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Promoting market access for South African agriculture

A DESKTOP REPORT ON **SOUTH AFRICA'S** *Tomato* Value Chain

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EXECUTIVE SUMMARY

The study analysed the global and domestic tomato value chain, noting a consistent increase in tomato consumption and production driven by the health benefits associated with tomatoes. However, both producers and processors of tomato products in South Africa face numerous challenges, including retail price fluctuations, climate uncertainty, and competition, which limit their significant participation in the value chain. The connection between production, agro-processing, and markets remains a major challenge for participants in the South African tomato value chain. Therefore, a well-defined value chain is crucial to eradicating poverty and promoting economic growth among tomato producers and traders. The report is structured as follows: the first section provides the background, objectives, motivation, and the scope of the study. Section 2 focuses on the global overview of the tomato industry, entailing production, processing, and trade performance while Section 3 highlights the methods used to extract the data and synthesis thereof. Findings of the study are presented in section 4. Conclusions and recommendations are provided in Section 5, while limitations of the study are highlighted in Section 6.

MAJOR FINDINGS:

Global Trends: Between 2005 and 2021, global tomato production and the harvested area increased by 47.2% and 23.5% respectively, due to the rising consumer awareness of the health benefits associated with tomatoes. China, India, Turkey and the United States are the leading producers and accounting for 35.7%, 11.2%, 6.9% and 5.5% of the global production, respectively.

Global Consumption Trends: Between 2010 and 2020, global tomato consumption rose by 30.1%, 29.8% and 25.2%, particularly for processed, waste, and food consumption, respectively while tomatoes used for feed consumption decreased significantly by 89.9% during the same period.

South Africa's Production: In South Africa, tomato production fluctuated between 2013 and 2022, with an increase of 30.93% noted from 2014 to 2017 but significantly decreased by 13.53 from 2018 to 2022. Unfavourable weather conditions affected the volume of tomatoes canned, processed, and consumed in the form of juice, thereby leading to declines in volume and value.

International Trade Dynamics: The Netherlands is the top exporter of fresh tomatoes globally, with Spain, Turkey, France, Belgium, and Afghanistan following suit in that order. The

USA ranks as the largest importer of fresh tomatoes, followed by Germany, France, Pakistan, and Saudi Arabia. Within Africa, Egypt leads in fresh tomato exports with South Africa ranking second. Cote d'Ivoire is the top importer of fresh tomatoes in Africa.

Challenges in the Tomato Value Chain of South Africa: The slowdown in the overall tomato trade stems from challenges upstream in the sector, such as the limited availability of raw materials and products. The main stakeholders in the tomato value chain include producers, processors, national fresh produce markets, exporters, retailers, wholesalers, and consumers. Key challenges faced include fluctuating retail pricing, competition, and climate inconsistency.

Key Players: The performance of the value chain in South Africa is sustained by the private sector and the major players in the tomato value chain include Tiger Brands (Box A), Miami Cannery (Box B), ZZ2 (Box C), and Dursots (Box D).

Impact on Business in South Africa: Doing business in South Africa is influenced by factors such as input costs, labour costs, electricity power cuts, and BB-BEE implementation.

KEY RECOMMENDATIONS:

The following key recommendations are made based on the results of the study;

- a) The growing consumer demand due to increased awareness of tomato's nutritional benefits presents the opportunity for the industry to innovate and invest in research and development of organic and climate resilient tomato varieties. This can be done through allocation of research funding, investment in improved farming technologies and pest management practices, consumer education on nutrition and encouraging the adoption of climate adaptation strategies.
- b) There is a need for collaboration among tomato industry players, the private sector, development agencies and the government through DALRRD to enhance existing financial interventions, which will increase farmer revenue and promote a sustainable tomato value chain. This partnership should prioritize customized financial assistance, such as subsidized funds and loans, to bolster farmers' access to working capital and mitigate input costs.
- c) Government through DALRRD and other relevant entities should intensify efforts in implementing programmes that seek to address pressing challenges faced by producers and processors in the tomato value chain. These challenges include fluctuating retail prices, heightened competition from comparative products, and increased weather variability caused by climate change. Such programmes could involve measures to stabilize retail prices in alignment with production costs, alongside

strategic regulations on imports to mitigate excessive competition. By focusing on specific interventions tailored to these challenges, the government can better support local producers and processors, fostering a more resilient and sustainable tomato value chain.

- d) The dominance of a small number of major producers in the South African tomato industry limits competition and diversity in products and pricing. To foster a more competitive and diverse sector, industry stakeholders must actively encourage and support new entrant growers and processors. This support should include providing access to training programmes, financial assistance, mentorship opportunities, and assistance in accessing markets. Addressing barriers to entry, such as access to land and capital, is crucial to enabling new entrants to thrive. Moreover, emphasis should be placed on promoting sustainable practices among new entrants to ensure the long-term viability of the sector. By facilitating the establishment of a healthy, bottom-up competition, the industry can become more resilient and dynamic.
- e) There is an urgent need to address challenges related to the unreliable and unstable electricity and water supply by implementing sustainable energy solutions like further subsidising solar power and water harvesting technologies, thereby rendering the affordable to both producers and processors, among other value chain actors. This support could take various forms, including subsidies, tax incentives, and regulations that encourage the use of solar power and water harvesting systems. By providing financial incentives and regulatory frameworks that make these technologies more accessible and attractive to individuals and businesses, the government can accelerate their adoption and contribute to solving the challenges of electricity and water supply.

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Abbreviations and Acronyms

ABSA	Amalgamated Banks of South Africa
BBBEE	Broad-Based Black Economic Empowerment
DAFF	Department of Agriculture, Fisheries and Forestry
DALRRD	Department of Agriculture, Land Reform and Rural Development
EC	European Commission
EU	European Union
GDP	Gross Domestic Product
HS	Harmonized System
ITC	International Trade Centre
NFPMs	National Fresh Produce Markets
SA	South Africa
UAE	United Arab Emirates
UK	United Kingdom
USA	United States of America
USDA	United States Department of Agriculture
Stats SA	Statistics South Africa
FAOSTAT	Food and Agriculture Organisation Statistics
HA	Hectare
FFV	Fresh Fruit and Vegetables

1. Background

A value chain represents a series of interconnected activities aimed at enhancing the value of a commodity. It encompasses various actors and actions that contribute to improving the commodity, while also linking all participants involved, ranging from input suppliers and producers to processors and markets. Within the context of small-scale farming, this process entails activities such as information dissemination, infrastructure development, agricultural planning strategies, financing, and marketing initiatives. In South Africa, the agricultural landscape often features dual value chains operating concurrently for the same product, as exemplified by the tomato industry. Tomatoes hold a significant position as the second most consumed vegetable in the country, after potatoes. Both commercial enterprises and subsistence farmers contribute to tomato cultivation, with tomatoes contributing approximately 18.3% to the gross value of vegetable production in South Africa in 2015 (DAFF, 2016). In 2022 tomato production in South Africa stood at 464 554 tons/ ha, indicating a decrease of about 12.49% from the production recorded in 2021 (DALRRD, 2023).

Originating from South America and introduced to South Africa via Europe, tomatoes boast a rich history and diverse cultivation practices. South Africa's varied climate facilitates year-round production in open fields across different regions, spanning from the Western Cape to Limpopo in the north. Despite being primarily a warm-season crop, tomatoes thrive under diverse climatic conditions, leading to substantial annual production. As of 2022, South Africa's annual tomato production stood at approximately 400 000 tons (FAOSTAT, 2022), with the cultivation of round, roma, and cherry tomatoes being prevalent, primarily supported by irrigation systems. Tomatoes, renowned for their nutritional value, particularly in lycopene and Vitamin C, serve versatile culinary purposes. Whether consumed fresh, fried, or incorporated into various dishes, tomatoes also undergo sun-drying or processing into a myriad of products, including sauces, purees, powders, soups, and canned variants, alongside chutneys and jams (DAFF, 2016).

1.1. Motivation

Agriculture stands as a cornerstone of economies worldwide, playing a vital role not only in South Africa but across the globe. Particularly in developing nations throughout Africa, a substantial portion of the population relies on agriculture for their livelihoods. Within this sector, horticultural farming emerges as a key sub-sector, holding promise as a driver of poverty reduction among low-income small-scale farmers. Statistics SA (2019) underscore the economic significance of horticulture, with sales totalling R86.3 billion in 2019, following closely behind animals and animal products, which generated R153.1 billion. Notably, horticultural farming, encompassing the cultivation and market gardening of horticultural crops, stands out for its job creation potential. In 2019 alone, the sector provided employment

to over 450 000 individuals within the agriculture sector (Stats SA, 2019). In South Africa, tomato production serves as a significant contributor to employment, employing between 25 000 and 28 000 people annually, with increased seasonal demand during the summer months. Most of the annual crop, ranging between 83% and 87%, is distributed through national and regional fresh produce markets, with a smaller portion supplied directly to supermarket chains (Post Harvest Innovation Programme, 2024). Additionally, a fraction of South Africa's tomatoes finds its way to cross-border traders, supplying neighbouring countries such as Lesotho, Swaziland, Mozambique, Botswana, and Namibia.

While South Africa boasts a reputation for implementing best practices in tomato production, the sector grapples with several challenges. For instance, high input costs, market price fluctuations, water scarcity, unreliable electricity supply, labour issues, and inadequate infrastructure for transportation and export pose significant hurdles, hence requiring urgent attention. The nexus between production, agro-processing, and market access remains a pressing concern within South Africa's tomato value chain (DAFF, 2019). Numerous scholars attest to this and highlight the need for interventions to strengthen the entire value chain (Obi et al., 2012; Sibomana et al., 2016; Ddamulira & Maphosa, 2020). Furthermore, despite its leadership in production practices, South Africa continues to rely on imported tomato paste, prompting a critical assessment of the local tomato industry's performance. Establishing a well-defined value chain is imperative to alleviate poverty and foster economic growth among tomato farmers, processors, and traders.

1.2. Objectives

Objectives of the assessment of the tomato industry are to:

- i. To assess South Africa's tomato value chain performance including mapping economic players, production and consumption trends, and trade performance over the years.
- ii. Determine factors affecting the functioning of the domestic tomato industry.
- iii. Identify challenges and opportunities influencing the development of the tomato industry.

1.3. Scope of the study

Whereas the study also ascertained what is happening beyond the borders of South Africa, interviews with industry experts and producers were only done within South Africa. Qualitative and quantitative approaches were used to perform a detailed analysis. Value chain analysis overcomes several important weaknesses of traditional sectoral analysis which tends to be static and suffers from the weakness of its own bounded parameters. For restricting itself to sectoral analysis, it struggles to deal with dynamic linkages between productive activities that

go beyond that sector, whether they are of an inter-sectoral nature or between formal and informal sector activities. By its concentration on interlinkages, value chains analysis allows for an easy uncovering of the dynamic flow of economic, organisational, and coercive activities between producers within different sectors even on a global scale (Kaplinsky & Morris, 2000).

Furthermore, value chain analysis is particularly useful for new producers including poor producers and poor countries, trying to enter global markets in a manner that would provide for sustainable income growth. Finally, value chain analysis is also useful as an analytical tool in understanding the policy environment which provides for the efficient allocation of resources within the domestic economy, notwithstanding its primary use thus far as an analytic tool for understanding the way in which firms and countries participate in the global economy (Kaplinsky & Morris; 2000). The study used value chain analysis as a tool to map South Africa's tomato value chain to fulfil its aim.

1.4. Structure of the report

The rest of the report is structured as follows: Section 2 focuses on the global overview of the tomato industry, entailing production, processing, and trade performance while Section 3 highlights the methods used to extract the data and synthesis thereof. Findings of the study are presented in section 4 and the lastly, the conclusion and recommendations are presented in Section 5 while limitations of the study are highlighted in Section 6.

2. Global overview of the tomato industry

2.1. Production and processing

Tomatoes hold a significant position in the world stage, ranking as one of the most widely utilized fruits and the second most consumed vegetable globally, trailing only behind potatoes. The widespread appeal of tomatoes can be attributed to their versatility, as they can be enjoyed in various forms. Whether fresh or processed, tomatoes find their way into our meals. In the realm of processed tomato products, one can discover a range of options, including tomato preserves like pulp, juice, whole peeled tomatoes, puree, and tomato paste, not to mention the tangy allure of pickled tomatoes. Dried tomatoes, such as flakes, powder, and delectable dried tomato fruits, occupy another niche in the world of tomato derivatives. Additionally, the culinary world embraces tomatoes in a multitude of tomato-based foods like soups, chili sauces, traditional tomato sauces, and the ever-popular ketchup.

Figure 1 presents global statistics for tomato production and area harvest. In the year 2021, the total global tomato production, spanning both processing and fresh consumption, reached a about 189.1 million metric tons, and the total global area harvested was 5.16 million hectares

(ha). During the 2020–2021 period, the area harvested increased by 3.2%, and global tomato production also increased by 2.4%. During the 2005–2021 period, global tomato production and the total area harvested increased by 47.2% and 23.5%, respectively. The increase in both tomato production and harvested area can be linked to multiple factors. For instance, the European Union has highlighted the increasing consumer awareness of the benefits of including a diet rich in fruits and vegetables, leading to a significant surge in demand for tomato products (EC, 2021). Interestingly, a noticeable trend is away from highly concentrated tomato products like tomato paste toward less concentrated, high-value-added products such as canned tomatoes, passata, organic options, and tomato sauces (Tomato News, 2022).

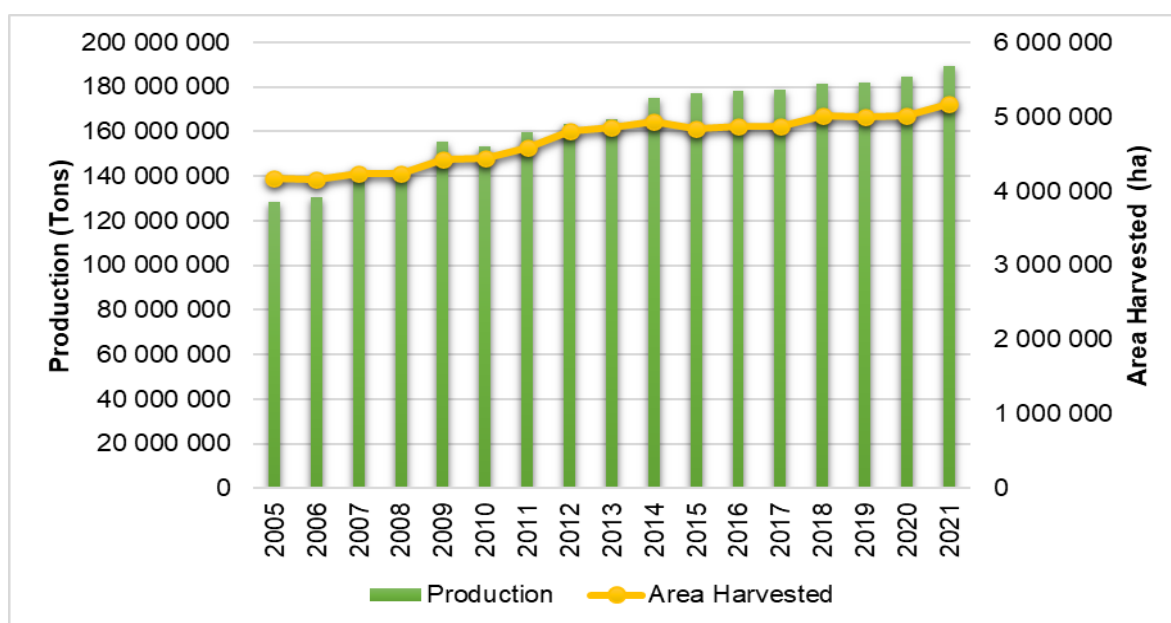


Figure 1: Global tomato and tomato paste production

Source: FAOSTAT, 2022

2.1.1 Global leading producers

This section presents the leading producers by volume in tons and area harvested in ha, highlighting South Africa’s place in the rankings. Table 1 gives a detailed presentation of the leading countries in tomato production. In 2021, the distribution of global tomato production was dominated by China, contributing approximately 67.6 million metric tons, representing about 35.76% of the world's tomato production, followed by India at 21.1 million metric tons (11.20%), Türkiye at 13.0 million metric tons (6.92%), the USA at 10.4 million metric tons (5.54%), and Italy at 6.644 million metric tons (3.51%). In comparison, South Africa's tomato production reached 0.5 million metric tons, representing about 0.28% of the global tomato production. When comparing the production growth from 2010 to 2021, India showed a remarkable increase of 70.4%, followed by China with 44.3%, Türkiye (30.3%), and Italy (10.3%). However, there was a 25.5% decline in the United States of America while South

Africa also saw a decrease of 4.2%. China's dedication of approximately 1.107 million hectares of land to tomato production can be attributed to its leading position as the world's top tomato producer (Tomato News, 2022).

Table 1: Global leading tomato producers and South Africa 2022

Major tomato producing countries	% of world tomato production in 2021	Growth in production (2010-2021 in %)	Production in 2021 (tons)
China	35.76%	44.3%	67 636 725
India	11.20%	70.4%	21 181 000
United States of America	5.54%	-25.5%	10 475 265
Türkiye	6.92%	30.3%	13 095 258
Italy	3.51%	10.3%	6 644 790
South Africa	0.28%	-4.2%	530 843

Source: FAOSTAT, 2022

2.2 Global tomato consumption

This section presents global tomato consumption with a major focus on food, processed, feed, and waste. **Figure 2** presents global tomato consumption trends between 2010 and 2020. In 2020, global tomato consumption for food purposes amounted to 162 356 000 tons, with waste amounting to about 17 908 000 tons, while tomatoes used for feed were 161 000 tons as the volume processed amounted to 515 000 tons. When comparing global tomato consumption between the years 2010 and 2020, the quantities of processed, waste, and food increased by 30.1%, 29.8%, and 25.2%, respectively, while feed decreased by 89.9%. When comparing the years 2019 and 2020, feed consumption increased by 36.4%, waste by 2.0%, and food saw the least increase at 1.9%. The increase in tomato consumption could be driven by the increasing awareness among consumers of the benefits of adopting a diet rich in fruits and vegetables, as well as public initiatives to promote their intake (Tomato News, 2022).

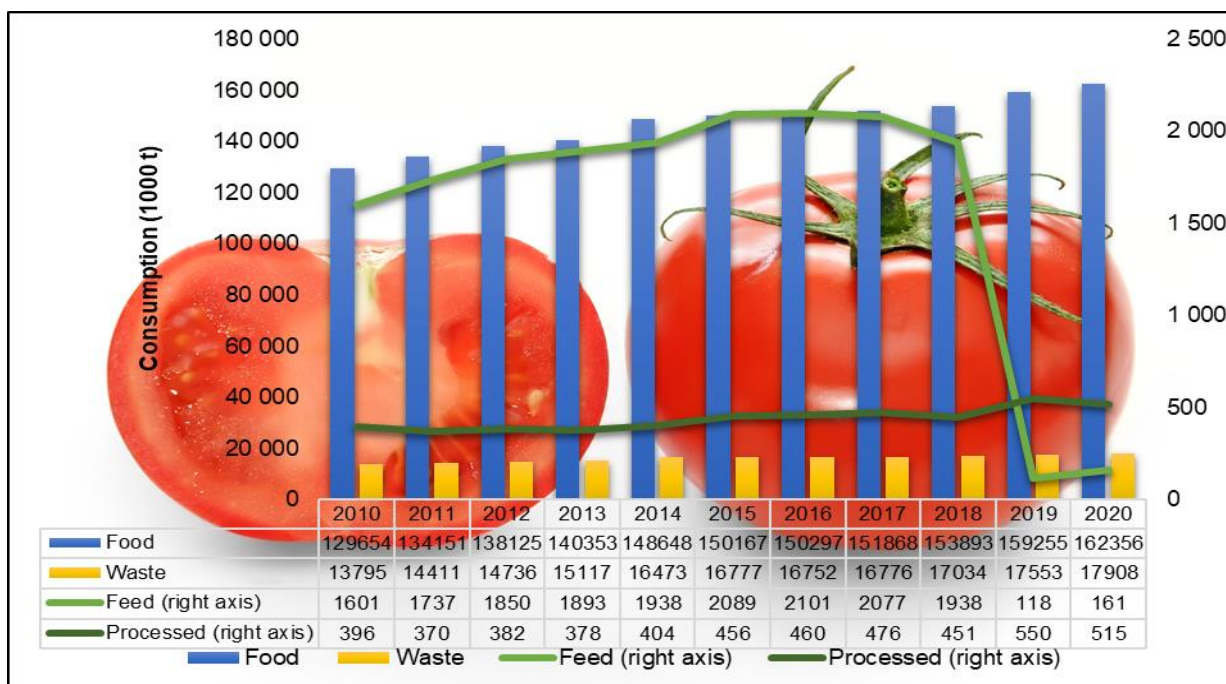


Figure 2: Global tomato consumption

Source: FAOSTAT, 2022

2.3 Global trade performance

2.3.1 Global leading fresh or chilled tomato exporters (HS-0702)

The top exporters of fresh tomatoes globally are shown in **Figure 3**. With 1.0 million tons of fresh tomatoes exported on average between 2018 and 2022, the Netherlands is the world's leading fresh tomato exporter. Spain (716 000 tons), Turkey (544 000 tons), France (262 000 tons), Belgium (238 000 tons), and Afghanistan (235 000 tons) followed in that sequence after the Netherlands (Trade Map, 2024). From 2018 to 2022, tomato exports from the Netherlands and Spain decreased while exports from France and Portugal increased. But the increase for France and Portugal was still at a lower base when compared to the world's leading exporters like the Netherlands, Spain, or Turkey.

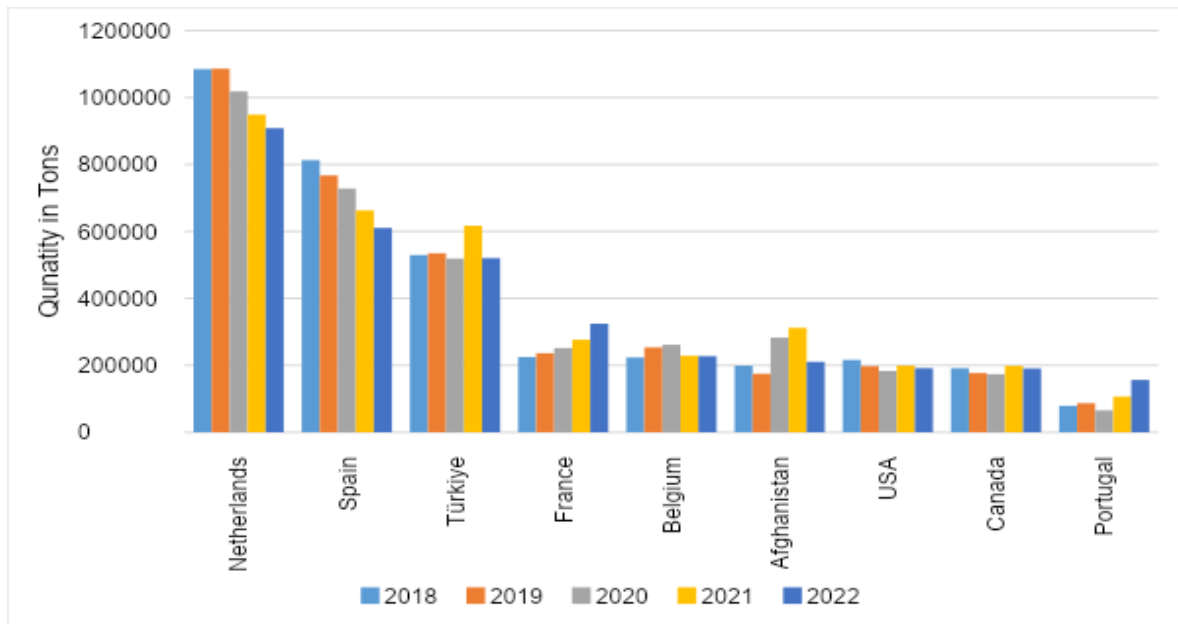


Figure 3: Global fresh or chilled tomato exporters

Source: Trade Map, 2024

2.3.2 Global leading fresh or chilled tomato importers (HS-0702)

The top fresh tomato importers globally from 2018 until 2022 are shown in **Figure 4**. With an annual average import of 1.8 million tons, the USA was by far the world's leading importer of fresh tomatoes. With at least 721 000 tons imported between 2018 and 2022, Germany was the world's second-largest importer of fresh tomatoes, after the United States of America, followed by France (527 000 tons), UK (381 000 tons), Pakistan (301 000 tons), and Saudi Arabia (276 000 tons) (Trade map, 2024). Between 2021 and 2022, imports from the USA, France, and the UK increased.

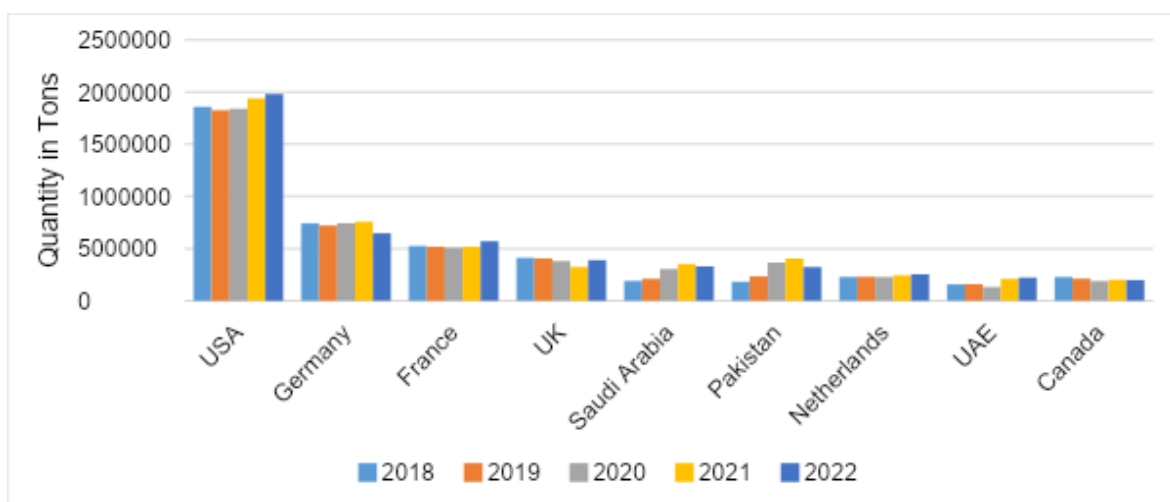


Figure 4: World fresh or chilled tomato importers

Source: Trade Map, 2024

2.3.3 Global trade for processed tomatoes (HS-2002)

The USA was the largest producer of processed tomatoes in the world. Each year, California accounts for most processing tomato harvested in the USA (USDA, 2024). While the USA is the world's largest producer of processed tomato in the world, Italy is the leading exporter and processed tomato from Italy are amongst the top drivers in export earnings, a trend which continued in 2023 (Tomato News, 2023).

2.3.4 Global leading exporters of processed tomatoes

Figure 5 shows the top exporters of processed tomatoes by quantity from 2018 until 2022. According to data from trade map, Italy remains by far the world's leading exporter of processed tomatoes. Italy's processed tomato exports averaged at 2.2 million tons per year between 2018 and 2022, with China coming in second with 883 000 tons, Spain (541 000 tons), the USA (391 000 tons), Turkey (215 000 tons), and Chile (152 000 tons) (Trade map, 2024). Turkey saw the fastest growth among the top exporters of processed tomatoes during the investigated period, with exports rising by 104%. Exports from Poland, Greece, Chile, and Italy increased by 64%, 51%, and 8.0%, respectively.

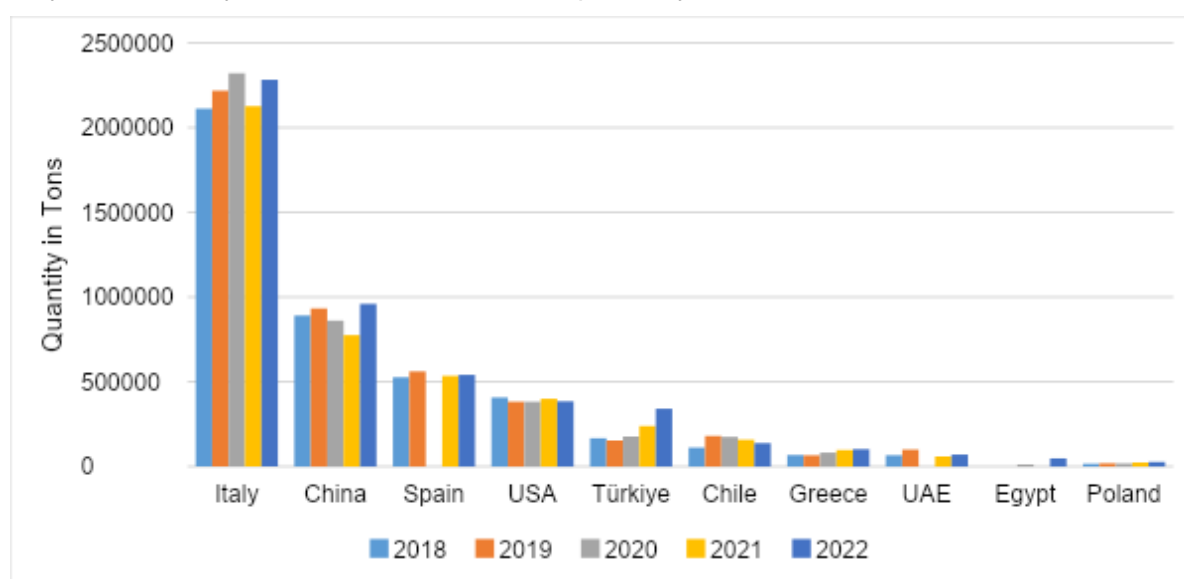


Figure 5: Top global processed tomato exporters

Source: Trade Map, 2024

2.3.5 Global leading importers of processed tomato top

The United Kingdom (UK) is the world's top importer of processed tomatoes, with an annual average of 535 000 tons imported between 2018 and 2022. With 528 000 tons imported between 2018 and 2022 annually, Germany ranks second, followed by France (251 000 tons), Japan (2448 000 tons), and the Netherlands (195 000 tons) (Trade map, 2024). Over the

assessment period, the UK witnessed a 25% increase in imports, while the Netherlands, Germany, France, and Japan saw increases of 24%, 17%, 15%, and 3%, respectively.

2.3.6 Leading exporters and importers of tomato juice globally

The volume traded of the top fifteen tomato juice exporting and importing countries between 2018 and 2022 in quantity (tons) is shown in **Figure 6**. According to Trade Map data, between 2018 and 2022, the top fifteen global importers of tomato juice imported an average of 55 000 tons. Over this time, imports dropped by 22%. Germany, the UK, Japan, the USA, Hong Kong, Latvia, Lithuania, France, Kazakhstan, Ukraine, Belgium, and Romania were the top importers during this time. On the other hand, throughout the reviewed period, at least 78 000 tons of tomato juice were exported by the top fifteen exporters, representing a 5.2% rise. Spain was the world's top exporter of tomato juice, with an average of 23 000 tons exported between 2018 and 2022. Italy comes in second with 11 000 tons, Poland with 7 000 tons, Germany with 6 000 tons, and Mexico with 2 000 tons.

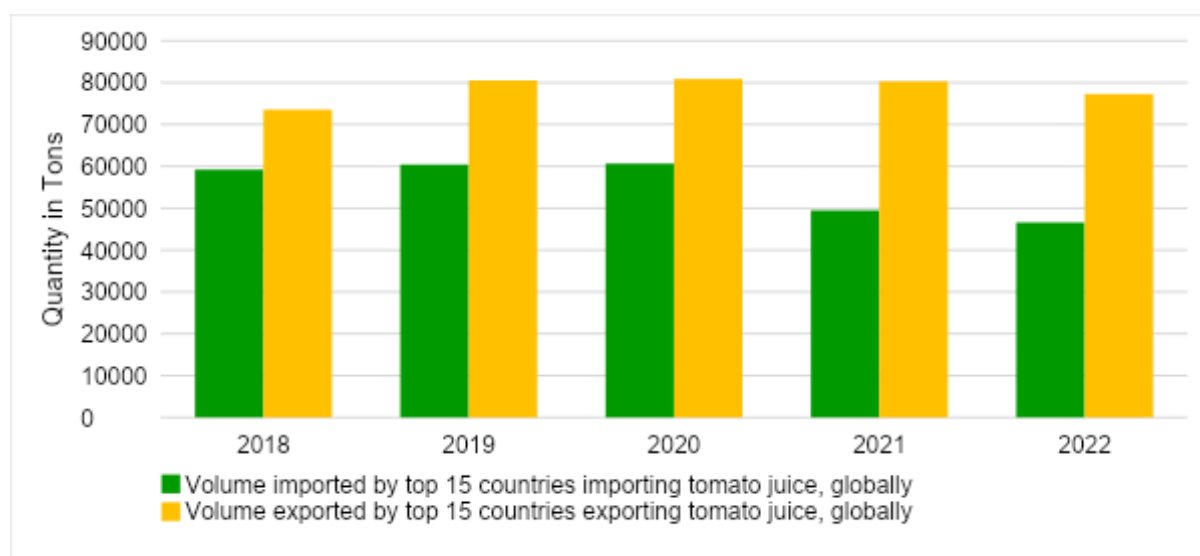


Figure 6: Global tomato juice exports and imports

Source: Trade Map, 2024

2.4 Africa's trade performance perspective

2.4.1 Africa's leading fresh or chilled tomato exporters and importers (HS-0702)

Africa's top fifteen countries that exported and imported fresh or chilled tomato by volume from 2013 to 2022 are shown in **Figure 7**. Between 2013 and 2022, these countries exported at least 94 000 tons of fresh tomatoes on average, an equivalent of a 31% increase. Egypt was the top exporter during this period, with around 32 000 tons shipped, followed by South Africa (24 000 tons), Ethiopia (24 000 tons), Tunisia (22 000 tons), Uganda (82 000 tons), and

Namibia (52 000 tons) (Trade map, 2024). While South Africa witnessed a 21% decline in exports over this time, nations like Kenya, Uganda, Namibia, Malawi, Ghana, and Tunisia recorded sharp growth rates (Trade Map, 2024).

Conversely, the annual average for the top fifteen importers in Africa was estimated at 30 000 tons of fresh tomatoes, representing a 208% increase from 2013 to 2022 (Trade map, 2024). Côte d'Ivoire was the top importer of fresh tomatoes during the time under review, bringing in at least 8 000 tons. South Africa came in second with 5 000 tons, followed by Mozambique (4 000 tons), Lesotho (2 000 tons) and Mauritania (2 000 tons). Mauritania, Uganda, Tunisia, and South Africa are amongst the African countries which recorded significant increase in tomato imports (Trade Map, 2024).

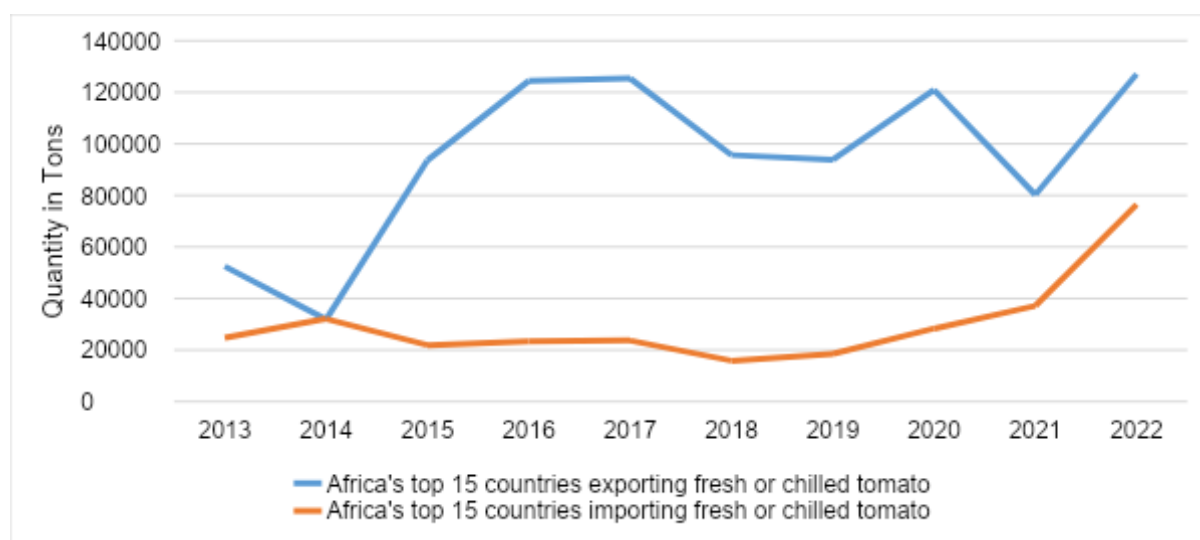


Figure 7: Africa’s fresh or chilled tomato exports and imports (top fifteen countries)

Source: Trade Map, 2024

2.4.2 Africa’s processed tomato trade (HS-2002)

The dynamics at play seem to suggest that the slowdown in the overall tomato trade is more the result of challenges faced upstream in the sector, in terms of the availability of raw materials and products, than the manifestation of a change downstream in the sector, likely to be expressed by a decrease in consumer demand, given the challenging agro-industrial context that the tomato processing sector has also experienced in recent years, particularly in terms of quantities harvested and processed.

2.4.3 Africa’s leading importers and exporters of processed tomato

A combination of the top fifteen importers and exporters of processed tomatoes from Africa between 2013 and 2022 are shown in **Figure 8** in terms of tons. Between 2018 and 2022, an average of 207 000 tons processed tomatoes imported by the top fifteen countries in Africa, with an increase of 34.7% recorded during this period (Trade map, 2024). The leading importers of processed tomatoes were South Africa with an annual average 34 000 tons

imported between 2013 and 2022, followed by Togo (23 000 tons), Benin (20 000 tons), Angola (20 000 tons), and Côte d'Ivoire (17 000 tons) (Trade map, 2024). Similarly, exports increased by 155% from 33 000 tons in 2013 to 84 000 tons in 2022, with an average of 39 000 tons per year. Egypt remains Africa's top exporter of processed tomatoes. Her exports increased by 448% from 8 000 tons in 2013 to 48 000 tons in 2022, with an average of 19 000 tons per year. Countries following Egypt were Ghana (11 000 tons), Côte d'Ivoire (7 000 tons), Uganda (5 000 tons), Morocco (4 000 tons), and Togo (4 000 tons).

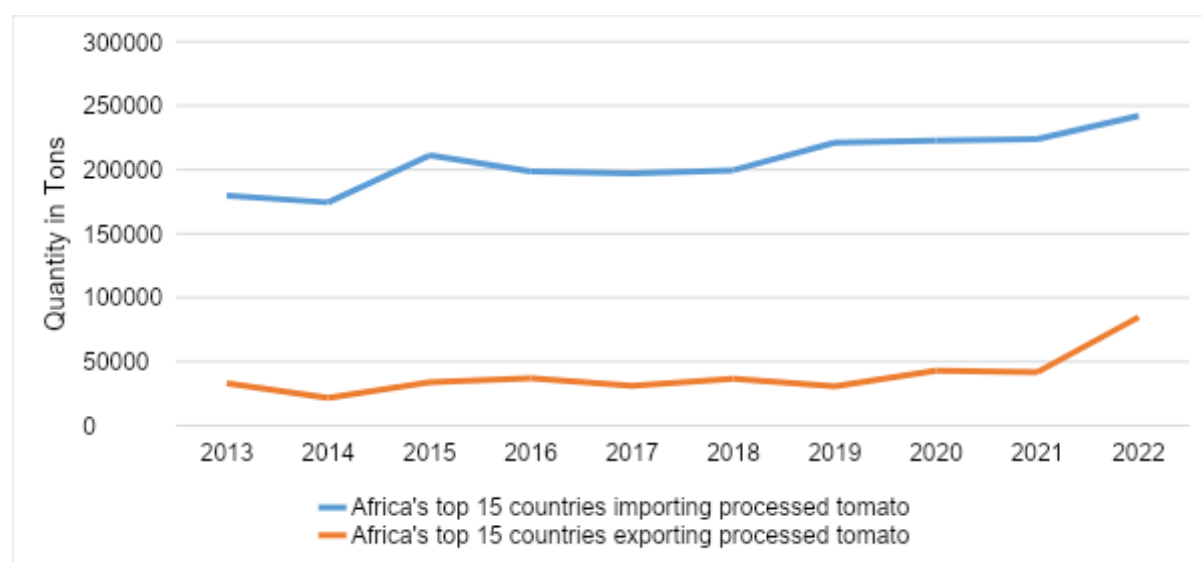


Figure 8: Africa's processed tomato exports and imports (top fifteen countries)

Source: Trade map, 2024

2.4.4 Africa's tomato juice top exporters (HS-2009)

Leading African tomato juice exporters from 2013 to 2022 are shown in **Figure 9**. According to **Figure 9** it is evident that in comparison to the rest of the globe, Africa exports little tomato juice. Morocco's 194 tons of exports in 2015 were the highest amount ever realised in recent times. South Africa was the top exporter of tomato juice during the period under review, with an annual average of 123 tons exported between 2018 and 2022. Tanzania (6 tons), Kenya (23 tons), and Morocco (88 tons) trailed South Africa (Trade map, 2024). Although it was difficult to obtain data for previous years, Egypt export roughly 12 000 tons of tomato juice in 2014. Nevertheless, it is important to note that Egypt sometimes exports tomato juice at a larger scale compared to the countries like South Africa or Morocco.

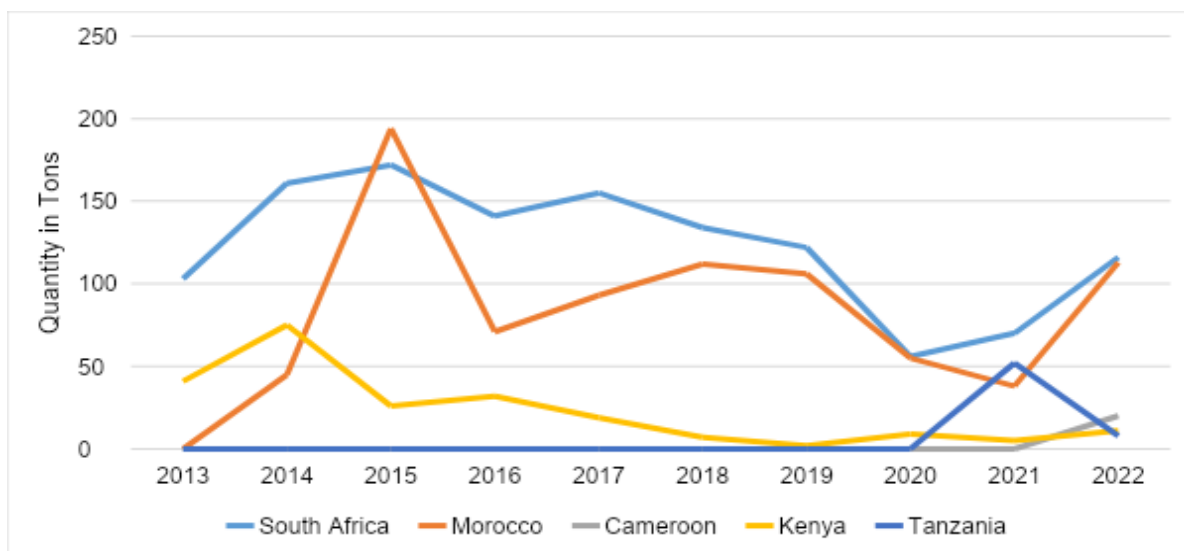


Figure 9: Africa’s tomato juice exporters

Source: Trade map, 2024

2.4.5 Africa’s tomato juice top importers

Africa’s leading importers of juice tomato (in tons) for the period between 2013 to 2022 are shown in Figure 10. Africa imports tiny amounts of tomato juice. According to Trade map (2024), Egypt imported the most tomato juice in 2022 of about 102 tons, followed by Namibia (81 tons), South Africa (59 tons), Kenya (37 tons), and Mauritius (33 tons). Other African countries that import tomato juice include Seychelles, Cape Verde, Ethiopia, Morocco, and Burkina Faso. In 2022, each of these countries imported a minimum of twenty tons of tomato juice (Trade Map, 2024).

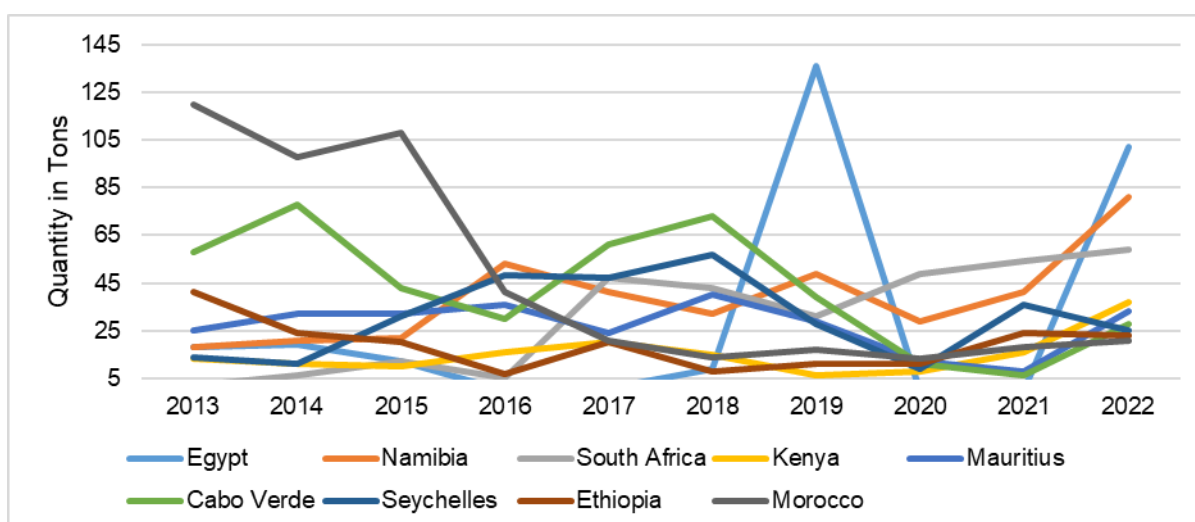


Figure 10: Africa’s juice tomato leading importers

Source: Trade map, 2024

3 Methodology

The study employed a combination of existing literature (secondary data & information) and quantitative methods. To complement secondary data obtained from reputable sources such as Trade Map of the International Trade Centre (ITC) and Food and Agriculture Organisation Statistics (FAOSTAT), interviews with industry experts through a structured questionnaire were conducted to map out economic players in South Africa's tomato value chain, identify factors affecting the functioning of the domestic tomato industry, and identify challenges and opportunities influencing the development of the tomato industry. Industry experts, including farmers were interviewed individually and various forms of data were sought.

Descriptive analysis and graphical presentations were used. Helin and Meijer (2006) propose Market Map as one form of a value chain analysis that is useful when researchers want to identify policy issues that may be hindering or enhancing the functioning of a value chain as well as identifying institutions and organizations that are required in providing services such as quality standards, market information that different chain actors need to make informed decisions. Value chains can be mapped and analysed either using qualitative or quantitative tools.

4 Study findings

This section provides study findings per objective in the subsequent subsections

4.1 South Africa's tomato value chain

Findings in this section provide a detailed description of the tomato value chain in South Africa and are presented in sub-sections as follows:

4.1.1 Mapping out key actors along the tomato value chain

Figure 11 represents the value chain for tomatoes in South Africa. The main role-players in the chain are producers, processors, National Fresh Produce Markets (NFPMs), exporters, retailers, wholesalers, and consumers.

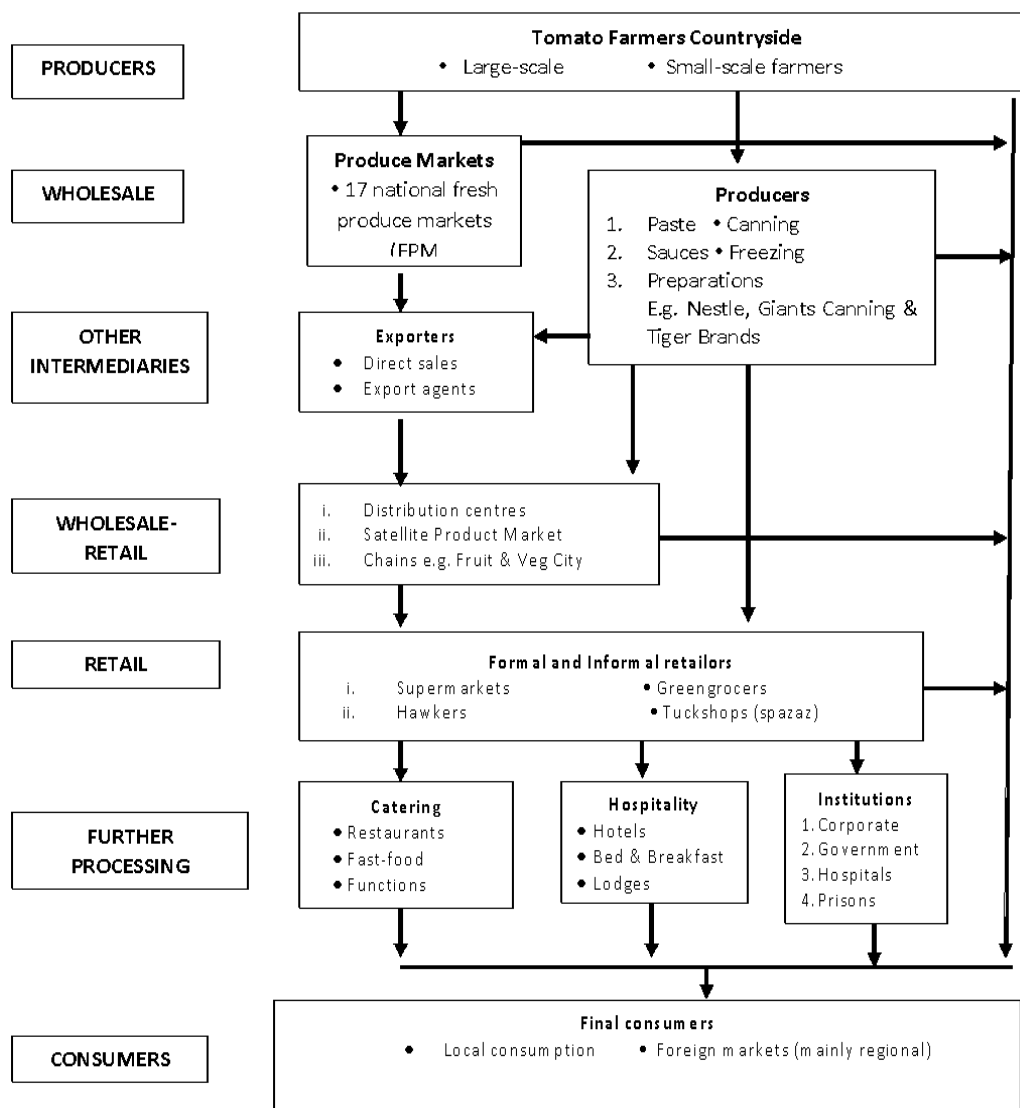


Figure 11: South Africa's Tomato value chain

Source: DALRRD (2019)

- **Producers:** The process of tomato production involves seed germination and the transplantation of seedlings into the field. While tomatoes are cultivated across all provinces in South Africa, the warm climate of Limpopo province makes it particularly well-

suitable for tomato cultivation. All five districts within Limpopo engage in tomato production, with a diverse range of producers including emerging, small-scale, and large-scale operations. Among the prominent players in the tomato industry is ZZ2 (Box B).

- **Wholesaler:** National Fresh Produce Markets (NFPMs) serve as the dominant player in the tomato value chain in South Africa. However, there are other forms of wholesalers, such as independent wholesalers, supermarket wholesaling subsidiaries, contract buyers, and farmers selling directly to retail and consumers. The NFPMs set the price for Fresh Fruits and Vegetables (FFV). The prices at the NFPMs are reached through a bargaining process mediated by market agents who have a dual objective: firstly, to secure the best prices and ensure that the highly perishable stock is cleared.
- **Wholesale-retailers:** These role players operate in the niche areas between wholesaler and retailer formats and are classified as wholesale-retailers, since their clientele includes both final consumers and smaller retailers and food outlets. Wholesale-retail is new in FFV. For example, the Fruit and Veg City Chain, which was established in 1993, Evergreens in Pretoria, and NFPM satellite markets, among others.
- **Retailers:** South Africa's tomato retailers exist in both the formal and informal sectors. Formal markets include formally registered retail chains, supermarkets, and neighbourhood stores, while informal markets include tuck shops and hawkers. For these players, prices are predetermined, and packages are typically smaller.
- **Processors:** This category of players is made up of companies which process whole tomatoes into peeled, tomato and onion bruschetta, pasta, shredded, puree, and pasta concentrate, among other value-added products. The leading firms in agro-processing category include Tiger Brands (**See** Box A), Nestle, and Giants Canning.

4.1.2 Production and processing in South Africa

In South Africa, tomatoes rank among the most widely consumed fruits, with the sector primarily dominated by commercial farmers, comprising 95% of the industry (South African Cities Network, 2015; DAFF, 2016). The remaining 5% consists of emerging farmers. Employment within the tomato industry totals approximately 22500 individuals, spanning various roles across the supply chain. These roles encompass transportation to fresh produce markets and processing plants, operations within processing factories, involvement in fresh produce markets, independent trading, collaboration with supermarket groups, work in packaging facilities, engagement in informal trading, and service within fast food outlets. A sizeable portion of this workforce comprises low-skilled labourers earning minimum wage (South African Cities Network, 2015). The main production areas in South Africa are concentrated in provinces like Limpopo, accounting for more than 75% of the total tomato production in the country (DAFF, 2016). Other major tomato-producing provinces include

Mpumalanga with 770 hectares and Eastern Cape with 450 hectares (DAFF, 2016). **Figure 12** illustrates the production and area harvested trends of tomatoes between 2013 and 2022 in South Africa. Between 2014 and 2017, tomato production exhibited an increase from 513 404 tons to 672 180 tons, with 2017 marking the highest production season within the period considered in this analysis. However, production declined to 537 258 tons in 2018. Since 2020, tomato production has been on a declining trend in South Africa, with 2022 recording the lowest production. Specifically, the production trend of tomatoes in South Africa indicates a decline of 14.89% from 2013 to 2022, and a further decline of 12.49% from 2021 to 2022, respectively. This analysis is supported by Directorate statistics (2021) which stated that the recent decline in tomato production can be attributed to unfavourable climate conditions and high production costs.

Additional non-crop-related factors such as unexpected wage increases, urban pressure on traditional tomato growing regions, and competition from other supply regions can also limit tomato production (Malherbe and Marais, 2015). According to ABSA Agri Trends 2023, tomato productivity is expected to decrease during the winter months due to higher production costs under possible higher load-shedding schedules, with pests and diseases posing significant threats to production. The area harvested of tomatoes followed similar patterns to production, with the 2017 marketing season recording the highest harvested area. The area harvested increased consecutively from 2019 to 2020 before declining from 2021 to the 2022 marketing season. Overall, the area harvested declined by 6.94% from 2013 to 2022, and by 12.28% from 2021 to 2022, respectively.

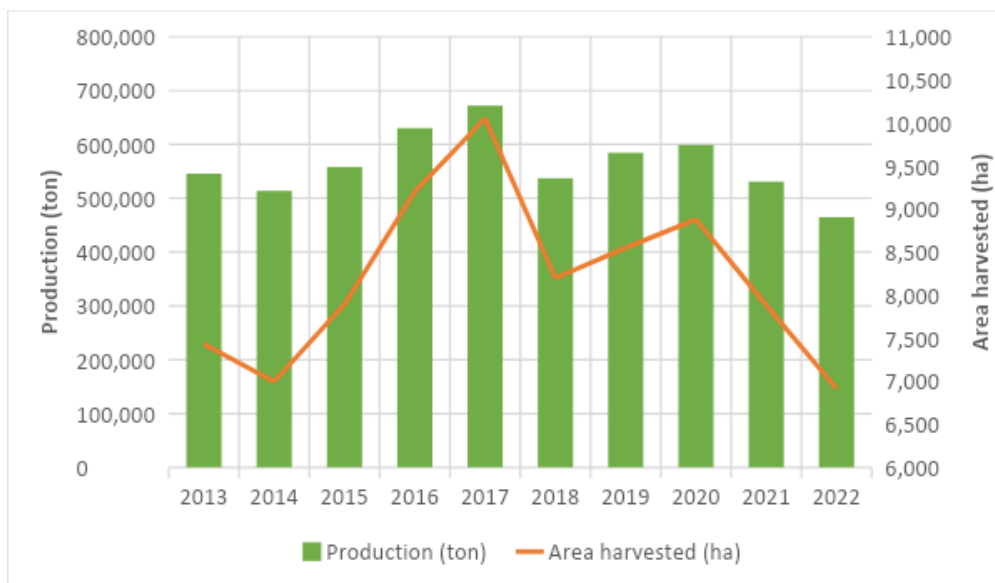


Figure 12: South Africa tomato production and area harvested from 2013-2022.

Source: DALRRD, 2023

The processing of tomatoes in South Africa encompasses various methods including canning, freezing, dehydration, and juice production. These processed tomato products include tomato sauce, whole peeled, tomato and onion bruschetta, paste, shredded, puree, and paste concentrate (DAFF, 2016). The processing industry plays a crucial role in employment in South Africa (DAFF, 2016). **Figure 13** illustrates the volume of tomatoes processed in different forms from 2017 to 2023. The volume of canned tomatoes decreased by 44.98% from 150 729 tons in 2017 to 82 934 tons in 2018, followed by the total processing volume decreasing by 44.49% (from 160 100 tons in 2017 to 88875 tons in 2018), and the volume of tomato juice decreased by 37.71% (from 9 277 tons in 2017 to 5 778 tons in 2018). This decline in tomato processing could be attributed to the severe drought that affected South Africa, reaching its peak in 2018 (Directorate statistics, 2021).

From 2020 to 2022, South African tomato processing experienced another decline in volume processed. The volume (in tons) of tomatoes frozen decreased by 59.16%, followed by the volume canned by 33.86%, and the total volume processed decreased by 24.52% during the same period. This decrease may be attributed to destructive pests that infested all tomato production areas of South Africa (Food for Mzansi, 2022). This decline continued until 2023, affecting the volume of tomatoes used for other processing types such as freezing and tomato juice extraction. However, from 2022 to 2023, some types of tomato processing experienced an increase in quantity processed. The volume used for canning increased by 44.57% (from 87 428 tons to 126 400 tons), while the total processing volume during that period increased by 37.57% (from 101 517 tons to 139 655 tons). This increase could be attributed to the rise in exports to neighbouring countries during the observed period. Major importers of South Africa’s processed tomatoes include Mozambique, Botswana, Namibia, and Eswatini (Trade Map, 2024).

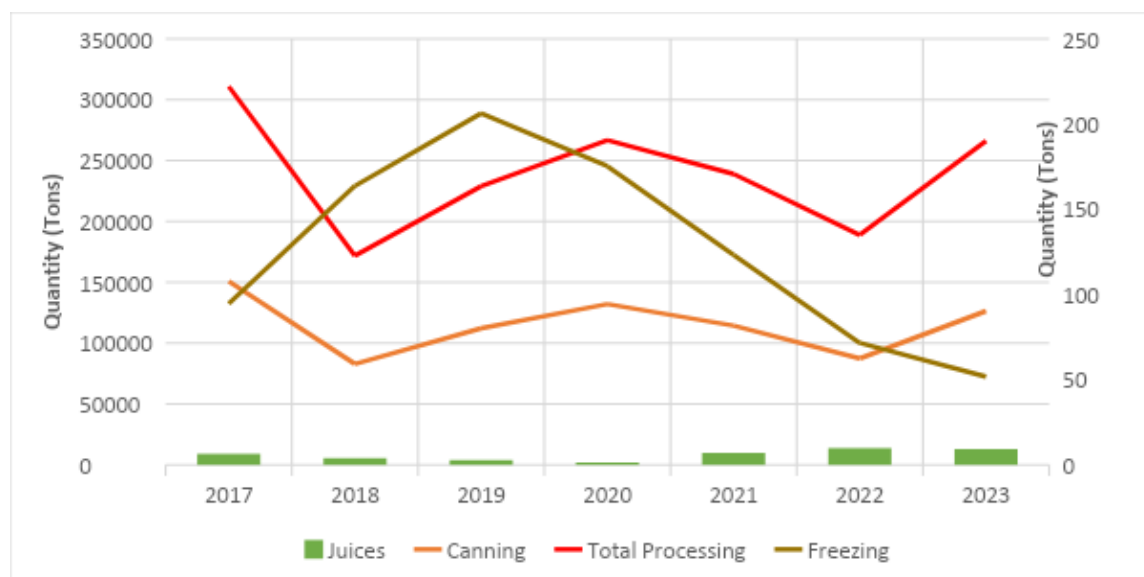


Figure 13: Quantity of tomato processing in South Africa (2017-2023)

Source: DALRRD, 2024

Figure 14 summarizes the trend of tomato processing in South Africa by value. Between 2017 and 2023, the value of processing tomatoes into juice increased by 155.54%, followed by total processing by 24.48%, and canning by 18.01%, while the value of tomatoes frozen dropped by 21.38%. Between 2020 and 2023, the value of tomato juice experienced the most significant increase, approximately 893.67%. In the short term, the value in rand of canned tomatoes led by a 53.83% increase, followed by total processing by 48.59%, and tomato juice by 14.29%, while freezing continued to decrease by 23.28%.

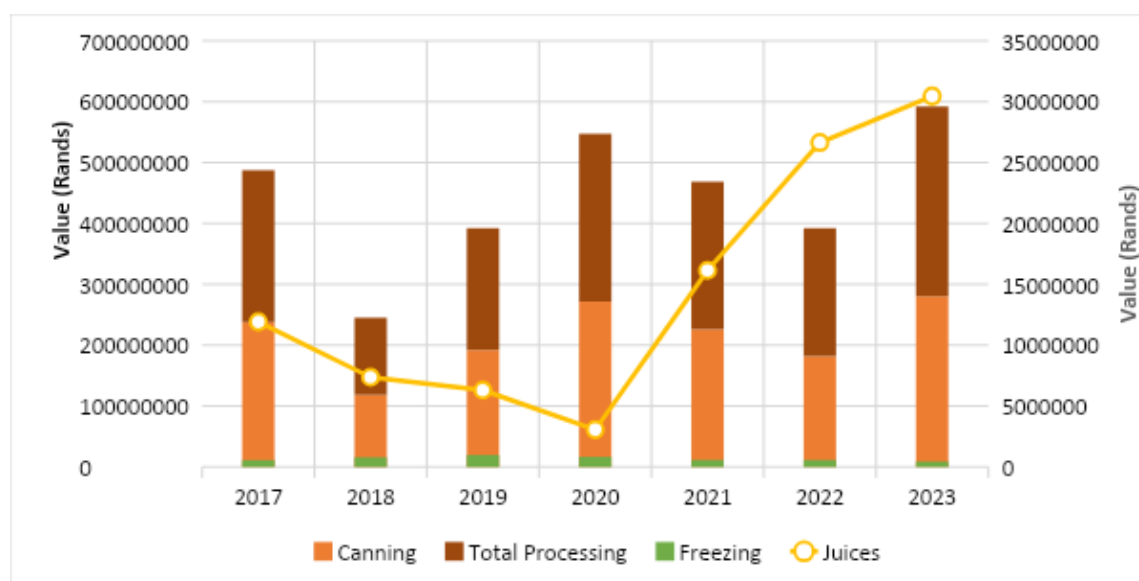


Figure 14: Value of tomato processing in South Africa (2017-2023)

Source: DALRRD, 2024

4.1.3 South Africa's trade performance

4.1.3.1 South Africa's Fresh or chilled tomato exports and imports (HS-0702)

South Africa is one of the main exporters of fresh or chilled tomatoes from Africa, coming in second place after Egypt over the last ten years. Quantity-wise, imports and exports of tomatoes from South Africa between 2013 and 2022 are shown in **Figure 15**. During this period, South Africa exported 241 865 tons of tomatoes. South Africa's tomato exports significantly decreased from 24 172 tons in 2013 to 19 069 tons in 2022. Egypt also registered a decrease in tomato exports, from 57 000 tons in 2015 to a meagre 15 900 tons in 2022. Top destinations for South Africa's tomatoes are Mozambique (52% in 2022), Namibia (7%), Eswatini (5%) and Lesotho (16%) (Trade Map, 2024). On average, South Africa's tomato exports were 21 254 tons per annum between 2018 and 2022.

Although South Africa continues to be one of the leading exporters of tomatoes in Africa, the country also imports a sizable quantity of tomatoes, which has expanded dramatically in recent years. South Africa imported 59 302 tons of tomatoes between 2013 and 2022, with a 200% increase from 4 269 tons in 2013 to 12 823 tons in 2022 (Trade Map, 2024). Ironically, Namibia, one of the top importers of tomatoes from South Africa, is also the top supplier of tomatoes to the country. Of the 59 302 tons that South Africa imported between 2013 and 2022, 95% (56 298 tonnes) came from Namibia. **Figure 15** makes it quite evident that while imports are rising, South Africa's tomato exports are falling.

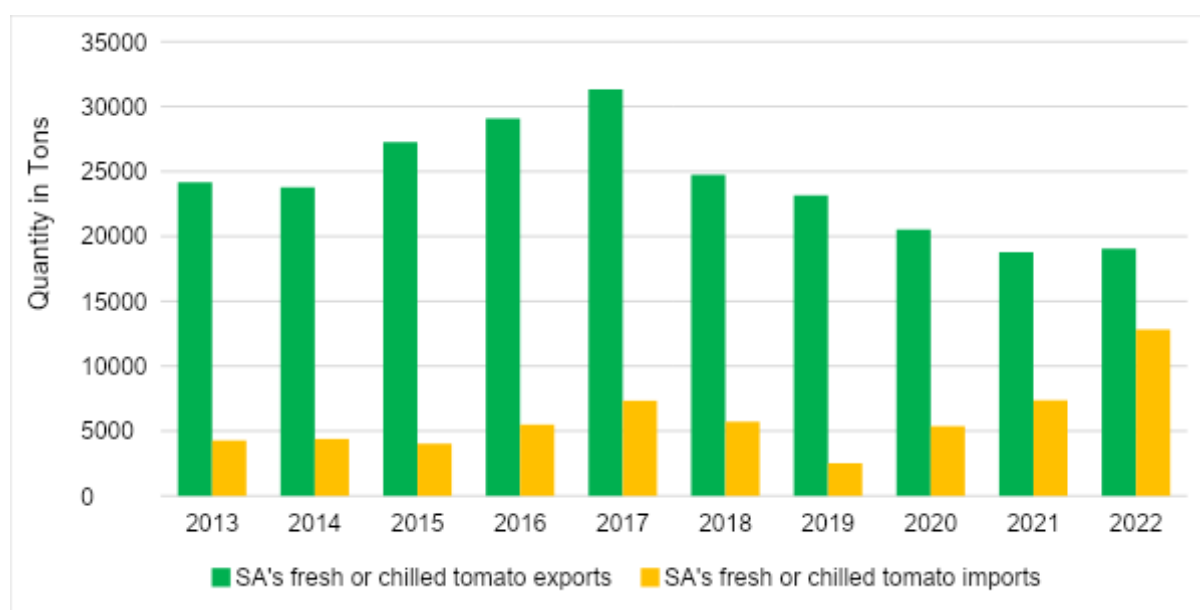


Figure 15: South Africa's fresh or chilled tomato exports and imports

Source: Trade map, 2024

4.1.3.2 South Africa's Processed tomato exports and imports (HS-200210)

According to **Figure 16** South Africa imports a significant quantity of processed tomatoes (hs-200210). Trade map data indicates that South Africa exports small quantities of processed tomatoes. Between 2013 and 2022, South Africa exported 8 066 tons of whole or chopped processed tomatoes and exports fell by 34.8%. With a market share of 24% for the total amount exported during the observed period, Namibia was the top destination for South Africa's exports of this product, followed by Zimbabwe (14%), Botswana (13%), Eswatini (12%), and Zambia (11%). A few other countries, including Malawi, Ethiopia, the Democratic Republic of the Congo, and Lesotho, were also sourced some exports from South Africa.

On the other hand, imports of processed tomato (200210) were comparatively higher than exports, averaging at 11 830 tons annually between 2018 and 2022 (**see Figure 16**). Between

2013 and 2022, Italy accounted for 95% of the 113 842 tons of the processed tomato (200210) imported by South Africa, making it the country's top supplier. Spain came in second at 3%, followed by China at 1%, and then Turkey at 1%. Thus, most of this product is imported from Europe. Imports of processed tomatoes, either whole or in parts, had grown by 20.8% during the time under observation.

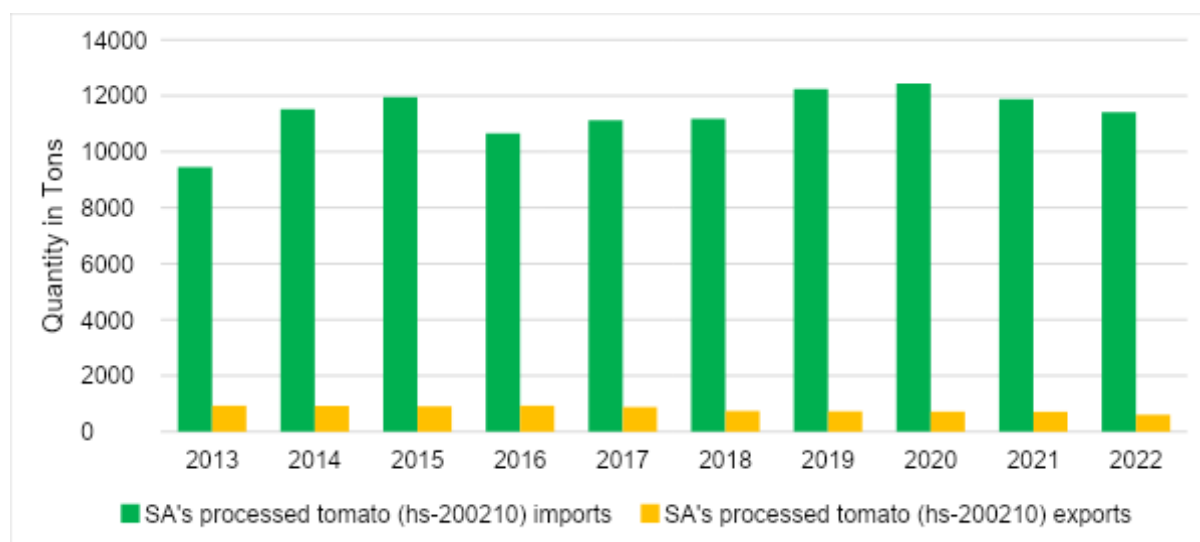


Figure 16: South Africa's processed tomatoes (HS-200210) exports and imports.

Source: Trade map, 2024

4.1.3.3 South Africa's other processed tomato imports and exports (HS-200290)

Apart from the whole or fragmented processed tomatoes covered in the preceding section, South Africa imports a comparatively high quantity of processed tomatoes (hs-200290), although exports are still minimal (refer to **Figure 17**). Compared to processed tomatoes (HS-200210), which had imports of 111 000 tons, this product had even more imports than the product (20010) covered in the previous section, amounting to 230 877 tons from 2013 to 2022. Between 2013 and 2022, 58% of the 230 877 tons of other processed products (hs 200290) were imported from China, with Spain accounting for 12%, Italy (11%), and Portugal (8%), among others. South Africa imports lesser amounts from countries like Nigeria, Egypt, and Eswatini. The volume of South Africa's imports of processed tomatoes (hs 20090) averaged at 25 000 tons annually over the last five years (2018–2022), representing a 79.3% rise from 15 000 tons in 2013 to 27 000 tons in 2022.

Although processed tomatoes (hs 20090) are imported by South Africa, only limited amounts are exported, usually to neighbouring African nations. Between 2013 and 2022, the amount of total processed tomato (hs-200290) exports from South Africa were 10 470 tons. Between 2018 and 2022, an average of 1 143 tons were exported per year. During the

period under study (2013–2022), Zimbabwe accounted for 34% of the products exported by South Africa while Eswatini accounted for 24%, Namibia (19%), Zambia (8%), Botswana (7%), and the Democratic Republic of the Congo (2%).

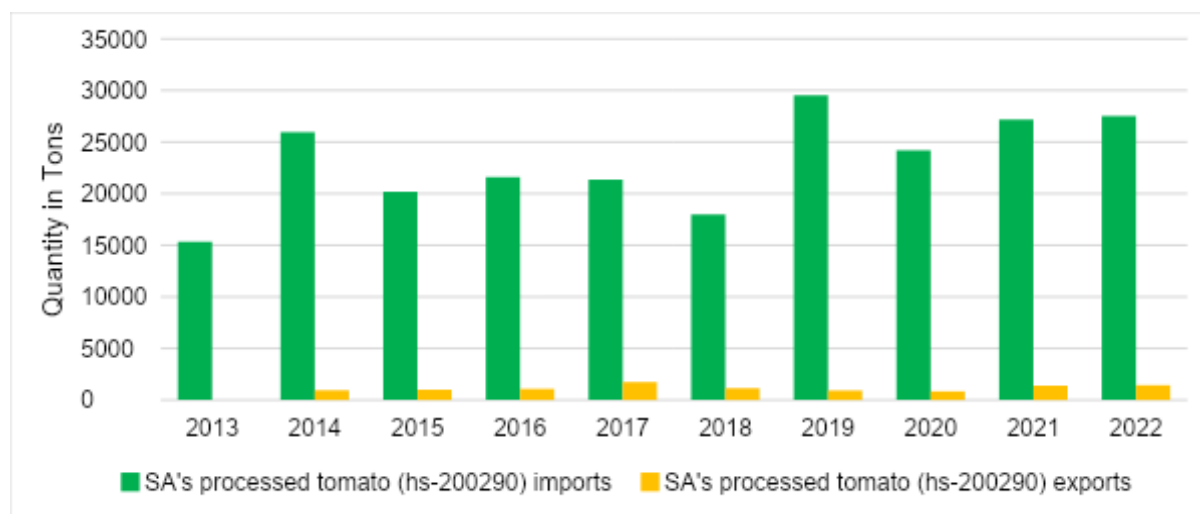


Figure 17: South Africa’s other processed tomatoes (HS-200290) exports and imports.

Source: Trade map, 2024

4.1.3.4 South Africa’s tomato juice exports and imports (HS-2009)

The quantity (tonnes) of South Africa’s tomato juice imports and exports between 2013 and 2022 is shown in **Figure 18**. South Africa's primary export market for tomato juice is its neighbours. From 103 tons in 2013 to 116 tons in 2022, South Africa's tomato juice exports rose by 12.6% throughout the time under consideration. In 2022, 29% of South Africa's tomato juice exports went to Eswatini, while 17%, 12%, 9%, 7% and 6% were exported to Namibia, Zambia, Ethiopia, Botswana, and Mauritius, respectively. Relatively small amounts of tomato juice are imported by nations like Ghana, Fiji, Mozambique, and Zimbabwe. South Africa’s imports of tomato juice have been gradually increasing in recent years, averaging at 31 tons per year between 2018 and 2022, with a notable increase from two tons in 2012 to 59 tons in 2022. South Africa’s tomato juice imports are from Poland, which supplied 53% of all tomato juice imports in 2022, followed by Cameroon (34%), Portugal (10%), and Italy (2%) (Trade Map, 2024).

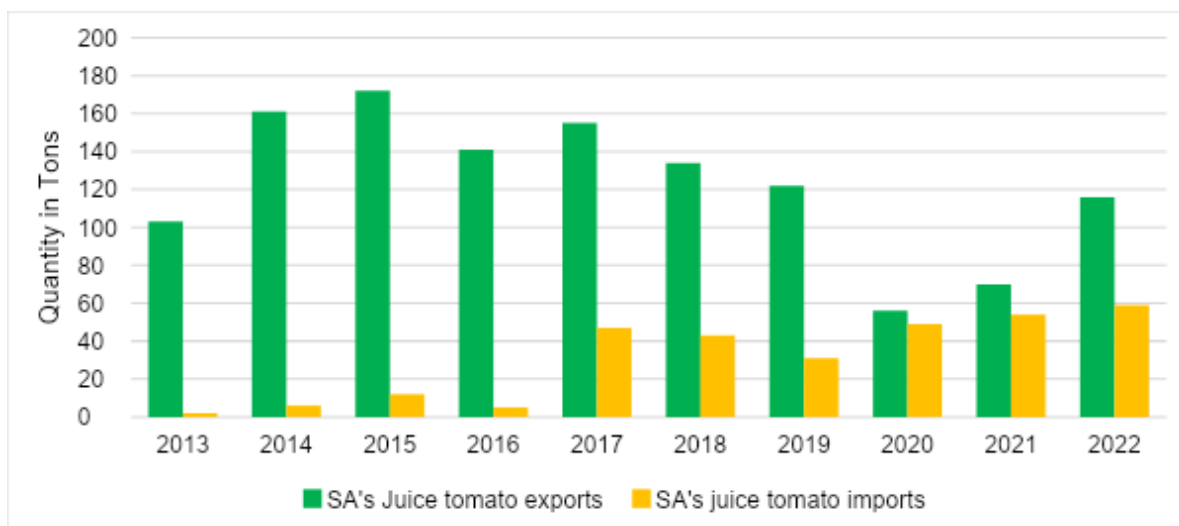


Figure 18: South Africa's tomato juice exports and imports.

Source: Trade map, 2024

4.2 Factors affecting the functioning of the domestic tomato industry

Key informant interviews were conducted with both tomato producers and processors to map out the actors involved in both the production and processing of tomatoes. In-depth interviews were conducted with processors, including Tiger Brands and Maimi Cannery, as well as tomato producers, including ZZ2. **Table 2** presents identified factors enhancing and hampering competitiveness of tomato producers and processors.

Table 2: Factors influencing the functioning of the tomato value chain

Enhancing factors	Hampering factors
High quality of tomatoes and tomato sauce	Fluctuating retail price
Consistency in supply of tomatoes and the paste	Competition from imported processed products
Availability of tomatoes and tomatoes paste on the market	Uncertainties in climatic conditions
Taste and quality	
Production volume	
Attractive presentation of tomatoes and processed products	

Based on the interviews, the following factors emerged as key contributors to the success of both producers and processors:

- **Quality:** Both producers emphasized that producing high-quality tomatoes and tomato paste was a primary factor enhancing their competitiveness. For example, the thickness

of Tiger Brands' ALL GOLD tomato sauce is a feature that keeps customers going back for more.

- **Consistency:** The ability to consistently produce tomatoes and tomato paste was identified as a crucial factor by both producers and processors. ZZ2, for instance, highlighted their daily presence in the market, ensuring consumers have access to tomatoes with the best quality and volume they need.
- **Availability:** The availability of tomatoes and tomato paste emerged as a significant factor influencing the competitiveness of the business in South Africa. Both producers and processors make it a priority to ensure that their products are consistently available in the market for consumption.
- **Taste:** Great taste was identified as a key factor enhancing competition for both producers and processors of tomatoes in South Africa. For instance, Tiger Brands provided an example of how the thickness of their ALL-GOLD tomato sauce has been proven to deliver a superior taste to consumers.
- **Presentation:** Presentation was highlighted as a factor enhancing competitiveness for both producers and processors. ZZ2, for example, distinguishes itself by packaging tomatoes in colourful assortments, placing one colour in each box and avoiding the mixing of unusual colours in one box.

The following factors were identified as hindrances to the competitiveness of tomato producers and processors:

- **Retail Prices:** Retail prices emerged as a significant factor hampering the competitiveness of producers. For instance, Tiger Brands utilizes a Hot Break paste in the production of tomato sauce, leading to higher retail prices due to the expense of the Hot Break paste (refer to Box A).
- **Competition:** Competition from other comparable products was identified as a factor diminishing the competitiveness of both tomato producers and processors. For example, many people in South Africa, coming from low-income backgrounds, find it challenging to afford the retail prices of ALL GOLD tomato sauce by Tiger Brands. Consequently, they opt for cheaper imported alternatives.
- **Uncertainty in climatic conditions:** Climate uncertainty was recognized as a factor hindering competitiveness for tomato producers. ZZ2 highlighted incidents of drought and flooding in some of their production locations, which adversely affected their production levels.

4.3 Identified challenges and opportunities influencing the development of the tomato industry

Challenges and opportunities based on the SWOT analysis faced by both producers and processors of tomatoes are presented in **Table 3**.

Table 3: Swot analysis of the tomato sector

STRENGTHS	WEAKNESS
<ul style="list-style-type: none"> ● Compelling producer network ● Technical support ● Factory efficiency ● Storage efficiency ● Input cost support ● Providing the producers with training ● Diversifying contracted producers ● Consistency in supply of tomatoes and the processed products. ● Convenience of the products ● Tomato is a staple food item in South Africa ● Vast knowledge in tomato production ● Resilience of farmers 	<ul style="list-style-type: none"> ● Complaints from contract producers about the terms of payment ● Production capacity due to limited contract producers ● Market competitiveness ● Low labour productivity ● Market inconsistency
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> ● Fluctuation of the informal market ● Maximum facility capacity ● Possibility to extend the production season ● Introducing alternative crops ● Additional market ● Producing our own tomatoes ● South Africa having access to other African countries for exports ● Producing tomatoes in other African countries is Cheaper than South Africa 	<ul style="list-style-type: none"> ● Competition from alternative crops ● Producers selling to competitors ● Diseases and pest manifestation ● Cost of inputs ● Electricity challenges ● Changing diets ● Insufficient subsidies on imports ● Competition from other countries

- Potential to grow the economy
- Exports of tomatoes to European Countries and the Middle East.

- Production cost
- Failing production infrastructure
- Demand uncertainty
- Unreliable producers
- Unavailability of pesticides
- High production risk due to climate change
- Low economic growth
- Other African countries closing borders for South African exports
- Cheaper imported products

The producers and processors in the tomato industry in South Africa have encountered several changes and challenges, which are outlined below:

- **Cost of Inputs:** The cost of inputs, such as fertilizers, diesel, and pest control, was reported to be remarkably high in South Africa. This poses a challenge for producers and processors in managing operational costs and maintaining profitability.
- **Labour Cost:** Labor costs have been identified as a significant challenge, being one of the most expensive factors in South Africa compared to other African countries. High labour costs can impact the overall cost structure of tomato production and processing operations.
- **Electricity Power Cuts:** Incidences like the current load shedding in South Africa have presented challenges for both producers and processors of tomatoes. Power cuts interrupt irrigation schedules, leading to lower yields. This highlights the vulnerability of the industry to infrastructure challenges.
- **Implementation of BBBEE Programme:** The implementation of programs like the Broad-Based Black Economic Empowerment (BBBEE) has emerged as a challenge for conducting business in South Africa. The BBBEE program aims to address historical economic imbalances, but its implementation may introduce complexities and adjustments for producers and processors in the tomato industry.
- **Water-Energy-Road infrastructure:** Water, energy, and road infrastructure are challenges for successful business operations in South Africa. Processors experience daily power outages caused not only by current load shedding but also by ageing energy infrastructure. Similarly, water disruptions occur intermittently. Inadequate road infrastructure to farms and processing facilities is also a major concern.
- **Limited tomato producers:** Farmers producing tomatoes in South Africa act as constraints for tomato paste producers who require fresh tomatoes. This could be due to limited expertise in tomato production among South African farmers and restricted access to land.

These changes and challenges collectively impact the operational efficiency, cost structure, and overall business environment for tomato producers and processors in South Africa. Strategies need to be developed to address these challenges, such as exploring cost-effective inputs, optimizing labour productivity, finding affordable alternatives during power cuts, and adapting to new economic empowerment programs.

5. Conclusions and recommendations

The study aimed to assess the performance of South Africa's tomato value chain including mapping economic players, production trends, and trade performance over the years;

determine factors affecting the functioning of the domestic tomato industry; and to identify challenges and opportunities influencing the development of the industry. Globally, tomato production and consumption have shown an upward trend over time, driven by factors such as increased consumer awareness of tomatoes' health benefits. Leading producers include China, India, Turkey, and the United States. However, in South Africa, production has been fluctuating, with significant decreases attributed to unfavourable weather conditions. On the consumption side, processed tomato products have seen a decline in volume and value due to similar weather-related challenges. The Netherlands leads in fresh tomato exports, while the USA tops the list of importers. In Africa, Egypt dominates fresh tomato exports, while South Africa emerges as a significant player in both imports and exports.

The challenges faced upstream in the tomato value chain in South Africa, such as the limited availability of raw materials product quantity and quality, seem to contribute to the overall slowdown in processing and trade. Major stakeholders in South Africa's tomato value chain include producers, processors, markets, exporters, retailers, wholesalers, and consumers, with notable private companies like ZZ2, Tiger Brands, Mami Cannery, and Dursots. Challenges in the value chain include fluctuating retail pricing that sometimes does not match the associated production or processing costs, competition from imported processed tomato products, and uncertainties in climatic conditions. Conversely, factors such as tomato quality, consistency in supplying tomatoes (quantity) and processed products in the market, taste, and the attractive presentation of tomatoes and the derived products, among other factors enhance the development and competitiveness of the tomato industry in South Africa.

Based on the findings of the study the following recommendations are made;

- a) The growing consumer demand due to increased awareness of tomato's nutritional benefits presents the opportunity for the industry to innovate and invest in research and development of organic and climate resilient tomato varieties. This can be done through allocation of research funding, investment in improved farming technologies and pest management practices, consumer education on nutrition and encouraging the adoption of climate adaptation strategies.
- b) There is a need for collaboration among tomato industry players, the private sector, development agencies and the government through DALRRD to enhance existing financial interventions, which will increase farmer revenue and promote a sustainable tomato value chain. This partnership should prioritize customized financial assistance, such as subsidized funds and loans, to bolster farmers' access to working capital and mitigate input costs.

- c) The government, through DALRRD and other relevant entities, should intensify efforts to implement programmes that seek to address pressing challenges faced by producers and processors in the tomato value chain. These challenges include fluctuating retail prices, heightened competition from comparative products, and increased weather variability caused by climate change. Such programmes could involve measures to stabilize retail prices in alignment with production costs, along with strategic regulations on imports to mitigate excessive competition. By focusing on specific interventions tailored to these challenges, the government can better support local producers and processors, fostering a more resilient and sustainable tomato value chain.
- d) The dominance of a small number of major producers in the South African tomato industry limits competition and diversity in products and pricing. To foster a more competitive and diverse sector, industry stakeholders must actively encourage and support new entrant growers and processors. This support should include providing access to training programmes, financial assistance, mentorship opportunities, and assistance in accessing markets. Addressing barriers to entry, such as access to land and capital, is crucial to enabling new entrants to thrive. Moreover, emphasis should be placed on promoting sustainable practices among new entrants to ensure the long-term viability of the sector. By facilitating the establishment of a healthy, bottom-up competition, the industry can become more resilient and dynamic.
- e) There is an urgent need to address challenges related to the unreliable and unstable electricity and water supply by implementing sustainable energy solutions like further subsidising solar power and water harvesting technologies, thereby rendering the affordable to both producers and processors, among other value chain actors. This support could take various forms, including subsidies, tax incentives, and regulations that encourage the use of solar power and water harvesting systems. By providing financial incentives and regulatory frameworks that make these technologies more accessible and attractive to individuals and businesses, the government can accelerate their adoption and contribute to solving the challenges of electricity and water supply.

6. Limitations of the study and future areas of research

The limitations of the study are the reliance on existing literature and secondary data obtained from sources like FAOSTAT and Trade Map database of the ITC. Thus, a more comprehensive investigation involving direct engagements with representatives across the entire value chain in South Africa should be considered as an area for further research. Additionally, other studies should consider examining the following aspects:

- ✓ Conducting a comparative analysis of production systems and technologies utilized by both commercial and small-scale farmers.

- ✓ Assessing the profitability of different stakeholders along the value chain, including informal traders, small-scale producers, and traders, among others.

BOX A: Tiger brands

Tiger Brands is one of the largest vegetable and fruit processing plants in South Africa. They work with various fresh vegetables and pulses, including tomatoes, carrots, beetroots, cabbage, peas, and groundnuts. Tiger Brands owns factories in Musina and Louisville in the Limpopo province. They procure tomatoes from contract producers around Musina and Lutzville in Limpopo. The procured tomatoes are then transported to Tiger Brands factories in Musina and Lutzville for processing into tomato paste. Subsequently, the tomato paste is distributed to the Boksburg factory for manufacturing and packaging into All Gold tomato sauce.

The value chain of Tiger Brands includes producers, agricultural advisors, marketers, processors, and packagers. A pre-season budget for the volume of tomatoes to produce is established between Tiger Brands and contract producers, depending on the demand for All Gold tomato sauce. Tiger Brands provides contract growers with specific seeds to plant, as certain cultivars of tomatoes are required for All Gold tomato sauce. Technical support is offered to ensure producers adhere to Tiger Brands' rules and regulations. Tiger Brands processes the following tomato cultivars: HTX14, HMX7883, and Hines 1015 (Musina) and Heinz 1015 (Lutzville).

These specific cultivars are processed for the purpose of producing hot break tomato paste. In the case of All Gold tomato sauce, Tiger Brands utilizes hot break tomato paste compared to cold break tomato paste. The mentioned cultivars have a high brick value, essential for producing hot break tomato paste. Generally, hot break tomato paste is cooked at a temperature between 85°C and 100°C, while cold break tomato paste is cooked between 65°C and 75°C.

In total, Tiger Brands processed about 90 000 tons of tomatoes in the last season (April – September 2023), contracting approximately 60 producers from Musina and 30 producers from Lutzville. Other costs incurred by Tiger Brands include fresh tomatoes (40%), processing costs, transportation, packaging materials, labour, electricity, and water (30%), as well as yield losses and logistics (30%). According to Tiger Brands, tomato prices have increased over the past five years due to producers shifting to alternative products with higher margins, such as citrus, butternuts, and sweet corn. Additional costs include electricity, logistics and labour.

Contract growers are compensated differently depending on the brick value provided. For the last season (April - September 2023), producers from Musina received R2800/ton, while those from Lutzville received R2500/ton. Apart from All Gold tomato sauce, Tiger Brands processes the following products: Koo Beans, Chakalaka, mixed vegetables, beetroot, and fresh garden peas. All tomatoes used for hot break paste in the last season were locally procured. For the cold break tomato paste used in Koo Beans, 20% was procured locally, and 80% was imported from China. Tiger Brands' manufactured products are exported to countries like Namibia, Botswana, Zimbabwe, and Mozambique.

BOX B: Miami Cannery

Miami Cannery is both a producing and processing factory based in Phalaborwa, Limpopo, and was established in 1984. Initially, the company grew fruits and vegetables like onions, tomatoes, blueberries, and others. However, due to challenges of perishability, the founders sought to add value to their produce and started with canned tomatoes and onion mix.

The tomato & onion mix was the first canned product produced by Miami Cannery, followed by tomato paste and tomato puree. The value chain of Miami Cannery spans from contracted producers, processing, packaging, and distribution to national wholesalers and retailers. Miami Cannery uses a variety of tomato cultivars for different canned products, including HD14, HDX14, HMX, HDP341, and HT310. The selection of these specific cultivars is based on good brick value, sugar content in the tomato, and overall quality. Approximately 10,000 tons of tomatoes are procured from the producers, with an additional 3,000 tons produced by Miami Cannery per season.

Miami Cannery contracts about 50 producers per season, with approximately 60 tons of fresh tomatoes supplied daily. The company provides producers with technical knowledge and training to apply those skills. The responsibility of the producers is to grow and deliver fresh tomatoes after harvest to Miami Cannery.

Costs incurred by Miami Cannery include the importing of tomato paste to produce their tomato-based products. The products processed by Miami Cannery include Atchar, canned tomatoes and gherkins, with tomatoes constituting most of the total production.

Approximately 12 to 13 million tomato-based cans are sold by Miami Cannery on an annual basis through retail channels.

BOX C: ZZ2

ZZ2 is a farming conglomerate that was established around 1953, specializing in tomato production and operating in Mooketsi, Polokwane, and Musina. Historically, the business traces back to the late 1600s when it started farming different vegetables around 1721, eventually focusing on tomato production in 1953.

ZZ2's goal is to produce around 2000 hectares of tomatoes and become the biggest supplier of tomatoes in South Africa. ZZ2 currently grows three categories of tomatoes, namely regular round tomatoes (Long Shelf Life), normal round (Roma type) tomatoes, and sweet and small (Cocktails) tomatoes.

The secret to ZZ2's production is their unwavering commitment to producing the best quality tomatoes. ZZ2 agronomists travel the world, sampling a variety of tomatoes, and bring them back to South Africa to test the best varieties that respond well to the climatic conditions of South Africa, are resistant to diseases, and produce quality tomatoes. Currently, ZZ2 has around 50 different varieties of tomatoes planted for testing purposes.

Approximately 14,000 tons of seeds are planted per season, totalling around 28 million seeds. On a seasonal basis, the major production costs incurred by ZZ2 include seeds, fertilizer, plant feeding, irrigation equipment, field preparation (10% to 15%), labour (30%), diesel & electricity (30%), and packaging (30%). The value chain of ZZ2 includes purchasing seeds overseas, growing seedlings, planting seeds, irrigation, fertilization, harvest transportation to packers, storage, and distribution.

ZZ2 supplies fresh tomatoes to South African supermarkets such as Woolworths, Pick and Pay, Shoprite, Checkers, and Spar, making up about 80% of ZZ2's market. The remaining 20% is distributed to the informal market.

BOX D: DURSOTS

Dursots is a family-owned processing enterprise with a 32-year legacy which specialises in the production of tomato paste and an array of complementary products. Operating across two locations in South Africa namely, Johannesburg (the main office) and Modjadjiskloof (Limpopo province)—the company boasts a state-of-the-art canning and bottling facility capable of diverse food production, prominently featuring tomatoes. Processing capabilities extend to various legumes, including baked beans mixed with tomato sauce and butter beans. Additionally, the company handles the production of items such as mayonnaise, peanut butter, and cleaning detergents and polish.

The supply chain is robust, encompassing the procurement of tomatoes from contract farmers, their transport to processing facilities, and subsequent distribution to wholesale. Catering to a wide clientele, the products reach corporate entities, retail chains, wholesale distributors, independent retailers, and food service providers. Moreover, the products find their way to markets within Southern Africa, the Indian Ocean islands, and Middle Eastern countries.

The primary production hub, located in Modjadjiskloof, is where the bulk of tomato processing occurs, yielding approximately 3 638 tons of cold-break tomato paste. Dursots prides itself on operating South Africa's most advanced processing facility, equipped with triple evaporation technology. To ensure premium tomato cultivars, the company cultivates seedlings in nurseries sourced directly from California, with the primary cultivar being HX14, renowned for its quality and flavour. Extensive research validates its capacity for high yields.

Engagement occurs with three distinct categories of farmers: commercial farmers, supplying over 3 000 tons per season; semi-commercial farmers, providing between 1 000 and 3 000 tons; and communal farmers, contributing up to 1 000 tons of tomatoes. Planting seasons vary across these categories, facilitating year-round tomato production. For instance, commercial farmers plant between December and January, semi-commercial between January and April, and communal between January and June.

Processing plants handle a daily throughput of approximately 450 to 500 tons of fresh tomatoes. The company proudly supplies tomato paste to major brands like Tiger Brands, Oceana, West Point Processors, African Pioneer Foods, and others, who further enhance its value for retail sale.

Key to processed tomatoes' quality is the Brix level, which consistently exceeds 4.8. In the previous season (2023), Dursots contracted around 36 500 tons of fresh tomatoes, a figure that rose to 44 000 tons in 2024. Production costs, ranging from R2 650 to R2 850 per ton, encompass operational, distribution, labour, and input costs. These expenses have seen significant annual increases, with operational costs rising by approximately 100% over the past five years.

Processed tomatoes command a substantial market share, accounting for approximately 30% of Dursots's overall production.

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