

# National Drought Management Authority

## WEST POKOT COUNTY

### DROUGHT EARLY WARNING BULLETIN FOR AUGUST 2017



A Vision 2030 Flagship Project



#### AUGUST EW PHASE



#### Drought Situation & EW Phase Classification

##### Biophysical Indicators

- Rainfall was received countywide during the month under review with a temporal distribution of 14-16 days. The cumulative rainfall for the 6-month period (March-August) for Nasukuta rainfall station amounts to 90% of the normal for the same period.
- Vegetation condition improved significantly as evidenced by the shift in VCI-3month for the county from 37 in July to 45 in August. All Sub Counties exhibited normal vegetation greenness.
- Forage condition is good across all livelihood zones.

##### Socio Economic Indicators (Impact Indicators)

- Body condition of all species is good and on an improving trend. Distance to water sources reduced slightly but lies above the normal range albeit with a small margin. Milk production and consumption remained unchanged and within the normal range.
- No migration was taking place and the ToT improved significantly but fell below the normal range.
- Fifty nine percent of households fell within the acceptable food consumption band with the coping strategy index for the month being 10.7. Proportion of children 'at risk' of malnutrition dropped to 4.2% and remains within the normal range for the month under review.

#### Early Warning (EW) Phase Classification

LIVELIHOOD ZONE	EW PHASE	TREND
AGRO PASTORAL	NORMAL	IMPROVING
PASTORAL	NORMAL	IMPROVING
COUNTY	NORMAL	IMPROVING

Biophysical Indicators	Value	Normal range
Rainfall (% of normal for Nasukuta Station)	90	90-110
VCI-3month (County)	45	>35
VCI-3month (Pokot Central)	43	>35
Forage Condition	Good	Good

Production Indicators	Value	Normal range
Livestock Body Condition	Normal	Normal
Milk Production	1.4 Litres	>1.5 Litres
Livestock Migration Pattern	Normal	Normal
Livestock deaths (attributed to drought)	No deaths	No deaths

Access Indicators	Value	Normal range
Terms of Trade (ToT)	68	>71
Milk Consumption	1.3Litres	>1.2Litres
Return distance to water sources (household)	2.7 km	0.0 -2.5km
Cost of water at source (Ksh /20 litres)	Kshs.5	<Kshs.5.0

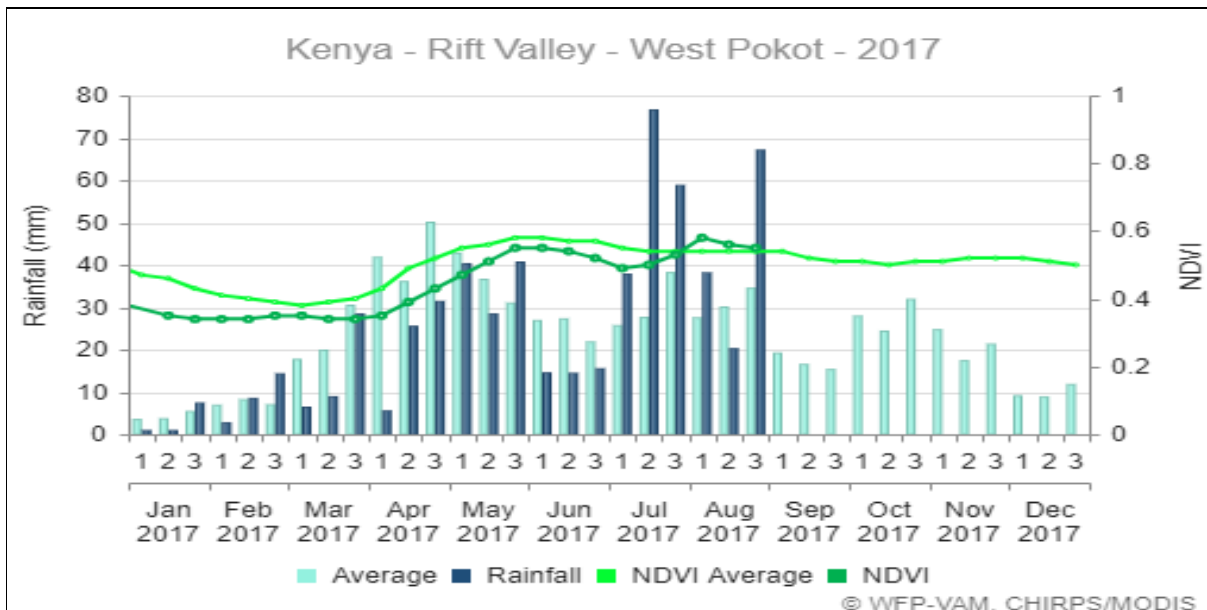
Utilization Indicators	Value	Normal range
Nutrition status, MUAC (% at risk of malnutrition)	4.2	0.0- 7.3
Coping Strategy Index (CSI)	10.7	<14.4
Food Consumption Score (FCS)	38	>35

<ul style="list-style-type: none"> <li>▪ Short rains harvests</li> <li>▪ Short dry spell</li> <li>▪ Increased HH Food Stock</li> <li>▪ Land preparation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Planting/Weeding</li> <li>▪ Long rains</li> <li>▪ High Calving Rate</li> <li>▪ Milk Yields Increase</li> </ul>	<ul style="list-style-type: none"> <li>▪ Long rains harvests</li> <li>▪ A long dry spell</li> <li>▪ Land preparation</li> <li>▪ Increased HH Food Stock</li> </ul>	<ul style="list-style-type: none"> <li>▪ Short rains</li> <li>▪ Planting/weeding</li> <li>▪ (Irish potatoes, Cabbages and Onions)</li> </ul>								
Jan	Feb	Mar	Apr	July	Jun	Jul	Aug	Sept	Oct	Nov	Dec

## 1.0 CLIMATIC CONDITIONS

### 1.1 RAINFALL PERFORMANCE

- The county experienced off season rains during the month under review albeit of less intensity in comparison to what was received in July.
- Most areas in both the lowlands and highlands recorded a temporal distribution of 14-16 wet days during the month of August.



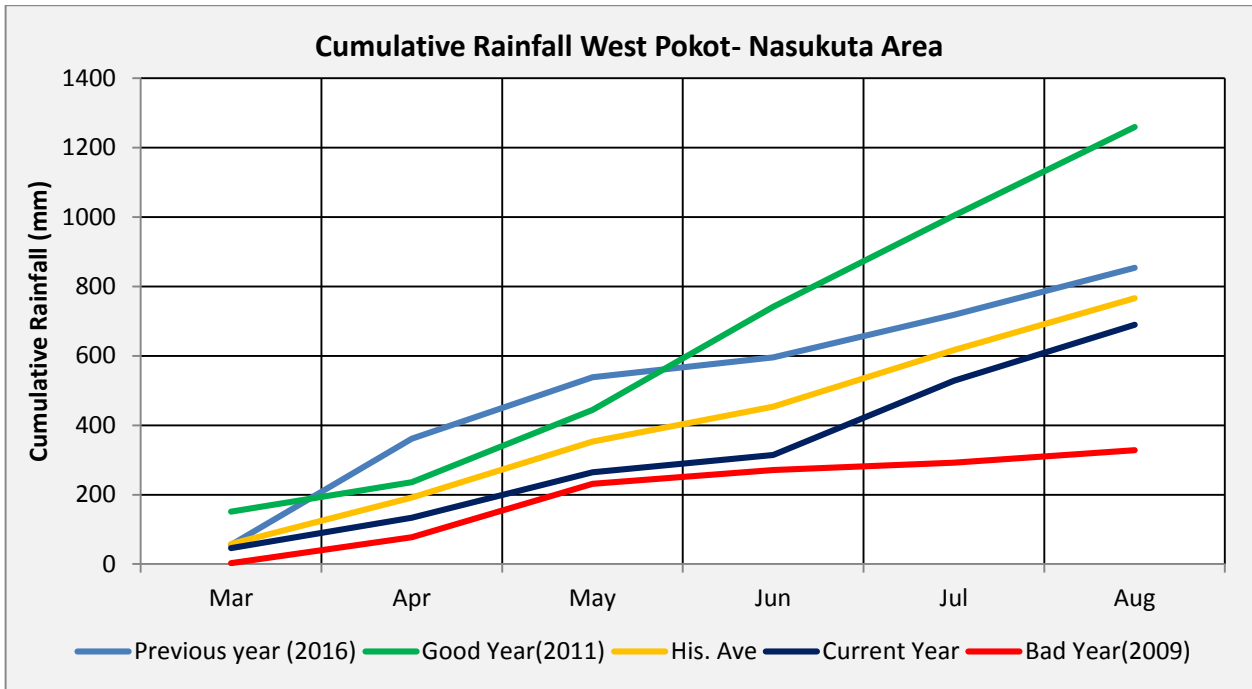
Source: VAM-World Food Programme

- August recorded a decrease in dekadal rainfall amount in comparison to the previous month with the second dekad recording a low of 20.1mm against the expected 30mm. Notably, the first dekad and third dekads recorded an above average performance.
- As a result of the normal rainfall received over the July and August period, the current NDVI values remain superior to the historical NDVI values.

### 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- The spatial distribution was even with all areas across the Pastoral and Agro Pastoral livelihood zones experiencing fair to good amounts of precipitation. For instance, Nasukuta rainfall station received 160.8mm of rainfall in 15 days during the month under review.
- Analysis of data from Nasukuta rainfall station reveals that the cumulative rainfall for the six month period (March to August 2017) amounts to 689.1mm against the cumulative fourteen year rainfall average for the same period that amounts to 765.7mm.

- The preceding rainfall amount translates to 90 percent of the average rainfall for the period and thus lies within the normal range for the season.
- Compared to the cumulative rainfall recorded for the same period during the previous year (March to August 2016), the current cumulative rainfall is less by nineteen percent.
- The period March to August 2009 remains the bad year historically as shown below.



- Other rainfall stations across the County including Kaibichbich, Sebit and Kaibos recorded 254.5 mm, 197.1mm and 148.1mm of rainfall respectively.

(Source: Meteorological Department-West Pokot County)

### 1.3 OTHER EVENTS

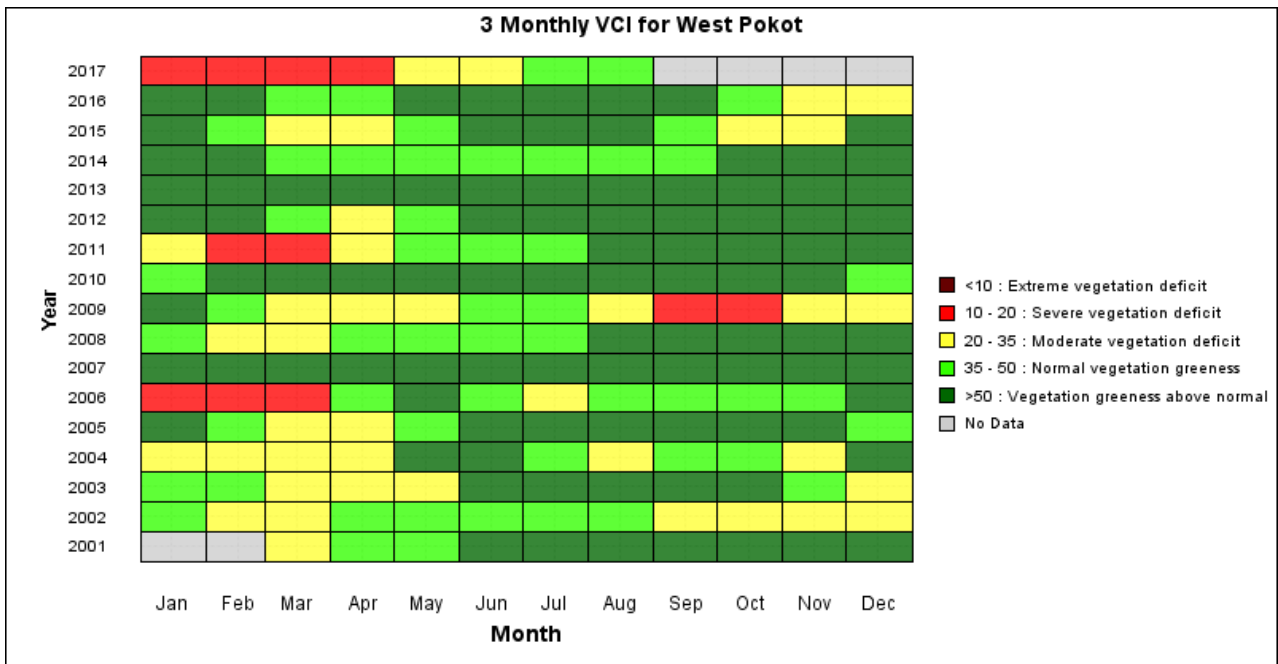
- A number of households in Riwo ward were affected (crops destroyed and animals lost) by flash floods resulting from over swelling of river Kapoiny during the month of August.
- There was no any other notable event such as land/mud slides, lightning strikes nor hailstorms that occurred during the month under review.

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index (VCI)

- The county matrix below illustrates how months have been categorized in terms of agricultural drought based on the respective VCI thresholds indicated. A retrospective analysis has been done and each month placed in an appropriate vegetation deficit category.
- Comparison of the relative NDVI (Normalised Difference Vegetation Index) change with respect to minimum and maximum historical NDVI value forms the basis for VCI.



Source: Boku University

- Vegetation Condition Index (VCI-3month) for the month under review is 45 for the entire county and this depicts normal vegetation greenness.
- The vegetation condition continues to improve across all parts as evidenced by the shift in VCI-3month from 37 recorded in July to 45 in August for the county. All sub counties are currently exhibiting normal vegetation greenness.
- The improvement is attributed to continuous good off season rains that has resulted in significant regeneration of vegetation across all parts.

### **2.1.2 Pasture**

- The pasture condition is good across all livelihood zones. It is normal in comparison to the pasture situation during a normal year. When compared to the previous month, pasture regenerated significantly and this could be attributed to sufficient off season rainfall received during the month under review.
- The pasture condition is expected to remain good due to ongoing rains.
- There is no significant impediment to pasture access across all areas in the county.
- There exists no significant variation in terms of quality and quantity of pasture in both zones.

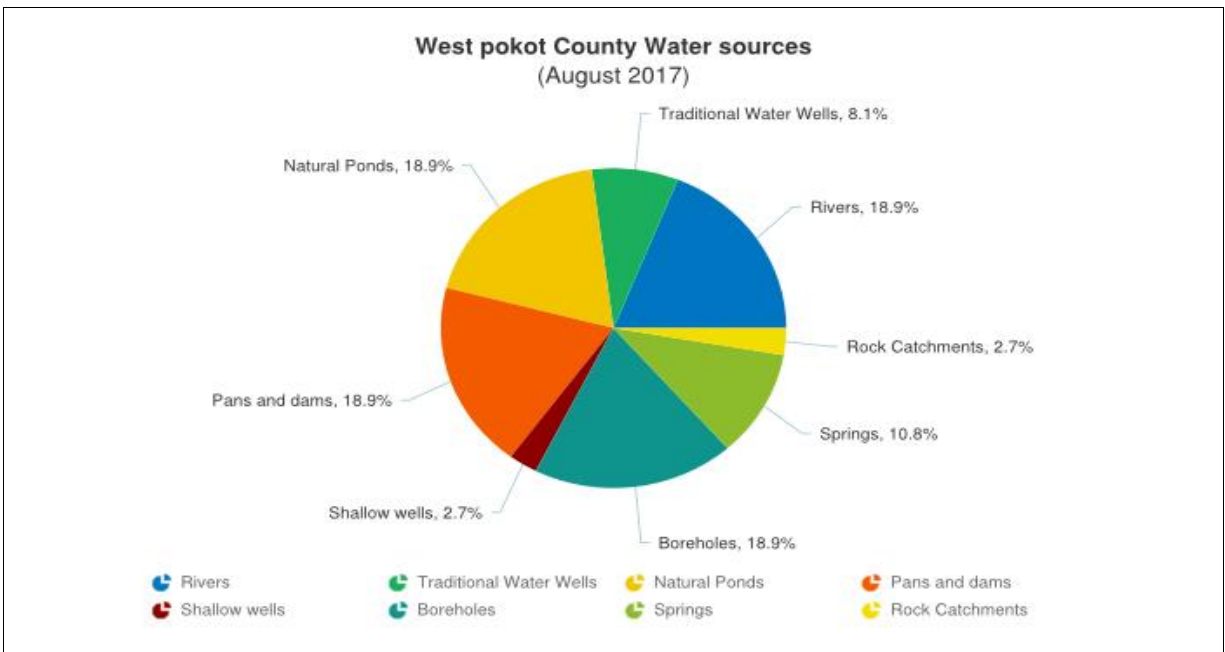
### **2.1.3 Browse**

- Browse condition remains good across the two livelihood zones. It is normal when compared to the browse situation during a normal year. There was a significant improvement in browse condition in relation to that of the previous month due to good rains received during the month under review.
- No major constraint to browse access currently exists across all sites in the County.
- Quality and quantity of browse is uniform across the Pastoral and Agro Pastoral livelihood zones.

## **2.2 WATER RESOURCE**

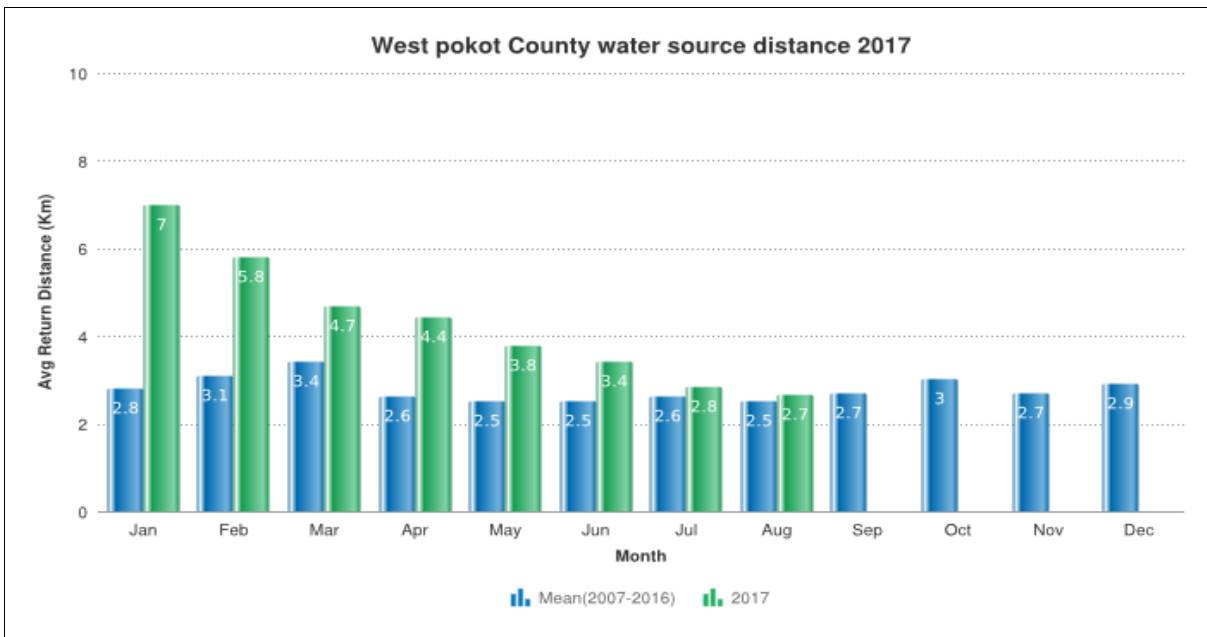
### **2.2.1 Sources**

- Rivers, pans and dams, boreholes and natural ponds are currently the main sources of water used by households and livestock .Approximately 19 percent of households reported to be relying on each of the above sources. Other water sources in use included springs and traditional water wells.
- In comparison to July, the water recharge levels increased especially in the open water sources due to adequate off season rains.
- The current main sources in use are the normal sources where households draw water from during this time of the year.
- River volume was high in comparison to the previous month with normal flow being witnessed along permanent and seasonal rivers. This being a deviation from the normal situation during this period of the year when river volume usually starts dropping.



### 2.2.2 Household Access and Utilization

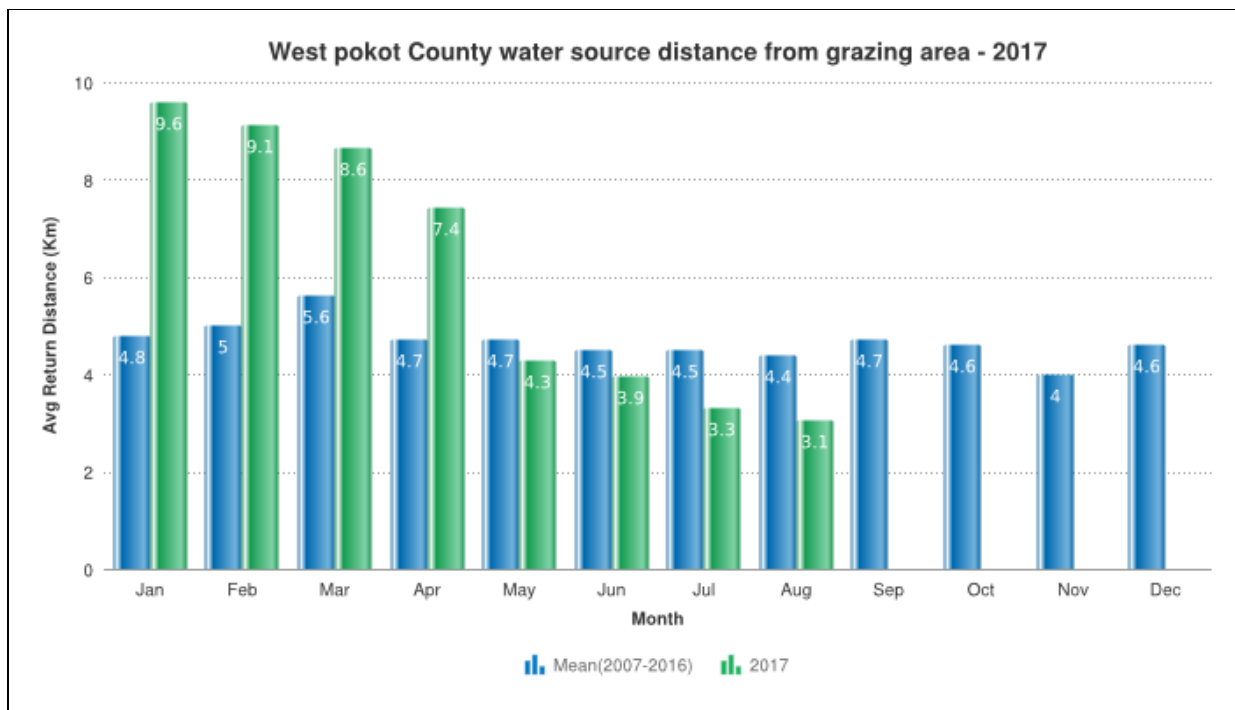
- The current household return distance to water source is 2.7 Km and thus remained relatively unchanged from the 2.8 Km recorded in July. This distance is 8 percent above long term average distance for the month.
- The pastoral livelihood zone recorded a longer trekking distance to water source in comparison to the Agro Pastoral livelihood zone. Water availability across most sites due to sufficient recharge was the major factor behind the above stability.



- The waiting time at water source generally reduced in both livelihood zones.
- The average household water consumption per person per day is at 15-20 litres in the Pastoral zone whereas in the Agro pastoral zone is 25-30 litres per person per day.
- The cost of water at source is free in the rural areas unlike in urban centres where a 20 litre jerrican costs Kshs. 5 at water kiosks. The charges are within the normal range for the period.

### 2.2.3 Livestock Access

- The current livestock return trekking distance from grazing areas to water sources is 3.1 Km, this is a decrease from the 3.3 Km recorded in July. In comparison to the normal trekking distance of 4.4 Km, current trekking distance lies below the normal range by 30 percent.
- The trekking distance from grazing areas to water sources was longer in the Pastoral livelihood zone in comparison to the Agro Pastoral livelihood zone.



- Reduced livestock trekking distance was mainly attributed to the sufficient rains received within the month of August.
- Watering frequency for cattle and shoats is 6-7 times in a week while for camel is 5-6 times in a week.

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

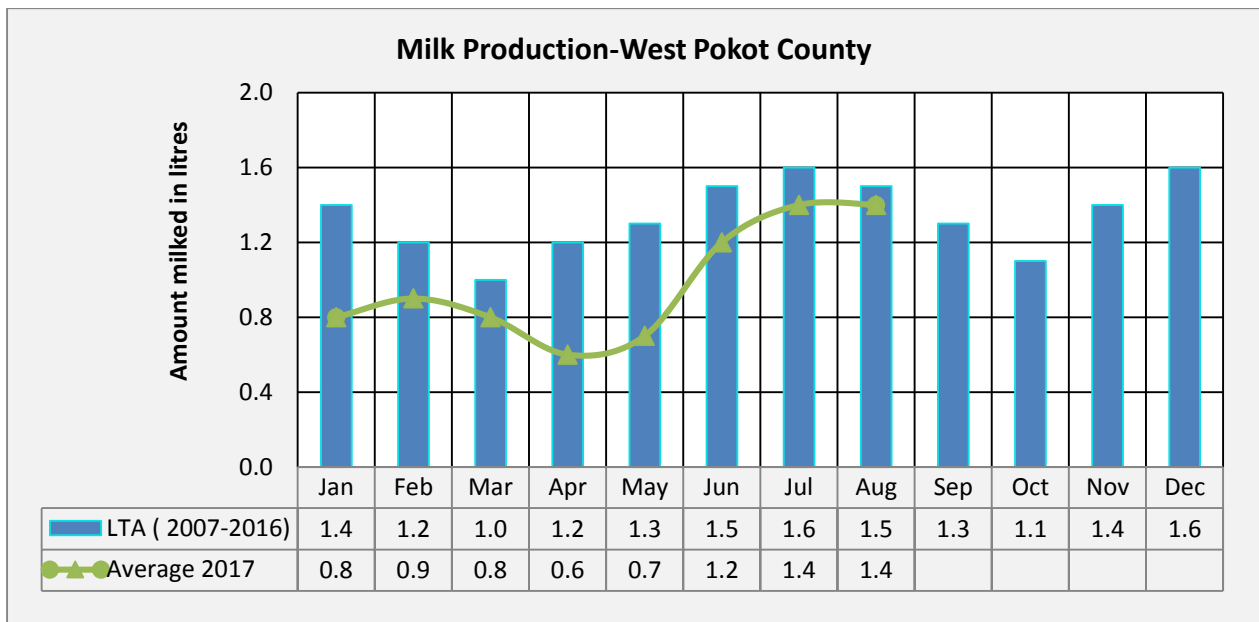
- The body condition of all livestock including cattle, goats, camels and sheep is good in both the Pastoral and Agro Pastoral livelihood zones.
- Livestock body condition is expected to remain good over successive months across all the livelihood zones as the ongoing rains maintain pasture within desirable quantities.
- In comparison to similar periods during previous years, the body condition of all species is normal and this is attributed to availability of sufficient pasture and water within the county necessitating animals to graze within a reasonably shorter distance from households.

##### 3.1.2 Livestock Diseases

- Incidents of contagious caprine pleuropneumonia (CCPP) in goats were reported in parts of Pokot central and north. Pest petis ruminantes (PPR) and contagious bovine pleuropneumonia (CBPP) in cattle was reported in Kapchok and Masol wards.

##### 3.1.3 Milk Production

- The two livelihood zones reported an average of 1.4 litres milk produced during the month and thus quantity produced remained unchanged from the previous month of June. Most of the milk produced in the county comes from cattle.





- The current household milk production is at par with the normal household milk production for the month.
- The stability in production could be attributed to the fact that causal factors driving production remained relatively the same in July and August.

## **3.2 RAIN-FED CROP PRODUCTION**

### **3.2.1 Stage and Condition of food Crops**

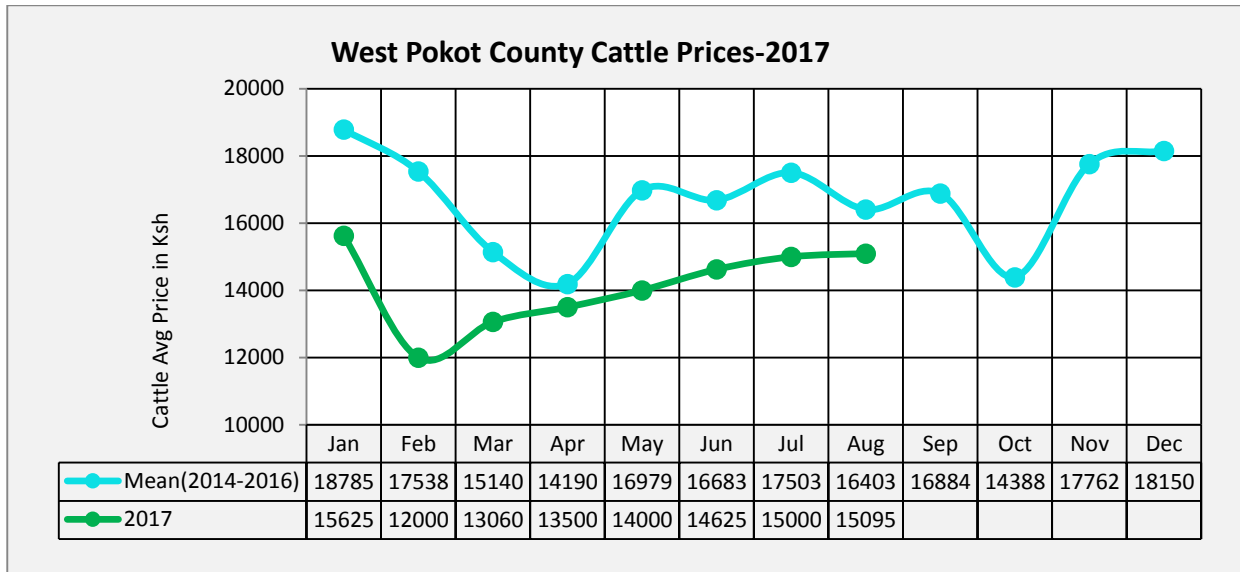
- Majority of the farmers (approximately 50 percent) cultivate Maize, Beans and Irish Potatoes during the long rains season. Maize is almost at harvesting stage.
- Horticultural production involving mainly onions in areas such as Ortum, Batei, Kokwotendwo and Tapach is ongoing with markets well positioned with adequate supplies of this food commodity.
- However, a drop in maize harvest is anticipated across the county due to FAW/Fall Army worm infestation earlier in the season that resulted in crop losses in the farms.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle prices

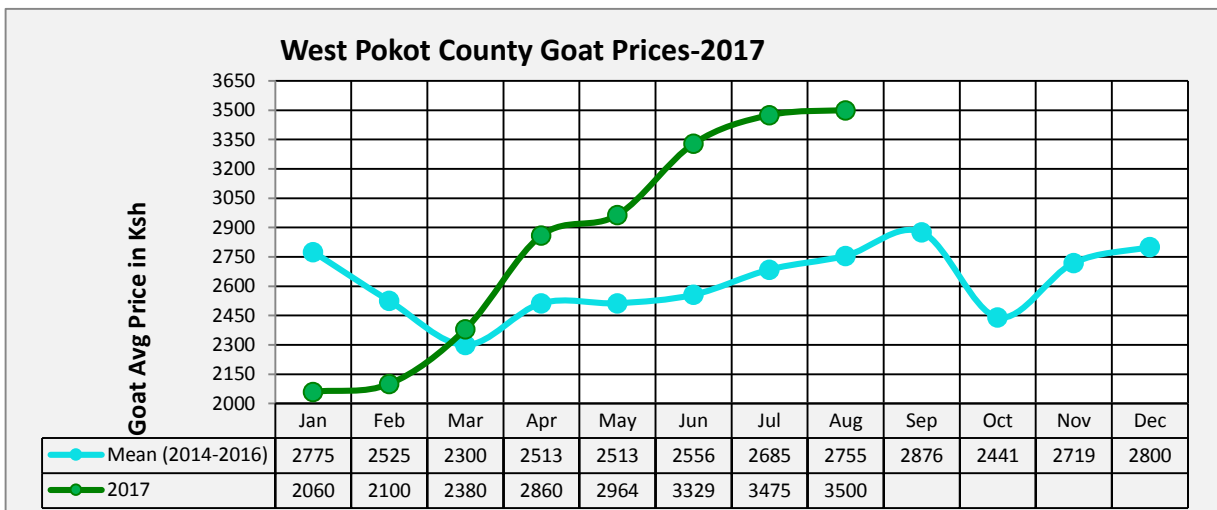
- Cattle traded at Ksh. 15,095 during the month under review. This being a slight adjustment upwards from the Ksh. 15,000 recorded during the previous month.
- The continual improvement in cattle body condition attributed to availability of adequate pasture was the major reason behind the rise in price during the month under review.



- The current cattle price is below the short term average price for the month by 8 percent.

#### 4.1.2 Goat Prices

- Similarly, goat price increased slightly to Ksh. 3,500 across all livelihood zones during the month under review from the Ksh. 3,475 recorded in July.

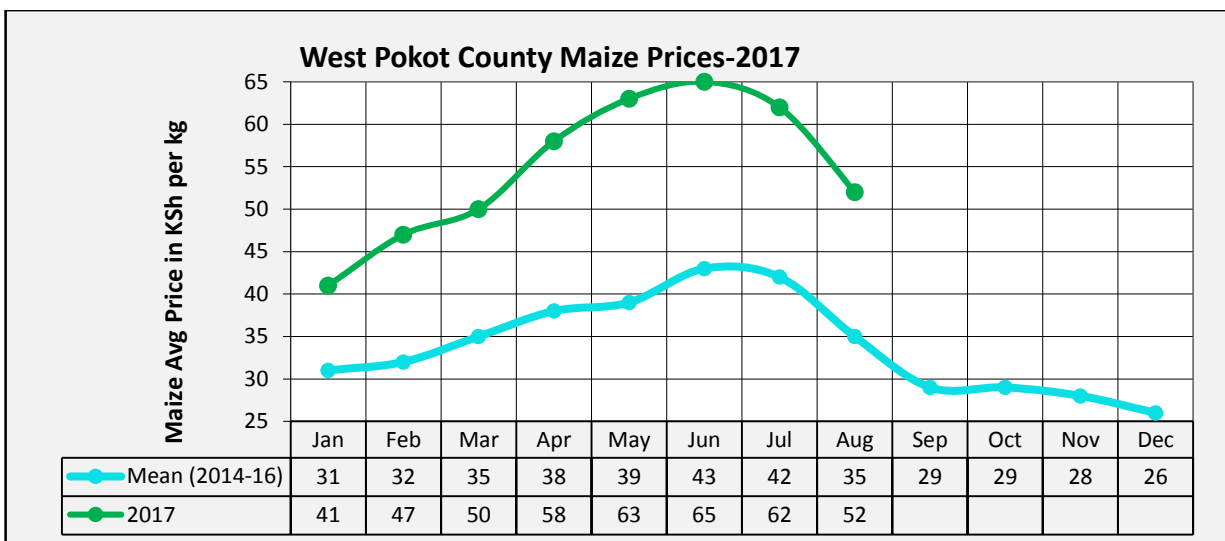


- The increase in price could be attributed to improved body condition of goat due to availability of browse of good quality in sufficient quantities.
- The current retailing price of goat is 27 percent above the short term average price for the month.

## 4.2 CROP PRICES

### 4.2.1 Maize

- Maize currently costs Ksh.52 per Kg, this is a decrease from the Kshs.62 recorded in July.
- This market price is 49 percent above the three year short term average price for the month under review.

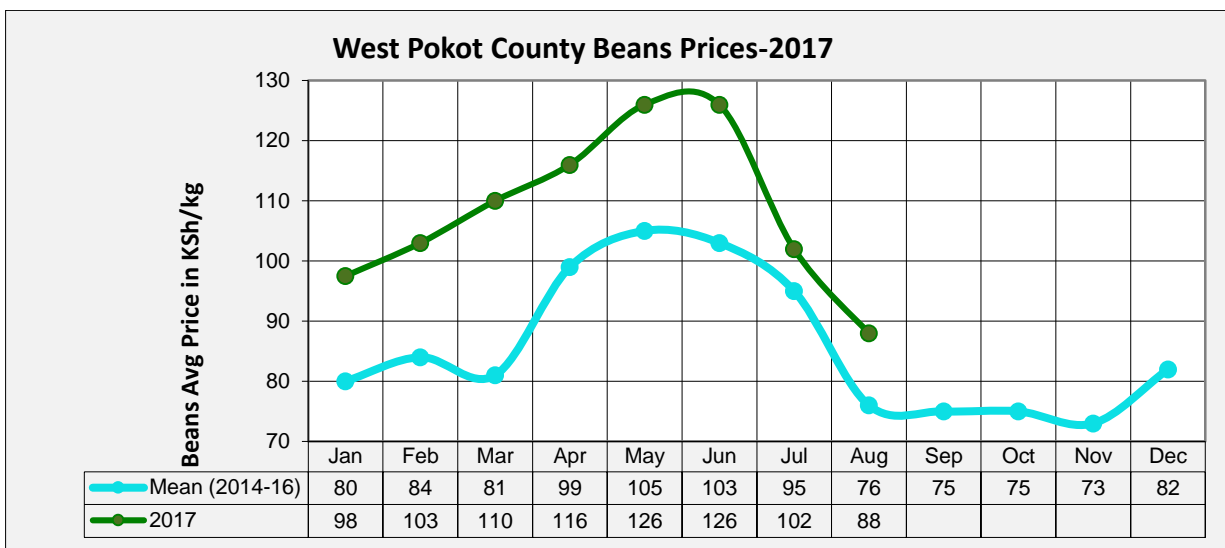


- There is no significant variation in price across all the livelihood zones and the decrease in price has majorly been driven by availability of maize within major markets replenished by the internal sources where harvesting has already taken place.
- Reliance on markets has dropped since most households mainly in the Agro Pastoral zone are in possession of stocks, maize price is likely to drop further as the supply of maize increases from the main internal sources (Mixed Farming zone) and external sources (Uganda and Trans Nzoia).

### 4.2.2 Beans

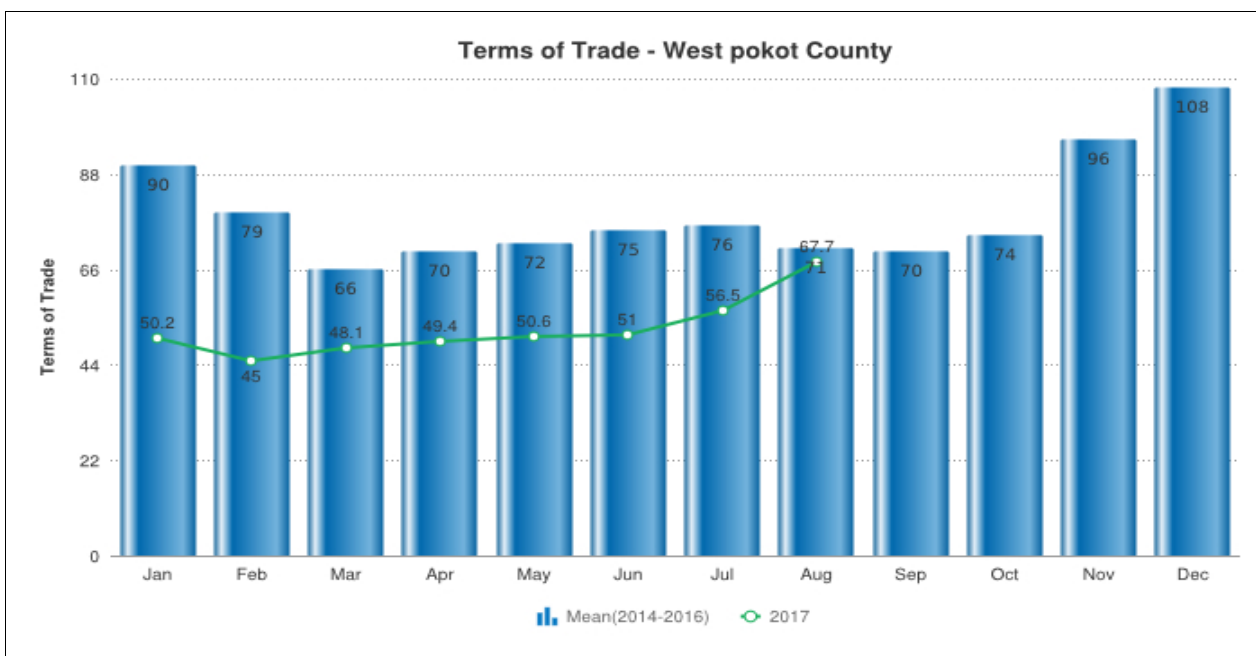
- The price of beans per kilogram dropped to Ksh. 88 during the month under review.
- This is attributed to significant harvest of beans within the county supplemented by a steady flow from external supply sources.
- There was no significant variation in price across the two livelihood zones due to availability of beans from the recent harvest in all the sites within the county.

- However, the current market price of beans lies above the three year short term average price for a normal season during this time of the year by 16 percent.



#### 4.3 LIVESTOCK PRICE RATIO/ TERMS OF TRADE (TOT)

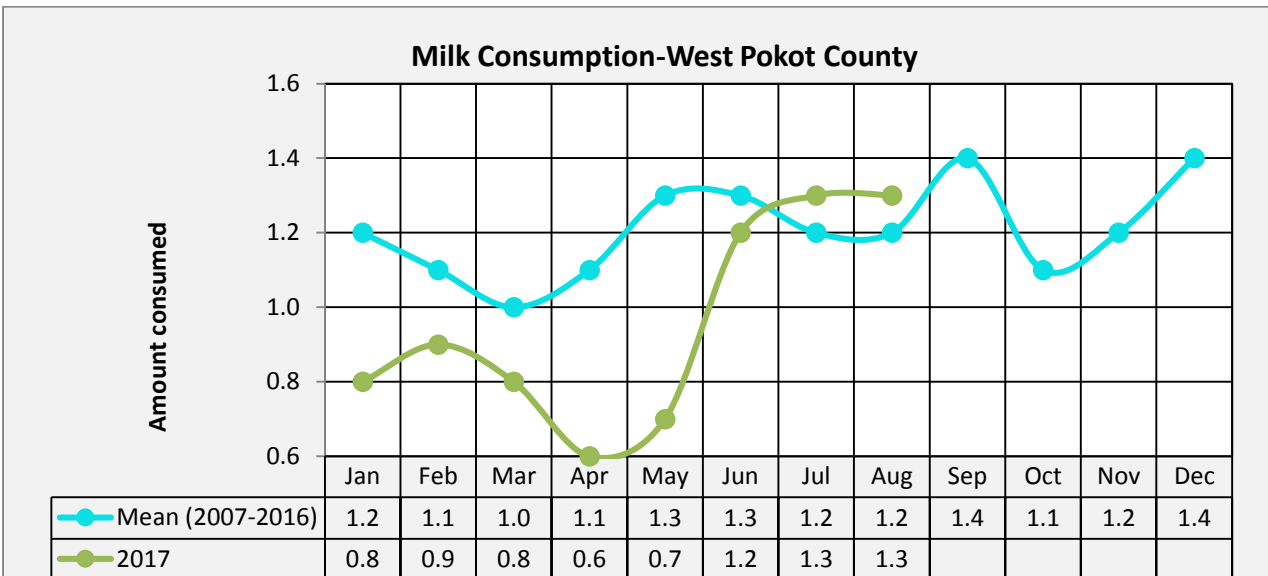
- The ToT adjusted significantly upwards to 67.7 from the 56.5 recorded in July. Thus, a sale of a goat could enable pastoralists obtain 12 more kilograms of maize on top of the July quantity. The current ToT is 5 percent lower than the short term average ToT for the month. The rise in ToT was majorly attributed to a significant drop in the price of maize during the month.
- The ToT is projected to rise further over the next three months as the price of goat is expected to rise coinciding with the falling price of maize.



## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

- Similar to the previous month, households are currently consuming an average of 1.3 litres of milk across the Pastoral and Agro Pastoral livelihood zone.



- The stability in consumption level is as a result of no significant shift in household production level having taken place.
- In comparison to the same period over time, the quantity of milk consumed is almost at par with the normal consumption level for the month.

### 5.2 FOOD CONSUMPTION SCORE

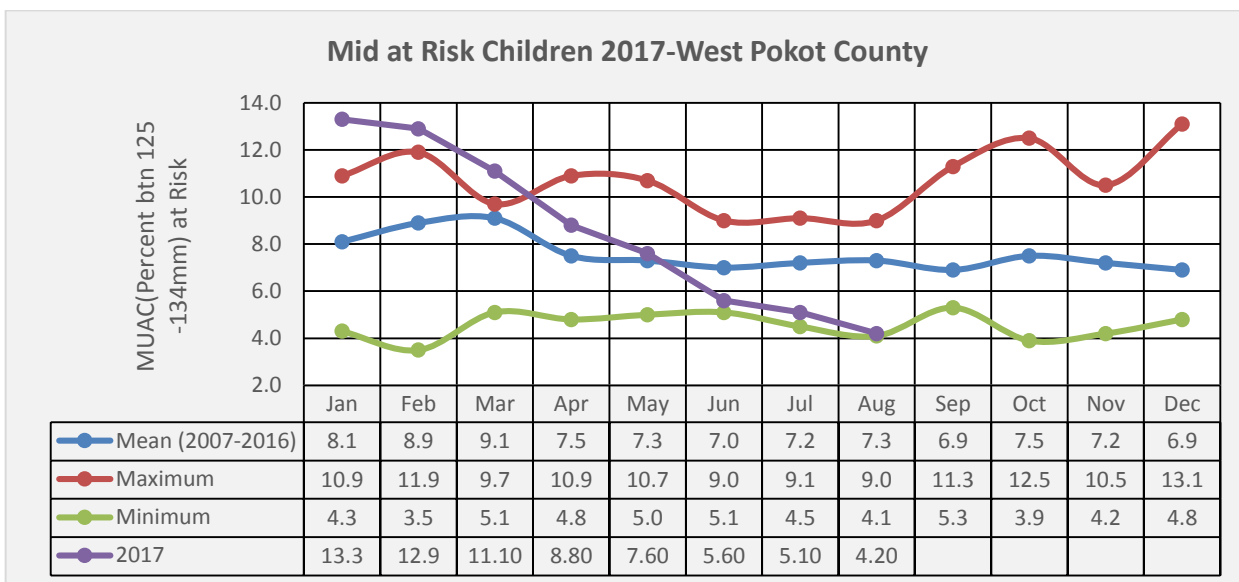
- A total of 59% and 41% of households fell within the acceptable and borderline food consumption score categories respectively during the month under review. The poor FCS category recorded nil indicating improved food consumption across livelihood zones.
- The mean food consumption score for the two livelihood zones during the month under review was 38 and thus an increase in comparison to the 25 recorded during the previous month.
- However, there was a significant variation across the two livelihood zones with for instance 27% of households in the Pastoral zone being categorized as having a borderline FCS in comparison to 97% households under the same category in the Agro Pastoral zone.

## 5.3 HEALTH AND NUTRITION STATUS

### 5.3.1 Nutrition Status

- Proportion of children rated being 'at risk' of malnutrition dropped to 4.2 percent from the 5.1 percent recorded in July.

- The current proportion of children rated being ‘at risk’ of malnutrition is 42 percent below the long term average for the period in a normal year.



- The reducing number of under-fives falling outside the normal range of children at ‘risk’ of malnutrition is as a result of continued provision of essential health and nutrition services through integrated health outreaches especially in hotspots.

### 5.3.2 Health

- Among the sampled children during the month under review, Diarrhea and typhoid were the most commonly reported ailments.

## 5.4 COPING STRATEGY

### 5.4.1 Coping Strategy Index (CSI)

- Coping strategy index for the month of August was 10.7, it thus did not vary significantly from that of the previous month. Therefore, coping strategies employed by households were similar in July and August.
- Agro Pastoral livelihood zone recorded a coping strategy index of 12 whereas that of the Pastoral livelihood zone was 10.4. The variance could be attributed to improved livestock productivity along the Pastoral zone.
- The notable consumption based coping strategy employed by majority of the households during the month was reliance on less preferred/less expensive food.

## **6.0 CURRENT INTERVENTION MEASURES (ACTION)**

### **6.1 FOOD**

- No relief food distribution took place during the month under review.

### **6.2 NON-FOOD**

#### **Health**

- Kenya Red Cross (KRCS) was supporting 10 health outreach sites mainly in Pokot central whereas Action against Hunger (ACF) was supporting another extra 19 health outreaches targeting sites such as Toomoi, Katuda, Nasal, Shalpough, Kerelwa, Kaporo and Kasitot during the month under review.

## **7.0 EMERGING ISSUES**

### **7.1 INSECURITY/CONFLICT/HUMAN DISPLACEMENT**

- No major insecurity incident was reported during the month under review.

### **7.2 MIGRATION**

- No animal migration is currently taking place due to availability of sufficient forage and water within the county.

### **7.3 FOOD SECURITY PROGNOSIS**

- Livestock productivity is projected to improve further if the current rains persist till the onset of the short rains period. Body condition of all species shall remain good due to availability of forage of good quality and in adequate quantities over the next two months.
- The price of Maize is anticipated to drop further and this shall coincide with the rising price of goat translating to favourable terms of trade for pastoralists.
- The increase in purchasing power among most households shall lead to an improved nutritional status since most households will be in a position of accessing nutritious foods from markets to meet their essential dietary needs.
- During this period, peace and security shall remain critical towards promoting proper market functionality and thus enabling few households that may be stressed in terms of food needs to easily access foods through major markets.

## 8.0 RECOMMENDATIONS

- **Agriculture:** Sensitive farmers on post-harvest handling techniques through demonstrations providing them with hermetic grain bags for storage so as to minimize post-harvest losses.
- **Veterinary:** Vaccinate animals against PPR, CBPP and CCPP targeting Chepareria and Kapchok wards while intensifying disease surveillance efforts countywide.
- **Water:** Sensitize farmers on modern water harvesting smart technologies and provide learning institutions with water storage tanks so as to maximize water harvesting during this period.
- **Health and Nutrition:** Support and enhance mass screening and integrated medical outreaches to all hotspots countywide while providing health education on sanitation and proper utilization of water treatment chemicals so as to minimize the risk of water borne disease outbreak.