

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



A Vision 2030 Flagship Project



AUGUST EW PHASE



Drought Situation & EW Phase Classification

Biophysical Indicators

- Generally the month was dry characterized by hot nights and sunny days.
- No rainfall was recorded during the month of August.
- The County recorded an average 3 month VCI of 53.39 implying normal vegetation greenness for the County.
- The quantity and quality of pasture ranged from fair to poor in the Mixed farming zone while in the Marginal mixed farming zone it was poor.
- The state of surface water sources was on a declining trend across all the three livelihood zones.

Socio Economic Indicators (Impact Indicators)

- Livestock body condition ranged from fair to good across all the three livelihood zones body score of 4-5
- Compared to the long term, Terms of trade were unfavorable at 78.
- The percentage of children at risk of malnutrition was 7.0 percent which is within the normal range.
- The County CSI was 9.9, an indication of high coping mechanisms for most households.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Mixed farming coffee/dairy	Normal	Worsening
Mixed farming Food Crop/Livestock	Normal	Worsening
Marginal Mixed Farming	Alert	Worsening
County	Alert	Worsening
Biophysical Indicators	Value	Normal Ranges
VCI-3Month	53.39	>35
State of Water Sources	4	5
Production indicators	Value	Normal
Crop Condition	Harvesting	Fair
Livestock Body Condition	5-4 Moderate	6-Normal
Milk Production	2.0L	1.8 Litres
Livestock Migration Pattern	Normal	Normal
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	78	>80
Milk Consumption	1.2 L	1.2 litres
Return distance to water sources	4.6 Km	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)	7.0	<12.9
Coping Strategy Index (CSI)	9.9	<10

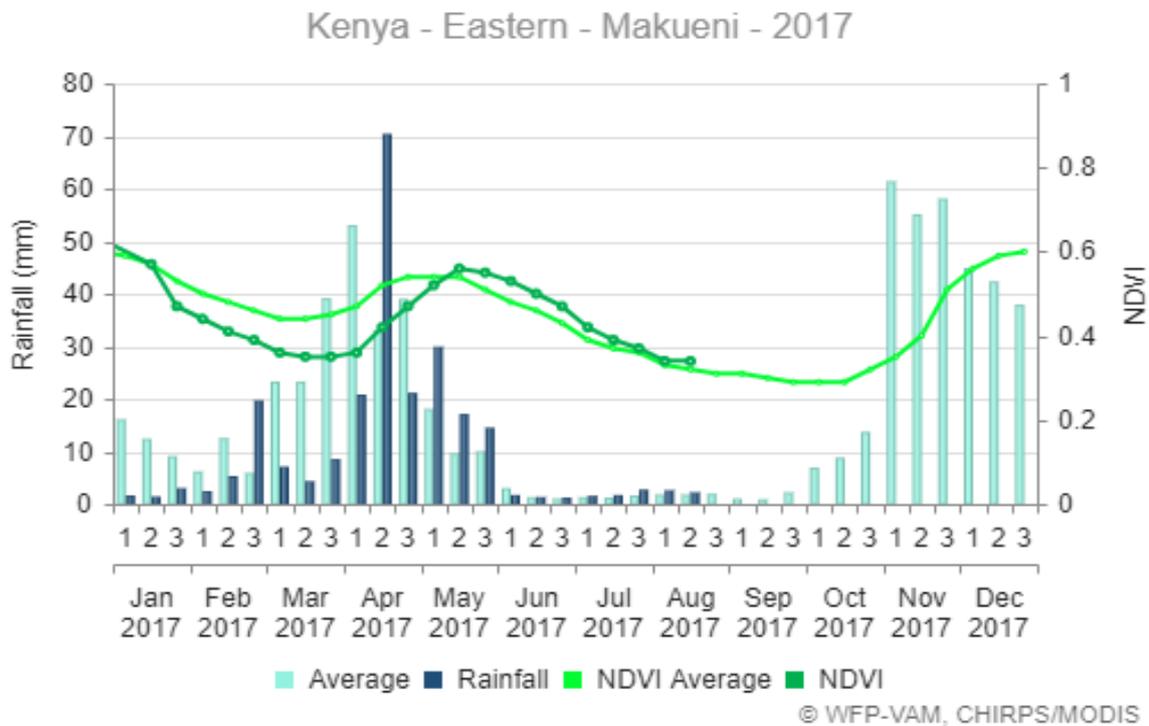
Seasonal Calendar

<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

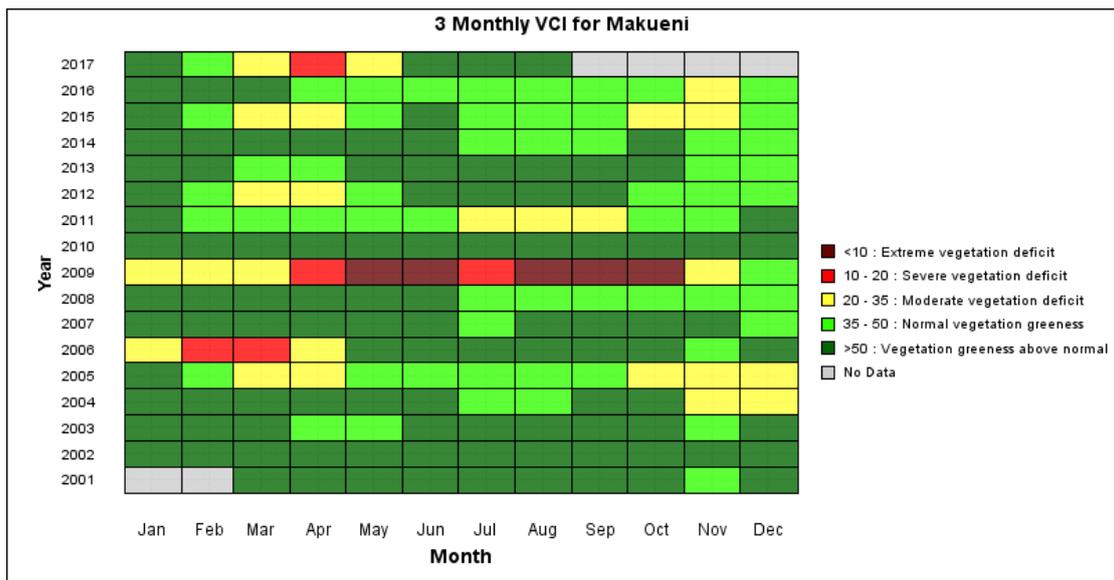
- Minimal off-season light showers were recorded during the month and this is normal for this period of the year.

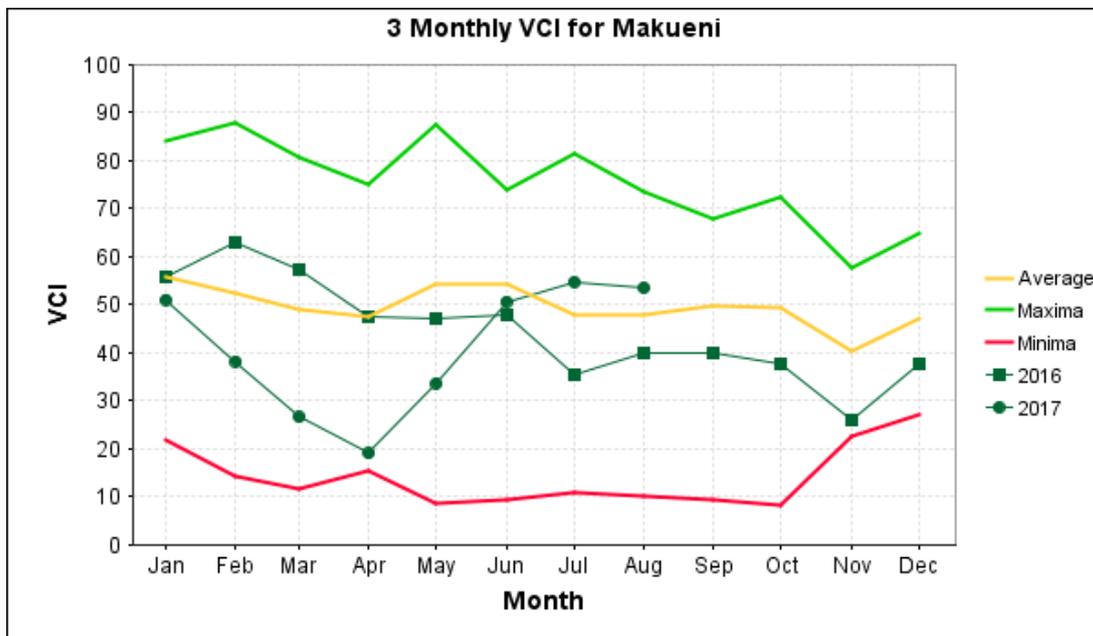


2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

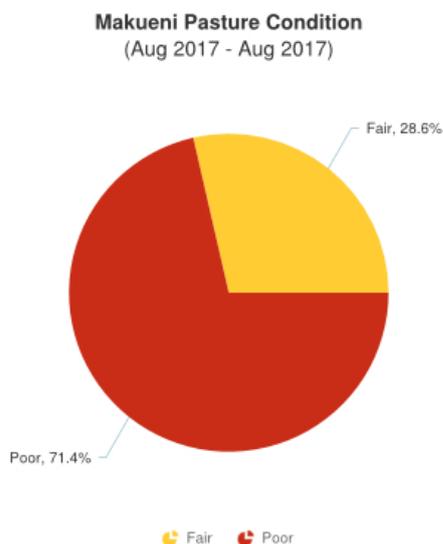


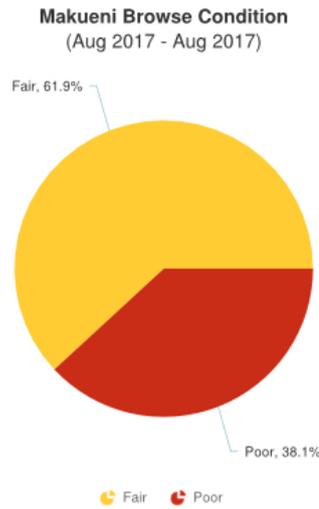


- The average 3-month VCI for the County was 53.39 from 54.62 recorded last month.
- The average 3-month VCI for Kibwezi West and East was 58.56, 42.06 and 48.97 respectively implying normal vegetation greenness for these Sub Counties.
- Makueni, Kilome, Kaiti and Mbooni Sub-Counties on the other hand recorded indices of 58.56, 50.84, 74.91 and 72.94 respectively; an indication of above normal vegetation greenness.

2.1.2 Pasture and Browse

- In both mixed farming (Coffee/Dairy) and mixed farming (Livestock/Food Crop) livelihood zone the quantity and quality of Pasture and browse condition was fair while in the marginal mixed farming zone pasture condition was poor and in some pockets completely depleted (Kalawa in Mbooni Sub County and Yekanga in Makueni Sub County)
- There was deterioration of pasture across all the three livelihood zone while the available pasture is expected to last for 1 month.
- Browse condition was fair in both mixed farming (Coffee/Dairy) and mixed farming (Livestock/Food Crop) while in Marginal mixed farming livelihood zones it ranged from fair to poor.





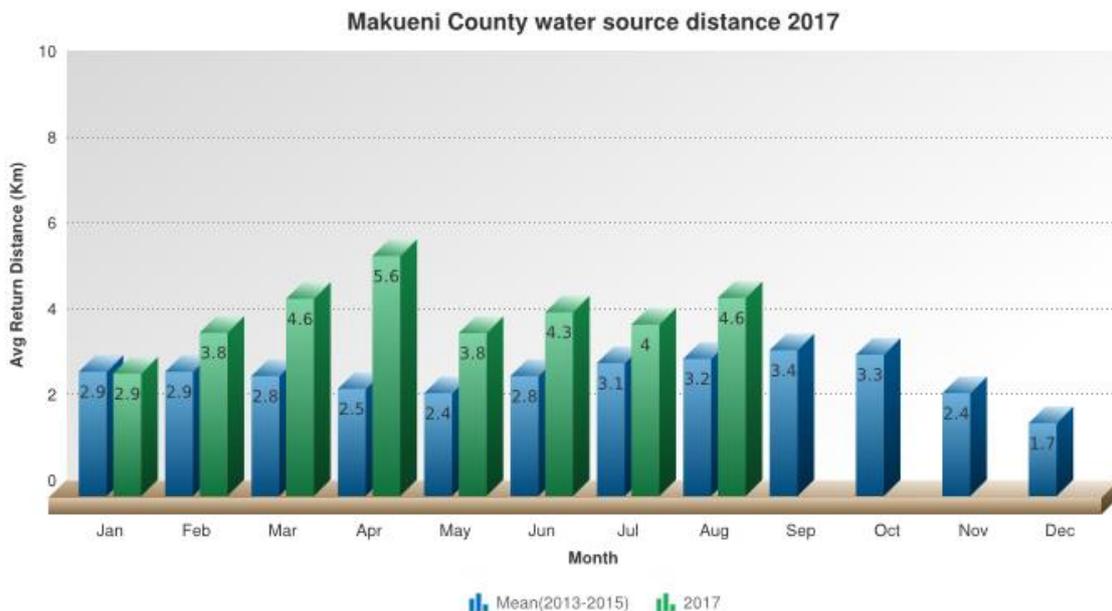
2.2 WATER RESOURCE

2.2.1 Sources

- Three main sources of water for the month were: Rivers, shallow wells, pans and dams and piped water schemes.
- Other sources were traditional river wells, springs, boreholes and natural ponds.
- The State of water sources had an index of 4 to 5(normal and declining in some areas) in both the mixed farming (Coffee/Dairy) and mixed farming (Livestock/Food Crop) livelihood zones though with a decline trend while in the marginal mixed farming livelihood zone the situation was below normal with some areas recording an index of 3(inadequate).
- In some places mostly along the Athi belt, residents had to walk for longer distances (6 to 15Km an increase from 5-10Km) in search of water for both livestock and domestic use. In other areas mostly in Kibwezi west the waiting time was more than 6 hours due to long queues that were being experienced.
- The average cost of a 20 litre Jerry can at the water kiosks was Ksh 3 to 5.

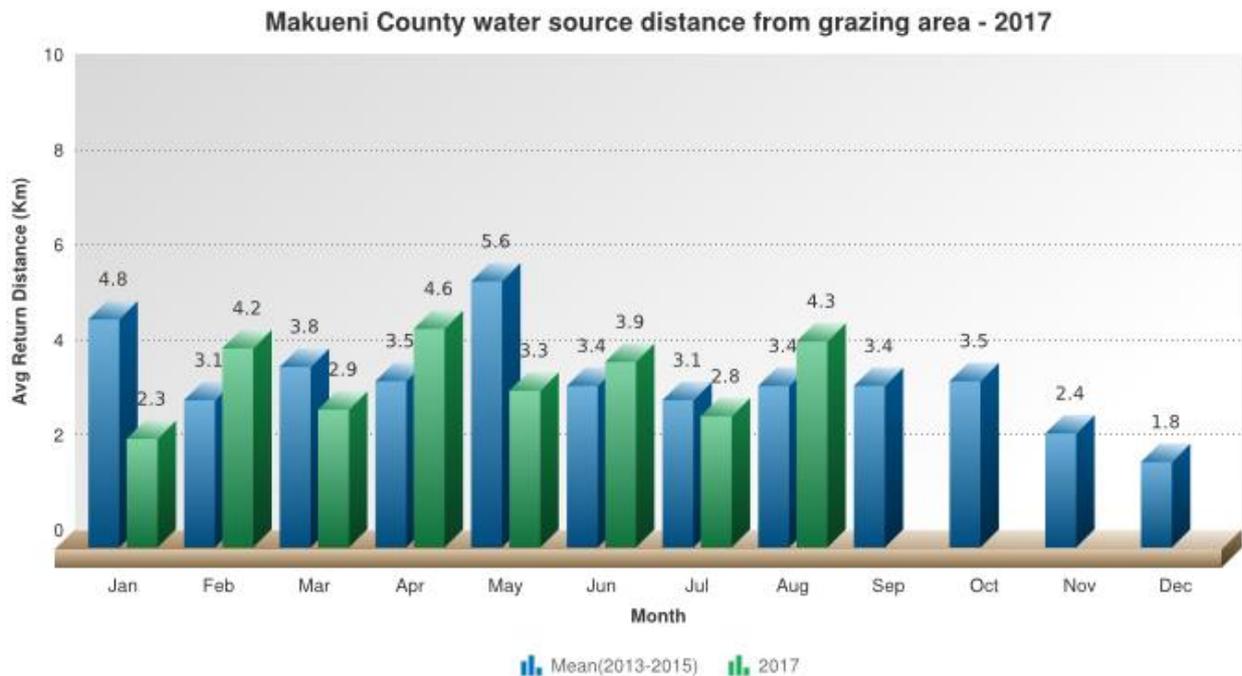
2.2.2 Household access and Utilization of water

Distances to water sources for household consumption



- The average household return distances was 4.6Km compared to the long term mean of 3.2 km the distances had slightly increased from 4.0 recorded last month.

2.2.3 Livestock access to water



- Average return distances to water sources for livestock increased marginally to 4.3Km mostly in the Marginal mixed farming zone.
- The increase in distances was attributed to depletion of nearby water sources and Pastures prompting the livestock keepers to look for these commodities elsewhere.
- The distances are expected to increase more and more as the available resources get depleted.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- The current livestock body condition for cattle was at the borderline (fore-ribs not visible but 13th and 14th ribs visible) to moderate and good for shoats across all the livelihood zones.

3.1.2 Livestock Diseases

- No major livestock disease outbreaks reported.

3.1.3 Milk Production

Milk availability

- Milk availability in all the livelihood zones was low but normal.
- The trend in milk availability was on a decline as a result of the poor pasture conditions and longer distances to water sources.

Marginal mixed Farming zone:

- Households in this zone were more reliant on goat milk whose yield was between 0.1-0.4lts per day. Local Zebu also produced 0.2-0.5lts but the situation is expected to decline in the next 1 to 2 months as the pastures decline more.

Mixed farming (Food Crop/Livestock):

- In this zone Zebu cattle and crossbreeds accounted for most milk produced. Availability was approximately 0.4-0.6lts compared to a normal of 0.5lts.

Mixed Farming (Coffee/Dairy):

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

3.2 RAIN-FED CROP PRODUCTION

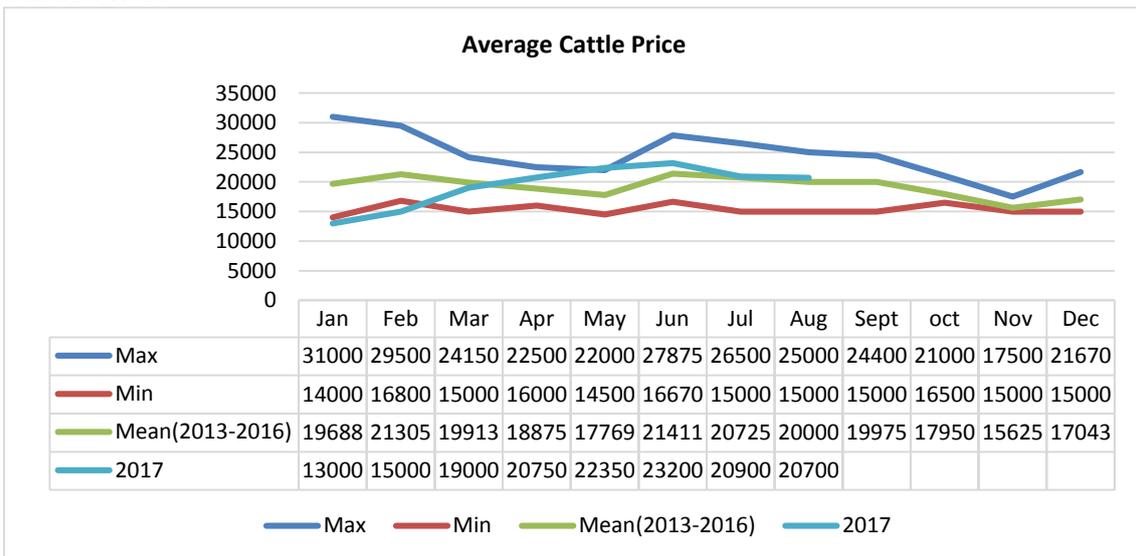
3.2.1 Stage and Condition of food Crops

- Main crops that were planted in the marginal mixed farming zone were cowpeas and green grams while in the mixed farming (Coffee/Dairy) and Mixed Farming (Food Crop/ Livestock) livelihood zone was maize, beans and cowpeas. Already harvest had taken place in most areas.
- Harvest of pigeon peas was on-going.
- There was minimal harvest of pigeon peas and maize in the Mixed farming livelihood zones while in the Marginal mixed farming zone there was total Crop failure.
- The massive crop failure is likely to result to reliance on market for basic commodities which might have a negative Impact on food Security.

4.0 MARKET PERFORMANCE

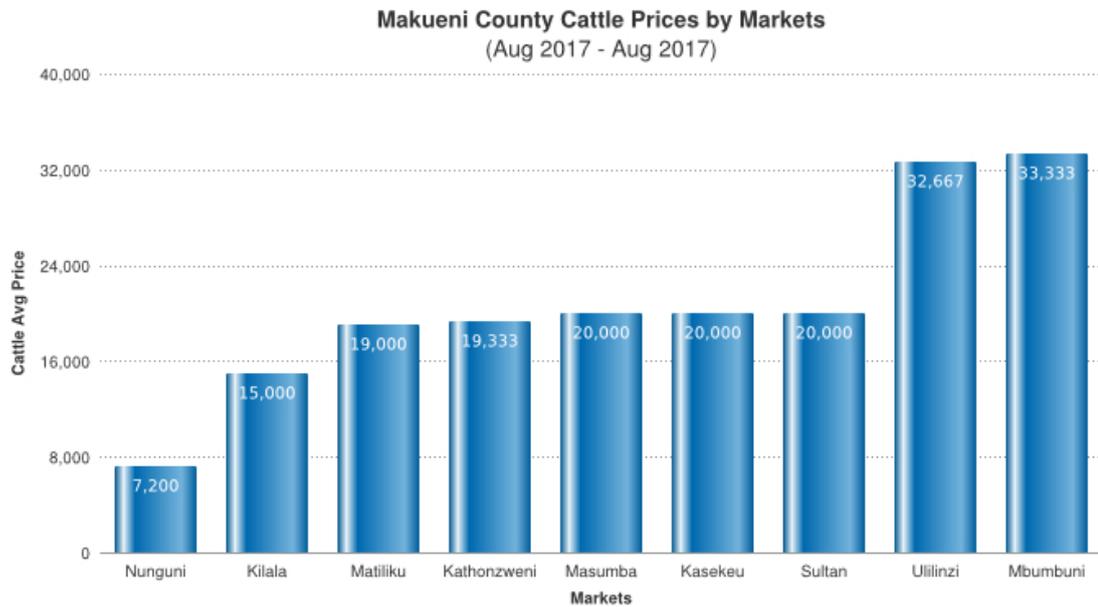
4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

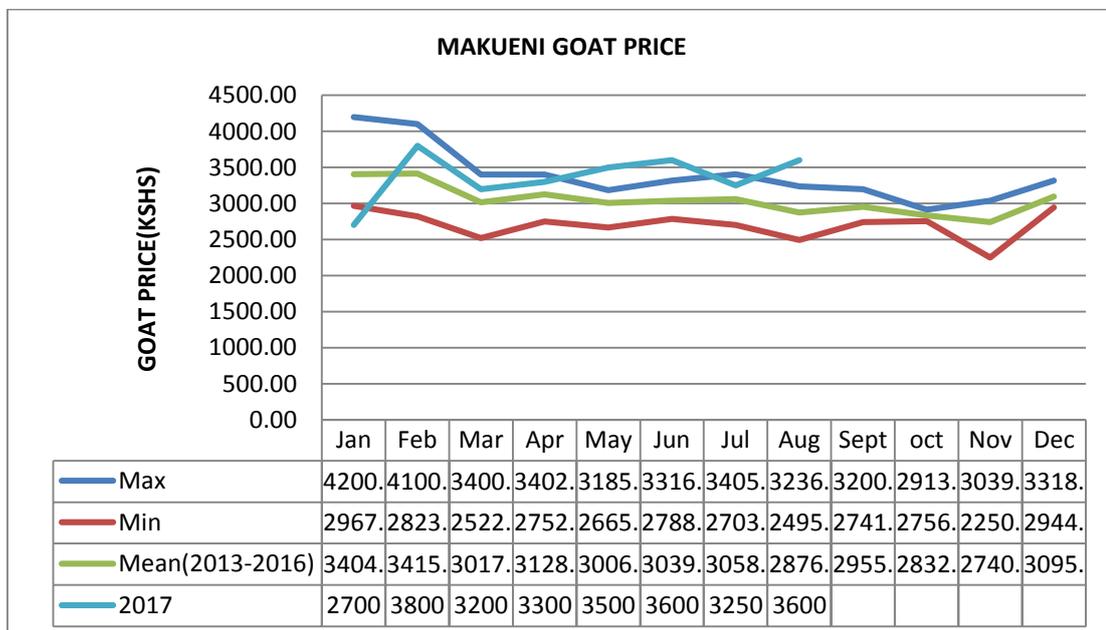


- Average farm gate prices of cattle decreased by 0.9% from KSh20, 900 to Ksh20, 700. Compared to (2013-2016) long term average the current price was normal.

- The decline in price for the last three months is attributed to the decline in body condition due to the decline in availability of pasture and water for livestock mostly in the marginal mixed farming livelihood zone.
- It can also be attributed to the high supply of cattle in the market due to reduced alternative of household income sources.
- The prices of cattle at different markets were as follows:

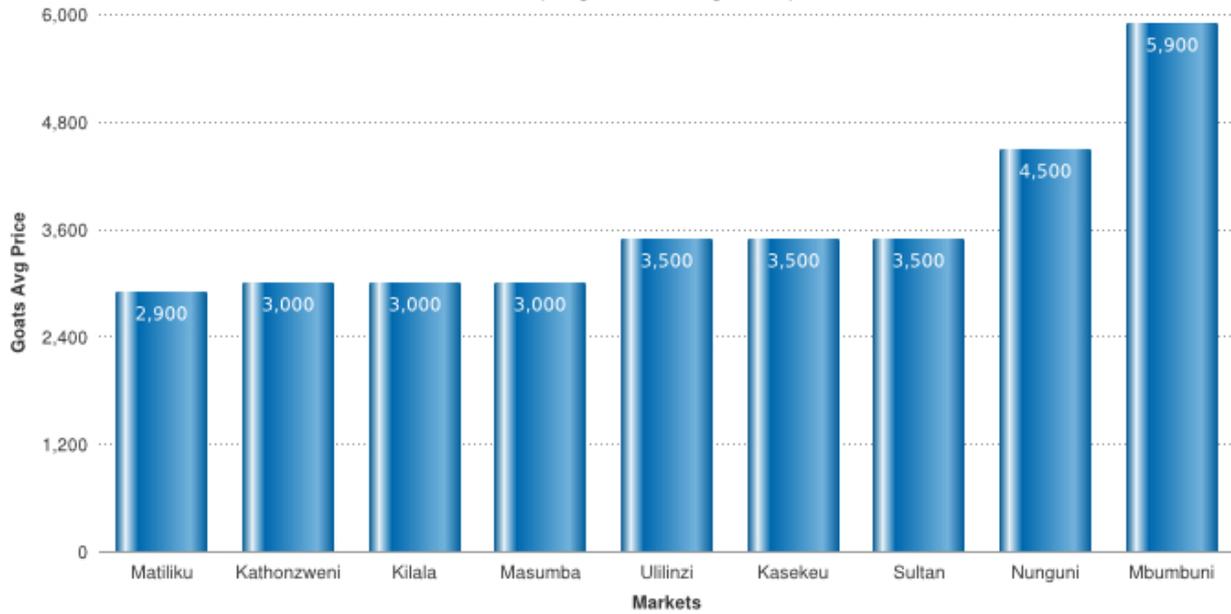


4.1.2 Goat Prices



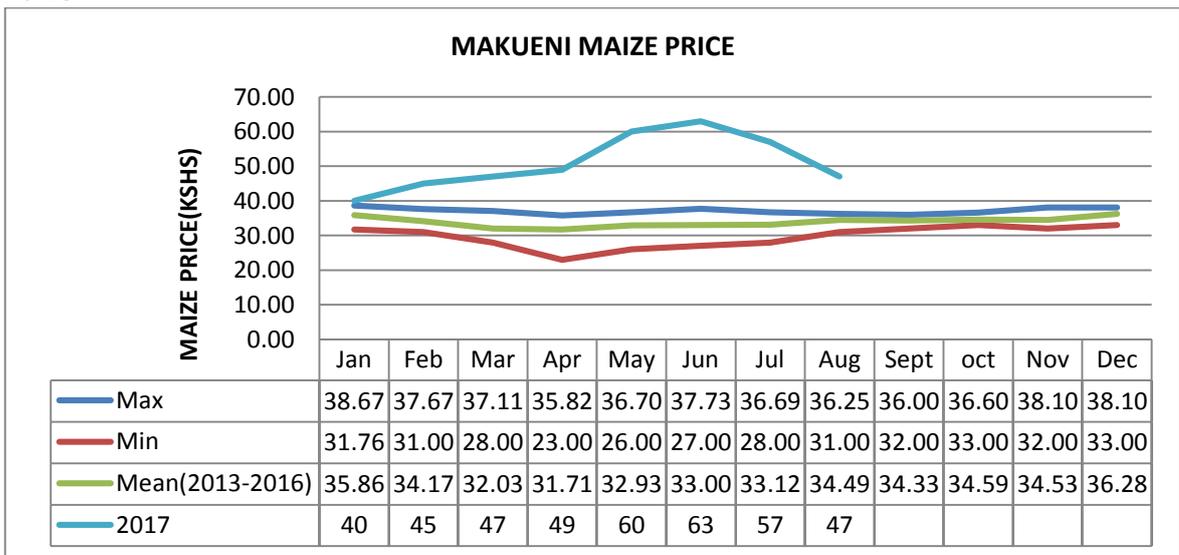
- The average farm-gate price of a goat increased from Ksh3250 to Ksh3600 and was higher than the (2013-2016) long-term mean.
- The increase in price is attributed to the good body condition of shoats.
- Average goat market price was as follows in various markets across the county.

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



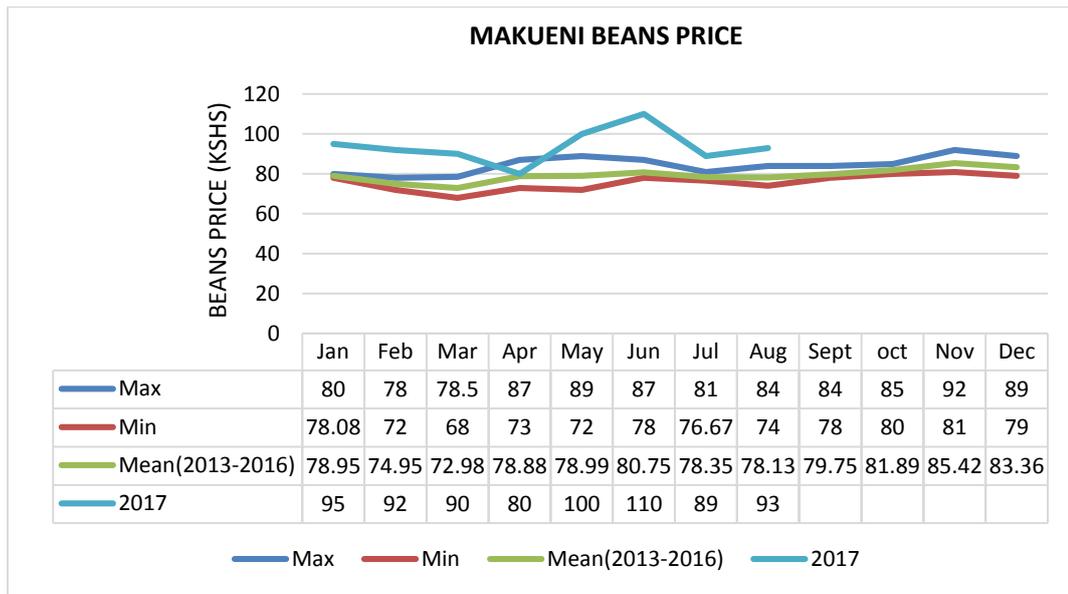
4.2 CROP PRICES

4.2.1 Maize



- The average market price of maize decreased steadily to Ksh 47 from Ksh57 last month. This was attributed to increase in imports that have stabilized the price as well as the harvests coming from the Mixed farming livelihood zones.
- The price remained relatively higher than the (2013-2016) long-term average and lower than that of last month.
- The high prices were attributed to the depletion of stocks and restricted importation of the commodity from Tanzania.

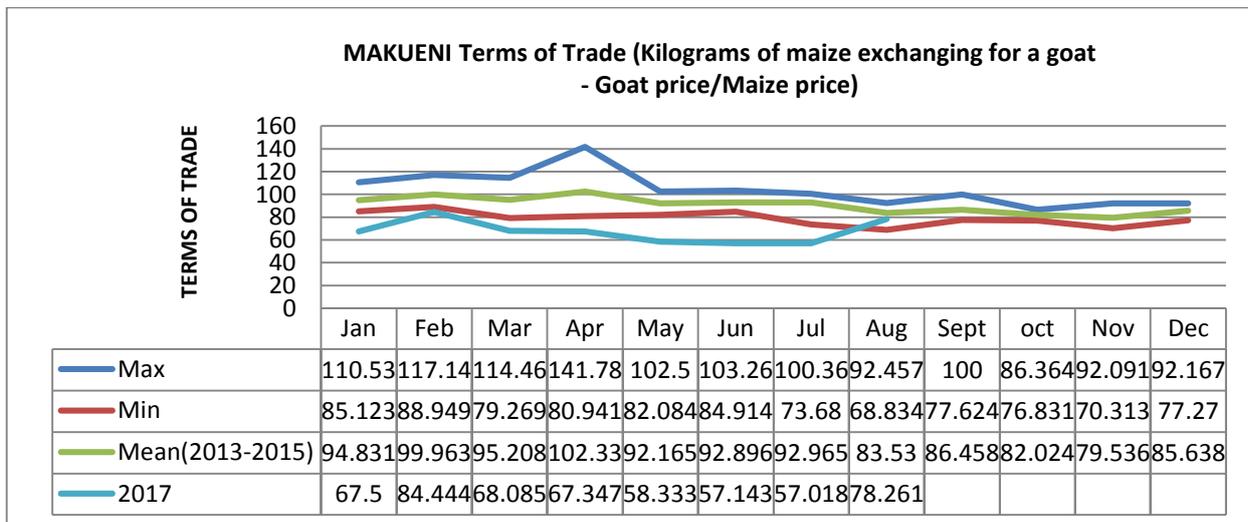
4.2.3 Beans



- The average price of beans increased to Ksh93 from ksh89 that of last month.
- Compared to the long term the current prices are above normal and this is attribute to the poor harvests realised in most parts of the County.

4.2.3.1 Other outstanding observations.

4.3 Livestock Price Ratio/Terms of Trade



- Terms of trade (ToT) were unfavorable at 78 implying that from a sale of one goat, a farmer could purchase 78Kg of maize from the earnings of a goat. The ToT improved from the previous month mainly due as a result of the decline in maize prices and increased goat prices. This was however lower than (2013-2015) Long Term Average of 83.53
- The below average terms of trade can be attributed to the high prices of maize in the last few months which had become a scarce commodity in the County.

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).

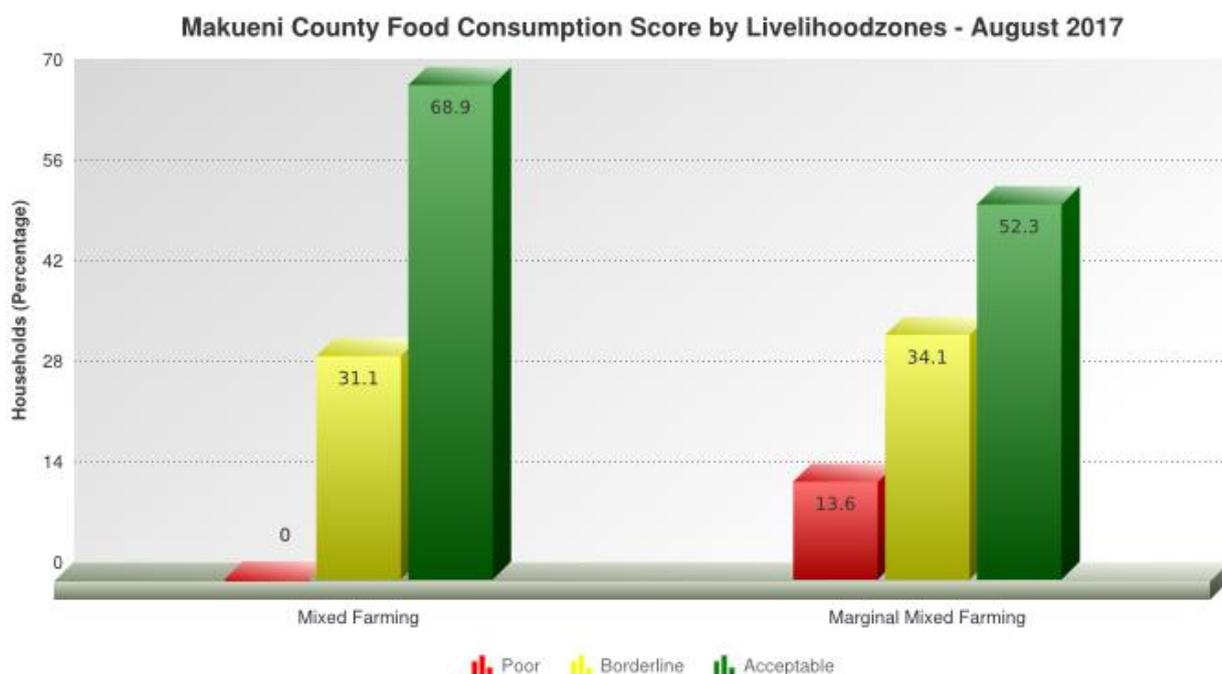
- Milk consumption per day in this zone was between 300mls to 500mls which was below normal.
- The current milk price is between Ksh55 to Ksh60 against the normal of Ksh50.

Mixed Farming Zone (Coffee/Dairy)

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

5.2 FOOD CONSUMPTION SCORE

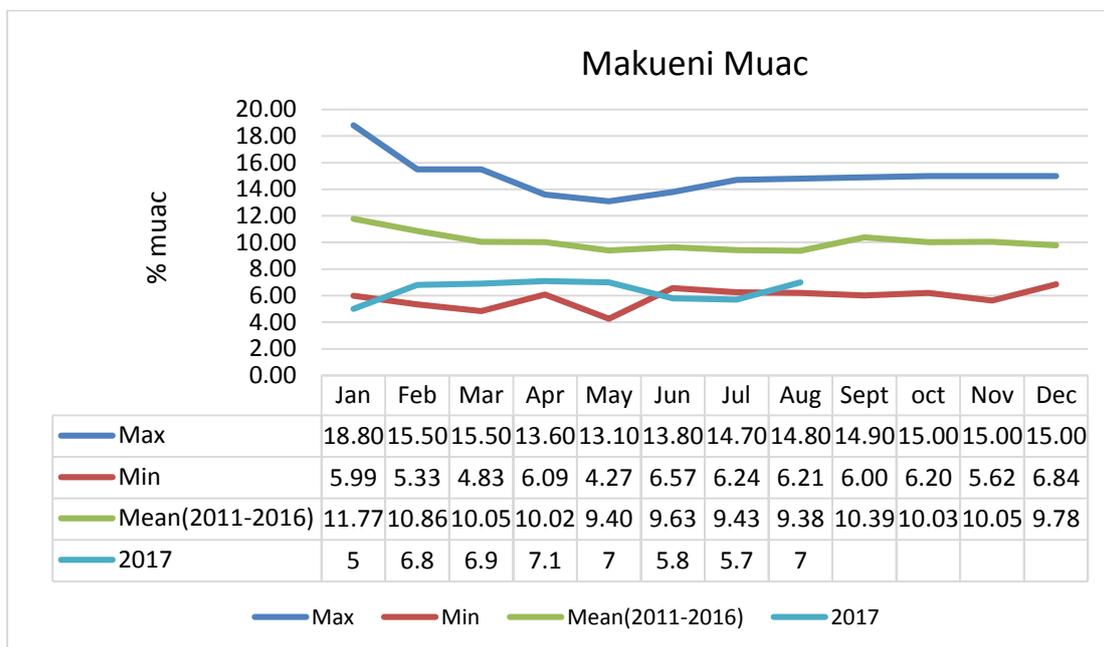
- 62% of households had an Acceptable food consumption score, 32% of households were at the borderline while 6% had a poor consumption score.
- This implies that the dietary diversity of most households was fair to good and this is as a result of the little harvests from the farms.
- Figure below illustrates the food consumption score in the mixed farming and marginal mixed farming livelihood zone.



5.3 HEALTH AND NUTRITION STATUS

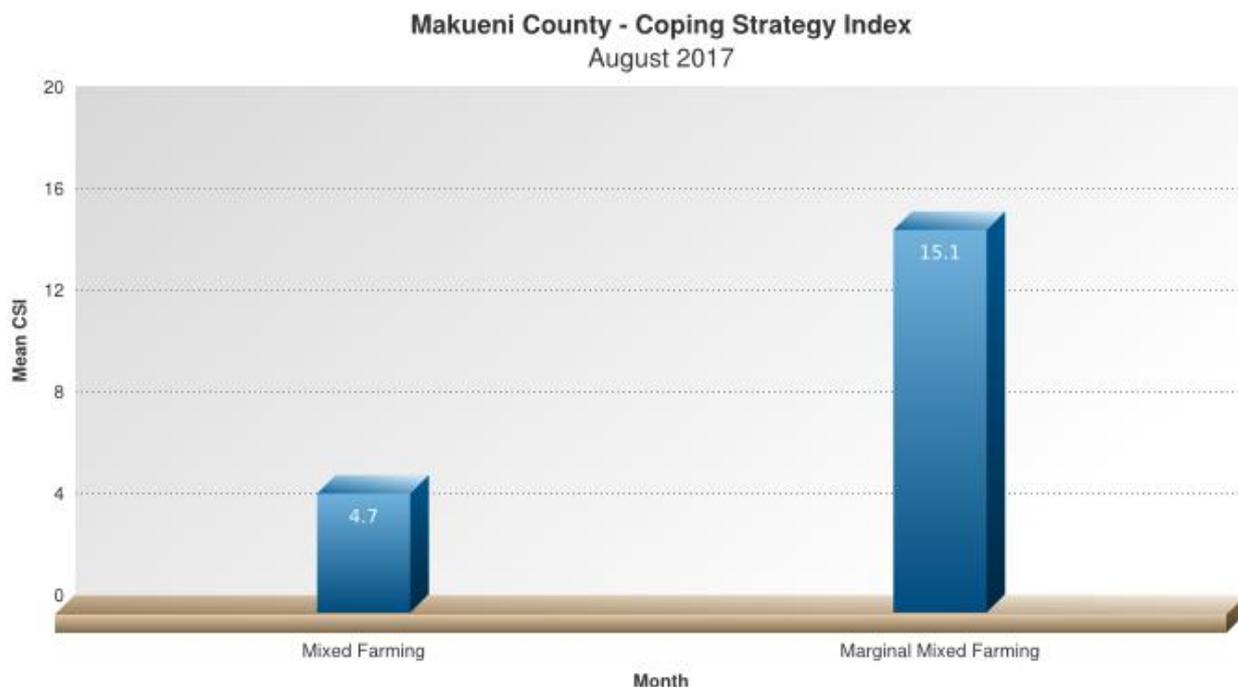
5.3.1 Nutrition Status

- The average proportion of children at risk of malnutrition was 7 percent.
- Compared to the long term average the situation was stable.



5.3 COPING STRATEGIES

- The CSI in Mixed farming livelihood zone was 4.7 while in the Marginal mixed farming zone it was 15.1 implying that more coping mechanisms were being employed in Marginal Mixed Farming livelihood zone than in the Mixed Farming livelihood zones.
- The average CSI for the county was 9.9
- Most households across all these livelihood zones were employing food 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/NDMA in Makueni, Mbooni, Kibwezi East and West sub counties targeting 61,000 beneficiaries.
- Training of Enumerators and Sensitisation of DCCs on “Chakula Kwa Jamii initiative” implemented by Ministry of Special Programmes under the leadership of WFP and partners in Mbooni (selected wards), Makueni (Wote ward), Kilome (Kiu-Kalanzoni ward), Kibwezi East and West sub counties a total of 27,567 beneficiaries.
- Construction and lining of Farm ponds County Wide.
- Up scaling of irrigation along major rivers in the County by the county government.
- Post-harvest management (green grams and cowpeas in marginal mixed farming zone and Pulses in mixed farming zone) by the department of Agriculture
- Soil and water conservation by the County government to learning Institutions.
- Pest and Disease control for Horticultural and Citrus crops by the county government.

6.2 FOOD AID

- During the month under review, relief food from Department of Special Programmes was distributed by the office of the County Commissioner. This was the consignment that was meant for July. 500 bags (50 kg) bags of maize, 100(90kg) bags of beans, 50 cartons (24× 0.5l) of cooking oil, and 100 (25kg) bales of fortified foods were received from the Ministry of Special Programmes to be distributed in all the 9 administrative units by the office of the County Commissioner.

7. EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- No conflict was reported.

7.2 Migration.

- Cases of livestock migration from the neighbouring County of Kajiado were reported in Mukaa and Makindu (areas bordering Kyullu Hills). Large herds of Camels were also spotted in Makindu and surrounding areas.

7.3 Food security prognosis

Food market prices have become more stable over the last one month. Maize price have dropped to ksh 47 from ksh 57 the previous month. This however, remained higher than the LTA of ksh 35. Goat price have been favourable as a result of the good body condition. Terms of trade remained below the long term average of 83.53 at 78.26. Maize prices are expected to remain higher than the Long Term Average but stable over the next one to two months. Imports from Western parts of Kenya and local harvests from within the county have led to the stabilized market price. The nutritional status of the county is not expected to change over the next one month given that close to 94 percent of the households sampled had both acceptable and borderline food consumption scores. MUAC for the under-fives was within normal range.

8. RECOMMENDATIONS

Agriculture Sector

- Up scaling of current crop production.
- Promotion of water harvesting at household level.
- Promotion of conservation agriculture practices such as 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.

Water Sector

- Servicing and rehabilitation of broken down boreholes as well as stockpiling with spares.
- Advocate rain water harvesting and use of water treatment chemicals

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.

Education

- Expand HGSMP to cover more schools.