



National Drought Management Authority SAMBURU COUNTY

DROUGHT EARLY WARNING BULLETIN FOR FEBRUARY 2016

FEBRUARY 2016 EW PHASE

Drought Status: NORMAL

Shughuli za kawaida

Early Warning Phase Classification

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

Colour	VCI values 3-monthly average	Drought Category
	≥50	Wet
	35 to 50	No drought
	20 to 35	Moderate Drought
	10 to 20	Severe
	<10	Extreme Drought

Drought Situation & EW Phase Classification

Biophysical Indicators

- A slight deterioration was noted in vegetation condition cover for the entire county compared to last month as measured by Vegetation Condition Index (VCI). The current situation remained above the normal range at this time of the year.
- Samburu East recorded the lowest VCI of 47.47 although remained with the normal range.
- Ground and surface water sources have started to decline.

Socio economic indicators details

- Normal seasonal migrations of cattle were reported across the livelihoods which is normal at this time of the year.
- Milk production increased as compared to last month but still remained below the long term value.
- No deaths were reported as a result of drought; however few deaths were reported due to diseases and predation.
- Body conditions for grazers were fair to good while browsers had good body condition.
- Terms of Trade (ToT) stabilised at 0.56 kg of meat in exchange for a kilo of cereals though it was above normal range.
- The prevalence of sampled children at risk of malnutrition remained similar to last month and was below the long term range.
- Current CSI slightly increased to 2.8 compared to 2.6 noted in the last month an indication of more coping strategies being adopted at households.

Biophysical Indicators	Value	Normal ranges
VCI-3month (Samburu County)	55.92	35-50
VCI-3month (Samburu East)	47.47	35-50
VCI-1month (Samburu East)	33.76	35-50
VCI-3month (Samburu North)	62.28	35-50
State of Water Sources	3	5

Production indicators	Value	Normal ranges
Livestock Migration Pattern	Minimal migration	Normal Migration
Livestock Body Conditions	4-5	5-7
Milk Production	82	<112
Livestock deaths due to drought	No Deaths reported	No death

Access Indicators	Value	Normal ranges
Terms of Trade (ToT)	56	<49
Milk Consumption	48	<42

Utilization indicators	Value	Normal ranges
MUAC	18.27	Below 20
Coping Strategy Index (CSI)	2.8	1.50 – 1.02

<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

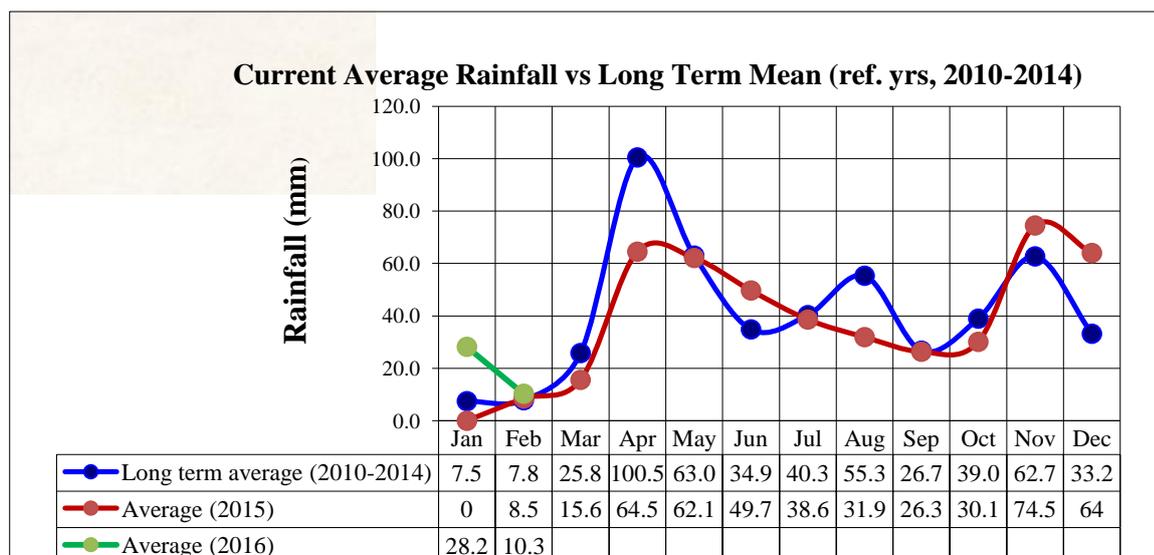


Figure 1: Graph showing rainfall trends as measured by Rain gauge data
(Source: Ministry of Agriculture)

1.1.1 Temporal and Spatial Distribution

- Distribution both in time and space was poor and uneven.
- Average precipitation recorded was 10.3 mm as measured by rain gauges stationed in Baragoi, Maralal and Suguta stations.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 Vegetation Condition Index (VCI)

- The conditions of rangelands cover has slightly deteriorated across the county recording an average of 55.92 compared with 58.27 recorded in last month as measured by VCI.
- Deterioration in rangeland cover conditions can be attributed to high daytime temperatures causing wilting and windy weather conditions. The situation is within the normal range of 35 – 50.
- Compared with long term average (LTA), the situation was above seasonal long term average for the entire county attributed to above normal short rains experienced in the month of November and December (Fig. 2).

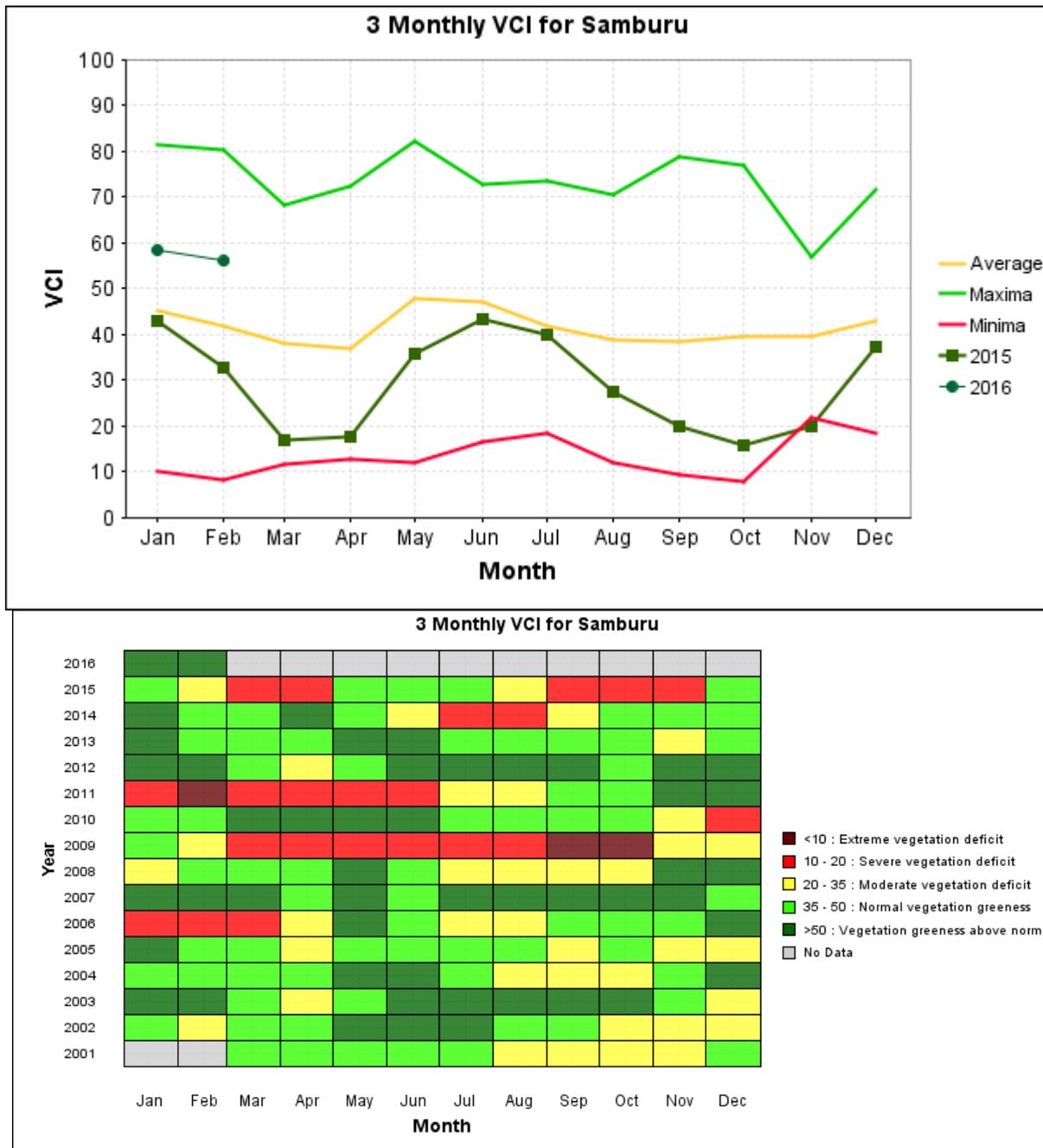


Figure 2: Graph and Matrix chart Showing VCI trends for Samburu County (Source: Boku University)

- Allowing livestock to access the regulated (deferred) areas in Samburu east has resulted in concentration of livestock in specific areas thus causing quick depletion of pastures. The situation has remained above the long term average at this time of the year.

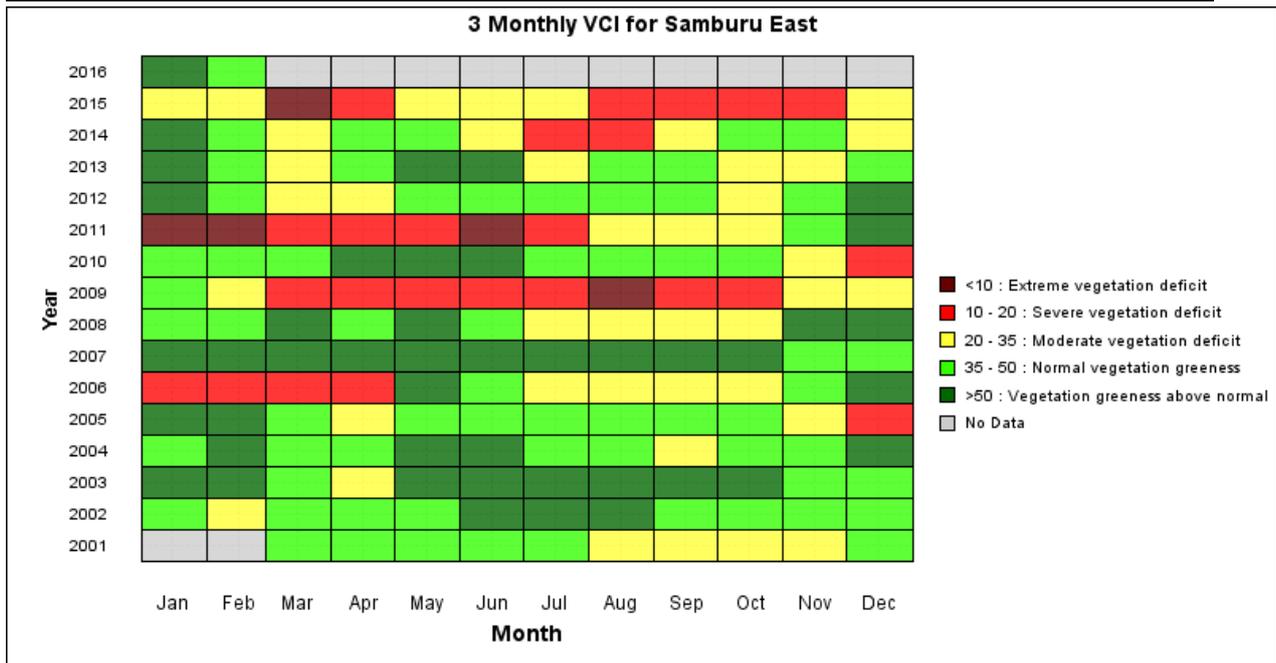
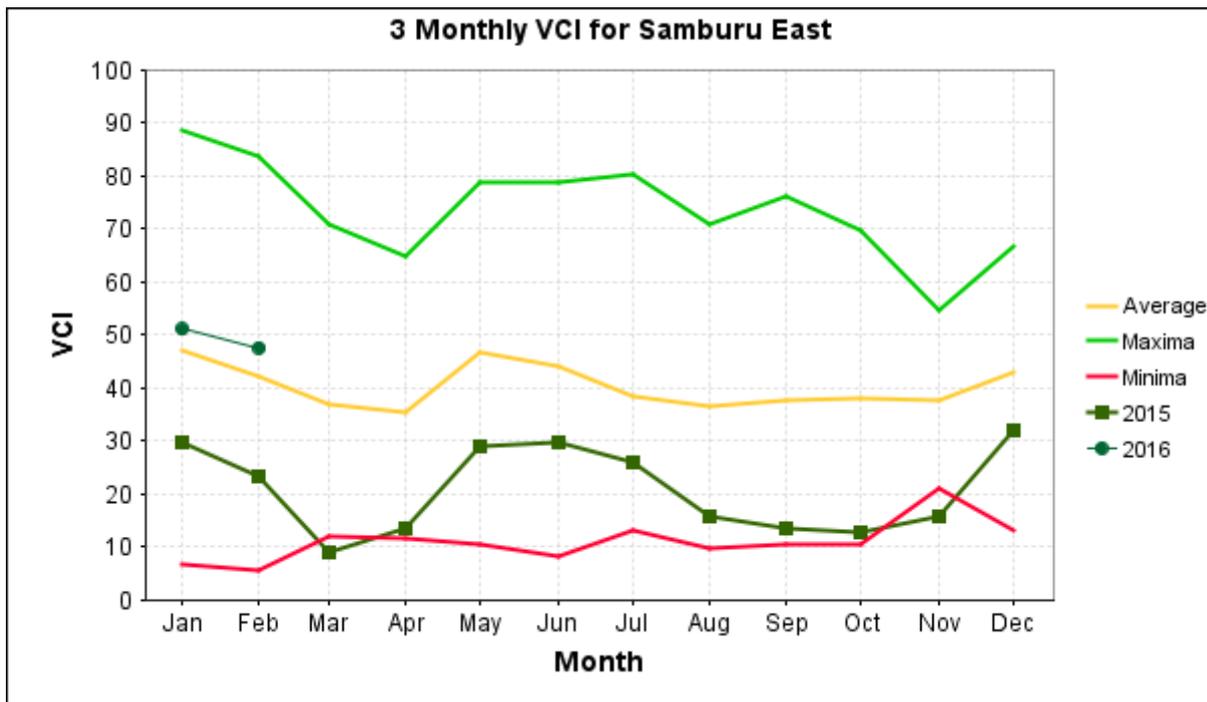


Figure 3: Graph and Matrix Chart Showing Historical VCI trends for Samburu East sub county (Source: Boku University)

2.1.1 Field Observations (Pasture and Browse Conditions) Quality

- The browse condition in terms of quality is good across the livelihoods while pasture quality is good to fair in enclosed closures in agro pastoral while it is fair in open grazing fields. In pastoral areas the quality is fair; however it is good in conflict zones particularly in Samburu North.

Quantity

- The quantity of browse was good to fair in both the livelihoods while pasture is fair attributed to the enhanced short rains as well as controlled (deferred) grazing system practiced mainly in Samburu East.
- In areas of Marti, Angata Sikira and Waso Rongai in Samburu North, pasture is available in large quantities which can last up to onset of long rains but are inaccessible due to insecurity.
- In the agro pastoral livelihood, the pasture is fair while browse is good expected to last 2-3 months while pasture will last for one month due to high population of sheep. In Kirisia hills forage access is regulated by controlled (deferred) grazing and wild life livestock conflict.

2.2. WATER RESOURCE

2.2.1 Sources

- The major water sources during the month remained similar to the previous month with Natural rivers contribution declining to 20 percent from 23 percent in last month. Shallow wells usage increased to 15 percent from 10 percent in the previous month.
- Natural Ponds contributed 20 percent of the available water followed by Traditional Rivers Wells at 19 percent and Pans and dams at 17 percent.
- The current situation is remained above normal compared to the same season at this time of the year.

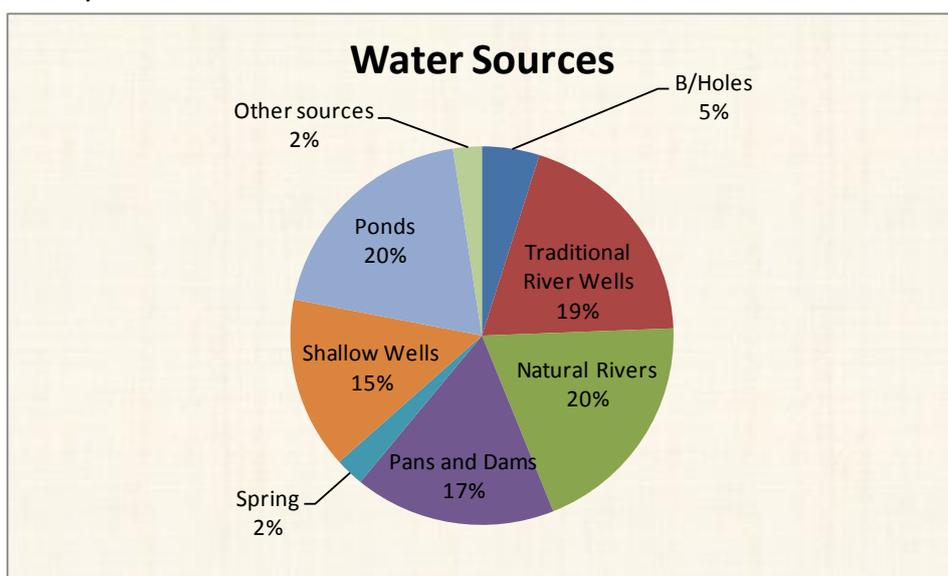


Figure 4: Common water sources

2.2.2 Household Access and Utilization

- Households trekking distances to main water points increased to 2.8 km from 2.5 km recorded in the month of January.
- The increase can be attributed to reduction in recharge level as a result of hot and dry weather conditions being experienced.
- Nachola and Swaari sentinel sites (pastoral) continued to recorded furthest trekked distances at 6 km each followed by Sereolipi and Kiltamany at 4 km.
- In the pastoral livelihood zone, the average trekking distance was 3.1 km while in the agro pastoral households walked 1.5 km.

- The current average distance to water points is significantly below the long term value at this time of the year.

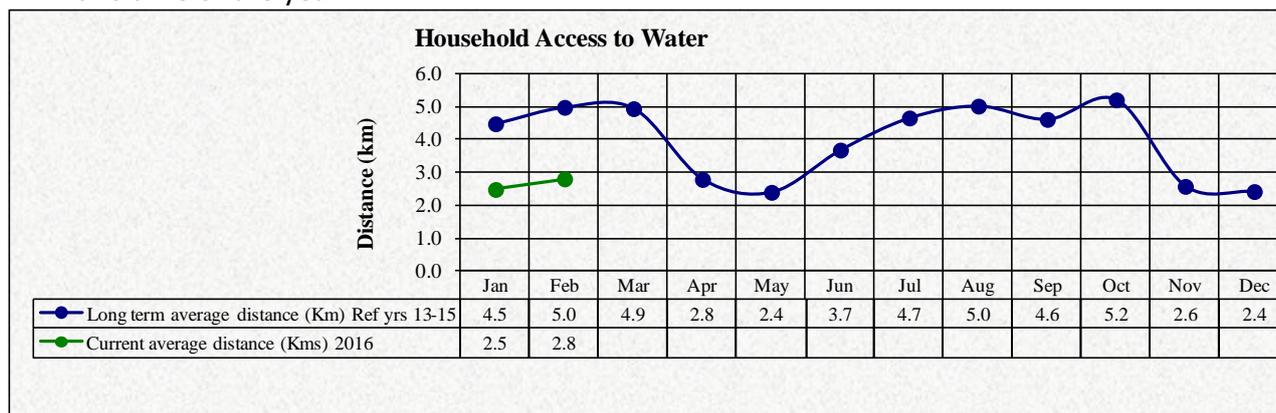


Figure 5: Average Distance Travelled by Households in Search of Water

2.2.3 Grazing Distances to Water Points

- Like household distance, grazing distances increased to 7.2 km compared to 6.4 km recorded last month. The increase can be attributed to declining recharge levels due to hot and dry conditions being experienced.
- Long grazing distances were recorded in pastoral livelihood averaging at 8.2 km while in agro pastoral was 3.5 km.
- The variation can be attributed to close proximity of water sources such as streams and shallow wells in agro pastoral livelihood zone (LZ) compared to Pastoral LZ.
- Grazing distances remained high in Swaari and Nachola at 17.3 km and 13.3 km respectively.
- Compared to seasonal long term mean, the remained below normal at this time of the year (Fig. 6).

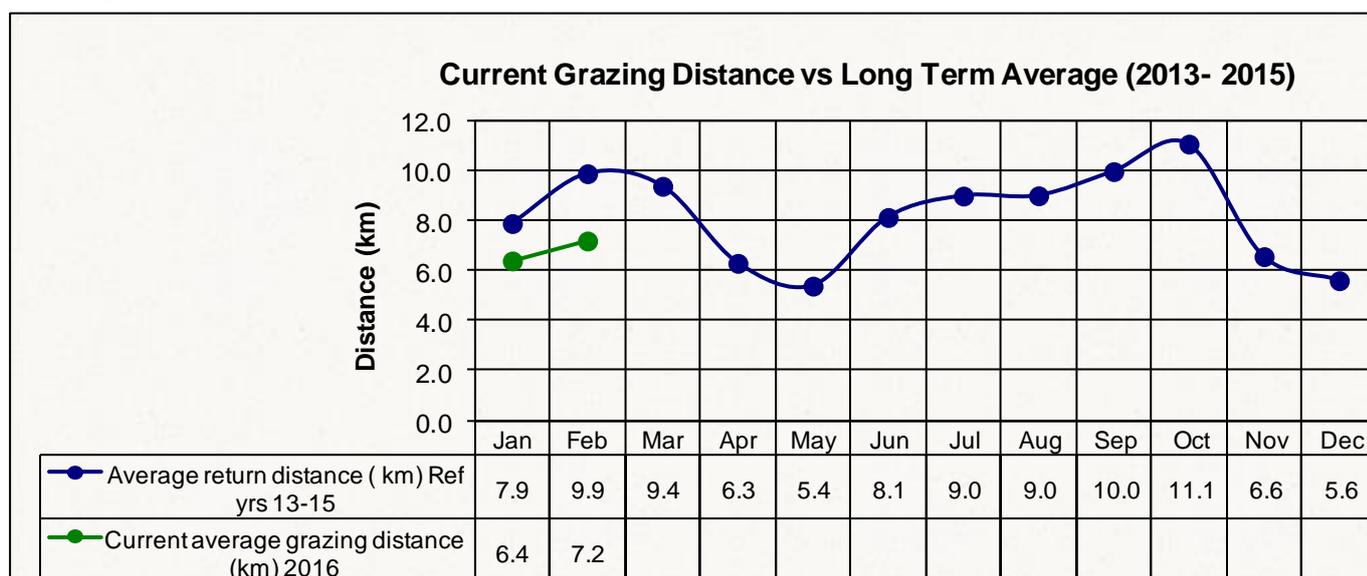


Figure 6: Distance travelled to water points from grazing areas

3.0 PRODUCTION INDICATORS

3.1 Livestock Production

3.1.1 Livestock Migration Patterns

- Cattle that migrated to Samburu east were moving towards the border of Samburu and Laikipia as the pasture and water sources are depleting.
- Pastoralists from Sereolipi have moved with their cattle to Kauro and Sira in search of pastures while some cattle from Elbarta in Samburu North have migrated to Ndonyo Wasin due to insecurity. The influx of cattle in Samburu East will lead to faster depletion of pasture and increased risk of livestock disease outbreaks.

3.1.2 Livestock Body Condition

- Livestock body condition for grazers in pastoral zone is good smooth appearance while for the browsers' (goats and Camel) is very good smooth with fat over back and tail head.
- The current body condition is significantly better compared to the same period of the year across the livelihood zones and the trend may remain stable for 2 months for grazers as pasture is still available in dry season grazing areas and 4 months for browsers.
- In the agro-pastoral zone, the livestock body condition is good for cattle and other species although it is above normal as compared to the same period at this time of the year.

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	

3.1.3 Livestock Diseases

- There was no major disease outbreak reported within the county nevertheless clinical signs of Foot and Mouth (FMD) continued to be reported in pastoral livelihood zones of Kawop, Sereolipi and Laesoro. Cases of Contagious Caprine PleuroPneumonia (CCPP) were reported in Nachola, Sereolipi and Laesoro. Diarrhoea and clinical signs of Goat and Sheep pox in small stock was predominantly reported across the two livelihood zones. Mange in camels was reported in Nachola.

3.1.4 Milk Production

- Milk production increased from 72 litres to 82 litres on average for the entire county although it still remained below normal at this time of the year.

- The low milk production can be attributed to low birth rate as a result of cumulative effect of last year drought across the livelihoods.
- In agro pastoral zone average milk produced 105 litres whereas pastoral zones produced 268 litres. The variation was due to large number of cattle kept and rearing of Camels in pastoral livelihood.

3.1.5 Livestock Deaths

- Few cases of livestock deaths were reported due to diseases and predation by wild dogs, hyenas and cheetahs.

3.2 Rain Fed Crop Production

3.2.1. Date of Planting and Area Planted

- The marginal farming pockets along the Kirisia hills, kirimon and Nkeju emuny (agro pastoral) planted maize and beans at the onset of the short rains.

3.2.2 Stage and Condition of crops

- Maize grown in lowland marginal pockets of agro pastoral areas are at harvesting stage.

3.2.3 Harvest of Crop

- Harvesting of maize is ongoing in marginal lowland pockets of agro pastoral.

4.0 MARKET PERFORMANCE

4.1 Livestock Prices

4.1.1 Livestock Terms of Trade (ToT)

- The Current TOT remained similar as last month at 0.56, with one goat exchanged with 56 kilograms of maize. The current TOT of 0.56 is above normal at this time of the year (Fig. 7).
- The TOT is unfavourable to pastoralists which entirely depend on livestock.

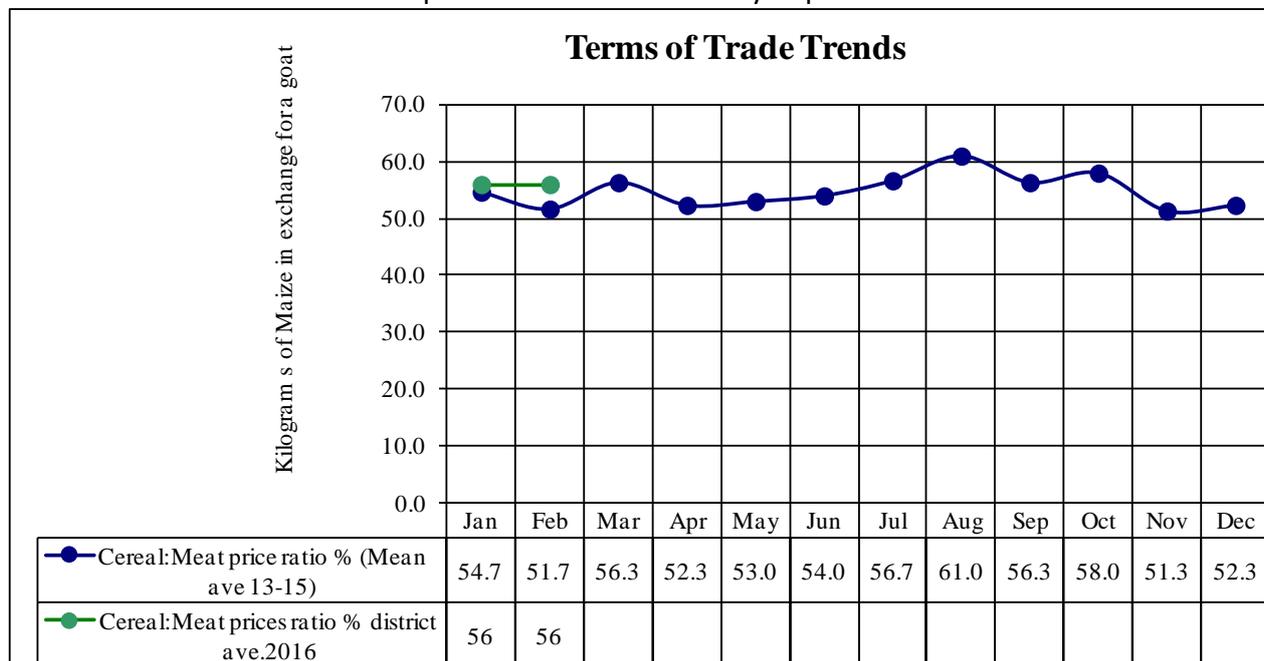


Figure7: Trends in Terms of Trade (ToT)

4.1.2 Cattle Prices

- The average cattle selling price decreased to Ksh 17,518 from Ksh 18,979 recorded in last month despite the good body condition. The decrease can be attributed to poor market conditions as a result of influx of animals to the markets as households sought to raise school fees for form one students.
- In the pastoral livelihood the average selling price was Ksh 23,182 while in agro pastoral it recorded an average price Ksh 16,285. The variation was due to better market performance in pastoral LZ compared to agro pastoral LZ.

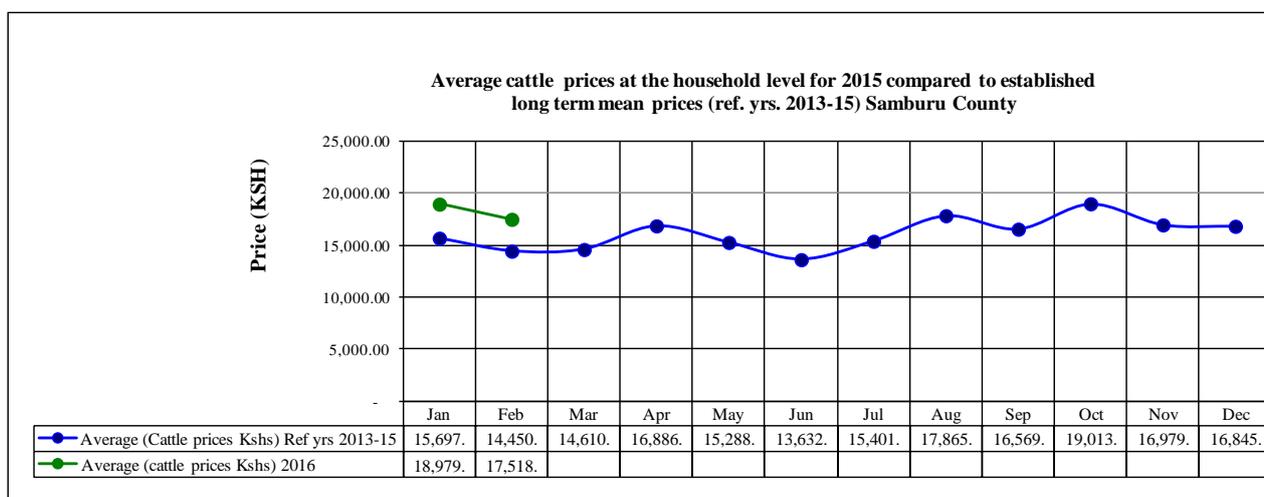


Figure 8: Graph Showing Cattle Selling Price Trends at Farm Gate Level

4.1.3 Goat Prices

- Like cattle, goat’s selling price slightly decreased to Ksh 2,349 from Ksh 2,361 recorded in the previous month. The decrease can be attributed to poor market conditions as a result of influx of animals to the markets as households sought to raise school fees for form one students.
- On average agro pastoral livelihood zone recorded selling price of Ksh 2,343 while pastoral livelihood recorded an average price of Ksh 2,349. The variation was due to better market performance in agro pastoral LZ compared to pastoral LZ.



Figure 9: Graph Showing Goats’ Selling Price Trends at Farm Gate Level

4.1.4 Sheep Prices

- Sheep average selling price decreased to Ksh 2,094 from Ksh 2,361 recorded last month. This price was below the long term value at a similar time of the year.
- Agro Pastoral areas continued to record high sheep prices averaging at Kshs 2,622 while in pastoral livelihood had Ksh 2,113. The variation was due to good markets for sheep in agro-pastoral LZ than in pastoral LZ.

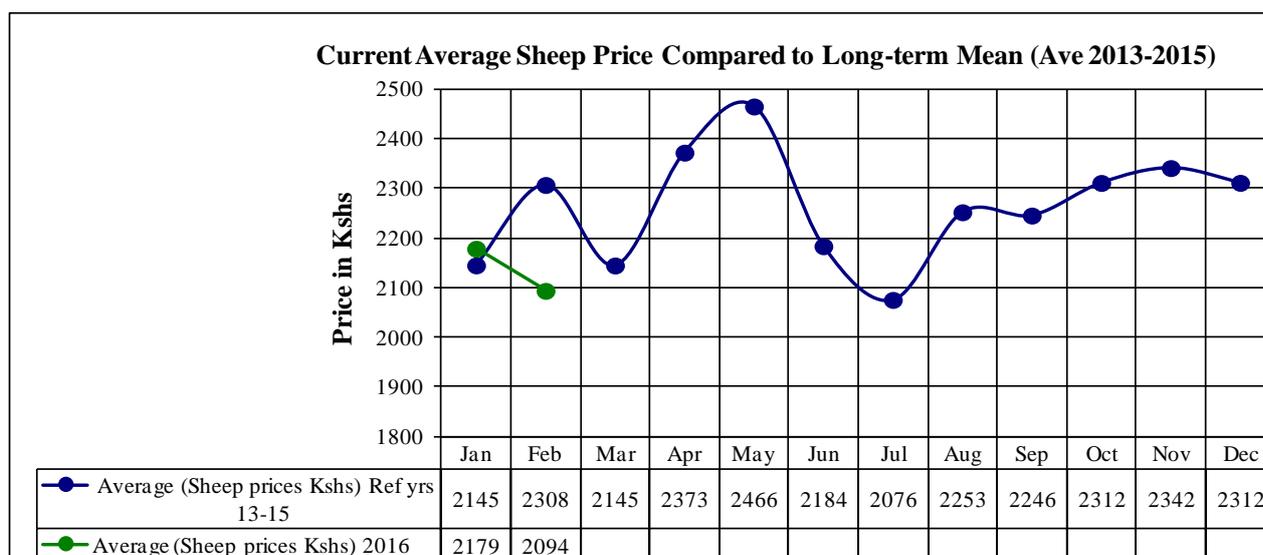


Figure 10: Graph Showing Sheep Selling Price Trends at Farm Gate Level

4.2 CROP PRICES

4.2.1 Posho (Maize Meal)

- Currently Posho (maize meal) average market selling price stands at Kshs 48 per kilogram compared Kshs 50 per kilo recorded last month which was slightly above seasonal long term average (Fig. 11).
- In the pastoral livelihood, posho average market price was Kshs 50 while in agro-pastoral livelihood it was Kshs 45. The variation is due accessibility of cereals in agro-pastoral areas and also added transport to Samburu North.

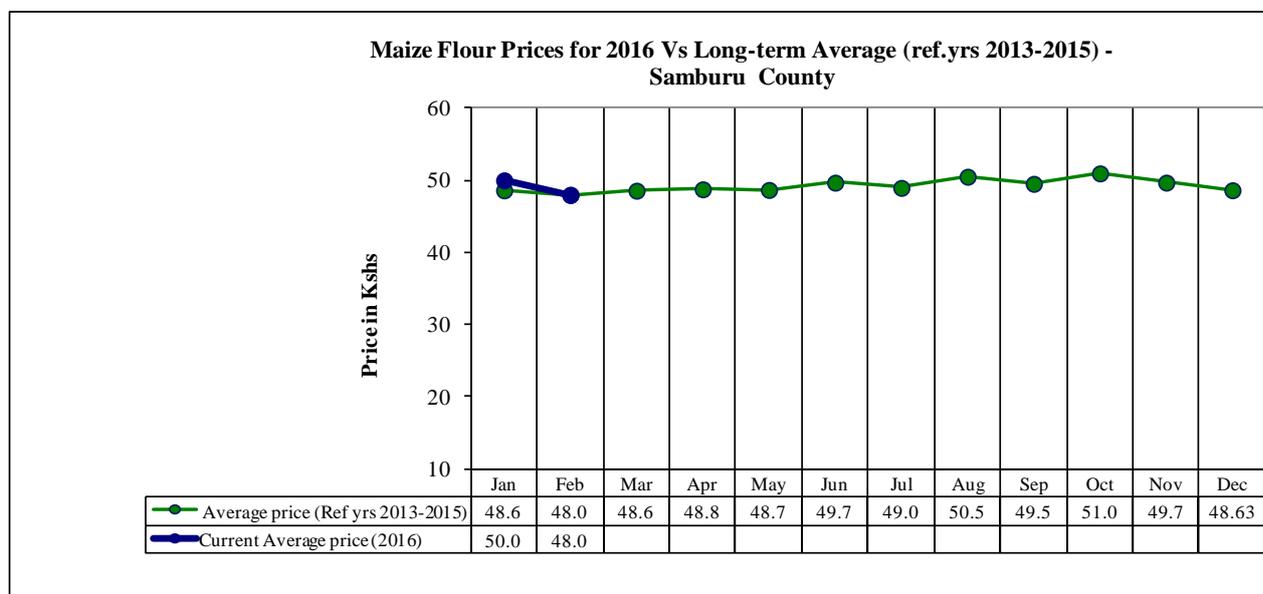


Figure 11: Graph Showing Maize meal Price Trends

4.3 Source of Income

- The predominantly source of income for the households across the county was sale of livestock contributing 49 percent of the income followed by casual labour which had 21 percent and petty trade at 13 percent (Fig. 12).

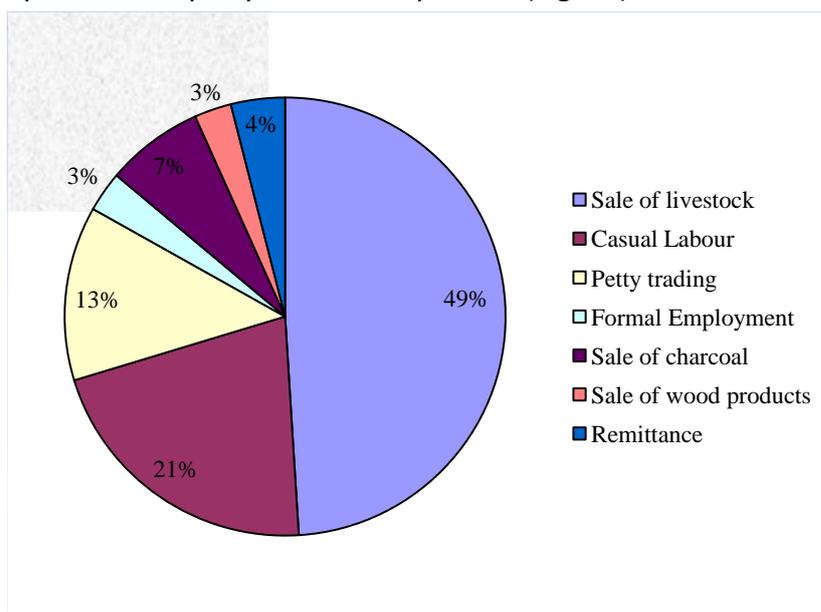


Figure 12: Household Common Sources of Income

5.0 UTILIZATION INDICATORS

5.1 Health and Nutrition Status

5.1.1 MUAC

- Prevalence of sample children at risk of malnutrition (MUAC <135 mm) was similar to the previous month at 18 percent.
- Kawop continued to record high rate of children at risk of malnutrition standing at 40 percent followed by Sereolipi and Tuum at 38 and 31 percent respectively.
- The pastoral livelihood recorded high rates of children at risk of malnutrition at 18.8 percent whereas sagro pastoral recorded 9.4 percent.
- The variation was due to the fact that households in agro pastoral areas do access and utilize legumes unlike their pastoralists' counterparts who solely depend on meat and milk.
- The current malnutrition rate is below the long term value of 20 percent at this time of the year (Fig. 13).

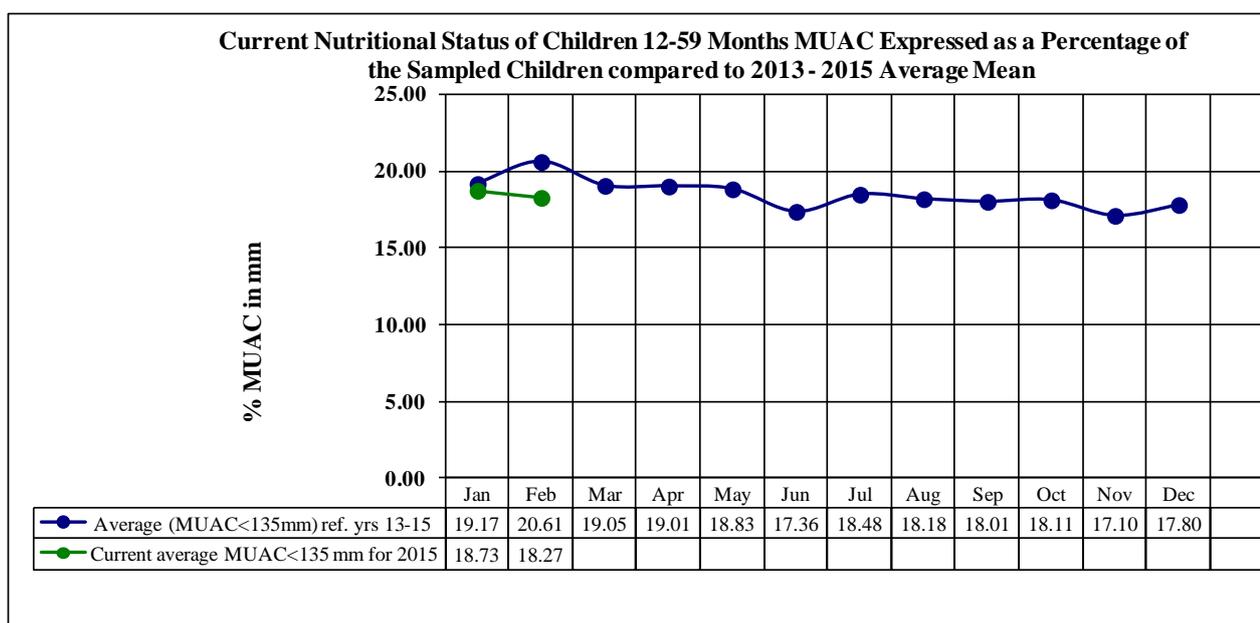


Figure 13: Graph showing average Nutritional status (MUAC)

5.1.2 Health

- No major disease outbreaks were reported during the month; however cases of epidemic disease like Malaria, diarrhoea, pneumonia and upper respiratory tract infection were reported in most sentinel sites.
- Households countered the ailments through medical assistance sought from public health centres/ dispensaries, private clinics and use of local herbs.

6. CURRENT INTERVENTIONS AND RECOMMENDATIONS

6.1 Non-food interventions

- The county veterinary department is undertaking routine vaccination against Foot and Mouth Disease (FMD) and Sheep and goat pox.

6.2 Food Aid

- Provision and distribution of general relief food resumed in the month of February after seasonality (break) period targeting 80,460 beneficiaries.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- No incidence of insecurity was reported for the period under review though tension is still high in Marti and Baragoi following last month raids which led to displacement of households and loss of life in Baragoi in Samburu North Sub County.

7.2 Food Security Prognosis

- The deterioration in rangeland conditions is likely to have negative impact on livestock body condition till the onset of long rains anticipated in April.
- The ongoing maize harvests in the marginal lowland of agro pastoral and supplies from neighbouring will likely to stabilize cereal prices.
- With normal livestock migrations being experienced across the livelihoods, households are likely to access less of the milk and its products which will compromise food consumption particularly for pastoralists in the pastoral all species and agro pastoral livelihood zone for whom milk is a staple food. The nutritional status of children is therefore likely to worsen especially in the pastoral zone.

8.0 RECOMMENDATIONS

- Enhance peace and conflict resolution in Marti and Baragoi to ease the inter community tension and encourage peaceful coexistence.
- Sensitization and training communities in agro pastoral areas on early land preparation in readiness for the long rains expected in April.
- Provision and distribution of certified crops seed to farmers and encourage farmers to plant early maturing drought tolerant crops.
- Nutritional surveillance in areas with high prevalence of children at risk of malnutrition especially Kawop, Sereolipi and Tuum to ascertain root cause of malnutrition.