

**Performance of Kenya's Wheat Industry
and Prospects for Regional Trade in
Wheat Products**

Hezron Nyangito
Moses M Ikiara
Eric E. Ronge

Productive Sector Division
Kenya Institute for Public Policy
Research and Analysis

KIPPRA Discussion Paper No. 17
November 2002

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Published 2002

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Bishops Garden Towers, Bishops Road

PO Box 56445, Nairobi, Kenya

tel: +254 2 2719933/4; fax: +254 2 2719951

email: admin@kippra.or.ke

website: <http://www.kippra.org>

ISBN 9966 949 35 6

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KIPPRA acknowledges generous support by the European Union (EU), the African Capacity Building Foundation (ACBF), the United States Agency for International Development (USAID), the Department for International Development of the United Kingdom (DfID) and the Government of Kenya (GoK).

ABSTRACT

Wheat is the second most important food crop in Kenya. Wheat production has however declined over the years due to high production costs, high capital costs, lack of credit for production, and the low level of technology-adoption in wheat production. Kenya has had to rely on wheat imports to meet the domestic and regional demand for wheat and wheat products. Increased wheat imports have led to a further decline in wheat production because imports dampen domestic prices, which is a disincentive to production. Kenya's exports of wheat products have also faced increased competition because of the high cost of domestic wheat. These factors combined could lead to collapse of the domestic manufacturing industry and consequently loss of employment and livelihood of many Kenyans. This study reviews the constraints faced by the wheat industry in Kenya and proposes policy options that can be considered in developing the wheat industry.

Although Kenya does not have a comparative advantage in wheat production, the country benefits from regional trade in wheat products. However, since the country faces competition from other countries, there is need to relax the constraints in wheat production, manufacturing of wheat products, and in marketing of wheat products in the domestic and regional markets. Research, extension, credit and marketing functions need to be adequately funded in order to encourage increased domestic production of wheat. Import taxes and duties on wheat imports should be eliminated to avoid protecting inefficient producers. Input supply and output marketing needs to be made competitive through provision of improved infrastructure services. There is also need for better management of policy on wheat imports and trade to avoid distortions in the wheat market. Finally, wheat farmers and manufacturers of wheat products need to be provided with information regarding regional market conditions.



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1. INTRODUCTION

Wheat is the second most important cereal in Kenya after maize in terms of production and consumption. The annual wheat production in the 1990s averaged about 258,207 tons. Production has however been very erratic, ranging from 264,457 tons in 1991 to nearly 126,000 tons in 2000. In contrast to production, wheat consumption in Kenya has been on a general increase, although there have been declines in some years, particularly in 1992, 1995 and 1997. Due to the rising demand for wheat, caused by high population growth and increased urbanization, consumption has increased faster than production. The current domestic wheat requirements are about 765,000 tons. Kenya has therefore relied on imports to meet domestic needs in wheat. Currently, imports account for about 62.4 percent of Kenya's domestic needs in wheat.

The demand for wheat in Kenya is enhanced by the export of wheat products to the neighbouring countries within the Common Market for Eastern and Southern Africa (COMESA) region. The COMESA region, with a population of about 350 million people, provides a large market for Kenyan wheat products. The export of wheat products from Kenya increased tremendously beginning in 1994 although the pattern was rather erratic in the 1990s. In particular, 1998-1999 saw a large decline in exports, partly due to competition from other countries in the region, and notably South Africa and Egypt.

Increased wheat imports into Kenya and declining exports of wheat products poses two challenges. First, increased wheat imports dampen domestic prices, which is a disincentive to domestic production. As a result, farmers have tended to shift to more lucrative enterprises. This can perpetuate dependence on wheat imports, the source of which may be unpredictable. Second, increased competition for Kenya's domestic wheat exports in the regional market can lead to collapse of the manufacturing industry for wheat products, resulting in substantial loss of employment and livelihood for many Kenyans. These challenges make

it necessary to review the wheat industry in Kenya in order to identify the constraints faced, and propose policy options that can help in the development of the industry.

1.1 Objective of the Study

The major objective of this study was to analyse the performance of wheat production and trade in Kenya with emphasis on trends over the past ten years, to identify the primary reasons behind any increase or decrease in imports and exports of wheat products, and to identify the main constraints faced in the industry.

The first section introduces the problem and outlines the methodology and procedures for data analysis. The second section gives an overview of the global wheat trade while the third section reviews the current wheat production, marketing and trade situation in Kenya. The fourth section presents the survey results with respect to wheat trade while the last section presents the conclusions of the analysis.

1.2 Methodology

Both primary and secondary data were used in this study. The data were gathered through desk research and through surveys of importers, traders, millers and manufacturers of wheat-based products in the country. Discussions were also held with various individuals from the Government of Kenya (ministries of Agriculture and Livestock Development and Finance and Planning), and National Cereals and Produce Board (NCPB), among others.

1.2.1 Secondary data

Secondary data were collected through a review of published and unpublished material. The main sources of secondary included statistical abstracts, economic surveys, US Center for International Business (USIB), PC-TAS trade data bank, and publications from the Food and Agriculture Organization (FAO) and UNCTAD. The impact of liberalization of trade,

and East African Community (EAC) and Common Market for East and Southern Africa (COMESA) agreements on intra-regional trade in wheat and especially on the composition and origin of wheat imports was determined based on EAC and COMESA publications as well as Kenya's Statistical Abstracts. Useful data were also obtained from the National Cereals and Produce Board (NCPB).

1.2.2 Primary data

A survey was undertaken on millers (including those who import wheat), and manufacturers of wheat products. Interviews were conducted using structured questionnaires. A total of 16 millers (who also import wheat) out of the total (25) registered with NCPB were interviewed. The millers interviewed were distributed as follows: Nairobi (8), Thika (2), Mombasa (5) and Kisumu (1).

It is important to note that before liberalization of the wheat trade in 1993, wheat importation into Kenya was a monopoly of the NCPB. Private imports and domestic marketing were prohibited. Private trade in wheat and other grains is therefore a new phenomenon in Kenya and this explains why there are few private wheat importers. Following liberalization, NCPB now operates as a public commercial agency. The Board purchases grains for strategic reserves, and also monitors trade in cereals.

In addition to 16 millers interviewed, seven (7) manufacturers of wheat products such as bread and confectionery were also interviewed. Only manufacturers in Nairobi were interviewed because they form the bulk of the manufacturers of wheat products in Kenya. In addition, almost all the manufacturers who export wheat products are located in Nairobi.

1.2.3 Data analysis

Both descriptive and statistical analytical methods were used in the study. Statistical analysis is used to compute volume changes of wheat exports

to Kenya over time. This analysis is also applied to wheat production, consumption and trade for Kenya as well as intra-regional trade in COMESA. Constraints in wheat trade are analysed quantitatively. However, no statistical tests are conducted on these qualitative variables because of the small size of the sample. Although the sample sizes for millers, traders and manufacturers are small, they represent a high proportion of those involved in the industry. The sample of importers, for example, represents about 64 percent of the population. The inferences made from the analysis are therefore representative of the status of the industry in Kenya.

2. GLOBAL MARKET FOR WHEAT

Wheat is one of the world's most important cereals. FAO data shows that in 1999/2000, wheat accounted for 31.4 percent of the quantity of all cereals produced in the world and for 31.5 percent of the total quantity of cereals traded. Wheat is also more valuable than most of other cereals with the exception of milled rice. Between 1996/97 and 1999/2000, the export price of wheat (US No. 2 Hard Winter) averaged US\$ 138.75 per ton compared with US\$ 108.25 for US No. 2 yellow maize and US\$ 309 for Thai rice (second grade).

2.1 Global Wheat Production and Consumption

Global wheat production reached the highest level of 613 million tons in 1997/98. Since then, wheat production has been declining. It reached 589 million tons in 1999/2000 and was expected to decline further to 587 million tons in the year 2000/2001 (FAO, 2000). Asia and Europe dominate wheat production in the world. As Table 1 shows, the two continents account for 74.8 percent of all the wheat produced in the world between 1997 and 2000. Africa produced only 2.6 percent of the world's total wheat during the same period, with the bulk (40 percent) of this coming from Egypt alone. In terms of individual countries or regions,

Table 1: World wheat production (million tons): 1997-2000

Region or country	1997	1998	1999*	2000**	Share of world total ¹
Asia	265.7	254.8	260.0	252.4	43.3
China	123.3	109.7	113.9	101.0	18.8
North Africa	15.0	18.7	14.9	13.6	2.6
Sub-Saharan Africa	5.1	4.5	3.7	3.9	0.7
Egypt	5.8	6.1	6.3	6.7	1.0
North America	91.8	93.4	89.5	87.0	15.2
United States	67.5	69.3	62.7	61.6	10.9
Canada	24.3	24.1	26.9	25.4	4.2
South America	20.2	16.5	19.3	19.5	3.2
Argentina	14.8	11.5	14.7	14.5	2.3
Europe	197.1	188.7	178.2	188.0	31.5
EC (15 countries)	94.9	103.7	97.5	105.1	16.8
Oceania	19.7	22.3	24.3	23.1	3.8
Australia	19.4	22.1	24.1	22.8	3.7
Developed countries	327.6	319.9	313.2	317.4	53.5
Developing countries	285.7	277.8	276.1	269.2	46.5
World	613.4	597.7	589.3	586.7	100.0

*Estimate; ** forecast; Source: FAO (2000). *Food Outlook* No. 2 (April) and No. 4 (September)

¹ Share is based on total production over the period 1997-2000

China is the world's largest wheat producer, followed by the US. The European Community, comprising 15 countries, is also a large wheat producer, accounting for 16.8 percent of all the wheat produced between 1997 and 2000.

The general marginal declines that have occurred in wheat production between 1997 and 2000 can partly be attributed to price losses arising from weak global demand for the commodity. Between 1995/96 and 1999/2000, for instance, wheat stocks (the excess of supply over demand) have ranged from 102 to 143 million tons and averaged 126.8 million tons per year (USDA 2000). These stocks can only meet about 18 percent of total wheat demand annually (Table 2).

Table 2: Worldwide wheat demands and supplies (million tons)

	1998/99	1999/2000*	2000/2001**	% of total demand²
Total demand	693.4	702.2	701.8	100.0
Food and seed	483.7	490.1	493.6	70.0
Feed and residual	107.1	104.0	103.1	15.0
Exports	102.6	108.1	105.1	15.0
Total supply	829.7	830.4	813.2	-
Stocks	136.4	128.2	114.4	17.9

* Estimate; ** forecast; Source: United States Department of Agriculture (USDA) estimates

²Based on data for 1998/99 to 2000/2001

As Table 2 shows, 70 percent of the wheat demanded every year is required for food and seed while the balance is divided evenly between export and feed plus residual. It is encouraging that world consumption of wheat continued to grow by about 5.9 percent annually between 1995/96 and 1999/2000. In fact, over the last three years (1998 to 2000) consumption has exceeded production and stocks have been drawn down marginally. According to FAO, 70 percent of the expected increase in global food consumption of cereals in 2000/01 was in low-income, food-deficit countries that include Kenya. These countries are in dire need of food assistance. In Kenya alone, 3.3 million people (close to 12 percent of the country's entire population) required food assistance (FAO, 2000).

Other factors that influence the quantity and or quality of wheat output include the weather, shortage of agricultural inputs, reduction or withdrawal of government support, competition from maize and barley as feed cereals, and the performance of the world economy. Weather has substantial influence on aspects of wheat quality including kernel size and therefore milling yield, protein and moisture content, baking performance, loaf volume and bread quality.

2.2 Trade and Prices

Total world trade in wheat has more or less stabilized at 100 million tons every year, representing about 17 percent of global annual production. The US is the world's leading exporter of wheat, accounting for 29 percent of global wheat exports between 1994/95 and 2000/01 (Table 3). Other important wheat exporters are Canada, the EU, Australia, and Argentina. Africa accounts for only 0.4 percent of total world wheat exports, with South Africa alone accounting for 0.1% of Africa's annual production.

The main importers of wheat are the developing countries. Between 1998/99 and 1999/2000, imports from developing countries accounted

for about 77.1 percent of the world's total wheat imports (FAO, 2000). These imports were largely from Asian and African countries, accounting respectively for 46.8 percent and 22.7 percent of total world imports. Brazil is the world's leading importer of wheat, followed by Iran, Egypt, Japan and Algeria. Between 1997/98 and 2000/01, Kenya imported an average of 0.53 million tons annually (FAO, 2000).

Owing to large exportable supplies³, international wheat prices have been under substantial pressure in the 1990s (Table 4). This has led to some producers switching to more remunerative crops. It has also led to intense competition among exporters, a factor that has seen the emergence of credit terms, government guarantees, and increasing use of food aid by the big grain exporters. Many exporting countries are, in

Table 3: Global wheat exports and selected exporters (million tons)

Country/ region	1994/95-1996/97 (average)	1997/98	1998/99	1999/00 (estimate)	2000/01 (forecast)	Share (%) in world total*
World total	99.6	100.7	100.5	106.0	107.5	100.0
Argentina	7.2	8.9	8.3	10.0	10.0	8.6
Australia	12.8	15.1	16.4	17.2	17.7	15.4
Canada	18.7	21.1	14.2	18.5	18.8	17.8
EC or EU	14.9	13.0	13.7	15.0	15.5	14.0
United States	31.1	28.1	29.0	29.0	32.0	29.0
Africa	-	0.4	0.3	0.2	0.2	0.3
South Africa	-	0.2	0.1	0.1	0.1	0.1

* % based on figures reported for 1994/95 to 2000/01

³ Between 1995 and 2000, for example, exporters held 31.9 percent of the world stocks of wheat (calculated from FAO data, 1995-2002)

addition, aggressively using export subsidies. In 1992 for instance, the US introduced the export enhancement programme (EEP) to counter EU and Saudi Arabia wheat subsidies in the Kenyan market. In reaction to dramatic wheat price falls in 1998, the US started providing credit to Korean buyers and food aid programmes to Indonesia (Cyclope and UNCTAD, 1999).

Table 4: Dynamics of wheat prices (US\$/ton)

Date/wheat delivery	Argentina Trigo Pan	US Hard Winter No. 2	US Soft Red Winter No. 2	EC Standard	Australian Standard White
1994/95	136	157	145	129	175
1995/96	218	216	198	210	231
1996/97	157	181	158	170	203
1997/98	137	142	129	134	165
1998/99	118	120	100	101	148
1999/00	104	112	97	95	138
January 2000	93	111	98	-	-
February 2000	91	112	99	-	-
March 2000	98	112	98	-	-
April 2000	101	112	96	-	-
May 2000	112	116	102	-	-
June 2000	114	119	99	-	-
July 2000	114	115	91	-	-

Source: FAO (2000): *Food Outlook*; and Cyclope and UNCTAD (1999)

The number of international grain traders has fallen substantially through buyouts and closures (Cyclope and UNCTAD, 1999). This means that the few remaining traders control the grain commodity chain. Through such governance, the traders control the largest share of economic rents

generated in the supply chain. This may explain why producer prices of wheat have been falling.

A number of patterns in price movements emerge from Table 4. First, prices of all wheat varieties have been declining. Second, prices of different wheat varieties are converging. Therefore, while the price of US Hard Winter No. 2 was 15.4 percent higher than that of Argentina Trigo Pan in 1994/95, the difference had narrowed down to 10.2 percent in January-July 2000. Obviously, however, the US wheat remains more expensive than Argentinean wheat. Third, the Australian Standard wheat variety appears to be of superior quality going by its relatively higher prices. Therefore, between 1994/95 and 1999/00, the Australian variety was, on average, 14.3 percent more expensive than the US Hard Winter wheat variety.

3. KENYA'S WHEAT INDUSTRY

This section discusses wheat production, marketing and trade in Kenya with the aim of highlighting the structure of the industry and the constraints faced along the chain.

3.1 Domestic Production

Both small-scale and large-scale farmers produce wheat in Kenya. Small-scale farmers grow wheat in small areas of less than 5 acres while large-scale farmers grow the crop on more than 5 acres of land. Furthermore, large-scale farmers are more mechanized in wheat production compared to small-scale farmers. The large-scale farmers dominate wheat production with a share of 75 percent of the wheat area and 83 percent of production.

Low productivity, high capital costs, and inappropriate production technologies characterize wheat production in Kenya. These constraints

have raised production costs, therefore making domestically produced wheat less competitive than imported wheat in the domestic market.

The domestic cost of producing wheat varies from Ksh. 900 to Ksh. 1700 per 90kg bag depending on the agro-ecological zone and the scale of production (Table 5). Wheat production is highly mechanized, especially in the large-scale production systems. Land preparation, planting, and harvesting account for the highest proportion of production costs (40 percent) whereas fertilizers and seed costs account for about 30 percent (Nyoro, 1999). The costs of production are also influenced by the price of diesel, which accounts for 30 to 40 percent of the total production cost.

Table 5: Structure of wheat production costs in Kenya

Item	Small farm (low)	Small farm (high)	Large farm (low)	Large farm (high)
Yields (90kg bags/acre)	5	12	16	18
Labour costs in Ksh/acre	225	348	655	700
Intermediate costs in Ksh/acre	8194	11,853	15,237	19,090
Total costs in Ksh/acre	8,419	12,201	15,892	19,790
Costs per 90kg bag	1,684	1,017	993	1,099

Source: Nyoro, J. K. (1999)

Average wheat yields in Kenya are about 1300kg per acre but this can range from 450kg per acre on small-scale farms to 1600kg per acre on large-scale farms. There is potential for raising yields up to 2,500kg per

acre through use of improved wheat varieties. These high yields are currently not being achieved because of the low level of technology adoption, particularly on small farms.

Productivity of wheat farming systems is also highly influenced by the weather and soil characteristics. Depending on the agro-ecological zone of the farm, therefore, wheat yields on small farms can vary by as much as 2.4 times (Table 5), and as much as 1.3 times on large farms.

Wheat farmers in Kenya also face constraints in lack of access to credit, particularly after the Agricultural Finance Corporation (AFC), a government agency that offers credit, withdrew the seasonal credit programme. Shortage of land has also caused shifting of wheat growing from areas with fertile soils and adequate rainfall (high potential areas) to the marginal areas where soils are poor and rainfall is low and unreliable (low potential areas). This shift is caused by competition from other enterprises such as maize and dairy farming, and by sub-division of farms into smaller units. The latter makes wheat production unprofitable in the high potential areas. Other constraints facing wheat producers in Kenya include poor supply of inputs, low producer prices and pest infestation.

An analysis of the structure and competitiveness of wheat production in Kenya indicates that Kenya does not have a comparative advantage in wheat production compared to major world producers like the United States, Argentina, Canada or Australia. The Kenyan wheat producer price in 1999, for example, was estimated at Ksh. 1,800 per 90kg bag while the cheapest import price inclusive of duties and taxes was estimated at Ksh. 1,500 per 90kg bag. It is therefore apparent that with world globalization in trade in wheat and other commodities, domestic wheat production is not competitive and Kenya will have to rely more on imports to meet domestic and regional demand for wheat and wheat products.

3.2 Domestic Trade and Import Policies

Domestic trade and import policies are major factors that, besides production aspects, also determine the competitiveness of Kenya's wheat industry. The wheat market was liberalized in 1993 and millers and traders were allowed to compete with the National Cereals and Produce Board (NCPB). However, this has not brought the expected benefits to the farmers largely because of poor infrastructure and other constraints. Poor infrastructure has led to poor accessibility to markets by farmers. This has led to low competition among buyers and has kept producer prices low. Farmers have complained about this problem in the past⁴. This sometimes forces the government to intervene causing unpredictable distortions in the market.

In order to protect domestic wheat producers against competition from imports, the government has used variable import duties. These have ranged from 25 percent in 1997 to 35 percent (plus 50 percent suspended duty) in 2000. The duties are reviewed after every three months to offer producers protection, for example when domestic production is high, or to increase imports when domestic production is low.

Liberalization of the cereals sector has opened the Kenyan wheat industry to competition from imports. A comparison of the domestic wheat production costs with the current import parity price reveals that Kenyan-produced wheat is not competitive. The price of imported wheat in Nairobi, without import duty, averages about Ksh. 1560 per 90kg bag of hard wheat and Ksh. 1530 per 90kg bag of soft wheat. At this level, the import price of Ksh. 1700 per 90kg bag is slightly lower than the most inefficient production system. When an import duty of 35 percent

⁴ In the 1996/1997 harvest season, farmers in Uasin Gishu District, a major wheat-growing region, rioted over low producer prices offered by millers and NCPB. The government forced NCPB to buy the wheat at a higher price than the then prevailing market price

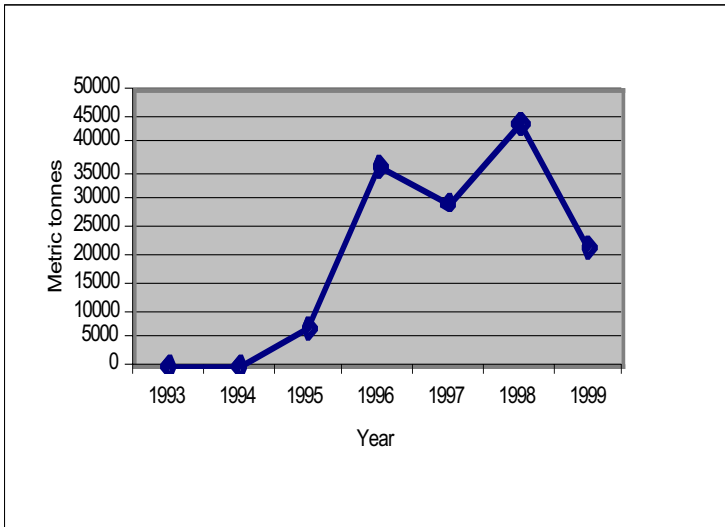
is added, import prices rise to Ksh. 2,100 per 90kg bag of hard wheat and Ksh. 2,065 per 90kg bag of soft wheat. In addition, the government applies a suspended duty of 50 percent when deemed necessary. This means that import duties make imported wheat more expensive than locally produced wheat. High transport costs and other charges add to the high cost of wheat imports. In spite of this, imported wheat is still popular in Kenya because wheat millers argue that imported wheat is of superior quality.

Imposition of import duties is like an implicit ban of wheat imports because it makes the cost of imports more than double the average cost of production. The policy is used to protect domestic wheat producers against competition from imported wheat. Domestic wheat producers use the import prices, inclusive of import duties, as the basis for the producer price they demand from the NCPB. The domestic producers benefit more from this policy but the duties on imported wheat raise the price of imports and therefore increase the price of wheat products. The result is that the demand for wheat and wheat products is adversely affected and the consumer surplus eroded. The competitiveness of Kenya's millers in the domestic and export markets is also substantially reduced. There is therefore a clear tradeoff in that protecting wheat producers through erection of high tariff walls hurts manufacturers of wheat-based products, therefore denying the country export revenue.

3.3 Intra-regional Trade

Kenya has over the years dominated the east and central African region in the supply of wheat products (Figure 1). This is because the country has a well-developed domestic wheat production industry and a good infrastructure for transporting wheat imports to milling plants located in major towns. The country, moreover, has a well-developed milling industry for wheat and manufacturing industries for wheat products when compared to other countries within the region. Kenya therefore

Figure 1: Kenya wheat product exports to COMESA



has a reasonable competitive advantage in supplying the region with wheat products. The large population in the COMESA region (350 million people) creates a big market for wheat products. This in turn creates demand for wheat imports because production of wheat in the region is very low.

Despite the advantage Kenya has in manufacturing wheat products, the import duties charged on wheat are much higher than those charged by neighbouring countries (Uganda and Tanzania at 5 percent). Further, within the COMESA region, Kenya also has the highest duties on wheat. Some countries like Egypt and Mauritius have zero duties on wheat imports. The duties on wheat imports have made Kenyan wheat products less competitive in the regional markets. This is likely to reduce the rate of growth of demand for wheat imports into Kenya unless the duty is reduced to levels comparable with those applied in the neighbouring countries.

With liberalization of trade in the region, and low relative duties on imported wheat products (currently at 35 percent with no suspended

duty), traders have increased imports of finished wheat products (flour and biscuits) from Europe and Asia (Table 6). This has reduced importation of wheat itself. Further, imports of finished products into the neighbouring countries have also increased and milling industries have been established in these countries as well.

Table 6: Imports of wheat products into Kenya (1990-99) in tons

Year	EU	Australia	Canada	Japan	COMESA
1990				0.003	
1991				0.034	
1992	5,360		5,201		
1993	42,631			0.4	
1994	4,333		1.6	0.018	
1995	123,200			0.032	
1996	5,112			0.4	43
1997	7,718		840	2.6	272
1998	12,800	400		0.8	
1999	13,498			0.1	

Source: Customs and Excise Department

The imposition of duties on wheat imports will however diminish in the long run because Kenya is a member of the World Trade Organization (WTO) and has trade agreements with the European Union under the African Caribbean Pacific (ACP)-European Union (EU) Cotonou Agreement. These agreements require lowering of tariffs. The US also has provisions for new trading arrangements with Kenya under the African Growth and Opportunity Act (AGOA). These agreements will soon impact on the level of import duties that Kenya can apply on wheat.

The country has also signed an agreement under COMESA for zero tariffs for trade in products produced within the region. The initiatives towards low tariffs on wheat imports and zero tariffs on wheat products traded in the COMESA region are likely to lead to an increase in wheat imports into Kenya.

Table 7: Wheat production and imports into Kenya: 1991-98

Year	Production (tons)	Import (tons)	Total available (tons)
1990	N/A	322,632	N/A
1991	264,457	242,612	507,069
1992	297,000	100,808	397,808
1993	212,776	314,410	527,186
1994	297,000	353,076	650,076
1995	312,644	249,134	561,778
1996	315,000	486,917	801,917
1997	252,000	388,138	640,138
1998	288,000	478,865	766,865
1999	217,189	664,247	790,247
2000	126,000	N/A	N/A

Source: Statistical Abstracts and data from National Cereals and Produce Board (NCPB)

3.4 Wheat Imports into Kenya

Kenya imported on average 54 percent of its wheat requirements annually between 1991 and 1998 (Table 7). There seems to be a shift in this proportion between 1991 and 1995 and 1996 and 1998. In the earlier period, Kenya imported on average 46 percent of her total wheat requirements while in the latter period the proportion was 61 percent. The most important type of imported wheat is the Hard wheat type used for making bread or blending with the local Soft wheat type. The soft wheat is used mainly for home baking.

Table 8: Sources of wheat imports: 1990-99 (tons)

Year	EU	Argentina	Australia	USA	Canada	COMESA	Rest of the World	Total
1990	30,644	7.9		99,911	1,823		190,246	322,632
1991	19,906			46,456			176,250	242,612
1992	53,882			62,714	10,000	2,361		128,957
1993	48,437	117,451		61,422	80,153		6,947	314,410
1994	83,640			303,045	18,375			405,060
1995	1,075	125,605	5,507	32,123			84,829	249,139
1996	35,385	114,115	64,838	77,715	44,100		150,764	486,917
1997	0.09	124,712	155,958	28,880	54,096	35	24,456	388,138
1998	1.6	312,492	86,990	18,789	5,249		55,343	478,865
1999	39,920	12,675	157,059	83,859	30,100			323,613

Source: Customs and Excise Department

The major sources of wheat imports to Kenya are the US, Argentina, Australia and Canada (Table 8). The leading position has oscillated among these countries. Wheat imports from the European Union were also important between 1990 and 1994, with major drops in 1995, 1997 and 1998. Some recovery occurred in 1999. Most wheat importers prefer negotiating for credit with exporters and other offshore financiers and

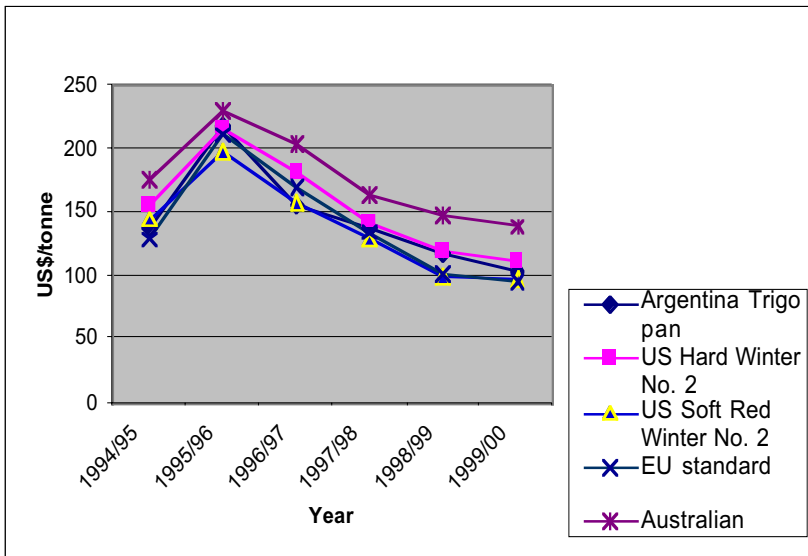
paying back after selling the wheat. This makes imports more attractive than domestically sourced wheat.

The differences in prices, freight costs, quality and government policy in these countries can be used to explain the relative differences in the amounts of wheat imports.

3.4.1 Prices

The price of Australian wheat is significantly different from that of wheat from Argentina and the US, but the prices of wheat from Argentina and US Hard Winter No. 2 are not significantly different except for 1999 prices (Figure 2). Despite these differences in price, the volumes of wheat imports from Australia are relatively higher particularly in recent years. Therefore, wheat price in itself may not be a major determinant of the sources of wheat imports for Kenyan importers. Quality, freight charges and export policies in the respective countries are the major factors that may explain the variations.

Figure 2: Relative wheat import prices for selected wheat types



3.4.2 Freight charges

An analysis of the costs of importing wheat (Table 9) indicates that the prices and costs of importing wheat into Kenya vary from country to country of source. The price of wheat from Argentina is lowest when compared to wheat from the US and Australia. Freight cost is relatively lower for wheat imported from Australia compared to the cost of importation from Argentina and the US. Overall, therefore, the cheapest source of wheat imports for Kenya, among the three countries, is Argentina. The relatively lower freight rate for Australian wheat, however, improves its competitiveness. Therefore, while the price of Australian wheat was 23 percent higher than US wheat in 1999, the cost of importing the wheat up to Nairobi (price and freight costs) is only 6 percent higher.

Table 9: Import parity prices of wheat imports to Kenya from different countries: 1999

ITEM	COUNTRY		
	Argentina Ksh/ton	USA Ksh/ton	Australia Ksh/ton
1 FOB	7,311.20	7,873.60	9,701.40
2 Freight	2,460.50	2,460.50	1,757.50
3 C&F Mombasa	9,771.70	10,334.10	11,458.90
4 Insurance (1% of C&F)	97.72	103.34	114.59
5 LC opening charges (0.5% of C&F)	48.86	51.67	57.29
6 LC Retirement Commission (0.125% of C&F)	12.22	12.92	14.32
7 Wheat import duty (Ksh 3,700/MT)	3,896.42	3,896.42	3,896.42
8 IDF Fees (2.75% of C&F)	268.72	284.19	315.12
9 Stevedoring	674.48	674.48	674.48
10 KPA shore handling	408.65	408.65	408.65
11 New P. P. Bag	317.40	317.40	317.40
12 Transport to warehouse	245.19	245.19	245.19
13 Storage (1 month) and handling charges	98.08	98.08	98.08
14 Fumigation charges	119.03	119.03	119.03
15 Agency fees	81.73	81.73	81.73
16 Incidental charges (1% of C&F)	97.72	103.34	114.59
17 Ports & customs overtime	19.84	19.84	19.84
18 Trade levy	11.11	11.11	11.11
19 Landed into store Mombasa	16,168.87	16,761.49	17,946.74
20 Road haulage to Nairobi	2,261.48	2,261.48	2,261.48
21 Landed Nairobi	18,430.35	19,022.97	20,208.22

Source: NCPB, 1999

Obviously, price and freight costs alone do not explain the level and source of imports entirely. Australian wheat which was the most expensive, for example, was the main type of wheat imported in Kenya in 1999. The cost of wheat imports from the US is high partly because of the high charges on insurance, LC opening charges and commissions, relative to those charged for wheat from Argentina. The Food and Agriculture Organization's (FAO) review of the world trade in wheat shows that Pakistan and India may start exporting wheat (FAO, 2000). These countries will have a cost advantage because of lower freight costs over the US, Argentina and Australia with respect to the Kenyan market. Even though the quality of their wheat may not be as competitive as that from Argentina, Australia or the US, the entry of Pakistan and India into the export market is likely to erode part of the market currently available for these countries.

3.4.3 Government exports policy

On the basis of government policy, a substantial amount of wheat from the US, European Union, Japan and Canada is brought into Kenya as commodity aid or through the monetization programme. The wheat is given to Non-Governmental Organizations (NGOs) for subsequent resale. The commodity aid wheat is sold to millers at relatively lower prices (US\$ 80 per bag in 1999) when compared to commercial wheat imports (US\$ 112). Therefore, the variations in wheat imports from these countries also reflect their government's policies in giving wheat as commodity aid. Besides policies on commodity aid, export subsidies also influence the amount of wheat imports coming from a given country. For instance, the US initiated Wheat Aid program for Kenya in 1992 to counter the export subsidies on EU and Saudi Arabian wheat.

4. Survey Results

This section discusses the findings of the survey of wheat millers, traders and manufacturers. The purpose of the survey was to understand the constraints facing the development of a wheat market in Kenya in general.

4.1 Wheat Milling

Kenya has a milling capacity of 1.5 million tons of wheat per year. The mills are situated in the major towns of the country (Nairobi, Mombasa, Nakuru and Kisumu). The utilization of the milling capacity is low (estimated at 30 to 60 percent). Sixteen (16) wheat-milling firms were surveyed.

Most of these mills were established to mill maize and wheat as their core line of business. Over time, some have diversified into baking bread and cookies, and manufacturing of animal feeds from milling by-products. All the millers surveyed are members of the Wheat Millers Association (WMA) of Kenya, a body that lobbies the government on the welfare and interest of the wheat millers.

4.1.1 Domestic sources of milled wheat

Kenya produces only about 46 percent of its annual wheat requirements, three quarters of which is Soft wheat. The amount is only able to meet about 18 percent of the total annual milling capacity. The largest mill has a capacity of 900 metric tons per day while the smallest has a capacity of 200 metric tons. The WMA has made a commitment to buy all domestic wheat supplies before going into the import market to avoid government's imposition of suspended duties on wheat imports. Therefore, every miller is allocated (by WMA) a portion of domestic wheat that they have to buy from local farmers as a social obligation. The WMA negotiates with the Kenya Wheat Growers Association with respect to the wheat producer price annually on the basis of quality.

Soft wheat has a very low level of gluten, a substance required to raise dough quality of flour. For this reason, Soft wheat is usually blended with Hard wheat to produce quality flour. In addition, Soft wheat has a very low extraction/conversion rate of around 40 percent. For commercially viable wheat, the extraction rate should be around 70-80 percent. Therefore, locally grown Soft wheat is blended with Hard wheat at a ratio of 40:60 percent to make quality flour. Millers access Soft wheat locally from Kenyan farmers and normally import Hard wheat as it is produced in very small quantities domestically. However, some Soft wheat is also imported.

Although the millers through WMA purchase all the wheat grown in Kenya, they face several problems in obtaining domestic wheat.

First, wheat production is scattered in various parts of the country with each farmer producing small quantities that do not justify a miller investing in transportation to collect such small quantities of wheat. The producer is forced to transport the wheat harvest to the miller, therefore increasing the cost substantially.

Second, the quality of wheat in the local market is poor relative to imported wheat. However, the annual wheat producer price agreed on between the WMA and Wheat Producers Association (WPA) is generally higher than the import parity price, making domestic wheat much more expensive than imported wheat. The WPA insists on using the import parity pricing of Hard wheat from Australia or Argentina, yet Hard wheat and Soft wheat are two separate products. Even the quality level of imported Soft wheat is higher than that of the locally produced Soft wheat. Furthermore, local producers rarely meet the recommended moisture content of 13 percent that allows easy separation of the germ from the endosperm.

The major problems that millers reported in obtaining domestic wheat are shown and ranked in Table 10. About, 43 percent of the millers ranked the domestic price of wheat as the most important constraint while only 19 percent ranked transport charges as such. Only six millers (37.5 percent) ranked the limited availability of local wheat as a major constraint. This is because the majority of millers have alternative sources of wheat following the liberalization of the industry in 1993. Equally ranked low was the level of government restrictions. All the firms that ranked this as a constraint indicated that the restrictions no longer influence their sourcing of domestic wheat for milling. Therefore, high domestic prices, followed by limited availability of local wheat, are considered the most important constraints to millers when sourcing for domestic wheat. High transport costs is the third most important constraint while poor quality of wheat is the fourth most important constraint.

Table 10: Constraints faced by millers in obtaining domestic wheat

Constraint	Frequency of millers ranking constraint as*				
	1	2	3	4	5
Limited availability of wheat	6	-	-	10	-
Poor quality wheat	-	3	10	-	-
High domestic prices	7	3	3	-	-
High transport costs	3	7	-	3	-
Government restrictions	-	-	-	-	13

*The rows do not add up to 16 in all cases because some firms failed to rank some options

Source: Survey, November 2000

4.1.2 Wheat imports

The main sources of wheat imports for the millers surveyed are shown in Table 11. Argentina and Australia are the major sources for most millers in recent years. The US used to be a major source in 1996 but this is not the case currently.

Table 11: Source of imported wheat to millers: 1995-2000*

Source	1996	1997	1998	1999	2000
Canada	5	4	3	3	2
Argentina	6	10	11	13	13
Australia	3	9	13	12	13
USA	12	6	2	3	3
South Africa	1	1	1	1	1
Romania	1	1	1	1	1

* This is as reported by the millers. Some millers cited more than one country in any given year.

Source: Survey, November 2000

Most millers import wheat on a quarterly basis and each consignment contains about 16,000 tons. The millers do not import the entire annual requirements in one consignment because this would tie a lot of funds in raw material stocks and would affect cash flow. They would also require investing in large and unnecessary storage capacities yet wheat quality cannot be guaranteed within a storage period longer than one year. Indeed, the global trend is to import on a quarterly basis. FAO (2000) notes that one explanation of weak international demand and low prices for wheat is the tendency for importing countries to focus increasingly on meeting the bare minimum required for utilization rather than on building stocks.

All the millers use almost the same importation procedures and processes. Each has a list of traditional overseas-based Hard wheat agents and suppliers. Multi-sourcing of wheat is important due to quality and price differentials. When there is need to import, a miller sends product specifications detailing the type of wheat required, the quantity required, moisture content, specific weight, level of impurities, the expected time and date of delivery and sends out the requests for quotations straight to the agents who in turn contact the suppliers. Once quotations are received, they are analysed and the firm with the best offer invited to deliver the wheat to Mombasa within a specified period.

Table 12: Constraints faced by millers in sourcing imported wheat

Constraint	Frequency of millers ranking constraint as				
	1	2	3	4	5
High port charges	-	6	-	2	4
Limited domestic market	-	5	2	8	-
High domestic duties and taxes	15	-	-	-	-
High transport costs	-	4	11	-	-
Limited overseas contacts/agents	-	-	2	2	8

*As ranked by the millers. All the rows do not add up to 16 because not all the firms ranked the various options; Source: Survey, November 2000

The constraint ranked highest by millers is the high level of duties and other charges levied. Besides the normal duty set at 35 percent CIF, millers also face a suspended duty of 50 percent that is used to protect local wheat farmers. The millers are also frustrated with the uncertainty in applying the suspended duty, which can vary every three months, either

going up or coming down depending on the government's intentions and projected local production. The constraint ranked as the second most important is high port charges. A number of charges including those for quality control, government agencies (three in number), commissions, IDF fees and port charges increase the cost of imported wheat. The other important constraint facing wheat importers is the high domestic transport cost of ferrying the imported wheat to Nairobi by rail or by road. All the millers reported that obtaining overseas brokers and agents (contacts) is not a problem and therefore ranked the constraint lowest.

4.1.3 Market outlets for milled wheat products

Products for most Kenya millers include baker's flour and home baking flour. Each company has a unique brand name for her products. The market for these two wheat milling products include:

- (i) Bakers of bread and confectioneries who use the baker's flour and home baking flour respectively.
- (ii) Traders who sell the flour to hotels and individuals to bake *chapatis* and *mandazi* (local buns).
- (iii) Export markets in the region.

The proportions of these products sold to these three outlets by millers are as shown in Table 13.

Table 13: Proportion of millers using various market outlets

Frequency of millers using outlet			
Product	Sold to bakers	Sold to traders	Sold in export markets
Home baking	15	16	3
Bakers' flour	16	16	3

Source: Survey, November 2000

4.1.4 Export market for wheat milling products

The major export markets for Kenyan wheat products have traditionally been the East African Community (EAC) and COMESA. Most millers reported that they have lost the export market (an average of 60 percent) in the region in recent years, mainly because of high taxes and duties imposed on wheat products, and relatively high production costs occasioned by poor infrastructure. Kenya has the highest duties and taxes in the COMESA region, according to the respondents. Another factor that has reduced the competitiveness of Kenyan-milled wheat products in the regional markets is the high bank interest rates in Kenya, which add to production costs.

4.2 Bread Bakeries and Manufacturers of Wheat Confectionery

A total of seven firms in this category were interviewed, all of them in Nairobi. All except one were incorporated between 1985 and 1998. The other one was incorporated in 1941. Only one of these firms imports and mills wheat, and also manufactures wheat products. There is, however, evidence of vertical integration in that at least three of the bakeries surveyed are owned by milling firms. In fact, there is a miller who owns 12 bakeries.

Most of the firms make bread, biscuits, cakes and breakfast cereals. They use flour from Hard, Soft and mixed wheat. They also use whole-wheat grain for the cereals and for making whole-grain bread. One of the firms produces specialized bread (pastries, cakes, biscuits, French bread, chocolates, and others) for middle and high-income households.

The amount of Hard wheat flour used annually per firm ranges widely from 47.5 tons to 13,500 tons and averages 3,919 tons. The value of this flour ranges from Ksh. 1 million per year to about Ksh. 121 million and averages Ksh. 36.2 million per firm per year.

Half of the firms reported using flour from Soft wheat, with the largest of them using an average of 1,447.6 tons annually between 1992 and 1999. The price of this wheat flour was Ksh. 26.40/kg in 1999 and Ksh. 26.70/kg in 2000. The other firm uses 1,350 tons of flour annually from imported soft wheat (worth Ksh. 12 million) and 1 ton from the local market. The third firm uses an average of 182 tons of wheat flour from local soft wheat per year, worth about Ksh. 4.4 million.

Use of wheat grain ranges from 1.32 tons per firm per year to 1,075 tons, with a value ranging from Ksh. 30,000 to Ksh. 29.58 million. This wheat grain is sourced locally.

Bakeries and wheat confectionery manufacturers cited a number of constraints with respect to locally-produced wheat. The most important of these, having been cited and ranked high by all the respondents, are:

- Poor quality of local wheat in terms of consistency, grain size, maturity, gluten content, cleanliness, moisture content and damage on the grains. This increases the cost of bread making, as more yeast, emulsifiers and improvers are required.
- High prices of local wheat due to high taxes and inappropriate agricultural policy. Manufacturers complained of many taxes, including import duties, presumptive tax, suspended duties, and overprotection of farmers. An associated problem with taxation is that taxes fluctuate and are therefore unpredictable.

Other problems cited include:

- Inadequate supply of local wheat, with frequent weather-related shortages and fluctuation of prices.
- Requirement for cash purchase, as opposed to importation that utilizes the letter of credit facility.

In general, bakeries and manufacturers of wheat confectionery in Kenya do not import their wheat directly. They acquire wheat from millers

instead of importing directly because they do not use bulk quantities that are economical to import. One of the firms, however, buys wheat from local farmers, imports what is not available locally, mills and manufactures wheat products. The most important constraints faced with respect to importation are:

- Lack of or weak contacts in external markets
- Lack of information especially in the case of African markets

Other problems include:

- High costs of importation
- Lack of the capital required for bulk buying
- High and uncertain duties and taxes that lead to delays in shipments
- Pilferage at the port of Mombasa
- Fluctuations in the exchange rate

4.2.1 Demand for wheat products in Kenya and regional markets

Bakeries in Kenya have been experiencing declining production in the last two years (1999 to 2001) because of low demand as a result of economic hardship, which has forced some consumers to switch to alternatives such as cassava, potatoes and maize meal. Moreover, many small bakeries have been established, therefore generating serious competition. Some respondents estimated that small informal bakeries supply as much as 20 percent of the domestic market. There is also competition from imports coming from South Africa.

The main market for wheat products manufactured in Kenya is the country itself. Outlets include supermarkets, institutions like schools and hotels/restaurants, retail outlets, and relief agencies like UNHCR, UNICEF, and CARE Kenya which purchase high-energy biscuits for

refugees. There is therefore an indirect export market. Half of the firms export to the East African market, mainly Uganda, Tanzania, Zaire and Rwanda. However, the proportion of the products exported is small, ranging from 2 to 11.8 percent and averaging 6.7 percent per firm.

The firms interviewed were asked to estimate the size of the local and export market for their wheat products. The local market was rated as small and moderate by about 38.6 percent of the firms. The remaining 61.4% of the firms rated the market as large. All the firms interviewed indicated that they had observed change in demand for wheat in the Kenyan market since 1990. These changes and the number of firms citing them are shown in Table 14. As is clear from the table, demand for wheat in Kenya has increased since 1990. Furthermore, there is a general expectation that the Kenyan market for imported wheat (mainly Hard wheat) will expand in the coming years due to population growth, poor agricultural policies in Kenya, and the vulnerability of local production to the weather. Improvement in economic performance is also expected to increase demand for imported wheat in Kenya.

Table 14: Changes in the Kenyan wheat market since 1990

Change observed by firms	No. of firms citing*
Increase in demand as population is growing	3
Increase in up-market (high-income) demand	2
Fall in demand due to economic hardships	1
Increase in competition due to liberalization	1
Change in the type of products demanded, e.g. sugar and salt contents	1
Increase in demand up to 1998 and then decline	1
Total increase in demand up to 1998 and then a sharp decline	7*

* As observed by bakeries. Some firms cited more than one change.
Source: Survey, November 2000

The most important constraints faced by the firms with respect to exportation of wheat products are:

- Lack of information
- High cost of establishing stockists in the export markets
- Poor or weak contacts in the markets

Other constraints cited include:

- High tariffs/duties in the export destinations as some ignore the COMESA rates
- High transport costs
- Perishability of products
- Government restrictions
- Competition/marketing problems
- Reduced production due to high costs

Regional trading blocs like EAC and COMESA have had mixed effects on business for bakeries and manufacturers of wheat confectionery in Kenya. While some feel that the trading arrangements have reduced bureaucracy and tariffs, and increased demand, others feel that tariffs are still high. The entry of Egypt into COMESA is however expected to have a substantial adverse impact on the Kenyan wheat industry since Egyptian wheat is relatively cheaper. Kenya will not be able to impose high duties on Egyptian wheat due to its membership in COMESA. Given that Egyptian wheat flour costs about Ksh. 2,300 per 90kg bag while Kenyan wheat flour and flour obtained from outside COMESA costs Ksh. 2,500-2,600 for the same bag, millers in Kenya may opt for Egyptian wheat. This will shut out wheat imported from outside the region and that produced in the country unless efficiency of production is raised or there are unique varieties not available from Egypt.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The quantities of wheat imported into Kenya have been increasing over time because, while consumption has been expanding, domestic wheat production has been erratic and declining. The main reason for declining domestic wheat production is high production costs as a result of low yields, high capital costs due to high mechanization requirements, and low levels of use of technologies, fertilizer, and quality seed. Furthermore, farmers face constraints in accessing credit for production. Due to constraints in wheat farming, farm subdivisions, and weak competitiveness against wheat imports, farmers have shifted to other enterprises such as maize and dairy farming. This has aggravated the decline in domestic wheat production and increased reliance on wheat imports. Currently, the country imports about 62.4 percent of its wheat consumption requirements. However, there is a potential of increasing domestic wheat production if the yields are increased from the current 1,300 and 1,600kg per hectare for small and large farms respectively to the potential of 2,500kg per hectare if farmers can increase use of improved technologies.

The major sources of wheat imports into Kenya are Argentina and Australia. Africa is not an important source of wheat imports for Kenya. The major factors that influence the source of wheat imports to Kenya are quality (preferred varieties), price and freight charges. Wheat from Argentina and Australia is the most preferred because of its suitability for multipurpose use in making wheat products. Prices and freight charges determine the competitiveness of wheat imports. Wheat from the US is for example relatively expensive compared to that from Australia. Furthermore, high duties and taxes on wheat imports into Kenya reduce demand for wheat locally and reduce competitiveness of Kenyan produced wheat products in the regional market.

Domestic trade and import policies are major factors, besides production aspect, which affect the competitiveness of Kenya's wheat industry. Liberalization of the cereals sector has opened the market to competition from imports. The import parity price of about Ksh. 1,560 per bag is lower than the cost of the most inefficient producer (Ksh. 1,700 per bag). Imported wheat is made more expensive by use of import duties (35 percent) and in some cases suspended duties. Import duties are used to protect domestic producers and the import price inclusive of all duties is used as the basis for pricing domestic wheat. This makes domestic wheat, and therefore domestic wheat products, to be expensive. Consequently, domestic wheat products are uncompetitive in the domestic and regional markets.

Kenyan exports of wheat products dominate the eastern and central Africa region. Between 1996 and 1999 the country exported 20,000-45,000 tons of wheat products to the COMESA market. Even though the actual export volumes are very erratic, this export business enhances demand for imported wheat in Kenya. Kenya has a comparative advantage in the export of wheat products into the East and Central African region due to a well-established milling infrastructure and a good transportation network. The EAC and COMESA markets for wheat products reflect the important role of imported wheat into Kenya in intra-regional trade. Without imports, Kenya cannot be able to exploit the opportunities in the regional markets. Regional trade in wheat products is important given that the COMESA region has about 350 million people and therefore a large market for wheat. The constraints to this lucrative market, however, are:

- (i) Excessive wheat import duty in Kenya in comparison to competitor nations.

This has led to loss of competitiveness of Kenyan products in the market. For instance, in the year 2000, Uganda and Tanzania

charged 5 percent duty rate on imported wheat while Kenya charged 35 percent (plus 50 percent suspended duty). Mauritius and Egypt have zero rates. The firms interviewed therefore estimate that Kenya has lost about 60 percent of the regional market for wheat products in the last few years. High infrastructure costs like irregular and costly electricity, poor roads, water shortages, expensive fuel and high interest rates have also contributed to loss of competitiveness.

- (ii) Lack of information and weak contacts in these markets.
- (iii) High cost of establishing stockists in the export markets.
- (iii) Perishability of the wheat products

Since Kenya does not have a comparative advantage in wheat production, the country will continue to rely on imported wheat. The market for imported wheat in Kenya is expected to expand due to:

- (i) Population growth in the country and the region to which Kenya exports wheat products.
- (ii) Decreasing domestic production as a result of shortage of land, poor agricultural policies, and lack of comparative advantage in wheat production in Kenya.
- (iii) WTO, Cotonou and COMESA free trade agreements that Kenya has signed.
- (iv) Increased need for food assistance in Kenya and the region.

Furthermore, the entry of Egypt into COMESA and the coming in force of zero tariffs on wheat and other commodities is likely to not only depress local wheat production but also the demand for wheat coming from outside the region. The price of Egyptian wheat averages Ksh. 2,300 per 90kg bag compared with Ksh. 2,500-2,600 for locally produced wheat

and for wheat imported from outside COMESA. This means that Egypt can produce wheat products cheaply and outcompete Kenyan products in the COMESA region.

5.2 Recommendations

The focus of policy should be in relaxing constraints in wheat production, manufacturing, and marketing of wheat products in the domestic and regional markets.

On the production side, the constraints farmers face in wheat production that lead to high costs of production and un-competitiveness need to be relaxed by focusing on the following.

- (i) Funding and delivery of services like research, extension, credit, marketing and storage. The previous dominant role of the public sector is diminishing and the private sector will have to play a leading role in these activities.
- (ii) The government's use of taxes and duties on imported wheat to raise revenue, which also leads to higher domestic producer prices, should change to avoid protecting inefficient producers.
- (iii) Input supply and output marketing will need to be competitive through provision of improved infrastructure services.
- (iv) Policy on wheat imports and trade policy needs to be managed efficiently to avoid distortions in the wheat market. Protectionist's policies hurt both producers and consumers.

On the manufacturing and trading sides, Kenya needs to exploit the competitive advantage it has in wheat products in the regional markets by focusing on the following:

- (i) Reducing import duties on wheat imports to competitive levels with other countries in the region. Given that Egypt is major competitor in such products, the import duty on wheat should be comparable.

- (ii) Reducing costs of infrastructure (electricity, water, fuel and transport) which make manufacturing of wheat products uncompetitive in the region. This can be done through increased investments in such services to reduce costs.
- (iii) Provision of information regarding regional market conditions and establishment of strong contacts in the markets.

References

Food and Agriculture Organization (FAO, 2000). *Food Outlook*, No. 2 (April) and No. 4 (September).

Institute of Economic Affairs (IEA, 1998). "Our problems our solutions: an economic and public policy agenda for Kenya." Institute of Economic Affairs, Nairobi.

Nyoro J. K. (1999). "Policy issues facing wheat production and marketing in Kenya." Paper presented during the stakeholder consultation seminar organized by Tegemeo Institute, Egerton University, at Norfolk Hotel, Nairobi on 9 December 1999.

Republic of Kenya (various years). *Statistical Abstracts*, Government Printer, Nairobi.

Republic of Kenya (various years). *Economic Survey*, Government Printer, Nairobi.

UNCTAD and Cyclope (1999). *World Commodity Survey 1999-2000: Markets, Trends and the World Economic Environment*. United Nations.

United States Department of Agriculture (2000). *Crop Estimates*. September 29, 2000.

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