

National Drought Management Authority

MAKUENI COUNTY

DROUGHT EARLY WARNING BULLETIN FOR JANUARY 2018



A Vision 2030 Flagship Project



Drought Situation & EW Phase Classification

Biophysical Indicators

- The month was characterized by heavy rains and cold nights. The rains were above normal resulting to flooding and as a result loss of lives and destruction of infrastructure.
- The vegetation greenness for the County was above normal as indicated by the 3 month Vegetation Condition Index (VCI)
- Pasture and browse condition was good across all the three livelihood zones.
- Water availability was good across the county although some areas such as Wote experienced shortages as a result of breached dams and washed away earth dams.

Socio Economic Indicators (Impact Indicators)

- The Livestock body condition was fair (for cattle) and good (for shoats).
- Milk production and consumption increased due to the availability of pasture and water for livestock.
- Flood cases were on a rise as a result of the heavy rains being received.
- Terms of trade were favourable at 105, an implication that from the sale of one goat one could purchase 105kg of maize.
- Distances to watering sources for livestock decreased from 5.9Km to 3.2 km.
- The percentage of children at risk of malnutrition was slightly above the normal range.
- The County CSI was within the normal range implying the coping mechanisms employed were normal.

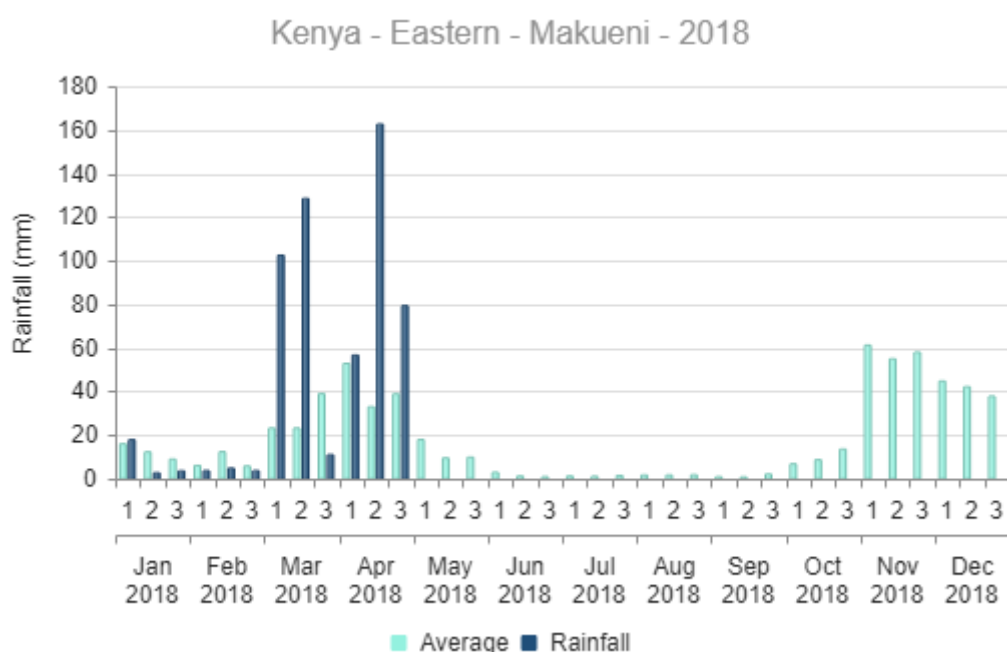
Livelihood Zone	Phase	Trend
Mixed farming coffee/dairy	Normal	Stable
Mixed farming Food Crop/Livestock	Normal	Stable
Marginal Mixed Farming	Normal	Stable
County	Normal	Stable
Biophysical Indicators	Value	Normal Ranges
Rainfall (% of Normal)	239	80-120
VCI-3Month	56.12	>35
State of Water Sources	5	5
Production indicators	Value	Normal
Crop Condition	good	Fair
Livestock Body Condition	6-Normal	6-Normal
Milk Production	1.8	1.8 Litres
Livestock Migration Pattern	Normal	Normal
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	105	>80
Milk Consumption	1.2	1.2 litres
Return distance to water sources	3.2Km	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)	12	<12.9
Coping Strategy Index (CSI)	11.2	<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

- Generally the month of April was characterized by heavy rains and cold nights. The rains received were 239 percent of normal.
- The onset was reported on the first week of March across all the three livelihood zones.
- Makindu Met recorded 201.6 mm in 15 wet days, Yinthungu in Kathonzweni recorded 172.4mm in 15 wet days while Kambu in Mtito Andei recorded 348mm in 11 wet days.
- Spatial distribution was good across all the three livelihood zones. Temporal distribution was poor since there were long rain hours.
- As a result of the above-normal rains, both human and livestock lives were lost, houses and business premises destroyed, infrastructure such as roads, drifts, latrines and dams were also dismantled leading to limited access to markets, schools and water shortages in some areas.

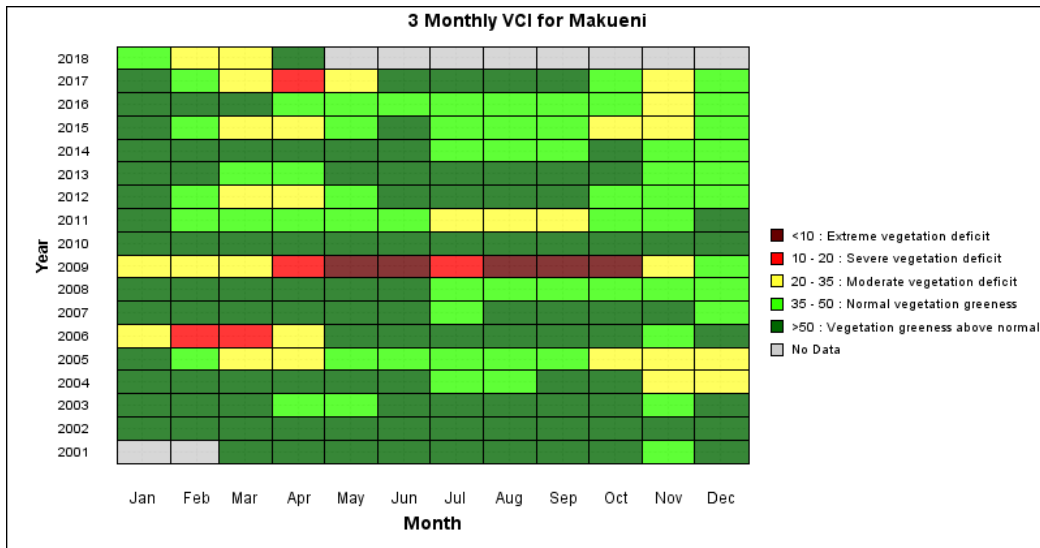


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2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

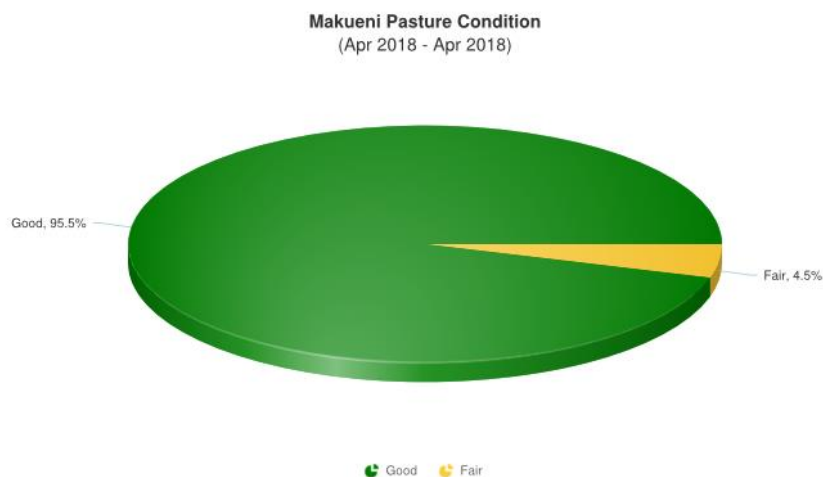
2.1.1 Vegetation Condition Index(VCI)



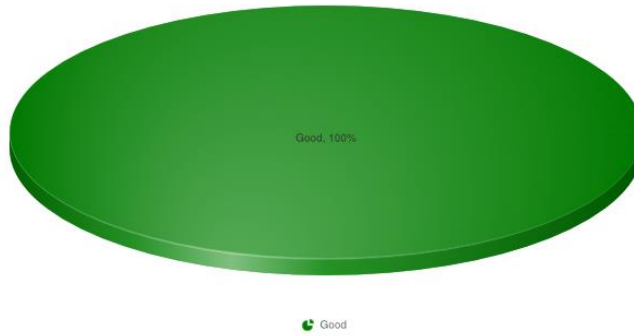
- Going by the three month VCI, the vegetation condition had greatly improved. The County recorded a three month average VCI of 56.1 an implication of above normal vegetation greenness. The vegetation condition is expected to remain stable for the next two months as the rains continue.

2.1.2 Pasture and Browse

- Pasture condition was good across all livelihood zones attributed to the ongoing MAM rains.
- The available pasture are expected to last the county for the next three to four months



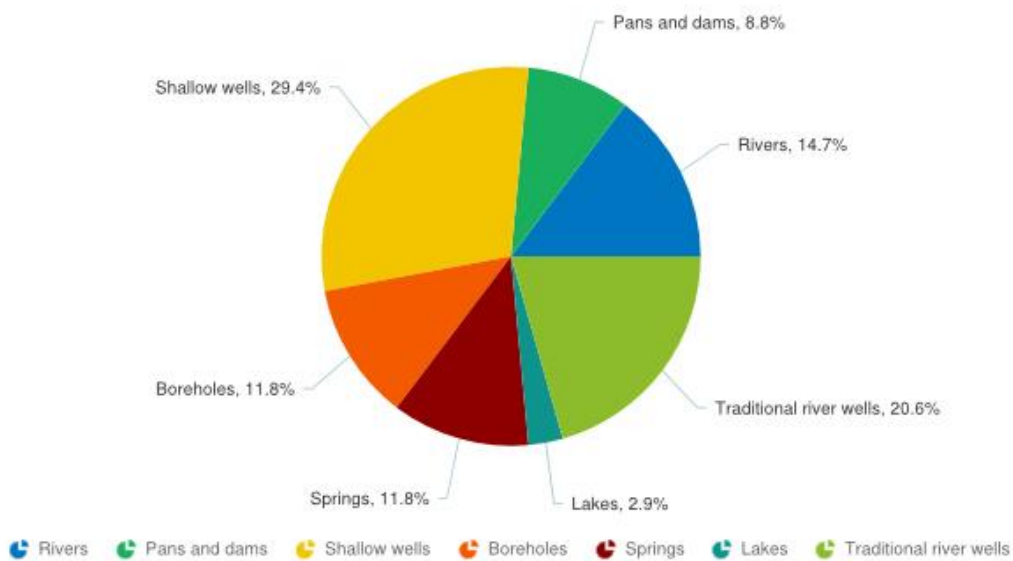
Makueni Browse Condition
(Apr 2018 - Apr 2018)



2.2 WATER RESOURCE

2.2.1 Sources

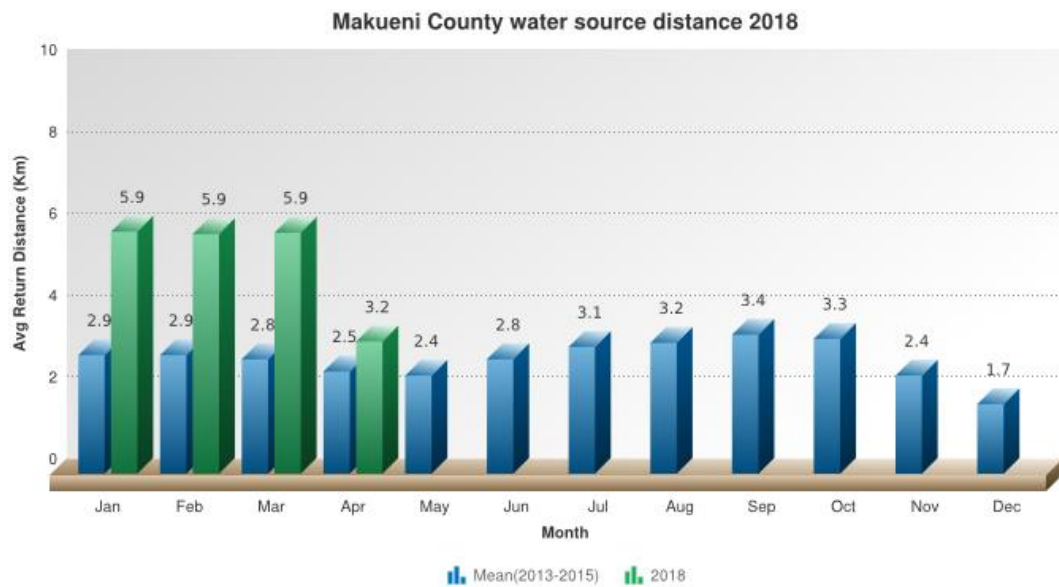
Makueni County Water sources
(April 2018)



- Major sources of water for the county during the month were: rivers, shallow wells, traditional river wells, pan and dams. Other water sources included roof catchment, boreholes and piped water schemes.
- Water levels had improved since most surface water sources had been recharged by the ongoing rains.
- Average cost of a 20 litre Jerrycan at the water kiosk ranged from Ksh3 to 5. Normal price for the same was Ksh 3.
- As a result of the above normal rains, there was adequate recharge of water sources. However, some damage was caused since **25 dams were breached** and **58 were reported as being eroded/cracked**. Amongst those breached was Mbasya dam in Kalawa, Mbooni sub-county constructed by NDMA and funded by EU.

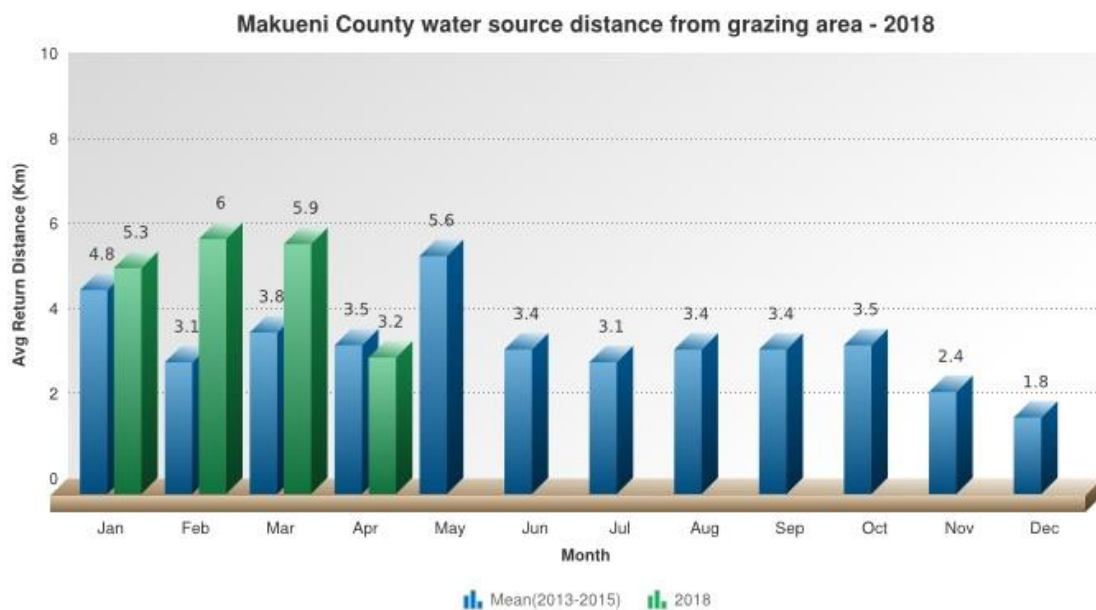
2.2.2 Household access and Utilization of water

Distances to water sources for household consumption



- Average household return distances reduced from 5.9Km to an average of 3.2Km and are expected to reduce further as farmers use alternative sources of water.

2.2.3 Livestock access to water



- Average return distances to water sources decreased from 5.9Km to 3.2Km. This was attributed to the ongoing recharge of most surface water sources.
- The distances are expected to reduce more as households switch to alternative water sources.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Current livestock body condition for cattle in most parts of the county was smooth good appearance a body score of 6.
- Despite the good body condition, animal deaths were experienced as a result of floods experienced. The Department of Livestock production reports that 30 cattle, 403 goats, 45 sheep, 1,413 poultry and 1 donkey succumbed to the floods. The estimated cost of this loss is Ksh. 5,186,000.

- The normal livestock body condition is expected to continue for the next month due to the availability of pasture and water.

3.1.2 Livestock Diseases

- No major livestock disease outbreaks reported. Farmers should however be on the lookout for lumpy skin disease which is common during such a period.

3.1.3 Milk Production

Milk availability

- Milk availability was fair to good in mixed farming livelihood zone and is expected to improve more with the availability of pasture and water for livestock.

Marginal mixed Farming zone:

- Households in this zone were more reliant on goat milk whose yield was between 500-750mls per day against a long term of one litre per day. Local Zebu also produced 500-750mls.

Mixed farming (Food Crop/Livestock):

- In this livelihood zone, Zebu cattle and crossbreeds accounted for most milk produced. Availability was approximately 750-1000mls compared to a normal of 1000mls.

Mixed Farming (Coffee/Dairy):

- The production of milk per day per household ranged from 1000-1500mls per day against a normal of 2 litres.

3.2 RAIN-FED CROP PRODUCTION

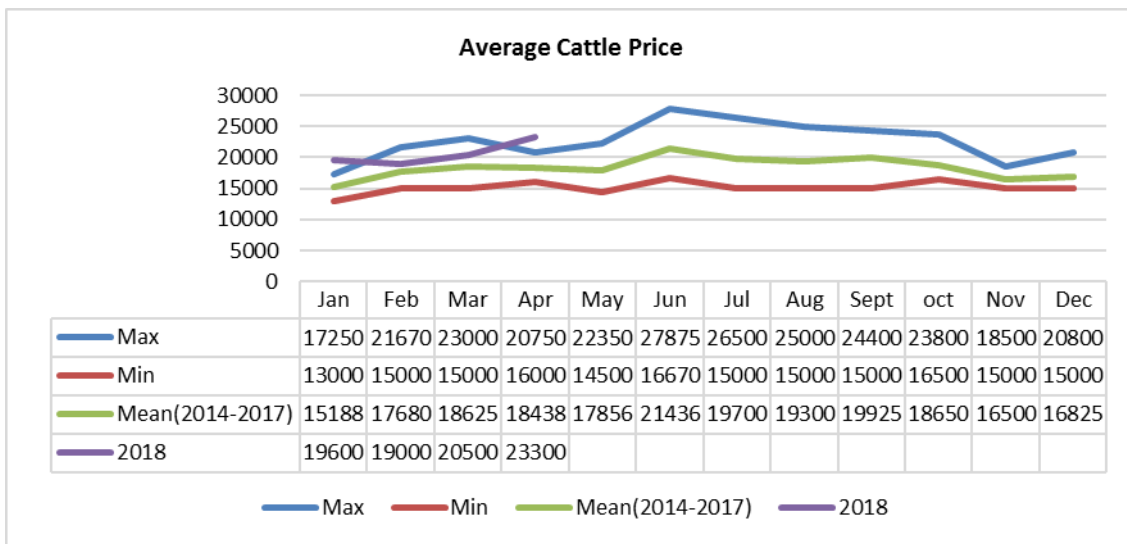
3.2.1 Stage and Condition of food Crops

- Main agricultural activity across the county in April was weeding and top dressing.
- Maize was performing fairly well across all livelihood zones apart from the flooded areas where it was washed away and in the water logged areas. Where the crop survived but there was flooding, leaching was reported. Reports from Department of Agriculture indicate that a large portion of a variety crops in the field, stored grain, irrigation equipment and floods were lost to the floods. The department estimates this loss to be in the tune of Ksh 431,174,400.
- Green grams in the MMF and parts of MF were in the flowering stage nearing the vegetative stage though with some signs of rust.
- Cases of fall army worm were still being reported though less than last month. Spraying was still ongoing.

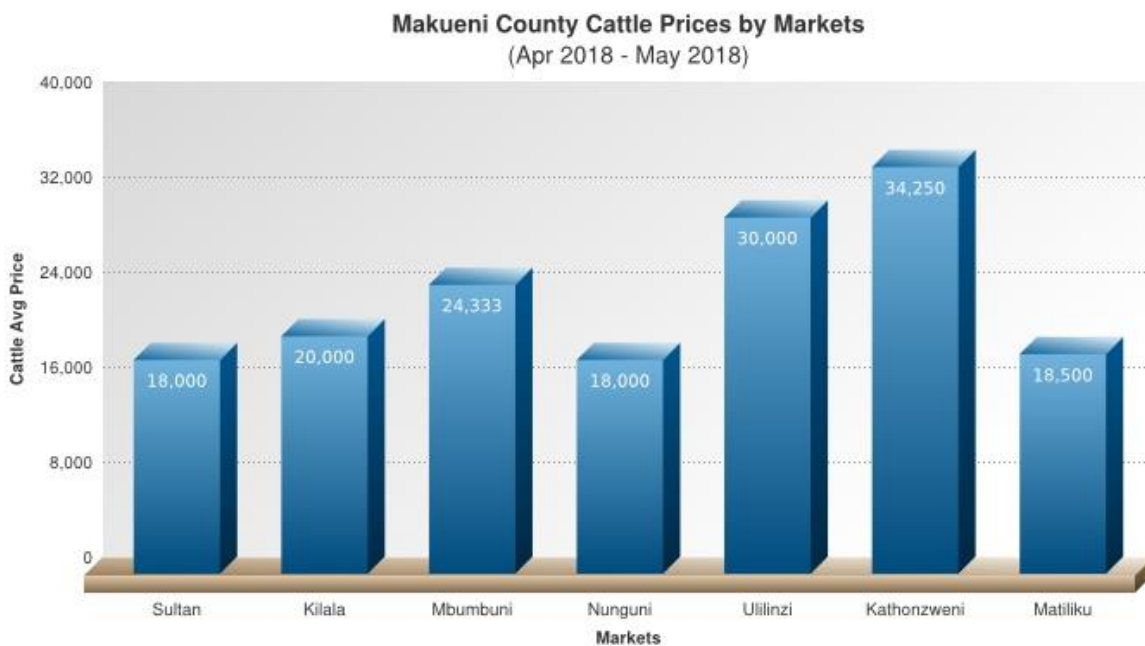
4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

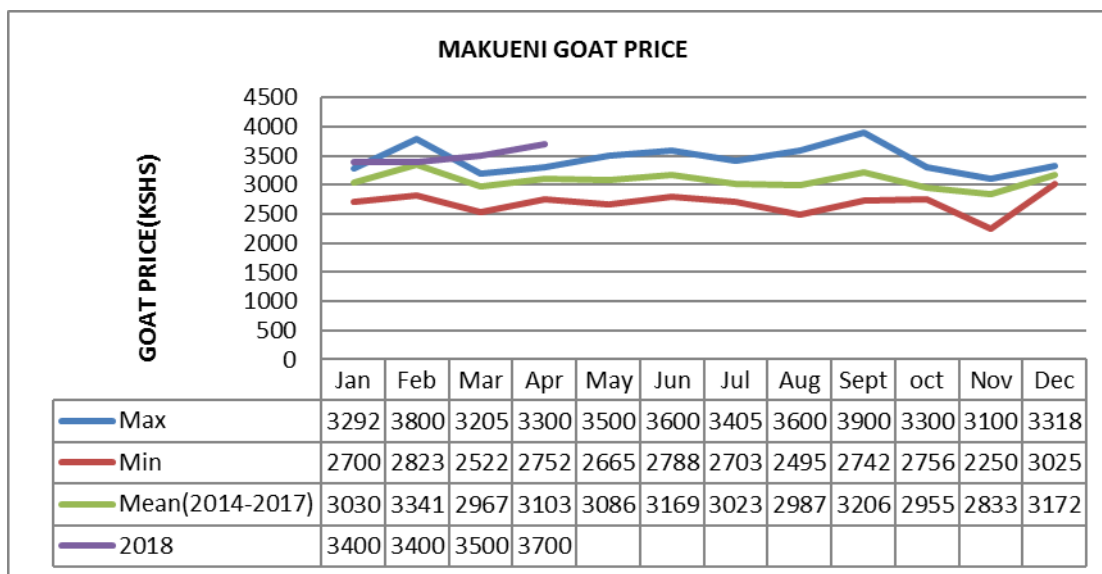
4.1.1 Cattle Prices



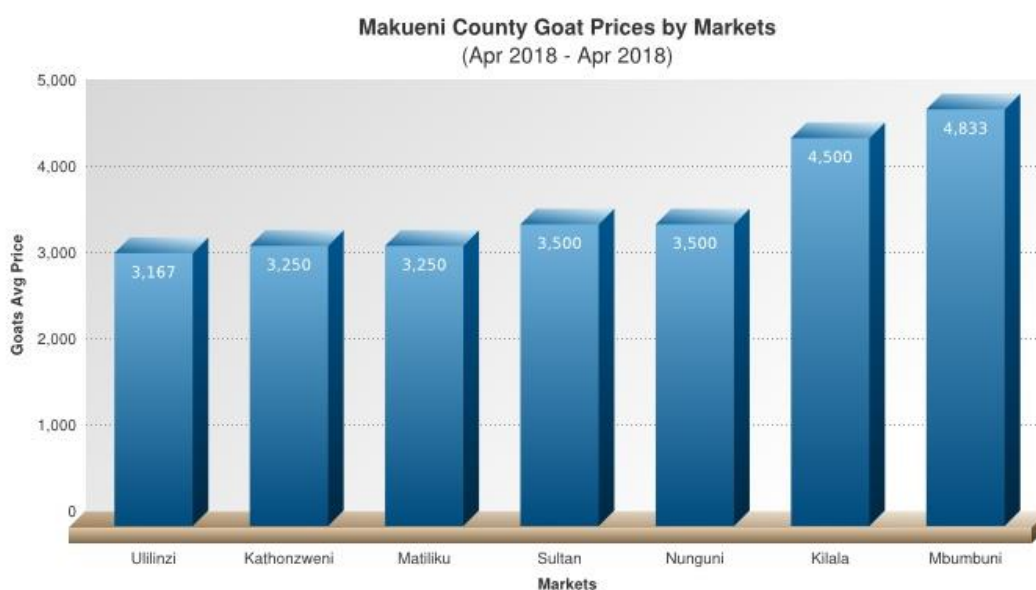
- Average farm gate prices of cattle (2-3 year old bull) increased from Ksh20, 500 to Ksh23, 300. Compared to (2014-2017) long term average the current price was above normal.
- The increase in price is attributed to the decrease in supply in the market due to the ongoing MAM rains. Farmers have held on to their herd since pasture and water for their livestock is readily available.
- The prices of cattle at different markets were as follows:



4.1.2 Goat Prices

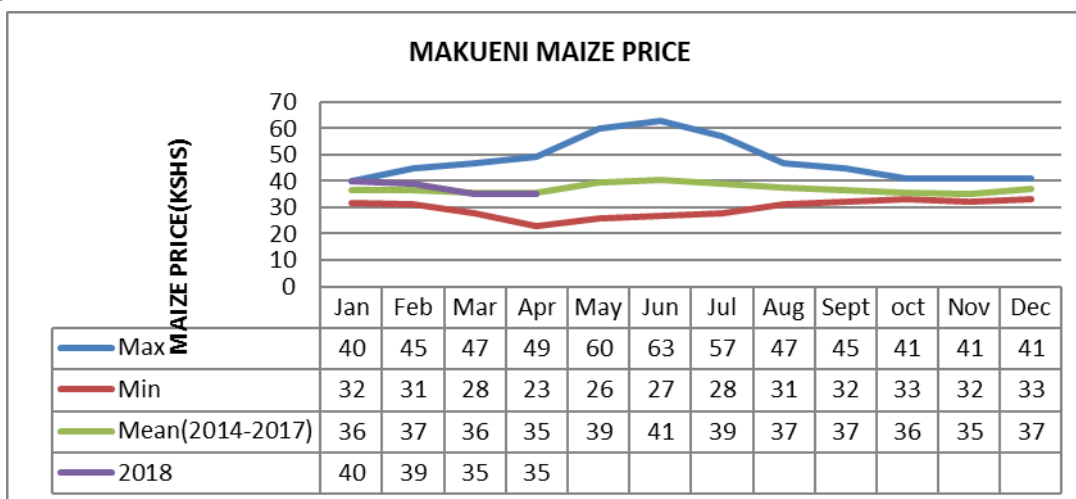


- The average farm-gate price of a goat increased from Ksh3, 500 to Ksh 3,700.
- Compared to the 2014-2017 long term mean the price remained relatively high.
- The increase in price was attributed to the prevailing good body condition.
- Average goat market prices were as follows in the various markets.



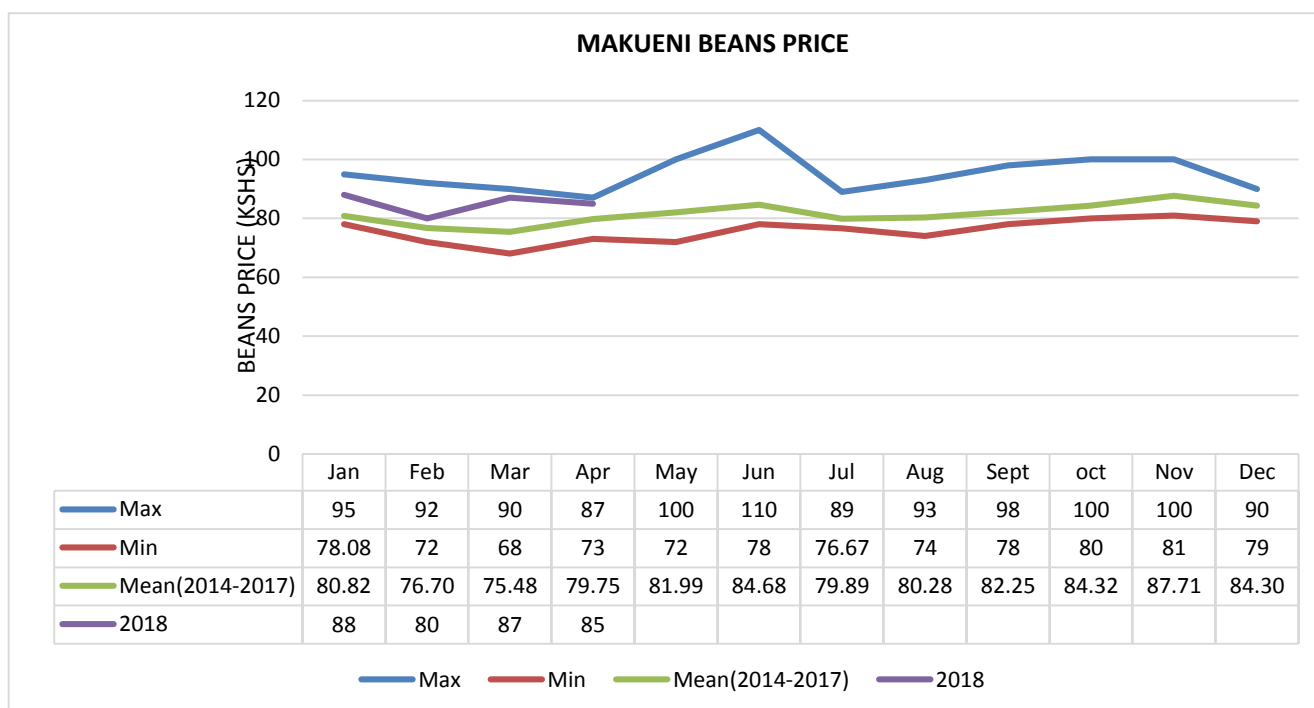
4.2 CROP PRICES

4.2.1 Maize



- The average market price of maize remained stable at Ksh35 per kilogramme.
- Compared to the long term average the price did not change.

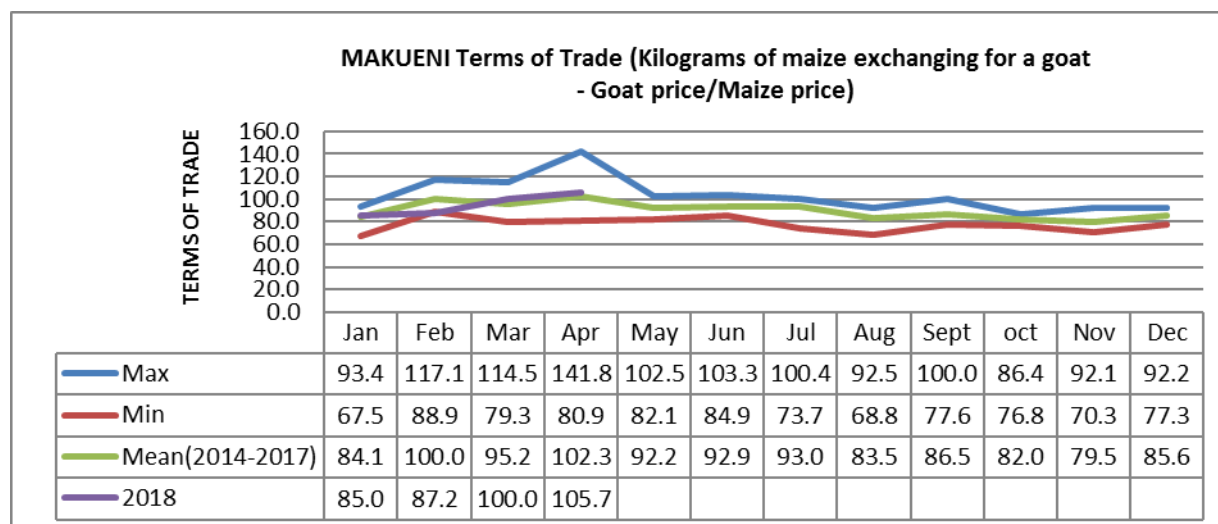
4.2.3 Beans



- The average price for beans was KSh85.
- The prices varied from one market to another.
- The high prices are attributed to the shortage of the commodity in the County.
- Compared to the long term mean the current prices were above normal.

4.2.3.1 Other outstanding observations.

4.3 Livestock Price Ratio/Terms of Trade



- Terms of trade were favorable 105.7 implying that from a sale of one goat, a farmer could purchase 105.7 Kg of maize.

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 750mls to 1000mls.
- The prices were high at Ksh60per litre against the normal of Ksh55.
- Milk consumption is expected to improve even more with the availability of pasture and water for livestock.

Mixed farming Zone (Food crop/Livestock).

- Milk consumption per day in this zone was between 500mls to 750mls.
- The current milk price was Ksh 50 against the normal of Ksh45.

Mixed Farming Zone (Coffee/Dairy)

- Milk consumption is about 1000mls to 1500mls. The average milk price was Ksh 50 against the normal of Ksh45.

5.2 FOOD CONSUMPTION SCORE

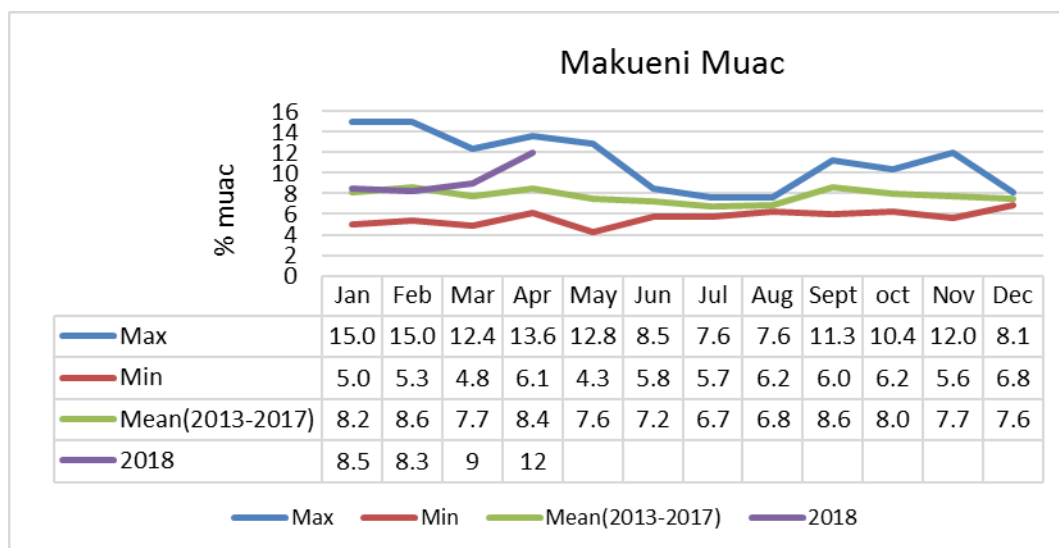
- In mixed farming zone 50.8 percent of households had an acceptable food consumption score while 49.2 percent of households were at the borderline. In the marginal mixed farming zone 51.1 percent of households had an acceptable food consumption score while 48.9 percent of households were at the borderline.
- Below is an illustration of food consumption score in different livelihood zones.



5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

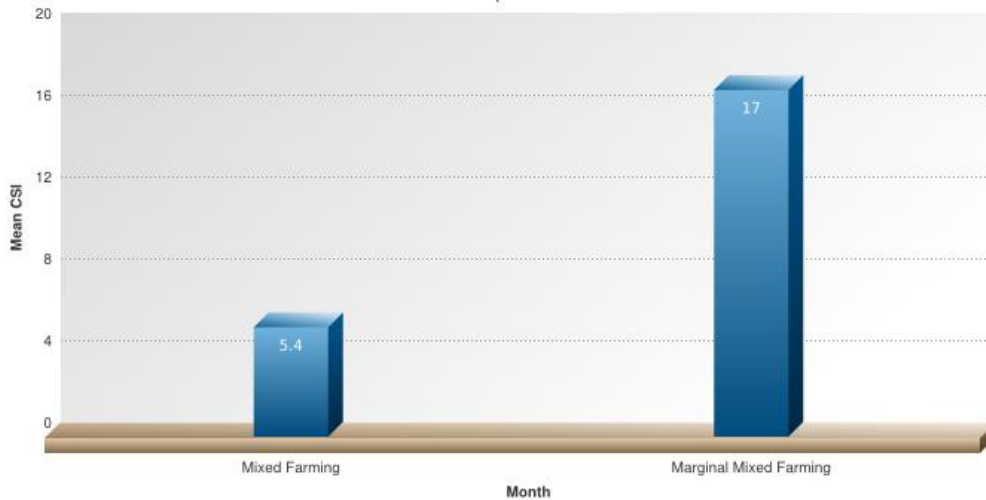
- The percentage of children (under-fives) at risk of malnutrition was 12% an increase from 9% though within the normal range.
- Compared to the long term average the situation was above normal.



5.4 COPING STRATEGIES

- The CSI in Mixed farming livelihood zone was 5.4 , an increase from 4.2 while in the Marginal mixed farming zone it was 17 an increase from 14.7, implying that compared to last month more coping mechanisms were being employed during the month of April.
- The average CSI for the county was 11.2, an increase from 9.5 that of last month.
- Compared to last month more coping strategies were employed.

Makueni County - Coping Strategy Index
April 2018



6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 NON-FOOD INTERVENTIONS

- Asset Creation projects funded by WFP through NDMA and implemented by WVK in North Makueni and KRCS in South Makueni.
- NFIs to cater for 448 households affected by the floods were provided by Kenya Red Cross.

6.2 FOOD AID

- The office of the County Commissioner is currently doing the relief distribution for the month of April, in all of its 9 administrative units (equivalent to six constituencies). Each of the nine is expected to receive 300 bags(50kg) of maize, 200 bags(90kg) of beans, 30 cartons(24×0.5l)and 500 bags of rice(400 have been received awaiting 100). Most of these rations have been allocated to the general public with the exception of 11 schools.

7.0 EMERGING ISSUES

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

- Flash floods were experienced in most parts of County mostly in the lowlands of Kibwezi west, Makueni and parts of Kibwezi East sub Counties, while in the highlands of Kilungu in Kilome Sub-County mudslides cases were reported.
- **In Kibwezi East Sub-county;**
Kiaoni Market: 65 families were displaced by floods and were accommodated at Kiaoni primary School, in Matikoni village 11 families were housed in the neighbourhood, in Kitulani village 4 households were housed in the neighbourhood.

Parts of Kiaoni Market (on the banks of river Athi) in Ngulu sub location, Kikumbulyu North location. Businessmen were counting great losses due to flooded water and fire as a result of electricity fault.

Crops and irrigation equipment along the River Athi were swept away by the floods. This included the irrigation equipments provided by the Asset Creation Programme. Total displaced households were 80.

- **In Kilome Sub-county;**

They reported frequent and heavy rainfall over the last one month which resulted to poor crop growth as a result of flooding and leaching. There have been reported cases of buildings collapsing. Feeder roads were also not accessible due to soil erosion.

Mud slides were experienced in Nunguni area and as a result destroying houses and blocking access roads. Latrines and kitchens have been destroyed in many areas.

- **Makueni Sub-County**

Kamunyulu dam which supplies Wote town was also washed away by the floods.

Kaiti Sub-County

- Three houses were swept off by the floods in Kikandu village near Kyuasini area. There were several reported cases of latrines sinking as a result of the flooding due to the soil type in the area. Kitchens which are mostly earthen have also been destroyed.

Mbooni Sub-county

- Mbasya dam in Kalawa with a capacity of 60,000m³ was also washed away by the ongoing floods.

Kibwezi West sub-county

- Vunguu dam in Nguu/Masumba ward had been washed away. Tabora dam in the same ward (Kalili sub ward) has also been destroyed by the floods.
- Bridges and roads had also been destroyed in Kasikeu ward.

A more detailed report on the extent of damage has been shared with the Information Department at NDMA HQs.

7.2 Migration.

- No major livestock migration.

7.3 Food security prognosis

As a result of the recent rains, some areas will get a fair harvest. However, there are vast areas of cropland that were washed away and this eventually have a negative impact on the food security especially if replanting does not take place in a timely manner. Livestock farming has been affected by the deaths reported. However, pasture and browse has regenerated adequately and the animal body condition currently is good. Milk production has also gone up and terms of trade are currently above average at 105. All this will however change come harvest time due to the damage caused by the floods. The appropriate recovery measures should be taken to assist the affected households.

8. RECOMMENDATIONS

- Provision of food and Non Food Families to the affected families
- Relocation of households at risk
- Assessment of major dams and earth pans and dams to avoid further breaching and erosion
- CSG assessment across all the sub-counties and hotspots
- Co-ordination meetings at county, sub-county and community ' barazas'
- Immediate assessment of schools across the county to determine suitability of re-opening. Many classrooms and latrines have collapsed.
- Distribution of mosquito nets and aqua tabs across the county as well as outreaches on safe water use.
- Provision of seed to farmers to revamp the damaged cropland and rangeland as a result of the floods.

