A PROFILE OF THE SOUTH AFRICAN MAIZE MARKET VALUE CHAIN

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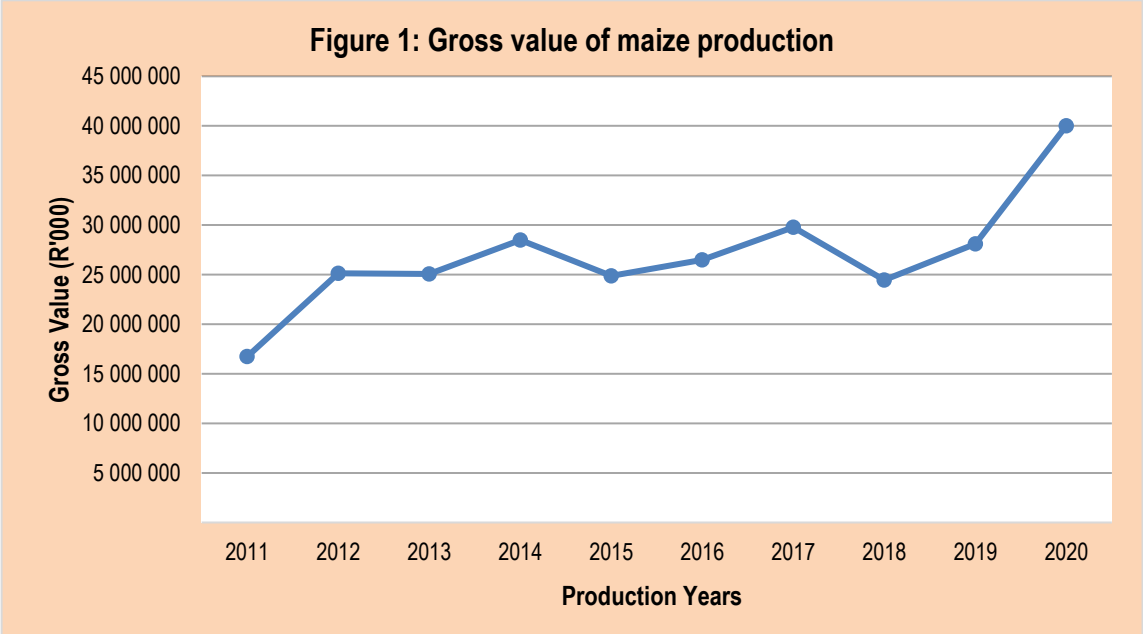
1. DESCRIPTION OF THE INDUSTRY

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 white maize is primarily produced for human consumption. Maize is the second largest produced crop 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 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.

The gross value of maize production is dependent on the quantity produced and prices received by producers. The trend in the maize production gross value follows the pattern of prices and production since the industry is characterized by volatile prices as shown in figure 1. The period under analysis opened with restrained gross value of maize production in 2011 production season and this was followed by an increase in gross value during the marketing years 2012. Even though maize production was slightly higher during 2011 season, the contribution to gross value of production were moderate and as result of a moderate producer price and less export activities attained during that period.



Source: Statistics and Economic Analysis

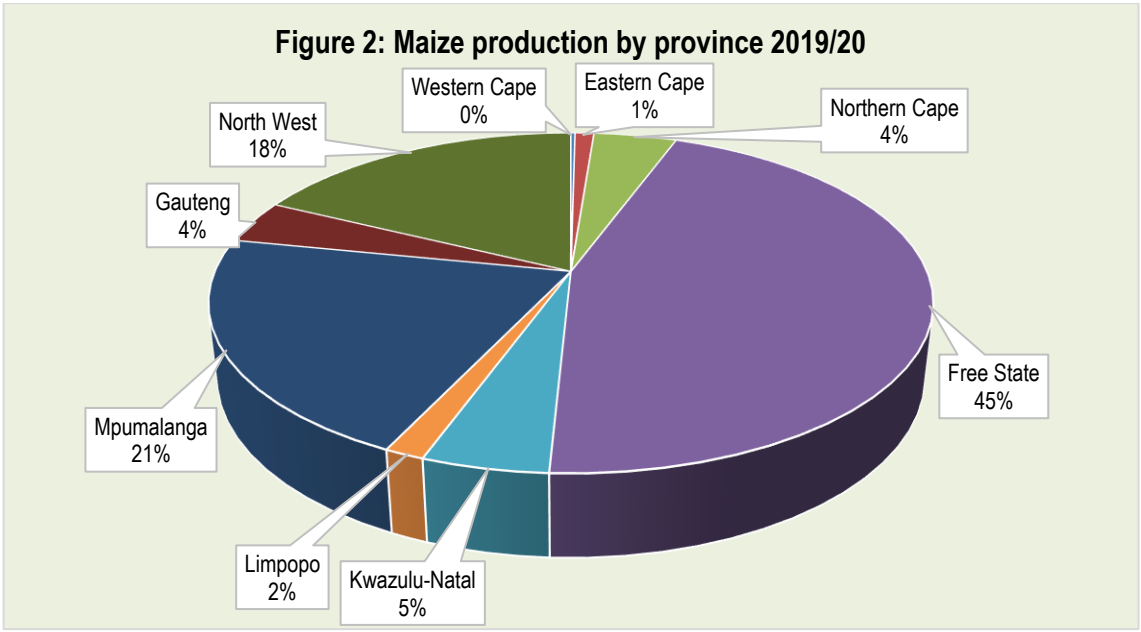
The contribution of the maize industry to the gross value of South African agricultural production (GVP) was moderate at the beginning of the season during 2012/13 production year. However, the GVP later experienced a substantial decrease to a level below 25 billion Rands during the 2014/15 production season. This was mainly due to a decline in the average producer prices for maize which fell to the lowest levels during the same period. However, the contribution of maize industry to the

GVP increased sharply during 2016/17 season due to increased producer prices, despite a slight decrease in production volumes. This was followed by a drastic decrease trend of the gross value of maize production during the year 2017/18. The figure further indicates that the gross value of maize production slightly later increased until the highest values were attained during 2019/20. The period under review closed with increasing trend in the gross value of agricultural production during 2019/20.

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 84% of total production. Almost 90% of maize in South Africa is produced under dry land condition and the remaining 10% is produced under irrigated conditions. There are 36 grain production regions in South Africa. Regions 1 to 9 are winter rainfall areas, and those regions fall under Western Cape, Eastern Cape as well as the Karoo. Region 10 is Griqualand West and region 11 is Vaalharts in the North-West. Regions 12 up to 20 are all in North-West province. Approximately 60% of total maize production in South Africa comes from regions 21 up to 28 which are under the Free State as well as North-West provinces. Regions 29 to 33 are within Mpumalanga, which is the second largest maize-producing province. Regions 34, 35 and 36 fall under Gauteng, Mpumalanga and Kwazulu-Natal respectively. Figure 2 below summarizes maize production per province during the 2019/20 production season.

Figure 2: Maize production by province 2019/20



Source: Statistics and Economic Analysis

Figure 2 indicates that during 2019/20 season, 45% of the total commercial maize in South Africa is produced in the Free State province. Mpumalanga province which is the second largest producer harvested 21% followed by the North-West Province in the third position, which produced 18% of total commercial maize production. The KwaZulu Natal Province produced 5% followed by Northern

Cape and Gauteng Provinces which both produced 4%, while the remaining provinces account for less than 4% of the country's total maize production.

Table 1: Maize production by provinces from 2014/15 to 2019/20 production season (Tons)

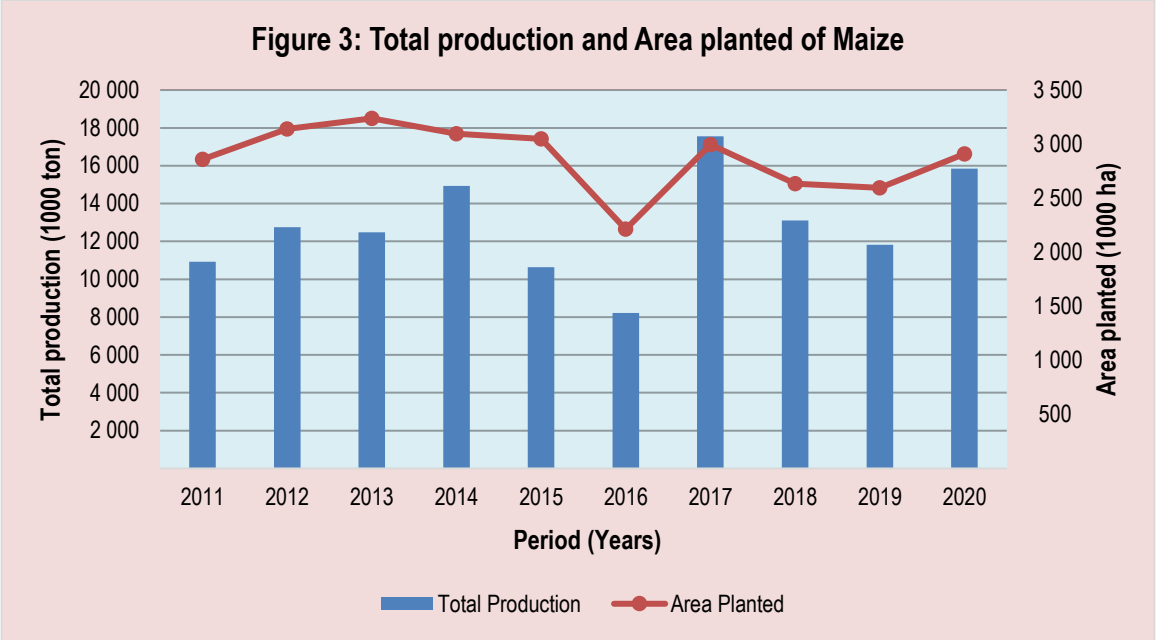
Season	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
PROVINCE						
Western Cape	45 000	45 000	22 000	34 000	34 000	34 000
Eastern Cape	70 000	76 000	97 000	93 000	93 000	154 000
Northern Cape	712 000	710 000	712 000	668 000	670 000	674 000
Free State	2264 000	2214 000	7362 000	5 275 000	4 553 000	6 909 000
KwaZulu-Natal	454 000	522 000	740 000	660 000	670 000	733 000
Limpopo	248 000	310 000	492 000	232 000	200 000	231 000
Mpumalanga	2108 000	2319 000	3431 000	2 817 000	2 775 000	3 220 000
Gauteng	441 000	442 000	804 000	632 000	607 000	627 000
North-West	914 000	1141 000	3160 000	2 099 000	1 673 000	2 718 000

Source Statistics and Economic Analysis

During the past six years, the total production of maize has experienced substantial fluctuations in all maize producing provinces as indicated in Table 1 above. The Free State, North-West and Mpumalanga provinces have consistently been the major producers of maize in the country. It is also clear that Western Cape, Eastern Cape and Limpopo Provinces produced low volumes of maize as compared to other provinces. The table further shows that the 2019/20 production season has shown a significant increase in maize production by most provinces as compared to the previous season, except for the Western Cape Province which recorded similar production volumes. The increase in production of maize can be attributed to high carry-over stocks in the market which resulted in most maize farmers shifting to the production of other profitable crops such as oilseeds during 2019/20 marketing season.

1.2. Production trends

The composition of maize supply consists of maize harvested during that particular season, imports as well as carryover stocks from the previous seasons. Commercial agriculture supplies about 98% of maize in South Africa, while the remaining 2% is produced by the developing agriculture. Over the past ten years, total production of maize has significantly fluctuated, with the lowest production experienced during the 2015/16 and the highest record crop attained in the 2019/20 production seasons.



Source: Statistics and Economic Analysis

Figure 3 also shows that the area planted to maize has always been above the total production for most part during the past 10 years. The area planted to maize fluctuated considerably over the past ten years and it started at moderate levels during the opening of the season in 2011/20, accompanied by a corresponding total production during that season. The amount of area allocated for maize production may be attributable to moderate average producer prices recorded during that production season, which still encouraged maize farmers to continue and plant maize in order to capture better market prices. However, this was followed by a 9.86 % increase in area planted during 2010/11 season leading to about 16.8% increase in total production as compared to the previous season. The 2011/12 production season was characterized by higher volumes of maize in the market mainly as a result of improved yields as well as the above normal rainfalls that were experienced during that season. The production season further recorded a dramatic decline in maize volumes given a decrease in area planted in 2015/16 as compared to the previous seasons and mainly as a result of El Nino induced drought during that particular season. In spite of that, a record high crop and increased area planted to maize was further attained during 2016/17 and this can be attributed to the occurrence of favourable weather conditions in the major maize growing regions. Furthermore, the 2019/20 production season closed with a decreasing area allocated to maize leading to a decline in the total production of maize during the same period.

2 MARKET STRUCTURE

2.1. Domestic Market

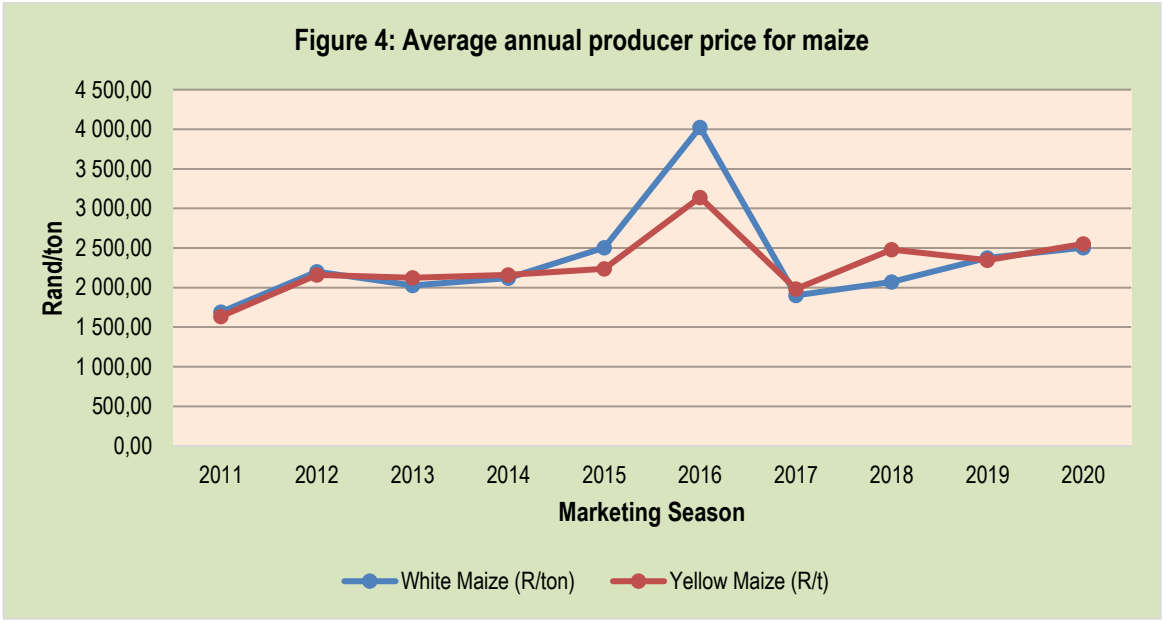
The South African maize market has matured considerably since deregulation of agricultural marketing. Producers, traders and other intermediaries interact freely in the marketing of maize. Most of the maize produced in South Africa is consumed locally and as a result, the domestic market is very important to the industry. More than two thirds of the locally produced maize is consumed by

the local market in the following pattern: humans (37.2%); the animal feed industry (39.2%) and the rest is used for seed and industrial uses (23.6%).

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 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 lowly priced 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.

Figure 4 below indicates that the period under review opened with lower producer prices for maize as compared to the previous season when a ton of maize was trading slightly above R1500.00 per ton. This was mainly caused by a moderate supply of maize in the local market during that particular season, which was more than enough to meet the annual local consumption requirements. This was followed by a dramatic increase in producer prices to the highest levels attained during 2015/16 production season, mainly as a result of an decrease in total supply of maize in the market. The highest producer prices for both white and yellow maize attained in 2015/16 season was standing at R4025.09/ton for white maize and R3140.50/ton for yellow maize. This can be attributed to the lowest production volumes of maize reached during the same period. The period under analysis closed with increasing producer prices for both white and yellow maize in 2019/20 as a results of decreased amount of maize stocks available in the market due to lower production volumes for 2019/20..

Figure 4: Average annual producer price for maize



Source: Statistics and Economic Analysis

Table 2 shows the total area planted, total production, human consumption and other uses of maize from the marketing year 2010/11 to 2019/20. The table indicates that the average annual area

planted to maize is at 2.8million hectares while the average annual total production of maize is at 12.8 million tons.

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 and other uses
	'000 ha	'000 tons		
2010/11	2859	10924	4513	4344
2011/12	3 141	12759	4513	4395
2012/13	3 238	12 486	4499	4440
2013/14	3 096	14 925	4582	4736
2014/15	3048	10 629	4840	5512
2015/16	2213	8 214	4698	5460
2016/17	2995	17551	4809	5030
2017/18	2634	13104	4993	5307
2018/19	2596	11824	5161	5530
2019/20	2908	15844	5388	5718

Source: SAGIS and Statistics and Economic Analysis.

Table 2 further shows that South Africa meets its annual maize consumption requirements entirely from domestic production. This is the result of implementation of more efficient production technologies and practices by producers, the withdrawal of marginal lands from production and the development of high yielding maize cultivars. On a good season, South Africa produces enough maize such that it still remains with surplus to export to other countries. On average, especially with regards to consumption, Human consumption takes more than half of the maize consumed domestically while the remainder is processed for animal consumption and industrial uses.

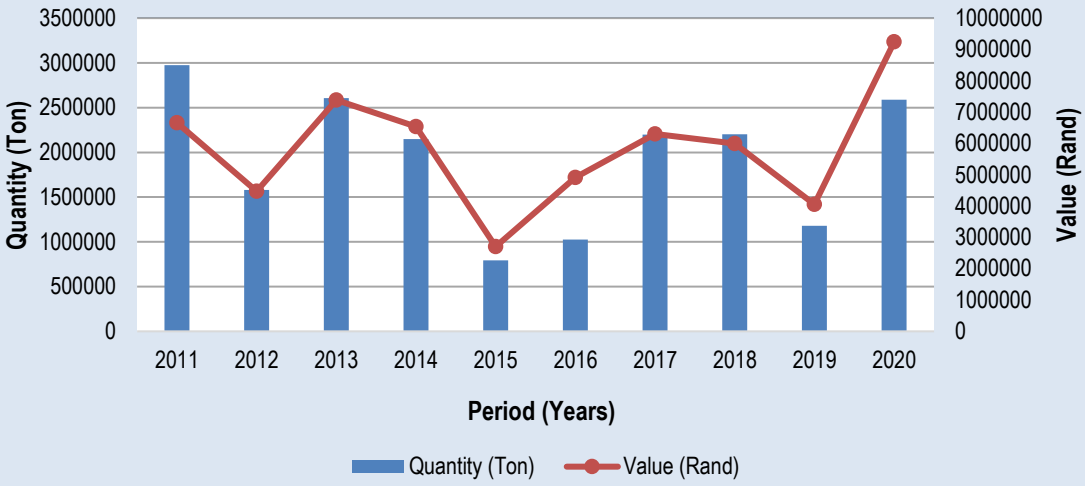
2.2. Exports

The maize industry is also an important earner of foreign exchange through the export of maize and maize products. The South African maize industry exports maize mostly to African countries particularly BLNS (Botswana, Lesotho, Namibia and Eswatini) countries, Zimbabwe, Kenya, Mozambique, Zambia, and to some extend Japan, Korea Republic and Chinese Taipei.

Figure 5 below shows some trends in South African maize exports to the world per annum. The period under analysis opened with higher volumes and slightly higher values of maize exports during the year 2011, which may be attributed to the relatively higher international prices of maize. This was later followed by a sharp decline in both export volumes and values during 2012. The highest quantities of exports were attained during the year 2011, corresponding to moderate local production at that time. It is essential to also note that during the period between 2012 and 2014, higher export values were recorded. The lowest quantities and value of maize exports were recorded during the year 2015, corresponding to reduced local production of maize due to drought which later affected

the maize exports. The period under review closed positively with above average volumes and above average values of maize exports during the year 2020.

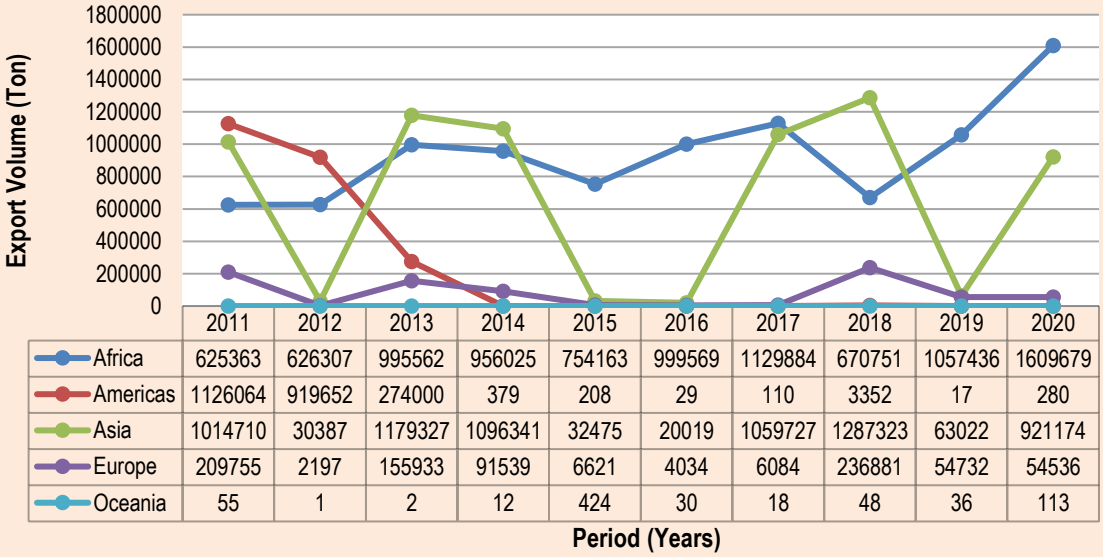
Figure 5: South African maize exports



Source: Quantec Easy Data

Figure 6 below depicts the volume of maize exports from RSA to various regions around the globe.

Figure 6: Volume of maize exports to various regions



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Africa	625363	626307	995562	956025	754163	999569	1129884	670751	1057436	1609679
Americas	1126064	919652	274000	379	208	29	110	3352	17	280
Asia	1014710	30387	1179327	1096341	32475	20019	1059727	1287323	63022	921174
Europe	209755	2197	155933	91539	6621	4034	6084	236881	54732	54536
Oceania	55	1	2	12	424	30	18	48	36	113

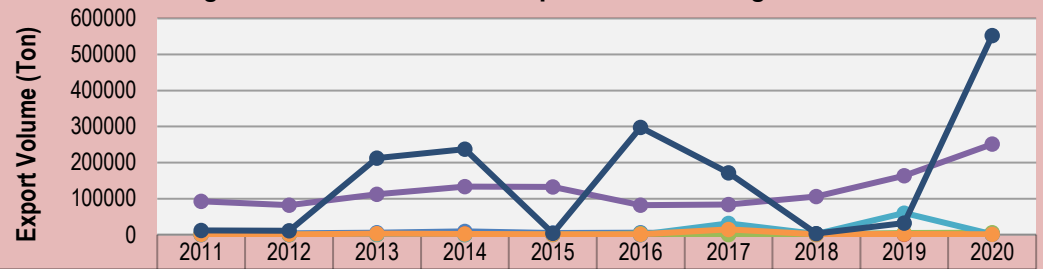
Source: Quantec Easy Data

Figure 6 indicates that South Africa exports maize mainly to Africa, Asia, Americas and Europe. On average, the volume of maize exports to African countries were higher and also fluctuated considerably over the 10 year's period under review. The lowest volumes of maize were exported in 2015 due to a slight decline in the local production and a growth in demand of South African maize from other regions. During 2011, a substantial volume of maize exports to the African region was

experienced and reaching a peak in exports during the same period. The fluctuation in export volumes over the period under analysis 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 production and prices. The figure further indicates that on average, exports of maize to Europe and Oceania have been continuously below those to the African region for the period between 2011 and 2020. The figure indicates during both 2015 and 2016 marketing seasons, maize was mainly exported to Africa while exports to other regions were declining. However, considerable volumes of the South African maize export were recorded during the 2017 marketing season, mainly destined to Asia and Africa. The period under review closed with increasing volumes of maize exports to Asia, Africa and Oceania during 2020, while those to Europe were declining.

Figure 7 below shows the volume of maize exported by South Africa to SADC countries between 2011 and 2020. It shows that at the beginning of 2011 up to 2010, most of the maize exported by South Africa were destined to Mozambique and Zimbabwe, and this may be explained by food shortages experienced in those countries especially the latter which was as a result of political instability. The figure further indicates that maize exports to Zimbabwe fluctuated over the ten-year period; the highest amount exported by South Africa to Zimbabwe was 297525 tons reached during the year 2016 and the lowest amount was 3166 tons recorded during 2018 marketing year. The volume of maize exports to Zimbabwe declined between the years 2011 and 2012 while those to Mozambique increased slightly during the same period and beyond. Exports of maize to Angola, Tanzania, DRC and Zambia have shown a relatively stable trend compared to those destined for Zimbabwe. During 2013 and 2014, Zimbabwe reclaimed the status of being the leading importer of maize from South Africa in the SADC region. On average, exports of maize from South Africa were destined for both Zimbabwe and Mozambique over the period under review. However, the period under review closed with the lowest maize exports to the SADC region, with maize export to Mozambique suppressing those to other regions in 2020.

Figure 7: Volume of maize exports to SADC region



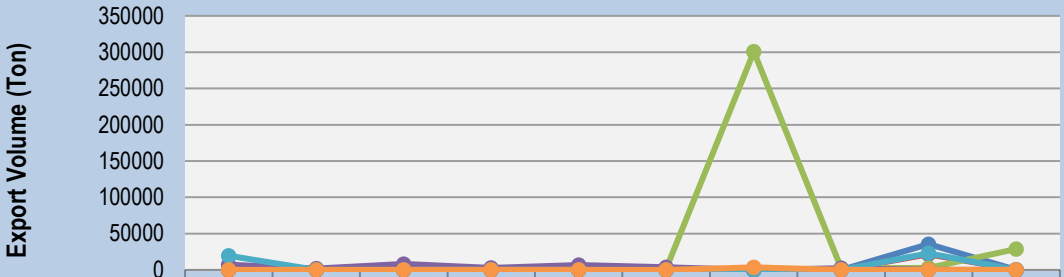
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Angola	2401	3866	5578	9129	4199	5631	2812	1689	2388	836
DRC	323	371	1271	1914	728	436	1901	1090	645	2449
Malawi	727	77	96	111	145	2806	138	121	4709	5545
Mozambique	92161	82000	112290	133282	132450	81839	83895	105539	163350	251150
Tanzania	547	11	660	281	699	394	30993	1521	60082	910
Zambia	860	717	2834	2242	922	1363	14649	1412	1527	1164
Zimbabwe	11349	11077	212210	237027	4014	297525	171463	3166	32544	552886

Period (Years)

Source: Quantec Easy Data

Figure 8 indicates that in the Eastern African region, South Africa exports most of its maize to Somalia with significant volumes of maize exports to this country attained at the opening of the season in 2011. The highest maize exports to Eastern Africa region were attained during the 2017 mainly destined to Kenya. However, this was followed by a massive increase in export volumes recorded during the years 2019. Minor volumes were exported to other markets such as Madagascar, Ethiopia and Uganda. During 2019, South African maize exports to Somalia emerged above maize exports to other countries in the same region. The period under review closed with declining volumes of maize exports to the Eastern African region, except those to Madagascar in 2020. The exports of maize from South Africa to the Eastern Africa Rest were generally low over the entire period, from 2011 to 2020.

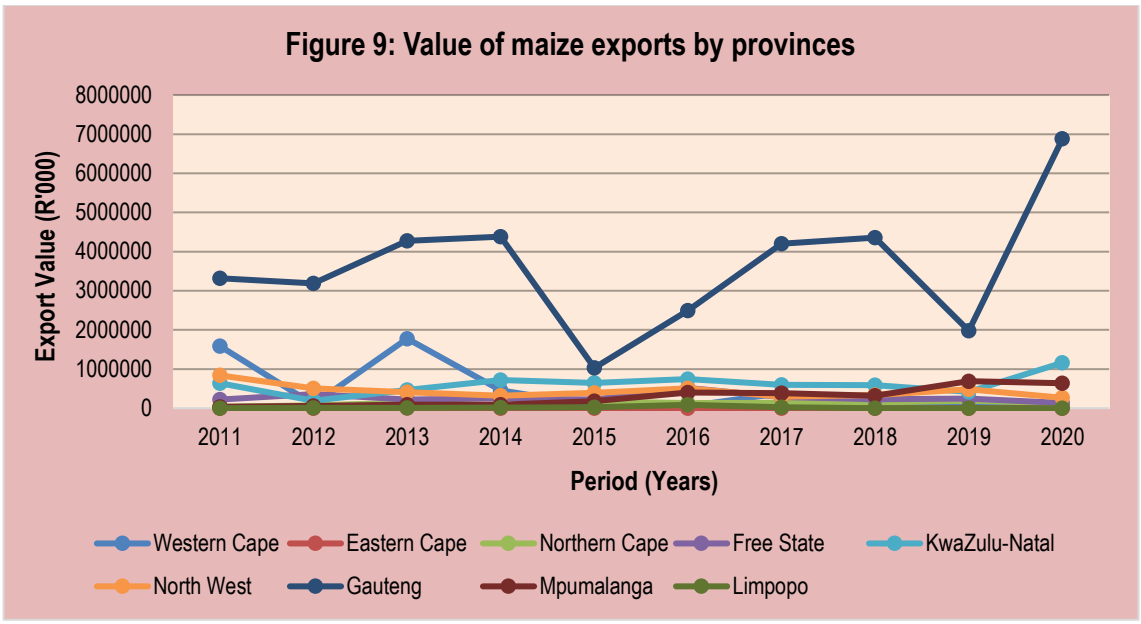
Figure 8: Volume of maize exports to Eastern Africa



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Djibouti	0	0	0	0	1	0	0	0	35521	312
Ethiopia	21	3	45	38	0	5	41	79	21588	41
Kenya	1270	1027	1123	2053	2184	1486	300717	2194	2969	28787
Madagascar	7313	1702	8246	2581	6561	3714	9	2541	26	79
Somalia	19421	0	0	43	0	0	0	0	22900	0
Uganda	7	4	8	6	6	2	3522	26	4	3

Source: Quantec Easy Data

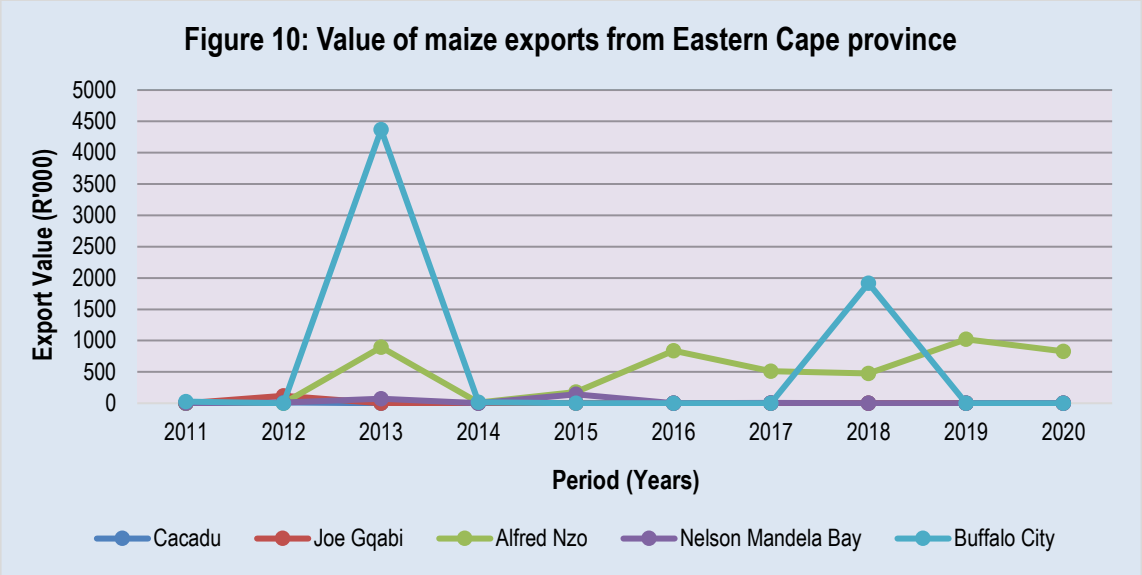
Figure 9 below indicates that Gauteng, Western Cape and KwaZulu-Natal Provinces recorded high export values between the periods 2011 and 2020. This can be attributed to the fact that the major maize producing regions (Free State, North-West and Mpumalanga) do not have enough facilities that are suitable for exportation of agricultural commodities that they produce. Large proportion of maize is exported either through the Durban harbour in KZN or through the Randfontein grain market in the Gauteng Province. The graph shows that in 2015 marketing season, the value of maize exports from all provinces closed very low, with a dramatic decline recorded for the Gauteng province. That might be due to severe drought experienced in the country at that time, which lowered local production. This was followed by an increase in the value of maize exports originating mainly from Gauteng province from the year 2016 to 2017. The reviewed period closed with the increasing value of maize exports from Gauteng province, still above those from all regions in 2020.



Source: Quantec Easy Data

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

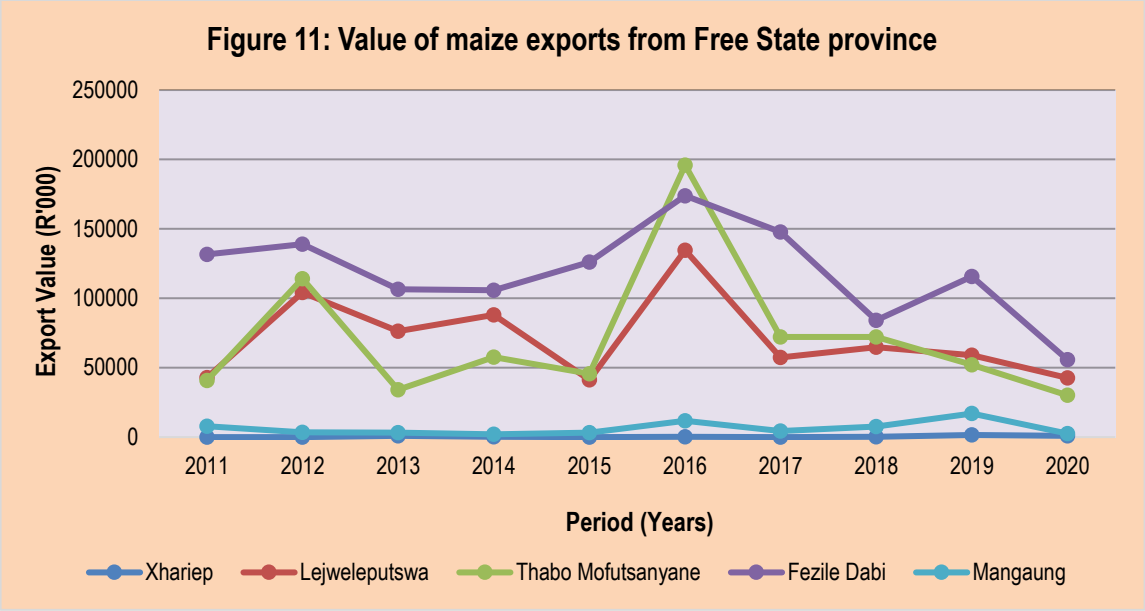
From Figure 10 below, it is clear that exports of maize from the Eastern Cape Province originate mainly from the Alfred Nzo, Buffalo City, Cacadu, Chris Hani and Nelson Mandela Districts. The higher exports value was recorded during the year 2013 for Buffalo City District while the value of maize exports from Cacadu, Alfred Nzo, Chris Hani and the Nelson Mandela District were minimal during the same year. The period under review closed with a slight increase in the values of maize exports from the Eastern Cape in 2020, originating mainly from Alfred Nzo District. The figure generally shows that the value of maize exports in the Eastern Cape Province were very low for the most part of the period under analysis and this can be ascribed to the fact that Eastern Cape is not one of the major producers of maize.



Source: Quantec Easy Data

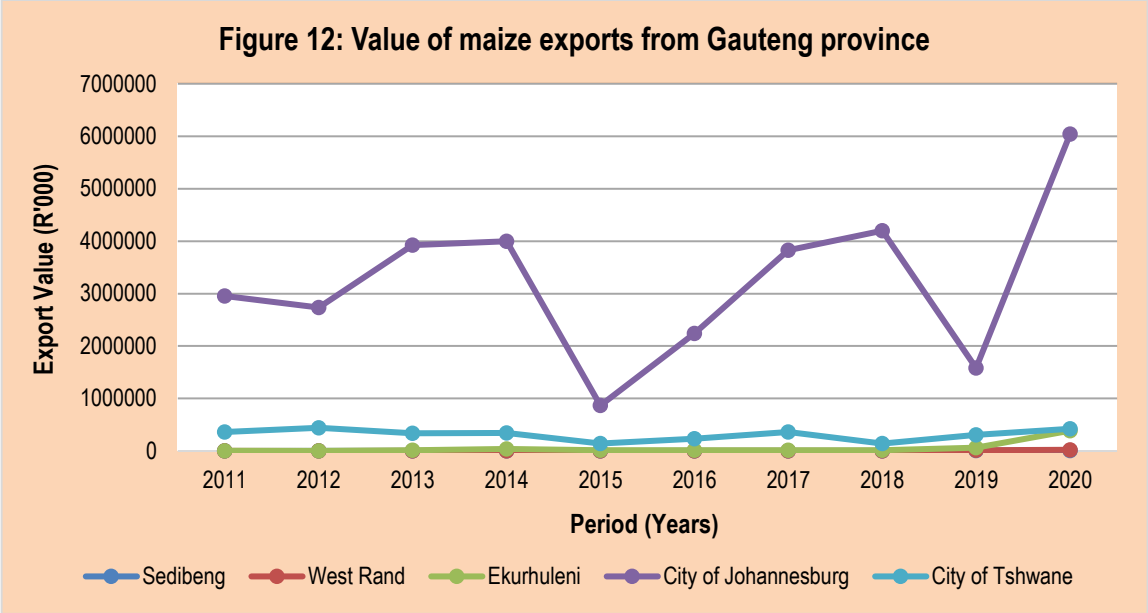
The lowest values of maize exports from the Eastern Cape Province were recorded between the years 2011 and 2020. This phenomenon can be attributed to the fact that the Port Elizabeth harbour is increasingly being used to handle imports and exports of vehicle parts which displaced agricultural products from the harbour over time. The fact that Eastern Cape produces, on average, about 1% of the total South Africa's maize production also contributes towards lower levels of maize exports by the province. There was very minimal maize exported through the Eastern Cape Province between 2011 and 2012. The highest values of maize exports were recorded from Buffalo City and Alfred Nzo, with very minimal values of maize exports recorded from Nelson Mandela Bay and Chris Hani districts during the year 2013. However, in 2015 relatively high value of maize exports were recorded from Alfred Nzo and Nelson Mandela Bay, respectively. In the respective year 2016, greatest value of maize exports originating mainly from the Alfred Nzo District were recorded, which was the main exporter of maize from the Eastern Cape during that period.

Figure 11 below indicates that Free State province recorded less exports of maize during 2011 marketing period. However, during the year 2011, Fezile Dabi emerged to be the main exporting district for maize in the Free State province while exports from the other districts were very minimal during the same year. Maize exports in the province originate mainly from five district municipalities with high values recorded during the year 2016 from Thabo Mofutsanyane district municipality. During 2015, all districts recorded some level of maize exports, with Fezile Dabi District recording the highest exports. The value of maize exports increased marginally with the highest attained from Thabo Mofutsanyane followed by Fezile Dabi and Lejweleputswa Districts in 2016. Generally, maize exports from the Free State Province originate mainly from Fezile Dabi district municipality, which on average remained the leading exporter from all the districts during the entire period under review. In 2020, the marketing season closed with declining values of maize exports recorded for all districts in Free State Province.



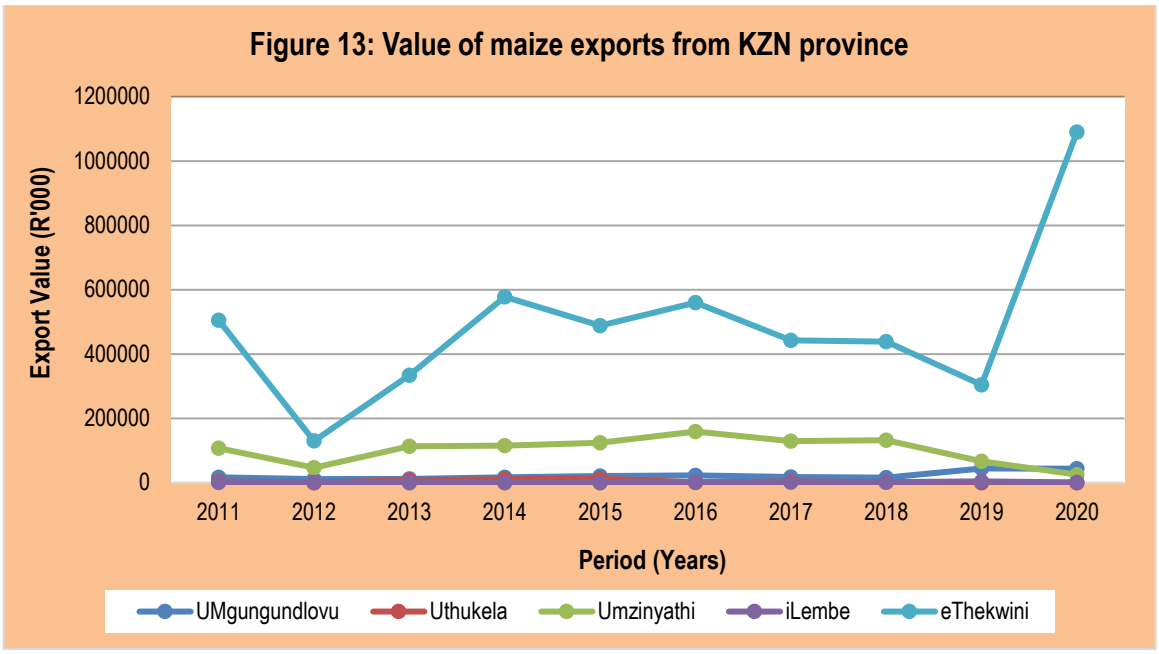
Source: Quantec Easy Data

The value of maize exports from Gauteng Province as depicted in Figure 12 below indicates that City of Johannesburg is the largest exporter of maize in Gauteng province having contributed largely towards the province's total maize exports over the past decade. The value of maize exports from the city were recorded higher and above all other districts at the beginning of the season in 2011 followed by a substantial increase in 2013. Other districts that contribute towards Gauteng's maize exports are City of Tshwane, Ekurhuleni, West Rand and Sedibeng. Ekurhuleni Metropolitan Municipality has recorded very low export values for maize during the period under review. The Maize exports from Gauteng Province were relatively lower during the year 2012 compared to the previous year 2010. However, the value of maize exports recorded from the City of Johannesburg increased between the years 2013 2014, followed by a drastic decline in exports during 2015. In 2017, reasonable values of maize exports were recorded from the City of Johannesburg as compared to the greatest values attained in the previous years of 2013 and 2014. The period under review closed with the highest value of exports attained originating mainly from the City of Johannesburg. 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.

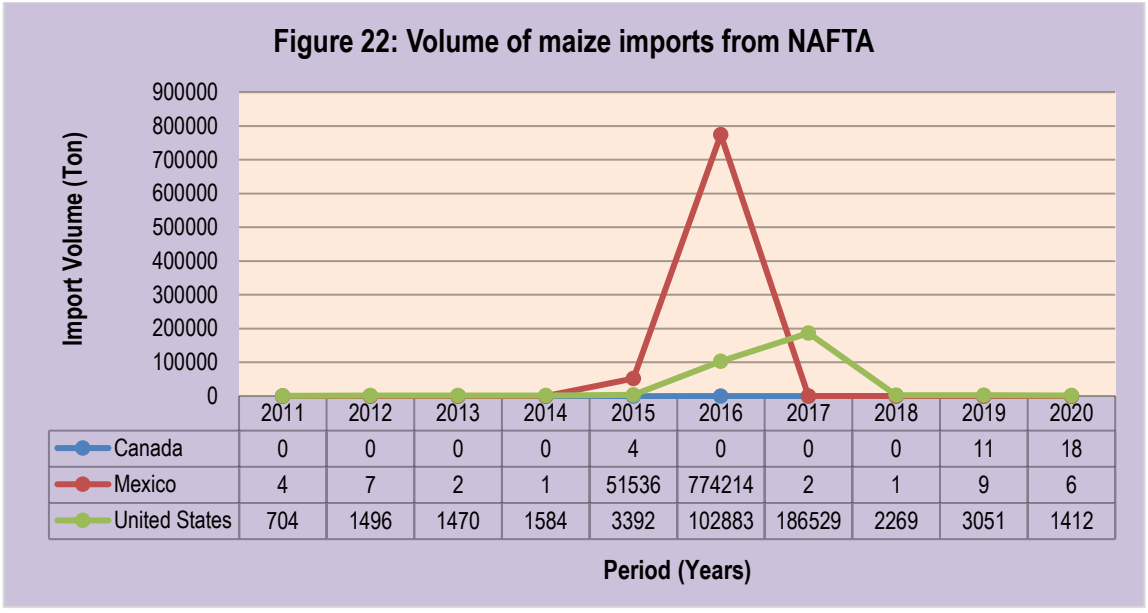


Source: Quantec Easy Data

In KwaZulu-Natal province, it is recorded that eThekwini and uMzinyathi Districts are important role-players in the exportation of maize. It is clear from Figure 13 below that eThekwini is the largest exporter of maize in KwaZulu-Natal followed by uMzinyathi District. The period under review begins with moderate values of maize exports originating from eThekwini in 2011. However, this was followed by a decrease in 2012. The figure further shows that the value of maize exports through eThekwini and uMzinyathi showed an increasing trend from year 2013 to 2014. This trend continued to increase positively for both eThekwini and uMzinyathi until the year 2015. The use of the Durban harbour as an exit point plays a major role in the increase in maize export values from the KwaZulu-Natal province. The marketing period closed with increasing values of maize exports in 2020, and this originated mainly from the eThekwini Metropolitan Municipality, followed by marginal exports from uMgungundlovu District. The figure indicates that maize exports from uThukela, iLembe and uMgungundlovu districts remained minimal throughout the period under analysis.



Source: Quantec Easy data

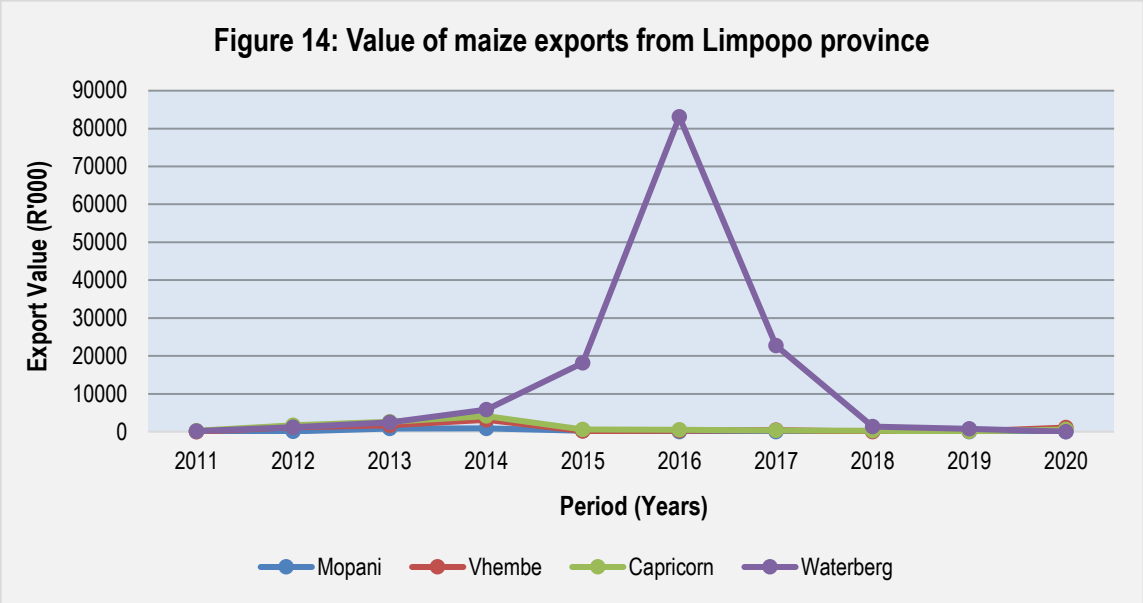


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Canada	0	0	0	0	4	0	0	0	11	18
Mexico	4	7	2	1	51536	774214	2	1	9	6
United States	704	1496	1470	1584	3392	102883	186529	2269	3051	1412

Source: Quantec Easy Data

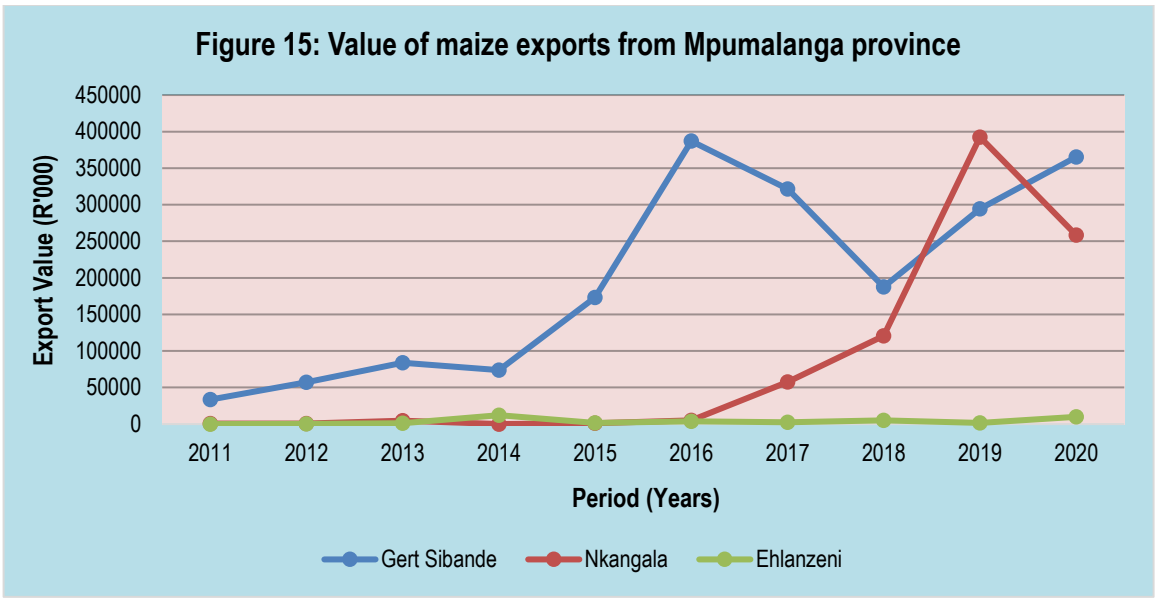
Figure 14 below shows the values of maize exports from Limpopo Province between the years 2011 and 2020. Exports of maize in the province originate mainly from Mopani, Capricorn, Vhembe and Waterberg districts. The figure further indicates that during 2011, values of maize exports from Limpopo Province were recorded mainly from the Waterberg district. The value of maize exports from the province fluctuated considerably over the period under analysis. It is also clear from Figure 14 that Limpopo is not a major exporter of maize and that the value of maize exported from this province has been very low and erratic over the period under analysis. Furthermore, maize exports from Limpopo Province were at lower levels from the years 2011 up to 2014. The greatest values of

maize exports from Limpopo Province were recorded from the Waterberg Districts during the respective years 2015, 2016 and 2017, while exports from other districts were very low. The period under analysis closed with declining values of maize exports from the province originating mainly from Vhembe and Waterberg Districts during 2020.

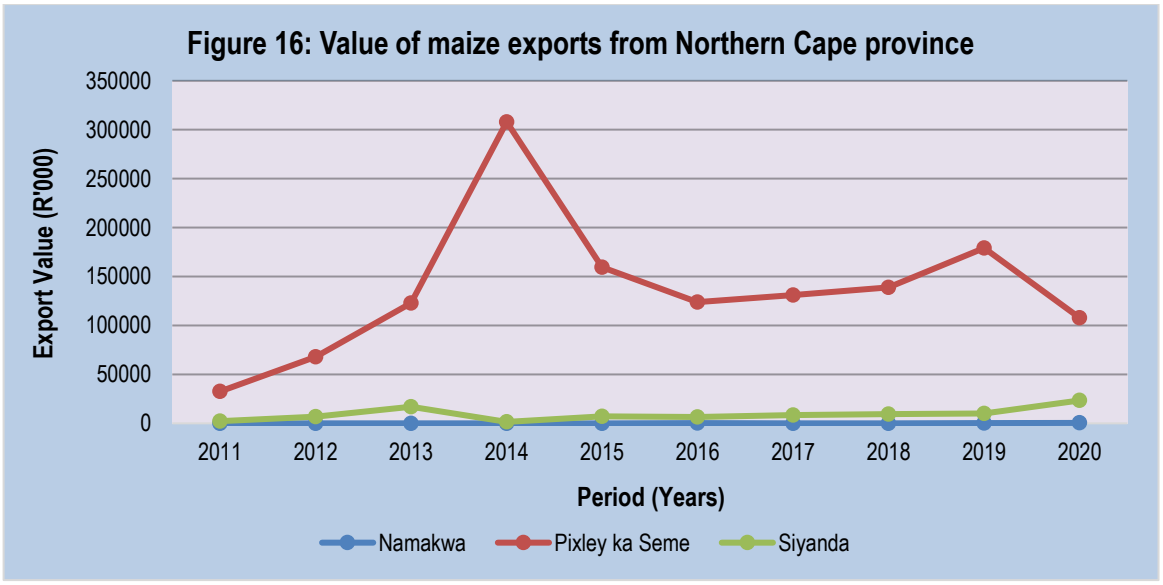


Source: Quantec Easy Data

Figure 15 below indicates that the major exporting regions for maize in Mpumalanga Province are Gert Sibande, Ehlanzeni and Nkangala Districts. Gert Sibande District recorded the largest value of maize exports from the beginning of the season in 2011 until 2018. In general, the value of maize exports from Mpumalanga Province was very low during the years 2011. Figure 15 further indicates that Gert Sibande district is the largest exporting district in Mpumalanga followed by Nkangala district although the latter only recorded very minimal exports of maize during the entire period under review. In 2016, great amount of maize export values from Gert Sibande district were attained, contributing immensely to the total maize exports in value terms from Mpumalanga province. The period under review closed with a minimal value of maize exports from Mpumalanga province, with declining values of maize exports originating mainly from Nkangala district and increasing exports values coming from Gert Sibande district in 2020.



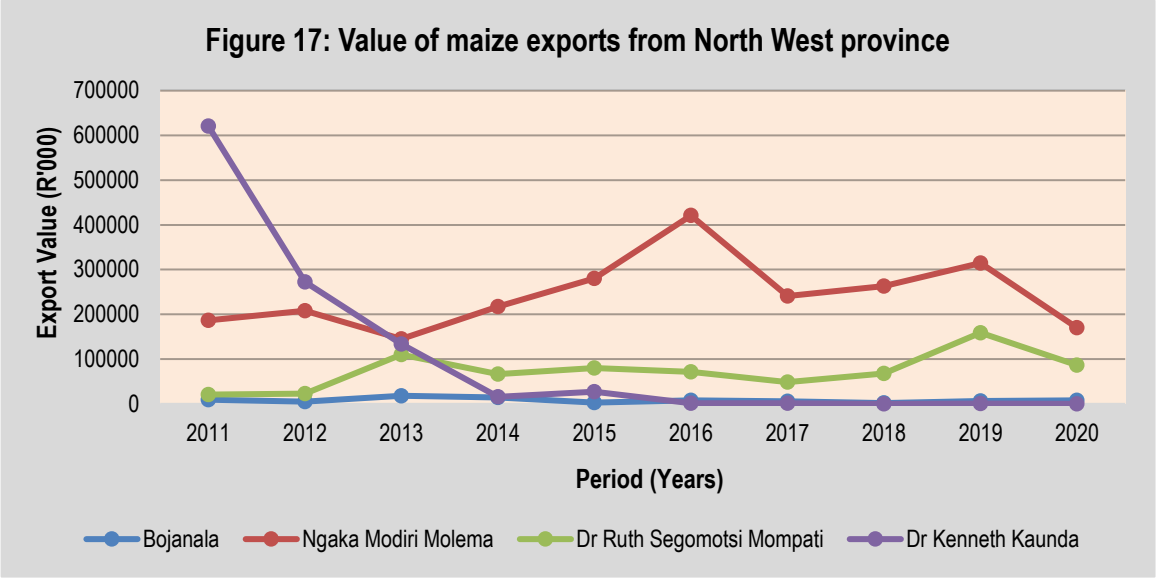
Source: Quantec Easy Data



Source: Quantec Easy Data

Figure 16 above shows maize exports from the Northern Cape and also highlights that only Pixley ka Seme district has been the major exporter of maize out of the five districts available in the province from the year 2011 to 2020. During 2013 Siyanda District exported minimal volumes of maize, which later decreased in 2014 as shown in the figure. The values of maize exports from Siyanda district further increased between the years 2015 and 2018 respectively. The figure further shows that maize exports were fluctuating throughout the period under analysis and in 2014 a peak was reached on values of maize exports originating from Pixley Ka Seme District. Exports of maize from Northern Cape Province begin at lower levels during the year 2011 and this was followed by a minimal increase in the value of maize exports between the years 2012 and 2014. The period under analysis closed with an decreasing trends in terms of value of maize exports in the Northern Cape Province mainly

from Pixley Ka Seme during the year 2020. This was a dramatic drop from the highest values attained in the year 2014. Northern Cape is mainly a livestock producing region with crop production taking place predominantly along the Orange River and this could be the reason for relatively lower values of maize exports from the province.



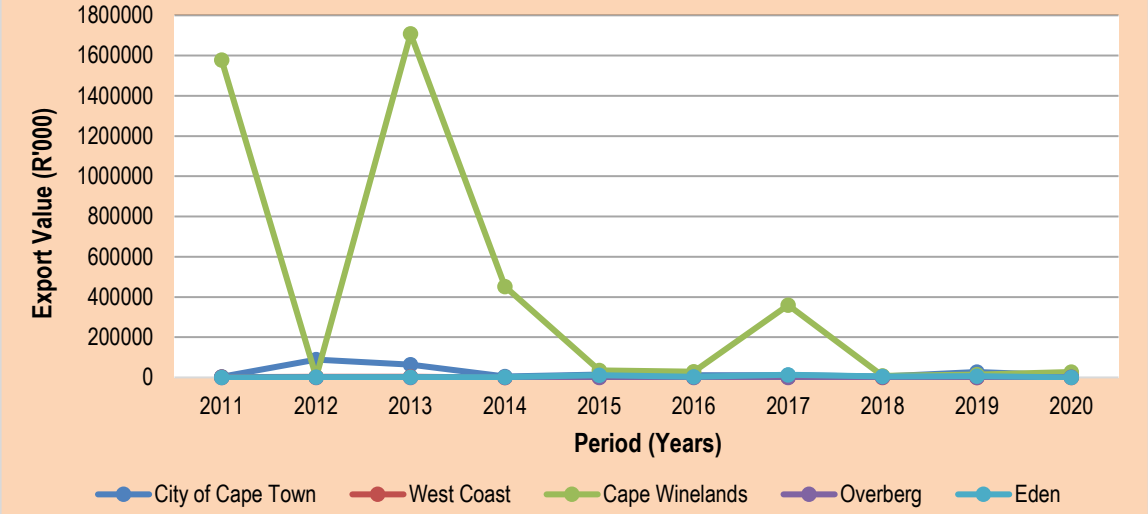
Source: Quantec Easy Data

Figure 17 shows that in the North-West Province, exports of maize originate mainly from Dr Kenneth Kaunda, Ngaka Modiri Molema, Bojanala and Dr Ruth Segomotsi Mompati districts. Dr Kenneth Kaunda district is a major exporter of maize in North-West province and has been a consistent maize exporter over the previous decade and recorded a peak during, the year 2011. This can be attributed to the fact that the district (Dr Kenneth Kaunda District) it is one of the major grain-producing regions in the province. This was followed by Ngaka Modiri Molema district which recorded the second highest values of maize exports from the North-West Province during the same period. Bojanala and Dr Ruth Segomotsi Mompati districts recorded very low and erratic export values throughout the period under analysis. The highest maize exports during 2014, 2015 and 2016 marketing seasons were recorded from Ngaka Modiri Molema district, although there were no ample maize exports from that region in 2011. The values of maize exports from the North-West Province further declined during the year 2017. The period under review closed with decreasing values of maize exports from North-West Province, recorded mainly from Ngaka Modiri Molema district in 2020.

Figure 18 below shows the value of maize exports from the Western Cape Province for the period between 2011 and 2020. Western Cape Province recorded reasonable levels of maize exports from two districts namely, the Cape Winelands, Eden and City of Cape Town for the past 10 years. The Cape Winelands displayed some consistency with regard to exports of maize from the province. Irregular maize export values were also recorded for the City of Cape Town, Overberg, Eden and West Coast districts over the period under analysis. As mentioned earlier on, the use of the Cape Town harbour plays a major role as an exit point for exports, and this explains the City's consistent participation in exportation of maize. The figure also illustrate that there was an increase of maize exports from Cape Winelands from the year 2011 and in 2013, while those from City of Cape Town remained at lower levels over the same period. Moderate values of maize exports were recorded

from the City of Cape Town district in 2012, slightly above those originating from the Cape Winelands and Eden districts municipalities. The 2014 marketing year closed with relatively low values of maize exports from Western Cape Province mainly originating from Cape Winelands as compared to the previous year. This was even more proven between the years 2015 and 2017, were the marketing season closed with quite lower exports values from the province. However, in 2020, values of maize exports from the province closed very low as compared to the past four years.

Figure 18: Value of maize exports from Western Cape province



Source: Quantec Easy Data

2.3. Share Analysis

Table 3: Contribution of provincial maize exports to the total RSA maize exports (%)

Years Province	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Western Cape	27.25	0.125	29.513	6.70	2.2	0.90	6.10	19.31	19.31	19.31
Eastern Cape	0.00	0.00	0.000	0.001	0.01	0.02	0.01	0.04	0.04	0.04
Northern Cape	0.34	1.073	1.210	4.15	6.72	2.88	2.21	2.49	2.49	2.49
Free State	0.002	0.021	0.004	3.10	8.38	10.74	4.47	3.82	3.82	3.82
KwaZulu-Natal	10.17	3.593	5.692	12.62	24.4	18.21	9.44	9.83	9.83	9.83
North West	9.58	7.815	2.430	7.33	14.42	10.22	4.69	5.55	5.55	5.55
Gauteng	52.65	87.302	60.861	63.63	37.06	47.63	66.64	53.71	53.71	53.71
Mpumalanga	0.004	0.025	0.202	1.44	6.03	7.67	6.05	5.23	5.23	5.23
Limpopo	0.002	0.046	0.089	0.15	0.72	1.73	0.37	0.03	0.03	0.03

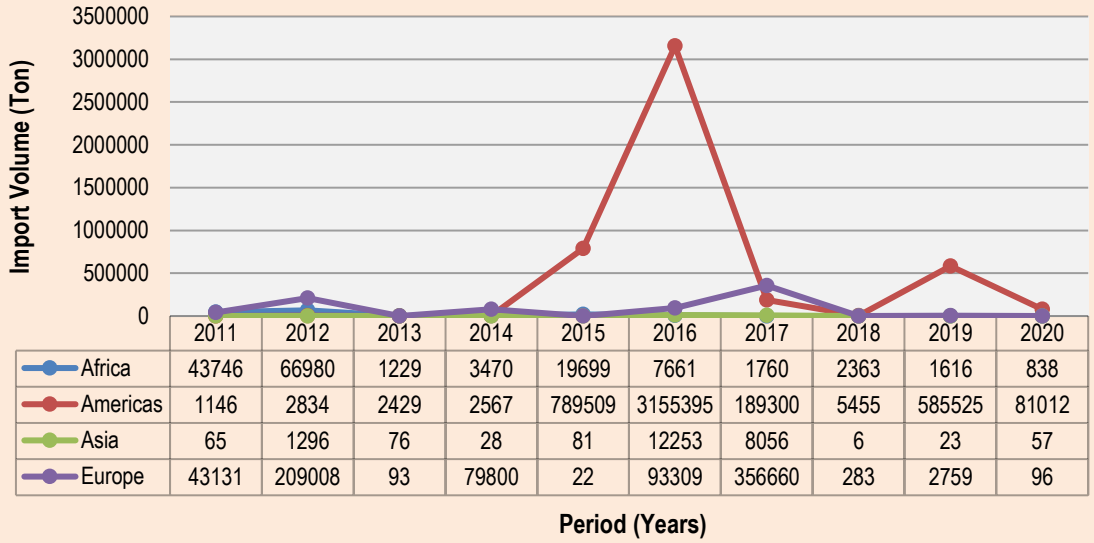
Source: Calculated from Quantec Easy Data

Table 3 above shows that Gauteng Province attained the greatest share of South African maize exports in 2020, with a share of 53.71% followed by Western Cape and KwaZulu Natal provinces with a share of 19.31% and 9.83% respectively. This is in spite of the fact that the North-West, Free State and Mpumalanga Provinces are the major maize producing provinces in South Africa. As indicated previously, this is mainly because most exporters of maize are located in the Gauteng Province and the greatest proportion of maize trading occurs through the Randfontein grain market. Moreover, maize is also mostly exported through Durban and Cape Town harbours. 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 is exported through this province.

2.4. *Imports*

South Africa imports maize mainly from the Americas, Africa, Europe and Asia as shown in Figure 19 below. The greater proportion of maize imports comes from the Americas followed by Europe and Africa.

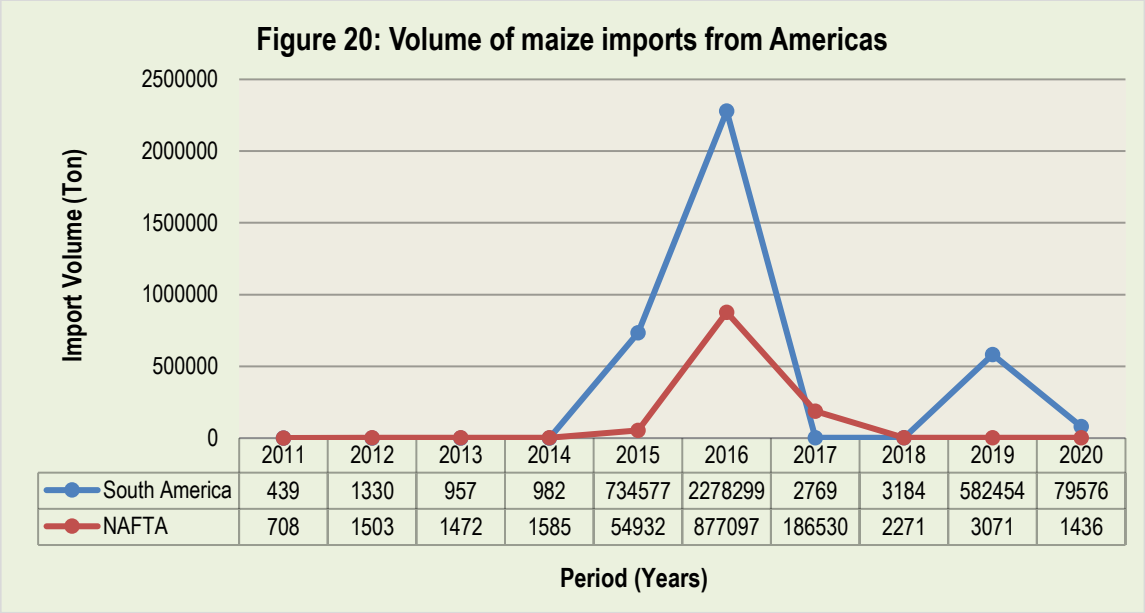
Figure 19: Volume of maize imports from various regions



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Africa	43746	66980	1229	3470	19699	7661	1760	2363	1616	838
Americas	1146	2834	2429	2567	789509	3155395	189300	5455	585525	81012
Asia	65	1296	76	28	81	12253	8056	6	23	57
Europe	43131	209008	93	79800	22	93309	356660	283	2759	96

Source: Quantec Easy Data

During the period under review, the volume of maize imports originating from the Americas fluctuated tremendously with a peak attained during the year 2016. Imports of maize from the Americas and other regions were very low between the years 2011 and 2014. Reasonable number of imports were recorded during 2012, mostly originating from Europe, followed by Africa. However, in 2015 and 2016 respectively, the volume of maize imports from the regions originated mainly from the Americas, increasing above all other regions. The period under review closed with very low imports of maize from the regions in 2020, with those from Americas surpassing imports from all other regions.

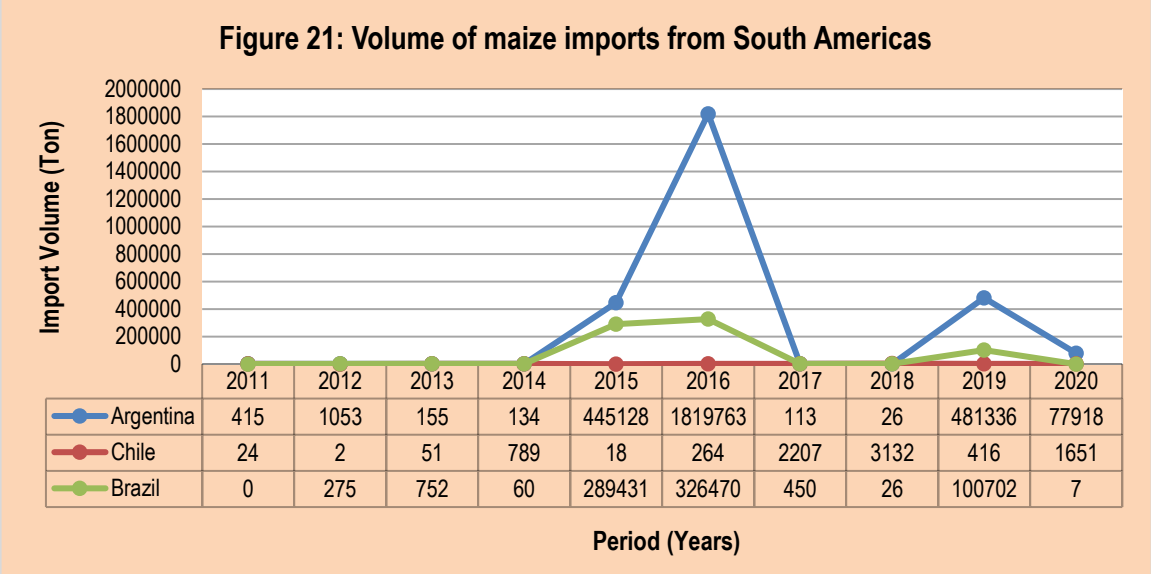


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
South America	439	1330	957	982	734577	2278299	2769	3184	582454	79576
NAFTA	708	1503	1472	1585	54932	877097	186530	2271	3071	1436

Source: Quantec Easy Data

As indicated in the previous figure (Figure 19) and in Figure 20, maize imports from the Americas originate mainly from South America and NAFTA (North American Free Trade Area). In recent years, imports of maize from both NAFTA and South America have shown a consistent increase from 2013 until 2016. The maize imports originating from these regions opened very low in 2011. In 2015, the volume of maize imports increased slightly with the majority originating from South America and very minimal from NAFTA. This trend continued into 2016 when the volumes of maize imports from South America reached the highest point, which corresponded largely to the levels of imports from the Americas at that particular year. The maize imports from the South Americas closed very low during 2020 marketing season, with less than 6 thousand tons recorded from the region.

Figure 21 below shows the volume of maize imports from South America for the period 2011 to 2020.

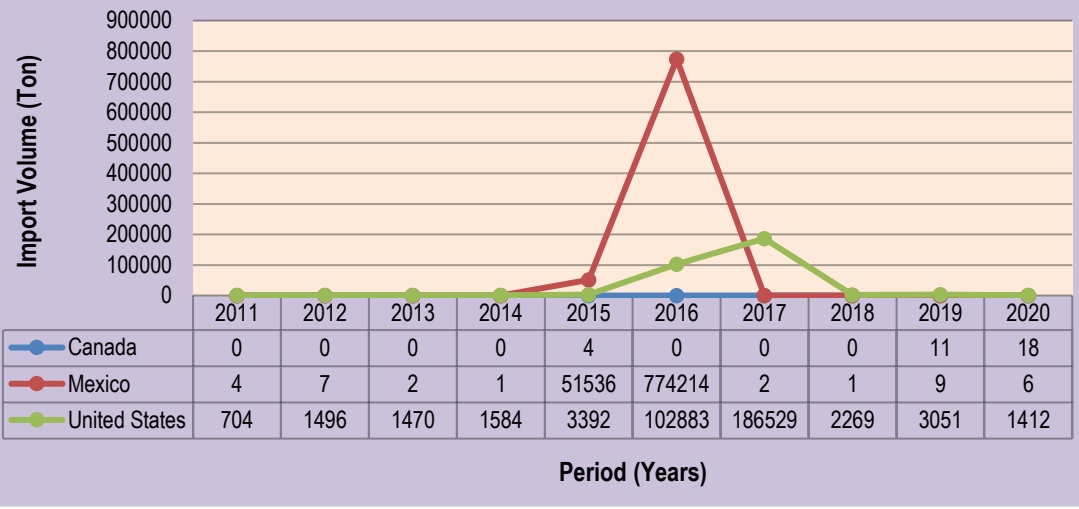


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Argentina	415	1053	155	134	445128	1819763	113	26	481336	77918
Chile	24	2	51	789	18	264	2207	3132	416	1651
Brazil	0	275	752	60	289431	326470	450	26	100702	7

Source: Quantec Easy Data

Figure 21 indicates that during the period between 2011 and 2020 maize imports from the South America originated mainly from Argentina with intermittent imports recorded from both Brazil and Chile. As one of the world's top producers of maize, Argentina is South America's leader in exportation of maize to South Africa. However, during the years 2013 and 2016 Brazil exported more maize to South Africa than Argentine while during 2014 Chile exported the greatest amount of maize to South Africa more than both countries. Maize Imports from Argentina were the highest during the year 2019 as compared to imports from Brazil and Chile during the same period. The period under review closed with quite low volumes of maize imports from South America, particularly from Argentina and Brazil during the year 2020.

Figure 22: Volume of maize imports from NAFTA



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Canada	0	0	0	0	4	0	0	0	11	18
Mexico	4	7	2	1	51536	774214	2	1	9	6
United States	704	1496	1470	1584	3392	102883	186529	2269	3051	1412

Source: Quantec Easy Data

Figure 22 indicates that in the NAFTA, South Africa imports maize primarily from the USA. In the USA, maize is not primarily produced for human consumption; it is mainly used as input for animal feed manufacturing and bio-fuel production. Figure 22 further illustrates that South Africa imported very minimal maize from Canada during the period under analysis. It is also important to note that the volume of maize imports from the USA were lower during the opening of the season in 2011. This can be attributed to the fact that the USA diverted its maize surpluses into their local growing bio-fuels industry and also in that period the local supply of maize achieved stability. The volume of maize imports from USA remained at lower levels between the years 2011 and 2015. During the corresponding years 2015 and 2016, South Africa diverted its maize imports market from the USA importing more than 50 000 and 700 000 tons respectively from Mexico. The reviewed period closed with lower volumes of maize imports from NAFTA during 2020, with imports from the United State surpassing those from other regions.

2.5. *Market Value chain*

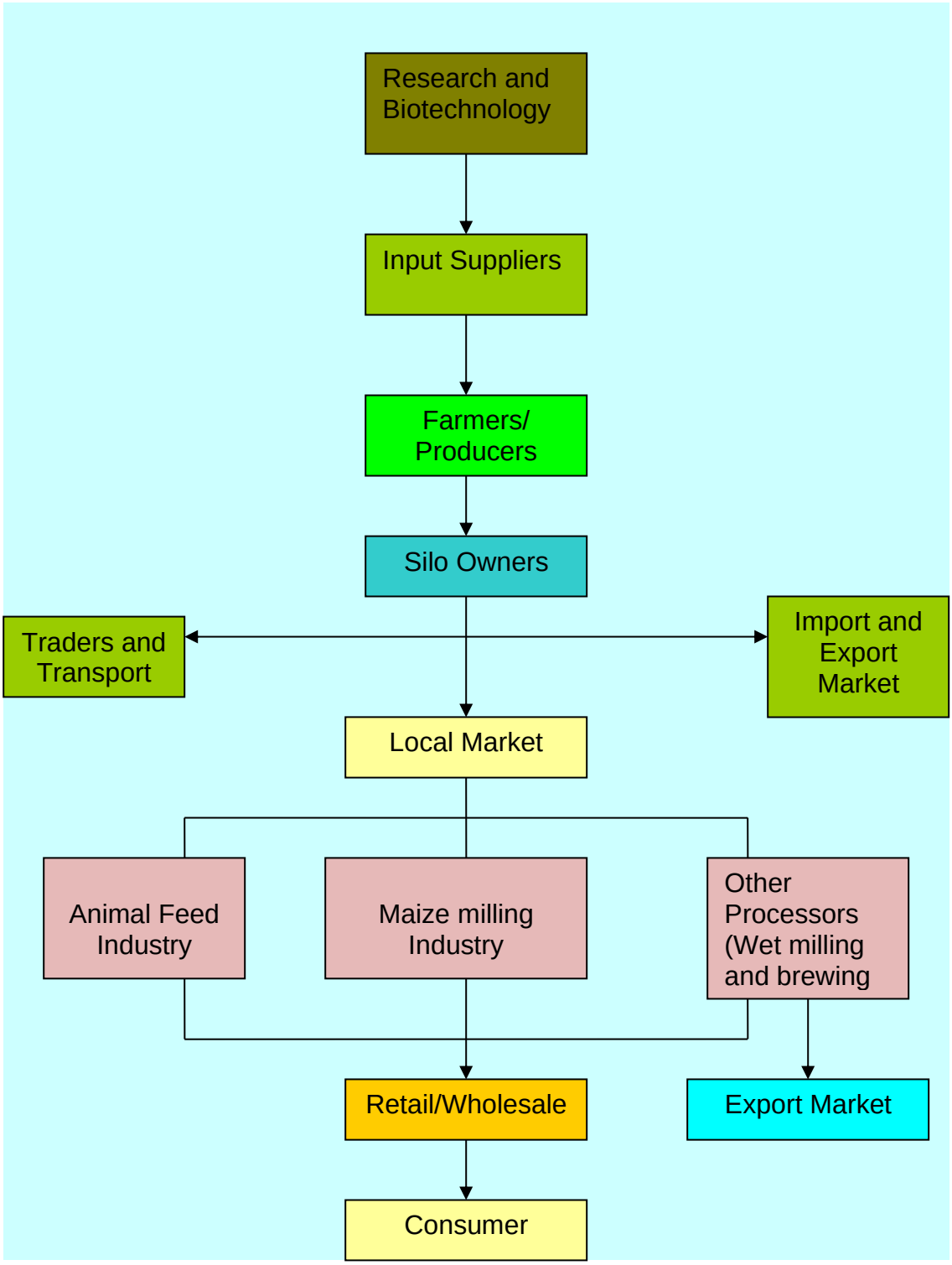


Diagram 1: Maize Market Value Chain
Source: Maize Tariff Working Group (2005)

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 after purchasing shares in Sensako and Carnia. Other major players in this market include companies such as Pannar and Pioneer Hybrid International.

2.5.2. Handling and Storage

The farmer has the following maize storage options:

He/she can deliver the maize immediately to a miller.
He/she can make use of the new storage method in the form of silo bags.
He/she can erect his/her own silos.
The most common method is to make use of commercial silos off-farm.

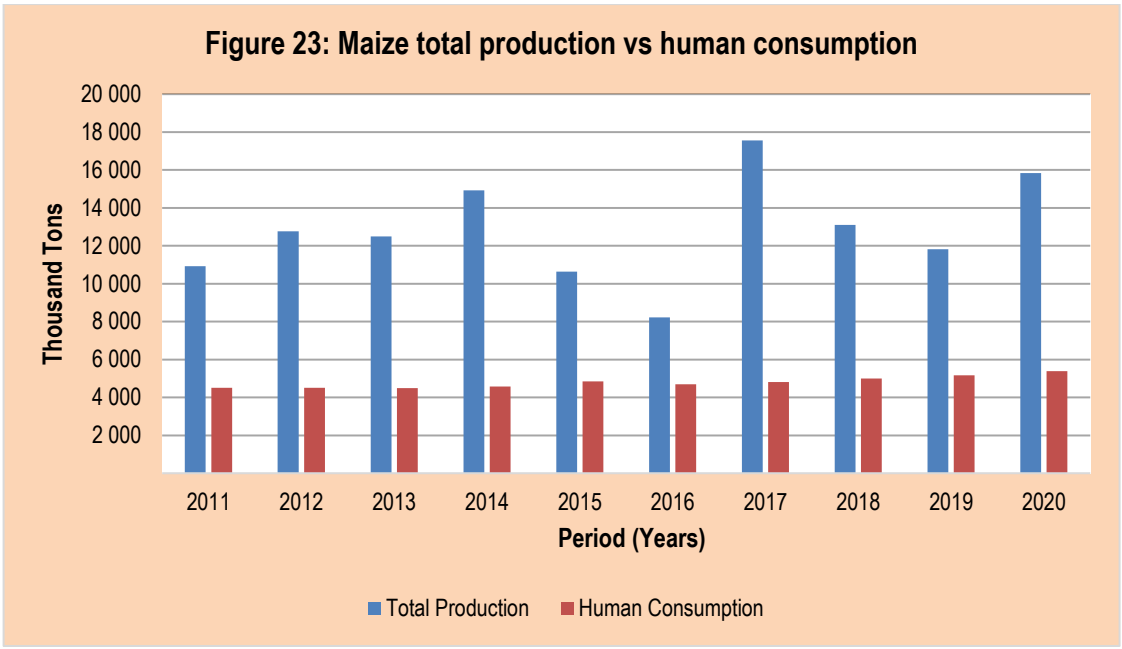
When the maize industry was deregulated, 90% of the co-operatives converted to private companies. These private companies own 85% of the total maize storage capacity, which is currently 16.3 million tons. There are 432 silos, of which 172 are on-farm and 260 commercials. The commercial silos, owned by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

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 of markets, the number of informal millers increased sharply from 111 to 296. Business forms within the milling industry include private and public companies. Major players within the milling industry 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.

Figure 23: Maize total production vs human consumption



Source: Statistics and Economic Analysis

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. The milling industry plays a very important as it provides the maize meal for the majority of South African population who depend on it as it is their staple food. Figure 23 shows that the quantity milled for human consumption remained relatively stable while total production fluctuated dramatically over the period under review. Factors such as maize price fluctuations, consumer preferences and substitutes have a direct impact on the demand of milled products. On average, 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. According to the Animal Feed Manufacturers Association (AFMA), maize constitutes approximately 55% of the 4.2 million tons 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.

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.

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.

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.

2.6 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 amylo-pectin 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. Industrial uses include 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 to manufacture 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 biodiesel. 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.

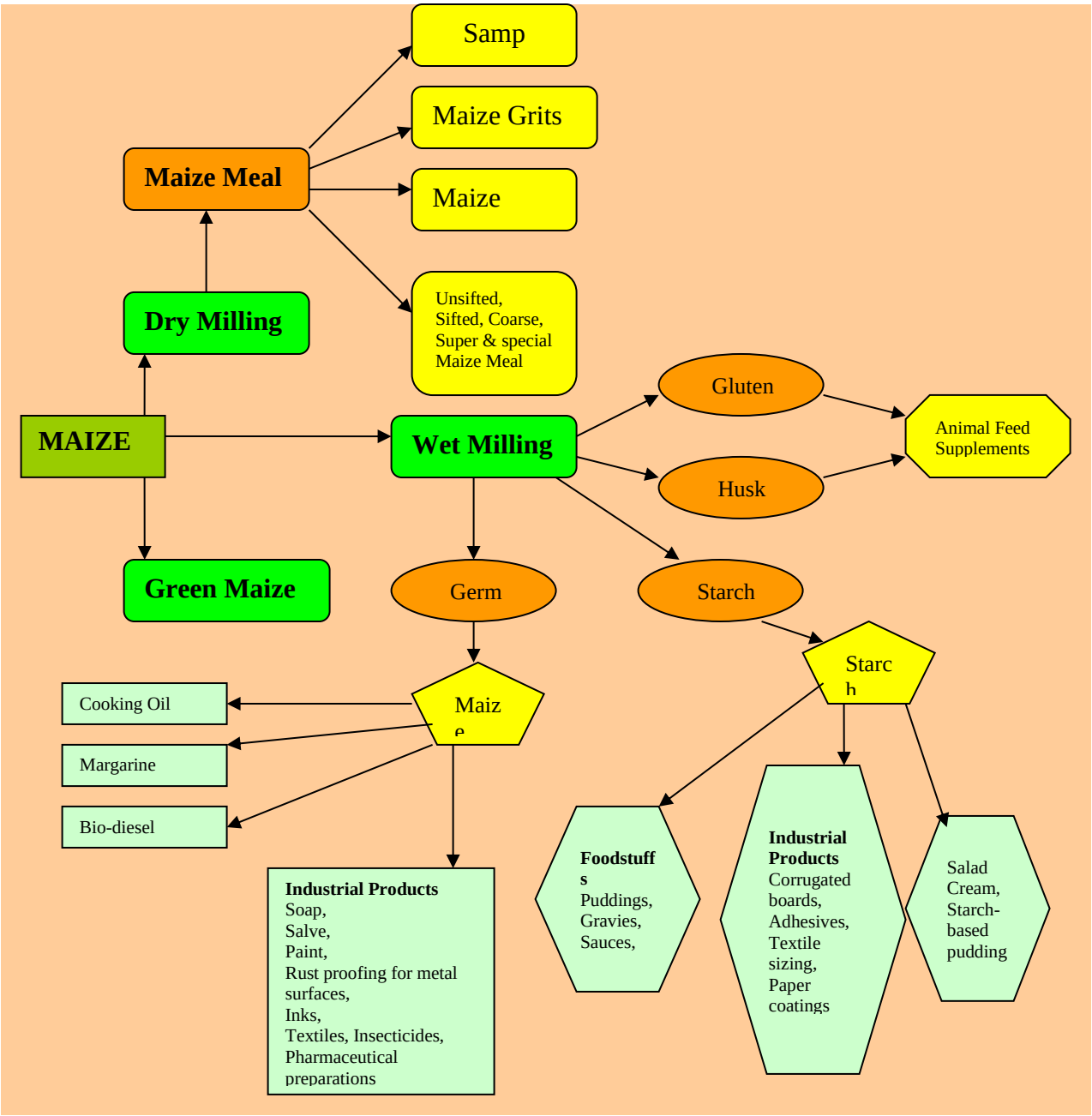


Diagram 2: Maize Value Chain tree

3. MARKET INTELLIGENCE

The major export markets for South African maize are countries such as Vietnam, Korea, Japan, Botswana, Italy, Namibia, Eswatini, Chinese Taipei, Mozambique and Spain. The following tariffs are applied by the various export markets on maize originating from South Africa:

3.1. Tariffs

Table 13: Tariffs applied by the leading markets on Maize exports originating from South Africa

IMPORTER	PRODUCT	TRADE REGIME DESCRIPTION	APPLIED TARIFFS 2020	*TOTAL ADVALOREM EQUIVALENT TARIFF 2020*
Vietnam	Maize (excl. seed) (100590)	MFN duties (Applied)	5.00%	5.00%
	Maize seed (100510)	MFN duties (Applied)	0.00%	0.00%
Korea	Maize (100510)	MFN duties (Applied)	328.00%	328.00%
	Maize (100590	MFN duties (Applied)	328.00%	328.00%
Japan	Maize seed (10051000)	MFN duties (Applied)	0.00%	0.00%
	Maize (excl. seed: Other) (10059010)	MFN duties (Applied)	0.00%	0.00%
Botswana	Maize (corn) (100590)	Intra SACU rate	0.00%	0.00%
	Maize seed (100510)	Intra SACU rate	0.00%	0.00%
Italy	Maize (seed): Other (100510)	MFN duties (Applied)	0.00%	0.00%
	Maize (excl. seed): (100590)	MFN duties (Applied)	0.00%	0.00%
Namibia	Maize seed (100510)	Intra SACU rate	00.00%	00.00%
	Maize (excl. seed) (100590)	Intra SACU rate	00.00%	00.00%

IMPORTER	PRODUCT	TRADE REGIME DESCRIPTION	APPLIED TARIFFS 2020	*TOTAL ADVALOREM EQUIVALENT TARIFF 2020*
Eswatini	Maize seed (100510)	Intra SACU rate	0.00%	0.00%
	Maize (excl. seed) (100590)	Intra SACU rate	0.00%	0.00%
Chinese Taipei	Maize: Seed (100510)	MFN duties (Applied)	0.00%	0.00%
	Maize: Seed (100510)	MFN duties (Applied)	0.00%	0.00%
Spain	Maize seed (100510)	MFN duties (Applied)	0.00%	0.000%
	Maize (excl. seed) (100590)	MFN duties (Applied)	0.00%	0.00%

Source: ITC Market Access Map

Table 13 indicates that the South African maize industry experiences about 328% and 328% tariffs for different maize exported to Korea and 5% for maize exported to Vietnam. Table further shows that Japan and Chinese Taipei does not apply any tariff on all maize originating from South Africa. In overall, South African maize industry does not experience any market barriers in all leading markets on maize exports, although countries like Botswana and Namibia charge tariffs on maize imports from elsewhere, South Africa benefits from the Preferential Trade Agreement and does not have to pay any tariffs to export maize to these countries. Tariffs in these leading exports markets for maize originating from South Africa are 0% *Ad-valorem*.

In order to fulfil 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 2020) per annum. The import arrangements for maize are as in Table 14.

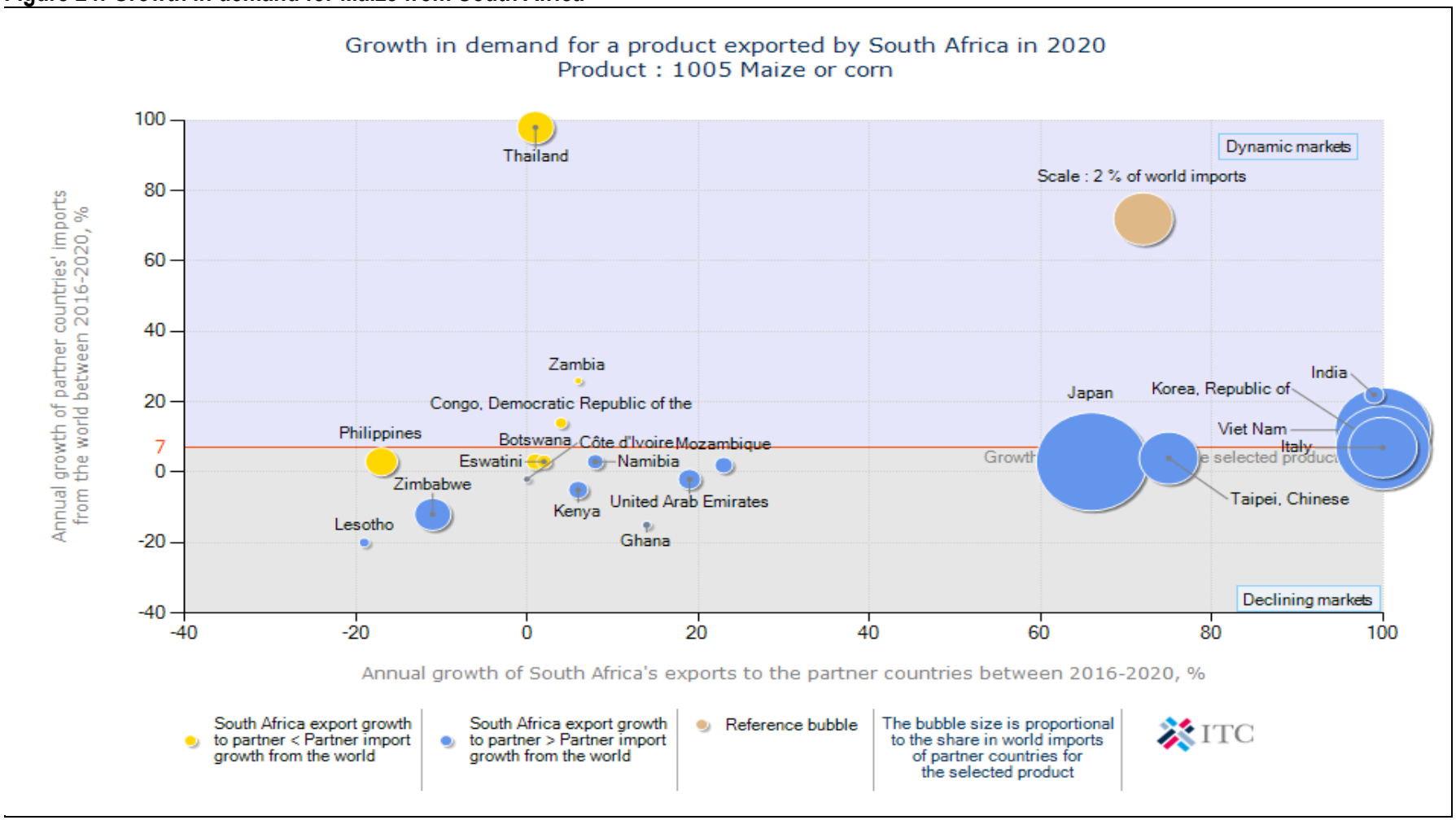
Table 14: Tariff applied to South African imports of maize, 2020

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

Source: Government Gazette Notice 39275 of 2018

3.2. *Performance of the South African maize industry in 2020*

Figure 24: Growth in demand for Maize from South Africa



Source: ITC Trade Map

Figure 24 shows growth in demand for maize exported by South Africa to the world in 2020. The graph shows that Japan, Kenya, Zimbabwe, Chinese Taipei, Botswana, Ghana, Mozambique, Lesotho, Italy, United Arab Emirates and Namibia were the biggest markets for maize exported by South Africa in 2020. South Africa's maize exports to Kenya, Mozambique, Namibia, Zimbabwe and Lesotho were growing at a rate that is greater than the growth rate of these countries' imports from the rest of the world between 2016 and 2020. It is also evident from the Figure 24 that South Africa's exports of maize to Vietnam were increasing in terms of both value and volumes as compared to imports from the world at approximately 125% and 258% between 2016 and 2020. South Africa's maize exports to Zimbabwe and Lesotho decreased significantly between 2016 and 2020.

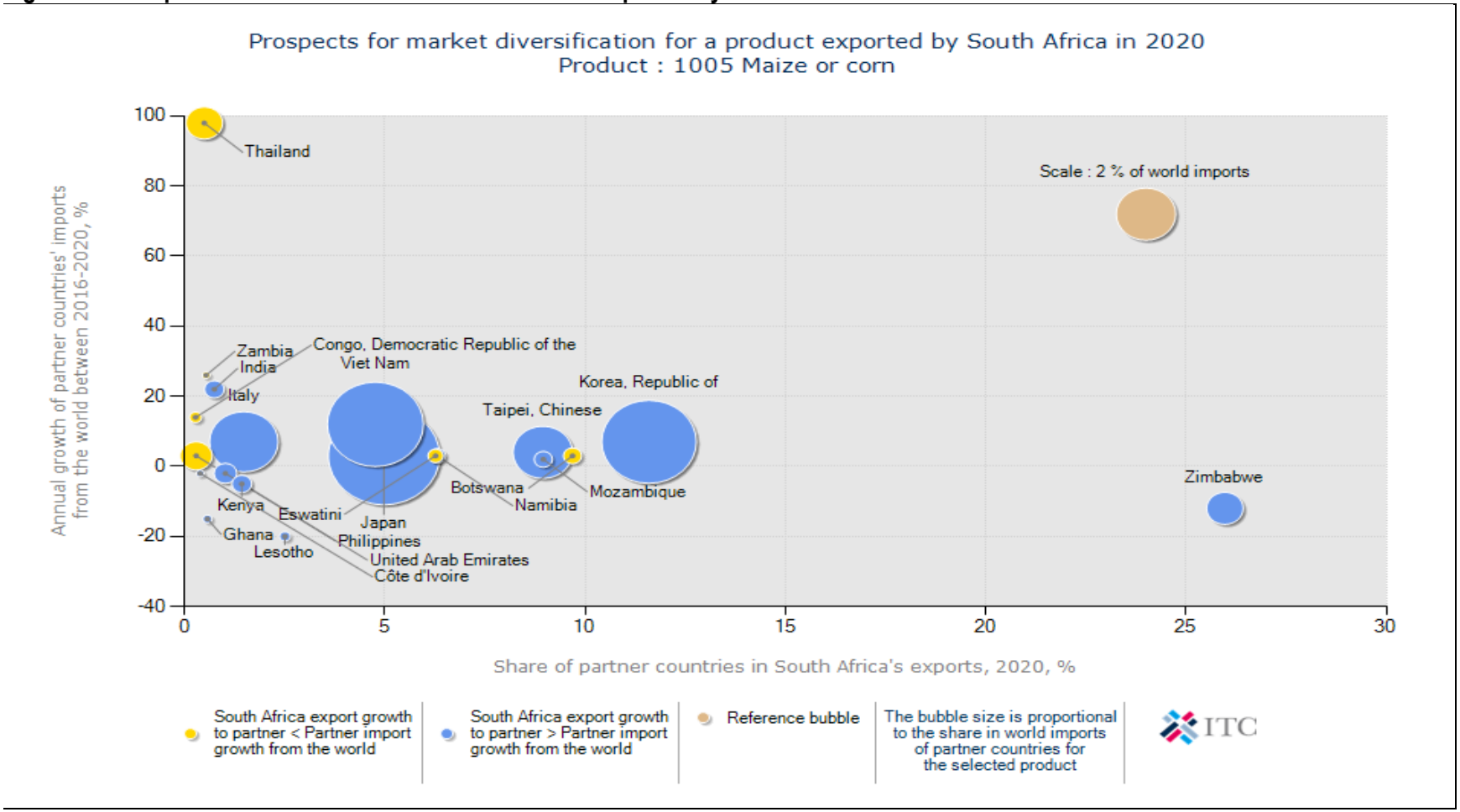
Table 15: South Africa's Maize exports in 2020

Importers	Exported value in 2020 (Thousand US$)	Share in SA's exports (%)	Exported quantity in 2020 (tons)	Unit value (US$/Ton)	Exported growth in value between 2016 and 2020 (% p.a)	Exported growth in quantity between 2016 and 2020 (% p.a)	Exported growth in value between 2019 and 2020 (% p.a)
World	564615	100	2585157	218	5	13	101
Zimbabwe	146634	26	553739	265	-11	-4	1330
Korea	65478	11.6	321582	204	175	213	6178
Botswana	54705	9.7	306224	179	1	10	15
Mozambique	50584	9	251796	201	23	34	43
Chinese Taipei	50511	8.9	267309	189	75	96	34028
Namibia	35641	6.3	180936	197	8	20	-24
Eswatini	35396	6.3	186450	190	2	9	26
Japan	28147	5	152675	184	66	81	14867
Viet Nam	26917	4.8	141233	191	125	258	3834
Lesotho	14173	2.5	83667	169	-19	-13	17

Source: ITC Trade Map

Table 15 shows that Zimbabwe has the greatest share (of about 26 %) in South African's total maize exports, followed by Korea with 811.6%. Botswana and Mozambique recorded 9.7% and 9% of South Africa maize export respectively during year 2020. Table 15 further indicates that, South Africa exported greater quantities of maize to Chinese Taipei, Namibia, Eswatini, Japan, Vietnam and Lesotho in 2020. South African maize exports to the world Increased by 5% value terms over the period 2016 to 2020. On the other hand, the value of maize exports from South Africa to the world further increased by 101% in between 2019 and 2020.

Figure 25: Prospects for market diversification for Maize exported by South Africa in 2020



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

Source: ITC Trade Map

Figure 25 indicates prospects for market diversification for raw maize exported by South Africa to the world in 2020**.** The bubble graph illustrates that in world terms Zimbabwe, Korea, Botswana, Mozambique, Chinese Taipei and Namibia were the biggest markets of maize from South Africa to the world over the period between 2016 and 2020. The figure further indicates that if South Africa has to diversify its markets of maize, small and attractive markets exist in Lesotho, Kenya, Italy, Code d Ivoire and United Arab Emirates. Zimbabwe and Kenya remain a traditional market for South Africa's maize exports in 2020 because of the size of the bubble graph.

Table 16: South Africa's Maize imports during 2020

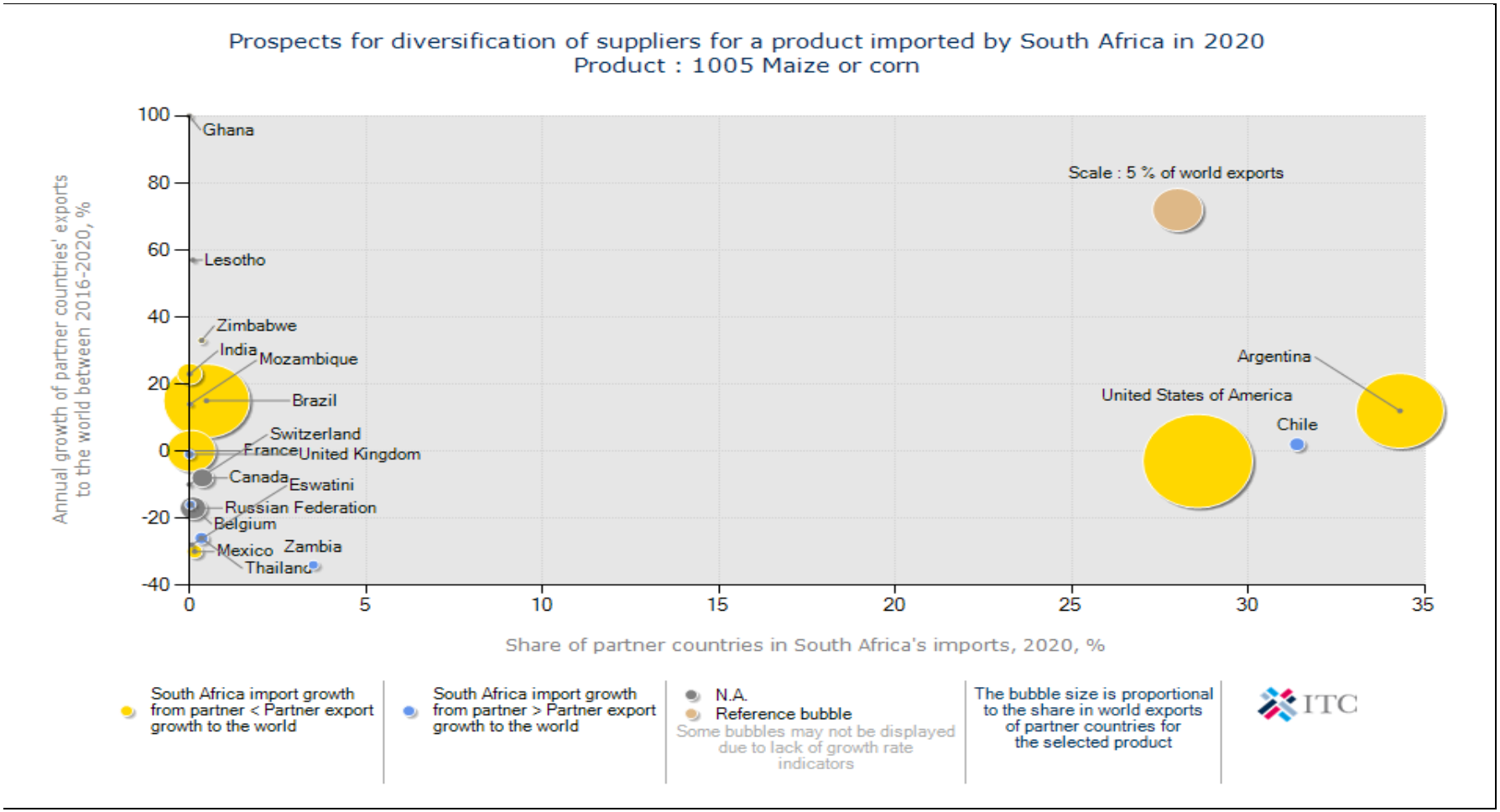
Exporters	Imported value in 2020 (Thousand US$)	Share in SA's imports (%)	Imported quantity in 2020 (tons)	Unit value (US$/unit)	Imported growth in value between 2016 and 2020 (% p.a.)	Imported growth in quantity between 2016 and 2020 (% p.a.)	Imported growth in value between 2019 and 2020 (% p.a.)
World	35982	100	82266	437	-44	-52	-73
Argentina	12343	34.3	77924	158	3	23	-86
Chile	11294	31.4	1651	6841	26	22	247
America	10281	28.6	1413	7276	-26	-72	-55
Zambia	1265	3.5	458	2762	-17	-39	-16
Brazil	175	0.5	7	25000	-52	-80	-99
Canada	133	0.4	18	7389	0	0	-1
Zimbabwe	126	0.4	80	1575	2	14	-41
Thailand	123	0.3	55	2236	21	49	159
Mexico	54	0.2	6	9000	-75	-89	-12

Source: ITC Trade Map

Table 16 depicts the list of supplying markets for maize imported by South Africa from various countries in 2020. As shown in the table above, South Africa's maize imports originated mainly from Argentina, Chile, America, Zambia, Brazil and Canada. It is clear from table 16 and figure 26, that Argentina was the largest supplier of maize to South Africa during the year 2020 after accounting for about 34.3% of South Africa's total maize imports during the same year. On average, imports of maize into South Africa from the world decreased by 44% in value and 52% in quantity between the years 2016 and 2020. Furthermore, South Africa's maize imports from the world decreased by 73%, in value terms, between the years 2019 and 2020. It is also important to note that South African imports growth in value between 2016 and 2020 was the highest in Chile, Thailand and Zimbabwe.

Figure 26: Prospect for product diversification of suppliers for Maize imported by South Africa in 2020.

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



Source: ITC Trade Map

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
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.	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 bioethanol 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

Company Name	Contact Person	Contact Number	City	E-mail address
Cargill	Andreas Rickmers	011-799 2000	Johannesburg	Andreas_rickmers@cargill.com
Exatrade	Rob Abendanon	011-804 5080	Johannesburg	roba@exatrade.co.za
FR Waring	Gus Wolf	011-325 7010	Johannesburg	trading@frwaring.co.za
Glencore	Jason Littlewood	011-302 2300	Johannesburg	Jason.littlewood@joburg.glencore.com
Hochfield Commodities	Steve Hochfield	011-483 1920	Johannesburg	steve@hochfield.co.za
Louis Dreyfus	James Crichton	011-784 6446	Johannesburg	crichtonj@idcorp.com

Source: Grain South Africa

6.2. Local Traders

Company Name	Contact Person	Contact Number	City	E-mail address
Allem Brothers (Pty) Ltd	Geoff Allem Quinton Barnes	056-343 3111 056-343 3111	Viljoenskroon	gda@allems.co.za ghbarnes@allems.co.za
BNK Landbou (Edms) Bpk			Bredasdorp	bnkgraan@bnk.co.za
Bokomo Foods			Wadeville	ccox@pnr.co.za
Bokomo Voere (George)			George	lgroenew@pnr.co.za
Bokomo Voere (Malmesbury)			Malmesbury	jmostert@pnr.co.za
CRK Landbou Bpk			Caledon	evdmerwe@crk.co.za
Decillion	Riaan van Rensburg	082 808 0100		

Company Name	Contact Person	Contact Number	City	E-mail address
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KOLK				kokl@global.co.za

Source: Grain South Africa

7. ACKNOWLEDGEMENTS

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ITC Market Access Map
Website: http://www.macmap.org/South Africa

ITC Trade Map
Website: http://www.trademap.org