

**National Drought Management Authority
LAMU COUNTY**

EARLY WARNING BULLETIN FOR DECEMBER 2014

DECEMBER EW PHASE

Drought Status: ALERT

Maandalizi ya mapema

Early Warning Phase Classification

LIVELIHOOD ZONE	EW PHASE	TRENDS
PASTORAL	ALERT	IMPROVING
MIXED CASH	ALERT	IMPROVING
FISHERIES	ALERT	WORSENING
MIXED FOOD	ALERT	IMPROVING
COUNTY	ALERT	IMPROVING

Biophysical Indicators	Value	Normal ranges
% of average rainfall of the long-term(Lamu December)	91.68	80-120
VCI-3month	56.68	35-50
State of Water Sources	4-5	5

Production indicators	Value	Normal ranges
Livestock Migration Pattern	Normal	Normal
Livestock Body Conditions	5	5-6
Milk Production	0.78/HH	Above 0.88
Livestock deaths (for drought)	No death	No death
Crops area planted (%)	N/A	% of LTA

Access Indicators	Value	Normal ranges
Terms of Trade (TOT)	0.3	0.26 - 0.76
Milk Consumption	0.53/HH	
Water for Households	5	5

Utilization indicators	Value	Normal ranges
MUAC	3.25	0 - 4.5
Coping Strategy Index (CSI)	1.5	1.50 – 1.02

Drought Situation & EW Phase Classification

Biophysical Indicators

The percentage average rainfall to that of the long term average for December was 91.68 which was within the normal range. An average of 61.68 mm of rainfall was received in the month

-The 3 month VCI for the County was 56.68. This was within the normal range for the County. For Lamu East Sub County which comprises of Fisheries and Mixed Farming Food/Cash livelihood Zone, it was 56.36 while in Lamu West Sub County which comprises of Mixed Cash/Food and Pastoral Livelihood it was 56.86. VCI was within normal range across most Livelihoods in the month of December.State of water sources was classified as 5 for the month of December which indicates that the condition was normal. The main sources of water for Lamu during the month of December were: - Shallow wells accounting for about 41.67%, followed by boreholes and Djabias at 16.67% each, Traditional River wells, Natural Rivers and Lakes were third and they accounted for 8.33% each.

Socio Economic Indicators (Impact Indicators)

-There were increased cases of livestock emigration to the neighboring Tana-River County in early November and December. This was to seek for fresh pasture and to allow the regeneration of pasture in the grazing fields.

- The general body condition for both cattle and goats was rated at score 5 which was moderate. The body condition for cattle and goats was fair in the Mixed Farming Livelihood Zone, between fair and good in the Pastoral and Fisheries and Mangrove Harvesting Livelihood Zones. The animal body condition has remained relatively stable, and the situation is expected to improve if the short rain performs well.

-Currently Drought risk is medium but the situation might improve if the short rain performs well however, Kiunga area is still water stressed and water project under preparedness activities are highly recommended in that area, that will build resilience and facilitate implementation of early drought mitigation/response.

Current Drought Risk	Low	✓ Medium	High
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With most of the drought indicators fluctuating but being within the normal range, the current drought risk for December could be classified as Medium.

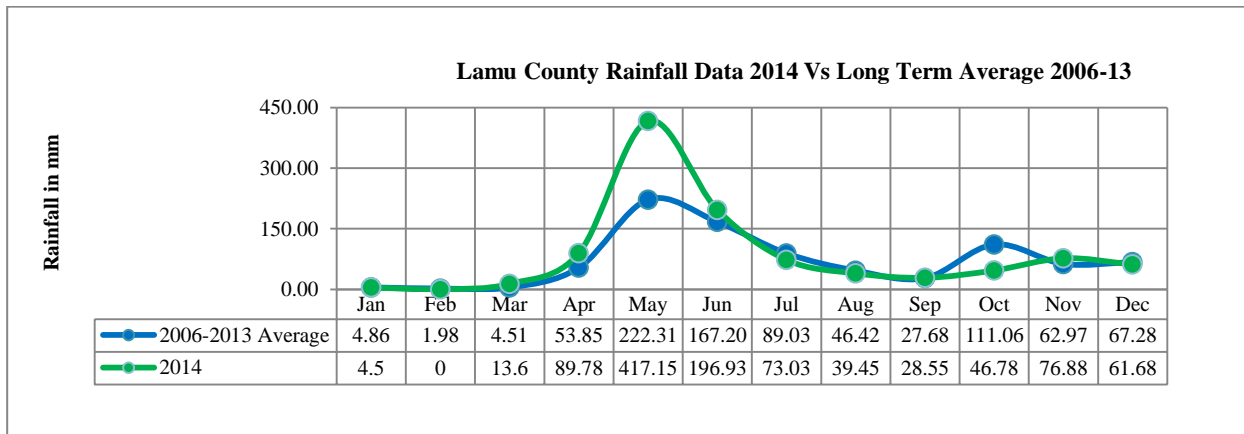
1. MEASURING DROUGHT HAZARD

1.1 METEOROLOGICAL DROUGHT

1.1.1 Actual Rainfall

An average of 61.68 mm of rainfall was received in the County for the month of December. Compared to the 8 year long-term average of 67.28 mm for December, this average amount of rainfall received during the month was lower than the long term average. The spatial and temporal distribution was as follows: Mpeketoni received the highest amount of 107 mm for 4 days, followed by Hindi with 98 mm for 3 days; Hindi was third with 31.7 mm for 3days while Amu recorded the least amount of 10 mm for 1 day. Most parts of Lamu East Sub County also received some amount of rainfall during the month of December.

Rainfall station data:

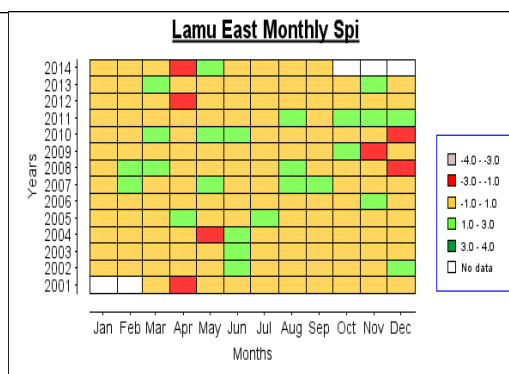
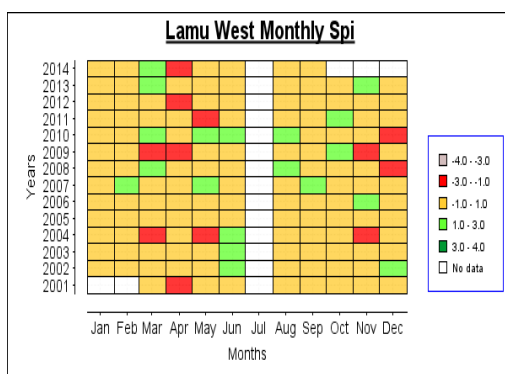
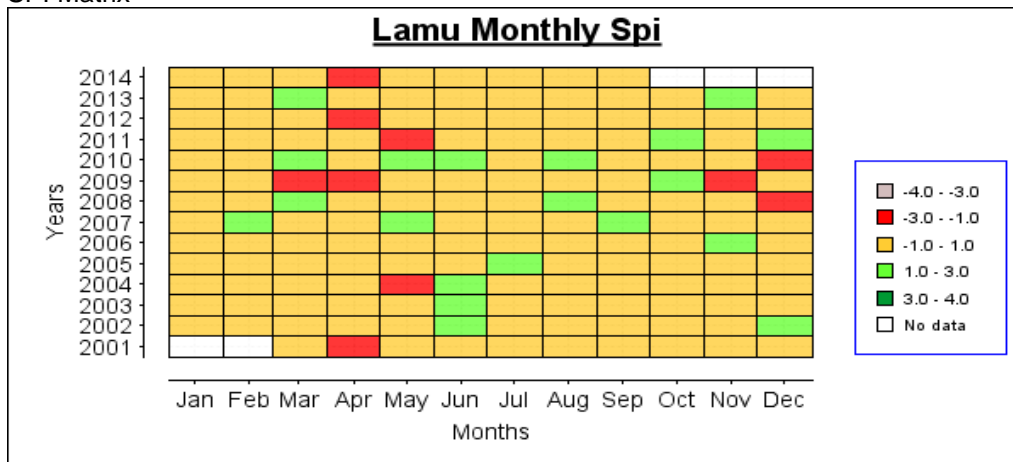


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Standardized Precipitation Index (SPI)

SPI for Lamu for the month of December was -0.05. This index was within the normal range of -1-1 which indicates that the condition for December was normal and there was no Meteorological Drought.

SPI Matrix

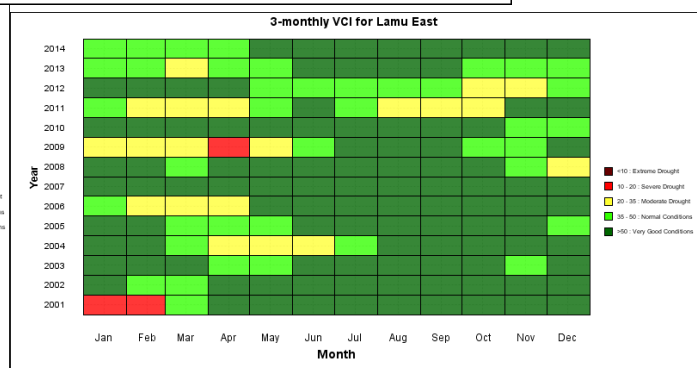
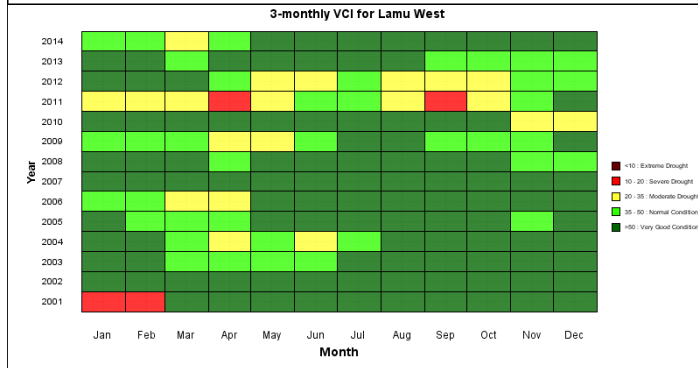
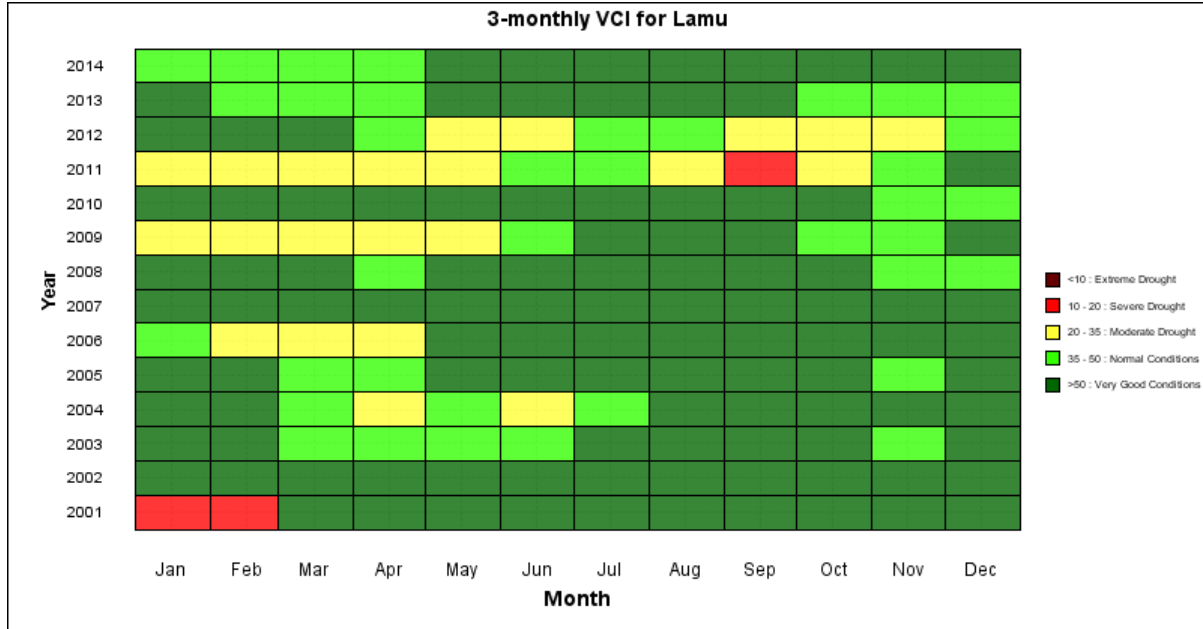


1.2 AGRICULTURAL DROUGHT

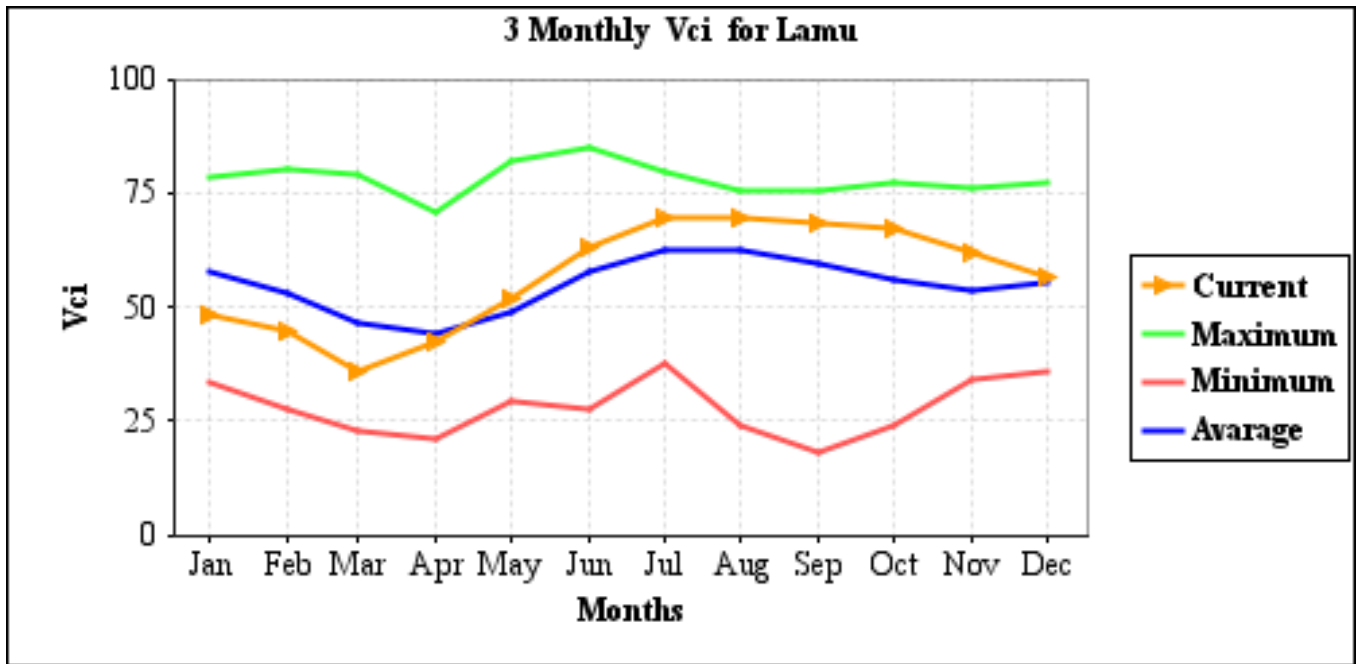
1.2.1 VEGETATION CONDITION INDEX (VCI)

The VCI for Lamu in December was 56.68 an index which is within the seasonal range of 50-110 for Lamu. This indicates that condition was normal and there was no Agricultural Drought.

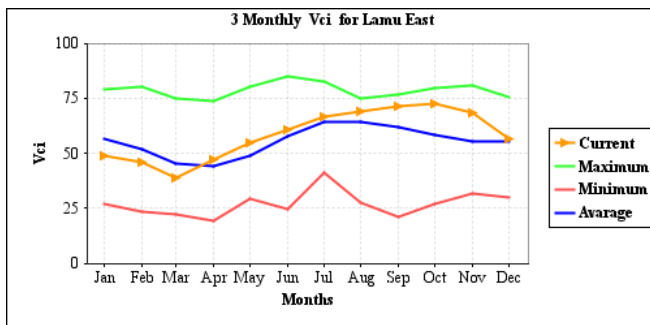
VCI Matrix



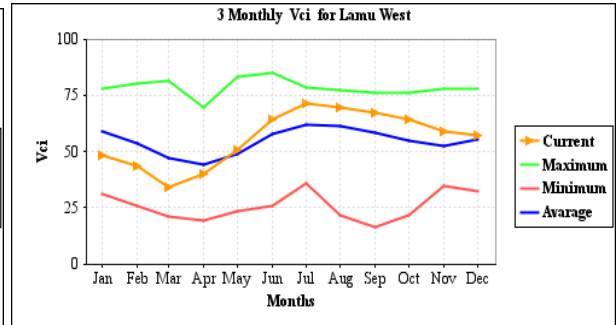
VCI Chart



Lamu East



Lamu West



**1.2.2 Field Observations
Pasture and Browse Conditions
Quantity and Quality**

- The quantity of pasture has improved due to slight improvement in rainfall over the past one month and emigration of livestock to the neighbouring Tana-River County which has given it room for regeneration.
- The quality of pasture and browse has also slightly improved since the short rains performance has also slightly improved over the past one month.

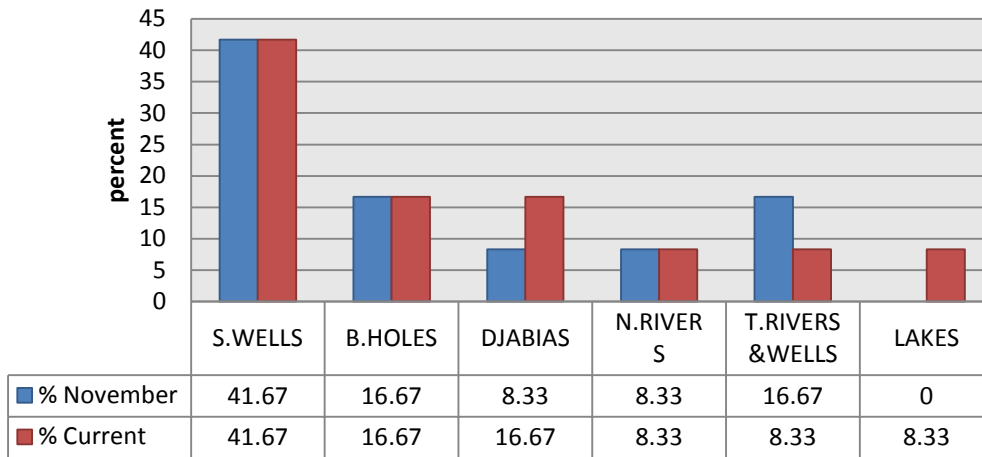
1.3 HYDROLOGICAL DROUGHT

1.3.1 Water Resource

Water Sources and Availability

State of water sources was classified as 5 for the month of December. This indicates that the condition was normal and there was no Hydrological Drought. The main sources of water for Lamu during the month of December were: - Shallow wells accounting for about 41.67%, followed by boreholes and Djabias at 16.67% each, Traditional River wells, Natural Rivers and Lakes were third and they accounted for 8.33% each. Despite the state of water sources being normal, Kiunga area still remained water stress.

Percentage of HH Water Sources Month of Dec vs Nov



2.0 PRODUCTION INDICATORS

2.1 Livestock production

2.1.1 Livestock Migration Patterns

There were cases of emigration where livestock from the Pastoral livelihood zone of Didewaride, Chalaluma, Koreni and some parts of Moa have moved to the neighboring Tana-River County in such of fresh pastures.

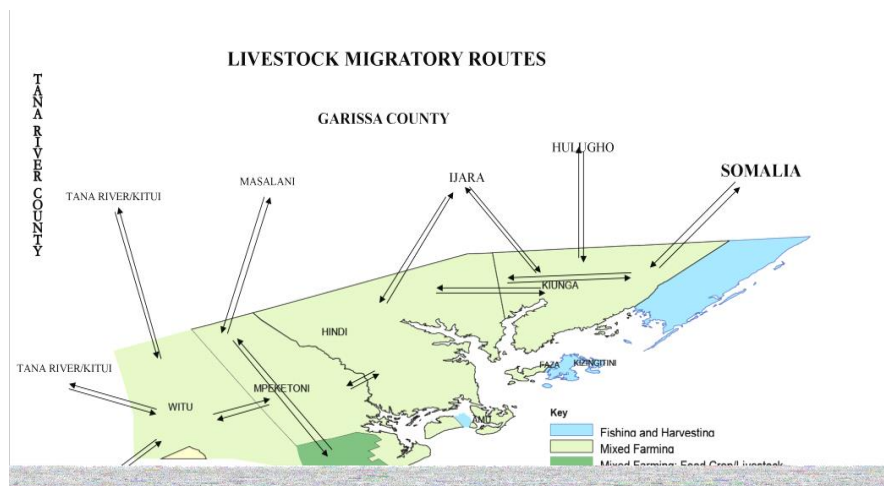


Figure 1 : Livestock Migratory Routes

2.1.2 Livestock Body Condition

There was no significant change in body condition of the remaining herds. The general body for both cattle and goats could still be rated at 5 which indicates that the livestock body condition was moderate. The body condition for cattle and goats was fair in the Mixed Farming Livelihood Zone, between fair and good in the Pastoral and Fisheries and Mangrove Livelihood. The animal body condition has remained relatively stable and the situation is expected to improve if the short rains perform well.

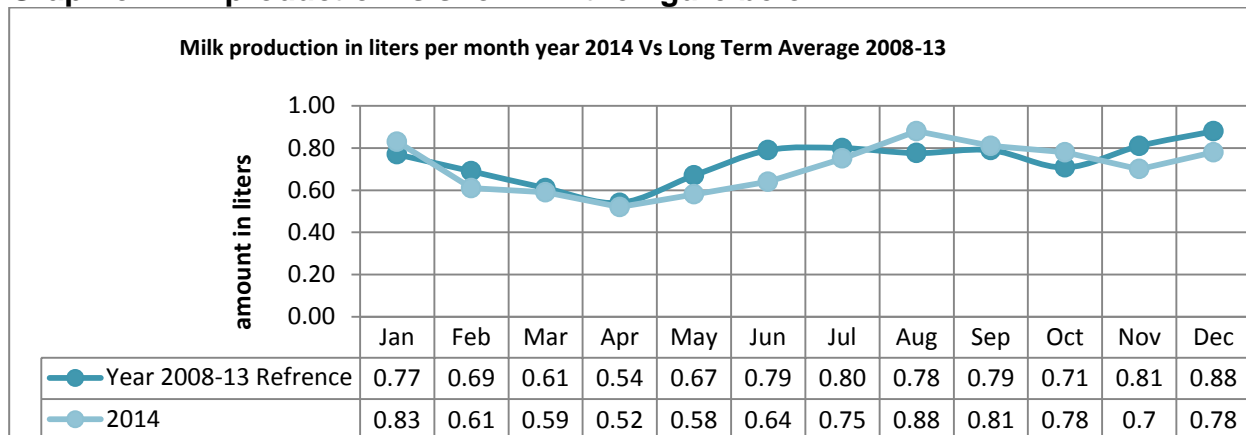
2.1.3 Livestock Diseases

- There were minimal cases of animal diseases reported in the County.

2.1.4 Milk Production

Milk production increased from 0.70 litres per household in November to 0.78 litres in December. This was lower than the (2008-2013) long-term average of 0.88 litres per household. This increase in milk production could be as a result of availability of plenty of grass to the remaining milking herds due to emigration of a section of livestock to the neighbouring Tana River County in search of water and fresh pasture. The milk production distribution was as follows: Fisheries 0.20 litre/HH, Pastoral 2.49 litre/HH, Mixed Cash/Food 0.45 litre/HH and for Mixed Food/Cash 0.48 litres/HH.

Graph of milk production is shown in the figure below.



3.0 ACCESS INDICATORS

3.1 Livestock Prices

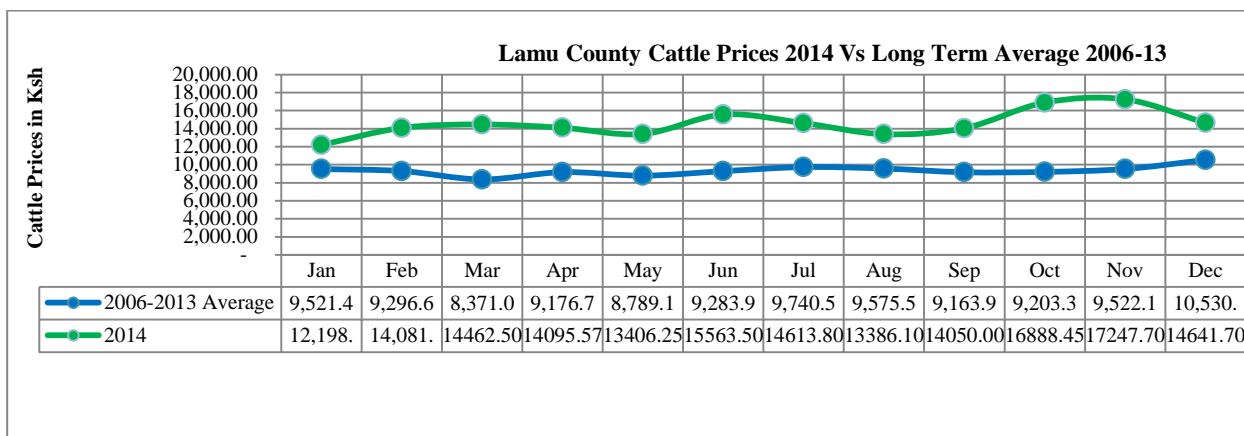
3.1.1 Livestock Terms of Trade

The average TOT for the month of December was 0.3. This was within the normal range of 0.26 - 0.76. This indicated a good purchasing power by livestock producers in comparison to agricultural products such as cereals and legumes. The TOT ratio was distributed as follows: Mixed Farming Cash/Food Crops 0.23 and it was 0.38 in Mixed Farming Food/Cash Crops Livelihood Zone. There was no TOT index recorded in Fisheries and Pastoralists livelihood Zones.

3.1.2 Cattle Prices

Average cattle price decreased from Kshs. 17,247.70 in November to Kshs 14,641.7 in December. This decrease in price could be attributed to reduction in the level of celebrations as compared to the previous month which has decreased demand for beef leading to lower prices. The average price for the month was higher than the 2006-2013 long-term average prices of Kshs 10,530. The distribution of prices across the Livelihood Zone were : Kshs 15,750 in Mixed Food/Cash and Kshs 13,533.3 in Pastoral livelihood zone while no sales were recorded in the other Livelihood Zones.

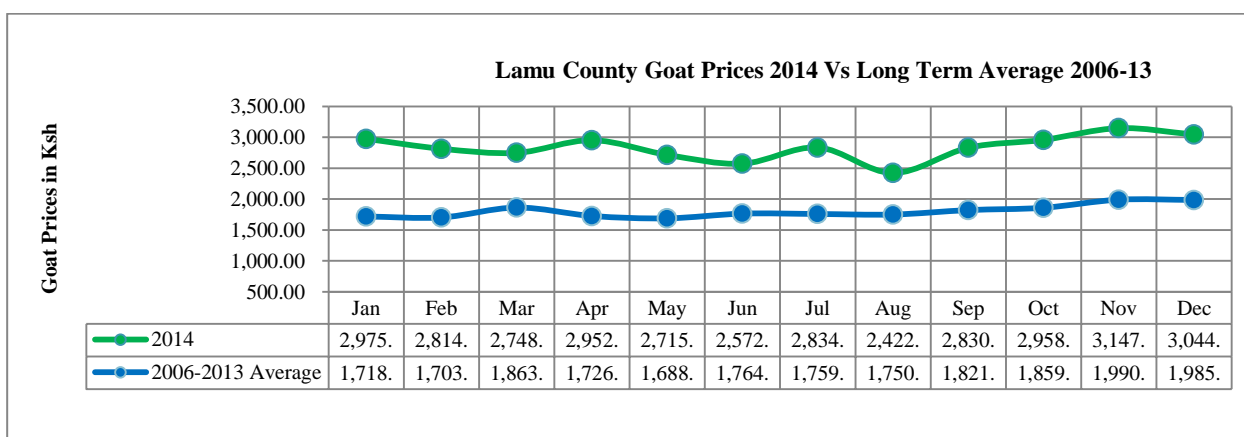
Lamu County Cattle prices 2014 Vs Long term Average 2006-2013



3.1.3 Goat Price.

Goat prices also decreased from Kshs. 3,147.3 recorded the previous month to an average of Kshs 3,044.7 in the month of December. This was attributed mainly to decreased number of celebrations from the previous month and markets not operating to optimal capacity. Fishing and Mangrove Livelihood Zone recorded Kshs 4,500, Pastoral Kshs. 2,000, Mixed Cash/Food Kshs. 3,075 and Mixed Food/Cash Kshs. 2,603.8. The 2006-2013 long-term average goat price for the month of December was Kshs. 1,985 which was lower than the current price for the month.

Lamu County Goat prices 2014 Vs. Long term Average 2006-2013



3.1.4 Milk Prices

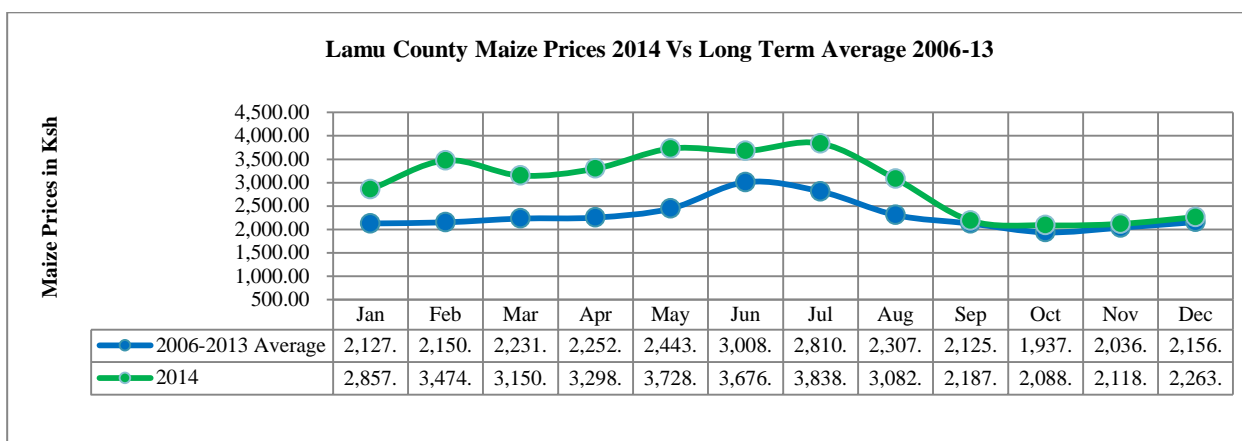
Milk was sold at an average of Kshs 36.58 at the household level in the month of December. The price was Kshs 41.67 in the Pastoral zone, Kshs 35 in the Mixed Cash/Food and Kshs 33.07 in the Mixed Food/Cash Livelihood Zone.

3.2 Price of cereals and other food products

3.2.1 Maize

Average price of a 90 kg bag of maize increased from Kshs. 2,118 in November to Kshs. 2,263.5 in December. This was attributed to the improved markets that were earlier affected by severe insecurity which led to loss of external markets. Mixed Farming Cash/Food livelihood zone recorded a price of Kshs.2,025 the the previous month, while Mixed Farming Food /Cash recorded a price of Kshs.2,502 down from Kshs. 2,529 the previous month. There were no sales recorded in the Fisheries and Pastoral Livelihood Zone. The average price was above the year (2006-2013) long term-average price of Ksh 2,156.

Lamu County Maize prices 2014 Vs. Long term Average 2006-2013



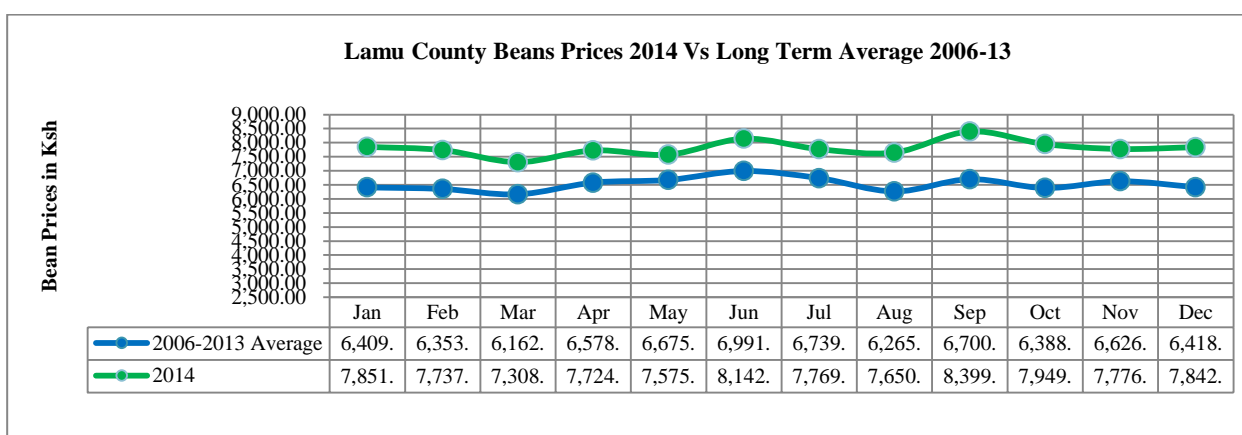
3.2.2 Posho (Maize Meal)

Average price of Posho for the month of December was Kshs 41.4/Kg from Kshs 51.27/Kg in November. The price was Kshs 47.8/Kg for Mixed Food/Cash Livelihood Zone, while for Mixed Farming Cash/Food it was Kshs 35/Kg. No sales were recorded in the other livelihood Zones.

3.2.3 Beans

Average price of a 90 kg bag of beans decreased from Kshs 7,992 in November to Kshs. 7,842 in December. The price was Kshs. 8,550.00 in Pastoral Livelihood Zone, Kshs. 7,200 in Mixed Cash/Food Livelihood and Kshs. 7,776 in Mixed Food /Cash Livelihood Zone. No beans sales were recorded in Fisheries Livelihood Zone. The year (2006-2013) long-term average price of beans was Kshs. 6,418 which was below the current price.

Lamu County Beans 2014 Vs. Long Term Average 2006-2013



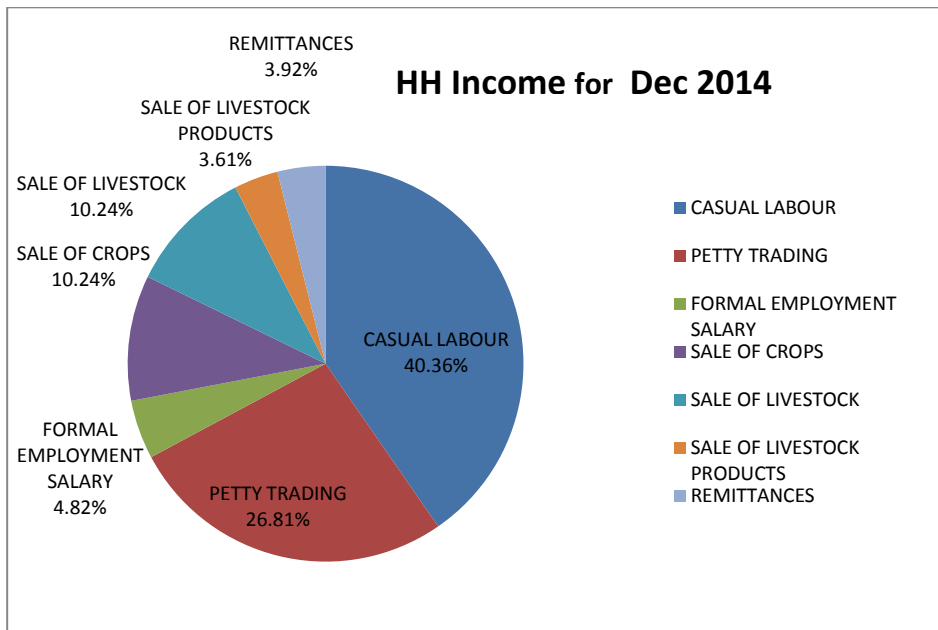
3.3 Access to, Income, Food and Water

3.3.1 Income sources

The main source of income was casual labour accounting for 40.36%, followed by petty trade at 26.81%. Sales from crops and livestock came third at 10.24% each. The rest of the income sources were; remittances, formal employment and sale of livestock products accounting for 3.92%, 4.82% and 3.61% respectively.

Income percentages for the month of November are shown in the chart below.

Chart of House Hold Income Distribution



3.3.2 Availability of Milk for Household Consumption

An average of 0.53 litres of milk was consumed per household during the month of December. The average consumption per household was distributed as follows : Pastoral 1.73l/HH ,Mixed Cash/Food 0.39l/HH,Mixed Food/Cash 0.3l/HH and Fisheries and Mangrove Harvesting 0.1 l/HH.

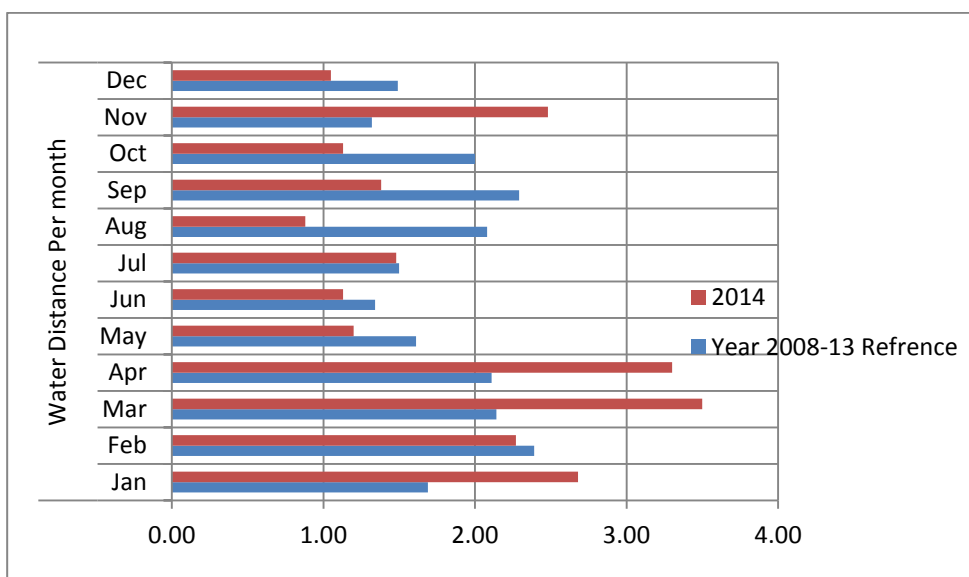
3.3.3 Availability of water for household consumption

Household access and Utilization

Household watering distances decreased from 2.48 km in November to 1.05 Km December. This decrease in distance could be attributed to good amount of rainfall received in November and December hence its effect extended to the month of December. The 2008-2013 long term average household water distance for December was of 1.49Km was lower than the current average for December.

Mixed Cash/Food Livelihood had the highest distance of 1.5 km, followed by Pastoral and Mixed Food/Cash Livelihood Zones with 1.1 km each, whereas the Fisheries Livelihood Zone had the lowest distance of 0.5km .

Lamu County Average House Hold Water Distance Distribution For 2014 In Kilometers Vs. 2008-13 Long Term Average.



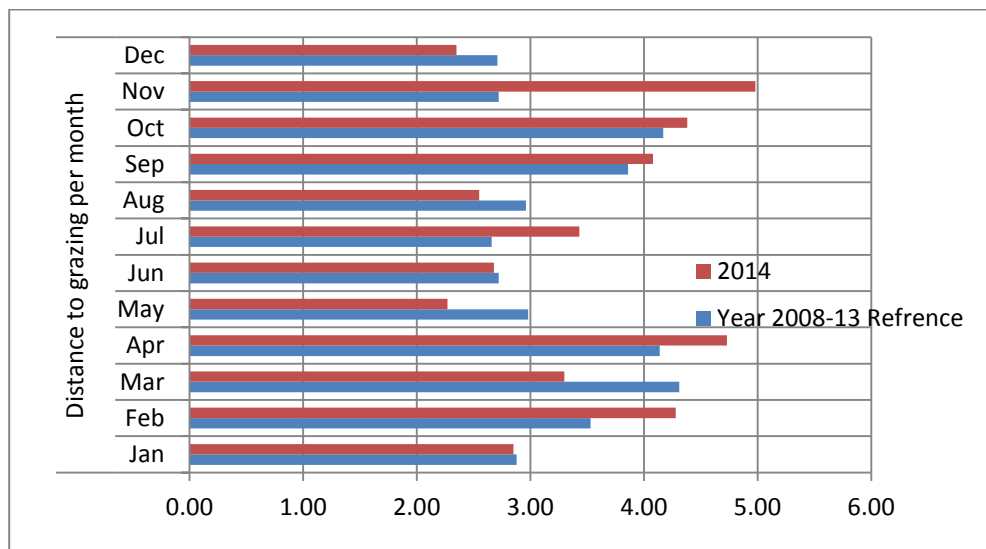
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Distance in Km

Livestock access

Average grazing distance was 2.35 km in the month of December, a decrease from last month's distance of 4.98 km. This distance is lower than the year 2008-2013 long-term average of 2.71 km. The decrease in distance was attributed to pastoralists preferring to seek pastures for their herds closer to their homesteads since they are only remaining with few milking herds and the calves as the other herds have migrated to the neighbouring Tana-River County to seek for fresher pastures. Pastoral Livelihood Zone had the highest distance of 4.5 Km, Mixed Food/Cash 2.9 Km, Mixed Cash/Food 1.5 Km and Fisheries Livelihood Zone had the lowest distance of 0.5Km.

Lamu County Grazing Distance Distribution For Year 2014 In Kilometers Vs. 2008-13 Long Term Average



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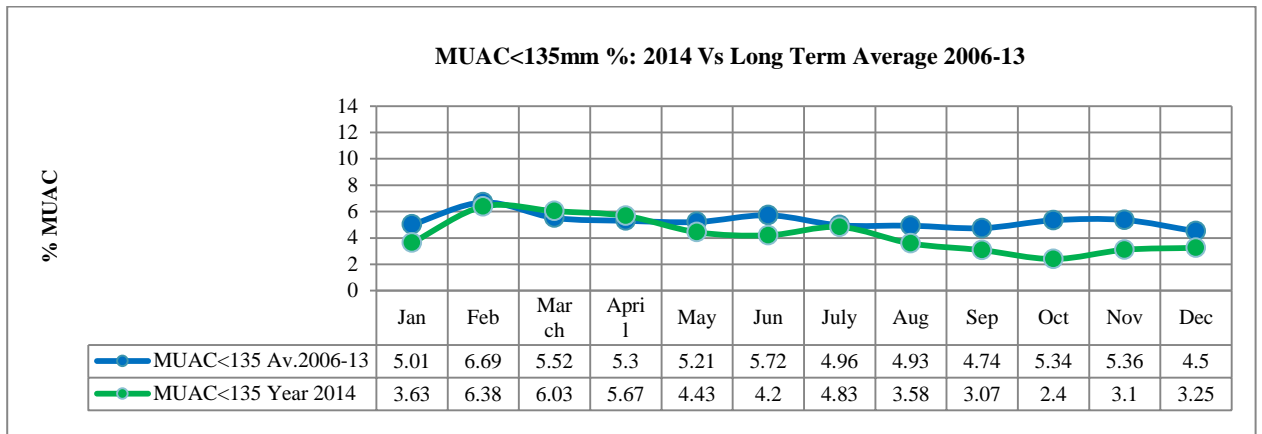
4.0 UTILISATION INDICATORS

4.1 Health and Nutrition Status

4.1.1 MUAC

- The percentage of children in the County with mid upper arm circumference levels of less than 135 mm increased from 3.10% in November to 3.25% in December. This figure was lower than the year 2006-13 long term average of 4.5 %. Although it was lower than the long term average, this increase from last month's figure could be attributed to a drop in milk production.
- The Pastoral livelihood zone recorded 7.4% up from 6.7% reported the previous month. Fisheries Livelihood Zone recorded 0.8% ,a decline from 3.3%,Mixed Farming Food/Cash Livelihood Zone had 1.7% a decline from 1.8% recorded the previous month while the children with Muac percentage of less than 135mm for Mixed Farming Cash/Food Livelihood Zone was lowest at 0.6%

Graph of MUAC<135 mm % Year 2014 Vs. 2006-2013 Long Term Average



Health

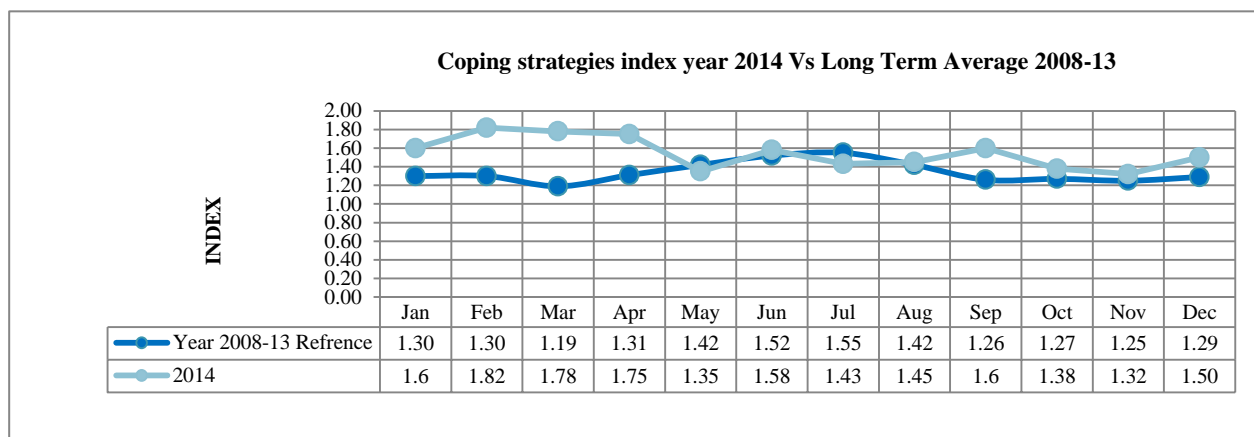
There were no cases of major disease outbreak both for children and adults.

4.2 Coping Strategy

4.2.1 Coping Strategy Index

The average coping strategy Index was 1.5 for the month of December down from 1.32 recorded the previous month. This was higher than the year 2008-2013 long-term average of 1.29.

Fisheries had 2.9, Pastoralists Livelihood Zone had 0.7, and Mixed Cash/Food Livelihood Zone had 0.9 while Mixed Food/Cash Livelihood zone had a copying strategy index of 0.9.



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5.0 Current Intervention Measures (Action)

5.1 Non-food interventions.

- Vaccination carried by the County Government was: Against CCPP and PPR in Kiunga on goats and sheep.
- Distribution of 4 dairy cows to women groups in Lamu East by the county through the ministry of Livestock, Fisheries and Co-operative Development.

5.2 Food Aid

Food distribution in the County by the Department of special programs through the Office of the County Commissioner was as follows:

- 600 bags of rice was distributed as follows: 230 bags in Mpeketoni, 100 bags in Amu, 120 bags in Witu and 150 bags in Hindi.
- 200 bags of beans were distributed as follows: 76 bags in Mpeketoni, 32 bags in Amu, 40 bags in Witu and 52 bags in Hindi.
- 15 cartons of cooking oil were distributed as follows: 4 cartons in Mpeketoni, 3 cartons in Amu, 4 cartons in Witu and 4 cartons in Hindi.
- 10 bales of nutropap was distributed as follows: 3 bales in Mpeketoni, 3 bales in Amu, 2 bales in Witu and 2 bales in Hindi.

6. Emerging Issues

6.1 Insecurity/Conflict/Human Displacement

The security situation in the county has continued to improve as the security operations persist although there was attempted attack on public vehicle by suspected terrorist near Witu.

Markets are slowly resuming normal operations and food commodities are accessible to most people although, the hours of business operation have been reduced due to the curfew that is in force.

6.2 Migration

There were no any abnormal cases of human migration.

6.3 Food Security Prognosis

Most farmers have planted for the short rain season and harvesting is expected late February to early March. Although short rains started late, it has improved over the past one month and a good harvest is expected if the rain continues to improve. Markets for both cereals and livestock are gradually becoming more accessible and trading is on-going despite fears of insecurity. The current threat to food security is human wildlife conflict especially in Soroko area where elephants are destroying crops from farms. This is likely to reduce the overall harvest expected.

Currently, some farms are still abandoned and some farmers have not prepared their farms for short rains planting. In most areas within the County, the crops are at the weeding stage

7. Recommendations

Recommendations to KFSSG

- Training of farmers on proper post-harvest management practices to avert destruction of the harvest from aflatoxins, rodents and weevils.

Technical Working Group Recommendations

- Mass vaccination campaign of over 50,000 heads of cattle in Didewaride, Moa, Chalaluma, Pangani, Mkunumbi, Koreni, Hindi, Faza and along migratory routes due outbreak of foot and mouth disease Tana Delta and Kipini in Tana River County.
- Rehabilitation and desilting of Matana, Badaa, Kitamba and Mtungui water pans in Kiunga which are used by herders and farmers.
- Construction of an additional water pan which can be used for irrigation in Kiunga to avert conflict between crop and livestock farmers.
- Peace campaigns to be conducted across the county so as to regain the confidence of investors and tourists .These campaigns will also enhance cohesion and promote peace amongst Lamu residents.
- County to provide adequate number of tractors to farmers(6 more to be bought) coupled with awareness creation on timing on the period of acquiring the equipment
- Promote use of ICT on information sharing.