National Drought Management Authority
KITUI COUNTY
DROUGHT EARLY WARNING BULLETIN FOR SEPTEMBER 2019

Early Warning Phase Classification

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Drought Situation & EW Phase Classification

Biophysical Indicators

- The month of September was dry across the livelihood zones and this situation is normal.
- The vegetation greenness was below normal.

Socio-Economic Indicators (Impact Indicators)

Production Indicators

- Land preparation and dry planting was on-going across the livelihood zones.
- Livestock body condition was fair for cattle.
- Suspected cases of CCPP, anaplasmosis, pneumonia and gumboro were reported.
- Unconfirmed cases of livestock deaths due to starvation were reported in Ikutha and Athi wards.
- Milk production was below normal.

Access Indicators

- Terms of trade were unfavourable compared to long term mean.
- Milk consumption was within the normal range.
- Water distances were within normal range.
- The cost of water at source was normal.

Utilization Indicators

- The percentage of children mid at risk of malnutrition was within normal range.
- Households employed consumption based coping mechanisms more frequently compared to normal.

Biophysical Indicators

- Rainfall (% of normal) 109 (80-120)
- VCI-3 month 29.05 (35-50)
- Forage Condition Fair to poor (Good to fair)

Production Indicators

- Livestock Body Condition Fair to poor (Good to fair)
- Milk Production (in litres) 0.7 ≥ 1.2
- Livestock Migration Pattern Not normal (Normal)
- Livestock Deaths (from Drought) Death No death

Access Indicators

- Terms of Trade (ToT) 74 ≥ 99
- Milk Consumption (in litres) 0.6 ≥ 0.6
- Return Distance to Water Sources (in km) 7.1 ≤ 7.8
- Cost of Water at Source (20 litres Jerry can) 2.5 ≤ 5Ksh

Utilization indicators

- Nutrition Status, MUAC (% at risk of malnutrition) 7.0 ≤ 7.4
- Coping Strategy Index (rCSI) 9.0 ≤ 5.6

- Short rains harvests
- Short dry spell
- Reduced milk yields
- Increased HH Food Stocks
- Land preparation
- 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

Dry Season
- Short rains
- Land preparation
- Increased HH Food Stocks
- Kidding (Sept)

Long Rains
- A long dry spell
- Increased HH Food Stocks
- Kidding (Sept)

Dry Cool Season
- Short rains
- Land preparation
- Increased HH Food Stocks
- Kidding (Sept)

Short Rains Season
- A long dry spell
- Increased HH Food Stocks
- Kidding (Sept)
1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The month of September was dry across the livelihood zones. However, light showers were experienced in some parts of Mixed Farming livelihood zone.
- On average, the county recorded 2.3, 2.4 and 3.0 millimetres of rainfall in first, second and third dekads of September compared to 1.7, 1.6 and 2.8 millimetres normally as shown in figure 1. This was 109 percent of normal rainfall recorded in September.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The county vegetation greenness reduced by 10 percent to stand at a 3 month VCI of 29.05 in September from 32.15 in previous month, this is an indication of moderate vegetation greenness as shown in figure 2.
- Kitui South, Mwingi Central, Mwingi North and Kitui East sub counties had a moderate vegetation deficit represented by a 3 month VCI of 24.98, 25.54, 27.43 and 30.6 respectively compared to Kitui West and Mwingi West sub counties which had normal vegetation greenness. Nevertheless, Kitui Central and Kitui Rural sub counties had vegetation greenness above normal with a 3 month VCI of 53.31 and 50.14 respectively.
- The current vegetation greenness is below normal as shown in figure 3.

2.1.2 Pasture

- About 89 percent of pasture was considered poor in September as it was in previous month. The remaining 11 percent of pasture was fair in both quality and quantity.
- The most affected areas included Ngomeni, Nguni, Nuu, Endau/Malalani, Mutha, Kanziku, Ikutha, Athi and Voo/Kyamatu wards.
- The available pasture is expected to last for less than a month across the livelihood zones compared to 2 months normally.

2.1.3 Browse

- Browse condition ranged from fair to poor across the livelihood zones compared to fair normally in both quality and quantity.
- On average, about 78 percent of browse was considered poor in September compared 41 percent in previous month. The remaining 22 percent of browse was fair in both quality and quantity.
The available browse is expected to last for 1-2 months compared to 2-3 months normally across the livelihood zones.

2.2 WATER RESOURCE

2.2.1 Sources

- The main water sources for both human and livestock consumption were boreholes, shallow wells and traditional river wells as shown in figure 4.
- Most of open water sources depleted earlier than normal leading to congestion of human and livestock in the remaining water points.
- Water level at open water sources remained low.

2.2.2 Household Access and Utilization

- The average return distances from the households to water sources remained stable at 7.1km in September compared to 7.8km in previous month. Emergency water trucking and repair and rehabilitation of strategic boreholes in hot spot areas has positively impacted on household trekking distances to water sources.
- Households in the Marginal Mixed Farming livelihood zone trekked a higher distance of 8.0km to main water sources compared to 6.2km in the Mixed Farming livelihood zone.
- The current water distance is normal as shown in figure 5.
- Water consumption per person per day remained stable at 13 litres in September as it was in previous month.
- The proportion of households buying water stood at 53 percent in September compared to 36 percent in previous month while the average price of water per 20 litre Jerry can at source was normal at 2 to 5 shillings.
- However, the price of water was higher from vendors at 20 to 30 shillings compared to 10-20 shillings normally.

2.2.3 Livestock Access

- Livestock average return distances from grazing areas to watering points declined by 16 percent to stand at 7.5km in September from 8.9km in previous month.
- This was attributed to emergency water trucking and repair of strategic boreholes in hot spot areas.
- Livestock in the Marginal Mixed Farming livelihood zone trekked longer distances at 7.0km compared to 6.3km in the Mixed Farming livelihood zone.
- Livestock were being watered on alternate
days across the livelihood zones compared to daily normally.

- The current average distance from the livestock grazing areas to watering points is normal as shown in figure 6.

### 2.3 Implication of the Above Indicators to Food Security

- Declining forage condition is likely to impact negatively of livestock productivity hence diminish household purchasing power.
- Stability in water distances will cushion both households and livestock from water stress.

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- Livestock body condition ranged from fair to poor for cattle and good to fair for small species with a deteriorating trend.
- On average, 43 percent of cattle had thin fore ribs visible body condition in September compared to 11 percent in previous month. The remaining 44 and 13 percent of cattle had moderate (neither fat nor thin) and borderline (fore ribs not visible, 12th and 13th ribs visible) body conditions respectively.
- This trend is not normal at this particular time of the year.

##### 3.1.2 Livestock Diseases

- Suspected cases of Contagious Caprine Pleuro-Pneumonia (CCPP), anaplasmosis, pneumonia and gumboro were reported in Marginal Mixed Farming livelihood zones of Mwingi North, Mwingi Central, Kitui East and Kitui Rural sub counties. Treatment of the same was done by the County Government of Kitui.
- Suspected cases of livestock deaths as a result of starvation were reported in Ikutha and Athi Sub Counties of Kitui South Sub County.

##### 3.1.3 Milk Production

- The average daily milk production per household declined by 46 percent to stand at 0.7 litres in September from 1.3 litres in previous month. This was attributed to declining forage condition.
- Households in Marginal Mixed Farming livelihood zone produced an average of 0.9 litres per day compared to 0.5 litres in the Mixed Farming livelihood zone.
- The current milk production per household per day is 42 percent lower than the long-term mean as shown in figure 7.

#### 3.2 RAIN-FED CROP PRODUCTION

##### 3.2.1 Stage and Condition of Food Crops

- Land preparation and dry planting was ongoing across the livelihood zones in anticipation of the short rains.
- In addition to rain-fed cropping, farmers along main rivers (Athi, Tana, Tiva and Thua) had horticultural crops, which were at various stages of development.
3.3 Implication of the above indicators to food security

- Deteriorating livestock productivity is likely to impact negatively on household purchasing power.
- Outbreak of livestock diseases may trigger a reduction in livestock prices in the market.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

- The average market price of cattle declined by 10 percent to stand at Ksh. 20,670 in September from Ksh. 22,870 in previous month. This could have been attributed to deteriorating livestock body condition.
- Cattle prices were higher in Mixed Farming livelihood zone at Ksh. 23,861 compared to Ksh. 18,558 in Marginal Mixed Farming livelihood zone.
- The current market price of cattle is 31 percent lower than the long-term mean as shown in figure 8.

4.1.2 Small Ruminants Prices (Goat price)

- The average market price of goat declined by 16 percent to stand at Ksh. 3,203 in September from Ksh. 3,826 in previous month.
- Mixed Farming livelihood zone recorded a higher price of Ksh. 3,746 compared to Ksh. 2,760 in Marginal Mixed Farming livelihood zone.
- The current market price of goat is normal compared to long-term mean as shown in figure 9.

4.2 CROP PRICES

4.2.1 Maize

- The average market price of maize per kilogram remained stable at Ksh.43 in September from Ksh.45 in previous month. This was attributed to availability of the commodity in the market from traders sourcing from other counties.
- No major variation across the livelihood zones was recorded.
- The current market price of maize is 23 percent higher than the long-term mean as shown in figure 10.
4.2.2 Beans

- The average market price of beans remained stable to stand at Ksh.90 in September from Ksh.93 in previous month. Beans was mainly sourced from other counties by traders.
- Beans price was higher in the Marginal Mixed Farming livelihood zone at Ksh.93 compared to Ksh.88 in the Mixed Farming livelihood zone.
- The current beans price is 18 percent higher than the long-term mean as shown in figure 11.

4.3 Livestock Price Ratio/Terms of Trade

- Terms of trade was unfavourable in September at 74 compared to 85 in previous month. This implies that, households were able to purchase 74 kilos of maize from earnings of a goat in September compared to 85 kilos in previous month.
- The sale of one goat would enable a household in Mixed Farming livelihood zone to purchase 87 kilos of maize compared to 64 kilos in Marginal Mixed Farming livelihood zone.
- The current terms of trade is 25 percent lower than the long term mean as shown in figure 12.

4.4 Implication of the above indicators to food security

- Overreliance of market on food supplies is likely to lead to an increment in prices of staple food commodities hence lower household purchasing power.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- The average daily milk consumption per household declined by 45 percent to stand at 0.6 litres in September from 1.1 litres in previous month.
- Households in the Mixed Farming livelihood zone consumed an average of 0.5 litres of milk compared to 0.7 litres in Marginal Mixed Farming livelihood zone.
- The current milk consumption is normal compared to the long term mean as shown in figure 13.
5.2 FOOD CONSUMPTION SCORE

- The proportion of households in acceptable food consumption category declined to 74.9 percent in September from 78.5 percent in previous month. This was attributed to reduced dietary diversity and food consumption as a result of diminishing household purchasing power and livestock productivity.
- The remaining 24 and 1.1 percent of households were in borderline and poor food consumption category respectively as shown in figure 14.
- Majority (78.3 percent) of households in Mixed farming livelihood zone were in acceptable food consumption category compared to 72.2 percent in Marginal Mixed Farming livelihood zone.

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- The proportion of children mid at risk of malnutrition (MUAC 125-134mm) remained stable at 7.0 percent in September from 6.7 percent in previous month.
- No cases of moderately (MUAC 115-124mm) and severely (MUAC <115mm) malnourished children were reported.
- The current level of children mid at risk of malnutrition is normal compared to the long-term mean as shown in figure 15.

5.3.2 HEALTH

- The proportion of children suspected to have fever with chills like malaria, fever with breathing difficulties and diarrhoea stood at 2.3, 2.6 and 1.2 percent in September compared to 2.0, 1.8 and 1.1 percent in previous month respectively.

5.4 COPING STRATEGIES

- The mean of reduced coping strategy index (rCSI) increased to 9.0 in September from 8.7 in previous month. This implies that, households employed consumption based coping strategies more frequently in September compared to previous month to cope with lack of food or money to buy food.
- Households in Marginal Mixed Farming livelihood zone had a high rCSI of 12.4 compared to 5.5 in Mixed Farming
livelihood zone.

- The current rCSI is 61 percent higher than the long-term mean as shown in figure 16.
- Based on rCSI, about 32, 14 and 5 percent of households were employing stress, crisis and emergency coping strategies respectively.

6.0 CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

- **Integrated health and nutrition outreaches services** funded by European Union, implemented by National Drought Management Authority and County Government of Kitui.
- **Emergency water trucking** by Tanathi Water Works Development Agency in collaboration with County Government of Kitui, Kitui Water and Sewerage Company (KITWASCO) and Kimbere Mwingi Water and Sewerage Company (KIMWASCO).
- **Repair and rehabilitation of five (5) strategic boreholes** by Tanathi Water Works Development Agency in collaboration with County Government of Kitui.
- **Rehabilitation of two (2) strategic boreholes** in Kitui South Sub County by Welthungerhilfe.
- **Drilling and equipping of a borehole** in Athi ward, Kitui South Sub County by Anglican Development Services Eastern (ADS-E).
- **Baby friendly community initiatives** in Kitui South, Kitui East, Mwingi North and parts of Mwingi Central Sub Counties by Nutrition and Health program plus (NHP+).
- **Development of weather advisories** by Kenya Meteorological Department in collaboration with County Government of Kitui, Agricultural Sector Development Support Programme (ASDSP) and other partners.
- **Feeding programmes** in conflict prone areas of Mutha and Voo/Kyamatu wards in Kitui South Sub County by Kenya Red Cross Society (KRCS).

6.2 FOOD AID

- Therapeutic integrated management of acute malnutrition for the under-fives, pregnant and lactating mothers [supplementary feeding program (SFP)], Out patient therapeutic program (OTP) and stabilization centres by Ministry of Health supported by several partners.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- In-migration of pastoralists and their livestock from the neighbouring Tana River County has continued to fuel tension and conflicts over pasture and water along Kitui and Tana River border.
- It is suspected that one person was killed in Endau and about 200 households displaced in Mutha area in Kitui East and Kitui South sub counties respectively during conflicts over grazing rights.
- Conflicts have limited access to fallback grazing areas.

7.2 FOOD SECURITY PROGNOSIS

- According to Kenya Meteorological Department weather outlook for the October-November-December (OND) 2009 season released on 2nd September 2019, rainfall in Kitui County is likely to be normal to slightly above normal with normal onset and cessation. This is likely to recharge water resources leading to improved water accessibility and availability for both human and livestock. Livestock productivity is expected to pick hence boost household purchasing power.
- However, household purchasing power is expected to diminish until the onset of the short rains following deterioration of livestock body condition and disease outbreaks.
- In addition, households are expected to continue relying on the market for staple food supplies until the next harvest is realized in January 2020 following depletion of stocks at household
level and poor harvest from the 2019 long rain season. This will lead to a rise in staple food prices.

- Competition over limited resources is likely to increase cases of resource-based conflicts which will lead to displacement of households and disruption of markets.

8.0 RECOMMENDATIONS

Immediate/Short term

- Upscale emergency water trucking in hotspot areas
- Intensify livestock disease control measures.
- Promote home-based water treatment and conservation measures such as storage facilities.
- Promote integrated health outreach programs.
- Repair and maintenance of strategic water points.
- Community sensitization on the importance of fodder preservation and controlled grazing.
- Range cube and hay sourcing for distribution in affected areas.
- Joint peace and security initiatives.
- Provision and distribution of assorted relief seeds to farmers.

Medium and Long term

Water Sector

- Promotion of water harvesting, storage and management.
- Create awareness on the importance of protecting water sources.

Agriculture Sector

- Capacity building on safe use of chemicals by National Government, County Government and development partners.
- Enhance asset creation for households especially Farm ponds and water pans for food production by National Government, County Government and development partners.
- Enhance irrigated Agriculture by conducting Soil analysis and crops suitability surveys in all by National Government, County Government and development partners.

Livestock Sector

- Community sensitization on the importance of fodder preservation and controlled grazing.
- Pasture establishment and seed bulking.
- Livestock development programs to improve production (goats, chicken, cattle).

Health and Sanitation Sector

- Support to Mobile outreach immunization.
- Formation of mother to mother support groups.
- Sensitization on hygiene and sanitation at household level.
- Carry out routine disease surveillance.
- Improve Vitamin A supplementation to children under five years and de-worming
- Improve vector control activities.

Education Sector

- Promotion of water harvesting, storage and management in schools.
- Enhance HGSMP in all public institutions.

Peace Building Initiatives

- Peace building and conflict management initiatives.