

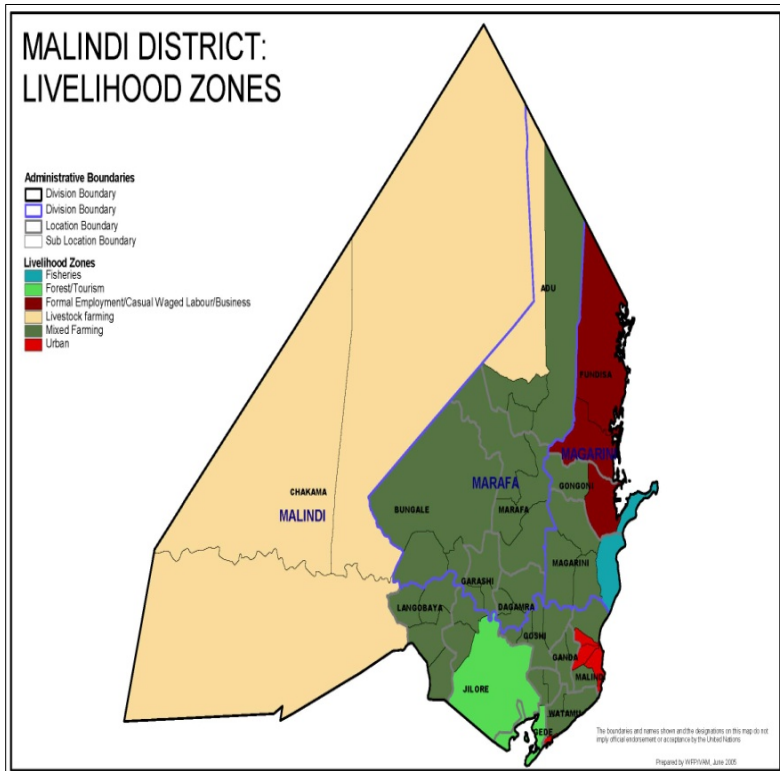


**OFFICE OF THE PRIME MINISTER
MINISTRY OF STATE FOR THE DEVELOPMENT OF NORTHERN KENYA AND OTHER ARID LANDS
ARID LANDS RESOURCE MANAGEMENT PROJECT II**

DROUGHT MONITORING BULLETIN, OCTOBER 2009

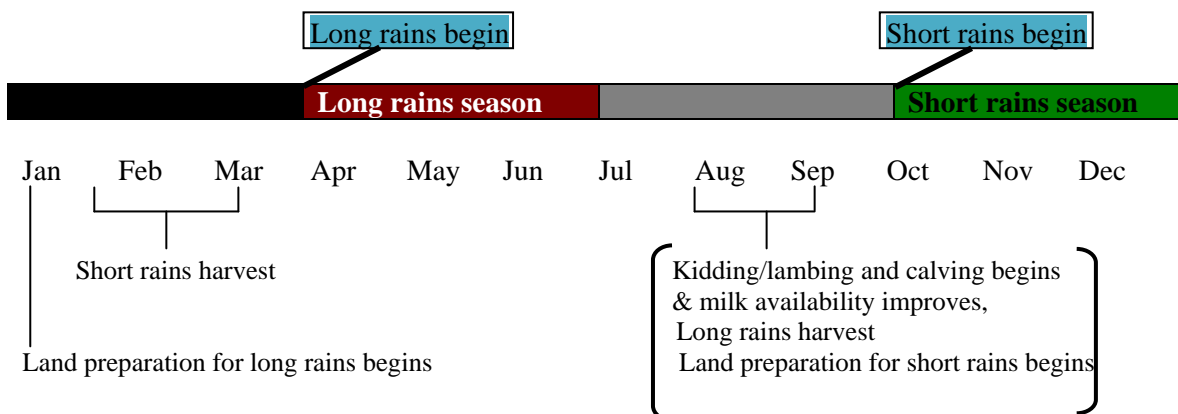
Malindi & Magarini Districts

Warning stages



Livelihood Zone	Stage	Trend
Mixed farming	Alarm	Worsening
Ranching/Livestock	Alarm	Worsening
District	Alarm	Worsening

Seasonal Calendar



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 beginning of the short rains season in the district. However, the district experienced warm conditions almost throughout the month of October except for the last week of the month when the district received heavy rains. The amount of rainfall recorded between 13th September and 13th October 2009 reduced by 10.8%, from 16.7mm in September 2009 to 14.9mm in October 2009, with a temporal distribution of 2 days.
- There was a slight improvement in availability of pasture and natural vegetation for livestock during the month, particularly in the mixed farming zone. The average distance to the nearest grazing fields reduced by 4.6% i.e. from 13km in September 2009 to 12.4km in October 2009.
- River Sabaki, boreholes and one community earth dam were recorded as the main sources of water in the last four weeks. Other surface water sources dried up during the month, particularly in the livestock farming zone as a result of the dry spell which also caused a dwindle in amount of water in boreholes.
- The average distance to the nearest water source increased from 6.9 km in September 2009 to 8.3km during the month under review. Lack of water and increased distances to water sources led to massive water trucking to areas in the livestock and mixed farming zones. Most of the water was trucked to institutions i.e. schools and health centres and in some instances to communities
- Livestock body condition was poor in the livestock farming zone i.e. Chakama location. However, the general body condition of all livestock types was fair in many areas of the mixed farming zone as animals were able to access pasture and water.
- The quarantine imposed on movement of animals in some parts of the district in July 2009 following reports of a foot and mouth disease outbreak was lifted during the month. Livestock farmers can now transport their animals outside the district.
- Households continued preparing their farms in the last four weeks in readiness for the short rains planting. Planting was expected to begin in the last two weeks of the month, but was interrupted by flash floods.
- There was a decline in the district monthly average cattle price from Ksh11,006 in September to Ksh7,793 representing a 29.2% decrease. Prices were higher in the livestock farming zone compared to the mixed farming zone i.e. Ksh10,585 and Ksh5,000 respectively. This was attributed to a high supply of animals offered for sale by households particularly in the livestock farming zone. Goat prices depreciated marginally from Ksh 1072 in September 2009 to Ksh1012 in October 2009, thereby representing 5.6% decrease owing to the same reason mentioned above.
- The average district maize price increased during the month from Ksh20 in September 2009 to Ksh37.50 during the month under review owing to inadequate stocks from won production and lack of supplies in local markets.
- Casual labour was the major source of income for many households across all livelihood zones, followed by sale of charcoal and formal employment. Casual labour activities, however, dropped during the month owing to low processing activities in salt firms as the rain season began.
- There has been a steady increase in the number of children who are at risk of malnutrition in the district since August 2009. The number of children who were at risk of malnutrition increased during the month, from 14.4% in September 2009 to 16.1% in October 2009.
- Flagged areas include Chakama location (livestock farming zone) and Adu, Bungale, and Langobaya locations (mixed farming zone).

Recommendations to DSG and KFSM

- Continued EMOP GOK/WFP relief food operations. Food-for-asset (FFA) aid distribution to target more beneficiaries.

Food interventions

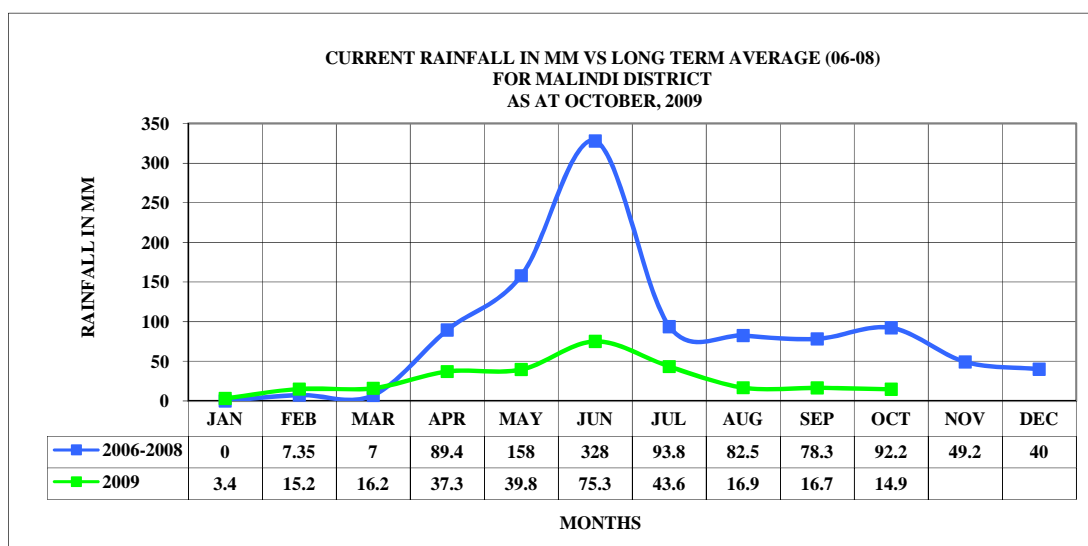
- Supply of 1,800 bags of rice, 280 bags of beans, 400 cartons of oil and 1500 bags of maize to vulnerable households in Malindi and Magarini districts.
- Supplementary feeding for under-5s through 17 government health facilities i.e. 16.151 metric tons of Unimix and 1.768 metric tons of vegetable oil was distributed during the month.
- School feeding programme targeting 94 primary schools.

Non food interventions

Water trucking to schools in Marafa division to support school feeding programme.

1.0 Environmental indicators (Stability)

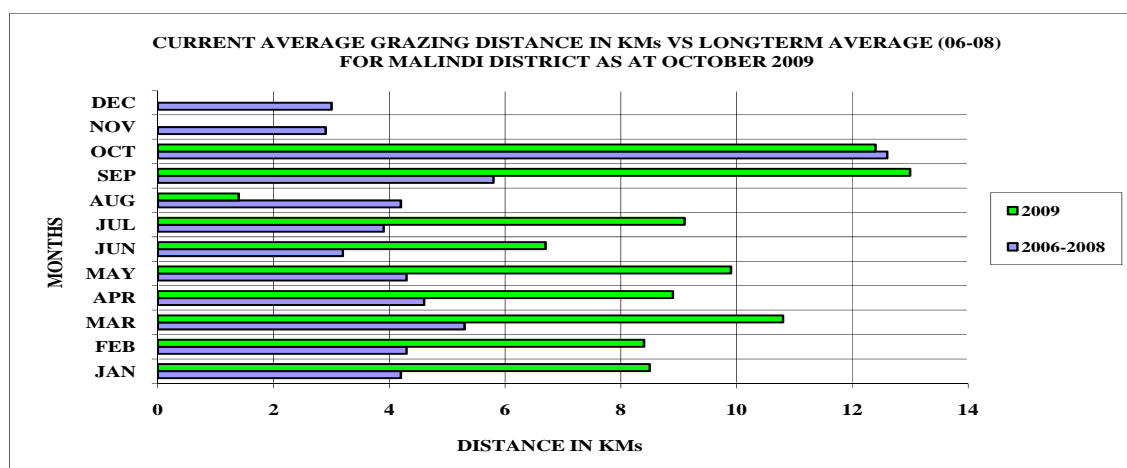
1.1 Rainfall



Source: ALRMP sample sites. Total sample size (n) – 12 sites

- The month under review usually marks the beginning of the short rains season in the district. However, the district experienced warm conditions almost throughout the month of October except for the last week of the month when the district received heavy rains. For the purposes of this report, the rainfall data was collected before the onset of the rains in the last week of the month i.e. 15th September to 15th October 2009.
- There was a significant reduction (83.8%) in the amount of rainfall received in the district during the month compared to the long term mean (LTM). On month by month basis, the amount of rainfall reduced by 10.8% during the month under review, from 16.7mm in September 2009 to 14.9mm in October 2009, with a temporal distribution of 2 days.
- There were no rains in the livestock farming zone.

1.2 Condition of natural vegetation and pasture



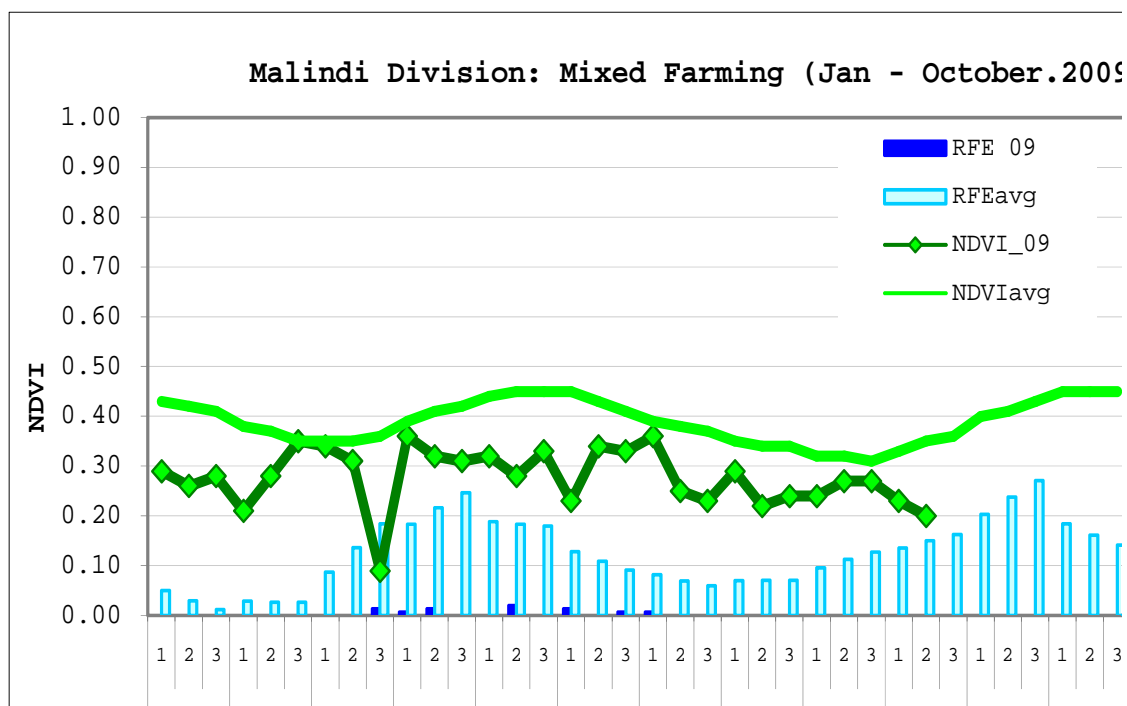
Source: ALRMP sample sites. Total sample size (n) 240 households

- There was a slight improvement in availability of pasture and natural vegetation for livestock during the month, particularly in the mixed farming zone. The average distance

to the nearest grazing fields reduced by 4.6% i.e. from 13km in September 2009 to 12.4km in October 2009.

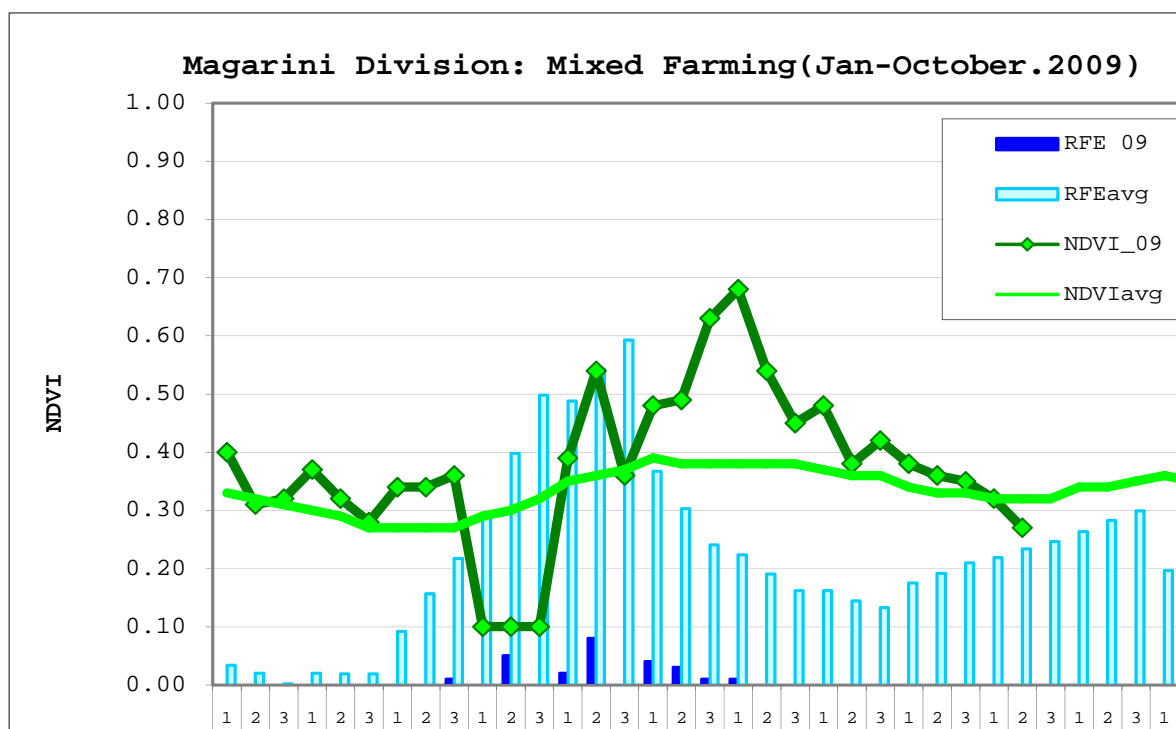
- On average, livestock walked for slightly shorter distances in search of browse during the month compared to previous month of September 2009.
- Areas which continued to face pasture shortages include Kisiki, Matolani sub locations in the livestock farming zone and parts of Bungale location in the mixed farming zone.
- The scenario is not normal during this time of the year as the average grazing distance was longer than the (LTM) long term mean.

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



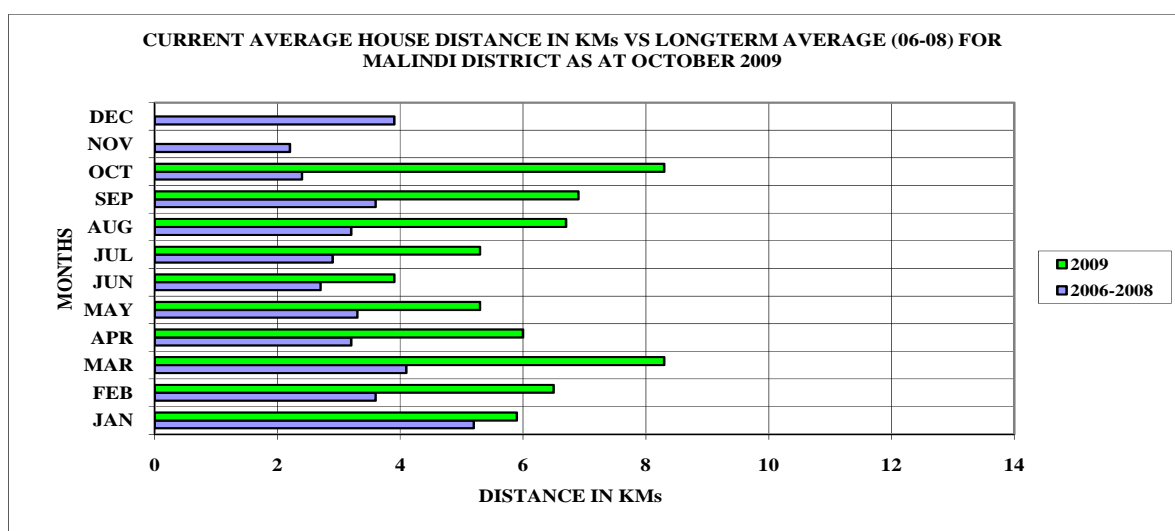
- The quantity of pasture and browse in Malindi division deteriorated in the first and second dekads of October 2009 as a result of a prolonged dry spell. The division hosts the livestock farming zone where pasture and natural vegetation was very poor.
- As indicated elsewhere in this report, the overall pasture condition in these areas was below the long term average.

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



- The pasture and natural vegetation condition in Magarini division in the mixed farming zone declined significantly in the first and second decades of the month as indicated in the above graph, owing to reduced moisture.
- The overall scenario was below the long term average.

1.2 Return distances to water sources



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

- River Sabaki, boreholes (Marafa, Kadzandani, Adu, Yedhi and Majengo boreholes), dams and pans were recorded as the main sources of water in the last four weeks. Only one dam in the district (Kaguguta in GIS) provided water for a significant number of households in

Marafa location. Other surface water sources dried up during the month particularly in the livestock farming zone as a result of the dry spell which also caused a dwindle in amount of water in boreholes.

- The average distance to the nearest water source increased from 6.9 km in September 2009 to 8.3km during the month under review.
- Areas affected by water shortages during the month included Chakama location in the livestock farming zone and Marafa, Magarini, Bungale and Adu locations in the Mixed farming zone. ALRMP continued to supply water to schools and health centres in these areas.
- The above scenario was not normal at the time of the year since the distance was longer than the long term mean.

1.4 Emerging issues

- Lack of water and increased distances to water sources led to massive water trucking to areas in the livestock and mixed farming zones. Most of the water was trucked to institutions i.e. schools and healthy centres and in some instances to communities.

1.4.1 Insecurity/Conflict/Human displacement

- None

1.4.2 Migration

- A few livestock herders from the livestock farming zone moved their animals to some pasture rich areas in the mixed farming zone i.e. along the coastal strip.

1.4.3 Other factors affecting livelihoods

- None

1.5 Implications on food security

- The rains received during the month along the coastal belt were crucial for the growth of legumes and late planted maize. This had a positive impact on food security along the region.
- Poor pasture and natural vegetation and long distances to grazing fields in the livestock farming zone poses a threat to the overall food security situation in this zone.

2.0 Rural economy indicators (Food availability)

2.1 Livestock production

2.1.1 Livestock body condition

- Due to inadequate pasture and natural vegetation in the livestock farming zone, the body condition of cattle was poor i.e. Chakama location. However, the general body condition of all livestock types was fair in many areas of the mixed farming zone as animals were able to access pasture and water.
- The observed livestock condition was not normal during the time of the year.

2.1.2 Livestock diseases

- The quarantine imposed on movement of animals in some parts of the district in July 2009 following reports of a foot and mouth disease outbreak was lifted during the month. Livestock farmers can now transport their animals outside the district.
- The veterinary department in the two districts carried out a vaccination exercise against Rift Valley fever.

2.1.3 Milk production

- The average milk production by sampled households across the district continued to dwindle due to inadequate water and pasture and increased distances to water and pasture sources. The reduction has been sustained since June 2009.
- Average milk production reduced by 8.2% from 57.5 bottles of 750mm capacity in September 2009 to 53 bottles in October 2009.
- More milk was produced in the mixed farming compared to the livestock farming zone i.e. 82 bottles and 33 bottles respectively. Pasture condition and general livestock body condition was fair in the mixed farming zone compared to the livestock farming zone.

2.2 Crop production

2.2.1 Timeliness and status of crop production

- Households continued preparing their farms in the last four weeks in readiness for the short rains planting. Planting was expected to begin in the last two weeks of the month.
- Vegetable grown under irrigation along the river basin continued doing well. A lot of it was sold in local markets.
- The following were the main field activities in the mixed farming zone during the month;
 - Land preparation for the short remains season.
 - Post harvest management of harvested maize.
 - Planting of maize in community irrigation schemes.
 - Transplanting of vegetables in irrigated farms along the riverine areas.
 - Harvesting and marketing of maize (green) and vegetables grown under irrigation
 - Nursery management for vegetables.

2.2.2 Pests and diseases

- Maize stalk-borer affected crop in irrigated farms in the mixed farming zone. Farmers were advised accordingly by the department of Agriculture.

2.2.3 Harvests

- Harvesting of 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.

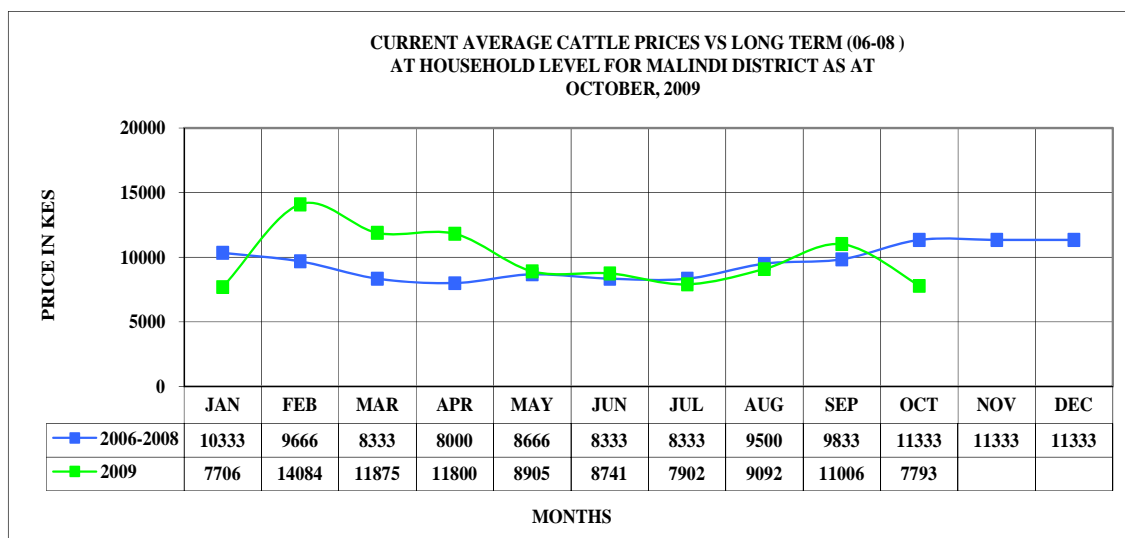
2.2.4 Implications on food security

- Poor long rains crop yields during the just ended harvesting period in the livestock farming zone and some parts of the mixed farming zone affected food security. Poor household food security status in the livestock farming zone was also exacerbated by low milk yields.

3.0 Access to food

3.1 Livestock marketing

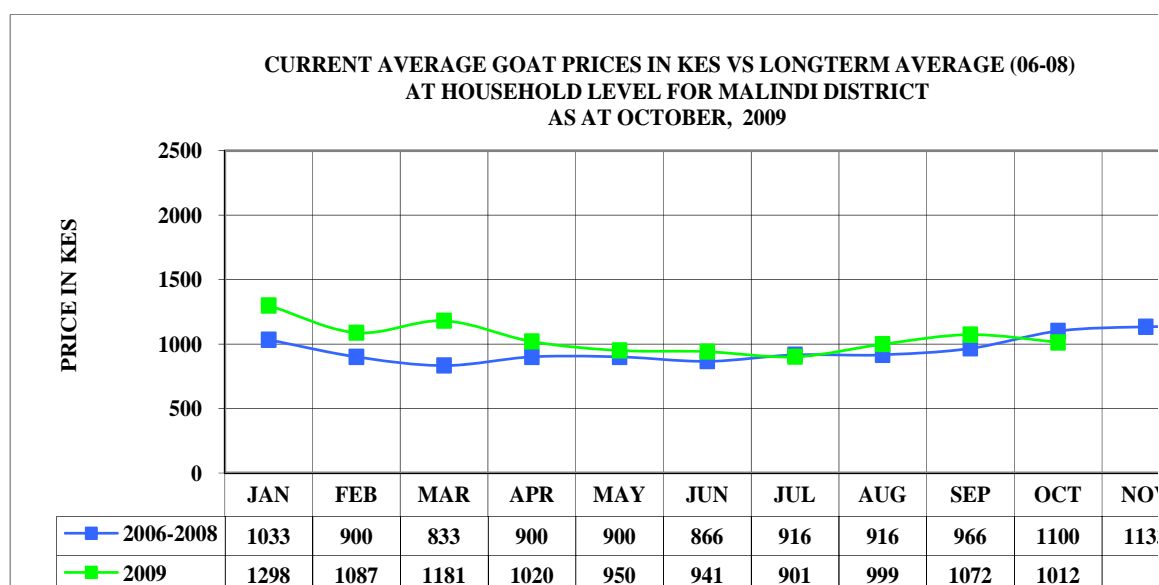
3.1.1 Cattle prices



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

- There was a decline in the district monthly average cattle price from Ksh11,006 in September 2009 to Ksh7,793 in October, representing a 29.2% decrease. Prices were higher in the livestock farming zone compared to the mixed farming zone i.e. Ksh10,585 and Ksh 5,000 respectively.
- The monthly average price was also 31.2% below the long term average (LTM).
- The decrease in the monthly district average price could be attributed to a high supply of animals offered for sale by households particularly in the livestock farming zone.
- This scenario was not normal during the time of the year.

3.1.2 Goat prices



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

- The district average goat price depreciated marginally from Ksh1072 in September to Ksh 1012 in October, representing 5.6% decrease.

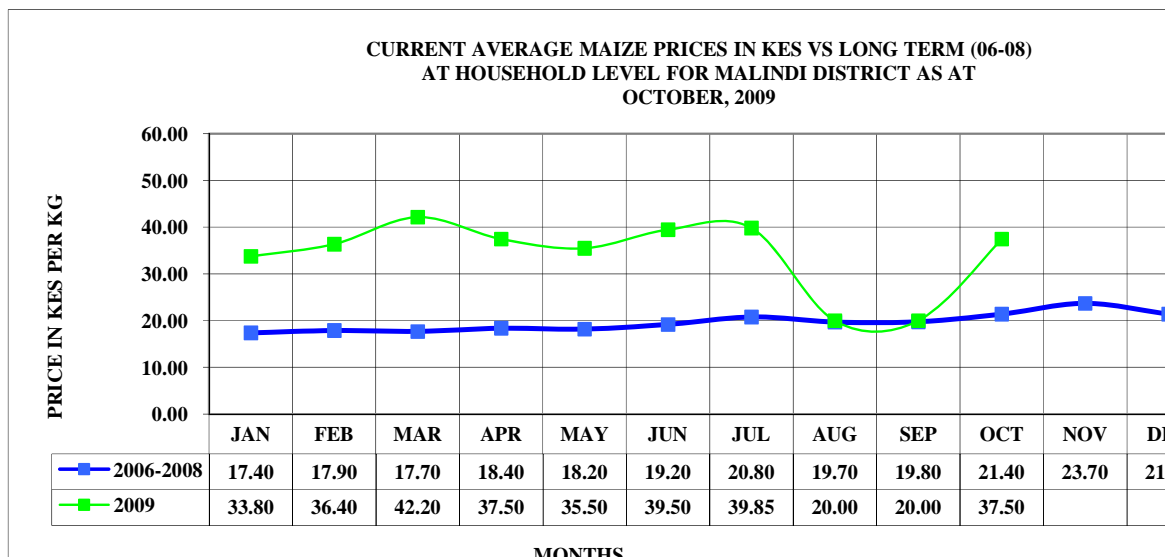
- Prices were higher in the livestock farming zone at Ksh1073 and lower in the mixed farming zone at Ksh950.
- The decrease could be attributed to a general increase in the supply of goats offered for sale in the local markets by households and a decrease in demand for goats.

3.2 Milk consumption

- Following a decrease in average milk production recorded during the month, consumption of milk at household level equally declined compared to the previous month.
- Sampled households consumed an average of 35 bottles of 750ml capacity in October compared to 37 bottles of the same capacity in September.

3.3 Crop prices

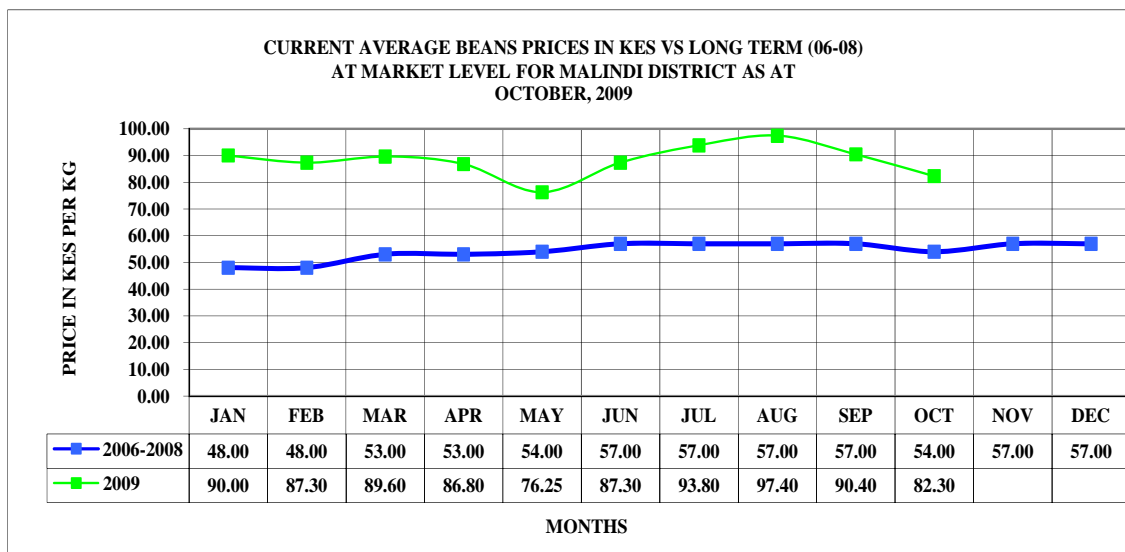
3.3.1 Maize prices



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

- The average district maize price increased during the month from Ksh20 in September to Ksh 37.50 during the month under review.
- Maize supply both at household level and in the market was low as the long rains production was poor across the district. No maize was harvested in the livestock farming zone.
- There were no maize supplies in most local markets except in Malindi town which gets its supplies from outside the district.
- The observed trend was not normal during the time of the year when prices are low as a result of increased supply from local long rains production.

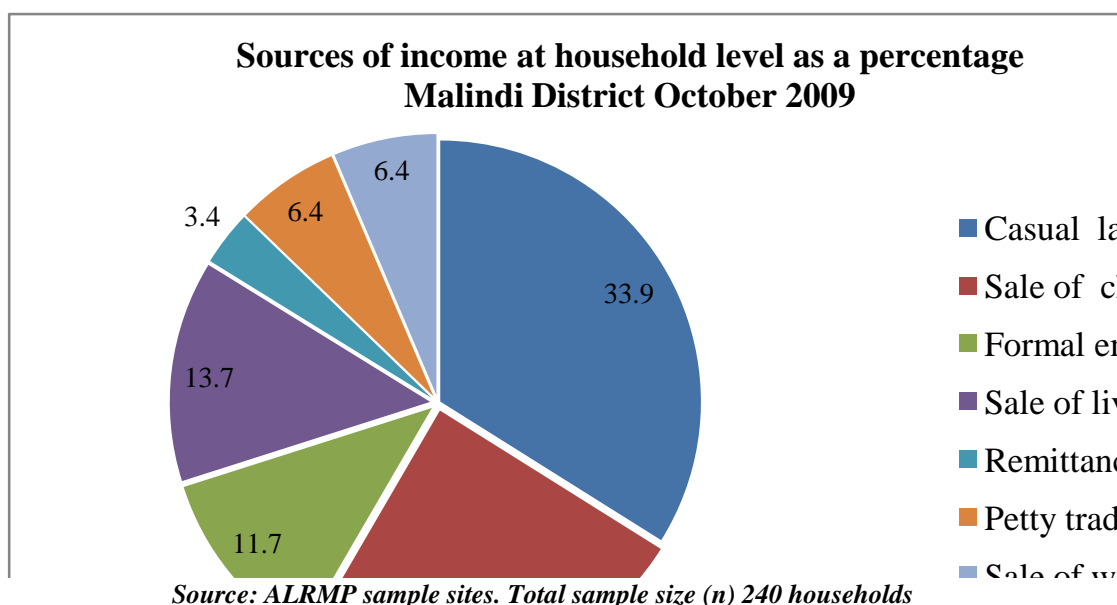
3.3.2 Beans prices



Source: Retail markets in 8 EWS sample areas

- Although the district does not produce significant amounts of beans, the meagre yields realised along the coastal belt had a positive effect on the overall district average price.
- There was a significant reduction in the average price of beans at the market level, from Ksh 90.40 in September to Ksh 82.30 in October owing to the scanty yields at the household level.
- Beans were sold in the mixed farming livelihood zone only, whereas the livestock farming zone did not record any sales.

3.4 Income



3.5 Income

- Although there was a significant reduction in the number of households which derived income from the informal labour market, casual labour was the major source of income for many households across all livelihood zones, followed by sale of charcoal and formal

employment. The drop in income from casual labour could be attributed to decreased farming activities in the mixed farming zone as the harvesting season came to a close.

3.5.1 Livestock income

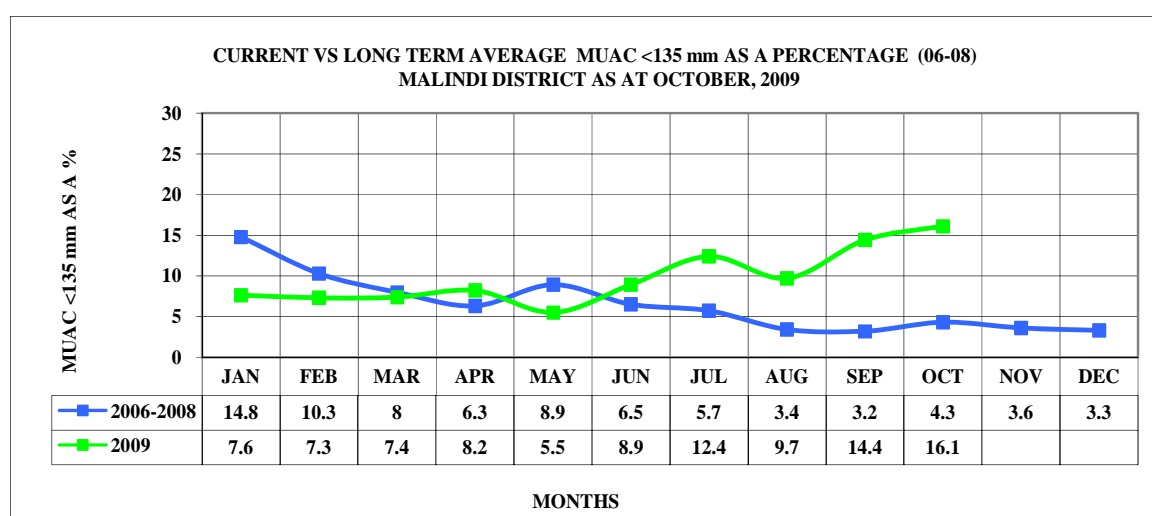
- There was an increase in the number of sampled households which traded in livestock and livestock products during the month, from 12% in September to 13.7% in October, hence indicating an increase in livestock income.
- Sampled households sold more livestock during the month compared to the previous month i.e. 32 heads of cattle, 167 goats and 143 poultry in October compared to 26 heads of cattle, 98 goats and 95 poultry in September.
- Most of the animals were sold in the livestock farming zone.

3.6 Implications on food security

- High maize prices in most areas of the mixed farming zone impacted negatively on household food security.
- An increase in the number of livestock offered for sale by sampled households and a corresponding increase in average prices impacted positively on food security for livestock keeping households in the livestock farming zone.
- Increased income from livestock and sale of charcoal was used by the households to purchase food items in this zone. However only a few households own livestock in this vast zone. A majority of households in this zone experienced food shortages.

4.0 Human welfare indicators (Utilisation of food)

4.1 Nutritional status



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

- The number of children at risk of malnutrition increased during the month, from 14.4% in September to 16.1% in October. This represents a 11.8% increase compared to the previous month. There has been a steady increase in the number of children at risk of malnutrition in the district since August 2009.
- Most of the children who were at risk were recorded in the livestock farming zone. In this zone 22.5% of the sampled children were at risk of malnutrition during the month compared to 19.6% in the previous month. In the mixed farming zone 9.7% of the sampled children were at risk of malnutrition during the month compared to 9.2% the previous month.

- This scenario was attributed to a worsening food security situation in the livestock farming zone (Langobaya division) and some parts of the mixed farming zone (Langobaya and Marafa divisions). This was in spite of the ongoing school feeding programme and supplementary feeding through health centres.
- An investigation was launched by Arid Lands Resource Management Project and District Medical Officer of Health to determine the cause of the rising malnutrition rates in Matolani, Kamale and Kisiki sub locations.

4.2 Human Health

- An increase in diarrhea cases was reported in Langobaya division i.e. Bombi in Chakama location. This situation is being addressed by the Department of Public Health in the district.

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). Other areas include Chamari (inhabited by the Watha community) in Mambasa sub-location in Marafa location in the mixed farming zone.

5.0 Current interventions

5.1 Non-food interventions

Type of Intervention	Donor/Implementing Agency
Food for assets (FFA) activities in Langobaya, Marafa and Magarini divisions.	Kenya Red Cross Society
Water trucking to schools in Marafa division to support school feeding programme	ALRMP

5.2 Food aid

Type of Intervention	Donor/Implementing Agency
Distribution of 1000 bags of maize, 600 bags of rice, 200 bags of beans and 100 bales of maize flour to flood victims in Fundissa location	Office of the President (Special Programmes) and Magarini Constituency Deveelopment Fund
Distribution of 500 bags of maize, 600 bags of rice, 200 bags of beans and 100 cartons of vegetable oil to vulnerable communities in Magarini district	Office of the President (Special Programmes)
Supplementary feeding programme (SFP) in 17 government health facilities i.e. 16.425 metric tons of Unimix and 1.643 metric tons of vegetable oil.	WFP /ALRMP/MoH
500 bags of maize, 600 bags of rice 300 bags of beans and 200 bags of vegetable oil to vulnerable communities in Malindi district	Office of the President (Special Programmes)

5.3 Coping mechanisms practiced at household level

- 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.
- Going for an entire day without a meal.

5.4 Coping Strategy Index (CSI)

The CSI was 2.8 in October. This indicates that the level of household food insecurity remained high during the month as households employed different coping strategies as indicated above. The CSI was high in the livestock farming zone at 3.6 compared to 1.9 in the mixed farming zone.

6.0 Recommendations for action to mitigate food insecurity in the district

A. Food aid

Type of Recommendation	Action
Continued EMOP GOK/WFP relief food operations. Food for assets (FFA) aid distribution to target more beneficiaries	GoK/WFP
Provision of relief food to flood victims (approximately 500 households) in Fundissa and Marafa locations	GoK

B. Non-food interventions

Type of Recommendation	Sector
Provision of non-food items like blankets, mosquito nets to flood victims in Fundissa location	GoK and other well wishers