JULY 2019: EW PHASE

Drought Situation & EW Phase Classification

Biophysical Indicators
- The County received an average of seasonal rainfall during the Month under review.
- According to VAM, the vegetation condition Index (VCI-3Month) was showing improvement when compared to previous month.
- Forage condition was good to fair across all livelihood’s zones during the month, however, the pasture is depleting due to influx.

Socio Economic Indicators

Production indicators
- livestock species exhibited fair to good body condition.
- Maize crop is at different stages in all livelihood zones, however, their few farmers harvesting green maize.
- Milk production decreased and is below the LTA compared to previous month of June.

Access indicators
- Terms of trade were favorable to livestock herds than crop farmers in mixed and pastoral livelihood zones respectively.
- Water access for both human and livestock was good to fair in all the livelihood zones except in Fishing and Agro-pastoral zones.
- Milk consumption is lower than the long-term Average.

Utilization indicators
- The proportion of children at risk of malnutrition cases increased and above the normal range as indicated by percent of mid upper arm Circumference (MUAC).
- The average coping strategy stable compared to previous month.

Early Warning (EW) Phase Classification

<table>
<thead>
<tr>
<th>Livelihood Zone</th>
<th>Phase</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agro pastoral</td>
<td>Alert</td>
<td>Improving</td>
</tr>
<tr>
<td>Mixed farming/Irrigated/Cash cropping</td>
<td>Normal</td>
<td>Improving</td>
</tr>
<tr>
<td>Fisheries/Mangroves</td>
<td>Alert</td>
<td>Improving</td>
</tr>
<tr>
<td>Formal/Casual Labor</td>
<td>Normal</td>
<td>Improving</td>
</tr>
<tr>
<td>County</td>
<td>Alert</td>
<td>Improving</td>
</tr>
</tbody>
</table>

Biophysical Indicators

<table>
<thead>
<tr>
<th>Value</th>
<th>Normal Range/Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainfall (% of Normal)</td>
<td>52</td>
</tr>
<tr>
<td>VCI-3Month</td>
<td>51.27</td>
</tr>
<tr>
<td>Forage condition</td>
<td>Fair to good</td>
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</tbody>
</table>

Production indicators

<table>
<thead>
<tr>
<th>Value</th>
<th>Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mil Production</td>
<td>0.7</td>
</tr>
<tr>
<td>Livestock Migration Pattern</td>
<td>Not Normal</td>
</tr>
<tr>
<td>Livestock deaths (from drought)</td>
<td>No death</td>
</tr>
</tbody>
</table>

Access Indicators

<table>
<thead>
<tr>
<th>Value</th>
<th>Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terms of Trade (ToT)</td>
<td>106</td>
</tr>
<tr>
<td>Milk Consumption (Liters)</td>
<td>0.5</td>
</tr>
<tr>
<td>Return distance to water sources (HH) Kms</td>
<td>2.1</td>
</tr>
<tr>
<td>Cost of water at source (20 litres)</td>
<td>5-10</td>
</tr>
</tbody>
</table>

Utilization indicators

<table>
<thead>
<tr>
<th>Value</th>
<th>Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition Status, MUAC (% at risk of malnutrition)</td>
<td>8.6 %</td>
</tr>
<tr>
<td>Coping Strategy Index (CSI)</td>
<td>9.5</td>
</tr>
</tbody>
</table>

Seasonal Calendar

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
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</thead>
<tbody>
<tr>
<td>Short rains harvests</td>
<td>Short dry spell</td>
<td>Reduced milk yields</td>
<td>Increased HH Food Stocks</td>
<td>Land preparation</td>
<td></td>
<td></td>
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<tr>
<td>Planting/Weeding</td>
<td>Long rains</td>
<td>High Calving Rate</td>
<td>Milk Yields Increase</td>
<td>Long rains harvests</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A long dry spell</td>
<td>Land preparation</td>
<td>Increased HH Food Stocks</td>
<td>Kidding (Sept)</td>
<td>Short rains</td>
<td></td>
<td></td>
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<tr>
<td>Planting/weeding</td>
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1.0 CLIMATIC CONDITIONS

1.1 Rainfall performance

- Below average off season rainfall was received during the month under review, with low intensity compared to the previous months as recorded in the first and second dekads of July as in figure 1a below.
- The current NDVI values are stable when compared to the historical NDVI values as shown in figure 1b.

![Figure 1a: Rainfall Satellite data. (Source: WFP-VAM, CHIRPS/UCSB)](source)

![Figure 1b: NDVI data. {Source: WFP-VAM}](source)

1.2 Amount of rainfall and spatial distribution

- According to VAM WFP rainfall and vegetation data, the County received a total of 42.6 mm of rainfall in the month of July compared to 43.3 mm during the previous month in the 1st and 2nd dekads.
- This precipitation was a stable compared to previous month; however, this was four percent above the long-term average of the two dekads as in the figure 1a above.
- This 42.6 mm of rainfall was lower by 14 percent received in the same period during the previous year.
- The off-season rainfall received was poor, both in spatial and temporal distribution in all parts of the livelihood zones of the county.

1.3 shocks, hazards

- The main hazards contributing to food insecurity in the county include below normal precipitation off season coupled wildlife conflict destruction which is a menace to crop production.
2.0 VEGETATION CONDITION

2.1 Vegetation Condition Index (VCI)

- According to satellite images, the vegetation condition index for the month of July increased by 20 percent compared to the previous month. This was due off season’s precipitation received during the Month.
- The vegetation condition index for the month of July was 51.27 compared to 42.44 in the previous month.
- The VCI indicated vegetation normal greenness in the County, however the current VCI is below when compared to the long term and previous year 2018.
- The VCI-3Months is below the long-term average and the previous year as shown in the figures 2a, 2b and 2c below.

![Figure 2a: VCI (3M)](image1)

![Figure 2c: VCI-Lamu County [Source: Boku University, Austria]](image2)

**OBSERVATIONS-PASTURE AND BROWSE CONDITION**

2.1.2 Pasture

- Pasture condition was good across all livelihood zones both in quality and quantity.
- 80 percent of Community members interviewed stated that pasture was good while 20 percent indicated that pasture was fair but with improving trend as in figure 3.
- Pasture condition is good to fair in all the livelihood zones.
- The current pasture situation is within the normal range but on deteriorating trend.
• The available pasture is expected to less than two months due to the presence of in-migrant livestock from neighboring counties.

![Lamu Pasture Condition](image)

**Figure 3: Pasture condition**

**2.1.3 Browse conditions**

- The quantity and quality of browse was fair to good across all livelihood zones.
- Community members interviewed indicated 80 percent of the respondents stated that browse was good while 20 percent reported to be fair and on deteriorating trend due to low off seasonal rains and high rate of transpiration as in the figure 4.
- Browse condition was fair to good un all livelihood zones
- The browse is expected to last more than three months. The current browse condition is within the normal range when compare to previous year.

![Lamu Browse Condition](image)

**Figure 4: Browse conditions**

**2.2.0 HYDROLOGICAL DROUGHT**

**2.2.1 Water Sources and Availability**

- The state and condition of water sources in the County was fair to good across most livelihood zones except for Faza wards where the recharge level was low and the shallow wells are turning saline.
• However, the current water situation was on decline compared to previous month.
• The main water sources in the month of July were Pans 26.6 percent, shallow wells 47.6 percent, Boreholes 19 percent respectively, as shown in the figure 5.
• The status of main sources of water is on decline and normal at this time of the year.

![Figure 5: Main sources of water](image)

**2.2.2 Household access and Utilization**

• Average household watering return distance was 2.1 Kilometers, which was stable compared to previous month.
• This was due to low off seasonal rainfall received which led to decline to open water recharge levels of between 20 percent of their capacity.
• Household return water distances per livelihood zone were as follows; the Agro pastoral 6 Kilometers, Fishing & Mangrove Harvesting 2 Kilometers and for Mixed Farming Zone it was 1.6 Kilometers respectively.
• The average household water distance for July was below LTA as shown in figure 6.
• The average household water consumption per person per day is at 15-25 liters in all livelihood zones except in the fishing mangrove and Bargoni consuming 10-15 lppd.
• Water costs at source are 5-10 Kshs in town/village centers while 10-15 in Mtagawanda, Bahamisi and Bargoni for 20 liters Jerrican.

![Figure 6: Household water distances-Kms](image)
2.3 Livestock access to Water

- Livestock average distance to water source from grazing Areas increased to 6 Kilometers compared to the previous month of 3.5 Kilometers in figure 7.
- Grazing return water distances per livelihood zone were as follows: the Agro pastoral 6Kilometres, Fishing & Mangrove Harvesting 2 Kilometers and for Mixed Farming zone it was 2 Kilometers respectively.
- The increase of grazing water distance compared to last month was due to decrease of water availability in grazing areas.
- Watering frequencies for livestock species was five -seven times per week.
- The current average grazing distance for July was higher than the long-term average of 3.2 Kilometers.

![Figure 7: Grazing distance-Kms](image)

2.2.4 Household Income

- The main household income for the month of June was distributed as follows: Casual labor 62 percent, trade 18 percent, Employment 8 percent, Sale of livestock 5.3, sale of crop 6.7 percent as in figure 8 below.
- However, household income sources was stable

![Figure 8: Household sources of income](image)
2.4 Implication to Food Security:

- Fishing and Mangrove livelihood zones have decreased water salinity due to more recharge of the shallow wells in the Islands.
- The distances to water sources have had a negative impact on the livestock body condition of animals and household hygiene standards.
- Crop production is expected to improve due to off season rains performance.
3.0 PRODUCTION INDICATORS

3.1.0 Livestock Production

3.1.1 Livestock Migration Patterns

- There was huge influx of livestock from neighboring counties of Tana River and Ijara were increasing on daily basis and about 85,000 cattle, 35,000 goats and 50,000 sheep immigrated.

3.1.2 Livestock Body Condition

- The livestock body condition was fair to good for all for species across livelihood zones.
- This was attributed to fair quality and quantity of pasture and browse.
- However, due to pasture improvement the body conditions are expected to improve further.

3.1.3 Livestock Diseases

- There were no cases of livestock diseases reported during the month under review.

3.1.4 Milk Production

- Milk production was below average when compared to previous month of June.
- The decrease was attributed due low quality and quantity of forage condition as a result of the low off-season rains received in the County coupled with low birth rates.
- Milk productions were distributed as follows: Mixed farming Produced 1.4 litres, fishing less than one litres, and Irrigated 1.1 litres while the Agro pastoral zone produced average of 1.6 litres.
- Milk prices are retailing at an average price of Kshs.40-100 per Liter across the livelihood zones which is the normal milk price at these periods of the year.
- The household milk production recorded during the month was below the long term and previous year.

3.2 Rain fed crop production

3.2.1 Stage and condition of food crop

- The main crops grown are Maize, Cowpeas, Green grams and Simsim in the County.
- Most crops (Maize) are at the different stage in all the livelihood zones above knee high and others are teasling.

3.2.2 Crop Harvest

- Few crop farmers have started harvesting green maize in all the livelihood zones zone

3.2.3 Implications on Food Security;

- The fair to good body condition of livestock species across the livelihood zones increased the prices resulting to higher income for livestock farmers.
4.0 MARKET PERFORMANCE

4.1 Livestock marketing

4.1.1 Cattle Prices

- Average cattle market price in the month of July has slightly increased by five percent compared to previous months as in figure 10 below.
- This increase in price could be attributed to high demand and low supply of animals.
- The cattle average market prices were distributed as follows: Faza Kshs 20,000, Witu Kshs 20,000, Kiunga Kshs 30,200, Mswakini 21,000 and Mokowe Kshs 20,000.
- The average market cattle price for the month of July was Kshs.2, 300 which were higher than the long-term average price of Kshs.18, 700.

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Figure 10: Cattle prices
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4.1.2 Small Ruminants Prices

4.1.3 Goat Prices

- Goat prices is stable (5,140) compared to previous month of June (Kshs5,200).
- This price was higher than the long term average by 37 percent and the price recorded in previous year at a similar time and following seasonal trends as shown in figure alongside.
- This slight decrease in price of goats could be attributed to high market demand and improved body condition following the off-season rains that has in turn improved browse situation across the county.
- The highest average price was recorded in the Fishing and mangrove zone, in Kiunga at Kshs. 6,000 with the lowest price in Mpeketoni.
- This decrease in price of goats could be attributed to low market demand.
- Goat price is expected to remain above long-term averages and 2018 prices due to Market demand and good body condition
4.2: Crop prices

4.2.1 Maize price

- Maize prices increased by two percent compared to previous month of June.
- The average maize prices were nine percent above the long-term averages and two percent higher than the price in 2018 (Figure 12).
- The highest average price was recorded in mixed farming zones (Mpeketoni) at 55 Kshs and lowest Mixed farming zone (Mokowe) where maize was selling at Ksh.40 per kilogram due low demand and high supply of the commodity sourced from outside the county.
- However, price ranges are determined by maize supply in different markets during the season, with prices fluctuating trend as expected to reduce as harvest of the product is still being expected in the near future.

4.2.2 Beans prices

- Average price of Kilogram of beans was Kshs 112 in July, an increased compared to the previous month of June from Kshs 104 as in the figure 13 below.
- The increase in price was attributed to high demand and expected below average off seasonal yields. The beans usually outsourced. The beans price was distributed as follows: Mswakini /Hindi Centre Kshs140, Patte Kshs100 and Witu Kshs 120, Mpeketoni Kshs 80 and Kiunga Kshs 120.
- However, price ranges are determined by commodity supply in the different markets. The long-term average price of beans was Kshs 89 which is lower compared to the current beans price for the month of July.
4.3 Livestock Price ratio/Terms of Trade

- The terms of trade (TOT) of July was stable when compared to previous month of June as in figure 14.
- This was higher than the long-term average by 16 percent. Sale of a medium goat in July 2019 would enable a household purchase about 106 kg of maize.
- This showed the exchange ratio decreased in favor of crop farmers when compared to goat sellers.
- The stable trend implied that households could currently purchase more maize with the proceeds from the sale of a goat compared with normal times.
- The terms trade was lowest in Fishing mangrove livelihood zone 56 kilograms and highest in the mixed farming livelihood zone with 95 kgs implying high households' purchasing power decreased compared previous month of June.
- A stable trend is foreseen in households’ purchasing power as goat prices are expected to increase in the backdrop of relatively low maize prices due expected maize harvest and Eid festival.

4.4 Implication on food security:

- Maize prices slightly decreased due to low demand at the markets.
- Farmers can sell livestock at fair prices, hence improved food security at household level.
- The Terms of Trade was favorable to livestock sellers compared to crop farmers.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk for Household Consumption
• Average milk Consumption was 0.5 litre in the month of July, which decreased compared to previous month as in figure 15.
• Milk consumption was distributed as follows; Agro pastoral one litre, Mixed farming 1.2, Irrigated cropping 1.1 litres and fishing below one litre.
• The decrease in milk consumption level is as a result of low production in milk.
• July long term average milk consumption was slightly higher than the current average.

![Milk consumption graph](image)

**Figure 15: Milk consumption**

5.2 Health and Nutrition status

5.2.1 MUAC

• The proportion of children under five at risk of malnutrition with Mid Upper Arm Circumference below 135mm increased from 7 to 8.6 (22%) percent compared to previous month of June.
• The proportion of children under five with severe category was zero percent in the month under review indicating worsening situation in the number of children with malnutrition.
• This was attributed to low milk production and consumption at household level.
• The rates of malnutrition cases reduced in Agro pastoral and Mixed Farming Zones of Witu, Hindi and Mpeketoni areas. This figure of 8.6 percent MUAC for July 2019 was higher by 60 percent compared to long term average of five percent as in figure 16.

![MUAC graph](image)

**Figure 16: MUAC**
There were no cases of major disease outbreak both for children and general population in the County.

5.3 Food consumption score

- The population with poor, borderline and Acceptable food consumption in the county was two, 60 and 38 percent respectively.
- Highest borderline food consumption was noted in fishing/Mangrove livelihood zones and Agro pastoral zone with 80 and 58 percent of households indicating deterioration in food consumption.
- Therefore, the implication was that food frequency, dietary diversity and nutrient intake had remained poor owing to reduced availability of food and low purchasing power, thus consuming two to three meals per day with three to four food groups as in figure 17.

![Lamu County Food Consumption Score by Livelihoodzones - July 2019](image)

**Figure 17: Food consumption score**

5.4 Coping strategy index

- The mean coping strategy Index in the Month of July decreased by 22 percent compared previous month in June 2019, indicating decreased coping strategies at household level.
- About 49 and 21 percent of the households are engaged in stressed and crisis coping respectively while Fishing Livelihood zone had the highest copying strategy index of 97 percent of households in crisis as figure 18.
- Common coping strategies employed by food insecure households in the month of July were; Reduction in the number of meals, purchase on credit/remittances from relatives, borrow food from friends or relatives, adopting for less preferred or less expensive food.
- The Livelihood change indicates 34.7 percent of the households are in sressed and two percent in emergency of the populations.
5.5 Implication on Food Security

- The decline in milk consumption at household levels across all the Livelihood zones could lead to decreased in dietary diversity and hence negative impact on food insecurity.
- Coping strategy increased at Agro pastoral farming and fishing livelihood zones, hence negative impact on food security at household level.

![Figure 18: coping strategy index](image-url)
6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 Food aid

- Kenya red cross society has distributed relief food to 512 households to Boni communities in areas in Basuba ward.

6.2 Non-food interventions

- NDMA Lamu has handed over the construction of Nagelle integrated drought resilience water (pan) project to the Contractor and construction is ongoing.
- Cash transfer by the Social protection department to 3,500 households for older persons, Orphans and people with disabilities respectively for the entire county. The cash transfer will improve the purchasing power of the households to access food of their preferences.
- Kenya red cross society has intensified the rehabilitation program for the drug addicts.

7.0 EMERGING ISSUES

7.1 Insecurity

- No insecurity incident reported during the month under review.

7.2 Migration

- There were no abnormal cases of human migration during the month.

7.3 Food security prognosis

- Markets will continue to operate normally despite poor infrastructure and insecurity.
- Cereal prices are expected to decrease while those of goat prices are projected to increase, thus terms of trade expected to favor for livestock farmers due Eid festival next month.
- Pasture and browse conditions are projected to decline further and hence destabilize livestock body conditions, production and prices in coming months due influx.
- The distance to water sources for both human and livestock is expected to decrease.
- Water salinity is expected to worsen further due reduced water levels in fishing livelihood zone.
- Malnutrition cases are likely to increase over the period, as children would access low milk consumption.
- Households’ food stock is expected to deplete further.
- Cases of livestock herders’ and crop farmers conflicts are expected to increase due to huge influx from neighboring Counties of Tana River and Ijara sub-county.
8.0 RECOMMENDATIONS BY SECTORS:

8.1 Water

- Constructions/rehabilitation of water pans for preparedness.
- Conducting of hydro geological survey and drilling of boreholes.
- Promotion of rainwater harvesting, repair of Djabias, roof catchment areas, installation of gutters and tanks in Villages and Institutions.
- Provision of water treatment tabs to households mainly in Agro pastoral and mixed farming.

8.2 Livestock

- Livestock disease surveillance, Vaccinations and control to curb spread of livestock diseases.
- Upscale efforts aimed at stock piling livestock feeds in strategic hay reserves for use during the dry season by providing farmer groups with pasture seeds to maximize production over the short rains period.
- Promote Pasture and fodder planting in the county during and after the short rains.
- Provision of hay band machines for harvesting.
- Promote livestock insurance services.
- Construction of vaccination crushes and cattle dips.

8.3 Agriculture

- Build Capacity of crop farmers to plant drought resistance food crops.
- Mobilization and sensitization of farmers on crop insurance.
- Provision of seeds and fertilizers to farmers during the short rains period.
- Training communities on CMDRR.

8.4 Health and Nutrition

- Strengthen malnutrition screening and active case search as well as strengthen integrated management of acute malnutrition in the community.
- Enhance disease and nutritional surveillance in hot spot areas.
- Deworming exercise for both adults and children.
- Conduct SMART survey.

8.5 Education

- Support to schools feeding programmes for the most vulnerable communities focusing on the most vulnerable areas in the county to minimize dropouts.
- Provide Food for fees for students hailing from Vulnerable and poor families.
- Provision of water plastic tank to learning institution for preparedness.

8.6 Peace and Security Sector (Co-ordination)

- Peace and security meetings should be enhanced in the County
- Inter Counties peace and security to be enhanced in order to avert future conflicts.
- Provision of relief food to vulnerable household in the County.

8.7 Information Communication Technology

- Promote use of ICT on drought information (Forums) sharing and development programmes.