

National Drought Management Authority SAMBURU COUNTY

NATIONAL DROUGHT MANAGEMENT AUTHORITY



A Vision 2030 Flagship Project



DROUGHT EARLY WARNING BULLETIN FOR JUNE 2018

JUNE 2018 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

Drought Situation & EW Phase Classification

Biophysical Indicators

- Enhanced seasonal rainfall progressed well into the beginning of June however with reduced amounts and intensities resulting to good quality and quantity of forage condition.
- Open surface water sources across the county still holding water to their maximum capacities.

Socio Economic Indicators Details

- Livestock body condition was ranging between good smooth appearance and very good with fat over back.
- Milk production and consumption were stable however remained below normal at this time of the year.
- Reduction both in household and livestock trekking distances continued to be witness across the county.
- Maize/*posho* prices were stable although remained below the long term average by 11 percent during the month.
- Terms of trade slightly decreased with income from 3 year old goat exchanged with 68.7 kilogram of cereals down from 73 kilo noted in last month.
- The prevalence of children at risk of malnutrition worsened eight compared to the rate recorded in the month of May.

Biophysical Indicators	Value	Normal range/Value	
VCI-3month (County)	74.91	35-50	
VCI-3month -Samburu East	64.54	35-50	
VCI-3month -Samburu North	85.07	35-50	
VCI-3month-Samburu West	82.06	35-50	
Production indicators	Value	Normal ranges	
Livestock Migration Pattern	No Migration	No Migration	
Livestock Body Conditions	Cattle: Very good smooth Goats: Good appearance	Fat & Smooth appearance	
Milk Production	1.4	<2.2	
Livestock deaths due to drought	No Deaths	No death	
Access Indicators	Value	Normal ranges	
Terms of Trade (TOT)	68.7	<45.6	
Milk Consumption	1.3	<1.9	
Return distance (km)	Household	3.2	<3.7
	Livestock	7.3	<8.8
Acceptable FCS (percent)	Pastoral	65.9	100
	Agro pastoral	96.6	100
Utilization indicators	Value	Normal ranges	
MUAC (percent)	23.5	<19.05	
Mean CSI	Pastoral	13.6	<56
	Agro pastoral	0.3	<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 March–April–May seasonal rainfall continued into the month of June with amounts reducing towards the middle of the month.
- High rainfall intensity was received in the first dekad (10 days period) of the month with the frequency and intensity declining in the last two dekads (Figure 1).

1.2 Amount of Rainfall and Spatial Distribution

- The amounts received in the month were 456, 5 and 102 percent above the long term average in the 1st, 2nd and 3rd dekads respectively (Figure 1).
- In term of space, the rains were well distributed in agro pastoral livelihoods and fairly distributed in pastoral livelihood zone.

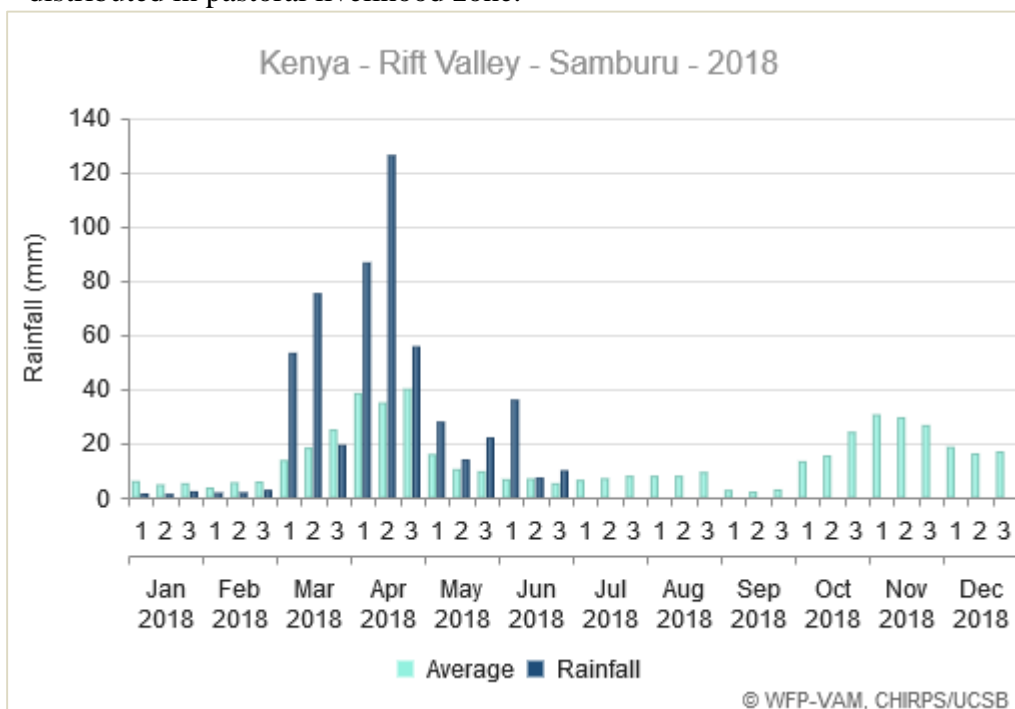


Figure 1: Graph Showing Rainfall Estimates (RFE) Trends for Samburu County
(Source: WFP-VAM, CHIRPS/UCSB)

IMPACTS ON VEGETATION AND WATER

2.0 Vegetation Condition

2.1.1 Vegetation Condition Index (VCI)

- Forage condition stabilized across the livelihoods zone remaining within band of vegetation greenness above normal for all the three sub counties. Good vegetation condition was attributed to good March –April-May rains performance that was continuous throughout the season with good spatial distribution.
- In comparison to LTA, the situation was above normal at this time of the year (Figure 2).

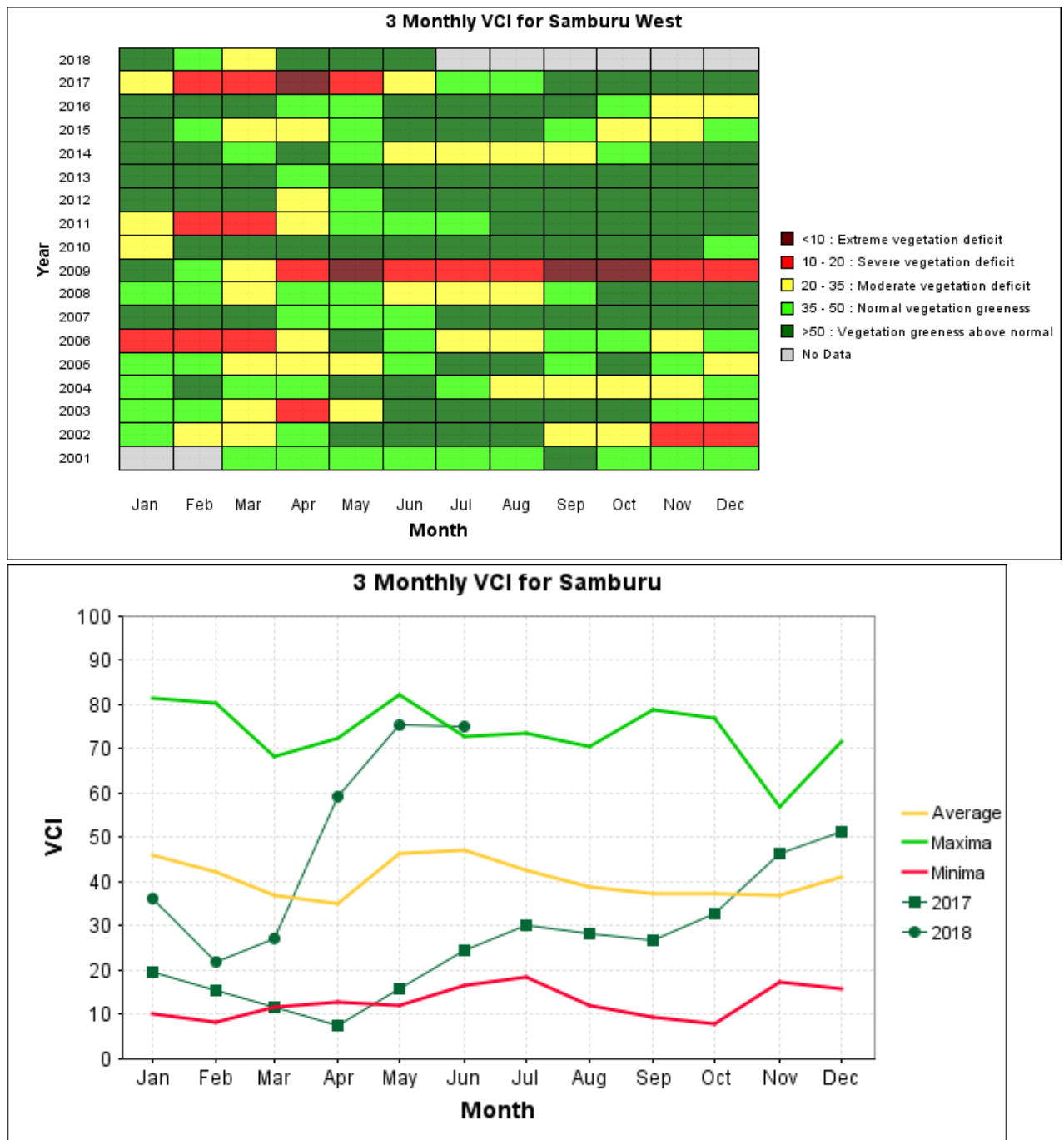


Figure 2: Matrix and Graph Showing VCI Trends for Samburu County

(Source: Boku University)

2.1.2 Field Observations (Pasture and Browse Conditions)

Quality and Quantity

- The rangelands continued to have dense, good quality and quantity of forage due to above normal rains that impacted positively on vegetation cover across all the livelihood zones.
- The proportion of interviewed community key informants that responded pasture and browse was good was 94.1 percent. Land degradation and infestation by invasive species such as *Acacia Reficiens* can be linked to 5.9 percent of community members responding that pasture is fair.

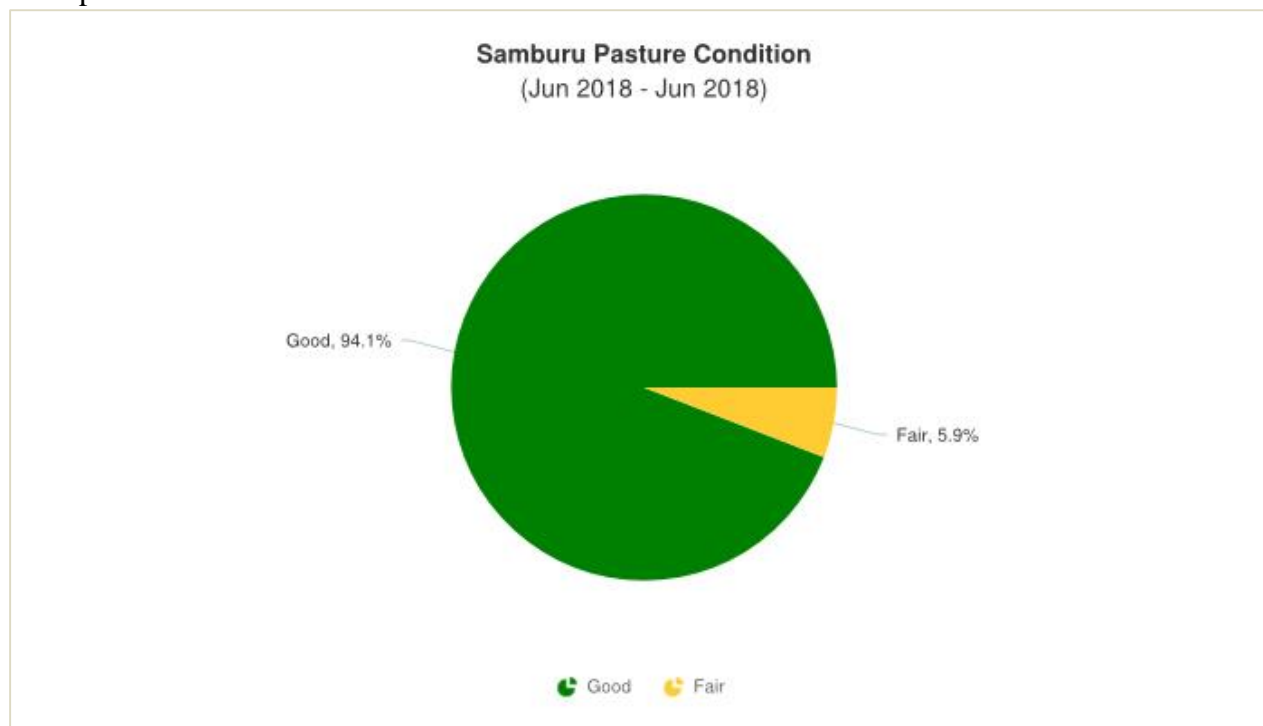


Figure 3: Pasture Condition

2.2. Water Resource

2.2.1 Sources

- The enhanced rainfall has recharged most water sources with open water sources impounding water to maximum levels. Underground water sources yields have also improved due to enriched water table depth resulting into access to sufficient quantity of water by both households and livestock.
- The water in open surface water sources was observed to contain high turbidity attributed to surface run-off draining water into surface water points hence likely of environmental pollutants collected into water sources.
- During the period under review, traditional river wells and pans and dams usage topped the list of water sources with proportion of households using traditional river wells increasing to 29 percent from 24.3 percent recorded last month and pans and dams increased to 25.8 from 21.6 percent.
- Other water sources for the month include shallow wells and boreholes each contributing 19.4 percent and rivers each subsidising at 6.5 percent. According to flood rapid assessment report, some of water sources were destroyed by floods experienced in April which include 17 boreholes, 6 water pans breached and one gravity system in Arsim.

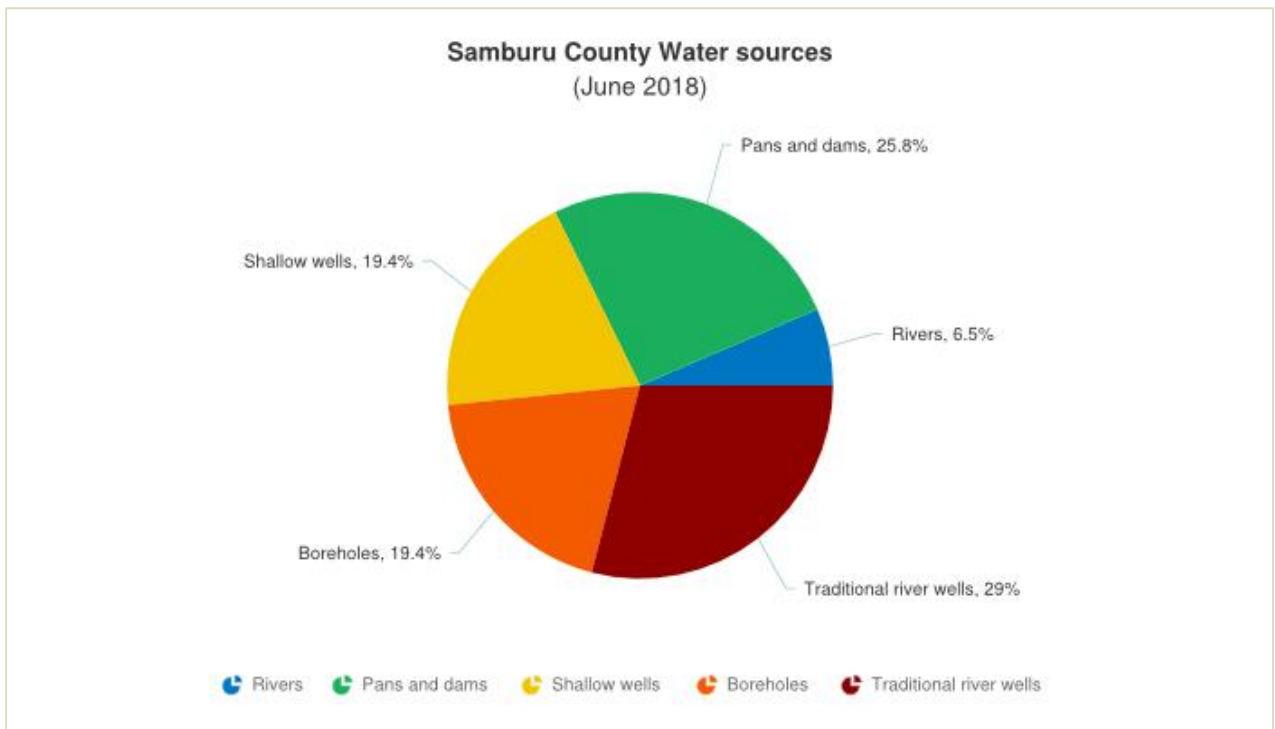


Figure 4: Common water sources

2.2.2 Household Access and Utilization

- Household return trekking distances were stable compared to last month with current average standing at 3.2 km. This was a result of significant amounts of rainfall received from March through beginning of June that fully recharged water sources.
- Households in pastoral areas of Samburu north recorded return distance of 3.5 km while east Sub County had 3 km.
- According to household respondents, majority of the household consumed water without subjecting to any water treatment method which is likely to predispose them to possibility of water borne diseases.

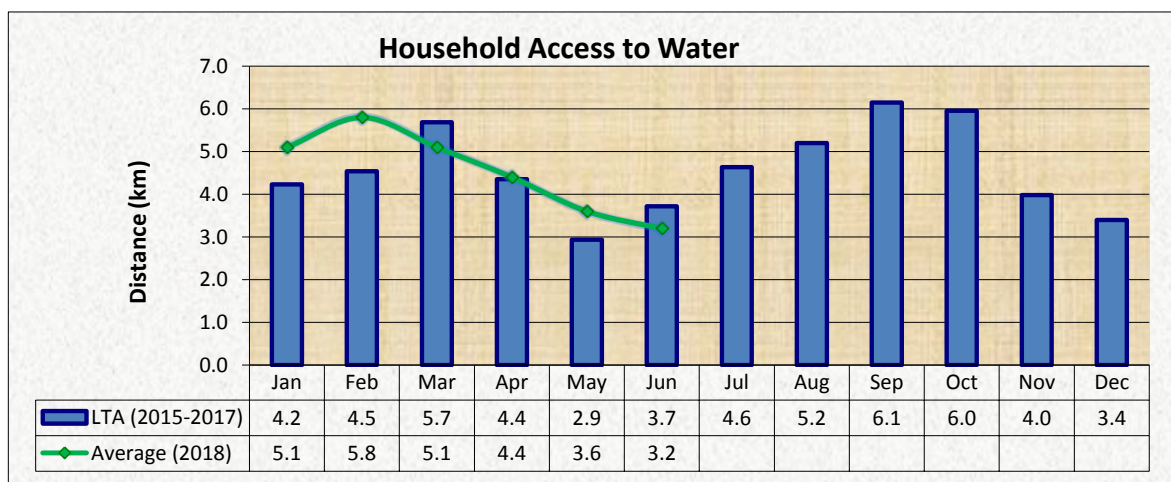


Figure 5: Average Distance Travelled by Households in Search of Water

2.2.3 Livestock Access (Grazing Distances to Water Points)

- Distances covered by livestock from grazing areas to water points reduced by eight percent as compared to the previous month. The reduction is a result of improved forage conditions and availability and ease access to water around homesteads due to above normal rains.

- All livestock species were watered on a daily basis due availability and ease access to water around homesteads.
- In comparison to 3 year average, the current average distance was 17 percent below at this time of the year (Figure 6).

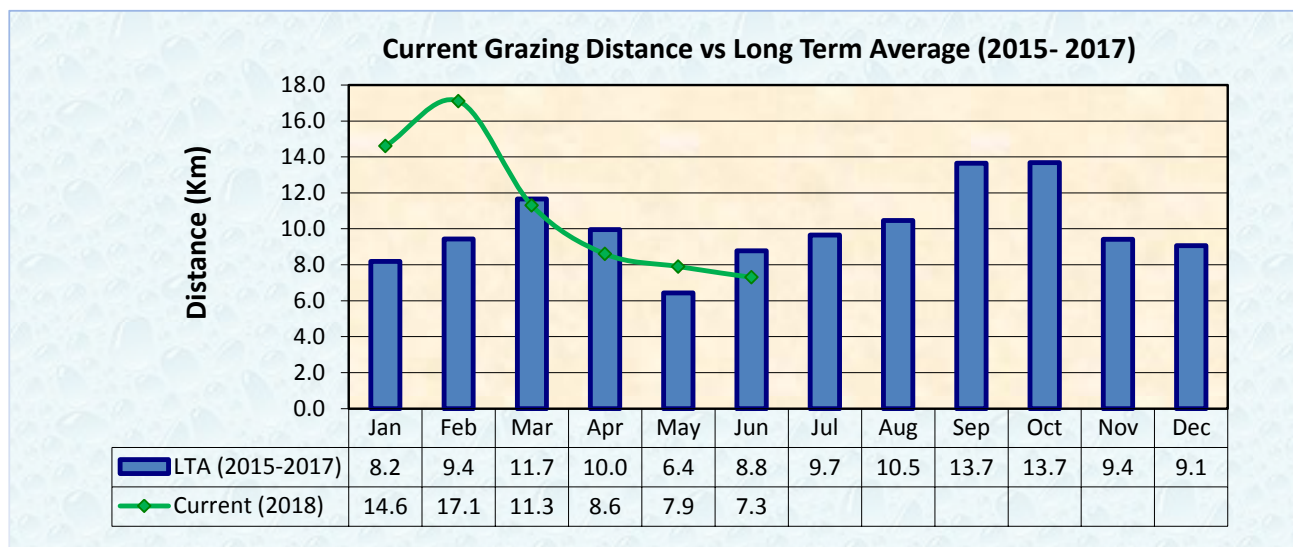


Figure 6: Distance Travelled from Grazing Areas to Water Points

3.0 PRODUCTION INDICATORS

3.1 Livestock Production

3.1.1 Livestock Body Condition

- Cattle body condition was very good smooth with fat over back and tail head in most parts of the county attributed to good forage and reduced grazing distances. However, sheep and goats body condition was good smooth appearance due to rainy weather causing cold stress. In addition, infections from diseases such as Bluetongue and Contagious Caprine Pleuro Pneumonia (CCPP) have slowed the improvement of body conditions for sheep and goats (*Refer to table 4 in annex*).

3.1.2 Livestock Diseases and Deaths

- Bluetongue disease and Foot and Mouth Disease (FMD) have been confirmed in Samburu central particularly in Loosuk, Poro and Suguta wards. Fears of Rift Valley Fever are suspected in areas bordering Marsabit County where RVF has been confirmed. Other endemic diseases reported across the livelihood zones include Contagious Caprine Pleuro Pneumonia (CCPP) and diarrhoea in sheep.
- No livestock deaths reported as a result of drought however normal livestock deaths were experienced as result of predation by wild animals and diseases.

3.1.3 Milk Production

- Milk production stabilized at 1.4 litres per household per day in comparison to last month average of 1.5 litres. Stable milk production was as result of improved rangeland resources resulting into improved livestock productivity.
- In comparison to long term average, current production remained below the LTA by 36 percent the same period of the year (Figure 7).

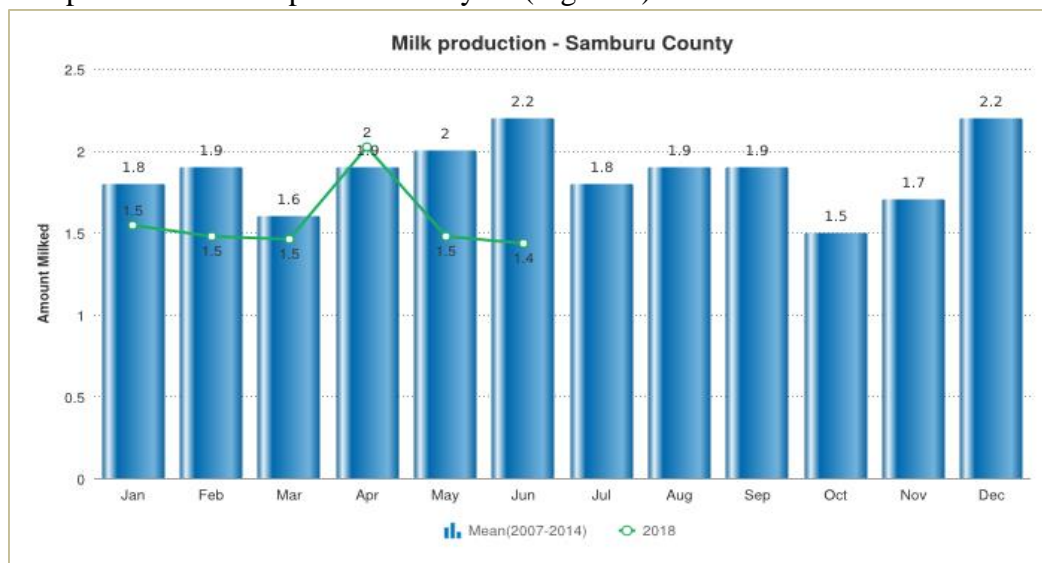


Figure 7: Trends in Milk Production per Household

3.2 Rain Fed Crop Production

3.2.1 Stage and Condition of Food Crops

- Maize crops are on various stages depending on date of planting ranging within tussling, silking and grain filling while beans are at pod filling stage. Conditions for staple food crops in agro pastoral are good except in some areas infested by stalk borers and suspected fall army worm.

3.2.2 Harvest of Crop

- No major harvest realized, however some households are utilizing green beans.

4.0 MARKET PERFORMANCE

4.1 Livestock Prices

4.1.1 Cattle Prices

- All major markets within the county were functioning well although reported cases of Rift Valley Fever (RVF) in Marsabit County might prompt disruption of markets in Samburu north sub-county bordering Marsabit County.
- In comparison to last month price of Ksh 20,277, current cattle average market price was stable standing at Ksh 20,720. Good prices are attributed to good cattle body conditions across all the livelihood zones.
- Archer post and Illaut markets posted the highest cattle price at Ksh 25,000 while Lekuru recorded average price of Ksh 12,000. Price variation within markets was due to high number of external traders accessing the Archer post and Illaut markets due to tarmac road opening up the area.
- The current average cattle market price remained above LTA by 50 percent at the same period of the year (Figure 8).

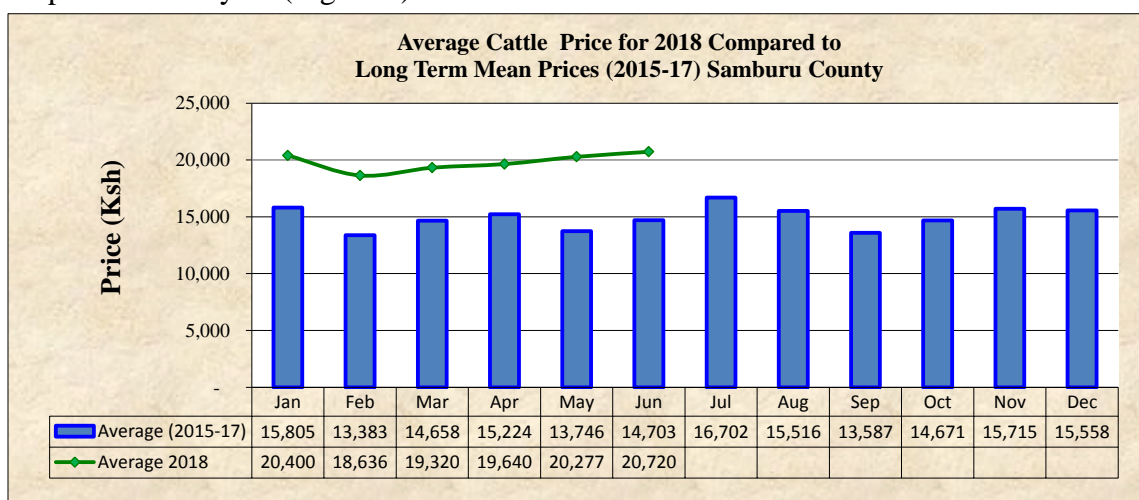


Figure 8: Graph Showing Cattle Selling Price Trends at Market Level

4.1.2 Goat Prices

- Like cattle prices, goat prices remained stable at Ksh 3,335 compared to last month. Lolkuniani markets in pastoral livelihood recorded high average price of Ksh 4,370 while Illaut in pastoral had lowest at Ksh 2,700.
- The current average price of Ksh 3,335 remained above LTA by 46 percent at this time of the year (Figure 9).

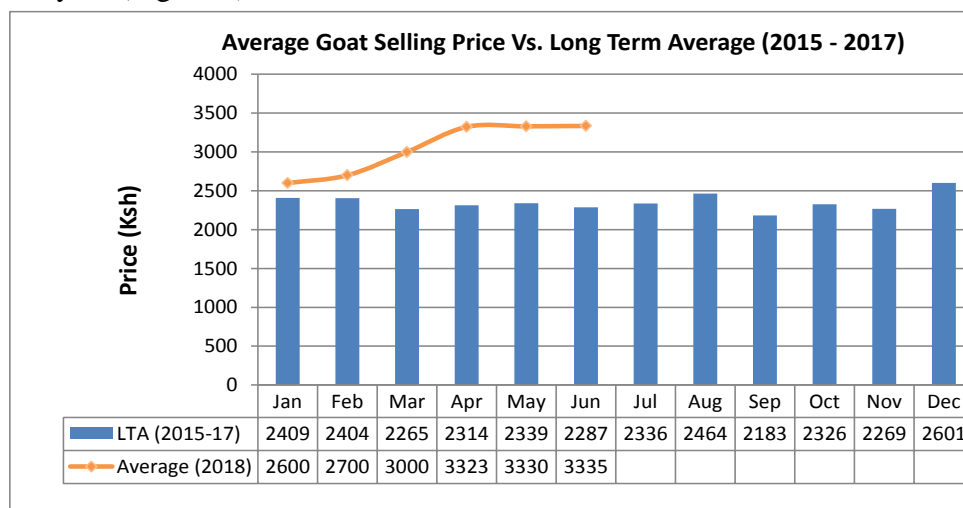


Figure 9: Graph Showing Goats' Selling Price Trends at market Level

4.1.3 Sheep Prices

- Stable trend has been observed in sheep market prices since April with this month prices remaining at Ksh 2,830.
- In comparison to LTA, current average selling price remained above normal at this time of the year attributed to improved body condition coupled with scarcity as households intend to restock (Figure 10).

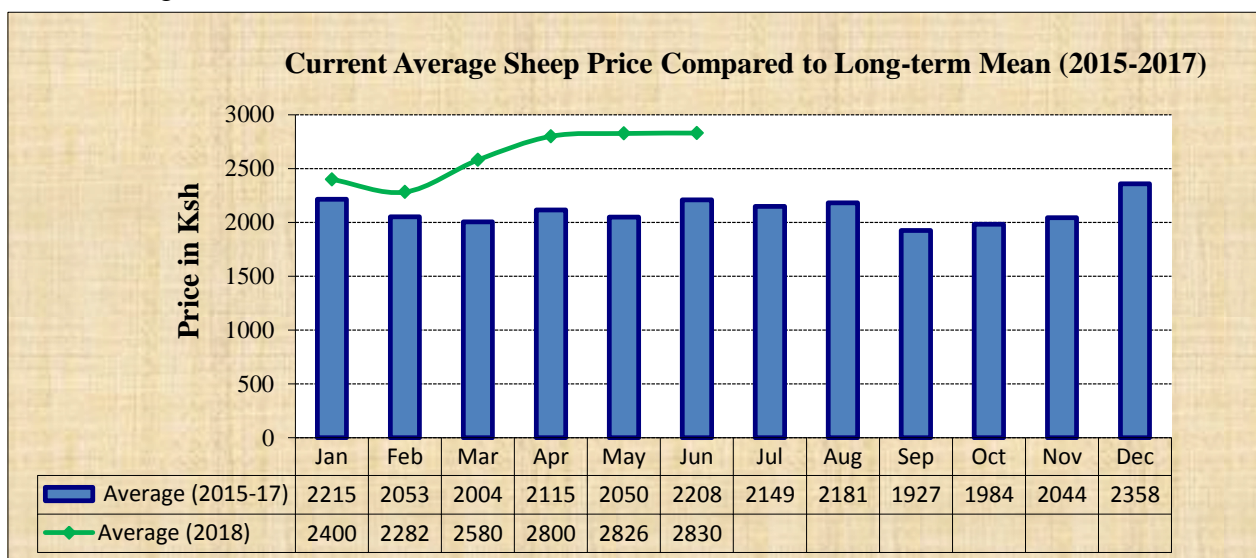


Figure 10: Graph Showing Sheep Selling Price Trends at Market Level

4.2 Crop Prices

4.2.1 *Posho* (Milled Maize)

- A slight increase of approximately six percent was noted from last month prices of Ksh 45.8 per kilogram attributed to destroyed feeder roads to markets occasioned by heavy downpour experienced during the long rains season.
- Major sampled markets recorded *posho* selling price of Ksh 50 per kilo save for Archers post and Lpus that recorded a selling price of Ksh 45 per kilogram.
- *Posho* prices continued to remain below the LTA with current price being 11 percent below the long term average at this time of the year (Figure 11).

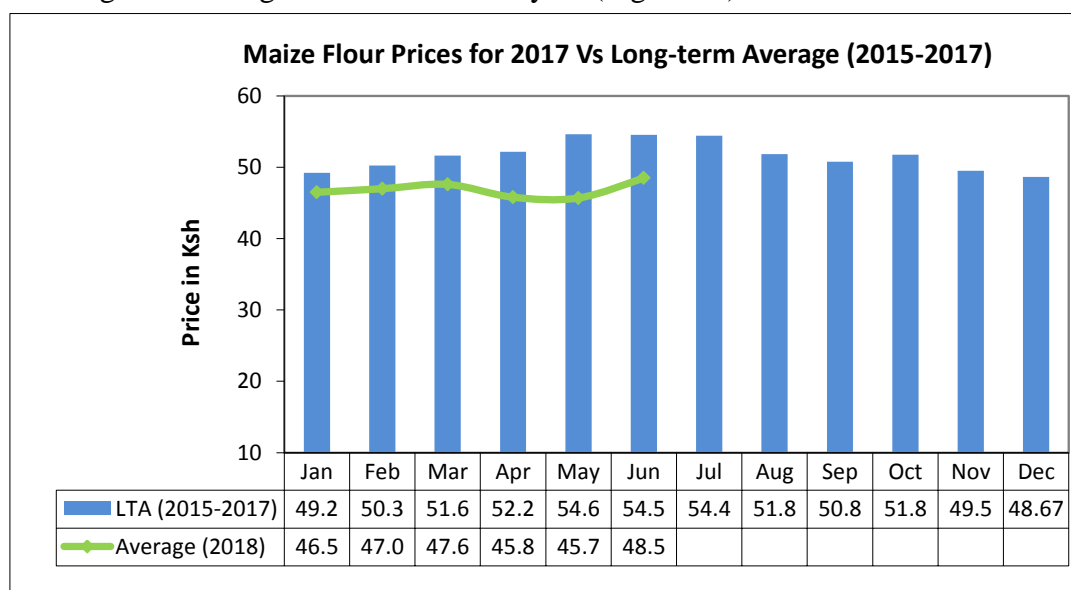


Figure 11: Graph Showing Maize meal Price Trends

4.3 Livestock Price Ratio/Terms of Trade (TOT)

- Terms of trade slightly decreased with income from 3 year old goat exchanged with 68.7 kilogram of cereals down from 73 kilo noted in last month. The high terms of trade is attributed to improved rangeland resources resulting to good goats' body condition thus fetching better market prices coupled with stable maize prices.
- In Samburu east, sale of one goat can realize 77.6 kilograms of cereals while in Samburu north and central, one goat was exchanged with 62 and 60 kilograms of cereals respectively.
- Above normal average TOT continued to be observed with current TOT being above LTA by 51 percent at this time of the year (Figure 12).

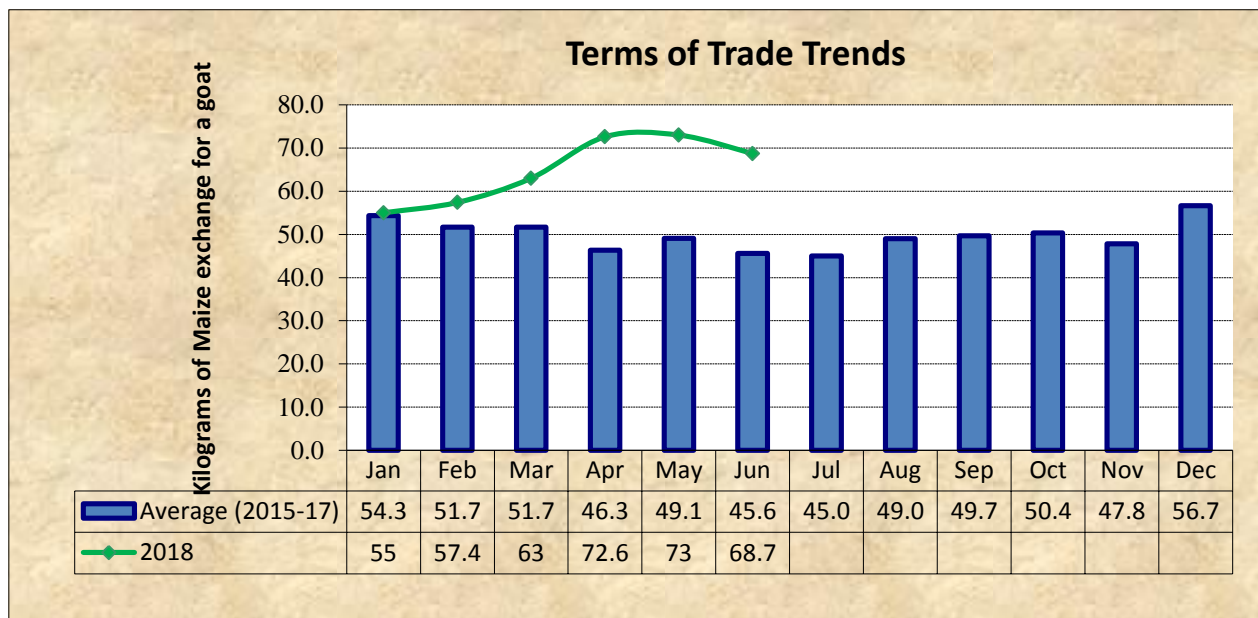


Figure 12: Trends in Terms of Trade (TOT)

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk Consumption

- Milk consumption remained relatively the same as last month with current average of 1.3 litres per household per day majorly produced from goats and camels.
- In comparison to LTA, the consumption was below normal at this time of the year.

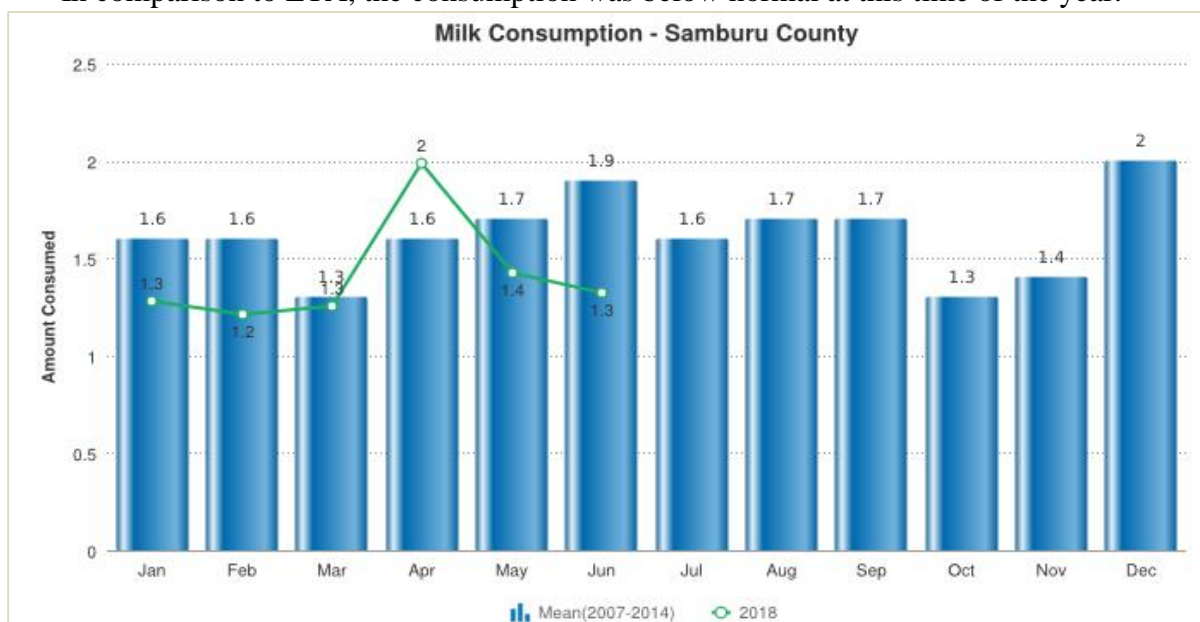


Figure 13: Trends in Milk Consumption per Household

5.2 Food Consumption Score (FCS)

- Notable seasonal improvement has been observed in dietary diversity and meal frequency across all the livelihood zones attributed to improved purchasing power, milk availability, green beans usage and favourable market prices. The proportion of households with acceptable, borderline and poor FCS in pastoral livelihood zone remained stable with 65.9, 25.4 and 8.7 percent respectively.
- The proportion of 96.6 percent of sampled households in agro pastoral livelihood indicated acceptable food consumption score attributed improved milk production, availability of green beans and better purchasing power due to improved livestock body condition and stable food market prices.

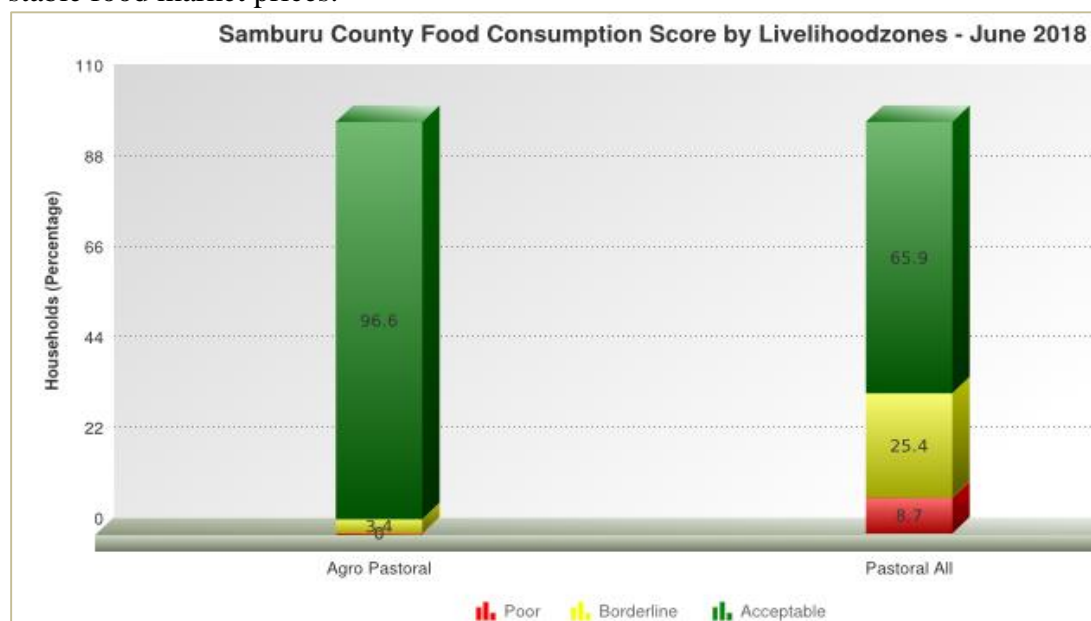


Figure 14: Bar chart showing FCS per livelihood zone

5.3 Health and Nutrition Status

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

- Sampled under-five children at risk of malnutrition worsened to 23.5 percent from 21.8 percent recorded in month of May. The increase in children at risk can majorly linked with illness. Out of sampled children, 28 percent were reported to have suffered illness within the period under review.
- High rate of children at risk of malnutrition were reported in Wamba west and Ndoto wards with prevalence of 34 and 33.9 percent respectively.
- The recorded prevalence of 23.5 percent of children at risk of malnutrition was above LTA and last month value by 23 percent and 8 percent respectively (Figure 15).

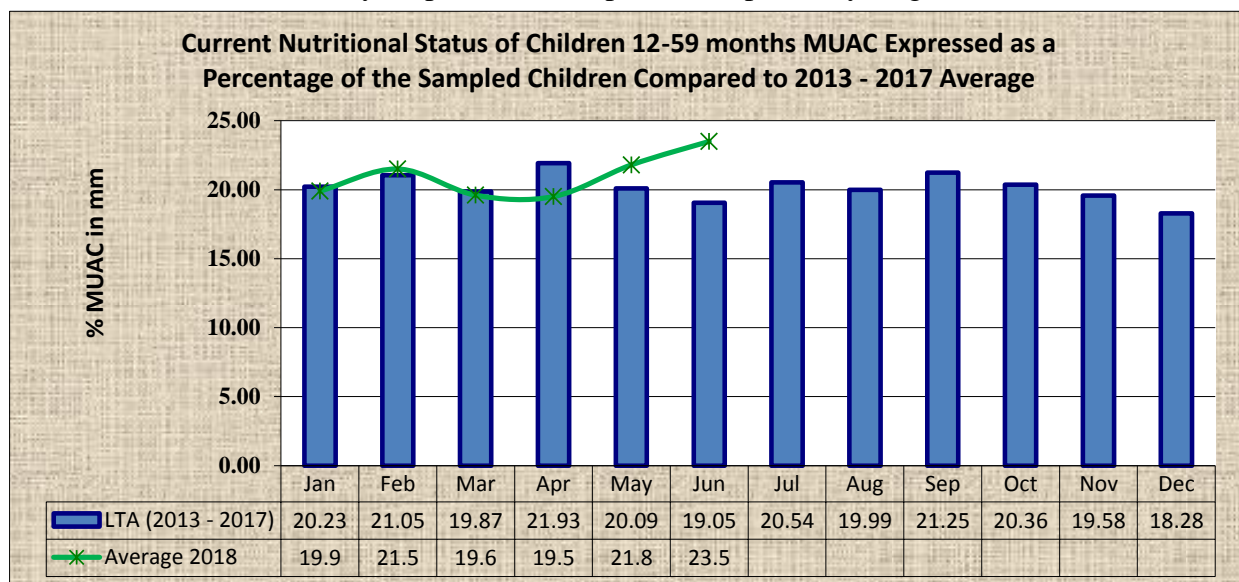


Figure 15: Graph showing average Nutritional status (MUAC)

5.3.2 Health

- Community respondents indicated that 18 percent of under-fives reported suffered fever with chills like malaria, 5 percent suffered with fever with breathing difficulties and 5 percent had diarrhoea.
- According to community field interviews, majority of the household respondents reported seeking health assistance from nearest health facilities while others used local herbs for treating the ailments.

5.4 Coping Strategies Index(CSI)

- The above normal long rainfall has conveyed reprieve to households across the livelihoods zones resulting into availability of green traditional vegetables, milk and better terms of trade consequently instigating stable food consumption based coping strategies. The reduced (rCSI) mean for the month was 11.25 compared to 11.57 recorded in the month of May.
- High coping strategies were observed in pastoral livelihood with rCSI of about 13.6 compared to 14.2 reported in May while households in agro pastoral has RCSI of 0.3. The variation was attributed to low livelihood diversification in pastoral areas compared to agro pastoral livelihood zone.
- According to sentinel data as shown in the table below, the most employed food based consumption strategy was relied on less preferred and/or less expensive followed by borrowing of food, reduced the number of meals eaten per day

Table 1: Coping Strategies

Coping Strategies	Proportion of households employing the CSI
Relied on less preferred and/or less expensive	72.5
Borrowed food	64.7
Reduced the number of meals eaten per day	62.3
Reduced the portion size of meal	60
Reduced the quantity of food consumed by adults for children to get enough	54.5

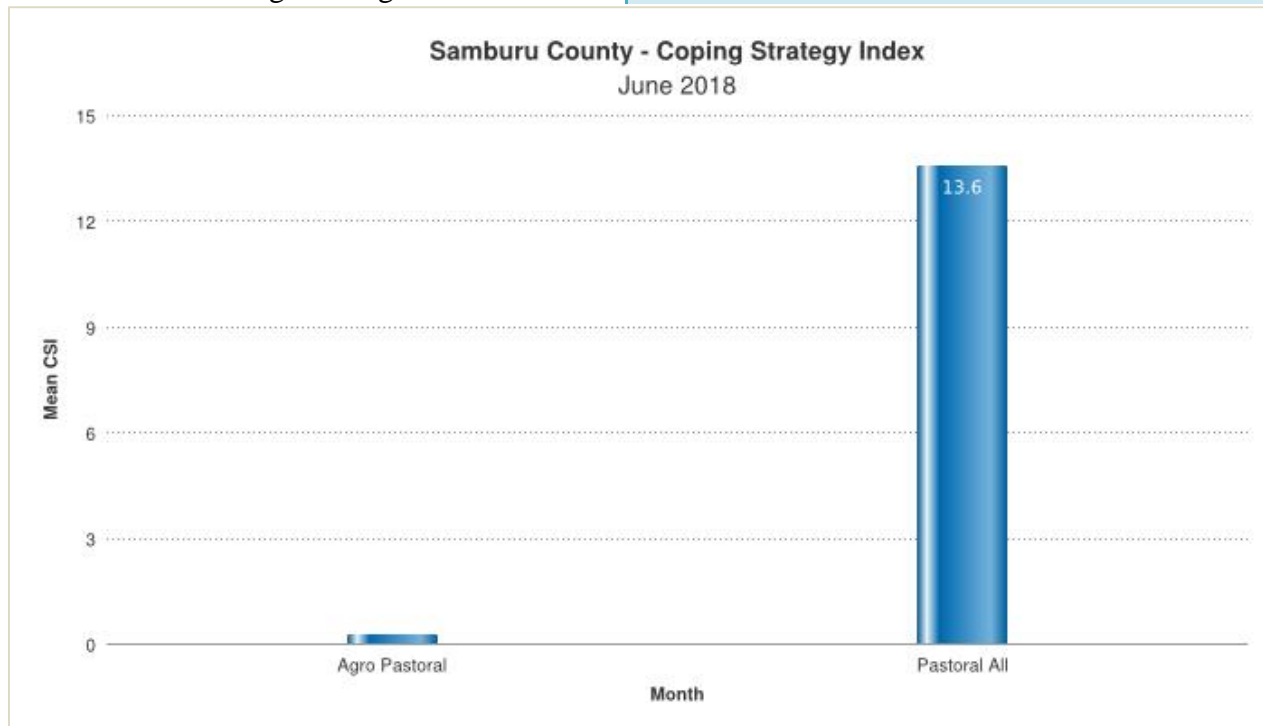


Figure 16: Bar chart showing CSI per livelihood zone

6.0 CURRENT INTERVENTIONS AND RECOMMENDATIONS

6.1 Non-Food On-going Interventions

Table 2: Non-food On-going Interventions

SECTOR	INTERVENTION	IMPLEMENTERS
Livestock	Participatory diseases surveillance and sample collection and testing	County veterinary department, RPLRP
	Procurement of Rift Valley Fever and Bluetongue disease vaccines	County department of veterinary
	Pasture development in Samburu central	County department of livestock, KEPHIS and Kenya Seed
	Stock piling of livestock feeds (1928 range cubes and 3000 UMMBs)	County department of livestock and State department of Livestock
Water	Repair of boreholes and provision WASH kits	ACTED, CARITAS
Health	SMART Survey, Mass screening and outreaches	MOH and Partners
Agriculture	Procure and supply of drips kits for small irrigated agriculture and fencing and laying of pipe in Arsim and Lulu irrigation scheme.	County department of Agriculture
Social Inclusion	On-going cash transfer and business mentorship to women and old person, windowed and orphaned children	BOMA Project, National Government

6.2 Food Aid

- Asset Creation Program (ACP) continued with monthly distribution of sorghum to 3,333 households in Samburu central sub county through Ramati D.1 supported by WFP.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- No incidence of conflicts or human displacement reported within the month, however tension is high along Archers and Ngaremara following cattle rustling in Loruko in the month of May.

7.2 Migration

- All livestock species are currently grazing within the homesteads as rangeland resources still in good condition.

7.3 Food Security Prognosis

The above normal seasonal long rains performance is most likely to sustain positive impacts to most of the indicators:

- Pasture and browse condition further improvement resulting in good livestock body thus increased milk production and high market prices.
- Improved staple food stocks as agro pastoralist are likely to harvest beans and even short growing period maize (Katumani).
- Fears of Rift Valley Fever and Bluetongue is likely to minimally affect market operations in areas bordering Marsabit County thus likely to negatively impact on household purchasing power.

- Water sources are likely to remain fully charged consequently maintaining stable trekking distances to water points both for livestock and households. This is likely to sustain access to sufficient quantity of water.

8.0 RECOMMENDATIONS

Table 3: Proposed Interventions per Sector

SECTOR	INTERVENTION
Livestock	<ul style="list-style-type: none"> • Vaccination against Rift Valley Fever, FMD and Bluetongue disease • Continued advocacy for pasture conservation through deferred grazing management and participatory rangeland management
Health and Nutrition	<ul style="list-style-type: none"> • Active case screening in areas with high prevalence of children at risk of malnutrition
	<ul style="list-style-type: none"> • Provision of water treatment chemicals for households getting water from open water sources
Water	<ul style="list-style-type: none"> • Roof water catchment promotion in schools and at household level
Peace and Coordination	<ul style="list-style-type: none"> • Support dialogue between warring communities along the border of Waso and Ngaremare wards
Agriculture	<ul style="list-style-type: none"> • Crops pests and disease surveillance in agro pastoral areas.
Public works and Roads	<ul style="list-style-type: none"> • Grading and maintenance of roads linking to health facilities, schools and markets for easy access

Annexes

Table 4: 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	