

National Drought Management Authority SAMBURU COUNTY



A Vision 2030 Flagship Project



DROUGHT EARLY WARNING BULLETIN FOR APRIL 2018

APRIL 2018 EW PHASE

Drought Status: **NORMAL**



Shughuli za kawaida

Drought Situation & EW Phase Classification

Biophysical Indicators

- Heavy rains continued to be experienced in major part of the month across the two livelihood zones with amounts increasing in 2nd dekad of the month.
- Significant improvement was observed in forage and water available due to enhanced rainfall that fully recharged open water sources to their 100 percent capacity.

Socio Economic Indicators Details

- Reduction both in household and livestock trekking distances continued to be witness across the county.
- All livestock species are currently grazing in wet season grazing areas close to homesteads.
- Milk production and consumption is within the long term average.
- Body condition for all livestock species significantly improved due to good forage and water availability across all the livelihood zones.
- Staple food commodity such as Maize/*posho* prices remained within the long term during the month.
- Terms of trade rose by a margin of 15 percent from 63 kilogram of cereals in exchange for income from sale of one goat to 72.6 kilograms.
- MUAC rates are still high although it is comparable to long term average at this time of the year.

Early Warning Phase Classification

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

Biophysical Indicators	Value	Normal range/Value	
VCI-3month (County)	59.21	35-50	
VCI-3month -Samburu East	51.4	35-50	
VCI-3month -Samburu North	67.88	35-50	
VCI-3month-Samburu West	61.1	35-50	
Production indicators	Value	Normal ranges	
Livestock Migration Pattern	No Migration	No Migration	
Livestock Body Conditions	Cattle: 12 th & 13 th ribs visible Goats: Good appearance	Fat & Smooth appearance	
Milk Production	2	<1.9	
Livestock deaths due to drought	No Deaths	No death	
Access Indicators	Value	Normal ranges	
Terms of Trade (TOT)	72.6	<46.3	
Milk Consumption	2	<1.6	
Return distance (km)	Household	4.4	<4.4
	Livestock	8.6	<10
Acceptable FCS (percent)	Pastoral	51(63)	100
	Agro pastoral	90 (96.7)	100
Utilization indicators	Value	Normal ranges	
MUAC (percent)	19.5	<21.9	
Mean CSI	Pastoral	14.1	<56
	Agro pastoral	0.4	<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

- Most parts of the county continued to receive enhanced rainfall characterized by heavy storms with varying intensities. The season rainfall onset was realized in the first week of March 2018 and progressed well into April 2018.
- The rainfall peaked at the second dekad of the month with areas around Maralal recording 12 rainy days according to rain gauge stationed in County meteorology office.

1.2 Amount of Rainfall and Spatial Distribution

- The above normal rainfall amounts received was by 126 percent, 263 percent and 39 percent of the LTA in the 1st, 2nd and 3rd dekads respectively (Figure 1). According to rainfall station in Maralal, the total rainfall received as at 27th April was 195.7 mm for the month under review.
- The rains were well distributed across the three sub counties fairly distributed in all the dekads, however the amounts peaked in the second dekad of the month.

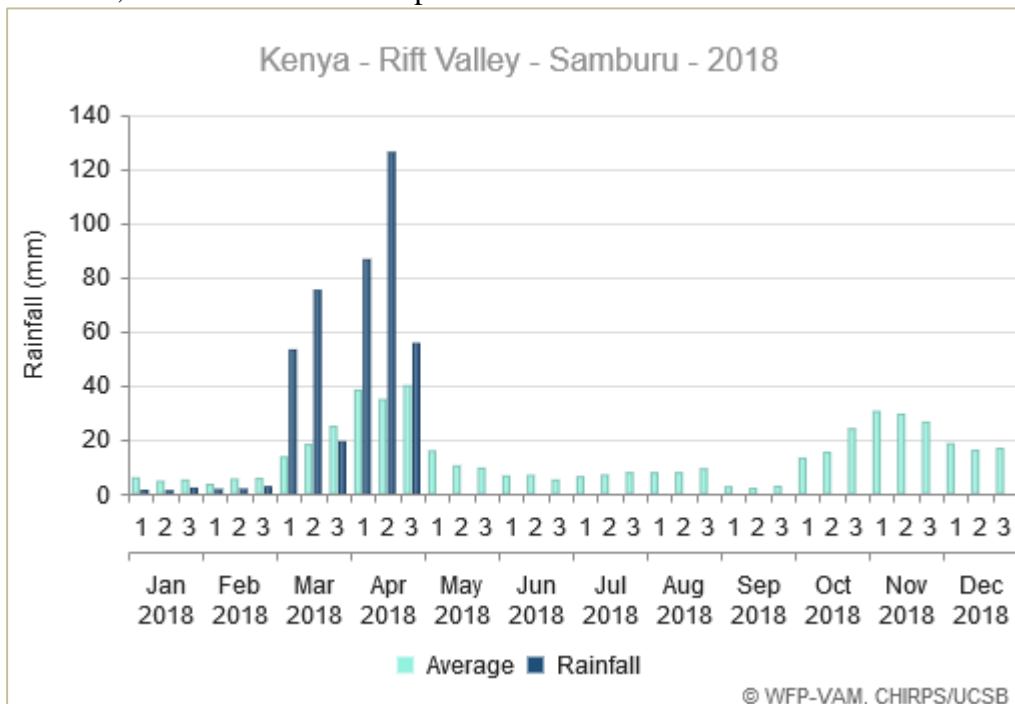


Figure 1: Graph Showing Rainfall Estimates (RFE) Trends for Samburu County
(Source: WFP-VAM, CHIRPS/UCSB)

IMPACTS ON VEGETATION AND WATER

2.0 Vegetation Condition

2.1.1 Vegetation Condition Index (VCI)

- Significant improvement was observed in vegetation cover across all the livelihood zones. Forage rejuvenated substantively for all livestock species in all the livelihood zones due to above normal long rains. According the Vegetation Condition Index (VCI), the overall 3-month average VCI improved by 118 percent from last month.
- Vegetation condition index for all the three sub counties was within the vegetation greenness above normal during the month under review.
- 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

- Significant amount of pastures and browse continued to be observed across all the livelihood zones due to high soil moisture content attributed to enhanced rainfall received across the livelihood zones.
- Out of the sampled community key informants, 76.9 percent responded that pastures and browse was good. This is significant improvement from last month proportion of 82.4 percent reported that pasture was fair to good. It was also noted that some areas in Wamba west ward such as Nkaroni are degraded resulting into deep gullies causing minimal pasture growth.

2.2. Water Resource

2.2.1 Sources

- Surface water sources are fully recharged in all the livelihood zones. Most streams are flowing with river Waso overflowing to its banks. The main water sources were Shallow wells, traditional river wells and pans and dams.
- The water in open water sources has high turbidity occasioned by runoff due to soil erosion attributed to environmental degradation.
- Shallow wells usage accounted for 34.5 percent while pans and traditional river wells contributed each 24.1 percent of available water (Figure 3).

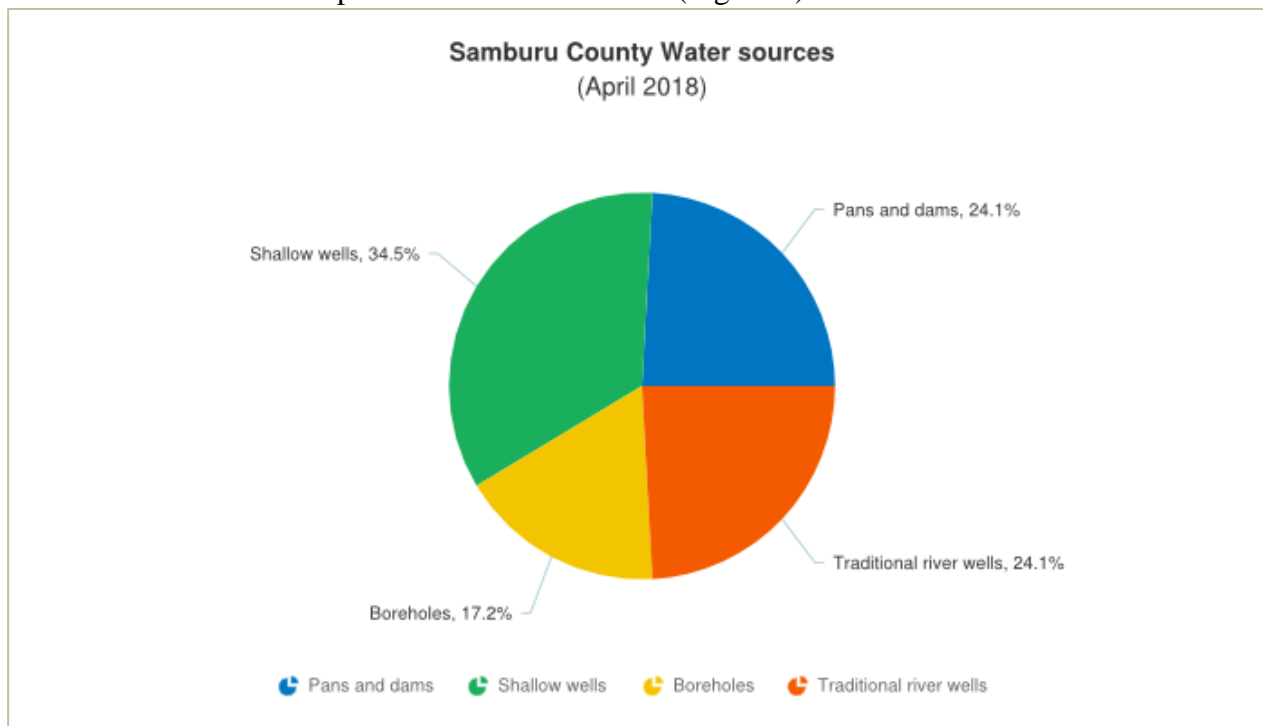


Figure 3: Common water sources

2.2.2 Household Access and Utilization

- Downward trend continued to be noticed in household trekking distances due to significant improvement in recharge of water sources for the last two months. The current distance stand at 4.4 km down from 5.1 km recorded in the month of March (Figure 4).
- Marginal Pockets of pastoral areas especially in Samburu north reported trekking return distance of 6 km to water points attributed to porous soil leading to high percolation. Average return distances in pastoral areas of Samburu east and agro pastoral areas of Samburu central the same as last month at 3.3 km and 5.3 km respectively.

- According to household respondents, majority of the household consumed water without subjecting any water treatment method which is likely to predispose them to possibility of water borne diseases.

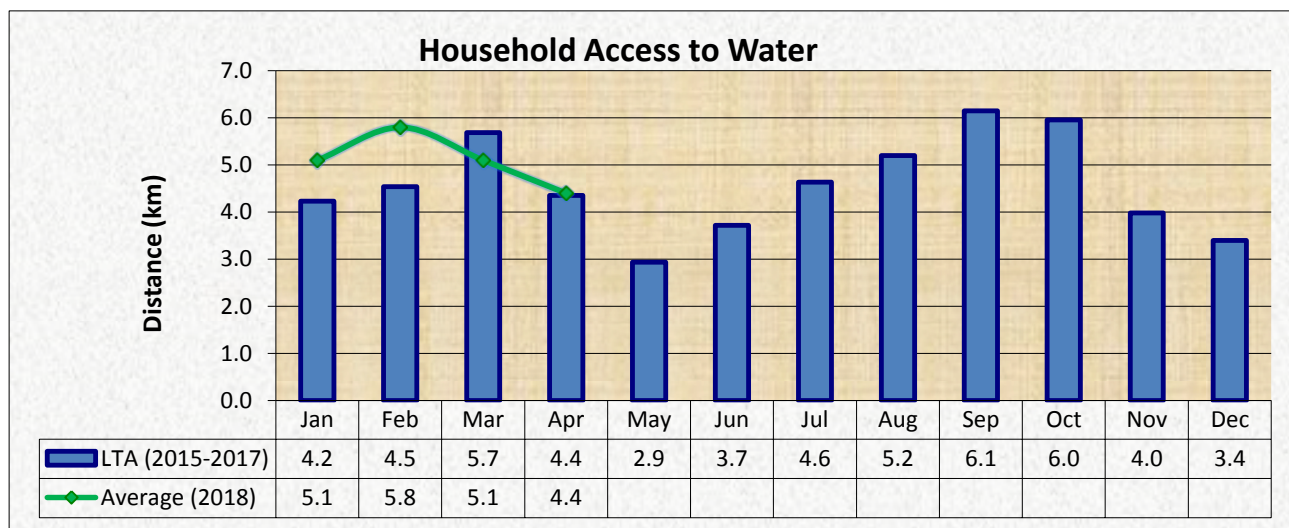


Figure 4: Average Distance Travelled by Households in Search of Water

2.2.3 Livestock Access (Grazing Distances to Water Points)

- Return trekking distances for livestock from grazing areas to water points have generally reduced attributed to enhanced rains that fully recharged water sources and rejuvenated forage across the livelihood zones.
- Current trekking distances decreased from 11.3 km in March to 8.6 km in April which was 24 percent reduction.
- In comparison to 3 year average, the current average distance was 14 percent below the three year average at this time of the year (Figure 5).

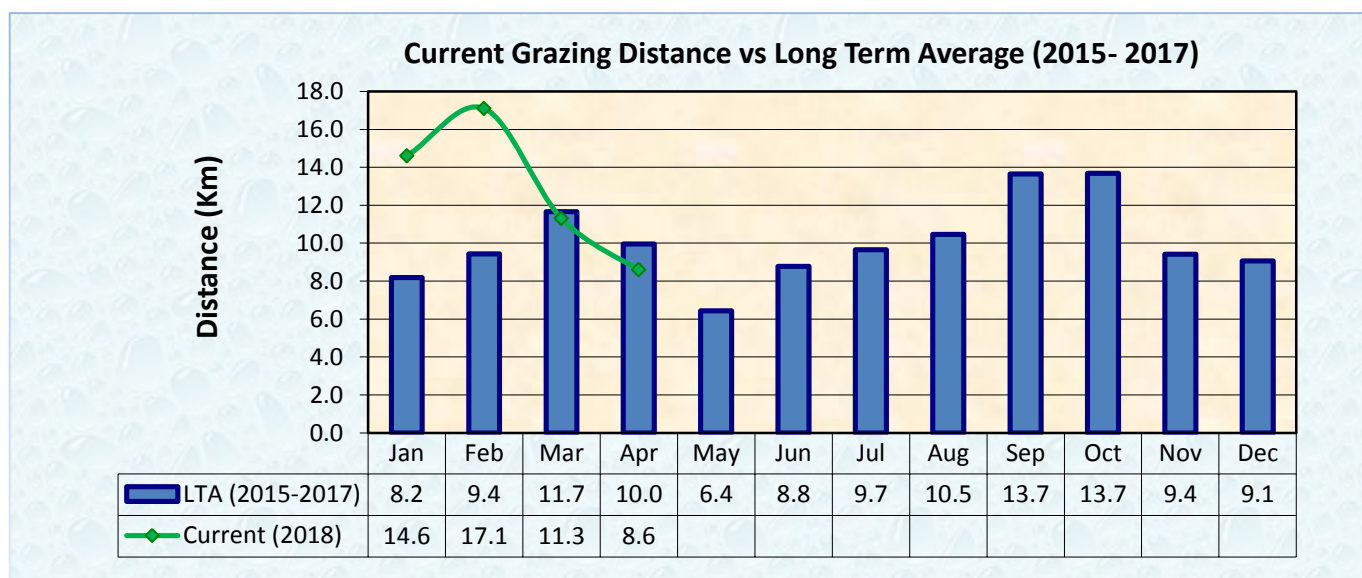


Figure 5: Distance Travelled from Grazing Areas to Water Points

3.0 PRODUCTION INDICATORS

3.1 Livestock Production

3.1.1 Livestock Body Condition

- Improvement in livestock body condition for all species continued to be observed due to increase in forage and water availability resulting in reduction in trekking distances.
- Small stocks body condition and camels was good with smooth appearance, however cold weather and muddy conditions has affected goats in agro pastoral causing foot rot and Contagious Caprine Pleuro Pneumonia (CCPP).
- On the other hand, body condition for cattle was good with most of them exhibiting moderate conditions (neither fat nor thin) (*Refer to table 1 in annex*).

3.1.2 Livestock Diseases and Deaths

- Clinical signs of foot rot for goats continued to be reported in agro pastoral livelihood zone. Other endemic diseases reported across the livelihood zones include Contagious Caprine Pleuro Pneumonia (CCPP) and diarrhoea in sheep.
- 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 production rose by 33 percent from last month with current average of 2 litres per household per day. The increase was attributed to kidding and lambing coupled with improved livestock body condition due better rangeland resources.
- The current production of 2 litres per household was within the long term value at the same period of the year (Figure 6).

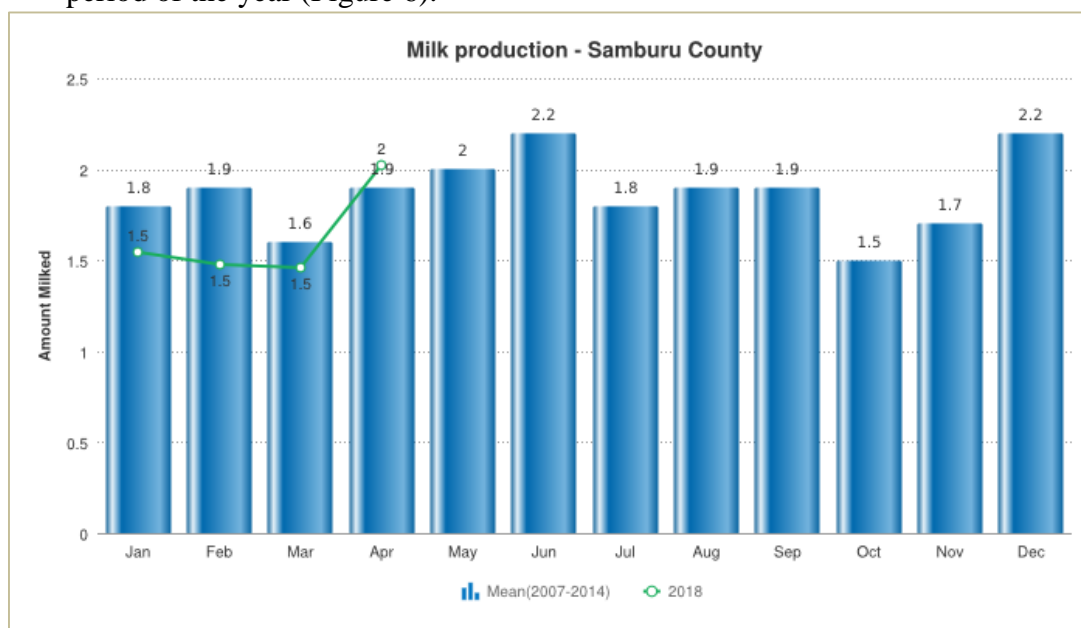


Figure 6: Trends in Milk Production per Household

3.2 Rain Fed Crop Production

3.2.1 Stage and Condition of Food Crops

- Farmers in agro pastoral livelihood who dry planted are at first weeding and others at germination stage. Most farmers were however surprised by the early onset of the season rains. Good production is anticipated if the rains progress well with the same temporal and spatial distribution.

3.2.2 Harvest of Crop

- No harvest experienced within the month.

4.0 MARKET PERFORMANCE

4.1 Livestock Prices

4.1.1 Cattle Prices

- In comparison to last month price of Ksh 19,320, current cattle market prices remained stable at Ksh 19,640.
- No market disruption has been reported across the county except for the new Baragoi market that has not been functioning due lack of traders occasioned by cattle rustling occurrence in the month of February.
- Lolkuniani market recorded the highest cattle price at Ksh 27,500 due to high number of external traders accessing the market. Archers post and Lekuru recorded average cattle price of Ksh 18,750 and 15,000 respectively.
- The current average cattle market price remained above LTA by 29 percent at the same period of the year (Figure 7).

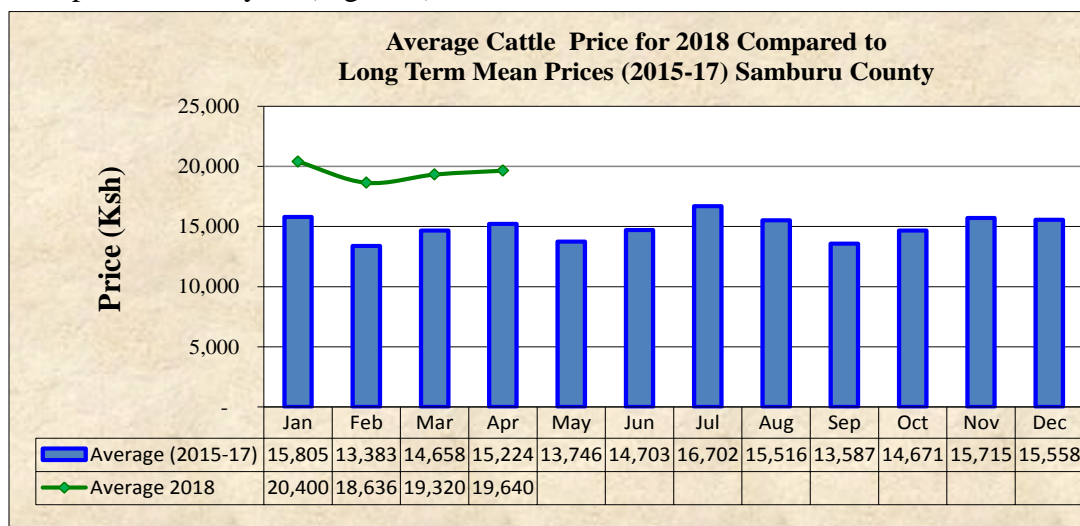


Figure 7: Graph Showing Cattle Selling Price Trends at Market Level

4.1.2 Goat Prices

- Goat prices rose by a margin of 11 percent to Ksh 3,320 from Ksh 3,000 recorded in March. The upward trend is a result of good body condition of goat occasioned by good browse coupled with reduction in grazing distances.
- Markets in pastoral areas recorded prices between Ksh 2,800 and 4,500 with Lpus in Lodung'okwe reporting lowest price and Lolkuniani had highest price.
- In comparison to LTA, the current average was 43 percent normal at this time of the year (Figure 8).

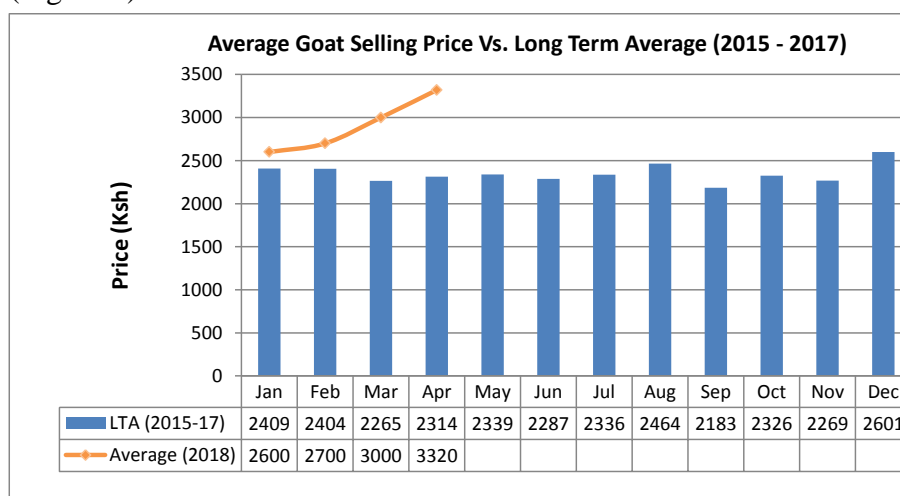


Figure 8: Graph Showing Goats' Selling Price Trends at market Level

4.1.3 Sheep Prices

- Sheep market price remained relatively high due to improved body condition coupled with scarcity as households intend to restock. Forage is expected to improve further and high likelihood to promote good body condition and high market prices..
- The average selling price for the month was Ksh 2,800 up from Ksh 2,580 in March which 32 percent above the LTA at the same time of the year (Figure 9).

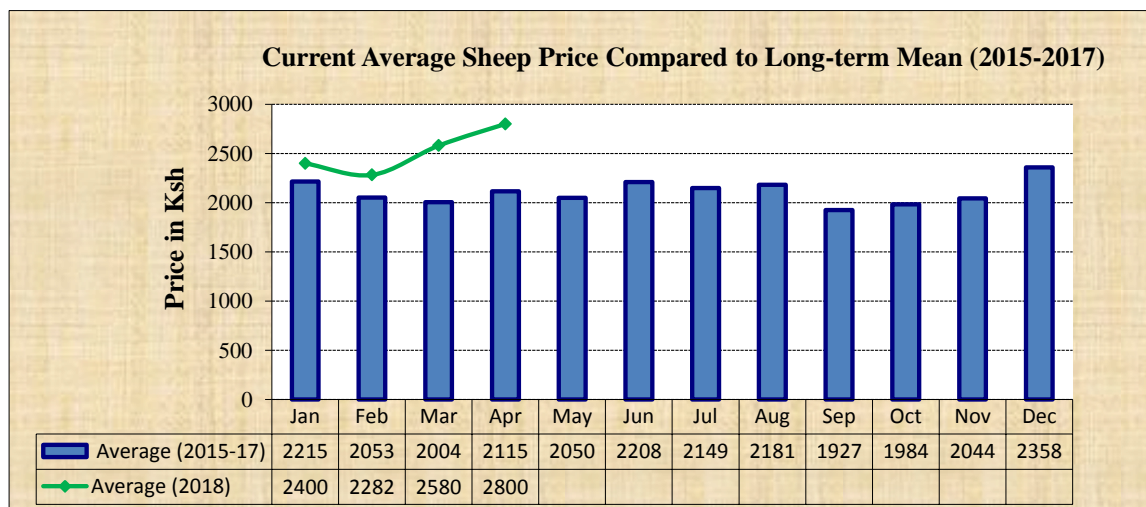


Figure 9: Graph Showing Sheep Selling Price Trends at Market Level

4.2 Crop Prices

4.2.1 *Posho* (Milled Maize)

- Maize as a main staple food commodity was well provisioned in most of the markets thus resulting in stabilization of prices. The commodity is mainly supplied from external markets from Uasin Gishu, Nakuru and even as far as Uganda Country.
- The current price was Ksh 45.8 per kilogram compared to Ksh 47.6 per kilo recorded in the previous month.
- The maize prices were ranging between Ksh 40 to Ksh 50 in most of the sampled main markets save for Archers post that recorded a price of Ksh 38 per kilogram attributed to ease of access to the market as a result of Isiolo - Moyale tarmacked road passing through Archers Post.
- Like the last three months, *Posho*/maize prices remained below the LTA approximately by 12 percent at this time of the year (Figure 10).

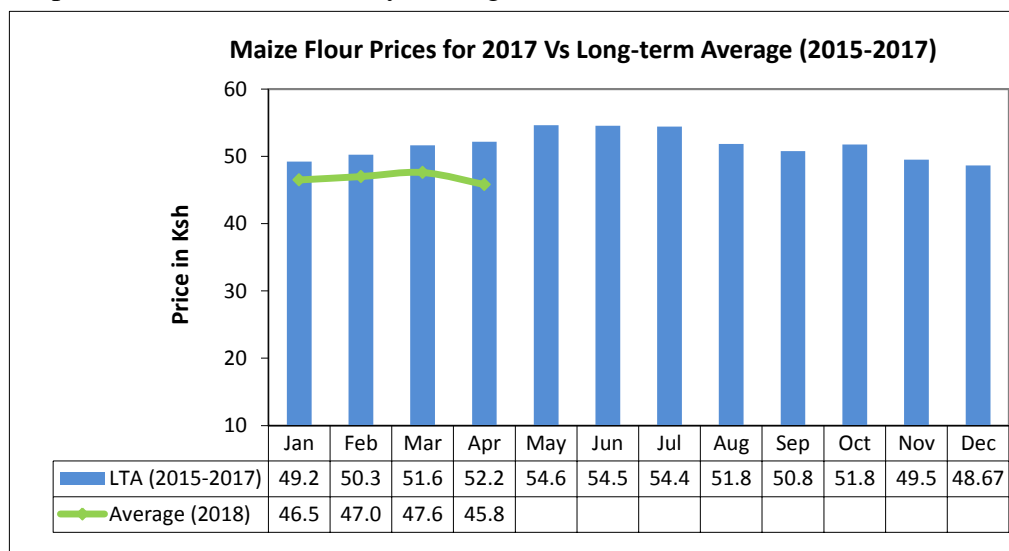


Figure 10: Graph Showing Maize meal Price Trends

4.3 Livestock Price Ratio/Terms of Trade (TOT)

- Further improvement in TOT was noticed increasing by approximately 15 percent from 63 kilogram of cereals in exchange for income from sale of one goat to 72.6 kilograms.
- The terms of trade were favourable to pastoralist with pastoral household realizing 84.2 kilograms of cereals from sale of one goat and households in agro pastoral livelihood fetching 76.1 kilograms from income of one goat.
- The terms of trade is attributed to increasing goats' prices due to good body condition and stable maize prices prompted by maize importation from Uganda and Tanzania into Kenya.
- Current average TOT remained above the LTA by a margin of 57 percent at this time of the year (Figure 11).

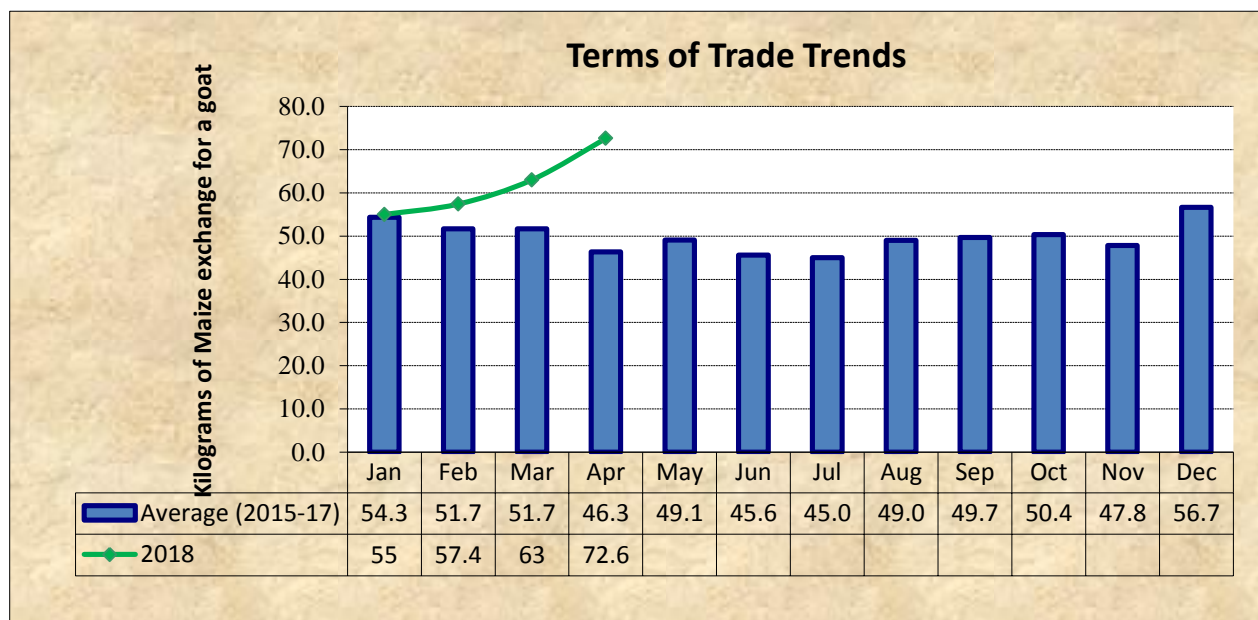


Figure 11: Trends in Terms of Trade (TOT)

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk Consumption

- Significant improvement was reported in milk consumption with current average of 2 litres per household per day which was an increase of 54 percent from last month. The increase is a result of improved livestock body condition hence enhanced milk production at household level.

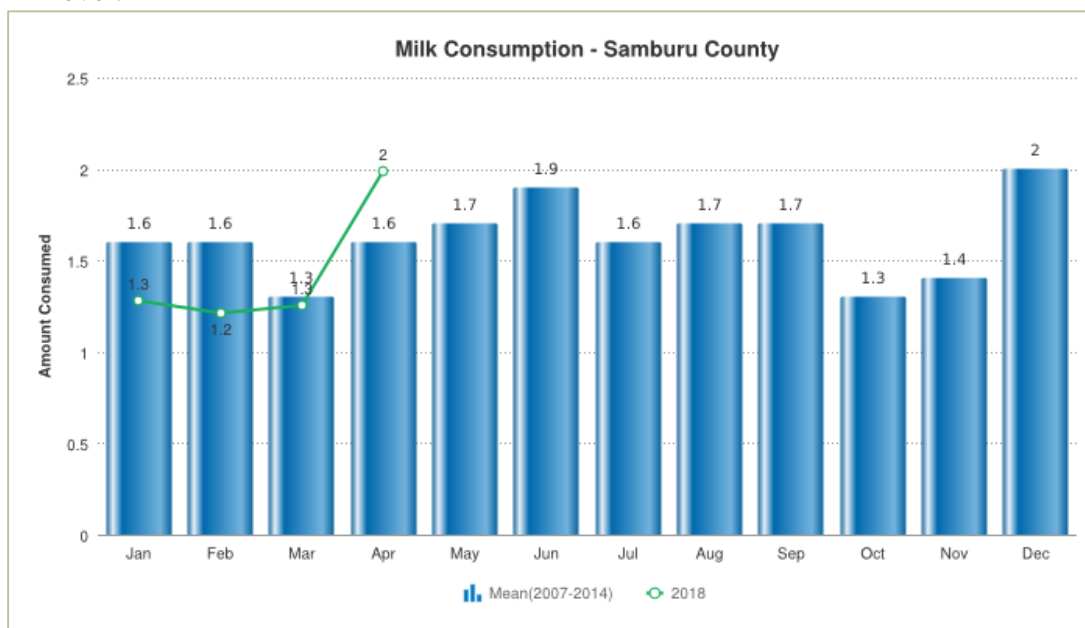


Figure 12: Trends in Milk Consumption per Household

5.2 Food Consumption Score (FCS)

- In pastoral livelihood, proportion of households within the poor and borderline food consumption score reduced from 49 percent to 37 percent which is 12 percent decreased. The decline can be attributed to returning back of livestock close to homesteads and availability of traditional green vegetables that supported suitable food consumption at the household level.

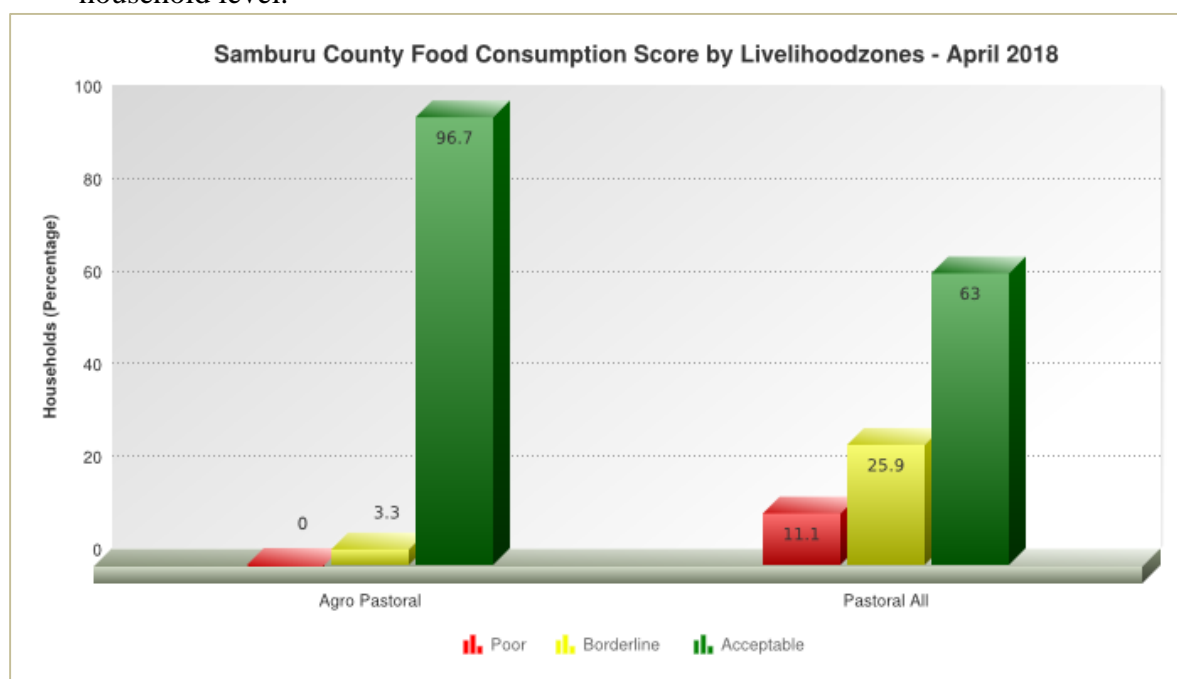


Figure 13: Bar chart showing FCS per livelihood zone

5.3 Health and Nutrition Status

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

- In comparison to last month, the proportion of sampled children under five years of age at risk of malnutrition was stable at 19.5 percent.
- The stable trend could be as a result of livestock returning from dry season grazing areas to homesteads increasing availability of milk coupled with availability of traditional green vegetables in some areas rejuvenating due to enhanced rains.
- Out of the total sampled children, 28 percent were reported to have suffered illness during the period under review.
- Proportion of children at risk in Samburu central remained at 29.3 percent while Samburu north and east recorded 22.1 percent and 17.4 percent respectively.
- The current proportion of under-five at risk of malnutrition remained with the LTA (Figure 14).

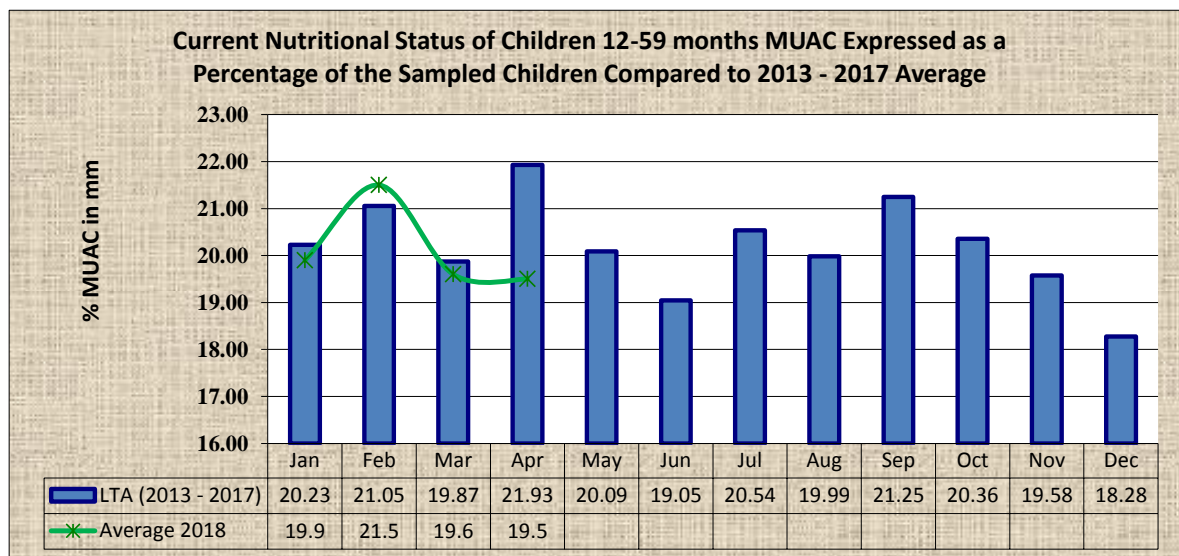


Figure 14: Graph showing average Nutritional status (MUAC)

5.3.2 Health

- Commonly reported illnesses for general population were Malaria, Pneumonia and Upper Respiratory Tract Infection (URTI). According to interviewed household respondents, 18 percent of under-fives reported suffered fever with chills like malaria, six percent suffered with fever with breathing difficulties and four percent had diarrhoea.
- Most households visited public health centres seeking treatment while others used local herbs for treating the ailments.

5.4 Coping Strategies Index(CSI)

- The average mean reduced (rCSI) remained stable at 11.12 in comparison to last month mean of 11.68.
- Households in pastoral livelihood zone employed more coping mechanisms with rCSI of 14.1 from 13.8. The slight increase can be linked to experienced flash floods that displaced households in pockets of pastoral areas. In agro pastoral livelihood the rCSI was at 0.4. The variation in coping mechanisms could be attributed to availability of traditional green vegetables, crops commodities and close proximity to market centres in agro pastoral areas than in pastoral livelihood.
- More commonly employed strategies include 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.

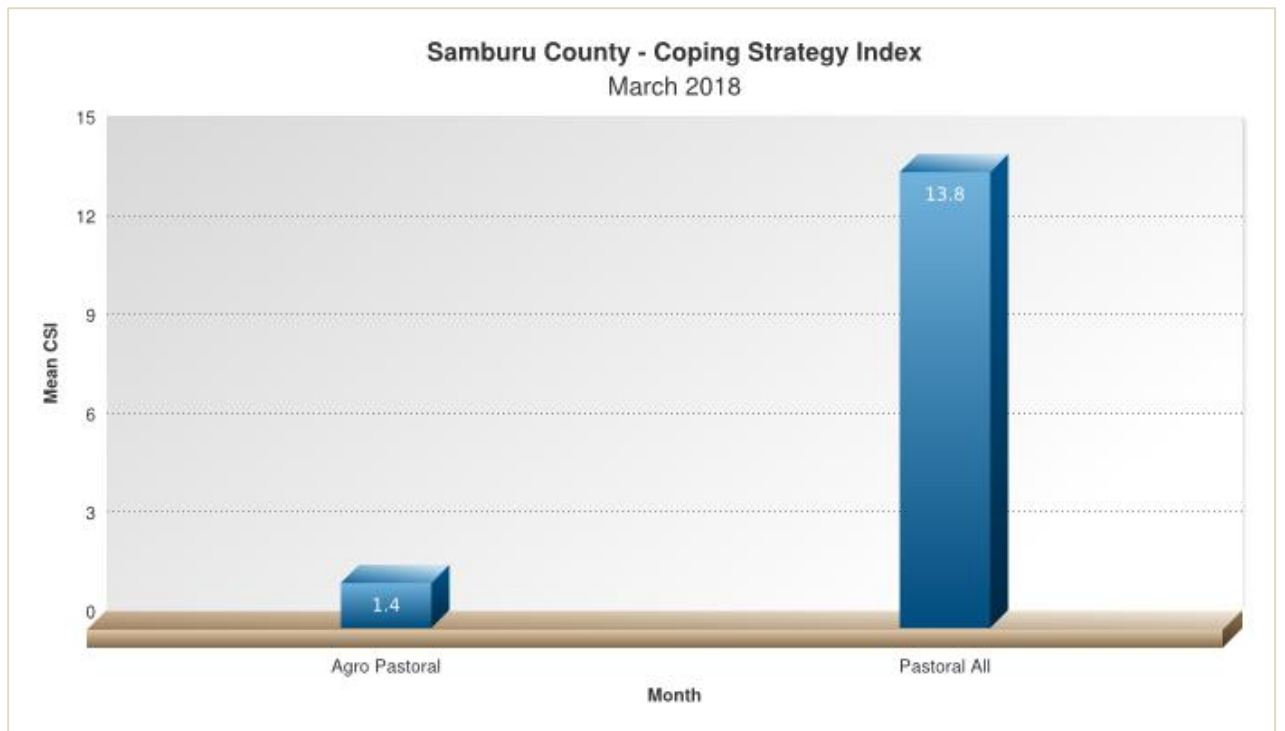


Figure 15: Bar chart showing CSI per livelihood zone

6.0 CURRENT INTERVENTIONS AND RECOMMENDATIONS

6.1 Non-Food On-going Interventions

Table 1: Non-food On-going Interventions

SECTOR	INTERVENTION	IMPLEMENTERS
Livestock	Participatory diseases surveillance	County veterinary department, RPLRP
	Distribution of pasture seeds to farmers for pasture production	County department of livestock
Environment	Rangeland reseeding Samburu east to improve land cover and reduce land degradation	County department of Water, Environment and Natural resources and energy
Water	Repair of boreholes and provision WASH kits	ACTED, CARITAS
Health	Growth monitoring under five in ECDCs	NHPplus USAID
Agriculture	Promotion of kitchen gardens using vertical bags farming	County department of Agriculture, NHPplus USAID
Social Inclusion	On-going cash transfer and business mentorship to women and old person, windowed and orphaned children	BOMA Project, National Government
	Provision of non-food items (Blankets – 30 pieces, Tarpaulin – 15 pieces, Mosquito Net – 30 pieces, Bar Soap – 30 pieces and Collapsible Jerrican – 30)	KRCS

6.2 Food Aid

- Monthly support to 3,333 households in Samburu central sub county with sorghum by WFP distributed through Ramati D.1 under the Asset Creation Program (ACP). National government distributed food items to flash flood affected households in Arsim.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- Isolated cases of flash floods were experienced in Arsim in Ndoto wards resulting to death of three people, 50 goats and sheep and 8 cows. A number of families were displaced in the same incidence in Arsim.

7.2 Migration

- No migration of livestock reported across the livelihood zones. The livestock are currently within the homesteads grazing in wet season grazing areas.

7.3 Food Security Prognosis

Following enhance and well distributed long rains characterised by heavy storms received in the month of April is likely to:

- Sustain the forage condition across the livelihood zones consequently promoting good livestock body conditions and likely increased milk production.
- High livestock market prices due to good body conditions coupled with reduced traded volumes as households will like to fatten the livestock and other restock during this good season.
- Household purchasing power is likely to improve further as livestock prices increased. In addition available casual labour activities such as weeding in the farms will improve household income.
- Crops in the farms are likely to grow well except in water logged farms and good crop performance is expected especially in agro pastoral livelihood zone.

- Stagnant water in natural ponds is likely to increase water borne diseases and create conducive environment for mosquito breeding thus high chances of malaria outbreaks.

8.0 RECOMMENDATIONS

Table 2: Proposed Interventions per Sector

SECTOR	INTERVENTION
Livestock	<ul style="list-style-type: none"> • Advocacy for pasture conservation through deferred grazing management and participatory rangeland management
Environment and Natural Resources	<ul style="list-style-type: none"> • Rangeland reseeding in degraded pastoral areas and trees planting in water catchment areas.
Health	<ul style="list-style-type: none"> • Upscale mapping out potential areas for water borne and malaria outbreak and to intensify surveillance of such diseases.
	<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 in Samburu north
Agriculture	<ul style="list-style-type: none"> • Crops pests and disease surveillance in agro pastoral areas.
DRM	<ul style="list-style-type: none"> • Awareness creation to communities to avoid flash flood prone 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 3: Livestock Body Condition Scoring Chart

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