

# National Drought Management Authority

## TURKANA COUNTY

### DROUGHT EARLY WARNING BULLETIN FOR MAY 2018



A Vision 2030 Flagship Project



#### MAY EW PHASE

**Drought Status: NORMAL**



Shughuli za kawaida

#### Early Warning (EW) Phase Classification

LIVELIHOOD ZONE	PHASE	TREND
PASTORAL-ALL SPECIES	NORMAL	STABLE
AGRO-PASTORAL	NORMAL	STABLE
FISHERIES	NORMAL	STABLE
COUNTY	NORMAL	STABLE

#### Drought Situation & EW Phase Classification

##### Biophysical Indicators

- Rainfall with a temporal distribution of 9-12 days was received across all the livelihood zones during the month of May. Cumulative rainfall received during the 6-month period (December 2017-May 2018) represents 190% of the total rainfall normally received for the period.
- Further improvement in the condition of vegetation was witnessed in May with above normal vegetation greenness being observed across all the sub counties as supported by the shift in VCI-3month to 87 from 62.
- Forage condition was good across all the livelihood zones.

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

- Body condition of all livestock species is good and improving. Distance to water source reduced further and lies within the normal range. Milk production and consumption remained stable and within the normal range.
- Terms of trade rose slightly and lie above the range for the month by a huge margin. No migration was taking place nor deaths attributed to drought reported during the month under review.
- Coping strategy index remained stable and within the normal range with only eleven percent of households being classified as having a poor FCS. Proportion of children 'at risk' of malnutrition dropped drastically and lies within the normal range for the month under review.

Biophysical Indicators	Value	Normal Range
Rainfall (% of Normal)	190	60-100
VCI-3 month (County)	87	>35
VCI-3 month (T.West)	73	>35
Forage Condition	Good	Good

Production Indicators	Value	Normal Range
Livestock Migration Pattern	Normal	Normal
Livestock Body Condition	Good	Good
Milk Production	2.2 Litres	> 2.2 Litres
Livestock deaths (attributed to drought)	No Deaths	No Deaths

Access Indicators	Value	Normal Range
Terms of Trade (ToT)	43.5	>29
Milk Consumption	2.0 Litres	>2.0 Litres
Return distance to water sources	2.8 km	<5.9 km
Cost of Water(Ksh/20L)	Ksh.5	Ksh.5

Utilization Indicators	Value	Normal Range
Nutrition Status, MUAC (% at risk of malnutrition)	12.4	<19.5
Food Consumption Score (FCS)	45	>35
Coping Strategy Index (CSI)	16.3	<18.5

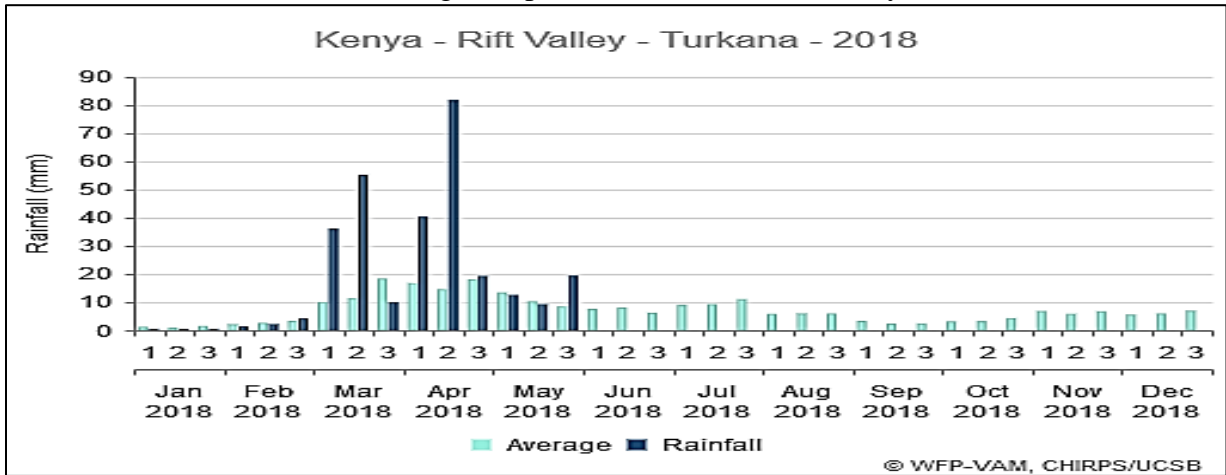
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|--|---|---|---|
| <ul style="list-style-type: none"> <li>▪ Short rains harvests</li> <li>▪ Short dry spell</li> <li>▪ Reduced milk yields</li> <li>▪ Increased HH Food Stocks</li> <li>▪ Land preparation</li> </ul> | <ul style="list-style-type: none"> <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 Stocks</li> <li>▪ Kidding (Sept)</li> </ul> | <ul style="list-style-type: none"> <li>▪ Short rains</li> <li>▪ Planting/weeding</li> </ul> |
|--|---|---|---|

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
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# 1.0 CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

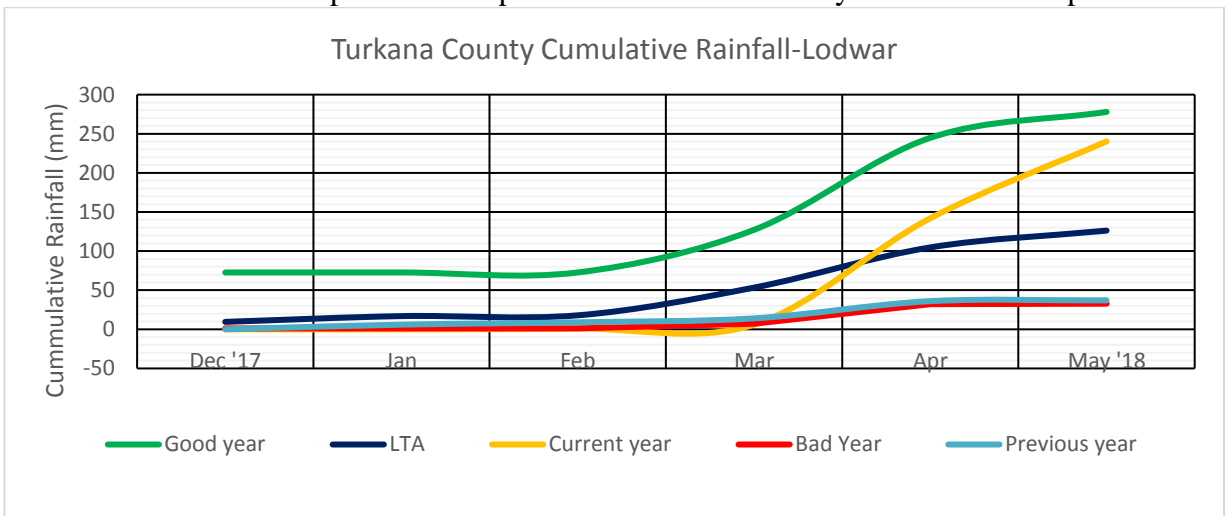
- During the month under review, rainfall albeit of low intensity in comparison to the previous month was received with an average temporal distribution of 9-12 days across most sites.



Source: VAM-World Food Programme

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- During the month, 98.2mm of rainfall was received in Lodwar against the expected 24.8mm normally. Rainfall received in the county was evenly distributed in space.
- Cumulative rainfall for the 6-month period (Dec 2017 to May 2018) amounts to 240.2mm against the cumulative ten year rainfall average for the same period that amounts to 126.2mm. This implies that the former amount represents 190 percent of what is normally received for the period.



Source: Meteorological Department-Turkana County

- Compared to the cumulative rainfall recorded for the same six month period during the previous year (Dec 2016 to May 2017), the current cumulative rainfall is significantly higher by a margin of 203.2mm.
- The period December 2013 to May 2014 represents the segmental bad year within the last eleven years.

## 1.3 OTHER EVENTS

### 1.3.1 Floods

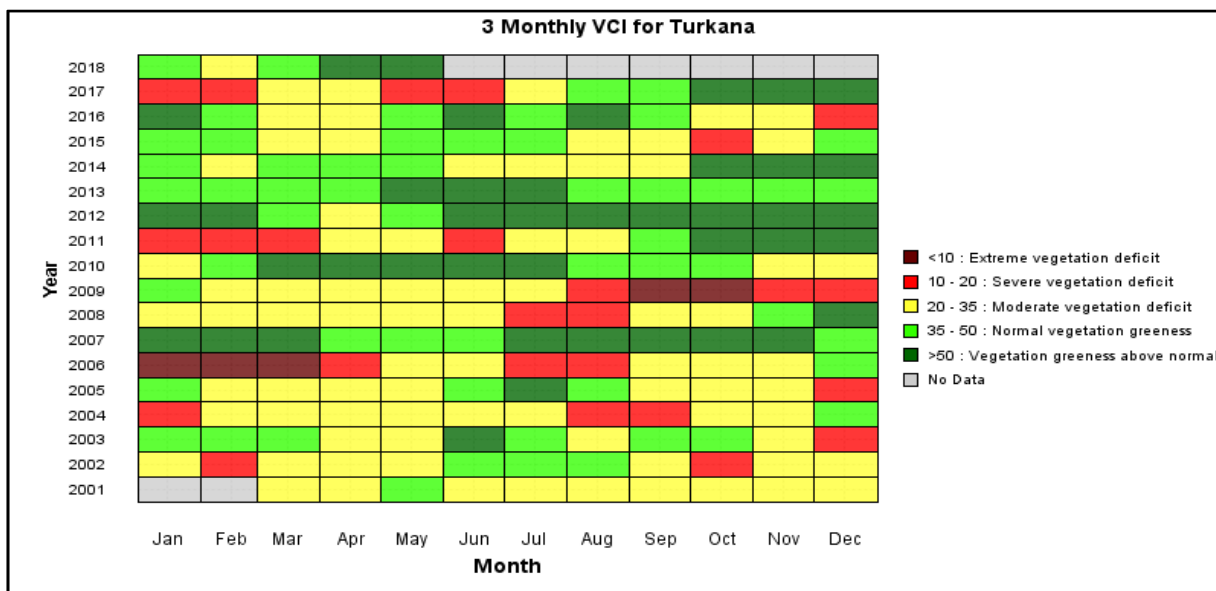
- During the month under review, select areas in the county such as Kalemgorok, Lokichar, Lodwar and Kainuk experienced massive flooding that led to destruction of shelter, loss of livestock and plants.

## 2.0 IMPACTS ON VEGETATION AND WATER

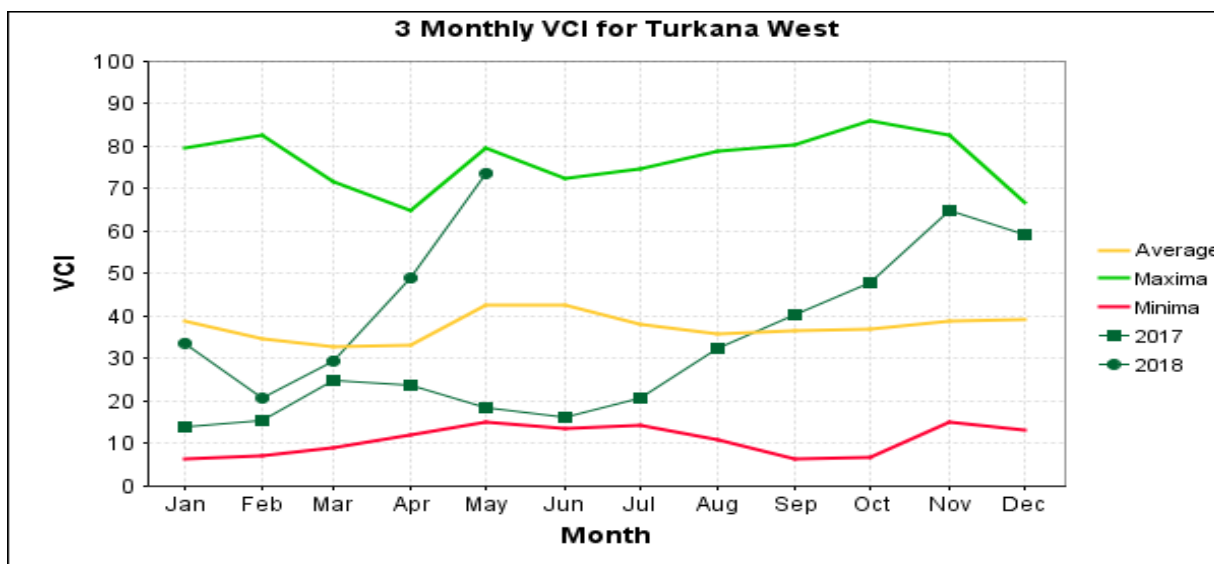
### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index (VCI)

- Based on the level of vegetation deficit, months have been categorized accordingly as illustrated in the matrix below.
- Further improvement in vegetation condition was witnessed during the month under review as exemplified by the shift in VCI-3month from 62 to 87 (signifying above normal conditions).



- All sub counties recorded a positive trend in the vegetation condition with Turkana west for instance, reporting a VCI-3month of 73 as opposed to the 49 recorded in April.
- Continued receipt of rainfall across all livelihood zones was the key factor behind the observed trend.



### 2.1.2 Pasture

- The condition of pasture was good across all sites in the county during the month of May and above the level normally witnessed at such a time during a normal year. Receipt of good rains was the major factor behind the observed condition.
- Continued improvement in the condition of pasture is highly anticipated as the county continues experiencing rainfall.
- No major impediment to pasture access currently exists save for the few pockets that have remained insecurity hotspots.
- No variation in terms of pasture quantity and quality across the three major livelihood zones was observed during the period under review.

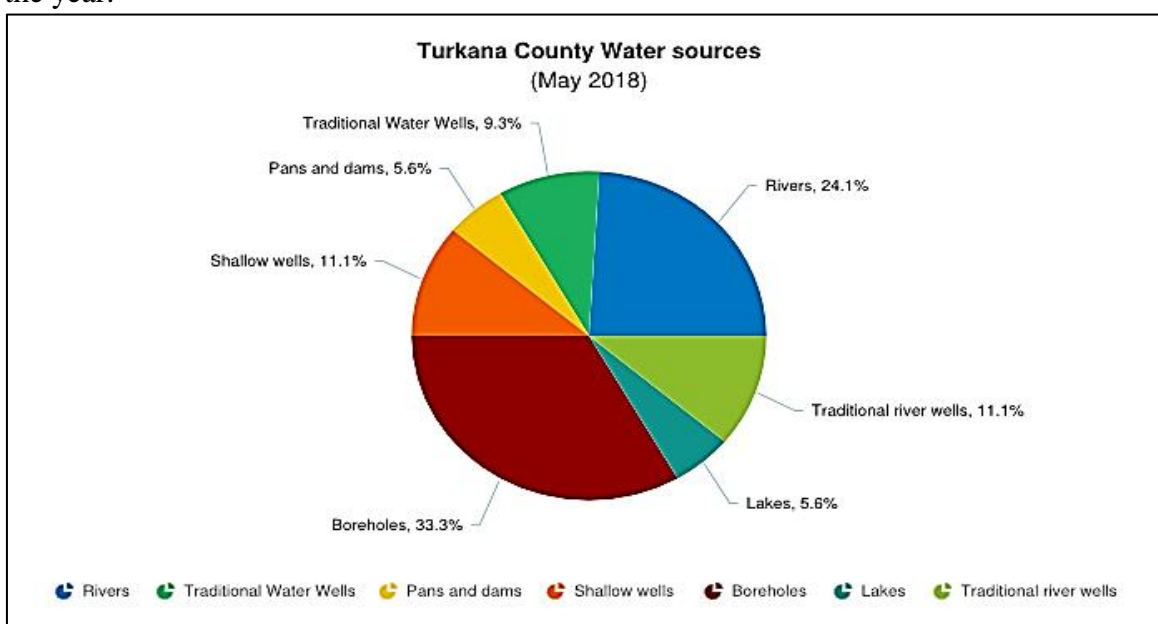
### 2.1.3 Browse

- The condition of browse was very good across all the livelihood zones, additionally, the current browse level significantly surpasses that normally witnessed at such a time during a normal year. Receipt of adequate rainfall across all sites in the county was the key factor behind the improved browse situation.
- The available browse is forecasted to last for over three months due to continued regeneration occasioned by receipt of good rainfall.
- Browse is generally accessible across most areas in the county with the exception of a few sites that remain insecure.
- Across all the livelihood zones, there was no variation in browse quality and quantity observed during the period under review.

## 2.2 WATER RESOURCE

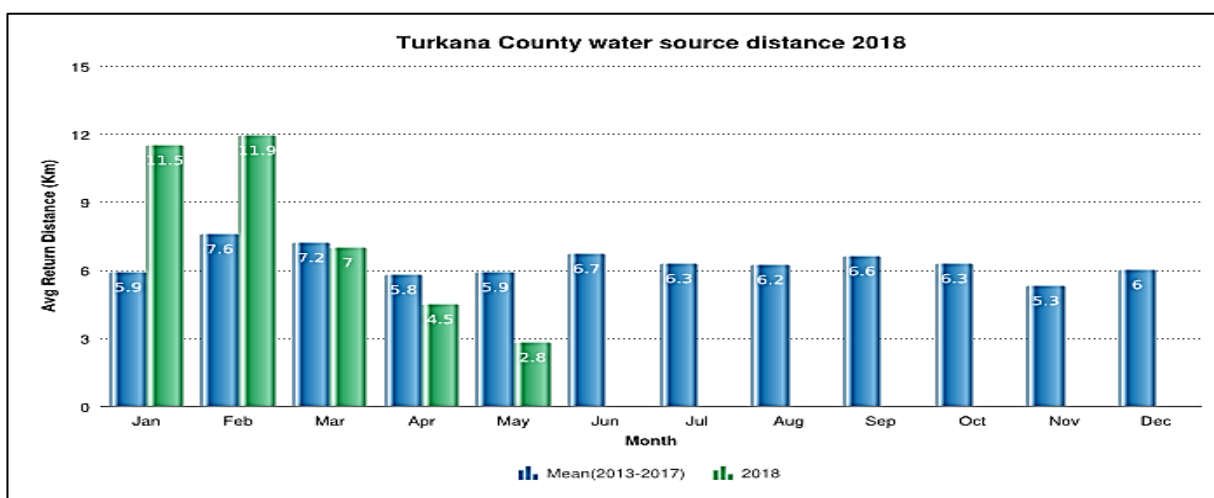
### 2.2.1 Sources

- Most households utilized boreholes and rivers to suffice their water needs during the month under review as illustrated below.
- Overflow was witnessed across most open water sources such as water pans and dams during the period under review. This could be attributed to the slightly enhanced rainfall received and hence significant improvement in the water situation in relation to April was witnessed.
- The above sources are the normal sources of water for households and livestock at such a time of the year.



## 2.2.2 Household access and Utilization

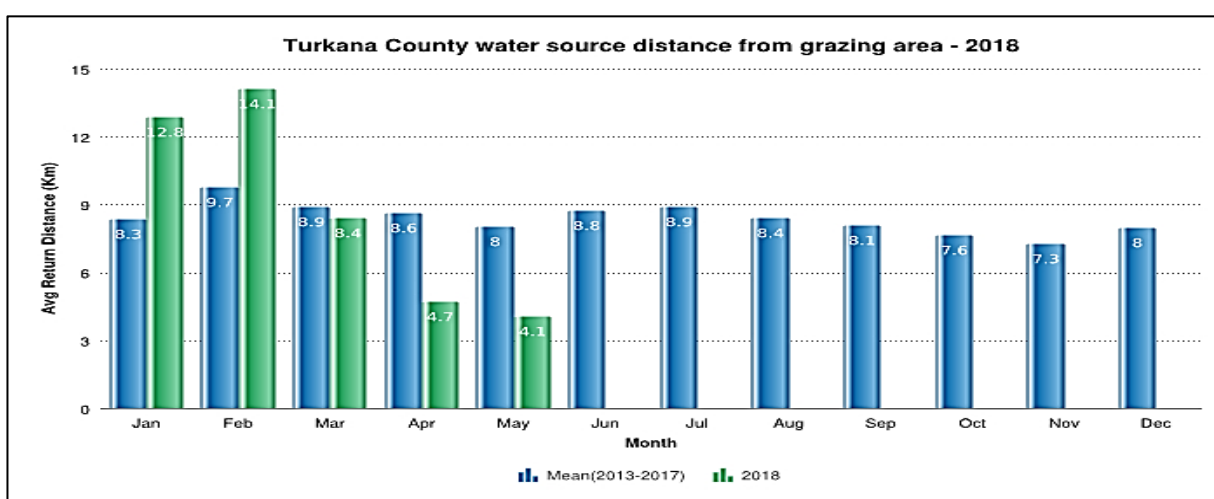
- Household return distance to water source reduced further to 2.8km from the 4.5km recorded previously and thus was lower than the normal range for the period under review by 53 percent.
- Households along the Pastoral livelihood zone covered a shorter distance to water source compared to those along the Agro Pastoral and Fisheries livelihood zones.



- The waiting time at water source across the three livelihood zones was below 15 minutes during the month under review.
- Household water consumption per person per day remained stable at 60litres, 50litres and 40litres for the Fisheries, Agro Pastoral and Pastoral livelihood zones respectively.
- Water at source is cost free with the exception of water vendors in towns that dispense a 20litre jerry can at five shillings. This price is within the normal range for the month under review.

## 2.2.3 Livestock access

- The return distance for livestock from grazing zones to water points remained stable at 4.1km. Compared to the long term average trekking distance for the month of May, the current distance is shorter by 49 percent.
- Pastoral livelihood zone recorded the longest distance in relation to the other two livelihood zones.



- Pasture and water availability in adequate quantity and within the vicinity of the households were the major drivers of the reduced distance.
- The watering frequency for all livestock species was seven times in a week across all the three major livelihood zones.

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

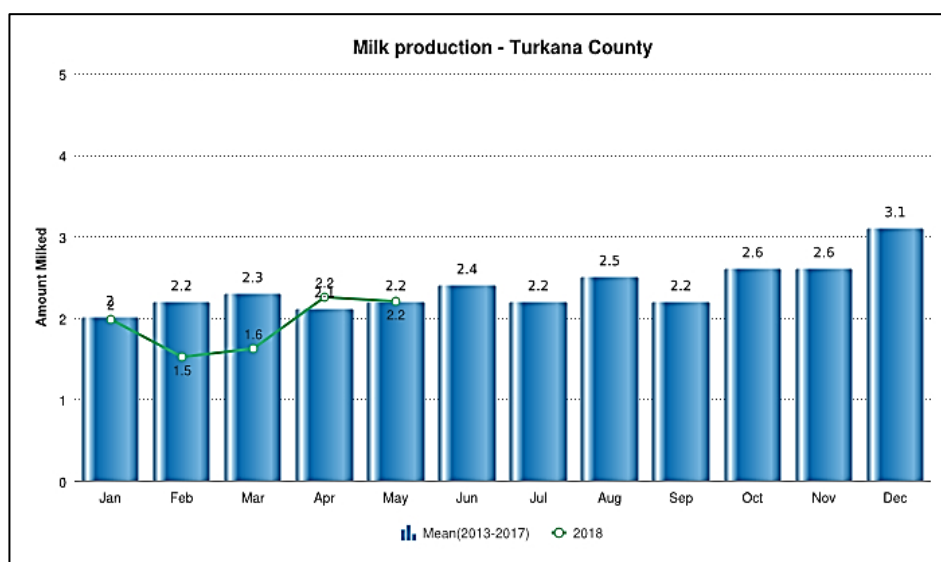
- Livestock body condition was good across all the livelihood zones. Camel and cattle exhibit a good smooth body with fat over back and tail head.
- The livestock body condition is expected to improve even further over the next three months with availability of adequate quality pasture whose regeneration remains sustained by the on-going long rains.
- In comparison to alike periods during the previous years, the current body condition of all species is above normal and this could be attributed to the reduced trekking distance coupled with improved forage condition.

##### 3.1.2 Livestock Diseases

- Incidents of Contagious Bovine Pleuropneumonia (CBPP) in cattle were reported in Turkwel and Letea with some households in Lokori reporting Pest Petis Ruminantes in goats during the month under review.

##### 3.1.3 Milk Production

- Quantity of milk produced remained stable in relation to the previous month Camel is the main milk producer in the county.
- In comparison to the normal production level, the current production level remains at par.
- The observed stability could be attributed to the fact that causal factors (such as size of milking herd) influencing production remained relatively the same over the past two months with no significant in-migration being reported over that period.



#### 3.2 RAIN-FED CROP PRODUCTION

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

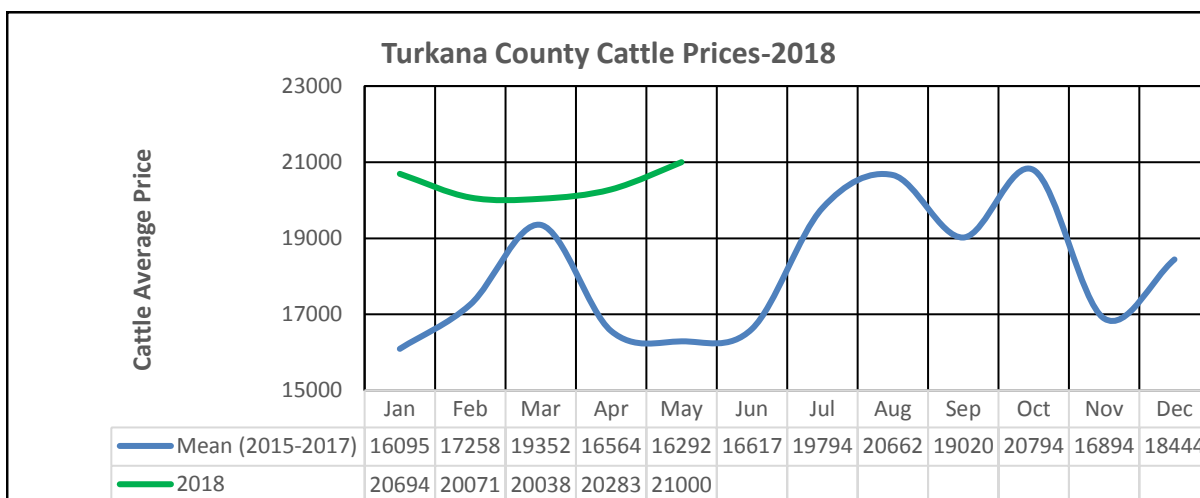
- Maize, Sorghum and Cowpeas are the dominant crop species cultivated by most farmers mainly along the Agro Pastoral zone during the long rains season.
- The major intensive agricultural activity taking place during the period under review was weeding for farmers that were not affected by the floods.
- Maize loss to floods earlier in the season is likely to have a negative effect on production.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

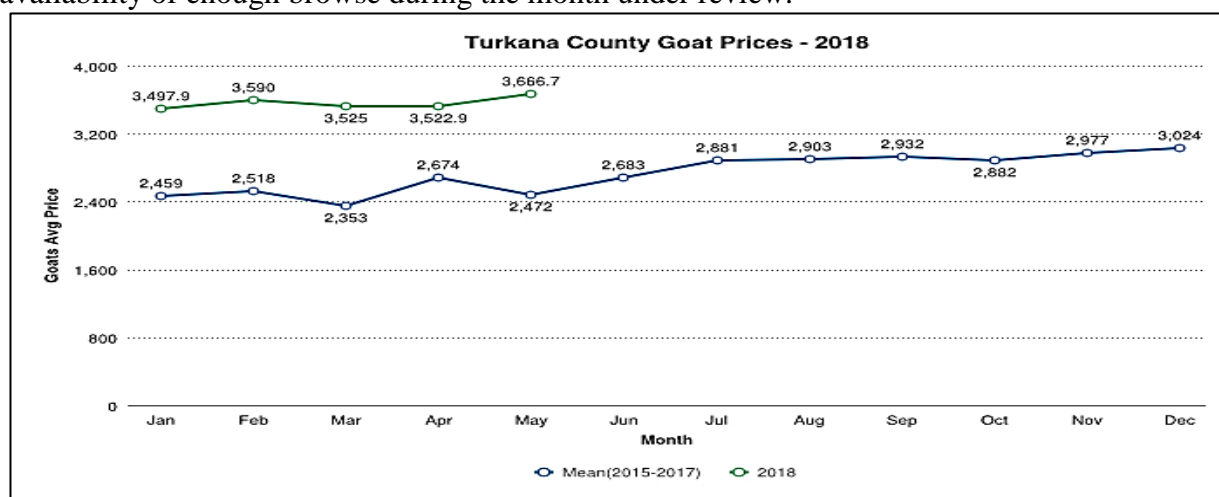
- During the period under review, the price of a 4year old medium sized bull increased slightly to trade at Ksh. 21,000.



- The increase could mainly be attributed to improved body condition owing to pasture and water availability in sufficient quantity within the county.
- The Pastoral livelihood zone reported the highest price (Ksh.21,350) with the Agro Pastoral livelihood zone reporting Ksh. 20,500.
- In comparison to the short term average price for the month of May, the prevailing market price is higher by twenty nine percent.

#### 4.1.1 Small Ruminants Prices (Goat price)

- A 2-year old medium sized goat traded at Ksh. 3,670 during the month under review, this being a slight increase from the price recorded in April.
- The observed trend could be attributed to the improved goat body condition occasioned by availability of enough browse during the month under review.

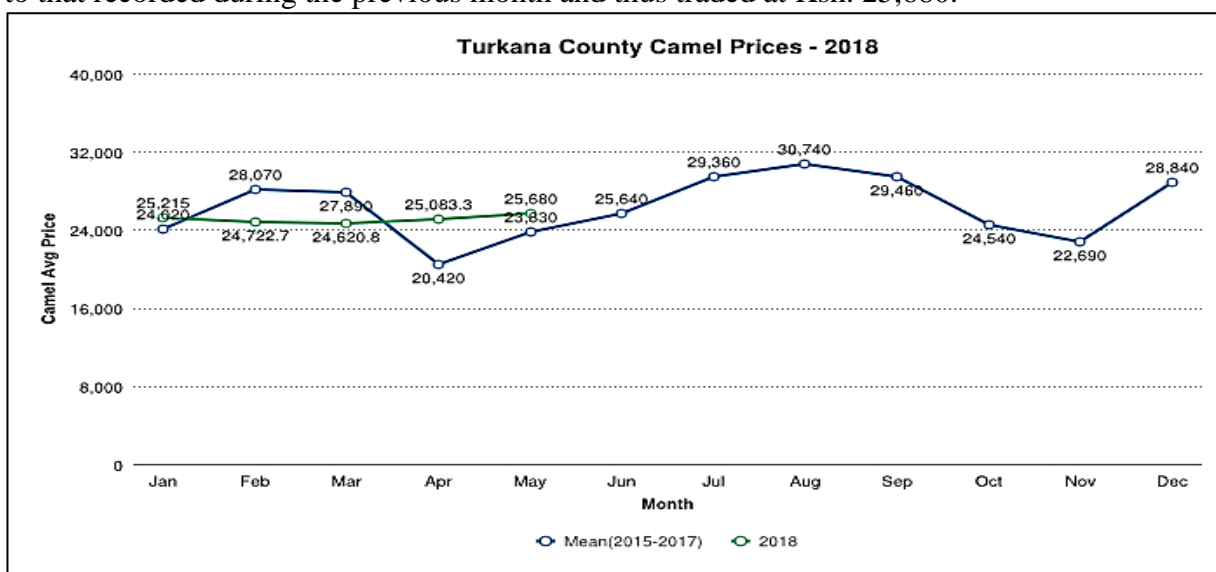


- The Pastoral livelihood zone reported the highest price (Ksh 3,890) compared to the Ksh.3,620 reported along the Agro Pastoral livelihood zone.
- The short term average price for the month of May is surpassed by the current price by forty eight percent.



#### 4.1.4 Camel Prices

- The price of a 4-year old camel during the month under review increased slightly in comparison to that recorded during the previous month and thus traded at Ksh. 25,680.

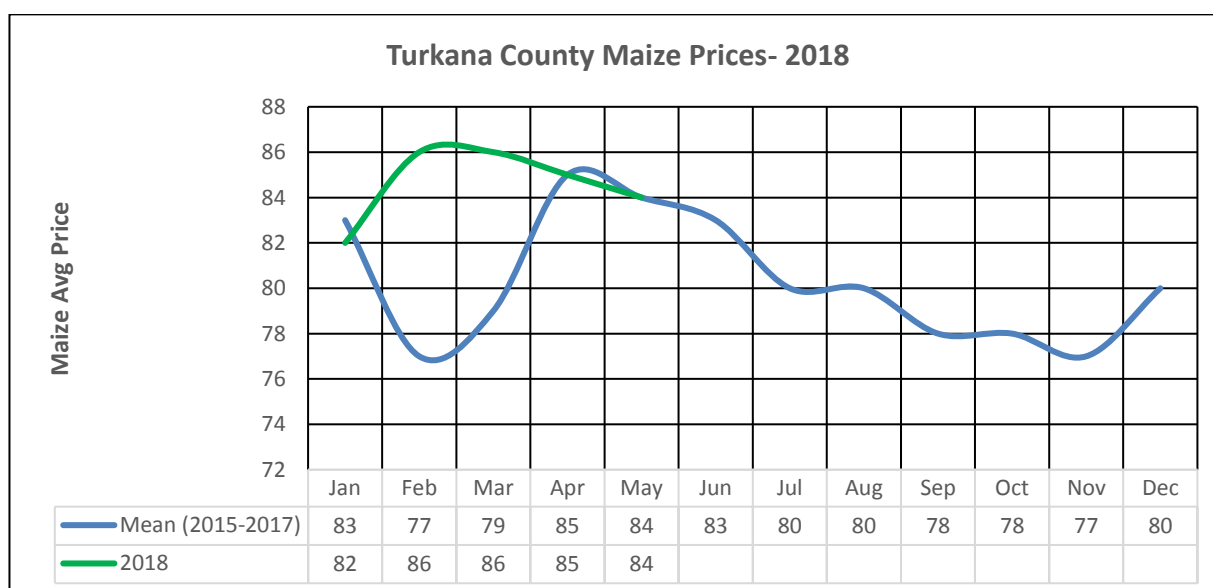


- This price increase could be attributed to the improved body condition occasioned by browse availability in sufficient quantities within the county hence limited trekking distance.
- The highest price was reported along the Pastoral livelihood zone where it traded at Ksh.26, 200 in comparison to the Ksh.25, 160 reported along the Agro Pastoral livelihood zone during the month under review.
- In comparison to the short term average price for the month, the current price is higher by nine percent.

## 4.2 CROP PRICES

### 4.2.1 Maize

- A kilogram of Maize retailed at Ksh. 84 and thus remained stable in relation to the previous month.
- The current price is at par with the short term average price for the month.



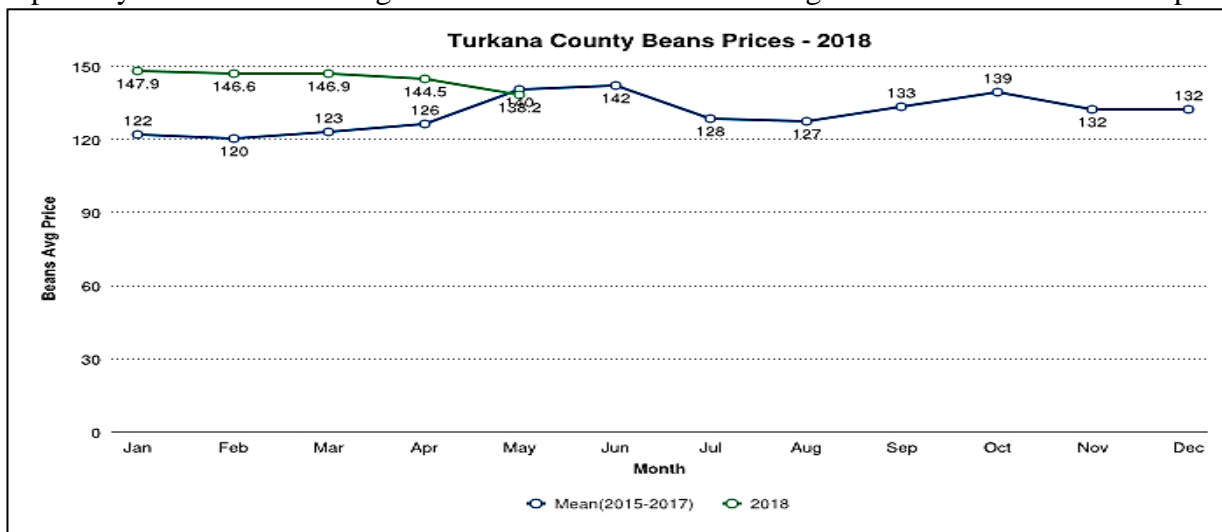
- The Agro Pastoral livelihood zone reported the lowest price (Ksh.81) in comparison to the Ksh. 90 reported along the Pastoral livelihood zone. Agro Pastoral zone Maize needs are supplemented through own production unlike the Pastoral zone that is dependent on purchases hence the observed variation.



- Currently the price of Maize within the county is influenced by the external market where no fluctuations have been reported hence the stability.

#### 4.2.2 Beans

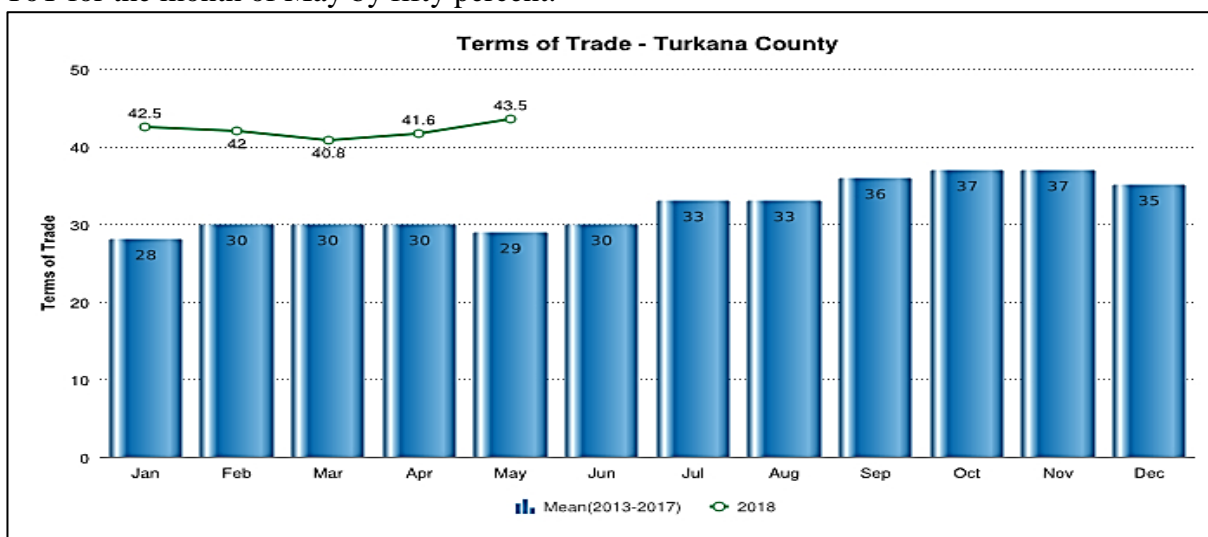
- A kilogram of beans retailed at Ksh.138 during the month of May and thus dropped from the Ksh. 145 reported in April. The decrease could be attributed to availability of additional supplies especially from Uganda where harvesting had taken place.



- The Pastoral livelihood zone reported the highest price (Ksh.140) and the Agro Pastoral livelihood zone reported Ksh.134 per kilogram of beans.
- The current price is at par with the short term average price for the month under review.

#### 4.3 Livestock Price Ratio/Terms of Trade

- Terms of trade adjusted upwards slightly and remained significantly above the long term average ToT for the month of May by fifty percent.

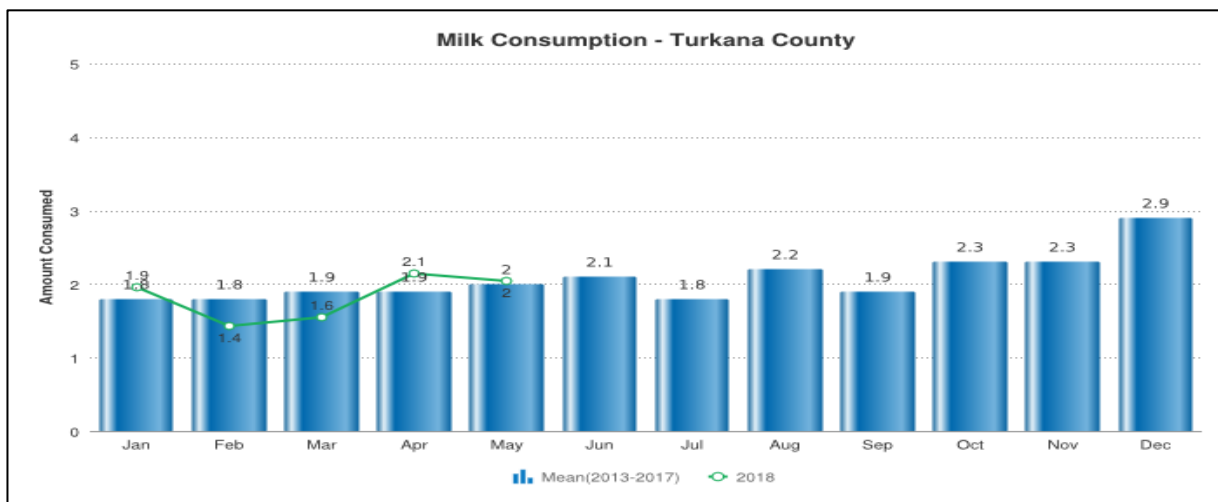


- The improved goat price coupled with the stable Maize price were the major drivers behind the observed trend.
- The ToT is forecasted to ascend further with the anticipated fall in Maize price resulting from internal supplies hitting the market with the body condition of goat expected to improve further implying better market return value.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

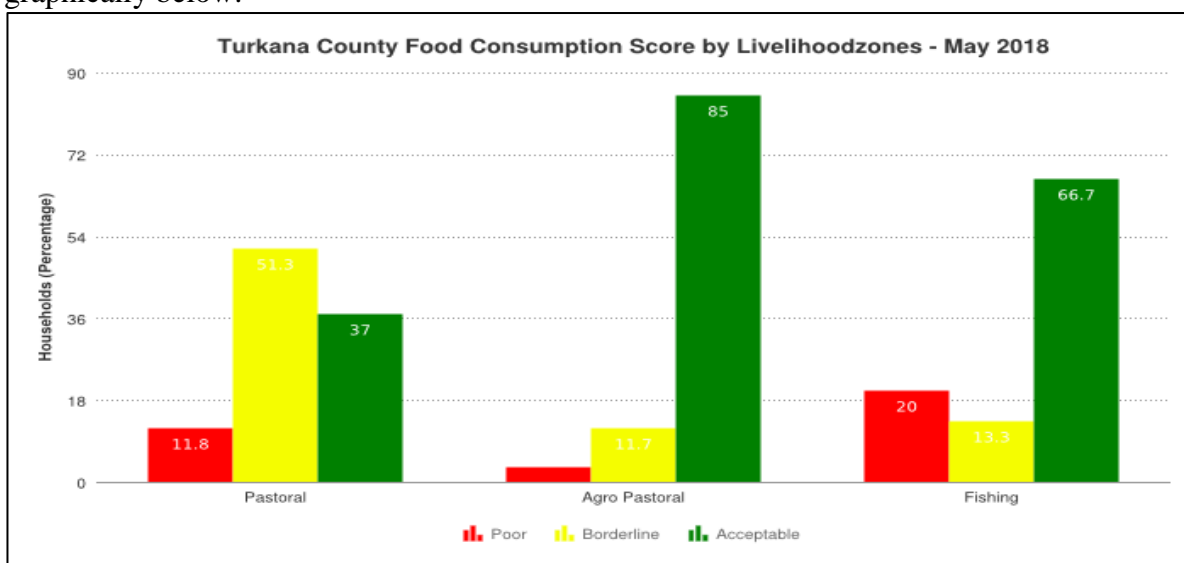
- The level of milk consumed across the three livelihood zones during the period under analysis remained stable in relation to the previous month.



- The observed stability in consumption could be attributed to stabilization in production across most sites in the county owing to non-existence of special push factors.
- The current consumption level is at par with the level of consumption at such a time of the year normally.

### 5.2 FOOD CONSUMPTION SCORE (FCS)

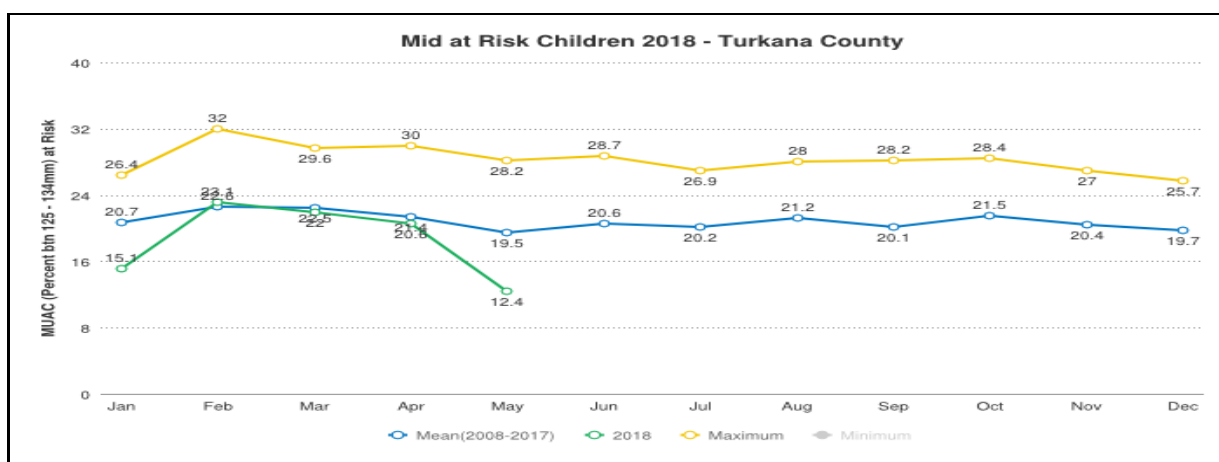
- Among the 230 sampled households during the month under review, fifty five percent of them were categorized as having an acceptable food consumption score with thirty four percent and eleven percent of them falling within the borderline and poor FCS category.
- Food consumption during the month of May remained stable in the relation to the previous month as evidenced by the unchanged FCS for the entire county that stood at 45.
- Significant variation was observed across the three livelihood zones. Majority of households (85%) in the Agro Pastoral livelihood fell within the acceptable FCS compared to the Pastoral livelihood zone that reported 37% albeit having improved from the 22% previously reported as lying within the same band with majority (51%) falling under the borderline as illustrated graphically below.



## 5.3 HEALTH AND NUTRITION STATUS

### 5.3.1 Nutrition Status

- Proportion of children rated as being ‘at risk’ of malnutrition decreased significantly to twelve percent from the twenty percent recorded during the month of April.



Sample size, n=117

- The current proportion of children at risk of malnutrition lies below the long term average for the month under review by a significant margin of thirty six percent.
- Improved milk consumption coupled with ease of access to other nutrition supplements through programmes such supplementary feeding and intensified integrated outreaches even in hard to reach areas were the factors contributing to the drop in number of under-fives falling outside the normal range of children at risk of malnutrition.

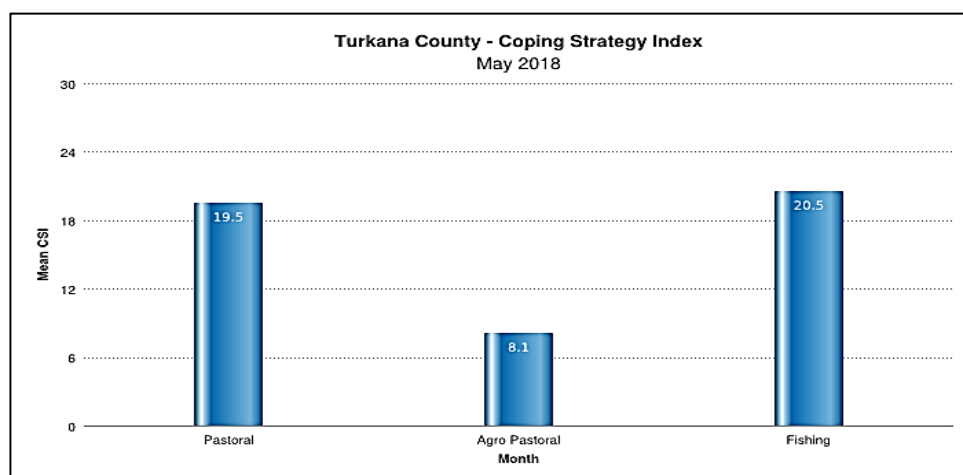
### 5.3.2 Health

- The most reported ailment among the sampled children during the period under review was diarrhoea and Pneumonia.

## 5.4 COPING STRATEGY

### 5.4.1 Coping Strategy Index (CSI)

- The CSI (16.3) remained stable in relation to the previous month implying that households employed relatively the same coping strategies as those applied previously.
- No significant change in the CSI for the separate livelihood zones was recorded in May.
- Fisheries livelihood zone continued reporting the highest CSI and this could be attributed to limited fishing activity taking place even after the earlier imposed ban having been lifted.
- The prevalent coping mechanisms included reliance on less preferred and/or less expensive food and borrowing



## 6.0 CURRENT INTERVENTION MEASURES (ACTION)

### 6.1 FOOD

Intervention	Sub-County/Ward/Location	No. of Beneficiaries	Implementers/Organization
689.643 Metric Tons (Cereals-547.500mtn, Pulses-109.450mtn, Oil-32.693mtn)	Turkana North/west/Central/Loima/South/East sub counties	91,942	World Food Programme.

### 6.2 NON-FOOD

Intervention	Sub-County/Ward/Location	No. of Beneficiaries		Implementers/Organization
Pasture seeds & planting 70 indigenous trees	Kobuin 10 acres-Turkana North.	400 (240women, 70youth)	100men,	GIZ-CCA
Business skills trainings	-Lochoremoit(LMA)-Turkana South, -Namakat-agro pastoralists-Turkana South, -Ekoyo BMU-Turkana Central, -Narengewoi BMU-Turkana North.	40 (20Men, 15women, 5PWD)		GIZ-CCA
Supervision and monitoring of farmer trainings by Agronomy Trainers of Farmers in 9 irrigation schemes in Loima, Turkana South and Turkana East Sub-Counties  Joint Monitoring by representatives from TCG Agricultural Officers, FAO, WFP and VSF-G to identify progress made in improving crop production in 9 irrigation schemes in Loima, Turkana South and Turkana East Sub-Counties		Men	Females	VSF Germany
	Kang'alita Irrigation Scheme – Loima Sub-County	682	758	
	Moruese Irrigation Scheme - Loima Sub-County	139	181	
	Kaitese/Kolyoro Irrigation Scheme - Loima Sub-County	217	263	
	Kalemnyang/Kotela Irrigation Scheme - Loima Sub-County	185	292	
	Napeikar Irrigation Scheme - Loima Sub-County	173	387	
	Nanyee Irrigation Scheme - Loima Sub-County	237	323	
	Katilu Irrigation Scheme – Turkana South Sub-County	987	1167	
	Morulem Irrigation Scheme-Turkana East Sub-County	489	551	
	Lokubae Irrigation Scheme - Turkana East Sub-County	1277	1663	

## 7.0 EMERGING ISSUES

### 7.1 INSECURITY/CONFLICT/HUMAN DISPLACEMENT

- During the month under review, no serious incidents of insecurity were reported countywide.

### 7.2 MIGRATION

- No in-migration nor out-migration was taking place during the period under analysis.

### 7.3 FOOD SECURITY PROGNOSIS

- Further improvement in livestock body condition is anticipated with enhanced forage availability sustained by the long rains whose performance has been above normal. Consequently, the quantity of milk produced most likely will increase slightly with the market price of livestock projected to continue rising over the next 1-2 months.
- Terms of trade will most likely go up following the anticipated increase in market price of goat owing to improved body condition coinciding with a stable/decreased maize price and therefore, translating to a higher purchasing power more so for pastoral households over that period.
- Malnutrition level will most likely drop as households access alternative nutritious foods to supplement their food needs.
- During that period therefore, majority of the households will most likely remain within phase 1 of food insecurity.

## 8.0 RECOMMENDATIONS

- **Health and Nutrition:** Strengthen the on-going integrated health outreaches through provision of all essential nutrition and medical care services, stock pile drugs in all health facilities and avail adequate number of health personnel to support outreaches in all hotspots within the county.
- **Veterinary:** Intensify disease surveillance efforts in areas prone to CBPP and PPR while focussing on animal health by providing essential veterinary services through mass vaccination drives and treatment where applicable.
- **Livestock:** Intensify efforts towards strategic hay reserves stock piling so as to promote availability of livestock feeds for utilization during periods of stress.