



# National Drought Management Authority

## TURKANA COUNTY

### DROUGHT EARLY WARNING BULLETIN FOR MARCH 2015

#### MARCH EW PHASE



#### Early Warning Phase Classification

Livelihood Zone	Warning Stage	Trend
Pastoral-all species	Alert	Worsening
Agro-Pastoral	Alert	Worsening
Fisheries	Alert	Improving
Formal Employment/Casual Labour	Alert	Improving
COUNTY	Alert	Worsening

#### Drought Situation & EW Phase Classification

##### Biophysical Indicators

- Vegetation condition index (VCI)-3 month in the county for March 2015 was 27 from 37 recorded February 2015, this is within the normal ranges across the sub counties.

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

- In March 2015, the livestock migration pattern was minimal and within the normal grazing routes to dry spell areas.
- The livestock body condition was good to fair (3) during the month was between value 1- 4 of normal range.
- The Terms of Trade are increasing from 31 kg of Maize to purchase a goat to 37 Kg. However, this within the normal range.

Biophysical Indicators	Value	Normal ranges
VCI-3 month	27	20-35
State of Water Sources	3	1-4

Production indicators	Value	Normal ranges
Livestock Migration Pattern	Normal	Normal
Livestock Body Conditions	3	1-4
Milk Production	49	>78
Livestock deaths (for drought)	3	0-5
Crops area planted (%)	15	60-80% of LTA

Access Indicators	Value	Normal ranges
Terms of Trade (ToT)	37	>26
Milk Consumption	32	>78
Water for Households	6.5	<7

Utilization indicators	Value	Normal ranges
MUAC	32	<26
Coping Strategy Index (CSI)	2.63	1.50 – 1.02

#### Current Drought Risk

Low

Medium

High



Drought risk is medium in that it's expected to rain in late March and early April 2015; a wet season is expected and this would mitigate short term impact in the current drought situation. Drought risks might decrease significantly if the wet season sets in with a possible Recovery, Normal and early Alert scenario developing in the course of wet season (April-June 2015).

# BIO-PHYSICAL INDICATORS

## 1.0 MEASURING DROUGHT HAZARD

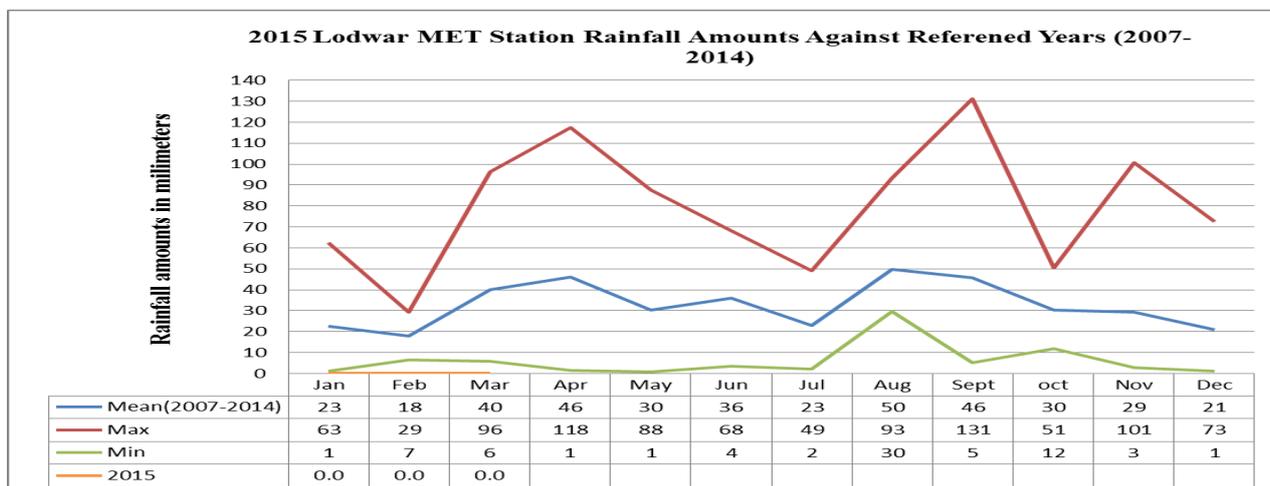
### 1.1 METEOROLOGICAL DROUGHT

#### 1.1.1 Actual Rainfall

- Amount of rainfall and Spatial distribution

In March 2015, most parts county received little amounts of rains from the third week of the month. The rains had a false start in some of the areas of the county. The rains had fair distribution and a poor progression.

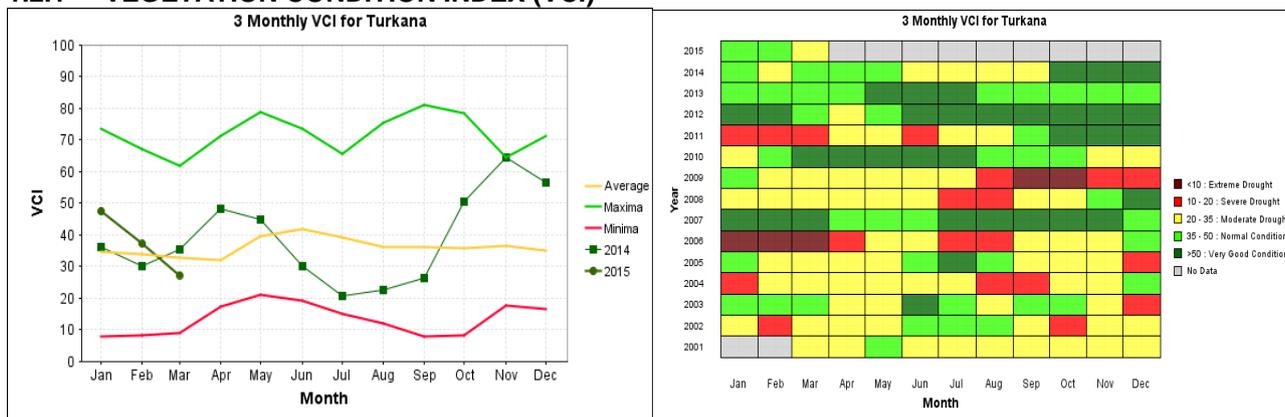
#### Rainfall station data



Lodwar Meteorological station recorded no rains in the month of March 2015, this was the same as that recorded in the previous month. The rains were less than 40.00 mm of normal rains in areas surrounding Lodwar station. For Lodwar the rains were below normal.

## 1.2 AGRICULTURAL DROUGHT

### 1.2.1 VEGETATION CONDITION INDEX (VCI)



- The Condition for both pasture and browse in the county was represented by the Vegetation condition index (VCI)-3 month for March 2015 was 27 from 37 recorded February 2015, this is within the normal ranges across the sub counties. The highest VCI was recorded in Turkana Central while Lowest was in Turkana North Sub County.
- The performance of rains in the month February 2015 attributed to reduced vegetation

#### 1.2.2 Field Observations (Pasture and Browse Conditions)

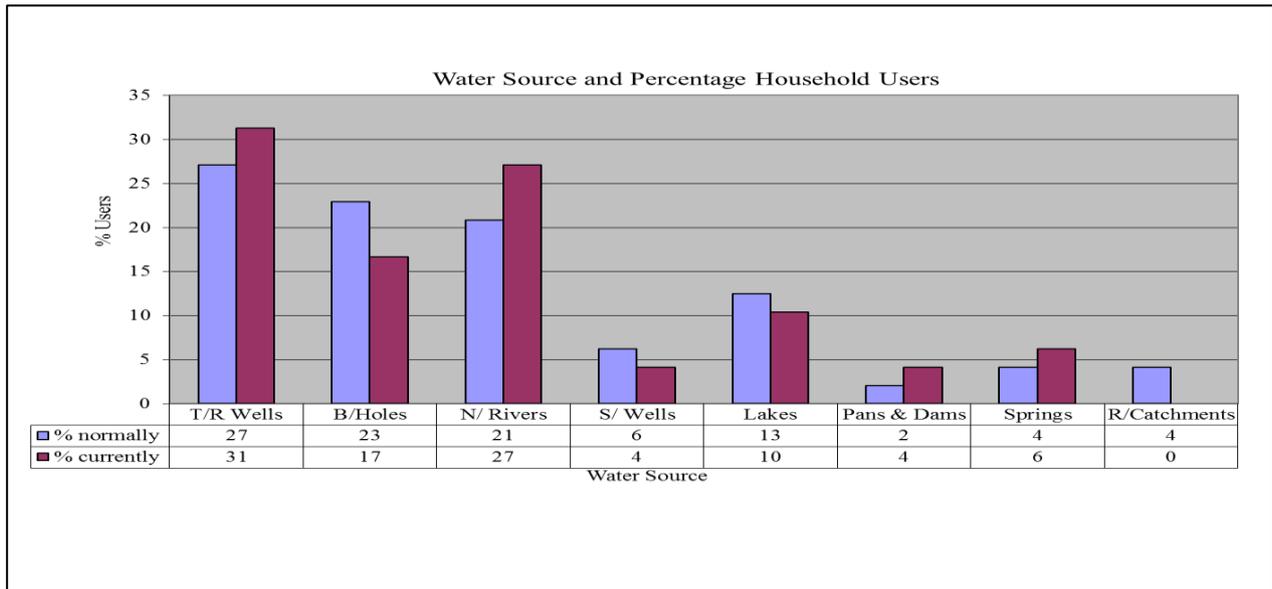
- Pasture and browse was in good in western, southern and eastern belts of the county parts while other areas showing fair/poor conditions.

- Pasture and browse was good in the agro pastoral and fair/poor in pastoral all species.

### 1.3 HYDROLOGICAL DROUGHT

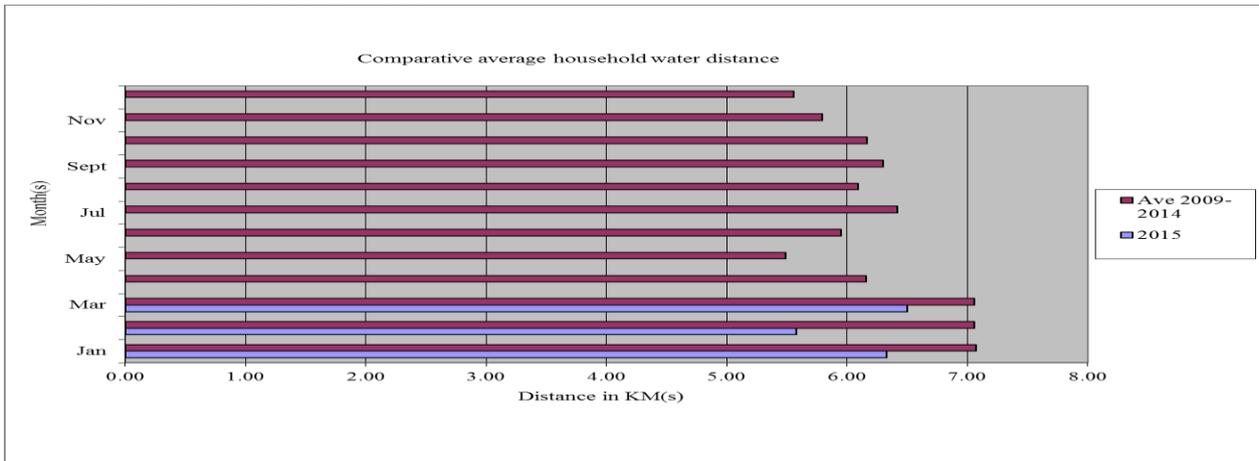
#### 1.3.1 Water Resource

##### State of Water Sources



- The main water sources currently being used by both human and livestock population are Traditional Rivers which were at 31% this has increased from 37% recorded in the month of February 2015. The use of Natural Rivers was above normal of 27%.
- There has been a slight increase in the water flowing in the two main rivers of Turkwel and Kerio as second week of the month. Currently, the Pastoral (all species) depend on both traditional hand dug wells and boreholes while the Agro Pastoral still depend on natural rivers.

##### Household access to water



- The average household walking distances to and from water sources was 6.5 Km this was an increase from 5.58 Km recorded in the month of February 2015.
- The increase in the number of kilometres was attributed in the decrease recharge of the water table based on the water sources. The distance recorded for this month is below the normal year distance of 7.05 km.
- The highest household water distances was recorded in the Pastoral livelihood with 7.2 km while least in the agro pastoral with 2.5 km to access water

# SOCIO-ECONOMIC INDICATORS

## 2.0 PRODUCTION INDICATORS

### 2.1 Livestock production

#### 2.1.1 Livestock Ownership

- The main livestock owned by households in Turkana County are camel, cattle, goats and sheep. The livestock are majorly owned by the pastoral communities, while the other livelihoods they complement the livestock with farming and fishing activities.
- The cattle and camel are the major contributors of production while sheep and goats are minor contributors of production to households.
- The sheep and goats are the highest in population compared to the camel and cattle in the households.
- During the last six months the livestock population has been reducing due to migration and cattle rustling.

#### 2.1.2 Livestock Migration Patterns

- There is slow mass in migration of livestock from dry grazing areas to wet grazing areas, most of Livestock are concentrating in the major buffers zones where they victims of cattle raids and conflict over water and pasture.

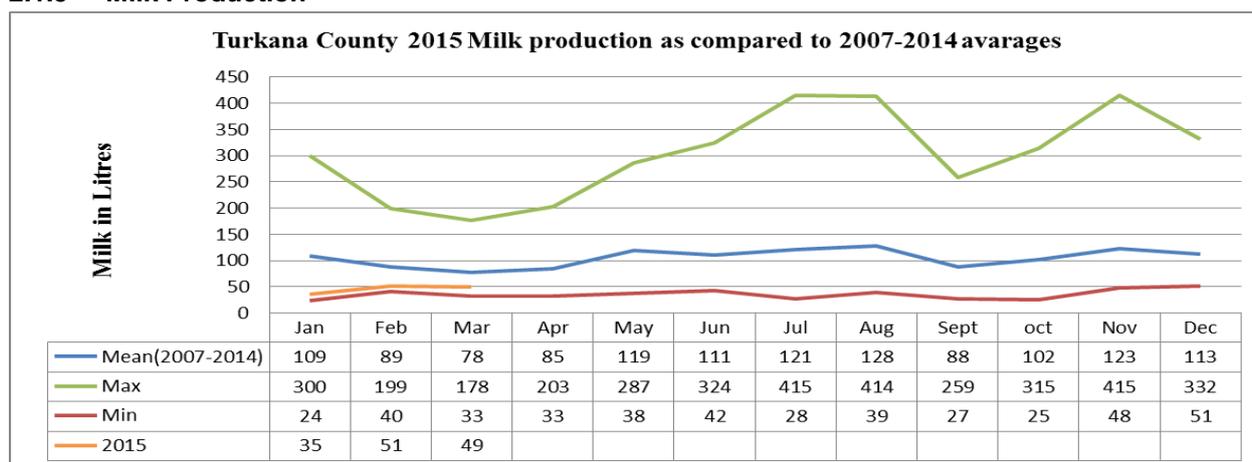
#### 2.1.3 Livestock Body Condition

- The Livestock body condition is good across all livelihood zones. The agro pastoral has good livestock body condition. All the species have a score of 3 which is within the normal range of 1-4. This score implies that majority of livestock there is thin fore ribs visible.

#### 2.1.4 Livestock Diseases

- Livestock Diseases that were majorly reported were Mange, Poxes and Trypanosomiasis in both camels and Cattle; Mange and Hemorrhagic Septicemia in sheep; and the Contagious Bovine Pleural Pneumonia (CBPP) and Contagious Caprine Pleural Pneumonia (CCPP) in cows and goats respectively. These diseases have been reported to increase during the month of March 2015.

#### 2.1.5 Milk Production



- In March 2015, the average milk produced was 49 litres per household per month. This was a decrease from 51 litres recorded in the previous month of February 2015.

- The highest milk level was recorded in the pastoral (154 litres) while the least in the fisheries (39 litres). The milk produced was below normal compared to long term average.

#### **2.1.6 Livestock deaths**

- The mortality rate for household livestock population decreased from 3.2 percent in February 2015 to 2.8 percent in March 2015. The highest mortality rate was recorded in the fisheries livelihood zone with 6.1 percent while the lowest in agro pastoral 2 percent.

### **2.2 Rain fed Crop Production**

#### **2.2.1 *Date of Planting and Area planted***

- During the month, in rain fed farms, some farmers planted (dry planting) during the last week of the month of March 2015, they planted 15 percent of the possible area. Compared to seasonal average, these was below the expected area owed to fact that they were not certain on the onset of the rains.

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

- For the farms that managed to do dry planting the crops are still at germination stage, the condition is good owed to the rains that were received in some of these areas.

#### **2.2.3 Harvest**

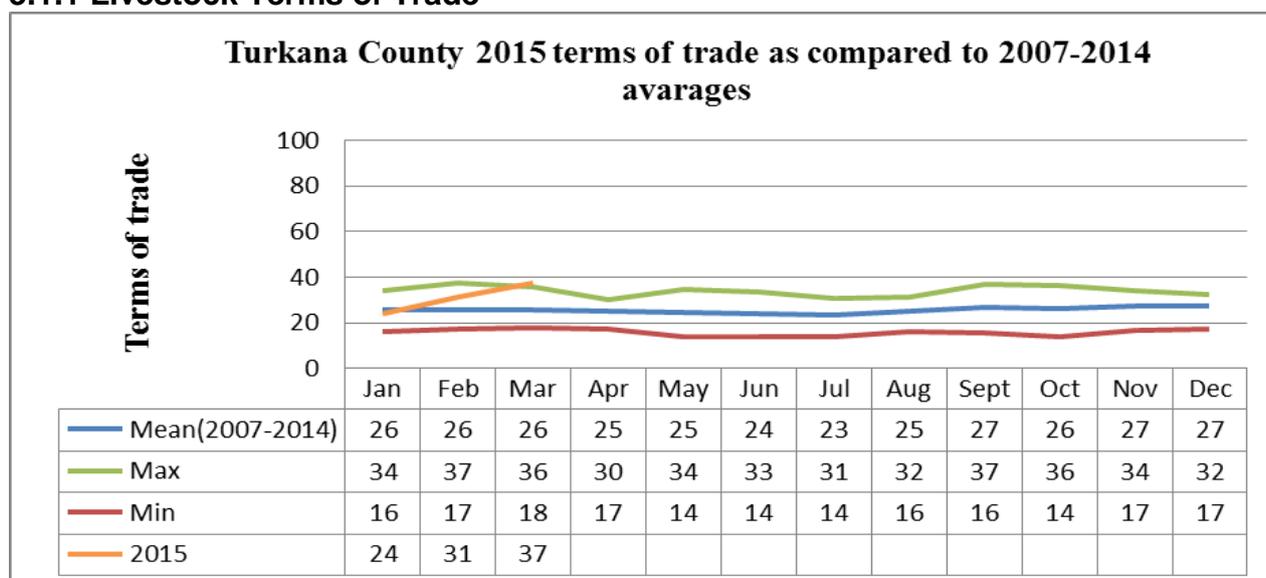
- In March 2015, some communities in rain fed agriculture realized some harvests. However, compared to the normal year, the quantity harvested was below normal.

## **ACCESS INDICATORS**

### **3.1 Livestock Prices**

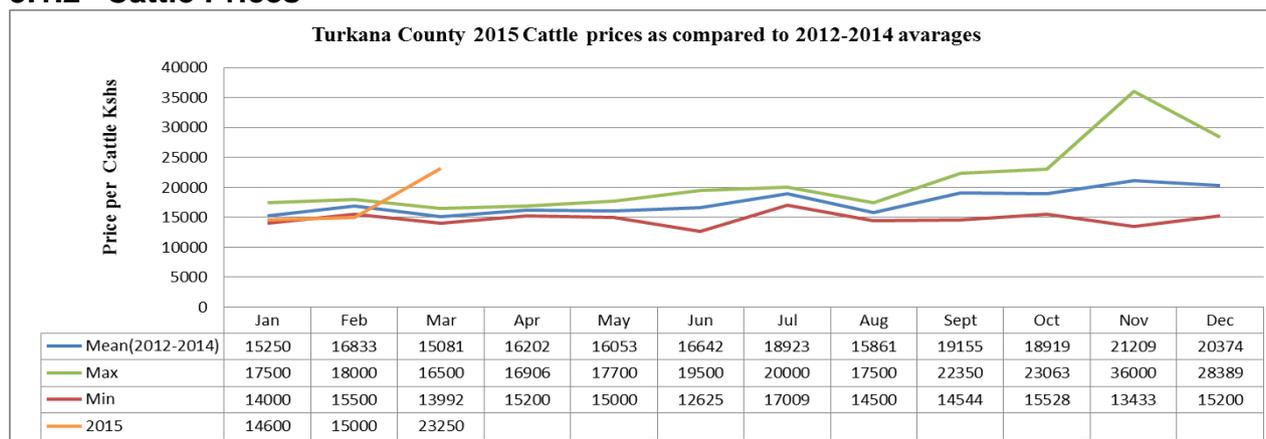
- The Total Households sales for goats, sheep, cattle and camel were 267, 53, 18 and 8 respectively. The households' total sales number of livestock was 346 of stock for the month of March 2015.
- The previous month recorded total sales of 85 for all species of animals. This was an increase in the sales owed to increased demand. The sales were highest in the pastoral livelihood zone while least in the agro pastoral.
- Most households depended on livestock to meet their basic essential needs.

### 3.1.1 Livestock Terms of Trade



- During the month under review the terms of trade were at 37 kg bag of maize to purchase a goat, this was an increase from 31 kg. The terms of trade were above normal. This implies that the exchange livestock against the cereals was good.
- The terms of trade were favorable in agro pastoral livelihood zone of 45 kg unlike the pastoral zone 25 kg.

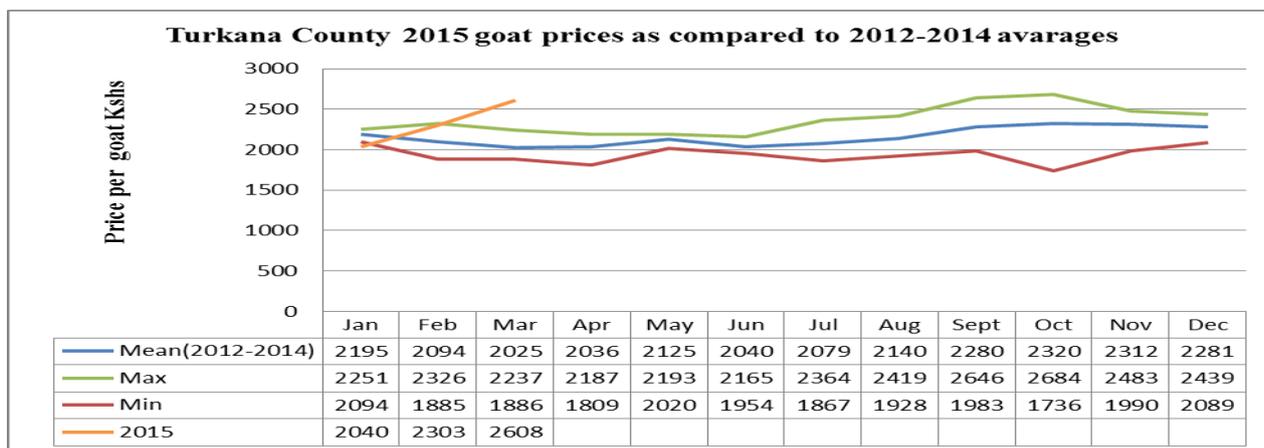
### 3.1.2 Cattle Prices



- Average household cattle prices increased from Ksh. 15,000 to Ksh. 23,250 in the month of March 2015. Cattle prices at household level was above the long-term mean of Ksh. 15,081. The prices were favourable due to the increased of the Livestock commodity demand of cattle.
- The highest average price for cattle at household was noted in Pastoral all species with Ksh. 32,000 while the agro pastoral livelihood zone attracting a price of 14,500.

### 3.1.3 Small Ruminants Prices

#### Goat prices



- In the month of March 2015 household goat price increased from average Ksh. 2,303 recorded in February 2015 to an average of Ksh.2608. The increased price is attributed to increase in market demand.
- Compared to long term mean, the average price is higher by Ksh 583 during the month of March 2015.
- Fisheries zone recorded the highest average price at Ksh 2,572 while the lowest being recorded in the pastoral livelihood zone with Ksh 2,527.

### 3.1.4 Camel Prices

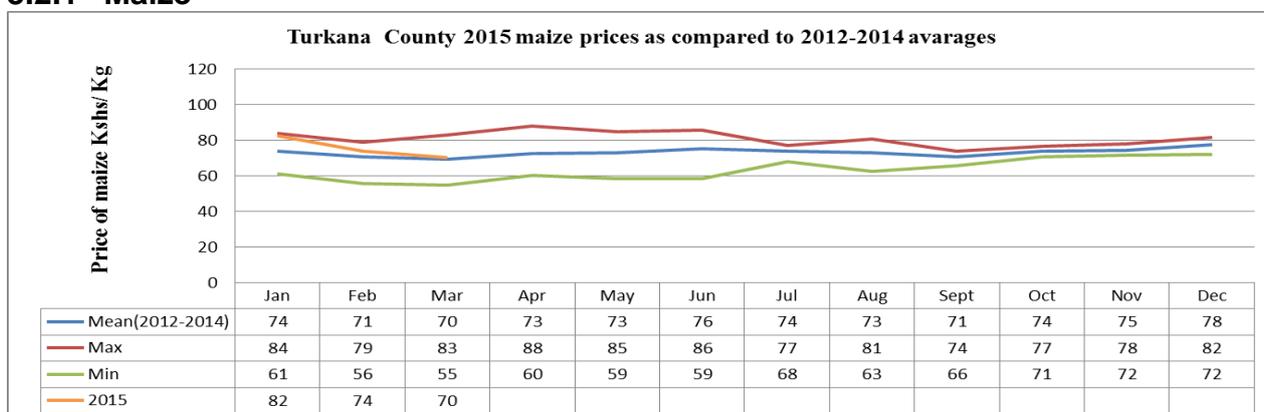
- During the month of March 2015, the households recorded an average of Ksh. 20,000 of the camel. The average household Camel price increased from 18000 recorded in the previous month of February 2015. The camel price highest in the agro pastoral with a price of Ksh.27, 000 while Fisheries livelihood zone recorded an average price of Ksh.14, 000.

### 3.1.5 Milk Prices

- Average household Milk price decreased from Ksh 50 to 30 for the month of March 2015. The decreased price was attributed to a drop in market demand.
- Agro Pastoral livelihood zone recorded the highest average price at Ksh 30 while the the other livelihood zone recorded no sales of the commodity.

## 3.2 Price of cereals and other food products

### 3.2.1 Maize



- During the month of March 2015 the maize commodity was easily accessible by households in the county this was shown by the average market maize price of Ksh 70 per kg.
- Compared to the previous month, the average price has decreased by Ksh.4

- The market price of maize was favourable in the agro pastoral at Ksh.56 contrary to price in the pastoral livelihood zone which attracted Ksh.79.
- The maize prices was normal at this time of the year.

### 3.2.2 Posho (Maize Meal)

#### 3.4.2 Posho

- Maize meal (Posho) was hardly accessible in the county compared to previous month of February 2015, this was experienced by the average market price for posho across the Turkana County was Ksh. 77 per kilogram. This price was an increase from Ksh. 74 recorded in the month of February 2015.
- The market price of posho was highest in the pastoral zone (Ksh. 80) while in agro pastoral livelihood zones (Ksh.64) recorded the lowest prices.

### 3.2.3 Beans

- During the month of March 2015, the average market price of Beans across the county was Ksh. 107 per kilogram. This was a decrease from Ksh. 97 recorded in the month of February 2015. The average market price of beans was highest in the pastoral livelihood zone (Ksh.109) while the agro pastoral recorded no sale.

## 3.3 Access to Food and Water

### 3.3.1 Availability of milk for household consumption

- March 2015, average household Milk consumption was recorded at 31 litres per household. The consumption decreased compared to previous month which recorded 35 litres. The milk consumption was highest in the agro pastoral while the least being in the agro pastoral.

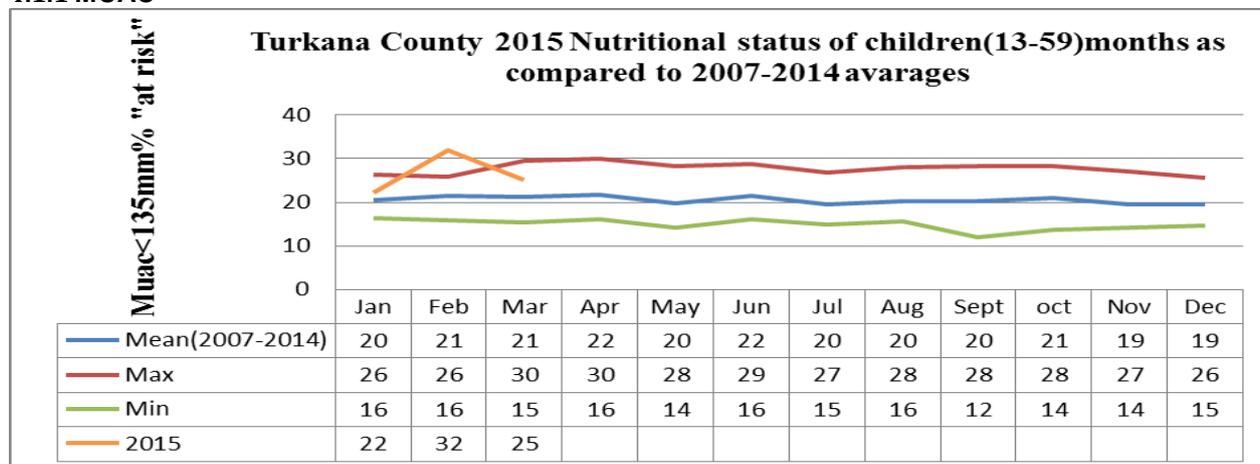
### 3.3.3 Availability of water for household consumption

- During the month safe and clean water was readily available at Boreholes. Most household in the county they are consuming between 5-10 litres per day. The consumption is lower in the pastoral livelihood zone and highest in the agro pastoral livelihood zone.

## UTILISATION INDICATORS

### 4.1 Health and Nutrition Status

#### 4.1.1 MUAC



- The proportion of children at risk of being malnourished whose Mid Upper Circumference (MUAC) measurement below 135mm decreased from 32 percent in February 2015 to 25 percent in March 2015.
- The highest malnutrition risk levels were recorded in the pure pastoral livelihood with 35 percent while least was in the fisheries livelihood zone with 11 percent.
- The MUAC average of 25 percent was above the normal range for the period under review for this time of the year.

#### 4.1.2 Health

Drought Related Diseases	Jan - Feb 2015	Feb - Mar 2015
Diarrhea	2440	2522
Dysentery	146	163
Chicken Pox	35	35
Measles	1	0
Confirmed Malaria	4956	4975
Urinary Tract Infection	183	184

- Turkana county health centres recorded Diarrhoea (2522 Cases), Dysentery( 163 case), Confirmed Malaria (4975 cases) and Urinary Tract infection (184 cases) have been reported to increase from 2440 cases, 146 case, 4956 cases and 183 cases of Diarrhoea, Dysentery, Confirmed Malaria and Urinary Tract infection respectively. As shown in the table above. (*Source of Dataset: Kenya's Health information System*).

#### 4.2 Coping Strategy

##### 4.2.1 Coping Strategy Index

- Coping strategies index (0 to 10), the month of March 2015 was 2.63 this was an increase from 2.42 recorded in February 2015. The highest index was recorded in fisheries livelihood zone (3.5) while lowest was in agro pastoral (2.8).

### 5.0 Current Interventions and Recommendations

#### 5.1 Non-food interventions

- Up scaling of beneficiaries in the Hunger Safety net Programme phase 2 implemented by National Drought Management Authority (NDMA).
- Community managed disaster Risk reduction (CMDRR) planning workshop, Economic Empowerment committee's workshop.
- Mass livestock vaccination against spread and infection of contagious diseases by Turkana County department of livestock and fisheries in support by World Vision Kenya.
- Participatory Scenario Planning and dissemination of weather forecast information by Agricultural sector Development Support Program, Meteorological department and the National Drought Management Authority.
- Training of mothers' support help group on climate smart farming practices by Turkana County Government and World Vision Kenya

#### 5.2 Food Aid

- Therapeutic Integrated Management of Acute Malnutrition for the Under-fives, Pregnant and Lactating Mothers (SFP, OTP & SC) by MOPHS supported by WFP, International Rescue Committee, UNICEF, WVK, Oxfam GB, and Kenya Red Cross Society and Save the children.

- Relief food (General Food aid) and Food for Assets program by NDMA and County Government ministries, supported by Food aid Partners in the County.

### **5.3 Recommendations**

- Provision relief food and Emergency cash transfer to the communities affected.
- Extend food for assets (FFA) and cash for work (CFW) programs to untargeted
- Encourage commercial livestock destocking.
- Scale up of the existing nutrition programs and 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)
- Intensify Water, Sanitation and Health activities in the identified sites
- Regular Negotiations with regional governments (Uganda, Southern Sudan and Ethiopia) and Counties for free movement of Turkana Pastoralists in search of water and pasture.
- Provision of fishing gears and sensitization Beach Management Units to the fisher folk's communities along Lake Turkana.

## **Emerging Issues**

### **6.1 Insecurity/Conflict/Human Displacement**

- During the month of March 2015, Turkana County reported cattle rustling attacks of eight events to residents of Kainuk and Lokori division in Turkana South and East Sub Counties respectively. This led to loss of unknown number of assorted livestock and human.

### **6.2 Migration**

- There was in and out migration of livestock from other areas of the county and neighbouring country. This was attributed by the conflicts over water and pasture.

### **6.3 Food Security Prognosis**

- The migrated pastoralist in the county will lead to depleting pasture and browse coupled with reducing water levels with likelihood of causing conflicts. All these factors are likely to impact negatively on the household food security status.