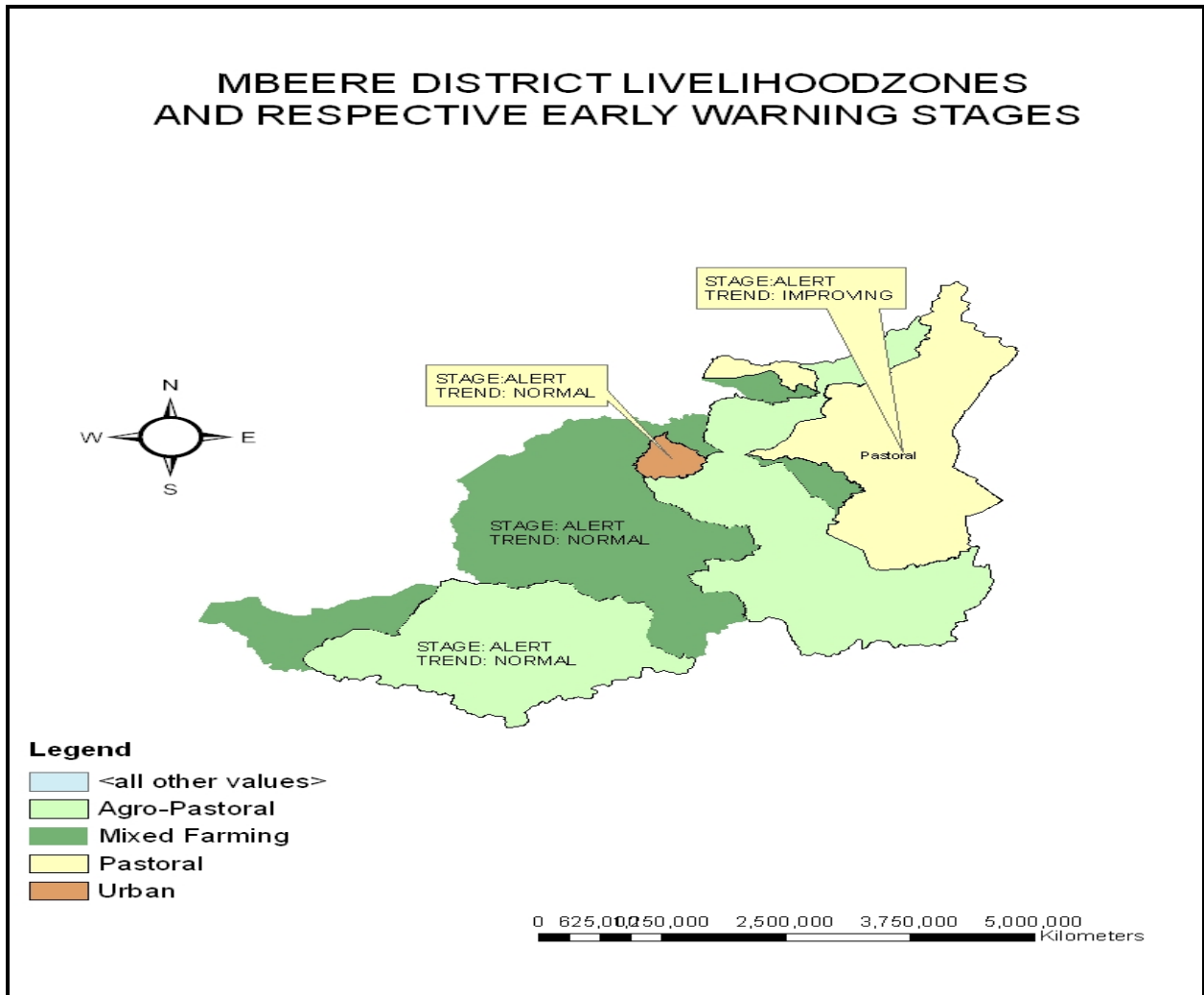




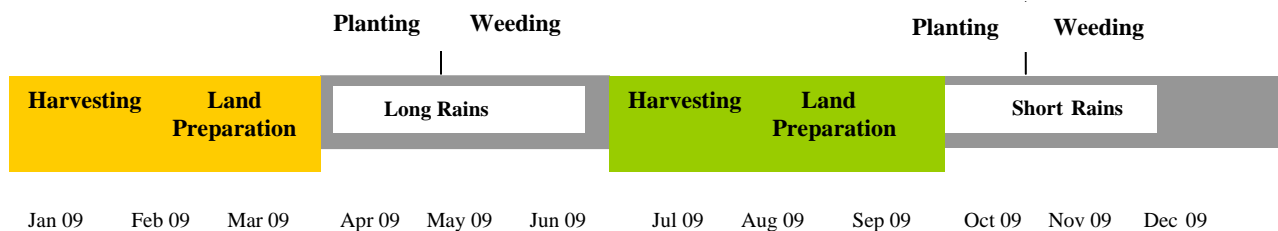
**OFFICE OF THE PRIME MINISTER  
MINISTRY OF STATE FOR THE DEVELOPMENT OF NORTHERN KENYA AND OTHER ARID LANDS  
ARID LANDS RESOURCE MANAGEMENT PROJECT II**

**DROUGHT MONITORING BULLETIN, DECEMBER 2009**

**Mbeere District**



**Seasonal calendar**



## **Situation overview**

- Relatively cool and wet weather conditions prevailed across the district although the rainfall was poorly distributed.
- Weeding was the predominant agricultural activity in the district and food purchase prices remained high.
- Pasture and browse availability and accessibility were good, resulting in good livestock body conditions.
- No cases of livestock disease outbreaks were reported within the district.
- Water availability and accessibility was good as both permanent and seasonal water reservoirs recharged their water levels, thus reducing the pressure and congestion on the watering points.
- The nutrition status of children under 5 years improved slightly in comparison to the month of November. The percentage of children rated at risk of malnutrition (with MUAC <135mm) was 20.4 compared to 22.4 recorded in November. No major ailments were reported within the district.

## **Recommendations to DSG to KFSM**

- The DSG selected Ishiara, Ngiiri, Mutuovare and Makima markets as sites for the purchase of livestock ear-marked for livestock off take process which targeted a total of 200 mature cattle.
- The relief food distribution Lead agency was authorized by the DSG to slaughter 10% of the procured mature cattle under the livestock off take exercise and distribute to the community. The slaughtering exercise was to be overseen by the District Veterinary officer.
- Promotion of drought resistant crops e.g. sorghum, millet and pigeon peas in an effort to maximize the expected crop yield in the next rain season.
- PPR and other livestock disease surveillance.
- Post harvest crop management campaign within the district.

## **Current interventions**

### **Non-food interventions**

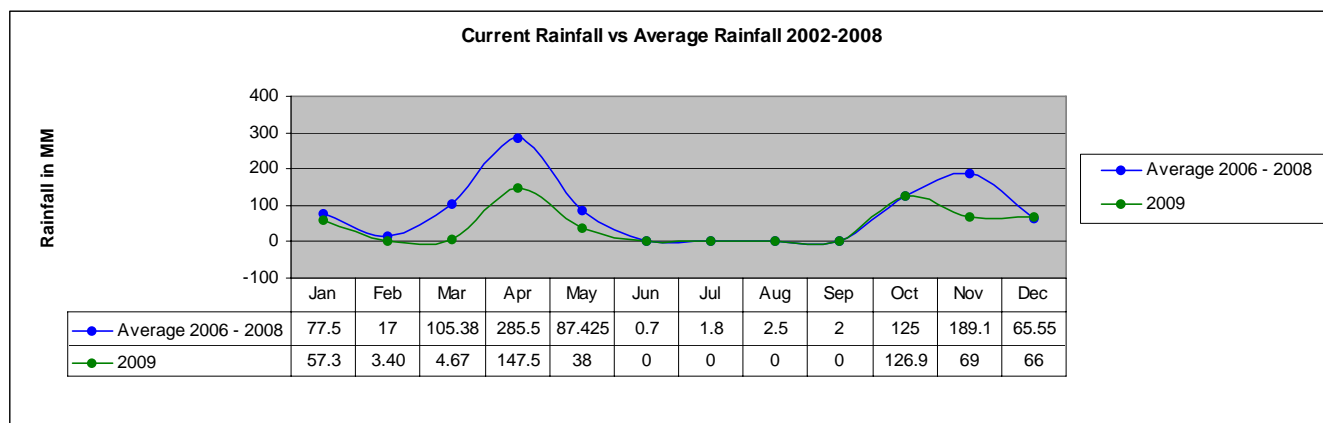
- Fodder bulking construction and utilisation.
- Army worm surveillance within the district.
- Kamukameri spring protection.
- Extension of the Kogari pipeline by ALRMP II.
- Disease surveillance and response by the Ministry of Public Health.
- Vaccination of livestock against foot and mouth, Black quarter and Rift valley fever. The vaccination campaign is targeting 20,000 cattle and 30,000 sheep and goats within the District.
- De-worming campaign for all livestock within the district.

### **Food aid**

- Relief seed distribution.
- Distribution of relief food from the World Food Programme by the lead agency Catholic Diocese of Embu targeting 76,000 beneficiaries within the district.
- Distribution of relief food by CCS Mayori (Anglican Church) targeting 800 beneficiaries within Ngoce, Makima and Machanga.
- Homegrown school feeding programme targeting 110 schools within the district.

## 1.0 Environmental indicators (Stability)

### 1.1 Rainfall

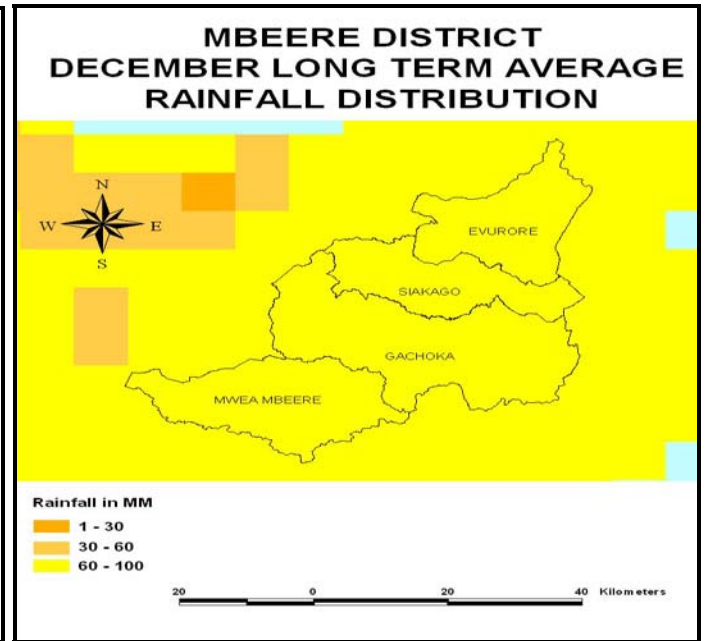
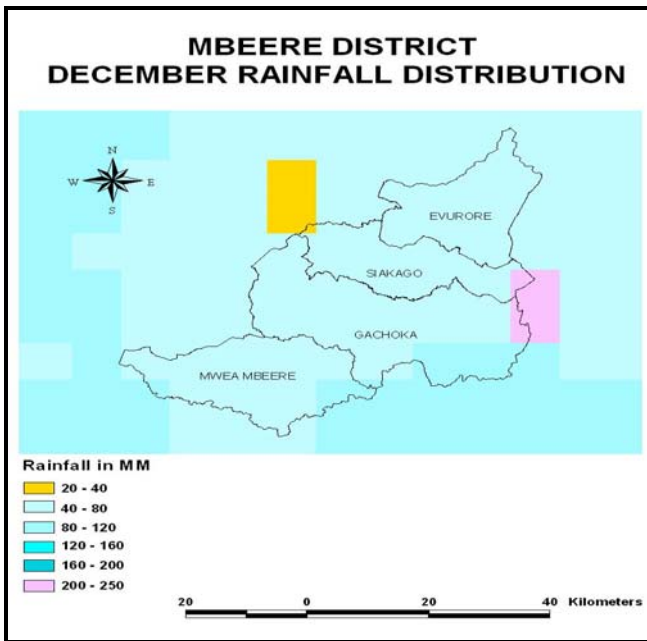


**Source: Divisional Agricultural Offices**

The district received an average of 66 mm of rainfall during the month. This reveals a normal trend during this period of the year. The district received 6 days of rainfall on average.

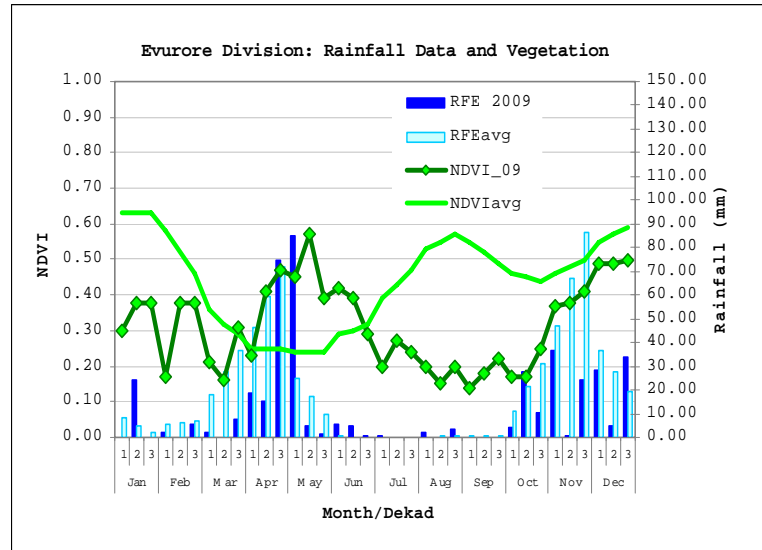
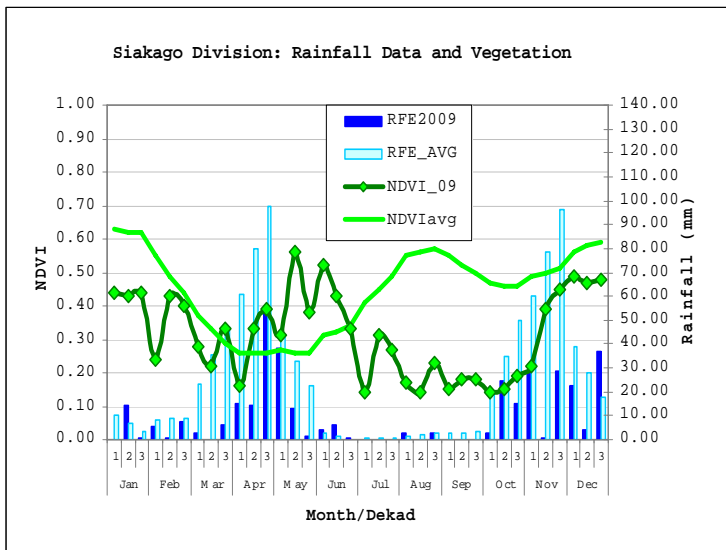
Division	Rainfall Station	DECEMBER	
		mm	Wet days
Siakago	Siakago market	61.9	7
Evurore	Ishiarra market	66.67	6
Gachoka	Gachoka market	68.5	6
Mwea	Karaba market	67	3
<b>DISTRICT AVERAGE</b>		<b>66</b>	<b>6</b>

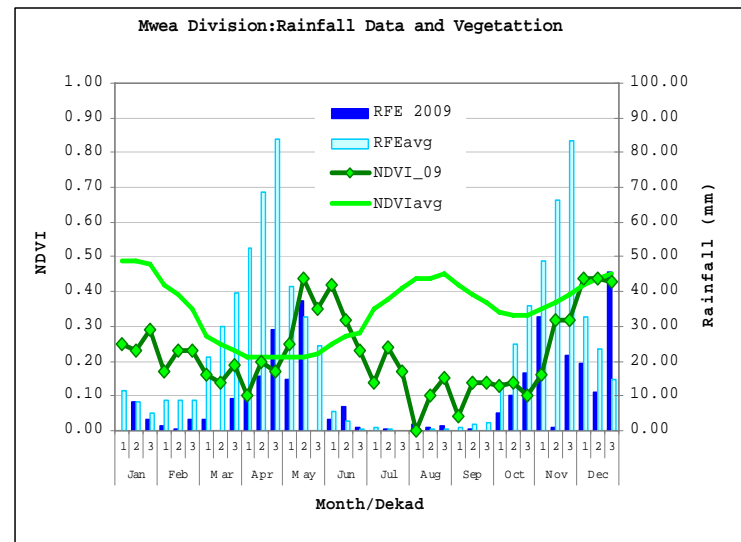
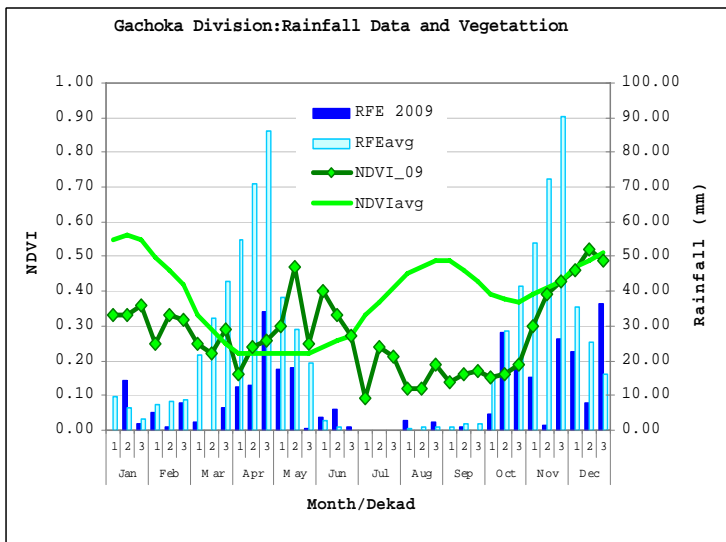
**Temporal and Spatial rainfall distribution within the District**  
(Source: Divisional Agricultural Offices)



(Source: ALRMP II/ FEWSNET)

## 1.2 Condition of natural vegetation and pasture





(Source: ALRMP II/ FEWSNET)

- Pasture and browse quality was good and improving across the entire district. The situation was normal at this period of the year. As shown by the NDVI and rainfall tables above, the pasture and browse quality was at normal levels within Mwea and Gachoka Divisions and slightly below normal but improving within Siakago and Evurore Division.
- Pasture and browse availability was good and improving within the district. The prevailing situation was normal at the time of the year. The Ndvi data shows the current situation of vegetation in relation to the amount of rainfall received within the month. The quantity of pasture and browse within the district was normal within Mwea and Gachoka Divisions and slightly below Normal but improving within Siakago and Evurore Division. The improvement in pasture quantity was attributed to the persistence of the short rains. Pasture and browse quantity is expected to improve even further as the short rains persist.

### 1.3 Water sources and availability

#### 1.3.1 Water sources

Water availability and accessibility was good within the entire district. The current situation is normal at this period of the year. Currently communities depended on roof water catchments, natural rivers, bore holes, traditional river wells, pans and springs for both domestic and human consumption. The water sources are expected to achieve optimum recharge levels as the rainfall persists.

#### 1.3.2 Livestock access to water

Distances from grazing areas to main water sources declined from 3.2 km in November to 2.8 km. The prevailing distances were normal at the time of the year. Water levels on various watering points' e.g. seasonal rivers, catchments pools, earth dams and water pans have recharged reducing the pressure and congestion.

#### 1.3.3 Household access to water

Average distances from households to the main water sources declined from 2.5km in November to 2.1 km. The prevailing distances were normal at the time of the year. Water reservoirs i.e. catchments pools, earth dams and water pans have recharged their water levels thus reducing the distances covered in search of water for domestic use. Distances covered in search of water are expected to decrease even further with persistence of the short rains.

## **1.4 Implications on food security**

Recharged water levels in various water reservoirs and the good quantity and quality of pasture and browse indicate food security.

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

### **2.1 Livestock production**

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

Livestock body conditions were good on all animal species within the District. The prevailing body conditions are normal at this period of the year. The improving livestock physical conditions could be attributed to the availability of forage and water for livestock consumption within the month.

#### **2.1.2 Livestock diseases**

Livestock health condition remained good for all animal species. There were no reported cases of mortalities in all animal species.

#### **2.1.3 Milk production**

Average milk production per household declined from 6 bottles (750ml) in November to 4.7 bottles. The decline in milk production could be attributed to the increasing sales rates and low birth rates of livestock within the district. Output variation was influenced by livestock population density, distribution per household and varying degree of pasture and browse availability.

## **2.2 Crop production**

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

- The current crop production season commenced on time, finding majority of the farmers prepared. Planting activities commenced as early as the beginning of the month of October.
- The crops were at different stages of germination. Maize was silking and filling stages while the pulses are at the podding stage with the beans already being harvested. Within the Month of December, the rainfall amounts received was poor which resulted in the crops being affected by moisture stress. The worst affected crop was the beans which resulted in approximately 30% of the expected yield wilting and drying up. The drought resistant crops i.e. sorghum and millet are performing better with no traces of moisture stress and an optimum yield is expected although the coverage of the crops is still very low within the District.

#### **2.2.2 Pests and diseases**

There were incidences of pest attack i.e. pod borer which affected the cow peas and the millet and reducing the expected crop yield by 20% within the district. The Ministry of Agriculture responded swiftly with the appropriate pesticides eradicating the pod borers although traces of the pest are still being reported. Also the District is on high alert for an outbreak of army worms with the Ministry of Agriculture conducting a surveillance for the pest district wide.

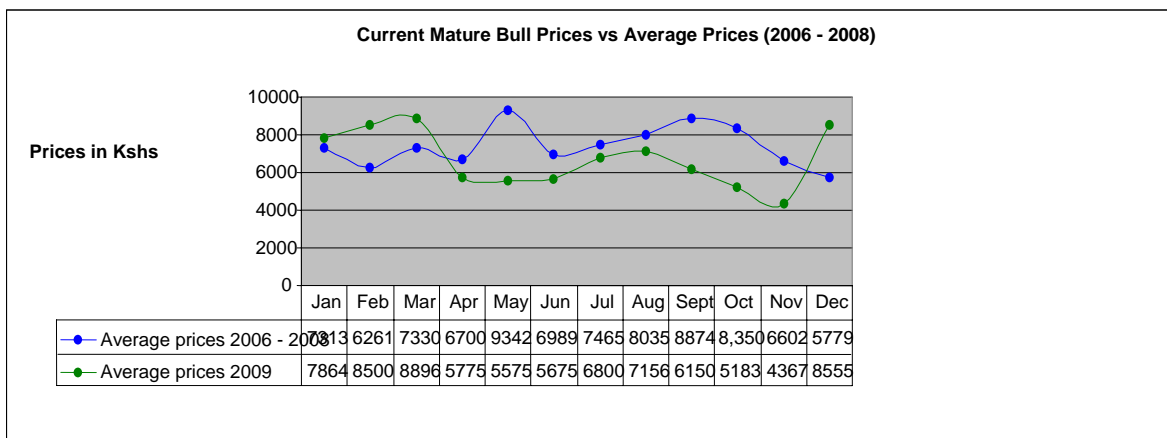
#### **2.2.3 Implications on food security**

Availability of water and the increasing milk production within the district translates to food security. Pest attacks and reduced crop yield expected indicates a food insecure situation.

## **3.0 Access to food**

### **3.1 Livestock marketing**

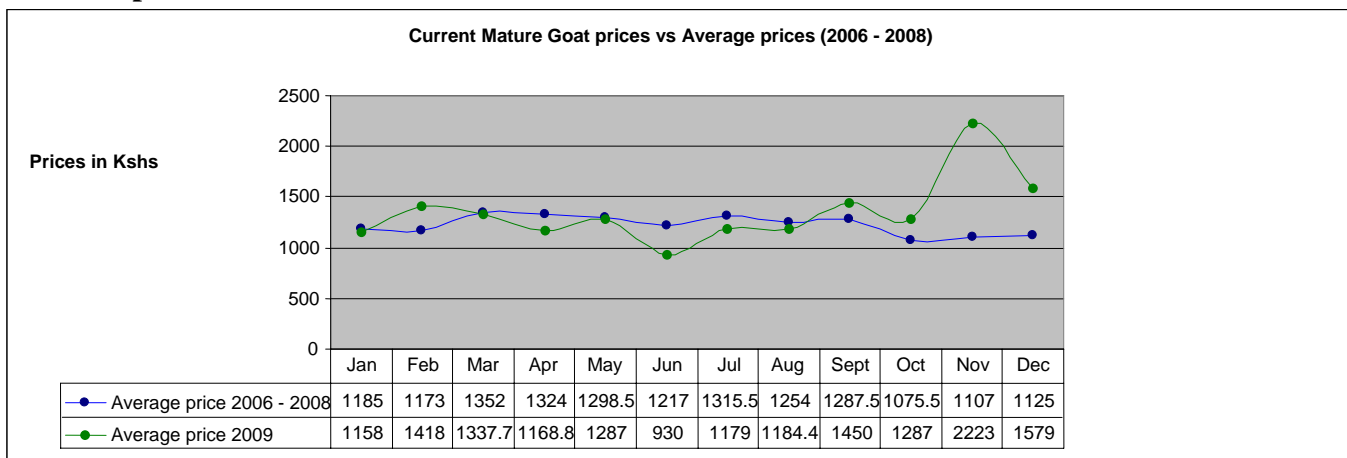
#### **3.1.1 Cattle prices**



(N=300 households)

- Cattle prices increased from Ksh4,367 in November to Ksh8,555. The price was above normal at this period of the year. The high prices could be attributed to the declining selling rates and the good body conditions of cattle within the district due to the availability of forage and water.
- The sales rates declined from 2.3% % in November to 2.1%. Mwea Division had the highest price of Ksh15,000 while Siakago Division had the lowest price of Ksh5,000. Evurore Division had the highest selling rate of 3% while Siakago had the lowest selling rate of 1.2%.

### 3.3.2 Goat prices



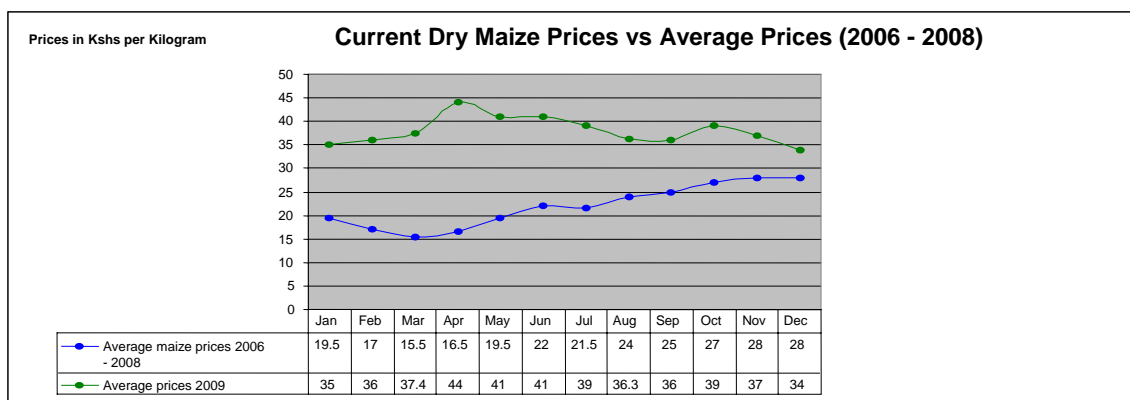
- Goat prices declined drastically from Ksh2,223 in November to Ksh1,579. The prices were above normal at this time of the year. The decline in prices could be attributed to the high sales rates due to the Christmas season. The rate increased from 1.6% in the month of November to 3.7% in the month of December.
- Evurore Division had the highest rate of 5.2% while Gachoka Division had the lowest rate of 0.9%. Gachoka Division had the highest price of Ksh1,875 while Siakago had the lowest of Ksh 1,375.

### 3.3.3 Milk consumption

Average milk consumed per household declined slightly from 5.3 bottles of 750ml in November to 4.7 bottles of 750ml in December. The districts average milk price per litre was Ksh42. The decline in milk consumption was attributed to the high sales rates of livestock.

## 3.4 Crop prices

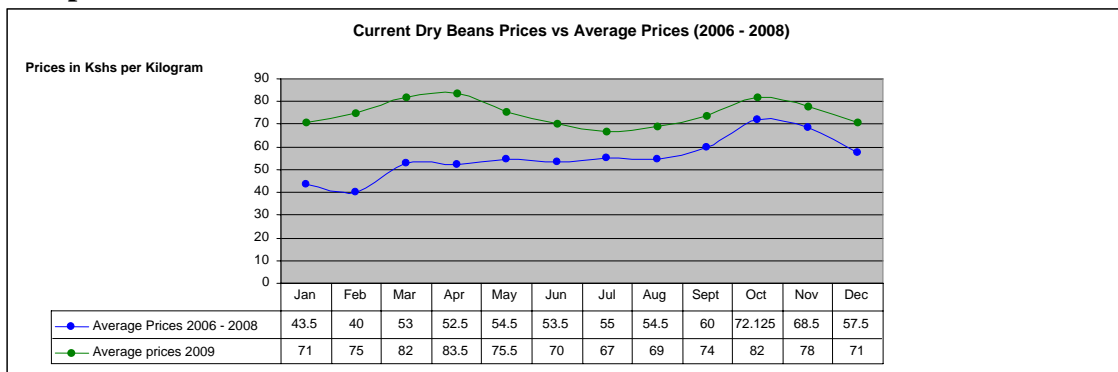
### 3.4.1 Maize prices



(N=300 households)

- Maize prices declined slightly from Ksh37 per kilogram in November to Ksh34. The prices were above normal at the time of the year. The decline in the price was attributed to the inflow of the crop from neighbouring Embu and Kirinyaga districts and harvest of the crop in some pockets of the district.
- Siakago Division had the highest maize prices at Ksh36.50 while Evurore Divisions had the lowest at Ksh30.80.

### 3.4.2 Beans prices

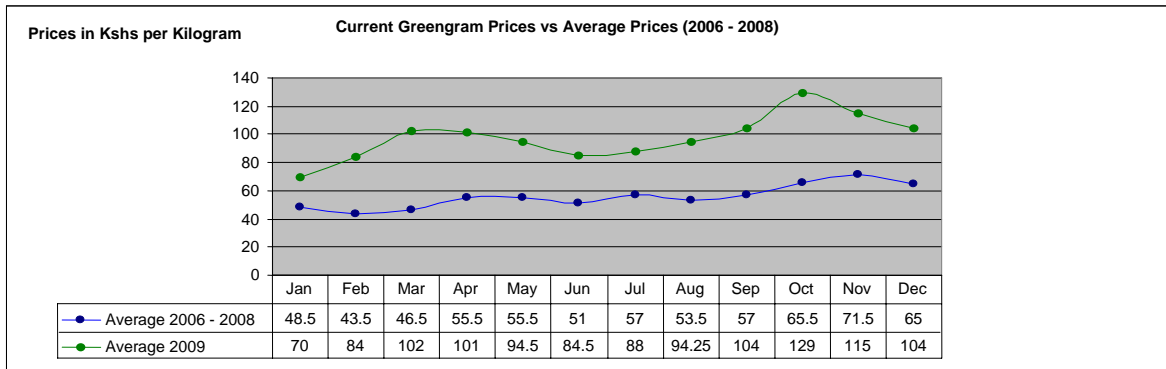


(N=300 households)

- Beans prices declined from Ksh78 per kilogram in November to Ksh71. The prices were above normal at this period of the year. The decline in the prices was attributed to the inflow of the crop from neighbouring Embu and Kirinyaga districts and the harvest of the crop within pockets of the

district. Gachoka Division had the highest beans price at Ksh76.50 per kilogram while Evurore Division recorded the lowest at Ksh65.40 per kilogram.

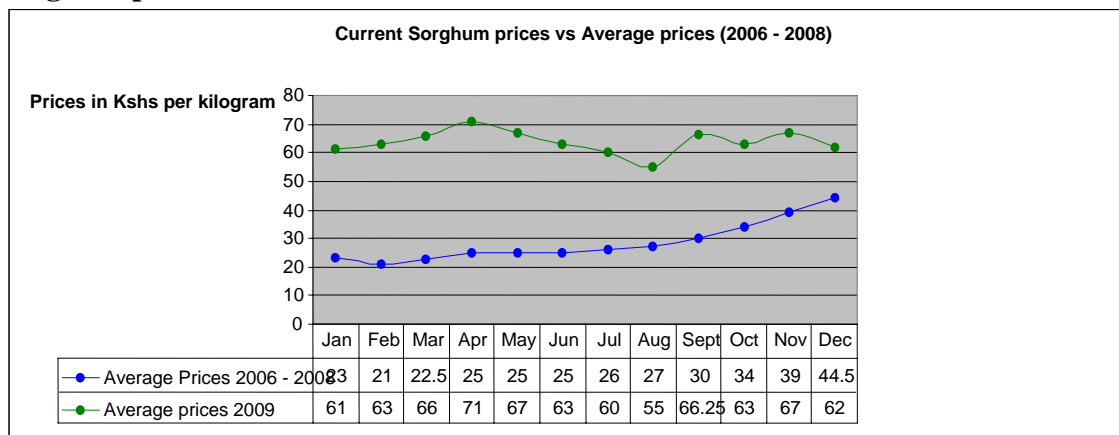
### 3.4.3 Green grams prices



(N=300 households)

- Green gram prices declined from Ksh115 per kilogram in November to Ksh104. The prices were above normal at this period of the year. The decline in prices was attributed to the harvest of the crop being experienced within some pockets of the district. Siakago Division had the highest price at Ksh120 per kilogram while Evurore Division recorded the lowest at Ksh87.50 per Kilogram.

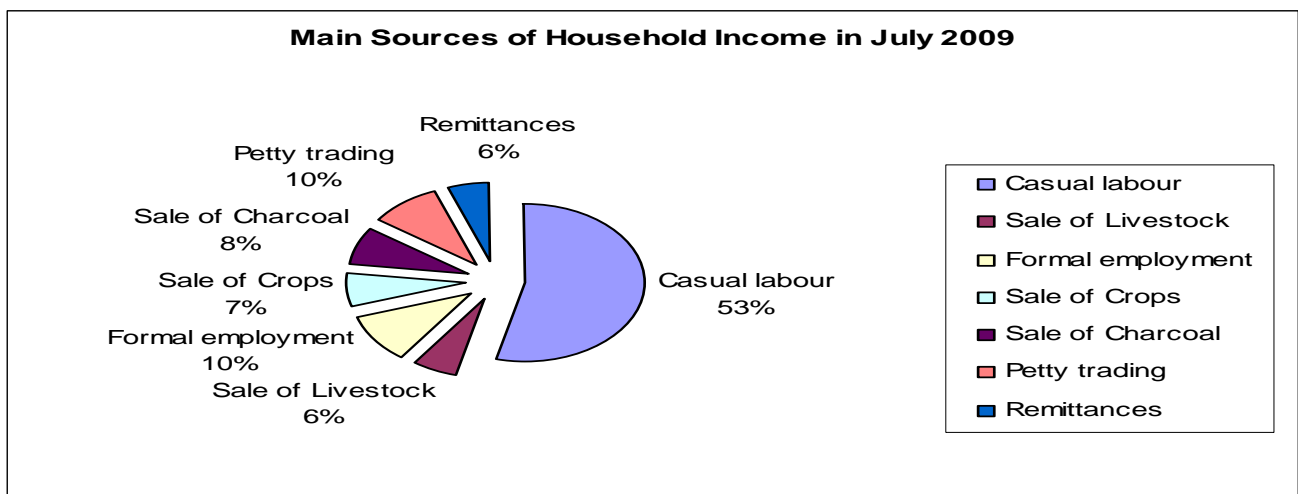
### 3.4.4 Sorghum prices



(N=300 households)

Sorghum prices declined from Ksh67 per kilogram in the month of November to Ksh62 per kilogram. The prices were above normal at this period of the year. The decline in sorghum prices could be attributed to the harvest of the crop being experienced within some pockets of the district. Evurore Division had the highest sorghum prices of Ksh76.25 per kilogram while Mwea Division had the lowest of Ksh50 per kilogram.

## 3.5 Income



(N=300 households)

### 3.5.1 Crop income

Income from crop sales as the source of total household revenue declined from 8% in the month of November to 7%. The low income from crop sales was attributed to the exhausted harvest that was experienced within some pockets of the district in the last crop season.

### 3.5.2 Livestock income

- Contribution from livestock sales remained level at 6% from the month November to December. This was attributed to the stable selling rates within the district.

### 3.5.3 Other income

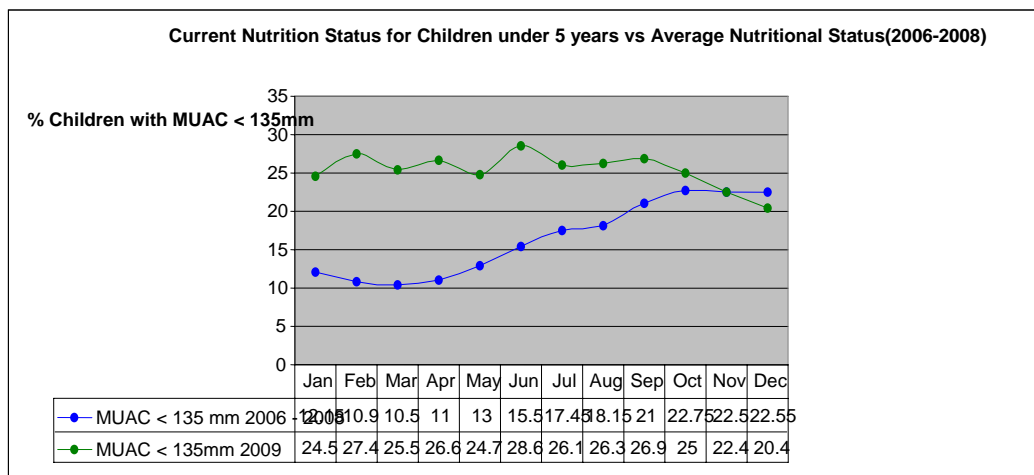
- Casual labour as the major source of aggregate household income in Mbeere District declined slightly from 55% in November to 53% in the month of December. The decline was attributed to the availability of labour opportunities for weeding the farms which is not a labour intensive agricultural activity within the district.

## 3.6 Implications on food security

High food purchase prices signify food insecurity while availability of opportunities for casual labourers and high cattle prices indicate a food secure situation.

## 4.0 Human welfare indicators (Utilisation of food)

### 4.1 Nutrition status



(N=1,800)

- The percentage of children rated at risk of malnutrition (with MUAC <135mm) was 20.4, an improvement compared to 22.4 recorded in November. A total of 1,800 children in 10 sentinel sites were sampled.
- The situation seems to have improved slightly in the month of December which was attributed to the harvests being experienced within some pockets of the district. The nutrition status was below normal at this period of the year. Gachoka Division had the highest rate at 32.1%, Evurore Division 22.7%, Mwea Division 13.3% and Siakago Division at 13.6%.

## 5.0 Current interventions

### 5.1 Non-food interventions

- Fodder bulking construction and utilisation.
- Army worm surveillance within the district.
- Kamukameri spring protection.
- Extension of the Kogari pipeline by ALRMP II.
- Disease surveillance and response by the Ministry of Public Health.
- Vaccination of livestock against foot and mouth, Black quarter and Rift valley fever. The vaccination campaign is targeting 20,000 cattle and 30,000 sheep and goats within the District.
- De-worming campaign for livestock within the district.

### 5.2 Food aid

- Relief seed distribution
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- Distribution of relief food by CCS Mayori (Anglican Church) targeting 800 beneficiaries within Ngoce, Makima and Machanga.
- Homegrown school feeding programme targeting 110 schools within the District.

## 6.0 Recommendations to DSG and KFSM

- Promotion of drought- resistant crops e.g. sorghum, millet and pigeon peas in an effort to maximise the expected crop yield in the current short rains season.
- PPR and other livestock disease surveillance.
- Post harvest crop management campaign within the district.