Kilifi County Drought Early Warning Bulletin for September 2019

National Drought Management Authority
Kilifi County

SEPTEMBER EW PHASE

Biophysical Indicators (Environmental indicators)
- The month of September recorded some rains with uneven spatial distribution as areas of Ganze and Magarini sub counties remained extremely dry especially Bamba, Adu and Kayafungo wards.
- Vegetation condition varied across the county between fair to poor.
- The state of water sources was below normal at this time of the year.

Socio Economic Indicators (Impact Indicators)
- Production indicators
  - The condition of green grams, cassava and cowpeas is poor and below long term mean
  - On average the Livestock body condition ranged between good and poor, marginal mixed farming and livestock farming zone recording poor body condition for cattle.
  - Milk production recorded a decrease compared to the previous month mainly this can be attributed to deteriorating pasture and water.

Access indicators
- On average milk consumption recorded a decrease.
- Average distances to the water sources both for livestock and households recorded some slight decrease with livestock farming zone recording high distances.
- Average food price remained high and expected to remain high due to high demand attributed to poor 2019 long rains season.
- Terms of trade remained stable in the September.

Utilization indicators
- On average the proportion of children at risk of malnutrition recorded a decrease.
- Household’s food consumption ranged between poor and acceptable with some parts of the county hard hit with food shortages.

Early Warning Phase Classification

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COUNTY ALERT Deteriorating

Biophysical Indicators
- Average Rainfall (mm)
  - Value: 49
  - Normal: 34
- VCI
  - Value: 40.26
  - Normal ranges: 35-50
- Livestock Migration Pattern
  - In-migration and out Migration
  - No migration

Production indicators
- Average Water Distance for Households (Km)
  - Value: 4.5
  - Normal: ≤ 2
- Average Grazing-Water point Distance (Km)
  - Value: 4.9
  - Normal: ≤ 4.3

Access indicators
- Terms of Trade (ToT)
  - Value: 88.7
  - Normal: 74.1
- Milk Consumption (% range)
  - Value: 1.6
  - Normal: 1.5
- Average Water Distance for Households (Km)
  - Value: 4.5
  - Normal: ≤ 2
- Average Grazing-Water point Distance (Km)
  - Value: 4.9
  - Normal: ≤ 4.3

Utilization indicators
- Nutrition Status, MUAC (% at risk of malnutrition)
  - Value: 1.78
  - Normal: 3.9

- Short rains harvests
- Short dry spell
- Reduced milk yields
- Increased HH Food Stocks
- Land preparation
- Long rains
- Planting/Weeding
- 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
1.0 CLIMATIC CONDITIONS
1.1 Rainfall performance.

- The month of September recorded some rains with uneven spatial distribution, as the livestock farming zone and parts of the marginal mixed farming zone remained dry.
- The amount has increased at 49 mm compared to the previous month rainfall of 33.86 mm.
2.0 IMPACT ON VEGETATION

2.1 Vegetation Condition

2.1.1 Vegetation Condition Index [VCI]

The Vegetation Condition Index (VCI) compares the current NDVI to the range of values observed in the same period in previous years. The VCI is expressed in % and gives an idea where the observed value is situated between the extreme values (minimum and maximum) in the previous years.

- The county on average recorded normal vegetation deficit with some pockets in Ganze, Magarini and Kaloleni sub county recording depleted pasture with reported out migration of livestock in search for pasture.

**Pasture**

- Pasture condition across all livelihood zones recorded a decrease during the month under review with 54% of sampled households reporting good condition, 22 % reporting fair pasture condition and 23% recorded poor pasture condition.
- The poor condition of pasture has made livestock to trek for long distance in search of pasture with most affected areas being Tsangatsini in Kaloleni sub county, Ndatani, Midoina, Migijini in Bamba ward of Ganze sub county, Bofu in Adu ward in Magarini sub county,
- Condition expected to deteriorate further as most parts continued to remain remained dry till short rains season.
- Pasture condition was below long-term mean for this time of the year.

2.1.3 Browse

- Browse condition recorded a decrease in quality and quantity during the month under review compared to the previous month following increased dry spell.
- Browse condition is deteriorating especially in areas of Bamba, Adu and Kayafungo wards.
- The condition expected to continue deteriorating as off-season rains remained low with uneven spatial distribution.
- Browse condition was below normal at this time of the year.
2.1 Water Resources

2.2.1 Sources
- The main water sources for domestic and livestock use during the month of August were pans and dams at 32%, rivers at 32%. Other Sources were traditional river wells, Shallow wells spring’s boreholes at 4% 13.8%, 10.3%and 7%respectively across all livelihood zones.
- The status of water sources was below the long-term mean at this time of the year.

2.2.2 Household water access and utilization
- Households’ average distance to water sources recorded a slight increase during the month under review compared to the previous month.
- The highest average distance was recorded in marginal mixed farming zone at 3.5km, as the rains remained minimal in the area.
- This increase in average distance can be attributed to low recharge and drying up of water pans, which were the main water sources in Marginal, and livestock farming zones.
- The average distance during the month under review was 61 percent higher than the long-term mean at this time of the year.

2.2.3 Livestock access to water.
- The average trekking distance from grazing area to water sources recorded a decrease of 21% in September as compared to the previous month.
- The decrease in average distance can be
attributed to rains in some areas but livestock and marginal mixed farming zones livestock trekked long distances to get water due drying up of water pans in these areas.

- The highest average distance was recorded in livestock farming zone at 7.8km and this was due to minimal rains recorded in the area.
- The current average distance was 17percent lower compared to the long-term mean at this time of the year.
3.0 PRODUCTION

3.1 Livestock Production

3.1.1 Livestock body condition

- On average the livestock body condition ranged between poor to fair
- Some parts of the livestock farming zone recorded poor cattle body condition.
- For goats and sheep was good across the livelihood zones.
- Body condition at this time of the year was below Normal.

3.1.2 Livestock disease

- Cases of CCPP, Heart Water, trypanosomiasis, East Coast Fever (ECF), Foot and Mouth Disease (FMD), worms, were reported as vaccination continued though on minimal scale.

3.1.3 Livestock Migration.

- In-migration of livestock from Tana River county and out migration cases to Kwale county and Tsavo East National park were reported.
- The migration was causing a lot of tension between crop farmers along river Sabaki and livestock keepers.

3.1.4 Milk production

- The average household milk production/household/day during the month under review recorded a slight decrease at 4.3 liters compared to the previous month production of 4.8 litres.
  - The decrease can be attributed to pasture and water stress as livestock trekked distances.
  - The average milk production during the month was the same compared to the long-term mean at this time of the year.

3.2 Rain Fed Crop Production

3.2.1 Stage and condition of food crops

- Few farms with green grams and cow peas are recording moisture stress.
- Some farms with cassava recorded fair condition as compared to normal at this time of the year.

3.2.2 Crop Harvest

- The county recorded minimal harvest of green grams and cowpeas.
4.0 MARKET PERFORMANCE
4.1. LIVESTOCK MARKET

4.1.1 Cattle prices.
- The average price for a 4-year bull during the month under review recorded 8 percent decrease at Ksh. 23,619 compared to previous month price of Ksh. 25,667.
- The decrease can be attributed to deteriorating body condition as a result of poor pasture condition and water stress in livestock keeping areas.
- The highest average market price was recorded in the livestock zone of Magarini sub county at Ksh 30,000 while the lowest in the livestock farming Zone of Ganze Sub County at Kshs 17,167.

- The current average price was 67 percent higher than the long term mean at this time of the year.

4.1.2 Goat prices

- The average price of a 3-year-old medium size buck during the month under review showed an increase at Ksh 3,000 compared to the previous month price of Ksh 2,369.
The price increase can be attributed decreased in supply in the market and good body condition.

The highest average price was recorded in the mixed farming zone of Malindi sub county at Ksh. 3,125 while the lowest average price recorded in the ranching zone of Ganze sub county at Ksh. 2,500

The current average price was 13 percent higher than the long term mean at this time of the year.

4.2 Crop prices
4.2.1 Maize

The average maize price per kilo recorded a slight decrease during the month under review as compared to the previous month.

The highest average price of Ksh 50 was recorded in Mixed farming zone of Kakuyuni in Malindi Sub County while the marginal mixed farming zone of Kaloleni recorded the lowest price of Ksh 44.

The variation in average price can be attributed to minimal 2019 long rains harvest as more households preferred sifted maize meal.

The average maize price during the month was 19 percent higher than the long term mean at this time of the year.

4.2.2 Beans

The average selling price for a kilo of beans recorded a decrease of 11% in the month under review at Ksh 102.1 compared to the previous month price of Ksh 114.8.

The decrease in average price can be attributed to high supply in the market.

The highest average beans prices were recorded in the marginal mixed farming zone of Mwanamwina, Kaloleni sub county at Ksh 110 and lowest in the farming zone of Kakuyuni ward in Malindi sub county at Ksh 60

The current average price was 20 percent higher than the long-term mean at this time of the year.
4.3 Terms of Trade (TOT)

- The Terms of Trade (TOT) during the month under review remained stable at 88.7. Households could still obtain more maize from the sale of a goat as was the case in the previous month.
- The stability in ToT can be attributed to minimal increase in goat prices, particularly owing to good body condition within the month as average maize price recording minimal decrease.
- The average ToT were 15 percent higher than the long term mean at this time of the year.
5.0 NUTRITION STATUS

5.1 Milk Consumption

- The average milk consumption per household per day recorded an 11% decrease during the month under review at 1.6 liters compared to the previous month 1.8 liters.
- The decrease in average milk consumption can be attributed to a decrease in production of milk in the month of September.
- The current average milk consumption was 6% lower than the LTA at this time of the year.

5.2 Health and Nutrition Status

5.2.1 Mid Upper Arm Circumstance (MUAC)

- The proportion of children at risk of malnutrition aged five years and below with cut offs of 125-134 mm recorded a decrease at 1.78 percent compared to the previous month 3 percent.
- The decrease can be attributed minimal harvests of pulses and with increased nutritional interventions by different stakeholders.
- The percentage proportion recorded in September was 55 percent lower than the LTA at this time of the year.
5.2.2 Food Consumption Score

In September, the households’ proportions of 86%, 11% and 3% were recorded of having Food Consumption Score (FCS) within Acceptable, Borderline and Poor categories respectively.

The score increased for the borderline category from 8.3, whereas that of poor and acceptable categories decreased in comparison to that of August at 4.4 and 87.2 respectively. The FCS is generally, acceptable in during the month.

The livestock farming zone of Ganze and Magarini sub counties recorded some households with poor food consumption as most parts of these sub counties remained dry.

5.3 COPING STRATEGIES
5.3.1 Coping Strategy Index (CSI)

- The average Coping Strategy Index (CSI) remained stable compared to the previous month.
- The livestock farming zone recorded highest score implying high household food shortage.
6.0 CURRENT ONGOING INTERVENTION MEASURES

6.1 Food aid
• National government food distribution in most drought hit parts of the county.

6.2 Non-food aid
Routine Health Sector interventions
• Integrated Medical outreaches across the county by MoH and other partners.
• Micronutrient powder supplementation across the health facilities.

Livestock sector
• Community awareness creation on Poultry, dairy value chains under National Agricultural and Rural Inclusive Growth Project (NARIGP)
• Livestock vaccination and deworming in some parts of Ganze and Kaloleni sub counties by in Ganze and Kaloleni by CARITAS.
• Bee keeping promotion by NARIGP.

Agriculture Sector
• Community capacity development on National Agricultural and Rural Inclusive Growth Project (NARIGP) on coconut value chain.
• Small scale irrigation farming in Magarini by ADS PWANI and Kenya Red Cross.
• Capacity building on indigenous chicken, cassava and ABEC by ASDSP

Water Sector
• Water trucking to areas of Ganze and Magarini recording water stress
• Pipeline extension in Ganze and Kaloleni by CARITAS.
7.0 EMERGING ISSUES
- High tension in Magarini and parts of Ganze Sub County as livestock migration from Tana River County increased.

7.1 FOOD SECURITY PROGNOSIS
- Following poor performance of 2019 long rains household food security remained low and some households stressed.
- Average distance to water sources for households and livestock expected to remain high or increase further till next good rains recharge.
- Livestock body condition expected to deteriorate as pasture, browse and water stress recorded an increase, areas which have already recorded depleted pasture risk outmigration
- Food prices expected to remain high till next good rain season.
8. RECOMMENDATIONS

Water Sector
- Water trekking to affected communities of Bamba and Adu wards
- Community and institution sensitization on rain water harvesting roof-top
- Rehabilitation of Jila, Kayafungo, Ndigiria water pans
- Excavation of Dams in Ganze, Kaloleni and Magarini sub counties
- Drilling of Boreholes in Jaribuni ward for irrigation

Livestock Sector
- Upscale Livestock disease surveillance and control along the livestock migratory routes to Bamba, Adu, Kayafungo and Mariakani wards.
- Community capacity development on fodder conservation for the dry spell.
- Livestock vaccination against CCPP, Heart Water, East Coast Fever (ECF), Foot and Mouth Disease (FMD), black water and Anthrax.

Health Sector
- Following poor harvest, need for close monitoring of nutritional status of vulnerable groups across the livelihood zones
- Integrated medical outreaches and active case finding in Ganze and Magarini sub counties and some parts of Kaloleni sub county
- Water treatment intervention through the county.

Agriculture Sector
- Community sensitization on early land preparation for the short rains
- Community sensitization on rain water harvesting technologies for adaptation to prolonged dry spell for production as the rains continued performing poorly.
- Community capacity development on Climate Change Adaptation for resilience building.
- More investment on irrigated agriculture as the rains performed poor for the last three seasons as Climate change impacts increased.

Education Sector
- Timely provision of school meals to boost attendance and retention as household food security remained poor.
- Installation of water harvesting structure in schools to boost water access and reduce time wasted by learners in search for water.

Coordination
- Close monitoring of drought and food security across the county following poor performance of the last two seasons.
- KWS to initiate measures contain wildlife in the parks as human-wildlife conflict cases were reported in Bamba, Adu and Kayafungo wards.
- Need for cross-border talks between Tana River and Kilifi as in migration from Tana River Increased.