National Drought Management Authority

KAJIADO COUNTY

EARLY WARNING BULLETIN FOR MARCH 2015

MARCH EW PHASE

Drought Situation & EW Phase Classification

Biophysical Indicators

In the month of March the County was in ALARM drought situation. The long rains had not started by the end of the month despite poor performance of previous short rains. The six months cumulative rainfall (Oct 2014 – Mar 2015) recorded 24.3 % deficit of the long term average.

The vegetation condition index (VCI) for the County showed that the County was in moderate drought situation. The VCI seasonal graph showed VCI value close to 20 [< 20 is severe drought]. Kajiado West had a VCI of 18.95 indicating that the Sub-County was in severe drought situation.

Water situation for March was below normal and inadequate.

Economic Indicators (Impact Indicators)

Unusual cattle migration was reported in March. Those left behind were emaciated. Cases of cattle death due to drought were reported in Magadi in Kajiado West. The terms of trade (TOT) for pastoralist declined during the month due to declining livestock prices and increasing food stuff prices. The percentage of under fives who were at risk of malnutrition was increasing rapidly. In March this percentage was 11.3.

Early Warning Phase Classification

LIVELIHOOD ZONE	EW PHASE	TRENDS
PASTORAL	ALARM	WORSENING
AGROPASTORAL	ALARM	WORSENING
MIXED FARMING	ALERT	WORSENING
COUNTY	**ALARM**	**WORSENING**

Biophysical Indicators	Value	Normal ranges
% of average rainfall (Oct 2014 – Mar 2015)	75.7	80-120
VCI (Kajiado)	20 - 35	35 - 50
VCI (Kajiado West)	18.95	35 - 50
State of Water Sources	3	5

Production indicators	Value	Normal ranges
Livestock Migration Pattern	migration	No Migration
Livestock Body Conditions	4	7 - 9

Utilization indicators	Value	Normal ranges
% of U5 with MUAC <135mm	11.33	0 - 15

Based on poor performance of long rains the situation was more likely to worsen in the next one month.

Current Drought Risk	Low	Medium	High √

Based on poor performance of biophysical, production and utilization indicators, the County was classified on high drought risk situation. Considering that long rains had delayed, the situation was more likely to worsen in the next one month. In this regards, it was recommendable to activate Drought Contingency funds kit for drought mitigation activities to cushion communities against drought. Pastoral zones of Kajiado West were in great need for humanitarian intervention.

1.0 ENVIRONMENTAL INDICATORS

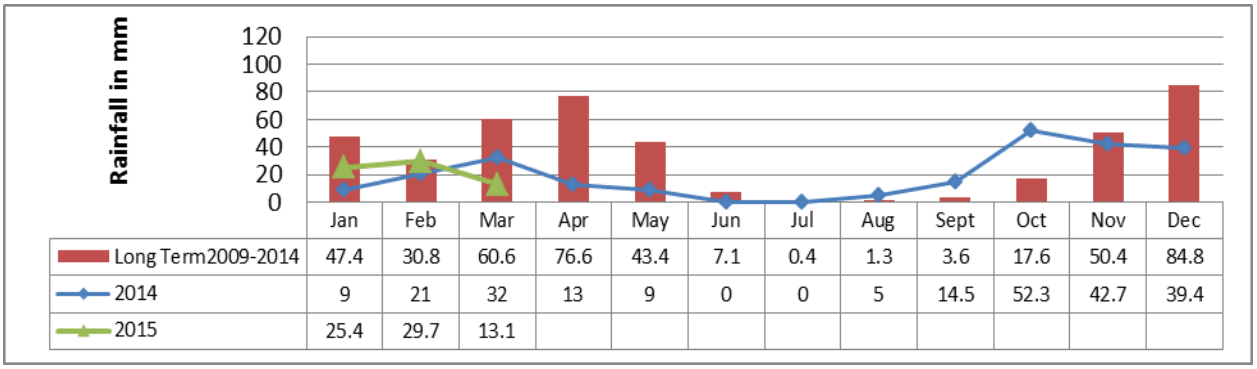
1.1 METEROLOGICAL DROUGHT

1.1.1 Rainfall

Amount of rainfall and temporal distribution

In the month of March, Ngong meteorological station recorded rainfall for 5 days (all in the 3rd dekad) as follows: 23/03/2015 – 3.0 mm, 27/03/2015 – 0.5 mm, 28/03/2015 – 2.9 mm, 29/03/2015 – 6.4 mm and 30/03/2015 – 0.70 mm. The total amount of rainfall from the station was 13.1 mm. This amount was significantly below the long term average and the spatial distribution was very poor. For the said days, showers were experienced only around Ngong and Kiserian except on 23/3/2015 when rainfall was fairly distributed across the County. The six months cumulative (Oct 2014 – March 2015) rainfall showed a deficit of 24.3% (220.6 mm compared to 291.6mm long term average). The rainfall trends for the County are shown in graph 1.1.1. One key issue with rainfall pattern emerged. Instead of rainfall increasing during March – April period, as the case with long term average, the rain for the year 2015 started declining from February – March period. This was likely to indicated possible drought scenario.

Graph 1.1.1: Rainfall trends for Kajiado County



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Long Term2009-2014	47.4	30.8	60.6	76.6	43.4	7.1	0.4	1.3	3.6	17.6	50.4	84.8
2014	9	21	32	13	9	0	0	5	14.5	52.3	42.7	39.4
2015	25.4	29.7	13.1									

1.1.2 Vegetation Condition Index

The vegetation condition index (VCI) for the County for the month of March indicated that the County was in moderate drought situation (Figure 1.1.2a). The VCI for specific Sub – Counties were as follows: Kajiado Central – 25.05, Kajiado East – 22.22, Kajiado North – 31.68, Kajiado South – 21.27 and Kajiado West – 18.95. This showed that Kajiado West was in severe drought situation. The VCI seasonal graph (Figure 1.1.2b) showed a continuous deterioration of the biomass since November 2014. Since January 2015, the VCI was not only declining but also below the long term averages.

Figure 1.1.2a: March 2015 VCI matrix

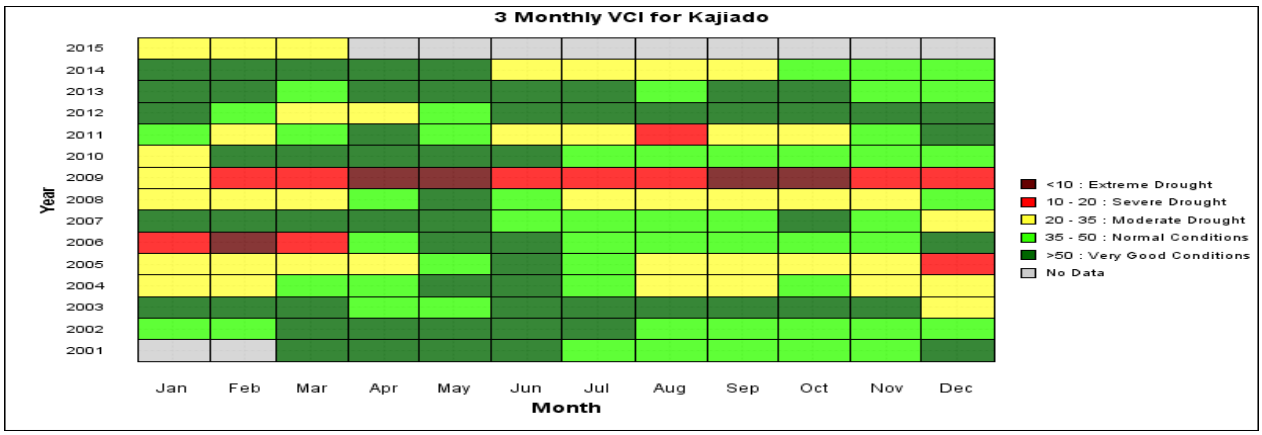
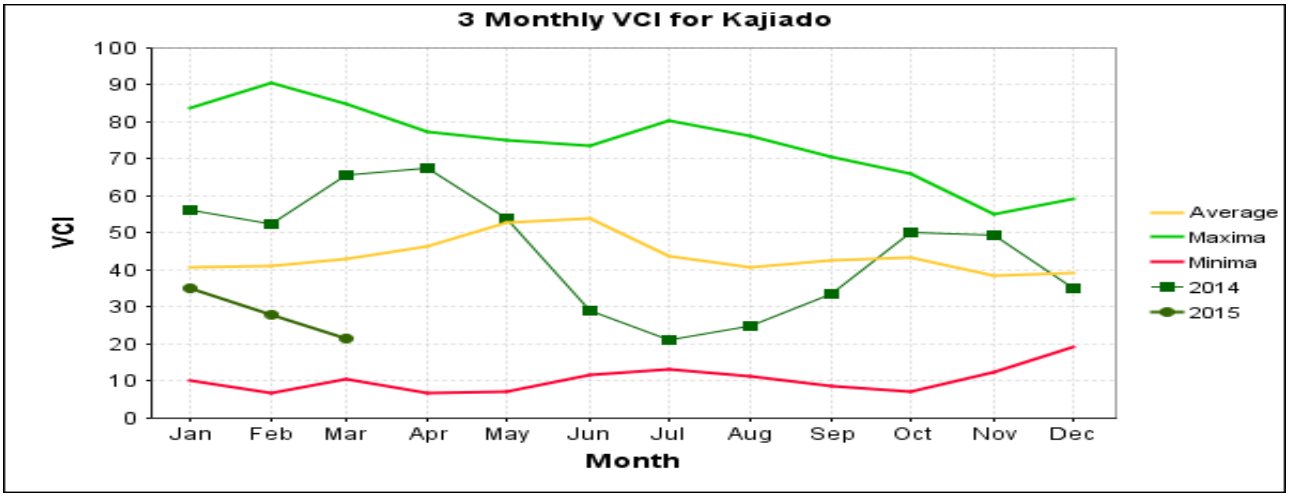


Figure 1.1.2b: March 2015 VCI Seasonal graph



1.2 AGRICULTURAL DROUGHT

1.2.1 Field Observations (Pasture and Browse Conditions)

Quantity and Quality

By the month of March pasture had depleted in all parts of the County and the situation was below normal at this time of the year. This was attributed to the dry spell that the County continued to experience since January. The most hit areas included Magadi ward in Kajiado West, Matapato North and Matapato South wards in Kajiado Central, Mbirikani ward in Kajiado South and Imaroro ward in Kajiado East.

Browse was poor across the County and below normal at this time of the year. This was also attributed to the harsh dry weather conditions that prevailed since January. The browse was expected to last for at most a month.

1.3 HYDROLOGICAL DROUGHT

1.3.1 Water Sources

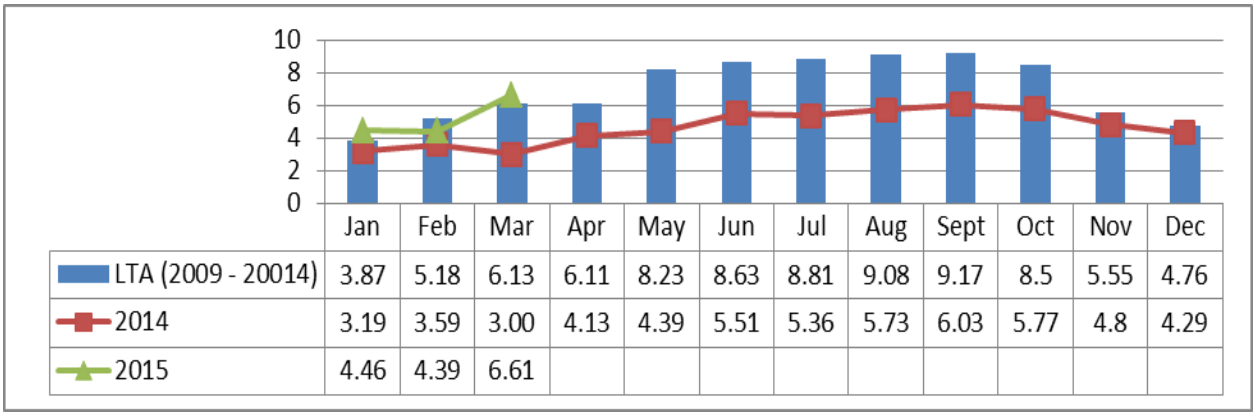
The major domestic and livestock water sources for the County in the month on March were traditional river wells, boreholes and dams. In the Pastoral zones of Kajiado West, communities mainly depended on boreholes, traditional river wells, dams and piped water points (especially in Ewuaso) to get water for both livestock and domestic use. Pastoral communities in Kajiado South depended on dams and piped water points (especially in Mbirikani), springs and streams (especially in Rombo) for both domestic use and for livestock. Although water from the boreholes was expected to last throughout the year, the rate of discharge was declining fast due to low recharge as a result of poor performance of short rains. Strategic boreholes were running longer hours than normal due to increased concentration of both human and livestock. Water from dams would last for a month. The water situation in the County was described as inadequate and below normal. Pans had dried up, water in dams had significantly declined while boreholes were yielding modest amounts of water. High concentration of human beings and livestock at strategic water sources increased the likelihood of disease outbreak

1.3.2 Household access to Water

The average return distance from the household to the water point increased from 4.55 km in February to 6.61 km in March. This distance was above the long term average (Graph 1.3.2). Increase in distance from household to water sources was due to drying up of some water sources as a result of prolonged dry spell. Pastoral communities in

Mbirikani and Meto were even covering over ten kilometres in search for water. In March 2014 the average return distance from the household to water sources was 6.13 km.

Graph 1.3.2: Average household return distances from water sources for Kajiado County

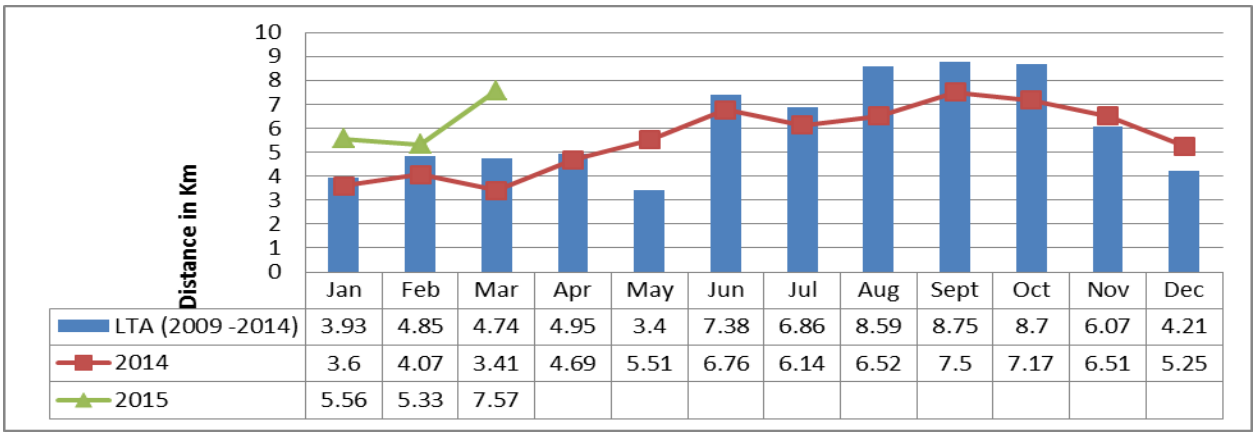


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
LTA (2009 - 20014)	3.87	5.18	6.13	6.11	8.23	8.63	8.81	9.08	9.17	8.5	5.55	4.76
2014	3.19	3.59	3.00	4.13	4.39	5.51	5.36	5.73	6.03	5.77	4.8	4.29
2015	4.46	4.39	6.61									

1.3.3 Livestock access to water

In the month of March the average distance covered by livestock from the grazing areas to main water sources increased from 5.33 km in February to 7.57 km in March. The March distance was above the long term average (Graph 1.3.1b). The increased distance was attributed to drying up of most water sources due to prolonged dry spell. Also some livestock had moved further away in search for pasture. In pastoral areas of Mbirikani and Meto the distances covered by livestock to grazing areas were longer than 13 km. In March 2014 the average distance to water source from grazing areas was 4.74 km.

Graph 1.3.1b: Average distances to water sources from grazing areas for Kajiado County



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
LTA (2009 -2014)	3.93	4.85	4.74	4.95	3.4	7.38	6.86	8.59	8.75	8.7	6.07	4.21
2014	3.6	4.07	3.41	4.69	5.51	6.76	6.14	6.52	7.5	7.17	6.51	5.25
2015	5.56	5.33	7.57									

2.0 PRODUCTION INDICATORS

2.1 Livestock Production

2.1.1 Livestock Migration Patterns

Abnormal migration of livestock was reported as early as January and continued even in March. There were reports of livestock moving from the County to neighbouring counties and to Tanzania. In the southern part of the County, cattle were reported to have moved to Chulu hills, Makueni County and Taita Taveta County. Cattle from central especially in Meto had crossed to Tanzania while those from western part especially from Magadi and Mosiro had moved to Tanzania while those from Ewuaso had moved to Narok County.

2.1.2 Livestock Body Condition

Livestock body condition had been deteriorating across the County since January due to declining pasture and browse. Cattle were emaciated in both Pastoral and Agro-pastoral livelihoods. Thin fore ribs were clearly visible. This was due to depletion of pasture as a result of poor performance of short rains that led to little regeneration of grass. Cases of cattle deaths due to drought were reported in Magadi in Kajiado West Sub-County.

Sheep and goats body conditions deteriorated since February. In March the sheep and goats body conditions were fair across all the livelihood zones compared to good body condition in February. The deteriorating body conditions for sheep and goats were due to declining quantity and quality of browse.

2.1.3 Livestock Diseases

There were no reports of outbreak of livestock diseases. However, cases of tick borne diseases and Anthrax were reported in Kajiado East in February. Lappy Skin Disease was reported in Kajiado East, Kajiado Central and Kajiado South the same month. Vaccination against the said diseases started in February and continued in March.

2.1.4 Milk Production

The average milk production in the County declined since December. On average a household was producing less than a litre of milk per day in the month of March compared to 1.6 litres per day in the month of February. There was no significant disparity in milk production among various livelihoods. In March 2014, the average household milk production per day was 7.6 litres. The reduction in milk production was as a result of depletion of pasture due to poor performance of 2014 short rains. This affect livestock body condition negatively.

2.2 Rain-fed Crop Production

2.2.1 Crop Production and Performance

Maize harvesting for 2014 short rains in Agro-Pastoral zones and Mixed farming zones mainly in Loitokitok, Mashuuru, Enkorika and Ngurman was done in February. The production was poor and below normal. In the 1st and 2nd dekads of the month of March, farmers were busy preparing land for planting in anticipation of long rains. It was worthwhile noting that the land under cultivation during long rains is usually less than that planted during short rains. Most of farms in Loitokitok which is the main agricultural zone lay fallow during long rains season.

3.0 ACCESSS INDICATORS

3.1 Livestock Prices

3.1.1 Livestock Terms of Trade

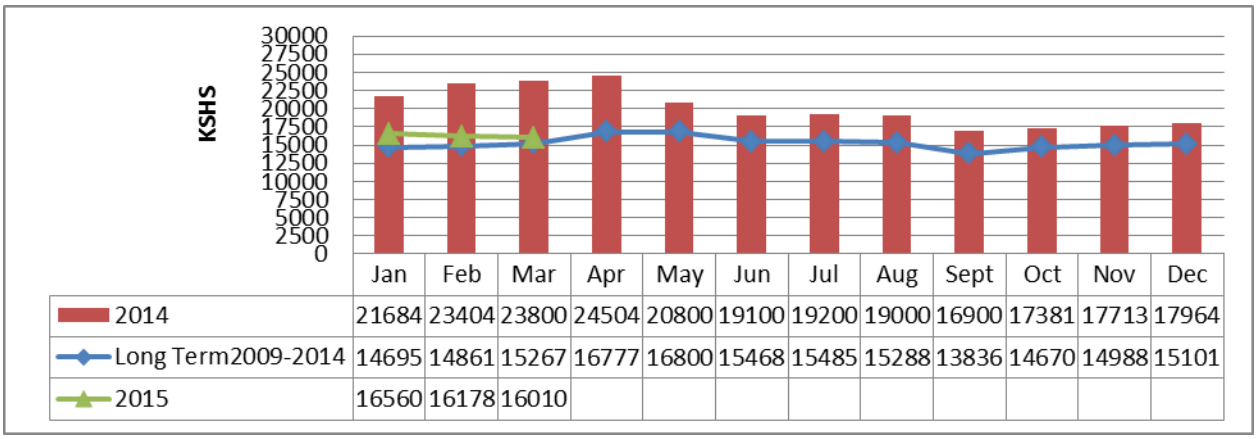
The terms of trade for pastoralists declined during February – March period. In March one would purchase 62.5 kilograms of maize by selling one goat compared to February when one would purchase 70.30 kilograms of maize by selling one goat. The observed scenario in March was that whereas the prices of food stuff were increasing the prices of livestock were significantly declining. This reduced the purchasing power for pastoralists.

3.1.2 Cattle Prices

The average household price of cattle decline during February – March period. In March a mature bull was selling at Ksh 16,010 compared to Ksh 16,178 in February. There was no significant difference in average household prices of cattle by livelihoods. In March 2014, the average household price of a mature bull was Ksh 23,800. Whereas prices for cattle (both for long term and for 2014) were increasing between January and March, the current year's prices were

decreasing to nearly below long term averages for the same period of time (Graph 3.1.2). This situation was likely to depict development of a severe drought scenario. The declining prices of cattle were due to their poor and deteriorating body condition arising from drought progression. Pasture had depleted in March and distances to water sources had increased.

Graph 3.1.2: Average cattle prices for Kajiado County

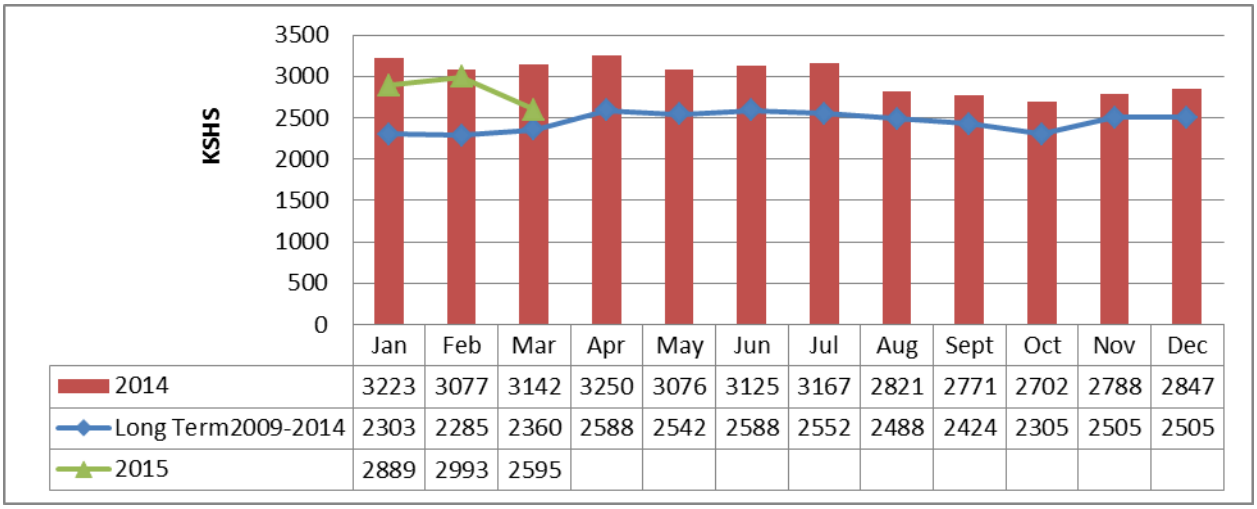


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2014	21684	23404	23800	24504	20800	19100	19200	19000	16900	17381	17713	17964
Long Term2009-2014	14695	14861	15267	16777	16800	15468	15485	15288	13836	14670	14988	15101
2015	16560	16178	16010									

3.1.3 Goats Prices

A sharp decline in average household price of a goat was evident between February and March. In March the average household price of a goat was Ksh 2,595 compared to Ksh 2,993 in February. The decline in goats' prices was due to deterioration of their body condition as a result of declining browse. Like cattle, the current year's price of goats showed a declining trend between February and March compared to long term trend where goats' prices increased between February and March (Graph 3.1.3). No variation in goats prices were observed across various livelihood zones.

Graph 3.1.3: Average price of a goat for Kajiado County

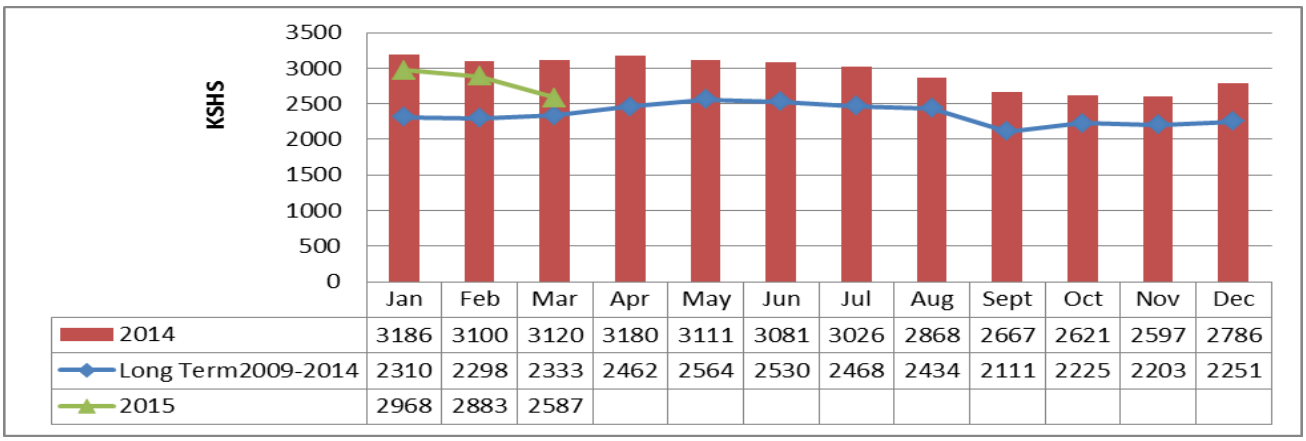


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2014	3223	3077	3142	3250	3076	3125	3167	2821	2771	2702	2788	2847
Long Term2009-2014	2303	2285	2360	2588	2542	2588	2552	2488	2424	2305	2505	2505
2015	2889	2993	2595									

3.1.4. Sheep Prices

Like goats, a sharp contrast between long term and the current year's average price of sheep was evident between January and March. Whereas the long term prices of sheep were increasing during the said period, the current year's price of sheep declined from Ksh 2,883 in February to Ksh 2,587 in March. Decline in sheep prices reflected their declining body condition. Variation in average price of sheep existed by livelihood zones and within the livelihood zone. The Agro-Pastoral areas of Enkorika had the highest average household price of sheep of Ksh 2,700 whereas Pastoral zone of Mbirikani had the lowest average household price of sheep of Ksh 2,367 (Graph 3.1.4)

Graph 3.1.4: Average sheep price for Kajiado County



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2014	3186	3100	3120	3180	3111	3081	3026	2868	2667	2621	2597	2786
Long Term2009-2014	2310	2298	2333	2462	2564	2530	2468	2434	2111	2225	2203	2251
2015	2968	2883	2587									

3.1.5 Milk Prices

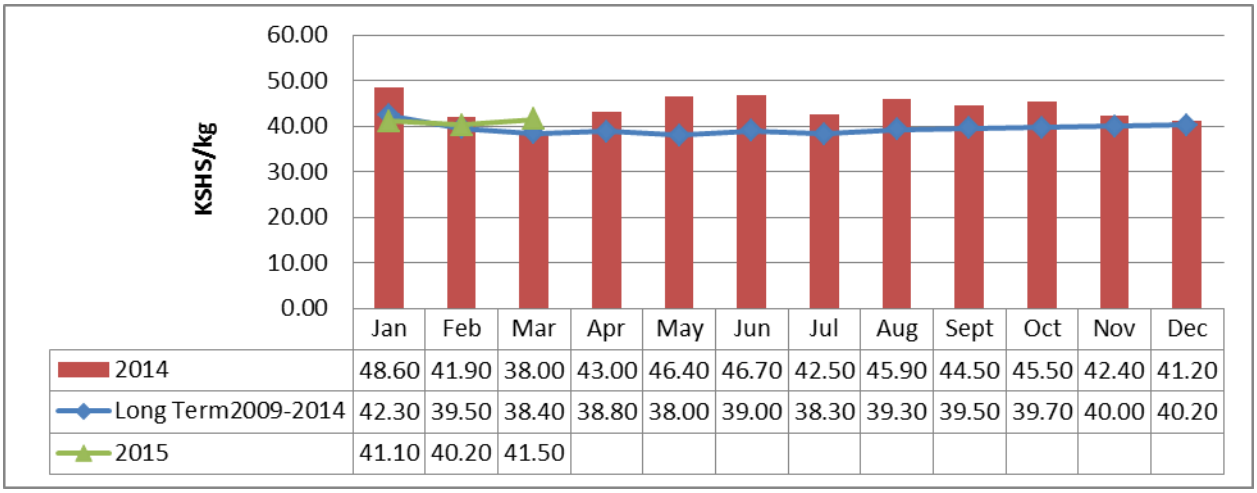
Household sale of milk was only restricted to Agro-Pastoral areas of Kiserian and Mixed farming areas of Loitokitok. In Agro Pastoral areas of Kiserian a 750 ml bottle of milk was selling at Ksh 50.00 for the two consecutive months of February and March. In Mixed farming livelihood zones of Loitokitok a 750 ml was selling at Ksh 40.00 in March compared to Ksh 37.00 in February. The increased in prices of milk was due to increased demand as a result of low production. In Pastoral livelihoods, milk production hardly met the household consumption demand. Therefore the little milk produced was all consumed at the household level.

3.2 Price of Cereals and Legumes

3.2.1 Price of Maize

The market price of maize increased from Ksh 40.20 per kilogram in February to Ksh 41.50 per kilogram in March. The increased price of maize was due to increased demand compared to supply. The yields from short rains were below normal. The market price for maize for the month of March was above the long term average. In March last year, a kilogram of maize was selling at Ksh 38.00. Disparities in prices of maize were noted across various livelihood zones. On average a kilogram of maize in mixed farming areas was selling at Ksh 45.00. In Pastoral areas of Ewuaso one kilogram of maize was selling at Ksh 47.00 compared to Ksh 30.00 in Pastoral areas of Namanga. The low prices of maize in Namanga were because of greater supply of the commodity from the neighbouring Republic of Tanzania. Graph 3.2.1 shows the average price of maize for the County.

Graph 3.2.1: Averages price of Maize for Kajiado County

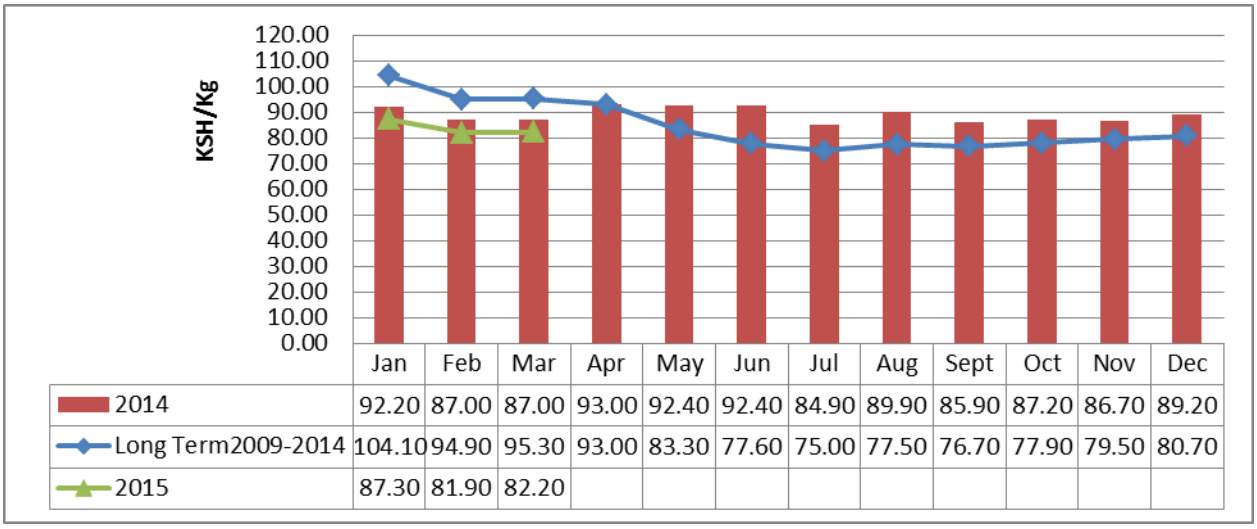


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2014	48.60	41.90	38.00	43.00	46.40	46.70	42.50	45.90	44.50	45.50	42.40	41.20
Long Term2009-2014	42.30	39.50	38.40	38.80	38.00	39.00	38.30	39.30	39.50	39.70	40.00	40.20
2015	41.10	40.20	41.50									

3.2.2 Price of Beans

The market price of beans for this year closely followed but slightly below the long term average. In March this year the average market price increased to Ksh 82.20 per kilogram from Ksh 81.90 per kilogram in February (Graph 3.2.2). The increase in price for beans was due to increased demand compared to supply of the commodity. In March 2014 a kilogram of beans was retailing at Ksh 87.00. There were no significant disparities in prices of beans across livelihood zones

Graph 3.2.2: Average price of Beans for Kajiado County



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2014	92.20	87.00	87.00	93.00	92.40	92.40	84.90	89.90	85.90	87.20	86.70	89.20
Long Term2009-2014	104.10	94.90	95.30	93.00	83.30	77.60	75.00	77.50	76.70	77.90	79.50	80.70
2015	87.30	81.90	82.20									

3.3 Access to Food and Water

3.3.1 Availability of Milk for Household Consumption

The average household milk consumption per day for the month of March was less than 1 litre. In Pastoral livelihood areas milk produced would hardly meet daily household demand for consumption. In a normal year, daily household milk consumption was 3 – 5 litres.

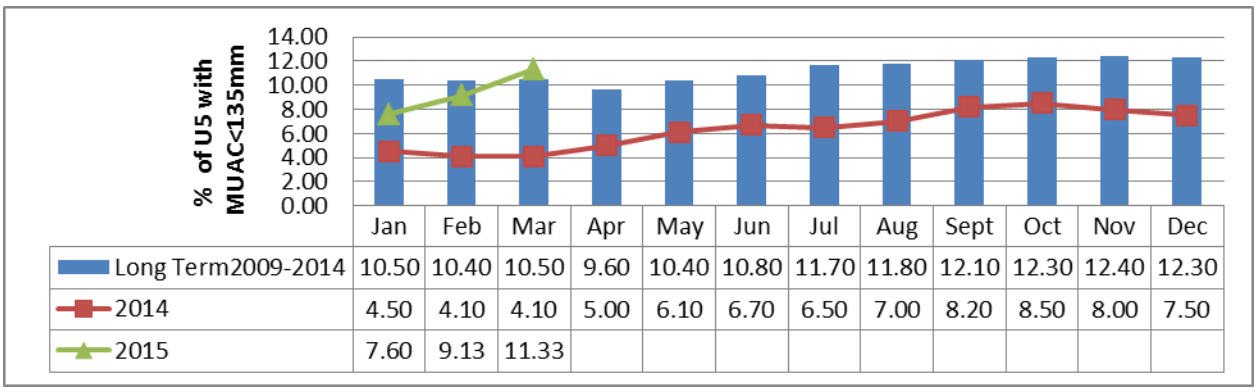
4.0 UTILIZATION INDICATORS

4.1 Health and Nutrition Status

4.1.1 MUAC

The prevalence of risk of malnutrition was subsequently increasing in the County since December 2014. The risk of malnutrition increased from 7.50 % in December 2014 to 11.33 % in March 2015 (Graph 4.1.1). The percentage of the under fives who were at risk of malnutrition in March was above the long term average. The increased risk of malnutrition was due to deteriorating food security at the household level. Milk production and consumption declined while the prices of cereals and legumes continued to increase. This coupled with declining prices of livestock increased the household vulnerability to drought.

Graph 4.1.1: Percentages of under five children with MUAC<135 mm



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Long Term2009-2014	10.50	10.40	10.50	9.60	10.40	10.80	11.70	11.80	12.10	12.30	12.40	12.30
2014	4.50	4.10	4.10	5.00	6.10	6.70	6.50	7.00	8.20	8.50	8.00	7.50
2015	7.60	9.13	11.33									

4.2 Human Health.

No human disease outbreak was reported in the March. However several cases of diarrhoea were reported around Ilbissil.

6.0 CURRENT INTERVENTION MEASURES AND RECOMMENDATIONS FOR ACTION

5.1 Ongoing Interventions

- Livestock vaccination by Veterinary services
- Climate smart (use of drip irrigation powered by solar) agriculture by Arid land Information Network
- Rehabilitation of boreholes across the County by Ministry of Water, Irrigation and natural Resources.
- Reallocation of elephants to Abadares National Park by Kenya Wildlife Service

5.2 Recommendations to County Steering Group

- Rapid food security assessment to establish food security situation in the County. **Action: County steering group**
- Mass screening for under fives. **Action: Ministry of Health and other partners**
- Fuel subsidy for strategic boreholes. Action: ***National Drought Management Authority***
- Hold community peace meetings to address resource sharing**. Action: National Government Administrative Organ and County Government**
- Resource mobilization for drought response activities. ***Action: County Government /National Drought Management Authority***
- Monitoring and mapping of livestock movements. ***Action: National Drought Management Authority***
- Monitoring any potential conflict among communities. ***Action: National Government Administrative Organ***