

National Drought Management Authority

MAKUENI COUNTY

DROUGHT EARLY WARNING BULLETIN FOR SEPTEMBER 2018



A Vision 2030 Flagship Project



SEPTEMBER EW PHASE

Drought Status: **NORMAL**



Shughuli za kawaida

Drought Situation & EW Phase Classification

Biophysical Indicators

- No rainfall was recorded during the month of September. This is normal at this time of the year.
- Quantity and quality of Pasture and browse ranged from good to fair across the Mixed farming livelihood zones and was worsening in the Marginal mixed farming livelihood.
- The main water sources for this time of the year were declining in volume especially in the mixed farming livelihood zones. Surface water sources in MMF zone had almost completely dried up. Waiting times at watering points had increased implying inadequate water supply.

Socio Economic Indicators (Impact Indicators)

- Livestock body condition ranged from good to fair across all livelihood zones with no unusual cases of migration, diseases or mortalities.
- Milk production and consumption remained good to fair attributed to the available pasture/maize stalks and water for livestock.
- Terms of trade was above average at 112.1(25.8 percent above average) in favour of livestock keepers as a result of the prevailing good body conditions and the stability in maize price.
- The percentage of children at risk of malnutrition reduced slightly from 7.7 percent to 6.9 percent.
- The County CSI was in an increase implying most households majorly in the MMF were employing food based coping strategies.
- Human-wildlife conflict reported in parts of Marginal Mixed Farming zone(elephant herds)destroying mango trees and nigeonnes

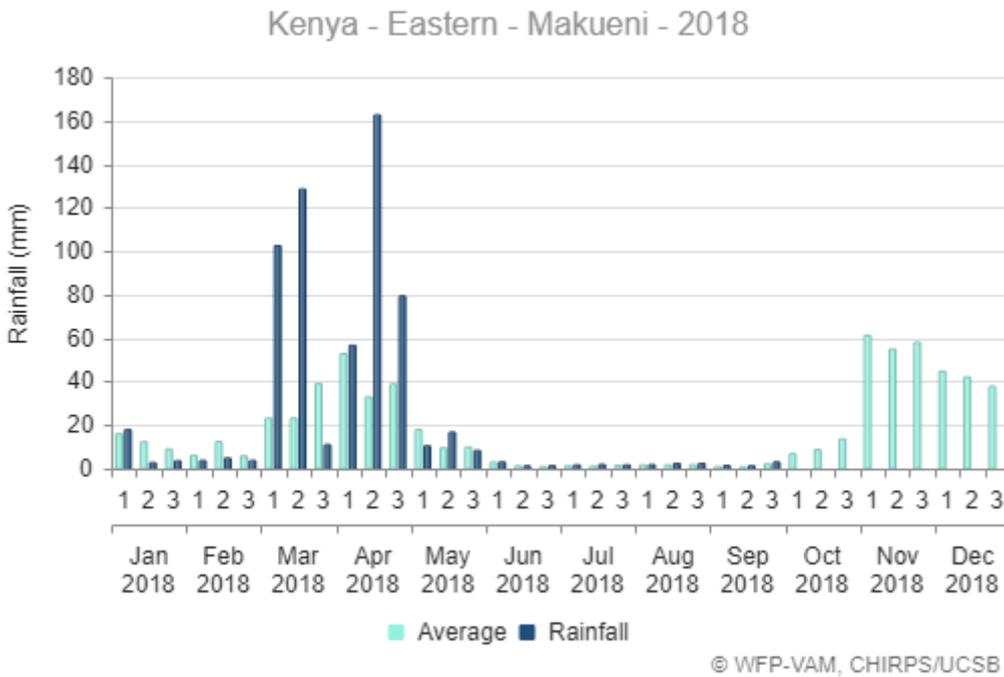
Livelihood Zone	Phase	Trend
Mixed farming coffee/dairy	Normal	Worsening
Mixed farming Food Crop/Livestock	Normal	Worsening
Marginal Mixed Farming	Alert	Worsening
County	Normal	Worsening
Biophysical Indicators	Value	Normal Ranges
Rainfall (% of Normal)	Nil	Nil
VCI-3Month	109.95	47
State of Water Sources	4	5
Production indicators	Value	Normal
Crop Condition	N/A	
Livestock Body Condition	5-Normal	6-Normal
Milk Production	1.6	1.8 Litres
Livestock Migration Pattern	No unusual migration	In-migration
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	112.1	86.5
Milk Consumption	1.3	1.1 litres
Return distance to water sources	6.3Km	3.4 Km
Cost of water at source (20 litres)	Ksh 3-5	Ksh 3
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	6.9	10.7
Coping Strategy Index (CSI)	7.2	<10

<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

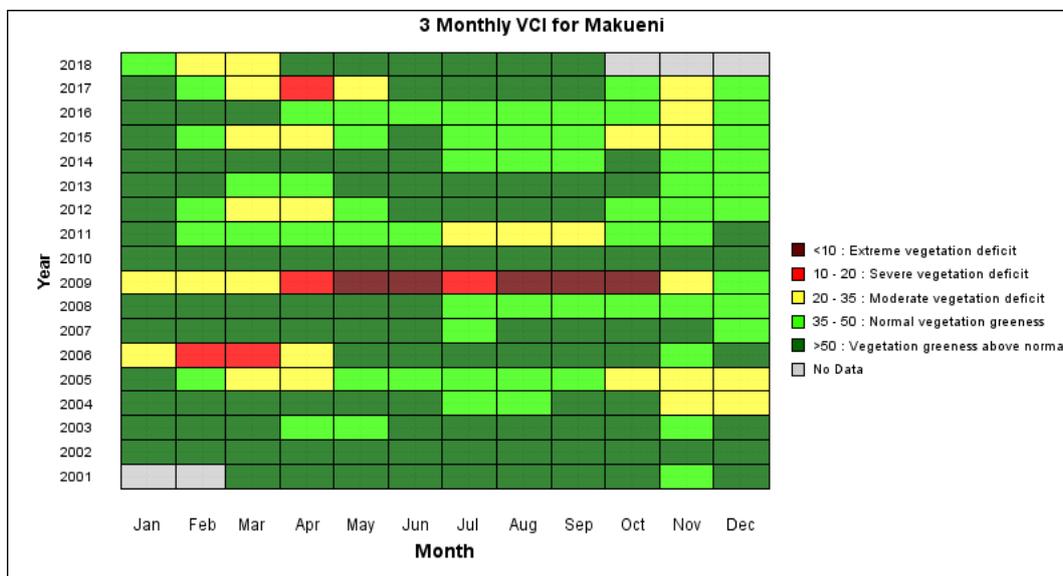
- No significant amount of rainfall was recorded during the period under review. The meteorological Department forecasts a normal to above average rainy OND season.



2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index(VCI)



An average 3 month VCI of 109.9 was recorded during the month of September. This was still above the long term 3 month average VCI of 47. However, as a result of the hot and dry weather conditions, the vegetation condition quality is fast deteriorating.

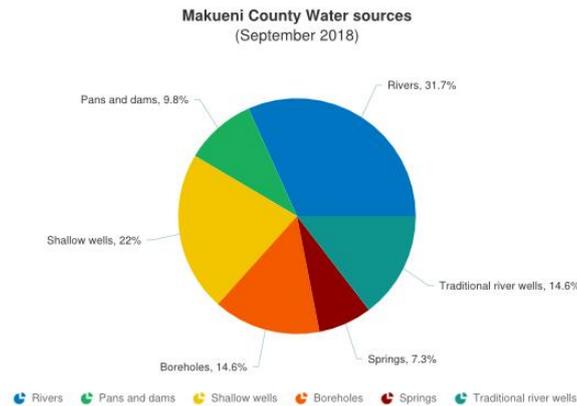
2.1.2 Pasture and Browse

- The month under review experienced hot and dry weather conditions. This has seen the quality of the pasture fast deteriorate.

- The quantity and quality of Pasture ranged from fair to poor in the marginal mixed farming and good to fair in the mixed farming Livelihood zones. The fast deterioration in pasture is attributed to the dry spell that is setting in given that the county has not received any rains since the cessations of the MAM rains.
- The available pasture is expected to last the county until the onset of the OND short rains expected in the third dekad of October going by the traditional seasonal calendar.
- Maize stalks from the last harvests boosted the available pastures.
- State of the browse ranged from good to fair with no major variations across all the three livelihood zones.

2.2 WATER RESOURCE

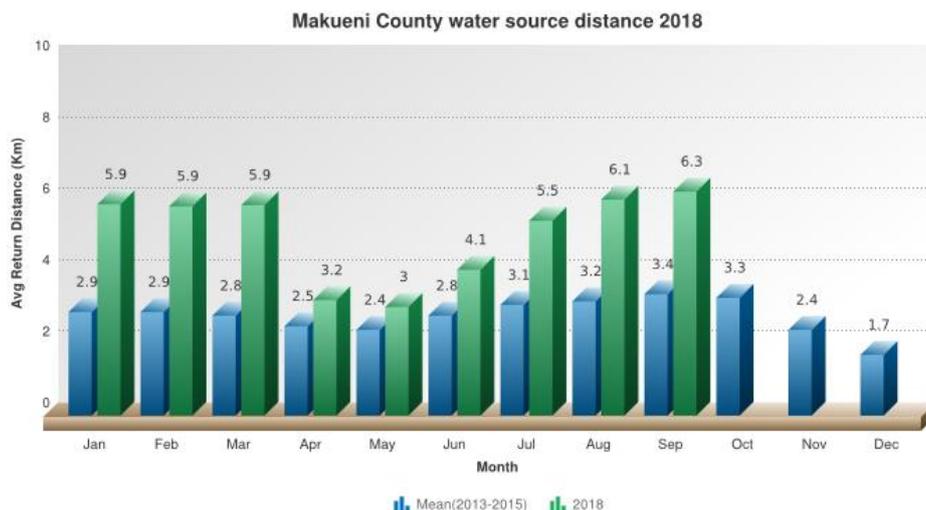
2.2.1 Sources



- Major sources of water for the county for the period under review were: rivers (Majorly Athi in the Marginal mixed farming livelihood zone), shallow wells, traditional river wells, boreholes, pan & dams and springs.
- Other major water sources includes piped water schemes mainly in major urban centres and along the highway (Kilome Sub-County).
- Average cost of a 20 litre Jerrycan at the water kiosk ranged from Ksh2 to Ksh5 against the Normal price of Ksh2-5 across all the three livelihood zones.

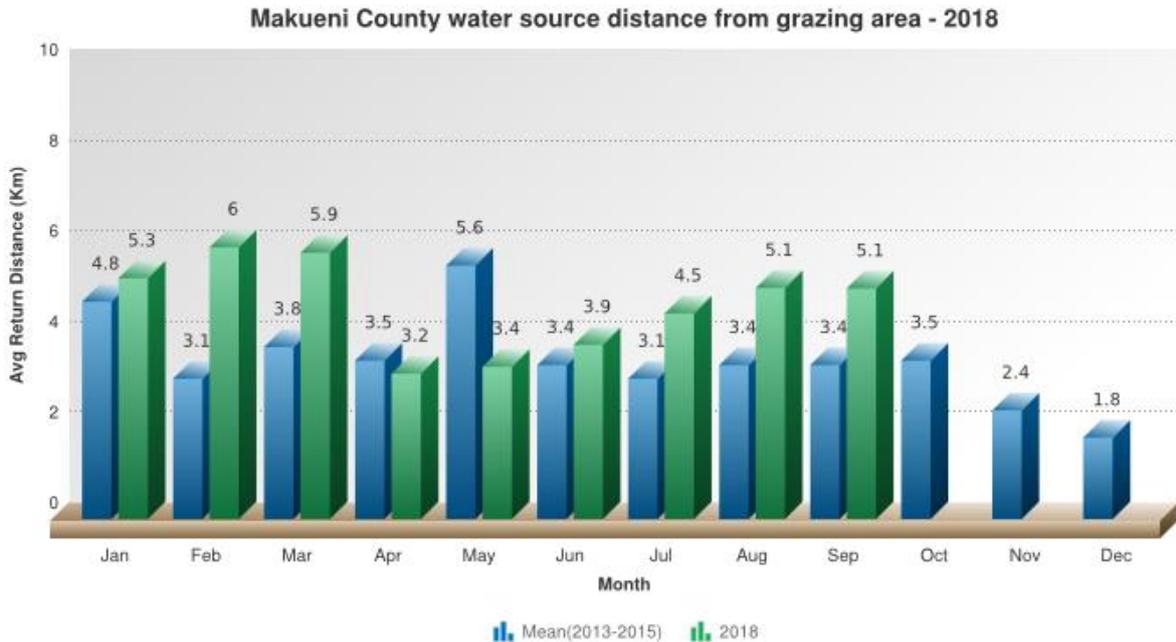
2.2.2 Household access and Utilization of water

Distances to water sources for household consumption



- Average household return distances increased from 6.1Km to an average of 6.3Km. The increase is attributed to change to alternative water sources given that the volume in most surface water sources had decreased and others dried up completely.
- Chamulinzi water project which serves close to half of Masongaleni ward is reported to have broken down from what is suspected to be elephants destroying distribution pipes from the source at Umani springs.

2.2.3 Livestock access to water



- Average return distances to water sources for livestock had remained stable at 5.1Km compared to the previous month. This is however higher than the long-term average of 3.4 km This was attributed to the drying up of surface water sources which had little water hence use of alternative available sources of water.
- The distances are expected to decrease in the next one month should the onset of OND short rains not delay.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Livestock body condition for cattle ranged from good to fair across all the three livelihood zone while for the Shoats it was good across all the livelihood zones and this is normal at this time of the year.
- The prevailing good to fair livestock body condition is expected to continue until the onset of the OND rains since the available pasture will sustain the livestock.

3.1.2 Livestock Diseases

- No major livestock diseases were reported.

3.1.3 Milk Production

Milk availability

- Milk availability ranged from good to fair in mixed farming livelihood zone though with a declining trend.

Marginal mixed Farming zone:

- Households in this zone were more reliant on goat and Zebu milk whose yield was between 750mls-1000mls per day against a long term of 750mls per day.

Mixed farming (Food Crop/Livestock):

- In this livelihood zone, Zebu cattle and crossbreeds accounted for most milk produced. Availability was approximately 1000mls to 2500mls compared to a normal of 2000mls.

Mixed Farming (Coffee/Dairy):

- The production of milk per day per household ranged from 2500-4000mls per day against a normal of 3 litres.

3.2 RAIN-FED CROP PRODUCTION

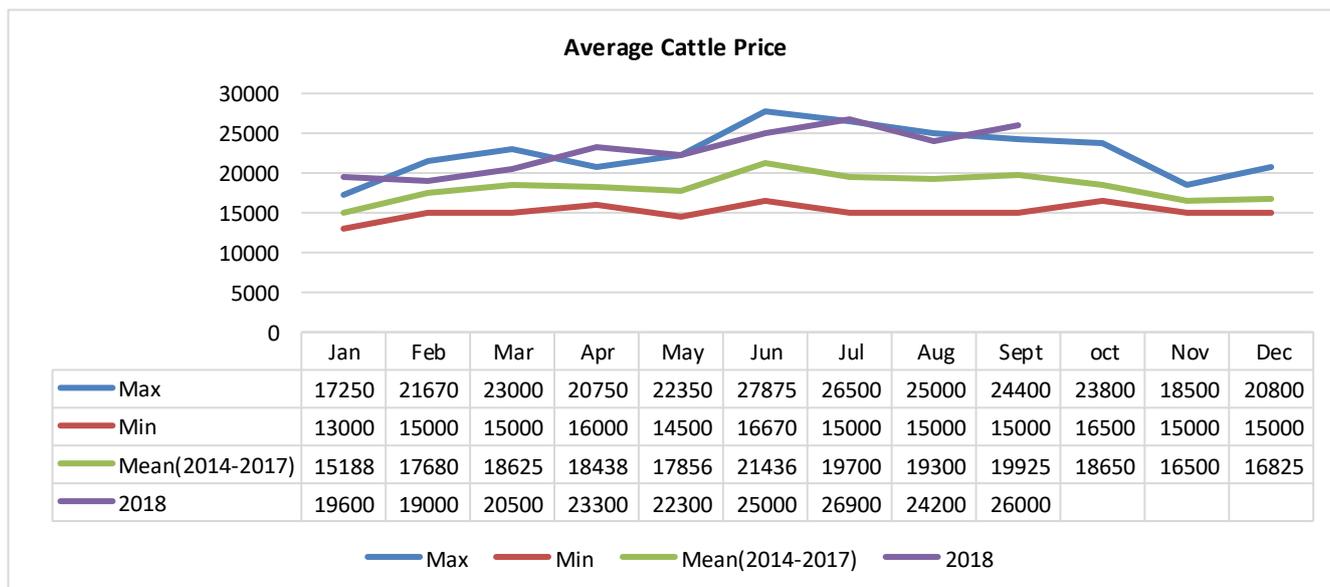
3.2.1 Stage and Condition of food Crops

- Main agricultural activity was land preparation across all the three livelihood zones.

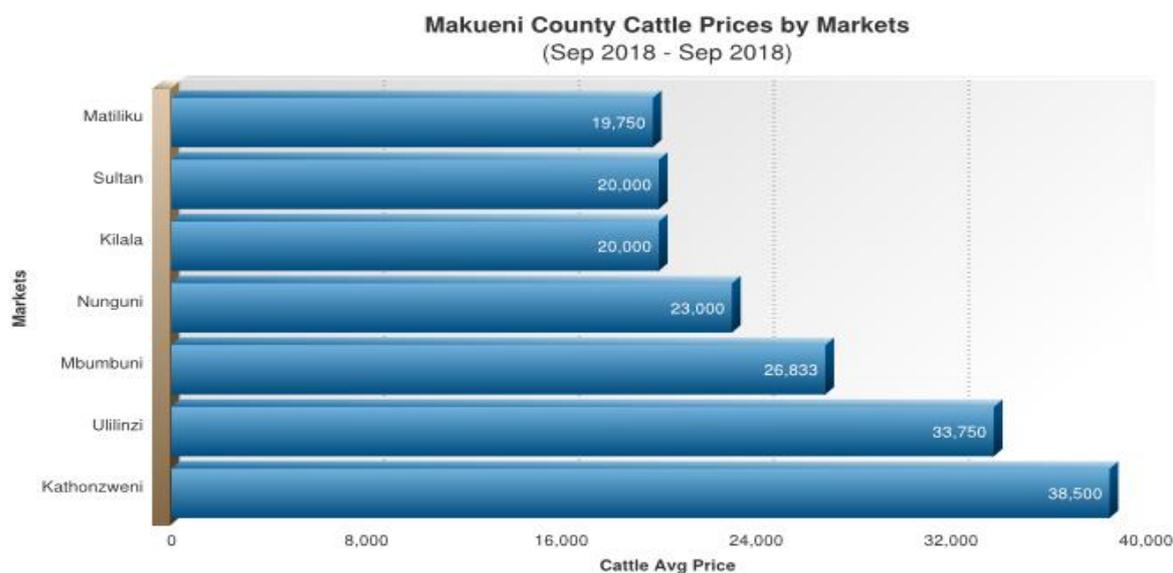
4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

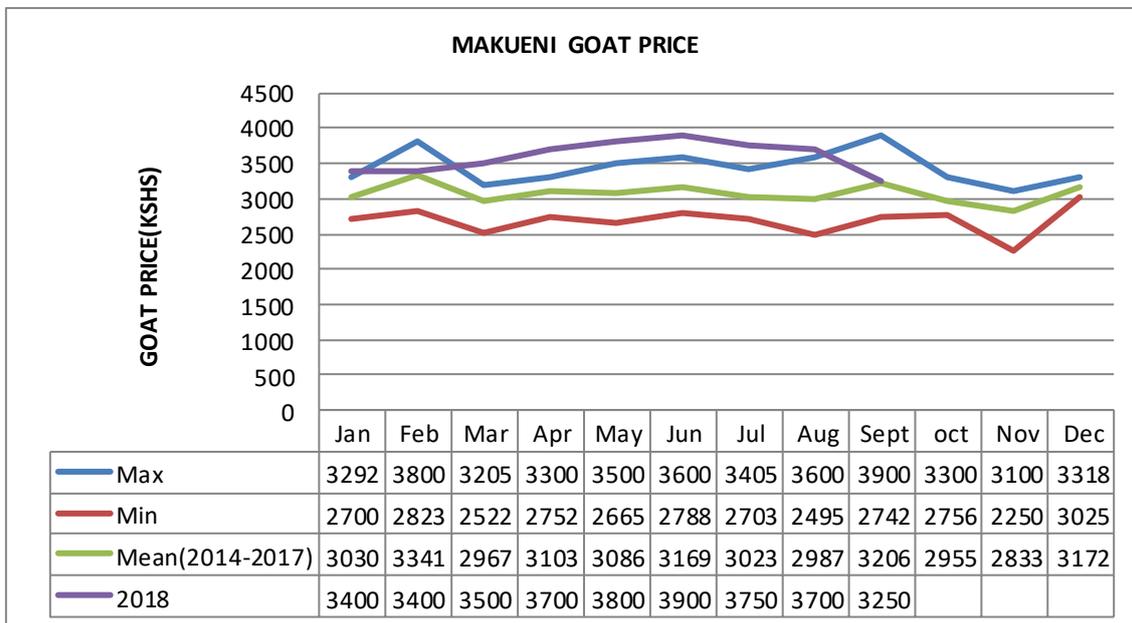
4.1.1 Cattle Prices



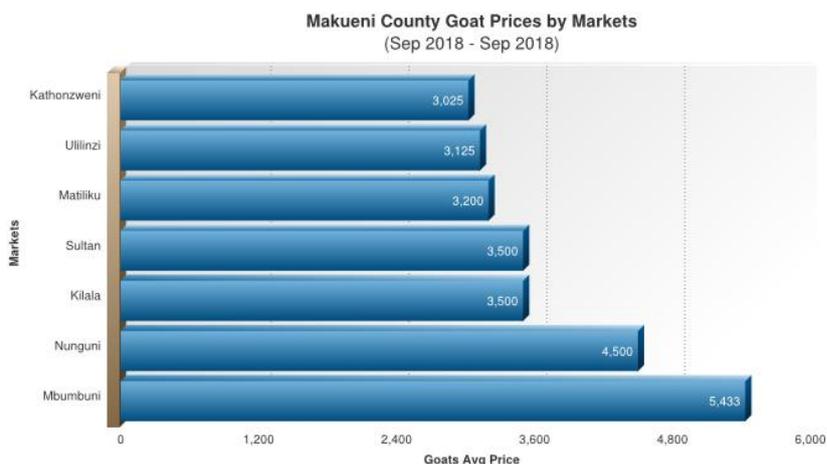
- Average farm gate prices of 2-3 year old bull increased from Ksh24,200 to Ksh26,000.
- Compared to (2014-2017) long term average the current price was above normal and this is attributed to the current good body condition when compared to a similar period in other years.
- The prices of cattle at different markets were as follows:



4.1.2 Goat Prices

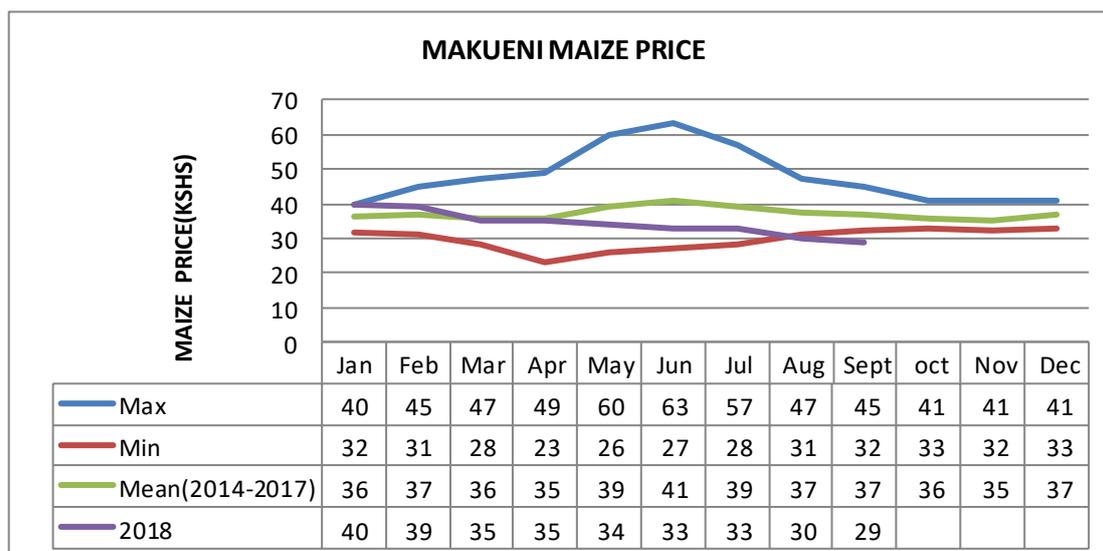


- The average farm-gate price of a goat was ksh3250 a decrease from Ksh3,700.
- Compared to the 2014-2017 long term mean the price was almost the same.
- The good price is attributed to the prevailing good body condition while the slight decrease is attributed to the body size and high supply in the markets.
- Average goat market prices were as follows in the various markets.



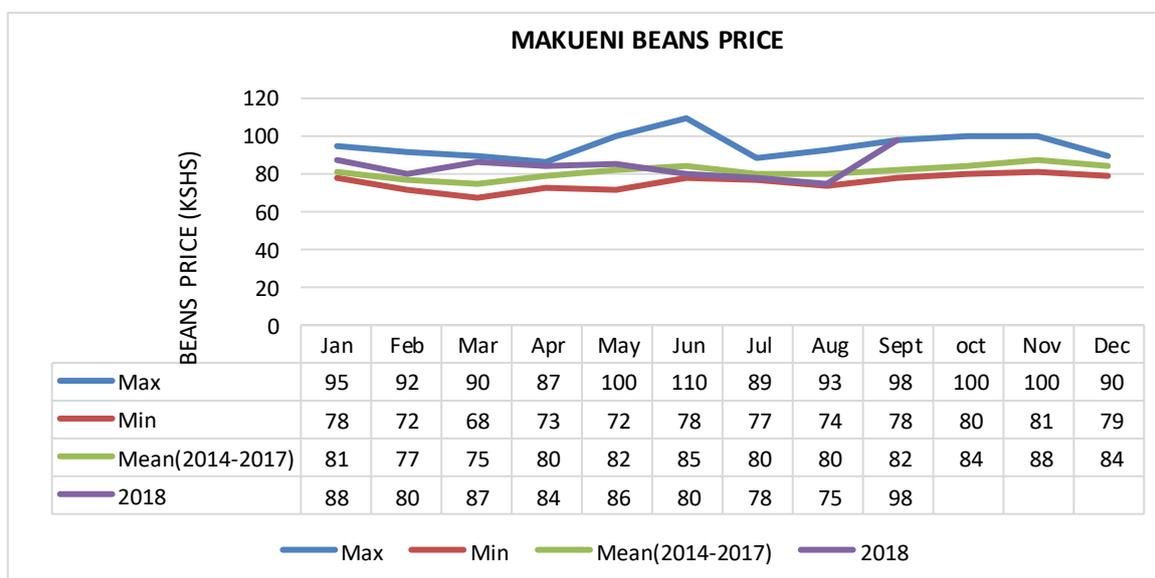
4.2 CROP PRICES

4.2.1 Maize



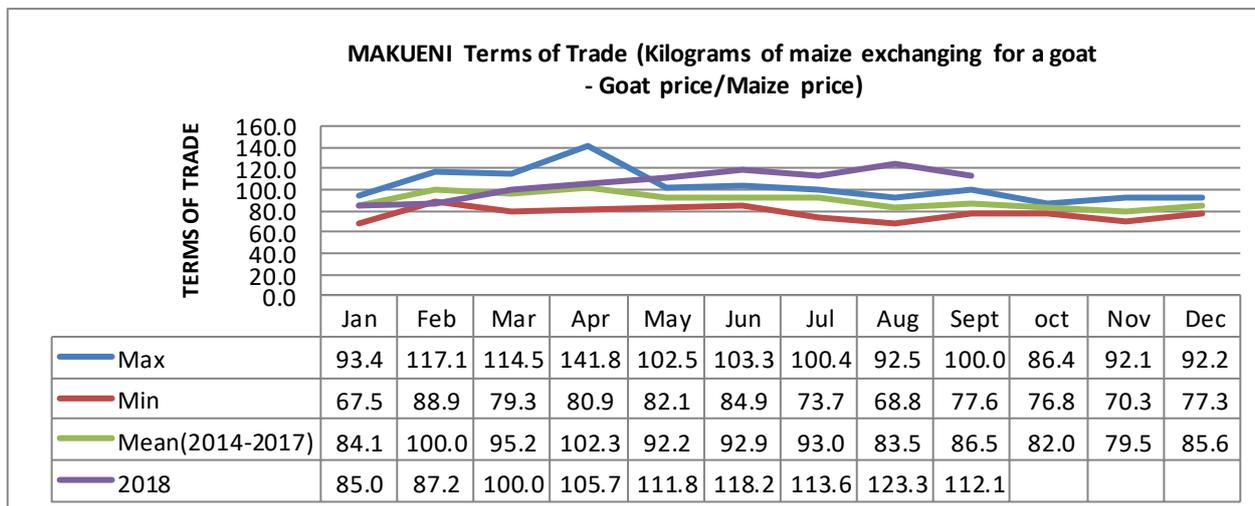
- The average market price of maize was ksh29 per kilogramme almost stable from the price recorded the previous month and this was attributed to the fair harvests and imports from the other counties. The price is however 21.6 percent below the (2014-2018) long-term average.
- It's expected that the price will remain stable for the next one to two months since the commodity is readily available in the local market.

4.2.3 Beans



- The average price for beans during the month was Ksh 98 an increase from Ksh75 recorded in the previous month. The increase in prices is attributed to the poor harvest of the crop
- Compared to the (2014-2017) long term mean of Ksh. 82, the current price was above normal.

4.3 Livestock Price Ratio/Terms of Trade



- Terms of trade were above average at 112.1 in favour of livestock farmers as a result of the prevailing good body conditions and the stability in maize prices. This is however 25.8 percent above the (2014-2017) long-term average. This implies that from a sale of one goat, a farmer could purchase 112.1 Kg of maize.
- Compared to the (2014-2017) long term average, the current terms of trade was above normal.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

Marginal mixed Farming zone

- Milk consumption per day in this zone was between 500mls to 750mls against the long term of 300mls to 500mls.
- The prices were high at Ksh 55-60per litre against the normal of Ksh60.
- Milk consumption is expected to remain stable with the availability of pasture and water for livestock.

Mixed farming Zone (Food crop/Livestock).

- Milk consumption per day in this zone was between 750mls against the LTA of 500mls.
- The current milk price was Ksh 60 against the normal of Ksh60.

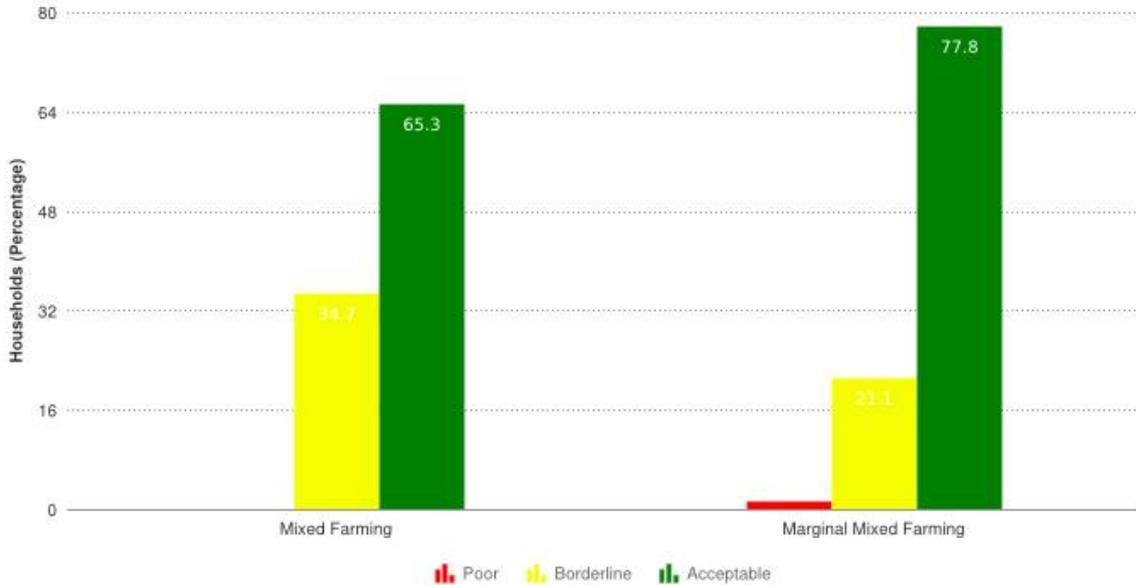
Mixed Farming Zone (Coffee/Dairy)

- Milk consumption is about 1000mls to 1200mls against the long term Average of 750mls. The average milk price was Ksh 50 against the normal of Ksh60.

5.2 FOOD CONSUMPTION SCORE

- In Marginal mixed farming livelihood zone 77.8 percent of households in the county had an acceptable food consumption score while 21.1 percent of households were at the borderline while in the mixed farming livelihood zone 65.3 percent had an acceptable food consumption and 34.7 percent were at the borderline.
- The improvement in Food consumption score is attributed to the availability of food from own production and money to buy food.
- Below is an illustration of food consumption score.

Makueni County Food Consumption Score by Livelihoodzones - September 2018

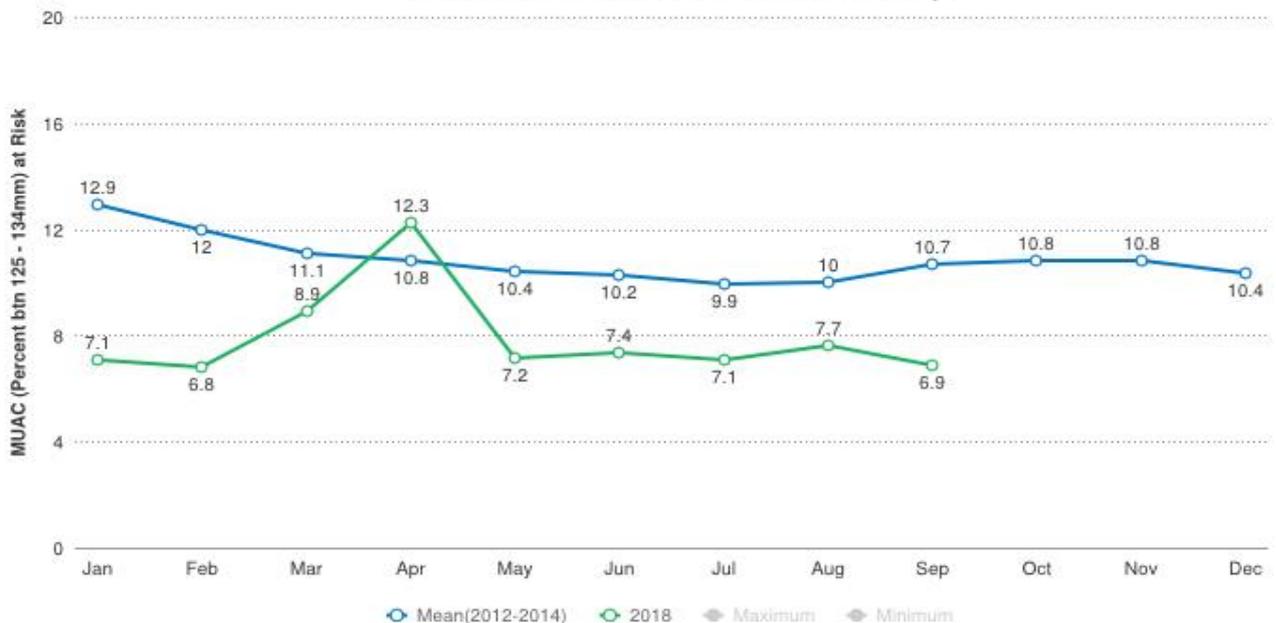


5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

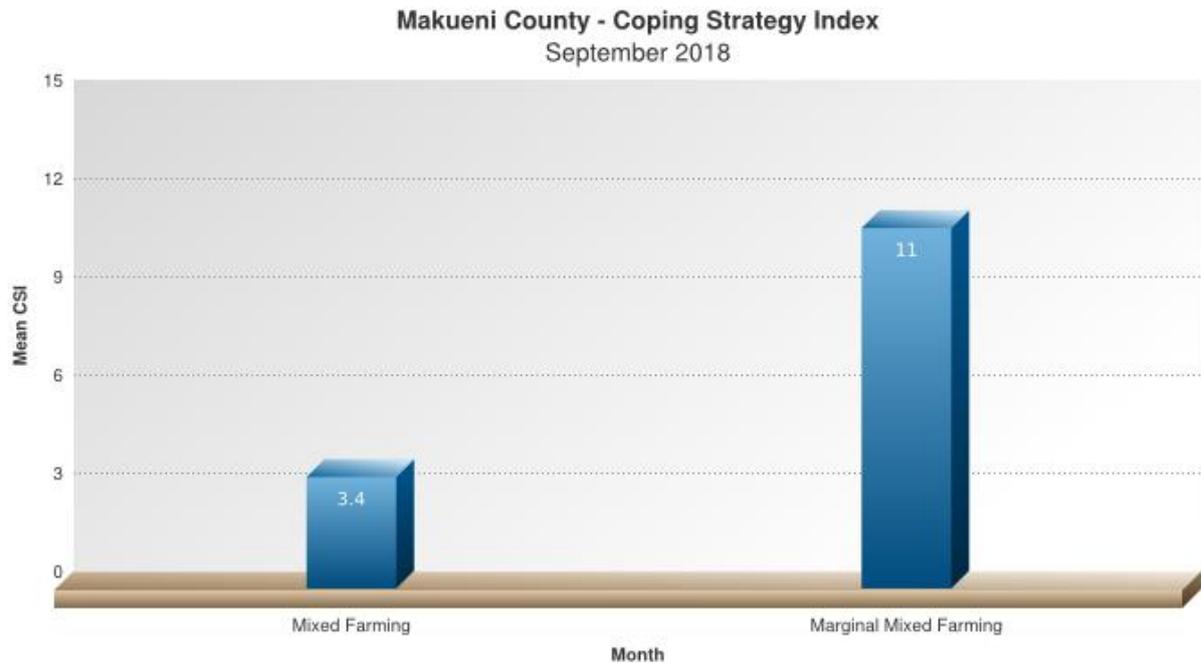
- The percentage of children (under-fives) at risk of malnutrition was 6.9% a decrease from 7.7% reported the previous month, though within the normal range.
- The improvement in MUAC over the last five months compared to April is attributed to the availability of cereals, milk, vegetables and citrus fruits (oranges) as well as proper screening and referral of at risk cases to nearby health centres.
- Compared to the long term average the situation was below the mean implying that the nutrition status was good.

Mid at Risk Children 2018 - Makueni County



5.4 COPING STRATEGIES

- The CSI in Mixed farming livelihood zone was 3.4, an increase from 2.9 while in the Marginal mixed farming zone it was 11
- The average CSI for the county was 7.2, an increase from 4.1 and 3.4 for the last two previous months respectively.
- This implies that a majority of the households were employing mainly reduced coping strategies and more coping strategies than the previous months.



6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 NON-FOOD INTERVENTIONS

- Promotion of THVCs production-Post harvest management(Kibwezi East ,Kibwezi west, Makueni, Mbooni, Kaiti sub-counties)
- Promoting water harvesting technologies-eg Zai pits, COD, Farm ponds,terraces
- Capacity building farmers on Post-harvest management
- Promotion of water harvesting for production and /or conservation agriculture, CA
- Promotion of Agricultural value chains (AVCs) development eg green grams, mangoes,
- Promotion of pasture and fodder conservation, storage, sale and utilisation(countywide)
- Disease surveillance(countywide)
- Cattle breed improvement (AI) & heifer purchase(countywide)
- Goat breed improvement (Mbooni,Makueni,Kibwezi West)
- Chicken improvement(Mbooni, Makueni, Kibwezi East, Kibwezi West)

6.2 FOOD AID

No food aid has been received or issued for the last two months.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement/Human Wildlife conflict/Floods

- There were reported cases of large herds of elephant invasion in farms in Masongaleni ward (along River Athi) from the neighbouring Tsavo East national park. They cleared the pigeon peas and mango trees in the farms.

7.2 Migration.

- No major livestock migration occurred.

7.3 Food security prognosis

Effects of the abnormally high MAM season have ensured that the water, pasture and legume harvests available were enough to last until the onset of the OND season. It is not until the month of September that the county has experienced diminished water levels especially for the earth dams and pans found in the Marginally Mixed Farming livelihood zone.

Markets across the county have been operating normally and with adequate food supplies. Cereals are mainly from external markets such as Western Kenya and pulses are from the county production.

Prices for food stuff have remained relatively stable over the month and are likely to remain that way for the next few months since supply is adequate.

With the expected normal to above-average rainfall expected, farmers should expect a fair harvest, depending on the temporal distribution of the rains. A good spread of the showers across the three months would ensure a fair to above average harvest.

8. RECOMMENDATIONS

- Setting up of a temporary camp by Kenya Wildlife Service (KWS) along river Athi to control the wildlife invasion menace.

Agriculture Sector

- Up scaling of current crop production.
- Promotion of water harvesting at household level.
- Promotion of Good Agronomic Practices that is smart Agriculture, minimum tillage, crop rotation and zai-pitting.
- Promotion of drought tolerant crops (production, value addition and utilization)

Livestock sector

- Livestock improvement programme for goats, chicken and cattle.
- Range rehabilitation.
- Disease surveillance along Kajiado border
- Enhance livestock medical camps at sub county level

Water Sector

- Servicing and rehabilitation of broken down boreholes as well as stockpiling with spares.
- Training of community on best Rain-Water water harvesting techniques since normal to above-average rains are expected
- Encourage the use of water treatment chemicals
- Support fuel subsidy and water trucking in drought hit areas

Health Sector

- Improving Vitamin A supplementation for Children Under five years.
- Integrated health outreaches and mass screening of children under the age of 5 years

- Enhance advocacy on exclusive breastfeeding.
- Sensitizing community health volunteers on WASH and HIV
- Upscale supplementary feeding programme

Education

- Upscale HGSMP to cover more schools.