

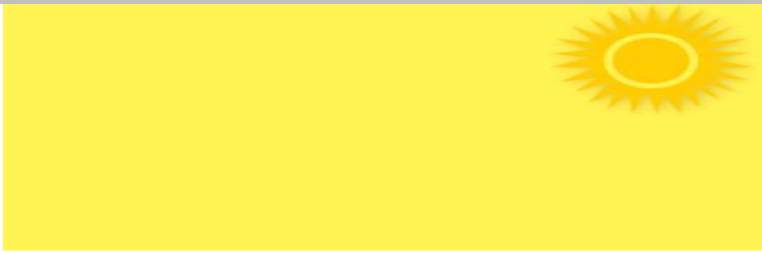
National Drought Management Authority
MAKUENI COUNTY
DROUGHT EARLY WARNING BULLETIN FOR APRIL 2017



A Vision 2030 Flagship Project



APRIL EW PHASE



Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Mixed farming coffee/dairy	Normal	Stable
Mixed farming Food Crop/Livestock	Alert	Improving
Marginal Mixed Farming	Alert	Improving
County	Alert	Improving
Biophysical Indicators	Value	Normal Ranges
VCI-3Month	18.9	>35
State of Water Sources	5	5
Production indicators	Value	Normal
Crop Condition	Planting	Good
Livestock Body Condition	4-Moderate	6-Normal
Milk Production	1. 5L	1.8 Litres
Livestock Migration Pattern	Normal	Normal
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	67	>80
Milk Consumption	0.85 L	1.2 litres
Return distance to water sources	4.5 Km	3.4 Km
Cost of water at source (20 litres)	KSh 2-5	KSh 2
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	7.1	<12.9
Coping Strategy Index (CSI)	12.1	<10

Drought Situation & EW Phase Classification

Biophysical Indicators

- The county experienced a late onset of the MAM long rains which began on the third dekad of March.
- The County recorded an average of 174 mm of rainfall in 8 wet days.
- The average VCI (3month) for the County was 18.9 indicating moderate vegetation deficit.
- The quantity and quality of pasture was poor in the Marginal mixed farming zone while in the Mixed farming zone the regeneration was evident while browse regeneration was evident across all the livelihood zones.
- The state of water sources in rivers, pans and dams had improved greatly mostly in mixed farming livelihood zone while in marginal zone, the rains were not sufficient to generate enough surface runoff.

Socio Economic Indicators (Impact Indicators)

- Body condition for livestock ranged from fair to good.
- Terms of trade were unfavorable at 67 (which is below normal)
- The proportion of children at risk of malnutrition slightly increased from 6.9 to 7.1% but remained within the normal range.

Seasonal Calendar

<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. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- Onset of the MAM rains was late i.e. on the last dekad of March while in the Marginal mixed farming zone the rains were experienced on the first dekad of April.
- In the Marginal mixed farming livelihood zone Rainfall amounts were depressed to moderate at best mostly in areas of Yekanga, Yinthungu and Masongaleni ward while in the mixed farming the rains were good enough to regenerate pasture.
- The rainfall forecast by the meteorological department indicates that there would be an early cessation of the MAM rains (third dekad of April)

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

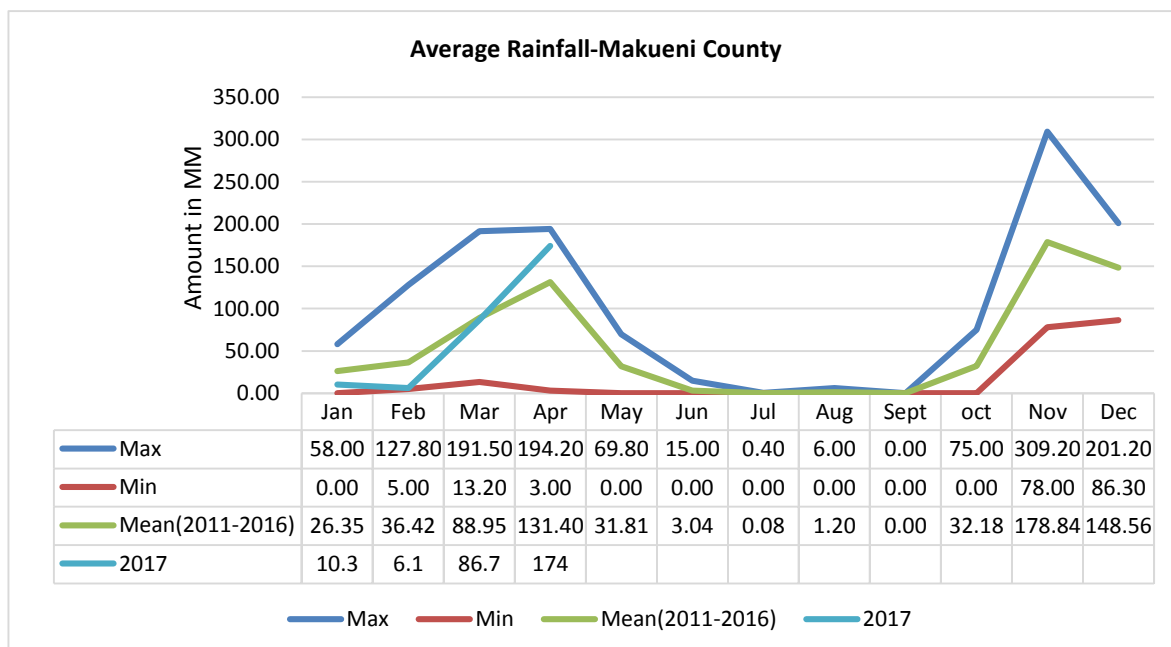
Mixed Farming (coffee/dairy/irrigation): Ilima received 175.5 mm in 4 days, Kikima in Mbooni received 304.8 mm in 8 rainy days while Nthangu forest received 192.8 mm in 6 days. Kalawani received 221mm in 10 days. Average for the Livelihood Zone was 223.5 mm in 7 days.

Mixed Farming (cotton/livestock/food crop): Nzaui received 236.6 mm in 9 days. Kambi Mawe received 181.7 mm in 9 days. The Livelihood Zone received an average of 209 mm in 9 days.

Marginal Mixed Farming (MMF) Zone: Makindu received 126.8 mm in 7 days, Yinthungu 70.0 mm in 7 days and Kambuu 82.5 mm in 3 days, while Kibwezi received 78.8 mm in 6 days. Average of 89.5 mm in 6 days for the Livelihood zone.

The average amount of rainfall received so far during the month of April is 174 mm in 8 days. This amount has exceeded the (2011-2016) long-term average is 131.4.

The rainfall was poorly distributed in terms of time. A lot of rain fell within a short period of time. It was fairly distributed in terms of space.



2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

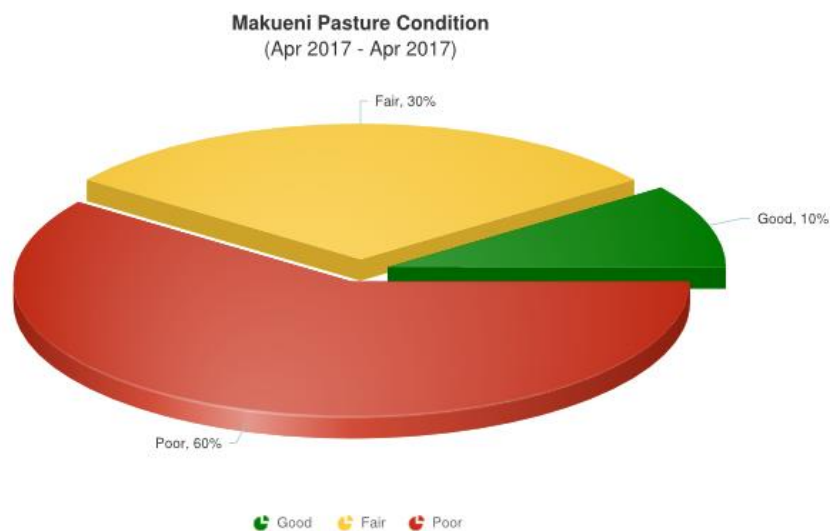
2.1.1 Vegetation Condition Index (VCI)

The 3-month average VCI for the County was 18.9mm implying a progressively worsening condition for the county from the previous month. Three of the six sub-counties (Kibwezi East, Kibwezi West and Makueni) recorded indices of 16.55, 11.21 and 18.24, an indication of severe vegetation deficit. Mbooni and Kaiti recorded moderate and normal vegetation condition as shown by their indices of 30.39 and 41.23 respectively.

2.1.2 Pasture and Browse

- The quantity and quality of Pasture and browse was good in the mixed farming livelihood zone while in the marginal mixed farming zone the condition of pasture was poor.
- Browse regeneration was evident in the marginal mixed farming zone due to the rains received.

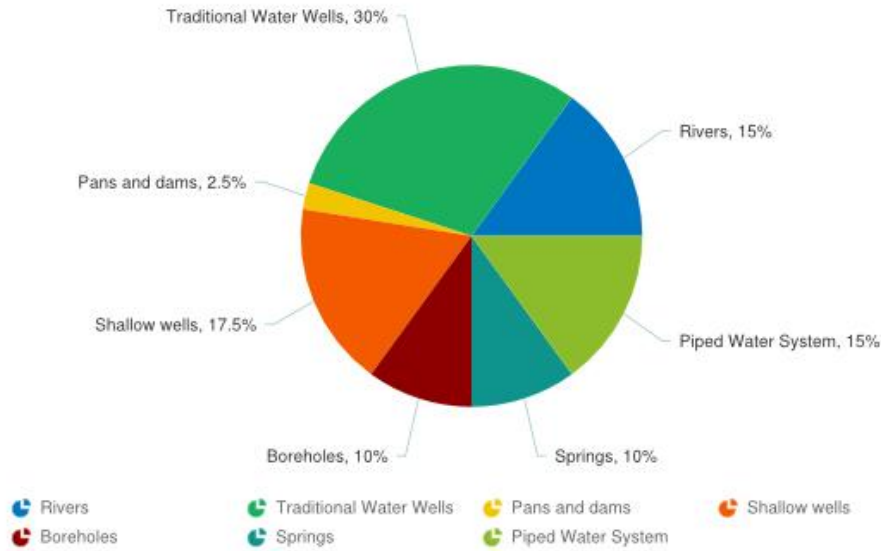
2.2 WATER RESOURCE



2.2.1 Sources

- Main sources of water for the month under review were: traditional River wells at 30%, shallow wells at 17.5%, piped water schemes at 15%, boreholes and springs each at 10%.

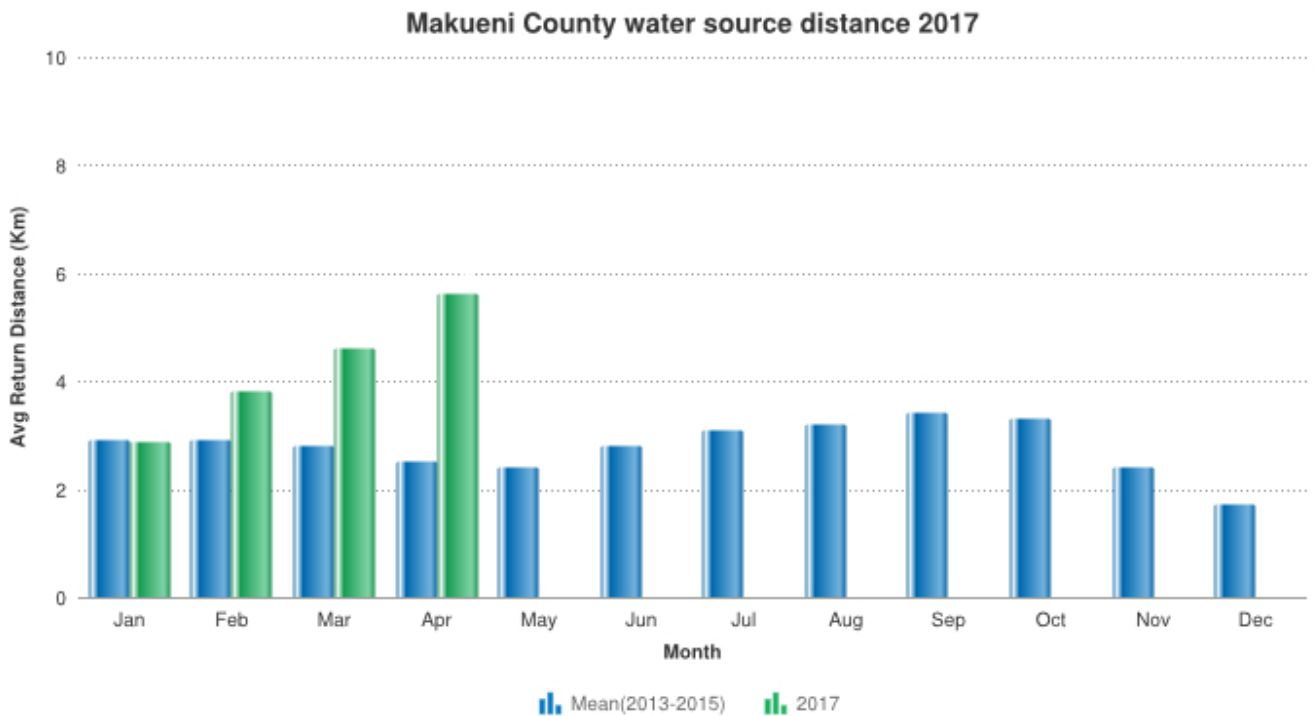
**Makueni County Water sources
(April 2017)**



- The water sources were normal in most parts of the county mostly the Mixed farming livelihood zone while in the marginal mixed farming livelihood zone (Yinthungu and parts of Kibwezi West) most households had to walk for longer distances in search of water.
- Average cost of a 20 litre Jerry at the water kiosks was 3 to 5 Shillings.

2.2.2 Household access and Utilization of water

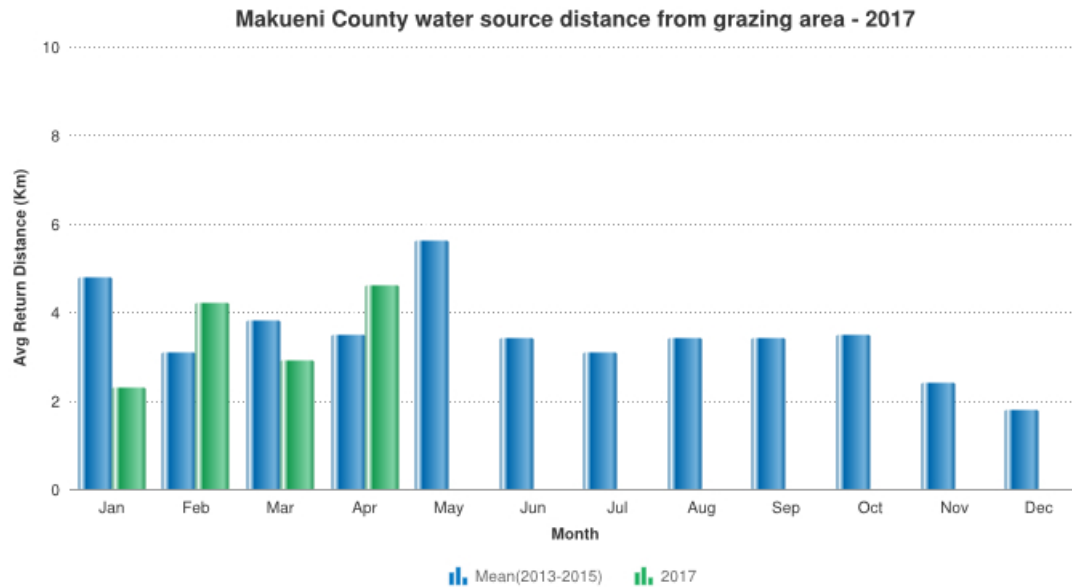
- **Distances to water sources for household consumption**



- The average household return distance increased from 3.8Km to 4.5Km compared to a similar time last year the distances were slightly higher.

- Compared to last month there was no major improvement since most of household in the marginal mixed farming zone had to walk for longer distances in search of water (to Athi River) for their domestic use.

2.2.3 Livestock access to water



- Distances to water sources had slightly decreased especially in areas where rainfall was received.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- The body condition for cattle in the marginal mixed farming livelihood zone was at the borderline, 12th and 13th rib visible (Body score of 4) mostly in parts of Kibwezi West (Nguu-Masumba) and Kibwezi East, Kithuki/kitise ward and parts of Mbooni East (Kalawa). However, in the Mixed farming Livelihood zones, livestock body condition was fair to good while that of shoats was generally good across all the three livelihood zones.
- The situation is expected to improve more in the next one month due to the availability of pasture and browse mostly in the Mixed farming livelihood zone.

3.1.2 Livestock Diseases

- No major livestock disease outbreaks reported.

3.1.3 Milk Production

Milk availability

- Availability of milk in all the livelihood zones was low but normal for this time of the year and compared to the same period last year, the situation isn't good.
- Compared to last month the situation is almost similar but is expected to improve due to the decrease in watering distance and the availability of pasture mostly in the Mixed farming livelihood zone.

Marginal mixed Farming zone:

- Most Households in this zone relies on goats' milk whose yield was between 100-250mls per day. Local Zebu also produced 100 to 200mls but the situation is expected to improve in the next one month due to availability of pasture.

Mixed farming (Food Crop/Livestock):

- In this zone Zebu cattle and crossbreeds accounted for most milk produced. Availability was approximately 400mls-600mls compared to a normal of 500mls.

Mixed Farming (Coffee/Dairy):

- The production of milk per day per household ranged from 0.75litres to 1.5 litre per day against a normal of 1litre.

3.2 RAIN-FED CROP PRODUCTION

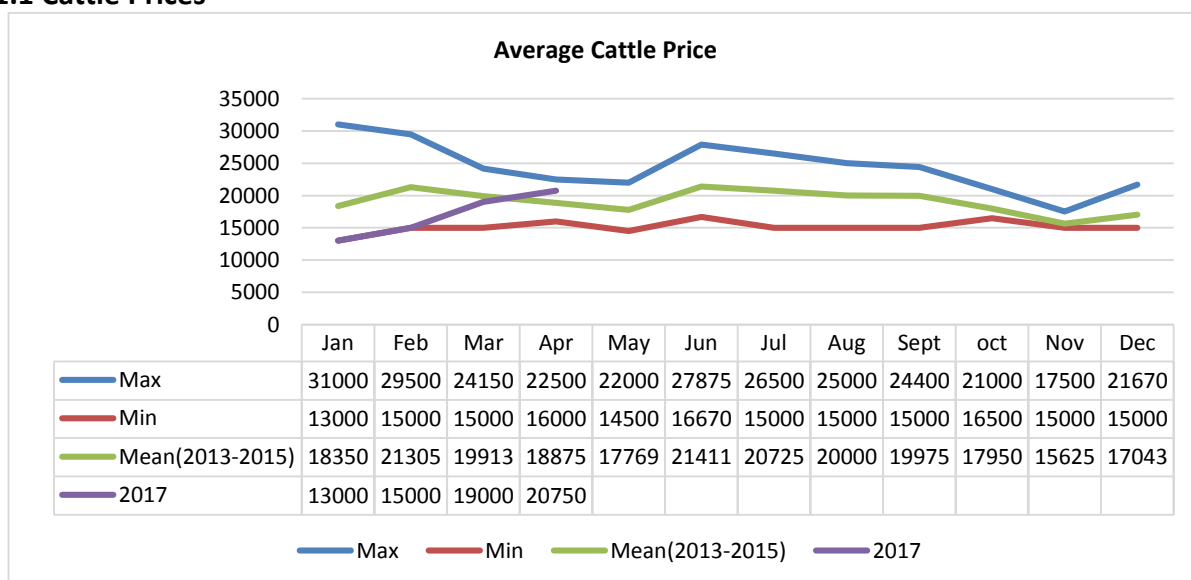
3.2.1 Stage and Condition of food Crops

- Main agricultural activity in the marginal mixed livelihood zone was planting since there was a late onset in this area and the early planted crops in these areas had already dried up.
- In the Mixed farming livelihood zone farmers were busy replanting and others gapping though most of the Crops had already germinated (more than 70%) at Knee high while in some parts beans were at the flowering stage.
- Army worm outbreak was reported in parts of Kisau/Kiteta ward, Ilima ward, Kithungo ward, Kibwezi East (Ivingoni/Nzambani ward) and Masongaleni ward.
- Some measures have taken by department of Agriculture to control the Army worms in all the affected areas such as Ukia and Mukuyuni (Kaiti sub-county) Kisau and Kasikeu (Kilome sub-county), although close monitoring should be done in these areas to avoid re-emergence of the worm. (Spraying was ongoing and also giving pesticides to farmers)

4.0 MARKET PERFORMANCE

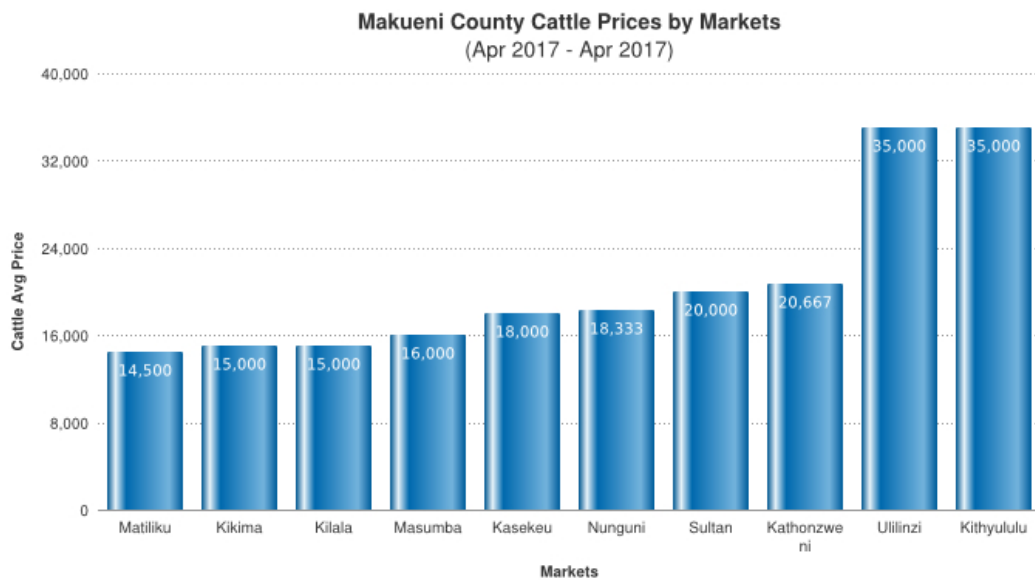
4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

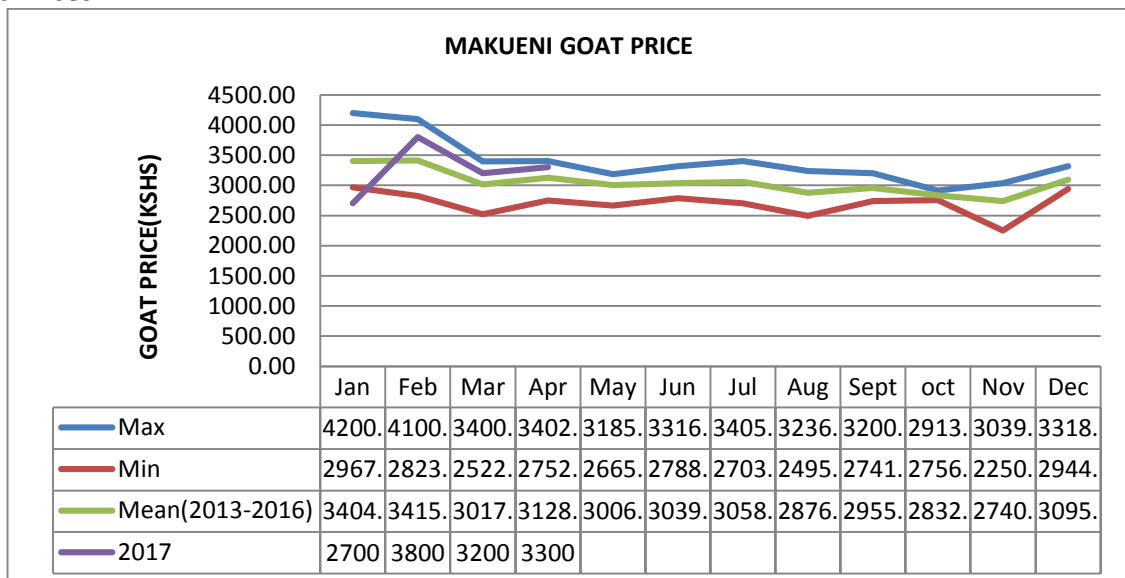


- Average farm gate prices of cattle increased slightly from KSh19000 to Ksh20750. Compared to the (2013-2015) long term average, the current price was higher than that of last month.

- The price of cattle at different markets was as follows.

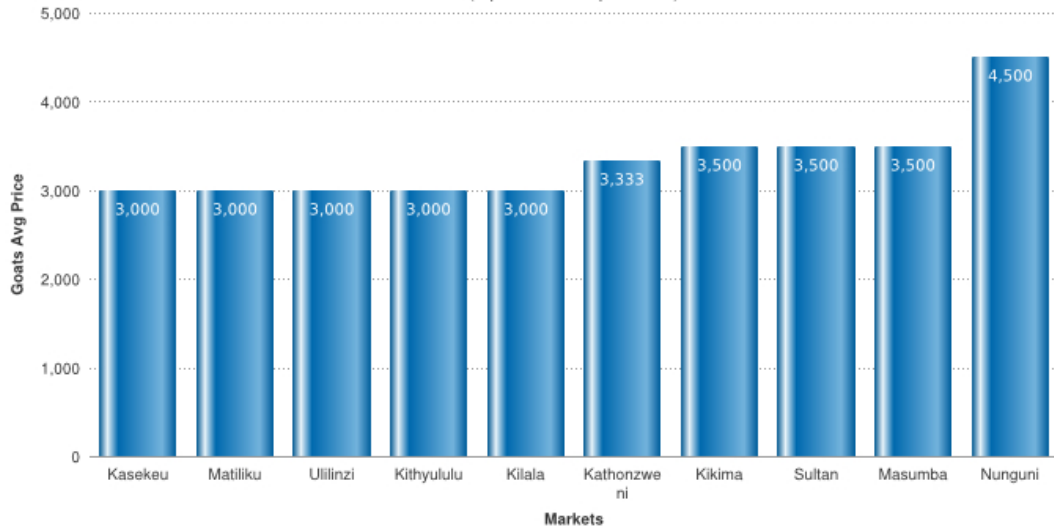


4.1.2 Goat Prices



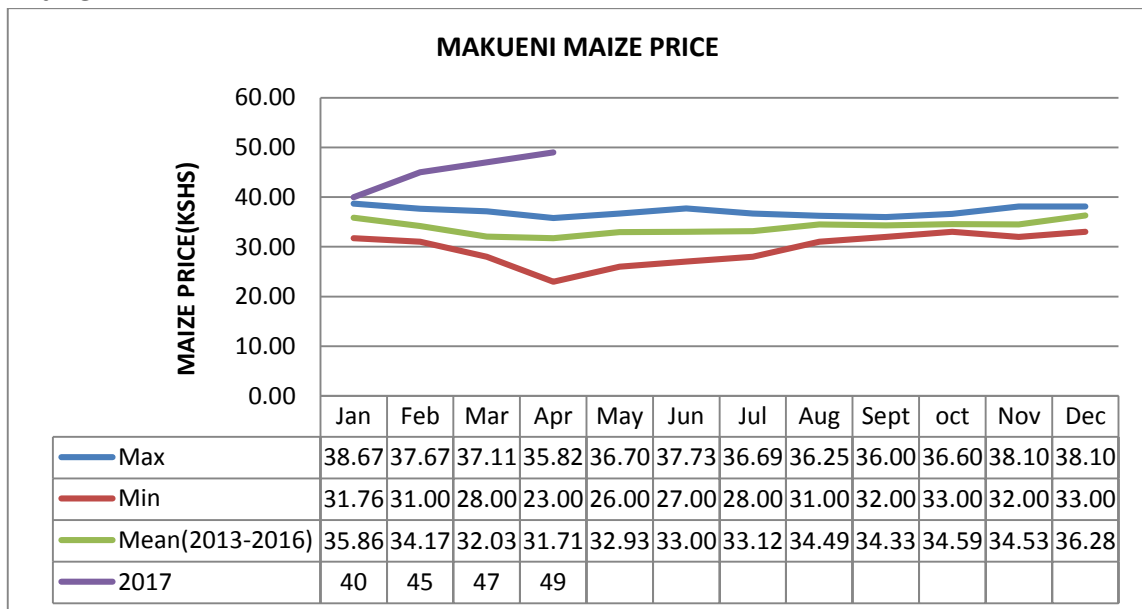
- The average farm-gate price of a goat increased slightly to Ksh3200 to Ksh3300 and was higher than the (2013-2016) long-term mean. This can be attributed to the good body condition of shoats.
- Average goat market price was as follows in various markets across the county.

Makueni County Goat Prices by Markets
(Apr 2017 - Apr 2017)



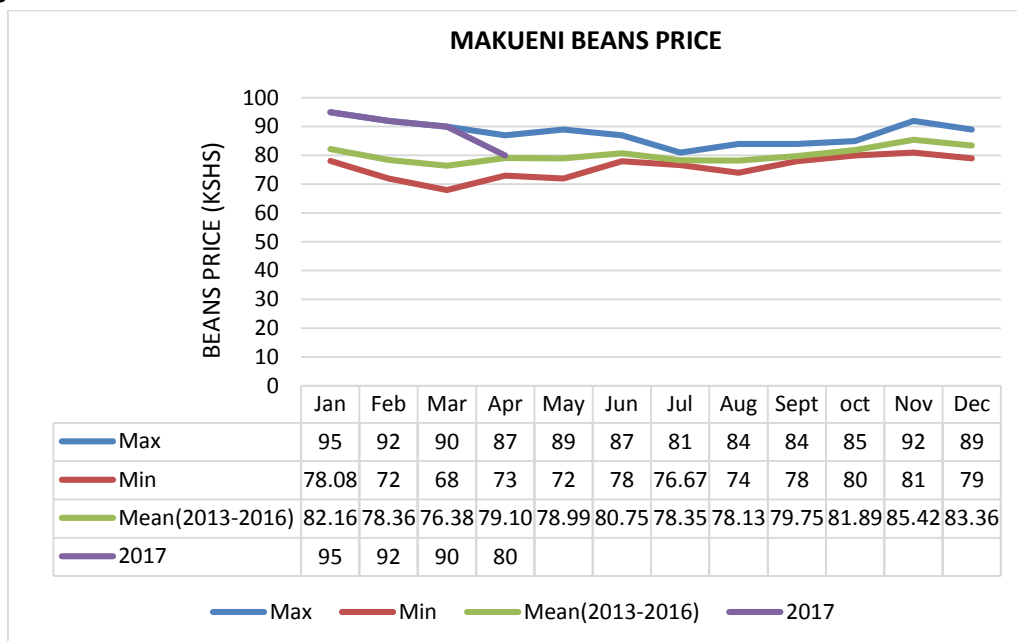
4.2 CROP PRICES

4.2.1 Maize



- The average market price of maize increased from Ksh47 to Ksh49 from the previous month. The price remained relatively high than the (2013-2016) long-term average. The high prices can be attributed to the diminished household stocks hence reliance on imports.
- Compared to the long term mean, the price is high and this is not normal at this time of the year.

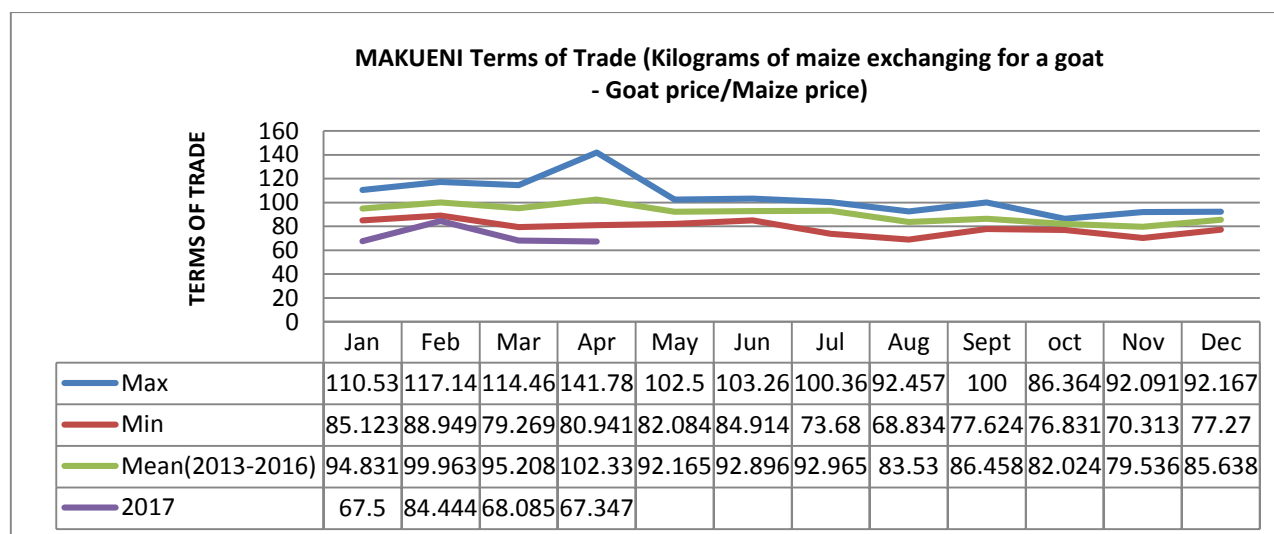
4.2.3 Beans



- The average price of beans was Ksh80 a decrease of Ksh10 from Ksh90. The high prices are as a result of diminished stocks in households due to poor harvests last season. Compared to the long term average the price was relatively the same.

4.2.3.1 Other outstanding observations.

4.3 Livestock Price Ratio/Terms of Trade



- Terms of trade reduced slightly from 68 to 67 implying that from a sale of one goat, a farmer could purchase 67Kg of maize. The ToT remained relatively low due to the high maize prices.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

Marginal mixed Farming zone

- Milk produced was equivalent to milk consumed in this zone, an average of 350-450mls (Which was below normal).
- Current milk price was between Ksh60 to Ksh70 per litre against the normal of Ksh55 and this has limited accessibility to majority of the households.

Mixed farming Zone (Food crop/Livestock).

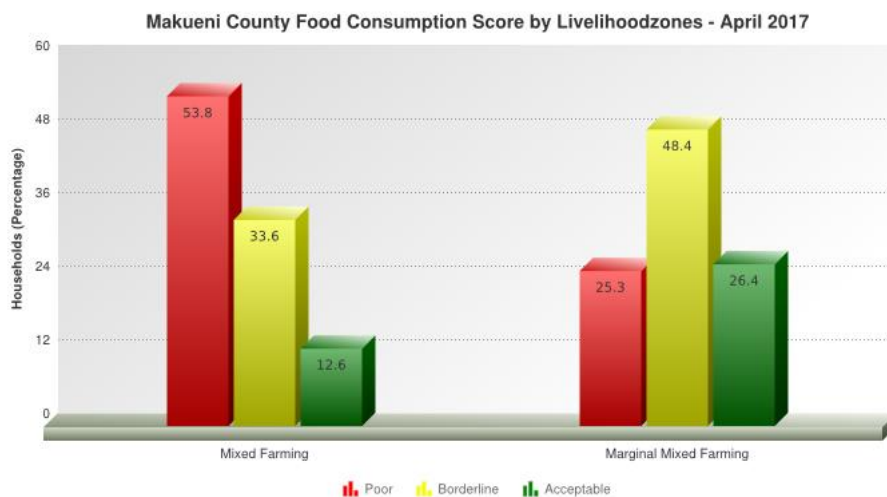
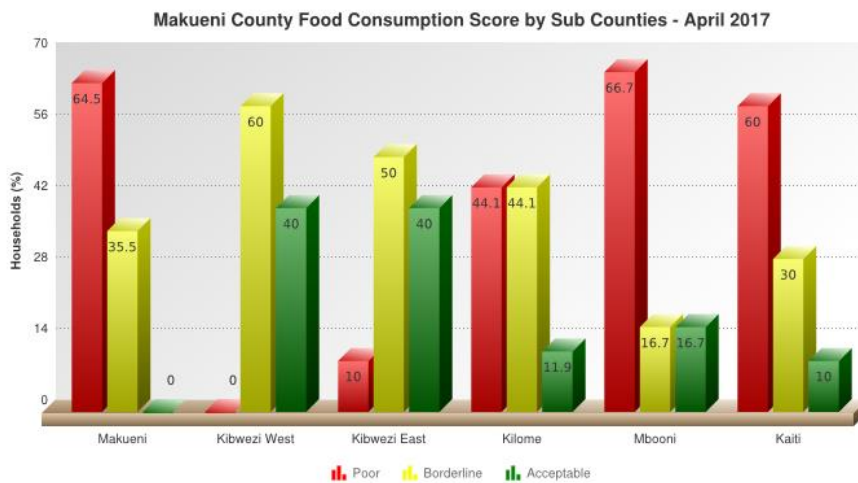
- Milk consumption per day in this zone was between 300mls to 500mls which was below normal.
- The current milk price is between Ksh55 to Ksh60 against the normal of Ksh50.

Mixed Farming Zone (Coffee/Dairy)

- Milk consumption is about 500mls to 700mls which is below normal. The average milk price was Ksh48 to Ksh60 against the normal of Ksh45.

5.2 FOOD CONSUMPTION SCORE

- A total of 210 households were sampled and out of this households, 39 were found to have a poor consumption score, 84 were found to be at the borderline while 87 had an acceptable Food consumption score.

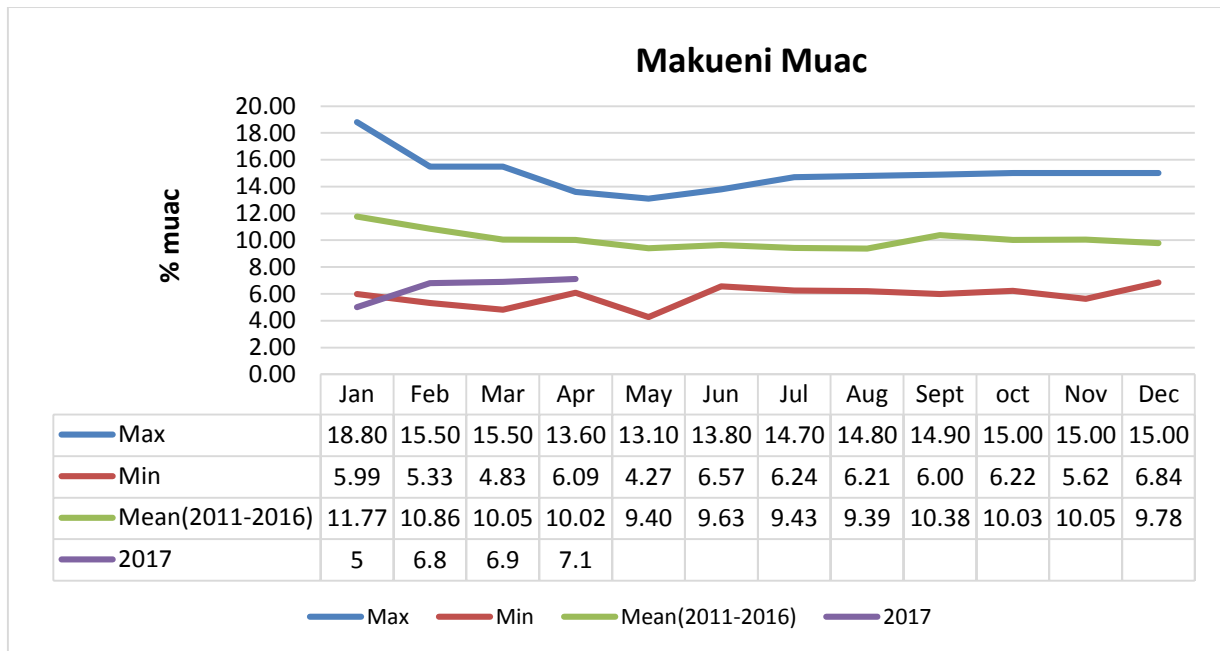


5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

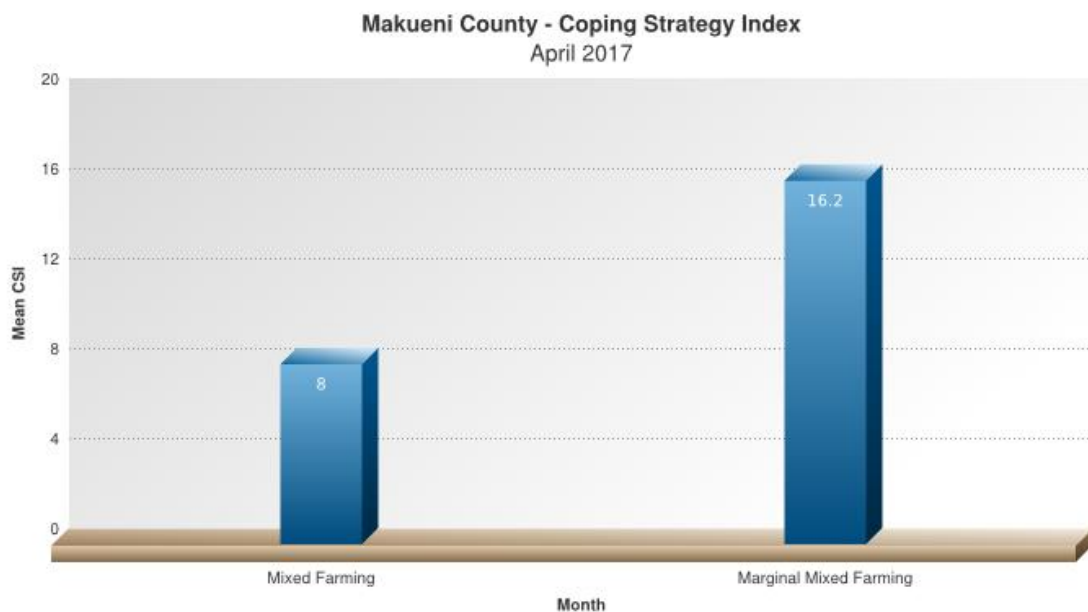
- The average percentage of children at risk of malnutrition slightly increased from 6.9 percent to 7.1 percent but remained within the normal ranges.

- The slight increase in malnutrition can be attributed to the decrease in dietary diversity mostly amongst the under-fives, and reduction in the amount of milk consumed mostly by the under-fives.
- The situation is expected to get worse as the rains have not been consistent with some areas having not yet received any rainfall.



5.3 COPING STRATEGIES

- The CSI in Mixed farming livelihood zone was 8 while in the Marginal mixed farming zone it was 16.2 implying that more coping mechanisms were being employed in MMF zone than MF zone.
- Most households were employing livelihood based coping strategies.



6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 NON-FOOD INTERVENTIONS

- Asset Creation Projects by GoK/ WFP, World Vision, Kenya Red Cross Society and NDMA. Targeting of beneficiaries was ongoing.
- Spraying of farms invaded by army worms in the County by the state department of agriculture.
- Contract agreement for implementation of Small-scale Irrigation and Value Addition Project (SIVAP) to be implemented in 11 ASAL counties countrywide was signed by the governor of Makueni County.
- Targeting of beneficiaries in need of humanitarian assistance by WFP and NDMA based on recommendations of the Short Rains Assessment.
- Sensitization on Kenya Cereal Enhancement Programme-Climate Resilient Agricultural Livelihoods(KCEP-CRAL) being implemented by Department of Agriculture, IFAD in partnership with WFP,FAO,NDMA was done in Kibwezi West, Kibwezi East, Kilome and Mbooni sub-counties
- Asset Creation Projects by GoK/ WFP, World Vision, Kenya Red Cross Society and NDMA.
- Mango, green grams and indigenous chichen value chain promotion and market linkage by County Government of Makueni in conjunction with ASDP.

6.2 FOOD AID

- From February to April, each of the 9 sub-counties through the Ministry of Special Programmes and the office of the County commissioner has received and distributed 500(50kg)bags of maize, 100(90kg) bags of beans, 300(50kg) bags of rice,50(24×0.5l)of cooking oil,20(25kg)bales of nutrition supplements.

7. EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- No human-wildlife conflict cases reported.

7.2 Migration.

- No migrations reported.

7.3 FOOD SECURITY PROGNOSIS

With the heavy rain being received within a short period of time, a lot of emphasis should be laid on water harvesting. Although majority of Marginal Mixed farming livelihood zone has regenerated pasture, some sections should be closely monitored such as sections Kathonzweni, Nguu and Kalawa where livestock body condition is poor since pasture has not regenerated adequately. The high cereal prices also need close monitoring (KES 49 for a kilo of maize compared to a (2013-2016) long term average of KES 31). Areas where interventions against army worm should be closely monitored to avoid re-emergence of the worm.

8. RECOMMENDATIONS

- Enhance livestock disease surveillance.
- Emphasis on water harvesting to make maximum use of rain water
- Provision of drought tolerant seeds at subsidized rates.
- Need for provision of merchandized Agriculture for hire.
- Capacity building on CA/GAPS (Zaipits, terraces, tree pits etc.)
- Promotion of Value Addition Crops (green grams and mangoes)
- Stockpiling of boreholes with spares
- Fuel Subsidy in the affected areas
- Provision of drought-resistant seeds