Livelihood Zone (L.Z) | Phase | Trend
--- | --- | ---
Mixed Farming (Coffee/Dairy) | Alert | Worsening
Mixed Farming (Food Crop/Livestock) | Alert | Worsening
Marginal Mixed Farming | Alarm | Worsening
County | Alert | Worsening

Biophysical Indicators | Value | Normal Ranges
--- | --- | ---
Rainfall (% of Normal) | 100 | 80-120% |
VCI-3Month | 48.22 | 35-50 |
State of Water Sources | 3-4 | 5 |

Production indicators | Value | Normal
--- | --- | ---
Crop Condition | None | Preparation
Livestock Body Condition | Fair to Poor(3-4) | 4-5 Normal
Milk Production | 1.5 Litres | 1.6 Litres
Livestock Migration Pattern | Intra & in-migration | In-migration
Livestock deaths (from drought) | No death | No death

Access Indicators | Value | Normal
--- | --- | ---
Terms of Trade (TOT) | 75.9 | 96.6 |
Milk Consumption | 1.1 litres | 1.1 litres |
Return distance water sources | 5.3 Km | 5.7 Km |
Cost of water at source (20 litres) | Ksh 3-5 | Kshs 2-5 |

Utilization indicators | Value | Normal
--- | --- | ---
Nutrition Status, MUAC (% at risk of malnutrition) | 8 | 7.7 |
Coping Strategy Index (CSI) | 9.5 | <10 |

- Short rains harvests
- Short dry spell
- Reduced milk yields
- Increased HH Food Stocks
- Planting/Weeding
- Long rains
- High Calving Rate
- Milk Yields Increase
- Long rains harvests
- A long dry spell
- Land preparation
- Increased HH Food Stocks
- Kidding (Sept)
- Short rains
- Planting/weeding

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<th>Jan</th>
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1. CLIMATIC CONDITIONS
1.1 RAINFALL PERFORMANCE

- Generally, the month of September was hot and dry across all the livelihood zones with no significant rain being received.
- On average, the County recorded an average of 1.2 mm against an average of 0.8mm in dekad one, 1.2mm against an average of 0.7mm in dekad two and 2.2mm against an average of 2 mm in dekad three.

2. IMPACTS ON VEGETATION AND WATER
2.1 VEGETATION CONDITION INDEX

2.1.1 The vegetation condition (VCI)

The vegetation condition continued to deteriorate during the month under review. The county average 3 month VCI was recorded as 48.22. Kibwezi East sub-county was the worst affected in terms of deteriorating vegetation condition recording an average of 33.11(an indication of moderate vegetation deficit). Kibwezi West, Kaiti, Kilome, Makueni and Mbooni recorded indices of 45.42, 70.81, 59.74, 52.16 and 64.4 respectively.

Figure 2.1a: Makueni County 3 month VCI Chart, September 2019.

Figure 2.1b: Makueni County 3 month VCI Matrix, September 2019.
2.1.2 Pasture and Browse

- Compared to the previous months, the state of pasture and browse condition has been on the downward trend. This is attributed to the progression of the dry spell.
- 83 percent of the County was considered to have poor pasture condition while the remaining 13 percent had fair pasture condition which was majorly in the mixed farming livelihood zone.
- The most affected wards were all wards in Kibwezi East and West, Kilome Sub-counties. Other affected Wards were Kalawa (in Mbooni Sub-County), Kithuki-Kitise, Mavindini and Kathonzweni (In Makueni Sub-County).

![Figure 4: Makueni County Browse Condition, September 2019](image)
![Figure 5: Makueni County Pasture Condition, September 2019](image)

WATER RESOURCE

2.2.1 Sources

- Major water sources for both human and livestock consumption were boreholes 30.3%, Shallow wells at 21.2%, rivers and traditional river wells both at 18.2% and springs at 9.1 percent.
- Most surface water sources had dried up in the marginal mixed farming livelihood zone leading to heavy congestion of human and livestock at the available alternative water sources.
- Water quality remained a major challenge at the available open water sources due to the heavy congestion of both human and livestock.

![Figure 6: Makueni County Water Sources for September 2019](image)

2.2.2 Household access and Utilization of water

Distances to water sources for household consumption
• The average return distance from the household to water sources was 5.3 Km against the long-term average of 5.7Km. The distances improved slightly as a result of the on-going water-trucking by the county government and water service providers.
• Compared to the mixed farming livelihood zone, longer distances were experienced in the marginal mixed farming livelihood zone.
• Waiting time in the Marginal Mixed farming livelihood zone ranged between one to two hours, while in the Mixed Farming (coffee/dairy) and Mixed Farming (food crops/livestock) it ranged between 30 min to 1 hour.
• The average water consumption per day in the marginal mixed farming zone ranged from 10-15 litres while in the Mixed farming livelihood zone it ranged between 15 to 20 litres.

2.2.3 Livestock access to water

• The average return distance from the grazing areas to watering points increased by 20 percent to stand at 8.3 Km in the month of September, attributed to the drying up of most surface water sources.
• Longer distances were recorded in the Marginal mixed farming livelihood zone.

Figure 7: Household Access to Water, September 2019

Figure 8: Average grazing Distances, September 2019

2.3 Implication of the above indicators to Food Security

The declined forage condition and the increased trekking livestock water distances is likely to impact negatively on livestock body condition, productivity and subsequently price hence diminishing the household purchasing power.

3.0 PRODUCTION INDICATORS
3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

• Body condition for Shoats was good to fair across all the livelihood zones.
• Body condition for the cattle in the Marginal Mixed farming livelihood zone had a score of three (thin fore ribs visible) while in the Mixed farming livelihood zones over 70 percent had a score of 4 and could be categorized at the borderline (fore-ribs not visible but 12th and 13th rib visible).
• This was attributed to the diminished forage and the increased trekking distances to the available water sources.

3.1.2 Livestock Diseases

• New Castle Disease (NCD) and Fowl pox were some of the poultry diseases reported across the County.
3.1.2 Milk Production
- The average daily Milk production per household was 1.5 litres which was below the long term average.
- This is attributed to the deteriorated livestock body condition.
- Compared to the Mixed farming livelihood zone less production was recorded in the marginal mixed farming livelihood zone attributed to the declined pastures and increased trekking distances.

3.2 RAIN-FED CROP PRODUCTION
3.2.1 Stage and Condition of food Crops
- Main crops grown under rain-fed production in the County include; maize, green grams, cowpeas, beans, pigeon peas millet and Sorghum.
- Total crop failure had been reported in the Marginal Mixed Farming zone for both cereals and legumes.
- Minimal harvests of pigeon peas were still ongoing in the mixed farming livelihood zone.
- The total crop production for the 2019 long rains season across the county was below the long-term average.

4.0 MARKET PERFORMANCE
4.1 LIVESTOCK MARKETING
4.1.1 Cattle Prices
- The average price for cattle decreased by 6.6 percent to KSh17,000
- The price recorded during the month of September was below the long term average by 25 percent.
- Compared to Marginal mixed farming livelihood zone, the Mixed farming livelihood zone recorded higher prices.
- Looking at the cattle prices in the Marginal Mixed livelihood zone, prices were as low as Ksh 9,333 on average

Figure 9: Makueni county milk production, September 2019

Figure 10: Makueni County Cattle Prices, September 2019
4.1.2 Goat Prices

- The average goat price for the month under review was Ksh 3,400 a 2.9 percent decrease from last month’s price.
- Compared to the (2015-2018) long term mean, this month’s price remained 3 percent above.
- The fair goat price is attributed to the prevailing good body condition for the shoats.
- A look at prices in markets across the county indicates a drop in the Marginal mixed livelihood zone (figure 12) and a relatively stable situation in the mixed farming zones.

Figure 12: Makueni County Goat Prices, September 2019
4.2 CROP PRICES

4.2.1 Maize
- The average market price for maize per kilogram remained high at Ksh 45.
- Over the last four months, the trend of maize prices has been on an increase and higher than (2015-2018) long-term average(LTA) of Ksh 35(28 percent above LTA).
- This is attributed to diminished stocks of maize at household level. Households were primarily depending on the market supplies for the produce hence increased prices.

4.2.2 Beans
- Average beans price was Ksh 87.
- Compared to (2015-2018) long-term average of Ksh 84, the price remained comparatively high.
- Markets in the Marginal Mixed Farming livelihood zone recorded high prices of up to Kshs 120 in Utini and Ksh 100 in markets in Kibwezi East and Kathonzweni Sub-counties.
- This was as a result of the diminished household stocks due to the poor harvests.

4.3 Livestock Price Ratio/Terms of Trade
- Terms of trade have been on a declining trend since February and reduced to 75.9 in September compared to 76.8 recorded last month (a 4 percent decrease.)
- The above implies that from the sale of one goat, a farmer could purchase 75.9 kg of maize.
- The 4 percent decrease was attributed to increase in maize prices and the stability in goat prices.
- The current terms of trade (TOT) was 21.4 percent below the (2015-2018) Long term Average.

4.3.3 Implications of the above indicators on Food security.
- The price of food commodities is likely to increase in the coming month due to the overreliance on markets for food supplies and this might impact negatively on the household purchasing power. Crop performance of the major crops was poor from the last season hence household stocks were below normal.
5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- The average daily milk consumption per household was remained stable at 1.1 litres
- Compared to the Mixed farming LZ, Households in the marginal mixed LZ consumed less milk.
- The current milk consumption is 10 percent lower than the long term mean as illustrated in figure 15.

![Figure 17: Makueni County milk consumption, September 2019](image)

5.2 FOOD CONSUMPTION SCORE

- The proportion of household with acceptable food consumption score was 53.4 percent, while the remaining 46.6 percent of the household were at the borderline.
- The decrease in food consumption is attributed to the diminishing food stocks and the household purchasing power.

![Figure 18: Food Consumption score, September 2019](image)

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- The proportion of children (under-fives) at risk of malnutrition for the month of September was 8 percent a noteworthy increase from 5.6 and 6.6 percent from the months of August and July respectively.
- No cases of severe (MUAC<115) and moderate malnourishment (MUAC 115 - 124mm)
- Compared the(2016-2018) long term average of 7.7 percent, the current MUAC was slightly higher

![MID at Risk Children 2019 - Makueni County](image)
5.4 COPING STRATEGIES

- The coping strategy index (CSI) in Mixed farming livelihood zone was 5.2, while in the marginal mixed farming zone it was 13.8
- Average mean CSI for the county was 9.5 which was an increase from 8.65 recorded last month.
- Majority of the household in the marginal mixed livelihood zone were employing both consumption and livelihood based coping mechanism such as selling more of the non-productive animals than usual in bid to bridge the food deficit.

6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 NON-FOOD INTERVENTIONS

- Participatory Scenario Planning for the OND season by the Departments of Meteorology, Agriculture, Livestock and Fisheries, NDMA and development partners such as ADS-E and farmers.
- KCEP-CRAL programme has continued to issue its beneficiaries with: seed input, pesticides, tarpaulin, fertilizer at a 10 percent subsidized payment for the input.

6.2 FOOD AID

- The last consignment of food aid received was during the month of August for each Sub-County (9 administrative boundaries) were as follows: Maize 700 (50 kg) bags, Rice 200 (50kg) bags, beans 350(50kg) bags and cooking oil 50 cartons (24× 0.5litres) and 70 bales of Health Food. No allocation was received during the month of September under special programmes.

7.0 EMERGING ISSUES

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

- Cases of human-wildlife conflict were reported in parts of Kibwezi West and East. Elephant invasion into people’s farms and in Masongaleni one person was reported dead after being attacked by a hippopotamus.
- Resource based conflicts between the Kamba and Maasai community were being anticipated along the borderline of Kajiado and Makueni and also between the forest wardens and the community along the border of Tsavo East in Masongaleni as they have been restricted from grazing in the park.
- Cases of Livestock theft were reported in most parts of the County.

7.2 Migration.

- Migration was notable in several areas with cattle trekking longer distances in search of pasture.
- Livestock migration was also expected in areas of Malili from the neighboring County of Kajiado (Mashuru to Mikululo) and areas bordering Kyullu national Park.
7.3 Food Security Prognosis

- Maize prices are likely to increase due to the dwindling market stocks.
- Farmers are expected to continue selling their goats to fill the household gap hence reduction in prices of goats in the market.
- Terms of trade are likely to reduce further as the prizes of maize continues to increase while that of goats maintains stability and decreases in the long term.
- Competition over the limited resources such as pasture and water is likely to result to resource based conflicts which will likely lead to displacement of households and market disruptions.

8. RECOMMENDATIONS

Immediate/Short term

- Upscale water trucking in the hotspot areas majorly the marginal mixed farming livelihood zone.
- Intensify livestock disease surveillance as well as the control measures.
- Livestock off take through the markets has been encouraged due to pasture depletion.
- Promote home-based water treatment and conservation measures such as storage facilities.
- Promote integrated health outreach programs.
- Repair and maintenance of strategic water points/Boreholes.
- Livestock feeds (high protein, energy and mineral pellets) distribution to the affected areas.
- Joint peace meeting initiatives.