

National Drought Management Authority SAMBURU COUNTY



A Vision 2030 Flagship Project



DROUGHT EARLY WARNING BULLETIN FOR NOVEMBER 2017

NOVEMBER 2017 EW PHASE

Drought Status: NORMAL



Shughuli za kawaida

Drought Situation & EW Phase Classification

Biophysical Indicators

- Short rains progressed well into the 1st and 2nd dekads recording cumulative rainfall of 53.3 mm and 30.4 mm respectively which was good and evenly distributed.
- Vegetation cover greenness as measured by VCI improved to normal conditions except for Samburu East which inhibited moderate vegetation deficit.
- Open surface water sources remained fully recharged in agro pastoral zone and partially recharged in pastoral livelihood zone as a result of precipitation.

Socio economic indicators details

- Majority of livestock are back to wet season grazing zone near homesteads.
- Downward trend was notice in both livestock and household trekking distances.
- Milk was available to households though production and consumption declined compared to previous month.
- Body condition for goats' and sheep was good while it was fair for cattle across the livelihood zones.
- Posho/Maize market prices reduced to Ksh 50 per kilogram.
- Current TOT improved with income from sale of a goat purchasing 43.5 kg of cereals.
- Rate of children at risk of malnutrition improved to 20.2 percent from 21.6 percent recorded in last month.

Early Warning Phase Classification

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

Biophysical Indicators	Value	Normal range/Value	
VCI-3month (County)	46.36	35-50	
VCI-3month -Samburu East	30.81	35-50	
VCI-3month -Samburu North	58.03	35-50	
VCI-3month-Samburu West	69.72	35-50	
Production indicators	Value	Normal ranges	
Livestock Migration Pattern	No Migration	No Migration	
Livestock Body Conditions	Moderate, neither fat or thin	Fat & Smooth appearance	
Milk Production	1.7	>1.7	
Livestock deaths due to drought	No Deaths	No death	
Access Indicators	Value	Normal ranges	
Terms of Trade (TOT)	43.5	>50.3	
Milk Consumption	1.5	>1.4	
Return distance (km)	Household	4.9	<3.2
	Livestock	11.2	<7.9
Acceptable FCS	Pastoral	33.1	100%
	Agro pastoral	51.7	100%
Utilization indicators	Value	Normal ranges	
MUAC (%)	20.2	<17.1	
Mean CSI	Pastoral	15.5	<56
	Agro pastoral	0	<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

- The short rains season progressed well into the reporting month with most areas of the county receiving more than average rainfall in the first and second dekad. The cumulative amount recorded in the 1st dekad was 53.3 mm compared to LTA of 30.2 mm while in the second dekad was 30.4 mm compared to LTA of 29.2 mm.

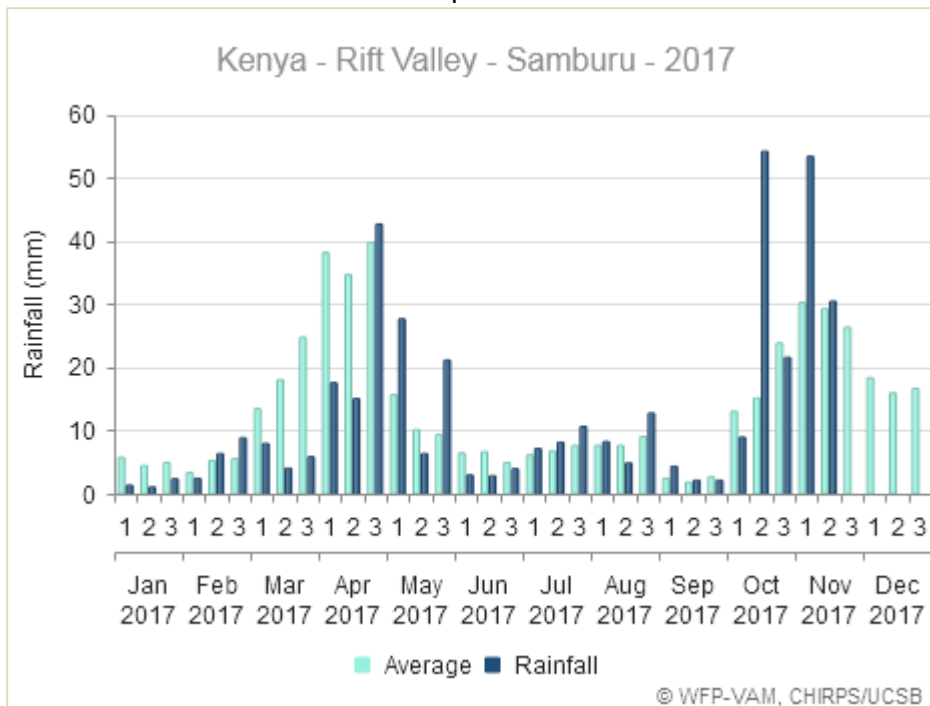


Figure 1: Graph Showing Rainfall Estimates (RFE) Trends for Samburu County (Source: WFP-VAM, CHIRPS/UCSB)

1.1.1 Temporal and Spatial Distribution

- Showers of varying intensities were received across the county for about 5 to 8 days on various days.
- Most areas of Samburu east and parts of Samburu central and Samburu north received heavy showers which lasted less than half an hour. The rest of the county and in particular Ndotto ward of Samburu North received little, insignificant rain.
- Generally temporal and spatial distribution was good and even respectively across the county except in Ndotto ward.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 Vegetation Condition Index (VCI)

- Significant improvement in vegetation cover continued to be noted across the livelihood zones during the month under review attributed to precipitation received in various parts of the county since the onset of the short rains. The 3 month average vegetation value as at 27th November 2017 for the county improved to 46.36 from last month value of 32.56 as measured by VCI signifying normal vegetation greenness. Compared to similar period of previous years, the situation was above the LTA at this time of the year (Fig. 2).



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

- Vegetation greenness in the agro pastoral zone of Samburu Central and pastoral zone of Samburu North was above normal with VCI increasing to 69.72 from 62.68 and 58.03 from 42.64 respectively attributed to enhanced rainfall experienced in the month of October and November.

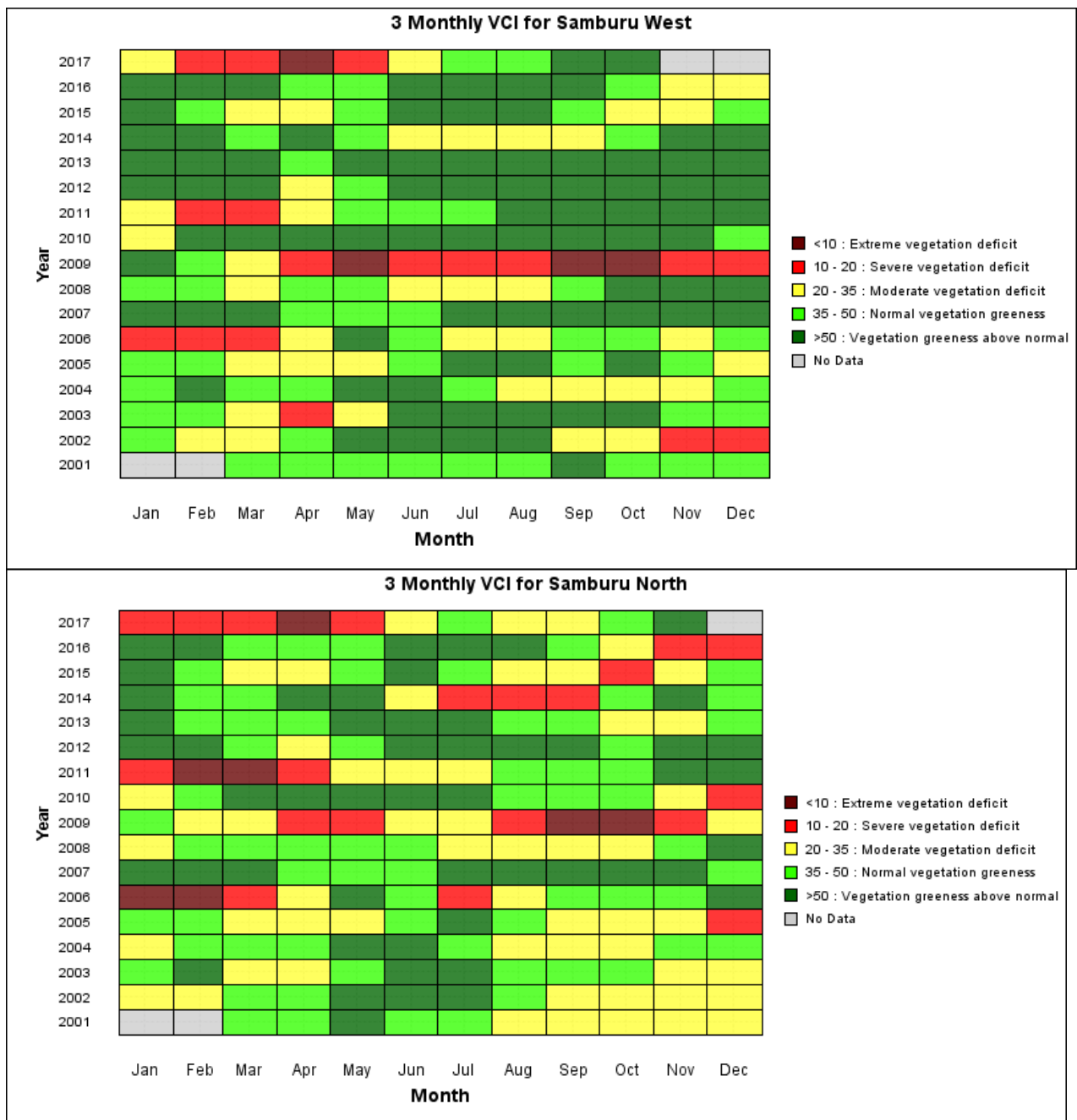


Figure 3: Graph Showing Historical VCI trends for Samburu West and Samburu North sub county
(Source: Boku University)

- Vegetation cover for Samburu East significantly improved but remained below the LTA. The 3 month VCI increased to 30.81 from 16.71 which indicates moderate vegetation deficit but the vegetation is likely to improve further as the short rains season continues which is the main season for Samburu East(Fig 4).

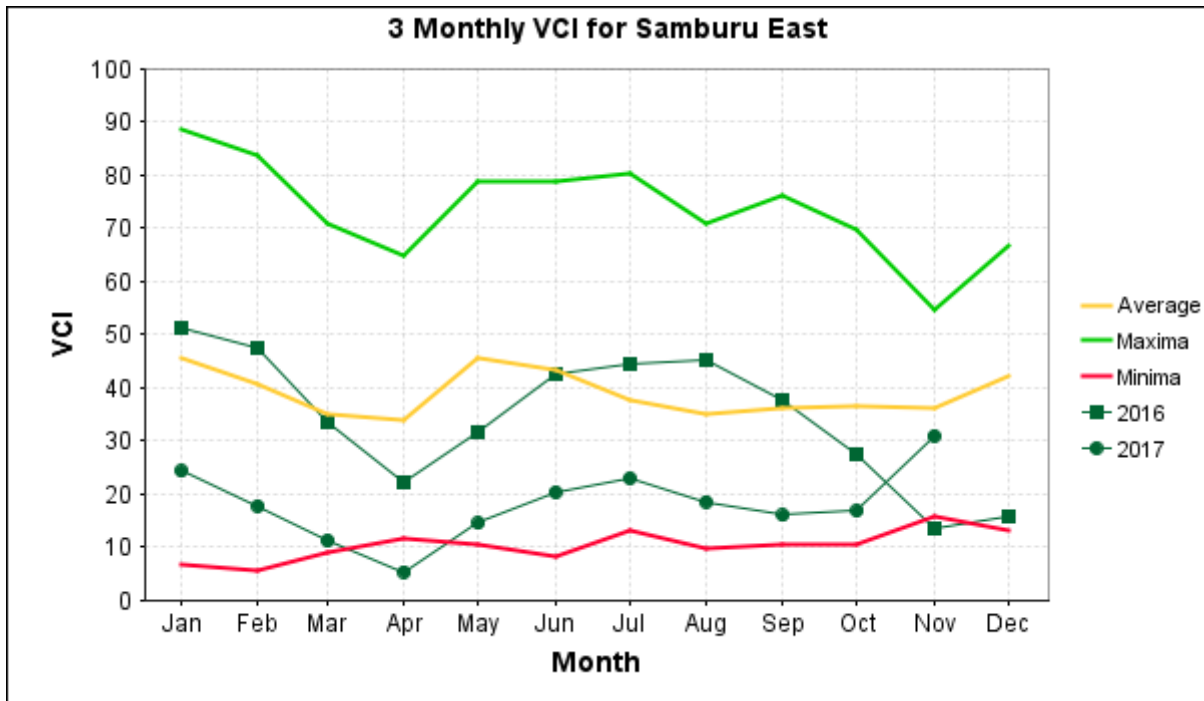
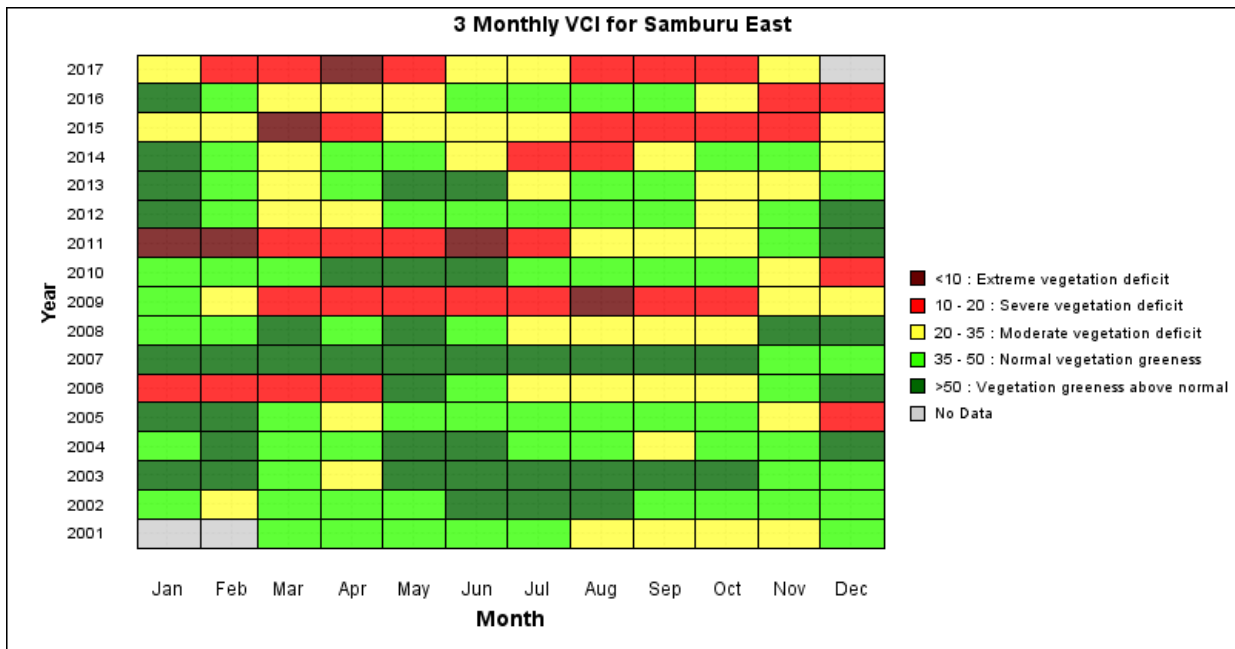


Figure 4: Graph Showing Historical VCI trends for Samburu East sub county (Source: Boku University)

2.1.1 Field Observations (Pasture and Browse Conditions)

Quality

- Quality of both pasture and browse is good across both livelihood zones mainly attributed to the rains received since October. Few pockets of Ndoto ward in Samburu North however have poor pasture and fair browse due to diminished rainfall.

Quantity

- Despite the county receiving adequate rains, pasture rejuvenation across the livelihood has been slow. Pasture in most areas has sprouted making the surrounding vegetation very

green but unfortunately it remains stunted making it difficult for cattle to graze properly though comfortable for sheep. The available pasture might last for about a month. Browse rejuvenation on the other hand is good and is enough to last browsers for about two to three months. Quantity of pasture in Ndoto ward is poor whereas browse is fair to good.

- Conflict hotspots areas of Angata Sikira, Marti and Kawop plains in Samburu North also contain significant amount of pasture and browse attributed to limited access brought about by conflicts.

2.2. Water Resource

2.2.1 Sources

- Traditional river wells and boreholes were the main sources of water for households both contributing 23.1 percent. The high percentage can be attributed to proximity of those sources to households.
- Shallow wells and pans and dams also contributed significantly to household water sources at 20.5 percent and 17.9 percent respectively. Rivers and springs were also used by 7.7 of the households sampled respectively (Fig 5).

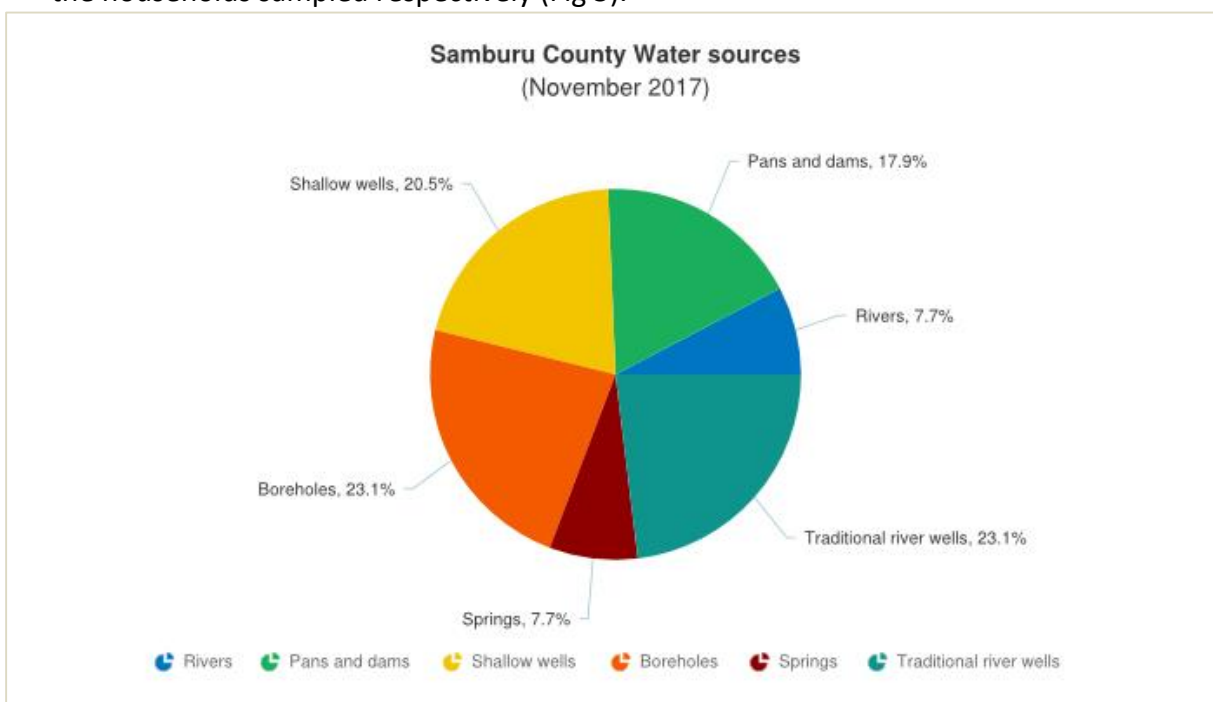


Figure 5: Common water sources

2.2.2 Household Access and Utilization

- Rainfall received across both livelihood zones eased the strain of accessing water at household level. Households trekked lesser distance of 4.9 km compared to 5.1 km in October. High trekking distances were witnessed in Kiltamany and Logetei of about 6 km.
- Consumption also increased to around 40 litres to 60 litres from around 15 to 20 litres. Majority of households consumed the water without treating it.
- Compared with the long term average, the current average households return trekking distance was 34 percent above the LTA at this time of the year (Fig. 6).

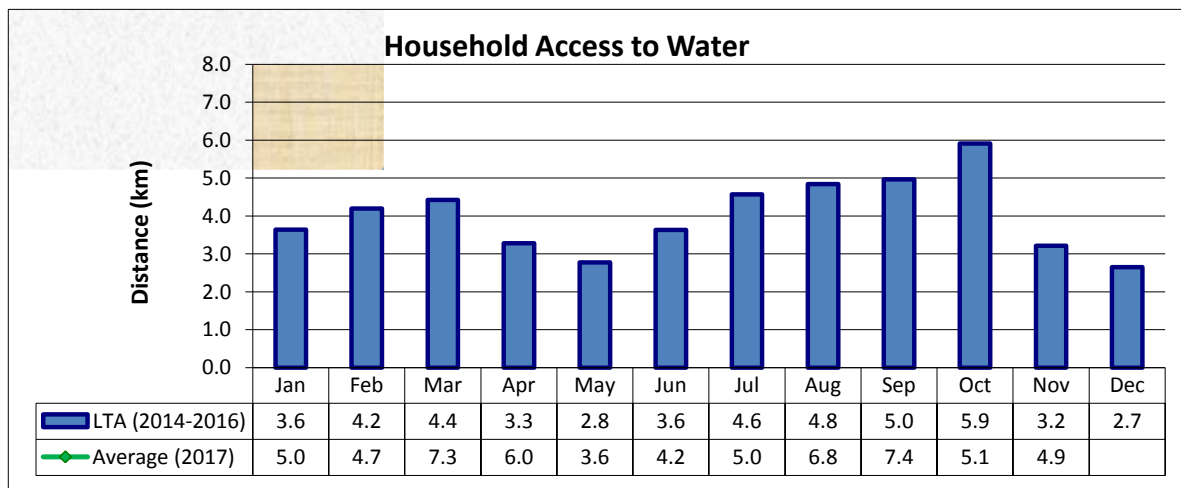


Figure 6: Average Distance Travelled by Households in Search of Water

2.2.3 Grazing Distances to Water Points

- Trekking distances for livestock from grazing areas to water points also decreased to 11.2 km from 12.8 km recorded in last month. The decrease can be linked to rainfall received that recharged the water sources and even regeneration of forage.
- High trekking distances were witnessed in Nachola and Nairimirimo at around 14 km and 10 km respectively.
- The current average return trekking distances from grazing fields to watering points is 29 percent above long term at the same time of the year (Fig. 7).

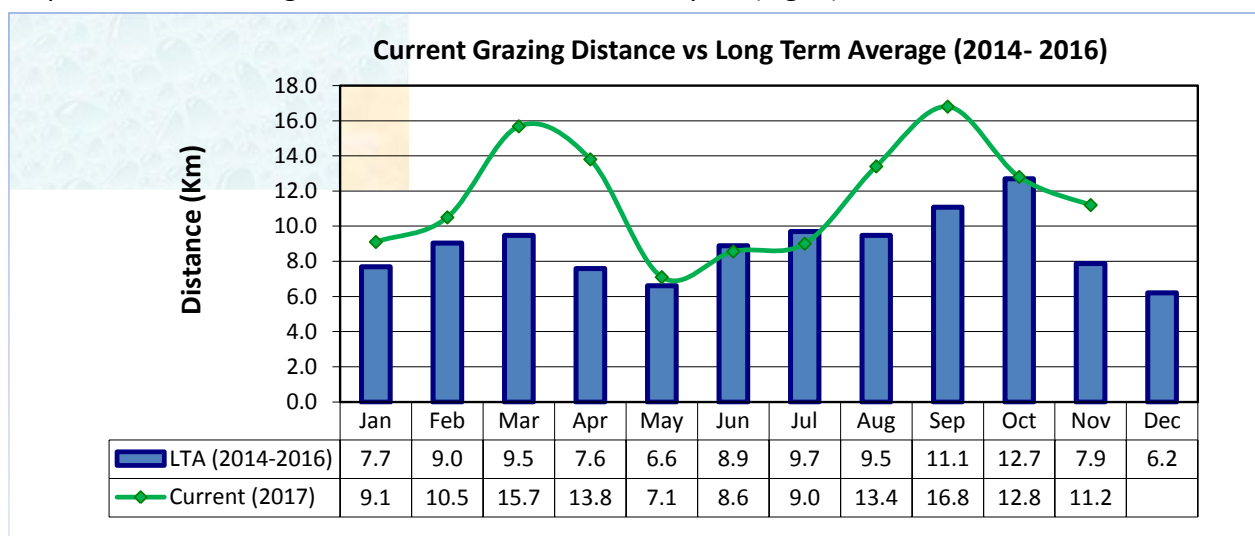


Figure 7: Distance Travelled from Grazing Areas to Water Points

3.0 PRODUCTION INDICATORS

3.1 Livestock Production

3.1.1 Livestock Migration Patterns

- Majority of livestock have returned home or closer to their homesteads following the regeneration of forage and recharge of water sources attributed enhanced rainfall for short rains season.

3.1.2 Livestock Body Condition

- Body condition for small stock and camels is good with most of them exhibiting fat, blocky appearance with bone over the back not visible. This is mainly attributed to availability of browse which favored the browsers and the stunted pasture which was comfortably consumed by sheep.
- Cattle's body condition is fair and is still recovering following the long dry spell with most of them exhibiting moderate conditions (neither fat nor thin), (*Refer to table 1 in annex*). Poor quantity of pasture has also contributed to the slow recovery of cattle body condition.

3.1.3 Livestock Diseases

- No livestock notifiable disease outbreak was reported within the county. However clinical signs of endemic diseases such as Contagious Caprine Pleuro pneumonia (CCPP) was reported and confirmed.

3.1.4 Milk Production and Consumption

- Milk is gradually becoming available at household level though in limited amounts following the return of livestock back home. Improved body condition in small stock has led to increased lambing and kidding. Milk production declined from 2.1 litres to 1.7 litres though stable compared to LTA (Fig. 8).

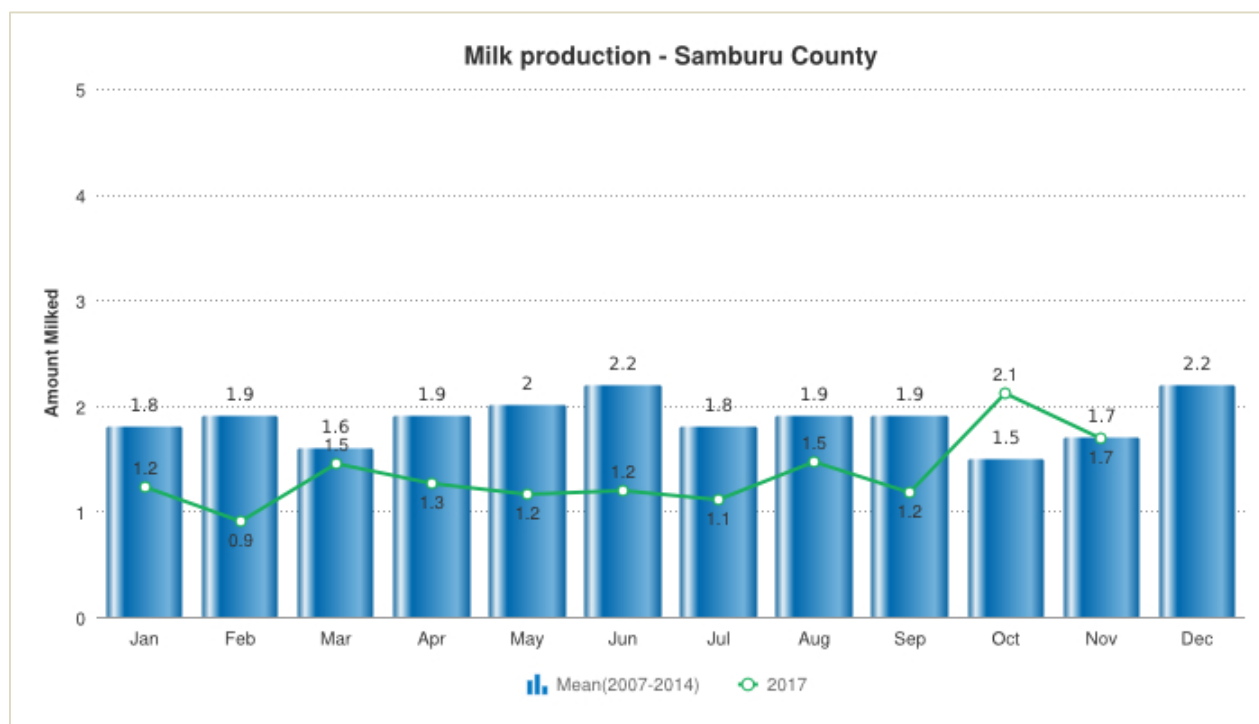


Figure 8: Trends in Milk Production per Household

- Out of 1.7 litres produced per household, 1.5 litres were consumed within the households with the little remaining was sold retailed between Ksh 60 per litre at the lowest and Ksh

150 per litre in some areas.

- The current average milk consumption per household is above the long term value by 6 percent at this time of the year (Fig. 9).

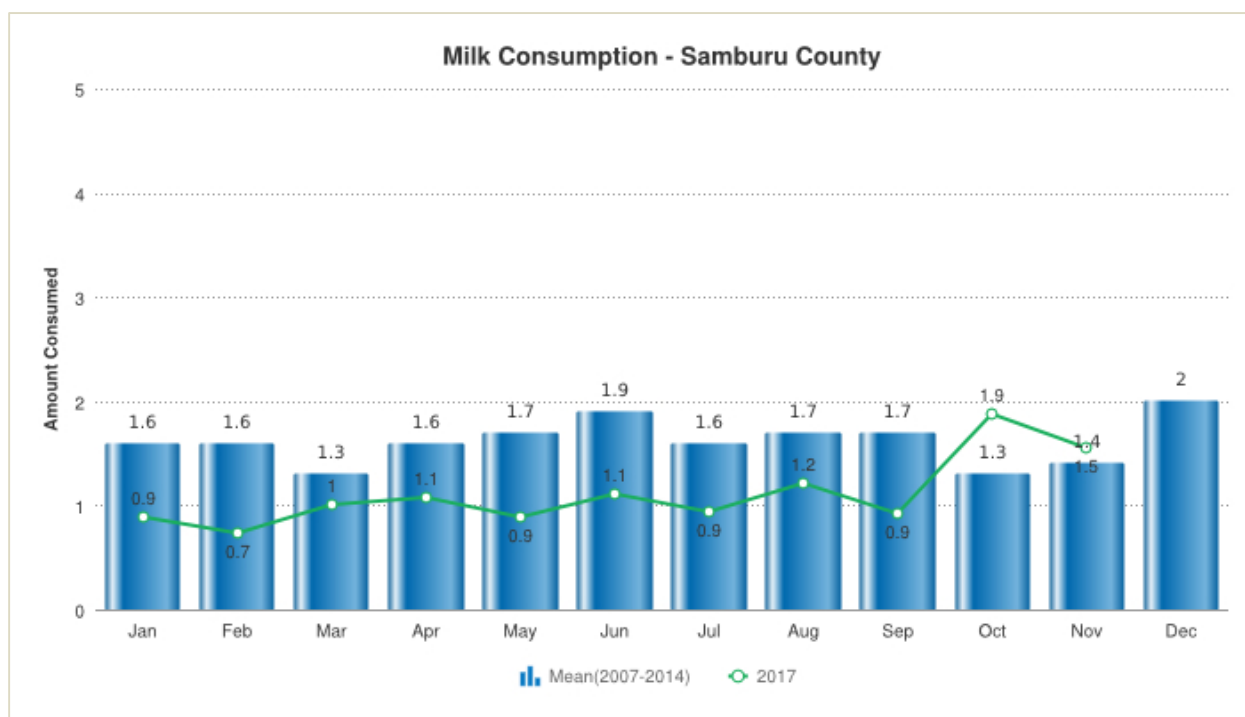


Figure 9: Trends in Milk Consumption per Household

3.1.5 Livestock Deaths

- No livestock deaths as a result of drought were reported. Incidences of livestock predation by wild animals were reported across the livelihood zones.

3.2 Rain Fed Crop Production

3.2.1 Stage and Condition of Food Crops

- In the lower parts of the plateau around Kirimon and Baawa, maize and beans is at weeding stage whereas Cowpeas and green grams are almost at flowering stage.
- Maize in Poro is almost at harvesting stage. The delayed maturity is as a result of cold weathers conditions which normally result in prolonged maize maturity.

3.2.2 Harvest of Crop

- Harvest of maize and beans has been concluded in some parts of agro pastoral zone though anticipated production yields will probably be below normal owing to dry spell experienced after germination that discouraged most farmers from doing weeding and eventually allowed their livestock to feed on their crops immediately after germination.

4.0 MARKET PERFORMANCE

4.1 Livestock Prices

4.1.1 Livestock Terms of Trade (TOT)

- Improved livestock prices coupled with reduced maize prices positively affected pastoralist purchasing power. Income from the sale of one goat could purchase 43.5 kilograms of cereals which is an increase compared to 39 kilograms from the previous month. Compared to the LTA, the TOT remained unfavourable considering that current average TOT was below the LTA by 13 percent at the similar time of the year. The TOT is anticipated to gradually improve as the households in agro pastoral harvest maize and probably livestock prices likely to increase with improved body condition of livestock (Fig. 10).

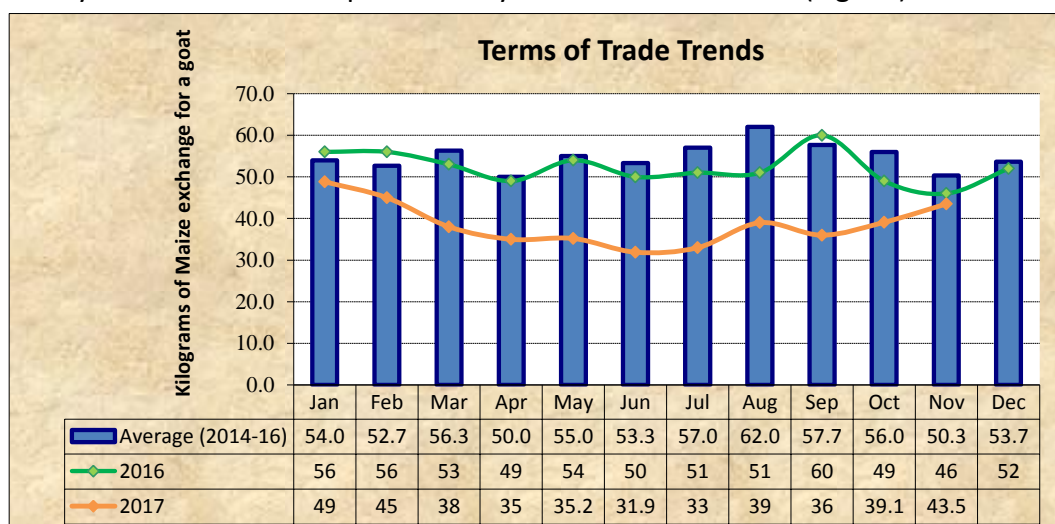


Figure 10: Trends in Terms of Trade (TOT)

4.1.2 Cattle Prices

- Price of cattle at market level increased tremendously from Ksh 15,000 recorded last month to Ksh 18,863 attributed to improved livestock body condition and favourable market conditions brought about by traders from outside the county.
- Pastoral markets of Archers post, Ilaut, Lolkuniani and Lekuru recorded averages of Ksh 24,000, Ksh 22,667, Ksh 20,500 and Ksh 10,000 respectively. The current average price was above the LTA by 25 percent.

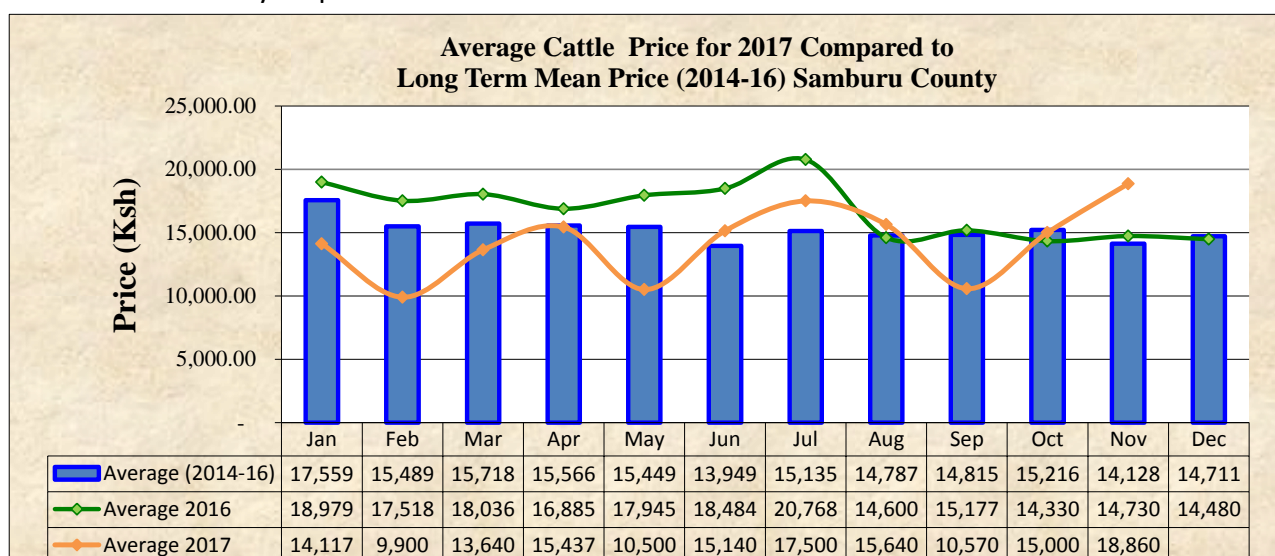


Figure 11: Graph Showing Cattle Selling Price Trends at Farm Gate and Market Level

4.1.3 Goat Prices

- The average market selling price for goats' increased to Ksh 2,218 from Ksh 2,150 attributed to improved body conditions. Lolkuniani market fetched the highest price at Ksh 3,330 while Baragoi market fetched the lowest price at Ksh 2,000.
- The current average price remained below the LTA by 6 percent.

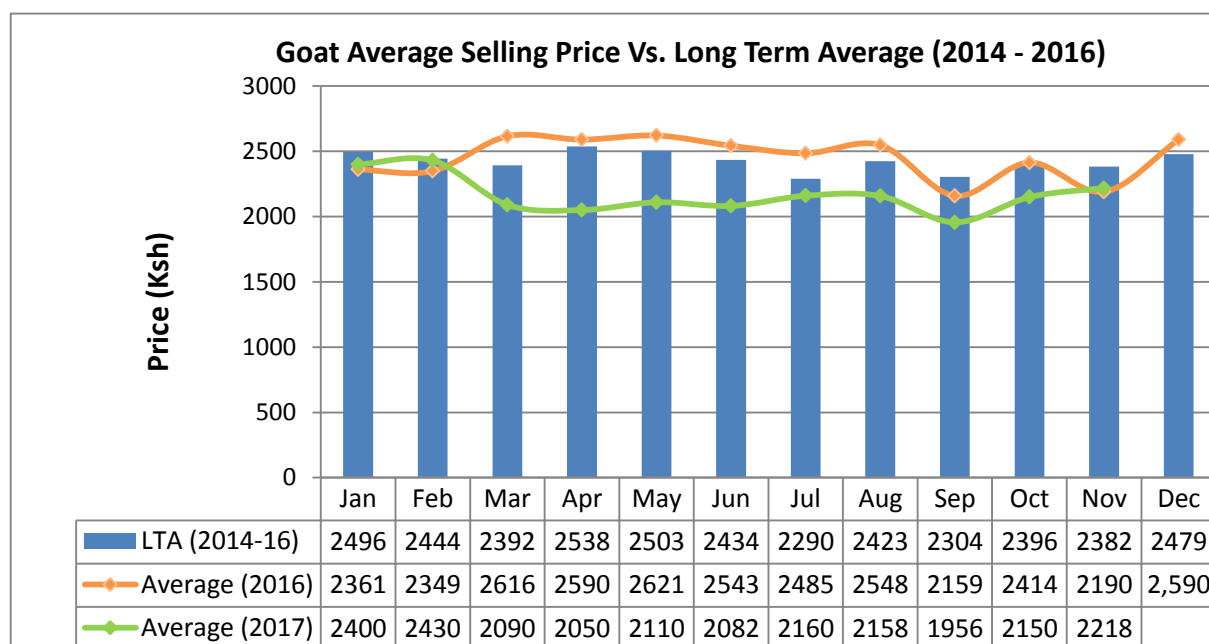


Figure 12: Graph Showing Goats' Selling Price Trends at Farm Gate and market Level

4.1.4 Sheep Prices

- Sheep price also increased from Ksh 1,792 to Ksh 2,242 attributed to good body conditions and favourable market environment. Additionally operationalization of Rumuruti market in Laikipia which is a main terminal market for Samburu County has also contributed to improvement in livestock prices.
- Sheep average selling remained was above the long term value by 8 percent at this time of the year (Fig. 13).

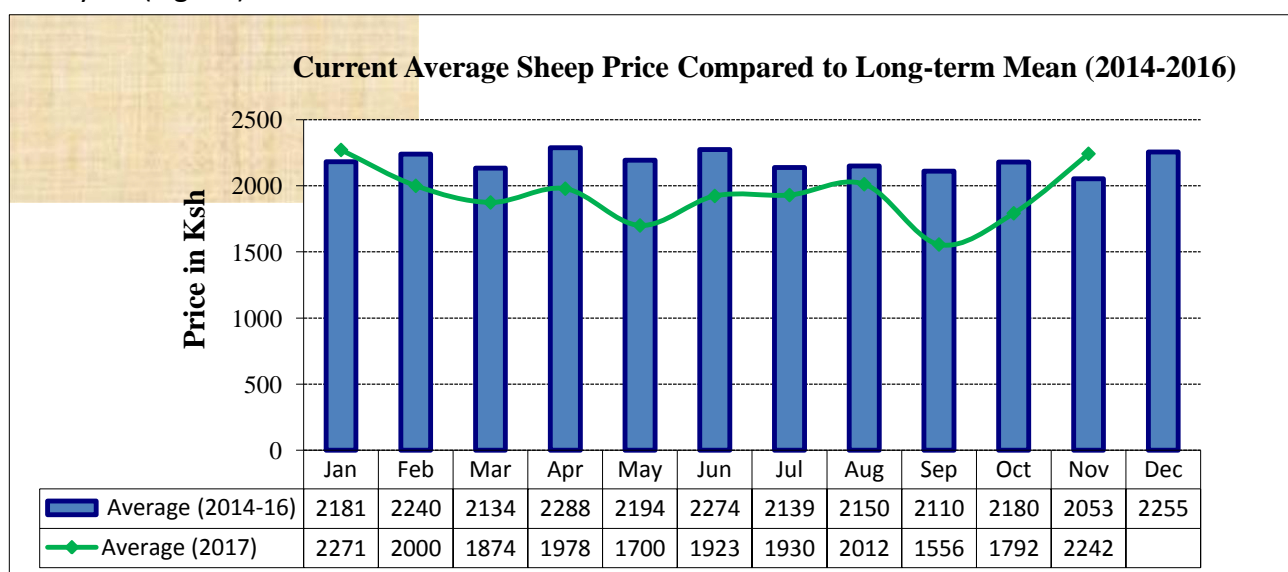


Figure 13: Graph Showing Sheep Selling Price Trends at Farm Gate and Market Level

4.2 Crop Prices

4.2.1 Posho (Milled Maize)

- Current average retail price for maize/posho (milled maize) decreased to Ksh 51 from Ksh 55 per kilogram fetched last month attributed to availability of maize at household level following maize harvesting last month in agro pastoral zone and importation by local traders from outside the county leading to reduction in prices.
- High posho prices were observed in Lpus market with a kilo of flour retailing at Ksh 60 per kilogram whereas Baragoi market retailed the least price at Ksh 45. Maize in other markets retailed at Ksh 50.
- Compared to LTA, the current retail price remained above the long term by 4 percent at this time of the year (Fig 14).

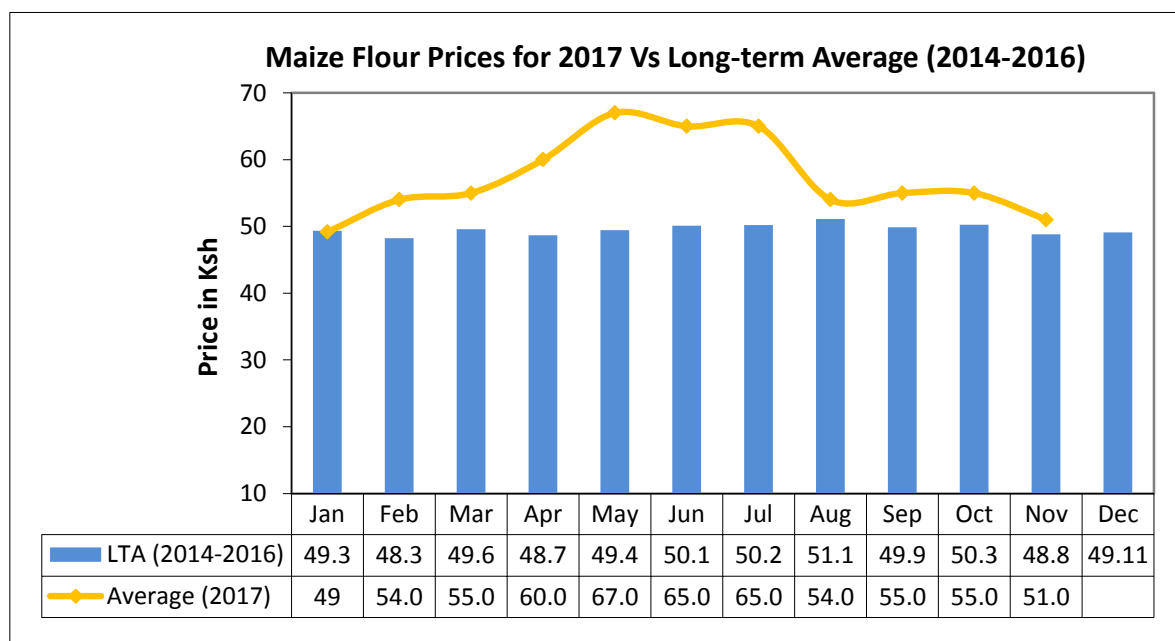


Figure 14: Graph Showing Maize meal Price Trends

6.1 Source of Income

- The main source of income remained sale of livestock in the two main livelihood zones accounting for 52.5 percent of available income sources.
- High percentage of casual labour witnessed last month due to majority of household members undertaking labour activities in the farms during harvesting of maize declined to 28.5 percent from 34 percent. Income from trade, employment and sale of crops contributed 16.2, 2.2 and 0.6 percent respectively.

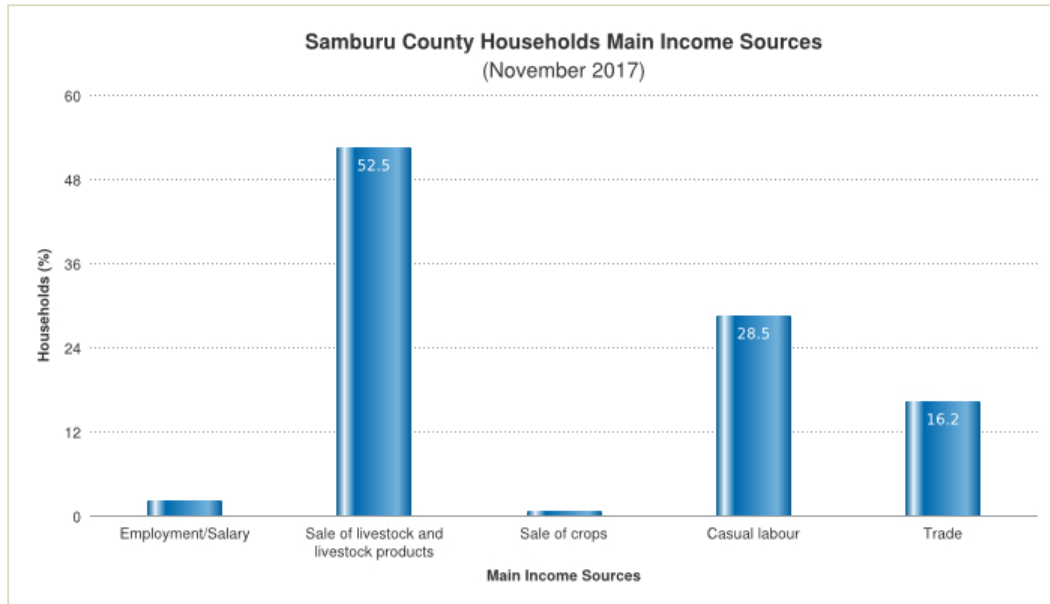


Figure 15: Households Common Sources of Income

5.0 UTILIZATION INDICATORS

5.1 Health and Nutrition Status

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

- Further improvement in nutritional status of children under five years at risk of malnutrition was noted based on reduction of proportion of children under-five years with MUAC less than 135 mm reducing from 21.6 to 20.2. The improvement can be attributed to improvement in availability of milk and also availability of green maize and beans at household level as a result of on-going crop harvesting. Termination of health workers strike also contributed to the improvement since medical care was easily accessible.
- The current malnutrition rates however remained above the LTA by approximately 15 percent at this time of the year (Fig 16).

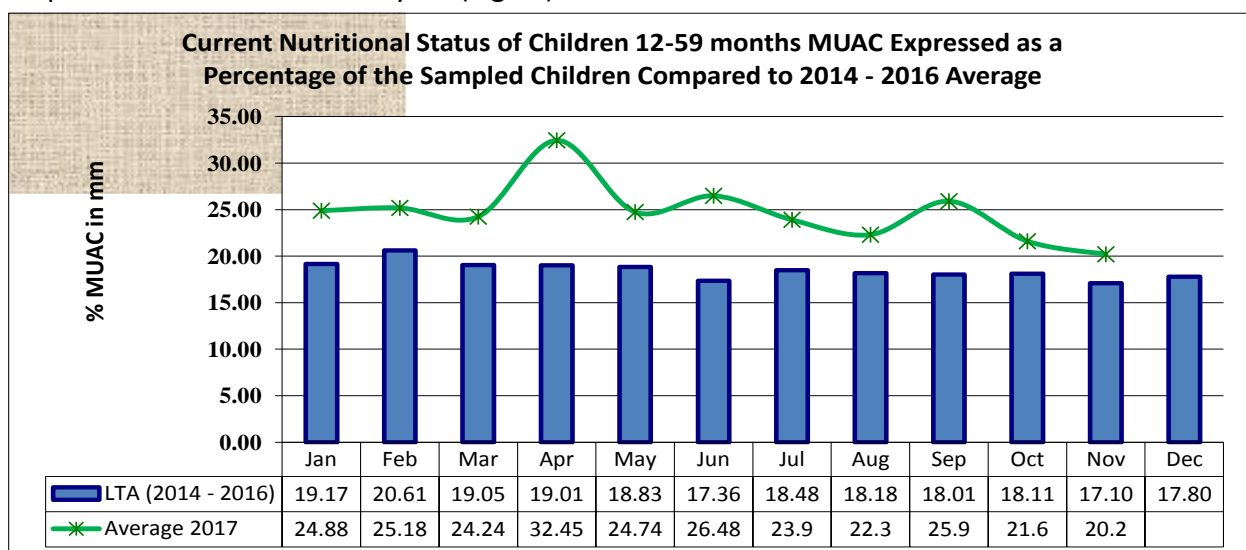


Figure 16: Graph showing average Nutritional status (MUAC)

5.1.2 Food Consumption Score(FCS)

- Improvement was noted in FCS in agro pastoral livelihood with a majority of households in borderline reducing from 29.6 percent in last month to 3.4 percent in November. This implies better dietary diversity and more meals per day. In pastoral livelihood, 44.6 percent of households had poor and borderline FCS compared to 56.2 percent recorded in the previous month.
- Better food FCS in agro pastoral livelihood can be attributed to concluded crops harvest and close proximity to markets.
- Poor food dietary diversity coupled with high cost of staple food commodities can be attributed to low food consumption scores in pastoral livelihood zone.

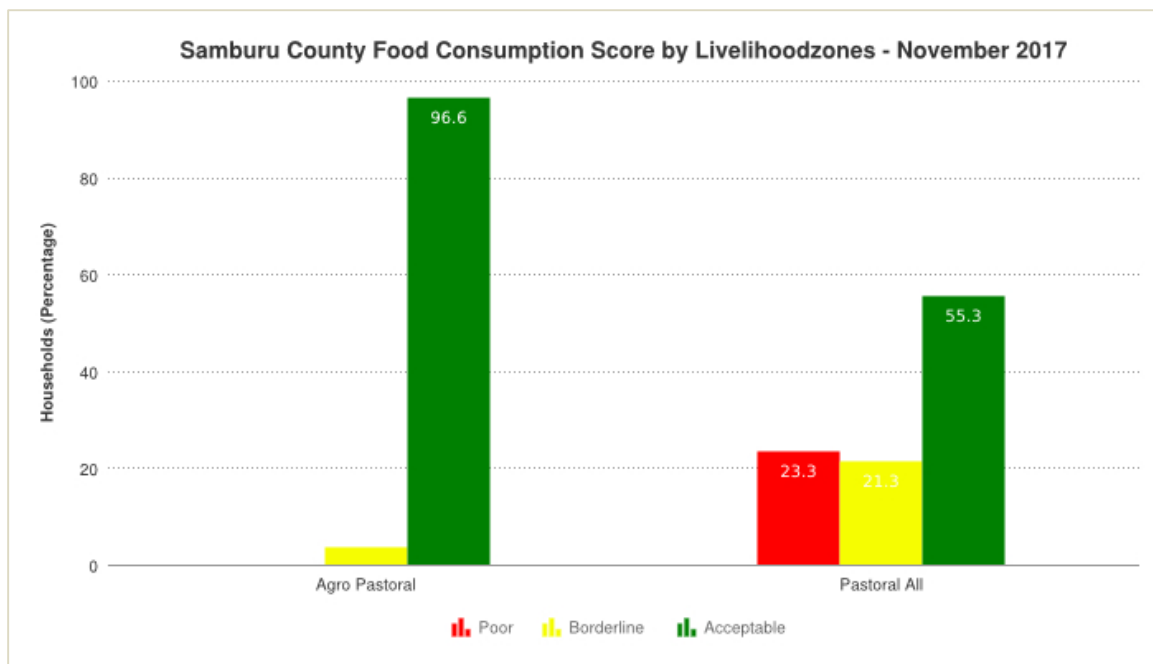


Figure 17: Bar chart showing FCS per Sub County

5.1.3 Health

- No disease outbreak was reported. However cases of Malaria, Pneumonia, common cold and URTI were reported for both under fives and general population.
- Majority of the households sought help from public health centres/ dispensaries, private clinics while others used local herbs for treatment.

5.1.4 Coping Strategies Index(CSI)

- None of the household sampled in agro pastoral livelihood employed any coping strategy and this may be due to availability of food at household level following the harvest of maize and beans. However, 15.5 percent of households in pastoral zone employed various strategies to cope with lack of food or lack of money to buy food.
- The most commonly utilized consumption based coping strategies remained 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.

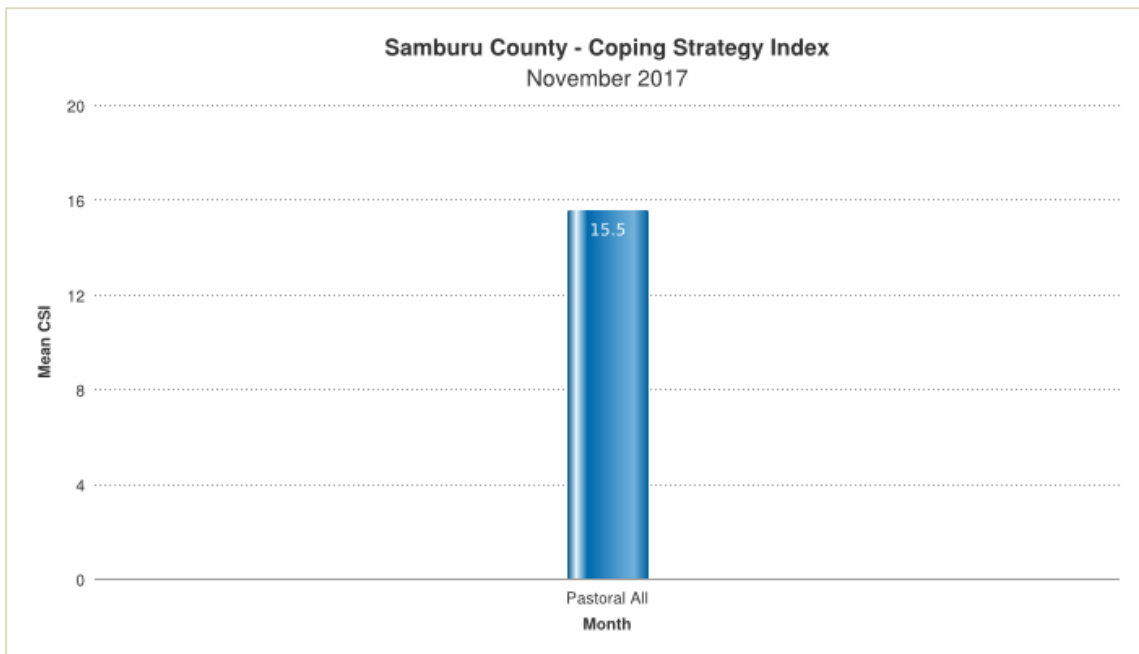


Figure 18: Bar chart showing CSI

6.0 CURRENT INTERVENTIONS AND RECOMMENDATIONS

6.1 Non-Food On-going Interventions

SECTOR	INTERVENTION	IMPLEMENTERS
LIVESTOCK	Continuation of provision of 600 bags of 50kg of pellets and UMMBs	NDMA funded by EU
	Commencement of Baragoi and Latakweny livestock Markets	RPLRP
	Feeds conservation (320 bales of hay and 8 tons of silage) in the community	County Department of Livestock
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
	Continuation of Integrated medical outreaches in Samburu East and North	MOH supported NDMA, EU, UNICEF and AMREF
Water	Drilling of a borehole at Lengarde village	RPLRP
Social Inclusion	On-going cash transfer and business mentorship to women	BOMA Project
	On-going cash transfer for old persons, people with disability and orphan and vulnerable children	National Government

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- Isolated cases of cattle theft have been reported in Longewan in Suguta ward and road banditry along the Achers – Sereolipi and Archers – Lossesia road leading to death of one person.

7.2 Food Security Prognosis

- Lambing and kidding and good conditions of livestock especially small stocks will likely increase milk productions and other livestock related incomes through December.
- Harvesting of maize from the cropping areas of agro pastoral will replenish the depleted household food stocks thus most likely to result into better dietary diversity and improved food consumption thus improved household nutritional status.
- The season rainfall has recharged both underground and surface water points thus will lead to reduced trekking distances to water points both for households and livestock.
- The incidence of conflict over water and forage is likely to reduce as most livestock are migrating back to their wet season grazing areas following the onset of the short rains.

8.0 RECOMMENDATIONS

SECTOR	INTERVENTION
LIVESTOCK	<ul style="list-style-type: none">• Awareness creation on proper rangeland management practices such as paddocking to conserve pasture for dry periods.• 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">• Promotion of roof water harvesting in schools, dispensaries and at household level
Peace	<ul style="list-style-type: none">• Consultative meetings to be held between warring communities in Samburu North
Agriculture	<ul style="list-style-type: none">• Promote post harvesting management techniques such as dusting with pesticides to control weevils

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	