

A PROFILE OF THE SOUTH AFRICAN BANANA MARKET VALUE CHAIN

2020



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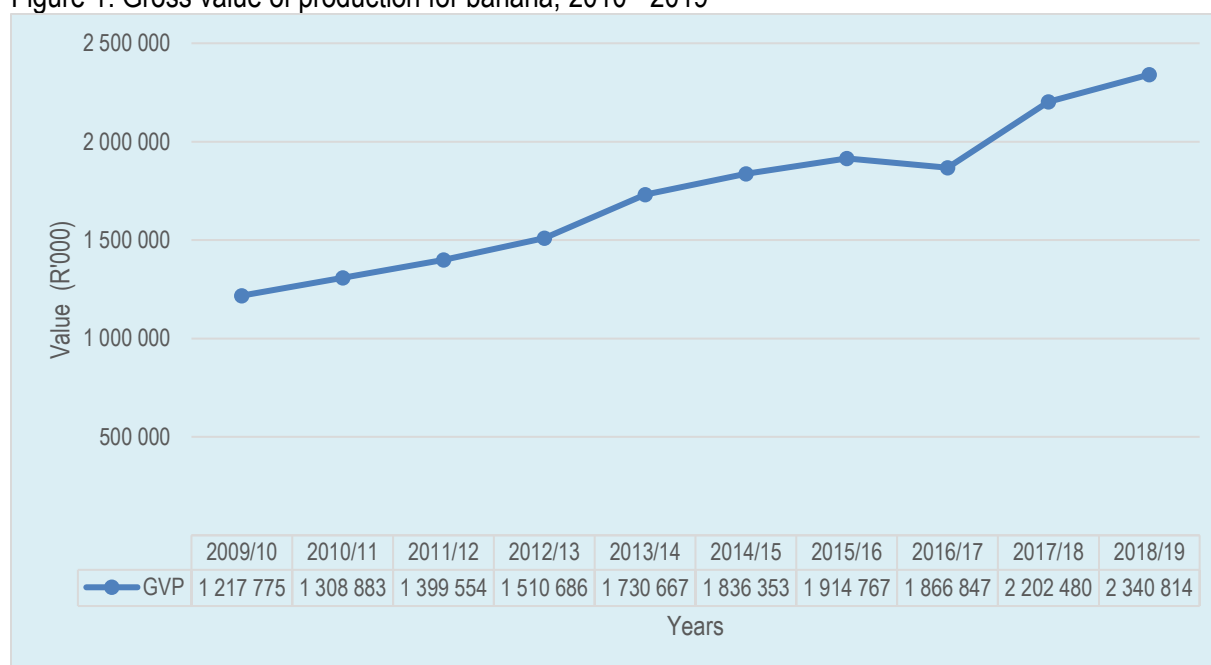
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1. DESCRIPTION OF THE INDUSTRY

Bananas are said to be native to tropical South and Southeast Asia, and are likely to have been first domesticated in Papua New Guinea. They are amongst the most important commercial subtropical fruits grown in South Africa and are planted for sale in local markets or self-consumption and only a fraction of all bananas are sold in the world markets. The production technologies used for small-scale and commercial operations are so different that they are usually separated into two distinct economic activities. On the one hand, small-scale production for consumption in the household or sale in local markets makes a limited use of external inputs and is labour intensive. On the other hand, production for commercial operations uses external inputs intensively and is technologically sophisticated. During the 2018/19 marketing season bananas contributed 55% (R2.3 billion) to total gross value of subtropical fruits (R4.2 billion) produced in South Africa. This makes bananas the most important subtropical fruit grown in the country. Per capita consumption for deciduous and subtropical fruits in South Africa during 2018/19 was 24.44 kg per year. This was down from 24.98 kg per year in 2017/18. Gross value of production for bananas for the period 2009/10 to 2018/19 is presented in Figure 1 below.

Figure 1: Gross value of production for banana, 2010 - 2019



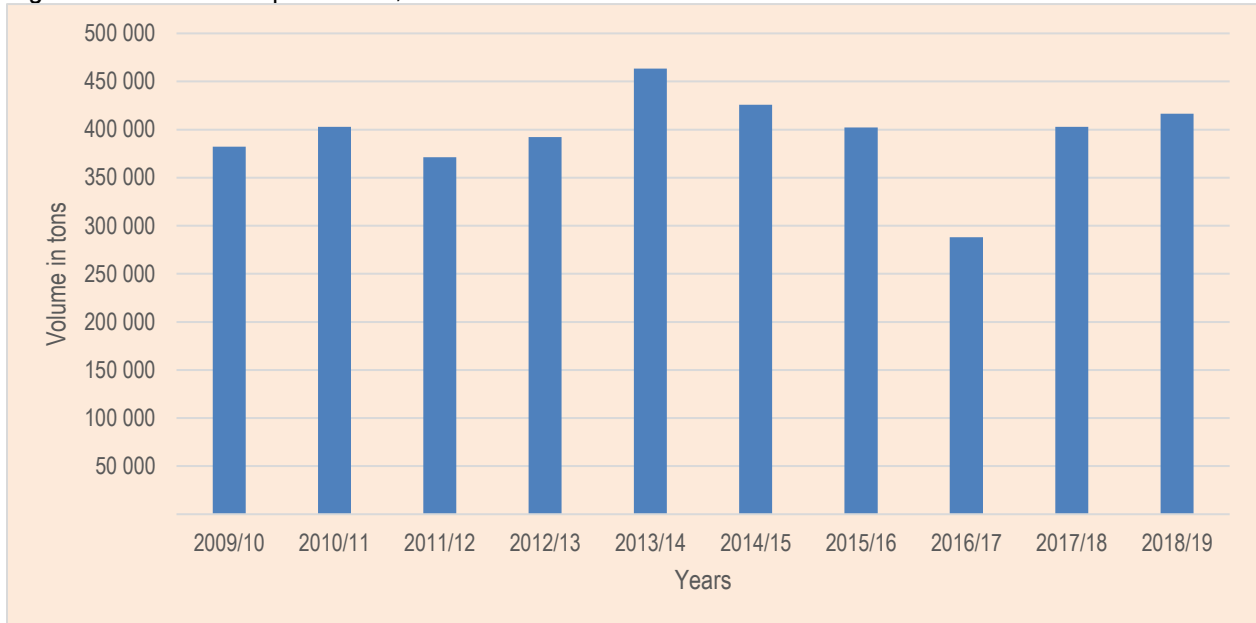
Source: Statistics and Economic Analysis, DAFF

Figure 1 indicates that bananas with a total gross value of R2.3 billion were produced in South Africa during the 2018/19 production season. The figure represents a 6.2% increase when compared with the gross value for the previous year (2017/18) and a 92% rise in the gross value a decade ago (2009/10). The gross value has been on the rise since the 2009/10 production season and averaged R1.7 billion during the ten years under review. The rise in the gross value happened at the same time when production volumes were relatively stable. This indicates that the rise in total gross value was mainly the result of increased unit values during the period under review.

1.2 Production

Bananas are tropical plants that are grown under sub-optimal, subtropical conditions in South Africa. Production is therefore severely limited by climate and although they are an adaptable crop, insight into their production limitations in the subtropics is important. Figure 2 presents the South African total banana production for period 2009/10 to 2018/19.

Figure 2: Banana total production, 2010 – 2018/19



Source: Statistics and Economic Analysis, DAFF

According to Figure 2, there has been little growth on banana production over the past ten years. Total production stood at 416 457 tons in 2018/19 season. This represents 3% decrease when compared with the previous production season (2017/18) and 9% increase when compared with the volume produced a decade ago (2009/10). The average annual production quantity during the ten years under review was 394 716 tons. During the period under consideration, production was at its lowest at 288 042 tons in 2016/17 and at its peak at 463 395 tons in 2013/14. The little growth in production volumes is the result of little growth in production area mainly because area suitable for banana production is limited in South Africa. Production of bananas is also highly dependent on rainfall, with low volumes produced in years of low rainfall and vice-versa. The current drought cycle will have impact on the production of banana.

1.3 Employment

Full-time labourers employed on banana farms are primarily employed for a number of specialist tasks such as the control of pests and diseases. Other tasks include harvesting, supervision, operational duties in the pack houses, irrigation management, and tractor or forklift driving. Seasonal labour is employed on a contractual basis for a fixed period of time with the main purpose of harvesting or fruit packing. It is estimated that in 2011, direct employment within the banana industry was 27 033 people with 108 131 dependents. The banana industry makes an important contribution to direct employment in banana

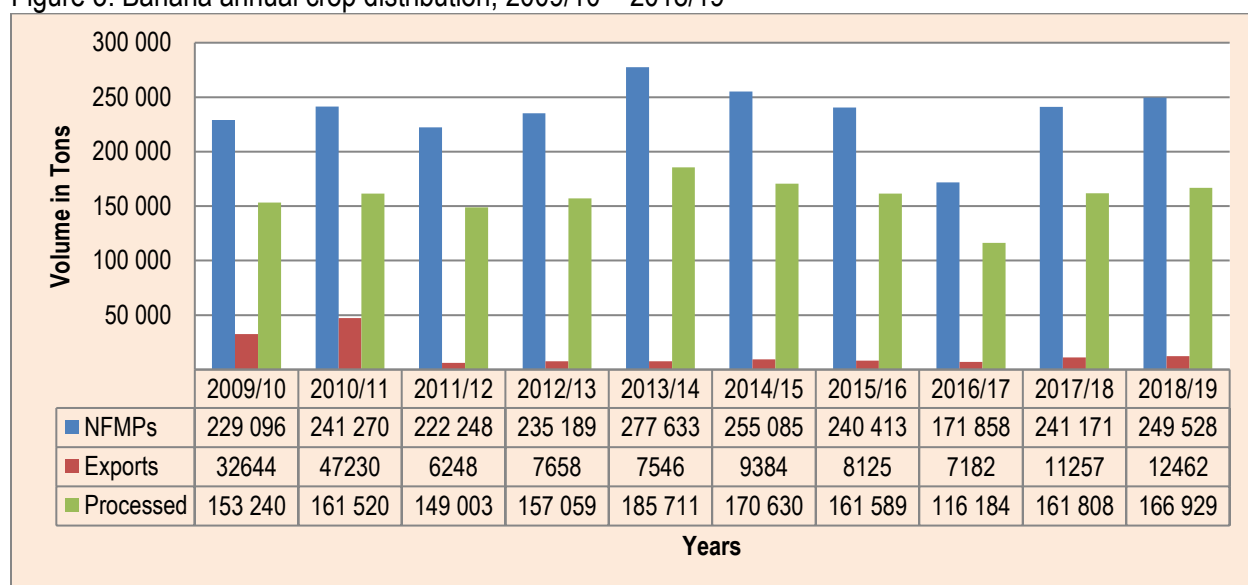
production and processing. It provides indirect employment for numerous support industries in the areas where bananas are grown and nationally.

The minimum Wage Act 9 of 2019 came into effect in January 2019. The Act applies to all workers and their employers, except members of the South African National Defence Force, the National Intelligence Agency, the South African Secret Service, and volunteers who perform work for another person without remuneration. Under this Act, farm workers are entitled to a minimum wage of R18.68 per hour. The Act establishes the National Minimum Wage Commission, which is task to review the national minimum wage make recommendations to the minister on any adjustment of the national minimum wage.

2. MARKET STRUCTURE

The distribution of the annual banana crop in South Africa for the period 2009/10 to 2018/19 is illustrated in Figure 3.

Figure 3: Banana annual crop distribution, 2009/10 – 2018/19



Source: Statistics and Economic Analysis, DAFF; Quantec Easydata; Own calculations

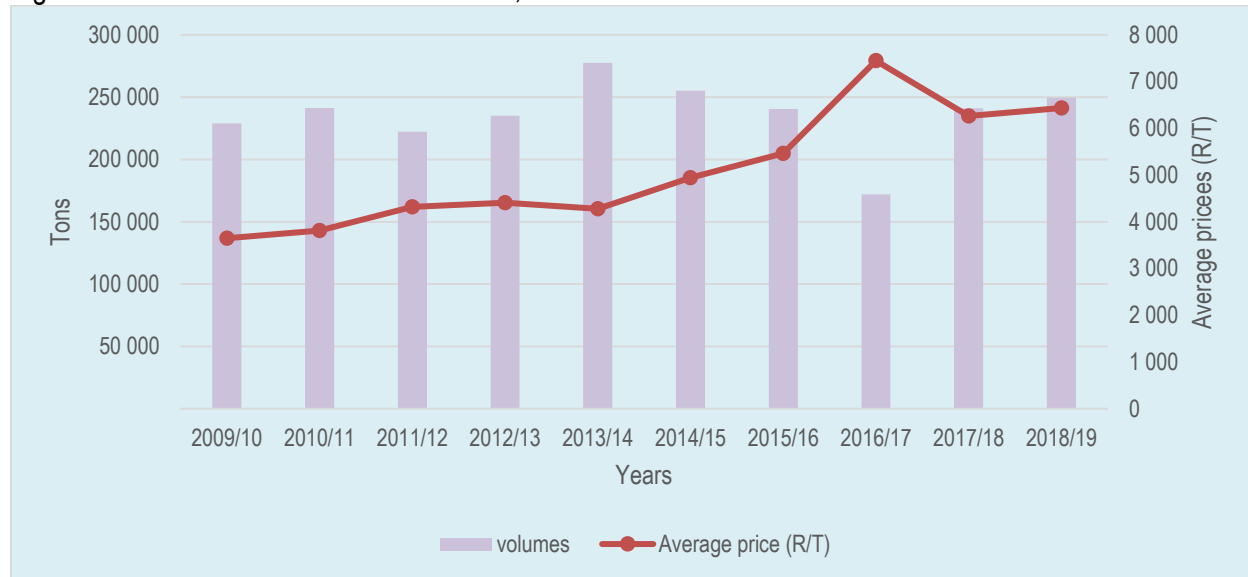
Approximately all bananas produced in South Africa are destined for local fresh consumption and processing. Annually, the greatest share of the banana crop goes to the local markets for fresh consumption. The local market absorbed 60% (249 528 tons) of the total crop (416 457 tons) produced in South Africa during the 2018/19 marketing season. Approximately 40% was absorbed by the processing market in the same season. Exports volumes are insignificant and accounted for 5% of the total production in 2018/19.

2.1 Domestic markets

Locally, bananas are distributed through different marketing channels such as National Fresh Produce Markets (NFPMs) where sales are facilitated by market agents after they have engaged with the farmers, informal traders (street hawkers), and directly by farmers to retailers and processors. Bananas are the largest contributors of sales in the major NFPMs amongst all the fruits. As already indicated above,

approximately 60% of bananas produced in South Africa in 2018/19 were sold through the local markets. On the other hand, the role played by the informal sector cannot be underestimated, especially since this sector always contributes towards job creation among the largely unskilled segment of the labour market. The volumes of bananas sold through the NFPMs as well as average prices received during the past ten years are presented in Figure 4.

Figure 4: Local sales of bananas at NFPMs, 2009/10 – 2018/19



Source: Statistics and Economic Analysis, DAFF

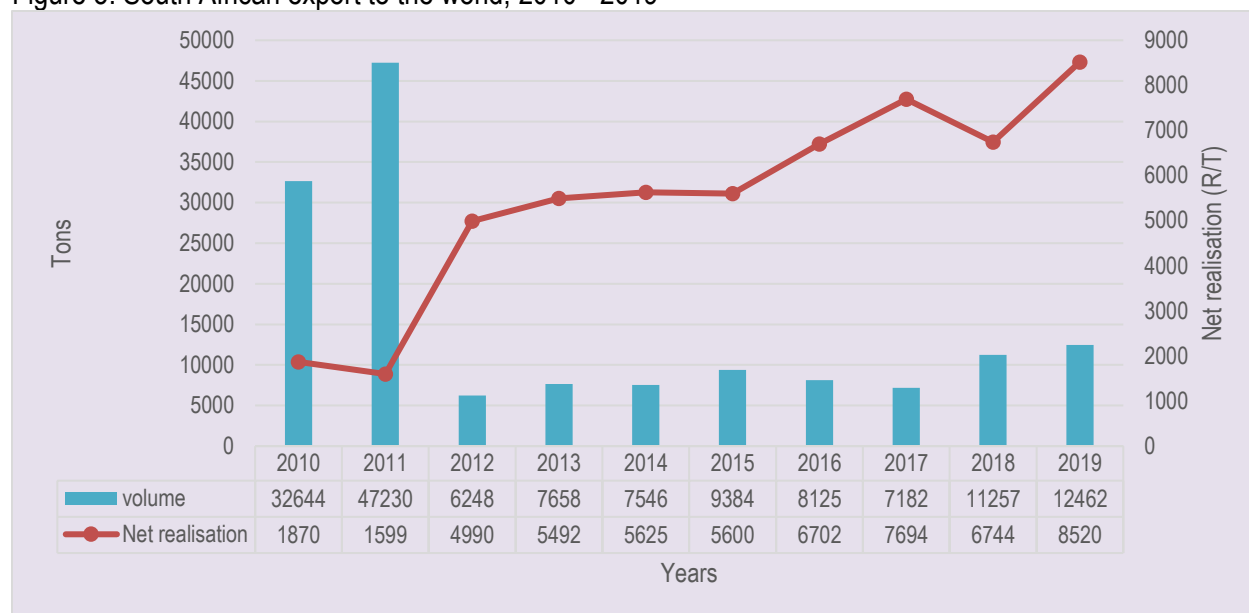
As indicated in Figure 4 above, the quantity of bananas sold at the major NFPMs remained fairly stable during the past ten years. A major decline in the volume of bananas sold in the NFPMs between 2016/17 was recorded. High volumes sold at the NFPMs were experienced in 2013/14 at 277 633. The declines in 2016/17 were as the result of declined overall banana production in the country. Another important development that continues to constrain growth of sales at the markets is an increase in sales to the informal markets and direct sales to the wholesalers, retailers, and processors. Volumes of bananas sold at NFPMs stood at 249 528 tons in 2018/19. This was 3% up from the 241 171 tons sold during the previous year (2017/18). Local banana sales experienced a significant decline between 2013/14 and 2016/17 seasons before a significant rise in 2017/18. Generally, the volume of sales at the NFPMs follows the total volume produced in a particular year.

At the same time, banana prices at the NFPMs have been increasing steadily. This is an indication that the demand for bananas remained positive. Prices of bananas realised in the local markets increased by 76% over the period under review. The average price went up from R6 265.00 per ton in 2017/18 to R6 438.00 per ton in 2018/19, an increase of 3%. With the exception of the 2013/14 and 2017/18 marketing seasons, prices of bananas sold through the local markets have increased throughout the past ten years. Generally, the banana price relies on the volumes supplied to the markets. The other factor that determines the price of the bananas in and outside the markets is the quality of the produce. The produce of a better quality has the potential of fetching a better and competitive price for the farmer.

2.2 Exports

South Africa is a relatively small banana grower in terms of global hectares. Furthermore, the country is not a major volume exporter in global terms. South Africa has developed a superior tissue cultured banana plants that are now exported to countries in the Latin America, West Africa and Taiwan. The volumes of South Africa banana exports and the unit values from 2010 to 2019 are presented in Figure 5.

Figure 5: South African export to the world, 2010 - 2019



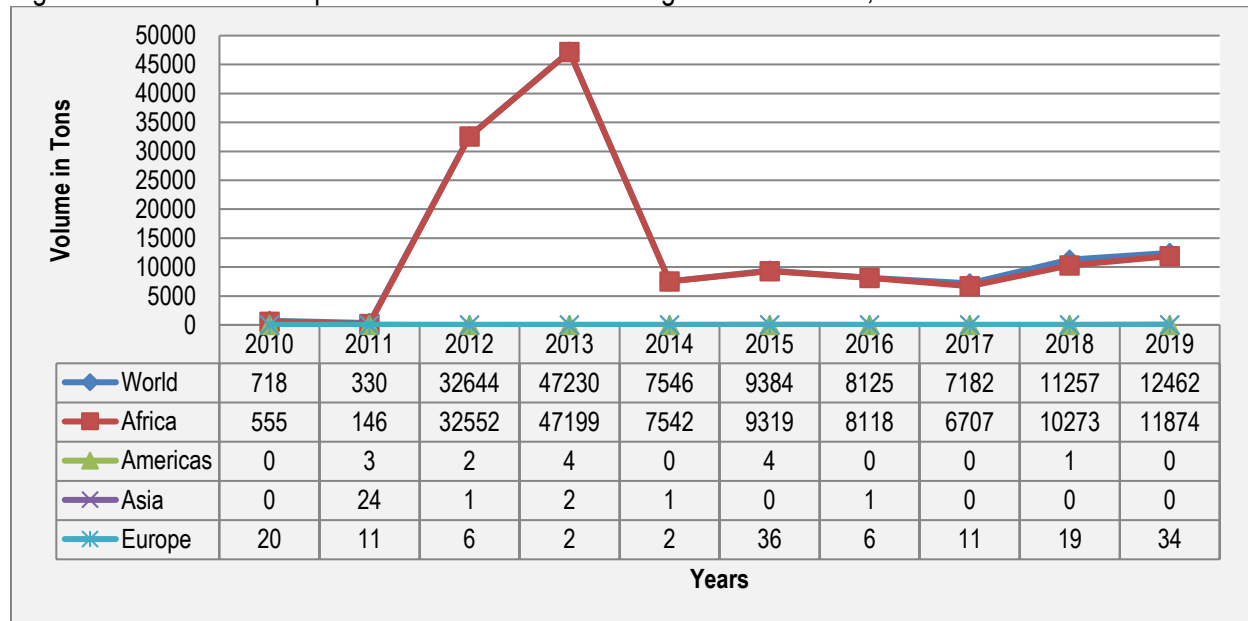
Source: Quantec Easydata

South Africa exported a total of 12 462 tons of bananas with a value of R106 million in 2019. The 2019 volume is 11% less than the volume exported in 2019 and 62% lower than the volume exported in 2010. At the same time, the unit value of South African banana exports fluctuated heavily during the ten years under review. The unit value reached its peak at R12 462 per ton in 2019 when the volume exported was at its lowest at R1 599.00 tons in 2011 when the volume of exports was at its peak at 47 230 tons. Another important factor that determines the unit value of bananas exported is the exchange rate.

Figure 6 further shows that South Africa is not amongst the leading exporters of bananas. South African bananas are primarily sold on the domestic markets. This is mainly due to South Africa's location and its subtropical climate, which makes it difficult to compete against equatorial banana producing countries on world markets. This limits the export potential for South African bananas.

South African exports of bananas to the various regions of the world are shown in Figure 6. It is evident from Figure 6 that over the past decade, most of South Africa's exports of bananas were destined to the African market. In 2019, all South African banana exports went into Africa. During the period under review exports into Africa peaked at 47 200 tons in 2011. The volume of banana exports to Africa declined from 32 644 in 2010 to 11 874 tons in 2019, an decrease of 62%.

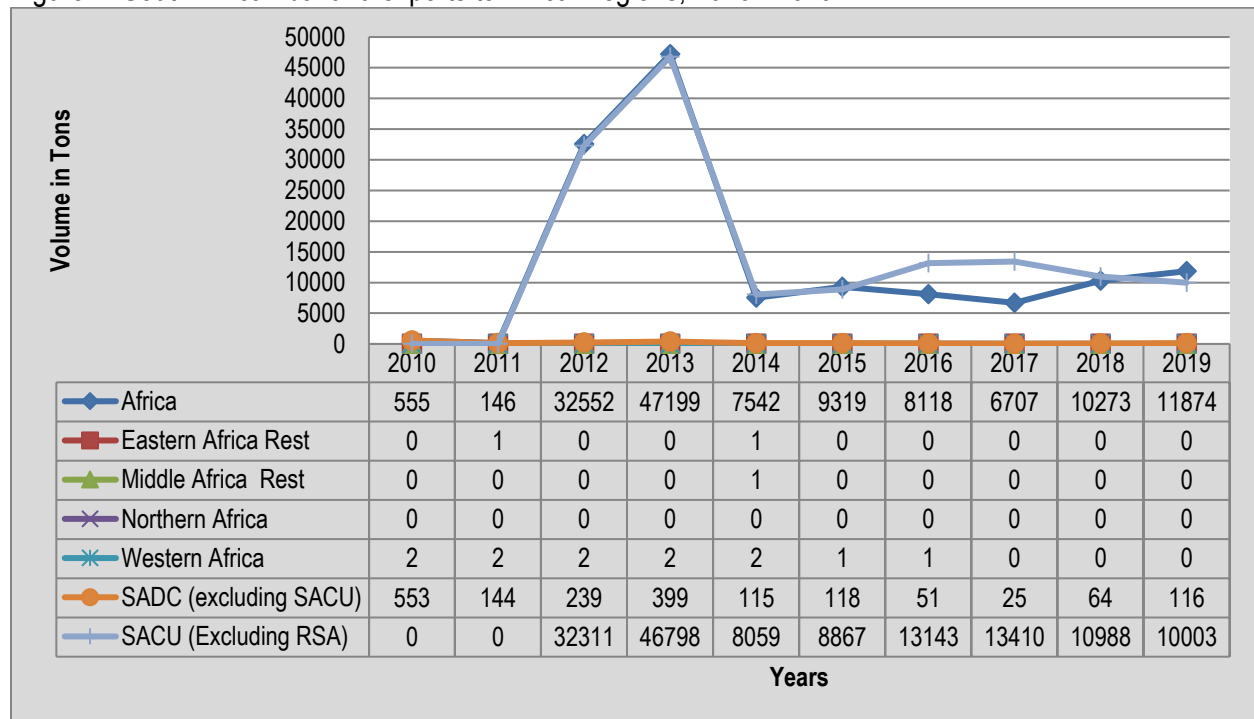
Figure 6: South African exports of bananas to various regions of the world, 2010 - 2019



Source: Quantec Easydata

The volumes of South African banana exports to the different regions of Africa over the past decade are presented in Figure 8. Within the African continent, it is important to note that almost all (99% in 2019) of all South African banana exports are absorbed by Southern African Customs Union (SACU) member states (Excluding RSA). The remaining 1% in both the years is usually absorbed by West Africa and Southern African Development Community (SADC) countries.

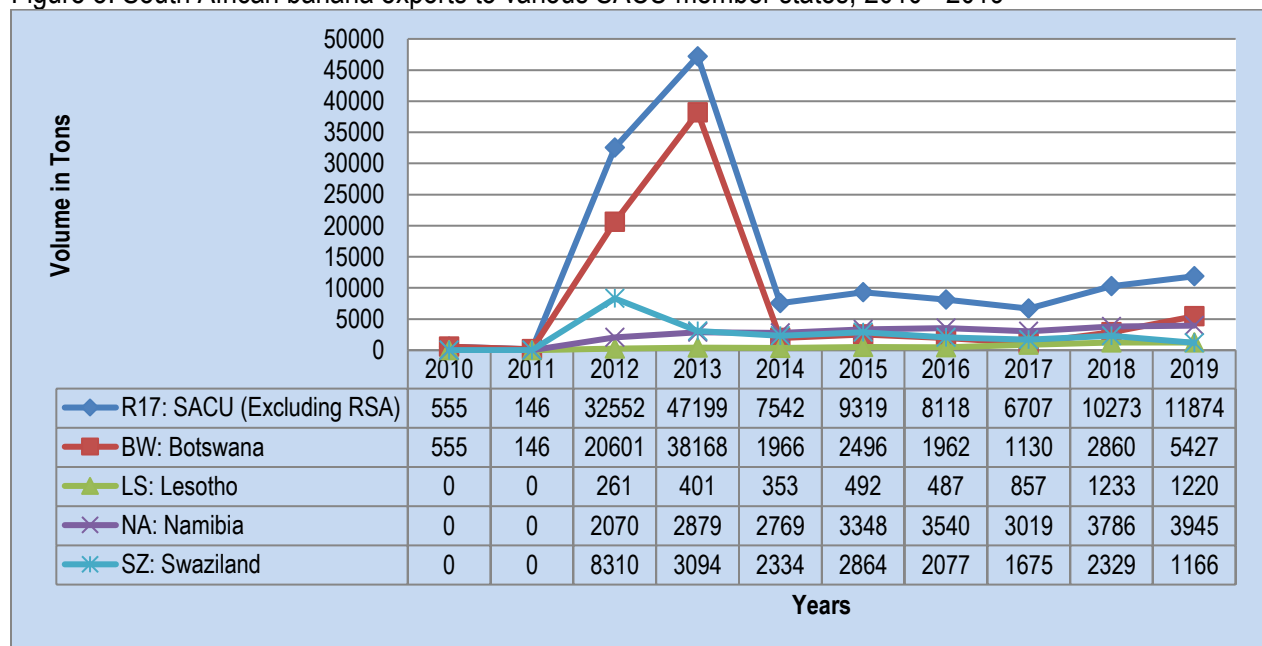
Figure 7: South African banana exports to African regions, 2010 - 2019



Source: Quantec Easydata

Volumes of South African banana exports to different members of SADC (excluding SACU) and SACU (excluding South Africa) are shown in Figure 8.

Figure 8: South African banana exports to various SACU member states, 2010 - 2019



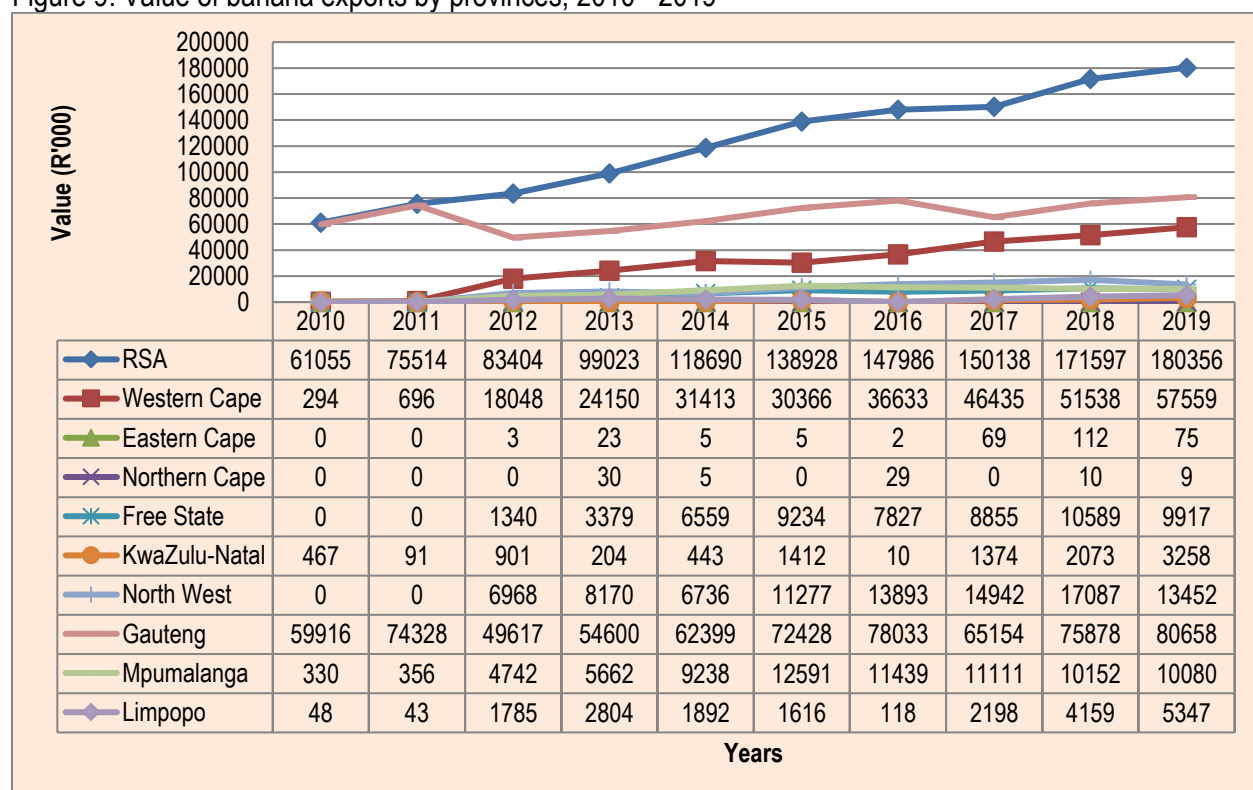
Source: Quantec Easydata

It can be observed from Figure 8 that in 2019 the majority (46%) and (33% each) of banana exports that went into SACU were absorbed by Botswana and Namibia respectively. Another major player in terms of South African banana exports during the past decade has been Swaziland, importing 1 166 tons of South African bananas in 2019. Exports to SACU decreased from 32 311 tons in 2010 to 11 874 tons in 2019. Exports to SACU peaked at 47 199 tons in 2013.

2.3 Provincial and district export values of South African bananas

A review of provincial level trade data presents an interesting but somewhat misleading view of the source of bananas destined for the export markets. The fact that Western Cape and Gauteng have been amongst the leading banana exporters for the past ten years does not imply that the bananas were produced there but that the registered exporters were based in the province. Figure 9 presents the value of banana exports by provinces from 2010 to 2019. A total value of R180 million worth of bananas was exported by the different provinces of South Africa in 2019. The export value was 5% higher than that of the previous year (2018) and 195% higher than the export value in 2010. The main banana exporting provinces in 2019 were Gauteng, Western Cape, Mpumalanga, North West and Free State. The four provinces accounted for over 95% of the total value of all South African banana exports in 2019.

Figure 9: Value of banana exports by provinces, 2010 - 2019

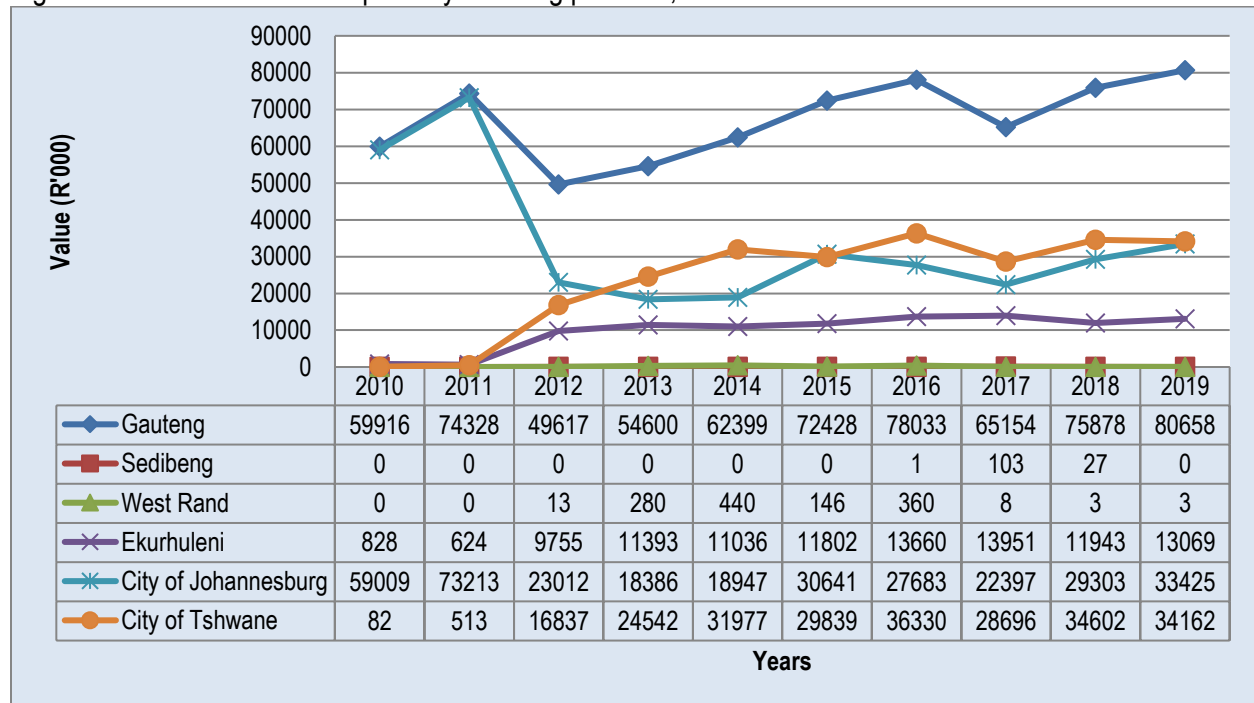


Source: Quantec Easydata

Other provinces also export bananas but usually register minimum trade. The following figures (Figures 10 – 15) show the value of banana exports from the various districts in all the provinces of South Africa that reported banana exports during the last ten years.

Figure 10 below presents the value of banana exports from the Gauteng province. It is clear from Figure 10 that banana exports from the Gauteng over the past decade were mainly from City of Johannesburg and City of Tshwane municipalities. In 2019 exports of bananas from the Gauteng province totalled R80 million. This was slightly up from R75 million recorded in 2018. City of Tshwane and the City of Johannesburg recorded banana exports worth R34 million and R33 million respectively in 2019. The City of Tshwane peaked in 2016, also recording R36 million worth of banana exports while City of Johannesburg peaked R73 million in 2011.

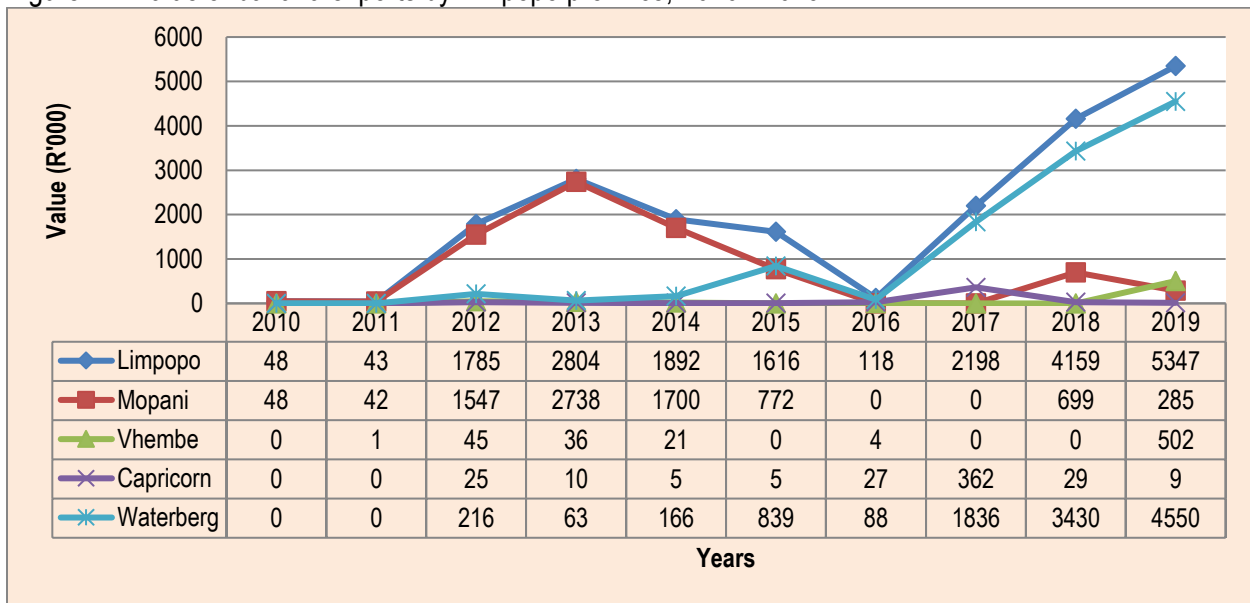
Figure 10: Value of banana exports by Gauteng province, 2010 - 2019



Source: Quantec Easydata

The value of banana exports from the Limpopo province during the past ten years is presented in Figure 11 below. The biggest contributor to the exports of bananas in Limpopo is the Waterberg district in 2019 recording export worth over R4.5 million. Another major contributor is the Vhembe district, recording banana exports worth R 502 000 in 2019.

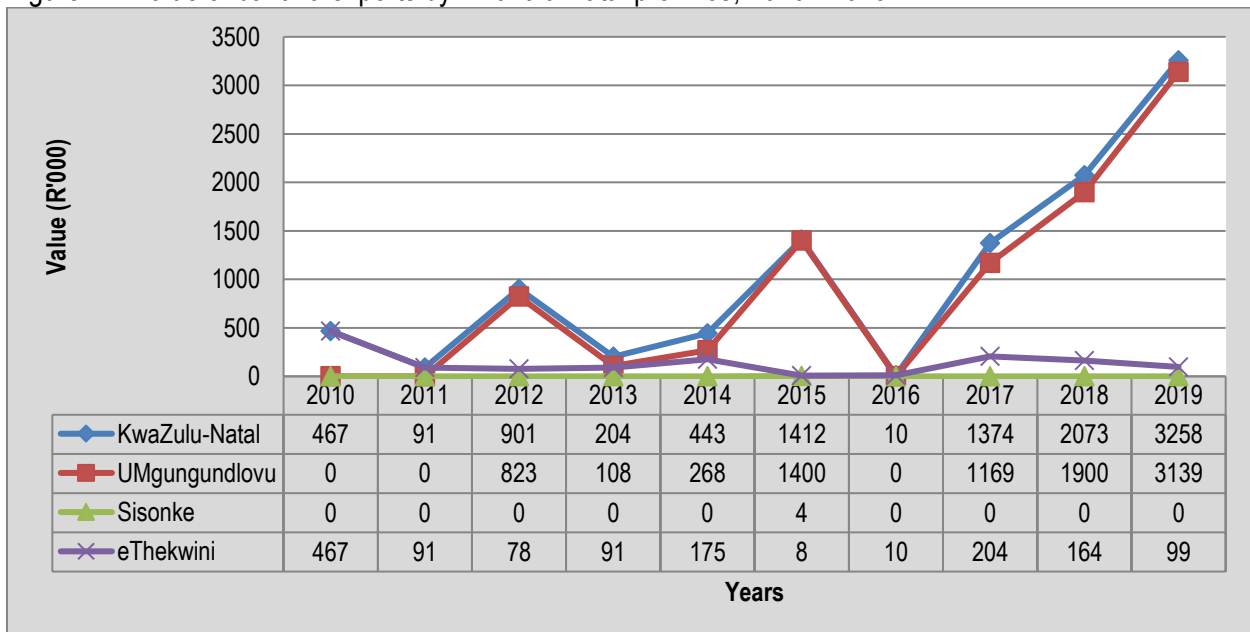
Figure 11: Value of banana exports by Limpopo province, 2010 - 2019



Source: Quantec Easydata

The values of banana exports by the Kwazulu Natal province for the period 2010 to 2019 are presented in Figure 12.

Figure 12: Value of banana exports by Kwazulu Natal province, 2010 - 2019

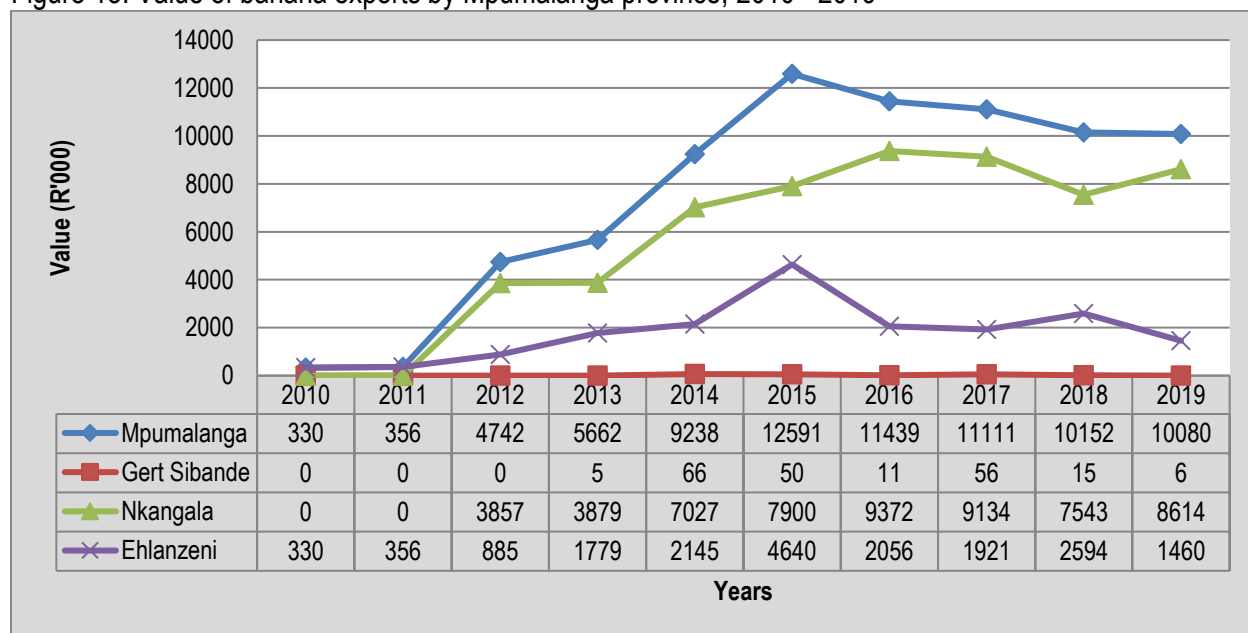


Source: Quantec Easydata

Banana exports from the Kwazulu Natal during the past ten years were mainly from UMgungundlovu municipality. High export value for the leading municipality was recorded in 2019. The use of the Durban harbour as an exit point may have played a major role in eThekwini municipality being one of the leaders in the export of bananas from the Kwazulu Natal. Umgungundlovu district overtook eThekwini for the first time

during 2012 and continued its lead in 2015. The value of banana exports by the Mpumalanga province is presented in Figure 13.

Figure 13: Value of banana exports by Mpumalanga province, 2010 - 2019

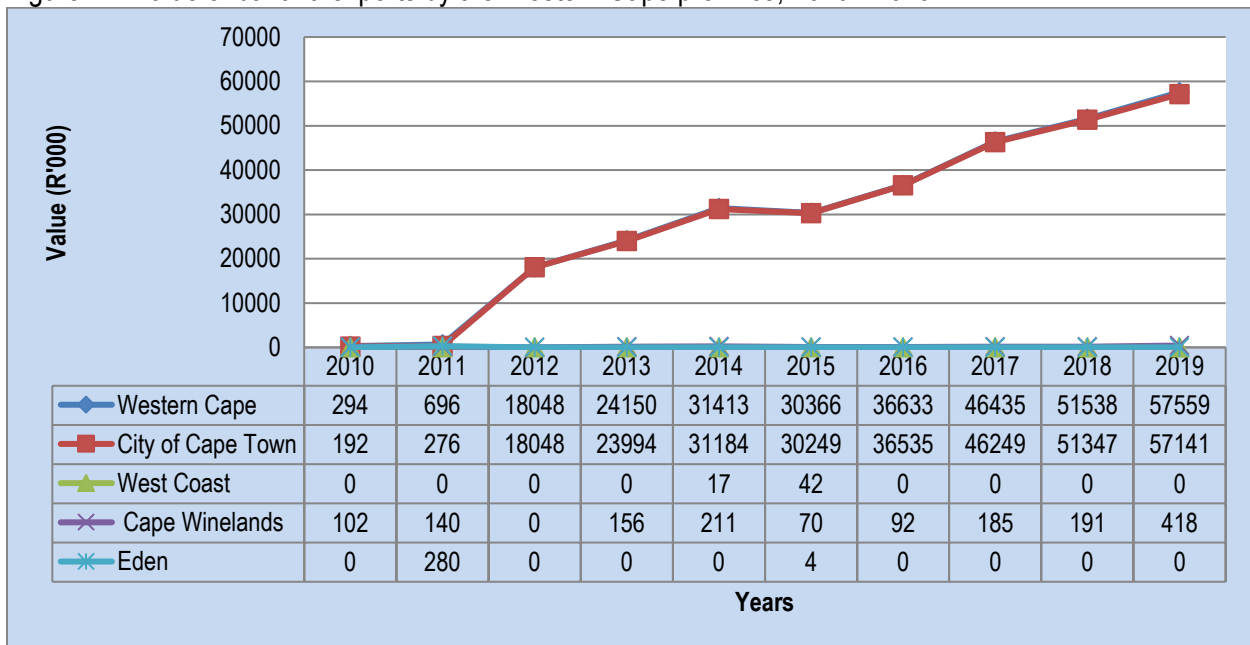


Source: Quantec Easydata

It is clear from Figure 13 that banana exports from the Mpumalanga are mainly from Ehlanzeni municipality. High export value for the leading district municipality was recorded in 2015 (for Ehlanzeni) and 2016 (for Nkangala). Bananas worth R8.6 million and R1.4 million were exported by the Nkangala and Ehlanzeni districts in 2019.

The value of banana exports by the Western Cape Province is presented in Figure 14. Banana exports from Western Cape are mainly from the City of Cape Town municipality. The exception was during 2011, when 42% came from the Eden district. Bananas worth R57 million were exported by the Western Cape in 2019. The use of the Cape Town harbour as an exit point plays a major role in the City of Cape Town being a leader in the export of bananas from the Western Cape.

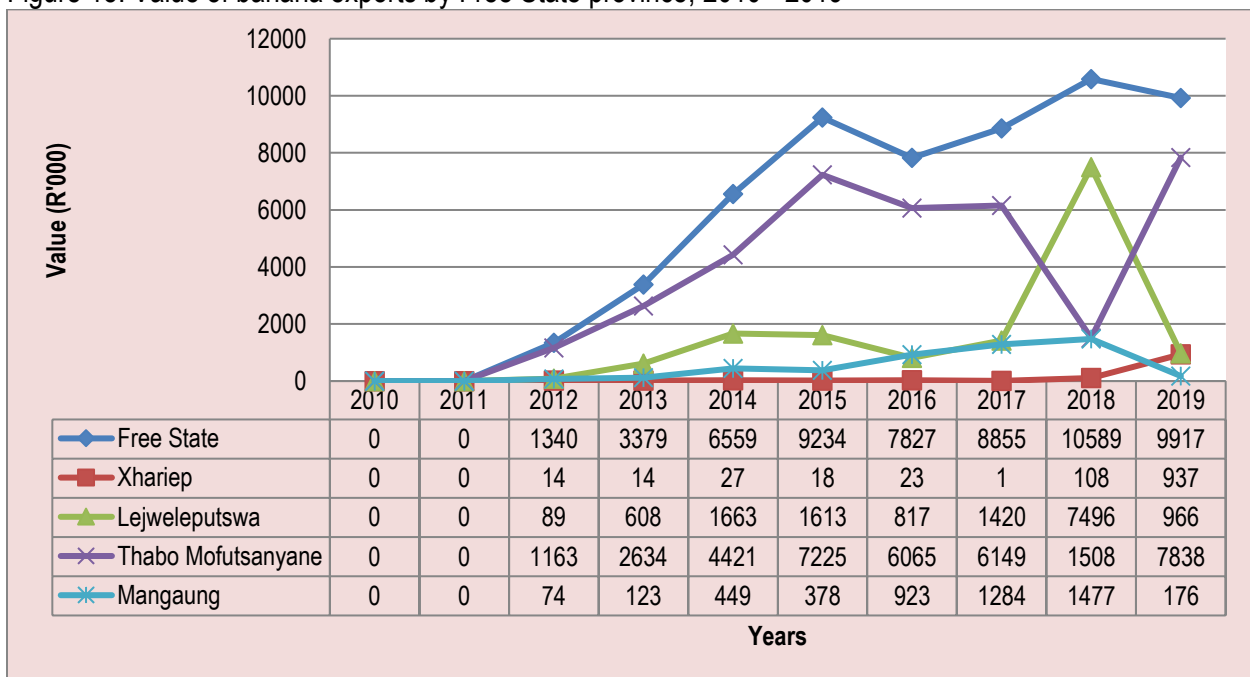
Figure 14: Value of banana exports by the Western Cape province, 2010 - 2019



Source: Quantec Easydata

Exports of bananas by the Free State province are reported in Figure 15.

Figure 15: Value of banana exports by Free State province, 2010 - 2019



Source: Quantec Easydata

According to Figure 15, banana exports from Free State were recorded in between 2012 and 2019 mainly from Thabo Mofutsanyane, Lejweleputswa and Mangaung municipalities. The province recorded export values worth R9.9 million in 2019. Between 2010 and 2012, the province never recorded banana exports.

2.4 Share analysis

Table 2 illustrates provincial shares towards national banana exports for the past decade. It shows that Western Cape and Gauteng provinces have commanded the greatest share of banana exports for the past ten years. This is in spite of the fact that Mpumalanga, Kwazulu Natal and Limpopo province are the leading producers of bananas in South Africa. As explained earlier, this means that the leading export provinces (Western Cape and Gauteng) derive their advantage from the fact that the registered exporters are based in their provinces and they also have exit points for banana exports. The shares of the various provinces to total value of banana exports during the past ten years indicate that the Eastern Cape and Northern Cape provinces recorded no exports of bananas during the last decade. Mpumalanga province contributed 5.6% to total South African banana export value in 2019 while the Western Cape contributed 31.9% during the same year.

Table 2: Share of provincial banana exports to the total RSA banana exports (%), 2010 - 2019

Years Provinces	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
RSA	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Western Cape	0.5	0.9	0.5	0.6	26.5	21.9	25.1	30.1	30.0	31.9
Eastern Cape	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Northern Cape	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Free State	0.0	0.0	0.0	0.0	5.6	6.6	5.3	5.9	6.9	5.5
Kwazulu Natal	0.8	0.1	1.1	0.2	0.8	1.0	0.0	0.9	1.2	1.8
North West	0	0	0	0	0.3	5.4	9.4	10.0	10.0	7.5
Gauteng	98.1	98.4	96.7	97.6	63.3	60.4	56.9	43.4	44.2	44.7
Mpumalanga	0.5	0.5	0.3	0.0	2.2	3.4	3.2	7.4	5.9	5.6
Limpopo	0.1	0.1	1.4	1.6	1.5	1.2	0.1	1.5	2.4	3.0

Source: Calculated from Quantec Easydata

The following tables (Table 3 - 8) show shares of the various districts' banana exports to the various provincial exports.

Table 3 presents the share of district banana exports to the total Gauteng banana exports for the period 2010 to 2019. The leading contributor to total provincial banana exports in Gauteng during 2019 was City of Tshwane with 42.4%. The City of Johannesburg and Ekurhuleni followed it at 41.4% and 16.2% respectively.

Table 3: Share of district banana exports to total Gauteng provincial banana exports (%), 2010 - 2019

Years District	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Gauteng	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
West Rand	0.0	0.0	0.0	0.0	5.5	4.9	5.7	0.0	0.0	0.0
Ekurhuleni	1.4	0.8	0.2	0.1	15.7	14.1	16.2	21.4	15.7	16.2

Years District	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
City of Johannesburg	98.5	98.5	98.8	99.6	32.8	45.9	40.5	34.4	38.4	41.4
City of Tshwane	0.1	0.7	1.0	0.3	46.0	35.0	37.6	44.0	45.6	42.4

Source: Calculated from Quantec Easydata

The share of district banana exports to the total Limpopo provincial banana exports is presented in Table 4. The exports of bananas in Limpopo during 2019 were from Waterberg (85.1%) and Vhembe (9.3%). The major banana exporting districts during the past ten years however are the Mopani and Vhembe districts.

Table 4: Share of district banana exports to the total Limpopo provincial banana exports (%), 2010 - 2019

Years District	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Limpopo	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mopani	22.9	0.0	100.0	100.0	82.7	47.8	0.0	0.0	16.8	5.3
Vhembe	47.9	81.4	0.0	0.0	1.2	0.0	3.0	0.0	0.0	9.4
Capricorn	29.2	20.9	0.0	0.0	0.0	0.3	23.0	16.5	0.7	0.2
Waterberg	0.0	0.0	0.0	0.0	16.1	51.9	74.0	83.5	82.5	85.1
Greater Sekhukhune	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Calculated from Quantec Easydata

Table 5 presents the share of district banana exports to the total Kwazulu Natal provincial banana exports for the period 2007 to 2016. eThekweni is the dominant district in banana exports in Kwazulu Natal. This is because both the Durban Harbour and Airport are situated in this district. All of exports of bananas recorded in Kwazulu Natal during 2016 were from eThekweni.

Table 5: Share of district banana exports to the total Kwazulu Natal provincial banana exports (%), 2010 - 2019

Years District	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Kwazulu Natal	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
UMgungundlovu	0.0	0.0	91.4	56.6	29.1	99.2	0.0	85.1	91.7	96.3
eThekweni	100.0	100.0	8.6	43.4	70.9	0.5	0.0	0.0	0.0	0.0
Sisonke	0.0	0.0	0.0	0.0	0.0	0.3	100.0	14.9	7.9	3.0

Source: Calculated from Quantec Easydata

Almost all exports of bananas recorded in Mpumalanga during the past decade were from the Ehlanzeni district (see Table 6). In 2019, Nkangala was the main exporter of bananas contributing 85.5% of the total Mpumalanga exports. Another contributor, although insignificant was Gert Sibande municipality which only recorded exports between 2014 and 2019.

Table 6: Share of district banana exports to the total Mpumalanga provincial banana exports (%), 2010 - 2019

Years	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
-------	------	------	------	------	------	------	------	------	------	------

District										
Mpumalanga	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Gert Sibande	0.0	0.0	0.0	0.0	1.3	1.1	0.2	0.5	0.1	0.1
Nkangala	0.0	0.0	0.0	0.0	0.0	0.0	56.1	82.2	74.3	85.5
Ehlanzeni	100.0	100.0	100.0	100.0	98.7	98.9	43.6	17.3	25.5	14.5

Source: Calculated from Quantec Easydata

In the Western Cape the leading district in banana exports is the City of Cape Town (99.3% in 2019) (see Table 7). Cape Winelands followed it at 0.7%. The City of Cape Town, like the eThekweni district in KwaZulu Natal, has both the harbour and airport.

Table 7: Share of district banana exports to the total Western Cape provincial banana exports (%), 2010 - 2019

Years District	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Western Cape	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
City of Cape Town	65.3	39.6	100.0	62.7	99.0	98.9	98.4	99.6	99.6	99.3
West Coast	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0
Cape Winelands	34.7	20.1	0.0	25.3	0.7	0.2	0.2	0.4	0.4	0.7
Overberg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Eden	0.0	40.2	0.0	12.0	0.1	0.7	1.4	0.0	0.0	0.0

Source: Calculated from Quantec Easydata

The Free State province never recorded any exports of bananas since 2010 until 2012 (see Table 8). Exports recorded in 2016 were from the Thabo Mofutsanyane (77.5), Lejweleputswa (10.4%) and Mangaung (11.7%) districts.

Table 8: Share of district banana exports to the total Free State provincial banana exports (%), 2007 - 2016

Years District	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Free State	0.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Khariep	0.0	0.0	0.0	100.0	0.4	0.2	0.3	0.0	1.0	9.4
Lejweleputswa	0.0	0.0	0.0	0.0	12.8	17.5	10.4	16.0	70.8	9.7
Thabo Mofutsanyane	0.0	0.0	0.0	0.0	83.6	78.3	77.5	69.4	14.2	79.0
Mangaung	0.0	0.0	0.0	0.0	3.2	4.1	11.7	14.5	13.9	1.8

Source: Calculated from Quantec Easydata

Table 9: Share of district banana exports to the total Eastern Cape provincial banana exports (%), 2010 - 2019

Years District	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Eastern Cape	0.0	0.0	0.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0
Alfred Nzo	0.0	0.0	0.0	0.0	57.1	80.0	0.0	100.0	0.0	100.0
Nelson Mandel Bay	0.0	0.0	0.0	0.0	42.9	20.0	0.0	0.0	100.0	0.0

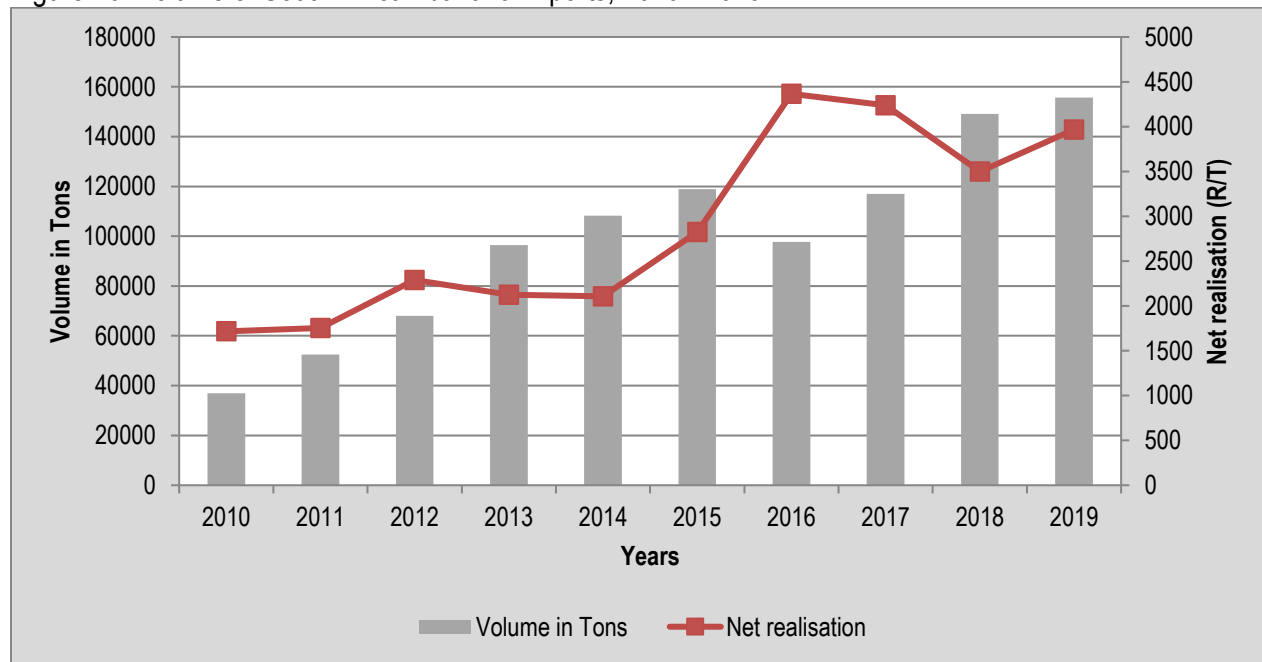
Source: Calculated from Quantec Easydata

The Eastern Cape started recording banana exports in 2014. The Alfred Nzo municipality exported all of the total exports from the province 2019.

2.5 Imports

Volumes of South African imports of bananas for the past decade are presented in Figure 16.

Figure 16: Volume of South African banana imports, 2010 - 2019



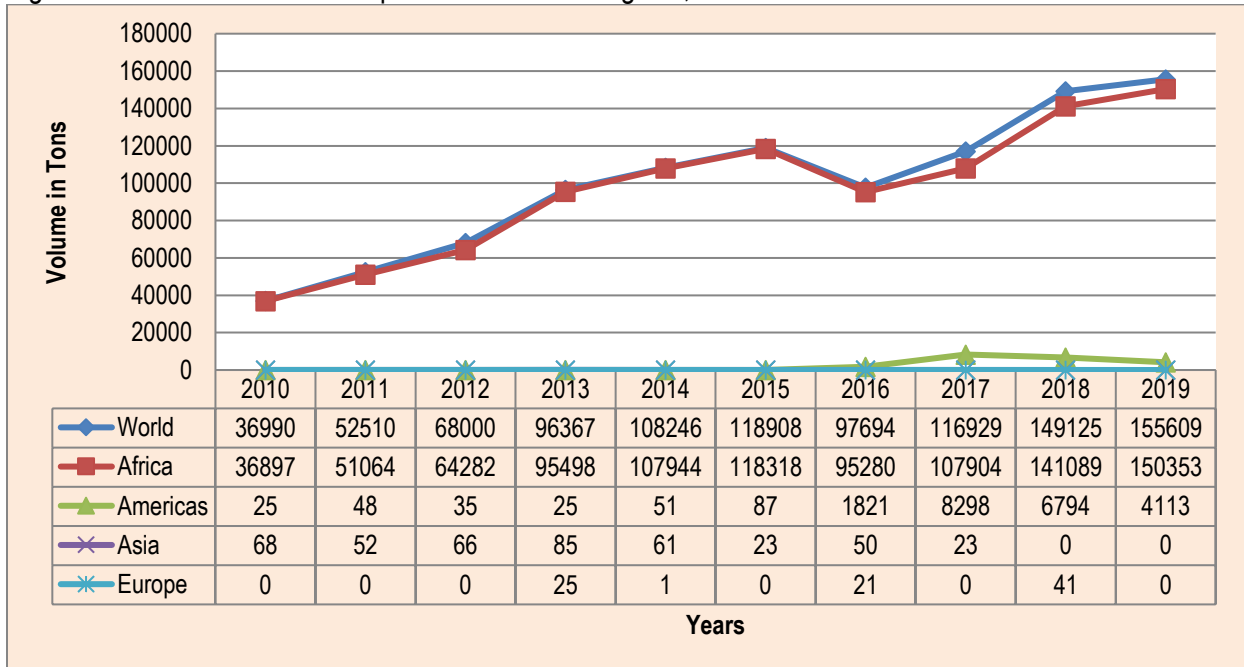
Source: Quantec Easydata

A total volume of 155 609 tons of bananas were imported by South Africa in 2019. The import volume was 4% higher than the quantity imported in 2018 and 320% higher than the volume imported in 2010. The increase in imports between 2010 and 2019 can be attributed to the increased demand by the local market amongst others. The other factor supporting the increasing import volumes is the lack of growth of production in South Africa. The unit values at which South Africa is importing bananas has also been rising during most part of the last decade, increasing from R1 717 per ton in 2010 to R3 968 per ton in 2019.

Figure 17 below illustrates volumes of South Africa's banana imports from the various regions during the past decade. It is evident from Figure 17 that almost all South African imports of bananas during the last decade were from the African continent. The continent accounted for 98% of total South African banana imports in 2016. The volumes imported have been increasing during the period between 2010 and 2019 before dropping significantly in 2009 and 2016. However import volumes increased exponentially between 2010 and 2015. Given the fact that South African production of bananas has been increasing over the past decade (see Figure 2), the increase in quantities imported can be attributed mainly to increased demand for bananas in South Africa. South Africa also imports bananas from the Americas, Asia and Europe but the

volumes imported from these regions are relatively insignificant when compared to those from the African continent.

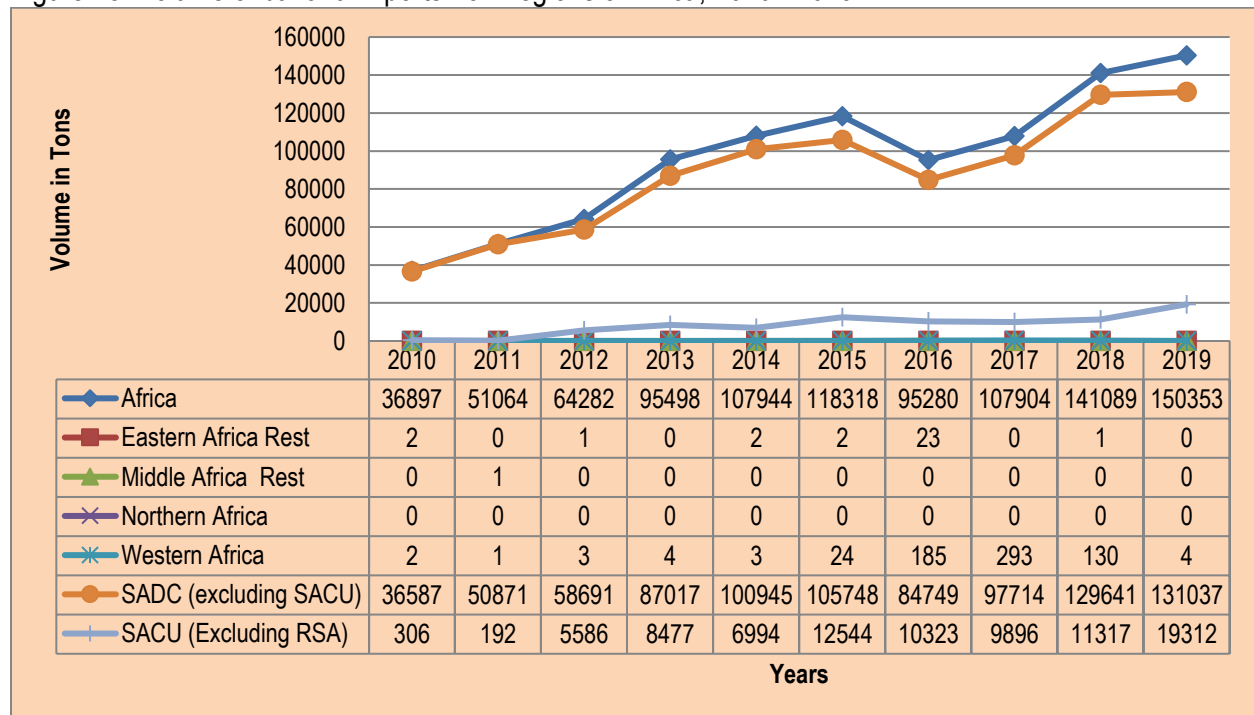
Figure 17: Volume of banana imports from various regions, 2010 - 2019



Source: Quantec Easydata

Volumes of banana imports from the different regions of Africa during the past decade are presented in Figure 18. Within the African continent it is important to note the almost all (89%) of the South African banana imports in 2016 were from the Southern African Development Community (SADC, excluding SACU) member states. The remaining 11% came mainly from South African Custom Union (SACU, excluding RSA).

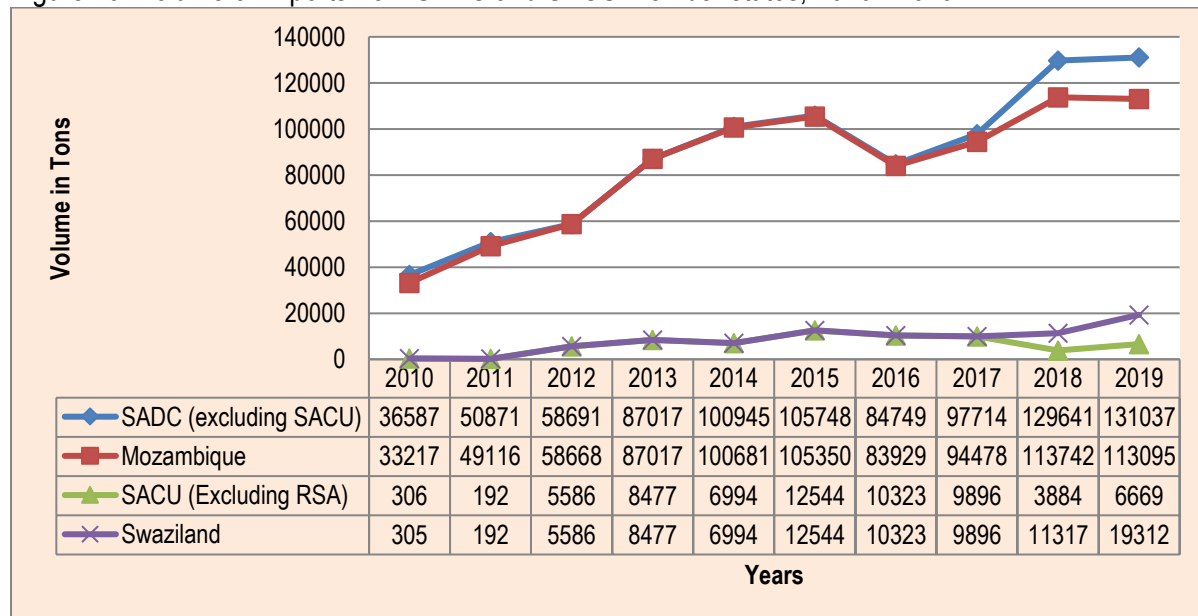
Figure 18: Volume of banana imports from regions of Africa, 2010 - 2019



Source: Quantec Easydata

Volumes of South African banana imports from different members of SADC (excluding SACU) and SACU (excluding RSA) are shown in Figure 19.

Figure 19: Volume of imports from SADC and SACU member states, 2010 - 2019



Source: Quantec Easydata

It can be observed from Figure 19 that in 2016 the majority (99.6%) of banana imports from SADC were supplied by Mozambique. Another consistent and major player in terms of South African banana imports during the past decade has been Swaziland. The country contributed 10 323 tons or roughly 12.2% to total South African imports of bananas from SADC in 2016. During the past ten year period, Zimbabwe was another significant contributor. Swaziland and Zimbabwe have however not been able to capitalise on South Africa's growing appetite for bananas when compared to its neighbour Mozambique which increased its exports into South Africa significantly during the past ten years.

It is very clear from the preceding subsections that South Africa imports more bananas than it exports. In 2016 the country imported 97 694 tons of bananas compared to only 11 121 tons it exported during the same period. The result is a 86 573 tons trade deficit. The trend has been relatively the same throughout the past decade. In 2016, South Africa's imports represented 0.03% of world imports and its ranking in world imports was 50. This is a clear indication that South Africa relies heavily on imports to meet its local demand for bananas.

2.6 Processing

The ripe banana is utilised in a multitude of ways in the human diet. That is from simply being peeled and eaten out of hand to being sliced and served in fruit cups and salads, sandwiches, custards and gelatins; being mashed and incorporated into ice cream, bread, muffins, and cream pies. Ripe bananas are often sliced lengthwise, baked or broiled, and served (perhaps with a garnish of brown sugar or chopped peanuts) as an accompaniment for ham or other meats. Ripe bananas may be thinly sliced and cooked with lemon juice and sugar to make jam or sauce, stirring frequently during 20 or 30 minutes until the mixture jells.

Banana puree is important as infant food and can be successfully canned by the addition of ascorbic acid to prevent discoloration. The puree is produced on a commercial scale in factories close to banana fields and packed in plastic-lined cans and metal drums for use in baby foods, cake, pie, ice cream, cheesecake, doughnuts, milk shakes and many other products. It is also used for canning half-and-half with apple sauce, and is combined with peanut butter as a spread. Banana nectar is prepared from banana puree in which a cellulose gum stabilizer is added. It is homogenized, pasteurized and canned, with or without enrichment with ascorbic acid.

3. GROWTH, VOLATILITY AND STABILITY ANALYSIS

Table 9 presents the results of growth and coefficient of variation estimations. They were calculated using yearly statistics and covered the same ten-year period under review beginning in 2010 and ending in 2019. The coefficient of variation is a measure of volatility or stability. When the coefficient of variation is less than one, the variable in question is said to be relatively stable, meaning that there were minimal changes. When the coefficient of variation is more than one, it is said to be volatile, meaning there were major changes during the period under review.

Table 10: Banana industry growth rates & variation coefficients (2010 – 2019)

Category	Subcategory	Growth Rate (%)	Coefficient of Variation
Production	Gross Value (GV)	6.75	0.21
	Volume	0.86	0.11

Category	Subcategory	Growth Rate (%)	Coefficient of Variation
Sales at NFPMs	GV/Price	5.84	0.24
	Volume	0.86	0.11
Export	Gross Value	16.37	0.4
	Volume	-9.18	0.90
Import	Gross Value	0.89	0.17
	Volume	0.23	0.21

Source: Calculated from data from Statistics and Economic Analysis, DAFF and Quantec

As shown in the Table 9 above, the banana industry experienced a positive growth rate from 2010 to 2019 in terms of volumes and gross values during the previous decade with exception of gross value of exports.

The table 9 also shows various levels of volatility at different levels of the banana industry's yearly figures over the same period (2010 to 2019). Low volatility was indicated by the coefficients of variation that were less than one (<1). Most variables with exception of gross value of imports and volumes of exports have values less than 1, which means that on a weighted variance scale, they displayed minimal changes during the ten years under review. The coefficient of variation for volumes of exports indicates that the variables was highly unstable during the past decade.

4. MARKET INTELLIGENCE

5.1 Competitiveness of South African banana exports

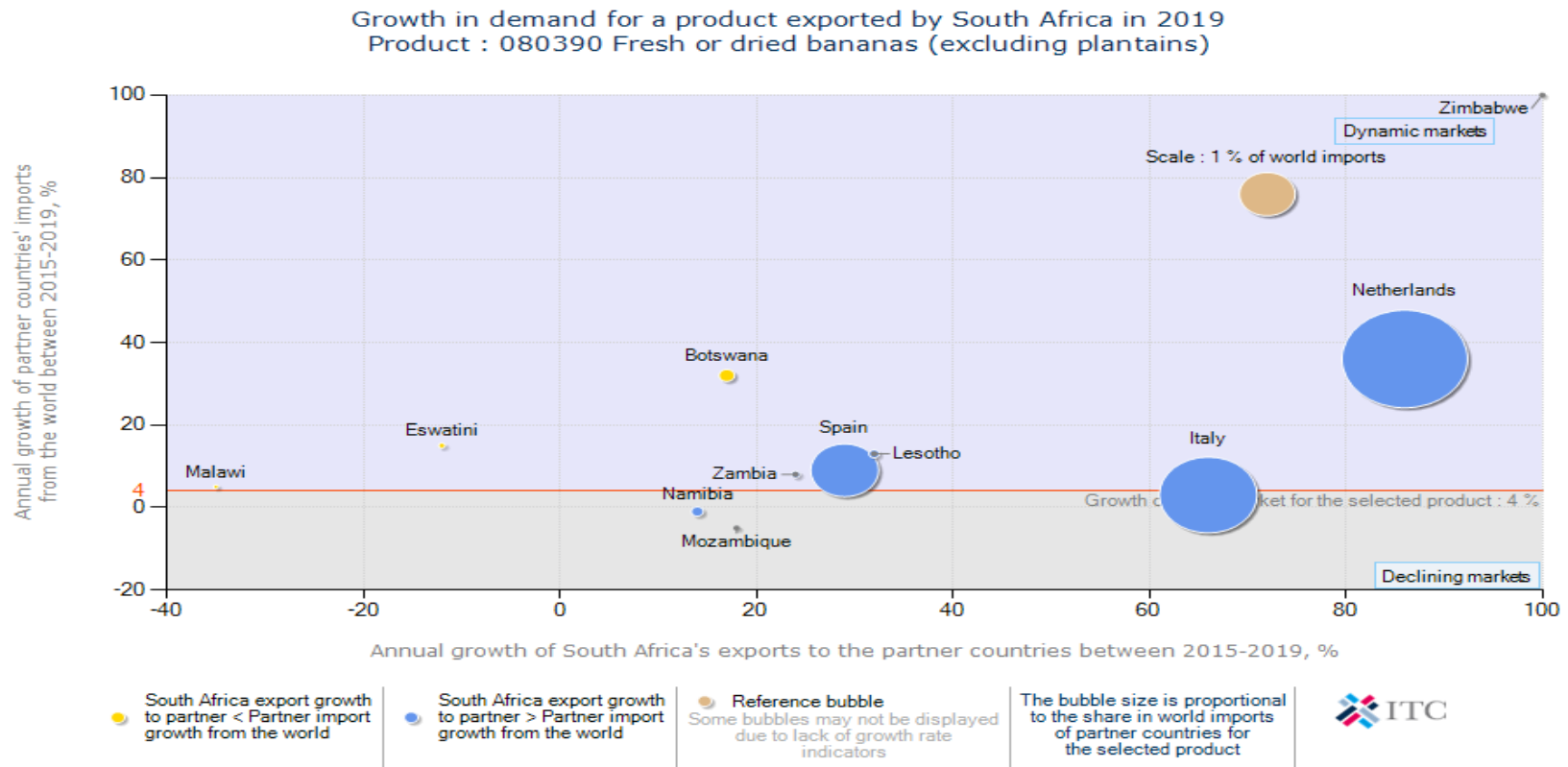
Competitiveness is described as an industry's capacity to create superior value for its customers and improved profits for the stakeholders in the value chain. The driving force in sustaining a competitive position is productivity that is output efficiency in relation to specific inputs with regard to human, capital and natural resources. In 2019, South Africa's banana exports represented 0.1% of world exports and its ranking in world exports was position 50. Figure 20 depicts growth in demand for South African bananas in 2019. The average distance of importing countries is 1 098 km and the export concentration is 0.32

As depicted in Figure 20, South Africa's banana exports are growing faster than the world imports in the Lesotho, Italy, Zambia and Netherlands markets. South Africa's performance in these markets can be regarded as gains in dynamic markets.

At the same time South African banana exports have declined faster than the world imports in Namibia and Mozambique market. South Africa's performance in these markets can be regarded as gains in declining markets.

South Africa's banana exports have been declining while world's imports are increasing faster in Botswana, South Africa's performance in these markets can be regarded as underachievement.

Figure 20: Growth in demand for the South African bananas in 2019



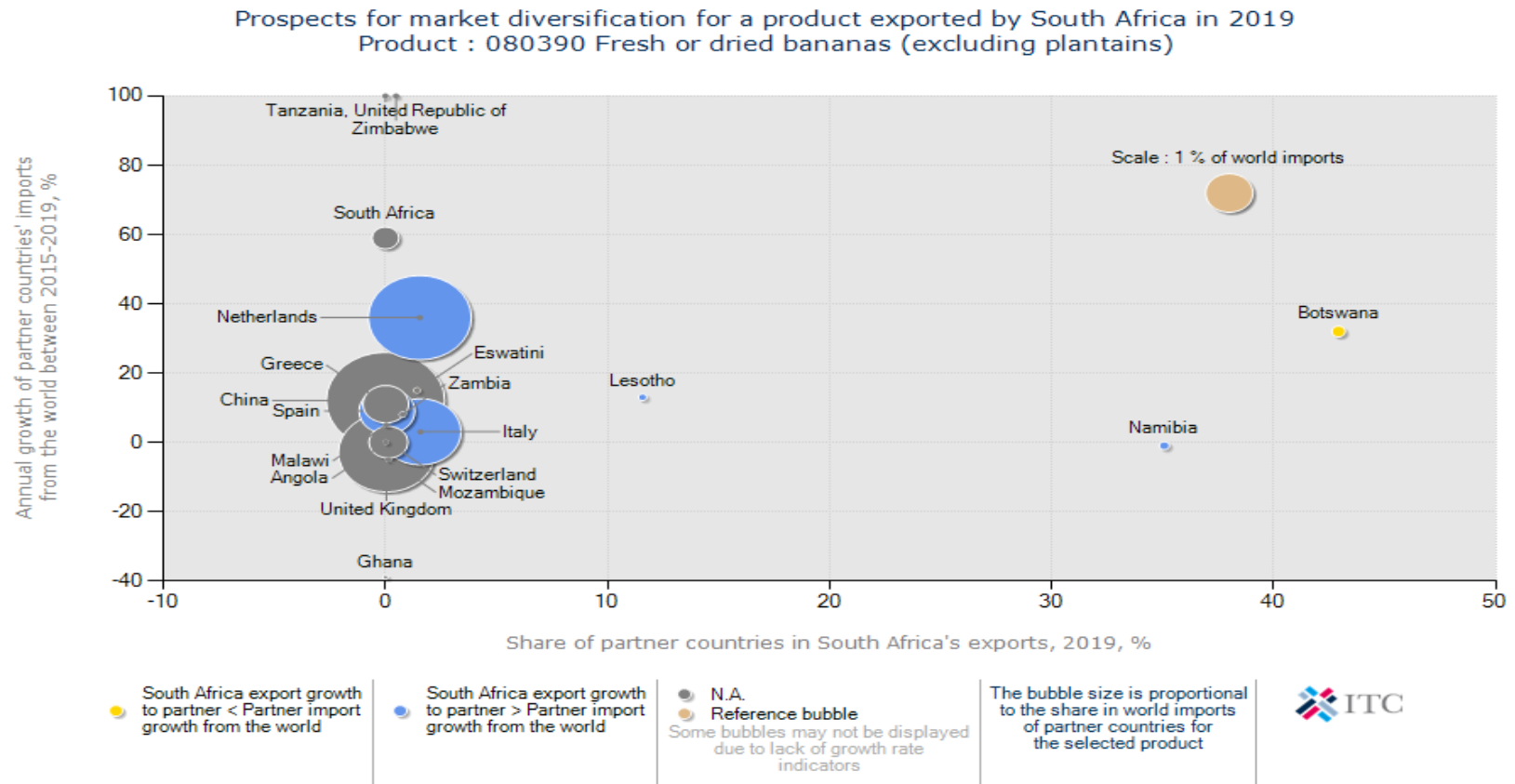
Source: TradeMap, ITC

Figure 21 illustrates prospects for market diversification by South African exporters of bananas in 2019. The Botswana and Namibia hold a larger share of South Africa's banana exports. In terms of market size, the United States of America was the largest banana importer in 2019, with just over US\$2.5 billion worth of banana imports or 16.8% of the world banana market. Second was the Russia with just over US\$1.1 billion or 7.4% market share. Russia was followed by China with over US\$1.1 billion worth of banana imports or 7.3% market share.

Whilst three countries dominate world banana imports, it is interesting to note that countries like the Zimbabwe, together with Netherlands and Italy have experienced higher annual growth rate in value and quantity from 2015 – 2019. Zimbabwe experienced an annual growth rate of 126% in value, while Netherlands experienced an annual growth rate of 86%. Italy experienced an annual growth rate of 66%. These countries represent possible lucrative markets for South African banana producers.

It is also important to note that banana imports from the world to countries such as Malawi and Eswatini have declined from 2015 – 2019 and as a result those countries have recorded a negative growth rate in banana imports.

Figure 21: South African bananas' prospect for market diversification in 2019



Source: TradeMap, ITC

4.2 Global role players

According to the FAO (2003) large-scale exports of bananas were only made possible in the early twentieth century with the development of steam ships and refrigerated transportation. Because of the perishable nature of bananas, close control of the entire marketing chain is necessary. The need for this control of the marketing chain gave rise to a situation where global banana trade has been dominated by vertically integrated companies that generally control production, packing, shipping, ripening and overall trade of bananas. The United Fruit Company (UFC) dominated the US banana market during the 1990s while Fyffes had a quasi-monopoly in the UK and was the predominant player in the rest of Europe.

Margins in banana marketing are said to be low due to intense competition amongst the dominant role players. Vertical integration therefore becomes necessary because it enables firms to capture a larger share of the total product value-added and to benefit from service activities (e.g. shipping, ripening and distribution) that bring higher returns than production. As a result, the largest banana marketing companies produce or source bananas in at least four different countries, own vessels and facilities in harbours, and have storage, ripening and distribution facilities in various importing countries. It is for these reasons that these companies are usually referred to as 'multinational companies' or 'transnational companies' (TNCs).

The trade of bananas is dominated by a few TNCs. These include Chiquita, Dole Food Company, Fresh Del Monte, and Fyffes. Chiquita is the world's largest marketer of bananas and holds a market share of about 23%. It is followed by Dole with a market share of around 20%. Fresh Del Monte is the world's third marketer of bananas with an estimated 14% market share. The company produces bananas on company-controlled farms in Costa Rica, Guatemala, Brazil, Cameroon and the Philippines. The company also purchases bananas from independent growers in Costa Rica, Ecuador, Colombia, Guatemala and the Philippines. The top three companies account for approximately 60% of total trade in bananas. The market share of Fyffes is approximately 5%.

5. MARKET ACCESS

Barriers to trade can be divided into tariff barriers (including quotas, ad valorem tariffs, specific tariffs and entry price systems) and non-tariff barriers (sanitary and phytosanitary measures, labels, etc.). The main markets for fruit (including banana) employ various measures, both tariff and non-tariff to protect the domestic industries. Whilst many of the non-tariff measures can be justified under the auspices of issues such as health and standards, the tariff measures are increasingly under the scrutiny of the World Trade Organization (WTO), and as such are gradually being phased out. Nevertheless, exporters need to be aware of all the barriers that they may encounter when trying to get their produce on foreign shelves.

5.1 Tariff, quotas and the price entry system

Tariffs are either designed to earn government revenue from products being imported or to raise the price of imports so as to render local produce more competitive and protect domestic industries.

Quotas can be used to protect domestic industries from excessive imports originating from areas with some form of competitive advantage (which can therefore produce lower cost produce). Tariffs and quotas are often combined, allowing the imports to enter at a certain tariff rate up to a specified quantity. Thereafter,

imports from that particular region will attract higher tariffs, or will not be allowed at all. This phenomenon is referred to as tariff-rate quotas (TRQs).

The entry price system, which is used in many northern hemisphere markets, makes use of multiple tariff rates during different periods when domestic producers are trying to sell their produce, and lower the tariffs during their off-season. Alternatively, the tariff rate can be a function of a market price – if the produce enters at a price which is too low (and therefore likely to be too competitive), it qualifies for a higher tariff schedule.

Whilst tariff regulations can be prohibitive and result in inferior market access, it is often the non-tariff barriers that restrict countries like South from successfully entering the large developed markets. Many of these barriers revolve around different types of standards, including sanitary and phytosanitary standards (SPS), food health and safety issues, food labelling and packaging, organic produce certification, quality assurance and other standards and grades. Table 11 presents tariffs applied by the leading export markets to bananas originating from South Africa during 2019.

Table 11: Tariffs applied by leading export markets to bananas (fresh or dried) from South Africa

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
Zimbabwe	08031000	Bananas, incluindo os plátanos (pacovas*) frescas ou secas: Banana-pão (Bananas-da-terra*) (Plátanos)	Preferential tariff for South Africa	0.00%	0.00%
			Preferential tariff (SADC) for South Africa	15.00%	15.00%
			MFN duties (Applied)	40.00%	40.00%
	08039000	Banana, other than plantains, fresh or dried	Preferential tariff for South Africa	0.00%	0.00%
			Preferential tariff (SADC) for South Africa	15.00%	15.00%
			MFN duties (Applied)	40.00%	40.00%
Angola	08030000	Bananas, incl. os plátanos [plantains], frescas ou secas	MFN duties (Applied)	50.00%	50.00%
	08039000	Bananas, incluindo os plátanos, frescas ou secas : outras	MFN duties (Applied)	50.00%	50.00%
United States of America	08031010	Plantains, fresh	MFN duties (Applied)	0.00%	0.00%
	08031020	Plantains, dried	Preferential tariff	0.00%	0.00%

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
			for GSP countries		
			MFN duties (Applied)	1.40%	1.40%
	08039000	Bananas, fresh or dried	MFN duties (Applied)	0.00%	0.00%
Zambia	08039010	Bananas, fresh	Preferential tariff for South Africa	0.00%	0.00%
			MFN duties (Applied)	25.00%	25.00%
	08031010	Bananas, including plantains, fresh or dried : Plantains : Fresh	Preferential tariff for South Africa	0.00%	0.00%
			MFN duties (Applied)	25.00%	25.00%
	08031020	Bananas, including plantains, fresh or dried : Plantains : Dried	Preferential tariff for South Africa	0.00%	0.00%
		MFN duties (Applied)	25.00%	25.00%	
	08039020	Autres bananes: Seches	Preferential tariff for South Africa	0.00%	0.00%
			MFN duties (Applied)	25.00%	25.00%
United Kingdom	0803901000	Bananas, fresh (excl. plantains)	Preferential tariff for South Africa	0.00%	0.00%
			MFN duties (Applied)	16.00%	16.00%
	0803109000	Bananas, including plantains, fresh or dried: Plantains: Dried	Preferential tariff for South Africa	0.00%	0.00%
			MFN duties (Applied)	16.00%	16.00%
	0803901000	Banana, fresh (excl plantains)	MFN duties (Applied)	132 EUR/1000 kg net	15.77%
	0803909000	Bananas, dried (excl. plantains)	Preferential tariff for South Africa	0.00%	0.00%

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
			MFN duties (Applied)	16.00%	16.00%
Israel	08031010	Bananas, incl. plantains, fresh or dried : fresh	MFN duties (Applied)	1.06 NIS per Kg but no more than 136%	32.11%
	08031090	Bananas, incl. plantains, fresh or dried : dried	MFN duties (Applied)	1.06 NIS per Kg but no more than 136%	30.85%
Malawi	08031000	Bananas, including plantains, fresh or dried	Preferential tariff for South Africa MFN duties (Applied)	0.00% 25.00%	0.00% 25.00%
	08039000	Bananas, including plantains, fresh or dried : Other	Preferential tariff for South Africa MFN duties (Applied)	0.00% 25.00%	0.00% 25.00%
Fiji	08031000	Bananas, including plantains, fresh or dried : Plantains	MFN duties (Applied)	5.00%	5.00%
	08039000	Bananas, including plantains, fresh or dried : Other	MFN duties (Applied)	5.00%	5.00%
Mozambique	08030000	Bananas, incl. os plátanos [plantains], frescas ou secas	MFN duties (Applied)	20.00%	20.00%
			Preferential tariff for South Africa	0.00%	0.00%
Botswana	08039000	Bananas, including plantains, fresh or dried : Plantains : Fresh	Intra SACU rate	0.00%	0.00%
	08031090	Bananas, including plantains, fresh or dried: plantains: dried	Intra SACU rate	0.00%	0.00%

Source: MacMap, ITC

South Africa has a preferential trading agreement (PTA) with the EU in which only dried bananas enter the EU market duty-free. Fresh bananas enter the EU market on a 18.7% ad valorem tariff. Furthermore South Africa has completely free access to the United States of America market through the generalised system of preferences (GSP). Mozambique, Botswana, Zimbabwe, Zambia and Malawi also have a preferential tariff for South Africa which is set at 0%. South African bananas face the highest tariff in Angola, which

imposes a 50% MFN duty. Israel imposes the second highest MFN duty of 32.11% on fresh bananas and 30.85% dried bananas originating from South Africa.

In reality, the tariffs are likely to be far lower for South Africa when considering the preferential agreements, but at the same time, most tariff structures are particularly complex, with quotas, seasonal tariffs and specific tariffs (an amount per unit rather than a percentage of value) all contributing to many different tariff lines and often higher duties payable than one might have anticipated initially. One must also bear in mind that most tariffs are designated to protect domestic industries, and as such are likely to discriminate against those attempting to compete with the domestic producers of that country.

It is also important to look at tariffs applied by South Africa on imports of bananas originating from other countries because South Africa is also a major importer of bananas. Tariffs applied by South Africa to imports of bananas originating from the leading suppliers in 2019 are presented in Table 12. It is important to note that all imports of bananas into South Africa in 2019 originated from only the five countries that appear in Table 12.

Table 12: Tariffs applied by South Africa to imports of bananas originating from the top-ten suppliers in 2019

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
Mozambique	08039010	Bananas, including plantains, fresh or dried: Other: Fresh	Preferential tariff for SADC countries	0.00%	0.00%
			MFN duties (Applied)	5.00%	5.00%
	08039090	Bananas, including plantains, fresh or dried: Other: Other	Preferential tariff for SADC countries	0.00%	0.00%
			MFN duties (Applied)	5.00%	5.00%
Zimbabwe	08039010	Bananas, including plantains, fresh or dried: Other: Fresh	Preferential tariff for SADC countries	0.00%	0.00%
			MFN duties (Applied)	5.00%	5.00%
	08039090	Bananas, including plantains, fresh or dried: Other: Other	Preferential tariff for SADC countries	0.00%	0.00%
			MFN duties (Applied)	5.00%	5.00%
Seychelles	08039010	Fresh or dried bananas (excl. plantains) : Fresh	MFN duties (Applied)	5.00%	5.00%
Ecuador	08039010	Fresh or dried bananas (excl. plantains) : Fresh	MFN duties (Applied)	5.00%	5.00%
Eswatini	08031010	Bananas, including plantains, fresh or dried :	Intra SACU rate	0.00%	0.00%

COUNTRY	HS CODE	PRODUCT DESCRIPTION	TRADE REGIME	APPLIED TARIFFS	TOTAL AD VALOREM EQUIVALENT TARIFF
		Plantains : Fresh			
	08031090	Bananas, including plantains, fresh or dried: plantains: dried	Intra SACU rate	0.00%	0.00%

Source: MacMap, ITC

South Africa applies no import tariff to bananas originating from all countries in table 10 mainly due to preferential trade agreements entered into through SADC and SACU blocs. All the countries are advantaged primarily due to the South African Custom Union (SACU) and Southern African Development Community (SADC) preferential tariff and also the distance. They are South Africa's neighbouring countries and their bananas enter South Africa free of duty. Due to a preferential trade agreement with the EU, banana imports from EU member states also enter South Africa duty-free.

5.2 European Union (EU) regulations

At the end of the eighties, existing differences between the different banana companies seemed to be well established and facing the prospect of opening up huge new markets in Eastern Europe and Asia. It only seemed to be a question of boosting banana production to assure 'fruitful' development of the banana business. Unfortunately, it turned out not to be that easy. With the restricted EU market and no Eastern European miracle, even big companies like Chiquita turned out not to be untouchable. The introduction of the EU banana regulations changed the world banana market.

With the integration of the European market, the EU combined two main objectives:

- To create an integrated market for bananas harmonizing different trade agreements;
- To guarantee that access to this market for their traditional African, Caribbean and Pacific (ACP) group and European was not hampered by the foreseen influx of cheap Latin American bananas.

The complicated 404/93 trade mechanism, introduced on 1 July 1993, was the result. The EU established four categories of suppliers, each receiving different treatment:

- EU producers (mainly Canary Islands, Martinique and Guadeloupe) covered by internal aspects of the common market. For this category, income support up to 854 000 tons is guaranteed in cases prices fall below the costs of production. This mechanism has been used for several years;
- Traditional ACP countries, i.e. the ACP banana suppliers in the years preceding the single market have duty-free access up to a maximum of 857 700 tons per year;
- Non-traditional ACP countries (e.g. Dominican Republic) and quantities from traditional ACP countries above the ceiling of 857 700 tons;
- Third countries, the so called 'Dollar' countries, together with the Non-traditional ACP producers, share a tariff quota of 2 million tons duty-free for non-traditional ACP countries and with a tariff of 75 ECU per ton for Dollar bananas. The quota was increased to 2.5 million tons with the accession to the EU of Sweden, Finland and Austria.

The Dollar allocation was granted to trading companies in the following way:

- 'A' licenses: 66.5% reserved for traditional traders in Dollar bananas,
- 'B' licenses: 30% reserved for established operators of Community and/or traditional ACP bananas;
- 'C' licenses: 3.5% for 'newcomers' with ambitions within the sector.

The allocation of Dollar quotas to the ACP companies was designed to cross-subsidize the expensive ACP bananas with some Dollar banana quota rent and thus strengthen the position of the ACP companies in relation to the Dollar companies. At the same time, it led the Dollar companies to invest in ACP countries to build rights to the future Dollar quota allocation within this category.

Within this tariff quota, each import category is again subdivided according to specific economic activities such as producing, purchasing, transport and ripening, making the fruit allocation of 100% of actual quotas only possible if a company operates in all economic activities. Therefore, this last subdivision directly resulted in the need for further ongoing vertical integration to guarantee the future allocation of quotas.

Due to the insufficient level of quota allocation, the system has resulted in an active trade in Dollar licenses which, depending on demand have been fluctuating enormously up to around \$7 – 8 per box. The total cash value of the licenses is calculated to over \$1 billion annually.

5.3 United States of America (USA)

5.3.1 Tariff barriers

South African exporters have completely free access to the USA markets under the Generalized System of Preference (GSP) or the African Growth and Opportunity Act (AGOA). South African exporters must always compare with what Chile (the main supplier of fruit to the USA and South Africa's potential rival) must pay in terms of tariff duties when exporting fruit to the USA. Chile's access to the USA fruit market is considered to be highly preferential under its own Preferential Trade Agreement (PTA).

5.3.2 Non-tariff barriers

The USA's phytosanitary regulation is conducted by Animal and Plant Health Inspection Service (APHIS), which is divided into nine sub-sections. Plant Protection and Quarantine (PPQ) and Veterinary Services (VS) are responsible for issuing permits for commodities and determining whether a commodity can be imported. The Policy and Program Development (PPD) division works with both these divisions in determining long term plans and procedures.

Some products can get pre-clearance from international Services (IS) personnel stationed in the country of origin, either at exporting terminals or through site inspections. The PPQ's main focus is to prevent the spread of diseases and pests into the USA's agriculture resources and it has personnel stationed at all airports, seaports and border stations that check imported cargo and oversee the quarantine process. Exporters or importers must make a request to export/import a commodity, provide as much information as possible on the product, its region of origin and its status that is whether there are restrictions or regulations governing that particular product from that particular region before a permit is issued, along with the

conditions of importation (disinfestations treatment) or mitigation measures. Denials can be challenged and governments and companies can request a change in the status of a prohibited commodity (an investigation must be performed by the PPQ scientific team), as long as sufficient conditions have changed or a risk assessment has not been conducted within the last 10 years.

Most approved commodities can enter with inspection alone, but some may have to undergo mitigating measures including post-harvest treatments (hot/cold temperature treatments, irradiation or fumigation, depending on the requirements and which particular treatment is least harmful). The establishment of specifically and maintained pest-free areas in a country (which obviously requires extensive co-operation between the country's plant health services and APHIS IS division) or systems approaches (field surveys, random inspections or various onsite treatments).

In additions to phytosanitary regulations, the USDA Food Safety Inspection Services (FSIS) regulates sanitary practices in the packing of food products, while the Food and Drug Administration (FDA), which is part of the US Department of Health, regulates packaging and labelling. The HACCP protocol is used extensively. The USDA quality standards for fruits and vegetables provide basis for domestic and international trade and promote efficiency in marketing and procurement.

6. DISTRIBUTION CHANNELS

There are roughly three distinct sales channels for exporting fruits. One can sell directly to an importer with or without the assistance of an agent (usually larger, more established commercial operations). One can supply fruits combined, which will then contract out importers/marketers and try to take advantage of economies of scale and increased bargaining power. At the same time combined fruits might also supply large retail chains. One can also be a member of a private or cooperative export organization which will find agents or importers and market the produce collectively. Similar to combined fruits, an export organization can either supply wholesale market or retail chains, depending on particular circumstances. Export organizations will wash, sort and package the produce.

They will also market the goods under their own name or on behalf of the member, which includes taking care of labelling, bar-coding, etc. Most of the time, export organizations will enter into a collective agreements with freight forwarders, negotiating better prices and services (more regular transport, lower peak season prices, etc.). Some countries have institutions that handle all the produce (membership compulsory) and sell only to a restricted number of selected importers.

Agents will establish contacts between producers/export organizations and buyers in the importing country, and will usually take between 2% and 3% commission. In contrast, an importer will buy and sell his/her own capacity, assuming the full risk (unless on consignment). They will also be responsible for clearing the produce through customs, packaging and assuring label/quality compliance and distribution of the produce. Their margins lie between 5% and 10%. The contract importers of fruit combines market and distribute the produce of the combines, clear it through customs and in some cases treat and package it.

Only few exporters have long term contracts with wholesale grocers who deliver directly to retail shops, but with the increasing importance of standards (GlobalGap, etc.) and the year round availability of fruit, the planning of long term contractual relationship is expected to increase.

7. LOGISTICS

7.1 Mode of transport

The transport of fruits falls into two categories namely ocean cargo and air cargo. Ocean cargo takes much longer to reach the desired location but costing considerably less. The choice of transportation method depends, for most parts on the fragility of the produce and how long it can remain relatively fresh. With the advent of technology and container improvements, the feasibility, cost and attractiveness of sea transport have improved considerably. With the increased exports by South Africa, the number and the regularity of maritime routes have increased. These economies of scale could benefit South Africa if more producers were to become exporters and take advantage of the various ports which have special capabilities in handling fruit produce (for example Durban's new fruit terminal).

7.2 Cold chain management

Cold chain management is crucial when handling perishable products, from the initial packing houses to the refrigerated container trucks that transport the produce to the shipping terminals, through to the storage facilities at these terminals, onto actual shipping vessels and containers, and finally on to the importers and distributors that must clear the produce and transport it to the markets/retail outlets. For every 10 Degree Celsius increase above the recommended temperature, the rate of respiration and ripening of produce can increase twice or even thrice. Related to this are increasing important traceability standards which require an efficient controlled supply chain and internationally accepted business standards.

7.3 Packaging and marking requirements

Packaging can also play an important role in ensuring safe and efficient transport of a product and conforming to handling requirements, uniformity, recyclable material specifications, phytosanitary requirements, proper storage needs and even attractiveness for marketing purposes.

The business panel of any carton (including printed carton labels) should comply with the requirements as established by the EU or any other regulations that are specified by a target market. Producers are advised to present their designs to the Perishable Products Export Control Board (PPECB) before they can order any cartons from a manufacturer. The following is normally required:

- Class I or II
- Fruit type
- Carton depth
- Country of Origin: "Produce of South Africa"
- Complete address of exporter or producer
- Name of variety
- Content of carton: "14 x punnets or bags"
- PUC or PHC code: Registered producer – or Pack House Code with DAFF
- Date code
- Food safety accreditation number: Global Gap, Nature's Choice registration number, etc.

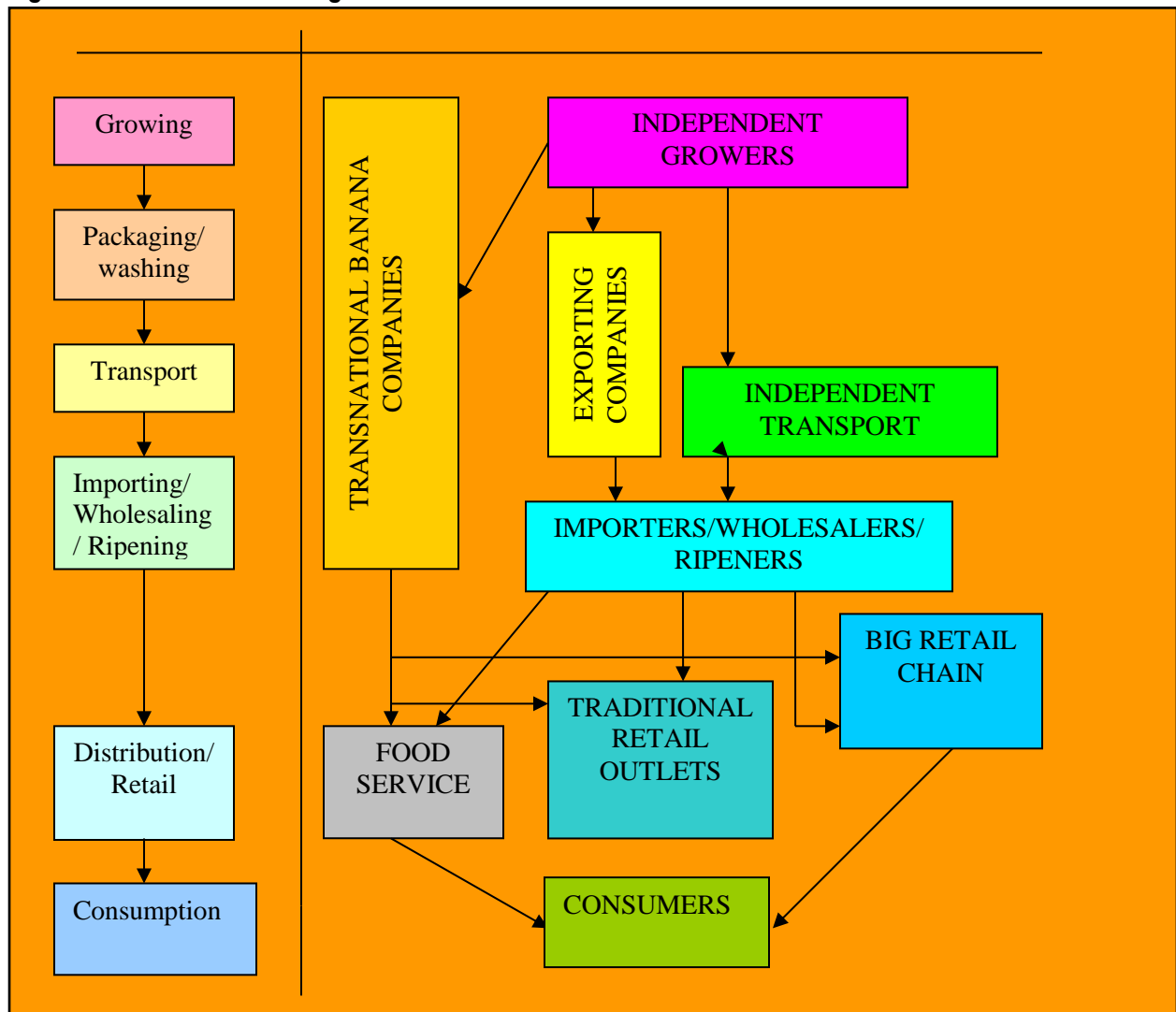
8. BANANA MARKETING CHAIN

Banana market structure is very heterogeneous, depending on the producing and importing countries. The presence of diverse economic actors is also different from country to country and among regions, at the several stages of the banana chain. Export bananas may be grown by many small independent growers (with a higher presence in the Caribbean banana producing countries and Ecuador), national banana companies (mainly in Ecuador and Colombia) or large transnational companies (the presence of multinationals is higher in Central America and increasing in Africa and Asia).

At a later stage of the chain, after cleaning, packaging and quality control, bananas are transported through independent reefer carriers or by the fleet owned by multinationals. When they arrive to the importing country, they may pass through importers or wholesalers, needing to be ripened before they arrive to the different retail outlets in order to be purchased by the consumers. However, the major feature of the international banana market overall is its oligopolistic nature, meaning that a few major transnational banana marketing corporations dominate international banana marketing and trade, being able to exercise their market power at several or all the stages of the banana marketing chain.

The special characteristics of a product of high perishability, such as bananas, require the careful control of the growing, packaging, transport, handling, ripening and distribution process. This leads to a highly vertically integrated banana sector, where large transnational companies tend to control from direct growing of bananas in producing countries, through ownership of specialized refrigerated shipping and ripening facilities, to even distribution networks in importing countries. The high investment of capital required in this export oriented banana business later enables these companies to profit from economies of scale, since they are able to provide consistently large quantities of high quality banana at lower costs and from different geographical sources, due to the technological advantages they enjoy in production, shipping and marketing. Therefore, they control the higher proportion of banana value added, since it is normally concentrated in shipping and marketing activities. This is the reason why even if production and export of bananas are highly concentrated in developing countries; it is mainly developed countries that tend to capture the benefits of banana trade through their large transnational banana marketing companies. Figure 23 presents, to a certain extent, a scheme of the international banana marketing chain.

Figure 24: Banana marketing chain



Source: UNCTAD Secretariat

Until the seventies transnational banana corporations were present at every stage of the banana marketing chain, from growing to final consumers. They owned plantations, transport infrastructures and ripening facilities. However, in the last 20 years there has been a move away of multinationals from direct growing in order to focus on more specific marketing and distribution activities. Multinationals tend now to establish long term supply contracts with independent local banana growers, specifying shapes, quantities, standards of quality, packaging and so on. In many cases, multinationals also provide inputs in order to control the quality.

By following this strategy of moving away from direct growing, multinationals avoid production risks, such as those related to the occurrence of natural disasters as well as environmental and social costs of production. It is the local producer who has to face these costs and has to comply with environmental and social standards. At the same time they are still controlling the banana marketing chain through their supply contracts. Since most of the value added in bananas comes from transport and distribution activities, multinationals keep the higher share of margins. Independent producers are usually organized in

associations in order to negotiate their contracts with multinationals. However, there have been some attempts from independent producers to internationally commercialize their bananas, with diverging results. In some cases, such as Comunbana (a multinational banana marketing company launched by the Union of Banana Exporting Countries), it failed because it lacked the required great scale and the huge amounts of capital, as well as the coordinated work of several producing countries. However, there have been some examples of success, such as Uniban. The retreat of multinationals may open new opportunities for local growers in developing countries, looking for more direct negotiation with Europe, for example.

Therefore, traditionally the international banana market has been a producer driven market, where transnational banana marketing companies played a prominent role in setting the rules of the game. However, during the last decades, this situation has changed. Banana companies are facing the challenge of the increasing role that is being played by supermarkets and retail chains in the distribution of bananas in developed countries, mainly in the EU and USA. This tendency is also developing in Latin America and Asia. Actually it is possible to say that the international banana market is assisting to a process that could be called reversal of the marketing chain. Increasing concentration and consolidation in retail chains has improved their position and power in the market and allowed them to move backwards in the marketing chain in order to better control it, determining conditions of production and distribution of bananas and benefiting a higher share of the profits, without necessarily taking direct ownership.

This downstream shift of power in the banana marketing chain, and for produce in general, is leading to increasing vertical coordination, mainly through supply chain management practices used by the retail chains. Supermarkets tend to build long-term relationships with preferred suppliers in order to guarantee a continuous supply at the required levels of quality.

9. BUSINESS OPPORTUNITIES AND CHALLENGES

The banana industry encompasses a large value chain and business opportunities can be found in banana production, tissue culture, input supplies such as fertilizers, chemicals and irrigation equipment, carton manufacturing, refrigeration, transport and marketing agents.

The banana industry is currently facing the following challenges:

- High capital costs of infrastructure. Bananas need to be ripened artificially in ripening rooms before marketing. At present, most of these facilities are concentrated in large urban areas and it is difficult for smaller/rural municipalities to create such facilities.
- High cost of toll fees. Banana producers pay toll fees on most of their bulk inputs because transporters add it as a separate cost item on their invoices. The producer is also liable for the toll fees of the produce to the markets.

10. ACKNOWLEDGEMENTS

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10.1 South African Banana Growers Association

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10.4 National Agricultural Marketing Council (NAMC)

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10.5 United Nations Conference on Trade and Development

www.unctd.org

10.6 International Trade Centre

www.intracen.org

10.7 FAO (2016)

The world banana economy 1982 – 2002; prepared by Pedro Arias, Cora Dankers, Pascal Liu and Paul Pilkauskas of the Tropical and Horticultural Products Service (ESCR), Commodity and Trade Division, FAO, Rome, ISBN 92-5-105057-0.

10.8 Quantec

www.quantec.co.za

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