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FOREWORD

This publication of the **"Economic Review of Agriculture 2009"** is the 4th edition since 2006 when it was re-introduced. The publication has become a crucial reference point for time-series data on agriculture. In future, efforts will be made to incorporate both livestock and fisheries data-sets so as to inform the Agricultural and Rural Development (ARD) sector in a more holistic manner. Horticultural data will also be expanded to include disaggregated production.

Commendable progress has been achieved in the development of **"An Agricultural Sector Data Compendium for Kenya"** where the ministry is partnering with the Kenya Institute for Public Policy and Analysis (KIPPRA). The data-base is currently undergoing preliminary observations on-line. It is expected that the combined efforts will provide crucial data-sets to monitor progress towards attainment of the Millennium Development Goal (MDG1) on poverty and hunger reduction (food security).

This edition consists of eight chapters namely; chapter one that summarizes the country's economic performance since 2003 and also shows the share of agricultural output in comparison with other sectors; chapter two highlights government budget allocations to the Ministry over the period under review and as compared to the whole agricultural sector; chapter three enumerates key agricultural reforms that continue to transform agriculture into a competitive and profitable undertaking.

Chapter four features the world food situation as reported by FAO and compares with the local situation; chapters five-seven shows time-series data and corresponding analysis on the food, industrial and horticultural crops respectively; chapter eight highlights information on agricultural inputs; seed, fertilizer and pest control products.

The Ministry commends the editorial team led by the Chief Economist, James M. Kirigwi and Alex Wambua, Economist for making this publication possible.

Romano M. Kiome, PhD, CBS
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ABBREVIATIONS

ACP	-	African Caribbean and Pacific
Ag-GDP	-	Agricultural Gross Domestic Product
ASAL	-	Arid and Semi Arid Land
BAT	-	British American Tobacco
COMESA	-	Common Market for Eastern and Southern Africa
CPPMU	-	Central Planning and Project Monitoring Unit
EAC	-	East African Community
EDF	-	European Development Fund
EEC	-	European Economic Community
EPA	-	Economic Partnership Agreement
ERS	-	Economic Recovery Strategy for Wealth and Employment Creation
EU	-	European Union
EUREPGAP	-	European Good Agricultural Practice
FTA	-	Free Trade Area
FTC	-	Farmers Training Centre
GDP	-	Gross Domestic Product
GoK	-	Government of Kenya
GTZ	-	German Technical Cooperation
Ha	-	Hectare
HCDA	-	Horticultural Crops Development Authority
KARI	-	Kenya Agricultural Research Institute
Kshs	-	Kenya Shillings
KTDA	-	Kenya Tea Development Agency
MDG	-	Millennium Development Goal
NASEP	-	National Agricultural Sector Extension Policy
NCPB	-	National Cereals and Produce Board
NGOs	-	Non-Government Organizations
SRA	-	Strategy for Revitalizing Agriculture
US	-	United States of America
USDA –		United States Department of Agriculture
WB	-	World Bank
MT	-	Metric Tonne
KNBS	-	Kenya National Bureau of Statistics
IMF	-	International Monetary Fund
WTO	-	World Trade Organization
CPI	-	Consumer Price Index

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NFNP	-	National Food and Nutrition Policy
NAEP	-	National Agricultural Extension Policy
PCPB	-	Pest Control Prevention Board
NFSP	-	National Food Security Programme
NALEP	-	National Agriculture and Livestock Extension Programme
ASPS	-	Agricultural Sector Programme Support
CADSAL	-	Community Agricultural Development in Semi-Arid Land
SHoMaP	-	Small Holders Horticulture Marketing Programme
SHEP	-	Small Holder Horticulture Programme
KAPP	-	Kenya Agricultural Productivity Project
NAAIAP	-	National Accelerated Agricultural Inputs Access Program
ATCs	-	Agricultural Training Centre
USDA	-	United States Department of Agriculture

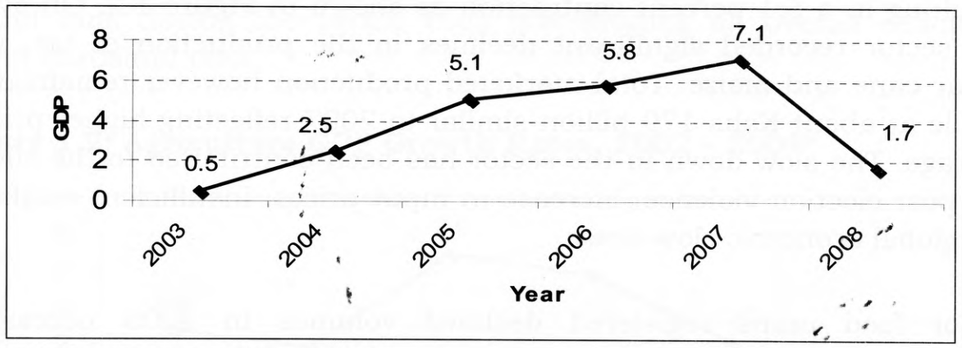
1.0 OVERVIEW ON ECONOMIC PERFORMANCE

1.1 Overall Economic Performance

Real GDP growth experienced the worst performance since 2003 registering a mere 1.7 percent down from a revised 7.1 percent registered in 2007 as shown in Figure 1.1. Growth prospects in 2008 were severely undermined by poor performance in the key sectors such as Agriculture, Tourism, Manufacturing and Transport. Indeed, resilience in the construction sub-sector which improved by 1.4 percentage points from a growth of 6.9 percent in 2007 to 8.3 percent in 2008 was not enough to stem the slow-down.

Key determinants of the poor economic performance and in particular agriculture which contracted by a dramatic 5.1 percent (down from 2.2 percent in 2007) include the negative effects of the 2008 post-election violence worsened by poor and erratic rainfall during the long and short rains. More generally, the economy was adversely affected by the onset of global economic and financial turbulence which persisted for most of the year. Value-added in agriculture at constant prices as a consequent fell to Kshs 292 billion from Kshs 308 billion recorded in 2007.

Figure 1.1: GDP Growth Rate, 2003 – 2008*



** Estimate as at Jan. 2009*
Source: KNBS

The year also witnessed general increases in food and fuel prices worldwide. In particular, the price of crude oil rose dramatically to peak at US$ 143 per barrel in July 2008 before stabilizing at about US$ 38 per barrel in December 2008. Meanwhile, the prices of fertilizers in the domestic market

likewise peaked at an average Kshs 3,800 for DAP (50Kg bag) in the 2008/09 season up from an average Kshs 1,730 in the 2006/07 season. The combined effects of these factors dampened agricultural output in a significant manner.

In the same period, the overall value of marketed production remained fairly flat at about Kshs 179 billion in 2008 with livestock products contribution of about Kshs 31 billion.

Kenya's economic growth prospects for 2009 remain guarded with forecasts of 2-3 percent (*KNBS*). The projections could none the less be undermined by delayed, erratic and insufficient rains in key food growing areas and lack of adequate pasture for livestock. On the positive front, there are signs that economic recovery in major world economies could materialize by the last quarter of 2009 through 2010 (*World Bank Forecast*) thus renewing demand for commodities. A rebound could also trigger an improvement in capital inflows into the economy including remittances from the Diaspora.

1.2 Performance of the Agricultural Sector

Performance of the sector remained subdued due to various factors resulting in a 5.1 percent contraction as shown in Figure 1.2. On average, the sector recorded significant declines in the production of tea, wheat, sugar cane and maize. Total marketed production however remained fairly stable at about Kshs 179 billion similar to 2007 reflecting higher prices on average. The slow down in the sector has been contributed to the effects of the post election violence, increase in input prices, insufficient rainfall and the global economic slow-down.

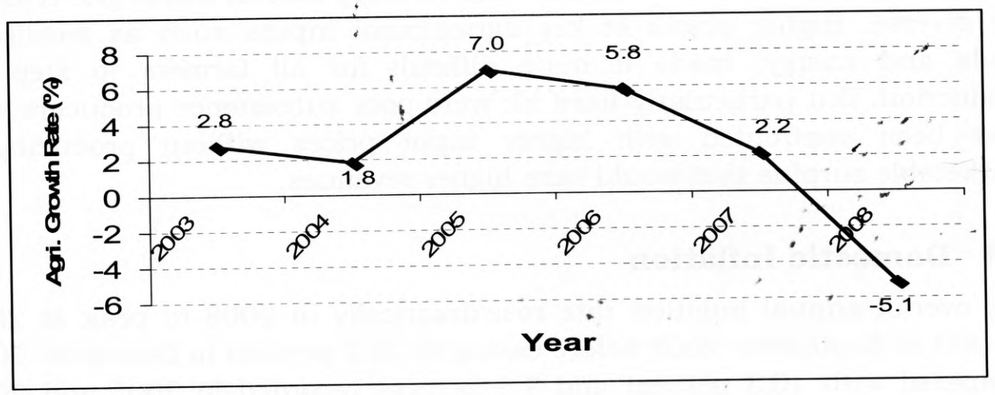
Major food crops registered declined volumes in 2008 necessitating Government sponsored imports to address food deficits in some parts of the country. In particular, maize production fell to about 26.3 million bags down from 32.5 million bags in 2007 thus necessitating the importation of about 243 thousand tons (2.6 million bags) of maize valued at Kshs 6.7 billion up from about 100 tons (1.1 million bags) valued at kshs 1.1 billion in 2007.

Wheat production similarly fell to 86 thousand tons down from 113 tons in 2007. Corresponding imports of wheat were 539 tons or more than six-fold the volume of local production for the year. The volume of horticultural exports registered marginal growth to about 193 thousand tons. However, export values decreased by 14 percent in 2008 from Kshs 68 billion in 2007 to Kshs 58 billion on account of lower international prices.

Production of coffee decreased to 42 thousand tons from 53.4 tons in 2007 with about 48 percent of the total being attributed to coffee-estates. Similarly the registered yields per hectare for the cooperative sector was only a third of the estates sector whose yields registered about 532 Kg /Ha. Tea production also decreased by about 15 percent to 346 thousand tons down from 370 thousand tons in 2007 where the small-holder sector share decreased more rapidly in comparison. However, the value of tea exports rose substantially in absolute terms to Kshs 64 billion up from Kshs 47 billion in 2007 buoyed by better international prices and a weakened Kenyan Shilling.

Sugar production decreased marginally from 520 thousand tons to 518 thousand tons while consumption was recorded at 750 thousand tones representing a deficit of 232 thousand tons. Total sugar imports were 218 thousand tons during the period thus precipitating an overall deficit of about 14 thousand tons.

Figure 1.2: Agriculture GDP Growth Rates, 2002 – 2008*



** Provisional (2008)*

1.3 The Global Agricultural Perspective

According to views of both domestic and international trade and financial experts, the current global economic melt down will impact negatively on developing countries including Kenya in a variety of ways; decreased commodity prices and exports receipts, decreased Foreign Direct Investment (FDI), unpredictable equity in-flows and remittances and intensified exchange rate fluctuations. International trade is already shrinking, growth declining, and unemployment rising. The associated losses for Sub-saharan African countries are forecasted at over USD 50 billion in 2008/09 financial year thus further dampening prospects in the achievement of the Millennium Development Goals (MDGs).

1.3. 1 Commodity Prices

Prices for most agricultural commodities have dropped significantly and swiftly in the recent past. World grain prices have fallen by over 50 percent from those recorded earlier last year. International prices for other important foodstuffs, such as vegetable oils, oilseeds and dairy products have also drifted downwards, though they are still above their longer term average. Rice is still expensive but prices may follow the path for other foodstuffs as the new crop comes on stream, export restrictions are relaxed and demand shifts further to cheaper alternatives.

Statistical evidence also suggests that most of the production increase of the last two years arose in developed countries. The benefits of higher prices have not accrued to producers in many developing countries, for their supply response was small in 2007 and virtually zero in 2008. The reasons are diverse. Higher prices of key agricultural inputs such as fertilizers, seeds and energy, made it more difficult for all farmers to step up production. But particularly hard hit were poor subsistence producers who have been confronted with higher input prices without producing a marketable surplus that would earn higher revenues.

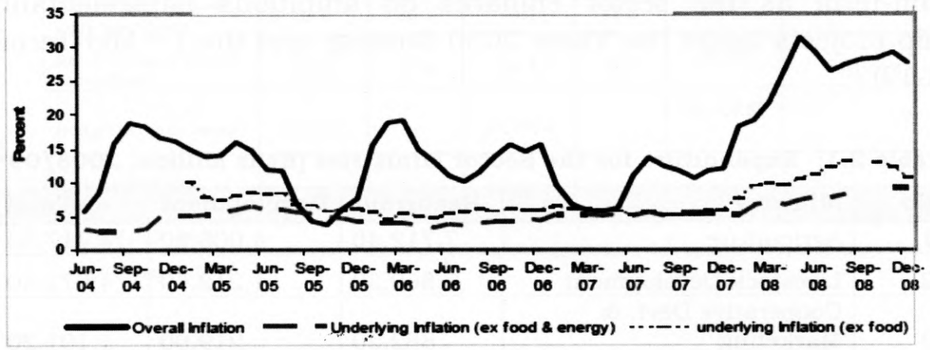
1.4 Domestic Inflation

The overall annual inflation rate rose drastically in 2008 to peak at 28.2 percent in September 2008 before easing to 26.2 percent in December 2008 compared with 10.3 percent and 9.8 percent recorded in 2005 and 2007 respectively. The unprecedented high inflation was largely due to rising

prices of food, fuel/power and transport/communication costs whose indices represented 35.3, 21.5 and 18.1 percent respectively. The implication of food and fuel induced inflation is demonstrated by the conspicuous moderation in the overall rate of inflation when either food or food and fuel items are excluded from the reference basket as shown in Figure 1.3.

It is expected that inflationary pressures will moderate in 2009 driven by improved food supply (supplemented by imports) and falling fuel prices coupled with prudent fiscal and monetary interventions.

Figure 1.3: Underlying and Overall Inflation rates in 2004–08



Source: KNBS

2.0 TRENDS IN BUDGET ALLOCATION TO AGRICULTURE

The share of budget allocation to the agricultural sector comprising nine (9) sub-sectors has been well above 5 percent and progressing toward the 10 percent as per the Maputo Declaration as indicated under Tables 2.1 and 2.2. Towards achieving the 10 percent target, the Government indicated during the Biannual National Agriculture Sector Conference in 2008 to increase the budgetary allocation to the agricultural sector from 4.3 percent to 8 percent of the national budget.

Total budget allocation to the sector increased from Kshs. 20.4 billion in 2005/06 to Kshs. 25.8 billion in 2008/09 in absolute terms; Kshs 17.6 billion and Kshs 8.2 billion for recurrent and development expenditure respectively. It is expected that the increase will be sustained in the medium-term as the sector embarks on ambitious implementation of flagship projects under the Vision 2030 Strategy and the 1 st Mid-Term Plan (2008-12).

Table 2.1: Expenditure for the Sector Ministries (Kshs Million, 2008/09*)

No	Ministry	Recurrent	Development	Total
1	Agriculture	7,712.40	4,005.20	11,717.60
2	Livestock Development	2,860.30	1,212.40	4,072.50
3	Cooperative Devt. & Marketing	882.20	219.00	1,101.20
4	Lands	1,440.80	574.40	2,015.20
5	Regional Development Authority	688.40	708.60	1,397.00
6	Environment & Mineral Resources	1,058.10	627.60	1,685.70
7	Tourism	1,222.20	478.00	1,700.20
8	Fisheries Development	723.50	227.50	951.00
9	Trade	1017.90	98.80	1,116.70
Total		**17,605.80**	**8,151.50**	**25,757.30**

Source: ARD Sector Report 2009 & Ministry of Finance
** Provisional*

During the period under review, budget allocation to the Ministry of Agriculture has equally been on an upward trend. However, in 2008/09, Kshs 1.8 billion was transferred to the Ministry of Special Programmes for food security expenses thus reducing the overall budget to 11.72 billion.

The recurrent budget accounted for Kshs. 7.71 billion while development budget was Kshs. 4.01 billion; slightly more than half of the total.

Table 2.2: Expenditure for the Ministry of Agriculture (2005/06 – 2008/09)

Item	2005/06		2006/07		2007/08		2008/09*
	Printed	Actual	Printed	Actual	Printed	Actual	Printed
Recurrent Budget	5,116.1	5,052.6	5,850.5	5,464.5	9,598.3	9,510.6	7712.4
Development Budget	3,217.5	2,215.7	4,431.1	3,716.8	5,219.3	4,044.9	4005.2
Total Expenditure	8,333.6	7,268.3	10,281.7	9,181.3	14.817.6	13,555.6	11717.6
Total Expenditure as % of GDP*	0.59	0.51	0.73	0.56	0.82	0.75	-
Total Expenditure as % of total GOK expenditure	2.31	2.02	2.44	2.19	2.37	2.17	2.17
Development as % of total expenditure	38.6	30.5	43.1	40.5	35.22	29.84	34.18
Recurrent as % of total expenditure	61.4	69.5	56.9	59.5	64.78	70.16	65.82
Budget to Agric. Sector	20,372.0	-	24,288.0	-	22,514.80	-	25,757.1
Agric as % of total budget	5.8	-	6.2	-	4.8	-	4.3

Source: PER, MoA
**Provisional*

3.0 KEY AGRICULTURAL REFORMS

3.1 Key reforms undertaken in 2008

3.1.1 National Seed Industry Policy and Seeds and Plants Varieties: - The Policy is meant to give a clear a clear direction for sustainable development of the Seed Industry in order to avail adequate high quality Seed and Planting materials. It is also aimed at harmonizing all seed related activities, legislation and actors. The Paper and Bill have been approved by the Cabinet Committee on the Productive Sector.

3.1.2 Sessional Paper and Sugar Amendment Bill of the Sugar Act. No. 10 of 2001:- The amended Sugar Act ai ms at restructuring the sugar industry to make it more efficient and competitive in view of the liberalized regional and global trade. The Sessional Paper, Bill and the Cabinet Memo are ready.

3.1.3 National Agricultural Sector Extension Policy (NASEP): - The Policy aims at revising the existing National Agricultural Extension Policy (NAEP) to give it a Sector-wide dimension and representation. It is also made to guide and regulate the provision of agricultural extension services in the country. The Sessional Paper is ready.

3.1.4 National Food and Nutrition Policy (NFNP) and Food Security and Safety Bill:- The NFNP aims at facilitating improved food availability and access by increasing the quantity and quality of available food for all. Cabinet paper is ready but will be reviewed on a few sections to address legal and administrative institutions and other structural arrangements responsible for food security.

3.1.5 Amendment of the Coffee Act. No. 9 of 2001:- The main objective of the amendment was to provide alternative window for direct coffee sales and marketing and provide Coffee Development Fund to Finance the Industry. It will also facilitate the restructuring of the key Industry institutions for efficient and effective service delivery for accelerated growth of the coffee sub-sector. Coffee rules for direct sales have been gazetted.

3.1.6 Sessional Paper and Bill to amend the National Cereals and Produce Board Act, Cap 338: - Is a new National Cereal Bill, 2006 that repeals and replaces and Cap 338 with a suitable legal framework for a commercialized grain industry. The Sessional Paper is awaiting Cabinet approval.

3.1.7 Amendments to the Pest Control Products Act Cap 346 and Rules

The objectives of the amendments are to:

(i) Establish PCPB as a body corporate;

(ii) Provide for amendments to the 20 year old, Cap 346 so as to give the Board more powers to effectively regulate the pesticides industry in view of changes that have occurred over the last two decades and to also establish a pension fund; and

(iii) Revise and gazette 6 Legal notices used for the regulation of the pesticide industry.

3.2 Other Reforms

3.2.1 Review of Project Implementation and Budget execution

In 2007/08, the Ministry established a Budget Implementation Committee that oversees budget execution. The Committee meets on a monthly basis to review the progress in budget execution. In order to ensure improved resource use, all departments have drawn respective procurement plans detailing their supply requirements for the financial year. In addition, the departments have prepared their respective budget implementation matrices indicating activities for each quarter. At the end of every quarter, reports on achievements are reviewed to establish the reasons for variations if any for quick remedial measures.

3.2.2 Review of functions of technical wing to create 5th directorate.

The Ministry is in the process of further restructuring the technical department to separate the Crop Development and Land Development functions. This will result in the creation of a separate Crop Development and Engineering Directorates respectively.

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3.2.3 Staff related reforms

The ministry reviewed the schemes of service for all the technical cadre of the Ministry that include Diploma holders, Graduate Agricultural Officers and Agricultural Engineers.

3.3 Programmes Introduced in 2005-2008

In the on-going attempts to revitalize growth of the agricultural sector, some programmes and projects were introduced for implementation since 2005 and include:-

3.3.1 National Food Security Programme /Njaa Marufuku Kenya

The NFSP/NMK programme is the up-scaled implementation phase of the Kenya Special Programme for Food Security (KSPFS). Its main objective is to reduce by half the number of people who are food insecure in Kenya by 2015 (MDG1). This will be done through mobilization of farmers to form support groups who will be empowered through training and provision of seeds.

3.3.2 National Agriculture and Livestock Extension Programme (NALEP II)

NALEP II is the upscale of NALEP I and covers 55 districts, compared to the previous 43. The programme aims at enhancing the contribution of agriculture and livestock to social and economic development and poverty alleviation by promoting pluralistic, efficient, effective and demand-driven extension services to farmers and agro-pastoralists.

3.3.3 Agricultural Sector Programme Support (ASPS)

The programme is part of the long-term (10-15yrs) Danish support to the agricultural sector in Kenya. It is an up-scaling from the previous programme (ASP) that ended in 2005. It covers 16 districts in Eastern and Coast provinces compared to the previous 4 in ASP. The objective of this programme is to contribute towards raising incomes of smallholder-farmers

and agro-based micro and small-enterprises in the targeted semi-arid districts.

3.3.4 Community Agricultural Development Project in Semi Arid Lands (CADSAL)-JICA

The project commenced in October 2005 and ends in October 2010. The objective is to improve food security in semi arid lands of Kenya. The project components are; capacity building for farmers, extension agents and other stakeholders in agriculture in the project area; crop development; livestock improvement; and water resource conservation and management. The project is located in the Kerio Valley; semi arid areas of Keiyo and Marakwet districts in Rift Valley Province.

3.3.5 Small Holder Horticulture Marketing Programme (SHoMaP)

This is a new project sponsored jointly by GoK and IFAD. The project objective is to reduce poverty through capacity building, market development and improvement of rural access roads. The project covers Gucha, Embu, Buret, Meru-Central and Nandi-South districts

3.3.6 Small Holder Horticulture Empowerment Programme (SHEP)

This project is sponsored by JICA for the duration 2006-2009 to cover Trans-Zoia, Bungoma, Kisij and Nyandarua districts. The project objective is to develop capacity of smallholderhorticulture farmer groups to develop their communities by themselves.

3.3.7 Kenya Agricultural Productivity Project (KAPP)

This is a 12-year multi-institutional programme that aims at increasing agricultural productivity through reforms in policy, research, extension and farmer/client empowerment. The project started in 2004 and is expected to end in 2016. KAPP is being implemented in 20 pilot districts in 7 provinces and is funded by the World Bank and the GOK.

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3.3.8 Water Harvesting for Agricultural Production

This is a GoK funded pilot project that was started in 2006 in some arid and semi arid districts. The project aims at increasing agricultural production through construction of water pans and other water harvesting structures for demonstration purposes. The Ministry intends to upscale the lessons learnt in all arid and semi arid districts.

3.3.9 National Accelerated Agricultural Inputs Access Program (NAAIAP)

NAAIAP was started in July 2007 and applies the value chain approach to examine the needs and problems in research, extension, input markets, financial services, agronomic practices, processing, marketing and policy. NAAIAP aims to reach 2.5 million small farmers, who farm between 0.50 and 1 hectare. In this initial 3 year phase, it will concentrate activities in 33 districts in medium and high potential areas of Kenya. NAAIAP focuses on small farmers who are currently not using agricultural inputs – the vast majority of farmers with less than 2 acres.

3.4 Proposed Projects for 2009-10

All the proposed projects are based on the ideals of the Vision 2030 Strategy and the 1st Medium-Term Plan (2008-12) and involve strong participation of stakeholders in designing and implementing agreed interventions.

3.4.1 Banana Stem and Leaves Technology Development

The project aim at adding value to the banana fibres by utilizing the banana stem and leaves for production of hand paper products, absorbent material for oil spillage end-uses and promote measures against natural resource degradation. The project will involve construction of a pilot plant, capacity building on banana fibre processing and dissemination of the technology within the country. The project is expected to run for three years and be funded by the GOK.

3.4.2 Promotion of Tissue Culture Bananas

The project aims at increasing food production and farmers income through improved post harvest handling and value addition. Currently a storage facility is being constructed in Maara District. Proposals have been submitted for Vihiga and Muranga North and South Districts and will be funded by the GoK

3.4.3 Integrated Food Processing Project

Food processing, preservation and value addition will go along way in enhancing food security, increasing incomes and creating employment.

The project involves establishment of facilities country wide to promote agro-processing. Piloting is underway in Nyandarua North and South districts where Ol Joro Orok and Njabini ATCs are developing agro processing centers for:-

i). Business purpose
ii). Training facilities
iii). In house agro-processing business incubation.

In 2009/10 it is intended that the project will be up-scaled in three more ATCs.

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4.0. WORLD COMMODITY AND FERTILIZER SITUATION[1]

4.1 Cereals

FAO forecasts for world cereals production and consumption are shown in Table 4.1 and Figure 4.1. Production is projected to increase by 196.07 million tons from 2,076.13 million tons in 2007/08 to 2,272.2 million tons in 2008/09. This is a 9 percent increase, mainly attributed to the 82.51 million tons (13.7 percent) increase in production of wheat from 603.59 million tons in 2007/08 to 686.1 million tons in 2008/09. The bulk of the increase is from developed countries. Specifically, world production is expected to increase by 7.4 percent from 1,051.91 million tons in 2007/08 to 1130.2 million tons in 2008/09. Rice production will also register a significant increase of 8.4 percent.

Meanwhile, cereal consumption is forecast to rise from 2,105.13 million tons in 2007/08 to 2,200.1 million tons in 2008/09; well below production by 3.3 percent. This development will result in a build up of existing stocks leading to a year-end world stocks for cereals increasing by 37 percent from 307.74 million tons in 2007/08 to 421.3 million tons in 2008/09.

Table 4.1: World Cereals Situation, 2003 – 2008 (million tons)

Year	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09*
Wheat	549.61	628.56	620.13	592.02	603.59	686.1
Coarse grains	897.32	1,014.07	977.60	967.21	1051.91	1130.2
Rice	391.02	400.47	416.28	415.27	420.63	455.9
Total Production	**1,837.96**	**2,043.13**	**2,014.01**	**1,974.50**	**2,076.13**	**2,272.2**
Wheat	587.93	610.05	624.42	618.16	618.97	649.3
Course grains	940.82	975.92	989.19	1,014.36	1,062.46	1102.8
Rice	412.74	407.72	413.14	417.71	423.70	448.0
Total Consumption	**1,941.49**	**1,993.69**	**2,026.75**	**2,050.22**	**2,105.13**	**2,200.1**
Wheat	128.75	121.83	120.80	166.44	109.70	152.9
Course grains	121.90	117,98	119.28	81.29	125.97	183.0
Rice	85.51	78.15	81.29	78.25	72.07	85.4
End Year Stocks	**336.16**	**414.98**	**321.37**	**325.98**	**307.74**	**421.3**

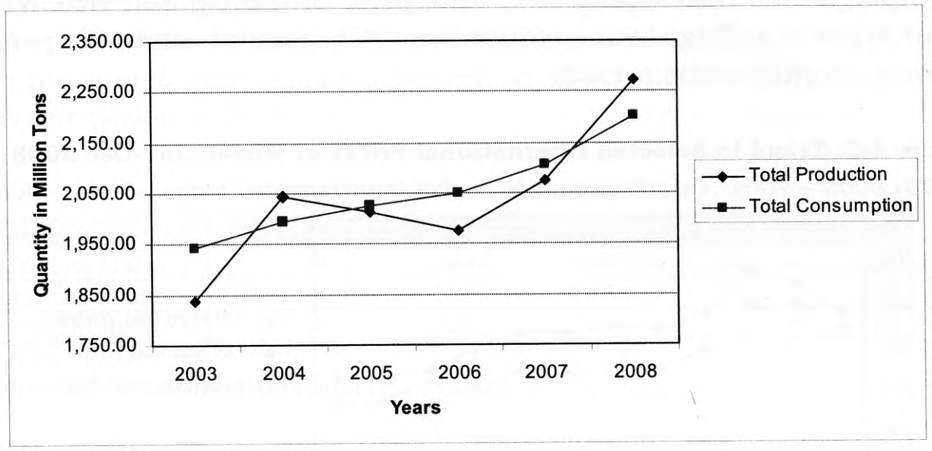
Source: USDA- WASDE
** Projections as at Feb.2009*

World cereals production has been on a recovery path and is expected to maintain the trend in 2008/09. Consumption has continued to grow over the same period. The consequence is likely to be a mild increase in world

[1] FAO extracts

market price for cereals. Domestically, lack of affordable inputs including fertilizer continues to constrain local production making Kenya a net-food importer. This is further worsened by inadequate rains in key areas. Chances for price moderation will therefore depend on timely Government interventions on inputs and importation of key cereals including maize.

Figure 4-1: Trend in World Cereals Production and Consumption; 2003 - 2008



4.1.1 Wheat

World production of wheat is projected to increase by 13.7 percent from 603.59 million tons in 2007/08 to 686.1 million tons in 2008/09. The production will be well above demand estimated at 649.3 million tons leading to of the build up existing stocks. The world stocks at 152.9 million tons in 2008/09 are projected to be the highest for the past five years.

The higher supply of wheat has resulted in declining world wheat prices as shown in Table 4.2. In the US, for example, the annual average exports prices for hard red winter wheat reduced by 21 percent from US$ 361 per ton in 2007/08 to US $ 284 per ton in 2008/09. The price of the soft red winter wheat reduced by 33 percent from US$ 311 in 2007/08 to US$ 209 per ton in 2008/09. The price of the Argentina Trigo Pan wheat declined by 22 percent from US$ 318 per ton to US$ 247 per ton over the same period.

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Table 4.2: Selected International Prices of Wheat, 2004 – 2008 (US$/ton)

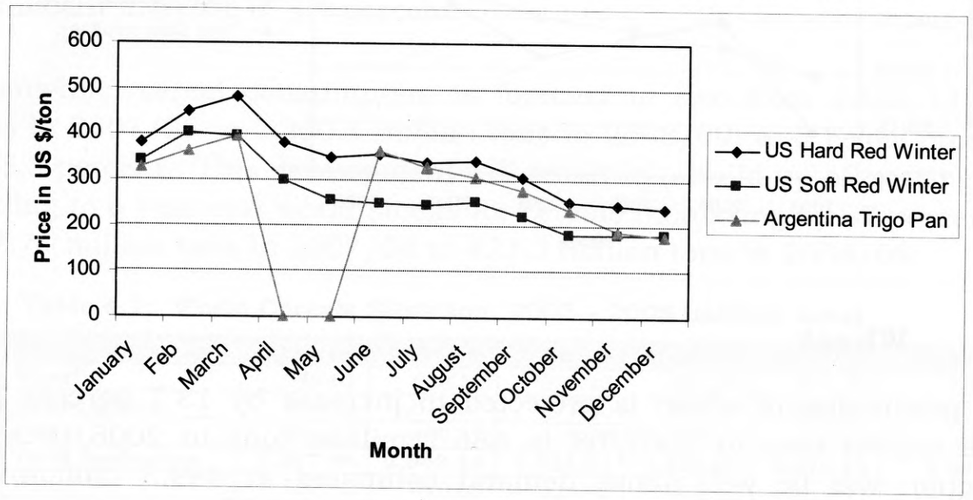
Source	2004/05	2005/06	2006/07	2007/08	2008/09*
US Hard Red Winter	154	175	212	361	284
US Soft Red Winter	138	138	176	311	209
Argentina Trigo Pan	123	138	188	318	247

Source: FAO

** Average for seven months July 08 – Jan 09.*

Figure 4.2 shows that the world market price of the US hard red winter wheat decreased by 37 percent from US$ 381 per ton in January 2008 to US$ 240 per ton in December 2008. The price of the US Soft Red Winter and the Argentina Trigo Pan reduced by 42 percent and 40 percent respectively over the same period.

Figure 4-2: Trend in Selected International Prices of Wheat, Jan-Dec 2008



4.1.2 Coarse Grains

Increased production of coarse grains including maize has been sustained since 2003/04 with projections indicating that production will rise from 1,051.91 million tons in 2007/08 to 1,102.8 million tons in 2008/09 which translates to about 4 percent increase. World utilization of coarse grains is projected to rise by 3 percent reflecting a weaker demand due to substitution with wheat, whose supply has increased significantly.

In the maize market, prices as highlighted in Table 4.3 continued on an upward trend. US yellow maize rose from US$ 97 per ton in 2004/05 to US$ 168 per ton in 2007/08 before rising further by 20 percent to reach

US$ 201 per ton in 2008/09. The price of Argentina maize also increased from US$ 90 per ton in 2004/05 to US$ 172 per ton in 2007/08 before rising further by 9 percent to reach US$ 187 per ton in 2008/09. However, the price of sorghum is projected to decline by 2 percent from US$ 181 per ton in 2007/08 to US$ 179 per ton in 2008/09.

Observed trends on maize prices are likely to have serious short and medium-term implications on food security for net food importing low income countries including Kenya. The price of maize in Kenya was for example quoted more than 43 percent in March 2009 when compared with the same period in 2008.

Table 4.3: Selected International Prices of Coarse Grains, 2004 – 2008 (US$/ton)

Source	2004/05	2005/06	2006/07	2007/08	2008/09*
US Yellow Maize	97	104	150	168	201
Argentina Maize	90	101	145	172	187
US Sorghum	99	108	155	181	179

Source: FAO

** Average for seven months July 08 – Jan 09.*

4.1.3 Rice

It is projected that rice production will increase by 8.4 percent from 420.63 million tons in 2007/08 to 455.9 million tons in 2008/09. Consumption will also increase by 5.7 percent from 423.7 million tons to 448 million tons over the same period. Meanwhile rice stocks at the close of 2008/09 marketing season are projected to stand at 85.4 million tons from 72.07 million tons registered in 2007/08.

There was a sharp increase in price of rice with Thai white rice increasing by 54% between January 2007 and January 2008. On average, the price increased from US$ 335 per ton in 2007 to US$721 in 2008 as shown in Table 4.4. The rebound in international rice prices since last year is attributed to the pledging programme in the largest world's exporter, Thailand, which removed some 4 million tons of paddy from the market into the public inventories at a price 20 percent higher than the market level.

The tightness that dominated the international rice market in the first half of 2008 has been easing since June, when new rice supplies became available from the secondary 2007 crops. The turnaround manifested in a

steady tendency for world rice prices to fall from their nominal peaks in May by 21 percent below the May 2008 high.

The strengthening of the United States Dollar, which gained on average 10 percent against major currencies between mid-June and mid-October also contributed to the dip in prices. So far, however, international rice quotations have held much better than those of wheat or maize and are still more than 78 percent above their value in October 2007.

It is noteworthy, however, that the steady decline in prices is leading governments to shift their focus from consumers to producers, in sharp contrast with actions taken in the firsthalf of the year, when domestic food inflation was at the centre of their attention.

Table 4.4: Selected International Prices of Rice, 2004 – 2008 (US$/ton)

Source	2004	2005	2006	2007	2008*
Thai White	244	291	311	335	721
Thai Parboiled	247	285	300	332	757
US Long Grain	372	319	394	436	804
Vietnam	224	255	266	313	667
India	-	236	247	288	-
Pakistan	230	235	230	290	544

Source: FAO
** Jan – Sep. '08*

4.2 Cotton

Table 4.5 indicates that world cotton production will register a decline from 119.21 million bales in 2007/08 to 109.52 million bales in 2008/09. However, demand is expected to rise from 126.32 million bales to 147.8 million bales over the same period.

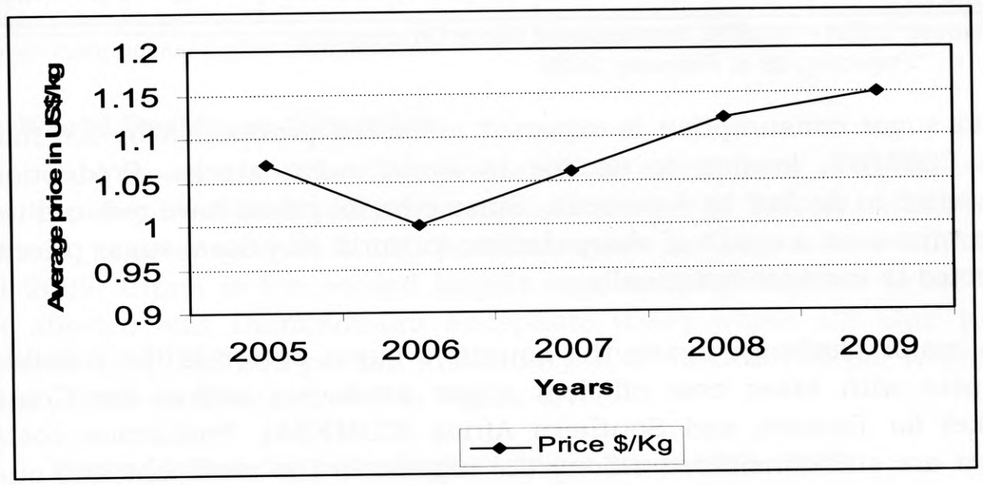
Table 4.5: World Cotton Situation, 2003 – 2009 (Million Bales)

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09*
Production	93.49	120.19	117.69	122.07	119.21	109.52
Consumption	97.80	108.82	116.31	123.58	126.32	147.8
End of Year Stock	32.66	53.94	60.18	60.71	57.33	61.71

Source: USDA – WASDE
**Projection as at February 2009*

Meanwhile, world cotton prices rose from a low of US$ 1.07 per kg in 2005 to reach US$ 1.15 per kg in February 2009 as highlighted in Figure 4.3. This was caused by depressed supply in the world market after the removal of the US step 2 farm subsidy programme at the end of 2005/06 marketing year.

Figure 4.3: Trend in Average World Cotton Prices 2004 – 2009



Source: FAO
**Average for January and February 2009*

4.3 Sugar

Table 4.6 indicates that world sugar production could decrease by 5% from 169.6 million tones in 2007/08 to 162.6 in 2008/09. Lower production will occur in the European Union and India, only partially offset by higher production in Brazil.

A price switch point between sugar and ethanol production in Brazil will be a key determinant of world sugar prices in 2008/09. Ethanol prices in Brazil have declined in recent months, broadly in line with the sharp decline in world oil prices. This has reduced the incentive to use sugar cane to produce ethanol hence the reduction in prices.

World consumption of sugar in 2008/09 is forecast to increase by 2.2 per cent. This compares with the average rate of world sugar consumption growth of around 2.8 per cent over the ten years to 2007/08.

Table 4.6: World Sugar Situation, 2003 – 2008 (Million tons)

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09*
Production	132.36	140.72	144.71	155.16	169.0	162.6
Consumption	139.60	142.79	142.82	146.03	161.0	165.6
Price/ Kshs per ton	11,049.4	15,277.9	22,762	16,990	14,360.5	13,642.5
Ending Stocks	38.38	34.16	30.97	30.91	67.0	66.3

Source: USDA – WASDE, International Sugar Organization

- **Projection as at February 2009*

World sugar consumption is expected to exceed production by 3.6 million tons 2008/09, leading to decline in world sugar stocks. Production is forecasted to decline by 4 percent. Since ethanol prices have reduced in the recent times as a result of sharp decline in world oil prices, sugar prices are expected to increase marginally.

The major challenge facing the country's sugar sector is the inability to compete with other cost efficient sugar producers within the Common Market for Eastern and Southern Africa (COMESA). Production costs in Kenya are still considered among the highest in the continent and output may decline in the years following full liberalization of the market, scheduled after 2012, unless much needed reforms are implemented to upgrade the industry.

4.4 Coffee

World coffee production has experienced a declining trend since 2006 as indicated in Table 4.7. This decline was occasioned by lower supplies in Brazil. The relative high prices for 2008 may encourage production through new investments and improved crop husbandry. Price increased by 15 percent from US$ 189,516 per ton in 2007 to US$ 218,680 per ton in 2008. World coffee stocks in 2009 will come under heavy pressure since the level of the stocks in the producing countries is already at its lowest. Locally, the coffee sub-sector can take advantage of the situation and increase production.

coffee sub-sector can take advantage of the situation and increase production.

Table 4.7: Coffee Production by Exporting Countries, 2003 – 2008 (Million tons)

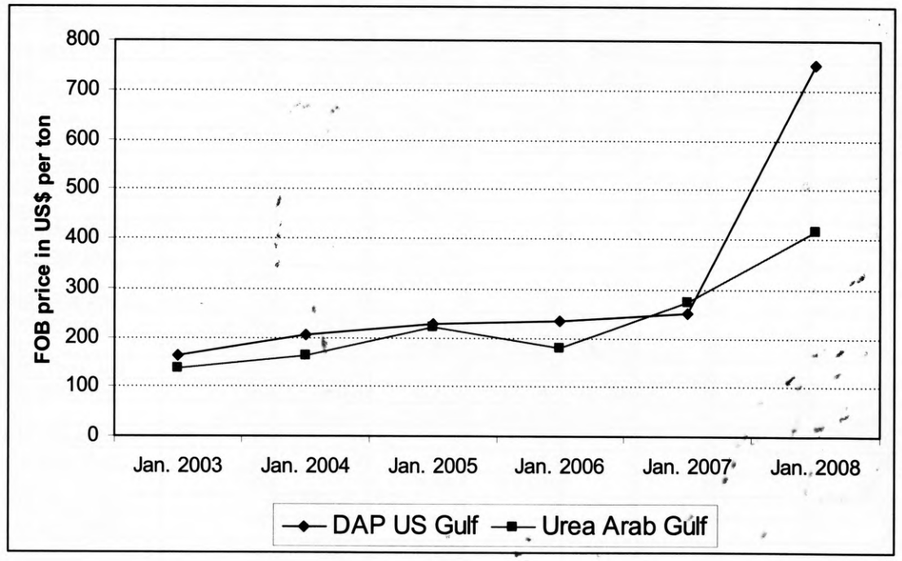
	2003	2004	2005	2006	2007	2008
Total Production by exporting countries	6.6	7.3	6.7	8.1	7.4	5.8
Average composite prices price in Kshs per ton	91,344	114,664	157,274	168,520	189,516	218,680

Source: International Coffee Organization.

4.8 World Fertilizer Situation

The upward movement of fertilizer prices can be traced back to about seven years but they increased sharply in the last two years. The major cause of fertilizers' price surge was a 100 percent export tax imposed by China in April 2008. China is the second largest exporter of phosphate hence the most affected was Diammonium Phosphate (DAP) whose US Gulf price increased from US$ 252 per ton in January 2007 to US$ 752 per tonne by January 2008 as demonstrated in Figure 4.4.

Figure 4.4: Trend in some World Fertilizer Prices 2003 - 2008



the government to assist formers access affordable fertilizer. Foremost, a short-term measure to import fertilizer for distribution to farmers through the NCPB has successfully been undertaken. Other medium to long-term strategies include the implementation of the Vision 2030 Fertilizer Cost Reduction Programme.

5.0 FOOD CROPS

Food crops are classified into cereals, pulses and roots/tubers where cereals comprise; maize, wheat, sorghum, rice, and millet while pulses comprise beans, pigeon peas, cow peas, chick peas, and green grams. Roots and tubers include sweet potatoes, cassava, arrow roots and yams.

Table 5.1: Production of Food Crops by Province, 2008*

Crop	Indicator	Province								Total
		Rift Valley	Nyanza	Eastern	Western	Coast	Central	North Eastern	Nairobi	
Maize	Crop area (ha)	549,448	254,355	508,135	238,009	92,139	146,383	3,606	1,682	1,793,757
	Bags (90 Kgs)	17,290,944	1,407,175	2,045,219	4,022,667	609,029	912,240	392	14,553	26,302,219
	Yield (Bag/ha)	31	6	4	17	7	6	1	9	15
Wheat	Crop area (ha)	314,827	0	8,245	538	0	6,663	0	0	330,273
	Bags	3,075,852	0	530,835	14,736	0	115,818	0	0	3,737,241
	Yield (Bag/ha)	10	0	64	27	0	17	0	0	11
Barley	Crop area (ha)	13,572	0	1,040	0	0	65	0	0	14,677
	Bags	453,220	0	41,455	0	0	800	0	0	495,475
	Yield (Bag/ha)	33	0	40	0	0	12	0	0	34
Beans	Crop area (ha)	118,927	155,542	171,570	159,041	1,875	1,790	7	1,675	610,428
	Bags	997,271	631,910	545,859	489,235	9,616	219,714	8	7,624	2,901,237
	Yield (Bag/ha)	8	4	3	3	5	123	1	5	5
Rice	Crop area (ha)	0	3,427	0	485	1,932	10,871	19	0	16,734
	Bags (50 Kgs)	0	207,620	0	29,558	6,112	193,460	878	0	437,628
	Yield (Bag/ha)	0	61	0	61	3	18	46	0	26
Sorghum	Crop area (ha)	3,414	34,407	52,240	12,799	879	205	97	0	104,041
	Bags	41,237	236,285	253,171	68,676	2,517	457	567	0	602,910
	Yield (Bag/ha)	12	7	5	5	3	2	6	0	6
Millet	Crop area (ha)	5,141	9,315	34,426	3,983	146	144	0	0	53,155
	Bags	64,878	156,581	132,563	71,593	904	409	0	0	426,928
	Yield (Bag/ha)	13	17	4	18	6	3	0	0	8
Cow Peas	Crop area (ha)	1,288	4,734	131,098	4,322	6,695	0	0	21	148,157
	Bags	6,243	25,737	436,650	26,154	37,943	0	0	83	532,810
	Yield (Bag/ha)	5	5	3	6	6	0	0	4	4
Green Grams	Crop area	371	2,135	83,704	1,302	3,893	47	0	0	91,452
	Bags	5,579	10,172	257,868	7,226	15,813	150	0	0	296,808
	Yield (Bag/ha)	15	5	3	6	4	3	0	0	3
Dolichos	Crop area	66	0	10,402	0	0	4,696	0	0	15,163
	Bags	711	0	50,067	0	0	531	0	0	51,309
	Yield (Bag/ha)	11	0	5	0	0	9	0	0	3
Pigeon Peas	Crop area (ha)	255	0	194,174	0	463	1,067	0	0	195,959
	Bags	2,899	0	927,811	0	1,908	2,491	0	0	935,109
	Yield (Bag/ha)	11	0	5	0	4	2	0	0	5
Sweet Potatoes	Crop area (ha)	4,769	35,867	6,632	14,732	731	0	0	55	62,785
	Tons	100,016	599,554	40,894	148,221	5,763	0	0	333	894,781
	Yield (Tons/ha)	21	17	6	10	8	0	0	6	14
Cassava	Crop area (ha)	662	18,010	8,101	17,144	10,745	0	0	11	54,673
	Tons	15,740	339,214	57,555	194,646	143,614	0	0	195	750,964
	Yield (Tons/ha)	24	19	7	11	13	0	0	18	14
Arrow Root	Crop area (ha)	68	0	717	1,453	0	0	0	16	2,254
	Tons	502	0	4,469	11,639	0	0	0	262	16,872
	Yield (Tons/ha)	7	0	6	8	0	0	0	16	7
Yams	Crop area (ha)			808						808
	Tons			6,123						6,123
	Yield (Tons/ha)			8						8
Soya Beans	Crop area (ha)	260	351		1,827					2,438

Crop	Indicator	Province								Total
		Rift Valley	Nyanza	Eastern	Western	Coast	Central	North Eastern	Nairobi	
	Bags	449	1,570		17,303					19,322
	Yield (Bag/ha)	2	4		9					8
Ground Nuts	Crop area (ha)	1,004	18,976	1,026	4,092	0	0	0	0	25,098
	Bags	8,192	78,427	5,259	31,282	0	0	0	0	123,160
	Yield (Bag/ha)	8	4	5	8	0	0	0	0	5
	Value (Mil. Kshs)		115,170							
Coconut	Crop area (ha)				0	40,761				40,761
	Bags				0	59,897				59,897
	Yield (Bag/ha)				0	1				1
	Value (Mil. Kshs)					22				22
Cashew nut	Crop area (ha)					26,249				
	Bags					15,597				
	Yield (Bag/ha)					1				
	Value (Mil. Kshs)					17				

Source: Department of Land and Crops Development and Management, MoA, Provincial Annual Reports.
** Provisional*

Generally, production volumes of food crops were relatively low as shown in Table 5.1 compared to the last two previous years due to poor performance of the long rains season. The short rains season performed even worse resulting in almost total crop failure in most parts of the country.

It is also apparent that the area dedicated to these crops varies erratically over the period under review perhaps explained by prevailing weather patterns and constraints in accessing affordable inputs during the period under review.

5.1 Maize

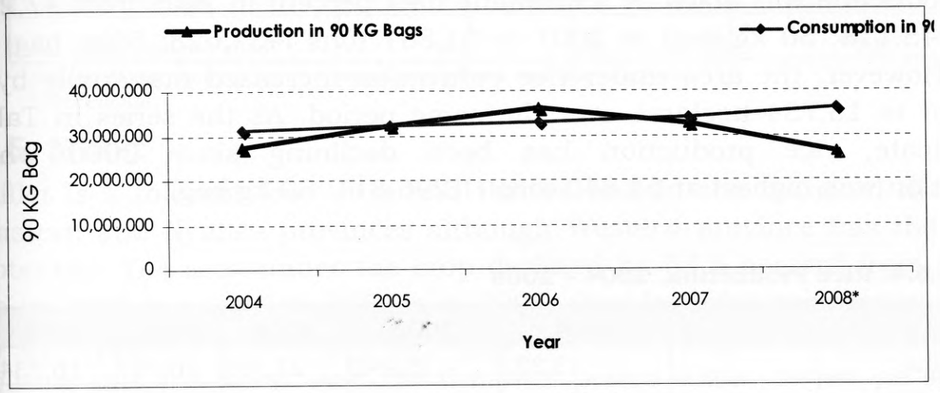
Productivity of maize as a national staple food item declined in 2008 to 14.7 bags per hectare from 20.1 bags per hectare in 2007. The trend was attributed to the high cost of farm inputs including fertilizers and diesel. In volume terms, production fell by 19 percent from 32.5 million bags in 2007 to 26.3 million bags compared with an estimated consumption level of 36 million bags. It is also almost 10 million bags down from the highest level of 36.1 million bags recorded in 2006. Table 5.2 and Figure 5.1 illustrate maize production and consumption trends.

Table 5.2: Maize Production, 2004 – 2008

Year		2004	2005	2006	2007	2008*
Area (ha)		1,819,817	1,760,618	1,888,185	1,615,304	1,793,757
Production						
	90 Kgs bags	27,249,721	32,423,963	36,086,406	32,542,143	26,302,219
	Tons	2,454,930	2,918,157	3,247,777	2,928,793	2,369,569
Unit Price per bag (Kshs)		1,482	1,363	1,300	1,200	2,500
Average Yield (bags/ha)		15	18	19	20.1	14.66
Consumption (90 bags)		31,135,000	32,120,000	33,105,000	34,098,150	36,000,000
Imports (tons.)		241,757	49,621	-	-	-
Total Value (billion Kshs.)		40.38	44.19	46.91	52.26	65.8

Source: Department of Land and Crops Development and Management, and NCPB
**Provisional*

Figure 5.1: Maize Production and Consumption Trends, 2004-2008



Source: Department of Land and Crops Development and Management, and NCPB
** Provisional*

5.2 Wheat

Wheat production registered a 5.1 percent decline from 3.94 million bags in 2007 to 3.74 million bags in 2008 as shown in Table 5.3. Area under the crop had however increased from 104,176 Ha to 130,273 Ha in the same period; translating to declining productivity.

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Table 5.3: Wheat Production, 2004 – 2008

Year		2004	2005	2006	2007	2008*
Area (Ha)		145,359	159,477	150,488	104,176	130,273
Production						
	90 Kg bags	4,173,652	4,063,294	3,978,454	3,936,105	3,737,241
	Tons	397,005	365,696	358,061	354,249	336,688
Unit Price per bag (Kshs)		1,995	1,639	1,714	3,000	2,600
Average Yield (bags/ha)		29	25	26	28	11.32
Consumption (tons)		889,020	893,120	903,120	927,956	-
Imports (tons)		404,060	621,839	-	-	-
Total Value (billion Kshs.)		8.33	6.66	6.82	10.03	11.2

Source: Department of Land and Crops Development and Management, and NCPB
** Provisional*

5.3 Rice

Rice production was down by a dramatic 53.7 percent in 2008 from 47,256 tons (945,118; 50 kg bag) in 2007 to 21,881 tons (437,628; 50kg bag) in 2008. However, the area under rice cultivation increased marginally by 2 per cent to 16,734 hectares over the same period. As the series in Table 5.4.indicate, rice production has been declining since 2006 when production was highest at 64,840 tons (1,296,811; 50 kg bag).

Table 5.4: Rice Production, 2004 – 2008

Year		2004	2005	2006	2007	2008
Area (ha)		13,322	15,940	23,106	16,457	16,734
Production						
	50 Kg bags	985,801	1,158,829	1,296,811	945,118	437,628
	Tons	49,290	57,942	64,840	47,256	21,881
Unit Price per bag (Kshs)		3,250	3,400	3,500	2,650	2,745
Average Yield (bags/ha)		74	72.7	56.12	53	26.2
Consumption (tons)		270,200	279,800	286,000	293,722	-
Imports (tons)		223,190	228,206	NA	NA	N/A
Total Value (billion Kshs.)		1.3	0.9	3.3	2.7	-

Source: NCPB and Department of Land, Crops Development and Management

5.4 Sorghum

Sorghum is a key food security crop especially in low potential districts of the country. The area under production as shown in Table 5.5 decreased by 33.1percent from 155,550 Ha to 104,041 Ha in 2008; the lowest over the period under review. This was attributed to poor rainfall and especially the short rains which are the most reliable in the low potential areas.

Table 5.5: Sorghum Production, 2004 – 2008*

Year		2004	2005	2006	2007	2008
Area (Ha)		123,155	122,368	163,865	155,550	104,041
Production						
	90 Kg bags	961,034	1,668,081	1,457,503	1,637,391	602,910
	Tons	86,580	150,127	131,188	147,365	54,316
Unit Price per bag (Kshs)		2,200	1,700	1,254	1,100	1,230
Average Yield (bags/ha)		8	14	9	9.1	5.8
Consumption (bags)		1,100,000	1,425,000	1,510,000	1,551,525	-
Total Value (billion Kshs.)		2.1	2.8	1.8	1.6	0.7

Source: Department of Land, Crops Development and Management
** Provisional*

5.5 Millet

Millet is a tolerant food crop and thrives well in the marginal districts of Eastern and Nyanza provinces although Western province has the highest potential. The area under the crop declined by 58.5 percent from 128,114 ha in 2007 to a low 109,055 Ha in 2008, thus lowering production volumes by 67.9 percent to 38,462 tons compared with 119,599 tons in 2007. This volume was the worst over the five-year period under review as shown in Table 5.6.

Table 5.6: Millet Production, 2004 – 2008

Year	2004	2005	2006	2007	2008
Area (ha)	129,750	92,430	137,711	128,114.0	53,154.7
Production					
90 Kg bags	834,397	660,900	879,995	1328877.0	426928.1
Tons	75,171	59,481	79,207	119,599.0	38,462.0
Unit Price per bag (Kshs)	2,800	2,400	1,700	2,600.0	2,700.0
Average Yield (bags/ha)	6	7	6.4	7.3	8.0
Total Value (billion Kshs.)	2.34	1.59	1.5	2.5	1.2

Source: Department of Land, Crops Development and Management

5.6 Beans

The area under production was 610,428 Ha representing a 28 percent decrease compared to 2007. Consequently, production also declined by about 20 per cent to register 2.9 million bags down from 3.5 million bags produced in 2007. This decline can be attributed to unfavourable weather conditions in the producing areas which resulted in yield decline from 6 bags per Ha in 2007 to a low 2.0 bags per Ha in 2008.

Table 5.7: Beans Production, 2004 – 20080

Year		2004	2005	2006	2007	2008*
Area (ha)		872,070	1,034,477	995,391	846,327	610,428
Production						
	90 Kg bags	2,576,020	4,175,772	5,908,887	3,455,512	2,901,237
	Tons	232,074	375,820	531,800	383,900	261,137
Unit Price per bag (Kshs)		3,000	2,500	2,540	4,400	4,500
Average Yield (bags/ha)		3	4	6	4.8	2.0
Consumption (bags)		310,000	400,450	460,000	524,400	-
Total Value (billion Kshs.)		7.73	10.44	18.02	16.29	13.10

Source: Department of Land and Crops Development and Management
** Provisional*

5.7 Pigeon Peas

As shown in Table 5.8, pigeon peas recoded a drop in the yield per hectare to 2 bags only in 2008. Production also decreased from 95,637 tons to 84,168 tons although the area under the crop rose by over 50,000 Ha over the same period.

Table 5.8: Pigeon Peas Production, 2004 – 2008

Year	2004	2005	2006	2007	2008
Area (ha)	195,308	180,240	196,630	154,554	195,959
Production					
90 Kg bags	1,171,838	1,055,000	1,231,442	1,062,637	935,109
Tons	105,571	94,950	110,841	95,637	84,168
Unit Price per bag (Kshs)	3,000	2,800	2,706	3,000	3,200
Average Yield (bags/ha)	6	6	6.3	6.8	4.8
Consumption (bags)	1,150,000	1,160,000	1,180,000	1,200,345	-
Total Value (billion Kshs.)	3.52	2.95	3.33	4.97	2.99

Source: Department of Land, Crops Development and Management
** Provisional*

5.8 Cowpeas

Although the area under the crop increased by 14 percent from 130,163 Ha in 2007 to 148,157 Ha in 2008, the production declined by 42 percent from 925,015 bags to 532,810 bags over the same period as highlighted in Table 5.9. The reduced supply triggered a marked price increase to Kshs 3,100 per bag.

Table 5.9: Cowpeas Production, 2004 – 2008

Year		2004	2005	2006	2007	2008*
Area (ha)		125,189	72,654	161,971	130,163	148,157
Production						
	90 Kg bags	325,463	402,684	975,551	925,015	532,810
	Tons	29,321	36,242	87,808	83,251	47,958
Unit Price per bag (Kshs)		4,500	2,000	2,550	2,900	3,100
Average Yield (bags/ha)		3	6	6	6.6	3.6
Total Value (billion Kshs.)		1.46	1.45	4.25	2.30	1.65

Source: Department of Land, Crops Development and Management
- *Provisional*

5.9 Green grams

Devoted hectarage to green grams recorded an increase of about 10 percent from 82,784 Ha in 2007 to about 91,452 Ha in the period under review, as highlighted in Table 5.10. However production decreased by over 50 percent compared to 2007 when production recorded a growth of 42.8 percent from 482,212 bags to 688,363 bags.

Table 5.10: Green Grams Production, 2004 – 2008

Year		2004	2005	2006	2007	2008*
Area (ha)		94,149	87,510	102,882	82,784	91,452
Production						
	90 kg bags	290,543	365,458	482,212	688,363	296,808
	Tons	26,175	32,891	43,399	61,953	26,715
Unit Price per bag (Kshs)		5,400	4,680	3,266	5000	5000
Average Yield (bags/ha)		3	4	5	5.5	3.2
Total Value (billion Kshs.)		1.57	1.71	1.57	3.405	1.48

Source: Department of Land, Crops Development and Management
- *Provisional*

RARIES
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5.10 Arrow Roots

The area under arrow roots increased by 19 percent from 1,896 Ha in 2007 to 2,254 Ha in 2008. However, total production remained almost flat at 16,872 tones over the same period as shown in Table 5.11.

Table 5.11: Arrow Roots Production, 2003 – 2008

Year	2004	2005	2006	2007	2008*
Area (ha)	2,140	2,332	3,144	1,896.45	2,254.00
Production					
Tons	12,840	27,326	22,846	16,049.60	16,872.00
Unit price (Kshs per 100 kg bag)	1,250	970	1,020	3,342	3,400
Average Yield (tons/ha)	6	11	8	7.7	7.49
Total Value (billion Kshs.)	0.16	0.27	0.23	0.26	0.28

Source: Department of Land, Crops Development and Management
** Estimate*

5.11 Cassava

The area under the crop increased marginally from 53,610 Ha in 2007 to 54,673 Ha in 2008. Corresponding yields however almost doubled from 397,705 tons in 2007 to 750,964 tons in 2008 as shown in Table 5.12. The Higher production is attributed to renewed focus son traditional crops especially in dry areas.

Table 5.12: Cassava Production, 2004 – 2008

Year	2004	2005	2006	2007	2008*
Area (ha)	56,010	68,320	68,502	53,610	54,673
Production					
Tons	388,713	566,400	656,633	397,705	750,964
Average Yield (tons/ha)	7	8	9.6	8.7	13.7
Unit Price per ton (Kshs)	8,000	6,500	6,500	10,000	9,000
Total Value (billion Kshs.)	3.1	3.7	4.3	5.6	5.3

Source: Department of Land, Crops Development and Management
**Provisional*

5.12 Sweet Potatoes

There was a marginal increase in area under the crop to 62,785 Ha over the review period. The crop also recorded impressive yields of 14.3 tons per hectare with production rising by 14 percent from 811,531 tons in 2007 to 894,781 tons in 2008 as highlighted in Table 5.13.

Table 5.13: Sweet Potatoes Production, 2004 – 2008

Year	2004	2005	2006	2007	2008*
Area (ha)	60,701	61,300	74,937	61,111	62,785
Production					
Tons	546,309	671,709	724,646	811,531	894,781
Average Yield (tons/ha)	9.0	11.0	9.6	10.3	14.3
Unit Price per 100 kg bag (Kshs)	1,280	1,420	1,460	1,750	1,650
Total Value (billion Kshs.)	6.99	9.54	4.70	8.33	7.50

Source: Department of Land, Crops Development and Management
** Provisional*

5.13 Yams

The area under the crop has remained between 800-900 Ha except in 2007 when 925 Ha were dedicated to the crop mainly in central and eastern provinces. Yields per Ha have also declined over time as indicated in Table 5.14.

Table 5.14: Yams Production, 2004 – 2008

Year		2004	2005	2006	2007	2008*
Area (ha)		836.0	835.0	842.0	925.0	807.9
Production						
	Tons	7,086	7,238	8,001	6,905	6,123
Average Yield (tons/ha)		8.0	9.0	9.5	7.5	7.6

Source: Department of Land, Crops Development and Management
** Provisional*

6.0 INDUSTRIAL CROPS

6.0 Tea

Tea production decreased by 6.44 per cent from 369,600 tons in 2007 to 345,817 tons in 2008 although the area under the crop increased by 6 percent from 149,190 hectares in 2007to 157,720 hectares; thus lowering per unit yield in both the small-holder and estate sub-sectors. The Smallholder sub-sector recorded an 8.17 per cent production decrease to stand at 210,854 tons while the estate sub-sector registered production decline of 3.59 per cent to 134,963 tons as highlighted in Table 6.1.

Lower production was attributed to dry weather conditions in the first half of the year, depressed amount of rainfall and some incidences of frost that hit parts of the West of Rift.

Table 6.1: Tea Production, 2004 – 2008

Year		2004	2005	2006	2007	2008*
Estates	Area (ha)	48,800	48,600	51,300	51,010	50,605
	Production					
	Tons	132,100	130,800	119,401	139,990	134,963
	Yield (tons/ha)	2.7	2.7	2.3	3.11	2.8
Small Holders	Area (ha)	88,000	92,700	95,780	98,180	107,115
	Production					
	Tons	192,600	197,700	191,177	229,610	210,854
	Yield (tons/ha)	2.2	2.1	2.0	2.7	2.4
Total Area (ha)		136,800	141,300	147,080	149,190	157,720
Total Production (tons)		324,700	328,500	310,578	369,600	345,817
Price of Black Tea (per 100 kg)		12,696	11,824	14,642	11,846	
Consumption (million kgs)		13.6	14.0	16.5	17.6	17.4
Exports (million kgs)		333.8	349.7	313.7	345	383
Exports (million Kshs.)		43,446.7	42,862.9	47,297.4	43.2	62.2

Source: Tea Board of Kenya

i). The average Auction price for Kenya tea Increased by 0.59 US Cents per Kilogramme from USD 1.76 (Ksh 118.47) in 2007 to USD 2.35 (Ksh 162.69) in 2008. The increase in auction price was largely attributed to constraint supply volumes on offer.

ii). Domestic sales of tea remained decreased marginally to 1.74 million kgs compared to 17.6 million kgs in 2007 meaning the drive to encourage local consumption remained largely elusive.

iii). Tea exports recorded impressive performance with the total volume rising to 383.4 thousand tons valued at Ksh 62.2 billion in 2008, up from 345.8 thousand tons worth Ksh 43.1 billion traded in 2007.

iv). Egypt was the leading market destination for Kenya tea, absorbing 99.6 thousand tons as indicated in Table 6.2 and Figure 6.1 followed by UK, at 69.2 thousand tons, Pakistan (61.3 thousand tons), Afghanistan (25.8 thousand tons) and Sudan (22.9 thousand tons. The five export destinations, which are key markets for Kenyan tea accounted for 77% of the total export volume. Somalia, Djibouti, Chile, Puerto Rico, Greece and New Zealand registered the highest improved growth in Kenya tea exports.

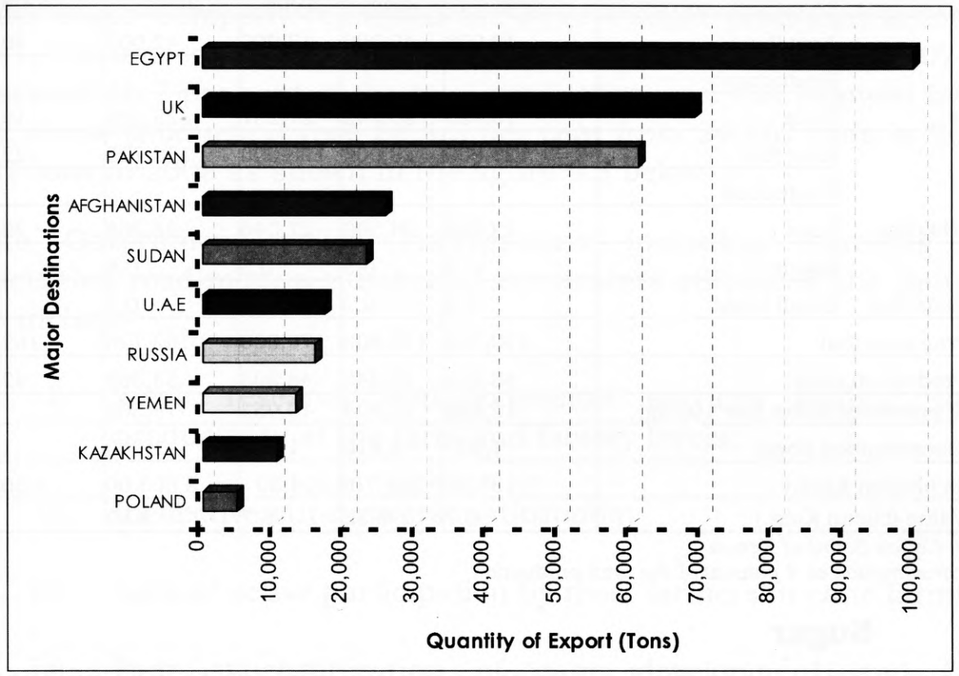
Table 6.2: Tea Export Volume by Destination, 2008

DESTINATION	QUANTITY (Kgs)	VALUE (Kshs)	Unit Value (Kshs)	Unit Value (USD)
EGYPT	99,637,532	16,304,915,403.12	163.64	2.36
UK	69,210,250	10,401,104,274.53	150.28	2.17
PAKISTAN	61,299,327	9,873,163,195.01	161.06	2.33
AFGHANISTAN	25,800,996	4,257,356,387.26	165.01	2.38
SUDAN	22,985,238	3,226,582,170.01	140.38	2.03
U.A.E	17,154,735	2,706,287,058.05	157.76	2.28
RUSSIA	15,903,585	2,656,620,618.59	167.05	2.41
YEMEN	13,185,712	2,296,885,461.47	174.20	2.52
KAZAKHSTAN	10,345,181	2,087,767,898.32	201.81	2.92
POLAND	4,879,596	836,554,477.79	171.44	2.48
IRELAND	4,826,570	870,663,931.32	180.39	2.61
U.S.A.	4,039,151	1,012,165,439.93	250.59	3.62
SOMALIA	3,855,663	334,324,000.31	86.71	1.25
INDIA	3,750,597	592,082,377.36	157.86	2.28
NIGERIA	3,723,817	667,920,098.78	179.36	2.59
SRI LANKA	3,287,756	518,668,047.19	157.76	2.28
JAPAN	2,312,771	752,925,307.62	325.55	4.70
IRAN	2,142,474		165.26	2.39

DESTINATION	QUANTITY (Kgs)	VALUE (Kshs)	Unit Value (Kshs)	Unit Value (USD)
		354,061,896.89		
INDONESIA	1,907,442	303,677,655.26	159.21	2.30
DJIBOUTI	1,647,217	162,163,133.92	98.45	1.42
CANADA	1,621,299	265,692,789.70	163.88	2.37
TURKEY	1,244,474	226,278,441.84	181.83	2.63
NETHERLANDS	1,065,582	174,334,093.41	163.60	2.36
SAUDI ARABIA	1,052,559	190,222,312.37	180.72	2.61
CHINA	1,040,321	169,213,455.76	162.66	2.35
UKRAINE	896,212	149,803,357.85	167.15	2.41
SOUTH AFRICA	890,720	144,440,894.95	162.16	2.34
GERMANY	882,420	126,053,859.21	142.85	2.06
CHILE	801,241	130,780,633.94	163.22	2.36
OMAN	566,202	50,634,285.30	89.43	1.29
MALAYSIA	483,102	114,231,562.94	236.45	3.42
ITALY	236,725	74,525,336.94	314.82	4.55
PUERTO RICO	199,872	31,060,618.72	155.40	2.24
SINGAPORE	165,735	64,022,645.49	386.30	5.58
GREECE	103,500	17,499,331.40	169.08	2.44
ERITREA	94,884	16,783,706.16	176.89	2.56
SWITZERLAND	38,680	5,879,715.13	152.01	2.20
NEW ZEALAND	28,814	4,694,578.45	162.93	2.35
KYRGYZSTAN	25,300	6,294,271.34	248.79	3.59
FINLAND	23,940	5,778,013.91	241.35	3.49
SYRIA	23,000	2,755,206.80	119.79	1.73
TAIWAN	12,600	1,408,987.74	111.82	1.62
BELGIUM	11,000	1,438,385.09	130.76	1.89
CHAD	10,000	911,712.84	91.17	1.32
MAURITIUS	9,200	805,648.50	87.57	1.26
BRAZIL	9,000	4,772,925.00	530.33	7.66
AUSTRALIA	8,910	1,889,595.01	212.08	3.06
ROMANIA	1,944	696,109.08	358.08	5.17
PHILIPPINES	1,040	897,693.89	863.17	12.47
GRAND TOTAL	**383,443,886**	**62,199,689,001.49**	**162.21**	-

Source: Tea Board of Kenya.

Figure 6.1: Major Tea Destinations, 2008



Source: Tea Board of Kenya.

6.2 Coffee

Coffee production decreased by about 21.3 percent from 53,368 tons in 2006-07 to 42,000 tons in the 2007-08 season as shown in Table 6.2 attributed to unfavourable weather and the coffee berry disease. Meanwhile, the price of processed coffee decreased by 28.3 percent from Kshs. 19,561 per 100 kg bag in 2007 to Kshs. 14,023 in 2008. During the year a total of 30,296 tons was exported translating to Kshs. 9.30 billion where predominant destinations were Germany at 7,272 tons followed by USA at 5,665 tons. During the year four new emerging markets were identified which included china, Far East, Eastern Europe and the former Soviet Union countries.

Table 6.2: Coffee Production, 2004 – 2008

Year		2004	2005	2006	2007	2008
	Area (ha)	42,000	42,000	42,000	42,000	40,680
	Production					
Estates	Tons	18,473	20,745	21,257	25,000	19,740
	Area (ha)	128,000	128,000	128,000	120,720	122,040
	Production					
Small Holders	Tons	29,958	24,500	27,046	28,368	22,260
	Estate	3	0.5	0.5	0.6	0.5
Yield (tons/ha)	Small Scale	0.2	0.2	0.2	0.2	0.2
Total crop area (ha)		170,000	170,000	170,000	162,720	162,720
Total Production (tons)		48,431	45,245	48,303	53,368	42,000
Price of processed coffee (per 100 kg)		12,696	11,824	10,952	19,561	Na
Local Consumption (tons)		1,937	1,810	1,932	1,960	1,680
Exports (million Kshs.)		7,135.20	8,224.70	8,704.30	8,803.00	9,300.00
Total Value (billion Kshs.)		6.7	8.33	8.7	8.89	Na

Source: Coffee Board of Kenya
Local consumption at 4 percent of the total production

6.3 Sugar

Sugar production decreased marginally by 0.5 percent to 517,667 tons in 2008 compared to 520,404 tons in 2007 as detailed in Table 6.3 although the area devoted to the crop increased by 6.8 percent from 158,568 hectares in 2007 to 169,421 hectares in 2008 as shown in Table 6.3.

In the same period, sugar imports decreased by about 5 percent to 218,900 tons while exports rose to 27,900 tons. Mean while, total domestic consumption demand was recorded at 751.5 tons.

Table 6.3: Sugar Production, 2004 – 2008

Year		2004	2005	2006	2007	2008
Area (ha)	Under Cane	131,507	144,765	147,730	158,568	169,421
	Harvested	54,191	56,537	54,621	59,201	54,465
Sugarcane production (tons)		4,660,995	4,800,820	4,932,839	5,204,214	5,176,670
Yield of Sugarcane (tons/ha)		73.8	71.5	70.89	70.87	72.9
Price of Cane (Kshs./tons)		1,800	1,910	2,027	2,249	2,400
Sugar Production (tons)		516,803	488,997	475,670	520,404	517,667
National Consumption (tons)		669,914	695,622	718,396	741,190	751,523
Domestic price of sugar (Kshs/ton)		33,810	48,449	52,547	57,063	52,240
Exports (tons)		11,580	21,760	13,533	20,842	27,900
Imports (tons)		164,020	167,235	166,280	230,011	218,607
Imports (million Kshs)		3,823	4,048	4,801	7,299	6,885

Source: Kenya Sugar Board

6.3.1 Sugar Production by Factory

Mumias Sugar Company remained the largest sugar producer, accounting for 241,712 tons of sugar, up from 256,048 tons recorded in 2007. This represented 46.7 per cent of the total production and was followed by West Kenya whose production rose by 4.3 per cent from 34,867 tons in 2007 to 56,931 tons in 2008 as shown in the figure 6.3 below.

Despite Government policy interventions including unveiling of a restructuring road-map, a number of constraints still faced the industries which include-:

i). Weak research and extension services leading to low productivity at the farm and factory levels;

ii). Ineffective out-growers institutions;

iii). Lack of active participation by most farmers in cane farming;

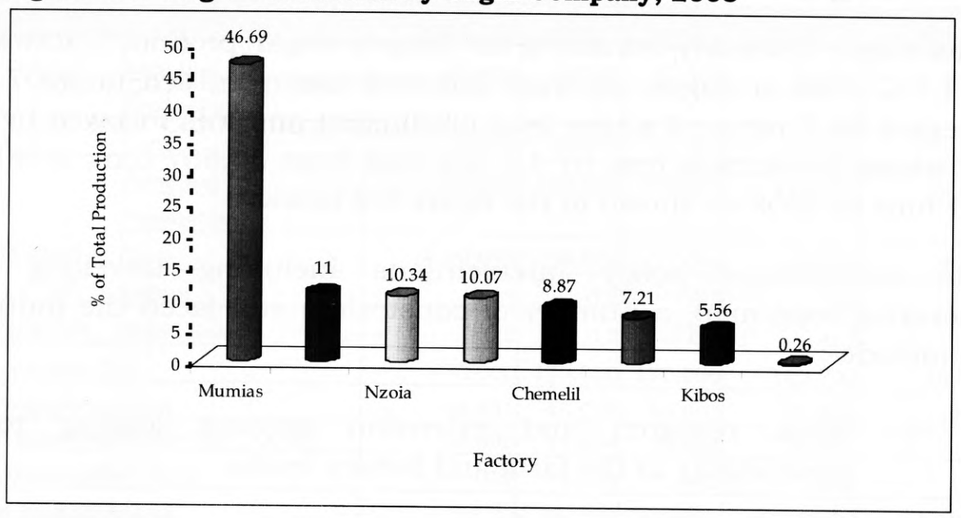
iv). Poor synchronization of cane development and factory capacities;

v). Poor state of infrastructure; high cost of production; high indebtedness and insolvency of many sugar companies;

vi). Poor governance, in farmers' institutions; inadequate funds for factory re-habilitation, maintenance of infrastructure and modernization/expansion of factories; and

vii). Poor marketing strategies; over-reliance on a narrow product base; reliance on rain-fed cane; and a bloated workforce in the industry.

Figure 6.3: Sugar Production by Sugar Company, 2008



6.4 Cotton

Area under cotton rose by 19 percent from 43,035 Ha in 2008 from 35,929 Ha in 2007. However, production increased only marginally by 0.6 percent from 24,993 tons of seed cotton in 2007 to 25,155 tons in 2008. The marginal increase was attributed to improved agronomic practices that resulted in higher crop yields but remains far below national potential and demand. Major challenges remain due to low producer prices as shown in Table 6.4.

Table 6.4: Cotton Production, 2004 – 2008

Year	2004	2005	2006	2007	2008*
Area (ha)	30,000	32,357	36,277	35,929	43,035
Production of Seed Cotton (tons)	18,000	19,414	22,492	24,993	25,155
Price of Seed cotton (Kshs./kg)	19.0	20.0	21.0	20.0	22.0
Yield (tons/ha)	0.60	0.60	0.60	0.69	0.70
Total Value of Seed cotton (million Kshs)	342	388	472	1,250	553

Source: Cotton Secretariat
** Provisional*

6.5 Pyrethrum

There was an abrupt drop in the area under pyrethrum from 5,120 Ha in 2007 to 3,916 Ha in 2008, representing 23.3 per cent. Production of dry flowers also dropped to 776 tons in 2008 down from 906.3 tons registered in 2007 as shown in Table 6.5.

Table 6.5: Pyrethrum Production, 2004 – 2008

Year	2004	2005	2006	2007	2008*
Area (ha)	10,950	3,522	6,325	5,120	3,916
Production of Dry Flower (tons)	2,207	1,003	762.7	906.3	776
Price of Dry Flower (Kshs./kg)	73	73	73	108.75	73.73
Yield (tons/ha)	0.2	0.2	0.2	0.3	0.2
Exports (tons of pyrethrum extract)	133	124	130	142	-
Local Value (Kshs mil)	305.7	158.1	133.1	229.84	-

NB: The dry flowers have 1.4% pyrethrin content.
Source: Pyrethrum Board of Kenya (PBK) & Department of Land and Crops Development and Management
** Provisional*

6.6 Tobacco

The area utilized for tobacco production decreased by 5.9 percent from 13,379 Ha in 2007 to 12,586 Ha in 2008. Consequently, production of dry leaves decreased by 6.8 percent from 11,153 tonsto 10,397 tons over the same period thus reversing growth pattern of the previous years as shown in Table 6.6. This can be attributed to inconsistency in the application of the recommended farm inputs and unfavourable offer-prices which have remained stagnant over time.

Table 6.6: Tobacco Production, 2004 – 2008

Year	2004	2005	2006	2007	2008*
Area (ha)	16,360	10,296	12,179	13,379	12,586
Production (tons of dry leaves)	13,983	15,959	17,605	11,153	10,397
Price of Dry Leaves (Kshs./kg)	65	65	65	65	66
Yield (kgs/ha)	855	1,550	1,400	834	826
Exports (tons)	24,503	15,431	-	-	-
Total Local Value (Kshs. mil)	909	1,037	1,144	725	835

Source: Department of Land and Crops Development and Management
** Provisional*

6.7 Sisal

Production of sisal remained predominantly estate-based and registered an almost constant level of 24,494 tons in 2008 from 24,262 tons in 2007. However, the area under sisal increased by 38.4 percent from 32,126 Ha in 2007 to 44,462 Ha in 2008 boosted by a small-holder entry of 4,286 Ha. Meanwhile, export volumes went down slightly from 21,809 tons in 2007 to 20,157 tons in 2008. Export earnings on the other hand rose by a marginal 2.7 percent from Kshs. 1.3 billion in 2007 to Kshs. 1.4 billion in 2008 as detailed in Table 6.7.

Table 6.7: Sisal Production, 2004 – 2008

Year	2004	2005	2006	2007	2008*
Total Area (ha)	31,800	31,800	24,962	32,126	44,462
Estate	31,800	31,800	24,962	32,126	40,176
Small Holders	-	-	-	-	4,286
Total Production (tons)	26,604	25,600	26,375	24,602	24,494
Estate	26,604	25,600	26,375	24,602	22,064
Small Holders	-	-	-	-	2,430
Yield (tons/ha)	0.8	0.8	1.08	1.5	0.55
Local Consumption (tons)	5,522	4,335	5,278	2,793	4,336
Exports (tons)	20,876	20,609	19,771	21,809	20,157
Value of Export (million Kshs.)	1,108.70	1,144.90	1,071.6	1,334.70	1,370.45

Source: Department of Land and Crops Development and Management
**Provisional*

6.8 Coconuts

Area under coconut production increased marginally in 2008 to 40,761 Ha from 37,813 Ha in 2007 as detailed in Table 6.8. However, total registered value increased marginally to Kshs 749 million although production had dropped from 61,874 tons in 2007 to 59,897 tons in 2008.

Table 6.8: Coconut Production, 2004 – 2008

Year	2004	2005	2006	2007	2008*
Area under Crop (ha)	43,162	37,293	37,137	37,813	40,761
Production (tons)	69,245	61,824	61,117	61,874	59,897
Yield (tons/ha)	1.6	1.7	1.6	1.6	1.5
Unit Price (Kshs./kg)	11.2	11.2	11.3	12.0	12.5
Total Value (million Kshs.)	775.5	692.4	690.6	742.5	748.7

Source: Department of Land and Crops Development and Management

6.8.1 Coconut Survey 2007

The results from the coconut survey conducted MoA/ABD-DANIDA/CDA in 2007 indicated that the population of coconut trees was much higher than

what had previously been recorded. The survey recorded a total of 7.4 million coconut trees; 3 million higher than the 4.4 million trees previously recorded by the KNBS. The survey also showed that there are a total of about 81,347 farmers engaged in the sub-sector as detailed in Table 6.8.1. By implication, it was logical to assume that the potential of the sub-sector is much higher than had been estimated due to lack of reliable data. Indeed, the findings accelerated the justification and eventual establishment of the Kenya Coconut Development Authority (KCDA) in 2008.

Table 6.8.1: Population of coconut trees by district

District	Number of coconut trees		Number of farmers	
	No.	Per cent	No.	Per cent
Kwale	2,895,427	39.0%	26,201	32.2%
Kilifi	2,831,978	38.1%	28,739	35.3%
Malindi	986,997	13.3%	14,013	17.2%
Lamu	434,105	5.8%	6,768	8.3%
Tana River	140,414	1.9%	1,841	2.3%
Mombasa	136,938	1.8%	3,784	4.7%
Total	**7,425,859**	**100%**	**81,347**	**100%**

Source:MoA/ ABD-DANIDA/CDA Coconut tree survey, February 2007

The distribution of the coconut tree population indicated that Kwale district had the highest number of trees at 2.9 million trees accounting for 39 percent of the total in the Province. Kilifi district closely followed with 2.8 million trees or 38 percent.

6.9 Bixa

Area under bixa increased from 5,257 Ha in 2007 to 5,660 Ha in 2008 as Table 6.9 shows. Production recorded an impressive increase from 6,617 tons in 2007 to 10,400 tons in 2008. Equally supported by improved prices, the value of produced bixa increased from Kshs 86 million in 2007 to Kshs 140 million in 2008.

Table 6.9: Bixa Production, 2004 – 2008

Year	2004	2005	2006	2007	2008*
Area under Crop (ha)	5,519	5,252	5,658	5,257	5,660
Production (tons)	6,117	6,468	6,607	6,617	10,400
Yield (tons/ha)	1.10	1.20	1.17	1.26	2.00
Total Value (Kshs millions)	61	65	77	86	140

Source: Department of Land and Crops Development and Management
** Provisional*

7.0 HORTICULTURE

7.1 Horticultural Crops Exports

The total volume of horticultural products exported in 2008 was 193,107 tons compared to 191,176 tons in 2007 representing a 1.0 per cent increase. In the same period, the sub-sector registered an decrease of 10.8 per cent in foreign earnings decreasing to Kshs 57.9 Billion compared to Kshs 64.9 billion in 2007.

Table 7.1: Fresh Horticultural Exports; 2003-2008

Year	2004	2005	2006	2007	2008*
Fruits and Nuts					
Volume of Exports in tons	20,089.70	18,522	15,405	15,671	17,123
Value (million Kshs)	1,803.00	2,049.90	1,737	1,797	2,071
Vegetables					
Volume of Exports in tons	52,805	61,220	61,348	84,313	82,345
Value (million Kshs)	11,820.50	13,574.60	17,823	20,799	16,129
Cut flowers					
Volume of Exports in tons	66,805	82,056	86,480	91,192	93,639
Value (million Kshs)	18,092	22,238	23,561	42,374	39,766
Totals					
Volume of Exports in tons	**139,726**	**162,196**	**164,021**	**191,176**	**193,107**
Value (million Kshs)	**31,721**	**37,998**	**43,319**	**64,970**	**57,966**

Source: HCDA.

7.2 Cut Flowers

Cut flowers recorded a 2.7 percent increase in volume to peak at 93,639 tons with a corresponding 6.2 percent decrease in value to Kshs 39.8 billion.

7.3 Fresh Vegetables

Fresh vegetables which are dominated by small-scale growers recorded a 2.6 percent decrease in volume attributed to adverse weather conditions in 2008. Consequently, the value dropped by 22.7 percent.

7.4 Fresh Fruits and Nuts

Exports rose by 9.3 percent in volume and 15.3 percent in value. Meanwhile, the volume of processed fruits rose by 25 percent with an added value of 30 percent compared to 2007. This was foremost attributed to the realization of a number of emerging regional markets for the fresh fruits and juices, which included DRC, Sudan and Uganda. Additionally, farmers have been adopting modern techniques of pruning and pest management especially on mangoes management thus improving market access.

8.0 AGRICULTURAL INPUTS

8.1 Annual Fertilizer Off-take

Total fertilizer off-take rose by about 5.5 percent to 476,018 tons from 451,239 tons recorded in 2007/08. This was a significant slow-down compared to the 2007/08 off-take and is attributed to high domestic prices of the commodity in 2008/09 season. Indeed, application of DAP, a key planting input has been falling since 2006/07 as indicated in Table 8.1.

Table 8.1: Annual Fertilizer Off-take, 2001-2008 (tons)

TYPE OF FERTILIZER	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/2009
PLANTING								
DAP	98,285	116,295	105,724	150,569	136,254	164,964	155,212	158,973
MAP	10,476	31,674	1,144	3,420	2,157	2,712	3,932	5,013
TSP	-	3,948	4,622	201	599	3,198	9,157	9,299
SSP	470	1,970	3,999	2,010	6,000	4,980	20,221	18,307
NPK20:20:0	2,416	16,952	13,761	2,945	9,036	7,982	9,658	14,283
NPK23:23:0	10,868	21,987	8,567	10,300	18,713	16,175	21,831	20,118
Sub Total	**122,516**	**192,825**	**137,817**	**169,445**	**172,760**	**200,011**	**220,012**	**225,993**
TOP-DRESSING								
CAN	44,560	59,801	30,700	51,456	59,739	69,714	78,080	84,939
ASN	850	630	-	-	-	500	543	2,100
UREA	37,557	24,288	45,084	25,017	41,071	28,554	29,982	30,128
SA	5,325	425	4,005	-	1,029	1,340	1,514	2,943
Sub Total	**88,292**	**85,144**	**70,617**	**76,473**	**101,839**	**100,107**	**110,119**	**120,110**
TEA								
NPK25:5:5:5s	78,531	52,000	64,764	76,375	58,276	69,550	76,556	79,458
NPK25:5:5:3.95s+2.6MgO	-	-	348	-		-		
NPK22:21:17	-	-	20	-	21	7	3	-
NPK22:6:12+5S	220	12,083	185	-	2,327	768	800	-
Sub Total	**78,751**	**64,083**	**47,168**	**76,375**	**60,624**	**70,325**	**77,359**	**79,458**
COFFEE								
NPK18:4:12	3,658	7,514	2,150	-	-	-	1,500	1,685
NPK20:10:10	6,157	2,765	888	-	10,053	3,317	3,616	3,827
NPK17:17:17:	12,227	2,377	5,209	2,948	16,717	15,517	15,601	18,769

TYPE OF FERTILIZER	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/2009
NPK16:16:16	-	-	-	-	210	-		
Sub Total	**22,042**	**12,656**	**16,985**	**2,948**	**26,980**	**18,834**	**20,717**	**24,281**
TOBACCO								
NPK12:2:43	-	-	-		-	-		
NPK8:16:24+MgO+0.1%B	-	-	252	542	-	-		
NPK15:15:6+4MgO+0.1%B	-	-	-		-	-		
NPK16:12:24	-	-	-		-	-		
NPK5:15:25	-	-	-		-	-		
NPK13:9:21+MgO	-	-	-		-	-		
NPK10:4.7:0.2	-	-	-		-	-		
Sub Total	-	-	252	**542**	-	-		
SPECIALISED								
MgNo3	929	1,595	799	208	420	738	836	1,012
MgSo4	4,160	2,071	3,221	1,026	3,150	3,040	3,070	3,715
CN	2,769	2,913	6,916	3,997	900	597	615	744
MOP/SOP	1,125	1,593	6,121	12,510	10,396	6,411	7,115	8,609
AN	312	219	623	749	2,746	1,006	1,207	1,460
Iron chelate	2,285	5	57	10		2,020	2,427	2,937
Potassium Nitrate	201	813	2,298	644		2,083	2,187	2,646
NPK28:28:0	174	2,736	-	-		-		605
NPK19:19:19	234	2,314	11	42	118	539	550	666
NPK19:19:19+M.E+1%MgO	1,915	20	-	-		4	25	30
Ferrous sulphate	172	563	1,780	-	1,475	1,987	2,100	2,541
Organic fertilizer	816	8,320	9,865	-		1,000	1,250	1,513
Others	2,756	2,367	-	6,808	1,877	1,514	1,650	1,816
Sub Total	**17,848**	**25,528**	**31,691**	**25,994**	**21,082**	**20,938**	**23,033**	**26,176**
GRAND-TOTAL	**329,449**	**335,009**	**312,440**	**351,776**	**383,285**	**410,214**	**451,239**	**476,018**

Source: Department of Agribusiness, Market Development and Agricultural Information

**Provisional*

8.2 Retail Fertilizer Prices

Retail prices of different fertilizer varieties rose by an average of 32 per cent in the 2008/09 season as shown in Table 8.2 and Figure 8.1. The most affected was SSP which registered a dramatic 173 percent price increases from Kshs. 1,650 per 50 kg bag in 2006/07 to Kshs. 4,500 per bag in

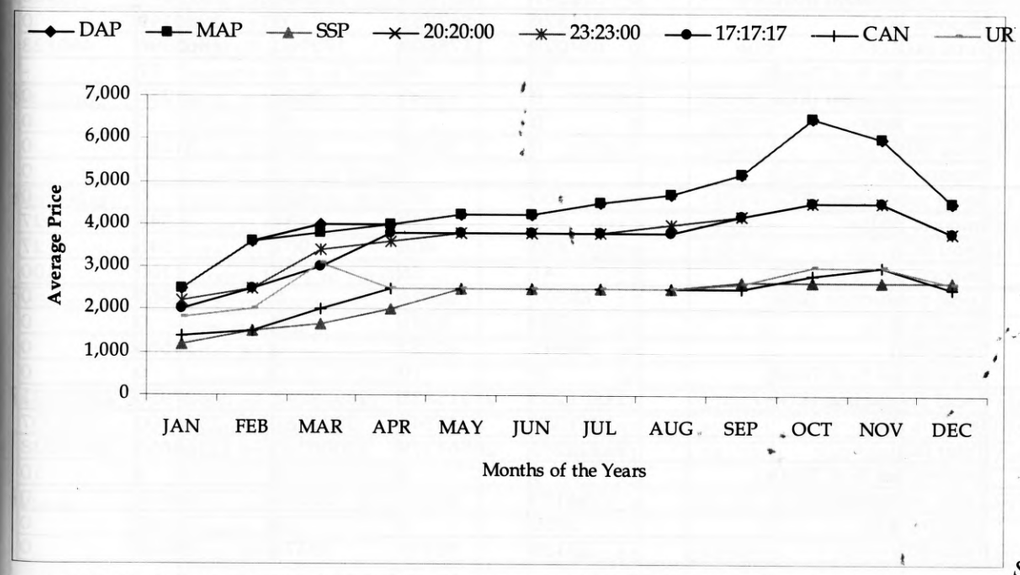
2008/09. However, DAP registered a reduced price from a high of Kshs. 3,800 per 50kg bag in 2007/08 to an average of Kshs. 2,250; representing a reduction of about 41 percent. This was attributed to Government interventions where a large quantity of fertilizers was imported to stabilize the market and make the input affordable.

Table 8.2: Average Retail Fertilizer Price, 2002-2007 (Kshs/50kg)

Fertilizer Type	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09*
SSP	850	850	1,100	1,100	1,075	1,650	4,500
TSP	1,150	1,500	1,600	1,680	1,680	3,400	4,483
DAP	1,125	1,500	1,680	1,700	1,730	3,800	2,246
MAP	975	1,450	1,680	1,700	1,625	3,800	3,675
ASN	925	1,250	1,300	1,350	1,300	1,850	3,675
CAN	900	1,250	1,350	1,350	1,375	2,000	3,625
SA	750	1,250	1,300	1,300	1,125	1,850	2,350
UREA	900	1,250	1,400	1,450	1,600	3,100	2,550
NPK 20:20:0	1,100	1,350	1,600	1,600	1,630	3,000	4,500
NPK 20:10:10	1,100	1,250	1,350	1,400	1,450	3,000	4,483
NPK 25:5:5	950	1,250	1,400	1,400	1,420	3,150	2,246
NPK 17-17-17	980	1,250	1,400	1,450	1,620	3,150	3,675
KCL	1,100	1,250	1,400	1,400	1,420	2,400	3,675
NPK 23:23:0	1,065	1,400	1,600	1,600	1,630	3,050	3,625

Source: Department of Agribusiness, Market Development and Agricultural Information
** Provisional Prices as at end of March, 2009*

Figure 8.1: Average Retail Fertilizer Price, 2008 (Kshs/50kg)



Source: Department of Agribusiness, Market Development and Agricultural Information

Table 8.3 illustrates the average retail prices that prevailed in the NCPB Depots in the 2008/09 season. NCPB was used as the benchmark to gauge market response to government interventions in the inputs market as a measure to stabilize the prices.

Table 8.3: Average Retail Fertilizer Price, 2008/09 (NCPB DEPOTS, Kshs/50kg)

Type	Unit	Price
DAP	50kg	2500 - 3,000
CAN	50kg	1,700
NPK	50kg	2,500

Department of Agribusiness, Market Development and Agricultural Information

8.3 Seed

During the year, the share of imported maize seed rose marginally to 10 percent from a stable 9 percent registered since 2006. In the same period, total maize seed volumes decreased by 23 percent 31.7 million kilograms in 2007 to 25.5 million in 2008. Importation of vegetable seeds represented a staggering 91 percent up from 57 percent recorded in 2007 as shown in Table 8.4.

Table 8.4: Certified Seeds Production and Importation (2004-2008)

Crop	Description	Quantities locally produced and imported				
		2004	2005	2006	2007	2008
Barley	Local production (KG)	1394248	1650650	1626900	1946260	1086050
	Imports (KG)	0	0	0	-	0
	Total (KG)	1394248	1650650	1626900	1946260	1086050
	Imports (as % of Total)	0	0	0	-	-
Beans	Local production (KG)	392647	607958	172960	375247	440123
	Imports (KG)	261378	567851	0	1288149	0
	Total (KG)	654025	1175809	172960	1663396	440123
	Imports (as % of Total)	40	48	0	77	-
Oats	Local production (KG)	0	12090	2820	31250	0
	Imports (KG)	0	0	0	0	0
	Total (KG)	0	12090	2820	31250	0
	Imports (as % of Total)	0	0	0	0	0
Flower	Local production (KG)	500	181	454	0	0
	Imports (KG)	352	228	454	345	27
	Total (KG)	852	408	907	345	27
	Imports (as % of Total)	41	56	50	100	100
Herbage	Local production (KG)	69591	55878	0	14565	0
	Imports (KG)	25250	6244	0	0	0
	Total (KG)	94841	62122	0	14565	0
	Imports (as % of Total)	27	10	0	0	0
Maize	Local production (KG)	24881203	24215835	28978043	28827950	22974031
	Imports (KG)	1351032	2345544	3022287	2937700	2504207
	Total (KG)	26232235	26561379	32000330	31765650	25478238
	Imports (as % of Total)	5	9	9	9	10
Millet	Local production (KG)	54139	45147	32576	58817	0
	Imports (KG)	3050	0	0	500	0
	Total (KG)	57189	45147	32576	59317	0

Crop	Description	Quantities locally produced and imported				
		2004	2005	2006	2007	2008
	Imports (as % of Total)	5	0	0	1	0
Peas	Local production (KG)	536250	473508	0	0	34100
	Imports (KG)	443591	444398	0	0	483162
	Total (KG)	979841	917906	0	0	517262
	Imports (as % of Total)	45	48	0	0	93
Pigeon peas	Local production (KG)	0	19240	7300	0	3573
	Imports (KG)	0	0	0	0	0
	Total (KG)	0	19240	7300	0	3573
	Imports (as % of Total)	0	0	0	0	0
Finger Millet	Local production (KG)	0	0	3242	0	67075
	Imports (KG)	0	0	0	0	0
	Total (KG)	0	0	3242	0	67075
	Imports (as % of Total)	0	0	0	0	0
Cow peas	Local production (KG)	0	0	102180	0	145336
	Imports (KG)	0	0	0	0	0
	Total (KG)	0	0	102180	0	145336
	Imports (as % of Total)	0	0	0	0	0
Green Grams	Local production (KG)	0	0	24622	37924	133631
	Imports (KG)	0	0	0	0	0
	Total (KG)	0	0	24622	37924	133631
	Imports (as % of Total)	0	0	0	0	0
Ground Nuts	Local production (KG)	0	0	369	1279	0
	Imports (KG)	0	0	0	0	0
	Total (KG)	0	0	369	1279	0
	Imports (as % of Total)	0	0	0	0	0
Pasture	Local production (KG)	0	0	28791	329	98717
	Imports (KG)	0	0	602	6215	10915
	Total (KG)	0	0	29393	6544	109632
	Imports (as % of Total)	0	0	2	95	10
Soya Beans	Local production (KG)	0	0	488	1850	0
	Imports (KG)	0	0	0	0	139
	Total (KG)	0	0	488	1850	139
	Imports (as % of Total)	0	0	0	0	100
Cotton	Local production (KG)	0	400	4853	34600	0
	Imports (KG)	0	0	0	0	0
	Total (KG)	0	400	4853	34600	0
	Imports (as % of Total)	0	0	0	0	0
Sorghum	Local production (KG)	297693	230662	492410	551170	606239
	Imports (KG)	0	18000	10000	3000	8000
	Total (KG)	297693	248662	502410	554170	614239
	Imports (as % of Total)	0	7	2	1	1
Sunflower	Local production (KG)	63669	145246	148718	551170	204850
	Imports (KG)	9210	13200	28200	3000	927
	Total (KG)	72879	158446	176918	554170	205777
	Imports (as % of Total)	13	8	16	1	0
Tobacco	Local production (KG)	13	0	0	0	0
	Imports (KG)	13	0	0	0	0
	Total (KG)	25	0	0	0	0
	Imports (as % of Total)	50	0	0	0	0
Vegetables	Local production (KG)	423516	579627	1685598	71503	129758
	Imports (KG)	225155	451741	1712285	8105784	1243102
	Total (KG)	648671	1031368	3397883	8177287	1372860
	Imports (as % of Total)	35	44	50	57	91
Wheat	Local production (KG)	1045214	1842592	1369281	1194350	3127710
	Imports (KG)	0	0	0	0	0
	Total (KG)	1045214	1842592	1369281	1194350	3127710
	Imports (as % of Total)	0	0	0	0	0

Source: KEPHIS

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