



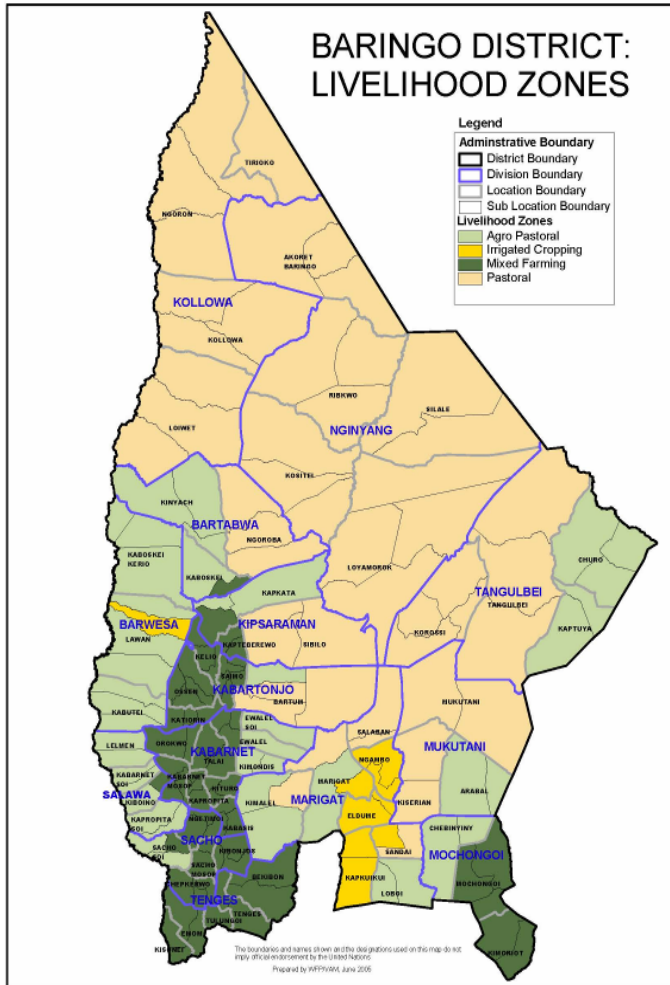
OFFICE OF THE PRIME MINISTER

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

DROUGHT MONITORING BULLETIN, NOVEMBER 2009

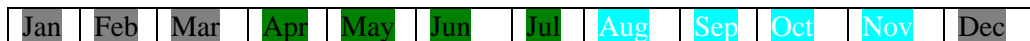
**Baringo Central, North/ East Pokot
and Marigat Districts**

Warning Stages



Livelihood Zone	Warning stage	Trend
Pastoral	Alarm	Worsening
Agro pastoral	Alarm	Worsening
Irrigated Cropping	Alarm	Worsening
Mixed farming	Alarm	Worsening
Project area	Alarm	Worsening

Seasonal Calendar



- Dry season :- (Land preparation, minimal calving, lambing & kidding)
- Long rains :- (Planting, most kidding & lambing and minimal calving & honey harvesting)
- Short rains :- (Most calving & honey harvesting and minimal kidding & lambing, pre-harvest & harvesting)

Situation overview

- Little amount of rainfall was received in the month while temporal distribution was poor. The rainfall received had insignificant impact on the grazing and water resources in area reported rainfall. A total of 18 mm average was received from 1 – recording stations, an average of 4 days.
- The quality and quantity of forage worsened in all the livelihood zones.
- Water availability for both human and livestock was insufficient in all the livelihood zones.
- Body condition of livestock is poor and deaths were reported due to the effects of drought stress in the pastoral, irrigated cropping and agro-pastoral livelihood zones.
- Milk production was low and only in camels. This was attributed to poor body condition of the animals due to insufficient pasture and browse.
- The average prices of livestock decreased in goats while it insignificantly increased in cattle and sheep. The increase in prices of cattle and sheep was attributed to availability of buyers and less number of animals in the markets during the month. Also prices in poultry decreased than in last month due to low demand.
- The average prices of food crops and other commodities decreased during the month owing to availability of supplies in the markets within the District and the neighboring districts, however, distribution of relief food has delayed for some months now.
- Sale of fish, casual labour, petty trade (local beer brewing e.t.c.) and sale of charcoal & sale of wood products was the other alternative sources of income for most sampled households during the month after the sale of livestock.
- The nutrition status of children below five years declined slightly during the month, with the percentage of those rated at the risk of malnutrition increasing to 21.9 % from 20.5 % the previous month. This was attributed to delay in distribution of relief food and lack of supplementary food for children at the household level in the EMOP relief food distribution during the month for three months now. This, however, is likely to worsen as milk production from the animals declined due to the drought effects.
- Cholera outbreak occurred in Kapnyunguny along the border of East Pokot and Turkana south districts and has claimed so far more than 26 lives.

Recommendations to DSG and KFSM

- The veterinary department /agencies should step up support to the livestock health sub sector through vaccinations and treatment of clinical cases. In particular, more efforts should be directed to investigate cases of Red water upsurge in goats; Bloody mucus upsurge in sheep; Lumpy skin disease (LSD) upsurge in camels; sudden blinding in goats and Diarrhea upsurge in goats leading to deaths in the areas mentioned of the project area.
- The GOK and other aid agencies to put more efforts to ensure that communities in East Pokot, North Baringo, Marigat and Baringo central districts are given continuous relief food supplies (GFD) and supplementary food for children and the elderly until the stress situation normalizes as malnutrition cases are rising, prices of food commodities are rising, animals are dying due to drought effects hence people cannot cope with the stresses, also milk production from animals declined drastically due to the drought effects that has persisted for a long period.

- There is need to strengthen conflict prevention and peace building initiatives to maintain the already achieved level of peace and further reduce it to the lowest level along the borders of East Pokot, Baringo, Marakwet, Turkana, Laikipia west and Samburu districts to enhance peaceful co-existence.
- The MoH/ Mphs/ Stakeholders should put more efforts to contain the cholera outbreak in East Pokot district and make efforts to supply more Anti-malarial drugs in all the rural health facilities that are far from the district hospitals to cope with Malaria upsurge at the moment. Also investigate cases of Enteric fever upsurge and chicken pox outbreak in the areas mentioned of the project area.
- The District Game Warden to put more efforts to ensure that Baboons, Hyenas, Lynx and Hunting dogs preying on the livestock in the mentioned areas of the project area are contained to save the pastoralists who are losing their animals daily. This has been an alarming scenario for some months now.

Current interventions

Non-food interventions

- Water trucking in East Pokot district – ALRMP/ Ministry of water.
- Rehabilitation of Kapau (Nginyang division), Sintaan (Marigat division) and Chemorongion (Mochongoi division) boreholes – ALRMP.
- Excavation of water pans in anticipation of El-nino rains in the project area: Katikit (Nginyang division), Riongo (Mondi division), Sumutwo (Bartabwa division) and Ramacha (Mukutani division) – ALRMP.
- Capacity building for water pan, boreholes management committee and DSG on drought management – ALRMP.
- Fuel relief for 22 boreholes in the project area – ALRMP.
- Campaign against cholera outbreak in East Pokot district – Moh/ Mphs/ Red Cross society/ Catholic mission East Pokot/ ALRMP/ World vision Kolloa/ Kenya army/ DC East Pokot.
- Peace building initiatives within the districts' of the project area by various stakeholders i.e. the PSC, DPC, DSC, World vision, Community Elders, Youth groups, Political leaders, Pastors and ALRMP.

Food aid

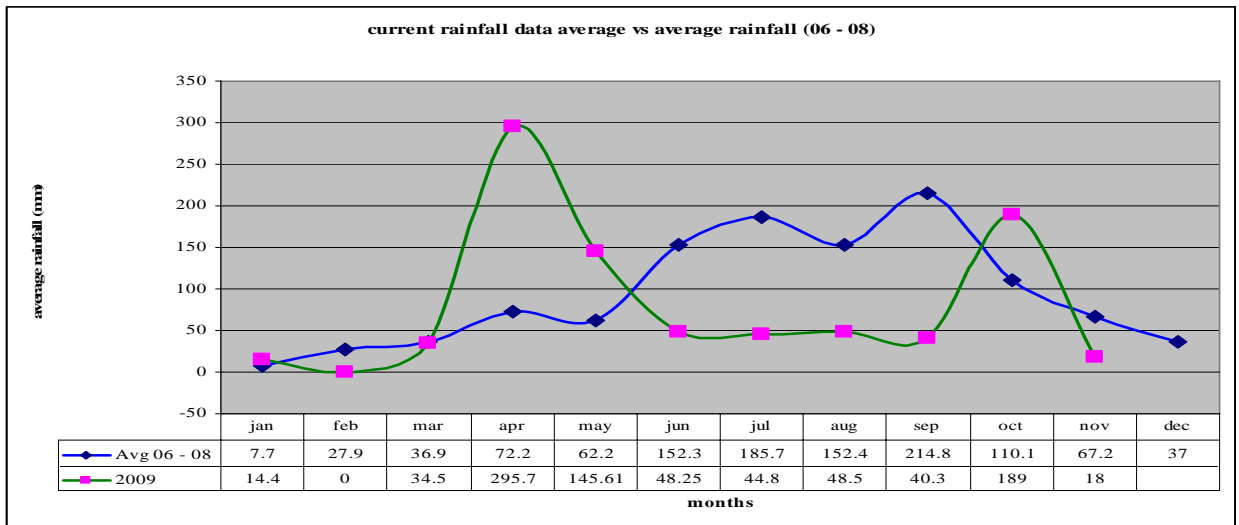
- The EMOP relief food distribution phase 2 commenced in late May 2009 targeting the following number of population in the districts: - East Pokot – 47,423 (GFD), Baringo central – 3,476 (FFA), Marigat – 13,975 (FFA) and Baringo North – 23,288 (FFA) persons. However, the number that benefits from the relief food currently is so less as compared to the number that is supposed to benefit according to the provisional district population census recently done. Also the relief food distribution has delayed for the last three months in Baringo: Central, North and Marigat districts and for two months in East Pokot district.

Recommendations to DSG and KFSM

The DSG did not hold any meeting during the month.

1.0 Environmental indicators (Stability)

1.1 Rainfall



Source: ALRMP rain gauge data stations

18 mm average rainfall was received from 1- recording station, 4 days average during the month in the project area compared to the previous month where there was 189 mm from 3- recording stations, average 5 days. This was not normal at the time of the year as shown on the graph where the current average is below the long term mean by 73.2 %. However the drought period has extended more than expected.

1.2 Condition of natural vegetation and pasture

The quantity of forage in all the livelihood zones worsened during the month due to lack of rain. The quality of the available pasture was poor. The average distance to grazing areas remained at 10.5 km. for three months now.

1.3 Water sources and availability

During the last four weeks there was a decrease in water availability following poor temporal distribution of showers in the project area. The water sources currently in use are Pans and Dams (10 % have water), natural rivers, Traditional river wells, shallow wells, Boreholes, springs and Lakes. Distance to the nearest water source during the month remained at an average of 5.4 km as in the previous months for most of the households.

1.4 Emerging issues

- The little showers received during the month made no improvement on the browse and pasture condition in the project area. However, poor rejuvenation of pasture was noted owing to erratic rain experienced and the distances to water sources and pastures also remained far. 90 % of the Satellite herds are still held up at the dry season grazing points (Marakwet, Turkana central, Pokot central, Samburu and Laikipia west districts).

- Goats, cattle and sheep continue to die due to the effects of the extended drought period in pastoral, Agro-pastoral and irrigated cropping livelihood zones.
- Baboons' predating on goats due to lack of food in Mosuro community (Mukutani division), Kositei location (Nginyang division), Barpello community (Kolloa division), Komolion community (Tangulbei division), Barkipi community (Marigat division), Kamrio community (Nginyang division), Yatya community (Kipsaraman division) and kaptuya community (Churo division).
- Hyenas predating on goats in Kolloa location, Sirata/ Mosuro community (Mukutani division), Chemintany community (Bartabwa division) and Rukus community (Korossi location).
- Hunting dogs predating on goats in Loiwat location (Kolloa division) and Kinyach community (Bartabwa division).
- Lynx and stray dogs predating on goats in Kolloa location (Kolloa division)
- Scarcity of water in Orus location and Cherumbo community in Tangulbei and Churo divisions respectively owing to drying up of water pans and shallow wells in the areas.
- Abnormal out-migration & in-migration of livestock in search of water & pasture in pastoral, Agro-pastoral and irrigated cropping livelihood zones.

1.5 Implications on food security

Worsening browse and pasture conditions, leading to livestock deaths and increasing distances to water accessibility had a negative impact to household food security for the pastoralists.

2.0 Rural economy indicators (Food availability)

2.1 Livestock Production

2.1.1 Livestock body condition

- Livestock body condition was fair for both small stock and cattle respectively in mixed farming while are poor in pastoral, Agro-pastoral and irrigated cropping livelihood zones. Goats, cattle and sheep continue dying in the latter zones due to the effects of the extended drought period. This was not normal at this time of the year owing to extended period of the dry spell.

2.1.2 Livestock diseases

- Red water upsurge, leading to deaths in goats in Rukus community (Tangulbei division). Bloody mucus upsurge leading to deaths in sheep in Sirata/ Mosuro communities (Mukutani division). Lumpy skin disease upsurge in camels in Kositei location (Nginyang division). Sudden blinding upsurge leading to deaths in goats in Ngoron location (Kolloa division). Diarrhea in goats leading to deaths in Tebelekwo community (Churo division).

2.1.3 Milk production

- Milk production declined in the project area owing to extended effects of drought. This was not normal at this time of the year as the drought effects extended more.

2.2 Crop production

2.2.1 Timeliness and status of various crop production activities

Agro-pastoralists reported crop failure due to lack of rain earlier in the year. This was not normal at this time of the year as this is supposed to be the short rains season.

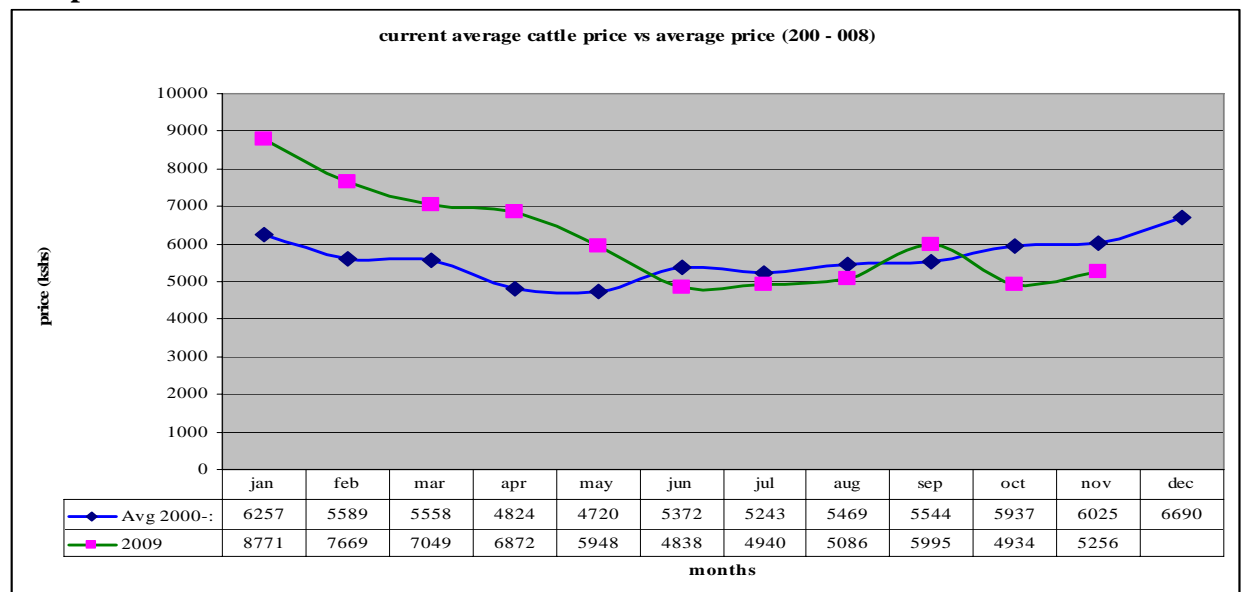
2.3 Implications on food security

Milk production at household level declined yet this is the food depended upon by the Pastoralists and children. Goats, Cattle and Sheep were dying due to drought stress. This is a major threat to food security at the household level. Relief foods need to be given to the population continuously until the situation normalizes. Market prices of cereals and legumes remained high in the project area and availability in the markets remains scarce.

3.0 Access to food

3.1 Livestock marketing (Household level)

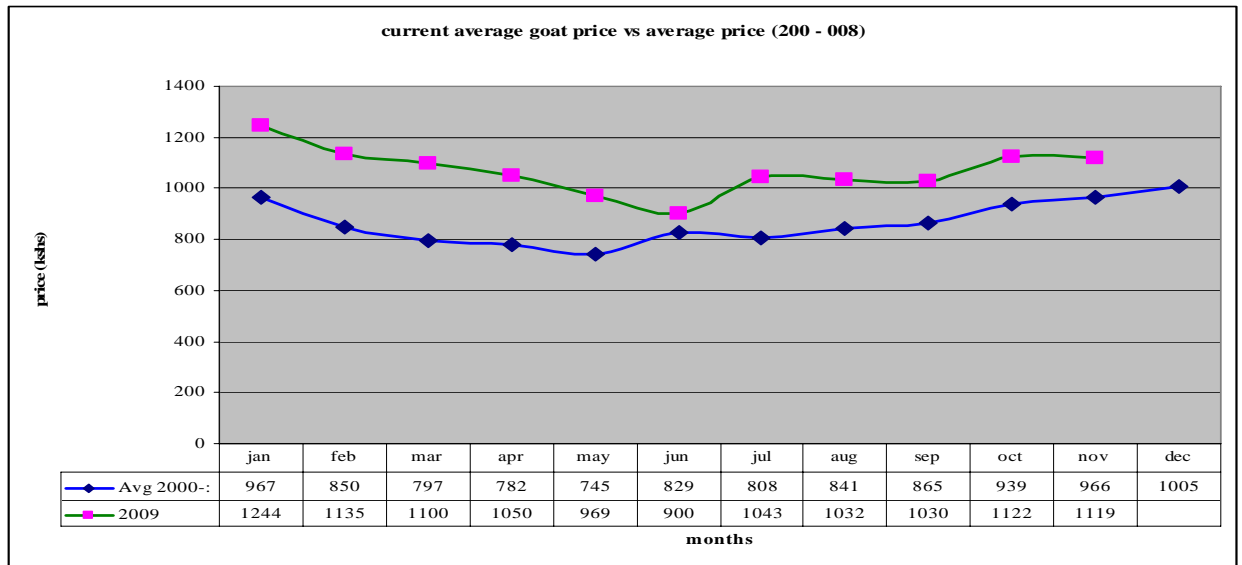
3.1.1 Cattle prices



N = 480 HH

- The average price showed an increase in the price of cattle from Ksh4,934 in the previous month to Ksh5,256 in November. The increase was normal at this time of the year when the price of cattle is expected to go up at this time of the assumed rainy season. The price was however lower than the long term mean by 12.8 % as shown on the graph.
- The low price was attributed to the poor body condition of the livestock owing to insufficient pasture during this period. This was not good for household food security.
- Bartabwa division had the highest average cattle price of Ksh8,033. This was attributed to fair body condition due to accessing favorable pasture along the kerio river basin. Tangulbei division had the lowest average price of Ksh3,422 due to poor body condition.

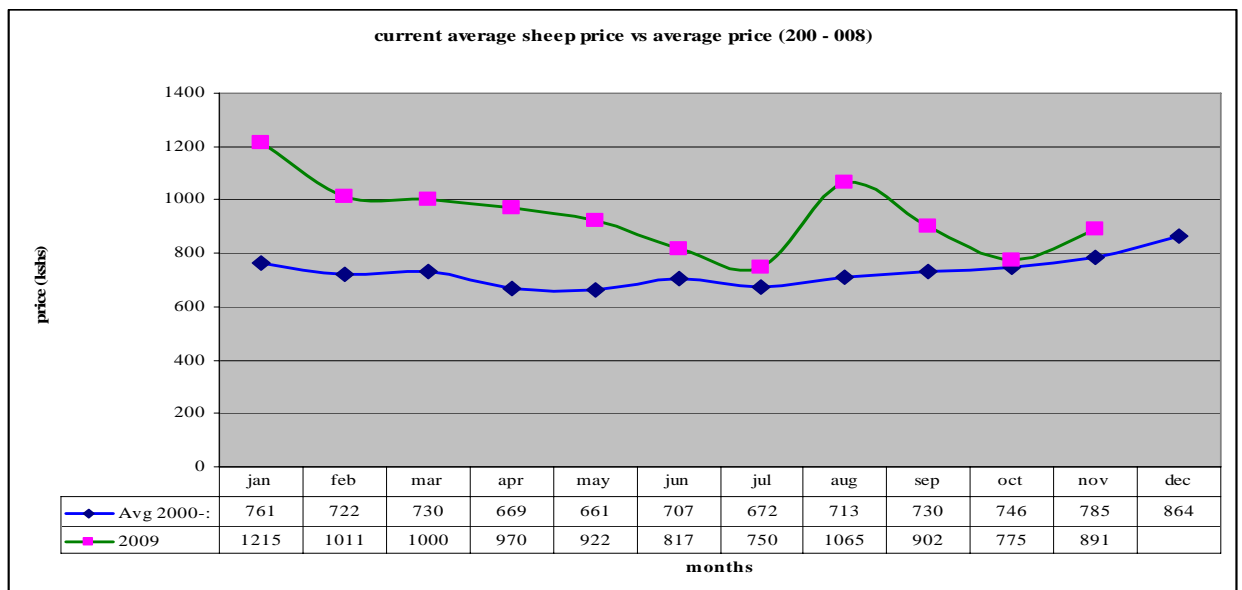
3.1.2 Goat prices



N = 480 HH

- The average goat price decreased from Ksh1,122 in October to Ksh1,119 in November showing depreciation. The price was, however, slightly above the long term mean by 15.8 %. The decrease was attributed to influx of goats in the markets causing sales to go down. This had a negative impact on household food security.
- Bartabwa division had the highest goat price average of ksh. 2,018 due to accessing external buyers while Kipsaraman division had the lowest price average of ksh. 677 owing to poor body condition and lack of external buyers.

3.1.3 Sheep prices



N = 480 HH

- The average sheep price increased from Ksh775 in October to Ksh891 in November, showing appreciation. The price increase was attributed to high demand. The price was however higher than the long term mean by 13.5 %. This was a positive impact to household food security.
- Kolloa division had the highest sheep price of Ksh1,043 owing to high demand while Tangelbei division had the lowest price of Ksh590 as a result of poor body condition of the animals coupled with low demand.

3.2 Livestock sales

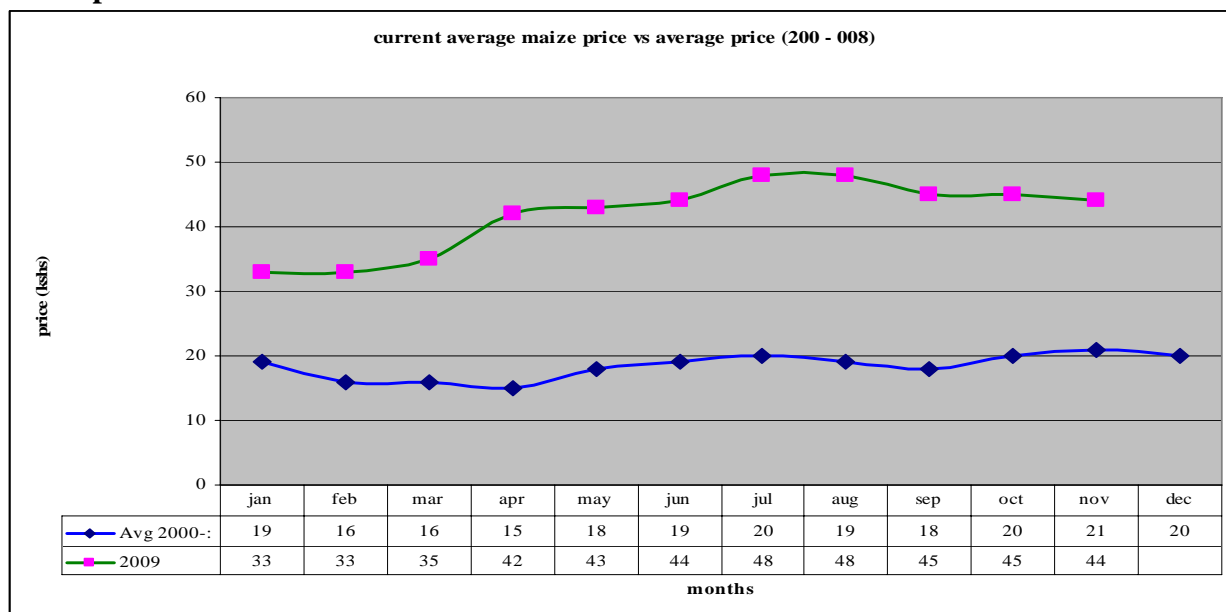
- The volume of livestock sales increased in the month compared to the previous months as a result of demand for food in the markets during the month. Goats, Sheep, Poultry and Cattle were the main livestock offered for sale at the markets.
- Pastoral, Agro-pastoral and Irrigated cropping livelihood zones had the highest sales as they depend on their livestock sales as the sole means of getting household needs while mixed farming livelihood zone had the lowest sales owing to having other sources of income e.g. business, food stock, employment and casual labor e.t.c. to depend on. The level of sales was not normal at the time of the year owing to high demand for food during the current drought period.

3.3 Milk consumption

- Milk consumption by household members declined drastically in all the livelihood zones. Compared with the previous month the milk consumption at household level decreased owing to the effects of the extended drought period. This is a negative impact to food security at household level especially for the under five year's children.

3.4 Crop prices (Market prices)

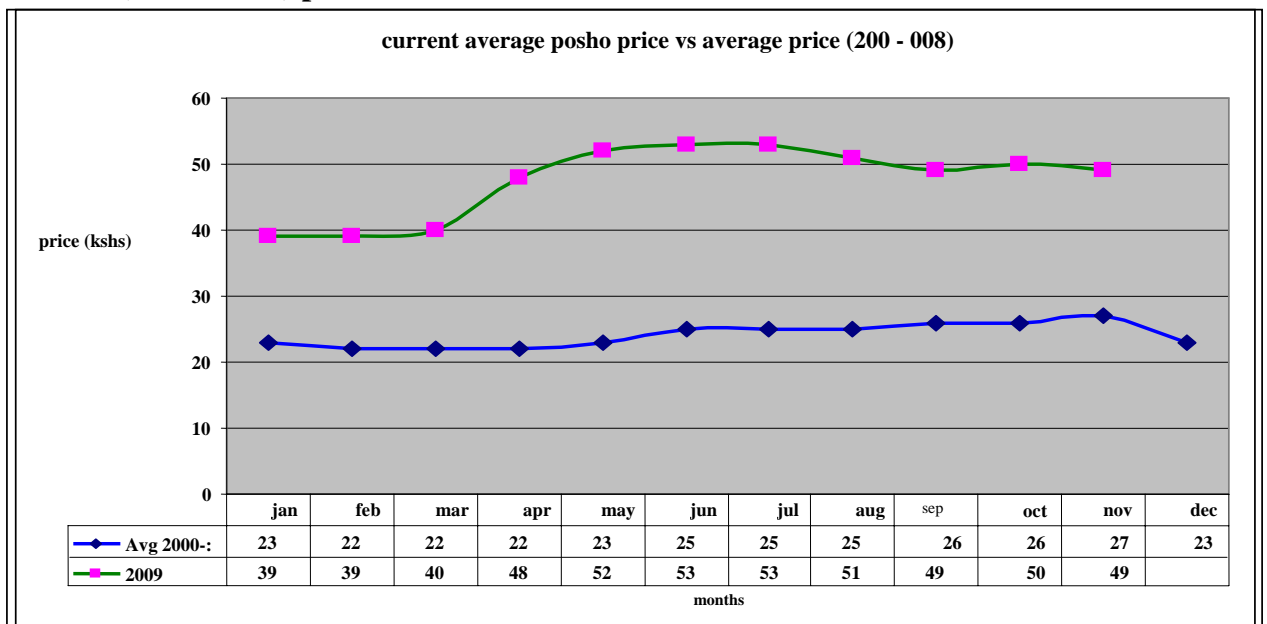
3.4.1 Maize prices



N = 480 HH

- The average maize price during the month was Ksh44 per kilo, a shilling less than that of the previous month (highest price in the market is Ksh70 per kg). The average price was more than the long term mean by 109.5 % owing to scarcity of the food at the markets however the demand has picked up in the markets because of famine stress that has affected more of the population in the project area.
- Inadequate supply of maize to the local markets from agro- pastoralists within the project area and also neighboring districts is the cause of high prices. As in the previous month, maize prices were much higher in the pastoral, Agro-pastoral and irrigated cropping livelihood zones than in the mixed farming livelihood zone.
- The average maize price was not normal at this time of the year owing to the scarcity of the food in the project area.

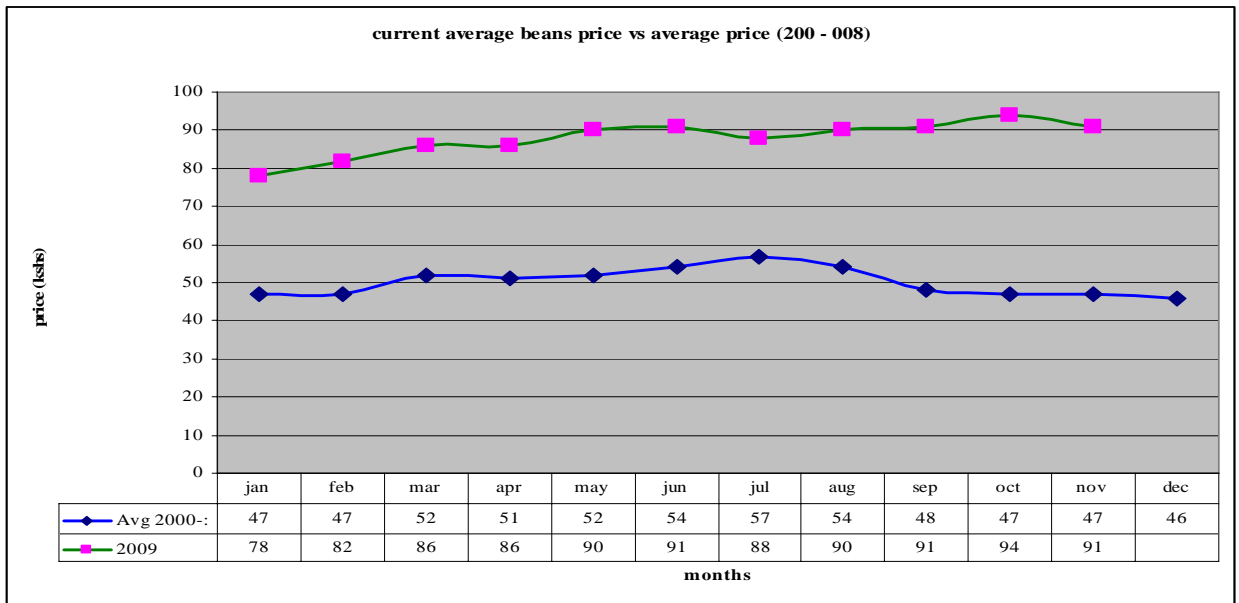
3.4.2 Posho (maize meal) prices



N = 480 HH

- The average price of Posho during the month was Ksh49 per kilo, a shilling less than that of the previous month (highest price in the market is ksh. 80 per kg). The average price decreased due to constant demand of maize in the local markets.
- However, the price was more than the long term mean by 81.5 %, this is eroding the purchasing power of the pastoralists as they have to sell a lot of animals to meet the food demand. Posho prices were much higher in the pastoral, Agro-pastoral and Irrigated cropping livelihood zones than in the mixed farming zone because the three zones depend currently on purchasing the commodity from their local markets which normally is dictated by it's availability unlike the mixed farming who are producers and access it easily. The price of Posho was not normal at this time of the year owing to erratic availability of maize in the markets.

3.4.3 Beans prices



N = 480 HH

- The average price of beans during the month was Ksh91, three shillings less than the previous month, highest price in the market is ksh.120 per kg. The price was more than the long term mean by 93.6 %. The average price decreased due to stable availability of the food commodity in the markets within the project area and also from the neighboring districts; however the prices are too high at the moment to cope with the purchasing power of the pastoralists. This posed a threat to household food security.
- Beans prices were higher in the Pastoral livelihood zone than in the irrigated cropping and Agro- pastoral zones. Beans prices are not normal at this time of the year owing to its erratic availability in the markets.

3.5 Income

3.5.1 Crops income

Agro-pastoralists reported crop failure in the project area due to lack of rainfall earlier in the year.

3.5.2 Livestock income

Livestock sales income improved than that of the previous month due to fair availability of external buyers during the month who normally purchase large number of animals and offer better prices. The income obtained from the livestock is not normal at this time of the year because of the less number of animals sold at the markets owing to the drought stress.

3.5.3 Other income

Casual labour was another major source of income during the month with approximately 1/3 of the household's members engaged as casual laborers, followed by sale of fish, sale of charcoal, sale of wood products and petty trade (local beer brewing). The average daily

wage rate per casual for the month was Ksh94, above that of the previous month, something so meager to meet the daily household's needs. Most of the trade in charcoal, wood products and petty trading was recorded in Pastoral, irrigated cropping and Agro-pastoral livelihood zones. This reflects unavailability of livestock and farm incomes for the households in these zones.

3.6 Terms of trade



N = 480 HH

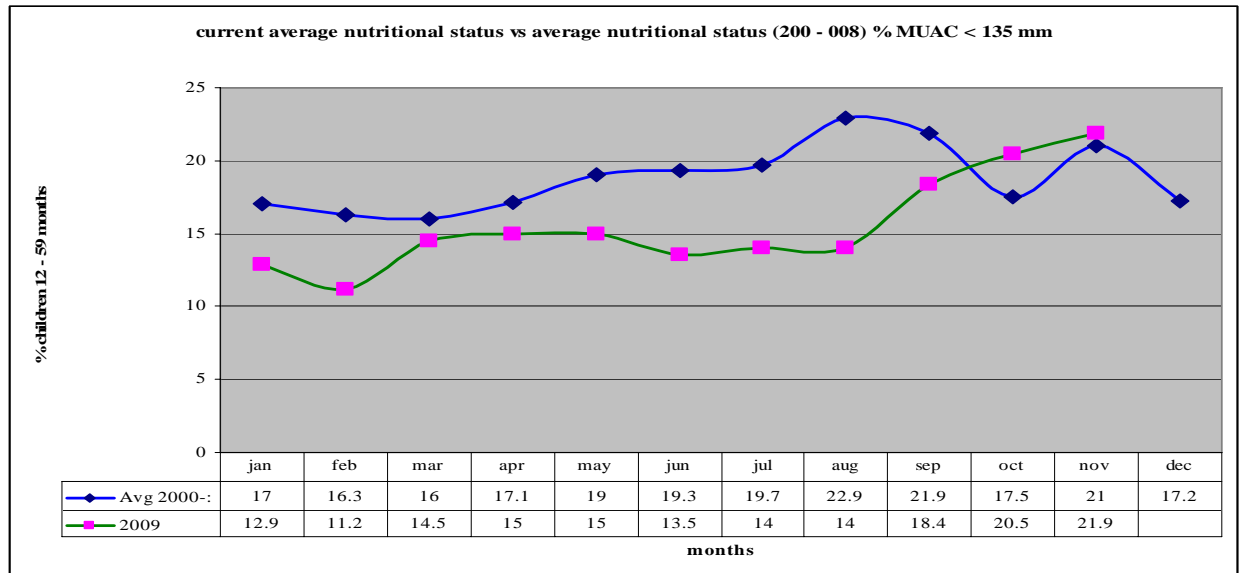
- Terms of trade improved by 5.1 % during the month from that of the previous month however it was above the long term mean by 69.7 %. The price ratio remained worse in pastoral, Agro-pastoral and irrigated cropping livelihood zones because of low prices offered for the livestock sales by the traders as compared to high prices to purchase cereals while it was lower in mixed farming livelihood zone owing to fair accessibility of cereals and better livestock prices in this area.
- The cereal: meat price ratio was not normal at this time of the year. For a pastoralist to purchase 90 kg sack of Posho which goes at an average price of Ksh4,800 market price, he/ she has to sell 5 (five) goats, that goes for an average of Ksh1000 at the moment to meet the price and the sack cannot last for even a month. This completely eroded the purchasing power of the people, hence depleting the asset level of the pastoralists each time animals are sold.

3.7 Implications on food security

The low prices of livestock offered coupled with the erosion of the peoples' purchasing power in the project area has depleted the asset level of the pastoralists through high number of animals sold to purchase foods hence a threat to the household food security.

4.0 Human welfare indicators (Utilisation of Food)

4.1 Nutrition status



N = 2,078 children

- The nutrition status of children below five years declined slightly during the month, with the percentage of those rated at the risk of malnutrition increasing to 21.9 % from 20.5 % the previous month. This was attributed to delay in distribution of relief food and lack of supplementary food for the children at the household level in the EMOP relief food distribution during the month for three months now.
- The level of malnutrition was highest in pastoral, irrigated cropping and Agro-pastoral livelihood zones and was lower in mixed farming livelihood zone. The nutrition status was worse at this time of the year than the long term mean.

4.2 Human health

- Cholera outbreak that claimed more than 26 lives occurred in Kapnyunguny, the border of East Pokot and Turkana south districts where Pokot pastoralists are currently grazing their cattle.
- Enteric fever upsurge was reported in Yatya, Lower Kipsaraman, Nginyang, Kolloa, Tangulbei, Mukutani and Churo divisions as a result of consuming dirty pools of water.
- Malaria upsurge was reported in Marigat, Nginyang and Kolloa divisions while chicken pox outbreak was reported in Yatya (Lower Kipsaraman division).
- The worsening nutrition status for the elderly and are at risk of perishing due to lack of supplementary food at the household level in the project area.

4.3 Flagged areas

- Pastoral, Agro-pastoral and irrigated cropping livelihood zones reported the highest malnutrition rates. These areas require particular attention.

5.0 Current interventions

5.1 Non-food interventions

The following programmes are ongoing in the project area and are meant to mitigate the disease, drought and famine stress in the project area.

- Water tankering in East Pokot – ALRMP/ Ministry of water.
- Rehabilitation of Kapau (Nginyang division), Sintaan (Marigat division) and Chemorongion (Mochongoi division) bore-holes – ALRMP.
- Excavation of water pans in anticipation of El-nino rains in the project area: Katikit (Nginyang division), Riongo (Mondi division), Sumutwo (Bartabwa division) and Ramacha (Mukutani division) – ALRMP.
- Capacity building for water pan, borehole management committees and DSG on drought management – ALRMP.
- Fuel relief for 22 boreholes in the project area – ALRMP.
- Campaign against cholera outbreak in East Pokot district – MOH/ MPHS/ Red Cross Society/ Catholic Mission East Pokot/ ALRMP/ World Vision Kolloa/ Kenya Army/ DC EAST POKOT.
- Peace building initiatives within the districts' of the project area by various stakeholders i.e. the PSC, DPC, DSC, World Vision, Community Elders, Youth groups, Political leaders, Pastors and ALRMP.

5.2 Food aid

- The EMOP relief food distribution phase 2 commenced in late May 2009 targeting the following number of population in the districts: - East Pokot – 47,423 (GFD), Baringo Central – 3,476 (FFA), Marigat – 13,975 (FFA) and Baringo North – 23,288 (FFA) persons. However, the number benefitting from the relief food is less compared to the number that is supposed to benefit according to the provisional district population census recently done. Also the relief food distribution has delayed for the last three months in Baringo: Central, North and Marigat districts and for two months in East Pokot district.

5.3 Other coping strategies

- The coping mechanisms employed by the vulnerable population in all the livelihood zones during the month were, migration of livestock in search of pasture and water, borrowing food from relatives, Reduction in size of meals and skipping some, eating wild foods and performing casual labour and petty trade. This was employed by majority of the sampled households while a few of the households sold their livestock. Compared to previous months, the situation is worsening and requires more percentage population coverage of Emergency Operation relief food distribution.

6.0 Recommendations to DSG and KFSM

- The veterinary department / Agencies should step up support to the livestock health sub sector through vaccinations and treatment of clinical cases. In particular, more efforts should be directed to investigate cases of Red water upsurge in goats; Bloody

mucus upsurge in sheep; Lumpy skin disease (LSD) upsurge in camels; sudden blinding in goats and Diarrhea upsurge in goats leading to deaths in the areas mentioned of the project area.

- The GOK and other Aid Agencies to put more efforts to ensure that communities in East Pokot, Baringo North, Baringo Central and Marigat districts are given continuous relief food supplies (GFD) and supplementary food for children and the elderly until the stress situation normalizes as malnutrition cases are rising, prices of food commodities are rising, animals are dying due to drought effects hence people cannot cope with the stresses; also milk production from animals declined drastically due to the drought effects that has persisted for a long period.
- There is need to strengthen conflict prevention and peace building initiatives to maintain the already achieved level of peace and further reduce it to the lowest level along the borders of East Pokot, Baringo, Marakwet, Turkana, Laikipia west and Samburu districts to enhance peaceful co-existence.
- The MOH/ MPHS/ Stakeholders should put more efforts to contain the cholera outbreak in East Pokot District and make efforts to supply more Ant malarial drugs in all the rural health facilities that are far from the District hospitals to cope with Malaria upsurge at the moment. Also investigate cases of Enteric fever upsurge and Chicken pox outbreak in the areas mentioned in the project area.
- The District Game Warden to put more efforts to ensure that Baboons, Hyenas, Lynx and Hunting dogs preying on the livestock in the mentioned areas in the project area are contained to save the pastoralists who are losing their animals daily. This has been an alarming scenario for some months now.

- **Warning Stages**

NORMAL: *Environmental, Livestock and pastoral welfare indicators show no unusual fluctuations and remain in the expected seasonal range.*

ALERT: *Environmental indicators show unusual fluctuations outside expected seasonal ranges. This occurs within the entire district, or within localised regions;
OR: Asset levels of households are still too low to provide an adequate subsistence level and vulnerability to food insecurity is still high.*

ALARM: *Environmental and livestock/agricultural indicators fluctuate outside expected seasonal ranges, affecting the local economy. This condition occurs in most parts of the district, and directly and indirectly threatens food security of pastoralists and/or agro-pastoralists.*

EMERGENCY: *All indicators are fluctuating outside normal ranges. Local production systems are collapsed as well as the dominant economy within the district. This situation affects the asset status and purchasing power of the population to an extent that welfare levels have been seriously worsened resulting in famine threat.*

