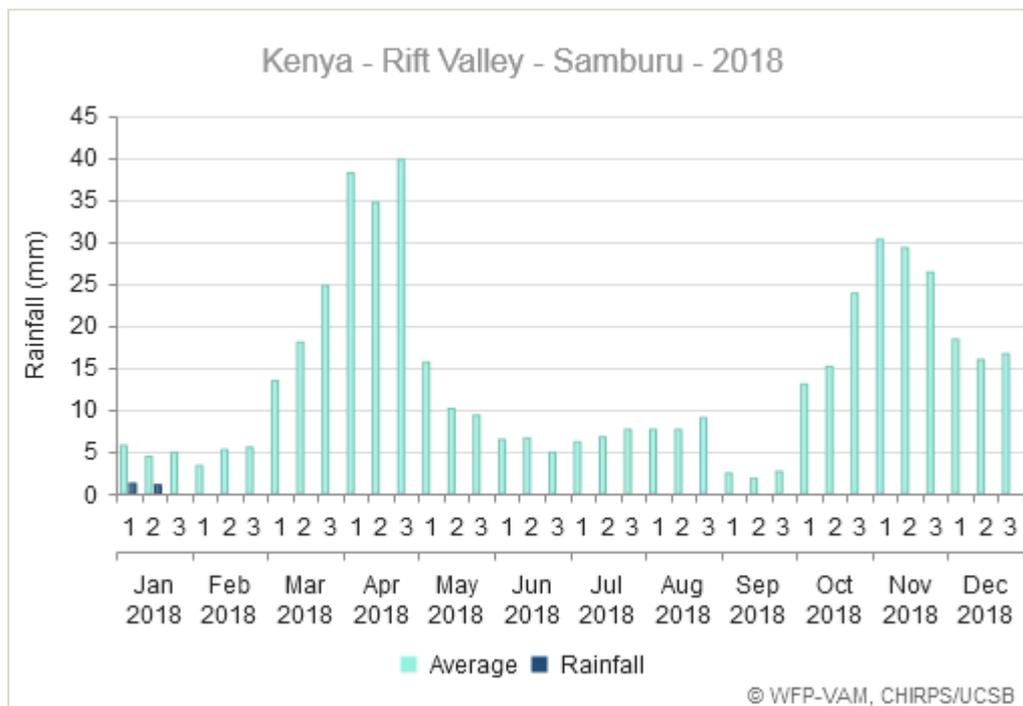


Figure 1: Graph Showing Rainfall Estimates (RFE) Trends for Samburu County (Source: WFP-VAM, CHIRPS/UCSB)

IMPACTS ON VEGETATION AND WATER

2.0 Vegetation Condition

2.1 Vegetation Condition Index (VCI)

- Slight deterioration in vegetation cover was noted as compared to December for the entire county attributed to high day time temperatures resulting into transpiration and lack of rainfall. Nevertheless, the vegetation bandwidth remained within normal greenness with a VCI (3 month) value of 36.11. Compared to last month VCI of 51.19, this is a tremendous decrease of 30 percent in rangeland conditions an indication that the vegetation is deteriorating further. It can also be noted that vegetation cover condition for the reporting period was below the long term average (Figure 2).

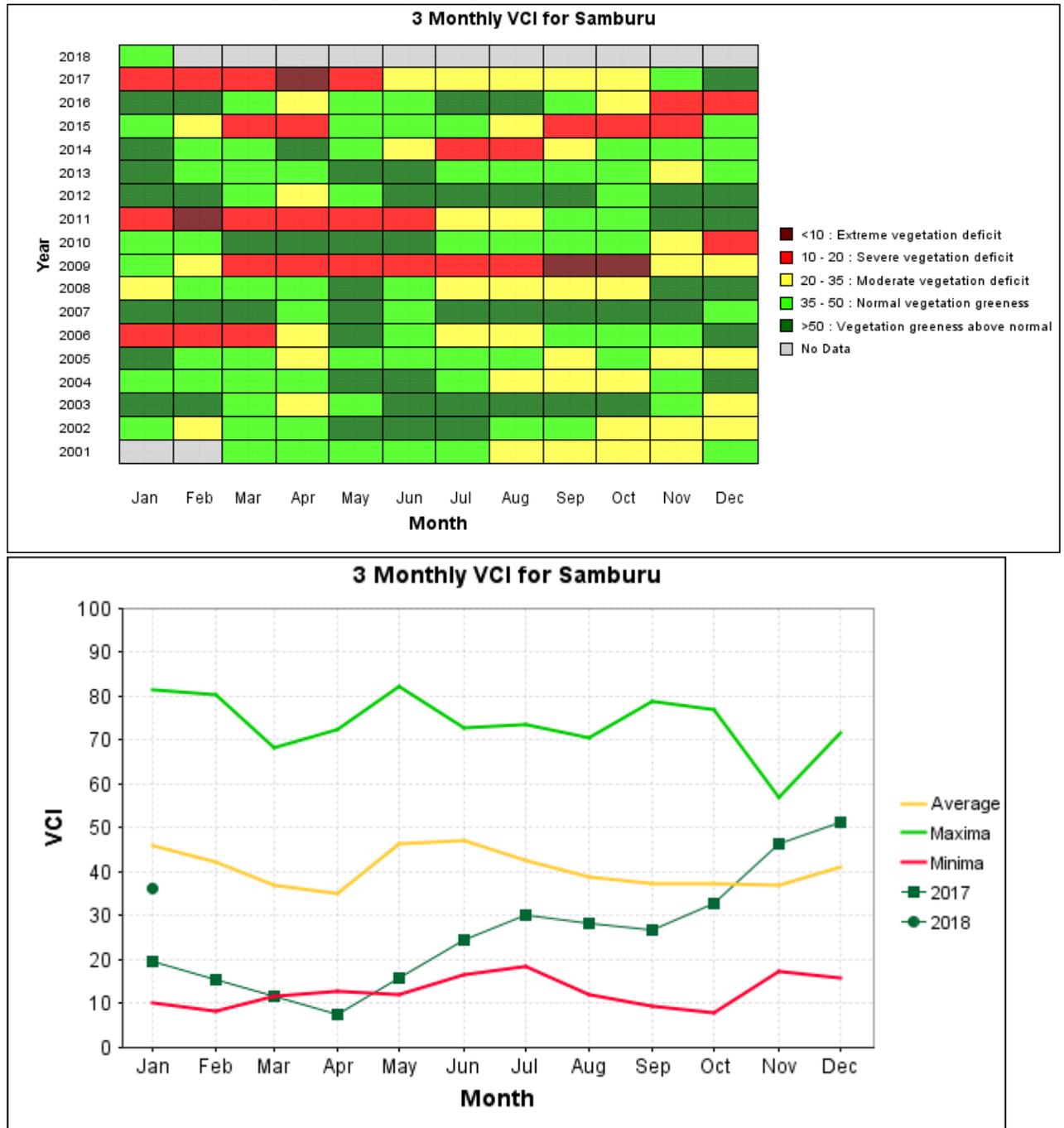


Figure 2: Matrix and Graph Showing VCI Trends for Samburu County
(Source: Boku University)

- Rangeland conditions in Samburu East deteriorated further with the 3 month VCI declined by 30 percent compared to the previous month 3-month VCI. The current vegetation cover is characterized as at moderate vegetation deficit level (Figure 3).

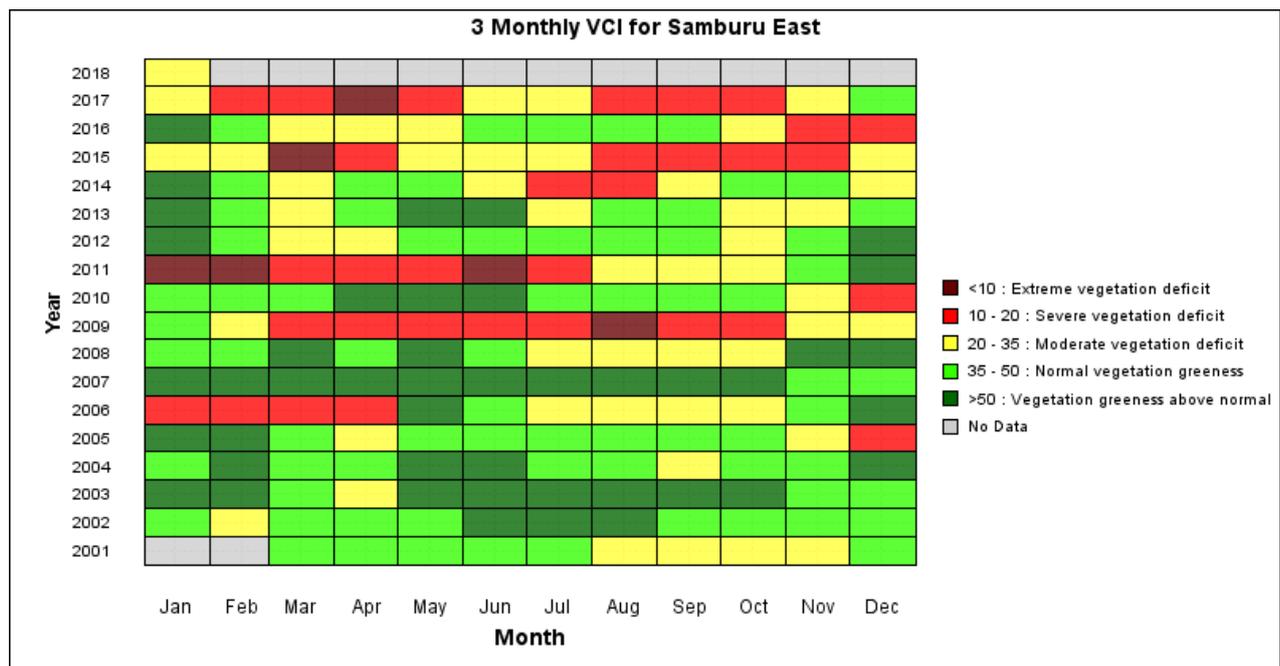


Figure 3: Matrix Showing Historical VCI trends for Samburu East sub county (Source: Boku University)

2.1.2 Field Observations (Pasture and Browse Conditions)

Pasture

- According to interviewed communities, 77 percent reported that pasture is fair across both livelihood zones though high temperatures and lack of moisture for nourishment is leading to slow deterioration in quality. Few pockets of Ndoto ward in Samburu North however have poor pasture due to poor short rains performance in the area.
- Significant pastures is still available in conflict hotspots areas of Angata Sikira, Marti and Kawop plains in Samburu North attributed to limited access due to resource based conflicts

2.1.3 Browse

- Field interviews indicated that 82 percent of the community respondents described browse currently as fair. Compared to last month browse is deteriorating attributed sunny, hot and dry weather conditions experienced within the month. Early cessation of the short rains season has also contributed to low quality of browse at the moment.
- The available browse is likely to last for the next three months in most parts of the county.

2.2 Water Resource

2.2.1 Sources

- Boreholes and traditional river wells were the most preferred source of water for the reporting month for about 25 percent of the households interviewed respectively. However water levels at these sources have gone down as reported by households being forced to wait for longer period at watering as compared to normal time leading to low water consumption at the household level.
- Shallow wells and pans and dams were also utilized by 15.4 percent each of the households interviewed respectively though complaints of water contamination of pans and dams due to

sharing by both animals and humans were reported. The rest of the remaining population got their water from rivers and springs at 10.3 percent and 7.7 percent respectively (Figure 4).

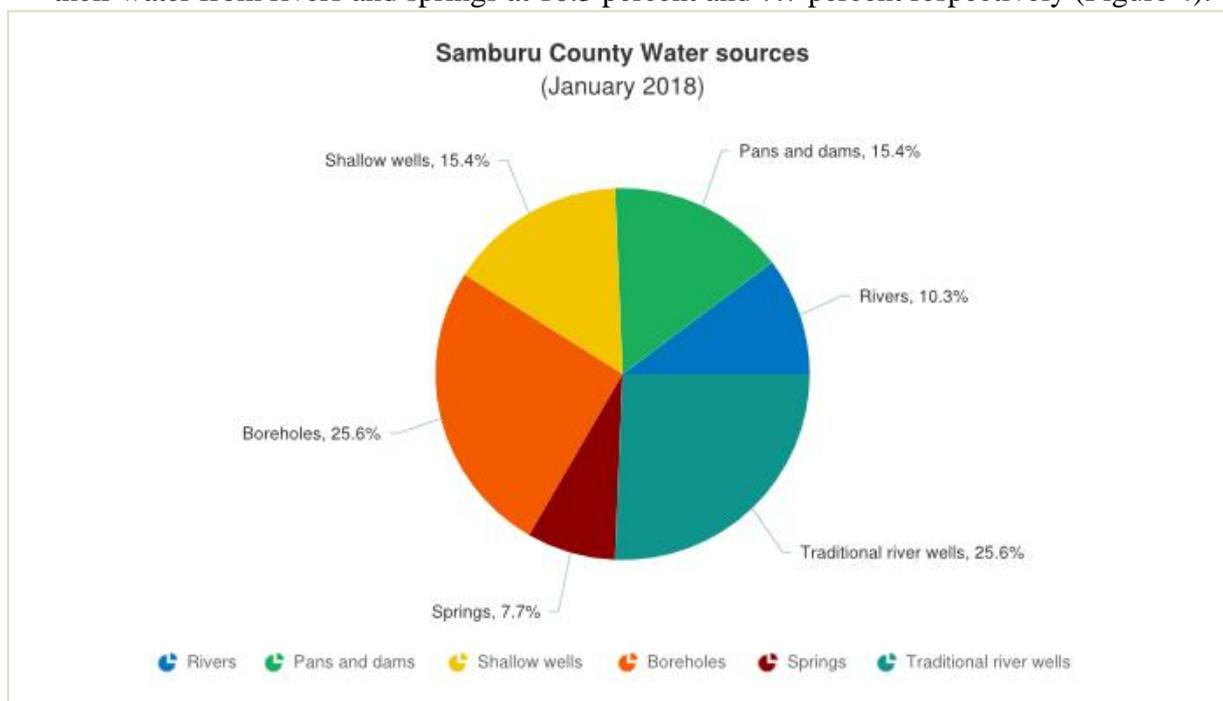


Figure 4: Common water sources

2.2.2 Household Access and Utilization

- The average trekking distance to water points for household was 5.1 km similar to last month’s trekking distance of 5.2 km. compared to long term average, the current distance was greater by 18 percent (Figure 5). Long trekking distances are as a result of decline in water levels in open water sources due to high daytime temperatures experienced during the month and also probably silting of open water sources resulting into high water turbidity thus forcing households to seek alternative water sources.
- Sentinel site of Arsim (pastoral livelihood) and Longewan (agro-pastoral livelihood) recorded the least distance of 1 km probably due to close proximity of springs and boreholes respectively whereas Kiltamany and Baragoi which are both pastoral livelihoods recorded the highest at 4 and 5 km respectively.
- Water consumption at household level was restricted for cooking, cleaning and drinking with majority of the households consuming water without treating it.

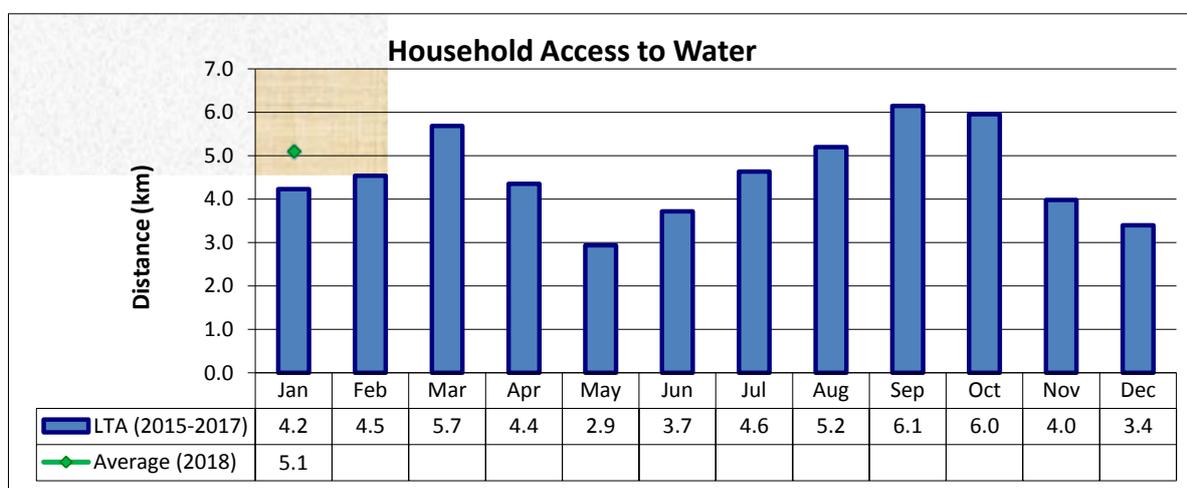


Figure 5: Average Distance Travelled by Households in Search of Water

2.2.3 Livestock Access (Grazing Distances to Water Points)

- Return trekking distance for livestock from grazing fields to water points also remained stable as compared to last month trekking distance at 14.6 km. Current trekking distance was 44 percent above the long term average (Figure 6). The high distance can be attributed to livestock moving towards deferred/enclosed grazing fields which had been preserved for the dry spell with some being away from watering points.
- Livestock in pastoral livelihood of Kiltamany and Baragoi trekked longer at 11 km whereas livestock in agro-pastoral zone of Longewan trekked the least distance at 5 km attributed to close proximity of watering points such as boreholes.

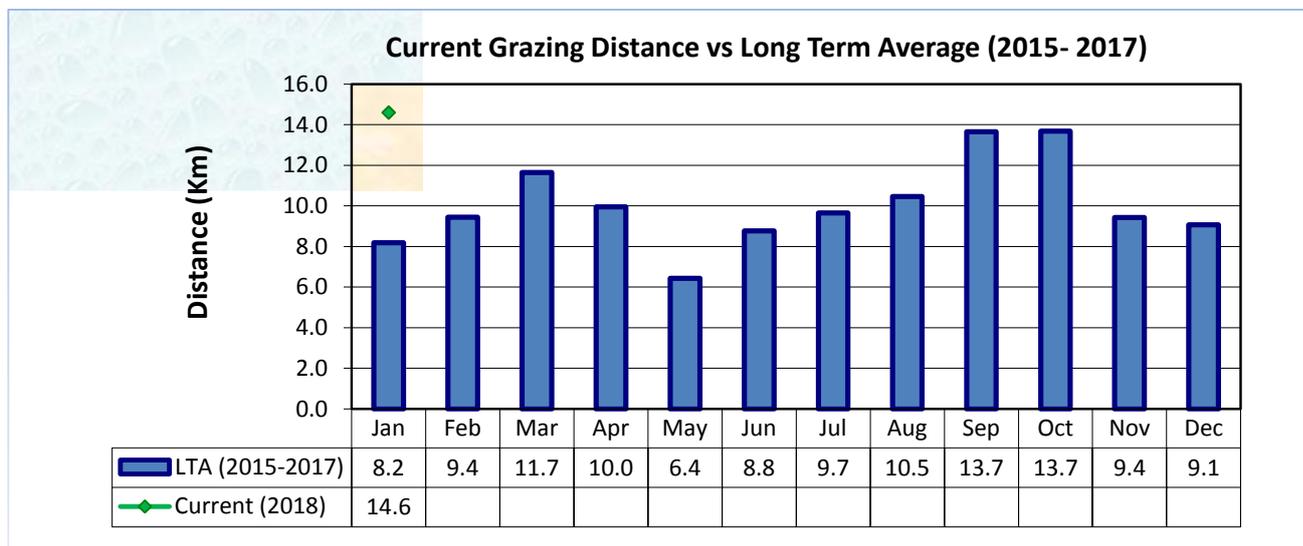


Figure 7: Distance Travelled from Grazing Areas to Water Points

3.0 PRODUCTION INDICATORS

3.1 Livestock Production

3.1.1 Livestock Body Condition

- Body condition for small stock and camels was good with smooth appearance with majority exhibiting fat, blocky appearance with bone over the back not visible. This was mainly attributed to availability of browse which favored the browsers and the stunted pasture which was comfortably consumed by sheep.
- On the other hand, body condition for cattle was fair to good with most of them exhibiting moderate conditions (neither fat nor thin) (*Refer to table 1 in annex*). Cattle body condition is deteriorating due to diminishing pastures and increasing trekking distances to water points.

3.1.2 Livestock Diseases and deaths

- Confirmed cases of Foot and Mouth disease, Lumpy Skin Disease and sheep and goat pox were reported in agro pastoral areas of Samburu central. Incidences of diarrhoea were reported by the communities and also clinical signs of endemic diseases such as Contagious Caprine Pleuro Pneumonia (CCPP) in goats continued to be reported across the livelihood zones.
- No livestock deaths as a result of drought were reported. Incidences of livestock predation by wild animals were reported across the livelihood zones.

3.1.3 Milk Production

- Milk produced at household level was mainly from goats and Camels remaining similar to last month at 1.5 litres. This was below the long term average by 17 percent. The low production levels can be attributed to weaning in goats and sheep (Figure 8).

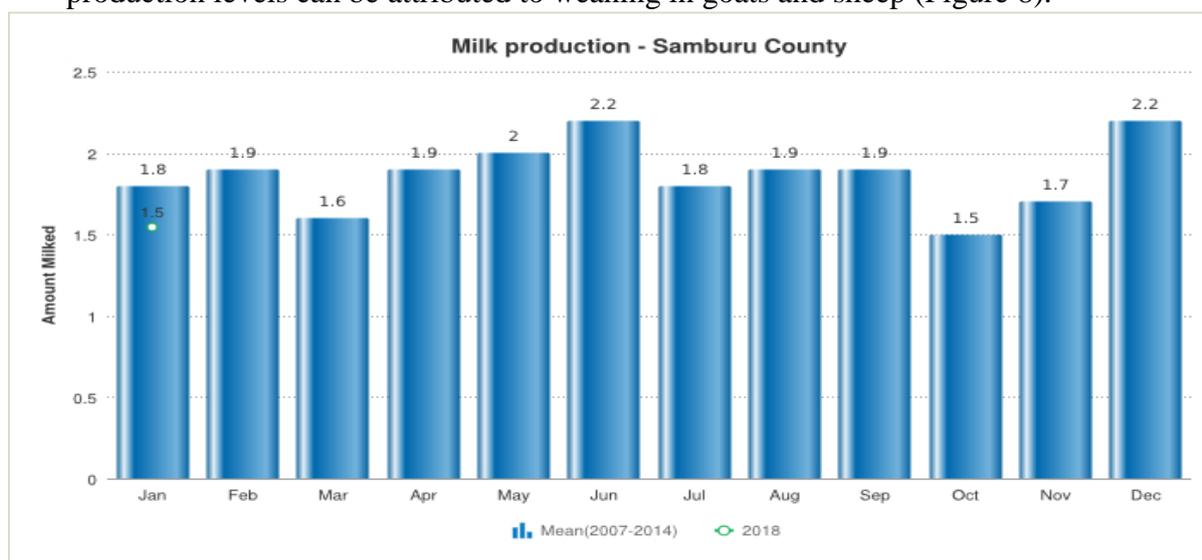


Figure 8: Trends in Milk Production per Household

3.2 Rain Fed Crop Production

3.2.1 Stage and Condition of Food Crops

- Most of the maize and bean crop planted during the short rains in Kirisia hills of Lodokejek ward and parts of Maralal has wilted due to water stress resulting from early cessation of the short rains season.

3.2.2 Harvest of Crop

- No crop harvest within the period under review.

4.0 MARKET PERFORMANCE

4.1 Livestock Prices

4.1.1 Cattle Prices

- Price of cattle at market level increased by seven percent from last month market price attributed to improved body condition and reduced road banditry that scared away trader from other counties.
- Lolkuniani market in pastoral livelihood recorded highest average price at Ksh 24,000 attributed to ease access by trader from Isiolo and Meru Counties while Lekuru in agro pastoral recorded lowest averaging at Ksh 10,000.
- Compared to LTA, the current average price was above the LTA by 22 percent at the similar time of the year (Figure 9).

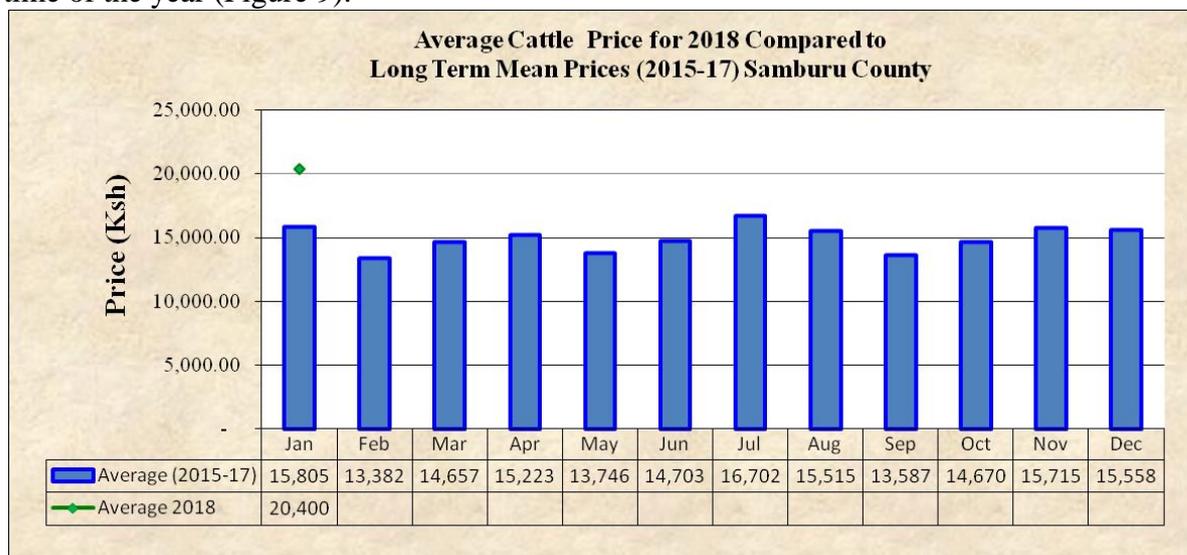


Figure 9: Graph Showing Cattle Selling Price Trends at Market Level

4.1.2 Goat Prices

- Despite good body condition of goats, the average selling price decreased by 10 percent from last month price. The decline can be attributed to influx of livestock at market level as households sought to raise money for school fees and also return of normalcy following end of Christmas festivities.
- Markets in both agro pastoral and pastoral livelihood fetched similar prices of around Ksh 3000 except for Illaut market which fetched Ksh 2000.
- Compared to LTA, the current average price was above the LTA by 7 percent at the similar time of the year (Figure 10).

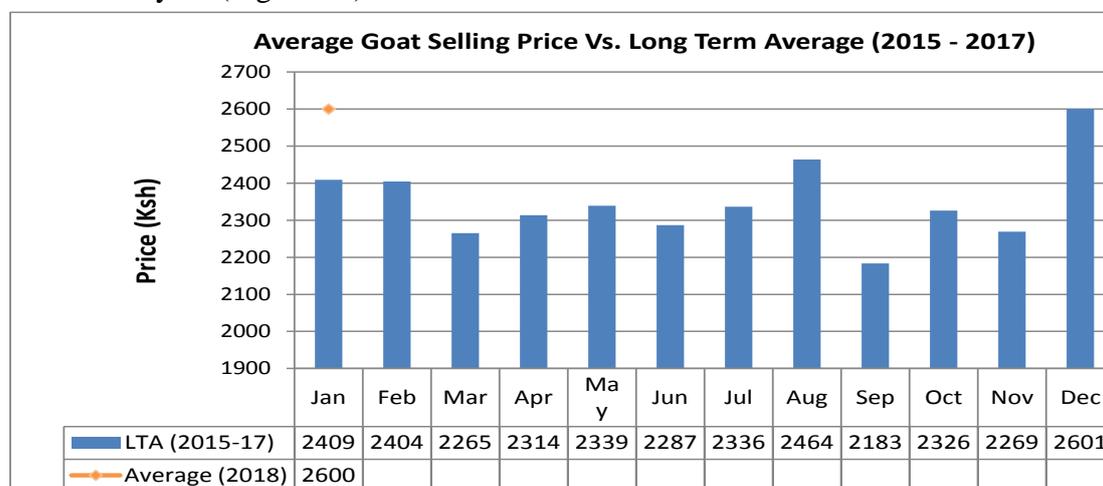


Figure 10: Graph Showing Goats' Selling Price Trends at market Level

4.1.3 Sheep Prices

- Sheep prices also declined from Ksh 2510 in December to Ksh 2400 in January. The decline can be attributed to influx of livestock at market level as households sought to raise money for school fees and also return of normalcy following end of Christmas festivities.
- Illaut market fetched the least price at Ksh 1500 whereas Lolkuniani markets fetched the highest at Ksh 3000. The rest of the markets across both agro pastoral and pastoral livelihood fetched similar prices of around Ksh 2800.
- Compared to LTA, the current average selling price for sheep was above the LTA by five percent at this time of the year (Figure 11).

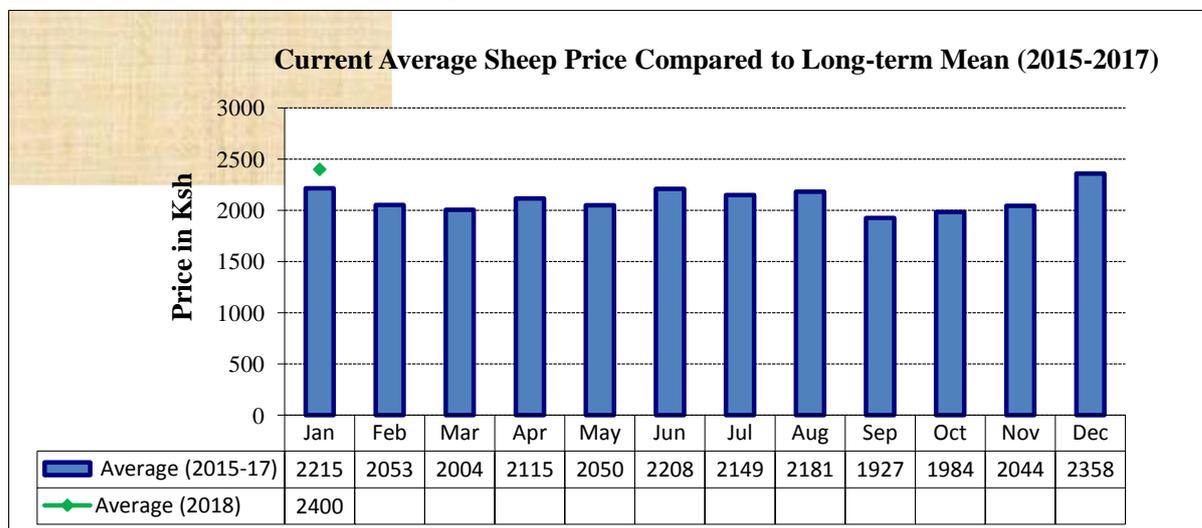


Figure 11: Graph Showing Sheep Selling Price Trends at Market Level

4.2 Crop Prices

4.2.1 Posho (Milled Maize)

- Maize/posho (milled maize) remained the same as last month at Ksh 47 per kilogram. The low prices being experienced can be attributed to availability of maize following long rains season harvest and importation of maize by local traders from outside the county resulting into reduction in selling prices.
- Ironically, Lekuru market which is in agro-pastoral zone fetched the highest price at ksh 50 whereas Lpus market in pastoral zone fetched the least price at Kshs 30 per kilogram. Households in agro-pastoral livelihood rushed to sell their maize produce at throw away price remaining with little stock which has been exhausted and the local traders are exploiting this opportunity.
- The current retail average price dropped below the LTA by five percent at this time of the year (Figure 12).

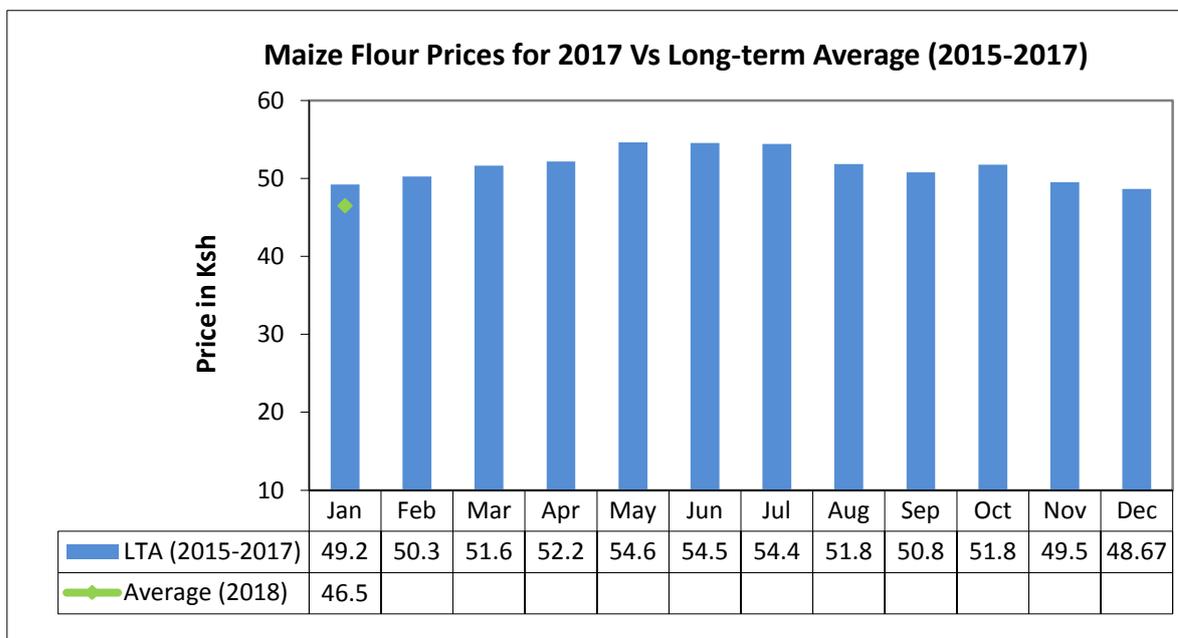


Figure 12: Graph Showing Maize meal Price Trends

4.3 Livestock Terms of Trade (TOT)

- A pastoralist was able to exchange a goat with 55 kilograms of cereals which was a reduction from 61 kilogram received last month. The decrease was as a result of reduction in small stock prices as compared to December when prices shot upwards due to high demand goats and sheep during Christmas festivities.
- The current average TOT is considerably favourable to pastoralists and was stable compared to LTA at the same time of the year (Figure 13).

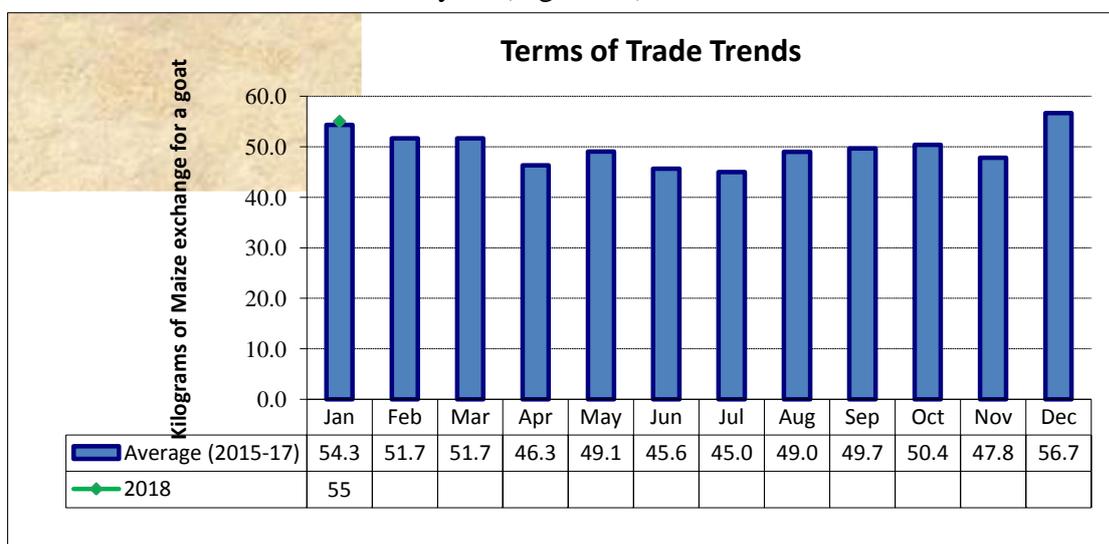


Figure 13: Trends in Terms of Trade (TOT)

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk Consumption

- Milk consumption at household level declined from 1.4 litres in December to 1.3 litres in January. The decline is as a result of reduction in production levels.
- Consumption for both agro-pastoral and pastoral zone was 1.1 litres.
- Some household preferred to sell their milk to purchase other basic necessities households with milk price retailed between Kshs 60 – 80 per litre.
- Milk consumed at household level on average was 18 percent below the LTA at this time of the year (Figure 14).

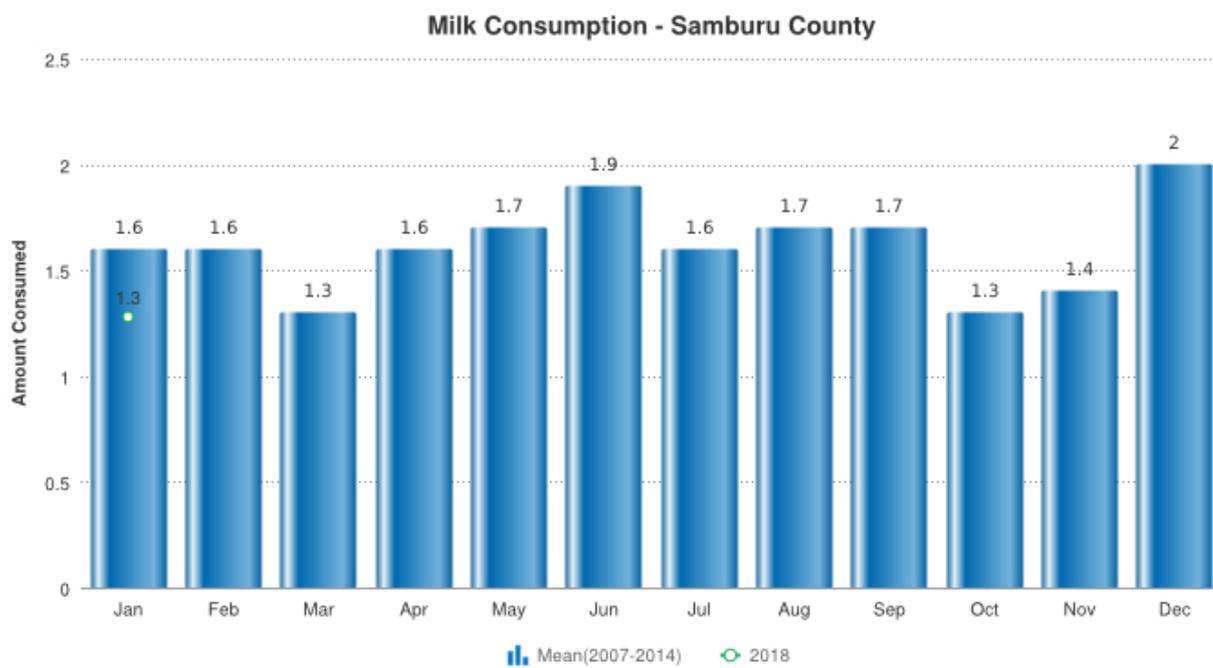


Figure 14: Trends in Milk Consumption per Household

5.2 Food Consumption Score (FCS)

- High proportion of households with poor and borderline food consumption were witnessed in the pastoral livelihood zone implying that they are taking less diverse diets and indicating nutrient gaps at household level. 56 percent of the interviewed households in pastoral livelihood zone reported poor and borderline food consumption.
- Lack of knowledge on importance of food diversity coupled with high cost of staple food commodities can be attributed to low food consumption scores in pastoral livelihood zone.
- In agro pastoral, a large proportion of 96.7 percent of sampled households reported acceptable food consumption score (figure 15). Improved food consumption in agro pastoral can be attributed to availability and accessibility of maize and beans following the on-going maize and beans crop harvesting coupled with availability of green traditional vegetables and goats' milk due to kidding and lambing.

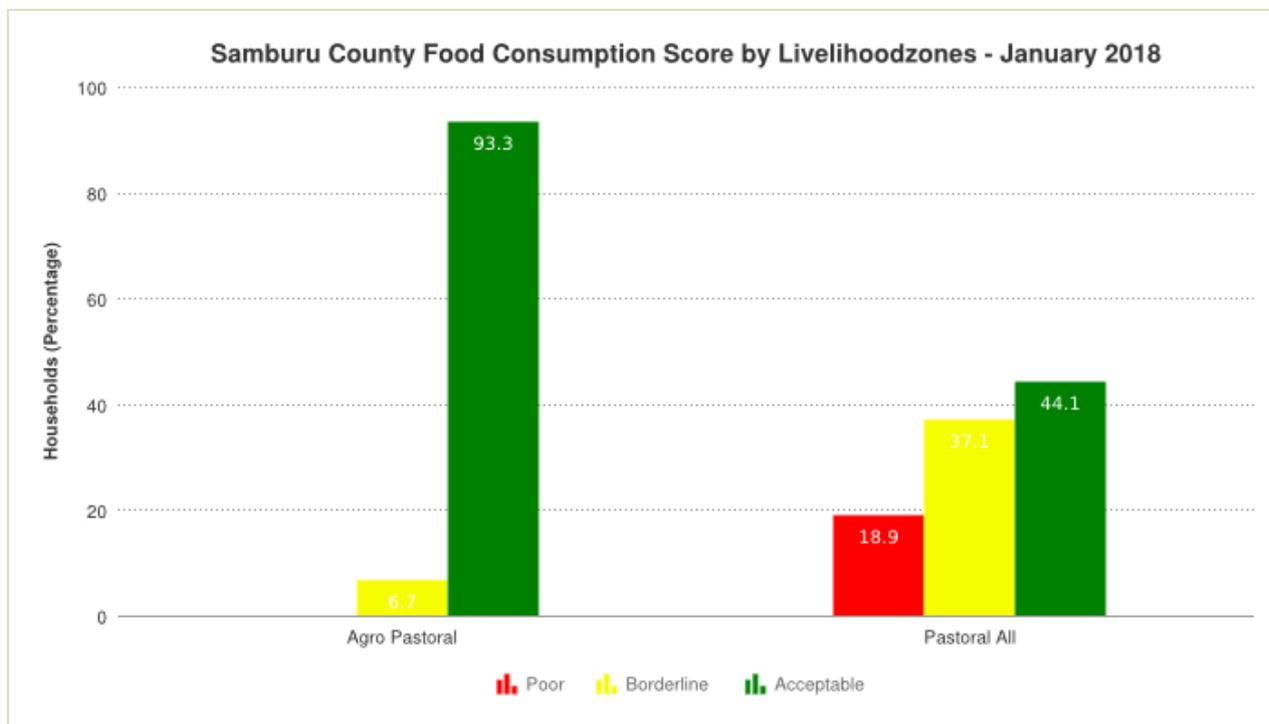


Figure 15: Bar Chart Showing FCS per Sub County

5.3 Health and Nutrition Status

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

- The proportion of sampled children at risk of malnutrition increased from 17.2 percent in December to 19.9 percent. The increase can be attributed to reduction in milk production and consumption at household level.
- Out of the under-five sampled children, 24 percent reported suffered illness with majority having fever with chills like malaria with other having diarrhoea and fever with breathing difficulties.
- Agro-pastoral livelihood of Samburu central had high proportion of children at risk of malnutrition at 33.3 percent whereas pastoral livelihood of Samburu north and east sub counties recorded proportions of 21.8 percent and 17.29 percent in respectively.
- During this time of the year, the proportion of under-five at risk of malnutrition dropped below the LTA by approximately 4 percent (Figure 16).

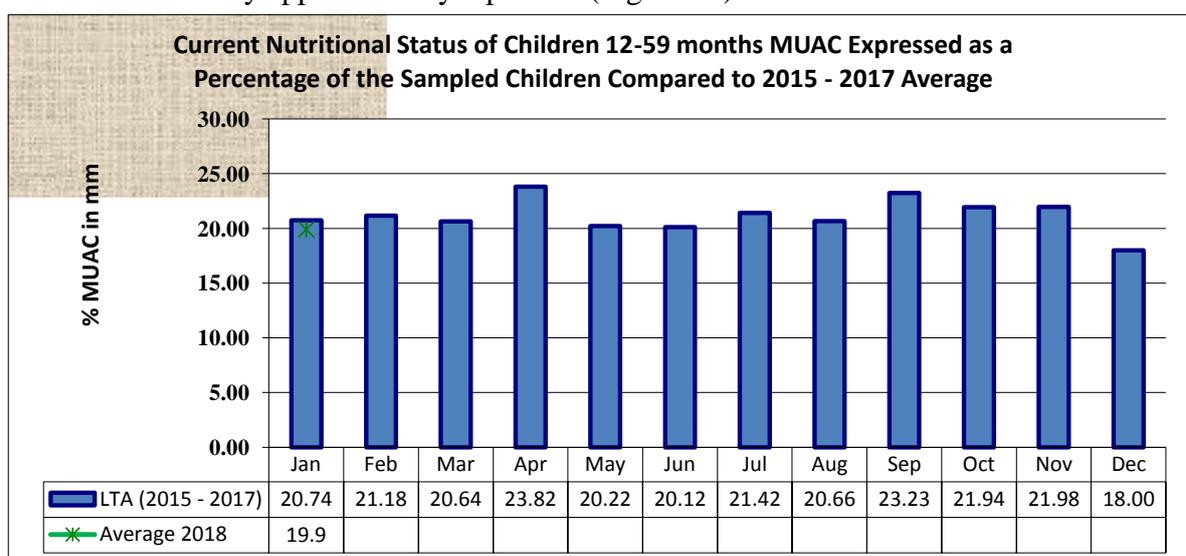


Figure 16: Graph Showing Average Nutritional Status (MUAC)

5.3.2 Health

- According to community interviews, 24 percent of the under-five sampled children reported suffered illness with majority having fever with chills like malaria with other having diarrhoea and fever with breathing difficulties
- Upper Respiratory Tract Infection (URTI), pneumonia, diarrhoea and malaria were the major diseases diagnosed during the period under review for the general population (District Health Information System (DHIS)). Majority of households were pursuing help from public health centres/ dispensaries, private clinics while others used local herbs for treatment.

5.4 Coping Strategies Index (CSI)

- Households in pastoral livelihood employed more strategies than households in agro-pastoral to enable them deal with lack of food or money to purchase food. Pastoral households recorded almost similar CSI to last month's CSI of 14.9. Agro-pastoral households also witnessed a few households employ minimum strategies of CSI 0.7 unlike last month where no household was recorded employing any strategy to cope with lack of food or money to buy food.
- Frequent coping strategies included reduction in the number of meals eaten per day, reduction in the portion size of meals and relying on less preferred and/or less expensive food.

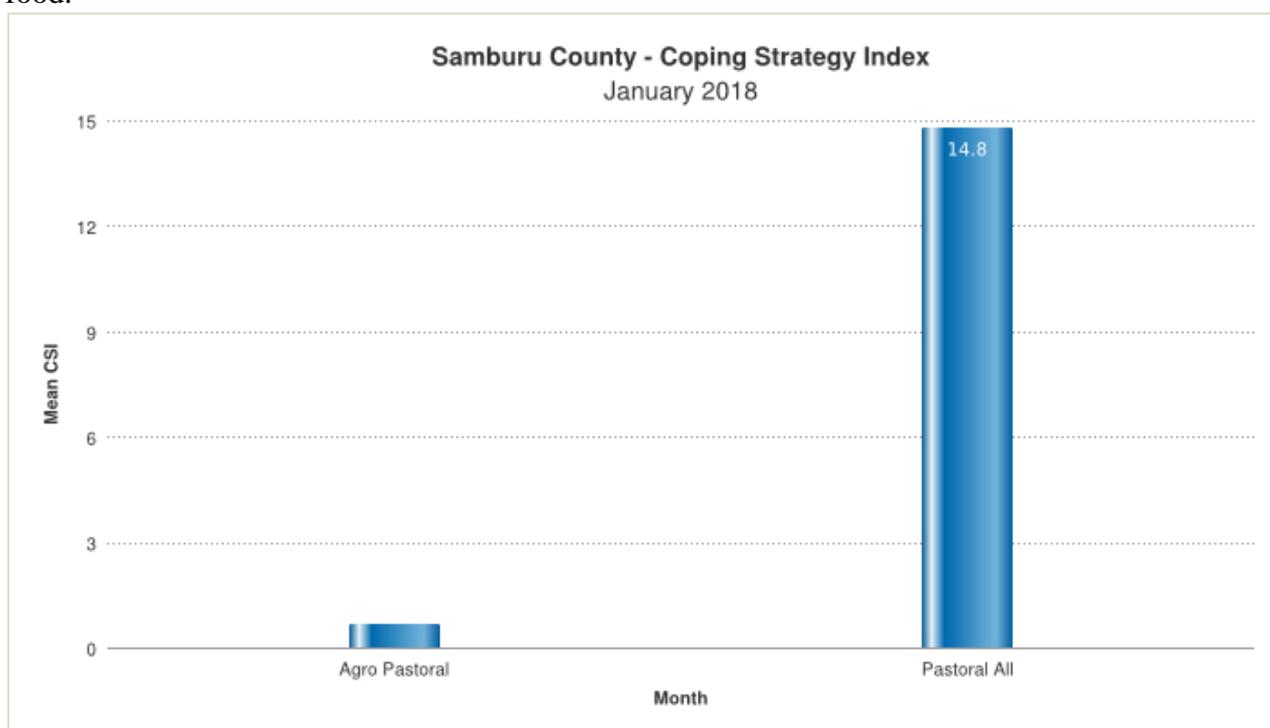


Figure 17: Bar chart showing CSI

6.0 CURRENT INTERVENTIONS AND RECOMMENDATIONS

6.1 Non-Food On-going Interventions

SECTOR	INTERVENTION	IMPLEMENTERS
	Support of livestock trading activities in Baragoi and Construction of Baragoi and Latakweny livestock Markets	RPLRP, NDMA
Health	On-going High Impact Nutritional Interventions (HINI) implemented by partners in collaboration with MOH in 47 health facilities across the County	MOH , NHP Plus and UNICEF
Social Inclusion	On-going cash transfer and business mentorship to women	BOMA Project

6.2 Food Aid

- Provision and distribution of Sorghum to 3,333 households in Samburu central sub county under the Asset Creation Program (ACP) supported by WFP, Ramati DI and NDMA.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- Incidences of cattle rustling in Samburu North around Suiyan and Marti areas reported leading to loss of livelihoods, death of two persons and injuries to three persons. The rest of the other sub counties remained relatively calm.

7.2 Migration

- Early than usual migration to dry season grazing areas of Marti, Matthew ranges and to Laikipia North Sub County being witnessed though by small proportion of livestock. Also internal movement of cattle to deferred grazing areas that had been enclosed during the rainy season being observed as animals move to utilize those pastures.

7.3 Food Security Prognosis

- Depleting pastures has resulted into early migration in search of pastures and browse is likely lead to low milk production thus likelihood of increase in malnutrition cases of under-fives.
- Deteriorating terms of trade is likely to consequence to low purchasing power hence likelihood of poor dietary diversity.
- There is likelihood of further increase in trekking distances as water diminishes in open water sources till probably onset of the next season.
- Incidences of cattle rustling especially in Samburu North has led to high tension and is likely to further limit access to available pastures in conflict prone areas thus possibility of abnormal migration routes to other areas.

8.0 RECOMMENDATIONS

SECTOR	INTERVENTION
Livestock	<ul style="list-style-type: none">• Treatment of confirmed cases of FMD,LSD and sheep and goat pox.• Enhance livestock disease surveillance across the livelihood zones
Health	<ul style="list-style-type: none">• Need for advocacy and awareness creation on use of water treatment chemicals
Water	<ul style="list-style-type: none">• Provision of water treatment chemicals due to high turbidity of water in open water sources• Provision of fuel subsidy to boreholes.• Water trucking to vulnerable institutions and communities.
Peace and Coordination	<ul style="list-style-type: none">• Consultative meetings to be held between warring communities in Samburu North to promote sustainable and conducive livestock and food commodities trading environment
Agriculture	<ul style="list-style-type: none">• Promote post harvesting management techniques such as dusting with pesticides to control weevils and advocacy to farmers not to disposal their cereals at low prices to middlemen• Farmers need to be sensitized to start land preparation early in readiness for long rains planting.

Annexes

Table 1: 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	