

National Drought Management Authority

WEST POKOT COUNTY

DROUGHT EARLY WARNING BULLETIN FOR JANUARY 2017



A Vision 2030 Flagship Project



JANUARY EW PHASE



Drought Situation & EW Phase Classification

Biophysical Indicators

- No significant rainfall was received in the county save for selected sites that had a temporal distribution of 1-2 days towards end month. The cumulative rainfall for the 6-month period (August-January) for Nasukuta rainfall station amounts to only 52% of the normal for the same period.
- A further deterioration in the vegetation condition to extreme levels was witnessed as supported by the shift in VCI-3month for the county to 14.2 from 22.87 in December. Pokot north remained worst affected with a VCI-3month of 8.45.
- Forage condition was very poor across the livelihood zones.

Socio Economic Indicators (Impact Indicators)

- The body condition of cattle is poor whereas that of goats and camels is fair to poor. Distance to water source was long.
- Milk production and consumption at household level is below the normal range. Terms of trade are low and significantly lie outside the normal range by a big margin.
- Continued unusual outmigration was witnessed with several cattle deaths being reported in Pokot north and central.
- Food consumption score fell within the poor band and the proportion of households resorting to coping increased from 78% to 89%. Proportion of children 'at risk' of malnutrition rose further and remained outside the normal range.

Early Warning (EW) Phase Classification

LIVELIHOOD ZONE	EW PHASE	TREND
AGRO PASTORAL	LATE ALARM	WORSENING
PASTORAL	EMERGENCY	WORSENING
COUNTY	LATE ALARM	WORSENING

Biophysical Indicators	Value	Normal range
Rainfall (% of normal for Nasukuta Station)	52	90-110
VCI-3month (County)	14.2	>35
VCI-3month (Pokot North)	8.45	>35
Forage Condition	Poor	Good

Production Indicators	Value	Normal range
Livestock Body Condition	Not Normal	Normal
Milk Production	0.8 Litres	>1.4 Litres
Livestock Migration Pattern	Unusual	Normal
Livestock deaths (from drought)	Deaths Exist	No deaths

Access Indicators	Value	Normal range
Terms of Trade (ToT)	50.2	>90
Milk Consumption	0.8 Litres	>1.2 Litres
Return distance to water sources (household)	7km	0.0 -2.8km
Cost of water at source (Ksh /20 litres)	Kshs.10	<Kshs.5.0

Utilization Indicators	Value	Normal range
Nutrition status, MUAC (% at risk of malnutrition)	13.3	0.0- 8.1
Coping Strategy Index (CSI)	19.95	<15.1
Food Consumption Score	16.5	>35

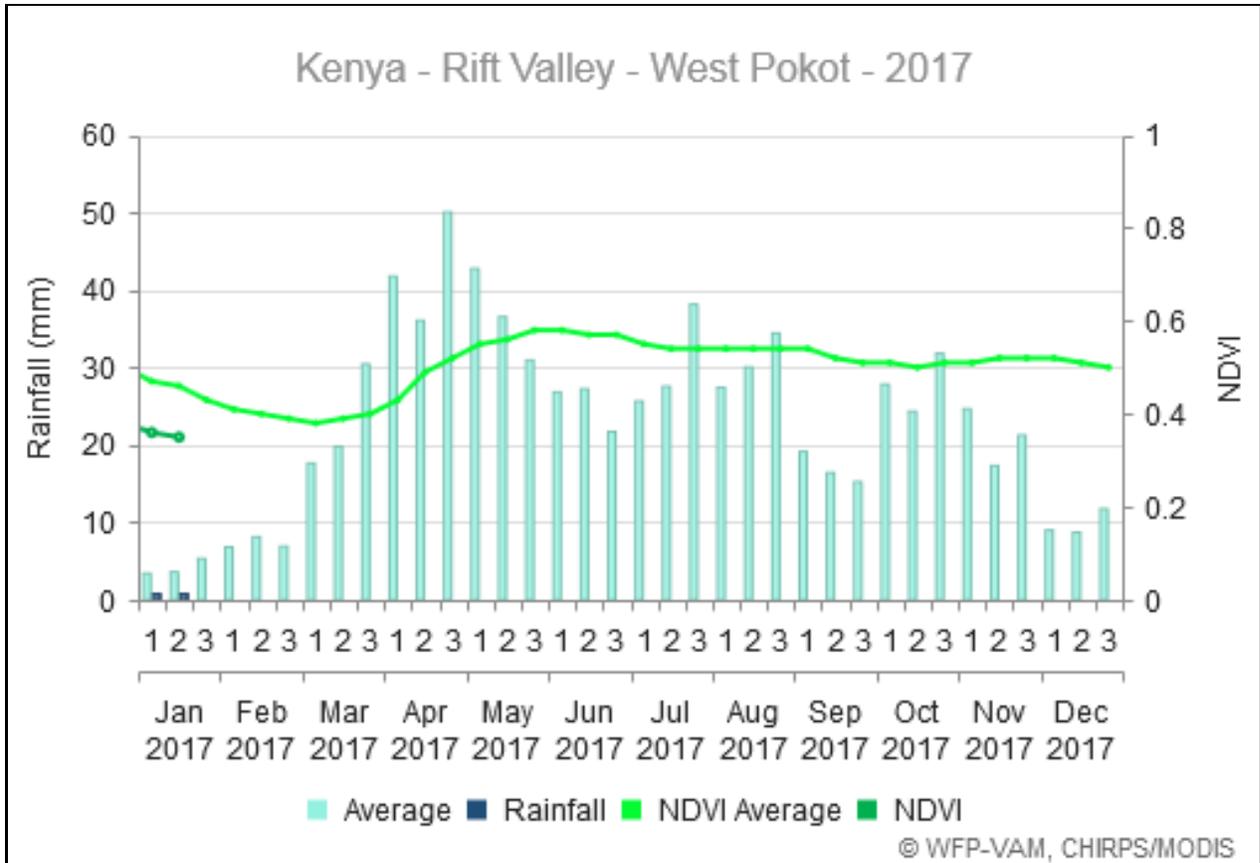
Seasonal Calendar

<ul style="list-style-type: none"> ▪ Short rains harvests ▪ Short dry spell ▪ Increased HH Food Stock ▪ 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 Stock 	<ul style="list-style-type: none"> ▪ Short rains ▪ Planting/weeding (Irish potatoes, Cabbages and Onions) 								
Jan	Feb	Mar	Apr	July	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- No significant rainfall was received in the county during the month under review save for selected parts of the highlands that received light showers with a temporal distribution of 1-2 days.



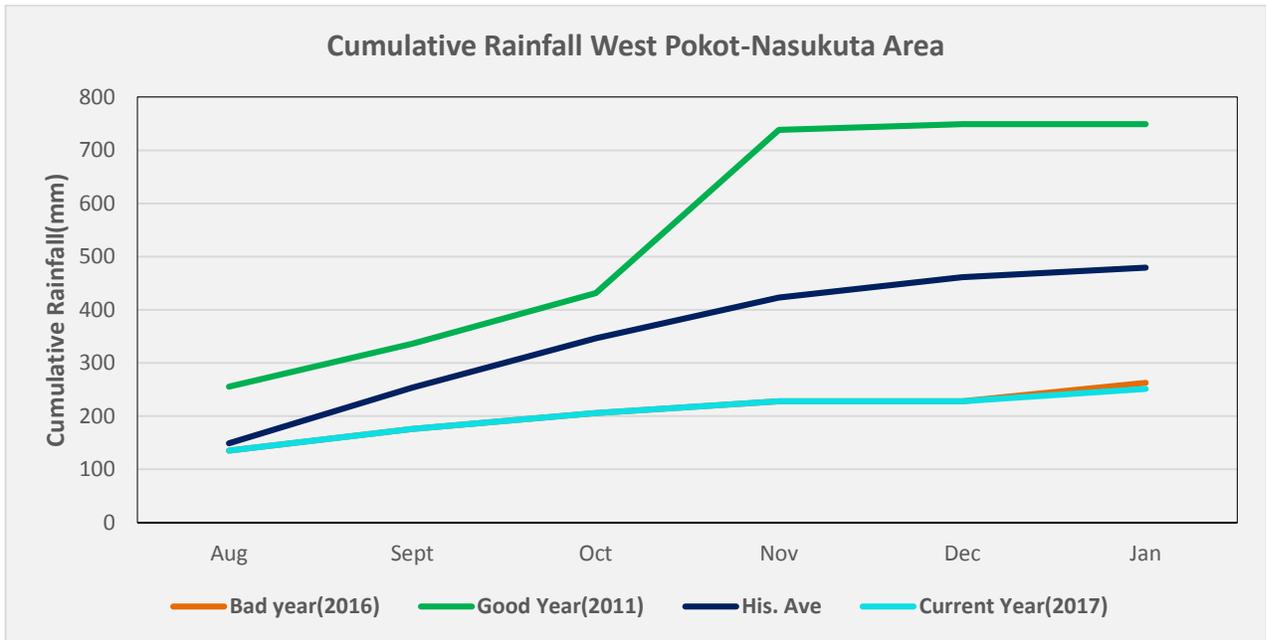
Source: VAM-World Food Programme

- From the figure shown above, dekadal rainfall mainly in the highlands was highly depressed and below normal during the month. This is evidenced by receipt of only 0.8mm of rainfall against the expected average of 3.4mm and 3.6mm for dekad one and two respectively.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- A poor spatial distribution was witnessed with most parts of the Pastoral and Agro Pastoral zones remaining dry.
- The cumulative rainfall for the six month period (August 2016 to January 2017) as per data from Nasukuta rainfall station located in the lowlands amounts to 251.5mm and thus remains significantly poor in comparison to the cumulative thirteen year rainfall average for the same period that amounts to 479.2mm.

- This translates to 52 percent of the average rainfall for the period and thus lies outside the normal range for the season by a wide margin.
- The current cumulative rainfall falls short of the cumulative rainfall for the same period during the previous year that happens to be the bad year historically (as illustrated in the graph below) by four percent or an absolute deficit of 11.3mm.



Source: Meteorological Department-West Pokot County

1.3 OTHER EVENTS

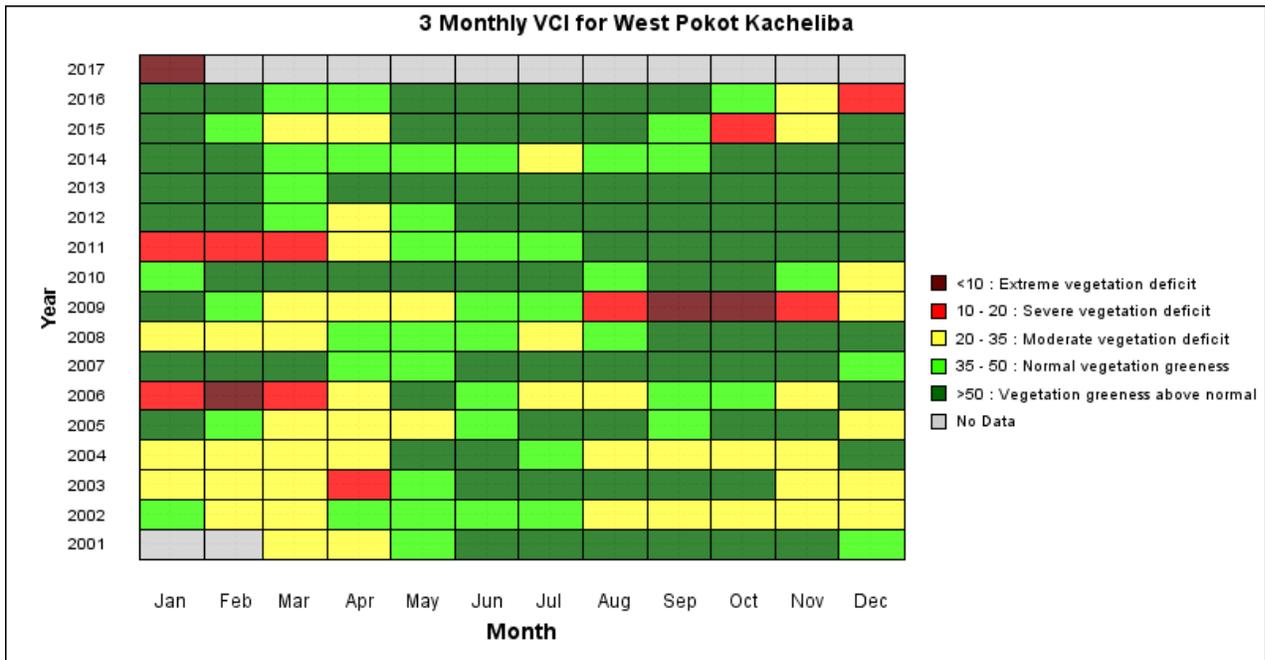
- Frost bite remained the major event in the highland areas of Tapach and Kapsait that resulted in massive destruction of potatoes in the farms.
- There was no any other notable event such as land/mud slides, lightning strikes, hailstorms nor floods that occurred during the month under review.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The matrix below for Pokot North Sub County shows how each month from January to December is classified in terms of agricultural drought based on VCI thresholds. It gives a retrospective analysis of the vegetation condition and related vegetation deficit category for the month under review.
- The relative NDVI (Normalised Difference Vegetation Index) change with respect to minimum and maximum historical NDVI value forms the basis for the vegetation condition index.



Source: Boku University

- Vegetation Condition Index (VCI-3month) for the month under review is 14.2 for the entire county which depicts severe vegetation deficit.
- Continued deterioration in the condition of vegetation was witnessed as evidenced by the shift in VCI-3month from 22.87 recorded in December 2016 to 14.2 in January for the county. Pokot north remained worst affected with a VCI-3month of 8.45 depicting extreme vegetation deficit and followed closely with Pokot central (VCI-3month of 12.25) that remained so close to the extreme vegetation deficit band.
- The rapid deterioration has been accelerated by the persistent dry spell especially in the two aforementioned sub counties resulting in a severe drought situation that is likely to result in an extreme drought over the successive months if no rain is received.

2.1.2 Pasture

- The condition of pasture is very poor across all the livelihood zones and this is not normal in comparison to the pasture level during a normal year. When compared to the previous month, pasture condition deteriorated further due to the dry spell whose intensity was high in January.
- Masol, Nyangaita, Nasal, Konyao, Kases, Marich, Sarmach, Kongelai, Chepkopegh, Karameri, Runo, Sarmach, Turkwel, Kalukuna, Losam ranked highest among the worst affected zones in the Pastoral zone experiencing complete pasture depletion.
- Conflict along Pokot-Marakwet/Turkana borders remains the greatest impediment to pasture access especially for livestock from Pokot central with incidents of disease such as CCPP along Pokot-Uganda border also posing a significant challenge.
- Quality and quantity of pasture is very poor in both zones due to the ongoing dry spell and there exists no significant variation between the Pastoral and Agro Pastoral livelihood zones.

2.1.3 Browse

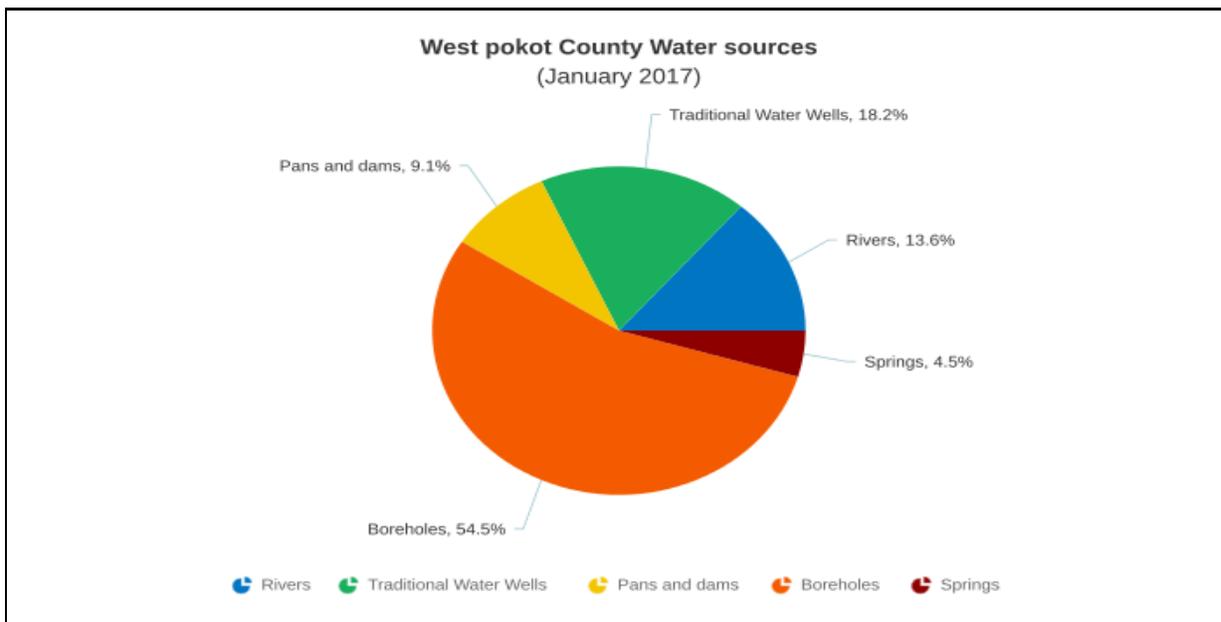
- Browse condition is poor across all the livelihood zones and it's not normal when compared to a normal year. In comparison to the previous month, there was a significant deterioration in browse accelerated by the persistent long dry spell.
- Browse is completely depleted in areas mainly along the Pastoral zone such as Kacheliba, Kodich, Wakorr, Kangoletiang, Kamila, Sebit, Korpu, Natemer, Poole, Pserum and Nyangaita.
- Browse access has been constrained by the conflict along the Pokot-Marakwet/Turkana borders.
- Quality and quantity of browse is poor in both zones and there is no considerable variation between the Pastoral and Agro Pastoral livelihood zones.

2.2 WATER RESOURCE

2.2.1 Sources

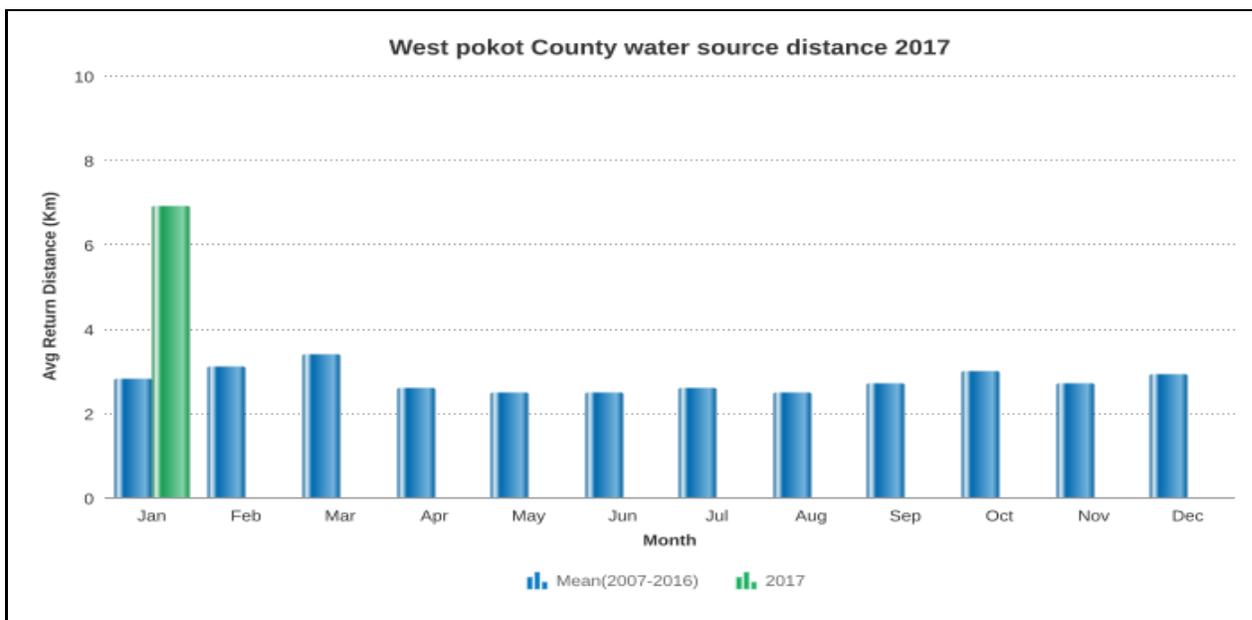
- The main water sources currently in use for household and livestock consumption by the communities include boreholes and traditional river wells at 54.5percent and 18.2percent respectively. Other water sources are natural rivers, springs and dams.
- In comparison to the preceding month, the water situation (quantity and quality) declined further with all the water pans in the Pastoral zone going dry except the one at Orolwo and the water level in natural rivers along the Agro Pastoral zone including Muruny and Weiwei went down significantly. The current main sources in use are not the normal sources where households draw water from during this time of the year.

- The water pan at Orolwo is expected to last for only two weeks. Water situation is not normal when compared to a normal year.



2.2.2 Household Access and Utilization

- The current household return distance to water source is 7Km and thus remains unchanged from that of the previous month and is over two hundred percent above its long term average distance.
- Households’ trekked long distances to water sources in the Pastoral livelihood zone than in the Agro pastoral livelihood zone.

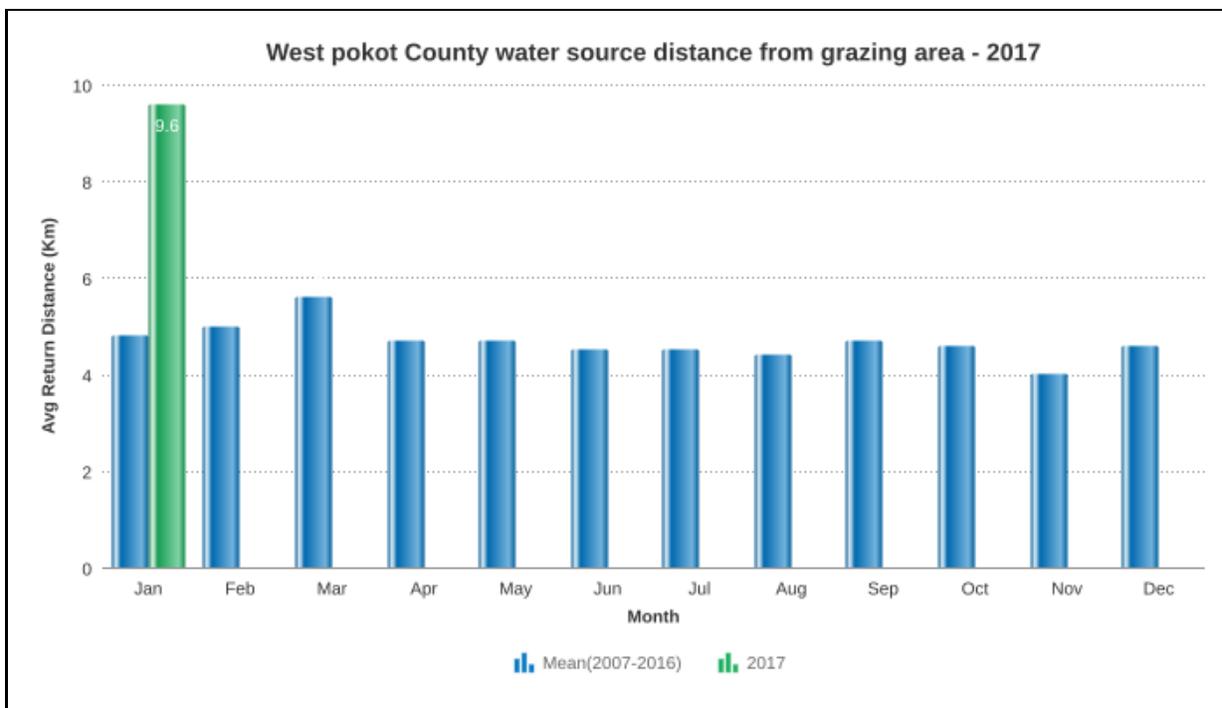


- The current waiting time at the water source averages two to three hours in both livelihood zones.

- Average household water consumption per person per day remained at 2-3 litres in the Pastoral zone in comparison to the Agro pastoral zone where it was at 5litres per person per day.
- Generally the cost of water at the source is free. However, in a number of areas mainly around the urban dwellings, cost of water is Kshs.10 per 20 litre jerry can with an exception of water vendors who are selling a 20 litre jerry can at twenty shillings, and these charges are significantly outside the normal range.

2.2.3 Livestock Access

- The current livestock return trekking distance from grazing areas to water sources is 9.6 Km. This presents a similar scenario to the previous month that recorded 9.5 Km. When compared to the normal trekking distance of 4.8 Km, current trekking distance lies outside the normal range by a margin of one hundred percent.
- The Pastoral zone recorded a higher trekking distance from grazing areas to water source in comparison to the Agro Pastoral livelihood zone.



- The distance remained unchanged from the previous month as a result of Pasture depletion in the interior parts, resource based conflict along the county borders, drying up of main seasonal rivers and pans in close proximity to grazing areas.
- Watering frequency for cattle and shoats is 2-3 times in a week while for camel is once in a week. Water frequency for all livestock species remained unchanged due to the acute water shortage.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

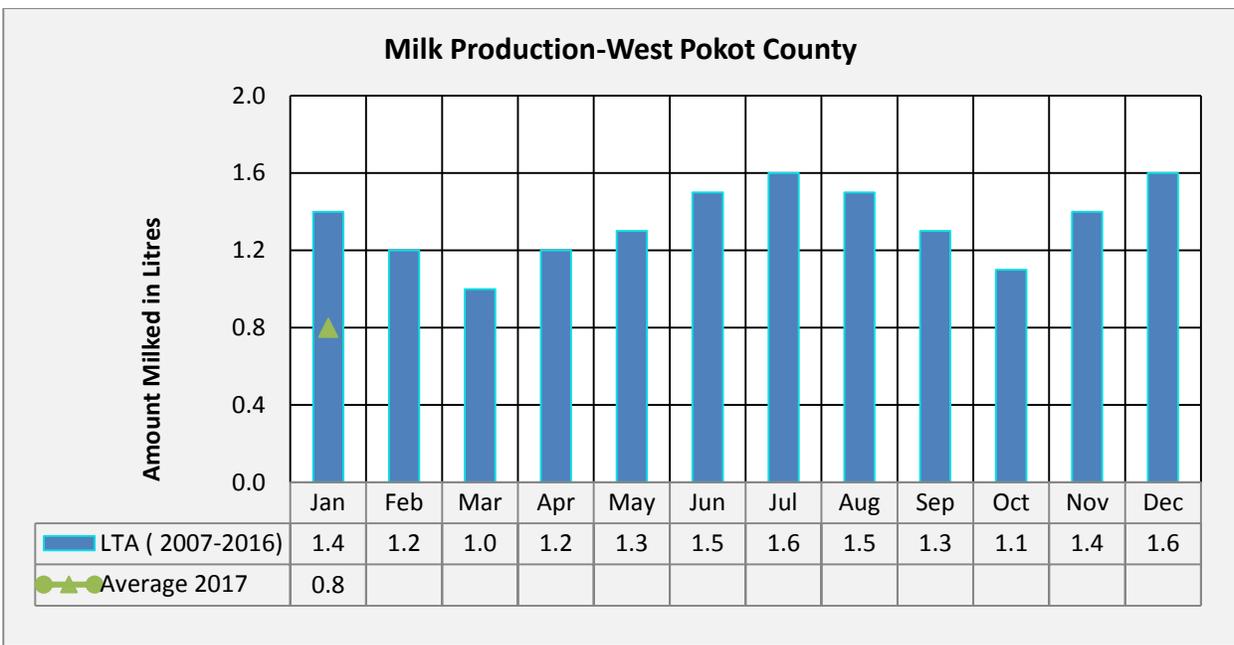
- The body condition of cattle and sheep is very poor while for camels and goats is fair to poor across the Pastoral and Agro Pastoral livelihood zones.
- Cattle in the Pastoral livelihood zone is very thin with no fat, bones visible and on the other hand, sheep in the same zone is emaciated with little muscle left. Goats and camels in the pastoral zone have the 12th and 13th ribs visible.
- Livestock body condition is expected to deteriorate further if the current drought situation being witnessed especially in the Pastoral livelihood zone persists over successive months.
- Compared to similar periods during previous years, the body condition of all species is below normal and this is influenced by lack of pasture and water within the county.
- There is no significant variation in livestock body condition across the two livelihood zones save for goat that has a moderate, neither fat nor thin body condition in the Agro Pastoral zone.

3.1.2 Livestock Diseases

- Incidents of contagious bovine pleuropneumonia (CBPP) in goats continue being reported across most parts of the county including Kapchok, Weiwei and Chepareria wards with contagious caprine pleuropneumonia (CCPP) and Pest petis ruminantes (PPR) also being reported along the Pokot-Uganda border in Kanyerus location.
- A number of livestock mortalities attributed to disease have also been reported in Alale, Endugh and Kasei wards during the month under review.

3.1.3 Milk Production

- An average of 0.8litres milk produced was recorded across the livelihood zones with the Agro pastoral zone recording nil amounts across most households during the month under review. Most of the milk produced in the county comes from cattle.
- In comparison to a normal season, current household milk production of 0.8litres is below the normal household milk production for the month by 43 percent.
- This decline in household milk production level from the 1.1litres recorded during the previous month was as a result of outmigration and long trekking distance in search of pasture and water in areas far away from the households.



3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

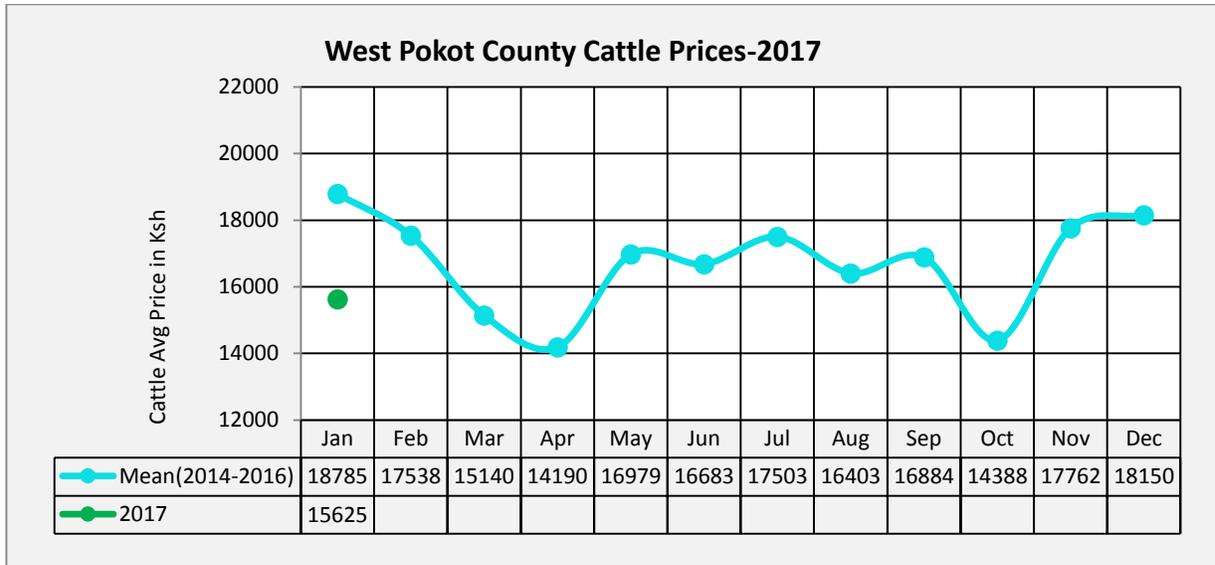
- Beans is the main crop grown by farmers (approximately 25 percent of the population) during the short rains season.
- However, there was no planting that took place as a result of the late onset occasioned by depressed rains and early cessation that hampered even land preparation.
- Horticultural production albeit at a small scale was taking place mainly in Pokot central along Weiwei river where mangoes, paw paw, onions and banana were being produced and supplied to the main market in Sigor.
- No major disease or pests affecting horticultural crops have been reported but the frost bite in the Mixed Farming zone led to destruction of potatoes across most farms.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle prices

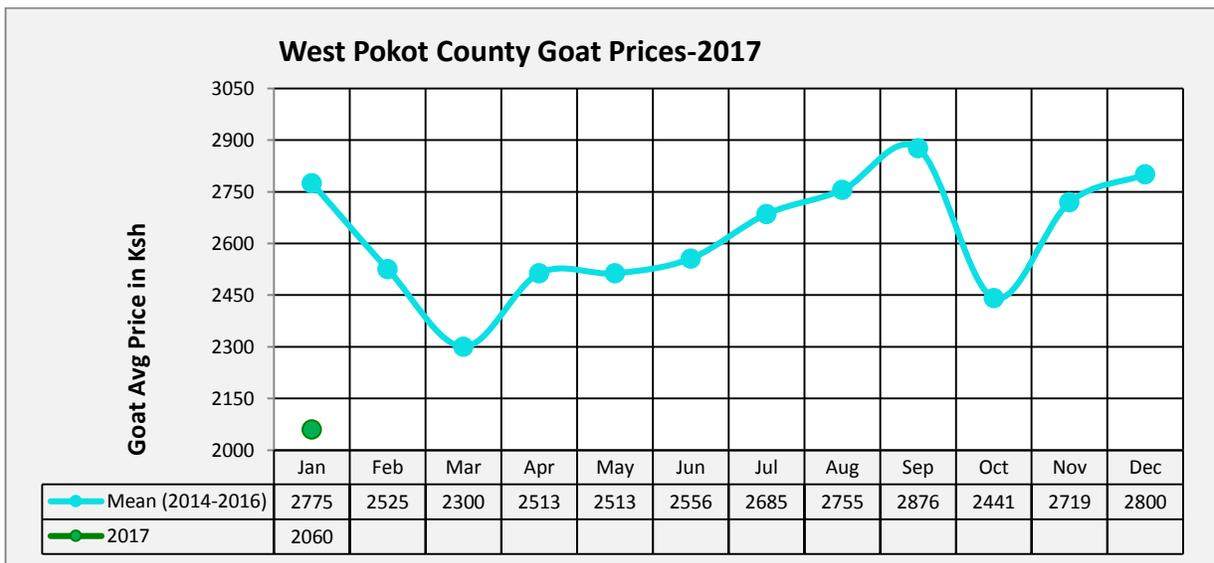
- The cattle traded at an average price of Kshs.15625 during the month under review, this being a decrease from the Kshs.16250 recorded during the previous month.
- The deterioration in the cattle body condition as a result of the severe drought was the major factor that contributed to the decline in cattle price at the market during the month of January.



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

4.1.2 Goat Prices

- During the month, a goat traded at an average price of Kshs.2060 across all the livelihood zones and this was a remarkable decline from the Kshs. 2375 recorded during the previous month.

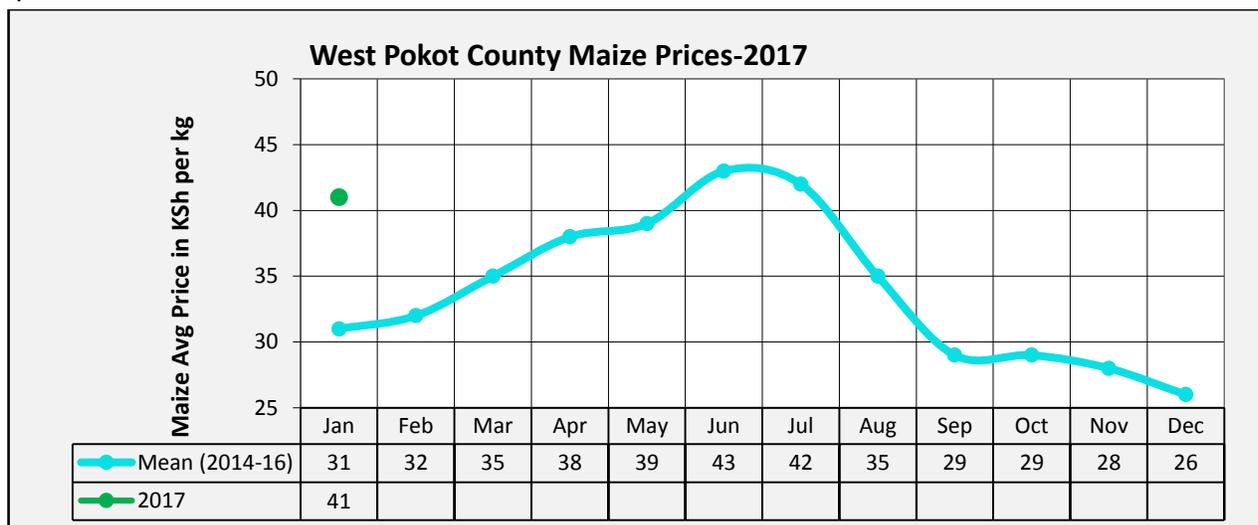


- The decrease in price was mainly attributed to the deteriorating body condition resulting from unavailability of browse of sufficient quantity and good quality across the two livelihood zones.
- The current retailing price of goat is significantly below the short term average price for the month by twenty six percent.

4.2 CROP PRICES

4.2.1 Maize

- Currently a kilogram of maize is retailing at Kshs.41 in comparison to Kshs.35 in December.
- This market price represents a thirty two percent margin over the three year short term average price for the month under review.

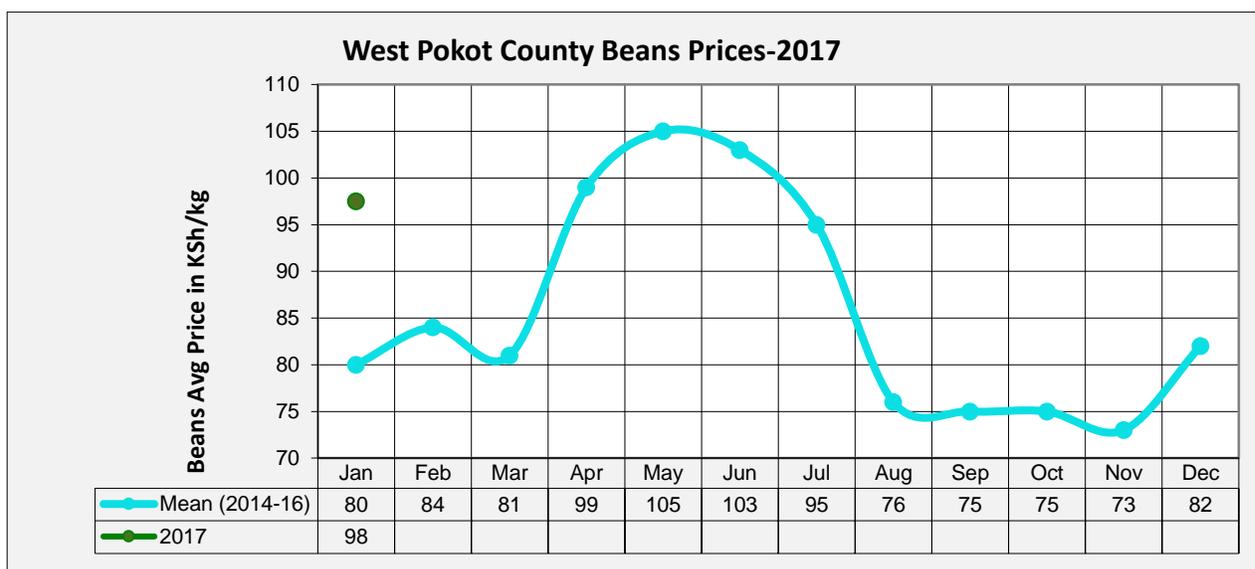


- There was a slight variation in maize price across the two livelihood zones with most parts of the pastoral zone especially in Pokot central recording high figures as a result of the normal external supply sources being cut off by the ongoing conflict along the Pokot-Marakwet border.
- The price of maize is expected to increase further during successive months as the remaining stocks from the large scale farmers in the Mixed Farming zone get depleted leading to a significant shift in market dynamics in terms of increased demand for maize from external sources.

4.2.2 Beans

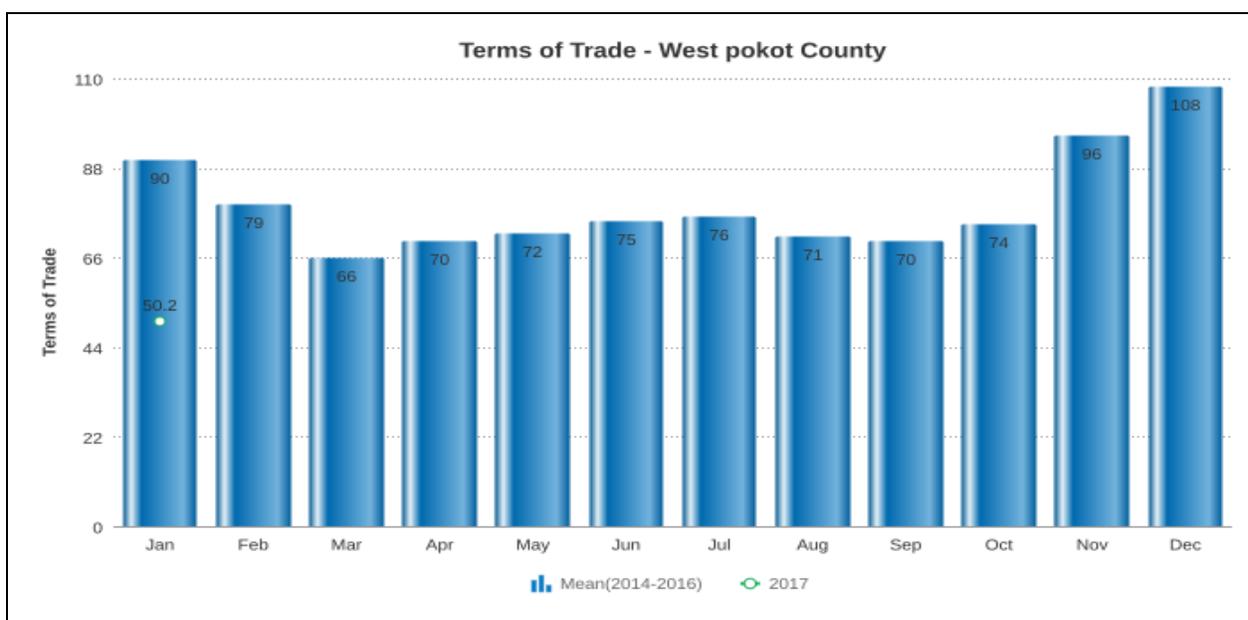
- Average price per kilogram of beans in January was Kshs.98 and this is an increase from Kshs. 95 recorded in December.
- The increase was mainly attributed to low supplies to the major markets informed by early depletion of stocks at the major external market supply sources.
- There was no significant variation in price across the two livelihood zones due to dependence on the same external sources for supplies.

- The current market price of beans was 23 percent above the three year short term average price for a normal season during this time of the year.



4.3 LIVESTOCK PRICE RATIO/ TERMS OF TRADE (TOT)

- The ToT remains unfavourable at 50.2 implying that pastoralists are getting 18 kilograms of maize less in comparison to what they could obtain in December from sale of the same goat. This ToT is also forty four percent lower than the short term average ToT for the month. This has been influenced by the decrease in goat price coupled with the increase in maize price.
- A further deterioration is anticipated as maize price increases with that of goat decreasing.

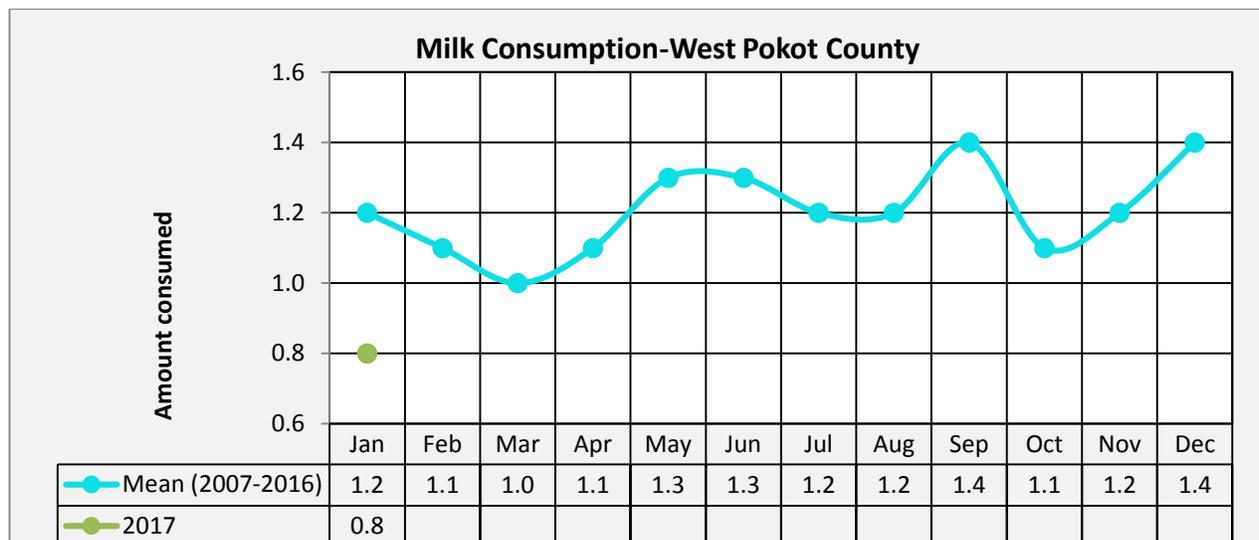


- The ToT in the Pastoral zone is lower compared to that of the Agro Pastoral zone.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- Households are currently consuming all the 0.8 litres of milk produced across all livelihood zones.
- In comparison to the preceding month, milk consumption at household level declined from the 1litre consumed then.



- Migration of the milking herd outside the county in search of pasture was the major factor that contributed to the low consumption levels due to dwindling production levels.
- In comparison to the same period over time, the quantity of milk consumed is thirty four percent below the normal consumption level for the month.

5.2 FOOD CONSUMPTION SCORE

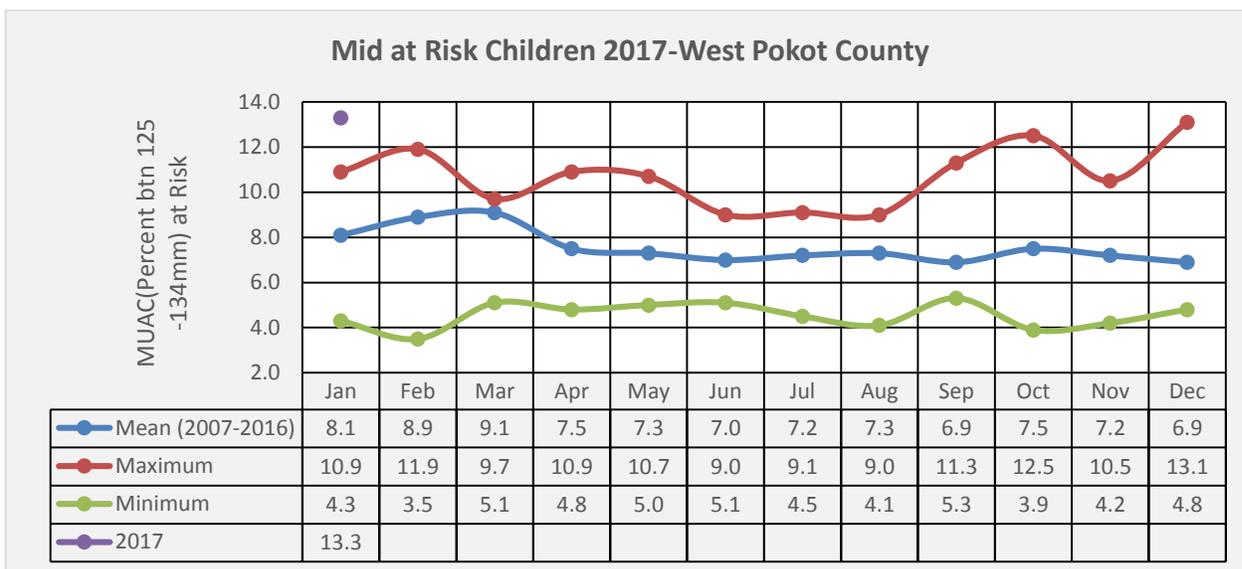
- A total of 84%, 14% and 2% of households fell within the poor, borderline and acceptable food consumption score categories respectively during the month under review.
- This was a significant shift from the 54%, 38% and 8% of households that fell within the poor, borderline and acceptable food consumption categories respectively during the previous month.
- The mean food consumption score for the two livelihood zones during the month under review was 16.5, this being indicative of a worsening situation in comparison to December when the food consumption score was 23.
- Most of the households (89.8%) in the Pastoral zone were in the poor category in comparison to the 75% of households in the same category from the Agro Pastoral zone.

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- Proportion of children rated being 'at risk' of malnutrition rose further to 13.3 percent from the 12.2 percent recorded in December.

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



- Outside normal range of children ‘at risk’ of malnutrition could be attributed to reduced milk consumption levels coupled with lack of health outreach services in some sites within the county.

5.3.2 Health

- Diarrhea was the most commonly reported disease during the month among the sampled children.
- However, there has been no major disease outbreak but disease surveillance efforts needs to be heightened along all the major hotspots in the two zones.

5.4 COPING STRATEGY

5.4.1 Coping Strategy Index (CSI)

- Coping strategy index for the month of January was 19.95, which represents a slight increase when compared to the coping strategy index of the previous month that was 18.19. Thus households employed more coping mechanisms in January compared to the previous month.
- Agro Pastoral livelihood zone recorded a coping strategy index of 25.8 in comparison to the 16 in Pastoral livelihood zone and this is mainly due to availability of diverse systems through which households cope as opposed to those available in the Pastoral zone.
- Reduced portion size of meals and reduced meal frequency were the most notable consumption based coping strategies employed by majority of the households during the month under review.
- The proportion of households resorting to coping in January was 89%, this being a significant increase from the 78% recorded in December.

6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 NON-FOOD

- Under the supplementary livestock feeding programme a total of 700 bags, 550 bags, 350 bags, and 200 bags all weighing 50 kg of range cubes have been distributed to Pokot north, central, south and west sub counties respectively with support from the county government.
- Water trucking to a few sites that are under water crisis including Nasal, Kasitot and Kases was taking place with a total of 4000 litres having been delivered so far.

6.2 FOOD AID

- The county government distributed 1,250 (90 kg) bags of maize to wards affected by conflict including Endugh, Kiwawa, Masol, Alale and Sekerr.

7.0 EMERGING ISSUES

7.1 INSECURITY/CONFLICT/HUMAN DISPLACEMENT

- Conflict was reported along the Pokot–Turkana border and along the Kapenguria- Lodwar highway where lives were lost.

7.2 MIGRATION

- More animals (accounting for approximately 80% of the herd) migrated from all parts of the county towards Uganda during the month under review.

7.3 FOOD SECURITY PROGNOSIS

- A further dip in livestock productivity is forecasted due to deterioration in the condition of forage in the dry season grazing areas. Limited access to water occasioned by absence of supplementary feeds is likely to have a negative impact on the livestock body condition.
- Going by the current trend, the terms of trade will decline further as the maize price increase greatly driven by stock outs within the large scale farmers with that of goat decreasing.
- Constraint in accessing nutritious foods for consumption as a result of the decrease in purchasing power is likely to translate to a further rise in malnutrition rates necessitating more households to employ extreme coping strategies to bridge the food gap.
- Conflict especially in Pokot central shall remain the greatest impediment to food security as market access remains limited due to insecurity along access roads to major markets. Food relief shall thus suffice during this period with enhanced water trucking to sites with limited access.

8.0 RECOMMENDATIONS

- Conduct water trucking targeting 25,000 households in 23 sites that are worst affected in Pokot north and central focussing on strategic livestock grazing areas with a high concentration of animals, health and education institutions to facilitate smooth and uninterrupted learning during the February to April period.
- Scale up provision of supplementary feeds (hay and concentrates) to the milking herd that has not migrated targeting areas where pasture is completely depleted.
- Initiate livestock off take targeting 10,000 animals countywide within a period of 1-2 months to support pastoralists who risk losing the animals through death while providing essential vaccination services against FMD, PPR, CBPP and CCPP.
- Scaling up of mass screening and integrated medical outreaches while providing health education on sanitation to sites that have been identified to be having high disease incidents and malnutrition rates mainly in Pokot central and north.
- Sustain normal learning through provision of food to eighty one primary schools in Pokot north and central targeting 26,000 learners at the same time intensifying peace building efforts along the Kapenguria-Lodwar highway to facilitate opening up of access roads to major markets such as Sigor.