

National Drought Management Authority
TURKANA COUNTY
DROUGHT EARLY WARNING BULLETIN FOR AUGUST 2018



A Vision 2030 Flagship Project



AUGUST EW PHASE



Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Pastoral-all species	Normal	Worsening
Agro-Pastoral	Normal	Worsening
Fisheries	Normal	Worsening
Formal Employment/Casual Labour	Normal	Worsening
COUNTY	NORMAL	Worsening

Drought Situation & EW Phase Classification

Biophysical Indicators

- **Rainfall:** Lodwar Meteorological station recorded 2 mm amounts of rainfall during the reporting month. However, the county received 37 percent of normal rainfall.
- State of water sources are within the normal range but declining.
- **Vegetation:** The Vegetation Condition Index (VCI) reduced compared to the previous month despite being above normal.
- Condition of pasture and browse was good, though on a declining trend.

Socio Economic Indicators (Impact Indicators)

- Livestock body condition was good (smooth appearance).
- Milk production is below normal and on downward trend compared to the previous month.
- Livestock trekking distance from grazing to water sources increased despite being below normal range.
- Household distance to water sources increased but remained below normal range.
- The Terms of Trade was good (favourable) and above normal range.
- The percentage of children under 5 years, who are at risk of malnutrition (MUAC less than 135 mm) increased to 16 but was below the normal range.
- The Coping Strategy Index was 16 and remained below normal range.

Biophysical Indicators	Value	Normal Range
Rainfall (% of Normal)	37	60-100
VCI-3 month (County)	72	>35
VCI-3 month (T. West)	53	>35
Forage Condition	Good	Normal
Production indicators	Value	Normal Range
Livestock Migration Pattern	Normal	Normal
Livestock Body Conditions	Good	Normal
Milk Production	1.8 Litres	>2.5 litres
Livestock deaths (from drought)	No Deaths	No Deaths
Crops Condition	fair	Fair
Access Indicators	Value	Normal Range
Terms of Trade (ToT)	64	>33
Milk Consumption	1.6 litres	>2.1 litres
Return distance to water sources	4 km	<6.2 Km
Cost of Water (Kshs/20L)	Kshs 5	Kshs 5
Utilization indicators	Value	Normal Range
Nutrition Status, MUAC (% at risk of malnutrition)	16%	<21.2%
Food Consumption Score (FCS)	58	>35
Coping Strategy Index (CSI)	16	<32

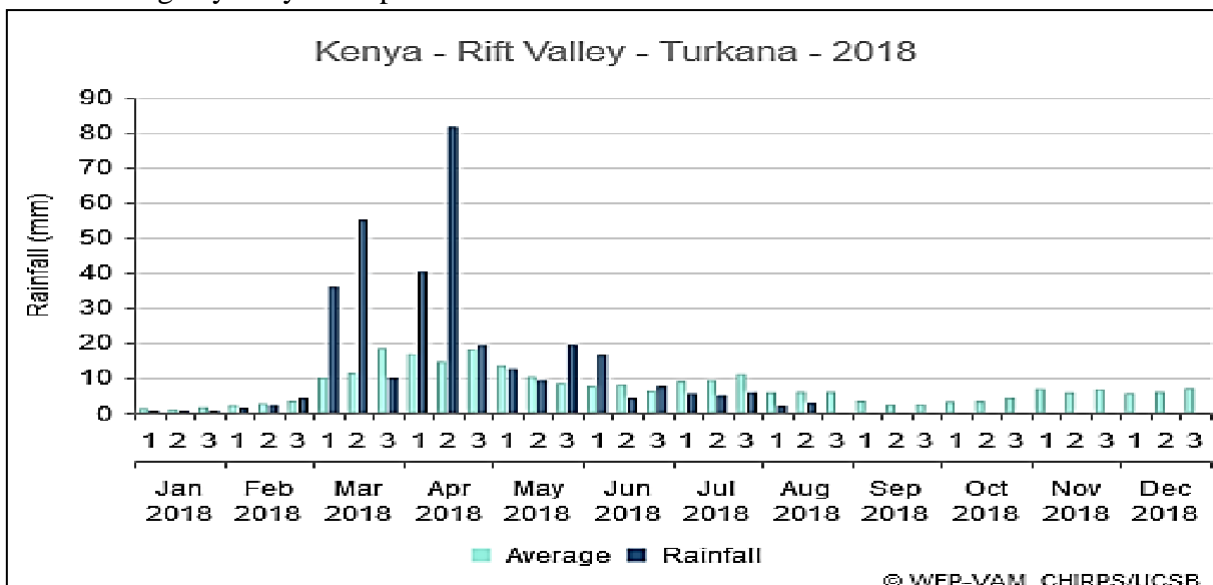
<ul style="list-style-type: none"> ▪ Short rains harvests ▪ Short dry spell ▪ Reduced milkyields ▪ Increased HH Food Stocks ▪ Land preparation 	<ul style="list-style-type: none"> ▪ Planting/Weeding ▪ Long rains ▪ High Calving Rate ▪ Milk Yields Increase 	<ul style="list-style-type: none"> ▪ Long rains harvests ▪ A long dryspell ▪ 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

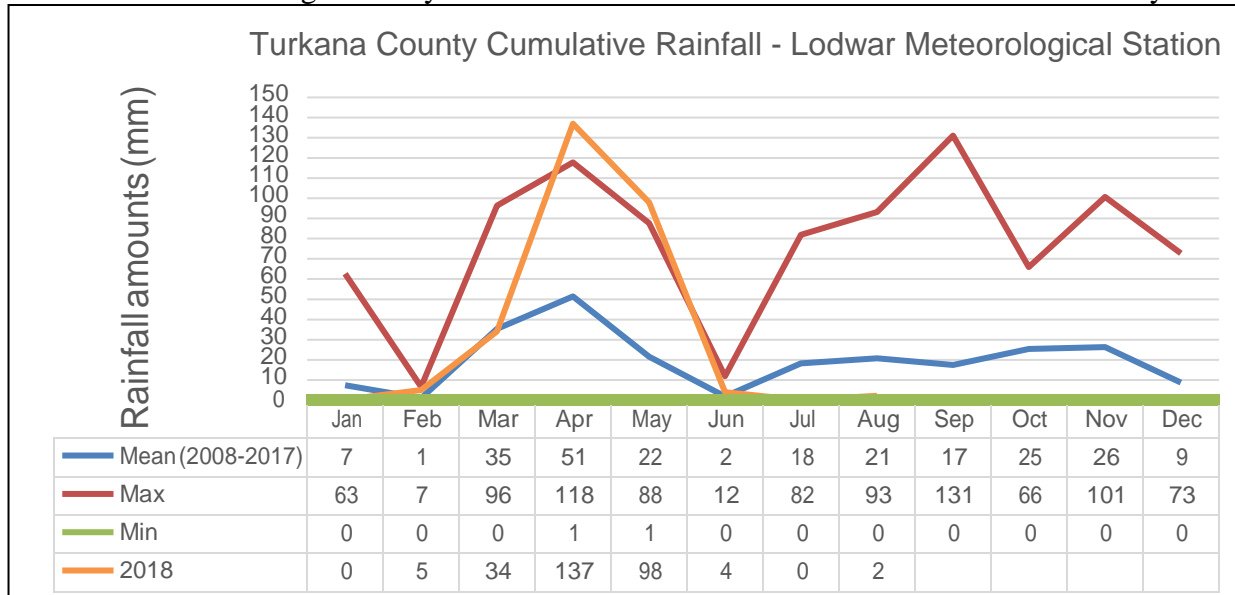
- The county received an average of 4 mm of rainfall during the reporting month.
- The average rainfall accumulating from the dekads of the month of August was below the Long Term Average by sixty-three percent.



Source: VAM-World Food Programme

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- During the reporting month, Lodwar Meteorological station recorded 2 millimeters of rainfall on 18th August 2018.
- The station recorded significantly below the mean rainfall of 21 mm for such time of the year.



Source: Lodwar Meteorological Station.

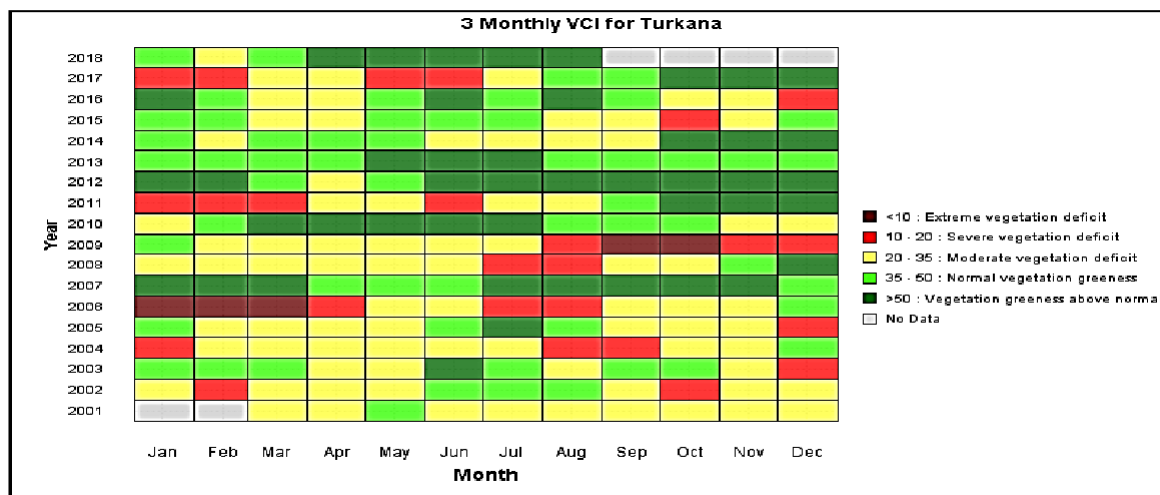
- The six-month cumulative rainfall for Lodwar meteorological station covering March 2018 to August 2018 was 275 mm surpasses the ten-year mean cumulative rainfall by eighty-five percent.

2.0 IMPACTS ON VEGETATION AND WATER

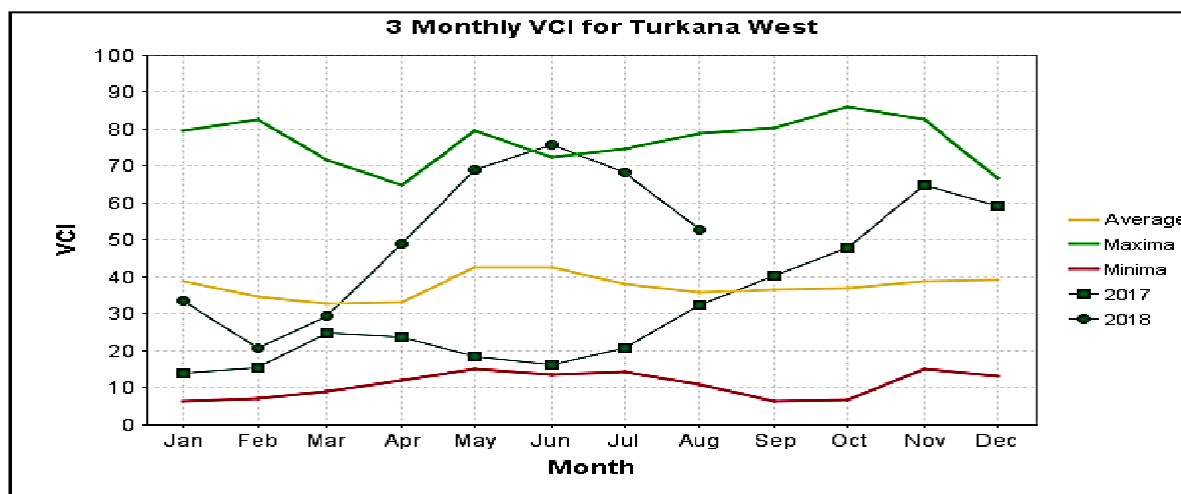
2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- During the month under review, the county had vegetation Condition Index of 71.57 which was above normal. However, compared to the previous month of July, VCI (which measures vegetation greenness) had reduced by twenty percent.
- The observed decrease in VCI is attributed to poor rainfall received in the county in the last two months in spite of VCI being above normal.



- All sub counties depicted VCI which was significantly above normal despite the reduction of VCI in the county. Turkana West Sub County portrayed the least VCI with a corresponding drop of twenty-three percent compared to the previous month.



2.1.2 Pasture

- During the month under review, the condition of pasture remained good and above normal across all livelihoods in the county. This attributed to the effect of rainfall received during the March-April-May Long rains season that resulted to significant nourishment of pasture.
- There was no major hindrance to pasture access in the county. However, insecurity incidents, that would otherwise lead to pasture inaccessibility, were reported in Turkana East Sub County in Lokori and Lokwamosing areas.
- Variations across livelihood zones were observed that fisheries zone had slightly depreciating pasture while other zones maintained good pasture.

- The quality and quantity of pasture remained relatively good in the county but on downward trend.
- It is expected that the available pasture will last for the next two months.

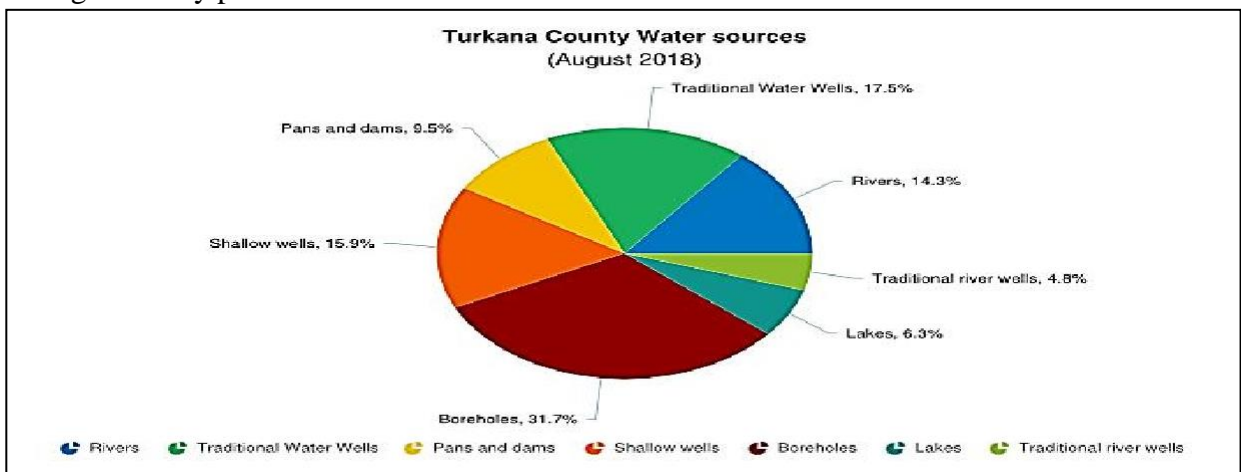
2.1.3 Browse

- Browse was good across all livelihoods in the county. This is attributed to the good rainfall received during March-April-May long rains season that resulted to significant sprouting of browse.
- The current browse is relatively improved compared to what was observed during such time of the past three years.
- Variations were observed in the county where fisheries livelihood zones depicted depleted browse with downward trend towards poor.
- Browse was accessible in the county except in Turkana East Sub County.
- The current available browse is expected to last for the next three months.

2.2 WATER RESOURCE

2.2.1 Sources: Percent of water sources in use

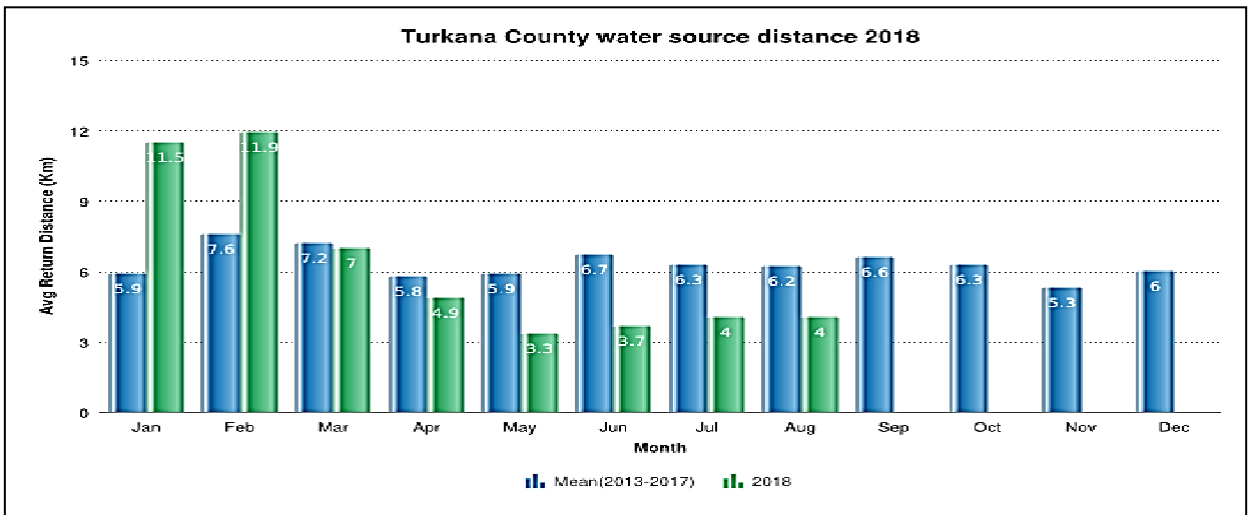
- During the month under review, the proportion of households that relied on the three major water sources in the county were 32 percent on boreholes, 18 percent on Traditional water wells and 16 percent on Shallow wells.
- Most open water sources like Earth Dams & Pans, Aquifers and rock catchments had significantly poor water levels.



- Water quantity and quality was good and normal despite reducing water levels in most water sources.
- The current available water sources are expected to last for the next two months.

2.2.2 Household access and Utilization

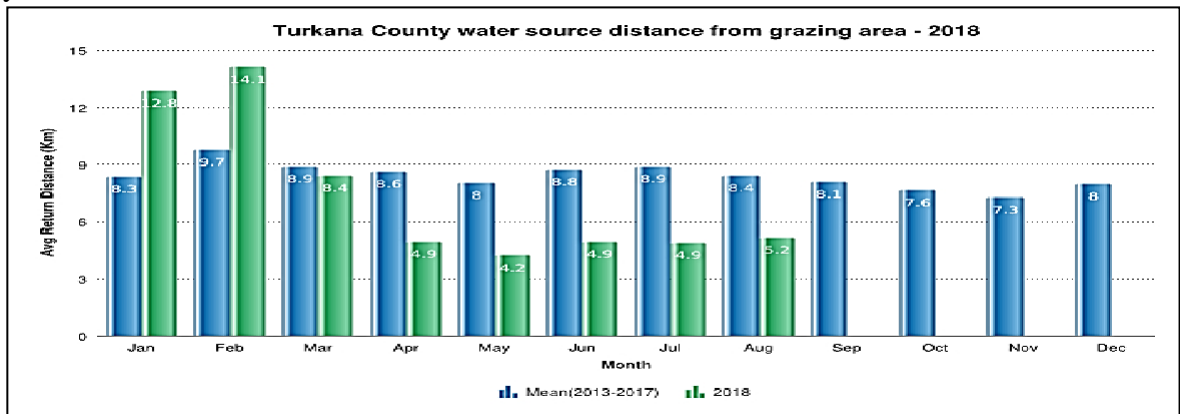
- The household return distance to main water sources was 4 Kms; similar to the distance recorded in the previous month. The distance remains below the five-year long term average distance of 6.2 Kms for such time of the year which also represents thirty-five percent decrease.



- Waiting time at source for both households and livestock remained under 15 minutes. Water consumption per person per day was highest in fisheries livelihood zones (50 litres) and lowest in pastoral zone (20 litres).
- The price of a 20 litre jerry can was sold at Kshs 5 by most water venders in the county.

2.2.3 Livestock access

- During the reporting month, livestock return trekking distance from grazing areas to main water sources was 5.2 Kms; which indicates a slight increase from 4.9 Kms recorded in July. The distance recorded is thirty-eight percent below the long term average for such time of the year.



- The observed stability in livestock trekking distance from water sources is attributed to availability of browse near water sources. However, the current livestock trekking distance is expected to increase due the expected depletion of browse and pasture in the county should rains fail.
- Livestock in Agro-pastoral livelihood zone were watered more frequently (daily) compared to other livelihood zone in the county which would sometimes skip a day.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

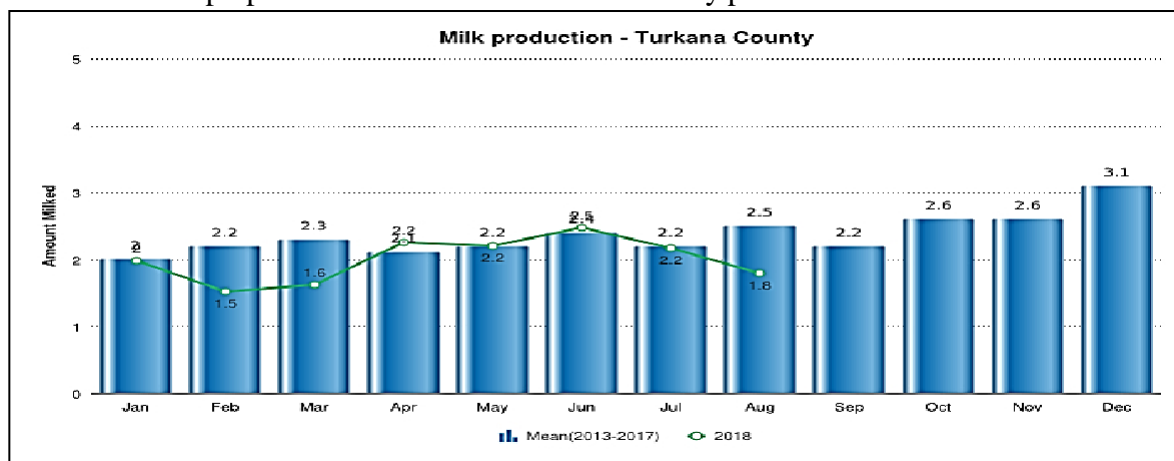
- During the month under review, Livestock portrayed good body condition characterized by smooth fatty bodies stacked with muscles across all livelihoods in the county.
- The current livestock body is expected to remain stable in the next three months owing to the current available browse and pasture. This is above normal compared to similar time during the previous three years.

3.1.2 Livestock Diseases

- During the month, the main and commonly reported livestock diseases by households in the county were Worms, Contagious Caprine Pleural Pneumonia (CCPP) and Lumpy Skin Disease (LSD). Goats and sheep were the most affected livestock species.

3.1.3 Milk Production

- Milk production remained typically unchanged from the previous month but it slightly declined as shown in the graph below.
- The observed reduction in milk production is attributed to low calving rates and farmers not milking animals in order to allow the current growing young animals to gain enough nourishment in preparation of the current and future dry periods.



- The major milk producing livestock species were goats and camels.
- The current milk production is twenty-eight percent below the long term average; indicating a decline in milk production in the county.

3.2 RAIN-FED CROP PRODUCTION

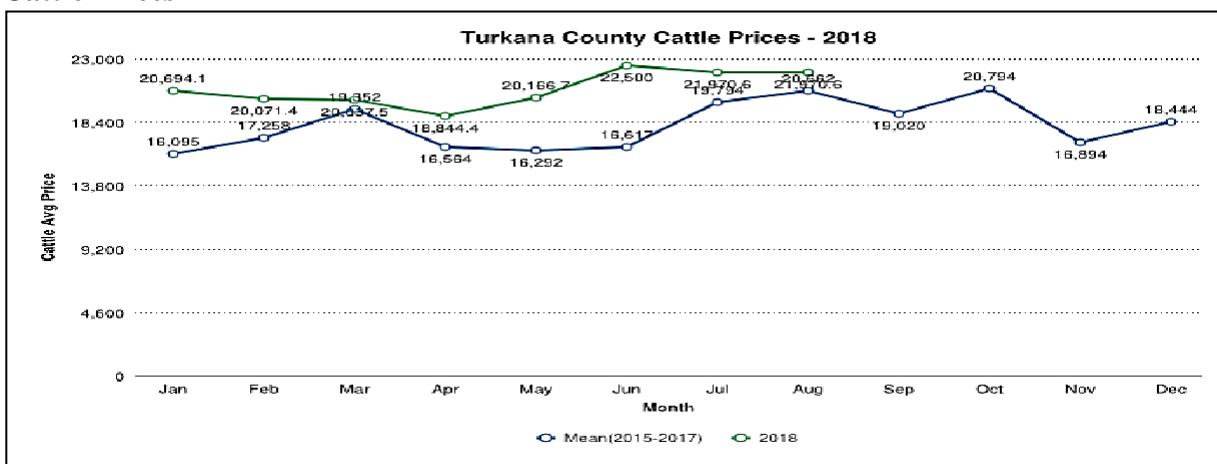
3.2.1 Stage and Condition of food Crops

- During the reporting month, farmers practicing rain-fed farming were harvesting but locust infestation had destroyed most crops leading a very poor harvest. However, farmers practicing irrigated farming (along Turkwel and Kerio rivers) had received fair harvests of maize, sorghum and Cow Peas.

4.0 MARKET PERFORMANCE

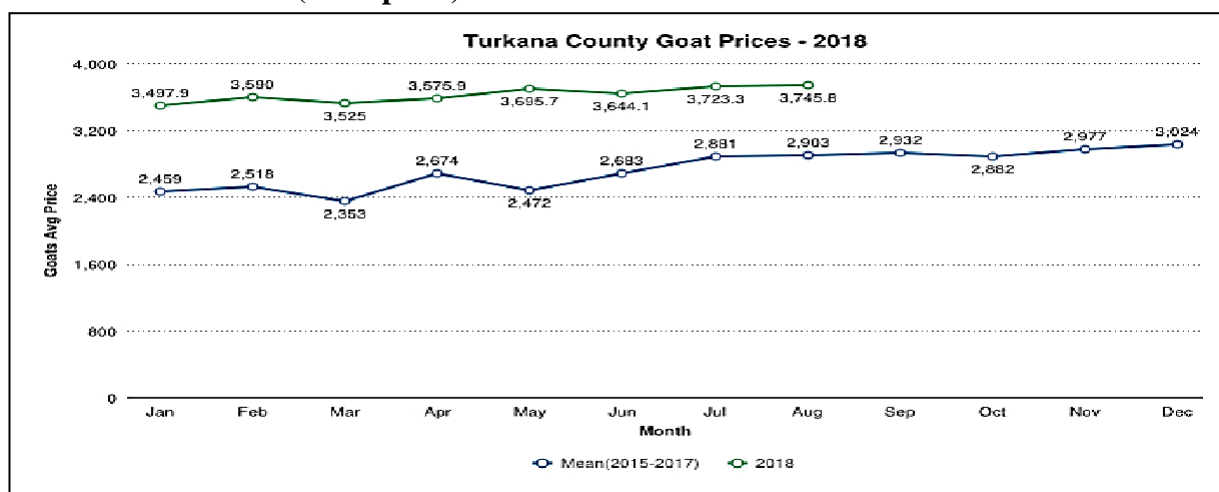
4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices



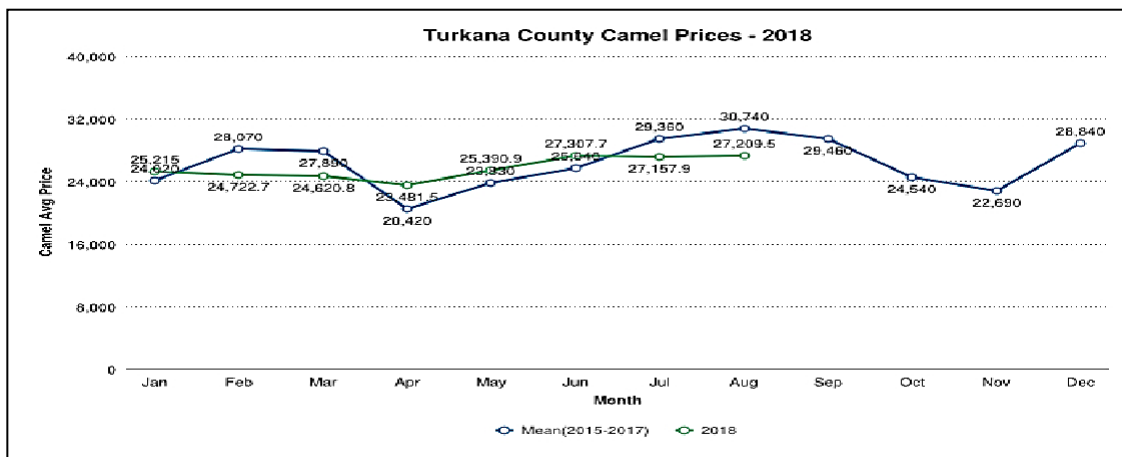
- During the month under review, a 4-year old medium sized bull was sold at an average price of Kshs 21,970; depicting a stable price as the previous month.
- The stability in cattle price is attributed to the current good cattle body condition that attracts favourable market prices.
- Cattle was sold at a highest price of Kshs 22,500 in Pastoral livelihood zone and sold at a lowest price of Kshs 21,800 in Agro Pastoral zone.
- Compared to a three-year average, the current cattle price is above the mean by six percent for such time of the year.

4.1.2 Small Ruminants Prices (Goat price)



- The county reported a sale of a 2-year old medium sized goat of Kshs 3,750. This connotes a stable price as that recorded in the previous month.
- Availability of browse and pasture is the major factor towards the stability of goat price across all livelihoods in the county.
- The highest goat price of Kshs 3,770 was recorded in pastoral livelihood zone while the least price of Kshs 3,600 was recorded in Agro pastoral zone. This indicates a general stable price of goats in the county.
- The current goat price is above the three-year short term average of Kshs 2,900 which represents twenty-five percent increase compared to LTA for such time of the year.

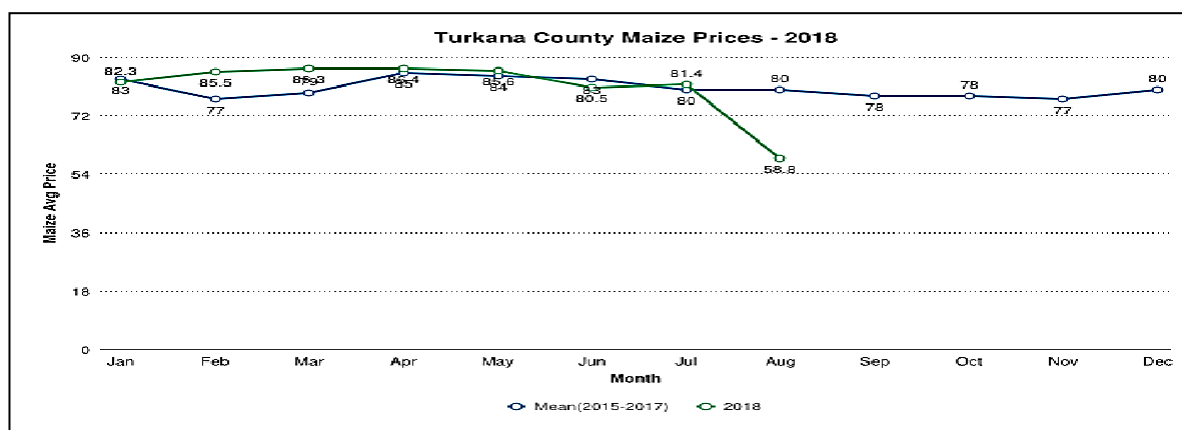
4.1.3 Camel Prices



- A 4-year old camel was sold at Kshs 27,200. The price of camel remains stable with insignificant increase from the previous month.
- Cattle was sold at the highest price (Kshs 27,600) in Pastoral livelihood zone while the lowest price (Kshs 24,800) was recorded in Agro-Pastoral zone.
- The observed stability in cattle price in the county is due to prevailing good condition of pasture and browse that fatten camel hence attract good market prices.
- For such time of the year, camel price is below the short term average by eleven percent.

4.2 CROP PRICES

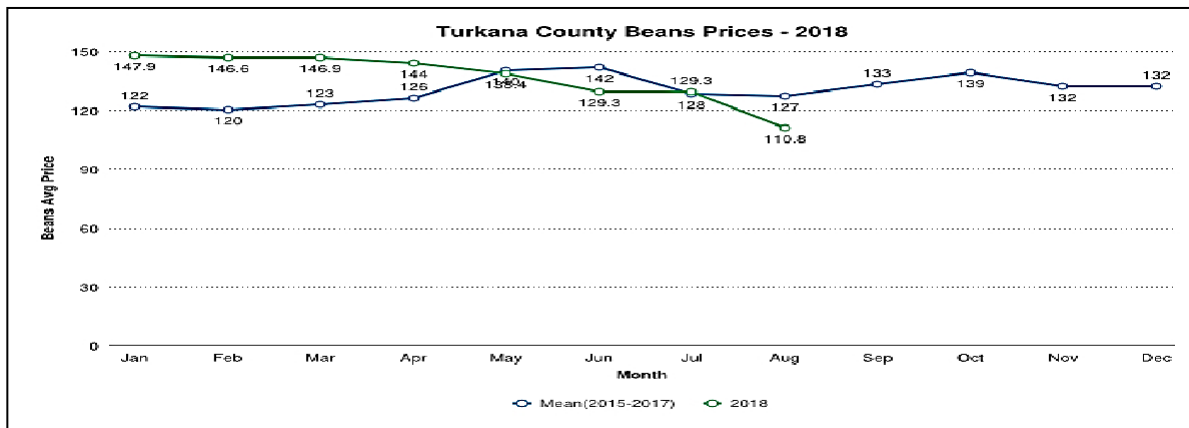
4.2.1 Maize



- During the month under analysis, a kilogram of maize was sold at an average price of Kshs 59; depicting a significant reduction from Kshs 80 recorded in the previous month (representing sixty-two percent drop in maize price from the previous month).
- The decrease is attributed to good maize harvests experienced in the county that flooded maize into markets. This also led to low farm-gate prices
- Agro-Pastoral livelihood zone recorded the lowest maize price of Kshs 50 and Pastoral zone recorded the highest maize price of Kshs 60.
- Compared to the three-year average, maize price is significantly below the mean by sixty-two percent.

4.2.2 Beans

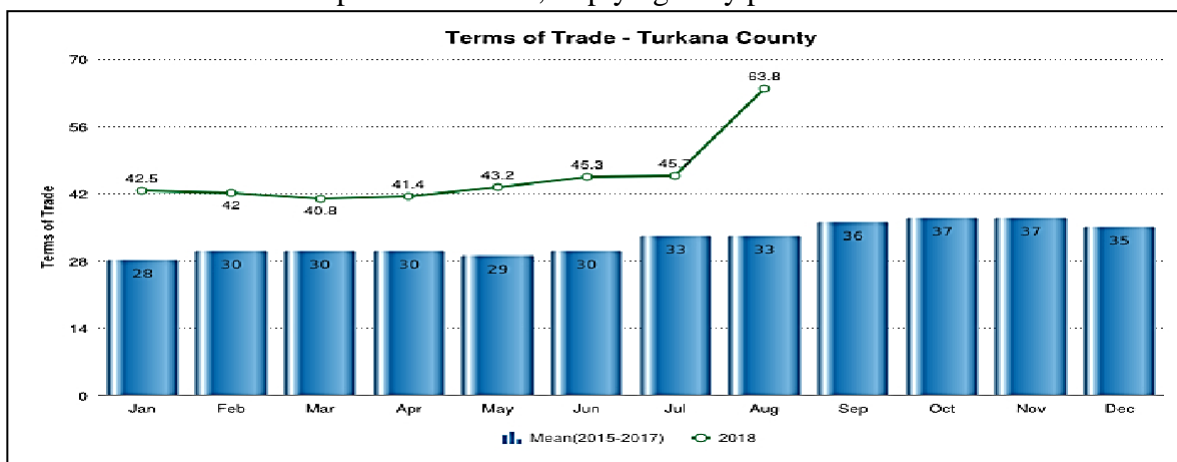
- A kilogram of beans was sold at Kshs 110. This is an eighty-five percent decrease from the price of beans recorded in the previous month.



- The recent cow peas harvest in agro-pastoral areas, (along River Turkwel, Katilu and River Kerio), led to decrease in the price beans since households opted to buy cow peas to supplement beans.
- The highest price (Kshs 120) of beans was recorded in fisheries while the least price of Kshs 107 was recorded in Agro-pastoral zone.
- Beans price is significantly below the short-term average (Kshs 127) for such time of the year.

4.3 Livestock Price Ratio/Terms of Trade

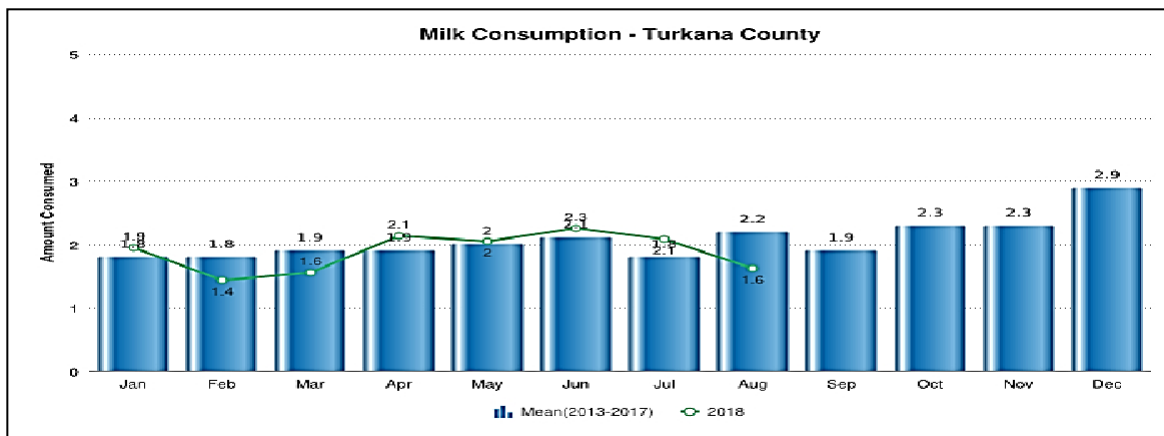
- A significant Terms of Trade (ToT) of 63.8 was recorded in the county which is an increase from 45.5 recorded in the previous month; implying forty percent increase.



- The increase in ToT is attributed to the reduced maize price recorded in the county and favourable goat price. This means that farmers are able to acquire enough food stuffs compared to the previous month.
- Agro-Pastoral livelihood zone recorded the highest ToT of 94.6 compared to other zones.
- The current ToT is above the three-year average of 33 for such time of the year by thirty-three percent.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

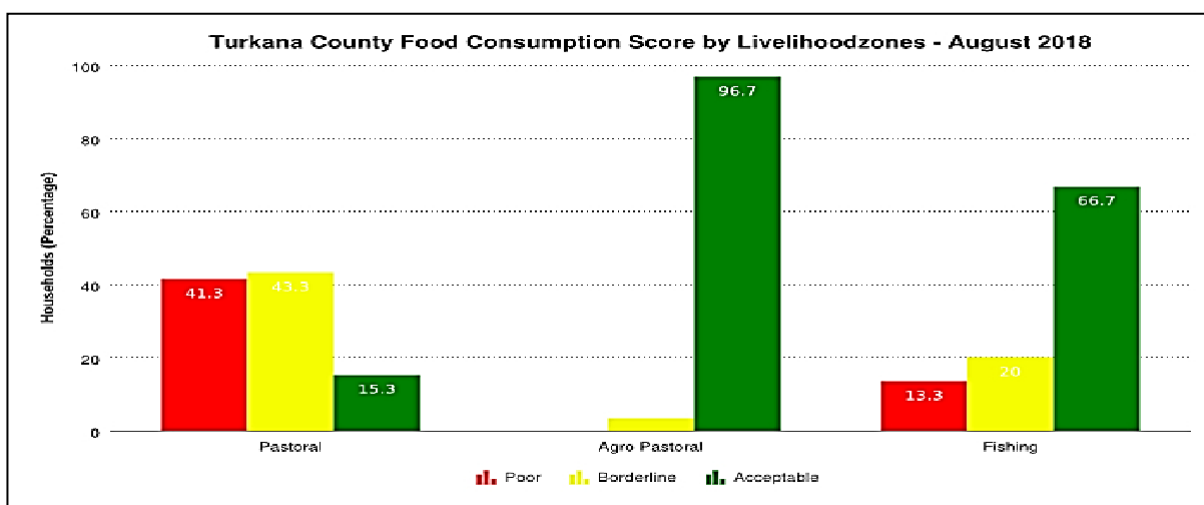
5.1 MILK CONSUMPTION



- During the reporting month, milk consumption per person per day was 1.6 litres; indicating a decrease from 2.1 litres recorded in the previous month.
- This is attributed to households leaving growing young animals to suckle to enable them have good and strong body condition to enable them withstand future worse dry periods.
- Milk produced is below the five-year average by twenty-eight percent for such time of the year.

5.2 FOOD CONSUMPTION SCORE (FCS)

- During the reporting month, different proportions out of the 240 sampled households were categorized into corresponding FCS categories. Twenty-eight percent fell into poor FCS, thirty percent fell into Borderline FCS and forty-two percent fell into acceptable FCS.

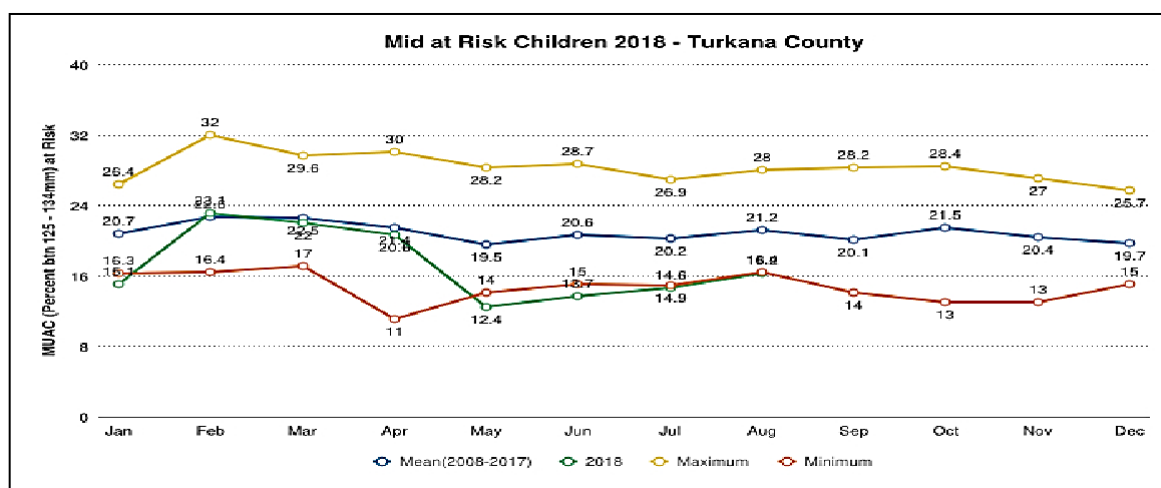


- The county food consumption score was 58; being an increase from 42 recorded in the previous month. This is attributed to the harvests of maize and cow peas experienced in the county that provide households with enough foods that supplements them with nutritional components.
- Variability among the livelihood zones in the county were observed. Most households in Pastoral livelihood zone fell into borderline FCS category while most households in Agro pastoral and Fisheries livelihood zones fell into acceptable FCS category.

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- The proportion by gender of children that were sampled during the reporting month comprised of forty-nine percent males and fifty-one percent females.



Sample size, n=2099

- Children who are at risk of malnutrition with Mid Upper Arm Circumference (MUAC) below 135 mm, was 16 percent of the sampled children. This is an increase from 15 percent recorded in the previous month.
- The increase in MUAC, although slight, is attributed to reducing milk consumption by children at household level.
- The current percentage of children who are at 'risk' of malnutrition is below the Long-Term Average by twenty-five percent for such time of the year.

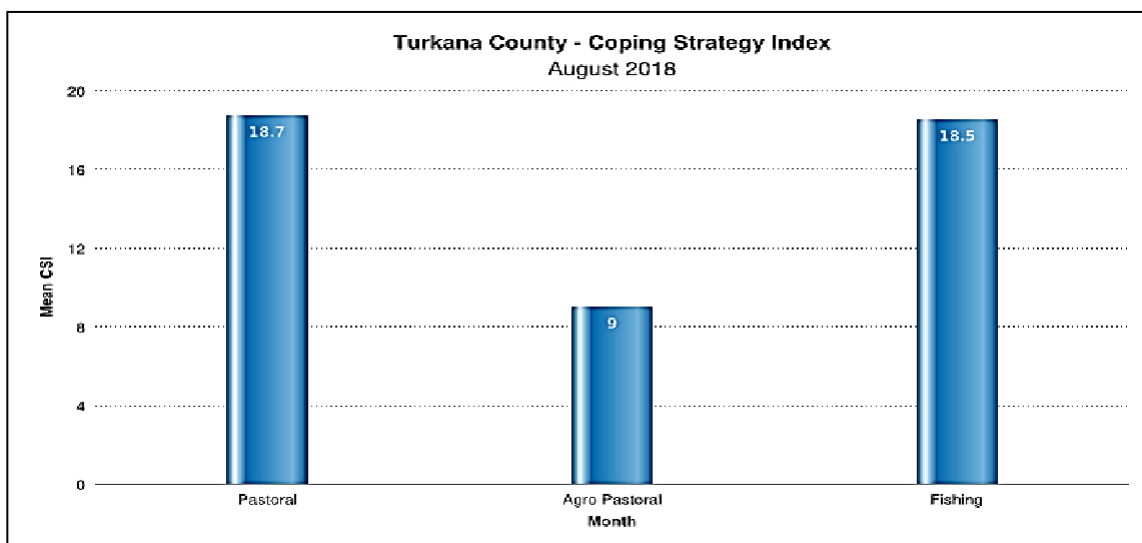
5.3.2 Health

- Chicken pox was reported in Loima Sub County and coughing also reported in Turkana West, North and East sub counties.

5.4 COPING STRATEGIES

5.4.1 Coping Strategy Index (CSI)

- A stable Coping Strategy Index of 16 was recorded during the month under analysis. This implied that households relied on similar strategies in order to acquire food as the previous month.



- However, variability in livelihood zones was observed. Pastoral livelihood zone had the highest coping strategy index of 19 while agro-pastoral zone had the least CSI of 9.
- Compared to the Long Term Average, the current CSI is below the mean of 33 for such time of the year.

6.0 CURRENT INTERVENTION MEASURES

Food Interventions

Intervention(s)	Sub-County/Ward/Location	No. of Beneficiaries	Implementers/O organization
Nutrition medical outreach.	Turkana central Turkana west	House holds	Kenya red cross support the MOH funded by UNICEF
43.38 tonnes of assorted Food commodities including maize, beans, vegetable oil and salt distributed to flood affected populations in Lodwar	Turkana Central, Lodwar township ward	1,200 Households	Caritas Lodwar

Non-Food Interventions

Intervention(s)	Sub-County/Ward/Location	No. of Beneficiaries	Implementers/O organization
Safe shelter	Turkana east.	32 House Holds	Kenya red cross society
	Turkana central	80 house holds	
	Turkana south	160 house holds	
	Loima	15 house holds	
	Turkana west	80 house holds	
Cash Transfer Program for young women and ongoing school children	Turkana west Turkana south Turkana central	9000 Girls	Kenya red cross society –Global Funds. Support World vision and AICHM
Decentralized Animal Health-Veterinary	County Wide-All Sub-counties in Turkana-Based at Headquarters	N/A	Turkana County Government-Fisheries, Livestock & Veterinary Services in collaboration with RPLRP WB Funded Project

Drugs and Equipment Delivery IN Turkana County			
Decentralized Animal Health-Veterinary Drugs and Equipment Delivery IN Turkana County-Worth Ksh 10 Million	County Wide-All Sub-counties in Turkana-Based at Headquarters	N/A	Turkana County Government-Veterinary Services
Passive Disease Surveillance and Reporting-Electronic Surveillance	TCG Headquarters, and All The Seven Sub-counties, 30 wards-Selected CDRs	N/A	TCG, ILRI-AVCD-Livestock Component and GIZ/GFA
Cash transfer intervention	Turkana west and Central (Kakuma, Lokichogio, Lodwar, Kalokol, Kanatotha)	1410HH	Oxfam GB through Equity Bank
WASH Non Food Items	Namadak, Kataboi, Lokangae, Nanyangakipi, Nakwamekwi	3750HH	Oxfam GB
Rehabilitation/ Equipping of water sources. -solarization -Pipeline extention -construction of water kiosks/troughs /tap stands -Erecting elevated steel and plastic tanks -Installation of water ATMs -Training of WUAs.	Nakwamekwi, Lokangae Nanyangakipi Naipa Lokichogio Kataboi	50602HH	Oxfam GB

Non-food items comprising of jericans, buckets, mosquito nets, aqua tabs and bar soap distributed to flood affected populations in Lodwar	Turkana Central, Lodwar township ward	1,200 Households	Caritas Lodwar
Reseeding farm	Loima, Turkana Central, Turkana North	200 house holds	JICA ECoRAD2 project
Small scale agriculture	Loima, Turkana Central, Turkana North, Turkana west	140 house holds	JICA ECoRAD2 project
Charcoal production support with power saw	Turkana west	20	JICA ECoRAD2 project

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- During the reporting month, no major insecurity occurrences were reported apart from unconfirmed rumours in Turkana East and South that suspected bandits from west Pokot county were planning to do an attack.

7.2 Migration

- Migration patterns remained normal as livestock had not begun unusual migration within or outside the county.

7.3 FOOD SECURITY PROGNOSIS

- Owing to the recent maize and cow peas harvests that were experienced in the county, that have led to reduction in maize and beans prices, food security situation is expected to improve.
- The improved Terms of Trade implies that households are capable of affording food commodities at a relatively favourable price. This will improve food security situation at household level.
- Now that Food Consumption Score has improved and coping strategy index remained stable during the month, food security situation in the county will improve since households are relying on less severe mechanisms to acquire food.
- Livestock body condition has remained relatively good. This means that households will be able to sell livestock at favourable market prices and hence easily afford food from markets. This will lead to improved food security situation in the county.

8.0 RECOMMENDATIONS

- **Health and Nutrition:** Existing health rehabilitation centres such as Katilu, Lokichar and other county health facilities to be equipped with human drugs.
- **Livestock:** Livestock vaccination and deworming should be conducted across all livelihoods in the county in order to prevent the current reports of livestock diarrhea especially in goats and sheep.
- **Agriculture:** Crop seeds should be supplied to farmers in preparation of the coming short rains season in October-November-December.
- **Water:** Water boreholes and pumps should be installed in livestock concentration areas for early preparation on the coming dry periods.