

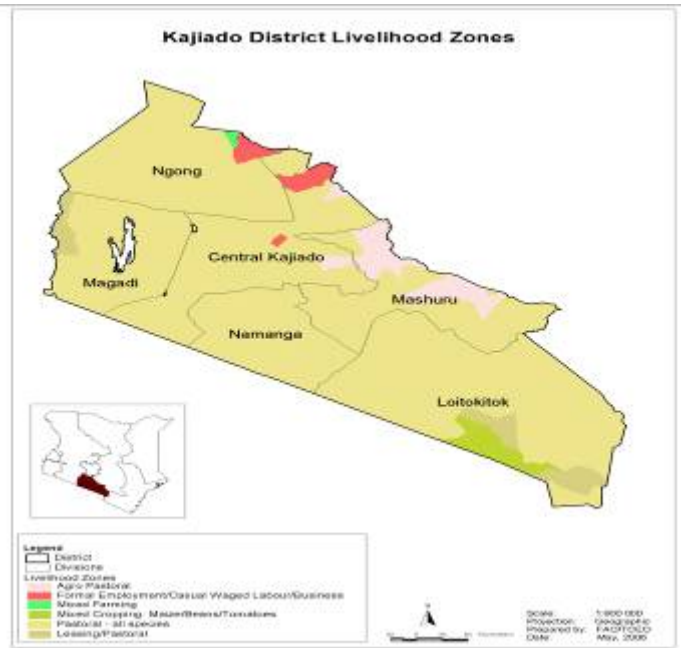


**OFFICE OF THE PRIME MINISTER  
MINISTRY OF STATE FOR THE DEVELOPMENT OF NORTHERN KENYA AND OTHER ARID LANDS  
ARID LANDS RESOURCE MANAGEMENT PROJECT II**

**DROUGHT MONITORING BULLETIN, OCTOBER 2009**

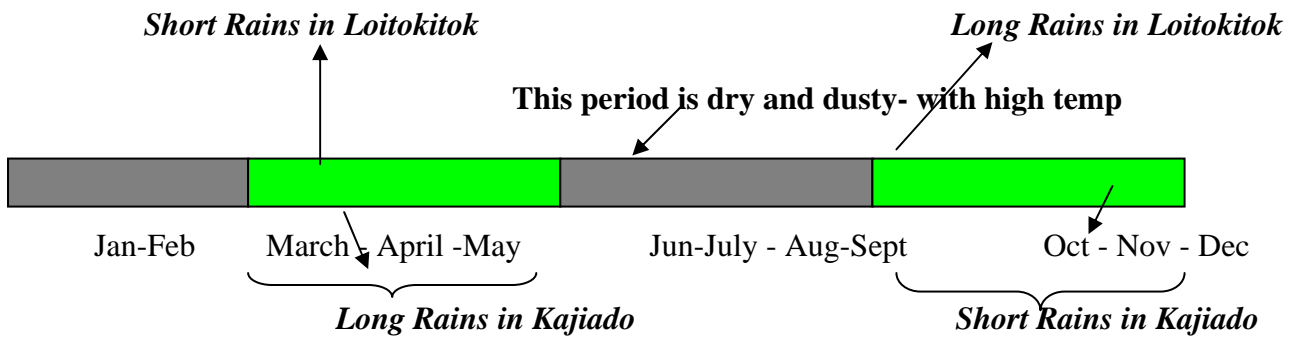
**Kajiado Central, North and Loitokitok districts**

**Warning stages**



Livelihood Zone	Warning Stage	Trend
Pastoral-All Species	Alarm	Worsening
Agro Pastoral	Alarm	Worsening
Mixed Farming	Alarm	Worsening
District	Alarm	Worsening

**Seasonal Calendar**



## Situation overview

- The expected OND commenced in the second week, however, the anticipated enhanced rains were not realised as there was a lull for the remainder of the month.
- Apart from areas that received some rains, boreholes, piped water, shallow wells were the main sources of water for livestock and domestic use, as most temporary water sources such as pans and dams were dry.
- Pasture condition, availability and accessibility remained poor in all areas and pastoralists continued to purchase hay (Ksh 250-300), bran and other feed supplements to augment the shortfall. In areas that received rains, regeneration started in earnest. However, there was heavy clustering of livestock.
- Livestock (cattle) body condition in the three districts remained poor to very poor, with deaths, home slaughter of weak and sale of recumbent cattle. Sheep and goats body condition was fair to poor. Sale of meat was affected by the poor condition.
- There was massive immigration of livestock in to district and clustering of the same in areas that received rains. High livestock mortality was recorded in areas that received showers as weak livestock were overwhelmed by the precipitation.
- Cattle prices were on downward trend compared to long term average, average cattle prices declined by 14.3 per cent from Ksh4,251 in September to Ksh4,043 in October. The price was below long term mean by 57%. Recumbent or weak cattle offered for sale fetched as low as Ksh1,500.
- There were no food stocks left in the crop growing areas households as a result of the crop failure (3 seasons), resulting in imports of cereals and pulses in these areas outside the district. The ban of cross-border imports exacerbated the deficits. Maize and beans prices were at Ksh42 and Ksh 80 per kilo respectively which were above long term mean by 50 per cent.
- High mortalities of zebras, wildebeest and buffalos were reported in most pastoral areas and Amboseli National park. Natural resource use conflicts were also reported as elephants moved outside the parks into the farms in Loitokitok. In Sompet, Ntonet, Njoro, Murtot and Nkama tension over water use between crop farmers and pastoralists in the irrigation areas in Loitokitok and Magadi as a result of over abstraction upstream, causing reduced water flow on the lowlands. Intra and inter community conflicts over grazing were also reported in Keekonyokie- Purko in Ngong, pastoralists in Coast (Kwale and Ukambani) and conflicts between KWS and pastoralists that were grazing their herds in Nairobi and Tsavo National Parks.
- The nutrition status of children 1- 5 years was on a decline as children increasingly fed on cereals (maize and maize flour) than on their traditional diet of milk. During the month under review children rated at the risk of malnutrition (based on the Mid Upper Arm Circumference -MUAC < 135mm) increased to 14.98% from 14.8 in September.
- Households depended on cereals and pulses which constituted 90-100% of household food needs.
- Charcoal burning and sand harvesting were on upward trend as alternative sources of income as the drought bit hard. Demand for labour improved owing to the onset of planting season. The average daily rates ranged between Ksh70 and 100.
- The drought warning status in the district remained at alarm stage, tending towards emergency in most divisions.

## Recommendations to DSG and KFSM

- Expansion of school feeding program: Consider primary schools in the pastoral areas for the regular SFP: the schools are yet to receive the all funds for the Homegrown feeding program
- Provision of certified drought- tolerant crop varieties, and the orphans crops. The last good crop was in 2006, and the seed stocks are depleted. The seeds have not been received by the close of the month.
- Livestock disease surveillance/ Livestock disease control
- Need for adequate contingency and preparedness for RVF, in the event of the *Elnino*
- Treatment of disease that result of the livestock have been exposed to high tick and tesse –tesse fly, challenge, deworming and vaccination.: provision of FMD, CBPP, LSD, trypanocidal drugs and CCPP, sheep and goat pox vaccines
- Rehabilitation of strategic boreholes and shallow wells
- Drilling of water pans
- Scaling up of supplementary feeding and therapeutic feeding for the vulnerable persons ( U5, pregnant mothers, elderly and PLAWS and HiV/Aids
- Natural resource use conflict resolution and community peace building to mitigate or ameliorate the escalating and emerging conflicts that are expected to be on the increase between now and December by strengthening traditional natural/grazing committee and promotion/strengthening cross border/intra & inter clan/inter- conflict resolution initiatives to forestall natural use conflicts and enhance peace building.

## Ongoing interventions

The following interventions were being undertaken to contain the drought situation in the district:

Institution	Intervention (on going)
<b>Livestock and Agriculture</b>	<ul style="list-style-type: none"> <li>• KMC off take managed to purchase 1,616 heads of cattle (708 in Kajiado Central, 400 in Loitokitok and 508 in Kajiado North) valued at Ksh. 12,928,000. KMC off take managed to purchase 1,616 heads of cattle (708 in Kajiado Central, 400 in Loitokitok and 508 in Kajiado North) valued at Ksh. 12,928,000, the cattle offered were in excess of 400 in 18 centers that were identified.</li> <li>• Drought tolerant seeds: The three districts are to receive 11MTs sorghum and 9 MTs of maize. Deliveries are yet to be made.</li> </ul>
<b>Water development</b>	<ul style="list-style-type: none"> <li>• 100 plastic tanks of 10,000-16,000 liters for schools and community</li> <li>• Water trucking to schools and community (ALRMP)</li> <li>• Rehabilitation of boreholes and shallow wells , and drilling and equipping of boreholes and shallow wells and boreholes (ALRMP)</li> <li>• Diesel subsidy to community boreholes (ALRMP)</li> </ul>
<b>Relief Food EMOP</b>	<ul style="list-style-type: none"> <li>• Up scaling of population from 15% to 35% of the larger Kajiado population with effect from October 2009</li> </ul>
<b>Natural Resource Use Conflict resolution and Community peace building</b>	<ul style="list-style-type: none"> <li>• Conflict resolution meeting for Purko and Keekonyokie community</li> </ul>
<b>Nutrition and Health</b>	<ul style="list-style-type: none"> <li>• Implementing an Integrated Management of Acute Malnutrition (IMAM) Programme (Mercy – USA and Concern Worldwide)</li> </ul>

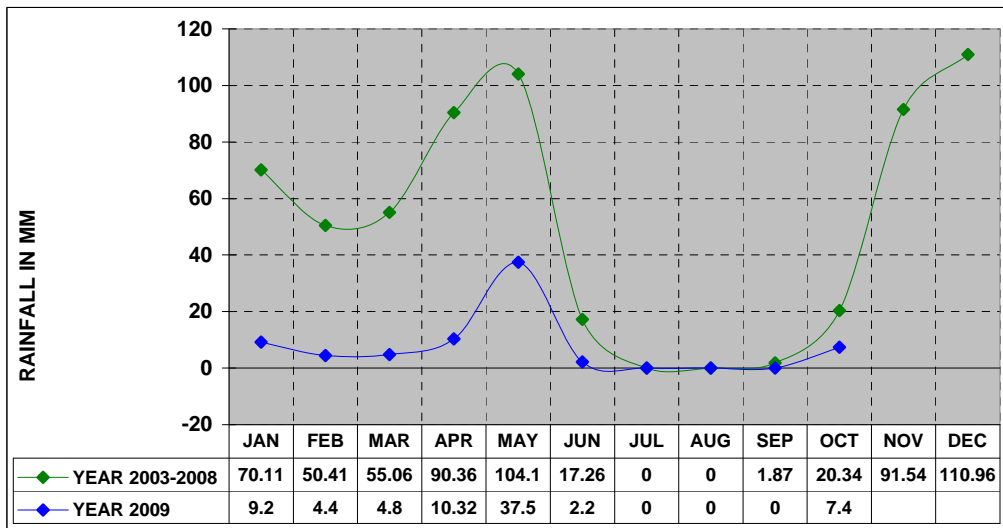
**Education**

- Construction of PCEA Upper Matasia science lab (Ksh2,500,000) in Kajiado North, Pelewa Primary dormitory ( Ksh3,000,000) in Kajiado Central and a classroom at Inkoisuk Primary School, Loitoktok (Ministry for Development Of Northern Kenya and other Arid Lands)

## 1.0 Environmental indicators (Stability)

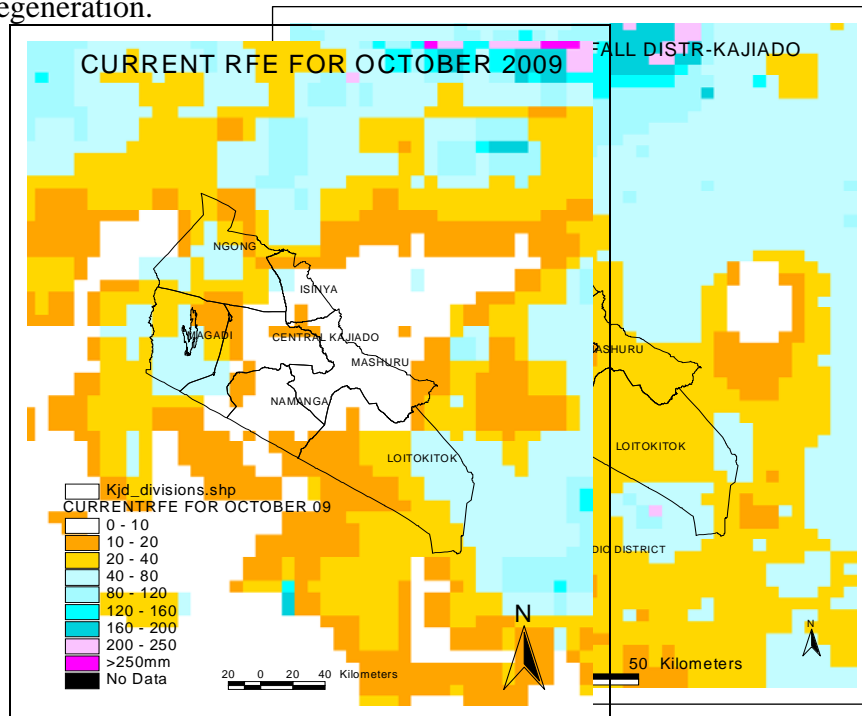
### 1.1 Rainfall

Rainfall data as at October 2009 compared to long term average 2003-08



Source: ALRMP sample sites. Total sample size (n)-11 sites

- A few locations received erratic and scantily distributed rainfall. Most parts of Kajiado Central, Kajiado North and Loitokitok remained hot and very dry.
- The anticipated short rains (OND) were expected to trigger pasture and browse regeneration.

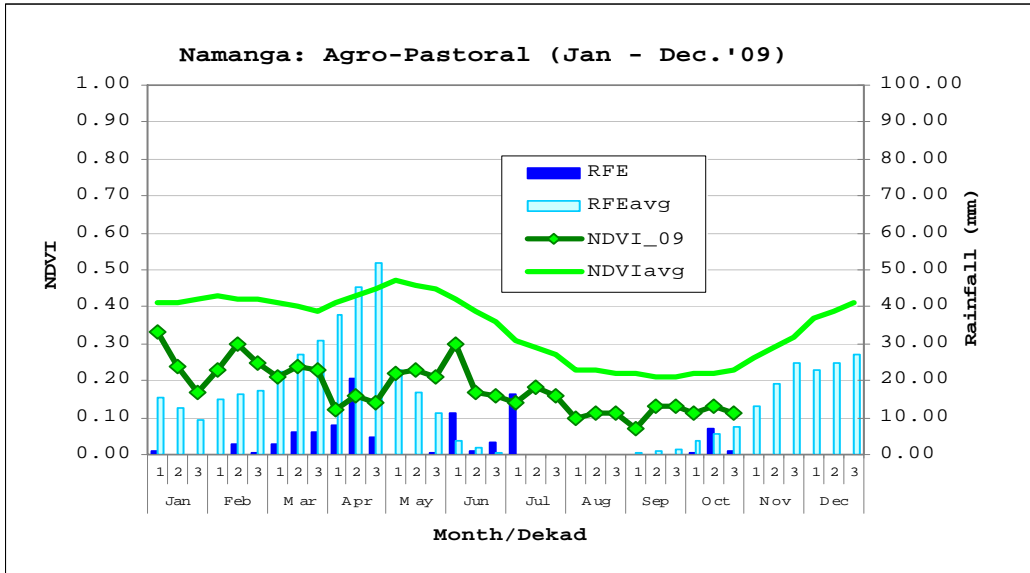


### 1.2 Condition of natural vegetation and pasture

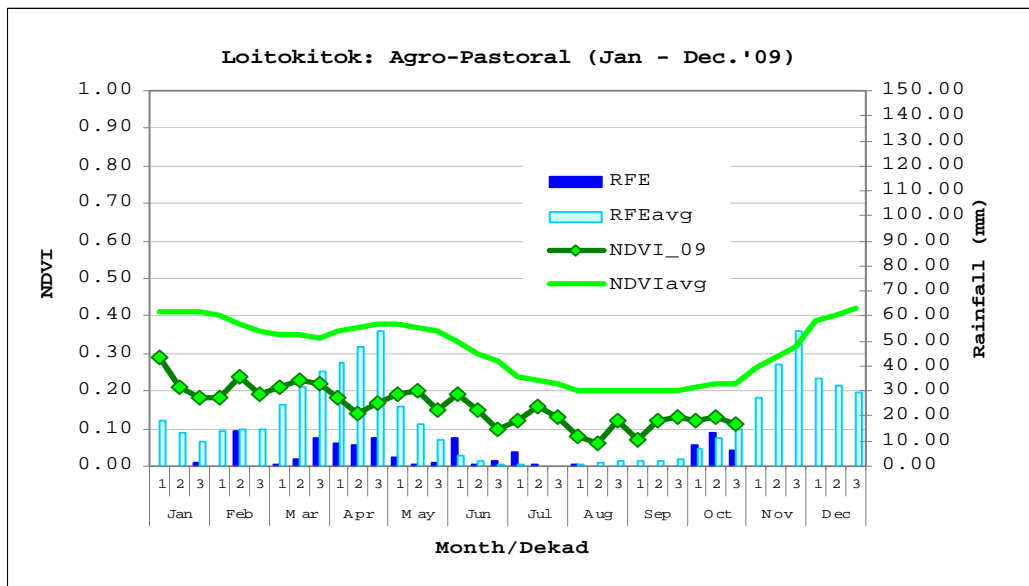
- By the close of the month of October, the range and vegetation conditions worsened in all livelihood zones compared to last year. The little showers are yet to trigger vegetation rejuvenation.
- Availability and accessibility of natural vegetation and pasture remained poor in all areas. Pastoralists purchased hay at Ksh250-300, bran and other feed supplements to supplement the shortfall.

- Poor range condition was occasioned by insufficient rainfall. The observed range condition had corresponding negative impact on livestock productivity and subsequently negative impact on food security status.

**Figure 1, 2& 3: During the month under review, there was progressive decline in pasture quality and quantity between June and October 2009. Generally most areas remained dry and bare.**  
**Fig.1**

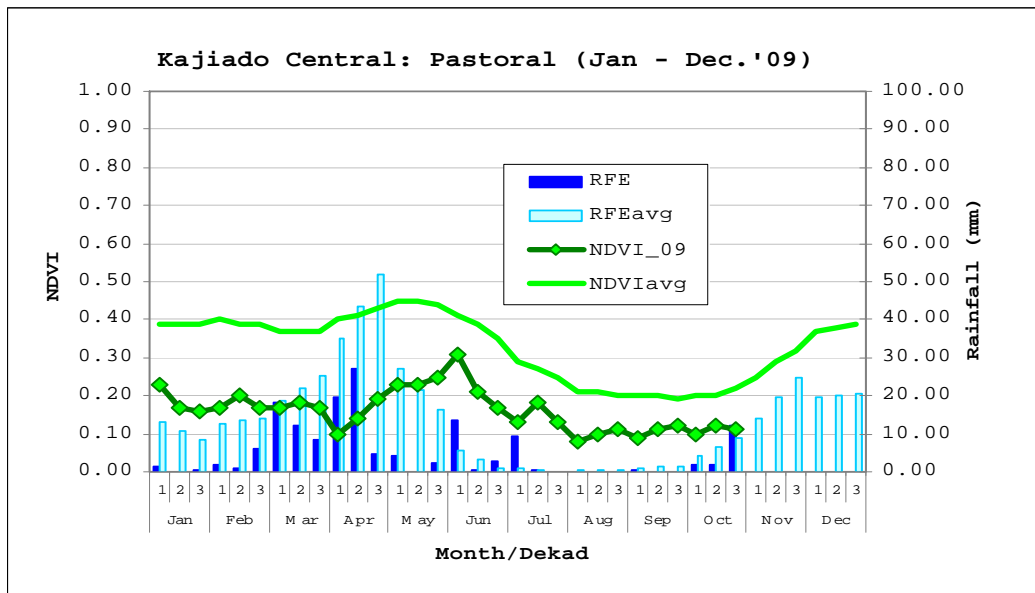


**Fig 2**

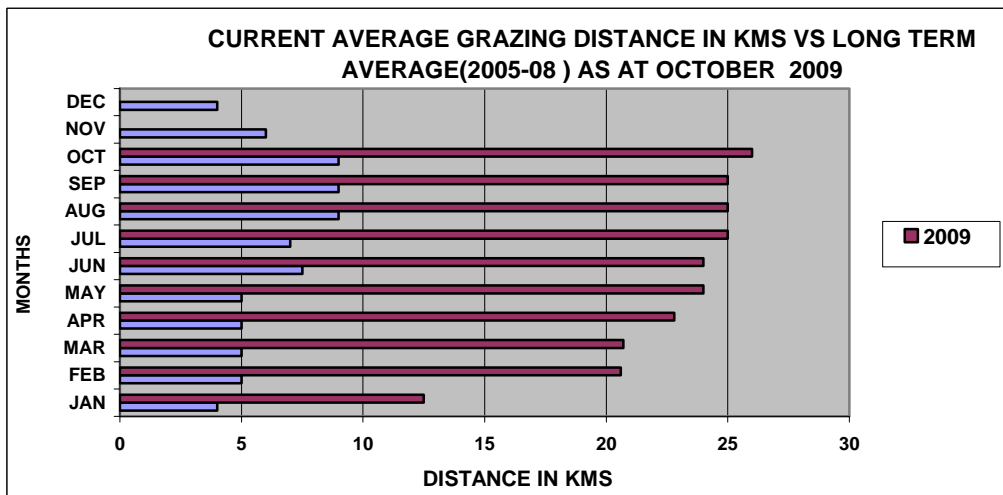


**Fig 3**

- Condition of pasture and browse in the pastoral livelihoods was poor and below the normal averages.



### 1.2.1 Distance to grazing areas

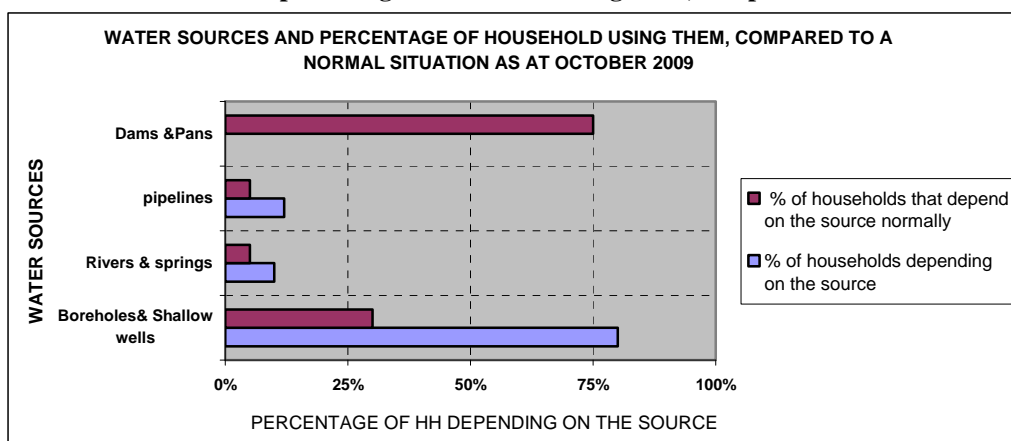


Source: ALRMP sample sites, Total Sample size(n) 270 households

- Return distances to grazing areas ranged from 20-26 Kms in most pastoral areas and increasing.
- All dry season grazing areas, national parks, conservation areas, were dry and bare as a result of over grazing.
- The normal range is usually 5 Km and the observed situation was below normal.

### 1.3 Water sources and availability

**Table 2: Water sources and percentage of household using them, compared to a normal situation.**

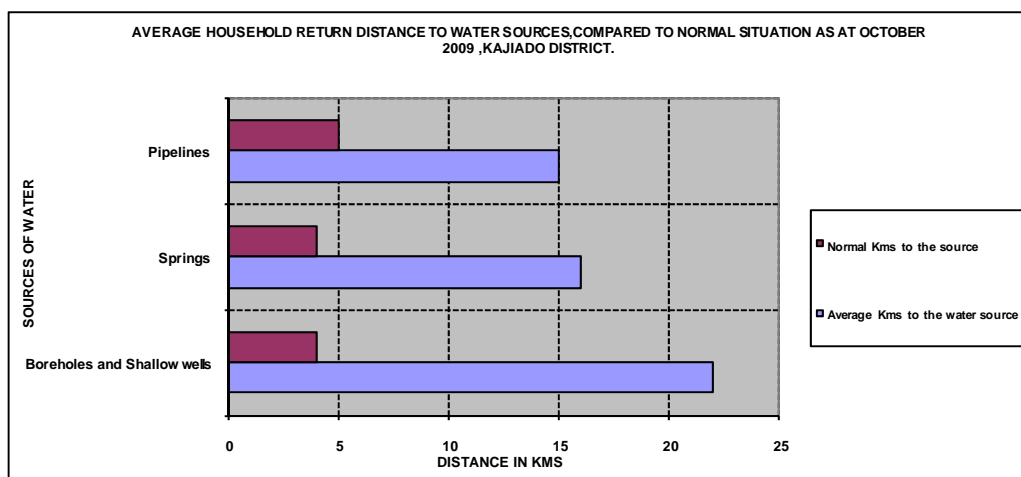


Source: ALRMP sample sites, Total Sample size (n) 270 households

- All temporary water sources (seasonal rivers, dams and pans) were dry.
- During the month, boreholes, springs, pipeline and shallow wells were the major sources of water. As in the previous month, the traditional hand dug wells had water but levels were dropping and recharging was at an increased time frame of 12-24 hours. The few boreholes, worked for longer hours (over 18 hours), due to low recharge rate and constant breakdown. The few community members left behind could not maintain the boreholes, necessitating provision of diesel and repairing the same. The return distances ranged from 20-60 Kms. Use of borehole water for livestock was at a fee (Ksh20-50 per head per month). The community trucked water for weak, calves and domestic use was at - 200 litre drum for Ksh300 to Ksh500. Livestock accessed water after 2-3 days in most pastoral areas.
- Boreholes were working for about 12 -18 hours a day and some broke down while others had very low output.
- The observed situation had negative implications on food security. The water situation was abnormal because during normal years dams and pans are usually the main sources of water for livestock and domestic use.

#### 1.3.1 Household access to water

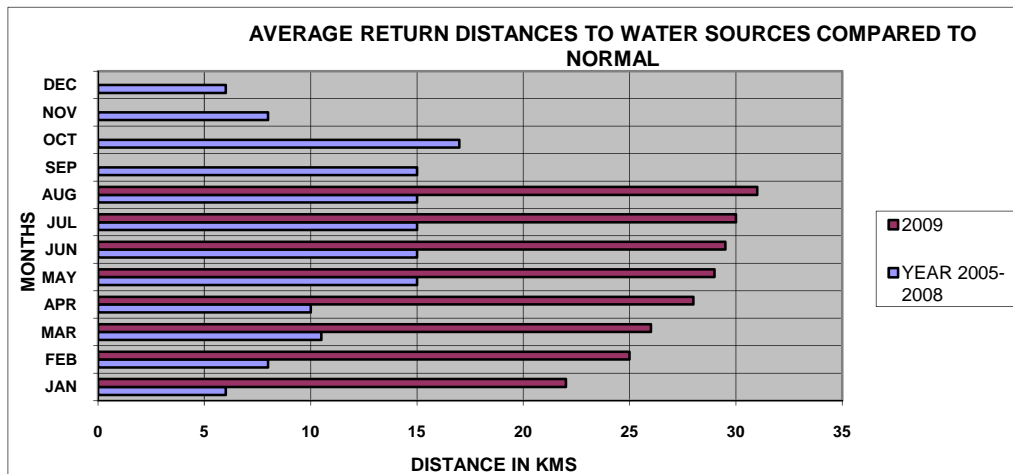
**Table 3: Average return distances to water sources, compared to a normal situation**



Source: ALRMP sample sites, Total Sample size (n) 270 households

- Return time for fetching water for domestic use ranged between 8-10hours in all areas. In hard hit areas women started fetching water as early as 3.00am.
- Water points were characterised by heavy concentration of livestock and long waiting hours. Livestock was given first preference to domestic use.
- Household members accessed water from strategic dry season boreholes, shallow wells and springs, which were far away from residential areas.

### 1.3.2 Livestock access to water



Source: ALRMP sample sites, Total Sample size (n) 270 households

- During the month, the average distance to water sources for livestock averaged 20-40 Kms in most areas.
- Livestock watered for 2-3 days per week, as most temporary water sources dried up.
- Water trucking for weak and young livestock in dry season grazing areas continued. The cost ranged between Ksh 600- Ksh 1000 for 200litre –drum in most areas.
- Return distances for livestock averaged 20-40 kms.

### 1.4 Emerging issues

- Increased charcoal burning and sand harvesting as alternative sources of income.
- Stress-related abortions in livestock (cattle) were high in all livelihood zones.
- Massive livestock deaths associated with the prevailing drought (evident in all divisions) and high mortality rate of weak and recumbent cattle and deaths livestock attributed to rainfall.
- Increasing wildlife (zebras, wildebeests and buffalos) mortality owing to the drought.
- Increasing incidences of livestock deaths associated with ECF as most livestock moved to dry season areas which have high tick challenge. Foot and Mouth disease (FMD) was reported in all divisions and even for those that had migrated outside the district.
- High food prices impacted negatively on purchasing power of pastoralists. Weak cattle were disposed at Ksh1500-2000 in most markets.
- There was increased escalation and emerging conflicts over natural resource use and tension on water use between crop farmers and pastoralists in the irrigation areas in Loitokitok and Magadi as a result of over abstraction up stream, causing reduced water flow on the low lands.
- Watering fee at dry season strategic boreholes soared to Ksh 20-50 per cow and Ksh 20-30 per shoat.

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

### **2.1 Livestock production**

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

- During the month all livestock kinds maintained poor body and health conditions. This was attributed to insufficient forage and long trekking distances to water and pasture.
- There were increased cases of home slaughter of weak and recumbent cattle and deaths.
- The observed trend had negative implications on food security as livestock in poor body condition fetched low prices (Ksh 2000).

#### **2.1.2 Livestock health**

- Foot and mouth disease (FMD) were reported both in livestock that migrated to other areas and those that were left at home.
- Incidences of tick-borne diseases, especially ECF, Anaplasmosis and Babesiosis, were evident in dry season grazing areas attributed to inadequate water for spraying and movement of livestock into areas with high tick challenge.
- Stress-related abortions in livestock attributed to effects of drought, Foot and Mouth Disease (FMD), contagious caprine pleuropneumonia (CCPP).

#### **2.1.3 Milk production**

- Owing to the prevailing drought, availability and accessibility of milk was nil.
- Most household purchased long life milk from the shops whose price has so far escalated.
- The current milk consumption trend had serious food security implications at household level.

#### **2.1.4 Livestock migration**

- Over 70% of cattle migrated out of the district in search of pasture. The migration was both external and within the district.
- Externally: To Nairobi (suburbs), private farms in Kiambu, Thika, Nakuru, Naivasha, Nyahururu Makueni, Tsavo East and West National Parks and areas around Lake Chyalla. Coast province (Ukunda, Kilifi, Maungu, Kinango, Voi).
- Cross-border migration in search of pasture was evident along Loitokitok/Namanga, Taita-Taveta/Tanzania border.

## **2.2 Crop production**

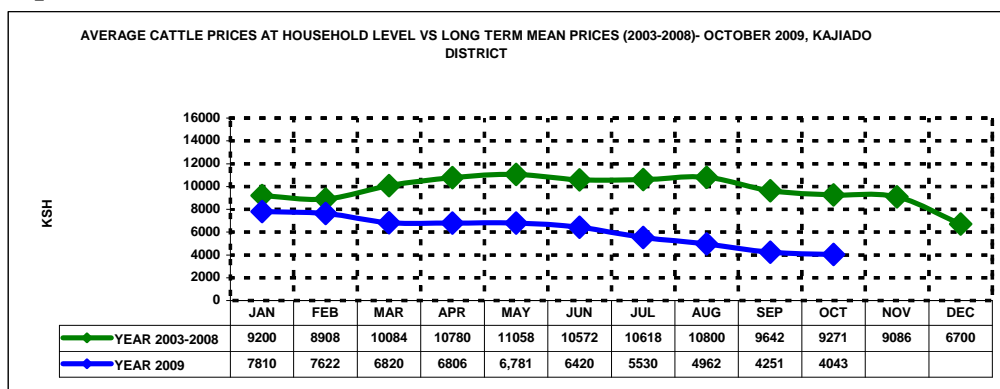
### **2.2.1 Timeliness and status of crop production activities**

- The main field activities in the high potential and marginal crop growing areas were land preparation and planting. Most farmers reported lack of seeds. Provision of certified drought tolerant crop varieties, and the orphans crops is binding. The last good crop was in 2006, and the seed stocks are depleted. Farmers were using maize intended for relief food as seed.

### 3.0 Access to food

#### 3.1 Livestock marketing

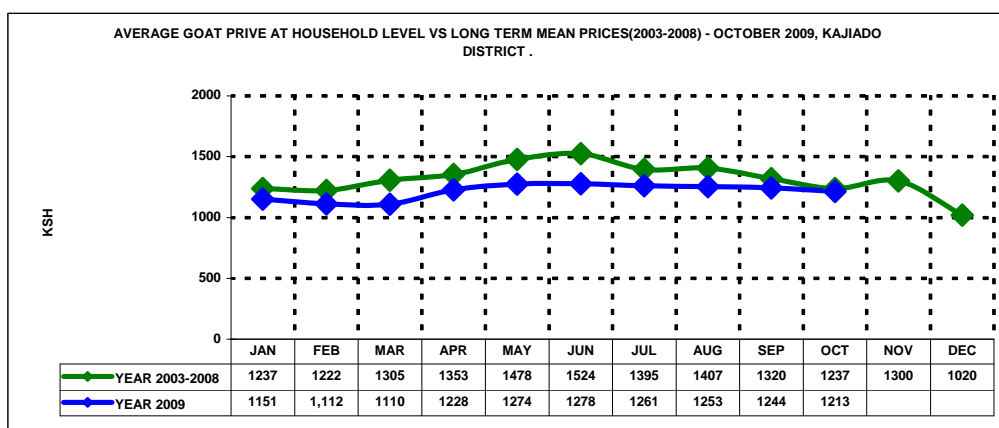
##### 3.1.1 Cattle prices



Source: ALRMP sample sites, Total Sample size (n) 270 households

- Average cattle prices declined by 4.89 per cent from Ksh 4,251 in September to Ksh4,043 in October. The price was below long term average by 57 per cent.
- The observed trend was attributed to poor body condition as a result of the prevailing drought and had negative implications on food security.

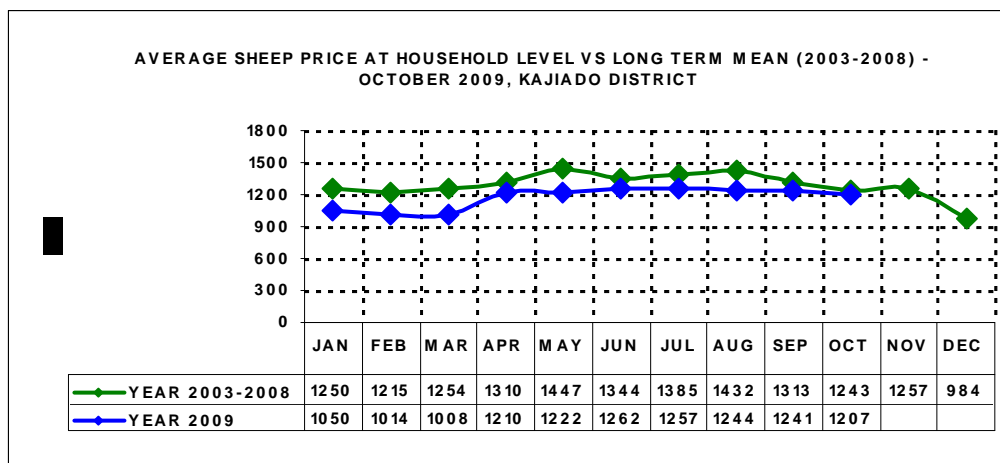
##### 3.1.2 Goats prices



Source: ALRMP sample sites, Total Sample size (n) 270 households

- Average goat prices declined slightly by 2.5 percent from Ksh1,244 in August to Ksh1, 213 in October.

### 3.1.3 Sheep prices



Source: ALRMP sample sites, Total Sample size(n) 270 households

- Sheep prices declined by 2.7 percent during the month and the decline was attributed to poor range condition district-wide. The average price was Ksh 1207 compared to Ksh1241 in September.

### 3.1.4 Milk consumption

- During the month over 90 percent of households interviewed reported no milk at all. Milk availability was constrained by poor livestock body condition and internal and external migration in search of pasture.
- Unavailability of milk at household level had negative implications on food security, especially on nutrition status of children under five years.

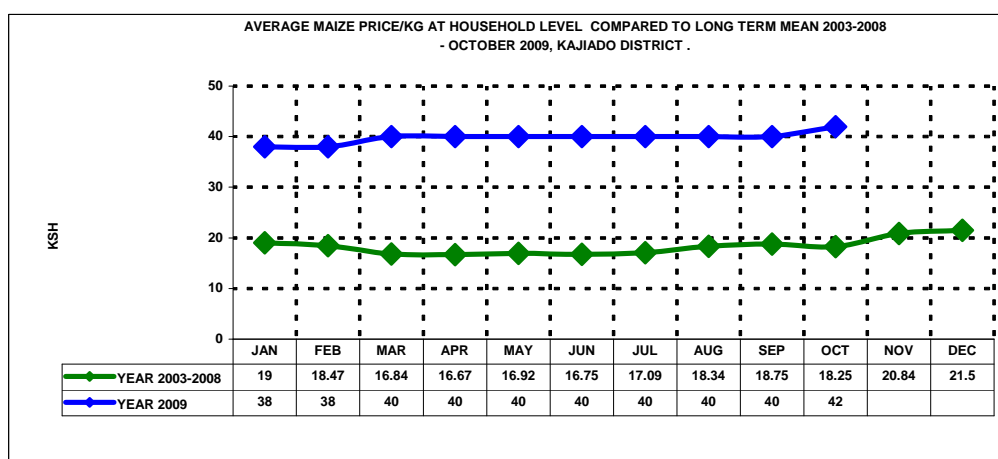
### 3.2 Implications on food security

The following impacted negatively on food security in the district:

- Unavailability of milk for children under five years, which increased their risk of malnutrition.
- High food prices, coupled with very low livestock prices, especially cattle.
- Poor body condition of cattle and deaths with corresponding low prices (Ksh2000-4000).
- Migration of livestock that exacerbated unavailability of milk in rural households.
- Late commencement of rains portends poor crop performance in the rain fed crop growing areas.

### 3.3 Food prices

#### 3.3.1 Maize prices

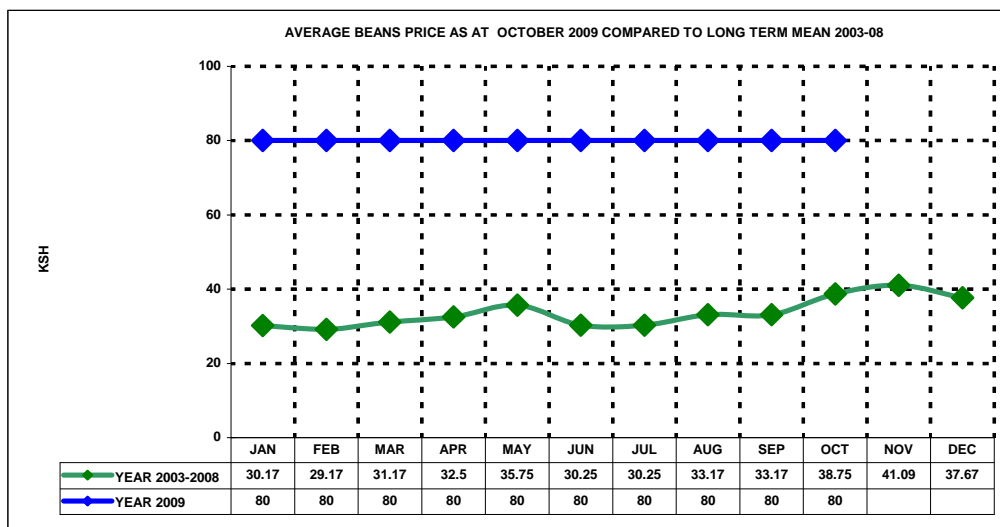


Source: ALRMP sample sites, Total Sample size (n) 270 households

- The average maize price increased from Ksh40 per kilo to Ksh42 per kilo during the month under review compared to long term average of Ksh18.

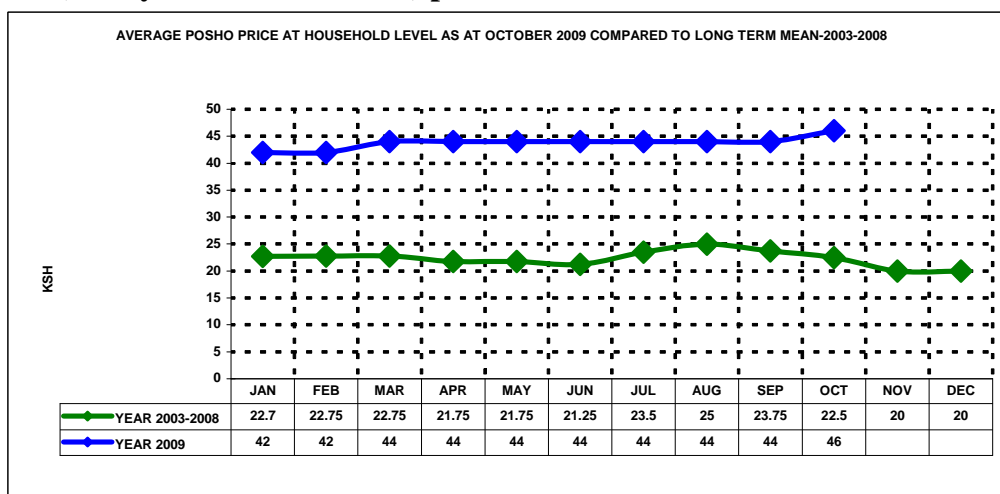
### 3.3.2 Beans prices

- The average beans prices remained high but stabilised at Ksh80 per kilo. The prices were abnormal compared to long term mean of Ksh38 per kilo.



Source: ALRMP sample sites, Total Sample size (n) 270 households

### 3.3.3 Posho (locally milled maize meal) prices



Source: ALRMP sample sites, Total Sample size (n) 270 households

- The average price of posho increased from Ksh44 to Ksh 46per kilo. The price was above normal compared to the long term mean of Ksh25 per kilo.

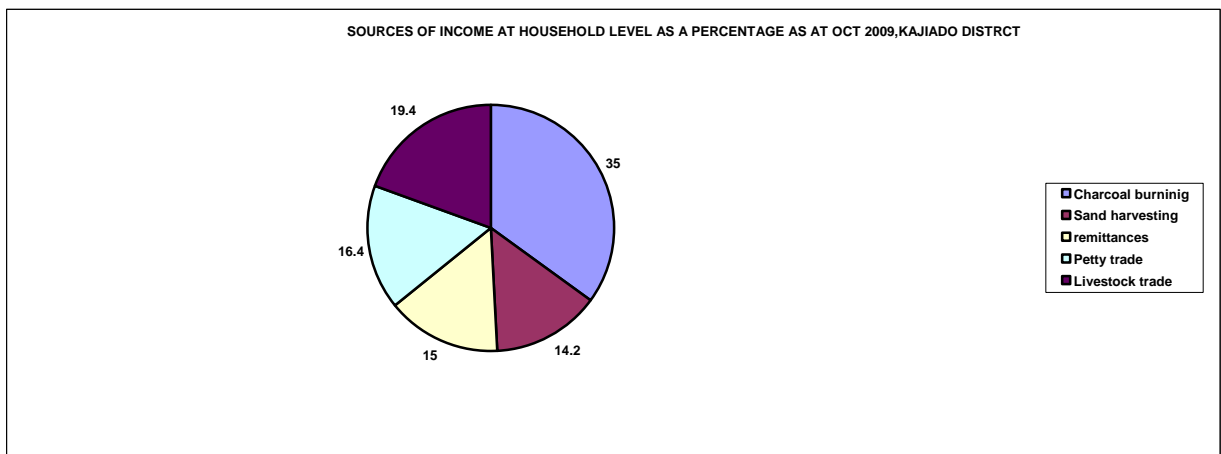
## 3.4 Income

### 3.4.1 Crop income

- The month was characterised by below normal income from the irrigation areas, which was attributed to decline in water levels and human/wildlife conflict. There was no crop income in rain-fed crop growing areas owing to the prevailing drought in the three districts.

### 3.4.2 Livestock income

- Below normal livestock prices dominated all livestock markets and low prices were mainly attributed to poor body condition.
- Other sources of income were sale of charcoal, sand harvesting, petty trade and remittances.
- Charcoal burning remained the main source of income for many households across all livelihood zones followed by sale of livestock. The observed trend can largely be attributed to the prevailing drought and migration of livestock in search of pasture and water. One bag of charcoal sold at between Ksh 350-500.



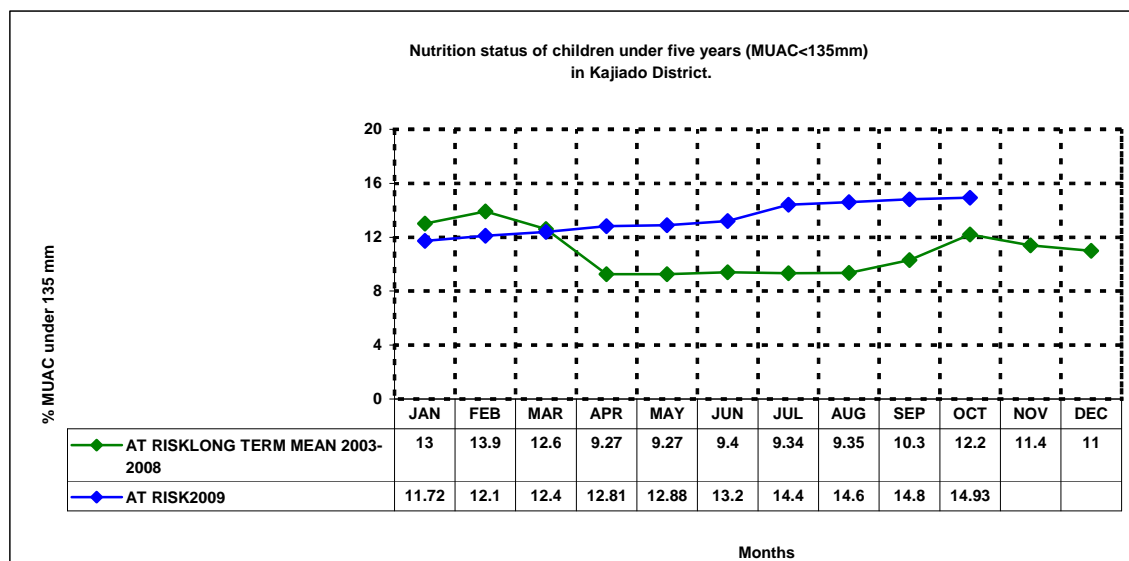
Source: ALRMP sample sites, Total Sample size (n) 270 households

### 3.5 Terms of trade for pastoralists

- Pastoralists' terms of trade remained poor, with high food prices and 56% decrease on livestock prices below the long term mean.
- High cereal prices, coupled with declining livestock prices had negative implication on household food security.

## 4.0 Human welfare indicators (Utilisation of food)

### 4.1 Nutrition status



Source: ALRMP sample sites, Total Sample size (n) 270 households-1,346 children were examined.

- The nutrition status of children 12-59 months declined slightly in all livelihood zones, with the percentage of those rated at risk of malnutrition rising to 14.93 from 14.8 in September. The malnutrition rate was much higher than the long term mean of 10.3%. This can largely be attributed to declining availability of milk in rural households which was attributed to livestock migration in search of pasture and water and the recent 100% crop failure.

### 4.2 Human health

- The most common diseases reported during the month were malaria, diarrhoea and respiratory tract infections (RTIs). As reported, rural health centres were providing insecticide treated nets.

## 5.0 Current interventions

The following interventions are being undertaken to contain the drought situation in the district:

Institution	Intervention (on-going)
<b>ALRMP , GAA and MAAP</b>	<ul style="list-style-type: none"> <li>Provision of diesel subsidy to community boreholes in Kajiado Central, North and South ,</li> <li>Water tinkering to schools that are hard hit</li> <li>Rehabilitation of strategic boreholes and shallow wells</li> <li>Conflict resolution</li> </ul>
<b>Livestock</b>	<ul style="list-style-type: none"> <li>KMC off take managed to purchase 1,616 heads of cattle (708 in Kajiado Central, 400 in Loitokitok and 508 in Kajiado North) valued at Ksh. 12,928,000.</li> </ul>
<b>NIA</b>	<ul style="list-style-type: none"> <li>Lead agency for relief food (EMOP Operation s) targeting 15% of the larger Kajiado population</li> </ul>
<b>Mercy – USA</b>	<ul style="list-style-type: none"> <li>Implementing an Integrated Management of Acute Malnutrition (IMAM) Programme</li> </ul>

## 5.1 Coping strategies

- Purchase of hay and concentrates.
- Disposal of weak livestock.
- Hiring of grazing /pastures.
- Sharing of EMOP relief food.
- Reduce frequency of livestock watering 2-3 days per week.
- Pastoralists purchased hay (at Ksh 250- 300) to supplement the shortfall from Bissell, Namanga and Karen.
- Community water trucking to the dry season grazing areas.
- Migration of household heads to urban areas in search of employment.
- Dependence and/or receiving remittances.
- Reduced ration and number of meals per day.
- Increased charcoal burning and Sand harvesting.
- Livestock migration in search of pastures and water.

## 6.0 Recommendations to DSG and KFSM

- Up scaling the population under EMOP/PPRO of the total Kajiado and Loitokitok populations in October 2009: up to 30-40% .
- Expansion of school feeding program: Consider primary schools in the pastoral areas for the regular Supplementary feeding programme since they are yet to receive all funds for the homegrown feeding programme.
- Provision of certified seeds for drought-tolerant crop varieties and the orphans crops. The last good crop was in 2006 and the seed stocks are depleted.
- Livestock off-take .The DSG recommended 2<sup>nd</sup> phase and slaughter destocking at 'source'. KMC off take managed to purchase 1,616 heads of cattle (708 in Kajiado Central, 400 in Loitokitok and 508 in Kajiado North) valued at Ksh12,928,000. In all centers pastoralists offered for sale livestock in excess of 400, initially the district was allocated 400 heads of cattle but farmers were able to sell more.
- Livestock disease surveillance/ Livestock disease control especially for Rift Valley Fever in the event of the *Elnino* .Treatment of diseases resulting from livestock being exposed to high tick and tsetse–tsetse fly, challenge, deworming and vaccination. Provision of FMD, CBPP, LSD, trypanocidal drugs and CCPP, sheep and goat pox vaccines
- Support operation of community boreholes and minimal provision of water to community (women and children) and communities in left behind the pastoral areas. Fuel /diesel subsidy, Water trucking to communities and schools- O& M , fuel and DSA for drivers
- Rehabilitation of strategic boreholes and shallow wells and support water treatment including household water treatment .
- Scaling up nutrition intervention; supplementary feeding and therapeutic feeding for the vulnerable persons including children under five years, pregnant mothers, elderly and PLAWS and Hiv/Aids patients.
- Excavation of surface water storage before the onset of OND rains.
- Improve water storage capacity at key community locations eg health centers and schools through use of plastic and bladders tanks.
- There is need to put in place a mechanism that is going to mitigate or ameliorate the escalating and emerging conflicts that are expected to be on the increase between now and December by strengthening traditional natural/grazing committee and

promotion/strengthening cross border/intra & inter clan/inter- conflict resolution initiatives to forestall natural use conflicts and enhance peace building.