GRAIN PRODUCTION IN KENYA 2005



EXPORT PROCESSING ZONES AUTHORITY



Copyright 2005

Export Processing Zones Authority Administration Building Athi River EPZ, Viwanda Road Off Nairobi - Namanga Highway P.O Box 50563, 00200 Nairobi Kenya Tel: 254 45 26421-6 Fax: 254 45 26427 Web: www.epzakenya.com Email: info@epzakenya.com

For more information contact:

Evelyn Noah Promotion Executive Export Processing Zones Authority Administration Building Athi River EPZ, Viwanda Road Off Nairobi - Namanga Highway P.O Box 50563, 00200 Nairobi Kenya Tel: 254 45 26421-6 Fax: 254 45 26427 Email: <u>enoah@epzakenya.com</u>

Margaret Waithaka Manager, New Investments Department Export Processing Zones Authority Administration Building Athi River EPZ, Viwanda Road Off Nairobi - Namanga Highway P.O Box 50563, 00200 Nairobi Kenya Tel: 254 45 26421-6 Fax: 254 45 26427 Email: <u>mwaithaka@epzakenya.com</u>

KENYA

Information provided in this report is intended to provide general information to investors. While every care has been taken to ensure the accuracy of this publication, no liability is accepted for any errors or omissions.

All the information in this report is the property of Export Processing Zones Authority – Kenya. Any part from the report may be reprinted or copied in their entirety without permission provided the source is acknowledged.

This report was prepared by:

PKF Consulting Ltd Kalamu House, Waiyaki Way P.O. Box 47323-00100 Nairobi Kenya Tel: (254-20) 4446616-9 Website: <u>www.klsa.net</u> International Research Network 4th Floor, Corner Plaza, Westlands P.O. Box 11445-00400 Nairobi Kenya Tel: (254-20) 3741342 Website: <u>www.irn.co.ke</u>



TABLE OF THE CONTENTS

1.	INDUSTRY OVERVIEW	1
1.1 1.2 1.3 1.4 1.5 1.6 1.7	INTRODUCTION MAIZE SUB SECTOR IN KENYA WHEAT SUB SECTOR IN KENYA RICE SUB SECTOR IN KENYA SORGHUM SUB SECTOR IN KENYA MILLET SUB SECTOR IN KENYA CROP PRODUCTION AREAS IN KENYA	1 2 2 3 3
2.	INDUSTRY STRUCTURE	4
2.1 2.2 2.3	TRADERS Milling and processing companies Seed production	5
3. GF	RAIN PRODUCTION	6
3.1 3.2 3.3 3.4 3.5	MAIZE PRODUCTION Wheat production Rice production Sorghum production Millet production	6 7 8
4. N	ARKET CONDITIONS	9
4.1 4.2		
5. I	EGAL AND REGULATORY FRAMEWORK	12
5.1 5.2		
6. F	REASONS TO INVEST IN KENYA'S GRAIN INDUSTRY	13
7. I	NVESTMENT OPPORTUNITIES	14
8. N	AJOR GRAIN PROCESSORS	15
9. L	JSEFUL CONTACTS	15
10. S	OURCES OF INFORMATION AND GLOSSARY	16



List of Cha	arts	Page
Chart 1:	Recorded Marketed Production at Current Prices, 1999-2003, KShs Million	9
Chart 2:	Volume of Domestic Maize, Meals and Wheat Flour Exports 1999-2003, Units in Tonnes	10
Chart 3:	Volume of Domestic Imports of Unmilled Wheat, Rice, Unmilled Maize and Wheat Flours 1999–2003. (Metric Tonnes)	11
	(metro ronnes)	



List of Tables

Page

Table 1:	Registered Grains Seed Companies	5
Table 2:	Maize Production by Province, 2002-2003.	6
Table 3:	Production and import of wheat 1999-2003, "000 tonnes	7
Table 4:	Kenya rice production statistics 2002-2003.	7
Table 5:	Kenya sorghum production statistics 2002-2003.	8
Table 6:	Kenya millet production statistics 2002-2003.	8
Table 7:	Kenya wheat imports: January-December 2003.	11

MAPS

4

List of Abbreviations

- CDD Crop Development Division
- CIMMYT International Maize and Wheat Improvement Centre
- COMESA Common Market for Eastern & Southern Africa
- EAC East African Community
- EPC Export Promotion Council
- EU European Union
- FAO Food and Agriculture Organization
- GDP Gross Domestic Product
- GM Genetically Modified
- Gok Government of Kenya
- KARI Kenya Agricultural Research Institute
- KBS Kenya Bureau of Standards
- KEPHIS Kenya Plant Health Inspectorate Service
- KShs Kenya Shillings
- MOA Ministry of Agriculture
- MT Metric Tonnes
- NBC National Bio-safety Committee
- NCPB National Cereals and Produce Board
- PCPB Pest Control Products Board
- UPOV International Union of the Protection of New Varieties and plants
- VAT Value Added Tax

Annual Average Exchange Rates (KShs to US\$)

Year	Rate
1998	60.4
1999	70.3
2000	76.2
2001	78.6
2002	78.4
2003	75.9
2004	80.0 (As at 31st August 2004)

For latest rates click on http://www.centralbank.go.ke/cbk/FXrates/archives.html



1. Industry overview

1.1 Introduction

Kenya' economy largely depends on the agricultural sector, which accounted for 24% of the GDP in 2003. About 75% of Kenyans owe their livelihood to agriculture. Other than agroproduction, the sector boasts a comparatively wide range of manufacturing industries, with food processing being the largest single activity. About 66% of the manufacturing sector is agro based, owing to the country's agricultural economy foundation.

The agro-grain processing sub sector is one of the leading and well-established industries and it includes major cereal foods such as maize, wheat, rice, sorghum, millet and barley among others.

In the past one year, the overall sector has seen an increase in production and area under crop for all the grains, with the exception of millet, which though had an increase in area under crop cultivation, experienced a drop in harvest due to unreliable and uneven rainfall in the year 2003.

The National Cereals and Produce Board of Kenya (NCPB) established in 1985 under the National Cereals and Produce Board Act (Cap 338) of the laws of Kenya is mandated by the Government to regulate and control the marketing and processing of grains in Kenya. It does this through licensing and regulating the key players in the sector, who include traders, farmers and millers among others.

1.2 Maize sub sector in Kenya

Maize was introduced in Africa by Portuguese explorers in the beginning of the 16th century. It has since become Africa's second most important food crop, after cassava. Maize is Kenya's staple food, with area under cultivation estimated at 1.6 million hectares.

The greatest threat to Kenya's maize production is the pesky insect that attacks maize stalks. It is estimated that Kenya loses Sh7.2 billion (\$90 million) annually to this insect.

Continued research on more resilient breeds is being taken with a view to developing crops that are resistant to insects, and in particular, the stem borer. Growing of Genetically Modified (GM) seeds is currently in practice. The Insect Resistant Maize for Africa (IRMA) project uses biotechnology to develop varieties of the crop that are resistant to insects, and in particular the stem borer. Already, a Sh10 million (\$128,205.12) Biosafety Level II Green House (BGH) for Genetically Modified maize has been constructed at the Kenya Agricultural Research Institute (KARI) Biotechnology Research Centre complex.

The BGH will be the first in East Africa, making Kenya the only country other than South Africa to have a greenhouse for maize in the continent. Construction work on the BGH began in March 2003. The IRMA project is being jointly implemented by the Kenya Agricultural Research Institute (KARI) and the International Maize and Wheat Improvement Centre (CIMMYT). This will help increase maize production in the country which currently stands at 2 tonnes per hectare, with an upwards potential of up to 6 tonnes per hectare. The total area under maize cultivation by end of 2003 stood at 1.6 million hectare. Maize growing in Kenya is concentrated in the Rift Valley districts of Trans Nzoia, Uasin Gishu and Nakuru, a region often referred to as the 'Granary of Kenya'.





Maize production in Kenya relies on the small-scale farmers who contribute about 75% of the overall production, with the remaining 25% being contributed by the large-scale farmers.

NCPB is mandated to regulate the maize industry in all aspects of growing, research, processing, trade and promotion in both the local and the international markets. The Board also disseminates information relating to maize and advises the Government on all policy matters regarding the industry through the Ministry of Agriculture.

During bumper harvests, Kenya exports its maize to Tanzania, Uganda, Rwanda, Zaire, Sudan and Ethiopia among other countries, while importing from USA, South Africa, and Zambia when faced with deficits.

The maize sub-sector currently offers a number of investment opportunities for investors wishing to invest in the industry. Some of these include investment in large-scale maize cultivation, seed research and production for export under the Manufacturing Under Bond (MUB) or the Export Processing Zone programs.

1.3 Wheat sub sector in Kenya

Wheat is the second most important cereal grain in Kenya, after maize. The crop is grown largely for commercial purposes on a large scale. Kenya is self-sufficient in the hard variety of wheat, but is a net importer of the softer variety.

Wheat growing areas in Kenya include the scenic Rift Valley regions of Uasin Gishu, Narok, Marakwet, Elgeyo, Londiani, Molo, Nakuru and Timau areas. These areas have altitudes ranging between 1200m and 1,500m above sea level, with annual rainfall varying between 800 mm and 2,000 mm, with up to 2,500 mm on higher grounds. The area under wheat production in Kenya increased from 144,000 ha in 2002 to 150,000 ha in 2003.

Wheat varieties grown in Kenya include the high-yielding and drought-resistant Njoro BW1 and Njoro BW2. Njoro BW1 is grown in dry parts such as Lower Narok, Machakos and Laikipia, with a harvest of up to 20 bags an acre. Njoro BW2 performs well in acidic soils, like parts of Uasin Gishu and Nakuru districts. Njoro BW2 produces 35 bags of wheat per acre. Other varieties are the duma and chozi, mainly grown in dry areas, which yield about 19 bags an acre, and Kenya heroe and Kenya yombi, which can produce up to 32 bags an acre. Most of these varieties are results of research by the Kenya Agricultural Research Institute (KARI).

The major diseases that affect the wheat crop include Anthracnose, Browning Root Rot, Copper Deficiency and Bacterial Blight. Insects that attack the wheat crop include the Army Cutworm, Barley Thrips, and Grasshoppers among others.

Like the other grains, wheat falls under the Ministry of Agriculture, with its regulation and industrial development being controlled by the National Cereals and Produce Board (NCPB).

1.4 Rice sub sector in Kenya

Rice is the third most important staple food in Kenya after maize and wheat. It forms part of the larger diet for urban population. About 95% of the rice in Kenya is grown under irrigation in paddy schemes managed by the National Irrigation Board (NIB). The remaining 5% of the rice is rain fed. The average unit production under irrigation is 5.5 tons/ha for the aromatic variety, and 7 tons/ha for the non-aromatic varieties. Unit yield for rain fed is slightly below 2 tons/ha.





Most of the rain fed rice is grown in Kwale, Kilifi, and Tana River districts in Coast Province, and the Bunyala and Teso districts in Western Kenya. In Kenya, rice milling is carried out by small-scale milling enterprises, which are mainly privately owned.

1.5 Sorghum sub sector in Kenya

Sorghum is one of the most important cereal crops in the semi-arid tropics (SAT). Sorghum is a globally cultivated cereal, unique due to its tolerance to drought, water lodging, saline-alkali, infertile soil and high temperatures.

In Kenya, sorghum is grown principally in the often drought-prone marginal agricultural areas of Eastern, Nyanza and Coast Provinces. Consumption of sorghum is similarly localized to these growing areas. The crop performs well in areas between 500 metres and 1700 metres above sea level, with seasonal rainfall of 300mm and above.

The disease that affects Sorghum mostly is the sorghum midge, which is one of the most damaging and widely distributed in all sorghum growing regions of Africa.

1.6 Millet sub sector in Kenya

Millet is a nutritious, high-calcium content food. Millets belong to 5 genera, namely Penissetum, Eleusine, Setaria, Panicum and Paspalum. Recent statistics indicate that 50% of the total millet grain production is pearl millet, 30% proso/golden and fox tail millet and 10% finger millet. The remaining 8 species are of little economic importance and account for only 10% of the world millet production.

Millet production is concentrated in the drier part of the country, owing to its drought tolerance. The types of millet grown in Kenya include bulrush, finger, foxtail, and proso. These are grown mainly for domestic consumption.

The country produced 50,000 MT from 115,000 hectares during the 2003 season. This, including 10,000 MT of carryover stocks from 2002's output, ably met the 41,000 MT domestic demands. Millet is mainly grown in the Central, Western, South Rift and some coastal areas of Kenya.

KARI is developing pest resistant millet breeds that could resist pests like the striga weed and the fly that attacks the early shoot as well as developing better varieties of pearl millet, whose advantage is quick maturity.

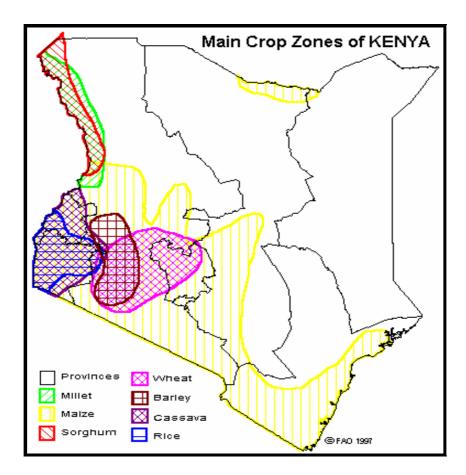
1.7 Crop production areas in Kenya

The map below illustrates the main growing areas for the country's key grains, which include maize, wheat, rice, sorghum and millet.





Map 1: Crop production areas in Kenya



Kenya is an attractive location for investment in growing and processing of maize, wheat, rice, sorghum and millet. The grain sub-sector is strengthened by the presence of big local millers who have international access especially to the EAC and COMESA markets. These players include Unga Group Limited, which is a regional main player exporting its products to the neighboring countries.



2. Industry structure

The grains sub-sector falls under the Crop Development Division, Ministry of Agriculture. The sub-sector is regulated and controlled by National Cereals and Produce Board of Kenya (NCPB), which monitors procurement, distribution, storage, processing and licensing of grain dealers. Following liberalization of the sector, the NCPB has faced competition from independent players especially in procurement, distribution, storage, and grain processing.

Other players include the Kenya Seed Company, a Government parastatal that provides and certifies seeds before being offered for sale to farmers.



The grain industry is well organized with different sub sector players contributing to complement each other for the sectoral success. The industry is organized into regulatory, research, producers, traders and value addition.

2.1 Traders

The National Cereal and Produce Board is the largest trader in cereals and grains in Kenya. It regulates the trade of cereals and grains in the country, while at the same time licensing other marketing and trading investments.

2.2 Milling and processing companies

The industry is structured into producers who are mainly small-scale farmers with farms of less than 5 acres, and large-scale farmers who have farms of over 5 acres. All these sell their produce either independently to the domestic market or to millers like Unga Limited, Pembe Maize Millers, Mwea Rice Millers, or to produce boards like NCPB and NIB.

Kenya has 22 millers, of these 18 are large capacity (150 tons/24 hours) and 4 are medium capacity (50-150 tons/24 hours). The country's installed milling capacity is about 3,500 tons per day. The majority of mills operate at capacities of between 100-300 tons per day. Unga Group Limited is the largest grain miller and animal feed manufacturer in Kenya.

2.3 Seed production

Currently, the country has about 8 major seed production and marketing companies supplying seeds to the domestic and regional export market. The companies produce maize, wheat, sorghum, millet seeds etc. Their handling capacities are detailed in table 1 below.

Company	Types of Seeds	Handling Capacity (Tons)
East African Seeds Co. Ltd	Maize	390,000
Farm Chem Ltd	Maize	257,000
Kenya Seed Company	Maize, Wheat, Sorghum, Millet	10,178,000
KARI Seed Unit	Maize, Wheat, Millet	66,300
Monsanto (K) Ltd.	Maize	200,000
Pannar Seed (K) Ltd	Maize	28,000
Western Seed Co.	Maize, Sorghum	874,400
Lagrotech Ltd	Sorghum, Maize	26,000
	East African Seeds Co. Ltd Farm Chem Ltd Kenya Seed Company KARI Seed Unit Monsanto (K) Ltd. Pannar Seed (K) Ltd Western Seed Co.	East African Seeds Co. LtdMaizeFarm Chem LtdMaizeKenya Seed CompanyMaize, Wheat, Sorghum, MilletKARI Seed UnitMaize, Wheat, MilletMonsanto (K) Ltd.MaizePannar Seed (K) LtdMaizeWestern Seed Co.Maize, Sorghum

Table 1: Registered Grain Seed Companies

Source: Ministry of Agriculture, 2004

NB: These capacity figures include other types of seeds that are not covered in this report (horticulture, beans, peas and grass)



3. Grain production

Real agriculture production in Kenya grew by 1.5 % in 2003, the highest in the last 5 years. This growth was attributed to increased production of maize and wheat, among other crops in the sector.

3.1 Maize production

Maize is Africa's second most important food crop, after cassava, and is grown in a wide range of environments. Per capita consumption of maize in Africa is highest in eastern and southern Africa. Maize is processed to offer various product ranges, which include whole maize meal flour, sifted maize meal, vegetable oil, flour for confectionery, dough, corn flakes, snacks and crackers, starch converted to process sugars like glucose syrup and dextrose.

As Kenya's staple food, a lot of emphasis is laid on the crop's production. The area under maize cultivation is approximately 1.6 million hectares. Maximum crop production in a good season is about 34 million tonnes and drops to 18 million tones during drought years. The small-scale farmers account for about 75% of the total maize production in Kenya, with large-scale farmers producing the remaining 25%.

The current maize production stands at 28 million bags, an increase from the previous years' 26 million bags. The quantity of maize imported rose from 16,326 tonnes to 115,905 tonnes in 2003 valued at KShs 221.1 million (US \$ 2.7million). This was to offset the domestic production deficit experienced in the year. Table 2 below illustrates the performance of the crop in the 2002 - 2003 seasons.

Province	Production (Metric Tonnes)		Value (Billion KShs.)	
	2002	2003	2002	2003
Central	137,700	146,511	1.49	1.68
North Eastern	5,629	5,581	0.112	0.111
Nyanza	448,276	388,635	5.38	7.10
Western	397,815	508,757	3.34	5.65
Coast	51,105	46,410	0.645	0.586
Eastern	409,203	329,419	4.54	5.60
Rift Valley	1,037,997	1,358,127	11.53	15.08
Total	2,481,725	2,783,375	27.03	35.80

Table 2: Maize Production by Province, 2002-2003.

Source: Ministry of Agriculture, Crop Development Division, 2003.

3.2 Wheat production

In the Kenyan market, wheat is basically used for domestic and commercial baking. Among the products derived from wheat includes chapati, roti, mandazi, doughnuts, cakes, biscuits, bread and confectionary. Wheat farm by-product (hay) is also widely used as animal feed.

As shown in table 3 below, wheat production stood at 64,400 tonnes in 2003, as opposed to 60,100 tonnes in 2002, a growth of 7.2 %. However, this was not adequate to meet the local demand, and this saw Kenya importing an additional 502,100 tonnes to supplement

KENYA



the local production. Wheat hectarage increased from 144,000 to 150,000 hectares between 2002 and 2003 respectively.

Production Year Total Imports 1999 55.4 578.5 633.9 2000 73.8 636.0 709.8 2001 81.5 617.5 699.0 2002 515.2 575.3 60.1 566.5 2003 64.4 502.1

Table 3: Production and Import of Wheat 1999-2003, "000 tonnes"

Source: Economic Survey 2004 by Central Bureau of Statistics, Ministry of Planning & National Development

3.3 Rice production

Over the past three years, Kenya's rice production has ranged between 45,000 tonnes and 50,000 tonnes, against a consumption of 110,000 tonnes. Kenya has a potential to produce 400,000 ha for rain fed rice and about 11,000 ha for irrigated rice production.

For the rice grown under irrigation, three major types of irrigation are practiced, which include smallholder, private commercial and government management schemes. Smallholder schemes grow mainly food crops and vegetables. The government-managed schemes grow mainly rice (Mwea, Ahero) with tenant plot holders on 1.6 ha plots.

In addition, one of the areas in the country with the greatest potential for irrigation is the Lake Victoria basin although it is currently restricted by the Nile Treaty, signed in the 1920s between the British and Egyptian Governments, from engaging in any major irrigation activity. If properly utilised, the Lake Victoria basin has the potential to feed the East and Central Africa region.

Province	Production (Metric Tonnes)		Value (Billion KShs.)	
	2002	2003	2002	2003
Central	39,450	38,070	1,145,000,000	913,680,000
North Eastern	130	420	6,500,000	21,000,000
Nyanza	3250	6,855	29,460,977	62,140,000
Western	246	333	5,904,000	7,992,000
Coast	2023	2,070	59,665,360	25,555,222
Total	45,099	47,748	1,246,530,337	1,030,367,222

Table 4: Kenya Rice Production Statistics 2002-2003

Source: Ministry of Agriculture; Crop Development Division 2003

The rice production increased from 45,099 MT to 47,748 MT in 2002 and 2003 respectively. Most of the rice is grown in Central Kenya which contributed about 80% of the total production in 2003 as shown in table 4 above.





3.4 Sorghum production

Sorghum is a globally cultivated cereal, and is a major crop grown in the semi-arid and arid regions of Africa and Asia where it is used as a staple food. In Kenya the crop is predominantly traditionally grown in Eastern, Western, and Nyanza provinces.

Farm production went up from 118,227 tonnes in 2002 to 126,433 tonnes in 2003. Generally sorghum productivity is influenced by rainfall. As an indigenous Kenyan crop, sorghum provides food security and is becoming a suitable alternative in many places where maize crop fails.

Province	Production (Metric Tonnes)		Value (Billion KShs.)	
	2002	2003	2002	2003
Central	156	136	2,618,600	2,071,395
North Eastern	2,963	5,282	59,268,000	105,640,000
Nyanza	69,597	67,655	670,000,000	783,432,800
Western	11,505	20,245	204,532,800	244,988,000
Coast	377	322	16,963,300	7,923,601
Eastern	26,829	25,951	305,904,000	415,920,000
Rift Valley	67,799	6,892	77,522,132	789,582,517
Total	118,227	126,433	1,336,808,832	1,136,182,195

Table 5: Kenya Sorghum Production Statistics 2002-2003

Source: Ministry of Agriculture; Crop Development Division, 2003.

3.5 Millet production

Kenya largely produces the finger millet variety. Production in 2003 was 64,023 tonnes, which met the domestic requirements. Millet is often used as a substitute to maize incase of the latter's' failure.

KARI scientists are currently multiplying seeds bred at its Kakamega Regional Research Centre. The seed varieties so far released include P224 and KAT/FM-1. The grain is largely produced by small-scale farmers for domestic consumption. Millet is mainly produced in Nyanza, Eastern, Rift Valley and Western provinces of Kenya, as illustrated in the table 6 below.

Table 6: Kenya Millet Production Statistics 2002-2003

Province	Production (Metric Tonnes)		Value (Billion KShs.)	
	2002	2003	2002	2003
Central	44	34	1,204,000	1,202,500
Nyanza	12,973	12,139	290,000,000	270,794,000
Western	11,500	8,341	25,566,600	18,350,860
Coast	398	70	1,672	31,164,200
Eastern	45,211	33,601	331,876,560	443,726,600
Rift Valley	6,413	9,843	47,067,927	72,253,525
Total	76,539	64,023	697,386,087	737,492,685

Source: Ministry of Agriculture; Crop Development Division, 2003



Millet production decreased from 76,539MT to 64,023 MT in 2002 and 2003 respectively, while the value of the same increased from KShs 697 million to KShs 737 million in the same period. Eastern Province is the main producer of millet, producing over 50% in 2003 as shown in table 6 above.

4. Market conditions

The grain market in Kenya is largely controlled by the National Cereals and Produce Board (NCPB), which regulates and controls the marketing and other scheduled agricultural produce.

The total value for all crops in Kenya increased by 0.7% from KShs 59,946 million in 2002 to KShs 60,336 million in 2003. This was mainly attributed to better prices, especially for wheat. However, the lower quantity of marketed maize saw a decline in the marketed value of all cereals declining by 17% from KShs 6,398 million in 2002 to KShs 5,471 million in 2003.

The chart 1 below illustrates the recorded marketed production at current prices for maize and wheat.

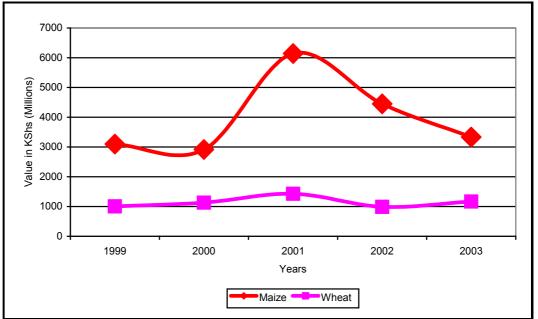


Chart 1: Recorded Marketed Production at Current Prices, 1999-2003, (KShs million)

Source: Economic Survey 2004 By Central Bureau of Statistics, Ministry of Planning & National Development

4.1 Exports of key grains

In the last five years, Kenya's grain exports have largely consisted of raw maize. The period between 1999 and 2001 saw Kenya export less than 50,000 tonnes, with most of the produce being consumed locally. In 2002 Kenya's exports grew to 158,750 tonnes. In year



2003 the exports declined owing to consolidation to meet the expected shortage in 2004 owing to adverse weather forecasted for the period.

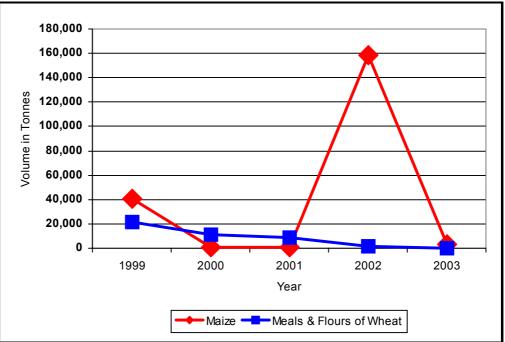


Chart 2: Volume of Domestic Maize, Meals and Wheat Flour Exports 1999 – 2003 (Units in Tonnes)

Source: Economic Survey 2004 by Central Bureau of Statistics, Ministry of Planning & National Development

During the same period, Kenya has been exporting meals and flours of wheat. The export has been steadily declining owing to adverse weather conditions and rain failure. The exports have however been more stable as compared to maize as shown in chart 2 above.

4.2 Imports of key grains

The country has had to import key grains to supplement the local production which has been hampered by among other factors, adverse weather, poor farmer prices and crop failure owing to diseases. Among the crops the country has had to import include rice, imported largely from Pakistan, Thailand, China, India and Vietnam to help meet the local production deficit.

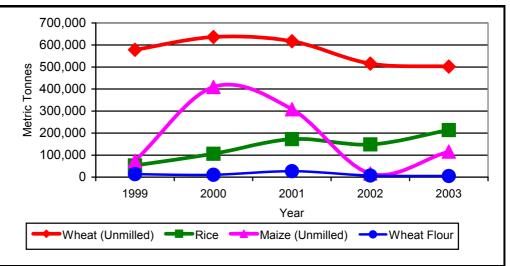
To offset the imbalance of domestic production, the country had to import grains to supplement the shortfall. The grains imported include unmilled wheat, rice, unmilled maize and wheat flour. These imports are mainly from USA and Australia.

Chart 3 below illustrates the volume of imports of main grains into the country in 1999 to 2003.





 Table 3: Volume of Domestic Imports of Unmilled Wheat, Rice, Unmilled Maize and Wheat Flours 1999 –2003. (Volume in Metric Tonnes)



Source: Economic Survey 2004 by Central Bureau of Statistics, Ministry of Planning & National Development

Kenya's wheat imports decreased from 578,543 MT in 1999 to 502,115 MT in 2003, while that of rice increased from 53,358 MT to 213,342 MT in the same period as illustrated in chart 3 above.

Wheat production in Kenya in the period 2002-2003 was inadequate to meet local demand. In order to supplement the local production, the country had to import wheat from various destinations as indicated in the table 7 below.

Country	Quantity	_ % Import
India	22942.00	5.0
China	27,380.00	5.9
USA	52,557.00	11.4
Canada	10,057.92	2.2
Russia	96,761.00	21.0
Pakistan	125,831.00	27.2
Ukraine	33,700.00	7.3
Australia	23,405.17	5.1
United Kingdom	33,300.00	7.2
Romania	10,250.00	2.2
Lithuania	17,197.00	3.7
Germany	8,388.00	1.8
Total	461,769.76	100.00

Table 7: Kenya Wheat Imports: January – December 2003

Source: USAID Agricultural Services 2004





5. Legal and regulatory framework

The Ministry of Agriculture has the overall responsibility of the grains sector. Within this ministry, various Boards are mandated to regulate and license the operators in each sub sector. The National Cereals and Produce Board was established by an Act of Parliament in August 1985 (National Cereals and Produce Board Act Cap 338) to offer guidance in the sector. The Board may import or authorize importation of maize, wheat, or scheduled agricultural produce in quantities that are directed by the Minister for Agriculture.

Various agencies play a pivotal role in adding value to the sector. The Crop Development Division of the Ministry of Agriculture promotes food crop production in order to enhance food security in Kenya. It provides advisory and educational services to farmers through field days, demonstrations, trials and agricultural shows. The division also collects, collates and issues sectoral reports for Early Warning and Information Systems.

5.1 Regulatory institutions

Kenya Bureau of Standards

All the standards of packaging of any grains have to meet the quality standards set by the Kenya Bureau of Standards (KEBS). The regulations include:

- Company name and details
- Nutritional contents
- Weight
- Manufacture and expiry date
- Instructions on how to use

The Kenya Plant Health Inspectorate Service (KEPHIS)

KEPHIS is a State Corporation established in October 1996. The Corporation's activities and services involve offering inspectorate services on all matters related to plant health and quality control of agricultural inputs and produce. The activities include:

- Certification of the quality of seeds.
- Testing and monitoring the presence of harmful residual agro- chemicals on agricultural produce, soils and water systems.
- Co-ordination of the release of superior and well-adapted varieties / cultivars to the farming community.
- Protecting the rights of the breeders / discoverers of new plant varieties
- through grant of rights to the owners of such varieties and registering them.
- Preventing introduction into the country of harmful foreign weeds, pests and diseases through adherence to strict guarantine regulations and procedures.
- Inspecting and grading agricultural produce for import and export to ensure that they are of high and acceptable quality.
- Implementing the national policy on the introduction and use of genetically modified plant species, insects and microorganisms in Kenya.

The National Irrigation Board

The National Irrigation Board (NIB) was established in 1966. The Board is mandated to administer, coordinate and manage public irrigation schemes all over the country.

5.2 Research institutions

Continuous research and development has been carried out in all the crop sectors with the sole purpose of enhancing productivity. This is by introduction of new resilient seeds, fertilizers, pesticides and better cropping methods.





Key institutions include Kenya Agricultural Research Institute (KARI), which is mandated to carry out agro-based research services by the Government. Other agencies include the Sustainable Agriculture Centre for Research and Development in Africa, International Maize and Wheat Improvement Center (CIMMYT), which is funded by Syngenta Foundation for Sustainable Agriculture. Academic institutions have equally taken up continuous agro-based research. These include the University of Nairobi, Egerton University, Moi University and the Jomo Kenyatta University of Agriculture and Technology.

6. Reasons to invest in Kenya's grain industry

Kenya's competitive advantage as an ideal investment location in the grain sector is supported by various investor friendly factors as outlined below.

Local market availability

In light of the fact that local production does not currently meet the national demand for grains, there is a ready market for additional local production.

Established seed industry

The country has over 40 seed companies, both local and international - among the international seed companies represented in Kenya are Pioneer, Pannar, Monsanto, and Seminis. In the continent, the Kenya Seed Company is one of the largest seed companies.

Good climate

Kenya enjoys both tropical and temperate climatic conditions, suitable for supporting the growth of a wide range of grains.

Availability of affordable labour

Kenya has an abundant supply of affordable skilled and unskilled labour, which is needed for any agricultural based industry.

Access to the regional market

Kenya's membership in regional trading bodies such as COMESA, African Union and the East African Community provides potential investors with a large potential market for their products.

Investor friendly arrangements

The Kenya government can guarantee investor friendly arrangements such as:

- the Export Processing Zones (EPZ) program which offers attractive incentives to export-oriented investors and EPZ Authority to provide one-stop-shop service for facilitation and aftercare
- the Investment Promotion Centre (IPC) to promote all other investment in Kenya including in Manufacturing under Bond (MUB) program
- the Tax Remission for Export Office (TREO), a program for intermittent imports for export production
- Generous investment and capital allowances
- Double taxation, bilateral investment and trade agreements

Investment insurance

Kenya as a member of MIGA (Multilateral Investment Guarantee Agency), ATIA (Africa Trade Insurance Agency) and ICSD (International Centre for Settlement of Investment Disputes) provides potential investors with insurance for their investment in Kenya against a wide range of non-commercial risks.





Strategic location

Located on the East African coast and having the port of Mombasa, Kenya is strategically located for investors wanting to access the East and Central African market. Kenya is also a regional hub for airlines allowing for easy access from and to any part of the world.

Good quality of life

Kenya hosts a number of international organizations and foreign embassies and provides very good and up to standard living conditions for foreign investors wishing to reside in Kenya. With recognized international hotels, airports and entertainment centres.

Stable political climate

Kenya has been one of the politically stable countries in Africa since independence. The country has had three presidents with smooth transition taking place from one government to the next with peaceful elections. This is also manifested in the number of international and regional organizations headquartered in Nairobi including the UN, IGAD etc.

7. Investment opportunities

The following are some of the investment opportunities available in the grain production and processing industry:

Maize production

Investment in maize production is highly encouraged to provide for local demand and offer surplus for export market within the regional market. Kenya is developing The Insect Resistant Maize for Africa (IRM) that will increase productivity per hectare and the problem of pesky insect that destroys much of farmer's crop will be resolved. This will guarantee better yield for food security.

• Wheat production

Kenya wheat production does not meet the local demand; hence there is a good opportunity for investment in this sector to fill the existing gap in the market.

• Marketing and processing

More opportunities in marketing and processing invite more players in the sector since the liberalization of cereals sub sector. Earlier on, the National Cereal and Produce Board controlled the whole process under the influence of the Government.

Grains warehousing

The warehouses formerly owned by the NCPB are equally available for either hiring or buying to facilitate storage of grain of any kind.

• Processing of oil

Availability of maize provides opportunity production of Corn Oil; with the everincreasing demand of cooking oil sparkled by consumer health concern over high cholesterol content in cooking fat.

• Baby food processing

Manufacturing of baby food blended with sorghum or millet to add nutrient value is a potential market worth exploring.

KENYA



• Other opportunities

- In absence of barley, wheat and sorghum can be alternatives to brewing beer owing to high starch content.
- There are also widespread opportunities in production of fast-maturing seeds, as well as opportunities in adding pest resistance Striga and the stem borers.

8. Major grain processors

	Name	Products
1	Corn Products	Cereals
2	Unga Group Ltd	Maize, Wheat, Millet, Sorghum
3	Pembe Maize Millers	Maize, Wheat
4	Nairobi Flour Millers	Maize, Wheat
5	Premier Flour Millers	Maize, Wheat
6	Swan Millers Ltd	Maize, Wheat
7	Ahero Rice Millers	Rice
8	Mwea Rice Millers	Rice
9	Sansora Millers	Maize, Wheat
10	Nutro Foods EPZ Ltd	Fortified Foods
11	Insta Products EPZ Ltd	Fortified Foods

9. Useful contacts

Ministry of Agriculture & Rural Development Kilimo House, Cathedral Road P.O Box 30028, Nairobi, Kenya Tel: 254-20-2718870 Fax: 254-20-2720586 Web: www.agriculture.go.ke

National Cereals and Produce Board (NCPB) Head Office - Nafaka House Machakos Rd., Industrial Area P. O. Box 30586, Nairobi, Kenya Tel: 254-20-536028 Fax: 254-20-54224 Email: cereals@africaonline.co.ke

East African Seed Co. Ltd P.O. Box 48125, Nairobi, Kenya Tel: 254-20-214941 Fax: 254-20-215084/552690 Email: <u>eased@form-net.com</u> Ministry of Trade and Industry Telposta Towers, Kenyatta Avenue P.O. Box 43137 Nairobi, Kenya Tel: 254-20-315001-4 Fax: 254-20-315011 Web: www.tradeandindustry.go.ke

Kenya Seed Company Ltd P. O. Box 553 Kitale, Kenya Tel: 254-325-20941/2/3/4/5/6 Fax: 254-325-20458 Email: <u>kenseed@form-net.com</u>

Kenya Plant Health Inspectorate Service (KEPHIS) Waiyaki Way P.O. Box 49592, 00100 GPO Nairobi, Kenya Tel: 254-20-884545/882308/882933 Fax: 254-20-882265 Email: <u>kephis@nbnet.co.ke</u> Web: <u>www.kephis.org</u>



Kenya Agricultural Research Institute (KARI) & KARI Seed Unit Kaptagat Rd, Loresho P.O. Box 57811, Nairobi 00200, Kenya Fax: 254-20-583344 Tel: 254-20-583301-20, 0733333223 0722206986, 0722206988 Email: resource.center@kari.org Web: www.kari.org

Kenya Bureau of Standards (KEBS) Belle-vue Area, off Mombasa Rd. P.O. Box 54974, 00200 Nairobi, Kenya Tel: 254-20-605490/605506/605550 Fax: 254-20-604031 Email: info@kebs.org Web: www.kebs.org

Export Processing Zones Authority Administration Building Athi River EPZ, Viwanda Road Off Nairobi - Namanga Highway P.O Box 50563, 00200 Nairobi Kenya Tel: 254 45 26421-6 Fax: 254 45 26427 Web: www.epzakenya.com Email: info@epzakenya.com Investment Promotion Center (IPC) 8th Floor, National Bank of Kenya Bldg. Harambee Avenue P.O. Box 55704, 00200 City Square Nairobi, Kenya Tel: +254-20-221401-4 Fax: +254-20-336663 Email: info@investmentkenya.com Web: www.investmentkenya.com

Export Promotion Council Anniversary Towers, 16th Floor University Way P.O. Box 42047 Nairobi, Kenya Tel: 254-20-228534 Fax: 254-20-218013/228539 Email: <u>chiefexe@epc.or.ke</u> Web: www.cbik.or.ke

Pest Control Products Board (PCPB) P.O. Box 13794, 00800 Nairobi, Kenya Tel: 254-020-4446115/ 4450242 Fax: 254-20-4449072 Email: pcpboard@todays.co.ke

Farm Chem Limited P.O. Box 18407, Nairobi, Kenya Tel: 254-20-542678/9 Fax: 254-20-540595/544037 Email: <u>farmchem@africaonline.co.ke</u> Web: <u>www.farmchem.co.ke</u>

10. Sources of information and glossary

- The Annual Report, Crop Development Division, Ministry of Agriculture, 2003.
- Food and Agriculture Organization (FAO), <u>www.fao.org</u>
- National Cereals and Produce Board (NCPB) & NCPB Act
- USAID Foreign Agricultural Services
 - Economic Survey, 2004 by the Central Bureau of Statistics, Ministry of Planning and National Development
 - Statistical Abstract, 2003 by the Central Bureau of Statistics, Ministry of Planning and National Development