

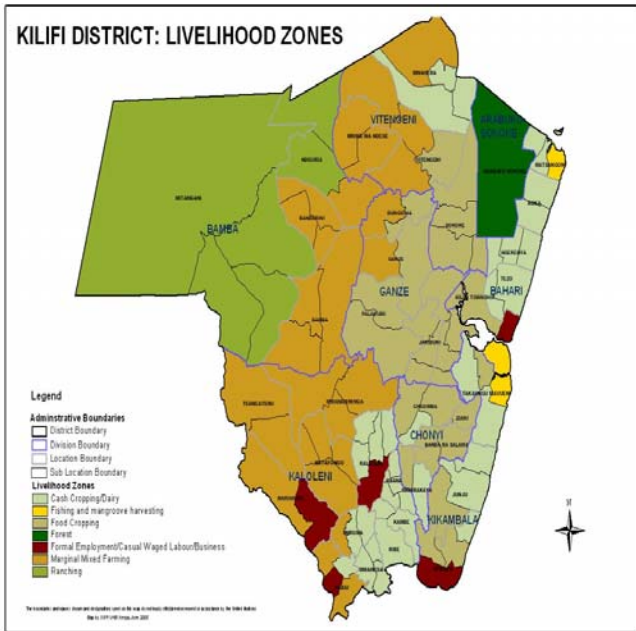


**OFFICE OF THE PRIME MINISTER
MINISTRY OF STATE FOR THE DEVELOPMENT OF NORTHERN KENYA AND OTHER ARID LANDS
ARID LANDS RESOURCE MANAGEMENT PROJECT II**

DROUGHT MONITORING BULLETIN, JULY 2009

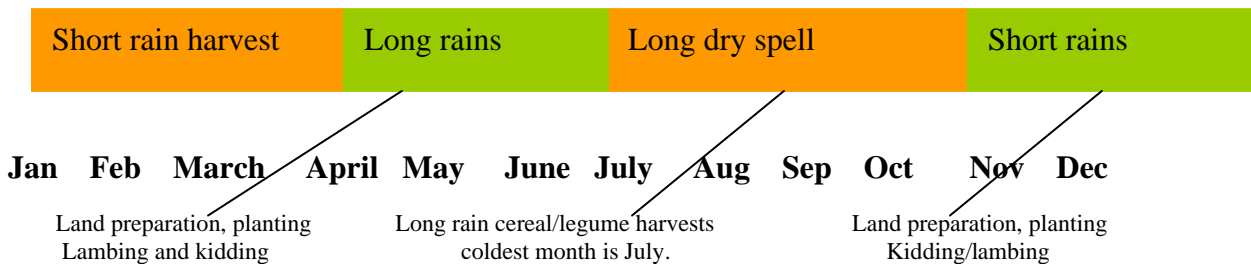
Kilifi/Kaloleni Districts

Warning Stages



| Livelihood zone | Stage | Trend |
|-------------------------|--------|-----------|
| Cash crop/ dairy | Normal | Stable |
| Food crop | Normal | Worsening |
| Marginal agriculture | Alert | Worsening |
| Ranching | Alarm | Worsening |
| Districts | Alert | Worsening |

Seasonal calendar



Situation overview

- An average 38.1mm of rainfall was recorded for 6 days. This was much lower than expected at this time of the year. Livestock and agricultural production were adversely affected by the low rainfall received. However, the off-season showers in parts of the cash cropping and dairy zone are likely to benefit slightly from the late planted crop.
- Livestock had a slight reprieve this month as distances to grazing areas reduced marginally to 3.3km from the 3.5km recorded last month. However, this relief is likely to be short-lived as the dry spell is soon going to set in, further lengthening the distances. The ranching zone is already adversely affected as livestock walk up to 12 km to access forage and pasture, with a good number succumbing to death.
- Low livestock prices continue to be recorded in the two districts as livestock was traded off at throw-away prices. A 3-yr old goat was priced at Ksh803. This was almost half of the expected Ksh1481 at this time of the year, signifying the collapsing trend of the livestock market.
- The greater portion of the two districts faced a total crop failure as crops did not do well. Maize in particular fared badly, leaving many who relied on it alone desperate. Although harvests were realised in selected parts, they were not sufficient.
- Cereal-legume prices continued to be above their expected prices at this time of the year, leaving many households grappling with the struggle to place a decent meal on the table. A kilogram of beans was priced at Ksh88.3 while that of maize was Ksh32.3.
- There was an 8.5% increase in the average daily wage rate as households earned an average of Ksh 1,34.5 from an average Ksh123.5 last month. Although minimal, this slight change was welcome as food prices were quite high having not considered other basic needs.
- A cholera out-break was been reported in Bahari and Jaribuni divisions in Kilifi district due to consumption of contaminated water, with five cases being admitted at the district hospital. Children below five years were particularly affected, resulting in the increase of the number of children at risk for malnutrition from the recorded 6.2% in June to 7.3% this month.
- The two districts were at the alert stage of early warning with a deteriorating trend.

Current interventions

Food aid

- The Kilifi DC's office distributed 140 bags of maize only in the month of July to Bamba division.
- The Kaloleni DC's office distributed 174 bags of rice, 134 bags of beans and 146 cartons of cooking oil.

Food for assets distribution plan summary sheet EMOP

a) Kaloleni district

| Division | Cereals | | Pulses (Mt) | Vegetable Oil (Mt) | Salt (Mt) | Total (Mt) |
|---------------|--------------|-------------|----------------|--------------------------|--------------|---------------|
| | Maize Mt) | M/meal (Mt) | | | | |
| Kaloleni | 18.15 | - | 3.2 | 0.96 | 0.35 | 22.66 |
| Mariakani | 75.5 | - | 13.3 | 4.00 | 1.6 | 94.4 |
| Totals | 93.65 | - | 16.5 | 4.96 | 1.95 | 117.06 |

b) Kilifi district

| Division | Cereals | | Pulses | Vegetable Oil | Salt | Total |
|---------------|---------------|---------------|--------------|---------------|-------------|---------------|
| | Maize (Mt) | M/meal (Mt) | (Mt) | (Mt) | (Mt) | (Mt) |
| Ganze | 115.85 | - | 20.45 | 6.129 | 2.35 | 144.78 |
| Vitengeni | 117.00 | - | 20.6 | 6.268 | 2.35 | 146.22 |
| Bahari | 17.20 | - | 3.0 | 0.904 | 0.30 | 21.40 |
| Bamba | 94.70 | 32.725 | 22.5 | 6.716 | 2.65 | 159.29 |
| Totals | 344.75 | 32.725 | 66.55 | 20.016 | 7.65 | 471.69 |

Non-food interventions

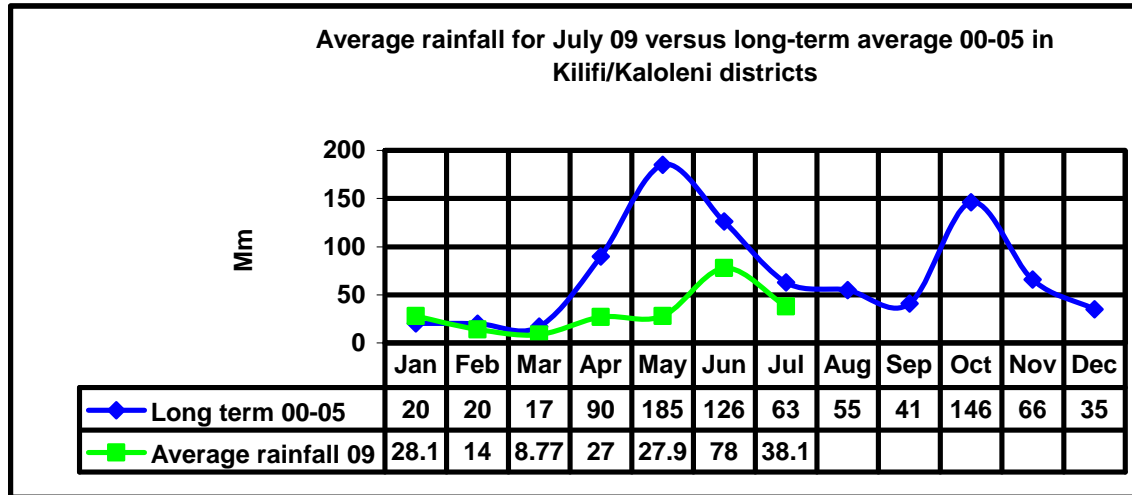
- Plan International has supported 2,000 children with Unimix flour in Ganze and Vitengeni divisions.
- World Vision is excavating water pans with the communities under the PRRO.
- World Vision is carrying out construction of Zai pits with communities under the PRRO
- Plan International has assisted two groups in Chonyi Division to set up mushroom farms.
- MoA has supported farmers with certified seeds, orphan crops and farm inputs through NAAIAP.
- Ministry of Education (MoE) has carried out de-worming and Vitamin A supplementation of all pre-primary and primary school pupils in the district.
- Plan International is feeding 2,154 children in five primary schools. It is also supporting seven ECD centres with morning meals.
- World Vision and MoE are constructing classrooms in primary schools in Bamba.

Recommendations to DSG and KFSM

- Construction of dams and pans in Bamba, Ganze, Vitengeni, Mariakani where water availability is scarce.
- Water trucking to schools and health institutions.
- Hygiene and sanitation training and awareness campaign.
- Construction of Giriama Ranch Irrigation project in Bamba Division.
- Construction of 28 latrines in Bamba and Kaloleni.
- Enhanced supplementary feeding.
- Continuation of the on-going household food intervention through PRRO.
- Increased surveillance on the resurgence of cholera in Jaribuni and Bahari divisions.
- Construction of more boarding schools for girls to keep them in school during drought.
- Increased surveillance on livestock diseases in the ranching zone as a result of in-migration of livestock from Tana River district.

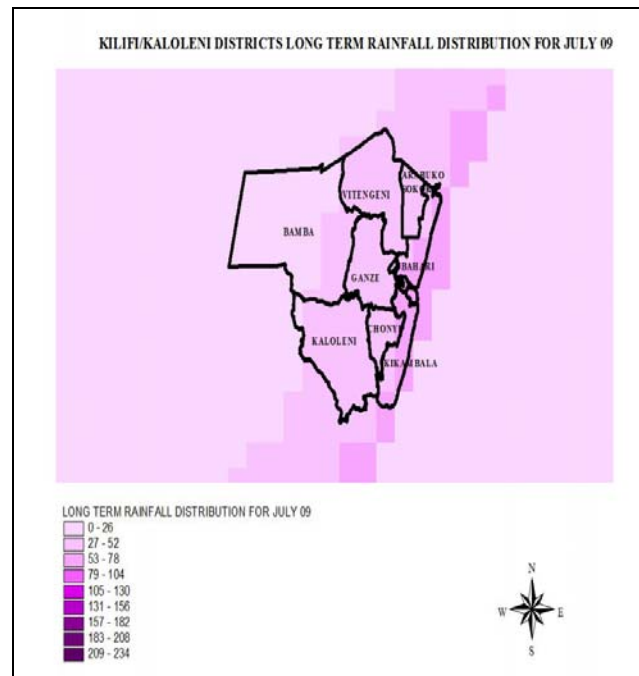
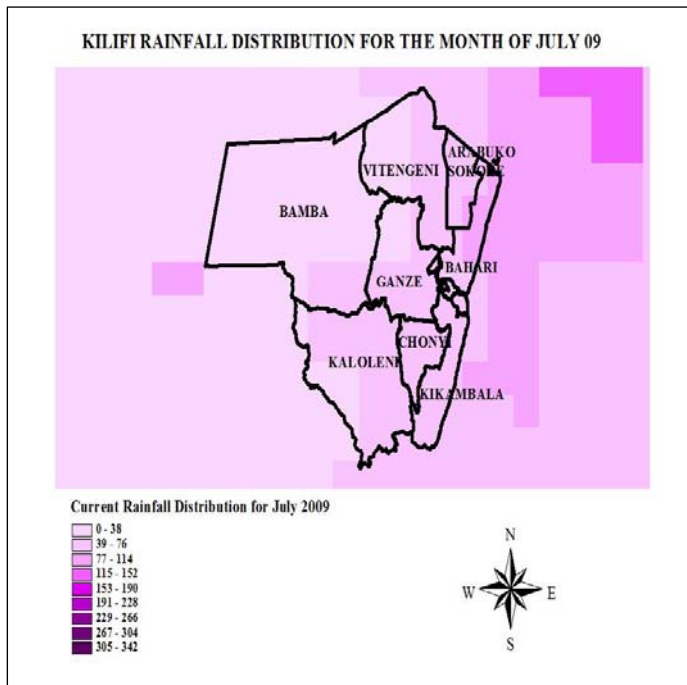
1.0 Environmental indicators (Stability)

1.1 Rainfall



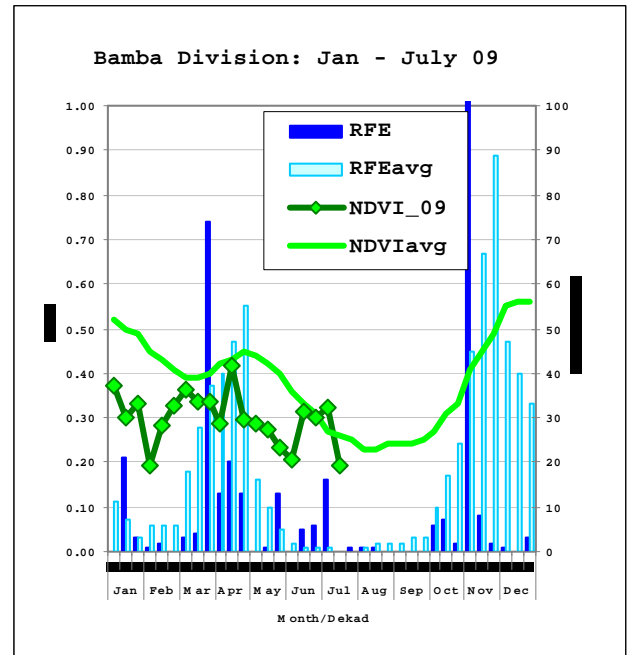
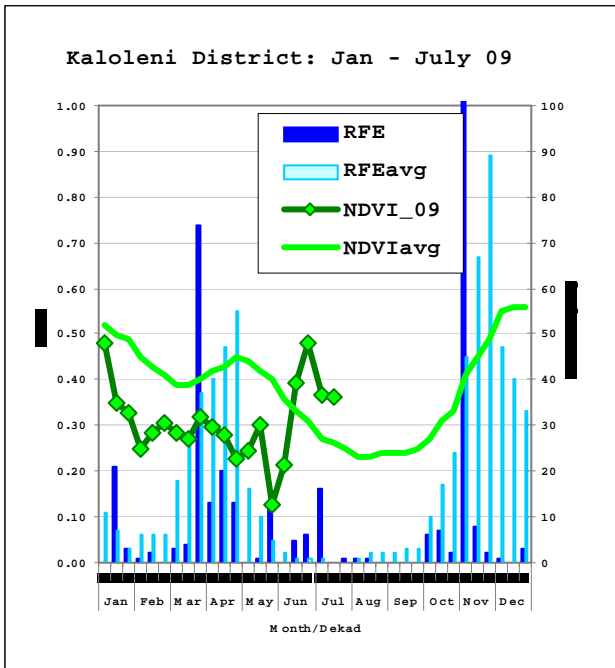
n=12

- A total of 38.1mm of rainfall was recorded for an average of 6 days. This was a 51.2% decrease compared to 78 mm recorded in the month of June. Although the decrease was expected at this time of the year, it was 39.5% less than normal according to the long-term average 00-05. This contributed to the reduced amount of pasture as a result of the lack of rain.
- The results obtained from remote-sensed data of rainfall estimates agreed with this trend as indicated in the graphs below.



- The rains were present in virtually all livelihood zones.
- However, the ranching zone received 6.2mm for 3 days only making it a very fragile zone in food security ranking.

1.2 Condition of natural vegetation and pasture

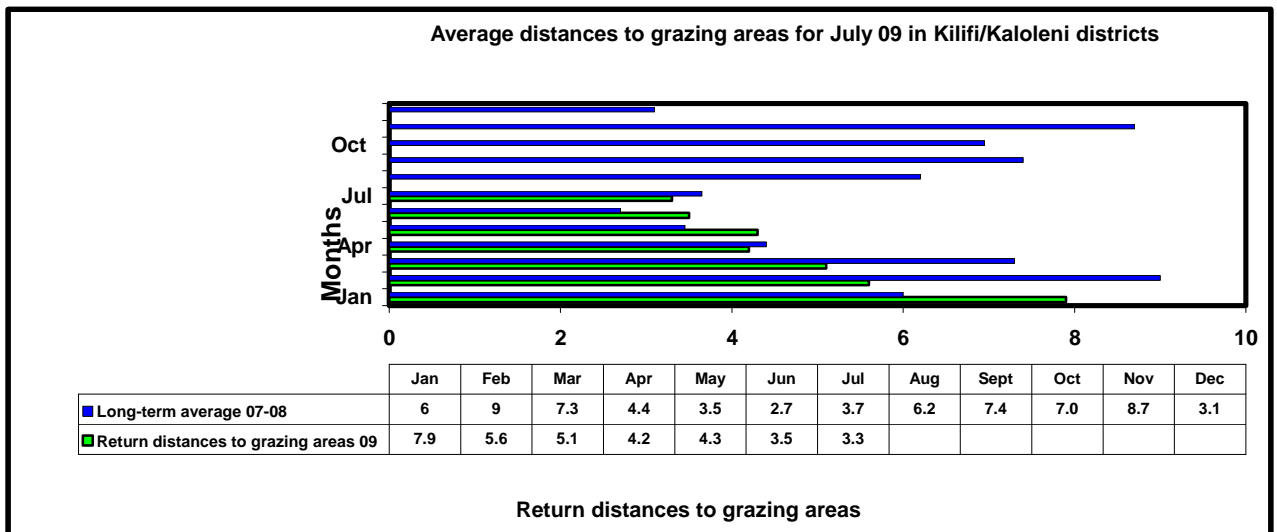


Source: ALRMP, FEWSNET, USGS

Source: ALRMP, FEWSNET, USGS

- Natural vegetation and pasture was fair this month owing to the various showers experienced in the two districts this month.
- Kaloleni district, although spotting a few areas with sparsely populated vegetation benefited a little from the rains but had its pasture declined with the end of the rains. The same case applied to areas in Bamba of the ranching livelihood zone as shown in the NDVI images illustrated below.
- However, herders face a challenge in its availability as pasture is likely to continue decreasing given the increasing invasion of livestock from North Eastern province and the neighboring Tana River district.

1.2.1 Distance to grazing areas



n= 12

- Distances to grazing areas registered a minimal decline owing to the rains in a few areas.

- However, with the increase in livestock invasion from North Eastern province and neighboring Tana River district, these are likely to lengthen as many livestock consume the little available pasture.
- Human conflicts are also likely to increase between herders in the district and those from adjacent areas.
- Distances in the Ranching zone went as high up as 12 km in some areas while the least distances were recorded in the cash cropping and dairy one at 0.5km.

1.3 Water sources and availability

1.3.1 Water sources

- Slightly less than half the population sampled 46.2% relied on pans and dams for water. This was similar to last month as most water pans had their volumes increased from the little rains during the long rains.
- Other water sources included traditional river wells, shallow wells and boreholes. However, these do not currently hold enough water to sustain the districts' water needs.
- The lack of water in this region particularly affected the school feeding programme since the food distributed for children cannot be cooked.
- School drop-out rate has, as a result, been on the increase as food, a major attraction for drought-stricken school-going children is unavailable. The drought especially affected the girl-child and many opt to stay at home.
- Also badly affected by the drought are the hygienic standards in the districts resulting in an increased incidence of water-borne diseases such as diarrhea.

1.3.2 Household access to water

- Household access to water increased by 16.7% from 1.8 km last month to 2.1 km this month. This was an indicator towards increasing water stress at household level as many water sources have not filled to their capacities. The ranching zone continued to post as high as 5 km to watering points.
- The quality of water was also very wanting as livestock and humans alike share the water resources available in the district resulting in their contamination.

1.3.3 Livestock access to water

- Livestock access to water deteriorated this month compared to the previous one due to the ever-decreasing levels of water.
- Weakened livestock body condition and carcasses of dead animals from drought were noted in Mariakani and Bamba divisions. With the dry spelling setting in the trend is likely to worsen.

1.3.5 Emerging issues/conflicts

- Cholera cases were reported , with 5 cases being admitted at the district hospital from Bahari and Jaribuni divisions in Kilifi district. This was as a consequence of consumption of contaminated water.
- Human/wildlife conflicts also increased as wild game encroaches on farms causing some destruction on food crops in farms in search of water.
- Conflicts over pasture were reported in the ranching zone as herders from neighboring Tana River district graze their livestock in the zone.

1.4. Implications on food security

- The off-season showers currently being experienced in the two districts might revive the late-planted crop.
- Pasture quality and quantity is likely to be improved likewise.
- Nevertheless, the scarce availability of water is likely to result in poor agricultural and livestock production. Increased cases of water-borne diseases are likely to be recorded due to lack of rain.

2.0 Rural economy indicators (Food availability)

2.1 Livestock production

2.1.1. Livestock body condition

- The body condition of livestock this month was quite similar to last month.
- Very deteriorated body condition was particularly prevalent in the ranching zone owing to the pitiable quality of pasture.
- Livestock migration to greener pastures has been on the increase especially in areas of Tsangatsini, Mwana Mwinga and Guru guru in Kaloleni district.
- The same trend prevailed in Mitangani in the ranching division of Bamba. Increasing livestock deaths have also been reported as a result of drought.

2.1.2 Livestock diseases

- No major diseases were reported this month in the two districts.
- However, the veterinary departments were on high alert on the likely spread of Foot and Mouth disease along the Bamba –Malindi boundary as a few incidences had been reported in Malindi.

2.1.3 Milk production

- Milk production increased slightly this month especially in areas that had continued to receive off-season showers such as the cash cropping and dairy zone.
- This trend is likely to continue if this weather pattern continues.

2.2 Crop production

2.2.1 Timeliness and status of various crop production activities

- The on-farm crop is in fair condition in the cash cropping and dairy zone.
- However, in the marginal mixed farming and ranching zones, its condition is far much worse and households in these regions expect a near total crop failure.
- However, after several failed attempts to plant with insufficient rains, some households in the cash cropping and dairy are likely to realize a fair harvest but not enough for their sustenance.

2.2.2 Pests and diseases

- No major crop diseases or pests of food security concerns were reported during the month.

2.2.3. Crop harvests

- Coconuts, cassava and citrus fruits were harvested this month.

2.3 Implications on food security

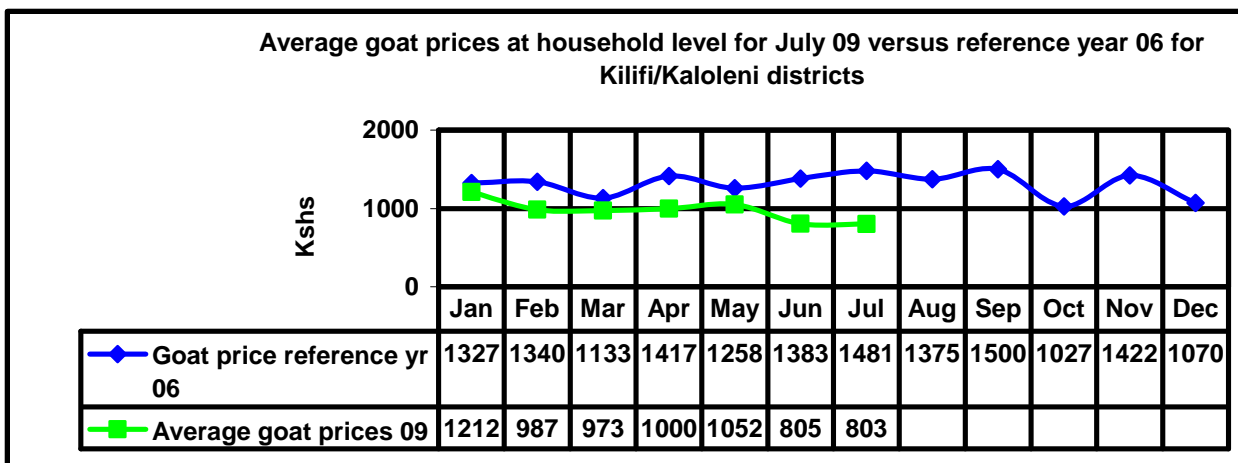
- Deteriorating livestock condition and continuous crop failure will have a very negative effect on the food security status in the two districts.
- However, the showers currently being experienced along the coastline could revamp some of the crops and see to a substantial change in this negative drift.

- With increased milk production resultant from this, food security is likely to take a turn for the better especially in the hinterland.

3.0 Access to food

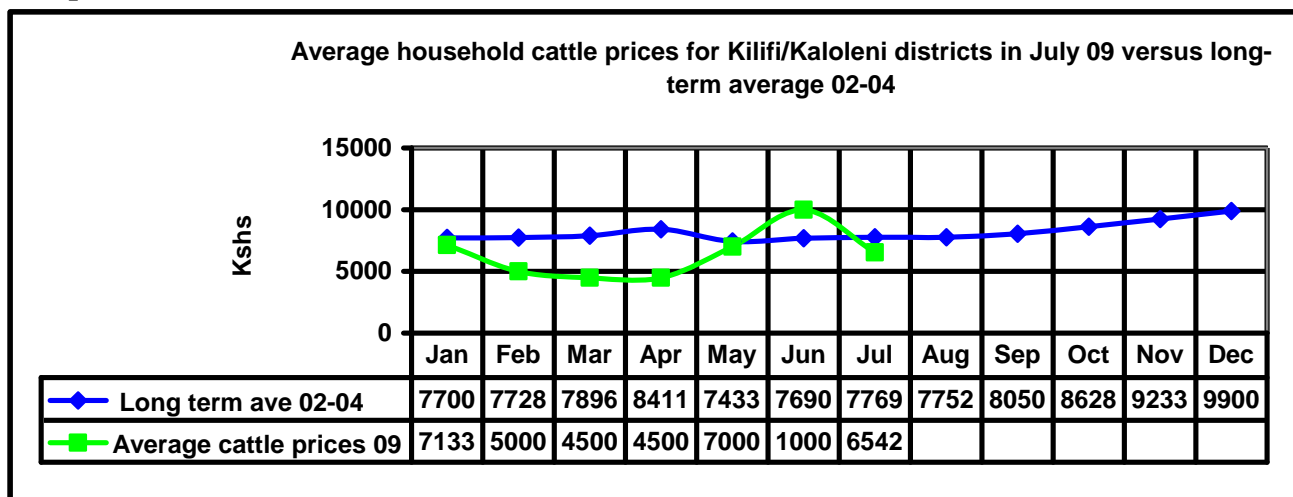
3.1 Livestock marketing

3.1.1 Goat prices



- The selling price of a 3-yr old goat was Ksh803, an inconsequential decrease fairly comparable to Ksh805 posted last month.
- This was approximately 45.8% lower than the expected price in a similar month in the reference year 2006.
- This was a testament to the fast-collapsing livestock market in response to encroaching drought conditions. The unavailability of livestock markets may also be another contributing factor to this as only one market in Bamba is active.
- Highest goat prices were to be found in the food cropping zone at Ksh900 while the lowest were recorded in the marginal mixed farming one at Ksh700.
- There was not a significant difference between the two livelihood zones as both posted equally low prices due to the prevailing drought conditions.

3.1.2 Cattle prices



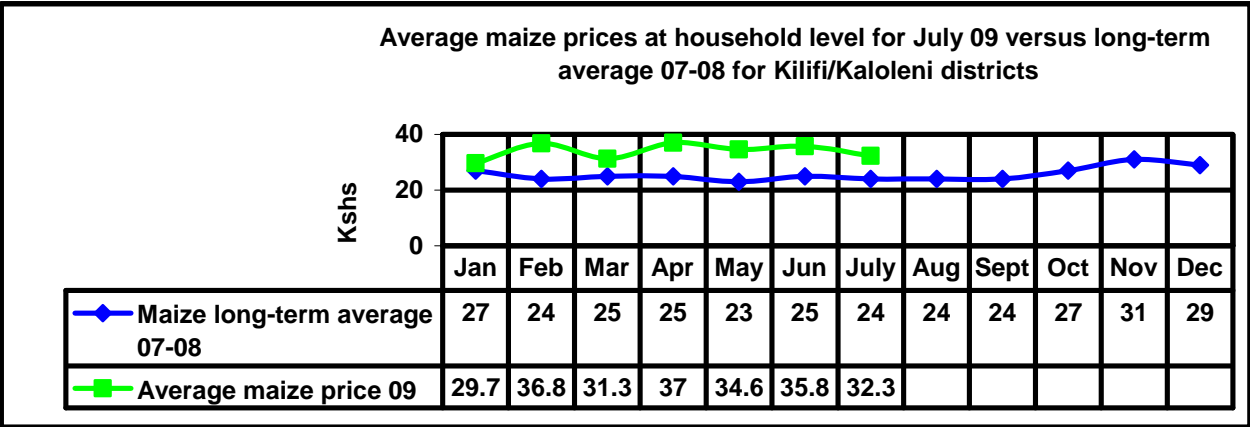
- The average selling price of a 3-yr old bull dropped by 34.6% to Ksh 6542 this month from Ksh 10,000 last month.
- All livelihood zones posted some sales this month as the scramble to buy food intensified through livestock trade.
- At Ksh 6,542, this price was lower than expected compared to the long-term average 02-04 with the highest prices being recorded in the cash cropping and dairy zone at Ksh7,667 and the least in the marginal mixed farming at Ksh6,000.

3.2 Milk consumption

- Milk consumption increased from an average 4.3 bottles in June to 5.5 bottles in July indicative of a 27.9% increase.
- This was owed to the slight increase in production after the rains began. However a decrease in this trend is expected as the dry spell is expected to set in a month or two.

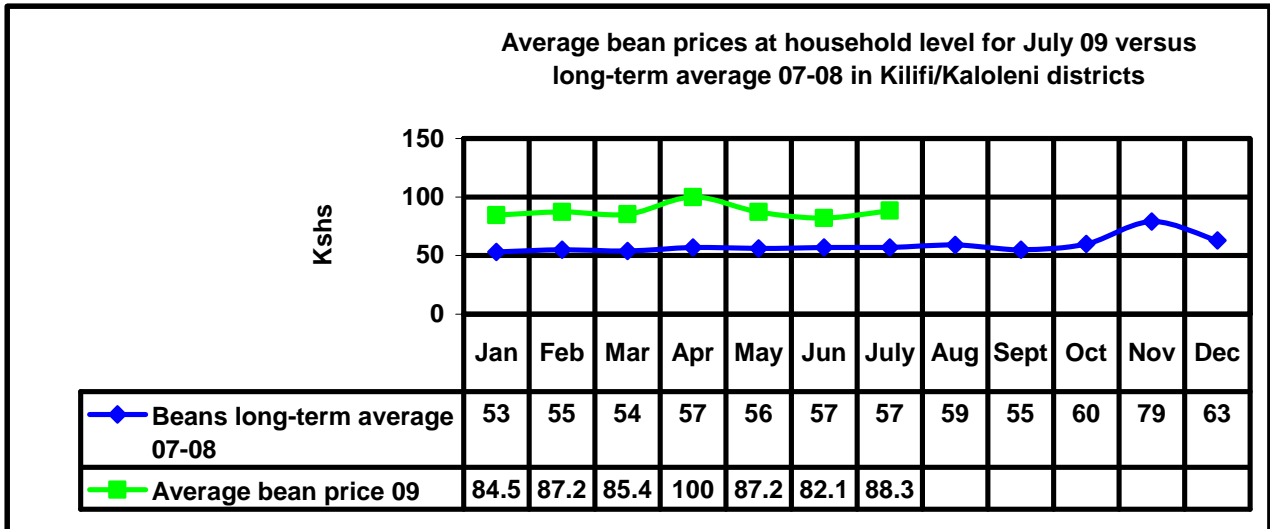
3.3 Food prices

3.3.1 Maize prices



- A kilogram of maize was selling at Ksh32.3, with a slight decrease of 9.8% from Ksh35.8 last month.
- The price decline could be attributed to the availability of other carbohydrates apart from maize as the current month was a harvesting period.
- This price was 34.6% above that expected in the long-term average meaning that households still had to dig deeper in their pockets for money to purchase food as in the previous months. This was especially severe in the food-cropping zone where a kilogram was retailing at Ksh34.7.
- Access to this commodity has therefore been limited as most cannot afford it as incomes are at their lowest and casual labour, their major source of income, is not readily available.

3.3.2 Beans prices



n=12

- The average price for a kilogram of beans was Ksh88.3 this month indicating a slight increase of 7.5%. Although other sources of proteins were available at household level from the long rain season harvest, they were not sufficient as most crops had failed.
- This scarcity could have led to the increase in price for this commodity.
- Beans were selling at the highest prices in the marginal mixed farming zone at Ksh97.5 while the least prices were to be found in the cash cropping and dairy one at Ksh77.5.
- At Ksh88.3, the price was 54.9% higher than the long-term average 07-08 expected at this time of the year. Just as maize, households had to spend more to purchase beans this month similar to the previous months.

3.4 Income

3.4.1 Casual labour

- 47.7% of the households sampled derived their source of income from casual labour. The average daily wage rate rose by 8.5% to Ksh134 from Ksh123.5 last month.
- The highest average daily wage rate was recorded in the food cropping where on-farm activities requiring labour were readily available at Ksh159 while the ranching one recorded the least at Ksh98.

3.4.2 Sale of charcoal

- The second main source of income was the sale of charcoal where 21.1% of the households sampled relied on.
- It was the most reliable source of income in the marginal mixed farming and ranching livelihood zones but the least in the cash cropping and dairy one.
- The practice of cutting trees for burning charcoal for sale has seen to the depletion of forest cover in the two zones mentioned above therefore also leading to very little rainfall in the region. This has been a major factor negatively affecting food security.

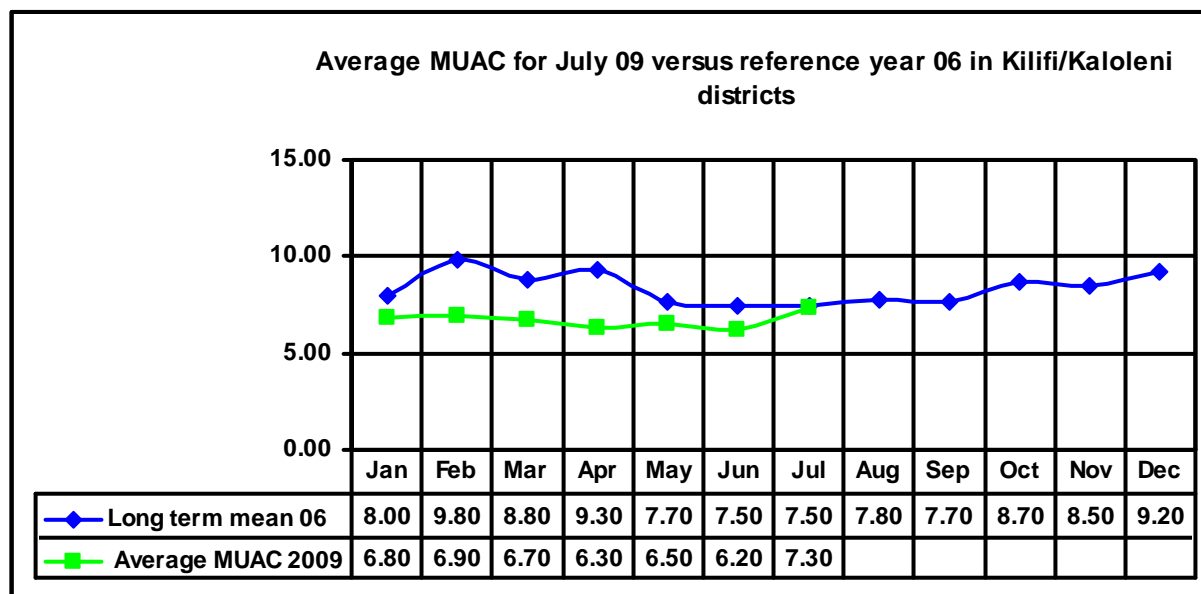
3.5 Implications on food security

- Increased food commodity prices, a depressed livestock market due to poor terms of trade and an insufficient wage rate has seen to the increased vulnerability to food insecurity of households in these two districts.

- This situation is only going to get worse as the just-concluded rains have not satisfactorily supported the agricultural and livestock production-based livelihoods which largely depend on them.

4.0 Human welfare indicators (Utilisation of food)

4.1 Nutrition status



n = 1826

- The percentage of children at risk for malnutrition this month was 7.3% with a slight increase being noted compared to 6.2% last month.
- Food has been particularly scarce these past months leading to inadequate dietetic variety and utilization. These factors coupled with high illiteracy levels, especially in matters concerning hygiene have seen to the increase in the children at risk.
- The food cropping zone having consistently posted the highest percentage of children at risk for malnutrition still ranked first at 12.6% with the marginal mixed farming one trailing at 3.1%.
- Although the percentage this month is lower than expected at this time of the year, it is likely that the number will increase given the current lack of food at household level as a result of numerous failed crop seasons.

4.2 Human health

- Cholera outbreaks were reported in Jaribuni and Bahari divisions in Kilifi district.

5.0 Coping strategies

- Coping strategies with food insecurity for the month of July included enhanced charcoal burning, increased casual waged labour, reduction in size and number of meals per day, restricted consumption of food by adults to allow more for children and depending on social networks for food.

6.0 Recommendations to DSG and KFSM

- Construction of dams and pans in Bamba, Ganze, Vitengeni, Mariakani where water availability is scarce.
- Water trucking to schools and health institutions.
- Hygiene and sanitation training and awareness campaign.
- Construction of Giriama Ranch Irrigation project in Bamba Division.

- Construction of 28 latrines in Bamba and Kaloleni.
- Enhanced supplementary feeding.
- Continuation of the on-going household food intervention through PRRO.
- Increased surveillance on the resurgence of cholera in Jaribuni and Bahari divisions.
- Construction of more boarding schools for girls to keep them in school during drought.
- Increased surveillance on livestock diseases in the ranching zone as a result of in-migration of livestock from Tana River district.