

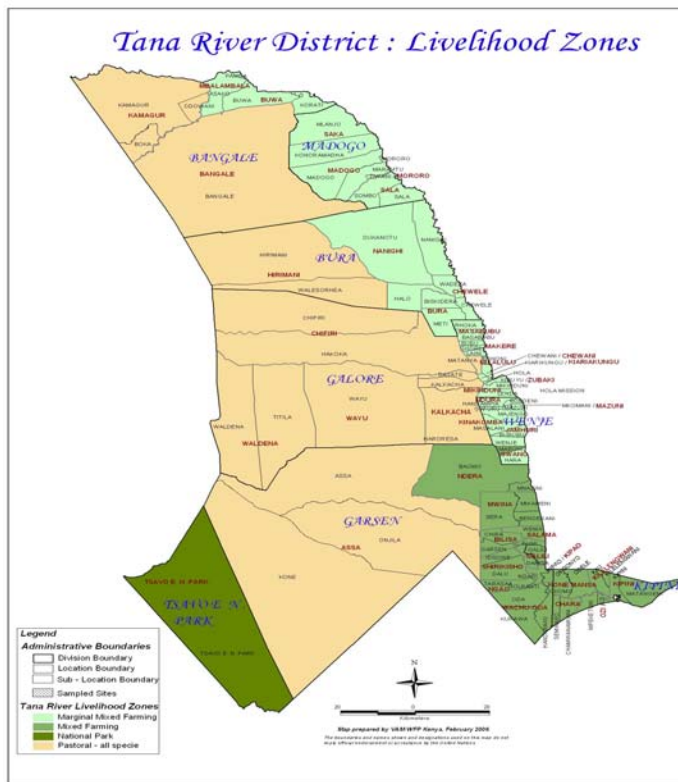


**OFFICE OF THE PRIME MINISTER**  
**MINISTRY OF STATE FOR THE DEVELOPMENT OF NORTHERN KENYA AND OTHER ARID LANDS**  
**ARID LANDS RESOURCE MANAGEMENT PROJECT II**

**DROUGHT MONITORING BULLETIN, JULY 2009**

**Tana River District**

**Warning Stages**



| Livelihood Zone        | Warning stage      | Trend            |
|------------------------|--------------------|------------------|
| Pastoral               | Alarm/Emergency    | Worsening        |
| Marginal Mixed Farming | Alarm              | Worsening        |
| Mixed Farming          | Alert/Alarm        | Worsening        |
| <b>District</b>        | <b>Alert/Alarm</b> | <b>Worsening</b> |

**Seasonal Calendar**

|   |     |                  |   |     |                         |   |     |                   |  |     |                         |
|---|-----|------------------|---|-----|-------------------------|---|-----|-------------------|--|-----|-------------------------|
| <ul style="list-style-type: none"> <li>Milk yield drops</li> <li>Livestock move towards dry season grazing areas</li> <li>Decline in livestock prices</li> <li>water stress in the traditional grazing areas</li> </ul> |     |                  | <ul style="list-style-type: none"> <li>Increased milk yield</li> <li>Livestock move towards the traditional wet season grazing areas.</li> <li>High Calving and lambing rates.</li> </ul> |     |                         | <ul style="list-style-type: none"> <li>Low milk availability</li> <li>Livestock move towards the fall back dry seasons grazing areas (riverine and delta)</li> <li>Water and pasture stress experienced in the hinterland pastoral dominated areas.</li> <li>High incidence of conflicts between farming and pastoral communities.</li> </ul> |     |                   | <ul style="list-style-type: none"> <li>Increased milk yield</li> <li>Livestock move back to the traditional wet season grazing areas.</li> <li>Calving rates increases</li> <li>Decline in livestock prices</li> </ul> |     |                         |
| Lean period for the pastoralists  |     |                  |   |     |                         | Lean period for the pastoralists  |     |                   |  |     |                         |
| Short dry spell   |     |                  | Long rains  |     |                         | Long dry spell  |     |                   | Short rains  |     |                         |
| Jan   | Feb | Mar              | Apr   | May | Jun                     | Jul   | Aug | Sept              | Oct  | Nov | Dec                     |
| Short rains harvest   |     | Land Preparation | Planting/weeding  |     | Crops at green maturity | Long rains harvest  |     | Land Preparation. | Planting/Weeding   |     | Crops at green maturity |
|   |     |                  | Lean period for farmers   |     |                         |   |     |                   | Lean period for farmers  |     |                         |

## **Situation overview**

- During the month, the Mixed farming zone continued to receive drizzles in the 1<sup>st</sup> and 2<sup>nd</sup> dekad. However, these subsided during the 3<sup>rd</sup> dekad. The Pastoral Zone and Marginal Mixed Farming Zone continued to experience dry weather conditions.
- The general condition of the vegetation was rated poor and deteriorating as the Pastoral and Marginal Mixed Farming areas reported lack of pasture and very poor browse. The mixed farming zone where some regeneration of the range occurred was faced by an abnormally high influx of livestock (currently estimated at over 35% above normal migration) and reported to be depleting the resources much earlier than expected.
- Some of the livestock from the drought affected areas crossed to Witu in Lamu and Malindi, while others encroached on Tsavo and Kora national parks.
- The water situation deteriorated as the water sources continued to dry up. The Pastoral and northern Marginal mixed farming zones experienced water stress. Flagged areas include Kone Kaliti, Wayu and Chifiri in Galole, Hambares and Abakik in Madogo, Sabukia, Walesorhea and Hosingo in Bura, Assa in Garsen and Tarasaa division. More areas are likely to report water shortages as the drought continues.
- Livestock body condition was still weak in the drought affected areas, with a few cases of losses.
- Though no serious livestock disease outbreaks were reported, CCPP and CBPP remained the endemic livestock diseases across the district, while suspected cases of foot and mouth were reported in Garsen and Tarasaa.
- During the month the prices of all livestock species experienced a drastic decline compared to last reporting period.
- Milk production and consumption at the household level continued to decline, while the prices of the same continued to rise recording an average of Ksh40 from a normal Ksh25 for a 750ml bottle.
- In the Mixed farming and Marginal mixed farming areas where farming took place, maize crop was affected by the dry weather condition, which is expected to drop the yield by approximately 40%. Meanwhile high incidences of crop destruction by wildlife and livestock straying into farming fields is feared to contribute further to decline in expected harvests.
- No outstanding human disease outbreaks were reported during the month. However, Malaria, URTI, Skin diseases, Diarrhea and Pneumonia were rated the top causes of morbidity.
- The nutrition status of children below five years (based on MUAC<135mm measurement) recorded a worsening trend, with the percentage of children rated at risk of malnutrition rising to 15.2% from 13.7% the previous month.
- No incidences of conflicts were reported in the district during the month. However, tension was high in the Marginal mixed and Mixed farming areas as a result of high livestock and wildlife influx.
- The general outlook indicates very minimal improvement of the food security situation in the district. The expected harvests are far much below normal while livestock and livestock products were stressed.

## **Recommendations to DSG and KFSM**

- Continue with Food Aid in terms of Supplementary feeding, School Feeding and PRRO.
- Enhance water tracking efforts in the flagged areas.
- Enhance human disease/nutritional surveillance and step up outreach services to hard to reach areas.
- Strengthen peace building initiatives in the hot spot areas to curb anticipated incidences of conflicts that may arise from resource use.
- Come up with concrete plans to address wildlife menace across the district
- Provision of livestock relief feeds and supplements to the flagged areas.

## **Current interventions**

### **Non-food interventions**

- Food production in the dry land areas by use of water harvesting technology.
- Support food production by capacity building and provision of pumps to farming groups.

- Supporting Kazi Kwa Vijana through construction of water structures and clearing Agricultural lands.
- Water trucking to the most affected areas of Bangale, Madogo and Galole.
- Revival of the Hola Irrigation Scheme – a total of 1250ha of land already prepared and allocated to 650 farmers with 1.5 acres plot each and planting is expected to begin soon.
- Bura Irrigation - cropping is going on and farmers have also realized the first harvest.

#### **Food aid**

- School feeding program in all primary schools – Tana River and Tana Delta.
- Supplementary and therapeutic feeding program for children aged 6 – 59 months, pregnant and lactating mothers ongoing in health institutions both in Tana River and Tana Delta.
- Food for Assets being piloted in 7 project sites of Kalkalcha, Kiarkungu, Umoja-West, Wayu Boro, wayu Duka, Haroresa and Chifiri - more sites are yet to be identified.
- EMOP/PRRO – benefiting 73,960 people both in Tana River and Tana Delta districts.

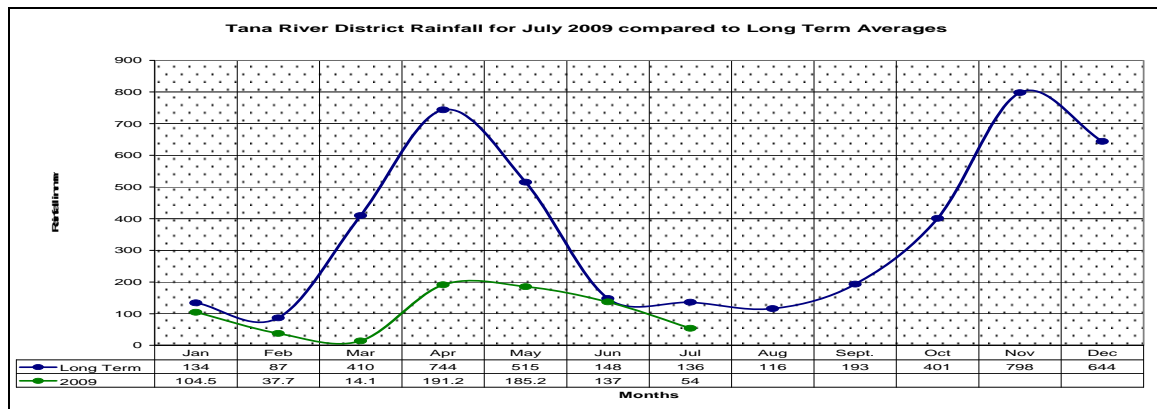
## 1.0 Environmental indicators (stability)

### 1.1 Rainfall

- During the month, the Mixed farming zone continued to receive drizzles in the 1<sup>st</sup> and 2<sup>nd</sup> dekad.
- However, these subsided during the 3<sup>rd</sup> dekad. The Pastoral Zone and Marginal Mixed Farming Zone continued to experience dry weather conditions

| Livelihood Zone        | Station   | Rainfall in mm |
|------------------------|-----------|----------------|
| Mixed Farming          | • Kipini  | • 11.0mm       |
|                        | • Garsen  | • 31.4mm       |
| Marginal Mixed Farming | • Hola    | • 12.6mm       |
| Pastoral               | • Wayu    | • 00.0mm       |
|                        | • Bangale | • 00.0mm       |

- The temperatures continued to be cool, recording on average between 22°C to 30°C.

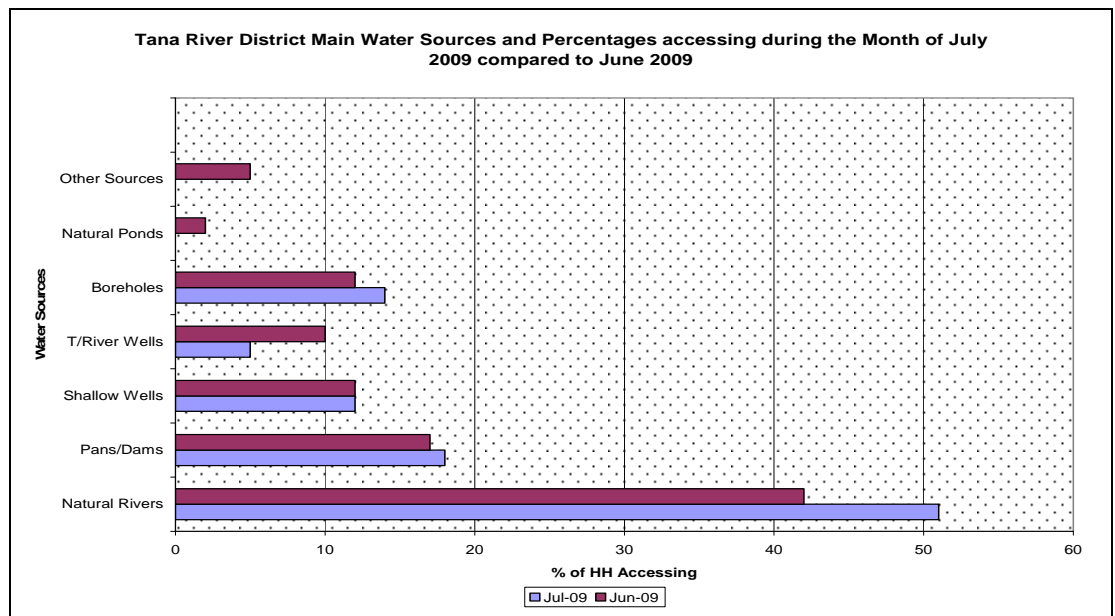


### 1.2 Condition of natural vegetation and pasture

- The general condition of the vegetation was rated poor and deteriorating as the pastoral and marginal Mixed Farming areas reported lack of pasture and very poor browse.
- In the mixed farming zone where there was some regeneration of the range, the area faced an abnormally high influx of livestock estimated at over 35% above normal migration. There are fears that this will deplete the resources earlier than expected.
- The distances to grazing areas were estimated at 15km – 20km from a normal range of 5 – 10kms.

### 1.3 Water sources and availability

- The water situation continued to deteriorate as the water sources continued to dry. Most pastoral and northern parts of the district experienced water stress.
- Flagged areas include Kone Kaliti, Wayu and Chifiri in Galole, Hambares and Abakik in Madogo, Sabukia, walesorhea and Hosingo in Bura, Assa in Garsen and Tarasaa division, where water trucking was ongoing.
- More areas are likely to report water shortages as the drought continues.
- As the water sources in the pastoral and marginal mixed farming areas continue to dry, most communities have resorted to the river. Other areas of concentration remain the boreholes and existing dams.
- Average distance to water sources was reported at between 3kms and 5kms from a normal 0.5km – 1km.



## 1.4 Emerging issues

### 1.4.1 Insecurity/conflict /human displacement

- High incidences of livestock concentration in the dry season grazing areas of the marginal mixed and mixed farming areas exerted a lot of pressure on the existing forage.
- This is expected to deplete the grazing resources earlier than expected while conflicts arising over resource use between the farming and pastoralists may be inevitable if the trend continues.
- Crop destruction by wildlife reported in the farming areas was on the increase and feared to contribute further to the prevailing food security situation.

### 1.4.2 Migration

- Most livestock from the drought affected areas migrated to the delta, where the vegetation improved slightly and pasture was still available. It is estimated that over 85% of the animals in the most affected areas moved out, forcing the mixed farming zone to accommodate over 35% above normal.
- Other areas of livestock movements include the game parks of Tsavo East and Kora while some were reported to be moving to the neighboring districts of Lamu and Malindi.
- Migration of whole households from the worst affected areas towards areas of better pasture and water was also reported. The most affected areas were Assa and Kone in Garsen, Bangale, Madogo, Bura and parts of Galole.

## 1.5 Implications on food security

- Very little improvement is expected on the food security situation from the long rains, especially in the marginal mixed farming and hinterland pastoral dominated areas as the rains in these areas either failed completely or were highly erratic.

## 2.0 Rural economy indicators (food availability)

### 2.1 Livestock production

#### 2.1.1 Livestock body condition

- The livestock body and health conditions was rated fair in the mixed farming zone.
- However, the condition was poor in the pastoral and marginal mixed farming. The body conditions of camel was however still rated fair.

#### 2.1.2. Livestock diseases

- Though no serious livestock disease outbreaks were reported, CCPP and CBPP remained the most endemic diseases across the district while suspected cases of foot and mouth reported in Garsen and Tarasaa.

#### 2.1.3 Milk production

- Milk production and consumption at the household level continued to decline while the prices of the same continued to rise recorded at an average of Ksh40 from a normal Ksh25 for a 750ml bottle.
- Milk yields are expected to continue declining due to the ongoing harsh climatic conditions.

## 2.2.0 Crop production

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

- Most of the maize crop in those areas where farming took place was affected by the dry weather condition which is expected to drop the yield by approximately 40%.
- Meanwhile, high incidences of crop destruction by wildlife and livestock straying in the farming fields will also contribute to further decline in expected harvests.
- A few farmers along the river were also doing some crop production through pump-fed irrigation though at very small-scale due to high operation costs.

### 2.2.2 Pests and diseases

- Wildlife remained the main constraint reported across the district.

### 2.2.3 Harvests

- Harvests reported during the month include, pocket mango harvesting, vegetables and maize for those whose crop survived the first planting.

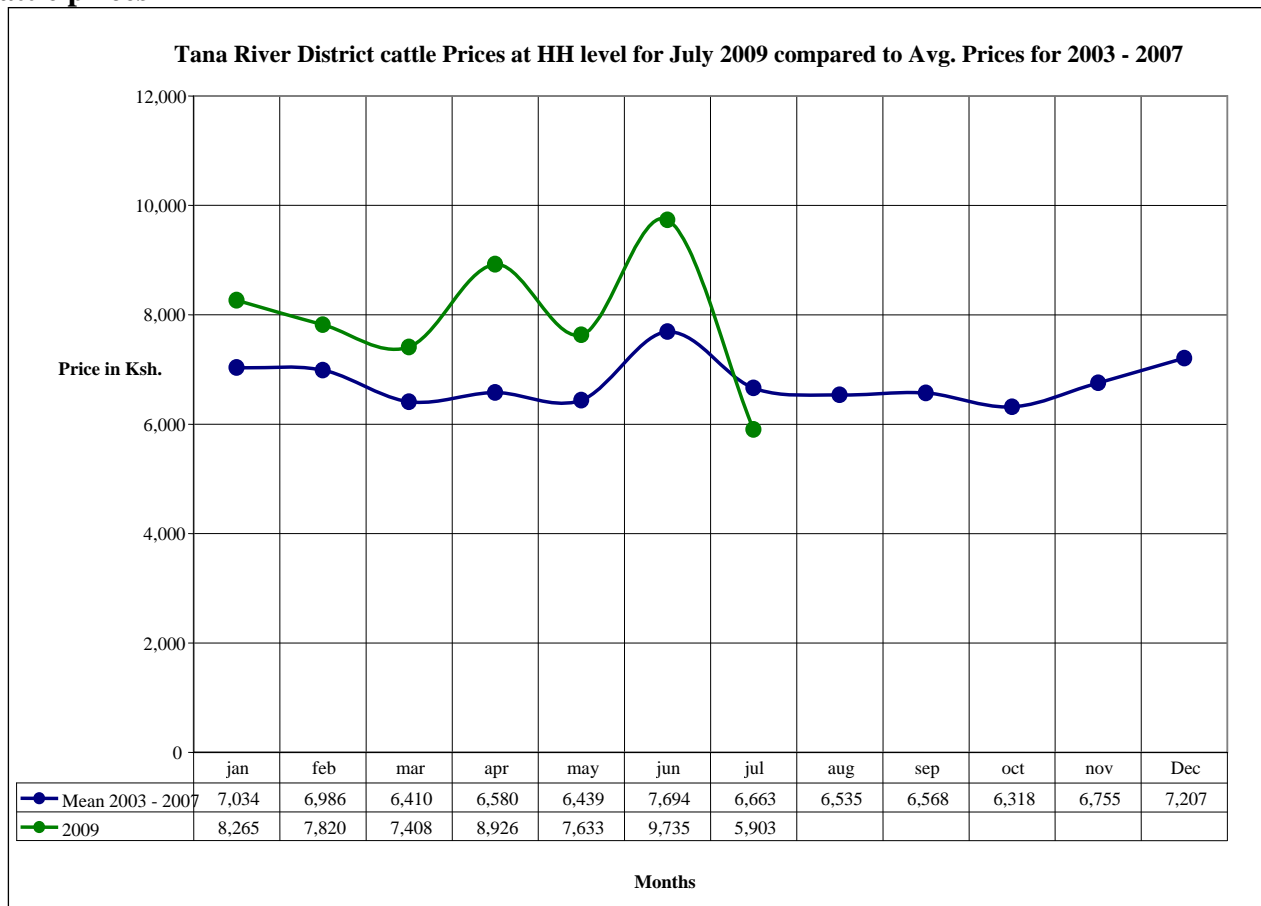
## 2.3 Implications on food security

- The mixed farming and part of the marginal mixed farming may temporarily realize a slight improvement on the food security due to some expected harvest however for a short period of time as the post harvest projection is below the normal and is expected to last for a maximum of 2 months.
- The pastoral zone is expected to continue undergoing a lean period as no signs of recovery have been registered from the long rains while the drought situation is still continuing.

## 3.0 Access to food

### 3.1 Livestock marketing

#### 3.1.1 Cattle prices



n = 450

- During the month the average price of cattle dropped to Ksh5,903 from Ksh9,755 last month.
- The prices so observed also dropped below the long term seasonal average price of Ksh6, 663 recorded during the period 2003 -2007.
- The most affected areas were Bangale, Bura, Madogo and Wenje whose prices went below 5,000.
- Drop in prices was due to congestion in the main markets, poor turn up of buyers coupled with prevailing poor livestock body conditions.

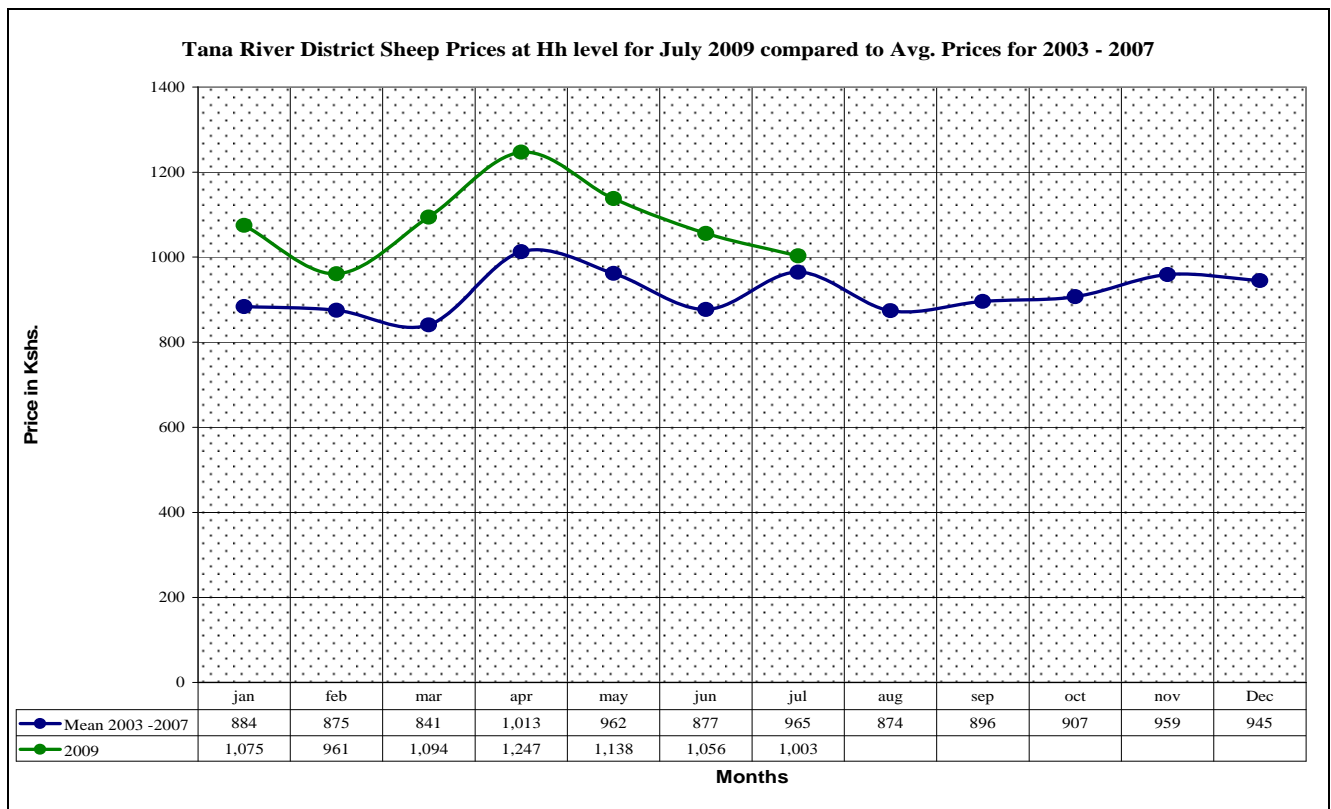
### 3.1.2 Goat prices



**n = 450**

- The prices of goats dropped to Ksh1, 275 compared to Ksh1, 378 last month.
- This price was lower than the long term seasonal average of Ksh1, 301 observed during the period 2003 – 2007.
- This drop could be due to the prevailing drought condition, coupled with more offers of the same to the market for sale with less willing buyers.

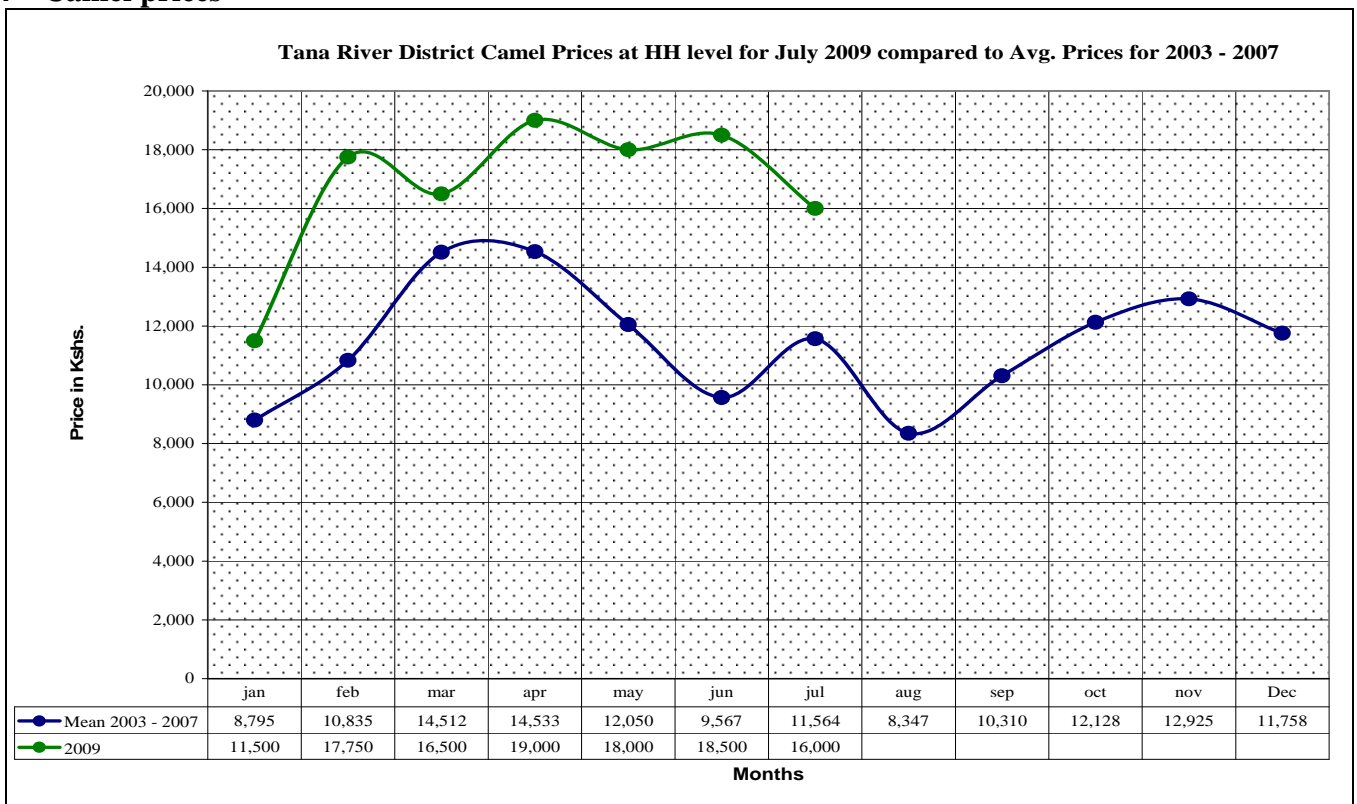
### 3.1.3 Sheep prices



n = 450

- During the month the price of sheep dropped to Ksh1, 003 from Ksh1, 056 last month.
- The price was slightly above the seasonal average prices of Ksh965 observed during the period 2003 – 2007.
- Drop in prices of sheep could be due to the trend whereby more pastoralists offered their stock for sale.
- The prices of livestock at market level in the pastoral and marginal mixed farming areas were, however, expected to rise due to scarcity of the same as most of them have migrated to the mixed farming zone.

### 3.1.4 Camel prices



n = 450

- During the month the average price of camel was reported at Ksh16,000 down from Ksh18,500.

- The prices were however still higher than the long term seasonal average price of Ksh11,564 recorded during the period 2003 – 2007.

### 3.2 Livestock sales

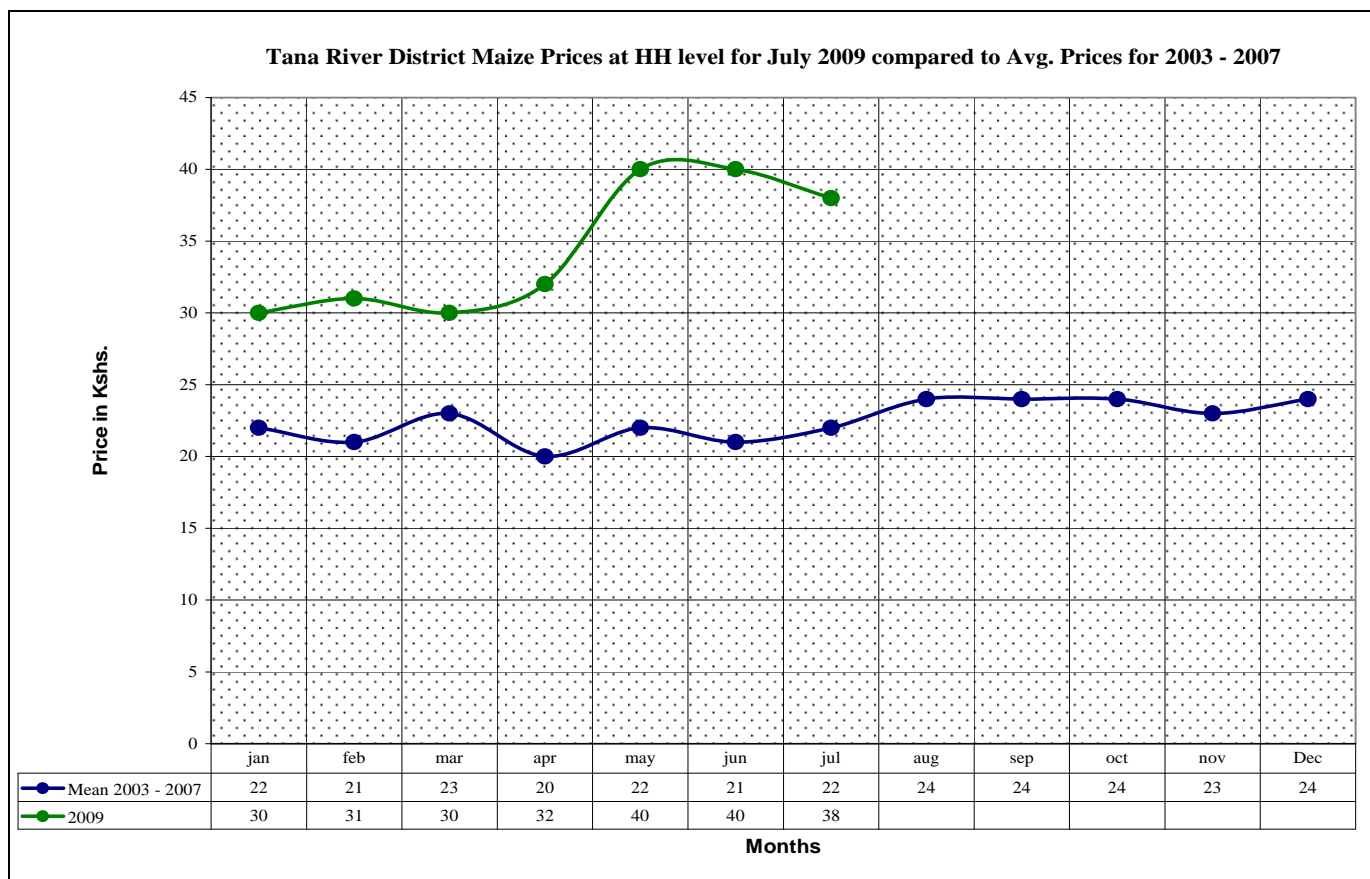
- During the month, sales rate of almost all livestock species dropped
- This may be due to poor market conditions brought about by less willing buyers earlier reported.

### 3.3 Milk consumption

- No significant change was observed in the milk consumption trends.
- On a livelihood zone basis, consumption in the pastoral zone was lowered due to outward migration while in the mixed farming zone consumption increased due to in-migration.

### 3.4 Crop prices

#### 3.4.1 Maize prices



n = 450

- During the month the price of maize dropped slightly to Ksh38 per kilo.
- The price was still far much higher than the seasonal average price of Ksh22 recorded during the period 2003 – 2007.
- High cereal prices were corroborated by scarcity in the local markets. Maize prices were, however, expected to decline when harvesting begins.

### 3.5 Income

#### 3.5.1 Crop income

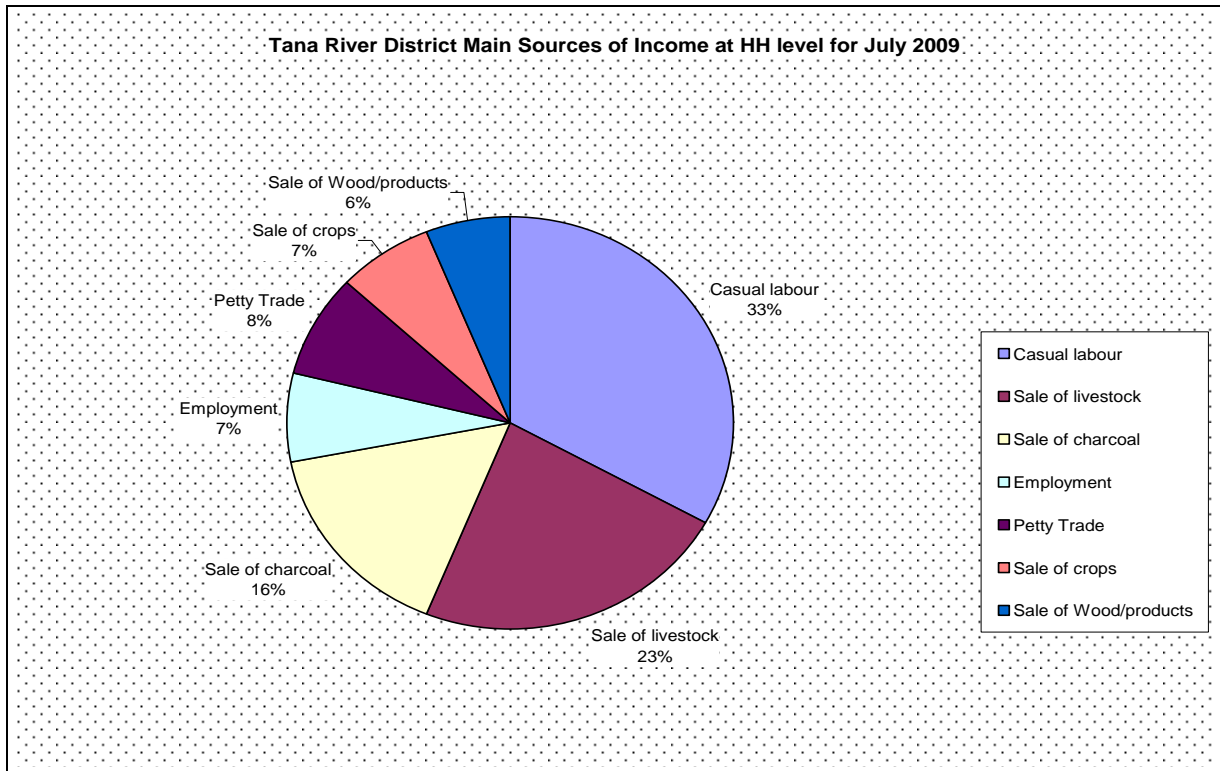
- During the month, incomes from sale of crops contributed 7% of the total household income.
- This could be attributed to sale of green maize and horticultural crops realized from the small scale pump fed irrigation plots.

#### 3.5.2 Livestock income

- Incomes derived from the sale of livestock dropped to 23% from 26% of last month.
- This is anticipated owing to drop in prices and sales of livestock earlier reported.

### 3.5.3 Other income

- Other sources of income at the household level included; casual labour whose incomes remained constant at 33%, sale of charcoal 16%, petty trade 8%, gifts/remittance 6% and Wage/employment 7%.



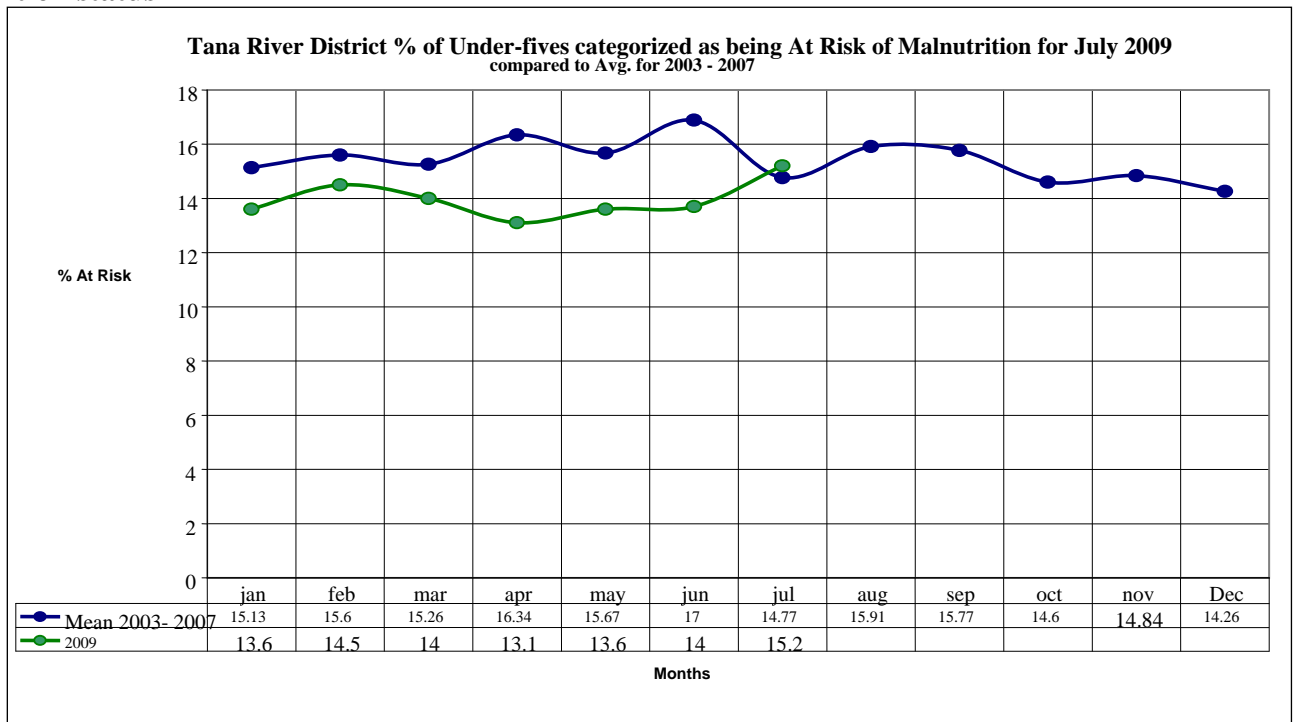
n = 450

### 3.5.4 Implications on food security

- The food security situation indicates some stress as the food availability indicators all pointed towards stress.

## 4.0 Human welfare indicators (utilisation of food)

### 4.1 Nutrition status



n = 2,346

- The nutrition status of children below five years ( based on the MUAC<135mm) recorded a worsening trend during the month.
- The percentage of children rated at **risk** of malnutrition rose to 15.2% from 14.0% reported last month.

- The rates were also higher than the long term seasonal mean of 14.77% observed during the period 2003 – 2007.
- Flagged areas in the district still remained Bangale at 16.0%, Bura 27.1% and Galole 24.2%.
- High rates in the flagged areas could be due to poor sanitation, feeding practises and food insecurity.

## 4.2 Human health

- No outstanding human disease outbreaks were reported during the month. However, malaria, URTI, skin diseases, diarrhea and pneumonia were rated as the top causes of morbidity.

## 5.0 Current interventions

### 5.1 Non-Food interventions

- Food production in the dry land areas by use of water harvesting technology.
- Support food production by capacity building and provision of pumps to farming groups
- Supporting Kazi Kwa Vijana through construction of water structures and clearing Agricultural lands
- Water trucking to the most affected areas of Bangale, Madogo and Galole.
- Revival of the Hola Irrigation Scheme – a total of 1250ha of land already prepared and allocated to 650 farmers with 1.5 acres plot each and planting is expected to begin soon.
- Bura Irrigation - cropping is going and farmers have also realized the first harvest.

### 5.2 Food aid

- School feeding program in all primary schools – Tana River and Tana Delta.
- Supplementary and therapeutic feeding program for children aged 6 – 59 months, pregnant and lactating mothers ongoing in health institutions both in Tana River and Tana Delta.
- Food for Assets being piloted in 7 project sites of Kalkalcha, Kiarkungu, Umoja-West, Wayu Boro, wayu Duka, Haroresa and Chifiri.
- EMOP/PRRO – benefiting 73,960 people both in Tana River and Tana Delta districts.

### 5.3 Coping Strategies

- The general drought coping strategy indicates a worsening trend as during the month, of the 450 households interviewed; 3% were classified as “Better Off”, 20% “Middle”, 56% “Poor” and 21% “Poorest” compared to 4%, 23%, 51% and 22% of last month.
- The main coping strategies applied during the month include.
  - Migration in search of water/ better pasture and labour opportunities.
  - Reduced number of meals per day.
  - Charcoal burning.
  - Remittances and gifts from relatives.
  - Petty trade.
  - Distress livestock selling.

## 6.0 Recommendations to DSG and KFSM

- Continue with food aid in terms of Supplementary feeding, School Feeding and PRRO.  
*Action: KFSSG/District Steering Group/Partners/Communities*
- Enhance water trucking efforts in the flagged areas.  
*Action: DAC/District Steering Group/Partners/Communities*
- Enhance human disease/nutritional surveillance and step up outreach services to hard to reach areas.  
*Action: MOH/DPHO/District Steering Group/Partners/Communities*
- Strengthen peace building initiatives in the hotspots to curb anticipated incidences of conflicts that may arise from resource use.  
*Action: DSICO/DPC/District Steering Group/Partners/Communities*
- Come up with concrete plans to address wildlife menace across the district  
*Action: KWS/District Steering Group/Partners/Communities*
- Provision of livestock relief feeds and supplements to the flagged areas.  
*Action: KFSSG/District Steering Group/Partners/Communities*