



## **Situation overview**

- The district received between 40 and 120 mm of rainfall in December compared to the long term mean of between 30 and 100 mm.
- The rains received assisted in pasture and browse improvement as well as crop production both in the high and lowlands of Kieni.
- Water accessibility and availability both for household and livestock use was good as water harvesting techniques were enhanced at domestic level. Surface runoff water harvesting structures impounded adequate water and were at full capacity. As a result, distances and time spent in search of water for domestic consumption and from grazing fields reduced considerably during the month under review. This condition is expected to progress with continued rains. Rivers recorded improved flows attributed to efficient rationing by Water Resource Users Association and recharge from the short rains.
- Forage was good at household level and wet season grazing areas as re-growth continued. Thus, livestock concentration was high in wet season grazing fields near homesteads whereas lactating and milking stocks, calves and kids were retained at household level.
- Body condition of cattle was fair to good while that of sheep and goats was good, a situation expected to persist since pasture and browse re-growth was progressing well.
- Farm activities continued well, with majority of the farmers undertaking top dressing and second weeding. In farms where certified maize seed was planted, crop performance was good, but in about 60 per cent of the farms where uncertified maize seed was used performance was poor. Beans production for the season was also affected by excessive rains and hailstones during flowering. However, households were feeding on immature potatoes as a substitute to their food needs. This will negatively impact on the season's food production.
- Fodder regeneration accompanied by modest improvement in cattle body condition led to increase in milk production by 13 percent from 72.1 to 81.2 (750ml) bottles daily. In return, milk consumption also increased by 0.6 percent approximately 45 percent daily milk production being consumed at household level.
- Livestock prices varied during the month, with cattle trading at Ksh10,461.10 from Ksh11,589.60 recorded last month, a 10 percent decrease. Goats and sheep recorded 4 and 1.4 percent decrease and increase respectively of Ksh1,200 to Ksh1,152.10 and Ksh1,242 to Ksh 1,260.10 respectively.
- Food prices responded to ongoing rains and food production, reducing by 3 and 3.4 percent for maize and beans. A kilo of maize retailed at Ksh46.10 from Ksh47.60 while a kilo of beans retailed at Ksh94.10 from Ksh 97.40 recorded last month. Current drop in price of food supplies was greatly hailed although these prices remained outside normal threshold.
- The nutrition status of children under five years improved during the month, with the percentage of those rated at risk of malnutrition dropping from 4.1 the previous month to 3.6 percent. Mwiyoogo location recorded the highest rate at 9 percent down from 10.2 percent recorded last month.

## **Recommendations to DSG and KFSSG**

- Dissemination of weather information and capacity building of communities to prepare appropriately for the projected good rainy season so that farmers can take full advantage of the expected enhanced rainfall to improve their livelihoods and food production.(DSG)
- Empower communities with modern pasture improvement and conservation techniques. (DLPO)
- Enlighten communities on hygiene standards in ensuring safe and clean drinking water (PHO)

- Supplementary and therapeutic feeding for under fives, lactating mothers and the (DSG/MOH/ALRMP II)
- Review and operationalise district contingency plans to suit current needs/emergencies. (DSG)
- Formation and capacity build district peace committees (DPC). (DSG/ALRMP II/COMMUNITY)

**Current interventions**

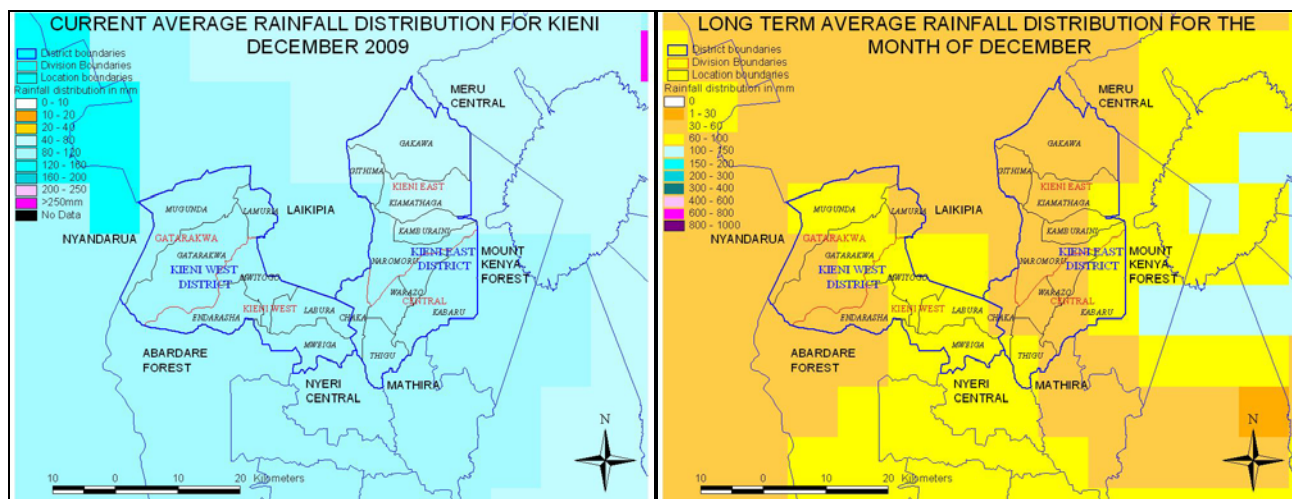
Plastic water tanks distribution to selected institutions/projects for rain water harvesting. (DWO/ALRMP II)

**1.0 Environmental indicators (Stability)**

**1.1 Rainfall**

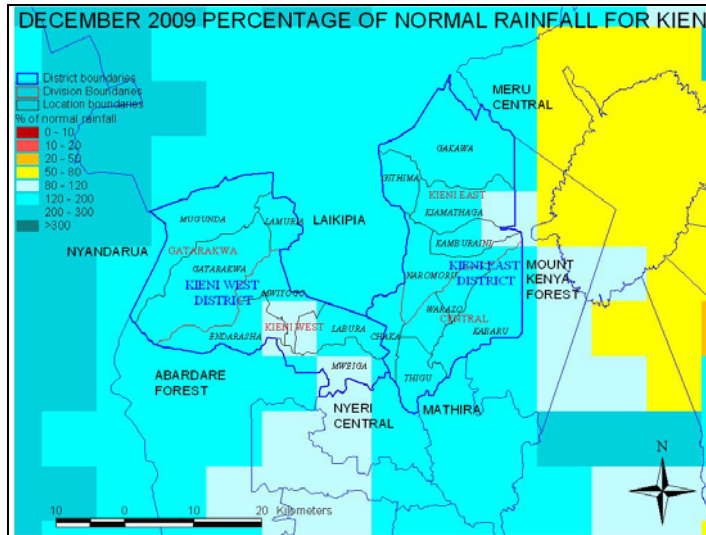
- Heavy rains continued being experienced in the region and were characterized by floods and muddy conditions. Roads were also rendered impassable, leading to grim communication breakdown in the region.
- Contemporary rains were uniformly distributed both in quantity and space apart from Parts of Mwiyo, Gatarakwa, Labura, Mweiga, Kiamathaga and Kamburaini where rains were depressed compared to other regions.

*Images below represents comparison of the Average district rainfall distribution against long term estimates for December 2009*



*Image Source: NOAA/USGS/FEWS/USAID*

- From the above images, Gatarakwa, Kieni West and Central divisions registered rains of between 80 to 120 mm while Kieni East division recorded between 40 to 80 mm during the month under review. Compared to the long term averages, of between 30 to 100 mm of rainfall in a good year, observed situation was above normal threshold. This was an indication that the district was experiencing the much publicised El Nino rains.

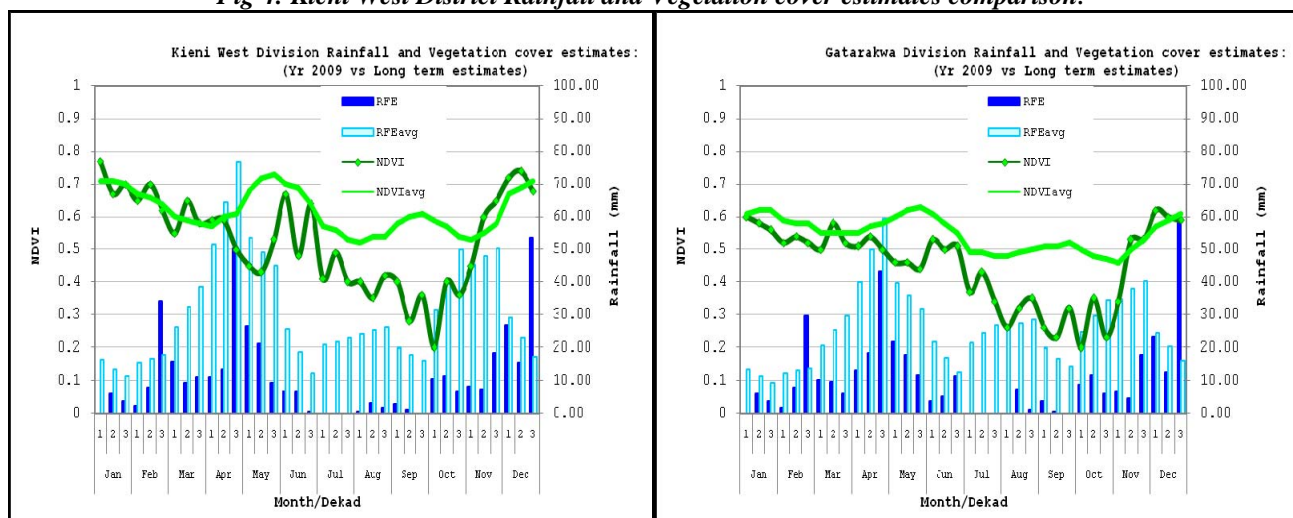


- A percentage of normal representation on rainfall estimates (RFE) computed from cumulative satellite imagery for December indicate that almost the whole of Kieni received rainfall of between 80 to 200 percent of normal.
- Parts of Mwiyo, Endarasha, Labura, Mweiga, Kiamathaga and Kamburaini recorded reduced rains compared to the rest of the district of between 80 to 120 percent. However, these rains were above normal.

## 1.2 Condition of natural vegetation and pasture

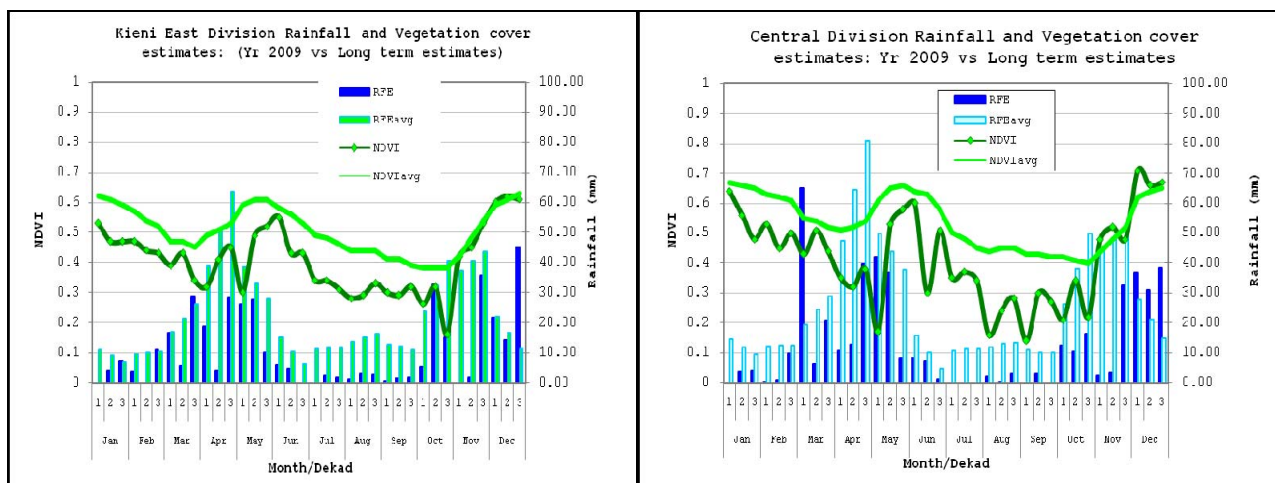
- There has been a positive response to contemporary short rains, with the entire region turning green.
- Foliage re-growth all over the district recorded a better surge both in quantity and quality a factor ascribed to recent ongoing short rains.
- Pasture and browse was in plenty during the month contributing to improved livestock prices, body conditions and milk production.
- Current foliage standing was good both in quality, quantity and coverage. As a result, livestock were retained at wet season grazing areas along Kieni low lands near homesteads.
- Compared to the long term estimates, current vegetation cover estimates was above normal throughout the district

**Fig 4: Kieni West District Rainfall and Vegetation cover estimates comparison.**



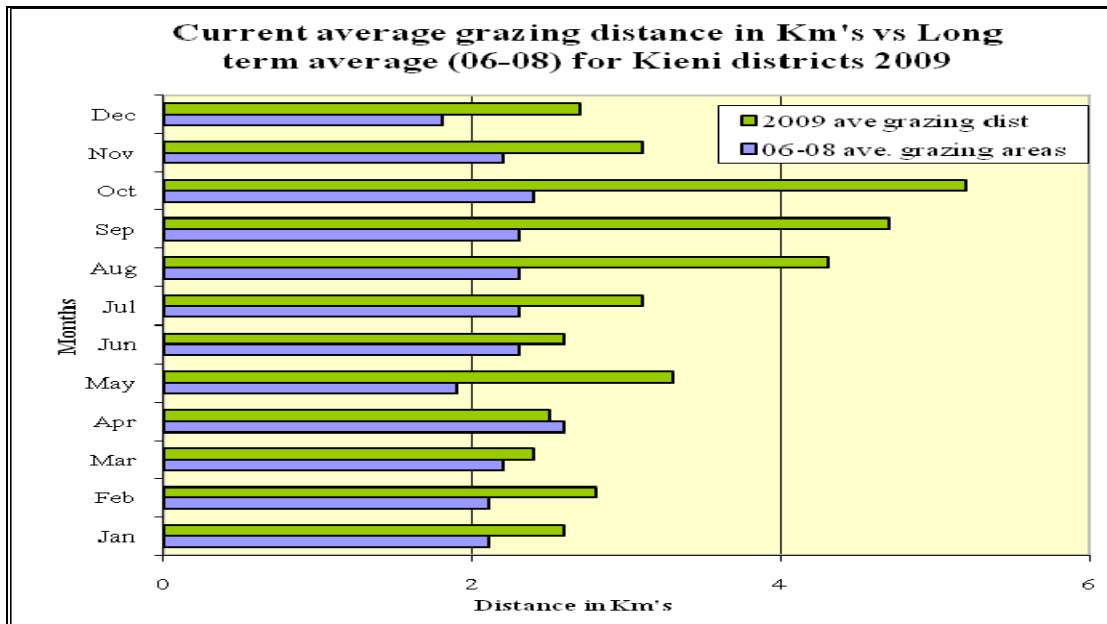
- Gatarakwa and Kieni West divisions of Kieni West district recorded 95.60 and 98.80 mm of rainfall during the month respectively.
- The rains were good in terms of volume and space from last month recording a high of 59.80 and 53.60 mm respectively during the third dekad. As a result, pasture development and crop production progressed well and was anticipated to thrive with ongoing rains.

**Fig 5: Kieni East District Rainfall and Vegetation cover estimates comparison.**



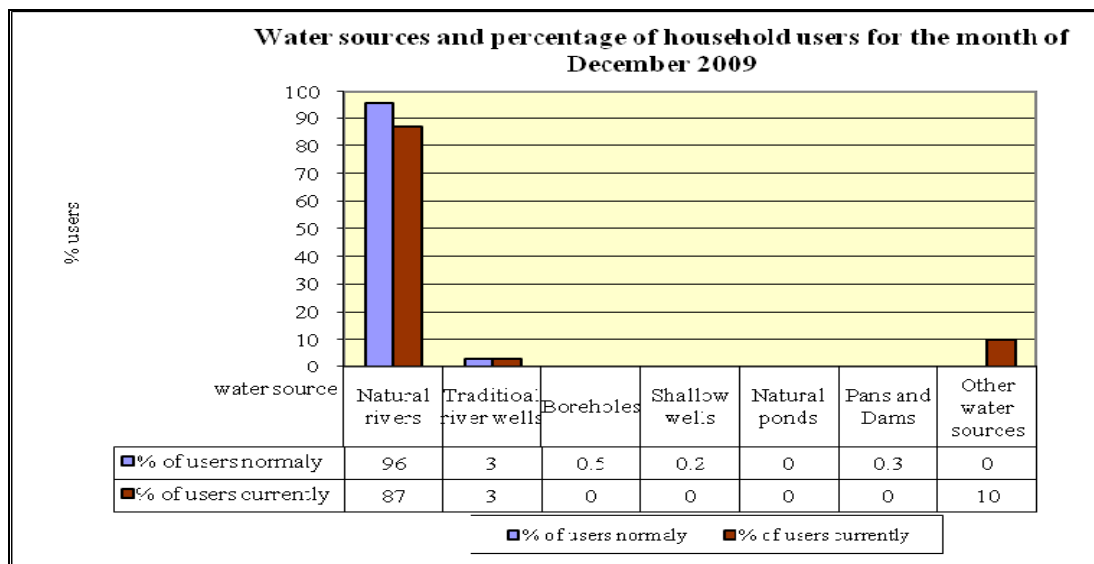
- Kieni East division received a total of 80.85 mm of rainfall during the month, high of 45.14 mm in the third dekad. Central division recorded 106.4mm of rains during the month with a high of 38.60mm in the third dekad.
- As a result there was a general improvement in vegetation cover superseding the long-term decadal estimates.

### 1.2.1 Distance to grazing areas



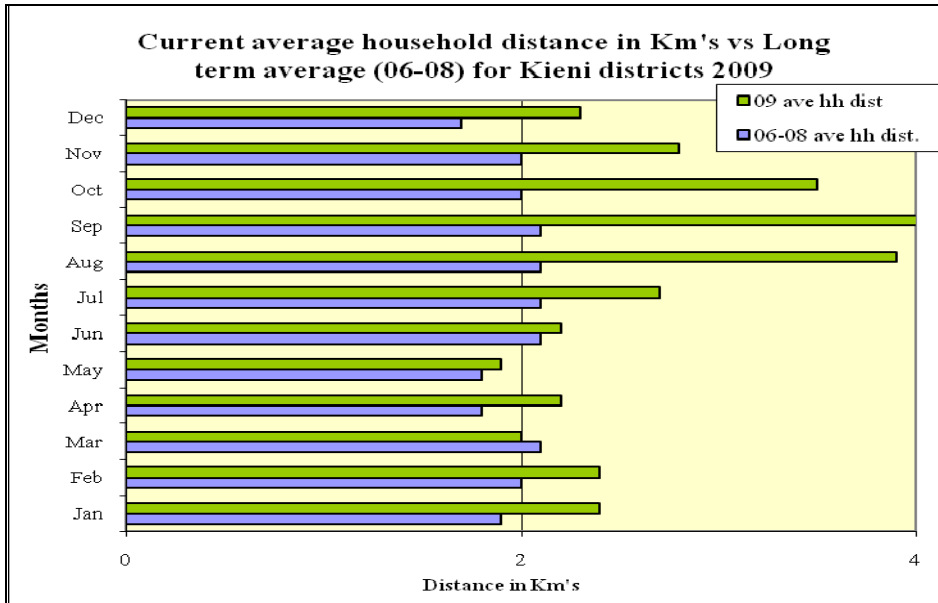
- Animals were grazing along wet season and individual grazing fields within proximity of their households in Kieni plains as pasture re-growth improved during the month under review.
- Nevertheless in the highlands around the slopes of Mt Kenya and Aberdare ranges, livestock was put under semi zero grazing management and fed on crop residues and grass by use of cut and carry method as most land parcels were under crop production.
- With current pasture re-growth, distances between watering points and grazing fields dropped by 13 percent from 3.1 km to 2.7 km.
- Lower Mugunda continued recording long distances to grazing fields of 4.5 kilometers as recorded last month. The situation was still outside seasonal range.

### 1.3 Water sources and availability

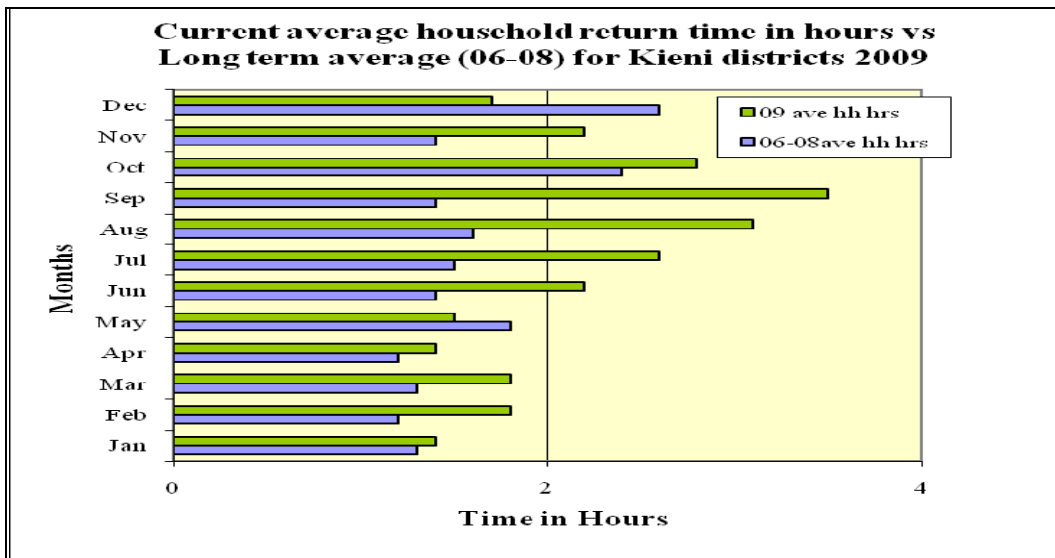


- Tapped water and roof catchment were the main sources of water for majority of the households. Thus, water availability and accessibility remained good for domestic, minor irrigation and livestock use during the month as most water holding structures i.e water pans, hand dug ponds, shallow wells and roof catchment storage tanks impounded adequate water. A general recharge in river flows was observed as the short rainy season progressed.
- Restrictions put in place to regulate water derived from the rivers were relaxed for all community water projects drawing water from rivers to a large extent, thus increased tap flows and enabling majority households to have adequate water for domestic and livestock. However, ongoing rains were adequate for food production thus majority of the households relied on rainfed farming over water fed farming.

**1.3.1 Households access to water**



- Household access to water improved during the month, with most storage facilities i.e hand dug ponds, roof catchment and pans at household level impounding adequate water.



- Average return distance to water sources reduced during the month under review by 18 percent

from 2.8 km to 2.3 km.

- Lower Mugunda registered longer return distances to water sources of 3.5 km from 3.8 km recorded last month in Thegu. As a result, time spent in search of water reduced by 23 percent from 2.2 hours to 1.7 hours.
- Gatarakwa had the longest time to water sources of 2.1 hours return time on average.

### **1.3.2 Livestock access to water**

- Amid improved water availability in the district at household level, livestock access to water remained good. Cases of congestion reduced significantly as livestock were retained at wet season grazing areas and watering at household level.

## **1.4 Emerging issues**

### **1.4.1 Conflicts**

There were reported cases of human/wildlife conflict, especially along areas bordering national parks as animals moved out of their segregated areas to farmlands under food production.

## **2.0 Rural economy indicators (Food availability)**

### **2.1 Livestock production**

#### **2.1.1 Livestock body condition**

- Livestock body conditions improved gradually in all economic zones as foliage flourished from the ongoing short rains. The current status can only be sustainable with continuous rains and pasture re-growth.

#### **2.1.2 Livestock health**

- There were no livestock diseases observed during the month under review. However, cases of bloat were frequent as livestock feed on green matter.

#### **2.1.3 Milk production**

- Milk production during the month continued on an upward trend, increasing by 13 percent from 72.1 to 81.2 (750 ml) bottles district average. At individual household level, Kiamathaga and Gakawa sample areas recorded the lowest and highest daily yields of 16 and 164 (750 ml) bottles from 5 and 20 households respectively. Enhanced milk yields were attributed to improved foliage availability and accessibility occasioned by ongoing short season rains.

## **2.2 Crop production**

### **2.2.1 Timeliness and condition of various crop production activities**

- Crops on most land parcels under food production were a little above knee height. Majority of the farmers continued planting season crops alongside first and second weeding as well as top dressing depending on time of planting. Potatoes had put on some balls, which acted as a substitute source of food in various regions.
- Farmers were undertaking the second weeding and top dressing for the season's crops. Minor irrigation was also on the increase due to enhanced river flows as short rains progressed. However, majority of the land parcels remained unattended and opened up as livestock grazing fields.

### 2.2.2 Pest and diseases

Irish potatoes tuber moths, bean fly, cut worms and spider mites continued wreaking havoc in few land parcels under food production.

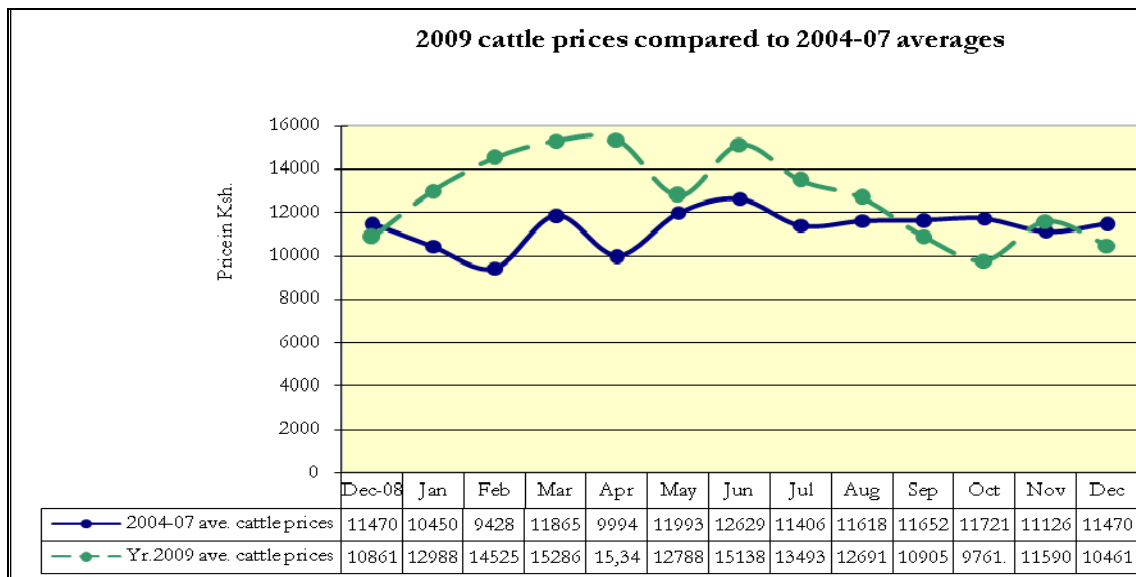
### 2.2.3 Implications on food security

- Markets remained the central supply of food for majority of the households for their daily needs. Farm inputs for top dressing during weeding were also sought from the markets, a position that continued straining household meager incomes.
- Vulnerable households depended on greens and potatoes, which already had small balls as a way of arresting the impact of current food stress as they await realization of these seasons produce.

## 3.0 Access to food

### 3.1 Livestock marketing

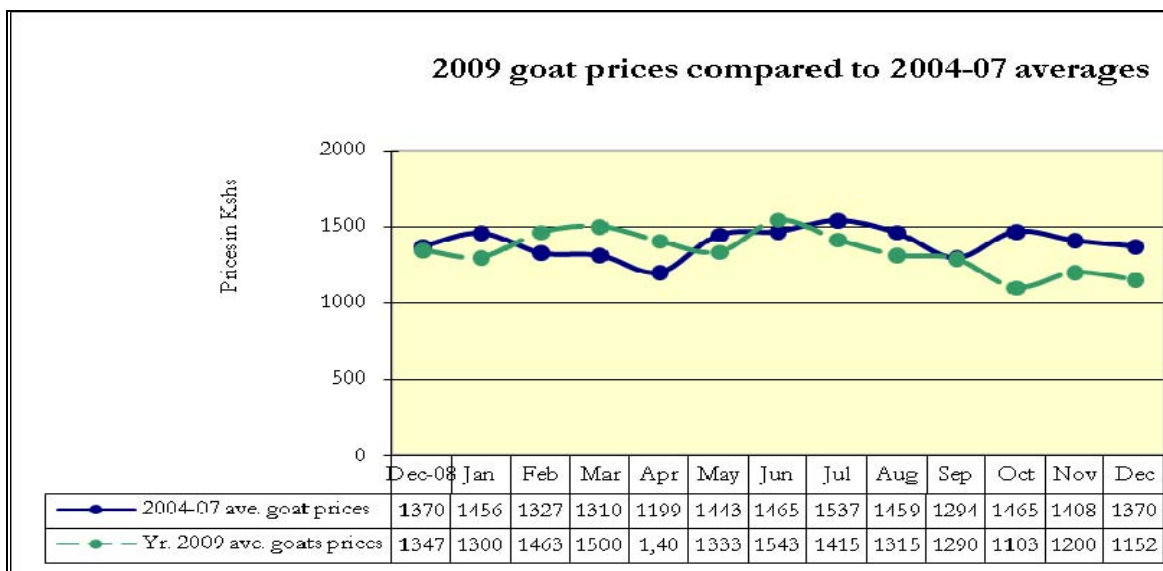
#### 3.1.1 Cattle prices



**n = 330**

- Cattle prices at household level reduced during the month under review by 10 percent from Ksh11,589.60 to Ksh10,461.10. These prices were slightly below the long term averages of 2004-2007. Highest cattle prices of Ksh12,500 were recorded in Gakawa and low of Ksh9,000 in Lower Mugunda. Cattle sales rate also reduced from 5.3 to 3.5 percent for a total of 15 heads of cattle as sold last month.
- Current price variations can be attributed to increased household spending for food and farm **inputs a factor that has led to cattle being offered for sale at rather lower prices than usual.**
- Furthermore, of importance is that livestock have not wholly recovered from impact of drought besides increased cases of bloat and diarrhea occasioned by fresh green.
- Continued rains aided pasture and browse regeneration, an aspect majority household are banking on to cling on their current stocks. However, the few sales made during the month were intended for acquiring seeds and farm inputs and food purchase.

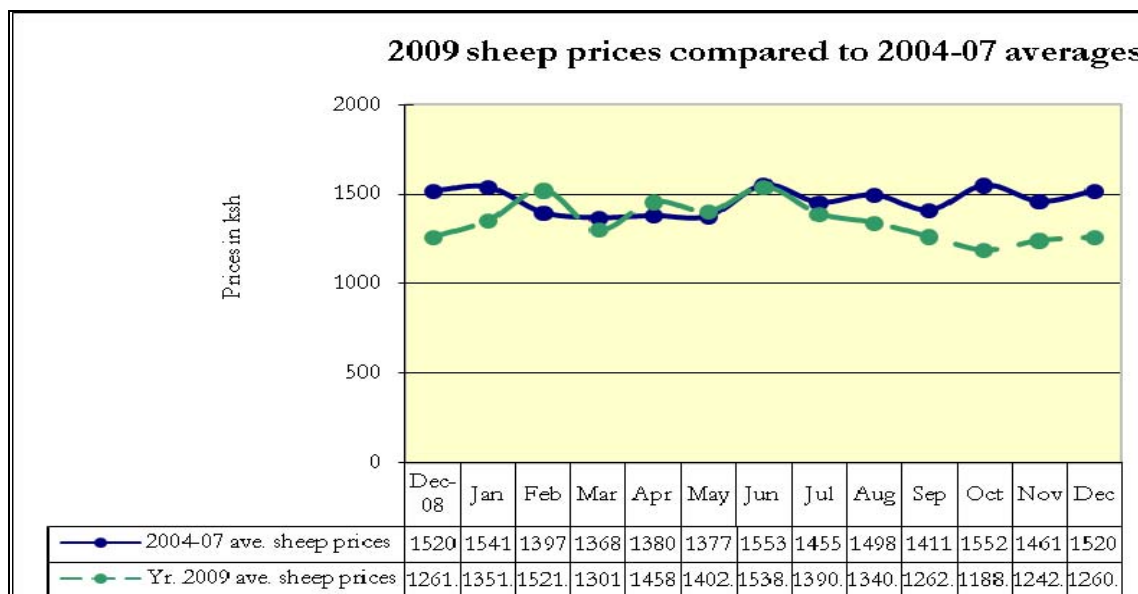
### 3.1.2 Goat prices



n = 330

- Goats' prices also reduced by 4 percent from Ksh1,200 to Ksh1,152.10. These prices were below the long term mean. Highest price of Ksh1,333.30 and low of Ksh875 was recorded in Lower Mugunda and Mwiyo respectively.
- Sales rate increased from 4.8 to 8.4 percent a total of 17 goats sold during the month from 10 sales recorded last month. Demand for shoats for the ending festive season was poor and household did not capitalize from the same an indication that the region's economy and terms of trade of majority of the people remained depressed.

### 3.1.3 Sheep prices



n = 330

- Sheep prices increased by 1.4 percent from Ksh1,242.20 to Ksh1,260.10. Highest sheep prices of Ksh1,304 were recorded in Mwiyo and low of Ksh1,179.20 in Upper Mugunda. These prices were still below the long term average of 2004-2007.
- Sheep sales rate reduced from 5.6 to 4.7 percent representing 47 from 62 sales during the month.

### 3.2 Milk consumption

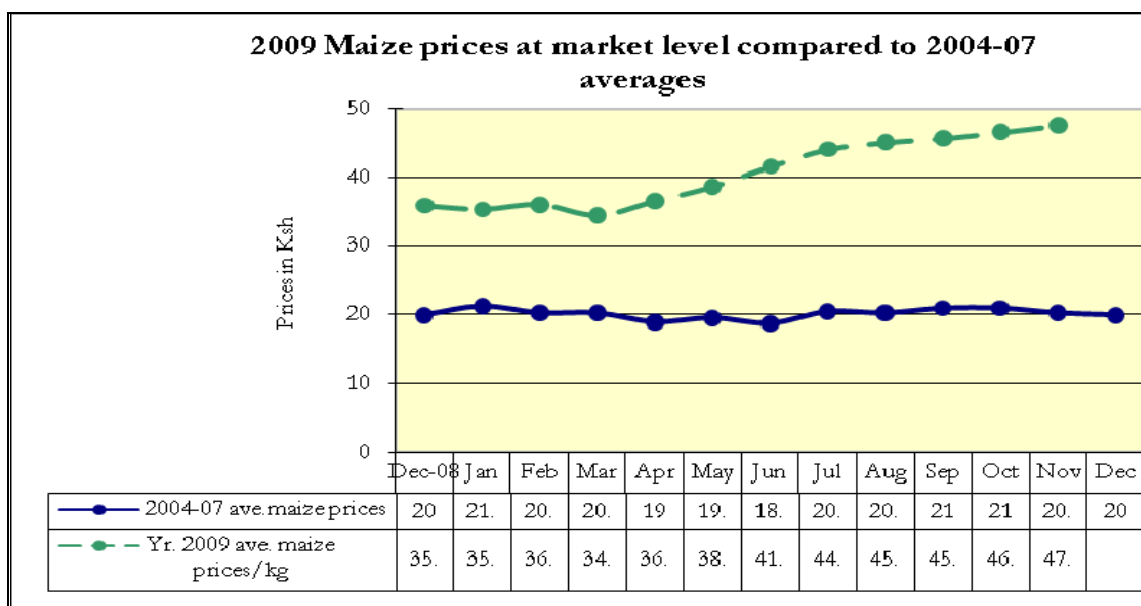
- Milk consumption improved by 0.6 percent from last month, with 45 percent of households daily milk yield i.e 36.3 out of 81.2 (750 ml bottles) being consumed at household level.
- At market level, standard price of milk reduced from Ksh31.30 to Ksh28.60. However, milk prices remained fairly high compared to normal retailing at between Ksh25.00 and Ksh35 per 750ml bottle.

### 3.3 Implications on food security

- Livestock sales and prices were within acceptable levels at household and market level, thus better purchasing power of the majority whom relied on livestock sales to purchase food and farm inputs. However, price fluctuations of the same are likely to be observed as schools reopen and more livestock being offered for sale to pay school fees.
- Improved milk yield at household level led to better nutrition status of under fives whom earlier relied on water, true tea and white porridge for feeding. Also household income was on the increase from sale of the same.

### 3.4 Food prices

#### 3.4.1 Maize prices

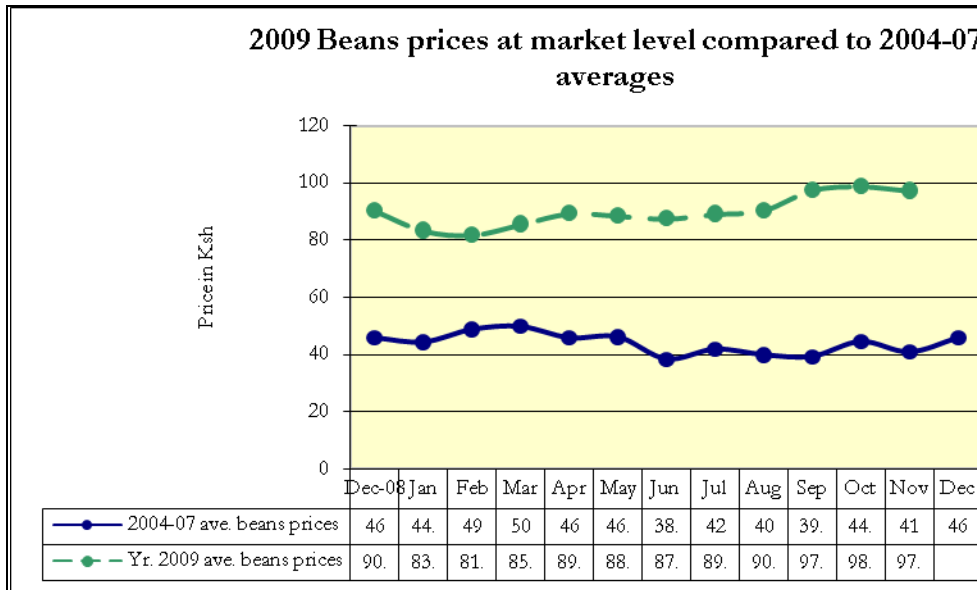


n = 330

- Maize prices at market level changed course compared to few precedent months reducing by 3 percent in relation to last month. A kilo of maize retailed at Kshs 46.10 from Kshs 47.60 last month. High price of Ksh48.70 per kilo was recorded in Kabaru and a low of Ksh45.00 per kilo in Lower Mugunda.

- Compared to the 2004-2007 long term averages, these prices remained outside seasonal range.

### 3.4.2 Beans prices



**n = 330**

- Beans prices at market level dropped by 3.4 percent from Ksh 97.40 to Ksh94.10 per kilo.
- High price of Ksh 99.30 per kilo was recorded in Upper Mugunda and low of Ksh 88.70 per kilo in Enderasha. Compared to the 2004-2007 long term averages, these prices remained outside seasonal range.

### 3.5 Terms of trade

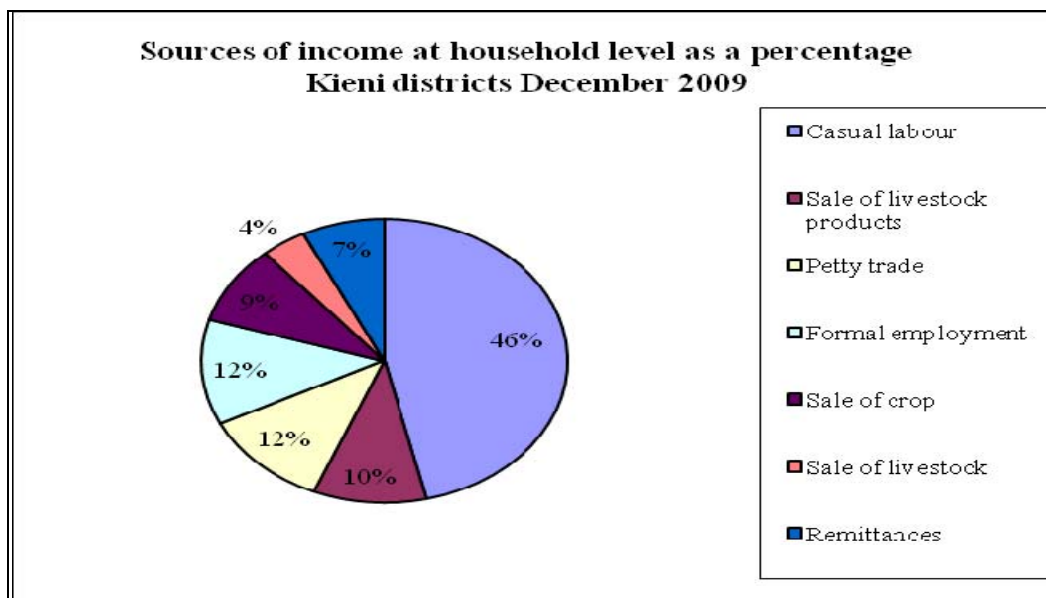
- Cereal meat price ratio in the region improved from 104.6 percent last month to 102.7 percent.
- This was as a result of average cereal prices i.e maize and posho, falling by 3 percent from Ksh 48.80 per kilo last month to Ksh 47.30 this month. On the other hand, average shoat meat prices reduced by 1 percent from Ksh 46.80 to Ksh 46.30 per kilo.
- As a result, households' purchasing power continued being depressed.

### 3.6 Implications on food security

- Food commodities at market level were readily available although commodity prices were outside normal range. Observed parameters showed that these prices were on a downward trend as food production flourished throughout the district at an event of improved livestock prices leading to enhanced household purchasing power.
- Excessive household dependence on markets for their day by day needs, exposes them to recurrent changes in commodity prices as roads become impassable and markets inaccessible due to ongoing rains.

### 3.7 Incomes

#### 3.7.1 Crop income



There were no crop sales reported at household level. However, sales emanating from minor irrigation increased by 17 percent as rivers recharged and water availed to satisfaction.

#### 3.7.2 Livestock incomes

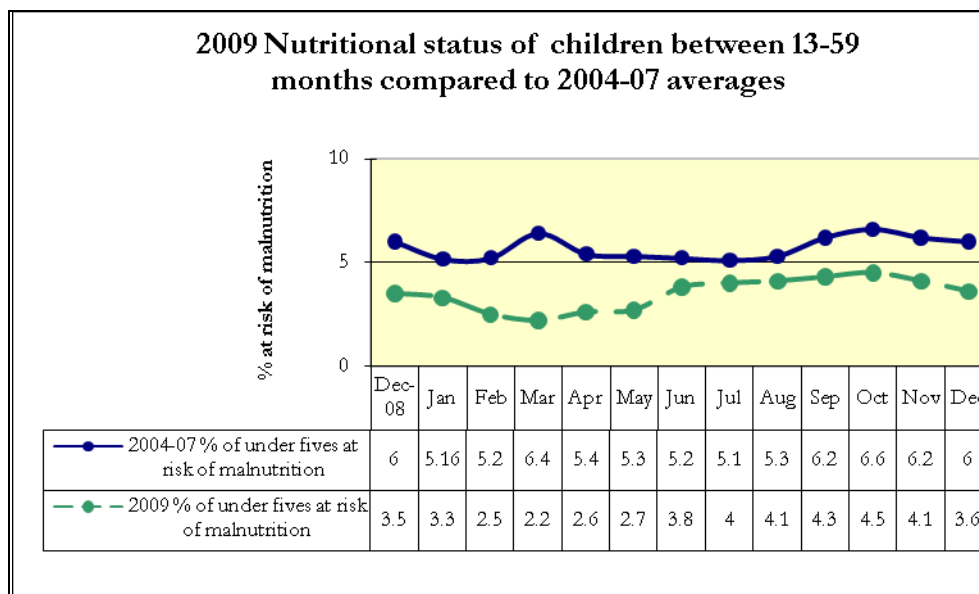
- Livestock sales increased by 8 percent whereas sale of livestock products remained the same as recorded last month.

#### 3.7.3 Other sources of income

- Number of persons in casual labour employment increased by 2 percent from last month.
- Average daily wage rate dropped by 3 percent from Ksh124.70 to Ksh121.40. This can be attributed to increase in supply plus most casuals willingness to compromise on a lower wage to pay for food and farm inputs. Petty trade increased by 3 percent but still below average as household capital investment remained depressed. Sale of charcoal and wood products were also on the increase.

#### 4.0 Human welfare indicators (Utilisation of food)

##### 4.1 Nutrition status



**n = 330**

- The nutrition status of children below five years improved slightly during the month under review. The percentage of children rated at risk of malnutrition (based on MUAC measurement) dropped from 4.1 percent to 3.6 percent.
- This represented a 12 percent drop from last month attributed to availability of greens and improved milk production occasioned by ongoing OND short rains. At least 1,463 children were monitored during the month under review with an average of 4.9 children per sample area being exposed to risk of undernourishment.
- Highest rates of malnutrition were observed in Mwiyo of 9 percent from 10.2 percent recorded last month. However, overall nutrition status of under fives was within seasonal range.

#### 4.2 Human health

- No major cases of human diseases were reported apart from respiratory tract infections due to prevailing cold weather.

#### 5.0 Current interventions

##### 5.1 Non-food interventions

Distribution of plastic water tanks to selected institutions/projects for rain water harvesting. (DWO/ALRMP II)

##### 5.2 Food aid

Government relief food and seeds interventions during the month reported a 82 and 57 percent decrease from last month. However, ongoing interventions were far below district requirements and there is need for the same to be enhanced for any significant impact to be realized.

##### 5.3 Coping strategies

Coping strategies index for the month was at 1.4 from 1.3 as recorded last month. Some of the

coping strategies being employed were;

- Sale of fire wood
- Petty trade.
- Charcoal burning.
- Ballast making along the roads.
- Sale of scrap metals.
- Borrowing from friends and relatives.
- Preference for payment in kind e.g. food in exchange for farm labour.
- Reduction in number of meals and size per day.

## **6.0 Recommendations to DSG and KFSM**

- Provision of unimix to children under five years in areas with high malnutrition rates. (MOH/ALRMP II)
- Build capacity of communities with conflict resolution skills so as to benefit them while sharing and utilizing available natural resources. (OP/DVO/KFS/ALRMP II/COMMUNITY)
- Rehabilitation of all cattle dips around Mt Kenya Forest and Aberdare mountain range. (DVO).
- Close monitoring and assessment of the impact of the current livestock migration into the district and give recommendation to the district authorities. (OP/DVO/KFS/ALRMP II/COMMUNITY).
- Food security assessment to ascertain district food security status.(DSG)
- Create awareness on effective water rationing programmes both at individual projects and in rivers at abstraction points. (DWO/WRUAs).
- Spring protection e.g Muthangira (2 no), Nairutia (Kamiruri) and Gakawa springs.(WRMA)
- Extension of pipeline to bring water closer to the people in drought prone areas. (DWO)