

National Drought Management Authority
TURKANA COUNTY
DROUGHT EARLY WARNING BULLETIN FOR MARCH 2017



A Vision 2030 Flagship Project



MARCH EW PHASE



Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Pastoral-all species	Alarm	Improving
Agro-Pastoral	Alarm	Improving
Fisheries	Alarm	Improving
Formal Employment/Casual Labour	Alarm	Improving
COUNTY	ALARM	Improving

Drought Situation & EW Phase Classification

Biophysical Indicators

- Good rainfall amounts were received in most northern and pockets of western parts of the county during third week of the month.
- Pasture and browse condition remained poor in all areas. The condition is below normal.
- The state of water is inadequate in main water sources in all areas. The situation is below normal.

Socio Economic Indicators (Impact Indicators)

- Livestock migration was above normal, with both unusual pattern and grazing routes (to dry season grazing areas).
- The livestock body condition was poor in most areas of the county.
- Distances to grazing-water increased while household water distance decreased.
- The Terms of Trade recorded were poor in all the livelihood zones except in the agro-pastoral zones (fair). The situation was below normal.
- Percentage of children at risk of malnutrition decreased although remained below normal.

Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	48	60-100
VCI-3 month	32	>35
State of Water Sources	3	3-4
Vegetation Condition	Below Normal	Normal
Production indicators	Value	Normal
Livestock Migration Pattern	Above Normal	Normal
Livestock Body Conditions	Moderate	Normal
Milk Production	3	>85 litres
Livestock deaths (from drought)	More	No Deaths
Crops Condition (Sorghum)	Poor	Fair
Access Indicators	Value	Normal
Terms of Trade (ToT)	26	>32
Milk Consumption	3	>85 litres
Return distance to water sources	13.0 km	<6.83 Km
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	17	<20
Coping Strategy Index (CSI)	19.5	<32

<ul style="list-style-type: none"> ▪ Short rains harvests ▪ Short dry spell ▪ Reduced milk yields ▪ Increased HH Food Stocks ▪ Land preparation 	<ul style="list-style-type: none"> ▪ Planting/Weeding ▪ Long rains ▪ High Calving Rate ▪ Milk Yields Increase 	<ul style="list-style-type: none"> ▪ Long rains harvests ▪ A long dry spell ▪ Land preparation ▪ Increased HH Food Stocks ▪ Kidding (Sept) 	<ul style="list-style-type: none"> ▪ Short rains ▪ Planting/weeding 								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The county generally received some rains, whereby few areas received mere showers.
- The rains concentrated mostly in the northern and western parts of the county, constituting an increase from previous month.
- The rains were characterised by good temporal and spatial distribution although poor progression.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- The County received an average of 48 percent of Normal rainfall, having increased from 27 percent recorded in previous month. This was below normal.
- The highest amounts of rains were received in Lokitaung and Kibish that fall in Turkana North that recorded 35mm and 65mm respectively.
- The amount of rainfall was below normal and fairly distributed besides poor progression across the county.

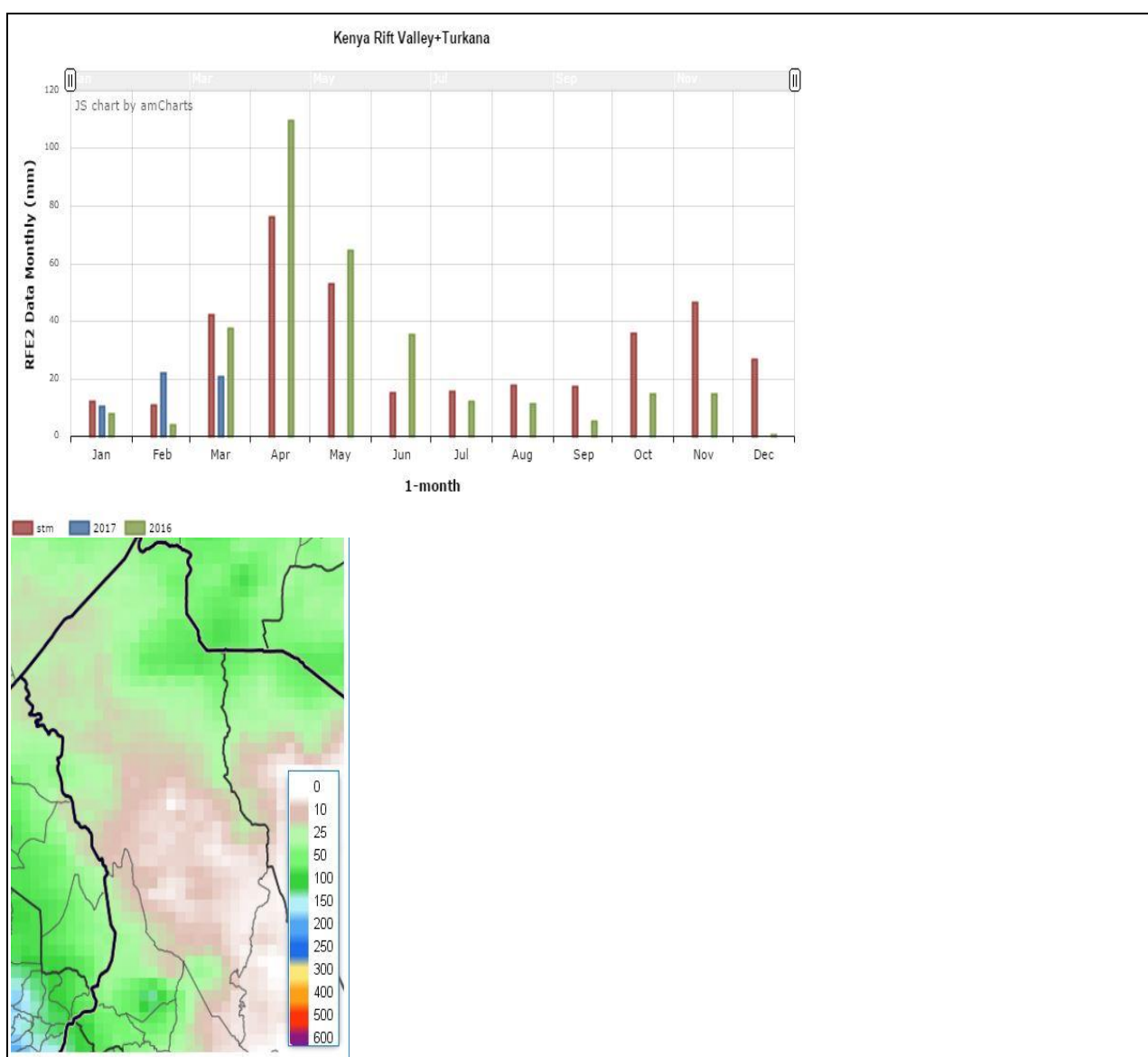
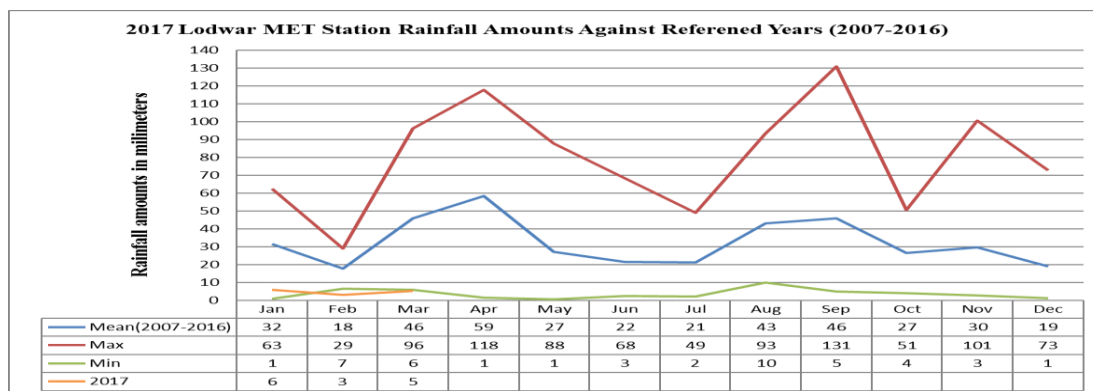


Figure 1 March 2017 Sum of Rainfall Amounts

- The Lodwar Meteorological station recorded 5.4 mm of rainfall in March 2017, which indicated an increase from 3.4mm recorded in February 2017 as shown in the graph

below. The rains were recorded on 24th, 27th and 28th for values trace, 0.7 mm and 4.7 mm respectively.

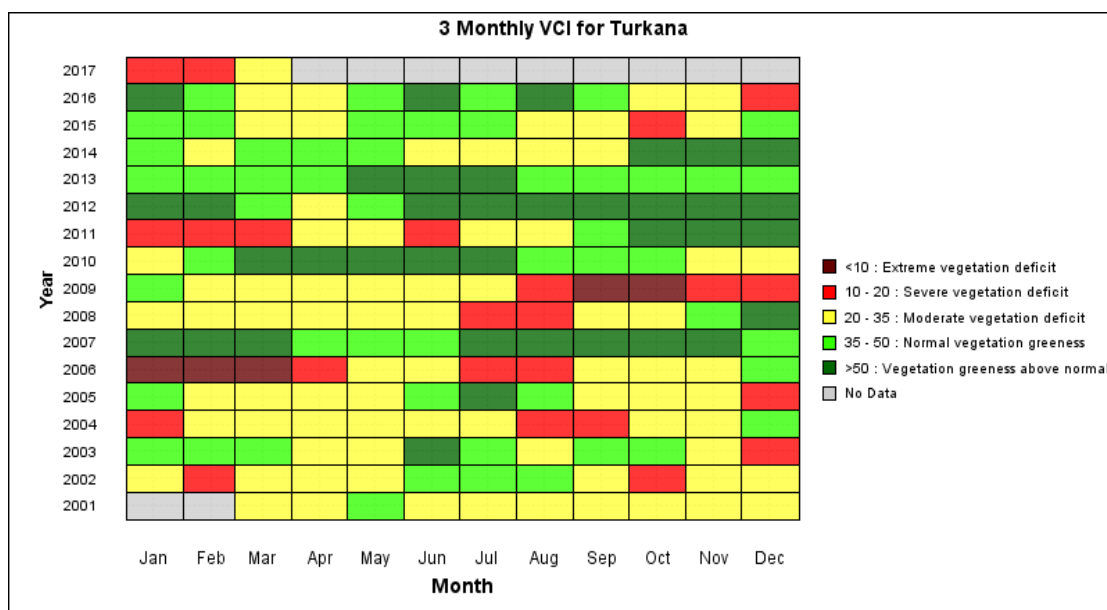


2.0 IMPACTS ON VEGETATION AND WATER

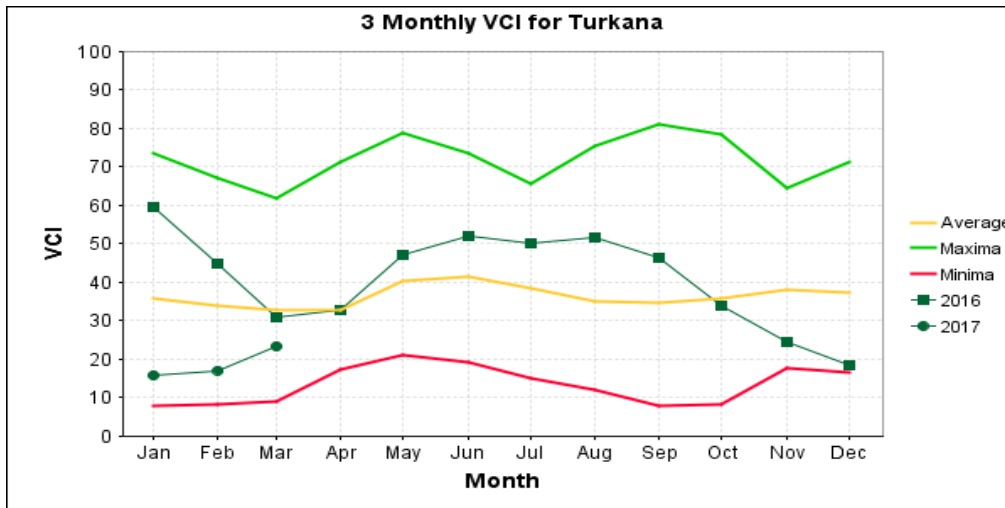
2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The VCI-3 month, that indicates the county's vegetation greenness was 32.13, indicating an increase from 17 recorded in the previous month, which still falls below the expected normal value of 35.



- The highest VCI was recorded in Turkana Central (44.88) while Lowest was recorded in Turkana East (18.58).
- The situation is below normal, with a slight upward trend attributed to the little showers received in some parts of the county.



2.1.2 Pasture

- The quality and quantity of pasture during the month of March 2017 was poor in agro-pastoral livelihood zones while it remained poorest in most pastoral areas except some parts in the north, where pasture showed signs of reviving. Generally, the pasture situation showed a decline from the previous month, being attributed to poor rainfall performance since the beginning of the month. The situation was below normal for such a time of the year.
- Pasture available is expected to last for less than one month with increasing constraints in the most of Agro-Pastoral areas and all parts of the Pastoral livelihood zones.

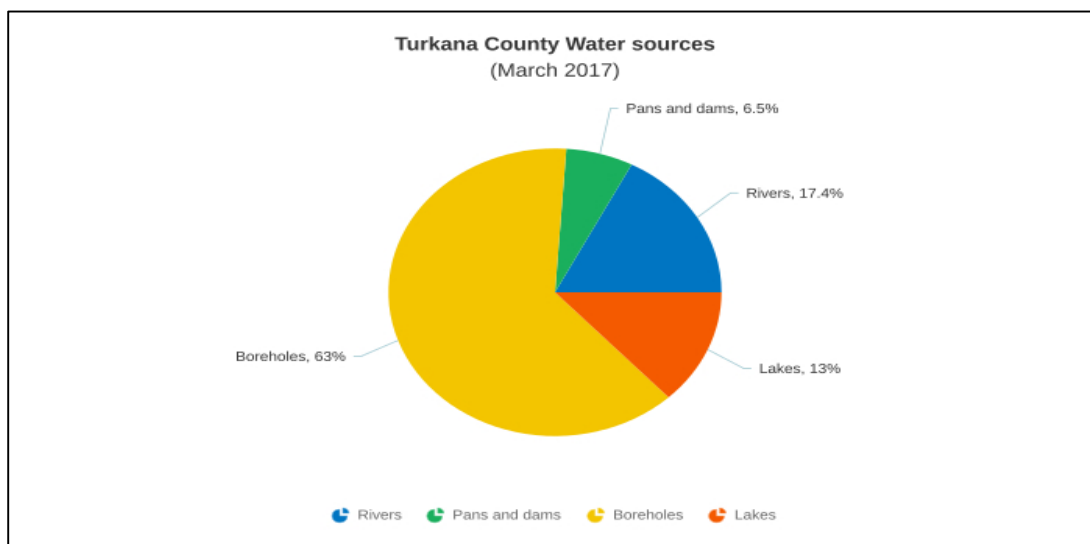
2.1.3 Browse

- Quality and quantity of browse was fair in agro-pastoral zones and poor in the pastoral livelihood zones, moreover, with imminent signs of decline across the Livelihoods. It is considered below normal at this time of the year.
- The available browse is expected to last for less than one month if the conditions remain unchanged.

2.2 WATER RESOURCE

2.2.1 Sources: Percent of water source in use

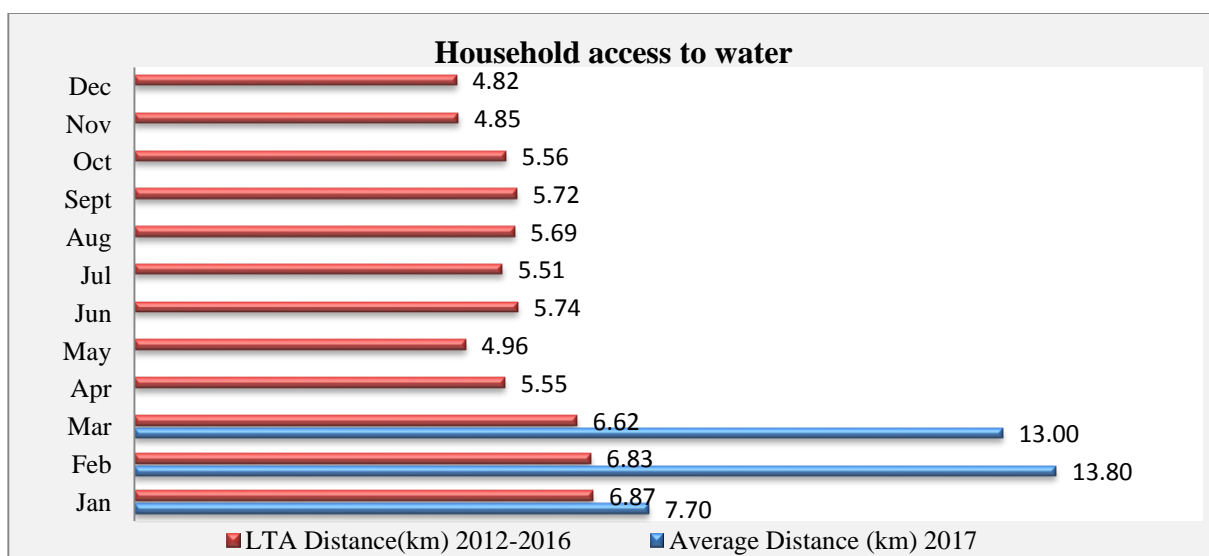
- Percent use of Boreholes, Lakes and Rivers as current water sources for both livestock and domestic consumption remained 63, 13 and 17.4 percent respectively. The three sources were mainly used in pastoral and agro pastoral livelihood zones.



- The increased use of Boreholes was attributed to strongly inadequate availability from other alternatives.
- Water constraints is being experienced in all livelihood zones due to decreased recharge as a result of poor rainfall.
- The number and volumes of the existing water sources are below normal across the county and are expected to last for about two months (rivers) except boreholes.

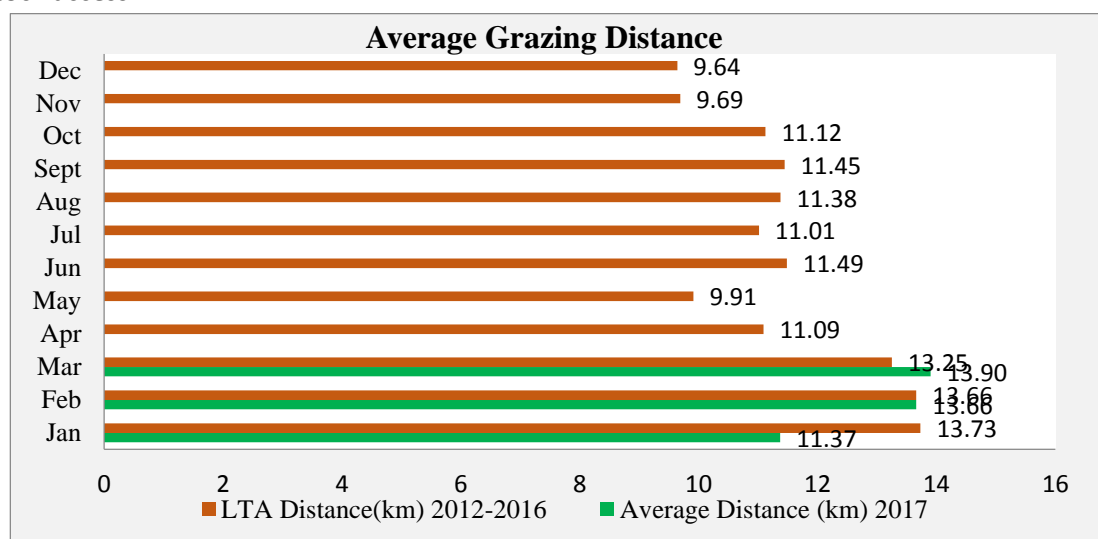
2.2.2 Household access and Utilization

- The current average return distance is 13 km from households to main water sources for all livelihood zones, which is a slight decrease from 13.8 recorded in previous month. This is attributed to the current water interventions activities done by the county government.



- Water consumption per person per day is highest in the agro-pastoral livelihood zone while the lowest being in the pastoral livelihood zone, both of which have gone down due to water scarcity at such a time.

2.2.3 Livestock access



- Relative to the previous month, the distance increased from 13.66 km to 13.9 km, where the increase is attributed to minimal recharge realised over the month of February 2017.

2.3 Implication to food security

- The observed increase in livestock trekking distance to water, coupled with poor vegetation condition, is expected to negatively further affect livestock body condition, leading to decreased milk production hence worsen the food security situation.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Livestock body condition based on the EWS classification is fair/poor across the county, some of livestock species (particularly camel) have good body condition especially in areas along the riverine. Most livestock in the entire pastoral zones are thin.
- Goats and camels which are key for production during the month were fair and tending to poor.
- In comparison to a similar period during a normal year, the current livestock body condition was near normal with a worsening trend; attributed to the poor rainfall and subsequent decline in pasture/browse.
- Goats and sheep were normal/fair for Agro-Pastoral livelihood zone and slightly better than those in other livelihoods.
- Cattle was fair in the Agro-pastoral areas while remaining thin the rest of the pastoral livelihoods, all having a downward trend.

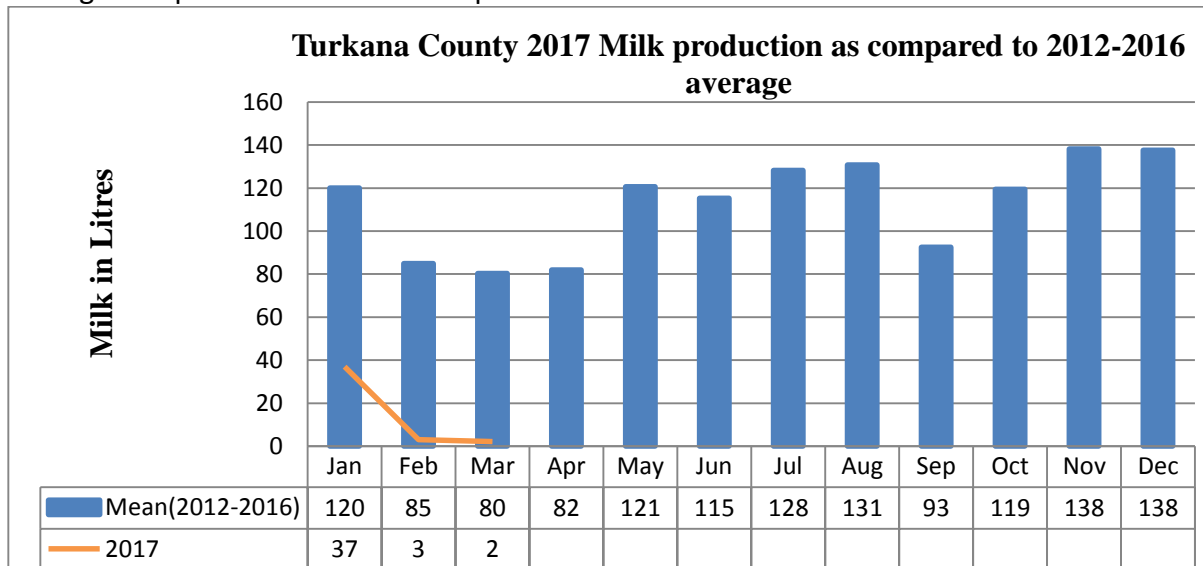
3.1.2 Livestock Diseases

- Livestock disease incidents included Mange and Trypanosomiasis in camels, with Contagious Caprine Pleural Pneumonia (CCPP) in goats across the county.
- Trypanomiasis and Contagious Bovine Pleural Pneumonia (CBPP) in cattle was also reported.
- Worms and Tick borne infections were reported during the month countywide.

- These diseases have been reported to increase due to the prevailing dry spell.
- Livestock deaths are still relatively high, especially small stock. The deaths are caused by starvation and poor water access, since most of them were not moved during the massive migration in search of pasture and water.

3.1.3 Milk Production

- The average household milk production during the month of March was 2 litres, having been produced from camel species.



- Milk production has decreased from 3 litres recorded in the previous month to 2 litres.
- Comparing with the same period during a normal year, milk availability decreased, and was far much below normal (80 litres) for this time of the year.
- The highest milk production of 2 litres was recorded in pastoral livelihood zone, while the lowest production of one litre in agro-pastoral livelihood zone.

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

- No crops were surviving under rain-fed water source. Crops planted in areas of Kabulokor of Loima Sub-County under irrigation had wilted due to drastic reduction of the levels of water in River Turkwel.

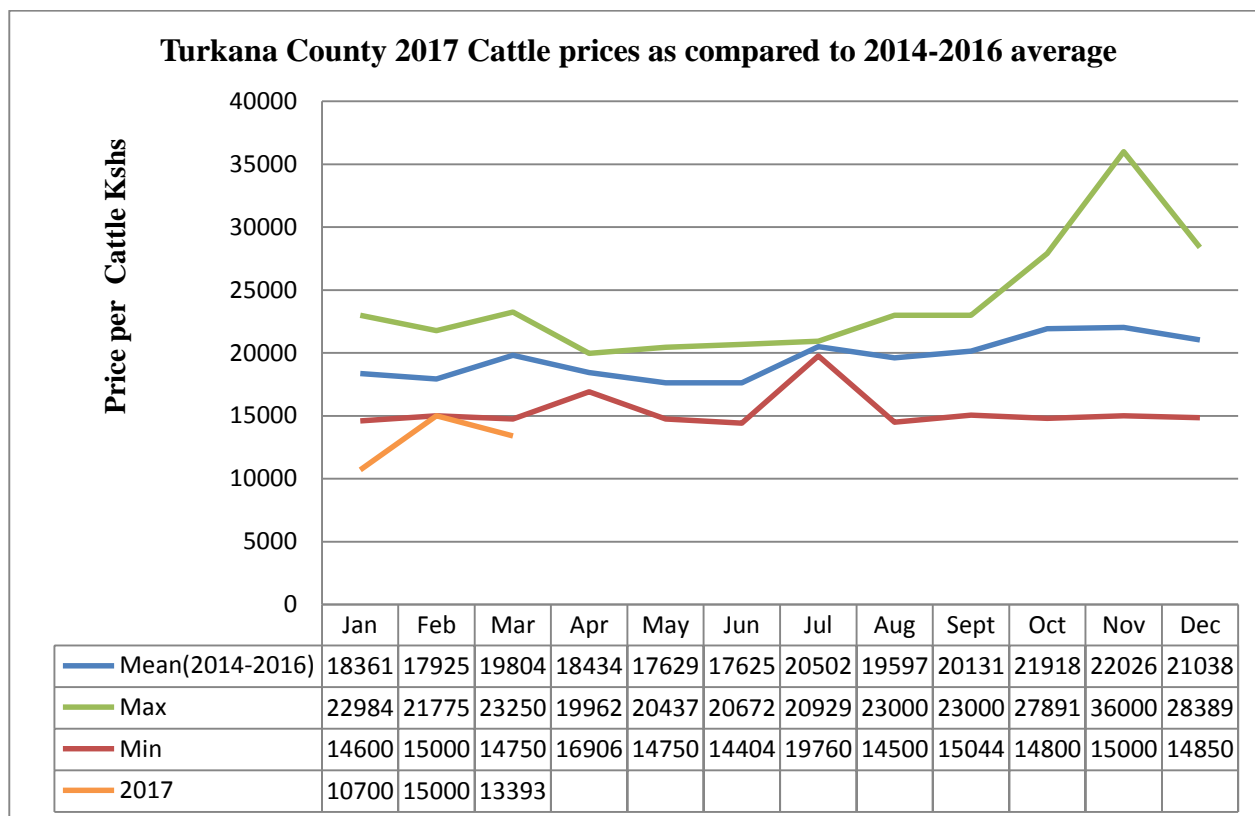
3.3 IMPLICATION OF THE ABOVE INDICATORS TO FOOD SECURITY

- It is expected that the food security situation worsens, especially if the livestock body condition will be affected by diseases and continued depletion of the pasture and browse. It is not the main cropping season for the farming areas thus the effect of poor rainfall performance will not be very serious, although low river volumes has affected irrigation dependent producers.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

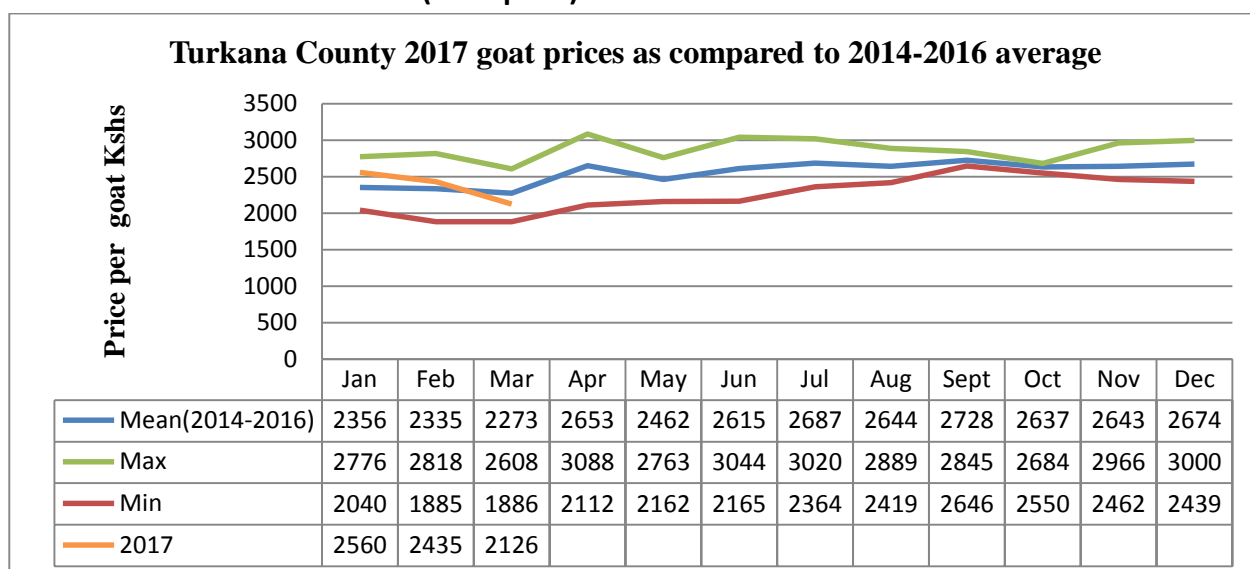


- Households reported a sale of an average size cattle at Kshs. 13,933 (average), this was a decrease from Kshs. 15,000 reported in the previous month. The decrease in cattle price is attributed to poor livestock body condition and low purchasing power creating low demand in the markets across the livelihoods.
- The cattle price was highest (Kshs. 17,600) in Agro-Pastoral and Lowest (Kshs. 8,833) in Pastoral livelihoods.
- The cattle prices are below normal (Kshs. 19,804) for such a time of the year.

4.1.2 Other outstanding observations.

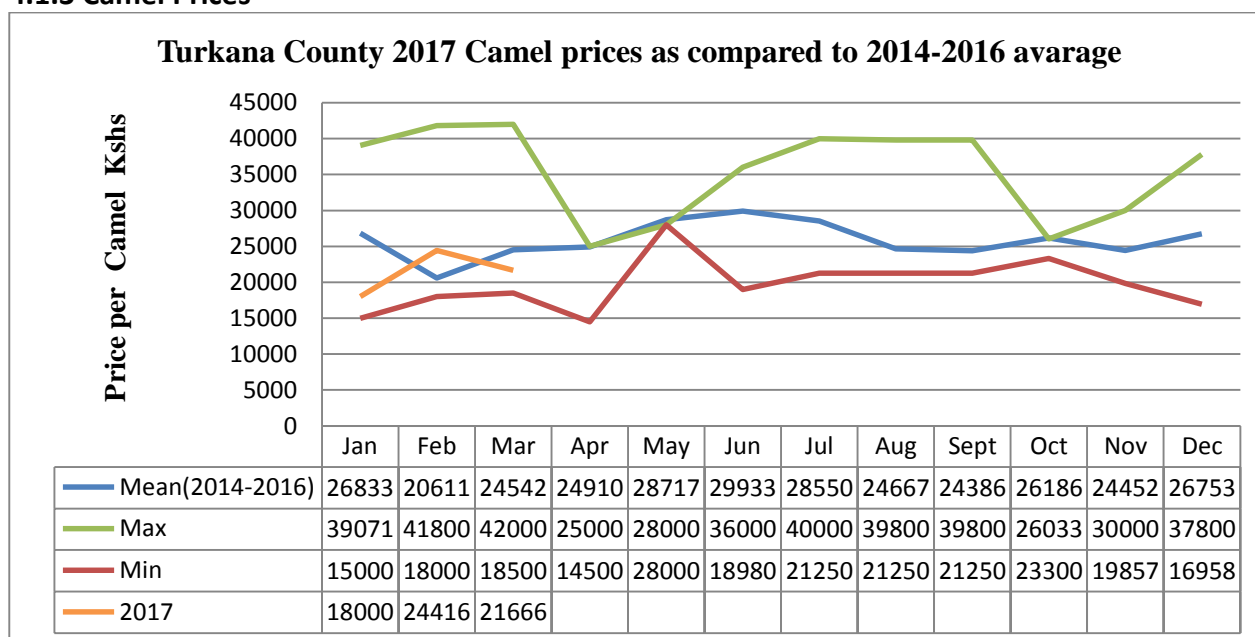
- Goats are the main sources of cash for household economy thus preference on sale of cattle was low. Low sales were recorded as the household economy was weak, coupled with weakening stock due to drought effects.
- The cattle are being kept outside the country (in Uganda), after migrating in search of pasture and water.

4.1.2 Small Ruminants Prices (Goat price)



- Households sold a medium size goat at Kshs. 2,126, making a decrease from an average of Kshs. 2,435 recorded in February 2017.
- The downward tendency in goat price is attributed to deteriorating body condition of goats as a result of scarce browse and water across the county.
- The agro-pastoral livelihood zone recorded the highest average price at Kshs. 2,500 whereas the lowest price was recorded in fisheries livelihood zone at Kshs. 2,000.

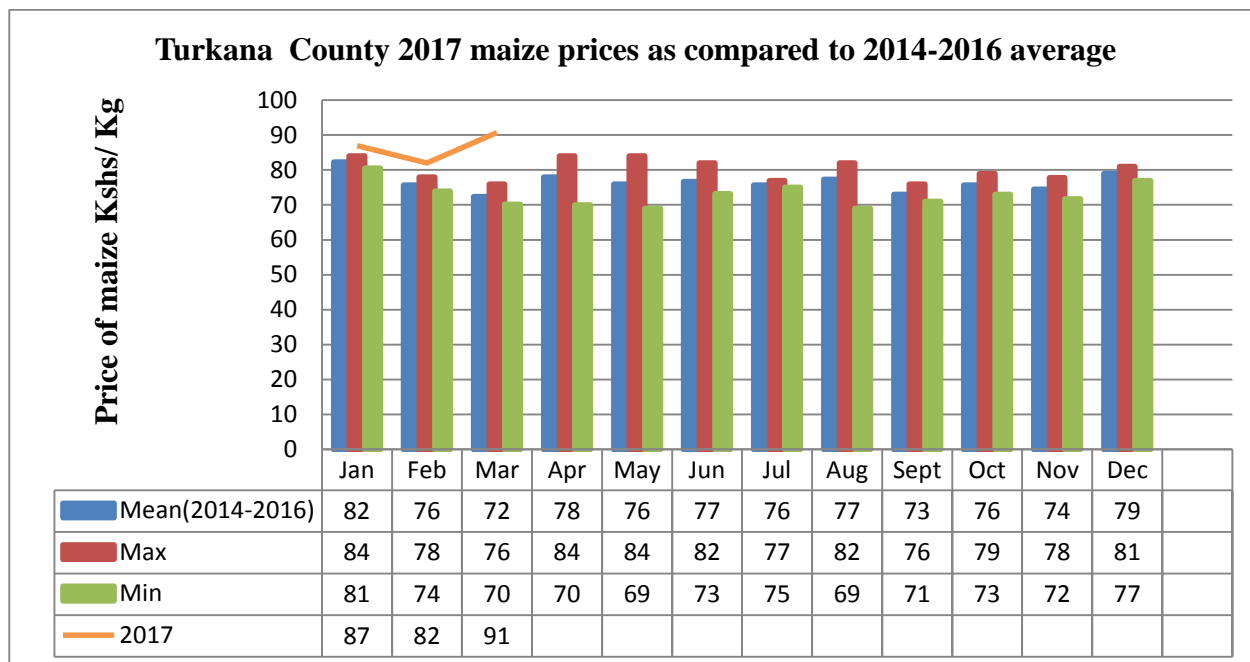
4.1.3 Camel Prices



- The average camel price was Kshs. 21,666, indicating a decrease from Kshs. 24,416 recorded in the previous month. The price decrease is generally attributed to poor purchasing power among households, coupled with low demand due to lack of browse.
- The camel price recorded was highest in the agro-pastoral (Kshs. 25,000) livelihood zone and lowest in Pastoral (Kshs. 20,833) while fisheries recorded no sale.
- The price is below normal (Kshs. 24,542) for this time of the year.

4.2 CROP PRICES

4.2.1 Maize



- The county recorded an average maize price of Kshs. 91 per Kg, this was an increase from Kshs. 82 recorded in February 2017.
- The highest price of maize was recorded in Pastoral livelihood zone at Kshs. 94 while the lowest being in the Fisheries zone at Kshs. 80. The increase in price is attributed to unavailable maize stocks.
- Compared with the three-year average, the maize prices were above normal for the time of the year.

4.2.1.1 Other outstanding observations

- The partial decrease in prices of maize in some parts of the county is driven by relief supply, which makes the supply of maize in the market to appear sufficient. Maize traders are disadvantaged right now since the market is affected by relief maize.

4.2.2 Posho (Maize Meal)

- Maize meal (Posho) was accessible at Kshs. 90 per kg in March 2017, a decrease from Kshs. 100 recorded in the previous month.
- The market price of Posho was highest in pastoral livelihood zone with a price of Kshs. 98 while the agro-pastoral recorded Kshs. 76 constituting the lowest.

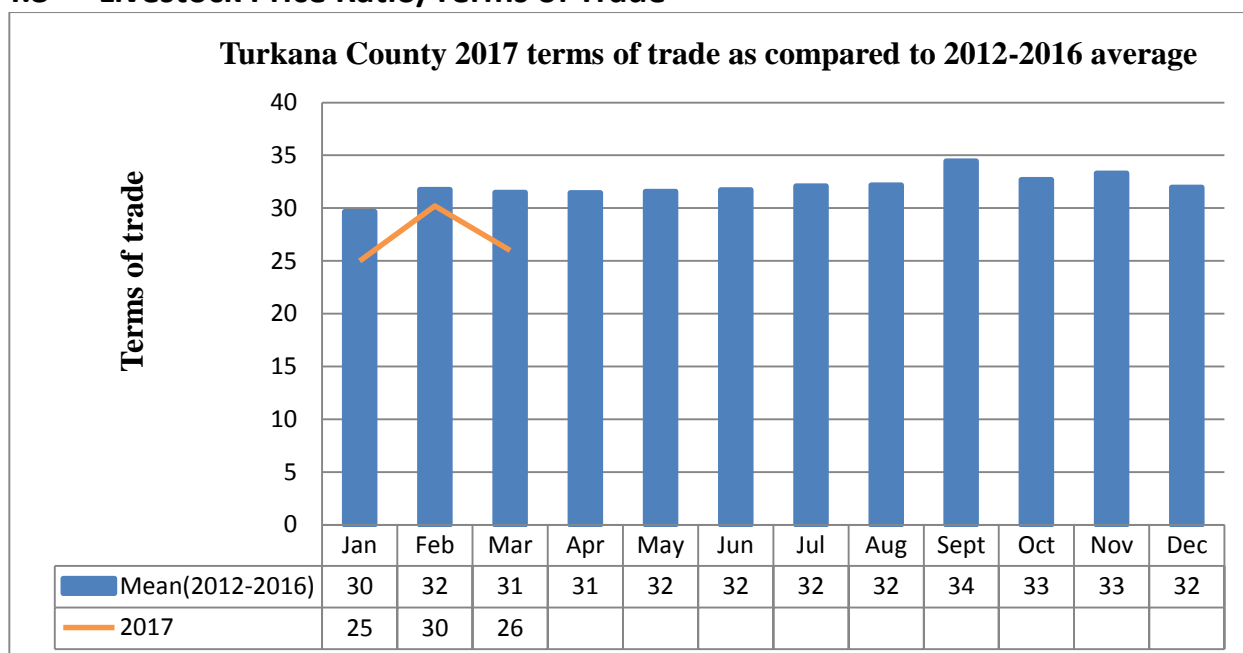
4.2.2.1 Other outstanding observations

- The cost of Posho is very high in the pastoral livelihood attributed to the cost of transportation to the interior parts of the county, owing to the poor roads network.

4.2.3 Beans

- The average market price of Beans across the county during the month was Kshs. 140 per Kg, being an increase from Kshs. 131 recorded in the previous month.
- The average market price of beans was highest at Kshs. 153 as recorded in Fisheries livelihood zone and was lowest in the agro-pastoral livelihood zone (Kshs. 136).

4.3 Livestock Price Ratio/Terms of Trade



- Household terms of trade (ToT) decreased from 30 kg to 26 kgs of maize for an exchange of a goat. The value is below the ToT recorded in such time of the year expected to be 31 kgs.
- The terms of trade were favorable in agro-pastoral livelihood zone with 27.3 kg compared to the pastoral livelihood of 22.2 kg. Favorable terms of trade was observed in agro-pastoral zones attributed to relatively low maize prices and comparatively higher goat price.
- The terms of trade is below normal for this time of the year in comparison to the 3 year average.

4.4 Implication of the above indicators to food security

- The food security situation is expected to worsen owing to the worsening terms of trade.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

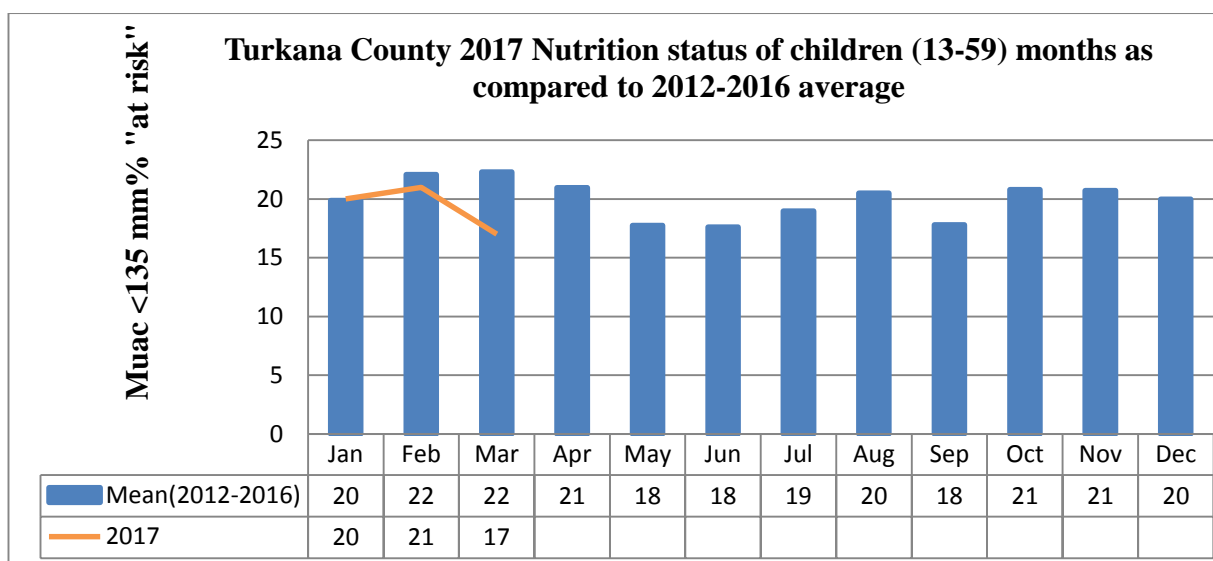
5.1 MILK CONSUMPTION

- In March 2017, the average household milk consumption remained three litres per household.
- The milk consumption was highest in the pastoral (4 litres) while the least being in the agro-pastoral areas (1 litres).

5.2 HEALTH AND NUTRITION STATUS

- During the month of March, the proportion by gender of children sampled was 51 percent boys and 49 percent girls.

5.2.1 Nutrition Status



- The nutrition status of children under five years, indicated by Mid Upper Arm Circumference (MUAC) measurement below 135 mm representing those at risk of malnutrition decreased to 17, compared to 21 recorded in the previous month.
- The decrease in children at risk of malnutrition is generally attributed to a few interventions in response to drought undertaken since February 2017, together with relatively low incidences of diseases in children under five years.
- The children who were at mid at risk were 16 percent while moderately at risk were one percent. The trend of the proportion of children at risk of being malnourished is likely to down as food security improves.

5.2.2 Health

- Despite the relatively lower disease incidences, the notable diseases reported for the sampled children were: confirmed Malaria and Diarrhoea.
- Most affected areas are along the lake (fisheries) and riverine (agro-pastoral).
- During the month, there was no major disease outbreak reported.

5.3 COPING STRATEGIES

- The Coping Strategies Index (CSI) decreased to 19.5 percent from 23.3, recorded in the previous month. This was below normal strategy of 32. It indicates that the food security situation seemed to improve, attributed to the on-going drought response.
- The highest index was however recorded in Agro-pastoral livelihood zone (24) while lowest in the fisheries livelihood zones (12).

5.4. Implication of the above indicators to food security

- On the whole, the food security situation is likely to improve as a result reducing copying strategy linked to multi-agency drought response activities in various sectors.

6.0 CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

- Slaughter off-take at community level **by NDMA.**
- Provision of emergency livestock feed supplements **by NDMA.**
- Supporting procurement of spare-parts for boreholes **by NDMA.**
- Provision of water treatment chemicals (Aquatabs) **by NDMA.**
- Upscaling of the hunger safety network programme targets **by NDMA.**
- Livestock deworming and treatment implemented **by Turkana County Government.**
- Repair of broken hand pumps, servicing of gensets, purchase of spare parts and water trucking implemented **by Turkana County Government.**
- Post-harvest management training **by Turkana County Government supported by ChildFund Kenya and World food Programme.**
- Distribution of drought tolerant crops seeds, mechanized land preparation **by Turkana County Government, National Drought Management Authority/United Nations Development Program.**

6.2 FOOD AID

- Provision of food for Fees to most affected targets **by NDMA.**
- Supporting outreaches on high impact nutrition intervention **by NDMA.**
- Therapeutic Integrated Management of Acute Malnutrition for the Under-fives, Pregnant and Lactating Mothers (Supplementary Feeding Program (SFP), Out Patient Therapeutic Program (OTP) and Stabilization Centres) by MOH supported **by World Food Programme (WFP), UNICEF, Save the Children and Kenya Red Cross Society.**
- Food for Assets (FFA) program **by NDMA and County Government ministries, Child Fund Kenya and WVK, supported by WFP.**

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- Conflict over pasture was reported from the pastoral group that migrated to Uganda with their livestock where they were forced to move the stock back to Kenya in the areas along the borders. They are still waiting for the situation to calm down.

7.2 Migration

- The above unusual livestock migration occurrence was reported.

- Most livestock remained in the areas that they had migrated earlier on.

7.3 FOOD SECURITY PROGNOSIS

- In March 2017, the likely effect of changes in rainfall/water situation on food security is highly expected (to improve), since seasonal rains have commenced.
- In the next three months, the forage condition is expected to be good/fair and normal.
- If the conditions prevail the forage would be improved and thus available in the next three months.
- The effect of improved forage in the next three months on livestock would result in improvement of livestock body condition, increased milk availability and improving of the food security situation.
- If the forage would be available, the migration and insecurity would be minimal thus enhanced food security.
- Sub-counties/wards that need particular attention include Turkana East, Turkana Central, Turkana South and Loima.
- Therefore, the overall early warning phase for the county remains at ALARM stage with an improving trend in some areas.

8.0 RECOMMENDATIONS

- Supporting initiatives aimed at promoting peaceful co-existing at likely resource conflict hotspots.
- Water trucking should be up-scaled to areas affected across the county, currently not reached.
- Monitoring and repair of broken down boreholes to be continued and extended to areas not yet reached by now.
- Supporting nutrition supplements in more affected areas.
- Livestock destocking, market information and access, treatment and deworming.
- Restore outreach services in Turkana North, Kibish, Loima and South (Lokichar).
- Enhancing behaviour change sensitization on the use of nutrition commodities.
- Strengthen existing Stabilization Centers in Turkana South (Katilu Health Centre), Turkana West (Lopiding Hospital) and Turkana East (Lokori AIC Health Centre).
- Preparation of Livestock food balance sheet assessment and supporting supplementation for breeding and lactating herds in most affected areas and other areas not covered by NDMA's on-going exercise.
- Scale up safety net programmes to cushion more pastoralists during this drought period.

