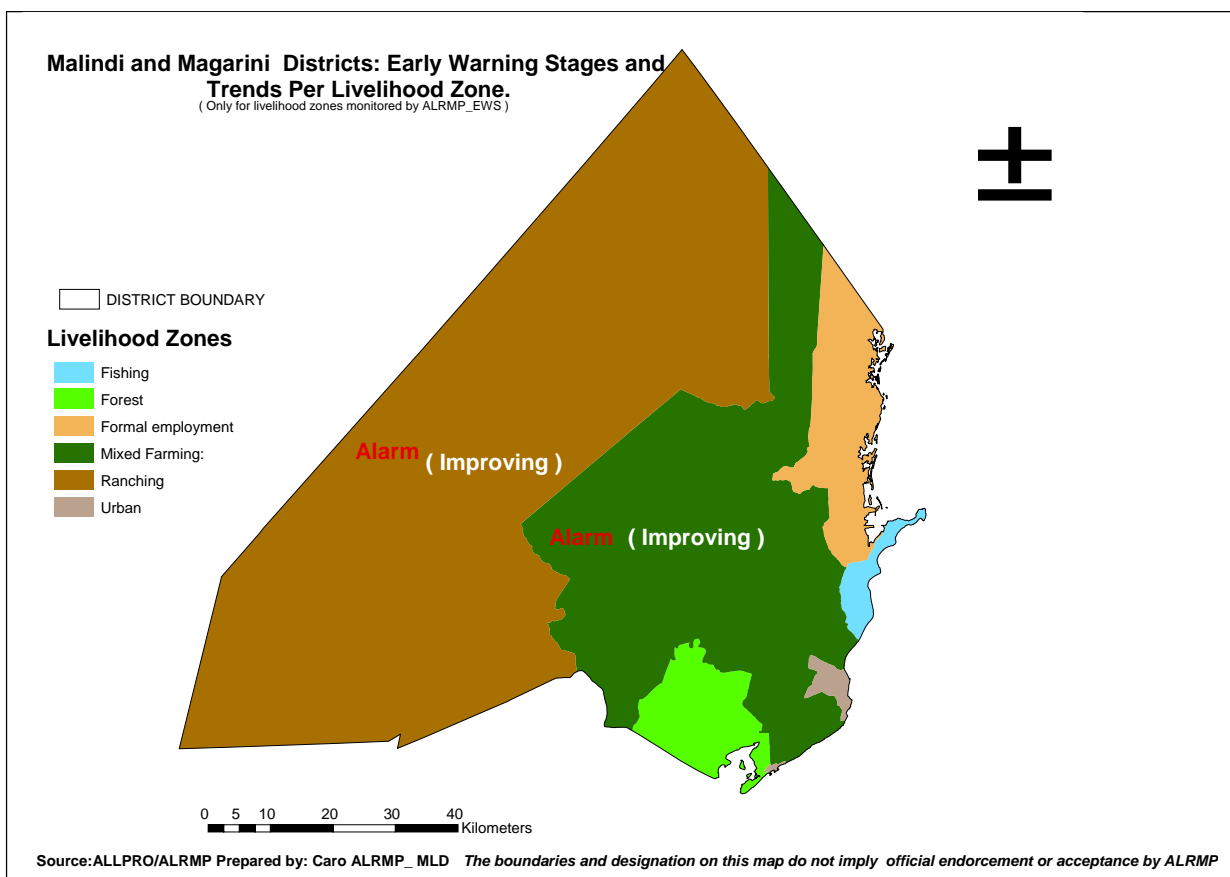




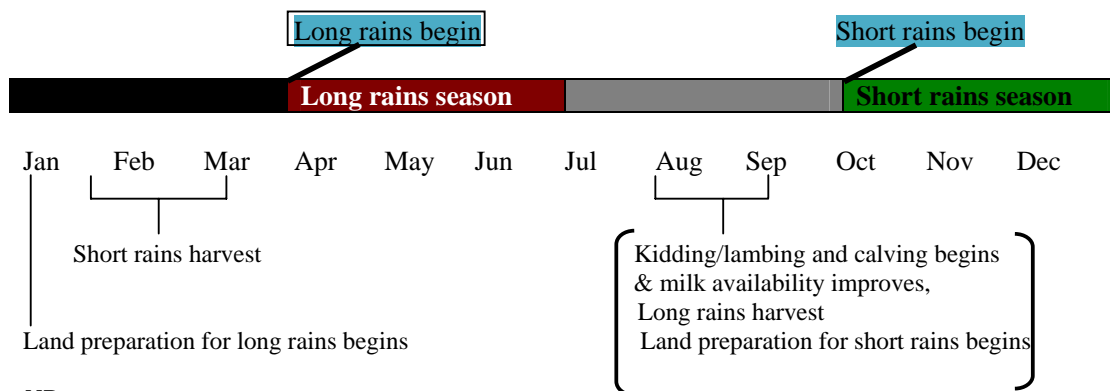
OFFICE OF THE PRIME MINISTER
MINISTRY OF STATE FOR THE DEVELOPMENT OF NORTHERN KENYA AND OTHER ARID LANDS
ARID LANDS RESOURCE MANAGEMENT PROJECT II

DROUGHT MONITORING BULLETIN, DECEMBER 2009

Malindi & Magarini Districts



Seasonal Calendar & Critical Events



NB.

- Malindi district has a bimodal rainfall pattern
- Long rains fall between April and July while short rains fall between October and December

Situation overview

- The month under review usually marks the end of the short rains season in the district. An average of 69.5mm of rain was received in December 2009 compared to 216mm in November, representing a 67.8% reduction. Most of the rain was received in the hinterlands of the district.
- Further improvement in the condition and availability of pasture and natural vegetation for livestock during the month across all livelihood zones was seen during the month. Consequently, the average distance to the nearest grazing fields reduced by 14.7% i.e. from 3.4km in November to 2.9km.
- The average return distance to the nearest community water sources increased from 1.4km in November to 2.5km owing to reduced amounts of rains received during the month under review. Most seasonal streams which are close to settlements were not able to recharge with adequate amounts of rain water.
- Livestock body condition continued to improve during the month owing to reduced distances to grazing fields and water sources across all livelihood zones. Improved livestock body condition was more evident in small stock than in large stock.
- Households displaced by flash floods in October were still living in IDP camps in Fundissa location. Only a few had gone back to their villages.
- An upsurge in tourist numbers (domestic and international) in Malindi district during the festive season had a positive impact on general food security of tourism depended households.
- The average daily milk production by sampled households across the district improved due to availability water and pasture and decreased distances to water and pasture sources. More milk was produced in the livestock farming zone compared to the mixed farming zone.
- Food crops along the coastal belt wilted beyond possible rejuvenation due to poor rains. However, crops in other parts of the mixed farming zone were in silking and milking stages. More rains are needed to take them to maturity stage.
- The average cattle price increased by 23.6% during the month from Ksh7,394 in November to Ksh 9142 while that of goats rose from Ksh983 in November to Ksh1,015. The increase in the livestock prices could be attributed to a high demand for animals during the December holiday/festive season.
- Daily household milk consumption increased by 124% i.e. from 31 bottles of 750ml capacity in November to 69.5 bottles of the same capacity in December owing to increased production.
- Average district maize price rose marginally from Ksh37 in November to Ksh38.40. This was attributed to dwindling long rains maize stocks at household level. Prices were higher in the livestock farming zone and lower in the mixed farming zone.
- Casual labour was the major source of income for many households across all livelihood zones, followed by sale of charcoal and livestock. More livestock was sold in December 2009 compared to the previous month i.e. 42 heads of cattle, 226 goats and 125 poultry compared to 10 heads of cattle, 113 goats and 106 poultry in November 2009.
- There was a further reduction in the number of children who were at risk of malnutrition during the month, from 12.3% in November 2009 to 11.2% in December 2009. This scenario was attributed to an improving food security situation across all livelihood zones

Recommendations to DSG and KFSM

- Close monitoring of health conditions in IDP camps in Fundissa location following sporadic cases of diarrhea and vomiting.
- Short & medium term sectoral interventions to support livelihoods (food & non-food interventions).

Current interventions

Food aid

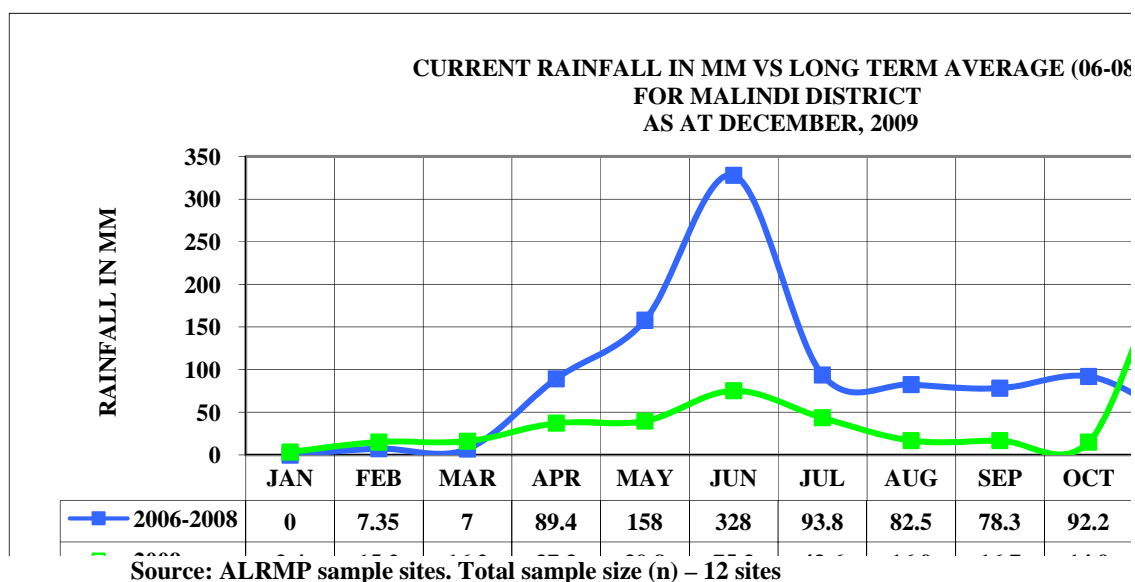
- Distribution of 600 bags of maize, 300 bags of rice, 295 bags of beans and 300 cartons of vegetable oil to households displaced by flash floods in Magarini district.
- Supplementary feeding for under-5s through 17 government health facilities.
- Distribution of 1,000 bags of maize to vulnerable communities in Magarini district.
- Distribution of 1,329 bags of maize, 6023 bags of corn meal, 640 bags of pulses and 520 cartons of cooking oil to 29000 people under the WFP Emop programme.
- Continued EMOP GOK/WFP relief food operations on food-for-asset (FFA) basis.

Non-food interventions

Treatment of water sources in the two districts to prevent occurrence of waterborne diseases.

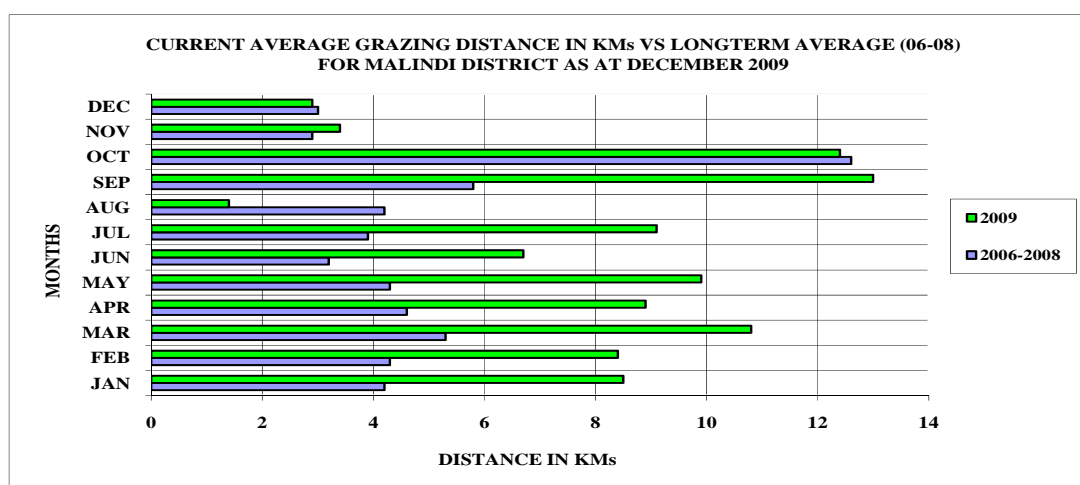
1.0 Environmental Indicators (Stability)

1.1 Rainfall



- The month under review usually marks the end of the short rains season in the district. The district received a total of 69.5mm of rain in December compared to 216mm in November 2009, representing a 67.8% reduction.
- These rains were mostly experienced in the district hinterlands i.e. mixed farming zone and parts of the livestock farming zone. Very little rain was received along the coastal belt.
- The amount was 41.7% above the long term average.
- The intensity of the rains was low in many parts of the livestock farming zone.

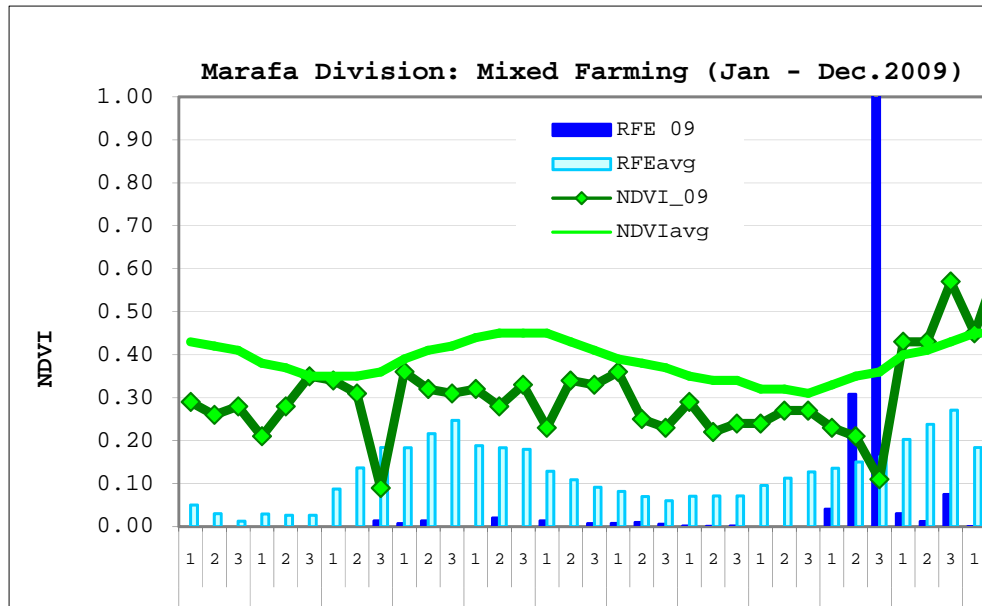
1.2 Condition of natural vegetation and pasture



- There was a further improvement in the availability of pasture and natural vegetation for livestock during the month across all livelihood zones.
- The average distance to the nearest grazing fields reduced by 14.7% during the month under review i.e. from 3.4km in November to 2.9km in December. Pasture and natural vegetation

was therefore available within shorter distances during the month compared to the previous month. This scenario was normal during this time of the year.

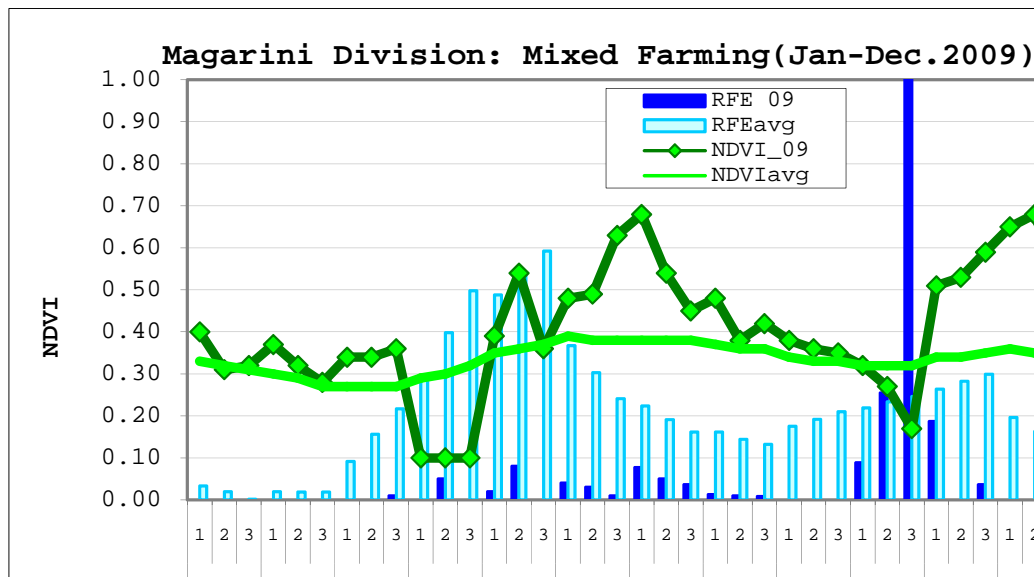
**Normalized Difference Vegetation Index (NDVI) & Rainfall Estimate (RFE)
Marafa Division - Comparatively Worst Case Scenario**



Source: FEWSNET/ADDS

- The pasture and natural vegetation condition in Marafa division fluctuated throughout the month as a result of intermittent rains experienced in the region
- Although the condition in the division is considered as the worst case scenario for Malindi/Magarini district during the month, the situation was above the long term average.

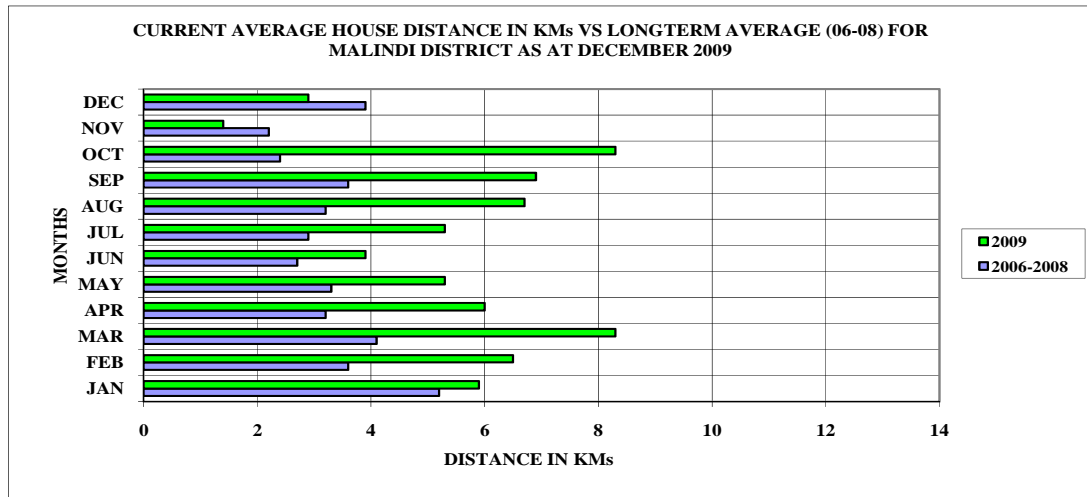
**Normalized Difference Vegetation Index (NDVI) & Rainfall Estimates
Magarini Division - Comparatively Best Case Scenario**



Source: FEWSNET/ADDS

- The quality and quantity of pasture and natural vegetation in Magarini division improved in the first and second dekads of the month but deteriorated in the third dekad. The pasture condition was above the long term average.

1.3 Water sources and availability



Source: ALRMP sample sites. Total sample size (n) 240 households

- The average return distance to the nearest community water sources increased from 1.4km in November to 2.5km due to reduced amounts of rains received during the month under review. Most seasonal streams which are close to settlements were not able to recharge with adequate amounts of rain water, hence the increased distances.
- Households in the livestock farming zone accessed water for domestic use within longer distances compared to those in the mixed farming zone. However, the distances were shorter than the long term average across all livelihood zones.
- River Sabaki, boreholes (Marafa, Kadzandani, Adu, Yedhi and Majengo boreholes), dams and pans were the main sources of water in the last four weeks.

1.4 Emerging issues

An upsurge in tourist numbers (domestic and international) in Malindi district during the festive season had a positive impact on general food security of tourism depended households.

1.4.1 Insecurity/Conflict/Human displacement

Households displaced by flash floods in October 2009 were still living in IDP camps in Fundissa location. Only a few had gone back to their villages.

1.5 Implications on food security

- Dwindling amounts of rainfall experienced during the month posed a threat to food security in the mixed farming zone as most food crops in fields need more moisture to take them to maturity. Affected areas include Dagamra, Garashi and Adu locations in Marafa division. Crops in other parts of the two districts have dried up beyond possible rejuvenation.
- Improved pasture and natural vegetation and shorter distances to grazing fields across all livelihood zones impacted positively on food security as milk production improved.

2.0 Rural economy indicators (Food availability)

2.1 Livestock production

2.1.1 Livestock body condition

Livestock body condition continued to improve during the month under review owing to reduced distances to grazing and water sources across all livelihood zones. Improved livestock body condition was more evident in small stock than in large stock. The observed livestock condition is normal during this time of the year.

2.1.2 Milk production

The average daily milk production by sampled households across the district improved due to availability water and pastures and decreased distances to water and pasture sources. Average milk production increased by 23.4% from 67.5 bottles (750ml) in November to 83.3 bottles. More milk was produced in the livestock farming zone (434 bottles) compared to the mixed farming zone (66 bottles).

2.2 Crop production

2.2.1 Timeliness and status of crop production activities

- Most food crops along the coastal belt wilted beyond possible rejuvenation due to poor rains. However, crops in other parts of the mixed farming zone were in silking stage during the month. More rains are needed to take them to maturity stage.
- The following were the main field activities in the mixed farming zone during the month;
 - Weeding in food crops in the mixed farming zone
 - Transplanting of vegetables in irrigated farms along the riverine areas.
 - Harvesting and marketing of mangoes along the coastal belt.

2.2.2 Pests and diseases

Early planted maize was affected by maize stalk borer. Farmers were advised accordingly by the department of Agriculture.

2.2.3 Harvests

Harvesting of cassava, coconut, watermelons, green maize, green leafy vegetables and bananas grown along the riverine areas in the mixed and livestock farming zones was recorded during the month. These were sold in local markets.

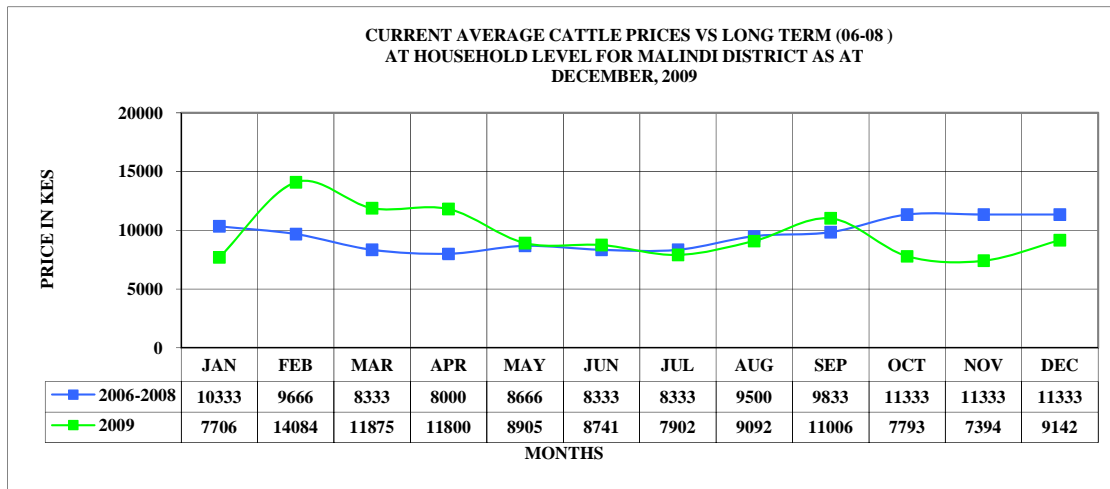
2.3 Implications on food security

Improved livestock body condition and increased milk production had a positive impact on household food security in both livelihood zones. Household food security in the lower parts of the mixed farming zone improved further with the harvesting of various cash and food crops i.e. cassava, coconut, watermelons, green maize, green vegetables and bananas as indicated above.

3.0 Access to food

3.1 Livestock marketing

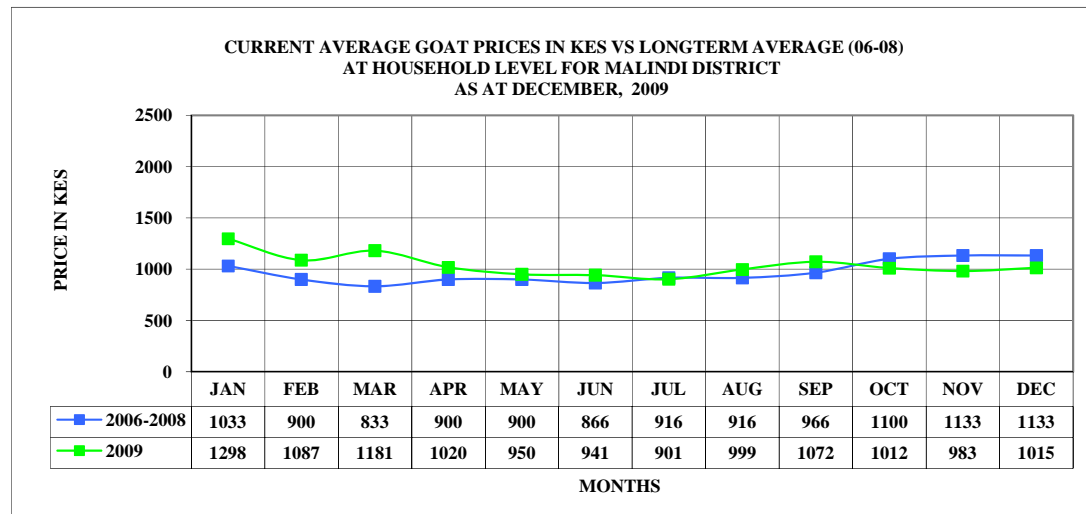
3.1.1 Cattle prices



Source: ALRMP sample sites. Total sample size (n) 240 households

- The district monthly average cattle price increased by 23.6% during the month under review, from Ksh7,394 in November to Ksh9142. There were salient inter-livelihood zone price differences where average prices were higher in the livestock farming zone at KES 11500 compared to the mixed farming zone at Ksh 6785. The average price was, however, below the long term average.
- The increase in the monthly district average price could be attributed to a high demand of animals during the December holiday/festive season.

3.1.2 Goat prices



Source: ALRMP sample sites. Total sample size (n) 240 households

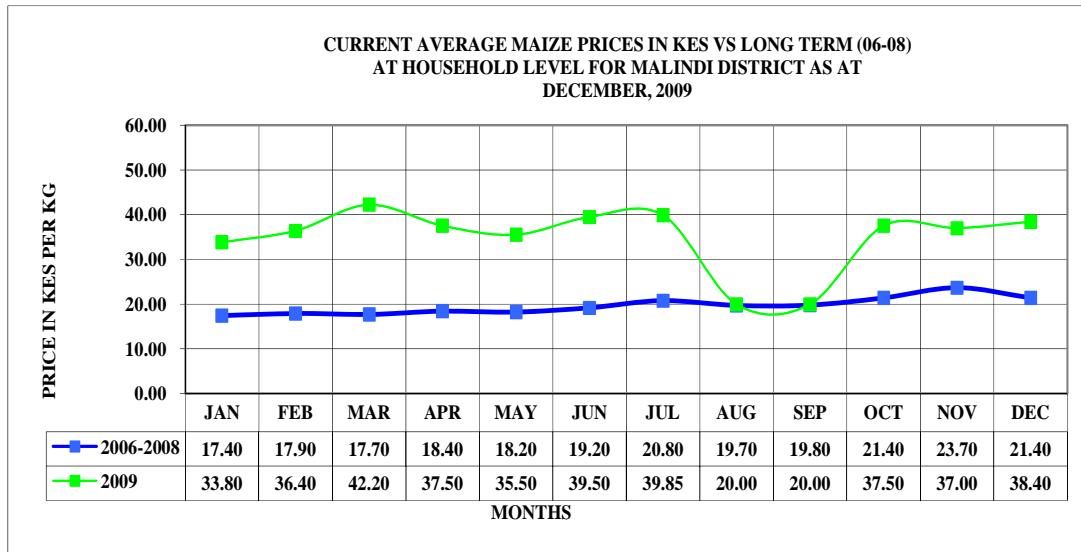
There was a 3.3% appreciation in the district average goat price during the month, from Ksh983 in November to Ksh1,015 in December. The increase was reflected across all livelihood zones. Prices were higher in the livestock farming zone at Ksh1077 and lower in the mixed farming zone at Ksh952 (Dakacha sub location). As in cattle above, the increase could be attributed to a high demand for goats during the December holiday/festive season.

3.2 Milk consumption

Daily household milk consumption increased by 124% i.e. from 31 bottles of 750ml capacity in November to 69.5 bottles of the same capacity in December owing to increased production during the month.

3.3 Crop prices

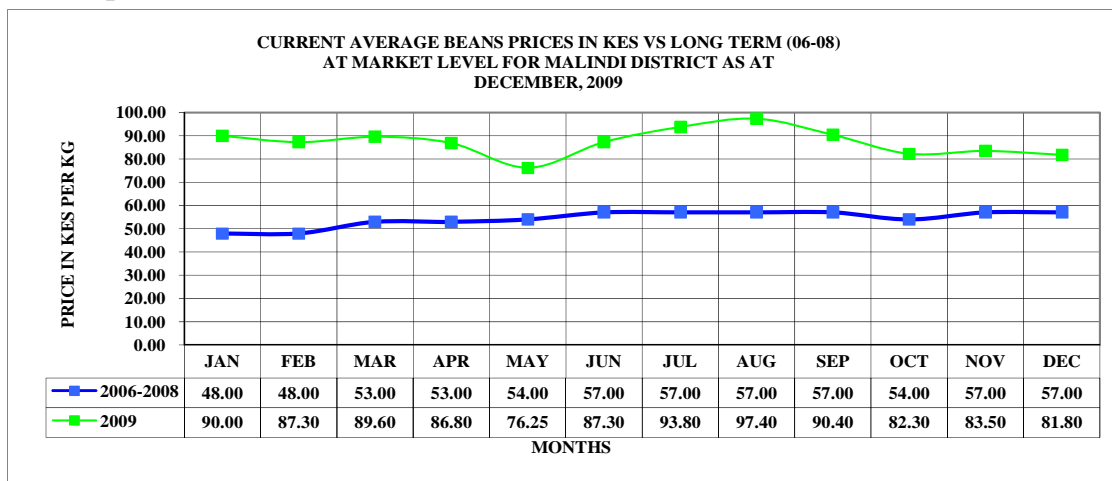
3.3.1 Maize prices



Source: ALRMP sample sites. Total sample size (n) 240 households

The average district maize price rose marginally during the month from Ksh37 in November to Ksh38.40 in December, representing a 3.8% increase. The increase was attributed to dwindling maize stocks at household level across all livelihood zones. Prices were higher in the livestock farming zone and lower in the mixed farming zone.

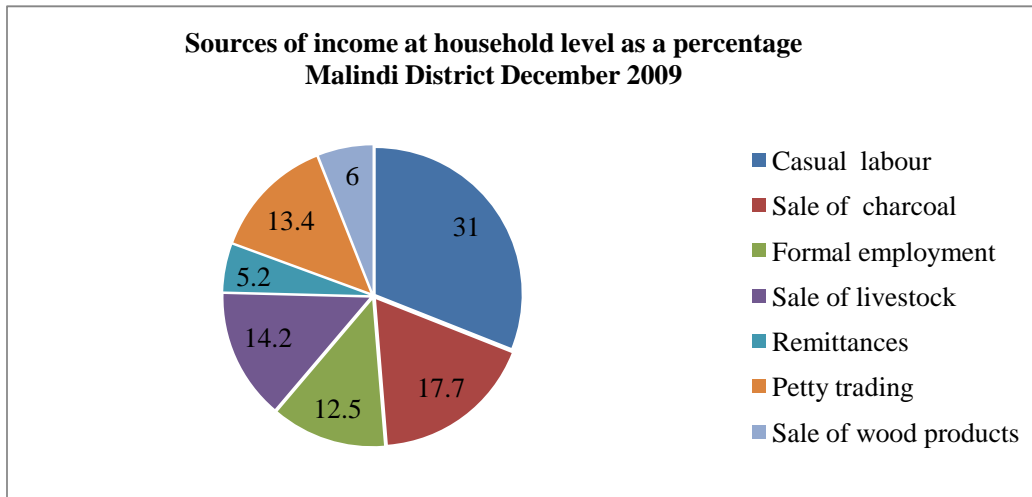
3.3.2 Beans prices



Source: Retail markets in 8 EWS sample areas

The district average beans price at the market level reduced by 2% during the month under review i.e. from Ksh83.50 in November to Ksh81.80. The increase was attributed to a general increase in supply of beans at the market level, mainly from outside the district. The district does not produce significant amounts of beans.

3.4 Income



Source: ALRMP sample sites. Total sample size (n) 240 households

- Casual labour was the major source of income for many households across all livelihood zones, followed by sale of charcoal and livestock. Less households (17.7%) gained income from the sale of charcoal during the month compared to the previous month (23.1%).

3.4.1 Livestock income

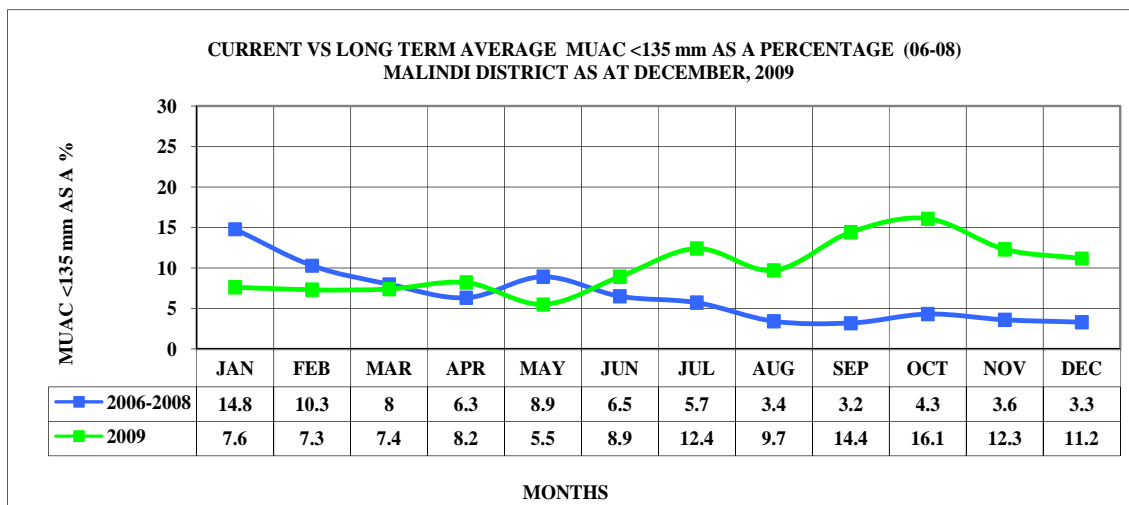
- There was an increase in the number of sampled households which traded in livestock and livestock products during the month, from 10% in November to 14.2%. This coupled with high livestock prices indicates that income from the sale of livestock and livestock products increased across all livelihood zones.
- Sampled households sold more livestock in December compared to the previous month i.e. 42 heads of cattle, 226 goats and 125 poultry compared to 10 heads of cattle, 113 goats and 106 poultry in November 2009. The mixed farming zone contributed 67% of the total district livestock and livestock product sales compared to 33% by the livestock livelihood zone.

3.5 Implications on food security

Increased milk production and consumption, coupled with high livestock sales and prices impacted positively on household food security across all livelihood zones. Household income from various sources was used to purchase food items although the prices were slightly higher compared to the previous month.

4.0 Human welfare indicators (Utilisation of food)

4.1 Nutrition status



Source: ALRMP sample sites. Total sample size (n) 240 households

- There was a further reduction in the number of children rated at risk of malnutrition during the month, from 12.3% in November to 11.2%. This represents a 9% decline compared to the previous month.
- The livestock farming zone recorded the highest rate at 15.7% compared to 6.7%. This was a marked improvement from 18.3% and 6.3% in the livestock farming and mixed farming zones respectively in the previous month. This scenario was attributed to improving food security across all livelihood zones.

4.2 Human health

- Cases of mild diarrhea and vomiting were reported in camps for people displaced by flash floods in Fundissa location. The situation was, however, contained by the relevant authorities.

4.3 Flagged areas (Areas facing food insecurity)

- The following were the flagged areas during the month, Chakama location (livestock farming zone) and Adu, Bungale, and Langobaya locations (mixed farming zone).

5.0 Current interventions

5.1 Non-food interventions

Type of intervention	Donor/Implementing Agency
Environmental health trainings and awareness campaigns	ALRMP & MoH
Food for assets (FFA) activities in Langobaya, Marafa and Magarini divisions.	Kenya Red Cross Society
Water trucking to households displaced by floods in Fundissa location in Magarini district	ALRMP
Treatment of water sources in the two districts to prevent occurrence of waterborne diseases	ALRMP & MoH
Training of farmer groups in Malindi district on goat breed improvement	ALRMP & Livestock Dept

5.2 Food aid

Type of Intervention	Donor/Implementing Agency
Distribution of 600 bags of maize, 300 bags of rice, 295 bags of beans and 300 cartons of vegetable oil to households displaced by flash floods in Magarini district	Office of the President (Special Programmes)
Distribution of 1000 bags of maize to vulnerable communities in Magarini district	Office of the President (Special Programmes)
Distribution of 1329 bags of maize, 6023 bags of corn meal, 640 bags of pulses and 520 cartons of cooking oil to 29000 people under the WFP Emop programme	WFP/GoK

5.3 Coping strategies

The coping strategy index (CSI) during the month under review was 2.5 compared to 2.8 in the previous month. The CSI was high in the livestock farming zone at 3.4 compared to 1.7 in the mixed farming zone. The main coping mechanisms practiced at household level were;

- Reduction in number of meals per day.
- Purchase of food on credit.
- Reducing size of meals.
- Restricted consumption of food by adults to allow more for children.

6.0 Recommendations to DSG and KFSM

A. Food interventions

Type of Recommendation	Action
Continued EMOP GOK/WFP relief food operations in flagged areas	GoK/WFP
Provision of relief food to flood victims (approximately 600 households) in Fundissa and Marafa locations	GoK

B. Non-food interventions

Type of Recommendation	Sector
Close monitoring of health conditions in IDP camps in Fundissa location following sporadic cases of diarrhea and vomiting	MoH
Encourage farmers to prepare more land for crop production during the 2010 long rains season.	Agriculture