

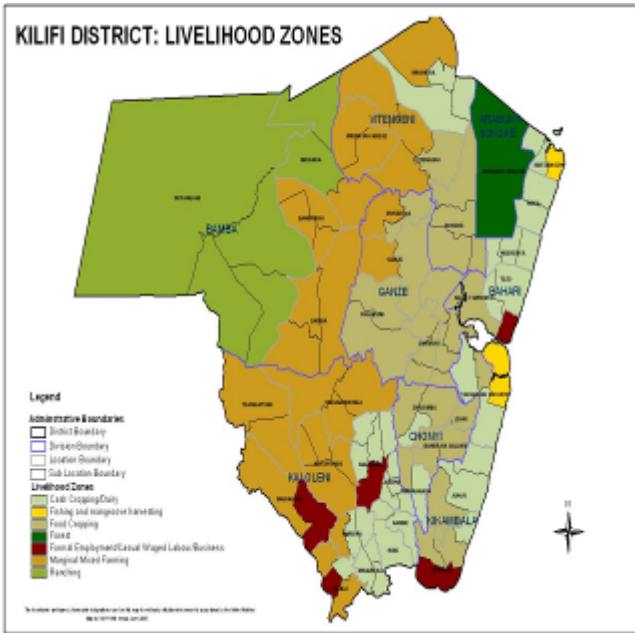


**OFFICE OF THE PRIME MINISTER
MINISTRY OF STATE FOR THE DEVELOPMENT OF NORTHERN KENYA AND OTHER ARID LANDS
ARID LANDS RESOURCE MANAGEMENT PROJECT II**

DROUGHT MONITORING BULLETIN, AUGUST 2009

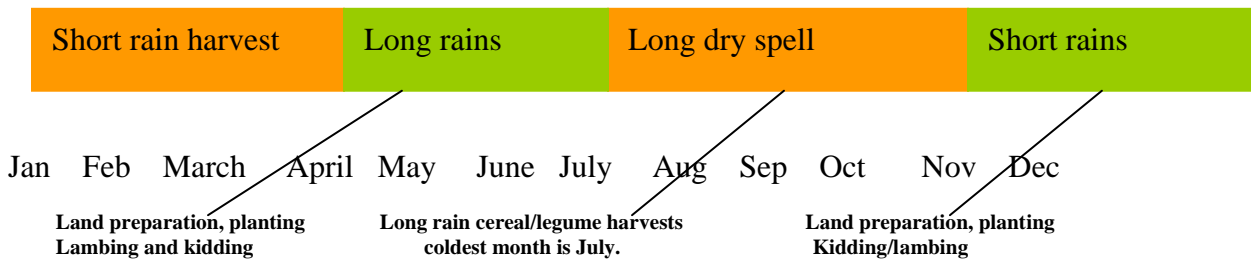
Kilifi/Kaloleni/Ganze Districts

Warning Stages



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

Seasonal Calendar



Situation overview

- The districts recorded an average of 17.3 mm of rainfall for 5 days in the month of August. Most of the rainfall was noted in the cash cropping and dairy and parts of the food cropping livelihood zones, with others receiving minimum rains. This had a very negative impact on pasture and vegetation, leaving livestock with almost nothing, if any, to feed on. Distances to grazing areas increased as a result, with both livestock and crop production thoroughly compromised and yields drastically lowered. Expected on farm crop yields will range between 15- 35%, with some households in marginal mixed farming livelihood zone registering no harvest.
- Increased conflicts between humans, livestock and wildlife were witnessed over the few remaining water and pasture resources.
- Both household and livestock access to water proved a challenge as main water sources such as water pans and dams either dried up or were on the verge of drying up. Many livestock deaths were reported as a result of the prevailing drought and trekking for long distances to access water. Households were not spared either as distances to water sources doubled and the scantily available water contaminated. Several cases of people with cholera and diarrhea were reported in both the high and low potential zones of the district.
- The on-going school feeding program may collapse if measures are not put in place to address the dire lack of water in the institutions.
- Livestock prices were still recorded below expected prices, therefore, denying a big part of the populace a livelihood, especially in the ranching and the marginal mixed farming zones. A 3-year old bull traded at Ksh7083, 8.6% lower than expected. A similarly-aged goat sold at Ksh896, 34.8% lower than the expected price of Ksh1,375 for this time of the year.
- Food commodity prices remained high this month, with a kilogram of maize and beans selling at Ksh34.3 and Ksh88.2 respectively, 42.5% and 49.5% higher than their long-term averages respectively. With wage rates remaining fairly static at Ksh137.8, households had to spend the better part of their hard-earned wages on food.
- The nutrition status of children below five years improved slightly during the month under review, with the percentage of children at risk of malnutrition decreasing from 7.3% last month to 6.4% . The improvement was due to the on-going interventions of supplementary feeding for selected children aged less than five by Plan Kenya, WFP and ALRMP.
- The early warning stage for the three districts is 'alarm' with a fast deteriorating trend.

Current interventions

i) Food aid

a) Kaloleni district

Division	Cereals	Pulses	Vegetable Oil	Salt	Total
	Rice (Mt)	(Mt)	(Mt)	(Mt)	(Mt)
Kaloleni	18.15	2.65	0.96	0.35	22.11
Mariakani	75.48	11.10	4.00	1.60	92.18
Totals	93.63	13.75	4.96	1.95	114.29

b) Kilifi/Ganze districts

Division	Cereals		Pulses	Vegetable Oil	Salt	Total
	Maize	Rice (Mt)	(Mt)	(Mt)	(Mt)	(Mt)

	(Mt)					
Ganze	38.10	77.83	17.022	6.12	2.35	141.46
Vitengeni	-	117.36	17.100	6.14	2.35	142.95
Bahari	-	17.16	2.550	0.9	0.30	20.91
Bamba	-	127.738	18.70	6.74	2.65	155.83
Totals	38.10	340.13	55.372	19.90	7.65	461.15

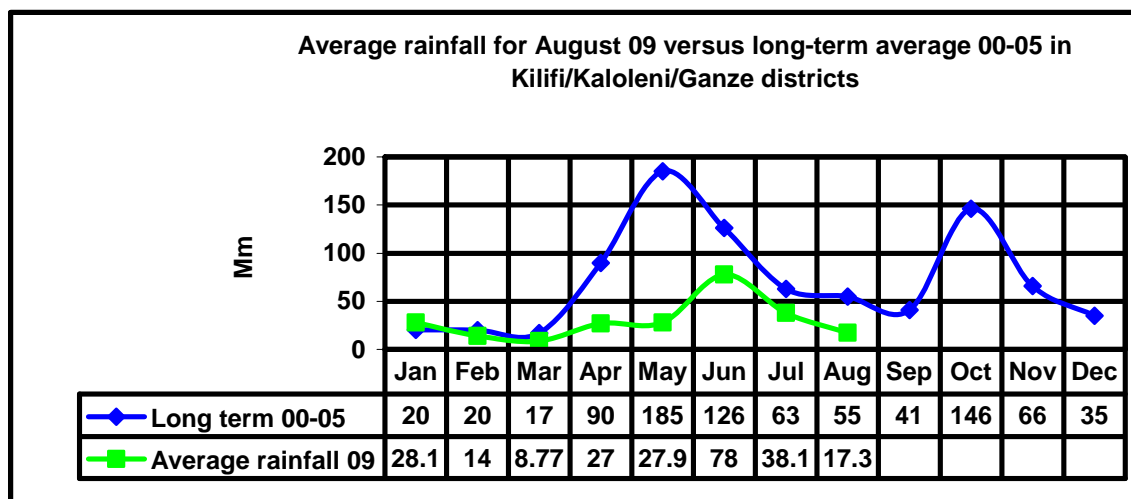
ii) Non-food interventions

- Plan International supported 2,000 children with Unimix flour in Ganze and Vitengeni divisions, while the Ministry of Health supported supplementary feeding of children at risk for malnutrition in Bamba, Ganze and Vitengeni divisions.
- World Vision is excavating water pans with the communities under the PRRO using the FFA approach.
- ALRMP has initiated water trucking to support schools and institutions in the affected areas of Ganze, Bamba, Vitengeni and Kaloleni.

Recommendations to DSG and KFSM

- Continued water trucking to schools and health institutions.
- Hygiene and sanitation training and awareness campaign and screening to curb increased incidences of water-borne diseases.
- Livestock vaccination and disease surveillance for CCPP, Foot and Mouth and other diseases coming about as a result of drought in Ganze and Kaloleni Districts.
- Desilting of dry water pans to enhance capacity in anticipation of the short rains season.

1.0 Environmental indicators (Stability)

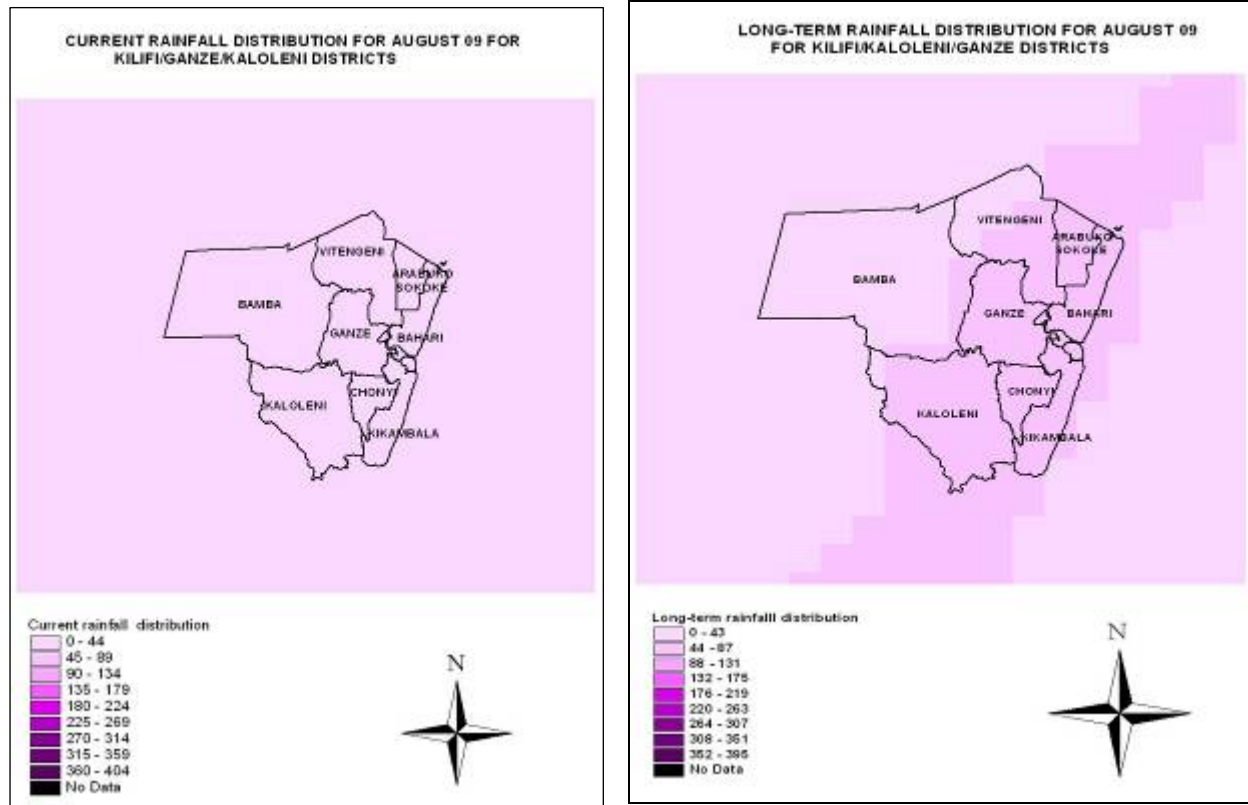


n=12

1.1 Rainfall

- A total of 17.3mm was recorded for an average 5 days, which was indicative of a 54.6% drop compared to the 38.1 mm recorded in July. Although the drop in the amount of rainfall was anticipated amount was less than one-third of that expected in the long-term average 00-05.

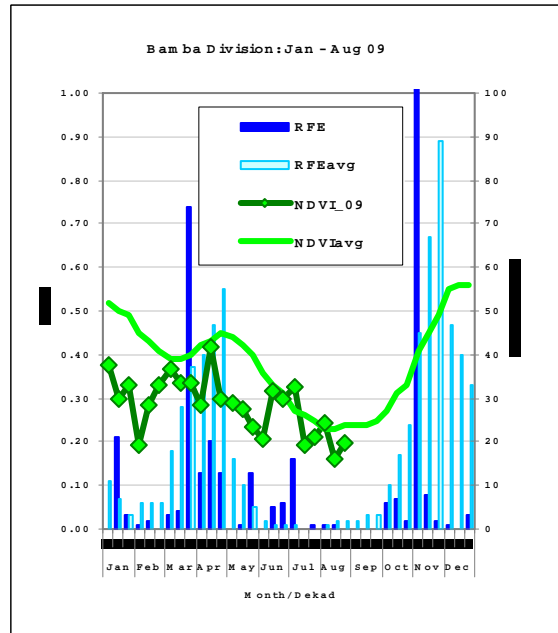
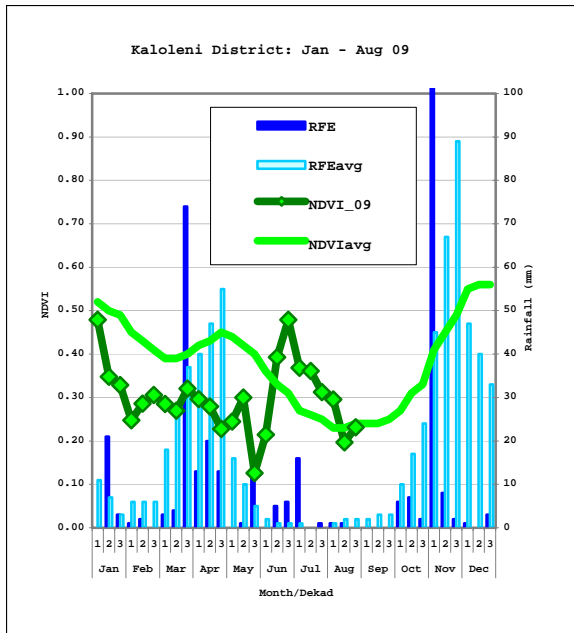
- The minimal rainfall contributed to the dire lack of pasture and failed crop in the ranching and marginal mixed farming zones which recorded very low amounts of 3.3mm and 9.3mm respectively. However, parts of the food cropping recorded slightly higher rainfall of 63.5mm.
- The RFE images for the month of August are given below.



1.2. Condition of natural vegetation and pasture

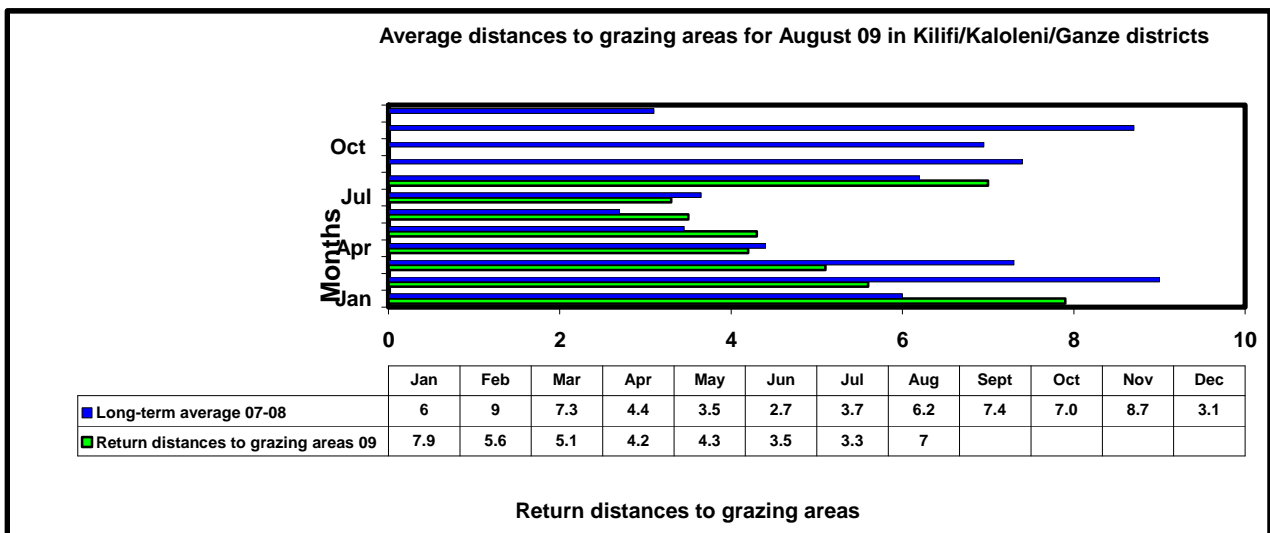
1.2.1 Quality and quantity

- The quality and quantity of pasture and natural vegetation was poor this month as a result of erratic long rains mainly in the food cropping and cash cropping and dairy zones. However, some areas such as Guru Guru and Ndatani in Kaloleni district and Goshi, Midoina, Ndigiria and Karimani in Bamba division indicated depleted pasture and extreme overgrazing. The NDVI images for this month are given below.



- Herders continued facing challenges in accessing pasture, with large numbers of livestock moving in from the North Eastern province. This resulted in numerous conflicts as pastoralists and residents of the ranching zone war over the little available pasture.

1.2.2 Distance to grazing areas



n= 12

- Distances to grazing areas more than doubled this month compared to July as a result of diminished rains across most livelihood zones. An additional factor that contributed to this is the huge influx of livestock from the neighboring district of Tana River which has consumed most of the pasture in the ranching giving rise to many conflicts over pasture and water sources.
- Livestock had to walk for up to 10 km in Goshi sub-location of the ranching zone and up to 12.7 in the Madamani area of Vitengeni division. Compared to the recorded 6.2 km expected at this time of the year, such distances were too long for livestock to walk.

1.3 Water sources and availability

1.3.1 Water sources

- The main sources of water for 39.3% of the households this month were pans and dams. However, there was a 6.9% reduction on the reliance on these as a water source as most had either dried up or held very little water to sustain the population in the area sampled and its environs.

1.3.2 Household access to water

- Household access to water was doubled to 4.1 km from 2.1 km last month. Owing to the increased drought and extended dry spell, this was a trend that is likely to continue well in to the coming months. Distances in some areas in the food cropping such as Palakumi went up to 10 km and those in the ranching one such as Goshi were as high as 8km.
- The quality of water in the three districts has continued to decline as a result of increased contamination. The on-going school feeding programme was a major victim of these conditions as many schools do not have sufficient water to cook even though food supplies have been made to the schools. Equally affected are residents of Konjora and Mtondia in Bahari division who have clinically confirmed cases of severe water-borne diseases among their midst.

1.3.3 Livestock access to water

- Access to water by livestock worsened this month as a result of diminished water supplies. Livestock had to walk very lengthy distances to the few available water sources especially in the ranching and marginal mixed farming zones.
- Many livestock deaths continued to be reported due to drought, a sight that is likely to persist in the months to come especially in Mariakani, Bamba, Vitengeni and Ganze divisions.

1.4 Emerging issues/ conflicts

- Clinically-confirmed cholera out-breaks were reported in Kuchi-Mtsanganyiko in Konjora and Majaoni in Mtondia in Bahari division. This has been attributed to the lowered hygienic standards due to lack of water for sanitary and consumption purposes.
- Ndatani, Goshi and Midoina areas have spotted elephants which have and likely to wreck more havoc on the on-farm crop not mentioning the general security threat they pose to residents in the mentioned areas.
- Invasion of large herds of cattle from the Northern Province herded by Somali pastoralists have precipitated severe human-human conflicts over pasture among residents in Bamba division. Aside from the conflicts, the invasion also poses a threat as an increased incidence of diseases is likely to be reported.
- Outbreak of FMD in Malindi district posed a major challenge to the already weakened herds.

1.5 Implication on food security

- Persistent drought, poor crop yields had a very negative implication on food security. This, coupled with diminishing pasture and water sources, continued to pose the worst challenge to households at this time of the year when otherwise they should be depending on their domestic on farm crop yields. With each passing day more households are falling within the vulnerable food insecure bracket.

2.0 Rural economy indicators (Food availability)

2.1 Livestock production

2.1.1 Livestock body condition

Livestock body condition continued to deteriorate due to longer distances to water sources and grazing areas. Many livestock succumbed to death as the toll proved too much to take while others were migrated to greener pastures to other areas in neighboring districts such as Kinango, Kwale and Malindi.

2.1.2 Livestock diseases

CCPP was reported in Kaloleni district as a result of the drought, resulting in many livestock deaths.

Foot and Mouth disease that had threatened the livestock along the Bamba-Malindi boundary line was contained by the respective veterinary offices, which have been on high alert on both diseases. Increased incidences of such diseases are likely to be experienced as livestock's immunity weakens as a result of the debilitating drought.

2.1.3 Milk production

Milk production decreased by 9.2% from a recorded 13.0 bottles last month to 11.8 bottles this month. The ranching zone posted the lowest production at an average of 6 bottles while the marginal mixed farming one posted the highest at 18 bottles. A further downward trend is expected given the current prevailing drought in the region.

2.2 Crop production

2.2.1. Timeliness and status of various crop production activities

The crop condition in the cash cropping and dairy zone was fair and a fairly good harvest is expected. However, crops in the marginal mixed farming part of the food cropping and ranching zones was not good at all and very little will be harvested from these zones.

Near-total crop failure in these zones was evident and residents are likely to be extremely food insecure before the next harvest.

2.2.2. Pests and diseases

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

2.2.3 Crop harvests

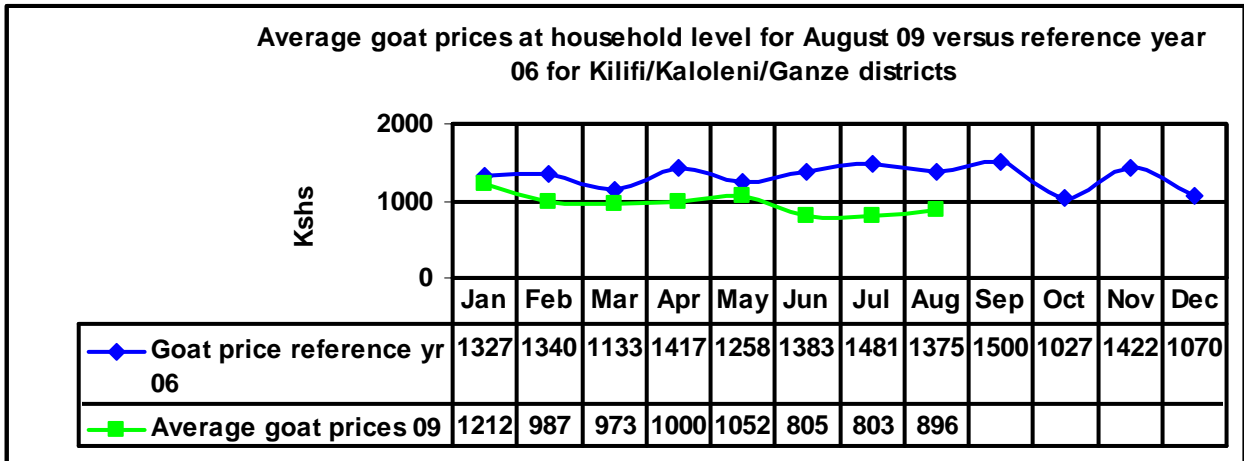
Harvest of early-planted maize was ongoing although yields were insignificant due to drought.

Other crops being harvested include green grams and cowpeas, while others were in their dormant stages after the harvesting period. Cassava performance was extremely compromised due to moisture stress.

2.3 Implication on food security

Poor livestock body condition with increased incidences of diseases and reported deaths does not augur well with the household food security status in the districts under review. This, coupled with the fact that crop harvests were not promising with yields lower than 10%, is likely to only aggravate the already bad situation.

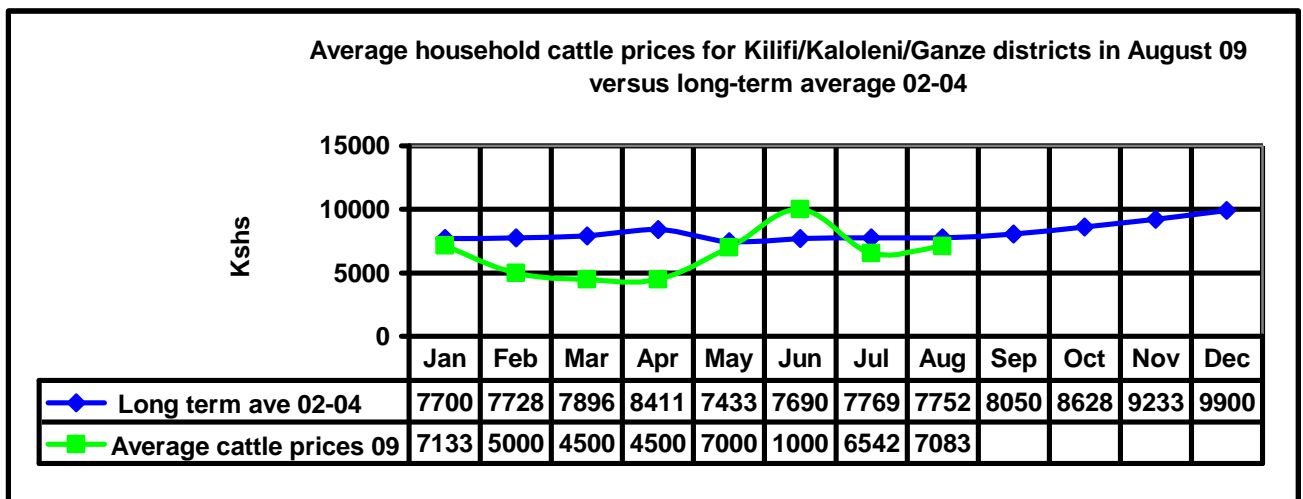
3.0 Access to food
 3.1 Livestock marketing
 3.1.1 Goat prices



n=6

- A 3-year old goat was selling at Ksh896, up by 11.6% from Ksh 803 in July. Although an increase in price was recorded, the price was almost half of what was expected at this time of the year compared to the reference year (06) which stood at Ksh1,375. This implied reduced income for most households whose main economic mainstay was livestock trade.
- Highest goat prices were recorded in the cash cropping and dairy zone at Ksh1,056 while the least were recorded in the marginal mixed farming one at Ksh783. This uncompetitive price was particularly alarming for the marginal mixed farming zone as livestock trade was a major economic activity and source of income in the region. The difference in the prices was largely due to increased livestock disposal by households in response to the prevailing drought.

3.1.2 Cattle prices



n=12

- A medium-sized 3-year old bull was selling at Ksh7,083 compared to Ksh6,542 in July. This was an 8.3% increase in price, making it fairly comparable to that of the long-term average 02-04. However, with the prevailing weather conditions, this price is likely to plummet as farmers seek to sell their livestock before the drought claims them.

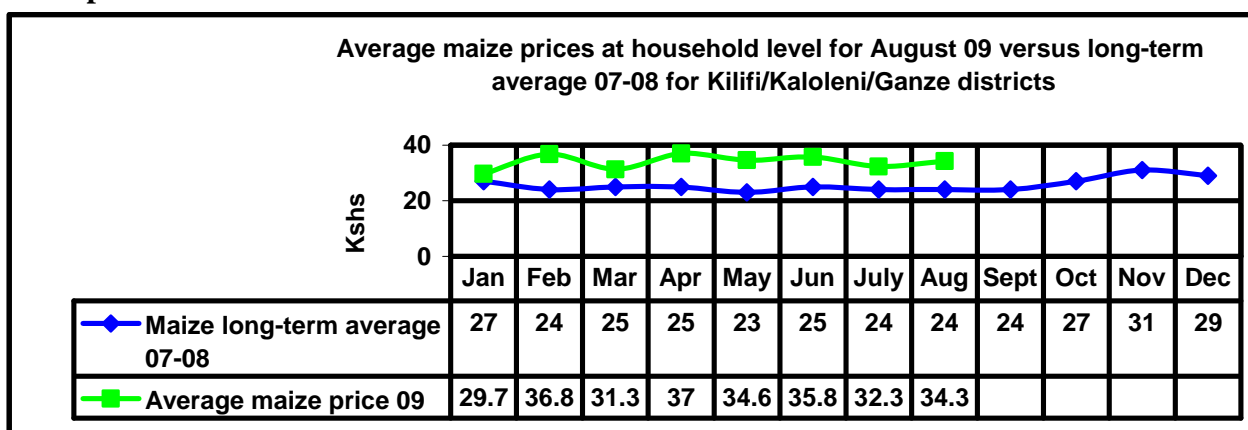
- The highest price was recorded in the food cropping livelihood zone at Ksh8,333.3 while the lowest was in the marginal mixed farming one at Ksh5,000.

3.2 Milk consumption

Milk consumption increased by 9.1% from a recorded 5.5 bottles in July to an average 6 bottles this month. However, with the milk production on the decline as a result of the drought, this is likely to reduce and adversely affect children especially the ones aged under the age of five years.

3.3 Food prices

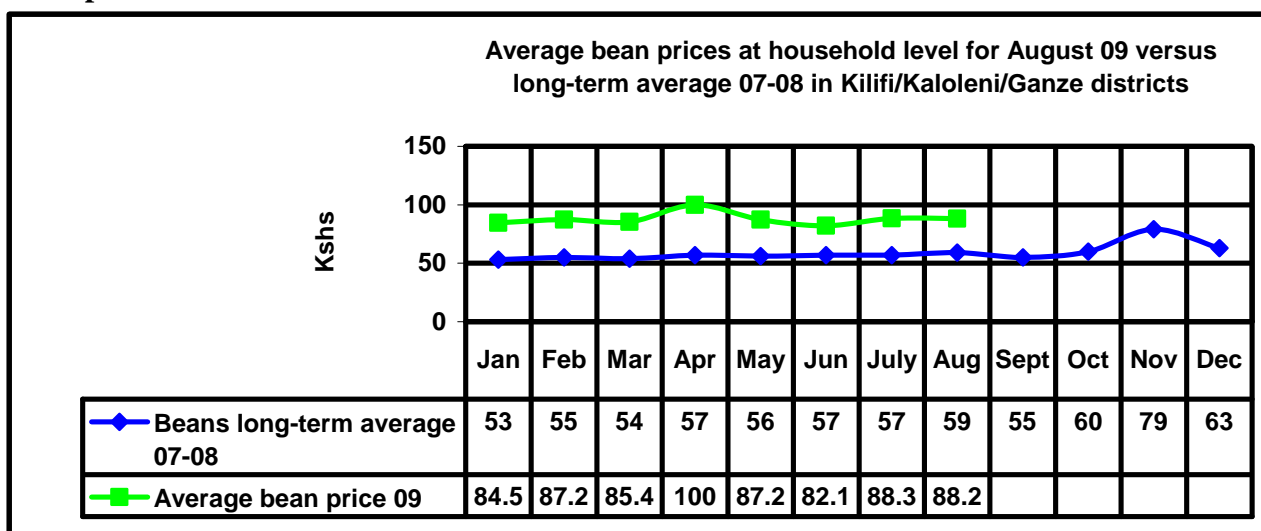
3.3.1 Maize prices



n=12

- Maize traded at Ksh34.3 per kilogram this month up by 6.2% from Ksh 32.3 per kilogram last month. Although a slight increase was recorded, the margins are likely to get more significant in the coming months as maize becomes scarcer due to failed crops.
- The food cropping zone recorded the highest price per kilogram of maize at Ksh36.8 while the least price was recorded in the cash cropping and dairy one at Kshs 31.6. However, these prices are likely to go higher in the months to come.
- Compared to the long-term average 07-08, the price of Kshs 34.3 was 42.9% higher than the expected Ksh 24 per kilogram. This meant that households were spending more of their financial resources on food than they were previously.

3.3.2 Beans prices



n=12

- A kilogram of beans retailed at Ksh88.2 this month, registering no significant difference from last month's Ksh88.3. However, the price showed that beans were selling at 49.5% higher than the long-term average 07-08's price of Ksh59. This could be due to the unavailability of alternative sources of proteins as most other sources had suffered the ravages of drought resulting in lowered yields. This trend is likely to continue as the year proceeds as the drought does not show any signs of yielding.
- The highest bean prices per kilogram were recorded in the marginal mixed farming at Ksh91.3 while the lowest were recorded in the cash cropping and dairy at Ksh84.8.

3.4. Income

3.4.1 Casual labour

- Approximately 48% of the households relied on casual labour as their main source of income. The average daily wage rate was Ksh137.8 up from Ksh134 recorded last month. These rates remained insufficiently low as most households spend over 80% of their wages on food alone, other basic needs notwithstanding.
- The highest daily wage rate was found in the food cropping one at Ksh163 while the least was found in the ranching one at Ksh102. These were hardly enough to sustain food needs for most households given the increased and sometimes unpredictable food prices. It was the most reliable source of income in the cash cropping and dairy zone and the least reliable in the ranching.

3.4.2 Sale of charcoal

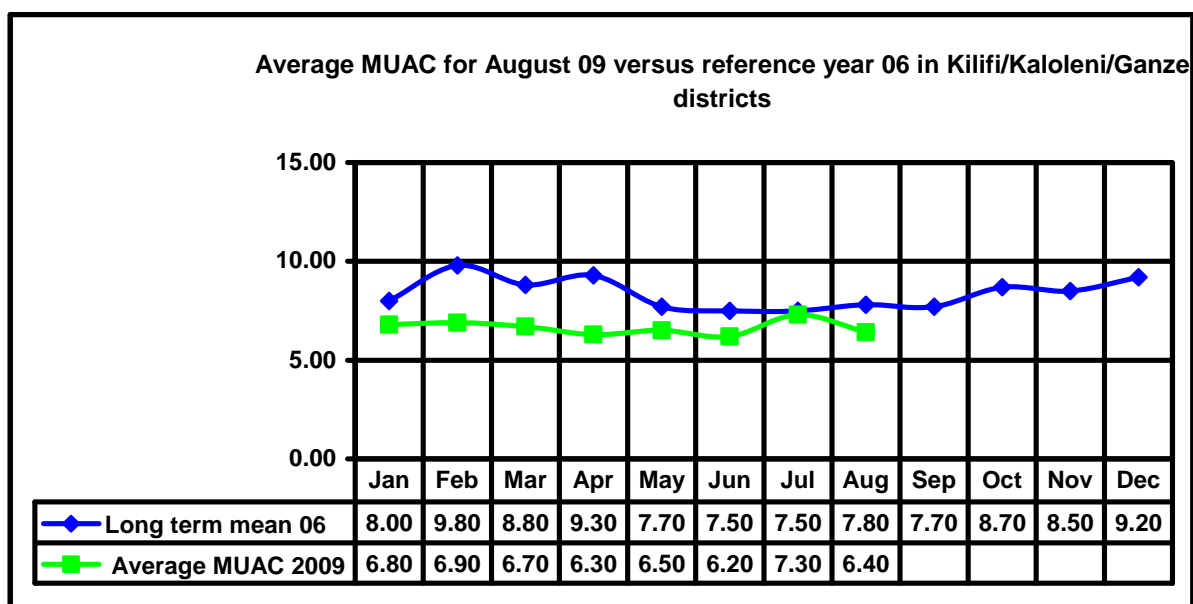
The second main source of income was the sale of charcoal where 17.5% of households relied on it as a main source of income. This was a reduction from the 21.1% recorded last month as most households turned to casual labour as land preparation activities were rife on most farms. This proportion is however likely to go up as more people leave crop production and turn to other income-generating activities such as this for a source of income. It was the most reliable source of income in the ranching and least reliable in the cash cropping and dairy one.

3.5 Implications on food security

High food commodity prices still continue to bedevil most households in the districts under review. This is in the back-drop of an insufficient wage rate that can hardly sustain the basic needs of household members. With very low livestock production that is unable to cushion the failed crop production, the district's food security prognosis is quite dismal.

4.0 Human welfare indicators (Utilisation of food)

4.1 Nutrition status



n = 1817

- The nutrition status of children below five years improved slightly during the month under review, with the percentage of children rated at risk of malnutrition dropped to 6.4% from 7.3% last month. The reduction could be attributed to the ongoing interventions in supplementary feeding programmes by the World Food Program and Plan Kenya in Ganze, Bamba and Vitengeni divisions.
- The food cropping livelihood zone had the highest number of children at risk this month at 8.7% ,while the marginal mixed farming one had the least at 1.5%. Compared to the long-term average, the percentage of children at risk was lower than expected at the time of the year.

4.2 Human health

Cholera cases were confirmed in Bahari division.

5.0 Current interventions

5.1 Food aid

a) Kaloleni district

Division	Cereals		Pulses	Vegetable Oil	Salt	Total
	Rice (Mt)		(Mt)	(Mt)	(Mt)	(Mt)
Kaloleni	18.15		2.65	0.96	0.35	22.11
Mariakani	75.48		11.10	4.00	1.60	92.18
Totals	93.63		13.75	4.96	1.95	114.29

b) Kilifi/Ganze districts

Division	Cereals		Pulses	Vegetable Oil	Salt	Total
	Maize (Mt)	Rice (Mt)	(Mt)	(Mt)	(Mt)	(Mt)
Ganze	38.10	77.83	17.022	6.12	2.35	141.46

Vitengeni	-	117.36	17.100	6.14	2.35	142.95
Bahari	-	17.16	2.550	0.9	0.30	20.91
Bamba	-	127.738	18.70	6.74	2.65	155.83
Totals	38.10	340.13	55.372	19.90	7.65	461.15

5.2 Non-food interventions

- Plan International supported 2,000 children with Unimix flour in Ganze and Vitengeni divisions, while the Ministry of Health supported supplementary feeding of children at risk for malnutrition in Bamba, Ganze and Vitengeni divisions.
- World Vision is excavating water pans with the communities under the PRRO using the FFA approach.
- ALRMP has initiated water trucking to support schools and institutions in the affected areas of Ganze, Bamba, Vitengeni and Kaloleni.

5.3 Coping strategies

Coping strategies with food insecurity for the month of August remained similar to those of July which 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

- Continued water trucking to schools and health institutions.
- Hygiene and sanitation training and awareness campaign and screening to curb increased incidences of water-borne diseases.
- Livestock vaccination and disease surveillance for CCPP, Foot and Mouth and other diseases coming about as a result of drought in Ganze and Kaloleni Districts.
- Desilting of dry water pans to enhance capacity in anticipation of the short rains season.