

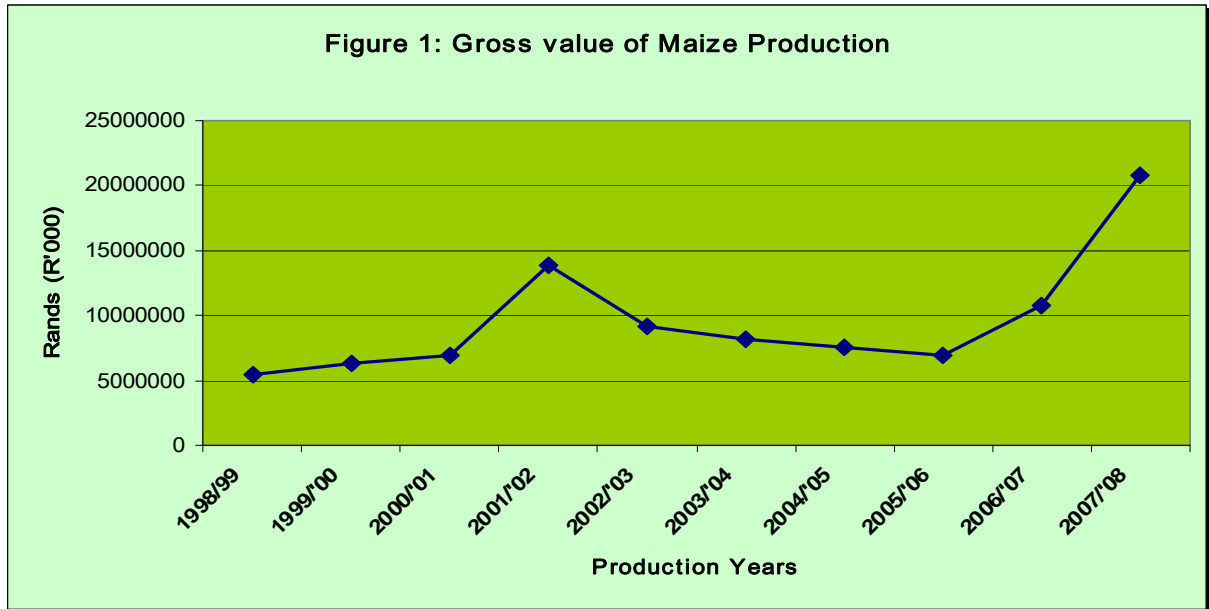
MAIZE MARKET VALUE CHAIN PROFILE

1. DESCRIPTION OF THE INDUSTRY

Maize is the most important grain crop in South Africa, being both the major feed grain and the staple food for the majority of the South African population. About 60% of maize produced in South Africa is white and the other 40% is yellow maize. Yellow maize is mostly used for animal feed production while the white maize is primarily for human consumption. Maize is the second large crop produced in South Africa after sugar cane. The maize industry is important to the economy both as an employer and earner of foreign currency because of its multiplier effects. This is because maize also serves as a raw material for manufactured products such as paper, paint, textiles, medicine and food.

The gross value of production for maize is dependent on the quantity produced and prices received by producers. The trend in the gross value follows the pattern of prices and production, since the industry is characterized by volatile prices. This is evident in the gross value of maize as shown in Figure 1. The contribution of the maize industry to the gross value of agricultural production declined from the year 2002 mainly due to low world commodity prices. The average gross value of maize produced amounted to R7 156 million for the past ten years. In 2004/05 season, the gross income from maize has decreased by 6, 8% mainly due to the lower prices that farmers received during this period. Although maize producer prices increased during 2005/06 season, the contribution to the gross value continued to decline as result of drastic decline in production volumes that occurred during that period. The contribution of the maize industry to the gross value of agricultural

production increased again during the 2006/'07 production year mainly due to increases in production volumes and producer prices that occurred during this period.



Source: Agricultural Statistics

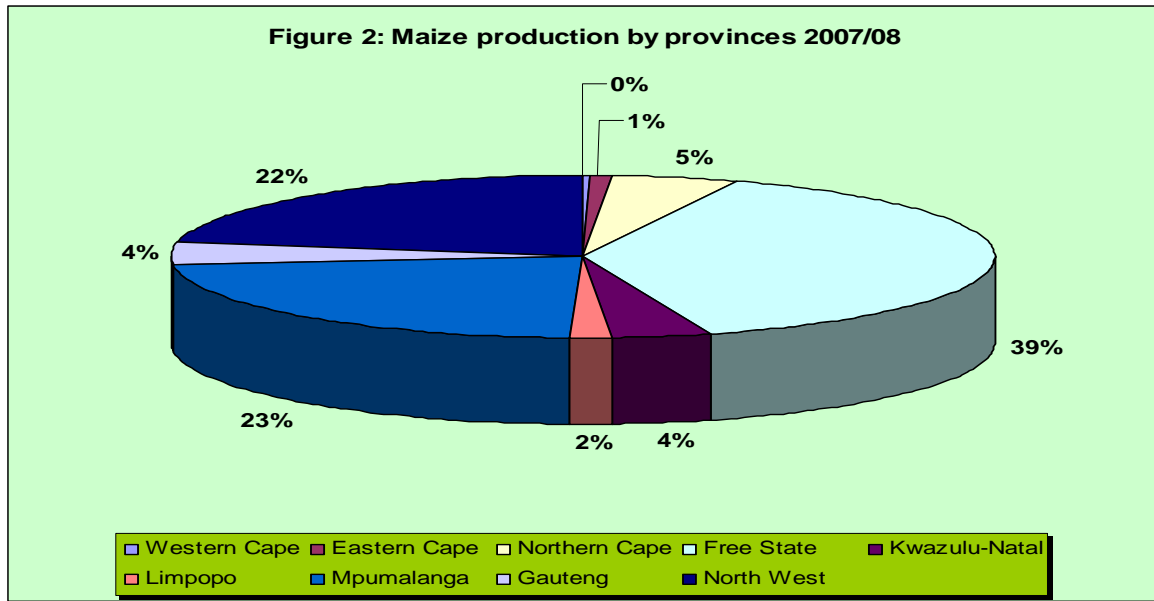
The contribution of the maize industry to the gross value of agricultural production continued to experience a substantial increase to a level above 20 million rands during the 2007/'08 production year mainly due to increases in the total production and average producer prices during this production year.

1.1. Production areas

Maize is produced throughout South Africa with Free State, Mpumalanga and North West provinces being the largest producers, accounting for approximately 85% of total production. Maize is produced mostly on dry land although there is less than 10% that is produced under irrigation. South Africa is divided into 36 grain production regions. Regions 1 to 9 are winter rainfall areas (Western Cape), as well as the Eastern Cape and Karoo where no commercial maize is produced. Region 10 is Griqualand West and region 11 is Vaalharts in the North West. Regions 12 to 20 are all in the North West province. Regions 21 to 28, which are in the Free State and North West, have contributed 63% of the total maize production in SA during 2002/03. Regions 29 to 33 are within Mpumalanga, which is the third largest maize-producing province. Region 34 falls within Gauteng, region 35 within Limpopo and region 36 within Kwazulu-Natal.

The industry is divided into commercial and developing agriculture. Commercial maize farmers are estimated at 9,000 and the number of developing agricultural farmers is unknown. During 2007/2008 the Free State province produced 39% of all the commercial maize in South Africa. The North West Province produced 22% of all the commercial maize grown in the country. During the same period Mpumalanga Province produced 23% of the

total commercial maize production while the Northern Cape Province produced 5%. Maize production per province during the 2007/08 production years can be summarized in Figure 2 below:



Source: Agricultural Statistics.

The remainder of the provinces contributed less than 5% each to the total maize production in the country during the year under consideration.

Table 1: Maize production by provinces

PROVINCE	Production in 2004 (tons)	Production in 2005 (tons)	Production in 2006 (tons)	Production in 2007 (tons)	Production in 2008 (tons)
Western Cape	15 000	20 000	27 000	20 000	40 000
Eastern Cape	82 000	88 000	70 000	83 000	85 000
Northern Cape	511 000	557 000	443 000	541 000	662 000
Free State	3 100 000	4 113 000	2 080 000	2 855 000	4 928 000
Kwazulu-Natal	390 000	400 000	310 000	359 000	489 000
Limpopo	115 000	120 000	58 000	131 000	224 000
Mpumalanga	2 219 000	2 807 000	1 615 000	1 490 000	2 875 000
Gauteng	482 000	483 000	325 000	254 000	568 000
North-West	2 568 000	2 862 000	1 690 000	1 392 000	2 829 000

Source Agricultural Statistics

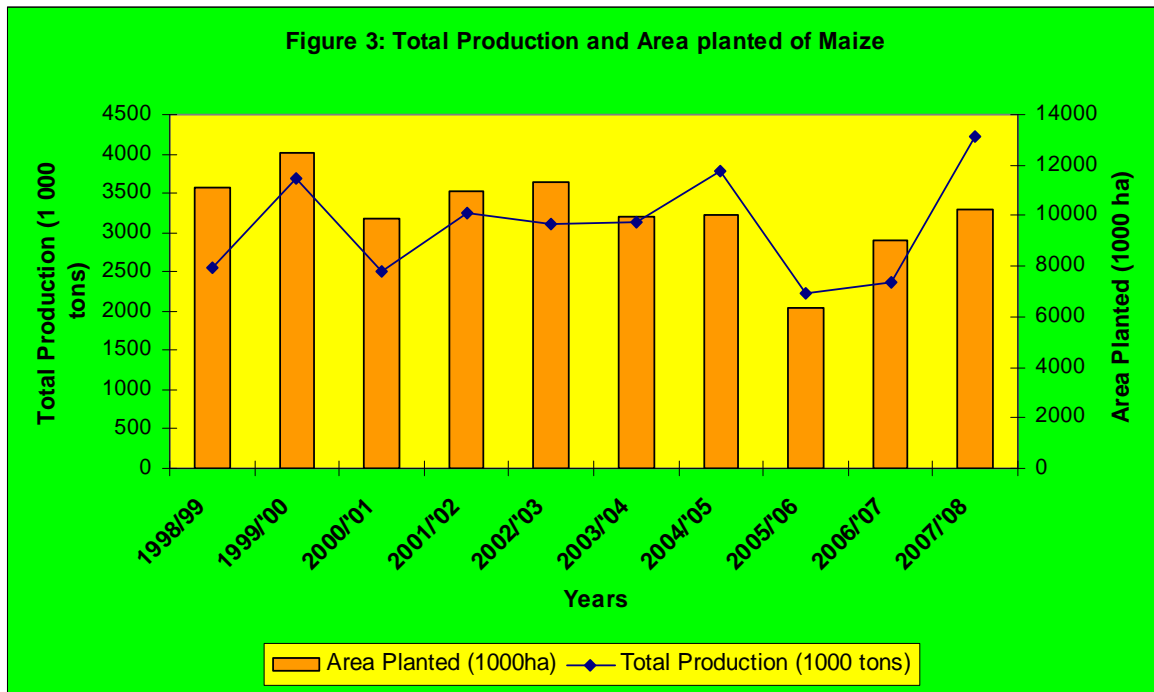
During the past five years total production of maize in the various provinces has experienced substantial fluctuations in all the maize producing provinces as indicated in Table 1 above.

The Free State, Mpumalanga and North West provinces have consistently been the major producers of maize in the country.

1.2. Production trends

Production of maize is composed of maize harvested for a particular season, imports and carryover stocks from the previous seasons. Commercial agriculture produces about 98% of maize in South Africa, while the remaining 2% is produced by the developing agriculture.

Over the past ten years, area planted for maize has significantly decreased by about 49.50%, leading to 31.58% decline in total production until the years 2005/06 (Figure 3). This happened as a result of unfavorable weather conditions (mainly low rainfall) which prompted farmers to either sacrifice maize for drought tolerant crops or reduce their variable costs by reducing the area planted to maize.



Source: Agricultural Statistics

The area planted to maize experienced an increase from the 2006/07 production year into the 2007/08 year accompanied by a corresponding increase in the total production. This increase is attributable to increases in the average producer prices during the two production periods.

1.3. Employment

Commercial maize farmers are estimated at 9000 and they cultivate nearly 3 million hectares of land and employ about 150 000 farm workers. Currently the maize milling industry employs approximately 5 300 workers, while the formal animal feed industry employs an estimated 2500 employees; and in the total processing industry between 4000 and 5000 people are employed.

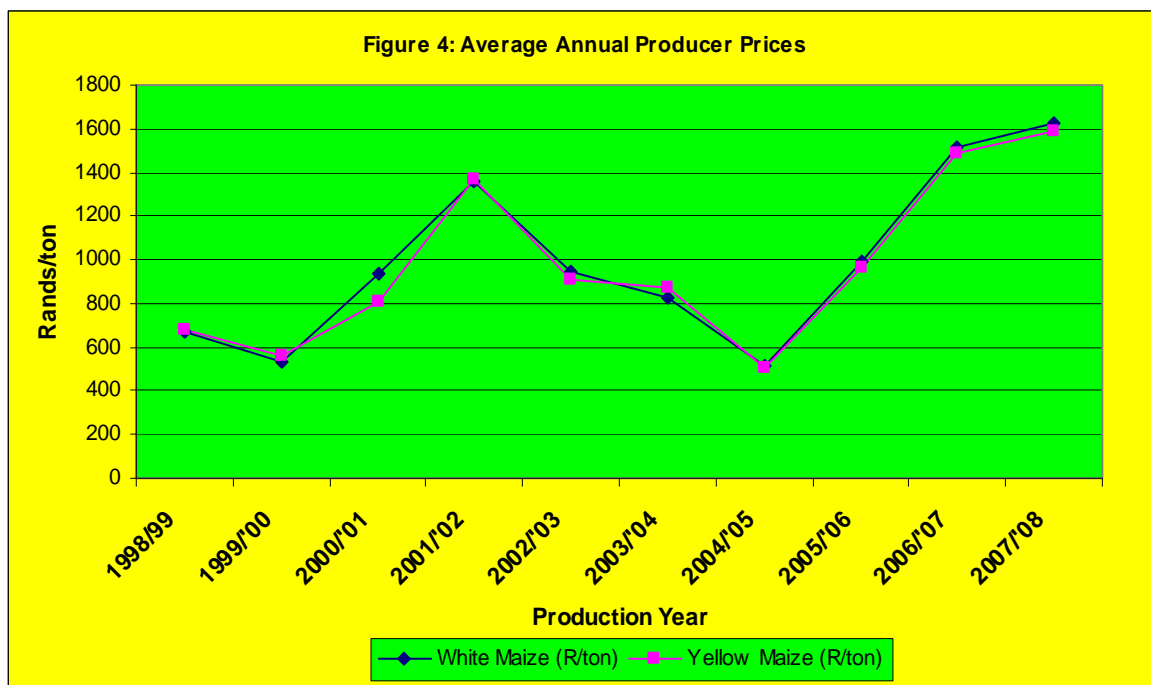
2. MARKET STRUCTURE

2.1. Domestic Market

The South African maize market has matured considerably since deregulation of marketing. Producers, traders and other intermediaries interact freely in the marketing of maize. Most of the maize produced in South Africa is consumed locally; as a result the domestic market is very important to the industry. Approximately more than two thirds of maize produced is consumed by humans (50%) and the animal feed industry (40%) and the rest is used for seed and industrial uses (10%).

Before deregulation the maize price was set by the marketing boards. The price was set lower at around R300/ton. Since the implementation of deregulation policy the price of maize increased gradually up to 1999/2000. This is because of the adoption of perfect competition in the maize marketing environment in which the prices are determined by market forces i.e. supply and demand factors.

As maize is an internationally traded commodity, it is also subjected to the international market conditions. The demand and supply conditions of maize in the international market influence domestic prices directly. Another important factor that impacts on the domestic market is the import tariff, which is used to protect domestic producers from cheap maize imports. The tariff is determined by the 21 – day moving average Free On Board price in the US with the reference on the initial price. In case where the moving average deviates from the reference price then, a new tariff is triggered.



Source: Agricultural Statistics

Figure 4 indicates that maize prices fluctuated at lower levels from 1996/97 until 1999/00. This was followed by significant price increases which occurred from 2000/01 to 2001/02 which may be attributed to the speculations of shortages of supply both within South Africa and the SADC region. During the same period maize contributed a long time high of 20% to the gross value of agricultural production. As of 2002/03 to 2004/05 there were surpluses of maize available in the market due to the carry over stocks from the previous season and as a result producers were exposed to lower prices. The prices increased again in 2005/06 as a result of lower quantities of maize being available in South Africa. Further increases in the maize producer prices were also experienced during the 2006/07 production year as world supply declined due to the use of maize as a feedstock in the biofuel industry by some of the developed countries of the world. This situation of increased producer prices continued into the 2007/08 production year.

From Table 2 below it is clear that although the total area planted under maize has decreased in the period after deregulation, South Africa still meets its annual maize requirements almost entirely from domestic production. This is the result of implementing more efficient production technologies and practices by producers, the withdrawal of marginal lands from production and the development of high yielding maize cultivars.

Table 2: Total commercial maize area planted, production and consumption

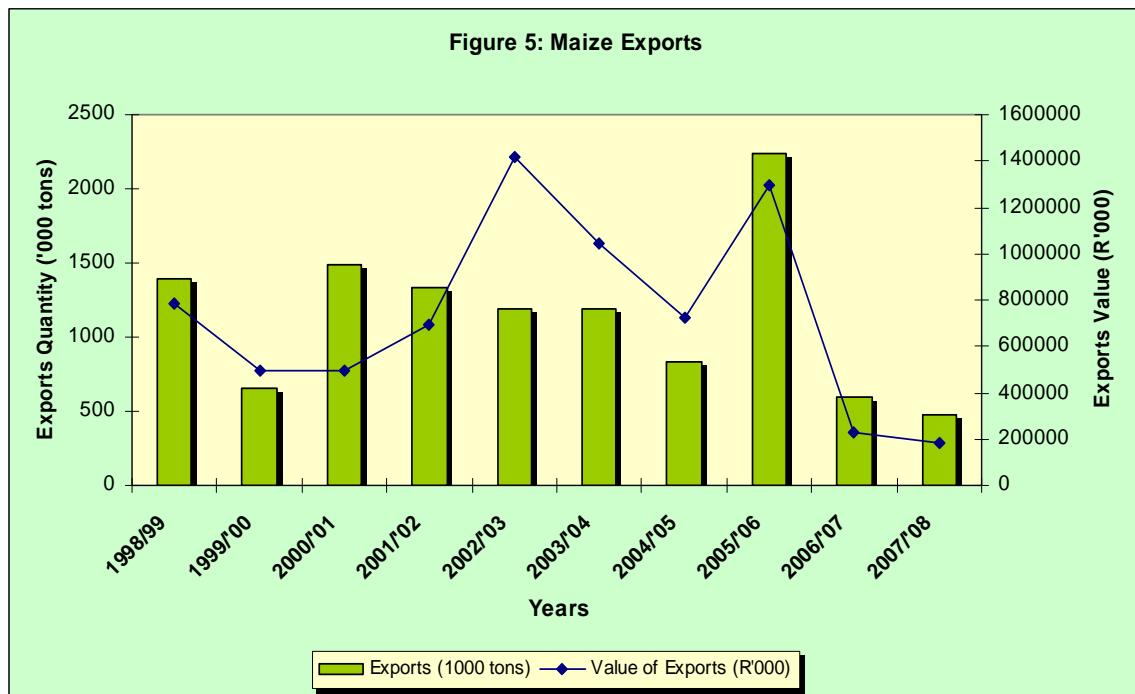
Marketing Year	Maize: Total area planted	Maize: Total production	Maize: Human consumption	Maize: animal feed consumption and industrial use
	'000 ha	'000 tons		
1998/99	2 956	7 082	3 381	2 960
1999/00	2 905	6 715	3 426	2 936
2000/01	3 230	10 141	3 589	3 068
2001/02	2 708	7 225	3 877	3 146
2002/03	3 017	9 732	3 708	3 155
2003/04	3 185	9 391	3 712	3 416
2004/05	2 843	9 482	3 970	3 740
2005/06	2 032	6 947	3 325	3 360
2006/07	2 897	7 339	3 816	3767
2007/08	3 297	13 164	3 809	4 221

Source: SAGIS and Agricultural Statistics.

During the 2006/07 marketing year producers of maize increased the hectares planted to maize to 2, 8 million hectares while total production of maize also increased to 7 million tons. Similarly, during 2007/08 the area planted to maize increased to 3, 2 million hectares while total production also increased to 13, 1 million tons. More than half of the maize produced domestically is destined for human consumption while the balance goes for animal feed and industrial use.

2.2. Exports

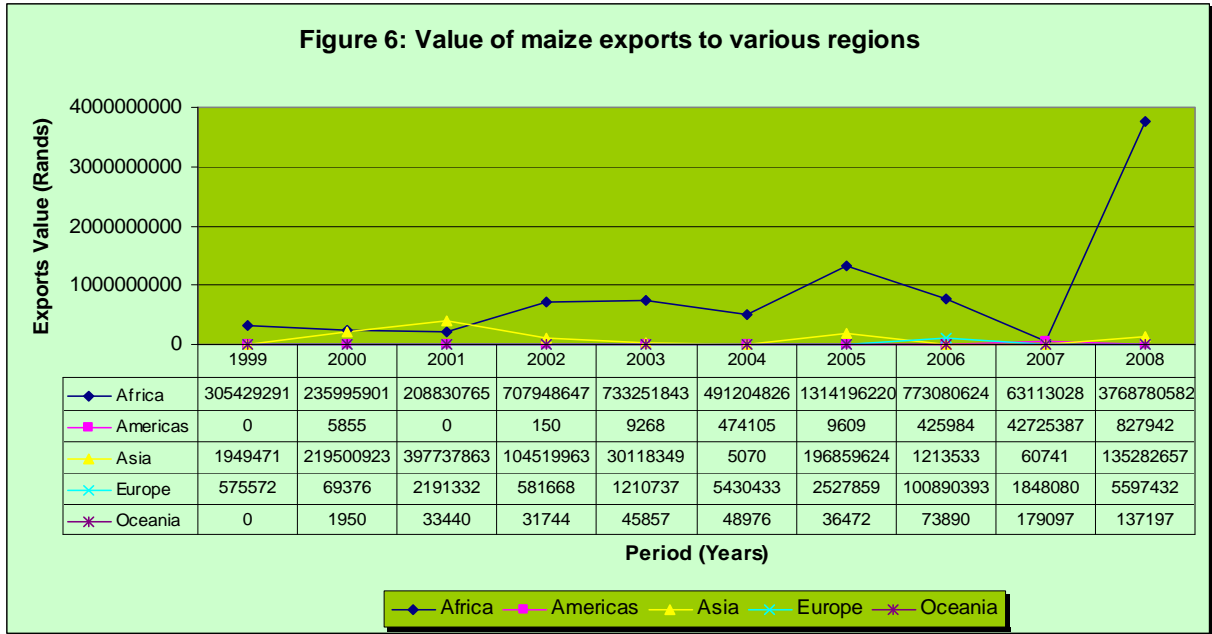
The maize industry is also an important earner of foreign exchange through the export of maize and maize products. The industry exports mostly to BLNS (Botswana, Lesotho, Namibia and Swaziland) countries, Zimbabwe, Kenya, Mozambique, Zambia, and Mauritius and in some years to Japan. White maize meal is the staple food of a large section of the African population and this account for 94% of white maize meal consumption. The international maize market, especially the US market, has a dominant influence on the local exports, particularly in terms of food aid. Figure 5 below shows some trends in maize exports to the world per annum.



Source: Agricultural Statistics

Surpluses of maize in major maize producing countries and low world commodity prices played a major role in the decline in both the volumes and value of maize exports between the periods 1998 to 2000 and 2002 to 2005 as depicted in Figure 5 above. However, the volume and value of exports increased again during the 2005/06 marketing season. Both the volume and value of maize exports declined substantially during 2006/'07 and 2007/08 years owing to the fact that exports volumes and values are recorded as SACU exports and during these period a greater percentage of maize from South Africa was exported to neighboring Zimbabwe.

Figure 6 below depicts the value of maize exports from Republic of South Africa to various regions around the globe.



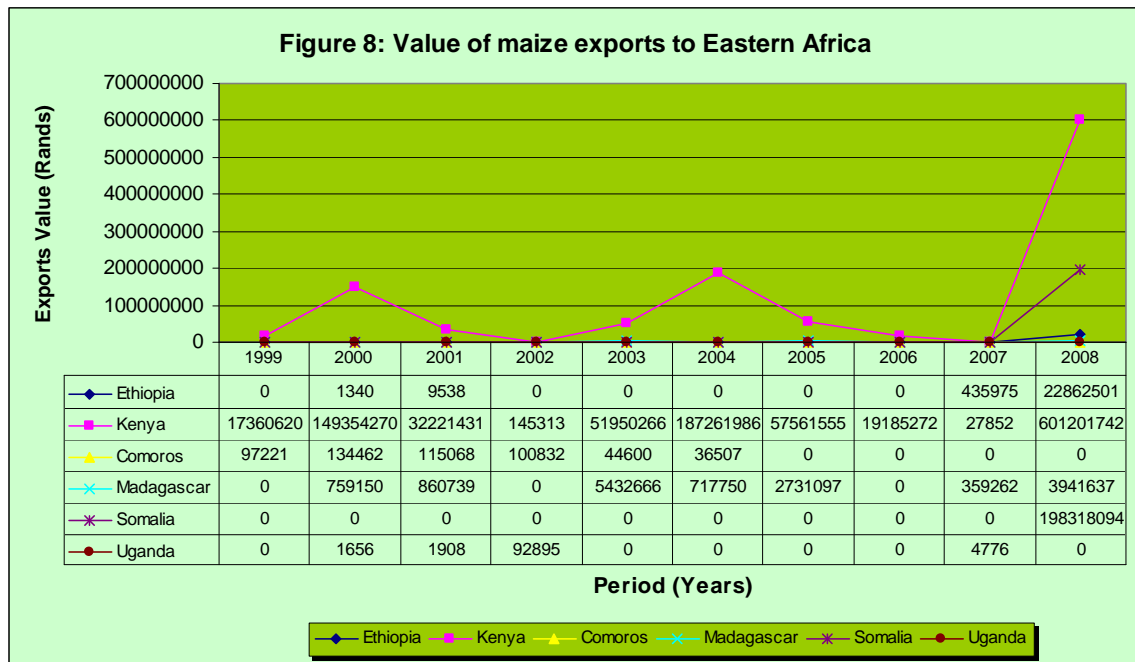
Source: Quantec Easy Data

Figure 6 indicates that South Africa exports maize mainly to Europe, Africa and Asia. The value of maize exports to African countries fluctuated over the 10 year's period until a peak was reached in 2005. During 2008, a substantial increase in the value of maize exports to the African region was experienced. The fluctuation in the value of exports over the period can be attributed to fluctuation in the value of rand, unstable production volumes in the country from year to year as well as volatility in world maize prices. The figure further indicates that on average, exports of maize to Europe, Asia and Oceania have been continuously below those to the African region between the periods 1998 and 2008.



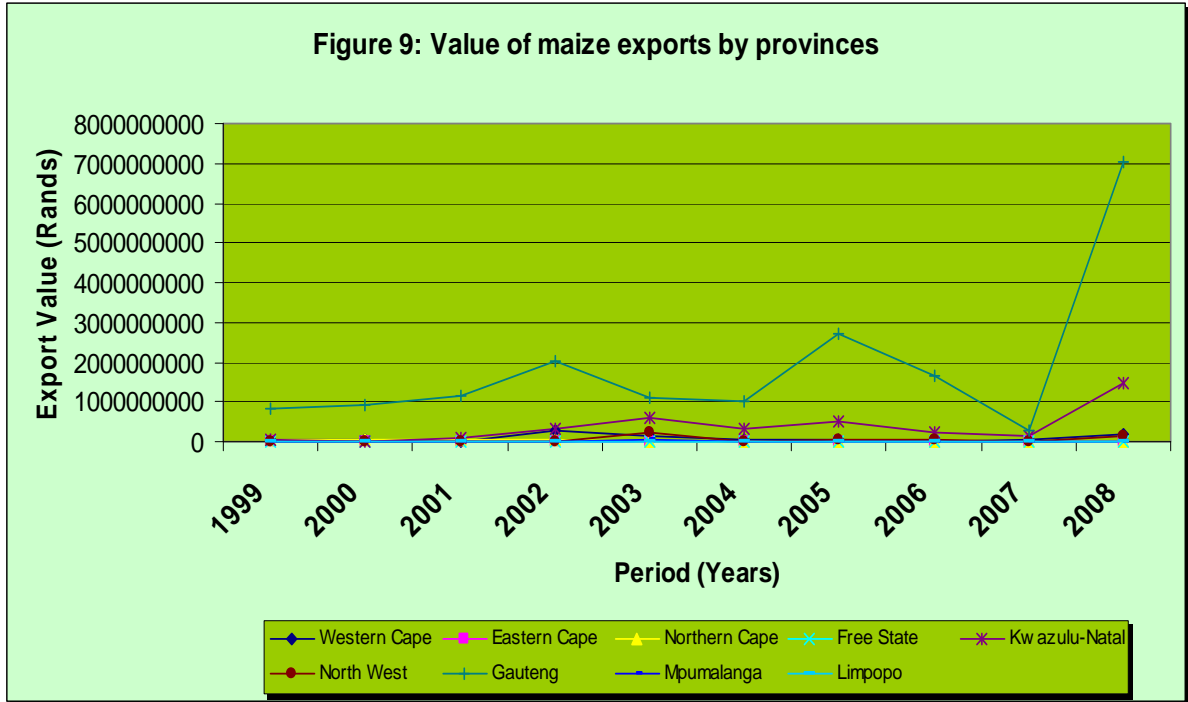
Source: Quantec Easy Data

Figure 7 indicates that Zimbabwe is the main export market for maize originating from South Africa which is mainly due to food shortages in that country which has been caused by political instability in that part of the region. It is further indicated by the figure that maize exports to Zimbabwe fluctuated over the ten year's period with a peak in 2005 and increasing again in 2008 as the political and economic situation continued to worsen in the country. Exports of maize to other countries in the SADC region (such as Angola, Malawi, Tanzania, Mozambique, Zambia, DRC, Mauritius and Seychelles) have shown a relatively stable trend compared to that destined for Zimbabwe.



Source: Quantec Easy Data

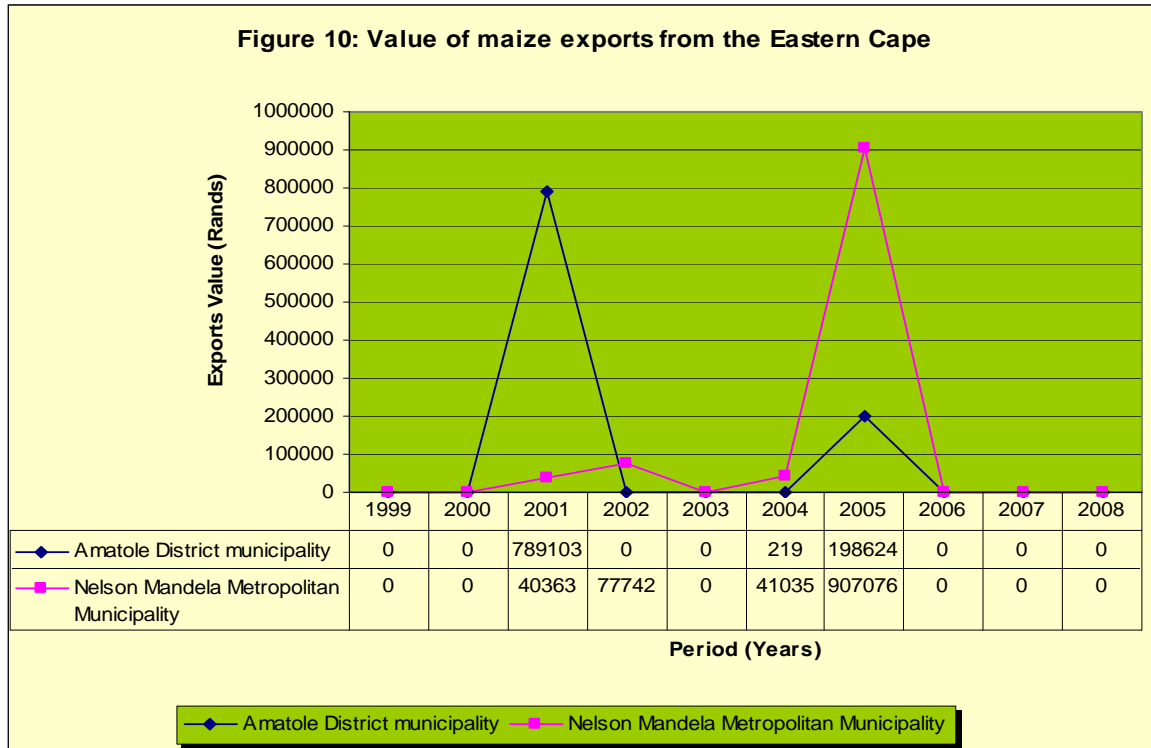
Figure 8 indicates that in the Eastern African region, South Africa exports most of its maize to Kenya with increases in the value of maize exports having occurred during the years 2000 and 2004 and substantial increases recorded during 2008. Smaller values for maize exports are recorded for eastern African markets such as Ethiopia, Comoros, Madagascar, Somalia and Uganda. Values of maize exports from various provinces of South Africa are presented in Figure 9.



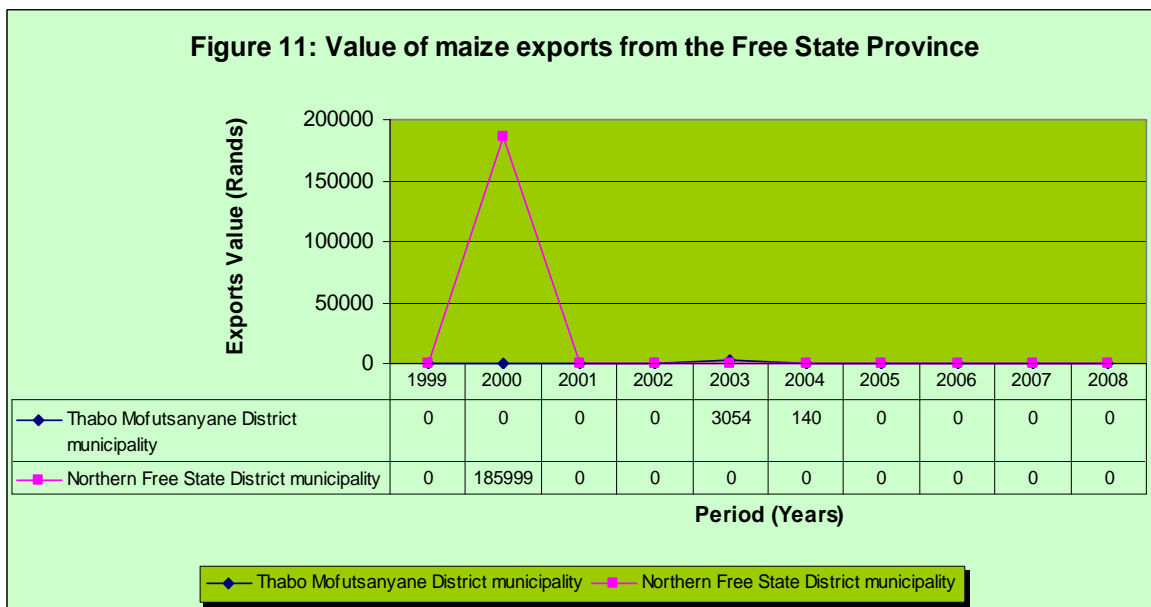
Source: Quantec Easy Data

In terms of value of maize exports, Kwazulu-Natal and Gauteng have recorded high export values between the periods 1999 and 2008. This can be attributed to the fact that the major maize producing regions (which are the Free State, North West and Mpumalanga) are not exit points for maize exports. Most maize is exported either through the Durban harbor then through the use of the Randfontein grain market in the Gauteng Province.

The following figures (Figures 10-18) show the value of maize exports from the various districts in the nine provinces of South Africa.



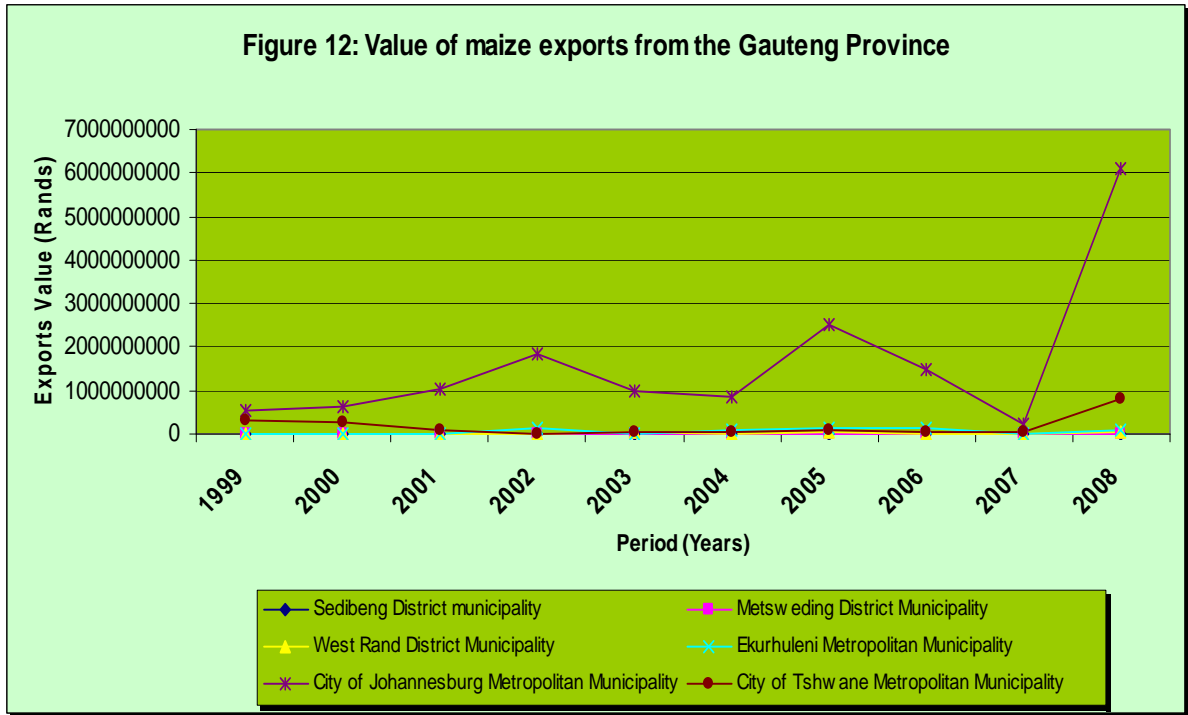
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Source: Quantec Easy Data

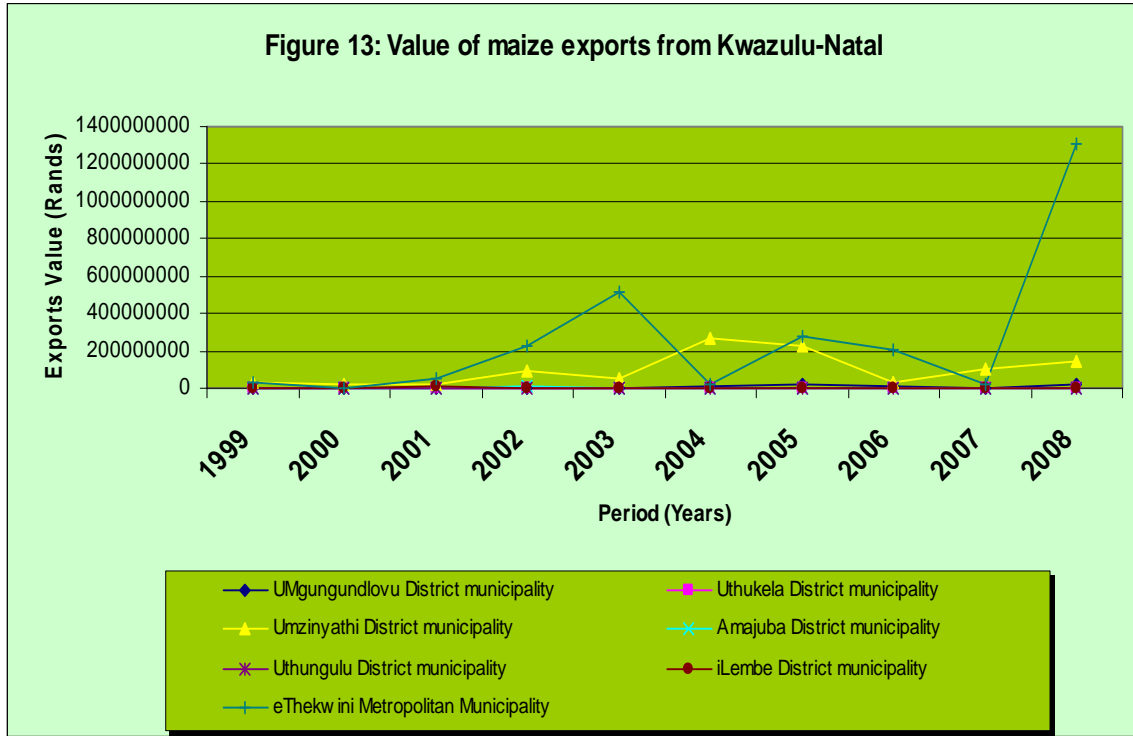
From the above figures it is clear that exports of maize from the Free State province are mainly from the Thabo Mofutsanyane and Northern Free State Districts with high values recorded during the years 2000 and 2003 respectively. There were no exports of maize from the Free State province until the year 2000 and between 2005 and 2008.

Exports of maize from the Eastern Cape Province from the Amatole and Nelson Mandela Districts with high values recorded during the years 2001 and 2005 for the Amatole District while the value of maize exports from the Nelson Mandela District increased dramatically during 2005. Between 2006 and 2008 there were no exports of maize from the two districts in the Eastern Cape Province (Amatole and Nelson Mandela).



Source: Quantec Easy Data

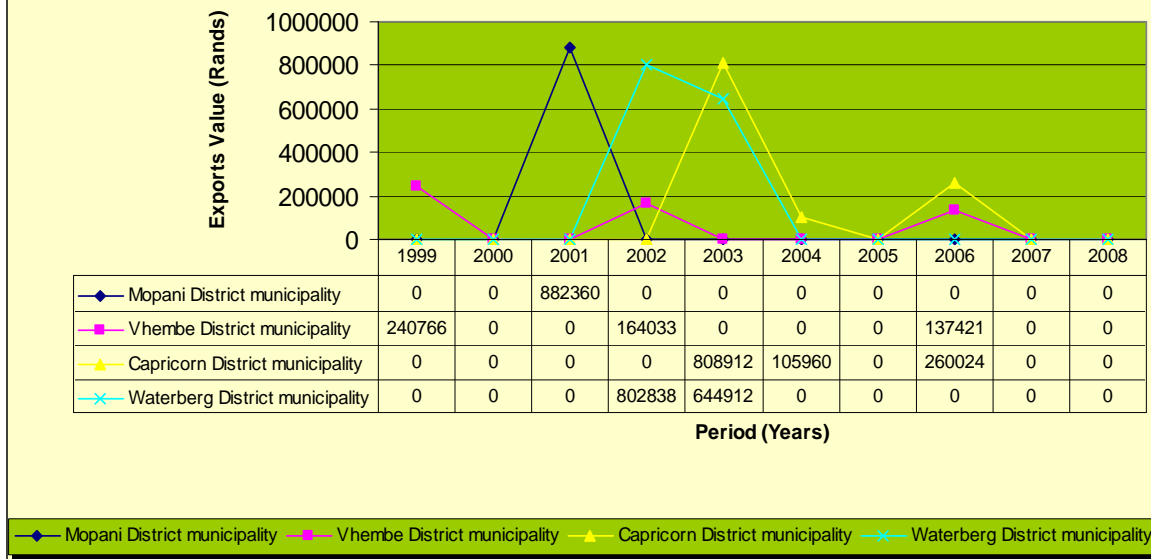
In the Gauteng province, high maize export values have been recorded for the past ten years for the City of Johannesburg Metropolitan Municipality with the highest values recorded during 2002 and 2005. However, a dramatic decline in maize export value ensued in 2007 from the same district municipality followed by a substantial increase in 2008. Maize exports have also been taking place through the City of Tshwane Metropolitan Municipality but the values have declined continuously until 2007 and experienced a marginal increase in 2008. Similarly, the Ekurhuleni Metropolitan Municipality has recorded very low export values for maize during the period under review. As mentioned earlier on, high maize export values in the Gauteng Province are attributable to the role of Randfontein grain market in the trading of grain in SA and the presence of a large number of exporters within the province.



Source: Quantec Easy Data

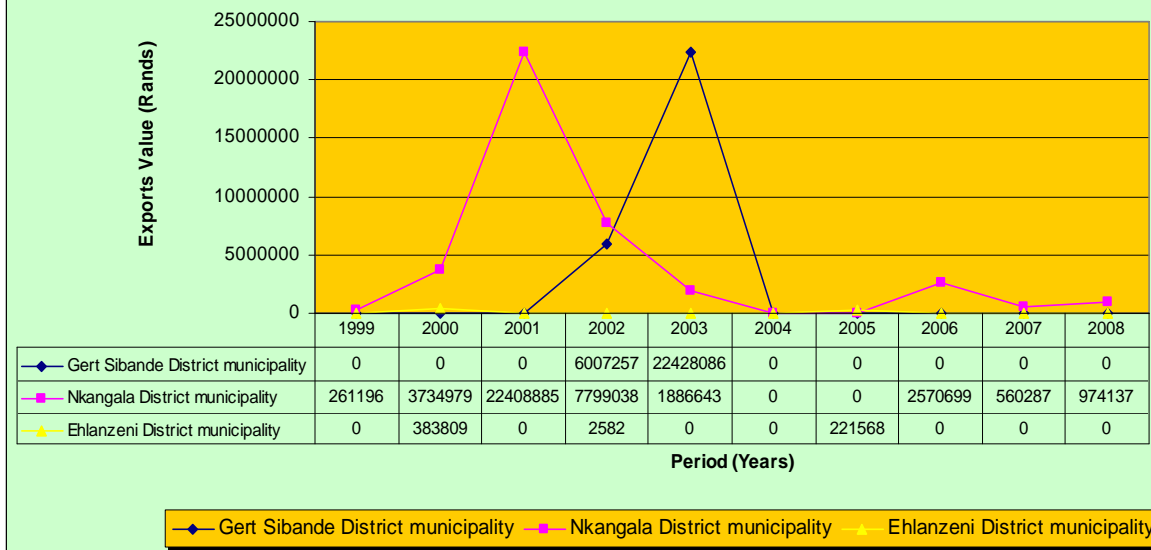
In the Kwazulu-Natal province UMzinyathi and EThekwini District Municipalities have played an important role in the export of maize since 1999 with increased export values recorded since 2001 but showing a decline between the periods 2006 and 2007. The value of maize exports through the eThekwini Metropolitan Municipality increased substantially during 2008. The declines in the value of maize exports between 2006 and 2007 are attributable to the fact that more maize was utilized domestically as some of the main grain producing countries in the world have either placed a restriction on their exports or have utilized maize as a feedstock to develop their bio-fuel industries. The use of the Durban harbor as an exit point plays a major role in the increase in maize export values from the Kwazulu-Natal province.

Figure 14: Value of maize exports from the Limpopo Province



Source: Quantec Easy Data

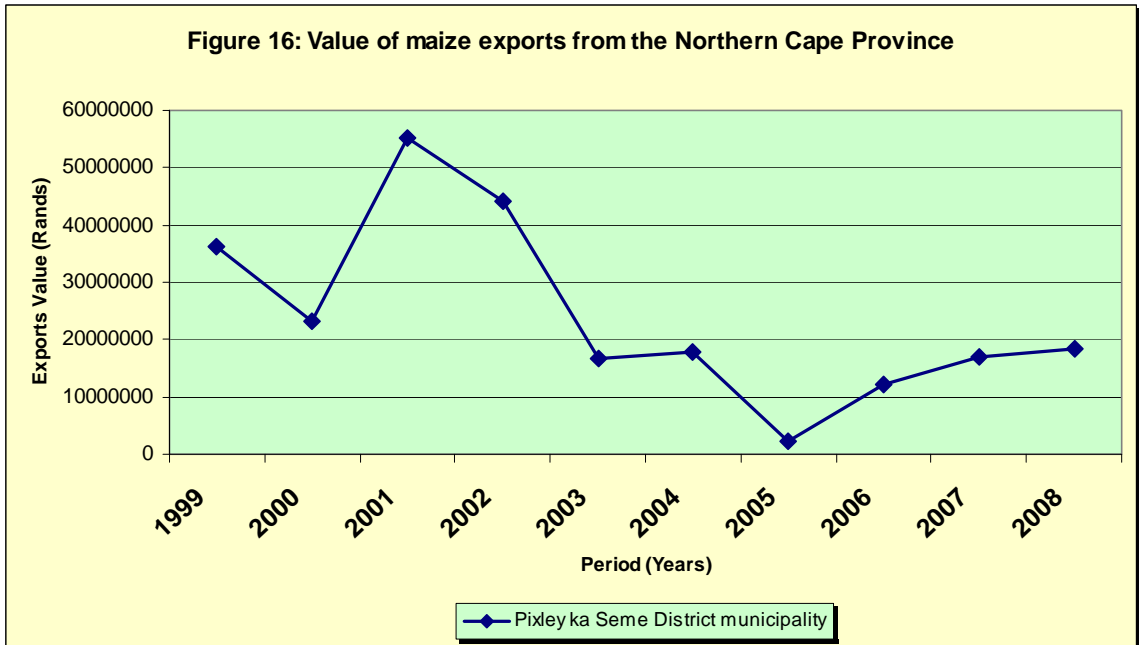
Figure 15: Value of maize exports from the Mpumalanga Province



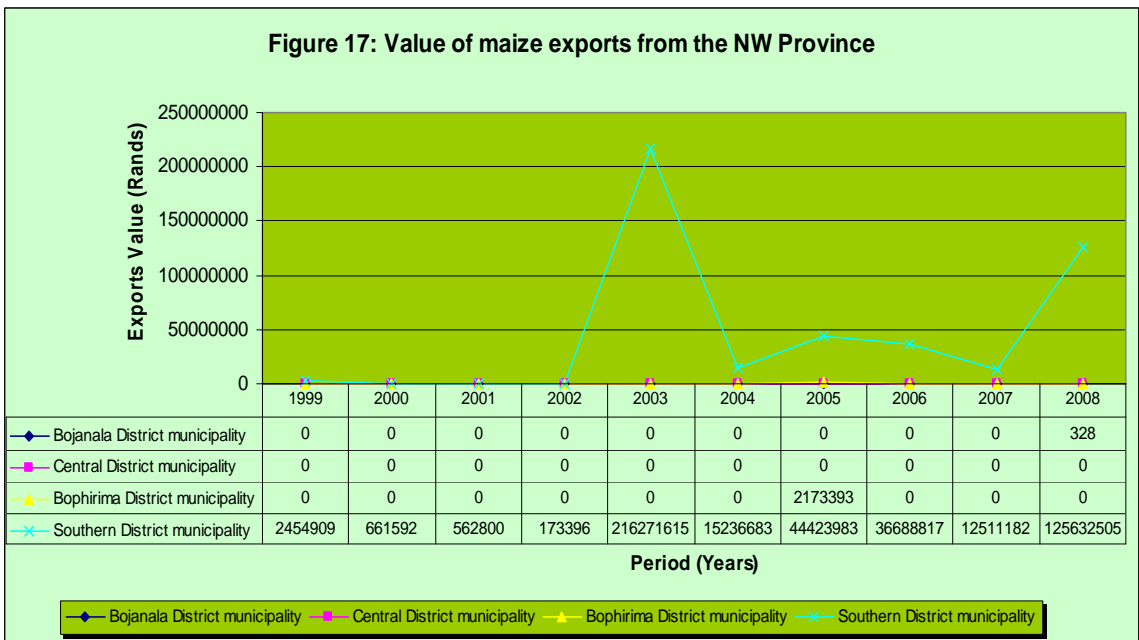
Source: Quantec Easy Data

Exports of maize in the Limpopo Province are mainly from the Mopani, Capricorn, Vhembe and Waterberg districts showing fluctuations in the value of maize exports recorded between 1999 and 2006 while there were no maize exports recorded from the Limpopo Province during 2007 and 2008. Exports of maize from the Mpumalanga province occurred from 1999 up to 2008 mainly from the Gert Sibande, Ehlanzeni and

Nkangala Districts. Between 1999 and 2003 maize exports occurred from the three districts after which exports were recorded from the Nkangala District only until 2008.



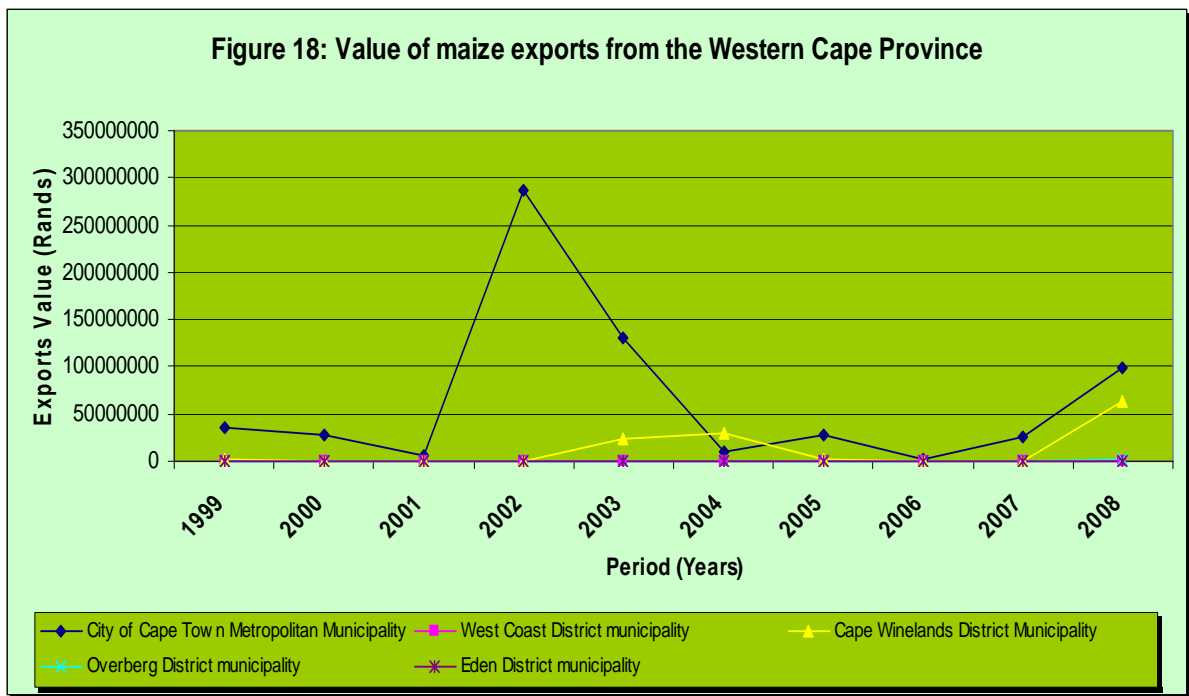
Source: Quantec Easy Data



Source: Quantec Easy Data

In the Northern Cape Province maize exports are mainly from the Pixley Ka Seme District showing increases in the value of the exports from 1999 until 2001 and thereafter declining until 2005 with minimal increases noted between the years 2006 and 2008. It stands to reason why maize exports are mainly from one district because the province is mainly a livestock producing region with crop production taking place predominantly along the Orange River.

In the North West Province exports of maize are mainly from the Southern (Dr Kenneth Kaunda) District. The Southern District has recorded high export values with peaks during 2003 because it is mainly a grain producing region within the province. Bojanala Platinum district only recorded export values in 2008 while exports of maize from the Bophirima District occurred only in 2005.



Source: Quantec Easy Data

The Western Cape Province has recorded maize exports from two districts namely, the Cape Winelands and City of Cape Town District Municipalities. During 2002 a peak was reached on maize export values from the City of Cape Town District Municipality. Irregular maize exports were also recorded in 1999, 2006 and 2007 for the Overberg and West Coast district municipalities. As mentioned earlier on, the use of the Cape Town harbor as an exit point by some exporters plays a major role here.

2.3. Share Analysis

Table 3: Share of Provincial maize exports to the total RSA maize exports (%)

Years Province	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Western Cape	3.81	2.90	0.38	10.68	7.45	2.84	0.88	0.09	5.82	1.85
Eastern Cape	0.00	0.00	0.06	0.00	0.00	0.00	0.03	0.00	0.00	0.00
Northern Cape	3.69	2.37	4.12	1.63	0.80	1.31	0.07	0.62	3.79	0.20
Free State	0.00	0.01	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
Kwazulu-Natal	6.18	1.91	6.94	12.74	27.78	21.92	15.73	12.59	28.55	16.72
North West	0.25	0.06	0.04	0.00	10.40	1.11	1.39	1.88	2.79	1.42
Gauteng	86.00	92.30	86.69	74.37	52.30	72.79	81.87	84.64	58.90	79.78
Mpumalanga	0.02	0.41	1.67	0.51	1.17	0.00	0.00	0.13	0.12	0.01
Limpopo	0.02	0.00	0.06	0.03	0.06	0.00	0.00	0.02	0.00	0.00

Source: Calculated from Quantec Easy Data

From Table 3 above it can be inferred that Gauteng Province commands the greatest share of South African maize exports followed by Kwazulu-Natal and Western Cape Provinces. This is in spite of the fact that the North-West, Free State and Mpumalanga Provinces are the major maize producing provinces in the republic. As explained previously, this is mainly due to the fact that most exporters of maize are situated in the Gauteng Province and the greatest proportion of maize trading occurs through the Randfontein grain market. Furthermore, maize is also exported through two major harbors namely, Durban and Cape Town harbors. The above scenario raises concerns about the availability of marketing infrastructure and agro-logistics in the major maize producing provinces of South Africa because Gauteng is not a major maize producing region and yet the greatest share of South African maize exports are exported through this province.

The accompanying Tables 4 to 12 shows a share of the various district maize exports to the various provincial maize exports.

Table 4: Share of district maize exports to the total Mpumalanga provincial maize exports (%)

Years District	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Gert Sibande	0.00	0.00	0.00	43.50	92.24	0.00	0.00	0.00	0.00	0.00
Nkangala	100	90.68	100	56.47	7.76	0.00	0.00	100	100	100
Ehlanzeni	0.00	9.31	0.00	0.01	0.00	0.00	100	0.00	0.00	0.00

Source: Calculated from Quantec Easy Data

Table 5: Share of district maize exports to the total North West provincial maize exports (%)

Years District	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bojanala-Platinum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bophirima	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dr Kenneth Kaunda (Southern)	100	100	100	100	100	100	95.34	100	100	99.99

Source: Calculated from Quantec Easy Data

Table 6: Share of district maize exports to the total Free State provincial maize exports (%)

Years District	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Thabo Mofutsanyane	0.00	0.00	0.00	0.00	100	100	0.00	0.00	0.00	0.00
Northern Free State	0.00	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: Calculated from Quantec Easy Data

In the three major maize producing regions namely Free State, North West and Mpumalanga provinces, the greatest share of maize exports are from the Nkangala and district in Mpumalanga (except in 2003) while Dr Kenneth Kaunda (Southern) District in the North West province commands the greatest share of maize exports for the province. Fractional exports of maize occurred from the Thabo Mofutsanyane district between 2003 and 2004 and from the Northern Free State district in 2000. From 2005 exports of maize diminished entirely from the Free State province.

Table 7: Share of district maize exports to the total Limpopo provincial maize exports (%)

Years District	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Mopani	0.00	0.00	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vhembe	100	0.00	0.00	16.97	0.00	0.00	0.00	34.58	0.00	0.00
Capricorn	0.00	0.00	0.00	0.00	55.64	100	0.00	65.42	0.00	0.00
Waterberg	0.00	0.00	0.00	83.03	44.36	0.00	0.00	0.00	0.00	0.00

Source: Calculated from Quantec Easy Data

Table 8: Share of district maize exports to the total Northern Cape provincial maize exports (%)

Years District	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Pixley Ka Seme	100	100	100	100	100	100	100	100	100	100

Source: Calculated from Quantec Easy Data

Table 9: Share of district maize exports to the total Eastern Cape provincial maize exports (%)

Years District	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Amatole	0.00	0.00	95.13	0.00	0.00	0.53	17.96	0.00	0.00	0.00
Nelson Mandela	0.00	0.00	4.87	100	0.00	99.47	82.04	0.00	0.00	0.00

Source: Calculated from Quantec Easy Data

During the period under review fractional exports of maize were recorded from the four districts in the Limpopo province (Mopani, Vhembe, Capricorn and Waterberg) while the Pixley Ka Seme district commanded 100% share of all maize exports originating from the Northern Cape Province. In the Eastern Cape Province intermittent exports of maize were recorded from the Amatole and Nelson Mandela districts but diminished from 2006 until 2008.

Table 10: Share of district maize exports to the total Western Cape provincial maize exports (%)

Years District	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
City of Cape Town	96.03	100	99.23	99.85	84.90	24.43	95.21	73.29	99.40	60.22
West Coast	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
Cape Winelands	3.67	0.00	0.76	0.15	15.09	75.57	4.79	4.07	0.48	38.76
Overberg	0.29	0.00	0.00	0.00	0.00	0.00	0.00	20.93	0.11	0.95
Eden District	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.71	0.00	0.00

Source: Calculated from Quantec Easy Data

The City of Cape Town district has commanded the greatest share of maize exports in the Western Cape Province during the period between 1999 and 2008 followed by the Cape Winelands (formerly Boland) district. Fractional exports of maize were recorded from the Overberg and Eden districts during the past two years.

Table 11: Share of district maize exports to the total Kwazulu-Natal provincial maize exports (%)

Years District	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
UMgungundlovu	0.00	0.00	0.00	0.60	0.62	3.80	3.93	6.04	3.93	1.58
UThukela	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UMzinyathi	47.76	92.23	27.71	28.19	9.26	88.17	42.64	10.86	82.50	9.61
Amajuba	0.00	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00
UThungulu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
iLembe	0.00	0.54	15.58	0.82	0.12	0.12	0.00	0.00	0.12	0.01
eThekwini	52.24	7.23	56.69	65.93	89.98	7.89	53.41	83.09	13.43	88.79

Source: Calculated from Quantec Easy Data

From the Kwazulu-Natal province the eThekwini district has commanded the greatest share of maize exports over the period under review followed by the uMzinyathi district. Intermittent exports of maize also occurred from the UMgungundlovu and the iLembe districts during the same period.

Table 12: Share of district maize exports to the total Gauteng provincial maize exports (%)

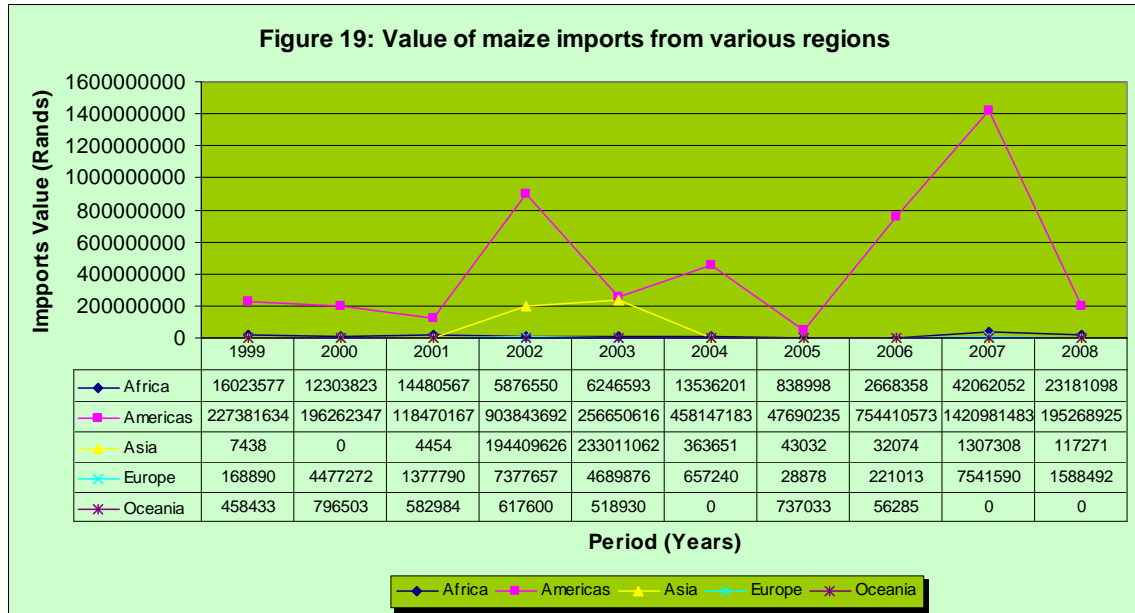
Years District	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Sedibeng	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Metsweding	0.28	0.28	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
West Rand	0.01	0.01	0.89	0.59	2.70	0.43	0.87	0.09	0.84	0.49
Ekurhuleni	0.06	0.06	1.06	6.64	1.09	9.83	5.02	7.69	4.97	0.97
City of Johannesburg	62.31	62.31	88.94	92.15	91.27	87.06	91.37	90.11	80.27	86.95
City of Tshwane	37.33	37.33	9.09	0.57	4.92	2.66	2.69	2.09	13.90	11.57

Source: Calculated from Quantec Easy Data

In the Gauteng province exports of maize occur primarily through the City of Johannesburg district primarily due to the role played by the presence of the Randfontein grain market within the district. Fractional exports of maize were also recorded from the City of Tshwane and West Rand districts during the same period.

2.4. Imports

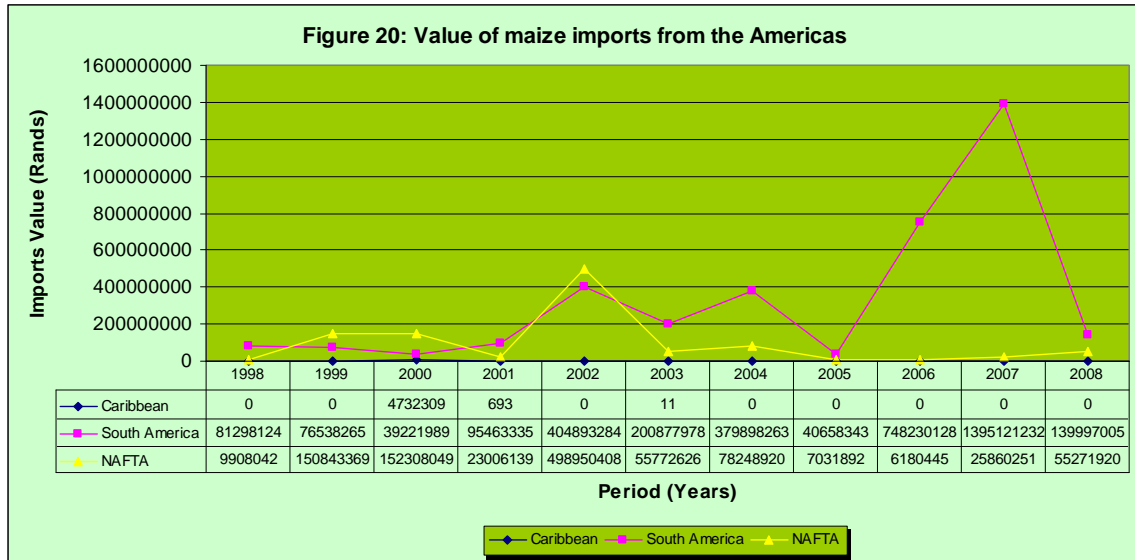
South Africa imports maize mainly from the Americas, Asia, Europe, Africa and Oceania as shown in Figure 19. However, greater import values for maize are from the Americas followed by Africa, Europe and Oceania..



Source: Quantec Easy Data

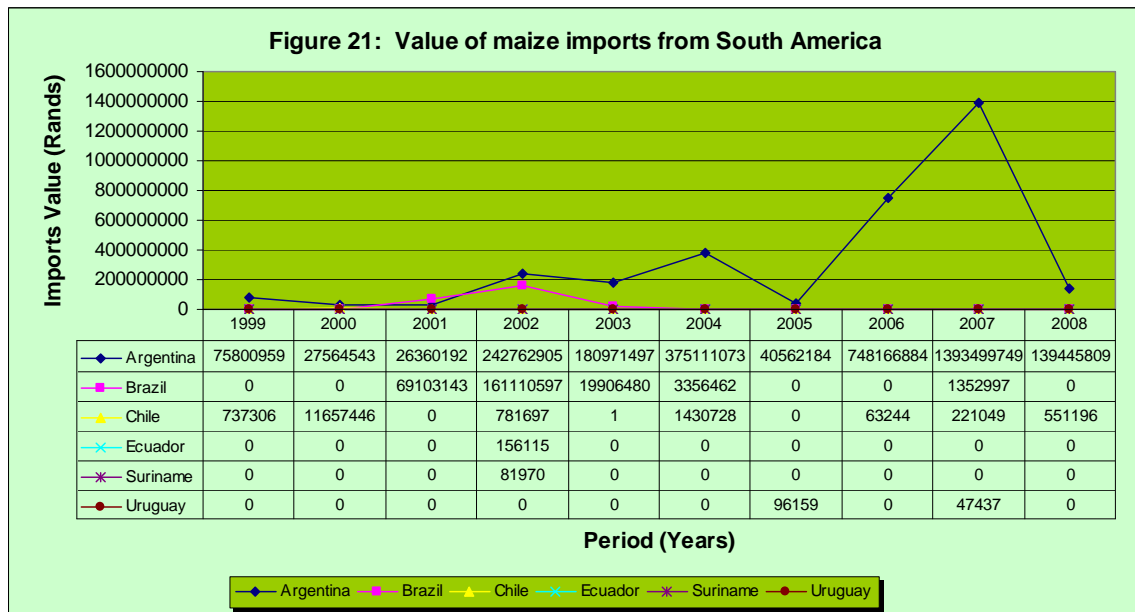
During the period under review, the value of maize imports originating from the Americas fluctuated tremendously with peaks attained during 2002 and 2007. Imports of maize from the Americas and from other regions as well declined substantially during 2008. There were also marginal increases in the value of maize imports originating from Asia between the period 2001 and 2004.

As indicated in the previous paragraph and in Figure 20, maize imports from the Americas were mainly from South America and NAFTA (North American Free Trade Area). In recent years imports of maize from NAFTA have shown significant declines from 2003 to 2008 while maize imports originating from countries in South America have increased phenomenally, particularly between 2006 and 2007.



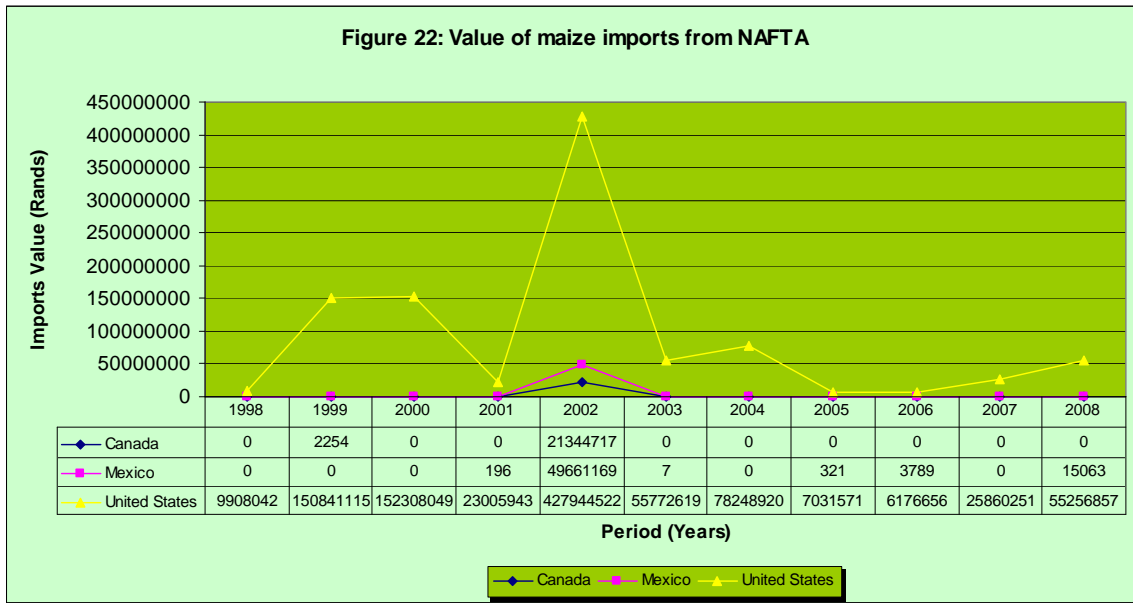
Source: Quantec Easy Data

Figure 21 indicates that during the period between 1999 and 2008 maize imports originated mainly from Argentina with intermittent exports recorded from Brazil, Chile and Uruguay in South America.



Source: Quantec Easy Data

As it is one of the principal world maize producers, Argentina is South America's leader in exportation of maize to South Africa followed by Brazil. Maize Imports from Argentina increased steadily from 1999 until 2004 and then experienced a sharp decline in 2005. Phenomenal increases in the value of maize imports originating from Argentina were then experienced in recent years between 2006 and 2007 and then declined again during 2008 due to export restrictions imposed on grain commodities in Argentina.



Source: Quantec Easy Data

Figure 22 indicates that in the North American Free Trade Area (NAFTA) we import maize primarily from the United States of America with fractional amounts being imported from Canada in 2002 only, and from Mexico between 2001 and 2003. In the United States of America maize is not produced for human consumption, it is mainly used as input for animal feed manufacturing and as Figure 22 indicates, the value of maize imports from the USA started to experience a decline from 2003 into 2007 primarily due to the fact that the USA has diverted its maize surpluses into their local bio-fuels industry.

2.5. Market Value chain

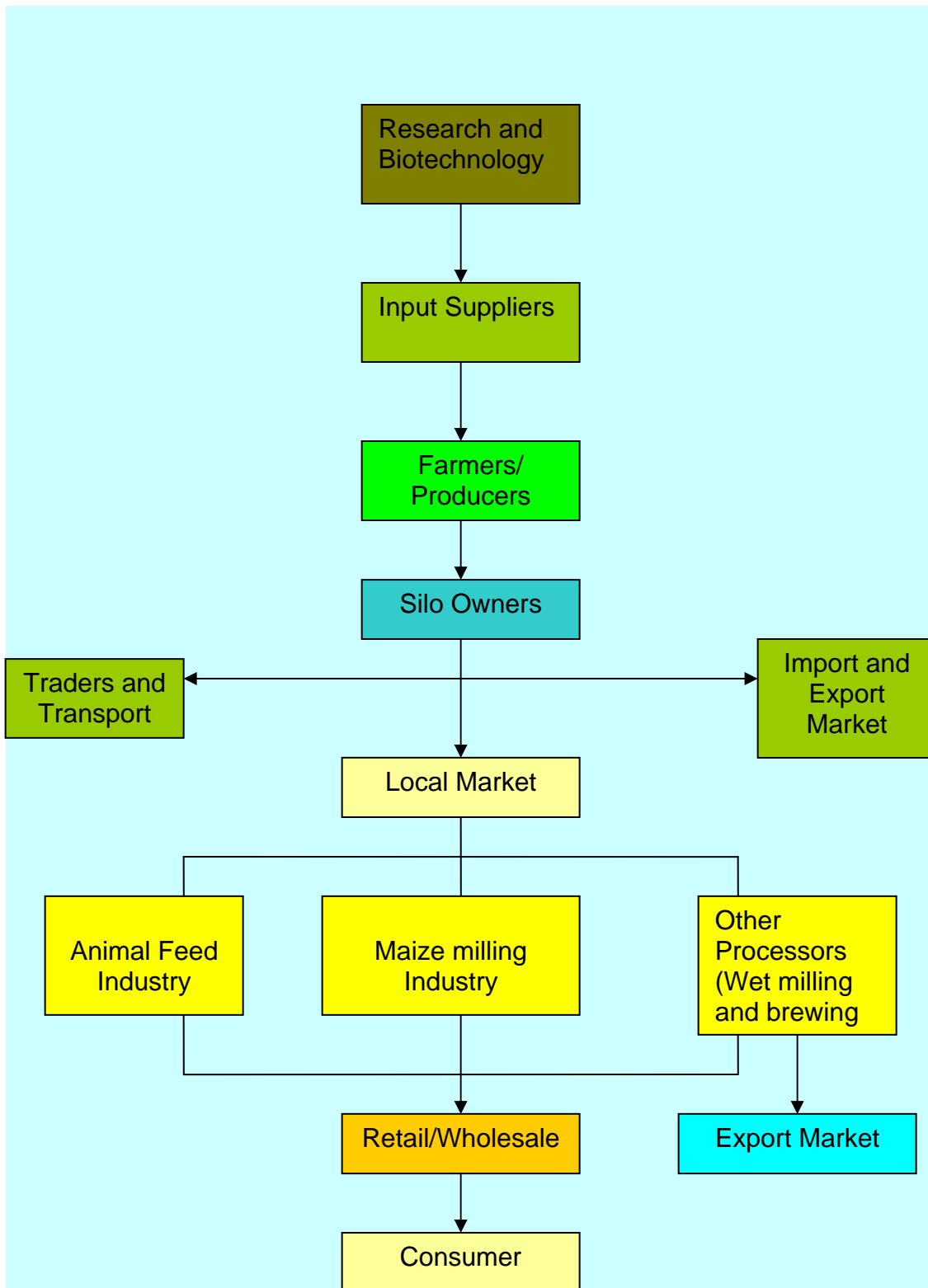


Diagram 1: Maize Market Value Chain
Source: Maize Tariff Working Group (2005)

The maize market value chain can be broken down into the following levels: producers of maize (farmers); silo owners (who store maize for their own account and on behalf of others); traders in maize (who market and sell maize); millers of maize (who convert it into usable form); and end users.

The primary sector consists of input suppliers, producers and silo owners. Silo owners provide storage facilities to handle the crops, to store maize safely and to supply it to buyers on a continuous basis throughout the year. The secondary sector consists of millers and animal feed manufacturers. Millers convert maize to maize meal for human consumption while animal feed manufacturers use yellow maize for the manufacture of broiler and layer feed rations. Maize products in the form of hominy chop (white maize by-product) are used in feedlots.

The tertiary sector consists of traders, retailers and transporters. Traders move the produce to the domestic or export market. There are three types of traders in the maize industry: *hedgers* who use futures and options to protect an existing portfolio against possible adverse market movements; *arbitrageurs* who profit from price differentials of maize in different markets; and *speculators* who use futures and options in the hopes of making a profit on short-term movements in prices. The retail sector provides infrastructure and services for the distribution of maize products from the miller to the final consumer. Transport helps to move the maize from the farmers to the silo owner, from the silo owner to the miller and from the intermediaries to the final consumers.

2.5.1. Seed suppliers as inputs

Monsanto is currently the largest seed company in South Africa, with a maize market share of 40% after purchasing shares in Sensako and Carnia. Other major players in this market include companies such as Pannar and Pioneer Hybrid International. As evidenced in Table 2 below, the level of concentration in the seed market is relatively high.

Table 13: Concentration in the seed market, 2006

Seed Company	Market Share
Monsanto	40%
Pioneer Hybrid International	30%
Pannar	20%
Other	10%

Source: Competition Commission of South Africa (2006)

2.5.2. Handling and Storage

The farmer has the following maize storage options:

- He/she can deliver the maize immediately to a miller (currently this constitutes about 10% of the total crop),
- He/she can make use of the new storage method in the form of silo bags (currently 3 to 6% of the total crop),
- He/she can erect his/her own silos (currently 6% of the total crop is stored in on-farm silos)
- The most common method is to make use of commercial silos off-farm (currently more than 75% of the total crop).

With deregulation of the maize industry, 90% of the co-operatives converted to private companies, which own 85% of the total storage capacity, which is currently 16.3 million tons. There are 432 silos, of which 172 are on-farm and 260 commercial. The commercial silos, owned by 17 silo owners, account for 94% of the available silo capacity. The three major commercial silo owners, namely AFGRI, NWK and SENWES Group, own 73% of the available storage capacity within the national grain storage market. Most of this storage capacity is also located in the provinces situated in the northern parts of the country.

Table 14: South African Silo capacity

Silo Owner Group	Storage capacity
Co-operatives (north)	14.5 million tons
Co-operatives (south)	0.97 million tons
Harbors and Private owners	2.1 million tons

Source: Grain Silo Industry, 2006

Table 4 below provides an indication of the regional concentration of commercial silo owners in South Africa and also shows the existence of regional monopolies within the handling and storage level of the maize value chain.

Table 15: Concentration in the commercial storage market, 2006

Province	Silo Owner (Market Share)	Silo Owner (Market Share)	Silo Owner (Market Share)	Other (Market Share)
Northern Cape	GWK (62%)	OVK (22%)	Suidwes (16%)	OVK & Suidwes (7%)
Free State	Senwes (67%)	Vrystaat (15%)	Afgri (11%)	
North West	NWK (56%)	Suidwes (24%)	Senwes (19%)	MGK (1%)
Kwazulu-Natal	OVK (100%)			
Mpumalanga	Afgri (96%)	TWK Beperk (4%)		
Gauteng	Afgri (61%)	Senwes (31%)	MGK (8%)	
Limpopo	NTK (89%)	MGK (11%)		SSK & Tuinroete Agr (18%)
Western Cape	Kaap Agri (35%)	Overberg Agri (28%)	MKB (19%)	
Eastern Cape	Humansdorp (100%)			

Source: Competition Commission of South Africa

2.5.3. Maize milling

The maize kernel is processed by two industries namely the Wet and Dry Milling Industries. During the dry milling process the maize kernels are refined to maize meal. The products derived are samp, maize grits and maize rice, unsifted, sifted, coarse, super and special maize meal. Wet milling is a process carried out in water during which pure starch is obtained from maize. After the steeping process of 36 hours the kernel can easily be separated into its various components, namely the husk, starch, gluten and the germ.

Since deregulation, the number of informal millers increased sharply from 111 to 296 after 1996. Business forms within the milling industry include private and public companies. Major players include Pioneer Food Group (Pty) Ltd, Premier Foods Ltd, Pride Milling Company (Pty) Ltd, Ruto Mills (Pty) Ltd and Tiger Brands Ltd, as well as some silo owners such as NTK. As of 2006, the average milling capacity utilization is 3.7 million tons or 79.5% of the available milling capacity. According to the National Chamber of Milling there are approximately 22 large scale millers that account for 65% of all maize meal produced in the country. The top four milling companies (Premier Foods, Tiger Milling Company, Pioneer Foods, and Pride Milling) account for 37% of this market share. Table 15 below provides an indication of the relative market shares in the large scale milling market.

Table 16: Concentration in the large scale milling market, 2005

Miller	Relative Market Share (%)
Pioneer Foods	42%
Tiger Milling	25%
Premier Foods	19%
Pride Milling	N/A
Ruto Mills	1%
Epic Oils	1%

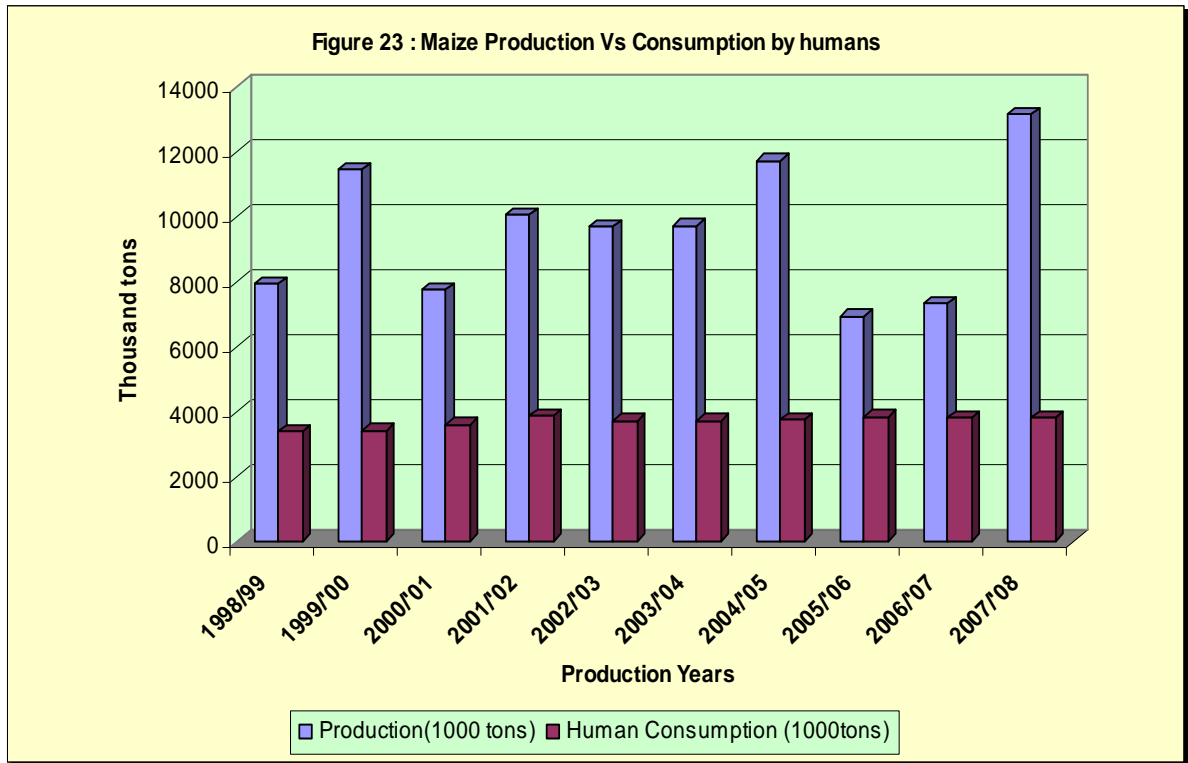
Source: Competition Commission of South Africa, based on turnover

Table 16 below provides an indication of the relative market shares in the small scale milling market.

Table 17: Concentration in the small scale milling market, 2005

Miller	Market Share (%)
Brenner Mills	72%
Blink water Mills	23%
Piet Retief	3%
De Aar	2%

Source: Who owns whom (2005), based on turnover



Source: National Chamber of Milling and Agricultural Statistics

The milling industry was deregulated in 1991, which implied that millers are free to buy from and sell to their preferred customers. During the regulated years maize milled was as high as 5 million tons. After deregulation the amount of maize milled showed a declining trend. This trend only represents 73% of the market according to the National Chamber of Milling statistics. The quantity milled for human consumption has decreased in relation to total production. Factors like increased prices, consumer preferences and substitutes have a direct impact on the demand of milled products. During the period under review utilization of maize for human consumption has never exceeded 4 million tons as shown by Figure 23. The domestic production of maize has always exceeded the domestic consumption by humans as depicted above.

2.5.4. The animal feed industry

The germ, gluten, husks and steep water that are obtained from wet milling are put to valuable use in animal feed production, and they find their way into the supplements of animal feed. This industry supplies feed to all farmed animals in the country and some are exported to BLNS countries. The industry is divided into the formal feed industry (members of the Animal Feed Manufacturers Association) and the other includes feedlots, smaller feed mills and home mixers. The feed industry consists of about 100 – 150 feed millers of different sizes. The formal feed industry is responsible for about 60% of all feeds produced in South Africa. The poultry industry consumes most of the yellow maize for feeds, and other animal feeds are the combination of most of the grain commodities. The animal feed industry uses primarily yellow maize for the purpose of animal feed manufacturing. According to the Animal Feed Manufacturers Association (AFMA), maize constitutes

approximately 55% of the 4.2 million tones of feed produced by its members. Business forms within the animal feeds industry consists largely of private companies, co-operatives and converted co-operatives. The top animal feed manufacturers are AFGRI, Bokomo Voere, Epol, KK Animal Nutrition, Meadow Feeds, Noordwes Voere, and Senwesko Voere.

Table 17 below provides an indication of concentration in this market based on turnover.

Table 18: Concentration in the animal feed manufacturing market, 2005

Company	Market Share (%)
AFGRI	42%
Epol	28%
Pioneer	11%
Senwesko	6%
Meadow Feeds	3%
Other	10%

Source: Competition Commission of South Africa (2004); AFMA (2006)

2.5.5. Traders

Traders perform a fundamental and core function in a free trade environment by moving the farmer's produce to domestic or export markets. During times of shortage the traders source goods externally and bring products to the processor or the consumer in the domestic market. Grain traders take positions (forward buying and selling), assume risk, establish value and provide the real cash market for grain. Traders include local grain traders, international grain houses and financial institutions that provide credit facilities.

With the conversion of co-operatives to public companies, many entities expanded their operations to also include other services such as the trading of grain. National players in the marketing and trading level of the maize supply chain include local traders, international houses and financial institutions that provide credit facilities. The large traders include Rand Merchant Bank, Senwes, Afgri, Cargill, Louis Dreyfus and Verus Farms. The smaller competitors are amongst others, Brisen, Bester Feed Exchanges, CTH, Farmwise, Unigrain and Free State Maize. Table 18 below provides an indication of the level of concentration in this market.

Table 19: Concentration in the trading market, 2004

Trader	Market Share
Cargill	20%
Afgri Operations Limited	18%
Senwes Limited	14%
Louis Dreyfuss	4%
Suidwes	2%
Seaboard and Others	42%

Source: Competition Commission of South Africa (2004)

2.5.6. Retailing

The formal retail market is relatively concentrated, with some national chain stores dominating the market. The seven major players in the formal retail industry include Pick'n pay, Shoprite, Metcash, Spar, Massmart, Fruit & Veg City and Woolworths. Table 19 below their relative market share based on turnover.

Table 20: Retail Market Shares, 2005

Company	Market Share (%)
Pick'n Pay Stores Limited	24%
Shoprite Holdings Limited	23%
Massmart Holdings Limited	20%
Metcash Trading Africa (Pty) Ltd	13%
Woolworths Holdings Limited	10%
Spar Group Limited	9%
Fruit & Veg City Holdings (Pty) Ltd	1%

Source: Competition Commission of South Africa

2.5.7. Transport

Historically, rail transport dominated the maize market however, the free market system led to the development of a huge expansion in road transport and a reduction in the quantities transported by rail. The reason behind this is that in a deregulated market transport requirements are more complex as participants' source products independently, creating diversifies transport demands. In general, the ratio of rail and road transport used within the maize value chain has changed from 80% rail and 20% road to 50% rail and 50% road. The rail transport industry comprises a monopoly, Spoornet. Players in the road transport sector include companies such as Unitrans, Imperial Logistics and Bidfreight. Table 20 below provides an indication of market shares of major companies that are active in the transportation of maize by road, based on turnover.

Table 21: Market shares in the road transport sector, 2005

Company	Market Share (%)
Bidfreight	30%
Imperial Logistics	23%
Unitrans	23%
Other	24%

Source: Competition Commission of South Africa

2.3.8. Maize Value Chain Tree

The following diagram (Diagram 2) represents the various products and by-products that can be derived from maize. Maize can be consumed as green maize or it can be milled. During the milling process the maize kernel is processed by two industries namely, the *wet* and *dry* milling industries. During the dry milling process the maize kernels are refined to maize meal and, the products that can be derived from this process are samp, maize grits, and maize rice, unsifted, sifted, coarse, super and special maize meal. Wet milling is a process that is carried out in water during which pure starch is obtained from maize. The kernel is separated into its components namely, the husk, starch, gluten and the germ.

When the Starch from the wet milling process is heated in water, its amylase and amylopectin hydrates form a paste which allows food technologists to create foodstuffs such as puddings, gravies, sauces and pie fillings. The starch pastes from maize can be allowed to cool, thicken and congeal into a gel that provides starch-based puddings, salad creams and some adhesives. The starch paste also has industrial uses for paper coating and sizing, textile sizing, the manufacture of corrugated boards and adhesives.

The germ and the gluten that are obtained from the wet milling process are used in the manufacture of maize oil and animal feed supplements. The maize oil can be used in cooking, where its high smoke point makes it valuable frying oil. It is also a key ingredient in some margarine. Maize oil is also used as one source of bio-diesel. Other industrial uses for maize oil include soap, salve, paint, rust proofing for metal surfaces, inks, textiles, and insecticides. It is sometimes used as a carrier for drug molecules in pharmaceutical preparations.

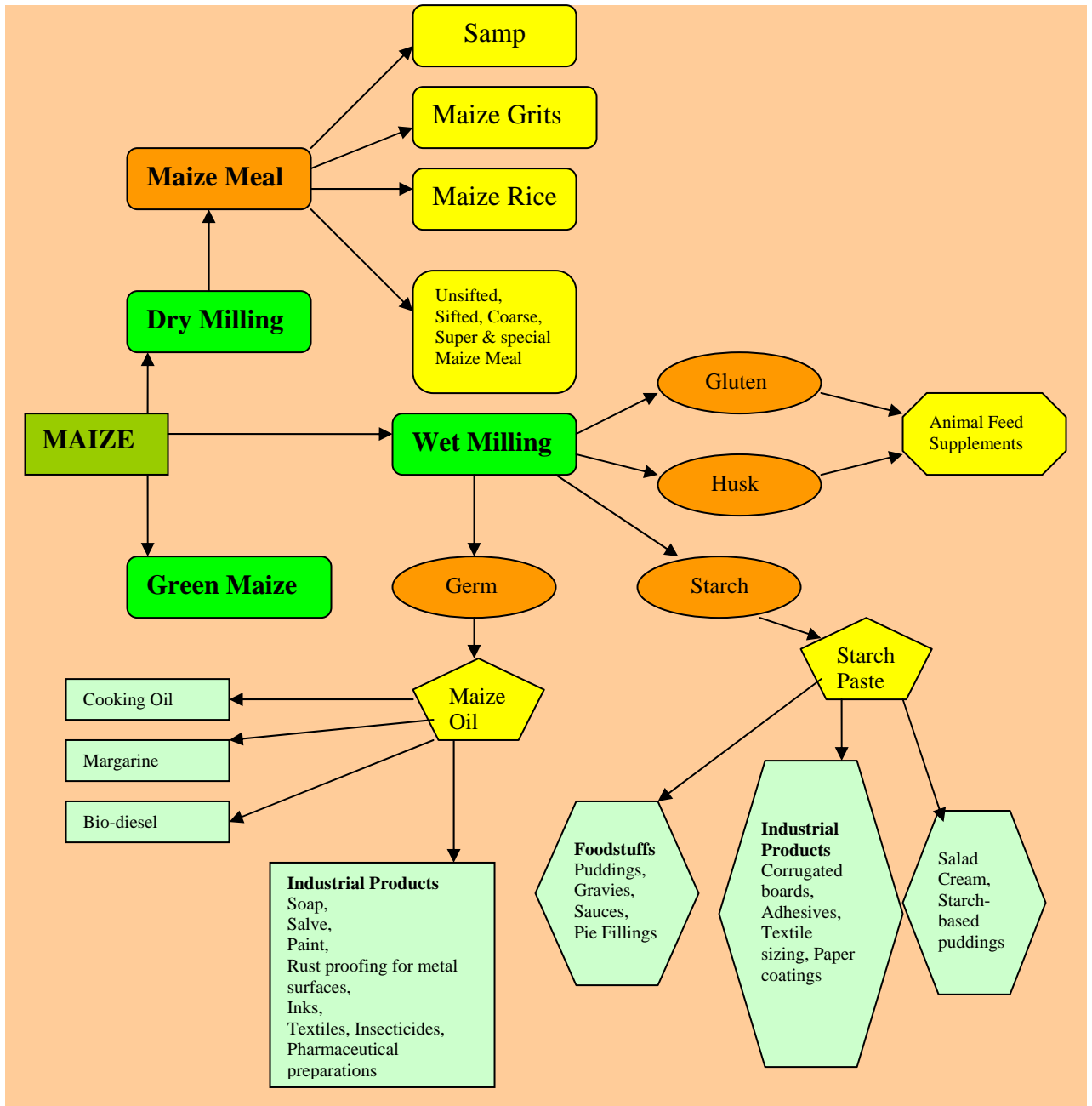


Diagram 2: Maize Value Chain tree

3. MARKET INTELLIGENCE

The major export markets for South African maize are BLNS countries (Botswana, Lesotho, Namibia and Swaziland), Kenya, Zimbabwe, Mozambique, Zambia, Netherlands, Malawi, Tanzania and the DRC.

The following tariffs (2007, 2008 and 2009) are applied by the various export markets to maize from South Africa:

Table 22

Importer	PRODUCT	Trade Regime Description	APPLIED TARIFFS 2007	TOTAL AD VALOREM EQUIVALENT TARIFF 2007	APPLIED TARIFFS 2008	TOTAL AD VALOREM EQUIVALENT TARIFF 2008	APPLIED TARIFFS 2009	TOTAL AD VALOREM EQUIVALENT TARIFF 2009
Indonesia	Maize seed	MFN duties	0%	0.00%	0%	0%	0%	0%
	Maize flour	MFN duties	5%	5%	5%	5%	5%	5%
Japan	Maize seed (rendered suitable for sowing)	MFN duties	0%	0%	0%	0%	0%	0%
	Maize seed (Not suitable for sowing)	MFN duties	\$77.83/ton	1.90%	85.63\$/ton	3.63%	85.63\$/ton	3.63%
	Maize flour	MFN duties	21.3%	21.3%	50% or 114.17\$/ton whichever is the greater	69.63%	21.30%	21.30%
Kenya	Maize seed	MFN duties	25%	25%	25%	25%	25%	25%
	Maize flour	MFN duties	25%	25%	50%	50%	50%	50%
Zimbabwe	Maize seed	MFN duties	0%	0%	20%	20%	20%	20%
	Maize flour	MFN duties	N/A	N/A	0%	0%	25%	25%
Mozambique	Maize seed	MFN duties	0%	0%	2.50%	2.50%	0%	0%

	Maize flour	Preferential for SA	tariff	20%	20%	0%	0%	15%	15%
Zambia	Maize seed	MFN duties		5%	5%	5%	5%	0%	0%
	Maize flour	Preferential for SA	tariff	15%	15%	0%	0%	15%	15%
Angola	Maize seed	MFN duties		2%	2%	2%	2%	2%	2%
	Maize flour	MFN duties		10%	10%	10%	10%	10%	10%
Malawi	Maize seed	MFN duties		0%	0%	0%	0%	0%	0%
	Maize flour	MFN duties		10%	10%	10%	10%	10%	10%
Tanzania	Maize seed	MFN duties		5%	5%	25%	25%	25%	25%
	Maize flour	MFN duties		25%	25%	50%	50%	50%	50%
DRC	Maize seed	MFN duties		5%	5%	5%	5%	5%	5%
	Maize flour	MFN duties		10%	10%	10%	10%	10%	10%
Ghana	Maize seed	MFN duties		0%	0%	0%	0%	0%	0%
	Maize flour	MFN duties		20%	20%	20%	20%	20%	20%

Source: ITC Market Access Map

Table 21 indicates that during 2008 Japan increased its tariffs of maize seed originating from South Africa; the applied tariff increased from 77.83\$/ton to 85.63\$/ton while the total ad valorem tariff increased from 1.90% to 3.63%. Similarly, the tariff applied by Japan for maize flour originating from South Africa increased from 21.3% to 50% while the ad valorem tariff increased from 21.3% to 69.63%. The 2008 data indicates that Zimbabwe has increased its applied and ad valorem tariffs for maize seed originating from South Africa from 0% to 20%; however recently the Zimbabwean government has removed all import tariffs on staple food commodities to assist the food supply crisis in that country. Zambia has also decreased its maize flour tariffs from 15% in 2007 to 0% in 2008 while Angola reduced its tariff from 10% to 2%. Similarly Malawi has also reduced its import tariffs for maize flour from all countries that belong to the WTO from 10% to 0%. Tanzania's market for maize flour is heavily protected by an import tariff of 50%. In 2009 Japan reduced its tariffs for maize flour originating from South Africa from 69.63% to 21.30%. Similarly, Mozambique reduced its tariffs for maize seed originating from South Africa from 2.50% to 0% and on the other hand the same country increased its tariffs for maize flour originating from South Africa from 0% to 15%.

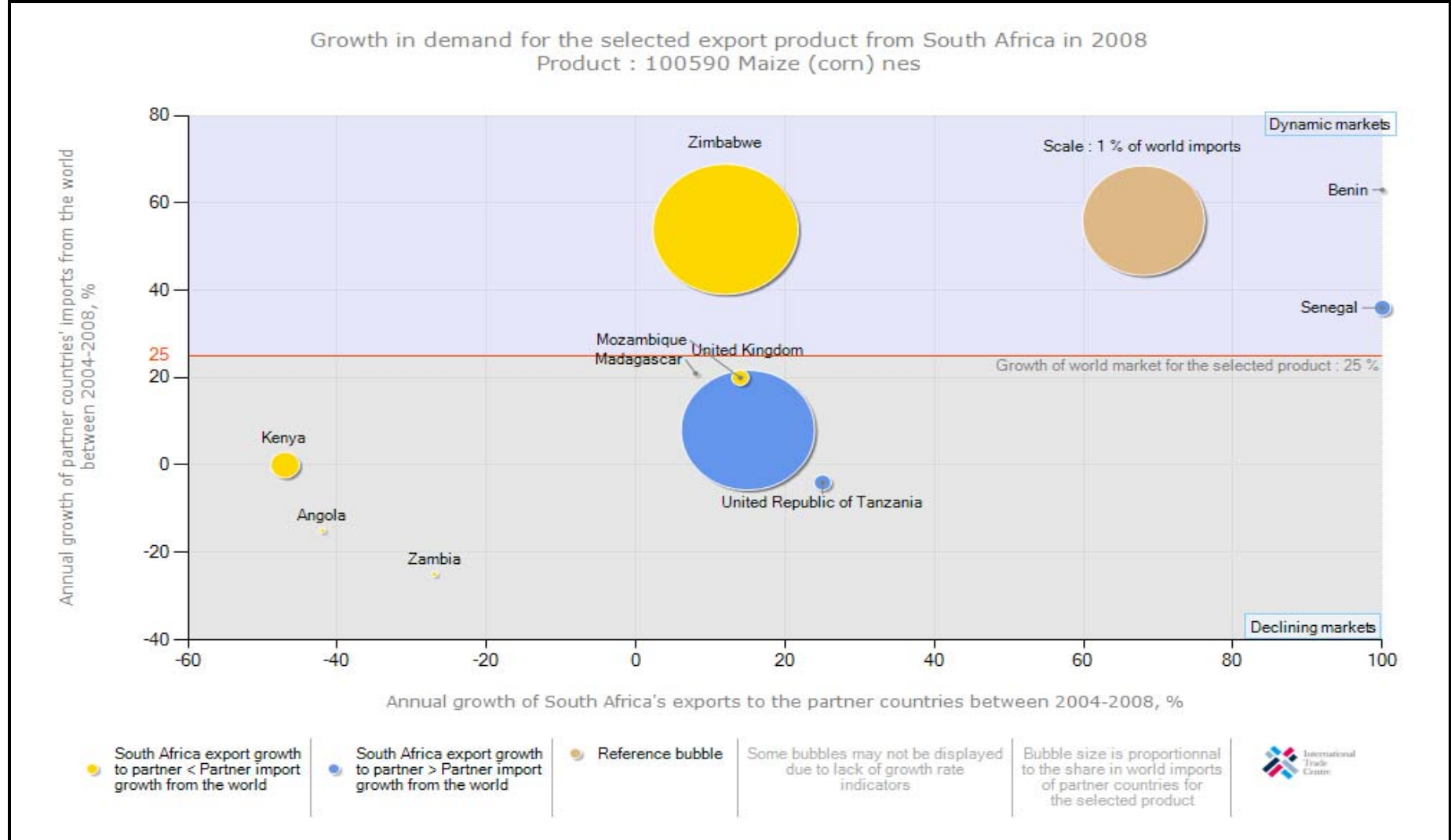
In order to fulfill South Africa's commitment under the World Trade Organization: Marrakesh Agreement regarding market access, the Directorate: Marketing issues rebate permits under the Market Access rebate scheme to importers of maize for a total of 269 000 tons (for 2010) per annum. The import arrangements for maize imports are as in Table 22.

Table 23

TARIFF HEADING	DESCRIPTION	EXTENT REBATE	OF ANNUAL QUOTA TONNAGE
10.05	Maize (corn)	Full duty less 10%	269 000

Source: Government Gazette Notice 1297 of 2009

3.1. Performance of the South African maize industry in 2008



Source: ITC Trade Map

The dynamic markets for South African maize are Zimbabwe, Benin and Senegal because these countries' imports of maize from the world experienced an increase between 2004 and 2008. The declining markets for South African Maize exports are in Madagascar, Angola, Zambia, Mozambique, the UK, Kenya and Tanzania between 2004 and 2008 because maize imports from the rest of the world to these countries decreased.

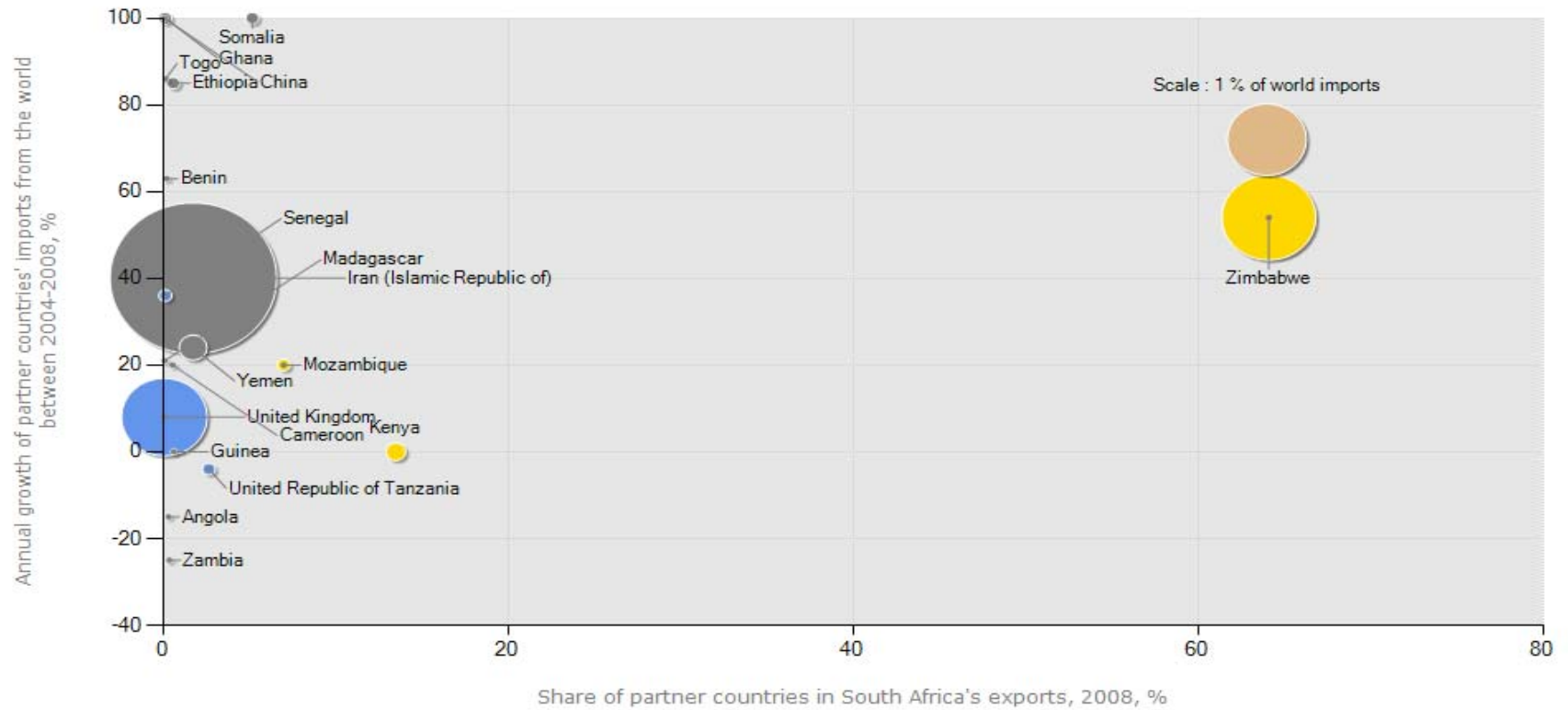
Table 24: South Africa's maize exports in 2008

Importers	Exported value in 2008 (thousand US\$)	Share in SA's exports (%)	Exported quantity in 2008 (tons)	Unit value (US\$/unit)	Exported growth in value between 2004 and 2008 (% p.a)	Exported growth in quantity between 2004 and 2008 (% p.a)	Exported growth in value between 2007 and 2008 (% p.a)	Tariff equivalent ad valorem faced by SA
World	468 609	100	916 229	511	8	-18	2 864	
Zimbabwe	300 472	64.1	448 541	670	12	-21	6 833	20%
Kenya	63 358	13.5	157 751	402	-47	-67	1 583 850	25%
Mozambique	32 848	7	94 246	349	-			0%
Somalia	24 322	5.2	68 895	353				
Tanzania	12 502	2.7	33 102	378				25%
Iran	8 284	1.8	33 415	248				45%
Yemen	8 210	1.8	27 500	299				5%
Guinea	2 985	0.6	8 923	335				0%
Ethiopia	2 862	0.6	9 525	300			4 516	5%
Cameroon	2 686	0.6	5 977	449		-47	2 138	5%
Zambia	1 767	0.4	5 613	315	-27	-40	977	0%
Angola	1 557	0.3	4 712	330	-42	-51	82	2%
Area Nes	437	0.1	925	472			3 542	

Source: ITC Trade Map

Table 23 indicates that during 2007 South Africa exported greater quantities of maize to Zimbabwe, Kenya and Mozambique. The greatest share of South African maize exports were destined to Zimbabwe which commanded 64.1% share of South African maize exports during the year 2008, followed by Kenya which commanded 13.5% share of South African maize exports. South African maize exports to the world increased by 8% in value and declined by 18% in both quantity between the periods 2004 and 2008. Similarly, exports of maize from South Africa increased by 2864% in value between 2007 and 2008. The quantity of South African maize exports to all the major export destinations mentioned above experienced a downturn.

Prospects for market diversification for a product exported by South Africa in 2008
 Product : 100590 Maize (corn) nes



● South Africa export growth to partner < Partner import growth from the world
● South Africa export growth to partner > Partner import growth from the world
● N.A.
● Reference bubble
 Some bubbles may not be displayed due to lack of growth rate indicators
 Bubble size is proportional to the share in world imports of partner countries for the selected product



Note: The area of the circles corresponds to the share in world imports of target markets for the selected products.

Source: ITC Trade Map

If South Africa wishes to diversify its maize exports bigger markets exist in Madagascar, Zimbabwe, Kenya and the United Kingdom. All the above-mentioned countries commands the lowest share of South African maize exports except Zimbabwe which absorbed above 60% of South Africa's total exports in 2008.. Zimbabwe has grown to be the one of the main importers of maize in recent years, mainly as a result the negative impact that political and economic instability had on agriculture in that country.

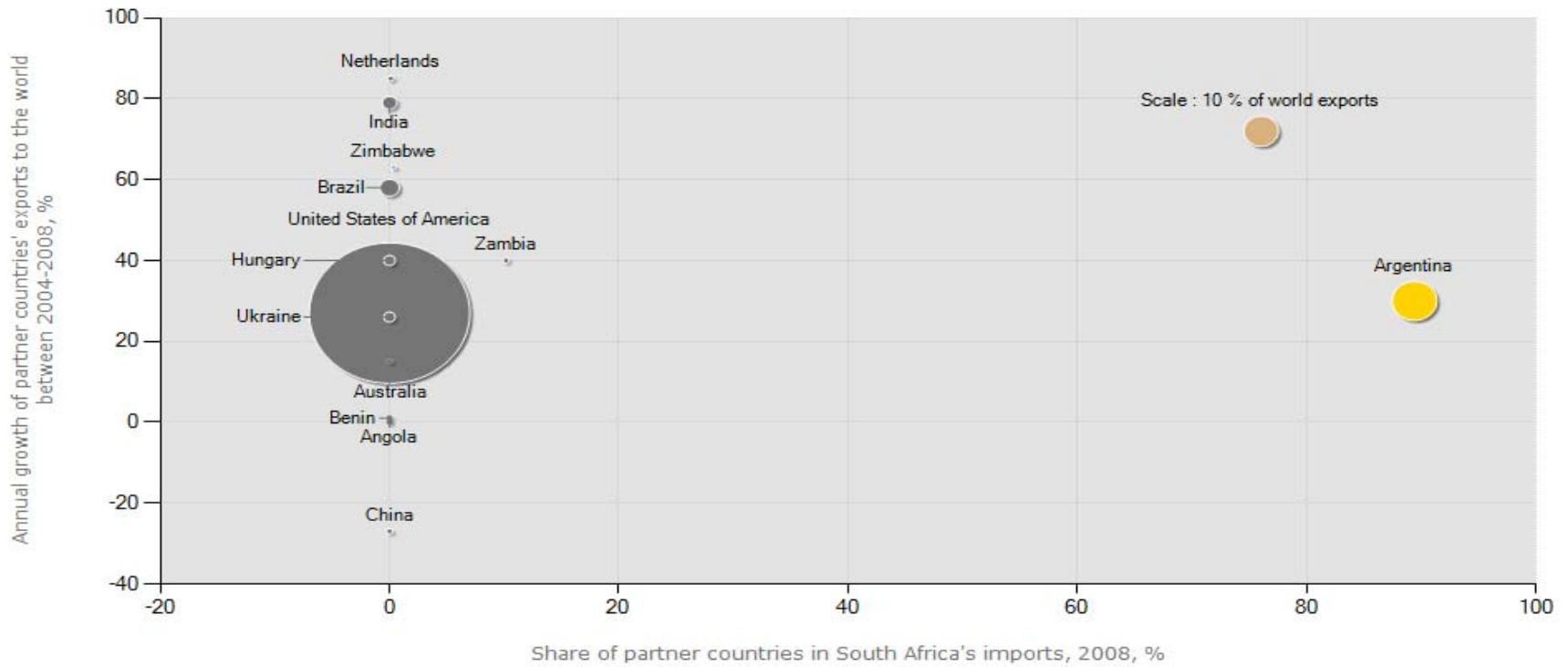
Table 25: South Africa's maize imports during 2008

Exporters	Imported value in 2008 (thousand US\$)	Share in SA's imports (%)	Imported quantity in 2008 (tons)	Unit value (US\$/unit)	Imported growth in value between 2004 and 2008 (% p.a.)	Imported growth in quantity between 2004 and 2008 (% p.a.)	Imported growth in value between 2007 and 2008 (% p.a.)	Tariff equivalent ad valorem applied by SA
World	1 776	100	98 224	181	7	-8	-91	0.00%
Argentina	15 888	89.4	87 981	181	9	-7	-92	0.00
Zambia	1 806	10.2	9 870	183			-56	0.00
Zimbabwe	62	0.3	358	173	206		-18	0.00
Netherlands	17	0.1	14	1 214				0.00

Source: ITC Trade Map

During 2008 South Africa's maize imports originated mainly from Argentina, Zambia and Zimbabwe with Argentina having commanded 89% share in South Africa's maize imports. On average, imports of maize into South Africa from the world increased by 7 in value and declined 8% in volume terms between the years 2004 and 2008. Similarly, between the years 2007 and 2008 imports of maize from the world into South Africa decreased by an average of 92%. Of importance to note is the fact that 10.2% of South Africa's total maize imports in 2008 originated from Zambia while another 0.3% and 0.1% originated from Zimbabwe and Netherlands respectively.

Prospects for diversification of suppliers for a product imported by South Africa in 2008
 Product : 100590 Maize (corn) nes



● South Africa import growth from partner < Partner export growth to the world

● South Africa import growth from partner > Partner export growth to the world

● N.A.
 ● Reference bubble
 Some bubbles may not be displayed due to lack of growth rate indicators

Bubble size is proportional to the share in world exports of partner countries for the selected product



Note: The area of the circles corresponds to the share in world exports of supplying markets for the selected product.

Source: ITC Trade Map

During 2008 more than 80% of South Africa's total maize imports originated from Argentina, a country which has increased its maize exports to the world by 30% annually between 2004 and 2008. . The United States of America still remains the biggest market to import maize from in spite of its declining share in South Africa's maize imports during 2008.

4. ORGANIZATIONAL ANALYSIS

4.1. Strengths and Weaknesses

Some of the strengths and weaknesses of the maize production sector in South Africa are the following:

Strengths	Weaknesses
<ul style="list-style-type: none"> • It is the second largest agricultural sector in terms of value after poultry slaughtered. • Ensures self-sufficiency in the major basic food product. • Ensures food security in SA and the SADC region. • Is an earner of foreign exchange through exports. • The existing production infrastructure is well developed. • There is enormous intellectual capital and experience that is available in the maize sector. • There are low entry barriers, in the sense that grain producers can easily substitute other grains produced with maize. 	<ul style="list-style-type: none"> • Production is largely dependent on climatic conditions which can only be partially manipulated by man through irrigation. • International agricultural policies significantly distort international grain markets. • Deteriorating research infrastructure and capacity may limit new technology development in the future. • Export opportunities are mainly limited to African countries. • Relatively high input and capital costs because a large proportion of production inputs are imported.

Some of the weaknesses inherent in the maize processing sector are the following:

- High maintenance and delivery costs.
- Research results not user friendly especially to the emerging sector.
- Slow adoption of hedging mechanisms to reduce price risk.
- Inadequate protection against unfair regional and international competition and food aid.
- Lack of innovation for new products.
- Low export orientation.

4.2. Strategic challenges and Opportunities

Transport by road has increased dramatically and this leads to out-loading problems as silos were constructed to primarily dispatch by rail. Furthermore, in the maize industry transport costs are high. The problem with transport arises from the inability of Spoornet to adapt to the market's increased service requirements as well as increased rail tariffs to maintain its old fleet. Moreover, Spoornet's inability to unilaterally increase rail tariffs is a clear indication of market power.

It is expected that the demand for maize for animal feed will increase as the domestic poultry industry expands and, the domestic demand for maize may be increased by approximately 30% in the medium term if the production of bio-ethanol from maize is commenced.

The importation of GMO maize is also threatening the domestic markets.

According to the Competition Commission there is evidence of vertical integration in the South African maize market. Vertical integration occurs when a firm has interests in more than one level of the supply chain, linking producers, silos, traders and millers to final consumers. In SA there are dominant silo owners such as NWK, AFGRI and Senwes who in addition to supplying production inputs, also own trading companies as well as animal feed manufacturing companies.

5. EMPOWERMENT AND TRANSFORMATION ISSUES

As mentioned above there are a significant number of maize producers in South Africa. As a result there is increased competition in the industry. Grain South Africa has established a Farmer Development Programme which aims to empower developing grain producers to become sustainable and commercial farmers. The programme helps the grain producers to establish study groups, arranging coordinated training during farmer's days, training courses, and advising through telephones. The study groups are people with same interest to work together more effectively. Individual farmers are welcome to subscribe to Grain South Africa, or groups from 2 to 25 people may subscribe as group by registering their group with the organization.

In terms of black economic empowerment in the milling industry, it is known that two companies namely, Foodcorp and Premier Foods have black empowerment companies as the majority shareholders.

6. GRAIN TRADERS IN SOUTH AFRICA

6.1. INTERNATIONAL TRADERS

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Louis Dreyfus	James Crichton	011-784 6446	Johannesburg	crichtonj@idcorp.com

Source: Grain South Africa

6.2. LOCAL TRADERS

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6. ACNOWLEDGEMENTS

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ITC Market Access Map

Website: <http://www.macmap.org/South Africa>

ITC Trade Map

Website: <http://www.trademap.org>

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