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The Sweet Wines of Constantia: a Feasible First PDO From the South African Wine Sector?

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Geographical Indications

"GI systems are a way in which to capture the emotions, natural attributes and unique production methods that make our products special. GIs can bring value to a region, not only by generating jobs and additional income for producers, but also by promoting the region as a whole and stimulating tourism, wine tourism, and gastronomy."

- Tim Harris

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Abstract

The importance of quality and sustainability symbols has become increasingly important over recent decades, influencing consumption of foods and beverages. South African wines tend to be undervalued, especially in international markets, but many could use this change of interest as an opportunity for valorization of quality products.

The Geographical Indications (GI) scheme has been a successful scheme particularly in the European market, used as a tool to generate incentive for rural development, sustainable production and marketing practices. The South African wine industry has shown capacity to run one of the best systems of origin and regulation for its wines, suggesting potential to utilize existing systems as the backbone for the implementation of the GI scheme. The potential for the South African industry to support this scheme has been explored in academic literature and is assumed to be possible. This thesis will look at this potential in the context of a case study: the wines of Constantia. Here, the focus is on the sweet wines produced from Muscat de Frontignan.

The Sweet Wines of Constantia are historically famous wines from the Constantia Valley in South Africa. These wines represent the potential that South African wines hold in fetching and sustaining competitive prices and reputation. This established reputation, traditional code of practice as well as the terroir and prestige make these wines a strong contender as the first South African PDO wine, as is discussed in this thesis. The impacts of the implementation of the GI scheme within the South African wine industry will also be explored and a SWOT analysis will be carried out. In conclusion, further market research is suggested.

1. Introduction

The South African wine industry was established in the 1650s. South Africa is considered a New World wine producing country, despite its history. Over the last two decades, exports of South African wines have increased by an average of 10% per year, with reputation steadily improving alongside.

Improvements in export volumes and values are enhanced by branding and targeted marketing strategies. One such tool of marketing which has a strong hold within the global market is the Geographical Indication (GI) scheme. This scheme recognises products of premium quality, attributable to the specific terroir of production or to reputation linked to geography. When implemented correctly, certification of products via this scheme can encourage premium prices for the certified product, increase demand globally and impact the livelihoods of producers, processors and foster a more vibrant economy within the area of production due to improved reputation of the area itself.

The certification of a South African wine via the GI scheme would give such a wine a competitive edge in foreign markets, particularly within established, Old World wine producing markets where competition is high and market access is selective. In order to reinforce the reputation of premium wines from South Africa, the wines chosen as candidates for this scheme should be of excellent quality and reputation. These wines should represent terroir and tradition. As such, the wines chosen for exploration of feasibility of implementation of the GI scheme in South African wine industry are the Sweet Wines of Constantia. This is set with intent to open discussions on the potential to register an array of wines from the Constantia Valley as the first PDO wines to come from South African soil.

2. Literature Review

2.1. Quality Perception of Foodstuffs

Quality of a food product is a multidimensional issue. From the perspective of consumption, food quality is based on cues that facilitate the search for, experience of and potential return to a product. Perception of quality is determined by the judgement of intrinsic cues, represented by attributes such as packaging, colour, texture, safety, and many other perceptible characteristics (Olsen & Jacoby, 1972).

Regulating the commercial use of names rooted in the heritage of a country helps to identify cultural elements and protect them from dilution and misappropriation. Attention to particular qualities of products as well as heritage is becoming more relevant in an increasingly globalized, standardized and quality-focused culture (Babcock & Clemens, 2004; WIPO, 2008).

One of the more basic cues a that consumer needs to differentiate between products is the price of an item, which will directly impact the utility or satisfaction experienced. To maximize utility, a customer will need to believe that the product is worth the price paid. For higher quality items, the premium nature of the product will need to be communicated through convincing quality marks that can effectively minimize information asymmetry (EUIPO, 2016; Mccluskey & Loureiro, 2003).

Certain natural conditions (such as soil, climate, water) and traditional expertise facilitates distinctively high-quality produce. For this higher quality produce to fetch a premium price and a valuable reputation, and for producers to receive the income worthy of a high-quality product, consumers must be able to perceive premium products as better. As a feasible way to achieve this goal, the products should be subject to regulation and certification, made obvious on the product label (Grunert, 2005).

It has been recognized that marks of quality have increasingly become important in an economy's market access and value over recent decades (Sylvander, 1997). As a result of this, many quality schemes exist for foodstuffs, whether mandatory or voluntary. For example, there

are 440 different food quality schemes in Europe alone, demonstrating that quality schemes can help with differentiation, but can also be the root of information overload for consumers (European Commission, 2010). The ability to legitimize and communicate valorisation of a product that carries valued characteristics is therefore essential in holding access to markets with higher purchasing power.

Authorities in different countries will judge the quality of a food according to parameters and values tailored for each context, and products are certified and marketed according to an agreed perception of quality within the system that gives the correlated certifications (Climent-López et al., 2014). Consumer confidence linked to the credence of these certifications represented on labels depends on regulatory institutions associated with them – one of the most reputable being the GI scheme, which is described further in the following pages (Mccluskey & Loureiro, 2003).

Agricultural products are essential building blocks of life, and food choices can be inherently cultural and political (Ichijo & Ranta, 2016). Protection of heritage is particularly important in the experience an increasingly globalized culture, which dilutes a sense of national identity (Addor & Grazioli, 2002).

Being so closely linked to tradition, history, knowledge and place, GIs can invoke a deep sense of connection and emotion within human beings. Connection to a story and a sense of pride in oneself, but the high value that these products demand can lead to counterfeiting and the subsequent degradation of reputation (Sanders, 2015).

2.2. Geographical Indications

According to Article 22.1 of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, a GI is defined as a product “where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.” (TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994). To be registered as a GI and to have international recognition and internationally respected regulations on the rights to that name, the product must be made on the territory of a member state of the World Trade Organization (WTO) (World Intellectual Property Organization, 2021).

When referring to the wine sector, the specifics of an environment and oenological techniques are known as terroir. These include natural specifics such as climate, soil and topography; and human specifics such as viticultural practices, choice of cultivar and winemaking techniques (Gade, 2008).

GIs can be identified by a name, logo or symbol on the product. The most important things here are that the place of origin directly effects the qualities of the product, and that the consumer can associate the given product with a specific place. While a GI often refers to an agricultural product, it can be any product related to traditional expertise and the qualities given by a specific location. For example, a handicraft, often made with local materials, could be registered as a product of geographical origin (World Intellectual Property Organization, 2021).

GIs can be competitors or complimentary to other quality standards and schemes and play a role in elevating the quality and sustainability perception of the product. GIs are, however, uniquely regulated by the TRIPS Agreement, which provides guidelines for international protection of GIs as a specific International Property Right (IPR) (Marie-Vivien & Biénabe, 2017) Since 1992, the European Union (EU) protects and promotes products with specific geographical or traditional origin via the Protected Designation of Origin (PDO), Protected Geographical Origin (PGI) or GI quality schemes described as follows:

GI – geographical indications for spirit drinks and aromatized wines

PGI – Protected geographical indications for agricultural products, foodstuffs and wines

PDO – Protected designations of origin for agricultural products, foodstuffs and wines. (European Commission, n.d.-a; Council Regulation (EEC) No 2081/92 of 14 July 1992 on the

Protection of Geographical Indications and Designations of Origin for Agricultural Products and Foodstuffs, 1992).

Each of these indications are represented on the product by logos, as shown in figure 1, with the PDO having its own certification label, while the PGI and GI classifications are both represented by the same, blue and yellow label. Being a voluntary certification scheme that represents intellectual property rights, the name describing the product itself is protected regardless of the placement or absence of the logo on the product packaging. It is, however, a requirement that products certified under the GI scheme should display this mark on the packaging (Marie-Vivien & Biénabe, 2017). Regardless of the scheme chosen, a wine with GI must present the name of the origin on the label, unless the traditional term commonly used in the member state is shown according to article 112(a) of Regulation (EC) No 1308/2009.



Figure 1: PDO and PGI symbols (in respective order) used to represent products of Geographical Origin

A certified PGI product will indicate that a particular quality, reputation or other characteristic is attributable to its place of origin. For these products, only one stage of production, processing or packaging should come from the region of origin. For wines, this symbol would indicate that 85% of the grapes used come from the area indicated (European Commission, n.d.-a).

Each product of geographical origin with PGI or PDO certification at EU level can be found on the *eAmbrosia* register. *eAmbrosia* “is a legal register of the names of agricultural products and foodstuffs, wine, and spirit drinks that are registered and protected across the EU” (*EAmbrosia*, 2023). This register is a centralized source from what was previously three registers, being e-Bacchus, e-Spirit-Drinks and Door, which represented certified wines, spirits, and foods, respectively (Directorate-General for Agriculture and Rural Development, 2020a).

These registers contain names that are protected and linked to products made according to agreed codes of practice and standards, which represent a part of the origin country’s heritage. Another register, GIview, contains a comprehensive list of GI names that are protected according to various trade agreements with the EU. These do not have to be linked to any specific products or production methods such as those listed on the *eAmbrosia* register (De Filippis et al., 2021). GI View is a relatively new platform where one can search for information on registered names of GIs (Directorate-General for Agriculture and Rural Development, 2020b).

GIs are a key economic asset for the EU, and form part of the EU-wide system of intellectual property rights. According to research by the EUIPO and the European Patent Office, industries intensive in GI rights support nearly 400 000 jobs across the EU, and contribute over €20 billion to the EU’s Gross Domestic Product (GDP). Additionally, a study published by the European Commission puts the yearly sales value of GI-protected products at €74.76 billion annually, a fifth of which result from exports outside the EU (Directorate-General for Agriculture and Rural Development, 2020b). This shows strong local support for the GI scheme among European citizens and residents.

The Nomenclature of Territorial Units for Statistics (NUTS) are used to outline the areas of production of GI products. The NUTS classification is a hierarchical system used to divide the economic territory of the EU and the UK for statistical purposes, as well as for socio-economic analysis and framing of regional policies. Each member state decides on their personal structure of definition and management of NUTS regions (European Commission, 2020b). This system was set up in the 1970's and achieved legal status in 2003, according to Commission Regulation (EC) No 1059/2003 (Commission Regulation (EC) No 1059/2003. , 2003).

These are divided by three principles; population density thresholds, previously defined administrative divisions and territorial structure as indicated below:

- NUTS 1: major socio-economic regions
- NUTS 2: basic regions for the application of regional policies
- NUTS 3: small regions for specific diagnoses

At the time of writing, 92 NUTS 1, 242 NUTS 2 and 1166 NUTS 3 regions exist (European Commission, 2020b).

In some cases, Local Administrative Units (LAUs) are mentioned as well as / in place of NUTS regions. LAUs are the building blocks of the NUTS, made up of the municipalities and communes of the EU. These are necessary to control statistical information at a local level (European Commission, 2020b).

2.3. Legal Aspects

To quote the World Intellectual Property Organization, “The term appellation of origin is often used in laws that establish a specific right and system of protection for GIs, in so-called *sui generis* systems of protection... GI is a more general concept that does not determine a specific mode of protection.” (World Intellectual Property Organization, 2021). Appellations of origin therefore differ from GIs as they need a stronger link to origin via quality and reputation, whereas GIs only need one or the other (WIPO, 2022b).

GIs are protected in various avenues depending on the context, as mentioned in Figure 2. This includes *sui generis* systems, trademark systems (most commonly collective or certification trademarks), national, regional or international agreements, including the Lisbon and Madrid system (EUIPO, 2016). The Lisbon System was established in 1958 for international protection of appellations of origin. With adoption of the Geneva Act in 2020, the protection of appellations of origin extends to GIs as well. It also provides more flexible protection of GIs at national and regional level (WIPO, 2022b).

In a *sui generis* system, the owners are a community with shared, traditional knowledge. The protection of the intellectual property is therefore of a public nature and suitable for GI products (Wekesa, 2006).

The Madrid System registers GIs as trademarks and allows international protection of names that are at risk of becoming generic. For example, Napa Valley is a famous wine region in California and is thus at risk of reputation loss via counterfeit products, meaning that wines from Napa Valley could benefit from protection via the Madrid system (WIPO, 2022b).

National and regional protection follows laws specifically designed to protect GIs, which would differ in each context. *Sui generis* protection is used against direct and indirect imitations or misuse of GIs and allows respect for the complexities of context (WIPO, 2022b).

Through the use of collective and certification marks, trademark law is used to protect GIs. In this case, context needs to be considered carefully, as trademark and GI laws are not always mutually exclusive of one another. Where IP rights are considered, legal reach stretches to regional or national levels unless international agreements such as TRIPS or the EU-SACD

EPA are at play. Where *sui generis* systems are at force, this provides international protection regardless of bilateral trade agreements (WIPO, 2022b).

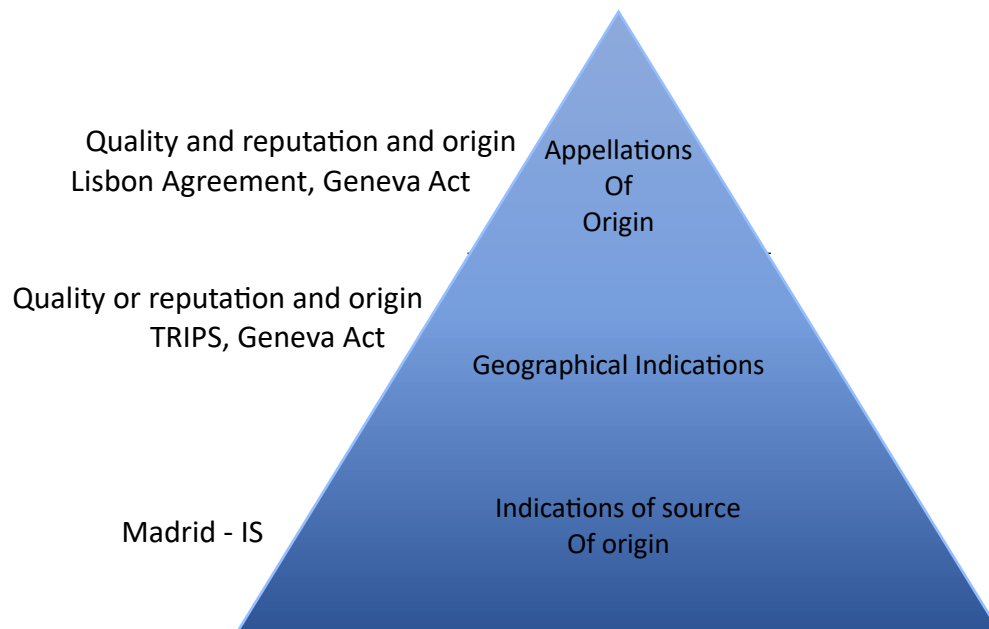


Figure 2: Summary of the various indications of origin, relative law and quality or reputation associations.

Global protection of GIs stems from the TRIPS agreement administered by the WTO, although the role of GIs are markedly different from intellectual property, particularly due to their multifaceted nature (Marie-Vivien, 2010). These include: (Marie-Vivien & Biénabe, 2017).

- Consumer protection against fraud
- Producer protection against fraud and loss of reputation
- Rural development
- Protection of biodiversity and heritage (Marie-Vivien & Biénabe, 2017)

According to Article 22 of the TRIPS agreement, all 160 members of the WTO are required to implore *sui generis* protection on GI products with DOCG, PDO or PGI certification. In contrast to this, names of GIs as seen on GIView are only protected via separate bilateral or multilateral agreements (EUIPO, 2016; TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994).

Part II of the TRIPS agreement provides law for intellectual property rights in terms of Copyright and related rights, trademarks, GIs, industrial designs, patents, layout-designs of integrated circuits, and protection of trade secrets. This is thus the law under which GIs are protected and is in practice in 160 countries globally (Addor & Grazioli, 2002; TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994).

Of the various ways in which a product could receive international protection as intellectual property, trademarks facilitate invention, creation and trade, while GIs facilitate valorization, quality and tradition (Marie-Vivien & Biénabe, 2017). In *sui generis* systems, GIs are protected against any evocation, regardless of whether it causes consumer confusion or not, and the name or mark can never become generic (Audier, 2003). This offers a higher level of protection than trademarks, which are typically only effective in the case of consumer confusion and may become generic (EUIPO, 2023b, 2023a).

All types of intellectual property protection listed are used to distinguish between competing products. As a result of this distinction and its perceived link to quality, GIs allow a producer to generate added value to a product and could have positive impacts on the development and preservation of the product's place of origin (Curzi & Huysmans, 2022; Vandecandelaere et al., 2018).

The use of GI protection, rather than any other form of protection, can be explained by several reasons, such as (Marie-Vivien & Biénabe, 2017).

1. Causing state involvement in legal matters at international level, which producers would usually not be financially able to cover alone
2. Adding value to a premium product
3. Saving time and energy for producers, as the state is expected to intervene on behalf of producer
4. Avoiding unfair or illegitimate exclusion from the use of geographical names
5. Preserving a common heritage
6. Recognizing the high potential held in the multidimensional character of GIs (Marie-Vivien & Biénabe, 2017)

Consortiums, regulatory councils or marketing boards are essential players in the maintenance of reputation for leading GIs such as Champagne, Parmigiano Reggiano or Scotch whiskey .

GI specifications are co-created by the state and the producers, meaning that the recognition and valorisation of qualities based on geographical origin is based on the standard agreed on by producers, and the premium prices fetched depend on a willingness to pay from global consumers. This expands and is likely to increase the market equilibrium of premium goods with GI certification. This allows empowerment for producers while limiting uncertainty of perception of quality (Marie-Vivien & Biénabe, 2017).

GIs are considered both as IPR and as a policy instrument and fulfil numerous public objectives (Herrmann & Teuber, 2012; Ilbert & Petit, 2009). This can be seen by the way in which GIs receive support from many stakeholders, including national states, international funding agencies, local authorities, trade unions and NGOs. The successful development and implementation of a GI scheme should thus provide the producers with quality-related benefits that protect consumers from information asymmetry regarding the geographical origin and production methods of the product (Chidede, 2022).

2.4. Structure of GI Creation, Accreditation and Enforcement

Names used in the GI scheme refer to land under state control (Marie-Vivien & Biénabe, 2017). State involvement in the regulation of name usage on a global scale is therefore necessary to drive public concern related to the GI scheme, and it is essential that the state has capacity to valorise the link between products and their geographical origins (Marie-Vivien & Biénabe, 2017).

The creation of a GI involves distinction of the area of production, expertise from producers, tradition and a regulated code of practice. It is essential to have collaboration on these issues for a GI to function between multiple producers of a particular product. All through the production line, codes of practise must be aligned with restrictions and quality regulations. While this can be restrictive in terms of adaptation to trends or new technologies, this is what forms a large part of the foundation of GIs (World Intellectual Property Organization, 2021).

GI regulation requires a multi-level governance scheme and includes

- the need for a competent public authority
- accreditation of private third-party certification bodies
- inspection of the state as a trademark owner (Marie-Vivien & Biénabe, 2017)

3. Implication for Rural Development & Existing Policies

3.1. Global Rural Development Strategies

A universal definition of a rural area is not possible, although it is generally acknowledged to be the opposite of an urban area (Abdulwakeel, 2017). Rural areas are generally characterized by low population density, large distances between areas of higher population density, relatively high transaction costs and an identifiable, unique heritage. The income structure in rural areas is assumed to be related mostly to agricultural earnings, but the degree of income in rural areas related to agriculture is different depending on the context, and declining over time especially in high-income countries. For example, some rural areas receive more income from industrial practices such as mining, or from tourism, in which case, the demographics and overall market structure are noticeably different from others, such as those centred around agriculture (Abdulwakeel, 2017).

Common issues experienced in rural areas include social exclusion, poverty, disease, neglect, backwardness, marginalization, depopulation, racism and corruption (Bertolini, 2019). Particularly in developing regions or countries such as South Africa, this extends to the risk of crime, disease and poor service delivery (National Planning Commission, 2021).

It is possible for agriculture to aid development for multiple reasons, including (Bertolini, 2019):

- Being a major purchaser of inputs, whether related to agriculture or not
- Provision of public or semi-public goods such as culture or landscapes. These support tourism and recreation.
- Support of and advocacy for environmental protection
- Farm households stimulating the local economy by providing consumers in rural areas.

Rural areas can experience economic improvement through various avenues, such as subsidies or ground-up-focused investments. Investment in the competitive development of farms can have positive impacts on the long-term growth of these farms, where subsidies are mainly only effective in short-term development (Bertolini, 2019)

Whether in developed or developing countries, a trend found very often throughout the world is that poverty is more prevalent in rural areas (Bertolini, 2019). In recent years, investments in developed countries have tended to move away from the top-down approach that focuses solely on investments in infrastructure and incomes related to agriculture, to a more intersectional approach that aims to invest in and uplift agricultural agents as well as their supporting communities (Organisation for Economic Co-operation and Development., 2006).

In the USA, for example, efforts and investments were initially focused on improvements of infrastructure in rural areas, such as roads and access to electricity. This investment led to long-term problems – infrastructure was there, but quality of life in rural areas was declining according to the poverty cycle. Strategy started shifting toward a bottom-up approach in the 1980's, led by rural people and supported by government (Rasmussen, 1985).

The bottom-up approach is still considered with high importance in today's rural development strategy for the USA . When looking at America as a whole in recent years, it is observed that metropolitan areas recovered in employment levels after the 2008 recession, rural areas have not achieved pre-2008 levels of employment and efforts to achieve this have been further held back by the COVID-19 pandemic (Ajilore & Willingham, 2020).

Metropolitan areas have also become notorious for draining rural areas of their resources – wealthier, metropolitan shareholders extracting wealth from rural investments while the rural areas support the essential needs of those living in economic clusters such as metropolitan areas. This weakens the economy as a whole by making it less resilient in times of difficulty (Ajilore & Willingham, 2020; Bertolini, 2019). Health, education and social services are the largest sectors of employment in rural areas in America, showing how acceptance and investment in diversity of a rural economy is essential in its overall development, where some rural development plans focus on agriculture alone. Geographic inequality is a problem globally, enhanced by movement of high-earning people to urban areas (Jarsulic et al., 2019).

3.1.1. European Context

In the EU, rural development has focused overwhelmingly on agriculture as a launchpad for societal and economic development, particularly throughout developing stages of the economy, when agriculture made a proportionally larger contribution to the economy (European Commission, 2020a). It is narrowed down to two pillars, that compose the Common Agricultural Policy (CAP):

- pillar one being increased production via price support and subsidies, which provides surrounding communities with food security (especially in the past decades and at the beginning of the EU history). Currently, Pillar one has turned into income support to farmers, via direct payments to them. This is considered a mostly top-down approach, and
- pillar two, being mostly investment support and payments for the provision of ecosystem services. In this phase, production tends to contract towards market equilibrium and investment allows better quality goods and services according to the needs and wishes communicated by the community. This is usually a bottom-up development and requires interaction between members of all levels of production and policymaking (Bertolini, 2019)

Allowing policies to evolve and adapt to the needs of the area of implementation is essential in improving competitiveness and enhancing reputation in the global market (Bertolini, 2019).

We see this, for example, in the Common Agricultural Policy (CAP). This policy was launched in 1964 with a main focus on price support to boost agricultural productivity and food security and promote exports (European Commission, 2020a; Organisation for Economic Co-operation and Development., 2006). Subsidies were also introduced over time to improve quality of life for producers and as an attempt to lower poverty levels. The policy evolved and experienced multiple reforms over the years since, one of the most notable being the MacSharry reform in 1992. Here, price support was phased out and as an effect, production of surplus became increasingly expensive. There was an introduction of direct investment mechanisms and reinforcement of rural development policies (Bertolini, 2019).

Where key actors were mainly farmers who received subsidies from the national government, the main actors are now all levels of government as well as various stakeholders, investing in various sectors of local economies. This allows a broader scope of support, beyond farmer incomes and into stronger competitiveness of the rural areas as a whole, facilitating the valorisation of local assets and a move towards more creative, sustainable exploitation of all available resources (Bertolini, 2019).

3.2. PDO Successes and Failures

In the EU, Italy, Spain and France are noted as the countries with the highest number of registrations of GI wines (Directorate-General of Agriculture and Rural Development, 2022). This suggests that respect for tradition and respect for sustainability go hand-in-hand. Both are thus beneficial to the supporting economies, contributing to profitability and competitiveness as a consequence (Agostino & Trivieri, 2014a).

GIs have been known to contribute to value addition in agri-food products (Cei et al., 2018). In the legal sense, they act as a form of protection for premium agri-food products, thereby providing legal and commercial base for rural development. This, in turn, cultivates preservation of heritage and the promotion of SMEs (Josling, 2006).

Building a GI system requires research to assess:

- the potential economic, social and environmental impacts of implementation (Jena & Grote, 2012)
- State capacity to implement and regulate a GI system (Marie-Vivien & Biénabe, 2017)
- Coordination between all agents, from producers to national government (Marie-Vivien & Biénabe, 2017)
- Studies on consumer acceptance willingness to pay (Menapace & Moschini, 2012)
- hedonic price analyses (Deselnicu et al., 2016)
- A theoretical literature on the efficiency of GIs as quality signals (Menapace & Moschini, 2012)

Benefits to consumers and producers depend almost entirely on the value that consumers place on the quality of the product and the associated GI label, as well as the actual effect that terroir has on the premium qualities of the product and the capacity to honour the regulations in place (Desquilbet & Monier-Dilhan, 2015).

When looking at the impact of GIs on producer incomes, it is worth mentioning that the positive outcomes are contextual. There is an overwhelming amount of literature shedding light on the positive impact of GI certification (Agostino & Trivieri, 2014a; Bramley et al., 2013; Lubinga et al., 2021). This has grounds but needs to be considered carefully in each context in order to predict how positive the outcomes may be. For example, GI registration can lead to associated higher production or transaction costs and unequal distribution in the value chain, therefore

creating higher incomes for registered products while all producers of similar products in the area experience higher competition and possibly higher production costs, regardless of registration status. This may also cause tourism that local capacity cannot sustain, or gentrification (Glogoveţan et al., 2022; Török et al., 2020; Virginie et al., 2022). Careful attention needs to be paid to the impact that a GI could have on the surrounding producers of similar products.

For example, as seen in a study of the Val di Mazara PDO olive oil from Sicily, certification of oils as PDO products has not lead to valorization of the product itself . This is a case where local consumers prefer local oils that they are familiar with and do not rely on quality certifications to distinguish between products. Marketing for distribution in local channels therefore does not allow optimal benefits from GI certification, but does narrow asymmetry and lead to a sense of familiarity and trust in the global market. If the aim is to market toward global markets, one can benefit more from the GI scheme than if the aim was to sell to local markets (Sgroi et al., 2022).

3.3. Why the Need for Protection

The main aims of GIs are to recognize the intellectual property of an agricultural or traditional product, to ensure multilateral protection of the GI, and to prevent delocalization of production (World Intellectual Property Organization, 2021).

According to the FAO, a successful GI could prevent the “delocalization of production, create jobs, boost local development and contribute to safe, diversified and healthy diets, thanks to the preservation of traditional food products, environment and biodiversity.” (FAO, 2019). GIs have been known to contribute to value addition in agri-food products (Cei et al., 2018). In the legal sense, they act as a form of protection for premium agri-food products, thereby providing legal and commercial base for rural development. This, in turn, cultivates preservation of heritage and the promotion of SMEs (Josling, 2006)

In 2021, 51% of GIs represented wines and spirits, showing strong enthusiasm for use of this protection system for this category of products (WIPO, 2022b). There is recognition for the susceptibility of these products to illicit trade and therefore, recognition of the need for greater protection on wines and spirits (EUIPO, 2016). The gross value of counterfeit GI products in the EU stood at 9% of the value of EU GI products in 2014, amounting approximately to \$4.73 billion. This caused a major loss to consumers, who unjustly paid a price premium for the counterfeit products, and is estimated to be as large as \$2.53 billion, or 4.8% of the total value of GI purchases (EUIPO, 2016).

Furthermore, on the 31st of March 2022, the European Commission proposed an increase in uptake of GIs across the EU in order to achieve a higher level of protection of products and benefit the rural economies of the EU. This will empower producer groups all over the world to develop anti-counterfeiting systems in their countries which cooperate with European authorities. One particular point of focus here is the growing online market, where there is increased risk of illicit trade (European Commission, n.d.-a; Islam et al., 2021)

The number of filings for trademarks and patents have gone up globally by 5.5% and 3.9% respectively between 2020 and 2021, showing sustained interest in intellectual property around the world (WIPO, 2022b). Of the trademark filings, 52.1% were made by China alone in 2021 (WIPO, 2022a). This is followed by the US (5%), Iran (2.9%), EUIPO (2.7%) and India (2.7%).

Overall, the stability of the increases in patent applications over recent years reflects the notion of increased attention to intellectual property rights and in some cases, to quality and a resultant increase in competitive value of symbols which show quality and exclusivity (Fabiosa, 2012). China is a large market, and market access throughout Asia (particularly China) is considered as very important for export markets. Therefore, it is worth noting that China seems to be following global trends regarding attention to schemes which enhance competitive advantage (Keller, 2009; Viljoen, 2017a).

The top five industries that these patents were dedicated to include computer technology, electrical machinery, digital communication, medical technology and transport (WIPO, 2023). The lower contribution of agriculture in the sense of trademark applications could reflect the fact that agriculture is not as much of a lucrative pursuit as in other industries (WIPO, 2022a). This deepens the risk of marginalization of agents of the agricultural sector, and increases urgency in the need to raise awareness, pride, education and reputation of the sector via various strategies, including the recognition of the premium quality products that are already produced globally. One of the more effective methods to achieve this is through maintenance and celebration of great reputations connected to an increase in trademarks and GI products (Addor & Grazioli, 2003; Bramley et al., 2013; De Filippis et al., 2021).

GI certifications are an important tool for quality recognition linked to geographical origin of the product. One country which has potential for the use of such a system within the wine industry, but has not fully implemented such a scheme yet, is South Africa. A study of the quality regulation systems and trade agreements related to South African wine quality certifications and schemes will thus follow, with particular focus on the potential that the Constantia ward has in the implementation of the PDO scheme.

4. Case study: South African Wine Sector

4.1. Intellectual Property Protection in the African Context and in South Africa

In the African context, many countries have been making strides toward a strengthened system regarding intellectual property rights. For example, on the 1st of October 2018, an agreement was signed between the World Intellectual Property Organization (WIPO), Organisation Africaine de la Propriété Intellectuelle (OAPI) and African Regional Intellectual Property Organization (ARIPO) to elevate and harmonize efforts in development of IP legislation (WIPO Coordination Committee, 2018). The EU has been signing an increasing number of trade deals that include greater GI protection over recent years, showing efforts to deepen GI protection globally, including within African countries (O'Connor & Richardson, 2012).

Counterfeit goods from South Africa and other countries are known to move to neighbouring countries through South Africa's porous borders. In South Africa, the Merchandise Marks Act forms the basis for action against unlawful application of intellectual property rights and counterfeit goods in commerce. Under the Counterfeit Goods Act 37 of 1997, owners of intellectual property rights are able to act against counterfeit goods that represent their products and provides a legal base from which South Africa can comply with the TRIPS Agreement. Samples of counterfeit products are sent to the brand owners for inspection and the brand holder may lodge a complaint with the inspector. The inspector then seizes the goods under a warrant and the goods are sent to storage for criminal proceedings to be followed against the offender or importer. The goods are then destroyed, or the infringing mark is removed (Ferguson & Schneider, 2015)

Analytical services perform laboratory tests according to the Liquor Products Act 60 of 1989. Samples are presented for control of manufacturing, export, import and national trade. To test and regulate wines for the Wine of Origin (WO) scheme and comply with global regulations, the Wine & Spirits Laboratory works with Liquor Products, APIS and SAWIS (DALRRD, 2022b).

The following aspects are routinely tested via methods as indicated:

- Alcohol determination (pycnometer method)
- Reducing sugar content determination (skalar auto analyzer)
- Volatile acidity determination (skalar auto analyzer)
- Total acidity & pH determination (Mettler autotitrato)
- Total sugar content (Fehlings A method)
- Sulphur dioxide content (Flow Injection analyzer and Aspiration method)
- Gas pressure tests for sparkling wines
- Additives (HPLC, GC, AAS or gravimetry tests) (DALRRD, 2022b)

Other non-routine tests are performed to validate the authenticity of wines or possible hazardous microbial infection where needed. An interesting point in these non-routine tests is that the microbiology laboratory serves the Rooibos tea industry exclusively, for exports (DALRRD, 2022b). This special attention could possibly be an indication that special care is needed for the regulation of PDO products, particularly when destined for export. These products carry the weight of premium reputation and South African heritage, so a separate laboratory for testing of specific aspects considered important for Rooibos is a good indication that South African authorities take the GI scheme seriously and are willing to provide the necessary resources and skills to implement such a scheme. Furthermore, the Merchandise Act provides a base on which South Africa's reputation can be upheld regarding GIs. This provides confidence in the potential that South Africa holds to establish the structures needed for the success of a PDO scheme in the South African wine industry (DALRRD, 2022b).

South Africa is very new to the process of registration of names on the eAmbrosia register, with Rooibos taking effect as a registered, protected product on the 31st of May 2021 (Directorate-General of Agriculture and Rural Development, 2022). The application was submitted by the South African Rooibos Council on the 21st of August 2018 (SARC, 2018). Developing a GI system within a developing country is a major undertaking, requiring years of effort. There has been no attempt to implement the GI scheme in the South African wine industry so far, but it has been noted that South African WO scheme provides a great scaffold around which a GI scheme could be built and the existence of the Rooibos / Red Bush PDO shows state capacity for implementation of the GI scheme (Lubinga et al., 2021).

To be registered as a GI and to have international recognition and internationally respected regulations on the rights to that name, the product has to be made on the territory of a member state of the WTO (World Intellectual Property Organization, 2021). Being the focus of this study, it is worth noting that South Africa has been a member state of the WTO since 1 January 1995 (WTO, 2023).

GIs can be recognized in bilateral trade agreements without being on the GI register, as is the case with South African wines. The names of wine regions are thus protected and certain rules have to be followed if a producer would like to represent a wine region on the wine label, but there is no specific product with regulations on production methods required for premium status above that of baseline regulations for acceptable and consumable products (WOSA, n.d.).

Furthermore, Lubinga et al. (2021) state that South Africa has a solid basis for the generation of GI wines, but that further research would have to be done to determine the feasibility of a wine PDO in South Africa, and whether the benefits would be worth the costs involved (Lubinga et al., 2021). This shows interest in expanding the conversation on the potential costs and benefits of registration of a South African wine with PDO certification.

South Africa has 105 product names related to geographical origin protected under the EU-SADC multilateral agreement – three for agricultural foodstuffs and 102 for wines (European Union Intellectual Property Office, 2020b). These are listed on GIView, but not registered as PGI or PDO products as can be seen on eAmbrosia. They are therefore not globally protected, but are protected through trade agreements. The foods listed are rooibos, honeybush and Karoo Lamb. Of the 102 wines registered as GIs and thereby protected through the TRIPS agreement (European Union Intellectual Property Office, 2020b):

- Constantia
- Coastal Region
- Stellenbosch
- Western Cape. (European Union Intellectual Property Office, 2020b)

Thus, Constantia wines are recognized as GIs according to the WO scheme, but these wines do not demand a specific mode of protection or any link to traditional knowledge in the same way that a PGI or PDO product would. Regardless of code of practice, all wines within certain broad

restrictions and with grapes originating from the Constantia valley that have obvious reference to origin on their labels are protected by a bilateral agreement between the Southern African Development Community and the EU, the Southern African Development Community (SADC) Economic Partnership Agreement (EPA) with EU (SADC-EU EPA) (Chidede, 2022; Tofa & Paterson, 2018). This is further strengthened by the fact that South Africa is a WTO country and therefore follows the rules of the TRIPS agreement and the Geneva Act of the Lisbon Agreement for the protection of GIs and names of the WO scheme.(Addor & Grazioli, 2002; Lubinga et al., 2021; O’connor & Richardson, 2012)

The ward of Cape Town does, however, provide an interesting case. While Cape Town is a ward according to the WO scheme and it is often mentioned on wine labels, stating “Wine of Origin Cape Town”, this does not appear to be a name mentioned on the list of GI names protected in the SADC-EU EPA (European Union Intellectual Property Office, 2020b; WOSA, n.d.-c). This is perhaps because the site has not been updated since Cape Town was registered as a legitimate region of origin for wines in 2017 (WOSA, n.d.-c). The name “Cape Town” has been noted as a name with great marketing power for the South African wine industry, indicating its strength and potential to arouse controversy in the industry (WOSA, n.d.-c).

4.2. South Africa's Wine of Origin Scheme

The Koöperatieve Wijnbouwers Vereniging van Suid-Afrika (KWV) was established in 1918 with the intention of generating stability and restructuring of the wine industry. By 1924, the KWV had achieved monopoly over the international trade of alcohol within South Africa. From 1974, the KWV made significant contributions to the certification system that eventually became the WO scheme in 1972 (KWV, 2023).

The South African Wine of Origin (WO) scheme was developed in 1973, with intention to build consumer confidence. The system enforces regulation of South African wines for achievement of a seal that confirms the geographical origin and sound production techniques for wines in South Africa. This scheme divided South African wines geographically, according to:

- Geographical unit – largest area, allows for multi-regional blends. There are 5 geographical units in South African wines (e.g., Western Cape)
- Regions – areas within geographical units bordered by dominant natural features such as coastlines or mountain ranges (e.g., Coastal Region)
- Districts – common environmental features between each district allow for distinctions between them (e.g., Cape Town)
- Wards – wines produced in different wards have distinct styles, soils and geographical qualities
- Single vineyards – less than six hectares of one single variety (e.g., Constantia)(WOSA, n.d.-b; WoSA, n.d.)

The WO scheme ensures that 100% of the grapes used for a wine were harvested and processed within the area demarcated on the label. The label also ensures that the vintage stated on the bottle must be accurate to at least 85% of the wines' contents (WoSA, n.d.).

There are no existing restrictions in South Africa regarding the varieties that can be planted. Restrictions on planting locations and yield per hectare are also absent, although the accepted quality standard requires 5-10 tons per hectare (Swart & Smit, 2009).

Overall, the certification of quality is marked by description of the WO information (vintage, origin, variety). It also means that the wine was made in an environmentally sustainable way and bottled in South Africa. To create an association between origin and integrity of production, the WO scheme was merged with the Integrated Production of Wine (IPW) scheme, and is condensed into one seal as shown in figure 3. A wine that has been certified within the WO scheme can be identified by a seal, which contains the tracking number and ensures traceability throughout the entire winemaking process, from vineyard and date of harvest to varietals and bottling details (WoSA, n.d.).

The IPW certification ensures the consumer that protocol is followed regarding vineyard, cellar and bottling protocols and ensures the integrity of the product in accordance with regulations and the label descriptions (WineNet, n.d.). 96% of South African wineries farm according to IPW scheme regulations (Vinpro, 2019). Qualifications for this certification involve supply chain audits to control aspects such as pest control, use of agrochemicals, compliance with restrictions on additives, health and safety of workers and disposal of waste, performed by members of the Wine and Spirits Board. To achieve global recognition of safe, quality wines, the achievement of this seal complies with the Global Wine Sector Environmental Sustainability Principles as published by the International Federation of Wine and Spirits (FIVS), and the International Organization of Vine and Wine (OIV) Guidelines for Sustainable Viti-viniculture (WineNet, n.d.). The seal is thus globally competitive, despite its limited use as a marketing tool.

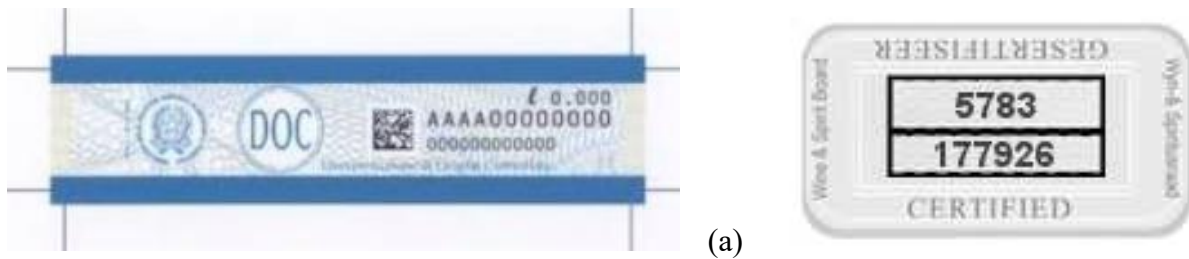
This seal is achieved voluntarily, and in order to achieve it, the vineyard and cellar processing will be monitored. If this is satisfactory, the government-appointed Wine and Spirit board handles the analysis, tasting and approval of the final label. Once all of these requirements are met, the wine may receive the seal, combined with traceability data as seen in figure 4. While a wine may be distributed without the IPW seal, it may still undergo routine spot-checks for health inspection (Robinson & Harding, 2015).



Figure 3: Example of the joint, voluntary seal for the WO and IPW schemes (WOSA, n.d.-b)

4.3. Comparisons between the WO scheme and the GI scheme

For all bottled products made under the PDO and IPW schemes, a seal is placed on the bottle as shown in figure 4. The band containing traceability data used in Italy contains comparable information to that of the traceability data presented in South Africa according to the official seal of the Integrated Production of Wine (IPW) scheme (WOSA, n.d.-e). The traceability of the wines produced under the GI and IPW scheme is an essential element in promoting consumer confidence, as traceability of a product is fundamental in ensuring safety, quality control and compliance with regulations. Without traceability records, market access is significantly reduced (Opara & Mazaud, 2001).



(b)

Figure 4: (a) format of the band placed around the neck of a bottle of DOC wine from Italy, containing traceability information for the wine (Cortassa, 2021) (b) example of the official traceability mark of the wine and spirit board of South Africa (WOSA, n.d.-e)

Products with these seals ensure that all production, processing and preparation occurs within a specific area. For wines, it indicates that all grapes are cultivated in a particular area (European Commission, n.d.-a). As is specified in the WO scheme of South Africa, vinification must occur within the limited zone, but winemaking and other stages of production can take place anywhere in the world. In order to valorize wines which are produced completely within a limited area, certain South African wineries could benefit from the certification of truly local roots along the whole production line and thus receive a necessary price premium for the efforts (Wine and Spirit Board, 2013).

Both schemes require rigorous regulation and testing, and are both compliant with international standards.

4.4. Other Sustainability and Quality Schemes of the South African Wine Industry

From 1820 to 1835, the golden age of wine exports from South Africa had begun due to a significant reduction in duties paid on import duties of Cape wines to the UK. Eventually, transport costs and complaints about wine quality wore away at this golden age and most wines reclaimed tariff costs. More than two thirds of all producing farms were mortgaged at this point, suggesting inefficiency in the production line that was probably owed to the production surplus. Labour costs continued to rise and cause constriction to the South African wine industry, causing constriction on the volumes of wine produced while simultaneously encouraging the "dop" system (Estreicher, 2014; James, 2013). Ironically, "dop" is a colloquial term for an alcoholic beverage in South Africa. The 'dop' system refers to the action of paying farm workers in alcoholic beverages, which had catastrophic and direct side-effects on the livelihoods of the farm workers and on generations that followed (London, 1999). The widespread and catastrophic nature of this practice in the South African wine industry is one of the main motivating factors for the modern establishment of WIETA in 2002 – a non-profit social auditing authority with a seal for certification shown in Figure 5 (wieta, 2019).

Due to the confusion of WO information and IPW being condensed but the WEITA seal not included as part of the IPW scheme, the goal is to eventually register enough South African wine producers as ethical producers of wine and condense these three marks of quality, ethics and sustainability into one seal, controlled by one supervisory body rather than through three different schemes (WOSA, n.d.-d).



Figure 5: WIETA mark for certification of ethical labour practices

To provide product differentiation in terms of environmental sustainability, a programme initially named the Biodiversity and Wine Initiative (BWI) was initiated in 2004 and, within the first 11 years of operation, succeeded in reaching 90% compliance of all South African wine farms and cellars with IPW regulations. This programme recognizes the top 55 most environmentally sustainable and regenerative agencies registered and marks them as “Conservation Champions” with a distinctive protea and sugarbird logo as in figure 6 – the protea being South Africa’s national flower (Yalo et al., 2022). In the context of Constantia valley, the sustainability goals are supported with Groot Constantia and Klein Constantia being conservation champions. This means that these wineries are leaders in South Africa for conservation of biodiversity within the farm borders (WOSA, n.d.-d; WWF, 2023).

Recognizing the ethical, sustainable and reliable production of wines at a national level creates incentive for winemakers and vintners to focus their energies on the production of highly respected wines, made to suit regulations for the various seals. These are useful for marketing and to give incentive for more sustainable production processes in the South African wine industry, but none are linked to the legal benefits of intellectual property that are enjoyed by products certified through the GI scheme (Nekmahmud & Fekete-Farkas, 2020; Stanco et al., 2020).



Figure 6: Mark of the BWI scheme for South Africa's conservation champions

Furthermore, to be eligible for the Old Vines Project and apply the seal of certification on a bottle as seen in figure 7, wines have to be made from vines that are 35 years and older (Old Vine Project, 2022). The scheme was formalized in 2016, with the aim to promote sustainable practices in viticulture and to draw attention to the positive impacts that this could have on the well-being and heritage of the South African wine industry. This scheme also aims to foster more sustainable pricing for farmers using old vines. To assist with this, this non-profit delivers educational programmes on care for old vines via their academy and sponsors relevant research projects. This project displays the willingness to recognize the value of heritage and sustainability in the South African wine industry (Old Vine Project, 2022).

Groot Constantia, Klein Constantia and Buitenverwachting are not part of the Old Vine Project. A fundamental reason for this is that the weather conditions are not conducive to extensive aging of a majority of the vines with traditional practices in the area, as noted in interviews conducted for the purpose of this thesis.

CERTIFIED
HERITAGE
VINEYARDS



Figure 7: Seal for a certified product of the Old Vine scheme of South Africa

4.5. Legal and Trade-Related Aspects of GI Protection in South Africa

Since 2000, agents of the Trade, Development and Cooperation Agreement (TDCA) oversaw trade relations between South Africa and the EU until the launch of the SADC-EU EPA in 2016 (Chidede, 2023; Viljoen, 2017b).

On 10 June 2016, six countries of the SADC EPA Group (Botswana, Lesotho, Namibia and Swaziland, South Africa and Mozambique) signed an EPA with the EU aimed for economic integration, based on the principle of asymmetrical market opening and with the end goal of contributing to sustainable development and poverty reduction via trade and investment.

The goals of the EPA are particularly aimed towards (Viljoen, 2017a):

- support for sustainable development and sustainable practices
- poverty reduction
- enhancement of supply capacity
- competitiveness and economic growth through cooperation in environmental governance
- good work for all
- exchange of information
- corporate sustainability (Viljoen, 2017a)

Regarding the state, the goals of the EPA include (Viljoen, 2017a):

- administrative capacity building
- exchange of experience and best practices
- coordination among related agencies

The Agreement facilitates the removal of duties and quotas of EU imports and the gradual liberalization of EU exports, as well as rules relating to origin and dispute resolution. These include market access changes, whereby the EU has 86.2% duty free access to the SACU market on selected goods. In turn, South Africa has 98.7% duty free access to the EU market on selected goods. Wine is included in the range of South African agricultural products with improved market access to the EU (Viljoen, 2017b). Within the SADC, South Africa contributes to more than 80% of the value of all exports and imports with the EU (Stender et al., 2020). As a result, the EU is South Africa's biggest partner in trade and investment and South Africa is the EU's most important trade partner in Africa (European Commission, n.d.-b).

The rules of origin under the SADC EPA are designed to support the development of regional value chains by maximizing goods with duty-free access. Each country has its own unique way of dealing with the obligations of GI protection – for example, some prefer cases of registration and protection of GIs to be conducted by agricultural departments of government and others prefer industry authorities to lead (Chidede, 2022).

Via this EPA, there is a bilateral protocol between South Africa and Europe regarding the protection of GIs and the trade of wines and spirits through national laws and the TRIPS agreement (Chidede, 2023). All of these goals have potential to be supported by the implementation of the GI scheme.

4.6. National and Global Protection of GIs in South Africa

The TRIPS agreement was adopted globally in 1994. Being a member of the WTO since the 1st of January 1995, South Africa is required to protect GIs from other member countries, regardless of the existence or absence of bilateral or multilateral agreements between South Africa and the other member countries (WTO, 2023; TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994). This agreement regulates trade restrictions and procedures between WTO countries, with 164 member countries currently signed to these regulations (WTO, 2023). Of the regulations within the TRIPS agreement, protection of GIs originating from WTO member countries is defined in Article 22 of the TRIPS Agreement (TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994).

South African national laws which enforce the local protection of goods based on geographical origin:

- Trade Marks Act No. 194 of 1993
- Agricultural Product Standards Act 194 of 1990
- Merchandise Marks Act No. 17 (section 6 and 7) of 1941
- Liquor Products Act 60 of 1989

(Liquor Products Act 60 of 1989, 1989; Trade Marks Act 194 of 1993, 1994; Merchandise Marks Act No. 17 of 1941, 1941)

In the Trade Marks Act, it is stated that the geographical names or indications can be granted as a collective trademark, according to Articles 42.1 and 43.2 of the law. The South African Trade Marks Act 194 of 1993 states that “Geographical names or other indications of geographical origin may be registered as collective trademarks.” (Trade Marks Act 194 of 1993, 1994). This provides national law facilitating the registration and recognition of GIs.

In the South African context, GIs are further protected by The Agricultural Product Standards Act, 1990 (APS Act), which defines GIs in Article 6A as originating in a specific region or place, products whose specific quality or other characteristics are essentially or exclusively due to its geographical origin; and of which at least one stage of production occurs in the defined area (AGRICULTURAL PRODUCT STANDARDS ACT, 1990(ACT No. 119 OF 1990), 2019; TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994).

The Merchandise Marks Act and Trade Marks Act define legal framework for the protection of trademarks in South Africa, but the Liquor Products Act is unique in that it defines the structure of protection for wine and spirit GIs specifically. For the wine and spirit GI products that are listed according to the SADC-EU EPA, *ex officio* protection is available. This is not true for the protection of all trademarks for wine, as it is stated that there is no *ex officio* protection available under the trademark regime (Liquor Products Act 60 of 1989, 1989).

Wines and spirits are offered stronger protection than other agricultural products in the sense that they receive the same scope of protection, but additionally, any use of or indication to specified geographical names including “type”, “style” or “like” or similar words or expressions is prohibited and action is taken against these transgressions according to TRIPS and the APS (AGRICULTURAL PRODUCT STANDARDS ACT, 1990(ACT No. 119 OF 1990), 2019; TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994).

False or misleading descriptions of liquor products are prohibited according to these laws. With the fact that GIs are descriptions of products, these sections can be used to deal with misleading product descriptions that refer to the geographical location of production (Insight Consulting, n.d.).

The definition and protection of GIs according to South African legislation therefore corresponds with that of European legislation, as demonstrated by The Geneva Act of the Lisbon Agreement (World Intellectual Property Organization, 2015).

4.7. Administration

The EU-SADC EPA implements, monitors and administers the Agreement between the EU and the SADC via several institutions as follows:

- the Joint Council – members of the EU Council and the European Commission and ministers of SADC group, with the goal to fulfill EPA objectives, to supervise and consult on issues that may arise, and to monitor development and impact of economic and trade relations between parties
- the Trade and Development Committee – representatives of the EU and SADC groups. Establishes, supervises protocol to manage the EPA and monitors progress in sustainability and monitors technical and phytosanitary barriers to trade.
- the Special Committee on Customs and Trade Facilitation - representatives of the EU and the SADC Group responsible for monitoring, implementing and administering customs and trade at regional level, and report to the Trade and Development Committee
- the Special Committee on GIs and Trade in Wine and Spirits - representatives of the EU and the SADC Group responsible for the implementation and functioning of GIs and Trade in wine and Spirits (Chidede, 2023).

There have already been efforts to promote the potential that GI products have on the South African economy. For example, in 2017 the Embassy of Italy in South Africa collaborated with the South African European Union Delegation, the South African Department of Trade and industry, and Wesgro to host a workshop on GIs. The focus here was to raise awareness for the benefits that the implication of this scheme in South African context could have in South Africa and the EU, among those mentioned (Bruce, 2017):

- development in small-scale, local and rural economies, particularly for the agro-food sector
- boosting international trade flows through enhanced export opportunities
- local producers can receive benefits associated with product quality
- consumer protection against misrepresentation of the origin of a product
- rural development through enhanced consumer awareness and territorial valorization

To honour the partnership, South Africa has agreed to protect the names of 251 GI products: 120 wines, 105 agricultural products, 21 spirits and 5 beers. In response, 105 GI names are protected in South Africa: 102 wines and 3 agricultural products. These products have exceptional reputation among South Africans and already possess local certifications which represent authenticity of the product's origins. The wines, on the other hand, are protected in the sense that the name of the district or ward is protected. Any product linked to place is protected, but no protection for individual wines according to their origin goes deeper than that of the Liquor Products Act (Liquor Products Act 60 of 1989, 1989). For example, with the agricultural products, Rooibos tea has been recognized as a PDO. There are no other recognized PDOs from South Africa (Chidede, 2022).

The administrations which are responsible for registration are:

- Office of the Registrar of Patents, Trade Marks, Copyright and Designs (Pretoria)
- Intellectual Property Registration Office (Pretoria) (Insight Consulting, n.d.)

Unregistered trademarks can still enjoy protection under common law. To register a trademark, the applicant must fill out a prescribed form and submit it to the South African Patent Office. Once the application has been submitted and reviewed, there is a three-month window for opposition against the acceptance of the trademark to be filed (Article 21). (Insight Consulting, n.d.)

The main committee involved in protecting a GI is the Special Committee on GIs and Trade in Wine and Spirits. This committee is in charge of amending laws or regulations involving GIs and applying for new GIs (Chidede, 2023).

The wines of South Africa are already subject to robust traceability and regulations according to the IPW and WO schemes and various national laws and trade agreements. There are, however, no local quality certification schemes which could have an equal effect in communicating quality on a global scale, contributing to increased export prices and increase producer income in the same way in which the GI scheme can (Raimondi et al., 2020).

The agricultural industry in South Africa has already gone through much effort to respect the terms of the GI scheme, for example banning the use of the words “port” or “sherry” on some well-established South African wines, or the discontinuation of allowing new companies to use the word “feta” on their cheeses, despite the creation of similar products. In all cases such as these, any indication of origin that could cause customer confusion was given 3 years (from the 1st of November 2016) to adapt, until which point marketing with a wrongful link to origin would be illegal (Chidede, 2022). As stated by the Italian ambassador Pier Giovanni Donnici, South Africa and Italy deserve to benefit equally from the promotion and strengthening of the GI system (Chidede, 2022).

4.8. History of Rural Development in South Africa

During the Apartheid era, rural areas became characterized by inequality, poverty, insufficient education, unemployment and weak institutions. Rural areas and underdeveloped areas were partly used for active marginalization according to race. In many cases, rural areas have therefore subjected people to low standards of living, and the lack of intervention and investment caused deepening of poverty cycles further impacted by marginalization and peripherality (Bertolini, 2019).

While 40% of the urban population experienced poverty, this percentage rose to 70% in rural areas (Van Der Byl, 2014). The Native Land Act, 1913 (Act 27 of 1913), and the Group Areas Act, 1950 (Act 41 of 1950), caused redistribution of land capital, providing white population with more and more valuable land during the apartheid era. This had devastating effects on the non-white population of South Africa, including in agriculture. By the end of Apartheid in 1994, 83% of agricultural land was white-owned (Van Der Byl, 2014).

Under the leadership of Thabo Mbeki, who was president of South Africa from 1999-2008, dualism of the wealthy first economy and underdeveloped second economy was brought to light. Dualism became a lens under which one could view rurality and the inequalities faced in commercial farming, vs subsistence farming. This idea formed the basis for many rural development projects including the introduction of the Integrated Sustainable Rural Development Programme (ISRDP) in 2000, which targets public investment in the most deprived localities (INTEGRATED SUSTAINABLE RURAL DEVELOPMENT PROGRAMME (ISRDP) AND URBAN RENEWAL PROGRAMME (URP), n.d.; Jacobs & Hart, n.d.).

Under president Jacob Zuma who was president from 2009 - 2018, a new ministry was established for the role of overseeing rural development and land reform – known as the Department of Rural Development and Land Reform (DRDLR). This occurred in 2009, alongside adoption of a Comprehensive Rural Development Program (CRDP) to improve social and economic well-being in rural areas (Van Der Byl, 2014).

According to the official DALRRD website, the overall goal of the South African rural development sector is “To act as a catalyst for sustainable and vibrant rural communities.”

South Africa's Medium Term Strategic Framework (MTEF) follows a 5-year implementation plan based on seven priorities:

1. Building a capable, ethical and developmental state
2. Economic transformation and job creation
3. Education, skills and health
4. Consolidating the social wage through reliable and quality basic services
5. Spatial integration, human settlements and local government
6. Social cohesion and safe communities
7. A better Africa and world

The most important consideration is that rural development should be multi-dimensional (South African Government, 2009). It has been proven in the past that reforms can be successful in improving economic growth when policymakers have state capacity to implement them, and when reforms are paired with pro-poor policies, led by governments (Archibong et al., 2021). The focus on expanding government capacities within the National Development Plan (NDP) therefore holds a lot of weight throughout the process of economic development (National Planning Commission, 2021).

The mandate for DALRRD “includes developing agricultural value chains, providing agricultural inputs, and monitoring production and consumption in the agriculture sector, as well as facilitating comprehensive rural development” (*Agriculture, Land Reform and Rural Development 2018-19*, n.d.). Overall, this department acts to diminish any growth-constricting factors within the sector, while other departments collaborate in valorisation and enhancement of the sector. This would be where consultations with the Department of Economic Development, Trade and Marketing sector is important, the main goal of this department being to promote economic development, trade and market access and international relations for agriculture products (DALRRD, 2023). The registration of more PDO products provides one such avenue through which agricultural sector could experience economic growth (Lubinga et al., 2021).

Economic competitiveness is weakened by corruption, inequality and the weak rule of law, factors that add to the cost of doing business. Overall, South Africa has a relatively competitive trade regime when compared to other developing countries, which has encouraged growth and development through entrepreneurship. One way of many to sequester this and ensure long-

term economic development would be to strengthen and optimize reform, giving economic freedom a more widespread foundation (The Heritage Foundation, 2023).

Over the years since apartheid, a number of policies and legislation have been put in place in an attempt to create more equal distribution of agricultural land. For example, the Restitution of Land Rights Act of 1994, led to 80 000 claims lodged within four years since its approval (Van Der Byl, 2014). Further rural development projects and laws were introduced to protect farmworkers from unfair evictions and labour practices. The Agricultural Policy Action Plan (APAP), plans to optimize the use of one million ha of underused land over the next few years. Through the APAP, the DALRRD aims to bring more smallholders into the mainstream as envisaged in the NDP. The challenge here lies in inclusivity among the owners of this land (OECD, 2022).

Unemployment in South Africa is significantly higher than the world average, being 6,2% in 2022. When observing Figure 8, it is evident to see the way in which development should be funded according to demographically-related priorities in order for the country to become stronger in an economically sustainable sense (stats sa, 2023b). Surprisingly, income inequality worsened in Cape Town between 2014 and 2020. This was not expected with recent efforts to improve inequality across the country, but occurred within the city nonetheless. The Gini coefficient changed for South Africa during this time from 0.608 to 0.626, remaining one of the worst in the world (Western Cape Government, 2021).

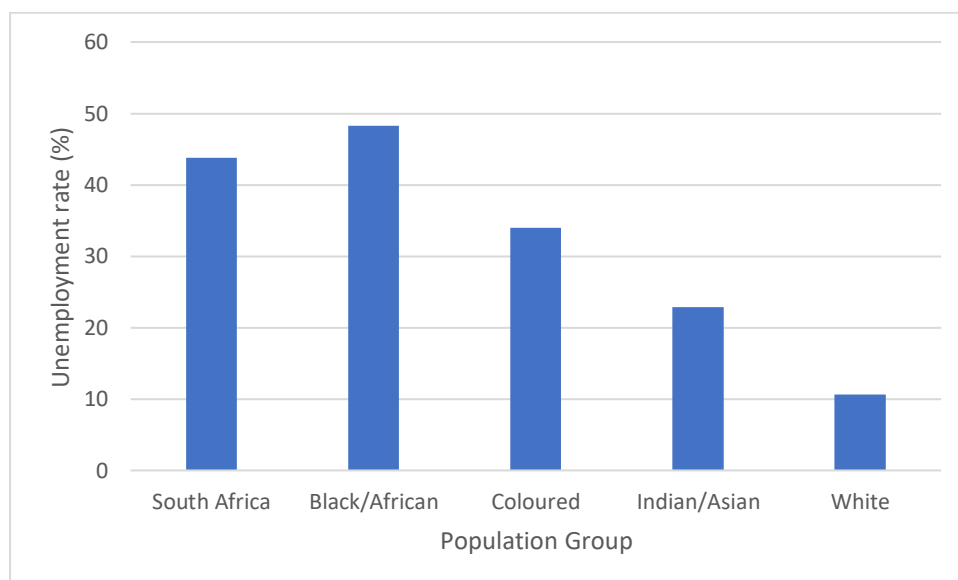


Figure 8: Unemployment rates according to population groups, in 2022 (stats sa, 2023b).

These statistics show a dire need for growth in economic opportunity across demographics, with particular focus on previously marginalized groups. Of the land redistributed, more than 5 million ha of agricultural land have been redistributed via governmental intervention, to over 300 000 beneficiaries by 2018 (Sihlobo & Kirsten, 2018).

It is estimated that 9% of agricultural land has been redistributed. In May 2021, around 2.7 million ha of agricultural land had been redistributed and much of the state-owned land remains sequestered by the government (GCIS, 2023). The fact that almost 70% of land promised for restitution has been transferred, shows how seriously this has been taken, although this is still a delicate first step and there are many complications throughout the process, including sequestration of land by the state (Zvomuya, 2022). While this achievement is a major positive in terms of potential sustainable improvement of inequality, asset redistribution without investment and increased productivity or valorization could heighten unemployment and poverty (Jonas, 2017).

When considering that the demographics of those benefiting from a GI scheme are strongly based on the agents who have access to resources that facilitate the creation of high quality, geographically oriented products, it is worth noting that the long-term effects of new GI products that emerge from South Africa will go hand-in-hand with the integrated development schemes that are implemented and adapted over the coming years.

In summary, the current, multifaceted focus on rural development in South Africa according to the Food Security, Land Reform and Restitution programme by DALRRD includes:

- Equitable access to land
- implementation of the National Policy on Food and Nutrition Security to improve productivity and skill in agriculture
- Improved leadership, training and extension services
- Support to subsistence farmers, for commercialization and improved access to agribusiness development (DALRRD, 2023)

On a global scale, in relation to agriculture, the Economic Development, Trade and Marketing programme aims to promote economic development, trade and market access for agricultural products. The end goal here is to foster international relations. Over the medium term, this programme aims to:

- increase market access and maintain existing markets through certifications that promote quality and export potential
- build national skills capabilities in the agriculture sector
- improve access to high-value markets via implementation of trade-enhancing schemes
- develop the agricultural value chain and improve market access on all levels (GCIS, 2023)

The complications in rural development as a whole for South Africa lie in the fact that development has to be achieved at pillar one and pillar two levels simultaneously, in order for efficient market performance. Economic and social development has to occur alongside repair of a nation deeply affected by apartheid. Intersectional development is possible, but complicated (National Planning Commission, 2021).

Integration during development is entirely possible, despite several challenges. A study in which the effect of replication of policies from a developed country within developing countries in the global South, it was stated that “the ability to implement pro-poor policies alongside market-oriented reforms played a central role in successful policy performance” (Bienabe & Gerz, 2006; Jacobs & Hart, n.d.).

Recognition of domestic products is increasing globally (Bowen, 2010). In order to remain competitive, South Africa needs to harness pride in local products and increase the strength of its own economy.

4.9. Modern Rural and Agricultural Development Plan in South Africa

Much of the focus of rural development in South Africa has been aimed at reducing territorial inequality, infrastructure improvements, food safety and security, while the added value of agricultural products remains an important factor contributing to market access and competitiveness in the global market (National Planning Commission, 2021). The registration of more PDO products could facilitate significant increase in the added value that agriculture contributes to the South African economy (Biénabe & Marie-Vivien, 2017).

One of the major challenges faced in South Africa today is that of social and economic inequality (National Planning Commission, 2021). The legacy of racial and special segregation is reflected clearly by the Gini coefficient – according to this indicator, South Africa is the most unequal country in the world and has consistently displayed this over many years in recent decades. South Africa's Gini coefficient stands at 63%, with the most recent data being collected in this sense from 2014 (The World Bank, 2023). In general, a higher Gini coefficient can be an indication of slower GDP growth, reduced income mobility, greater household debt, political polarization, and higher poverty rates. This is reflected in the estimations that 10 % of the population hold 71 % of the country's wealth, while the poorest 60 % of the population hold 7 % of the wealth (International Monetary Fund, 2020). To add to this, more than half of South Africa's population live in poverty and the percentage of youth not involved in education, training or employment stands at 43.4 % for ages 15-34 years as of Q4:2022 (Stats SA, 2023a). The employment rate also differs according to race, ranging from a low of 8.2 % for white people and a high of 36.8% for black people, further confirming the impact of Apartheid in modern-day South Africa (stats sa, 2023b).

One important goal of the NDP is to improve the state of environmental wellbeing in South Africa. There are numerous interventions proposed in this sense, those relevant in this context being implementation of management and protection programmes of conservation areas (Department of Planning, 2019). The Constantia Valley holds an important role in this aspect, being home to wineries that hold status as conservation champions, awarded by the World Food Forum (WFF) (WFF, 2023). This celebrates these wineries as role models to other agricultural institutions with excellent respect for the environment and biodiversity. Recognition of the

wines produced by conservation leaders via registration of the wines of Constantia could set a healthy example for other wineries to follow.

The MTEF has budgeted to support farmers in rehabilitation of acidified, eroded or overgrazed land and in provisions of needs to support commercial activities and food production - particularly for beneficiaries of the land restitution program (South African National Treasury, 2023). The focus on increased food productivity in order to boost food security could pose a challenge to the sustainability of production, but the conservation of traditional agricultural methods is noted as an important element of the MTEF. Steps are being taken to increase the volume of agricultural land and to strengthen regulation of agricultural produce and exports, while at the same time strengthening efforts to honour tradition and conservation efforts (Department of Planning, 2019). The multifaceted nature of goals related to environmental rehabilitation and management are considered practices which support the recognition of quality and sustainability in the GI scheme, which acts as an incentive for better management of natural resources (WIPO, 2022).

Other than that, the MTEF provides funding and plans for a range of economic activities on global and local scale, from SMME development to reductions of illicit activities, exports, tourism and global integration. A major focus is to increase the number of SMMEs in rural areas and townships (Department of Planning, 2019).

4.10. Distribution of Funding for Rural Development in South Africa

According to the South African national treasury, the budget allocated to the entire department of agriculture, land reform and rural development for the years 2022/23 is \$999.24 million. This is \$207.24 million more than the 2020/21 period (Department of Planning, 2019). This includes administration, production, resources management, food security and rural development.

The South African wine industry is publicly funded by levies, the agricultural budget and by foreign investments from organizations such as the International Organization of Vine and Wine (DALRRD, 2022a). The marketing, research and development budget for South African wines is \$2.75 million - about 20 times less than that of other competitors, such as Australia's wine industry. This is an indication of the threat that South Africa risks in falling behind in the competitiveness of its wine industry. Investment and collaboration could help to unify the industry and create more stability, particular for vulnerable producers (Steyn, 2019).

The National Agricultural Marketing Council spearheads activities related to the Marketing of Agricultural Products Act, 1996 (Act 47 of 1996). It provides the authorisation, establishment and enforcement of regulatory measures related to the marketing of agricultural products. A 1.6% average annual increase of expenditure is expected from the 2020/21 season to the 2023/24 season, from \$2.6 million in 2020/21 to \$2.74 million, respectively (NAMC, 2023).

Budget for the marketing of wine products:

- Levy income 2022 survey: \$6.350 million
- Total value of first point of sale: \$365.7 million
- Levy income as a percentage of the value of the product 1.7% (NAMC, 2023)

The total funds for marketing of agricultural products, collected through statutory levies in the 2022 survey amounted to ~\$54.2 million and accounted for 0,7% of the value of agricultural products at the first point of sale (NAMC, 2023). The value of funds for the marketing of wine products from South Africa is thus 41% larger than that of the agricultural sector overall, showing the importance of marketing and reputation in the success of a wine product (NAMC, 2023).

4.11. Structure and Demographics of the Agricultural Sector in South Africa

4.11.1. Population in South Africa: urban vs. rural contexts

South Africa overall has a population of 60.60 million people, living at an average density of 46 people per square km (Stats SA, 2022a) .

About 33.7% of South Africans live in rural areas, compared to a global average of 44,7% (GCIS, 2023). The size of the rural population has been shrinking gradually between 1960 and 1990, decreasing by 10% over this 30-year period. Between 1990 and 2016, the rural population of South Africa shrunk by 13% over this 26-year period, showing an increasing rate of migration to cities in recent years (Alexander, 2018).About 33.7% of South Africans live in rural areas, compared to a global average of 44,7% (GCIS, 2023). The size of the rural population has been shrinking gradually between 1960 and 1990, decreasing by 10% over this 30-year period. Between 1990 and 2016, the rural population of South Africa shrunk by 13% over this 26-year period, showing an increasing rate of migration to cities in recent years (Alexander, 2018).

The population of South Africans living in rural areas has fallen by 10 % since 1994, in line with global trends of urbanization, and it is expected that the percentage of people living in urban areas will increase from 60 % to 70 % by 2030, with eThekweni and Cape Town standing as the fastest-growing city regions (National Planning Commission, 2021).

More than 70% of the rural population in South Africa rely on agriculture as their source of income and the upstream and downstream areas of the production line generate a large amount of economic activity, making agriculture a crucial engine of growth for the nation's economy (GCIS, 2023). This is a common occurrence in developing countries, with ~80% of the food being supplied by rural populations. GIs could be used as a marketing tool to realize the value held within these communities (Vandecandelaere et al., 2018).

The rural population in South Africa seems to be growing, but at a much slower rate than the population size in urban areas (stats sa, 2023a). In rural areas (defined as non-metro), the unemployment rate stood at 20.6% throughout 2022. This is very significantly less than the unemployment rate throughout South Africa as a whole (stats sa, 2023b).

This migration poses a threat to the economy in rural areas because rural areas tend to support the higher-income-generating urban areas (Bertolini, 2019; Rasmussen, 1985). Income differences between urban and rural further influence this migration, with two thirds of South Africans who live below the poverty line being found in rural areas (GCIS, 2023).

4.11.2. Agriculture’s Contribution to Employment in South Africa

The Western Cape is the largest contributor to agriculture in South Africa, as seen in Figure 9. According to data published in 2021, the Western Cape contributes to 19% of the income received for sales and services related to agriculture, amounting to a total of \$4.12 billion. It also contributes the most in terms of human capital – employing 186 659 people, 23,2% of the total agricultural employees in South Africa, and contributes 25,6% of the total agricultural salaries and wages (statssa, 2021). The Western Cape is also the third fastest growing province in terms of agricultural production in South Africa – growing at a rate of 15.1 % between 2020 and 2021 (statssa, 2021).

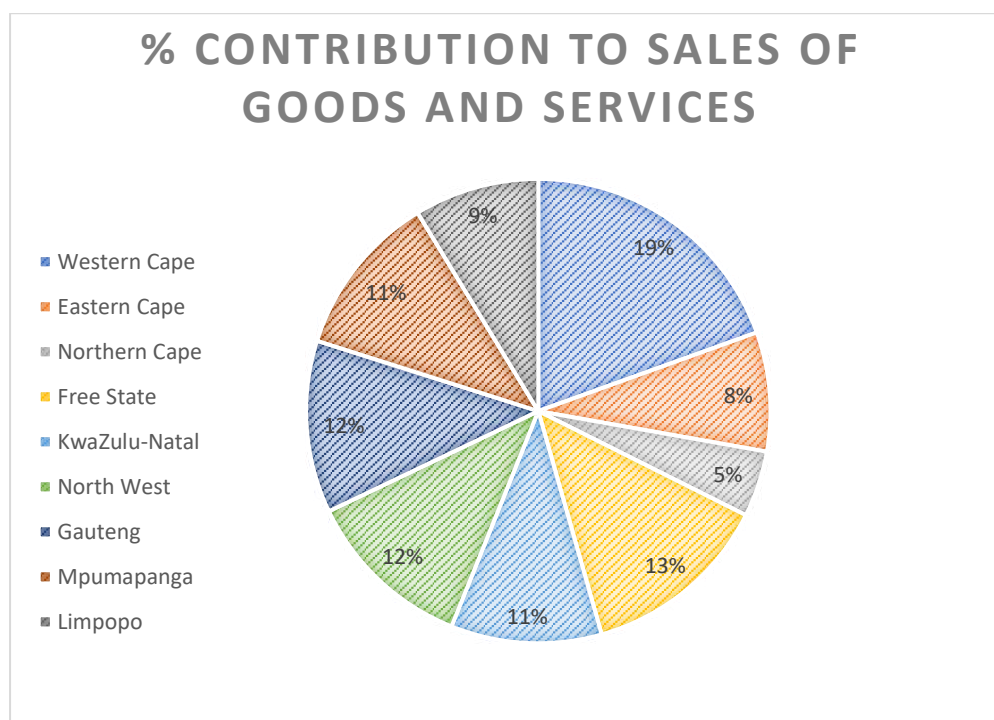


Figure 9: percentage contribution to sales of goods and services from agriculture, from each province of South Africa

Today, 64 % of the population in South Africa is made up by the labour force (people aged 15 to 64) (National Planning Commission, 2021). According to international trends, this is associated with rising incomes, higher productivity, increased standards of living and economic growth (Stone, 2017). Where there is a high unemployment rate, however, the results of a larger workforce are different. This can cause depletion of limited resources among a frustrating environment in which young professionals cannot find work, which contributes to social ills such as crime and alcohol abuse (Mangot-Sala et al., 2021; Raphael & Winter-Ebmer, 2001) .

South Africa experienced an unemployment rate of 33,6% among people of working age, which increases to 43,8% according to the expanded definition of unemployment, with a labour absorption rate of 38,6%%. The overall labour force participation rate stands at 58% for 2022 (statssa, 2023). Unemployment is noticeably impacted by education level, with 89% of the unemployed population of South Africa having high school-level education or lower. The proportion of unemployed people with some form of tertiary education is 11% in comparison, showing how education levels can impact employment trends (statssa, 2023).

Total employment in agriculture In 2021 was 801.503 people. Almost 300 000 people are employed directly and indirectly within the industry, and wine is produced by the grapes from approximately 2780 primary grape producers (GCIS, 2023). It is projected that the South African wine industry will employ around 375.000 people by 2025 – more than half of which are already originating from previously disadvantaged groups (GCIS, 2023).

Trade and community and community services make up an overwhelming amount of the South African workforce, standing at 44% altogether (statssa, 2023). Trade, construction and agriculture reported higher employment shares relative to their GDP contribution. Agriculture in particular contributes 1.5% of the overall GDP in South Africa, with 5.4% employment shares (Stats SA, 2022b).

Success in economic growth depends many factors, including the number of young, eager workers and on the level of education received. The type of work performed can also be an indicator of the phase of development which a country is in, with a high percentage of workforce employed in agriculture suggesting low income overall (Luechinger et al., 2010; Mroz & Savage, 2006).

For each category in figure 10, we can observe a decrease in the percentage of the workforce employed in the agricultural sector. For low-income countries, the percentage of the workforce employed in the agricultural sector decreased to 94,1 % of the original value in the twenty years between 1999 to 2019. For high income countries and South Africa, respectively, the values are 67,8 and 49,2 % of the original percentage from 1999. The declination of agricultural employment has therefore experienced decline by 5.9%, 32.2% and 50.8 % for low-income countries, high-income countries and South Africa, respectively.

The percentage of the workforce employed in the agricultural sector in South Africa is compared to that of high-income and low-income countries in Figure 10. Over a 20-year period (between 1983-2003), agricultural employment dropped globally. This occurred even in countries where agricultural share of the workforce was already relatively low and has thus reached what appears to be a plateau for these countries, such as the UK or USA (Organisation for Economic Co-operation and Development., 2006). Employment in the agricultural sector has continued to decrease globally in the successive 20 years, particularly for low-income, developing countries. Figure 10 suggests economic development in South Africa in the years between 2000-2014, followed by stabilization and a successive, highly unstable plateau.

From this figure, it can be deduced that the percentage of the workforce employed in agriculture is more similar in value to high-income countries, showing that South Africa is a developing country with good potential to reflect similar characteristics to high-income countries around the world. The percentage of the workforce decreased most dramatically between 2004 and 2011, potentially indicating a period of growth for South Africa during this time . The percentage has stayed low since then, although not as stable as high-income countries, showing a period of transformation (*Employment in Agriculture (% of Total Employment)* , 2022).

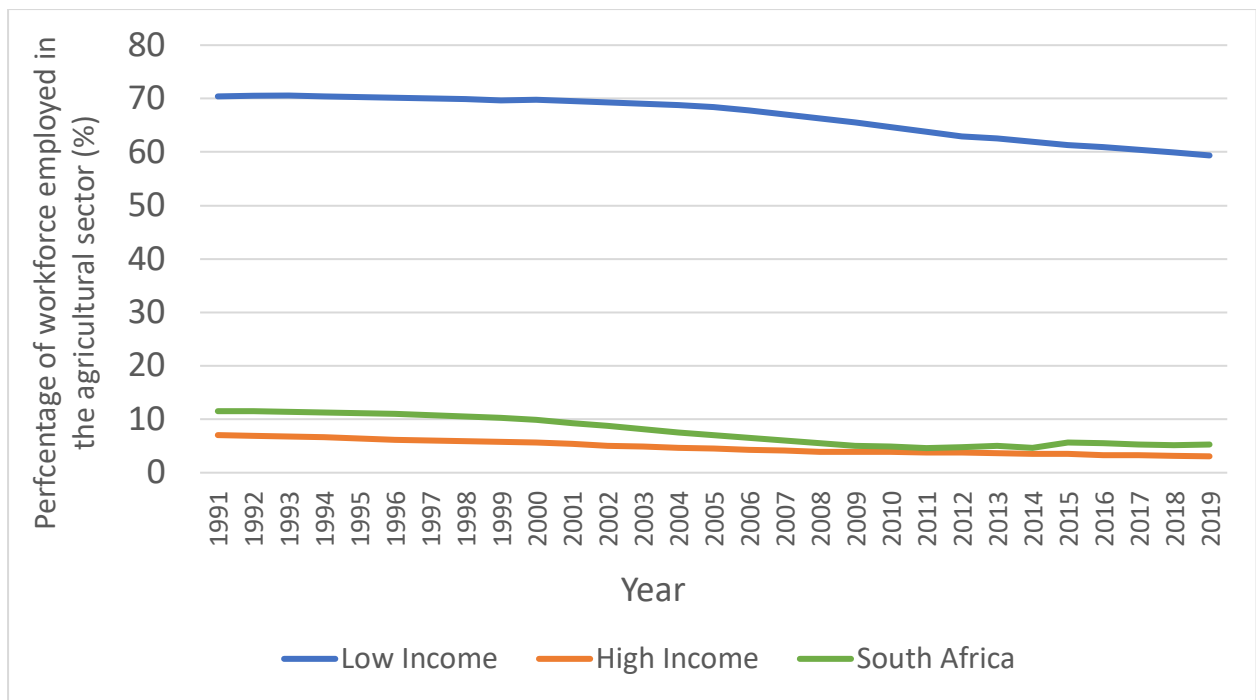


Figure 10: Agriculture as a share of total employment in low-income countries, high income countries and South Africa, according to data provided by the International Labour Organization (ILO) via The World Bank website.

The Western Cape employs 23.2 % of the total number of people in the agricultural sector in South Africa, having the most prolific and potentially most competitive agricultural activities in South Africa. Furthermore, it boasts the highest education level overall in South Africa – an aspect which is important to the success of development and implementation of a GI scheme. This indicates that the Western Cape is one of the most promising areas in South Africa for investment in agriculture (statssa, 2021).

South Africa is still in early stages of development, but there are many high-quality commodities with great potential to aid development through value-adding schemes. The decreasing trend in the percentage of the South African population employed in agriculture would suggest that South Africa has the potential to behave in similar ways to countries with higher GDP.

About 2.5% of South Africa's GDP and 6% of the total labour force is attributed to agriculture (GCIS, 2023). The National Planning Commission believes that the country can create 11 million jobs by 2030 by making improvements in coordination and implementation of economic policies, raising competitiveness and export value, and strengthening labour markets and international relations (National Planning Commission, 2021).

Investment in the wine sector would promote economic activity within a labour-intensive sector, allowing such an investment to fall in line with goals set by the commission (National Planning Commission, 2021).

4.11.3. Wellbeing

Over 70% of the rural population depend on agriculture for extra food or as their main source of income and livelihood, thereby linking economic growth in rural areas to agricultural activities in most cases. Overall in South Africa, only 17% of all households are involved in agricultural activities (stats sa, 2023a).

In 2021, 79% of South Africans reported being food-secure, meaning that they had access to sufficient safe and nutritious food (stats sa, 2022). In the same year, 15% reported having inadequate food security and 6% reported severe food insecurity. Overall, however, rural households experience more hunger and malnutrition than urban households, with 73,9% of rural and 81% of urban households experiencing food adequacy. The two biggest metros in South Africa (Cape Town and Johannesburg) are the fastest growing cities in South Africa and are also associated with higher proportions of households lacking sufficient nutrition (stats sa, 2022). Figure 11 shows that Cape Town has more severe hunger and less adequate food supply among its households than the overall population for South Africa, making it one of the more severe cases of food insecurity in the country. Entry-level employment requiring lower levels of education in fields such as tourism and agriculture could offer opportunities to change these demographics, with a pro-poor development focus.

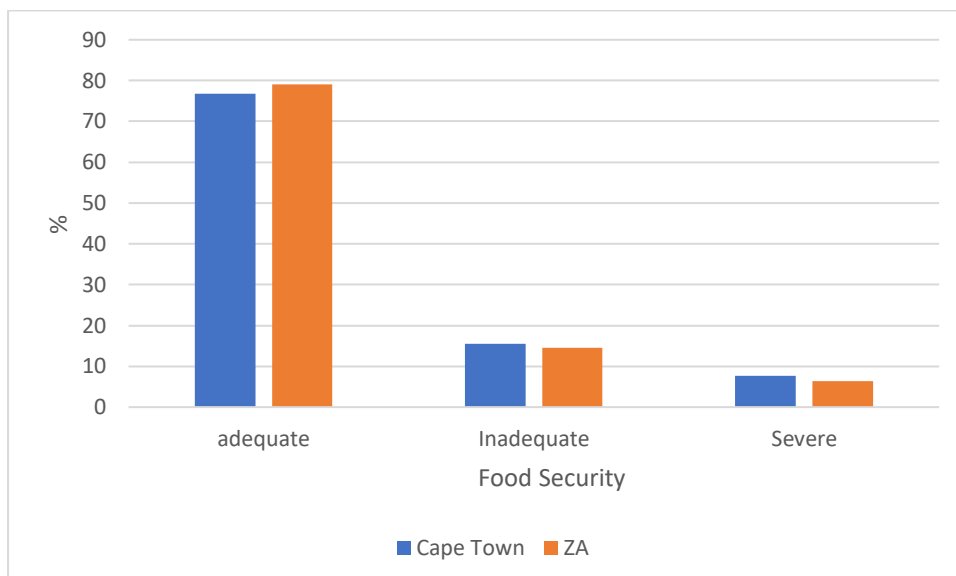


Figure 11: Hunger adequacy in Cape Town, compared to that of South Africa (stats sa, 2022)

4.11.4. Regional Statistics

Western Cape:

The Western Cape has 7,2 million people, living at 50 people per square km (Stats SA, 2022a). The Western Cape contributes to 15,9% of the labour force in South Africa, with 2.298.000 people employed throughout the province in 2022 (statssa, 2023).

The Western Cape does have one of the highest proportions of people of ideal working age when compared to other provinces of South Africa, with youth and adults aged 15-59 making up 65,2% of the population. It does, however, have the lowest proportion of children relative to other demographics in the country, at 24,1% (Stats SA, 2022a). This is mainly due to the increased work opportunities found in Cape Town and migration of people of working age to the city (Western Cape Government, 2021). Economic sustainability is therefore not as dependant on the next generation as it is on remaining as an attractive destination for young people, searching for work opportunities.

In the Western Cape, agricultural households make up 3.6% of the total households in the province, which is below the national average of 13.8% (Stats SA, 2023b). Most agricultural practices are cantered around animals and animal products, which make up a total of 54.6% of all agricultural practices. Horticulture, which includes grapes, makes up a total of 24.6% of all farming practices (Stats SA, 2023b). This shows significant focus on production of wine and table grapes in South Africa, leading one to assume important economic impact in this sense.

Cape Town:

Cape Town is home to 4.75 million people, living at a density of 1.915 people per square km. 2022 saw an unemployment rate within Cape Town of 27% - a significantly larger unemployment rate than that of the Western Cape, but less than that of South Africa's average unemployment rate overall (stats sa, 2023b). In Cape Town alone, agriculture, fishing and forestry generated 4.4071 jobs and brought an income of \$281.600 in 2019 (Stats SA, 2023b).

Constantia:

Due to the high population density in Cape Town and the fact that Constantia is situated within Cape Town, Constantia cannot necessarily be considered rural. It is only barely peripheral to main metropolitan areas, being a 40 minute drive to the City Centre, along a road which goes through some of the most densely populated suburbs (Gaffney, 2012).

4.12. Modern South African Rural Development Policy Structure

The modern South African rural development plan incorporates both top-down and bottom-up approaches, making use of subsidies and direct investments according to more specific needs (Department of Planning, 2019; National Planning Commission, 2021). It is the responsibility of each municipality to draw up their own Integrated Development Plan (IDP) and to ensure successful implementation of each plan. In order to monitor results and adapt future plans accordingly (South African National Treasury, 2023).

4.13. GDP

One of the parameters used in analysis for planning is GDP (Department of Planning, 2019). With the focus being related to agriculture in this work, the total GDP of South Africa is compared to the GDP from agricultural, forestry and fishing activities within South Africa in figure 12.

The GDP for South Africa stood at \$405.87 billion in 2022. In the same year, agriculture contributed to 1.6% of the total GDP (Stats SA, 2022b). Low-income countries tend to have significantly higher percentage of value added to GDP from agriculture. For example, in 2021, low-income countries experienced an added value of 25,6% from agriculture, whereas the global average was 4,3%, South Africa's 1,6% and high income countries 1,3%. These figures suggest that South Africa does have certain characteristics that resemble a high income.

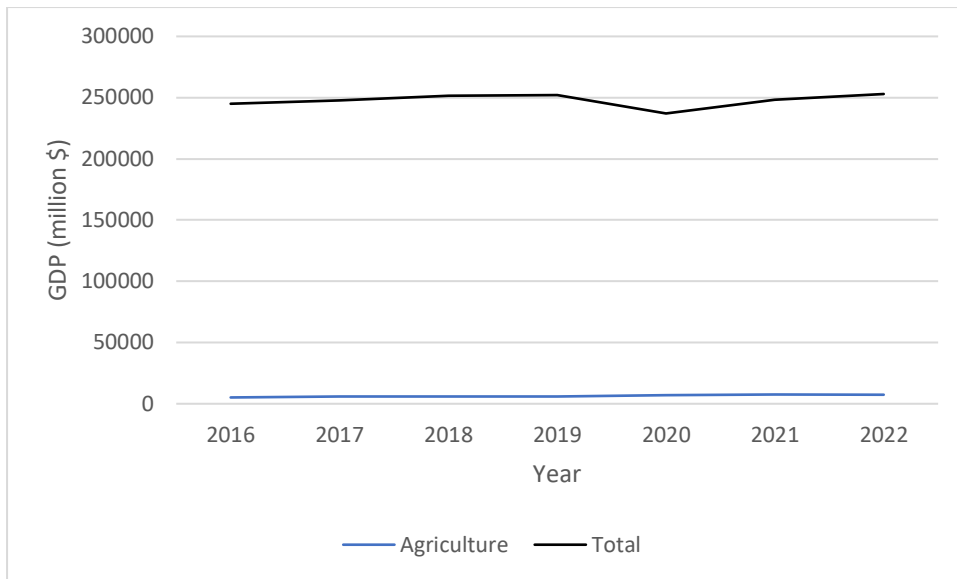


Figure 12: GDP in total and from Agriculture, forestry and fishing for South Africa over the years 2016-2022 (*Agriculture, Forestry, and Fishing, Value Added (% of GDP) - South Africa | Data, n.d.; The Heritage Foundation, 2023; World Bank Data, 2023*).

4.14. Implementation of the GI scheme in African Context

The two most important programmes impacted by the GI scheme would be the Food Security, Land Reform and Restitution programme and the rural development programme (GCIS, 2023). Looking at another African example of GIs, we can see that Madd de Casamance has drawn attention since registration as a GI product (WIPO, 2020). Casamance is a region of Senegal with much opportunity for marketing of organic, traditional agricultural products. This fruit is eaten on its own, as a condiment or used in juices, syrups, preserves or for medicinal purposes. It is generally harvested by youth and processed by women, giving incentive for youth and female empowerment in the region, with effects of improved education in youth and improved wellbeing overall (WIPO, 2020).

Madd de Casamance contributes to about 1/3 of rural income during season. Overexploitation and population growth threaten the Senegalese forests alongside production of Madd de Casamance, and registering this fruit as a GI has allowed multifaceted benefits, such as valorization of the product, increased awareness of conservation efforts, slowly increasing tourism, protection of traditions, and improvements in the functioning and regulation of the production and supply chain (WIPO, 2020). GIs have the potential to be more effective than individual companies here in the sense that maintenance of a GI is a collective endeavour which scales up traditional and sustainable efforts with more economic support than individual companies could achieve (Addor & Grazioli, 2003; Menapace & Moschini, 2012; WIPO, 2020).

Successful implementation of a PDO product can have various negative and positive impacts on the livelihoods of people who live in the area of interest. One such complex example of intertwined negative and positive effects includes the improved income and living standards over time, leading to potential gentrification. As we can see from Gaffney, Constantia has experienced gentrification and urbanization for decades (Gaffney, 2012). The implementation of a policy which preserves the vineyards of the area could therefore offer a solution for the ever-threatening encroachment occurring due to urbanization and the value of property in the area. It would also, however, further increase the costs of living for those already living in the area.

4.15. Rooibos: South Africa's first PDO

In 1994, Rooibos was registered as a trademark by Forever Young, a South African company, registered Rooibos as a trademark in the US. This allowed Forever Young to market Rooibos tea exclusively as their product in the US and was marked as unfair competition. Rooibos Ltd and the South African government poured resources into this case and forbade the use of the name Rooibos as a trademark outside of the product specifications that are now determined in the PDO single document, almost 30 years later (WIPO, 2009).

In 2006, the development of a Rooibos GI was initiated by the South African Rooibos Council (SARC) as part of the DURAS project (joint Global Forum on Agricultural Research and Innovation (GFAR)-Agropolis International Initiative)(Agropolis International, 2010). A final report on GI Feasibility was published in May 2010. The initial PDO application was submitted in August 2018 and revised until the Single Document was published in the Official Journal of the EU for comment in August 2020. Objections and agreements were reached and applied, and on the 31st of May 2021, "Rooibos/Red Bush" became the first product from Africa to receive PDO status (Marthane Swart, n.d.; Troskie et al., 2022).

No formal registration process had been developed in South Africa for GIs until the need to register Rooibos as a PDO arose. On March 2019, the Regulations Relating to the Protection of GIs Used on Agricultural Products Intended for Sale in the Republic of South Africa (R.447/2019) were published under the Agricultural Products Standards Act (SARC, 2018). The regulations set out the requirements for registration and opposition procedure of GI products. Of the GI names registered as part of the SADC-EU EPA, only Rooibos tea has been registered with PDO status and an application for the registration of *Karoo Lamb* has been published for opposition purposes (FACTS (Food & Allergy Consulting & Testing Services), 2020). Hence, a pathway was opened to facilitate the registration of future PDO products with more ease.

Rooibos was approved as a PDO on the 31st of May 2021, and thus became Africa's first PDO product (Directorate-General of Agriculture and Rural Development, 2022; EFA, 2023). This means that products using the name "Rooibos" on the label can only contain 100% pure Rooibos, derived from the *Aspathalus linearis* plant, grown within selected municipalities of the Western Cape and Northern Cape of South Africa. The area of growth and cultivation lies within the Cape Floral Region, an UNESCO World Heritage Site which is home to almost 20% of the continent's flora despite being 0.5% the size of the African continent. Rooibos is one of the few economically important fynbos plants (Swart & Smit, 2009).

This registration is expected to create greater production and demand of the product, as well as more intensified regulation and sustainability efforts, thereby stimulating job creation and increased incomes in the production regions within South Africa (Siluale, 2021). The deep-rooted pride and heritage represented within this product is communicated effectively on a global scale through PDO certification, offering sustainable awareness of the importance of protection of this product and its environment and heritage. Other products within the Western Cape which are being considered for additional PDO or PGI certifications include certain Cape Flora such as Proteas, Honeybush and Buchu tea, Aloe Ferox and Karoo Lamb. As these products have already received recognition and producers are already aware of potential in this sense, the focus of this thesis was on wines, where there is still need for exploration on whether a PDO would be a good idea (Lubinga et al., 2021; Siluale, 2021).

Positive results of the PDO registration can already be seen in the Advertising Value Equivalent (AVE) changes that have occurred since registration. According to raw data provided to the author by Marthane Swart, presented in Figure 13. On average in June and July, an added 76 340 kg was exported after the registration of Rooibos / Red Bush as a PDO product, an increase of 11,6% from the usual average, indicating an immediate peak of global interest in rooibos as a direct result of GI registration. This shows significant positive impact on the sales of a legitimate, high-quality South African product. The benefits of this scheme and related challenges are discussed further in the following chapters.

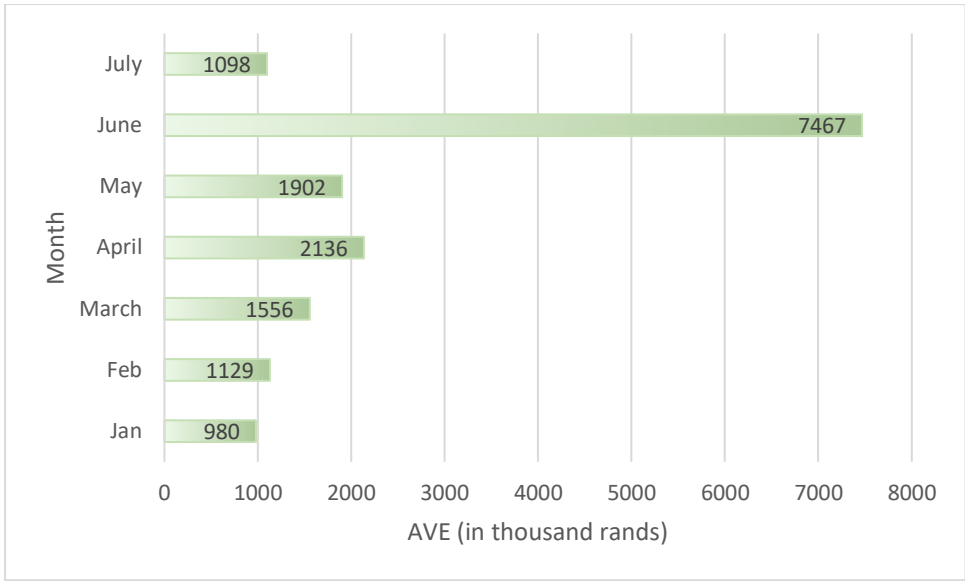


Figure 13: monthly AVE for the first 7 months of the year 2021.

4.16. Feasibility of a PDO in The South African Wine Sector

GI products can strengthen a sense of identity in rural communities and open a channel of communication on the aspects that create that identity, such as the soil type, climatic conditions and indigenous knowledge. This facilitates an elevation of pride in identity and fosters active measures of preservation of quality-based agricultural practices. Further than this, these efforts are rewarded by commanding premium prices on the international market (Lubinga et al., 2021). In the paper written by Dr Moses Lubinga and colleagues, it was stated that rural communities in South Africa could benefit from the promotion of their produce as GI products (Lubinga et al., 2021).

Establishing a GI scheme in South African wines could protect rural workers from the difficulties frequently experienced among small or medium-sized enterprises that make up much of the South African agricultural scene. These include issues with legislation or practice in organizing trade unions due to the prevalence of enterprises with few employees, self-employment and seasonal employment (Chever, 2012; Coombe et al., 2014; Estreicher, 2014; WOSA, n.d.-d). A better reputation for grouped products according to GIs could provide increased collaborative forces among producers, leading to better production and standards for all involved (Marie-Vivien & Biénabe, 2017).

5. The Wine Sector in South Africa

5.1. Market Structure of the South African Wine Industry

The wine industry is an important part of the South African economy - an umbrella which includes still wine, sparkling wine, wine for brandy, distilling wine, other spirits from distilled wine, grape juice and grape juice concentrate for use in wine and non-alcoholic products (SAWIS, 2022).

In 2021 a total of 1133,3 million litres of the products mentioned were produced. In the context of still and sparkling wine alone, 911,5 million litres were produced – meaning that wines from fresh grapes make up 80,42 % of the volume of output from the South African wine industry (SAWIS, 2022).

South Africa is the eighth largest producer of wine in the world, home to 1.7 % of its vineyard surface area and makes 4.1 % of the world's wine (OIV, 2022). From this, we can assume that the wine is not always of highest quality – as a higher yield indicates lower quality of the wines produced overall. This is reflected in the export trends of the wines – of which, a majority are cheaper, bulk wines (SAWIS, 2022).

The main governmental department responsible for overseeing the wine industry – The Department: Agriculture, Forestry and Fisheries (DAFF) - was disestablished in June 2019 and separated into the Department of Agriculture, Land Reform and Rural Development (DALRRD) for agriculture, and the Department of Environment, Forestry and Fisheries (DEFF) for forestry and fisheries (DAFF, 2023).

The wine and Spirits Board consists of the secretariat and the technical and management committee (WOSA, n.d.-f). The management committee is divided into legal, personal, IPW, audit, ad-hoc, demarcation, label and technical committee (WOSA, n.d.-f). The technical committee is further divided into the wine evaluation committees, being in Stellenbosch, Paarl, Worcester, Robertson, Breedekloof and Olifants Rivier.

The members of this board are selected by the Minister of Agriculture, Land Reform and Rural Development and include 13 members: chairperson, three officers of the governmental department, one member of the Agricultural Research Council and eight experts on viticulture, oenology, distilling, regulations, production or aspects of health and safety. This board administers the WO, IPW and Estate Brandy schemes and gives legal advice to the Minister of Agriculture (WOSA, n.d.-f).

There has been a lot of restructuring in recent years in order to increase the efficiency of the South African wine industry (Smith, 2023). Until 2023, there were multiple overlapping areas of the wine sector that were monitored, advocated for or supported by companies such as VinPro and SA Wine NPC. These have been condensed to form one representative body for South African wines – SAWine. Information for this wine industry body is still very limited, as it is a new development (Smith, 2023).

VinPro represents many of the actors involved in the supply chain, being 2600 producers, cellars and industry stakeholders with the intention of providing advocacy, information exchange, people development, specialized products and services and support to industry role players (VinPro, 2021). It is a non-profit company affiliated with Vititec and FarmMS, which provide plant material and management software to wine farms, respectively. The common goal overall is to keep members informed on industry trends and aid development in the industry according to national goals, thereby impacting the profitability and sustainability of the industry (VinPro, 2021) .

The National Agricultural Marketing Council (NAMC) promotes market access for South African agriculture (NAMC, 2023). They are a statutory body, reporting to the minister of Agriculture, Land Reform and Rural Development in four divisions, being Agribusiness Development, Agricultural Trusts, Statutory Measures And Markets And Economic Research Centre (MERC). The four main goals for the NAMC are to improve market access for all participants, promote efficiency of marketing, optimize export earnings from agricultural products and to enhance the visibility of the agricultural sector (NAMC, 2023).

Other important supporting agents of the South African wine industry:

- South African Wine Industry Information and Systems (SAWIS) – statistics and the WO scheme (SAWIS, 2022) .
- Winetech – research and technology transfer. Winetech funds research in the South African wine industry (Winetech, 2022) . Its four core activities include research, knowledge transfer, innovation and people development.
- Wines of South Africa (WOSA) – wine tourism, export promoter (WOSA, n.d.-a)
- South African Wine Industry Transformation Unit (SAWITU) – transformation support (SAWITU, 2018)
- The Wine and Spirit Board (WOSA, n.d.-f)

SALBA (South African Liquor Brand owners Association) is an important member of the South African wine market. SALBA has 22 members which include manufacturers, distributors and trademark owners. It is a non-profit organization that represents its members on issues of brand sustainability, social responsibility and management both of ethical and illicit trade (SALBA, 2022). They also coordinate between industry members and the National Treasury during the annual excise adjustment process. SALBA plays a role in engagement with various government departments, such as Department of Trade and Industry (DTI) and the National Liquor Authority (NLA), Department of Agriculture, Forestry and Fisheries, Department of Finance and National Treasury, SARS and Customs and Excise, Department of Health. It acts as an industry representative on statutory bodies such as the Wine and Spirit Board, the National Regulator of Compulsory Specifications and as representatives at international forums such as WIPO and OIV (SALBA, 2022).

The PPECB works independently according the Perishable Products Export Control Act, 1983 (Act 9 of 1983) and the Agricultural Products Standards Act, 1990 (Act 119 of 1990), to provide producers and exporters of perishable food products with quality assurance, food safety and cold chain management services. The board ensures that all is done according to government and bilateral agreements (Mokoena, 2023).

5.2. industry Statistics

South Africa is home to a total of 98 wine wards, 90 512 Hectares of land under vine for wine purposes, which yielded 911.5 million litres of wine produced within the year 2021 (SAWIS, 2022).

There are 2.613 primary grape producers, 536 cellars, 45 co-operatives and 27 producing wholesalers. Of the 536 wine cellars which crush grapes in South Africa, there are 43 producer cellars, 471 private wine cellars and 22 producing wholesalers.

Of the cellars, 87,9% are private wine cellars, 8% are producer cellars and 4,1% are producing wholesalers. The data above shows that a majority of South Africa's wine production occurs on a relatively small scale as indicated in Figure 14 – 71,5% of wine cellars produce wines from less than 500 tons of crushed grapes, 40,67% of which is made up of cellars that produce wine from 1-100 tons of crushed grapes. The income of wine cellar operators has caused many structural changes over the years, and only in more recent years, people have been generating enough income or feeling confident enough in the increased focus on quality in food consumption to break away from large cooperatives (James, 2013).

In the last 10 years, the number of producing cellars has decreased overall to 86% of the number in 2010. However, the number of private wine cellars has only decreased to 95% of the number of private wine cellars in 2010, showing a fairly stable structure over recent years, with slightly more stability in the number of private wine cellars – possibly due to the amount who have gone out of business balancing the amount of private wine cellar who have removed themselves from cooperatives and decided to focus on smaller production (James, 2013; SAWIS, 2022).

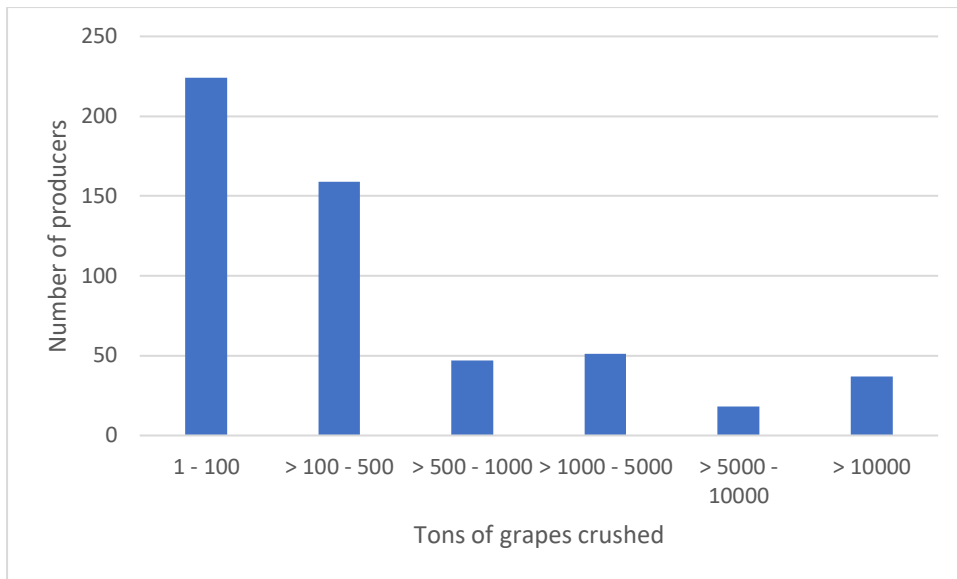


Figure 14: Number of wine cellars per production category for wine across South Africa

Despite the decreasing surface area of land under vine, the amount of wine produced has increased significantly over the years, from 831 million L in 2011 to 911.5 million L in 2021 (SAWIS, 2022).

Of the 90,512 hectares of vines, 46.4% are currently white cultivar and, 53.6% are red. The proportion of white varieties has significantly decreased in the last 30 years, from 84% of the vineyards in 1990. 70.6% of South Africa's vineyards are over 10 years old, with 31.5% of the total vines in South Africa being more than 20 years old (SAWIS, 2022). In 2021, Chenin Blanc made up an overwhelming percentage of South African vines, at 18.6%. Following this, is Colombard, Sauvignon Blanc, Cabernet Sauvignon and Shiraz, at 11.1%, 10.9%, 10.8% and 10%, respectively, as represented in Figure 15 (SAWIS, 2022).

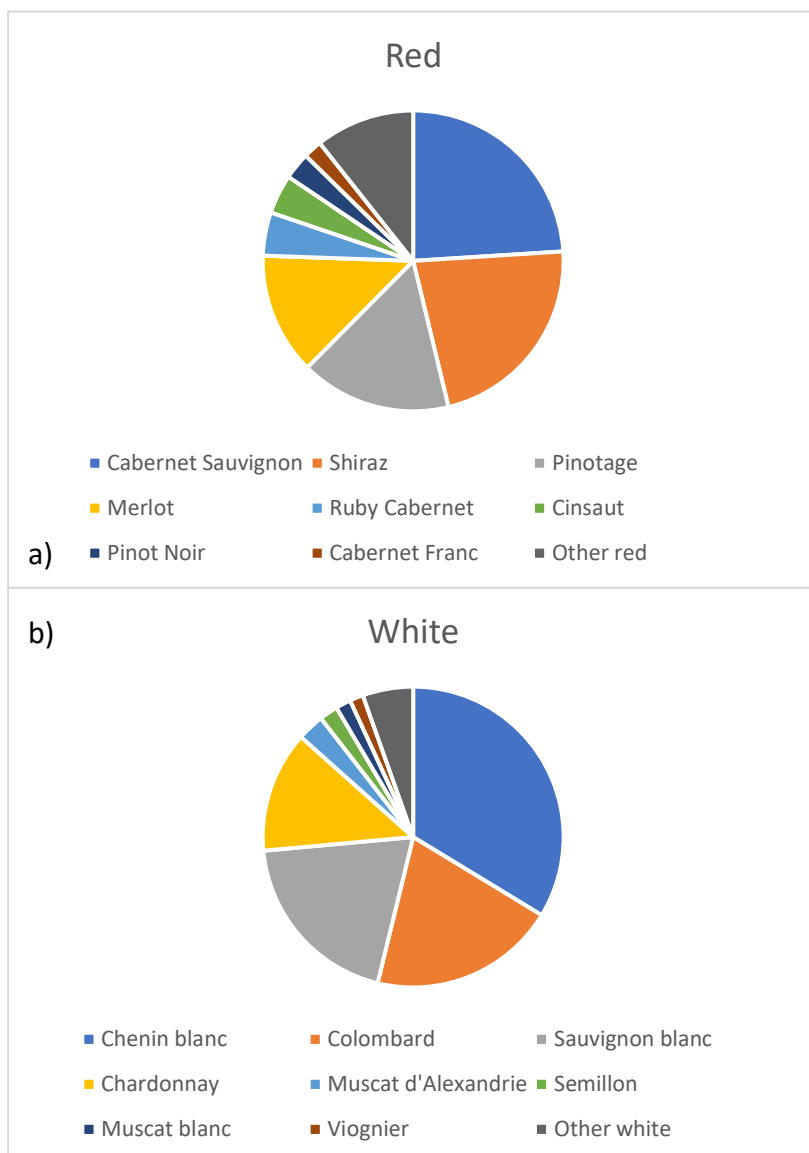


Figure 15: Distribution of wine grape cultivars in South Africa. a) red cultivars b) white cultivars (SAWIS, 2022)

Importantly for this study, Muscat de Frontignan (characterized as Muscat Blanc in the SAWIS booklet) made up a total of 0.9 % of the total vine area in South Africa, with 839 hectares. This makes it one of the less common, but popular grape varieties in South Africa (SAWIS, 2022). Overall, in 2021, 45 Muscat de Frontignan vineyards were uprooted, while only 21 had been planted, meaning that only half of the vineyards uprooted were planted. However, the total hectares of Muscat de Frontignan increased overall, as seen in figure 16.

This falls out of line with the overall decreasing size of vineyards in South Africa and the steadily decreasing area under vine globally over the last 20 years (OIV, 2022). In 2021, for example, only 1183 hectares of vines were planted in South Africa, where 3544 hectares were uprooted – meaning that only a third of the uprooted vineyards were replaced with plantings. The uprooting of vineyards has decreased over the years, now standing at 87% of the amount observed in 2011. Planting has decreased at a much faster rate, now standing at 36% of its original value in 2011. Between 2020 and 2021 alone, the number of vines planted decreased to two thirds of the initial value. This is due to many factors, such as the focus on quality, producers breaking away from cooperatives, less favorable planting conditions, cost of production and shortages of raw materials. Between heatwaves, drought, financial pressures, the vineyard surface area decreased for seven consecutive years and lost a total of 6% of its surface area between 2014 and 2021 (OIV, 2022; Wandile Sihlobo, 2022).

The fact that the plantings of Muscat de Frontignan grapes has increased over the years suggests its suitability as a grape that responds well within the South African terroir and that interest in this variety is positive. This is a good indication of the economic sustainability of the wines that are produced in South Africa with Muscat de Frontignan grapes. There is confidence here, that the wines are of good quality and characteristics and that the environment may become increasingly suitable overtime, as is suggested by the increasing plantings – particularly in the context of decreasing plantings of vines in South Africa overall.

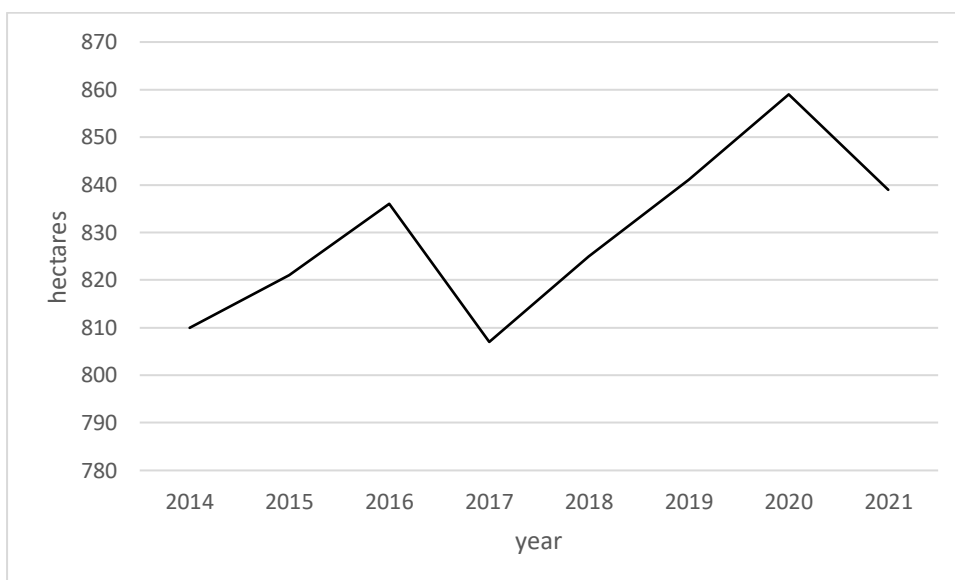


Figure 16: The number of hectares under Muscat de Frontignan vines over an 8-year period

5.3. Value, Local Consumption and Exports

Annually, the wine industry contributes more than \$3 billion to South Africa's GDP, about \$600 million of which comes from exports (Vinpro, 2023).

South Africans are largely beer drinkers, with beer taking 51.4% of the market share of sales of alcoholic products in 2021, while wine made up 16% of the market share and the rest of the market includes distilled products and ready-to-drinks. Local consumption accounts for 54% of the volume of sales of South African wines, while exports account for 46% of the volume. Local consumption has increased 15,6% and value has increased 13.2% between 2021 and 2022, while exports have decreased by 5.2% in volume and 2.8% in value during the same period. Overall, sales value has increased by 7.6%, to a value of \$1.74 billion (SAWIS, 2022).

In terms of wines, South Africa is currently 11th in the world as an exporter with total exports at a value of \$773M and total imports at \$45.5M, making a positive trade balance of \$727.5M (OEC, 2023). In fact, it is easily observed that in 2021, top exports from South Africa included platinum, gold, iron ore, diamonds and coal briquettes, totalling at \$66,02B in 2021. Exports are mainly destined for China, USA, Germany, the UK and India.

Wine is noted as a product with strong potential for growth in exports from South Africa, being among the top five agricultural exports to come from South Africa in terms of value (GCIS, 2023). The other top agricultural exports include citrus, grapes, apples and maize. The Netherlands, the UK, China, Mozambique and Zimbabwe are the top 5 importers of South African wine (GCIS, 2023). The USA, Canada, China and African countries are increasingly important destinations (statssa, 2021).

More than half (52%) of South Africa's wine exports are destined for the UK, Germany, the USA, the Netherlands and Namibia – and all of these destinations are member states of the EU-SADC EPA, excluding the USA (ECONOMIC PARTNERSHIP AGREEMENT BETWEEN THE SADC EPA STATES, OF THE ONE PART, AND THE EUROPEAN UNION AND ITS MEMBER STATES, OF THE OTHER PART, n.d.; OEC, 2023).

The total wine exports globally from South Africa amount to 387.975.875 L– of which, 145.458.493 L are packaged, and 242.517.382 L are bulk. According to data from the SAWIS annual report and represented in Figure 17, the United Kingdom alone imported 23,84% of the total wine exported from South Africa in 2021. After the UK, Germany is the second largest importer at 16,81% of South Africa’s wine exports and only then do we have the USA and Canada, being 10,91% and 7,3%, respectively.

In Figure 17, it is observed that each country which imports wines from South Africa has its personal profile of the kinds of wines that are imported. For example, the Netherlands and France contrast each other, as the country with the highest proportion of packaged wines and the country with the highest proportion of bulk wines, respectively. This could possibly be due to the benefits of stimulating economic activity in the importing country via the generation of need for packaging and the money saved due to relief of the weight of packaging materials during transport of the wine (CBI, 2016).

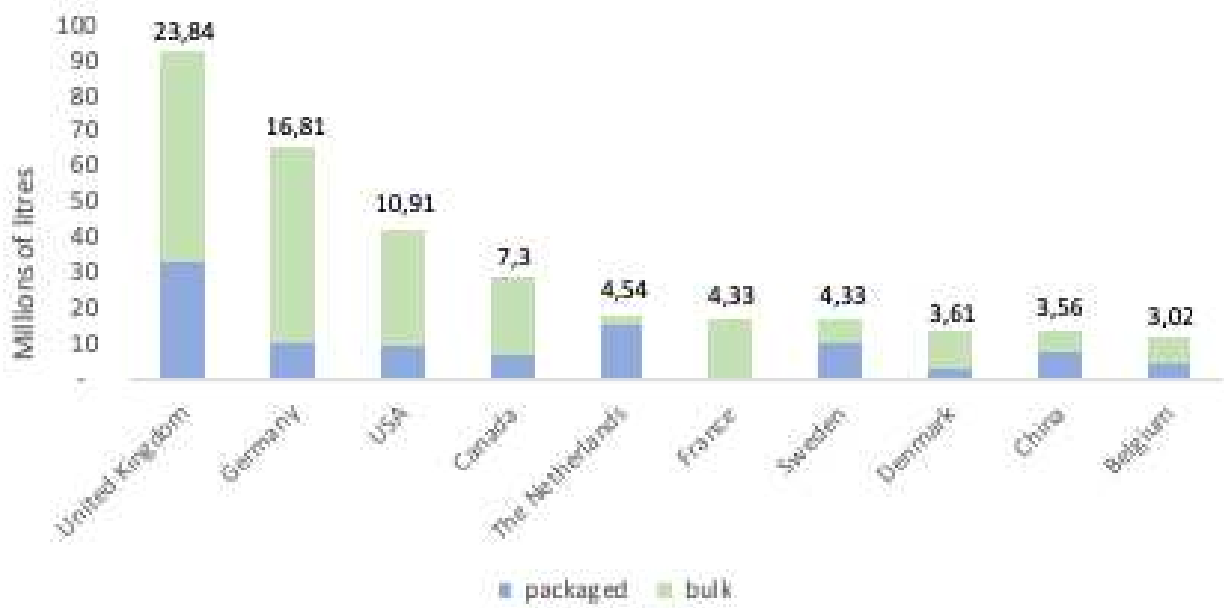


Figure 17: Ten top countries importing bulk and packaged wine from South Africa, according to 2021 statistics – data labels displayed for each country indicates the percentage of total South African wine exports taken by each country.

Overall for South African wines, 37% of exports were packaged (OIV, 2022; SAWIS, 2022). Bulk wine exports account for 56% of total export volumes, and only 23% of total export value, while bottled wines represent 36% of the volume and 67% of the value of exported wines from South Africa (OIV, 2022). Bulk imports have many benefits – lower cost of transport due to the significant increase in volume that can be transported, stimulation of local economy in the receiver country due to the need for packaging equipment and workforce behind it, lower carbon emissions, more competitive prices of the end product, increased efficiency of the production line in most cases (Mariani et al., 2012). Globally, bulk wines represent 32% of the volume of wine exports and 7% of the value of exports (Mariani et al., 2012). The proportion and value of South African bulk wine exports is therefore higher in this regard.

From Figure 18, it can be deduced that bulk wines exported from South Africa are all recorded as less than \$3,15 per liter, with most exported bulk wines being less than \$1,06 per liter. It is assumed that the raw data is presented in million litres. While this seems like a low value, it falls above the global export price of bulk wines, being \$0,88 per litre in 2022 (OIV, 2022). For example, Italy is the largest wine producer globally, the 2nd largest bulk wine exporter with bulk wines selling at an average of \$0.7 per liter and France is the 2nd largest wine producer, but the 7th largest bulk wine exporter at \$1.32 per liter on average (OIV, 2022).

Overall, the export value of South African wines has seen 33% increase in volume and 18.6% increase in value, indicating a sense of sustainability and growth of the industry as one of the major exporters of wine (OIV, 2022).

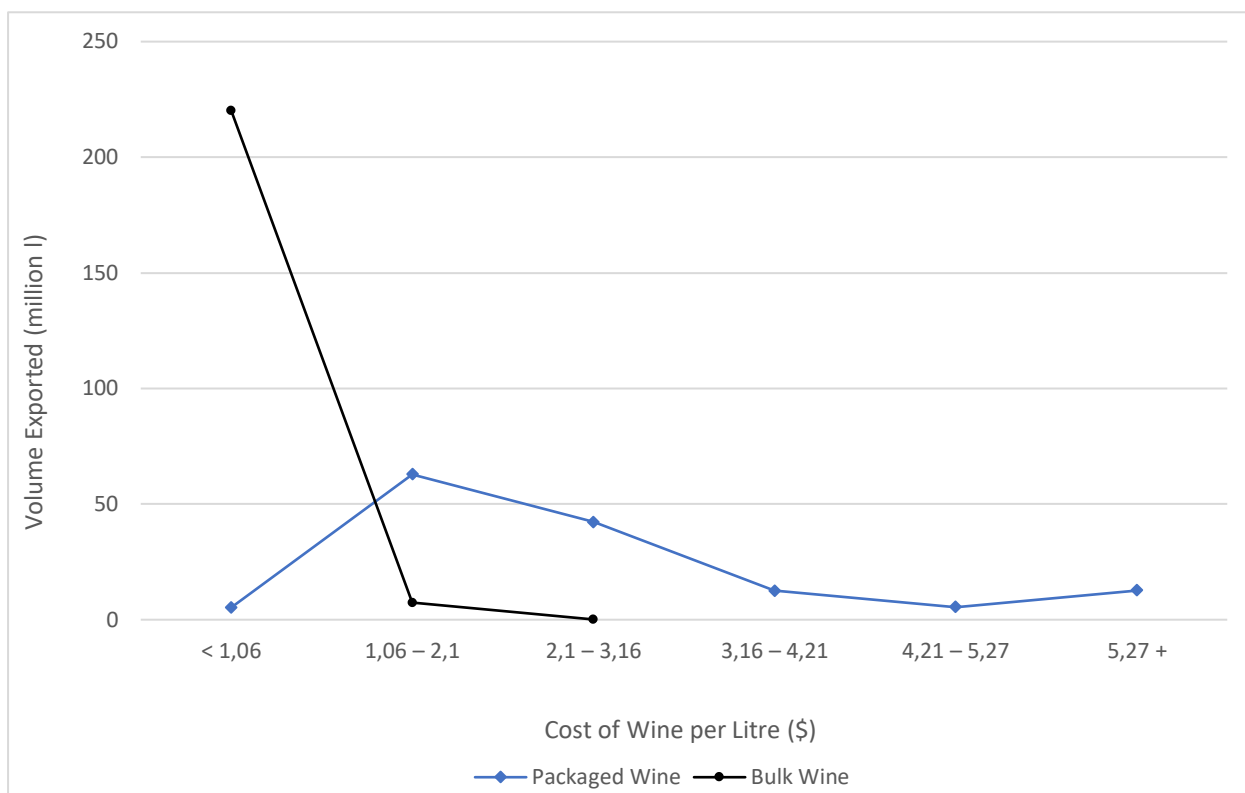


Figure 18: Value of South African wine exports according to type and price

5.4. Value Addition Initiatives

Quality perceptions are strongly influential forces in sustainability, whether considering sustainability in terms of the environment, economy or social systems (Glogoveţan et al., 2022).

This has been a motivating factor in the increased global and local attention to enhancement of quality food and wine production among globally changing demands (Mariani et al., 2012). In 2020, South Africa's gross added value in agriculture experienced an 11.3 % increase, relative to 2019. This was largely owed to production efforts in horticulture, grain and livestock. Further growth in production value will depend on investments, weather conditions and international demand for agricultural exports (GCIS, 2023).

According to the World Health Organization (WHO), the average price of a South African bottle of South African wine is \$3,34, as shown in Figure 19. This is only 37% of the global average of the average price of a bottle of wine across the globe, which stands at \$9,05. As a comparison, the country with the lowest average cost of a bottle of wine is Fiji, at \$1,36 per bottle (WHO, 2021). The country with the highest average cost for a bottle of wine is the Marshall Islands, at \$25,53. At \$3,34, the average price of a bottle of wine from South Africa is below the average and the first quartile, meaning that there is much room for valorization of South African wines, particularly when considering the size and diversity of the South African wine industry (Swart & Smit, 2009; WHO, 2021).

Despite the perception of quality of South African wines growing alongside growing demands for quality, the price of South African wines demonstrates the undervaluation and subsequent unsustainability of South African wine production (tralac, 2023).

When looking at the wine sector in Spain, we see an old-world wine producer with a total of 152 PGI / PDO certifications, who have the largest area of land under vine in the world, and who have consistently been a top exporter of wine, but Spain is home to wines that sell among the lowest average prices in the market despite having many accolades and an established reputation (Lockshin & Corsi, 2012). The prices of South African wines are above Spanish wines, with Spanish wines being an average of \$7.61 per bottle (WHO, 2021). This indicates the possibility that the valuation of South African wines could follow the same path without gradual restructuring of the industry alongside sustainable economic growth.

South African wine is undervalued, particularly within international markets (Ponte & Ewert, 2007). As a result, only about 50% of South African wine producers are breaking even and a third of producers are making a loss (Steyn, 2019). Goals of sustainability and transformation cannot be achieved efficiently or effectively without better profitability incorporated. The need for improved social impact and industry image therefore calls for strengthened territorial valorisation, differentiation, branding and quality improvements (Chever, 2012; Siddle, 2023; Veseth, 2023). To South Africa into a new league of quality perception requires collective vision (Steyn, 2019).

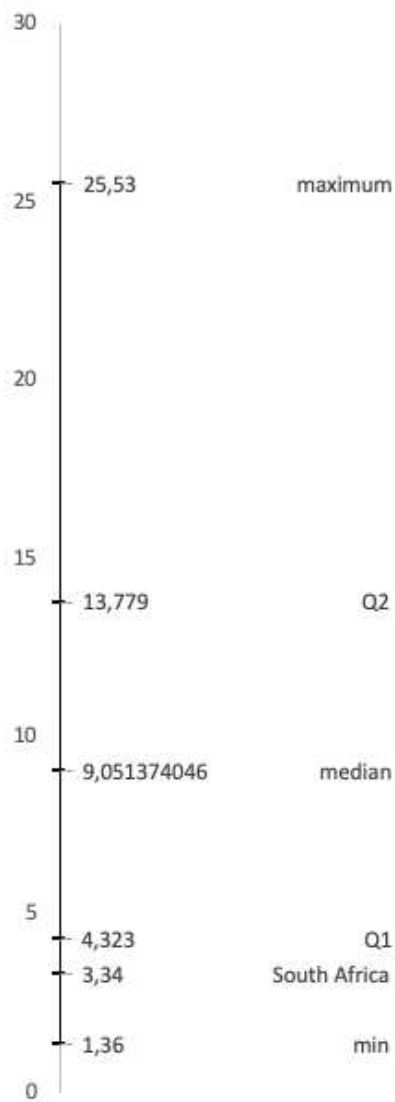


Figure 19: Number line for the average prices of a bottle of wine across countries in the world (WHO, 2021, from data updated in 2018).

5.5. Wine Tourism

South Africa attracts millions of visitors annually, with the Western Cape a popular destination. Table Mountain ranks as the second most popular single destination behind the Kruger National Park, according to departing visitors. Tourism was one of the fastest-growing areas of the economy before lockdown measures were induced as a result of COVID-19 (Department of Planning, 2019).

The South African wine industry has 452 wine route members among organised and accessible roads, ranging from Constantia and Durbanville to Swartland, the Little Karoo and West Coast, each area with its unique character. From the growth of the wine tourism sector in recent years, it has come to generate \$396 million to the South African GDP in 2019 and represents 14.7% of total income for cellars that crush grapes. Three quarters of this comes from wine tasting experiences, accommodation and restaurant services. Directly and indirectly, the wine tourism sector creates 36,406 jobs for South Africans (Vinpro, 2020). Accordingly, tourism might represent a source of value added for the wine industry as a whole, in the country.

6. Case Study: The Sweet Wines of Constantia as South Africa's first wine PDO

The wines of Constantia are wines with strong historical significance in a country considered as a new world wine producer, putting them in an interesting position on the market (WoSA, n.d.).

In order to certify a product as a PDO, the product needs to have significant links to both place and tradition. The sweet wines currently produced in Constantia from select, raisined Muscat di Frontignan grapes are a recreation of the original sweet wines made in the Groot Constantia cellar. Constantia has had a number of highly regarded wines since the 18th century, apparent in the Constantia entry of the Oxford Companion to Wine, in which it was stated that “at their height, they commanded more prestige, more fabulous prices, and enjoyed more crowned patronage than the most celebrated wines of Europe”, with particular reference to the sweet wines (Robinson & Harding, 2015). Constantia is a host to a range of wines which should be explored for their potential as PDO products in tandem with the sweet wines of Constantia, but due to the complexity of such a project, the sweet wines are the focus of this text with intent to stimulate conversation and further curiosity in this area (Swart & Smit, 2009).

6.1. Name

Below is a list of the names for the signature sweet wine made in each winery, from Muscat de Frontignan grapes:

- Groot Constantia – Grand Constance
- Klein Constantia – Vin de Constance
- Buitenverwaghting – 1796

To categorize these wines, they will be referred to as the “Sweet Wines of Constantia”. This name has been chosen because the most defining characteristic of this wine is that it is produced only from Muscat de Frontignan grapes that have been allowed to become overripe on the vine, resulting in a sweet wine. This technique has historically been used to produce the sweet wines of Constantia (Schutte, 2003).

6.2. Technical Aspects and Code of Practice

In order to determine whether or not a specific wine typical for a region within the WO scheme is suitable as a PDO candidate or not, the specifics of each wine should be described and compared. These wines must be similar in their history, tradition, natural inputs and human interventions so that a common code of practice and a common, high-quality product can be identified and PDO certification can represent confidence in the product. Specifications for each wine are clarified in the Annex.

6.3. Area of Production and Terroir

South African wine regions are divided according to the Wines of Origin scheme, developed in 1973 (WoSA, n.d.). The main aims of this scheme are to valorize wines, recognize the role of terroir and to protect producers and consumers from confusion about the origin of South African wines (WoSA, n.d.). Where the term “Wine of Origin” or “W.O” appears on a label next to the name of place, this ensures that 100% of the grapes used within the wine originate from that area. In the WO scheme, the winelands are first divided into geographical units, then regions, districts and wards. The larger geographical units are based on geographical or political traits of the land, while the smaller units, such as the wards, are based more on specific terroir-related aspects (Robinson & Harding, 2015).

The Sweet Wines of Constantia are well-known wines, all made in a limited zone within Constantia in the City of Cape Town (Swart & Smit, 2009). For the context of this thesis, the limited areas of growth of Muscat de Frontignann are outlined in Figure 21 and 22.

According to the WO scheme, all vineyards and respective cellars lie within the borders of the Constantia ward. The classification of origin of the Sweet Wines of Constantia is therefore as follows:

Geographical Unit - Western Cape

Region - Coastal Region

District - Cape Town

Ward – Constantia (WoSA, n.d.).

Constantia is therefore recognized as a region of origin in the South African WO scheme, as well as a registered GI according to the SADC EU EPA, found on GIView (European Union Intellectual Property Office, 2020a; Robinson & Harding, 2015)

Constantia is situated within the Western Cape, on the South-Western tip of South Africa, represented in Figure 20 (Western Cape) and 21 (Constantia). Constantia is located along the borders of the Table Mountain National Park in Cape Town, the legislative capital and tourism hub of South Africa. The Western Cape boasts the highest average level of adult education in South Africa, with multiple universities and higher education institutions throughout (Government Communications (GCIS), 2021). It is well-known for its biodiversity, particularly as the home of the Cape Floral Kingdom, in which the Cape winelands area resides. This floral kingdom is home to more than 9 600 plant species, all adapted to specific microclimates within the mostly nutrient-poor soil. 70% of the plants found here are endemic to the region, earning the Cape Floral Kingdom status as a world heritage site (Swart & Smit, 2009).

This biodiversity hotspot is influenced by the maritime conditions of the Atlantic and Indian oceans. The climate together with the diverse soils and topography creates a viticultural playground throughout the Western Cape – particularly complex in the Southwestern areas (Wines of South Africa, 2023).

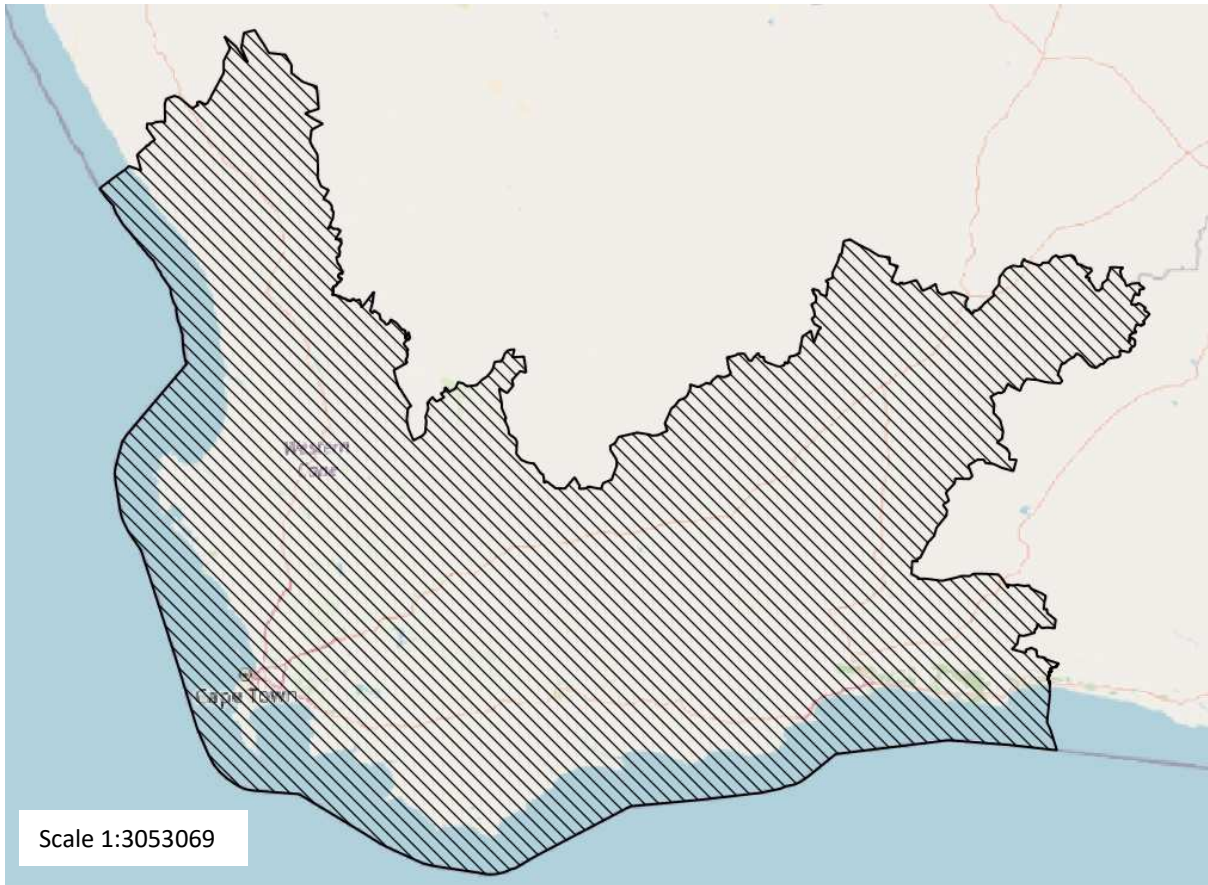


Figure 20: Geographical Unit: Western Cape province of South Africa

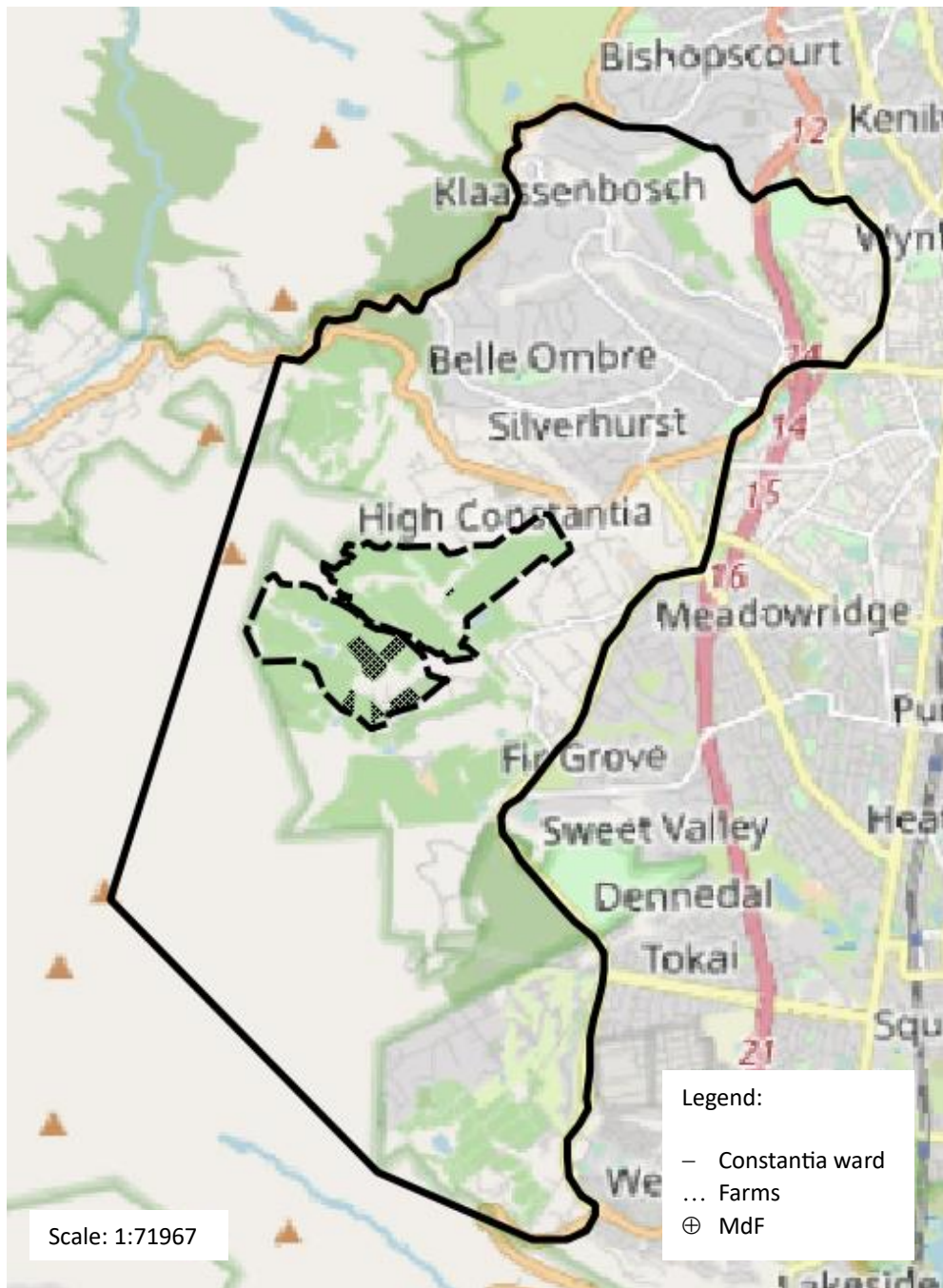


Figure 21: Constantia ward, showing outlines of individual farms (Groot Constantia and Klein Constantia) as described in Figure 22.

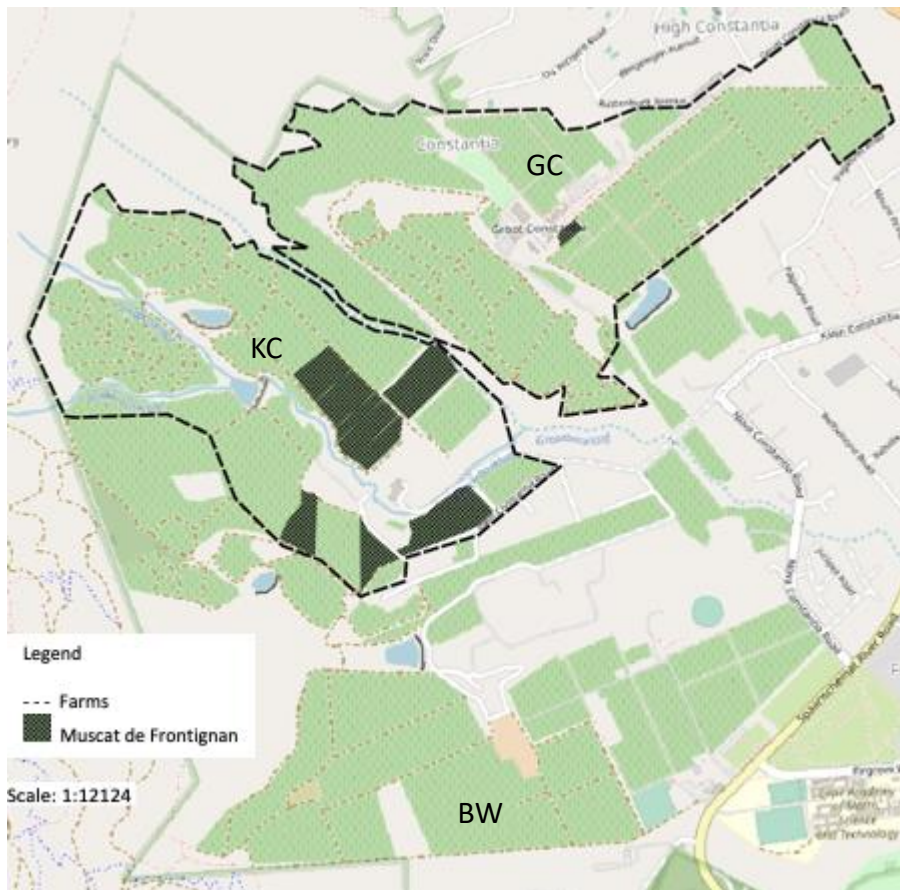


Figure 22: Map of the areas of Muscat de Frontignan vines in Groot Constantia and Klein Constantia, made by the author, using QGIS

The outlines of the farms were made based on assumptions from the official websites of each winery. Klein Constantia (KC) has 149 hectares overall, of which, 16.18 hectares are dedicated to Muscat de Frontignan (Klein Constantia, n.d.). Groot Constantia (GC) has 90 hectares under vine (Groot Constantia, n.d.-a). As geographical information is limited for Buitenverwachting (BW), the assumed area of that winery is not outlined, but is assumed to be the vineyards on the bottom half of the map.

6.4. Climate of the Constantia Valley

The Western Cape largely experiences a Mediterranean climate, but is cooled by winds that blow from cold currents of the Atlantic Ocean. The climate along the coastal zone, <50 km from the coastline is not cold enough to facilitate frost, but winters here can be cool. Warm days and cool nights are good for grape quality, with the cooler night slowing grape ripening and concentrating the pigments and flavors in the grapes, while warmer days facilitate sufficient ripening (Swart & Smit, 2009). As can be seen in the climate data for Constantia represented in Figure 23, temperature fluctuates by an average of 10°C between night and day, indicating that the change does not provide too much of a shock while the grapes are ripening. To create Figure 23, averages from raw data for sunlight hours, maximum temperature, minimum temperature, humidity and rainfall were calculated for the years 2012 – 2022. Raw data was obtained directly from the South African Weather Service.

The mean temperature in Constantia during harvest season in February is 20,6 °C, making it a cool cultivation area. This is ideal for harvesting, The mean daily temperature drops to 18 °C during April, the harvest time for Muscat de Frontignan destined for the Sweet Wines of Constantia. The topography of the valley allows early morning sun in, which lifts the damp, morning air. The afternoon shadow from surrounding mountains cools the vineyards after the heat of the day, transitioning gently into the cool night (Swart & Smit, 2009).

Summers in the cape have long periods of dryness, which is why the granite soils with high clay content and good water retention are suitable for vine growth in Constantia. Average rainfall is 1100 mm annually, which makes irrigation unnecessary (Swart & Smit, 2009). Figure 23 shows a dry ripening period, ideal for the intensity and development of grape flavours and aromas. The rainfall increases suddenly in April, at which time it is expected that a majority of grapes would have been harvested. This does pose a risk to grapes for the Sweet Wines of Constantia, but these are carefully monitored for risks of infection. Higher winter rainfall ensures that there is enough water in the soil for canopy coverage during the growth season, whereas the dry summers cause proper ripening of the fruit (Klein Constantia, 2023a).

The humidity of this area is the cause of Botrytis infection and the death of relatively young vines. From the interview conducted with Jean Naude, CEO of Groot Constantia, it was

reported that the Muscat de Frontignan vines would generally not age far over 12 years. It was stated that the humidity caused by the breezes from False Bay moderate the daytime temperatures, but provide cloud cover and humidity at night as is reflected in the humidity differences between 08:00 and 14:00 in Figure 23. This makes this method of production of sweet wines tricky, as the grapes for Groot and Klein Constantia are dried directly on the vine before being harvested. Careful monitoring of the vineyards is practiced to ensure the production of high quality grapes (Klein Constantia, n.d.).

A constant sea breeze assists in keeping the Constantia area cool and causes stressful winds, resulting in increased intensity of flavors in the more unsheltered fruits. Vines are oriented according to wind direction in the valley, which facilitates the flow of the South-easterly summer winds through the vineyards and assists in keeping fungal infections at bay (Swart & Smit, 2009). For the vines of Muscat de Frontignan indicated, this is of utmost importance to facilitate the avoidance of infection during the extended ripening period.

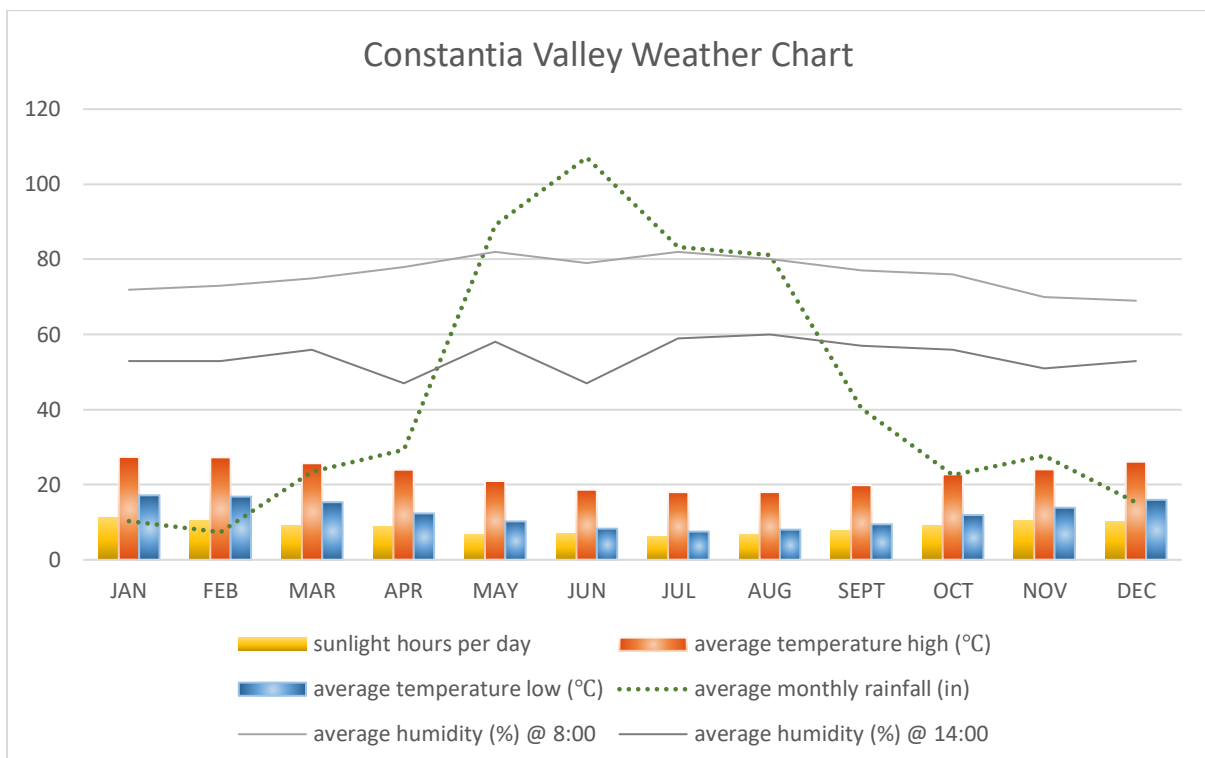


Figure 23: Constantia Valley weather chart according to author’s interpretation of official weather data collected between the years 2012 – 2022

6.5. Soil

South Africa is home to some of the most ancient and varied viticultural soils. The soil in Constantia valley is majorly made from sandy, alluvial deposits of Table Mountain Sandstone. These deposits lie on top of 600 million year old granite, being well-drained, acidic and fertile, with high clay content and thus providing great water retention within the vineyard (Klein Constantia, 2023a). This facilitates growth of plants during dry summers. The alluvial, sandy properties of the topsoil of Table Mountain Sandstone allow the vines space to push through and extend their roots comfortably through the soil, while the deeper granite acts as a sponge, retaining water for vines in drier conditions. Before planting vines, acidity can be neutralised with soil preparations such as limestone addition (Swart & Smit, 2009).

6.6. Topography

The three most important topographical elements considered for vineyards are altitude, aspect and slope inclination. With South Africa being in the Southern hemisphere, North- and West-facing slopes are generally warmer and experience better exposure to sunlight, making them more ideal for the ripening of fruits. Eastern slopes experience the most intense temperature changes between night and day (Swart & Smit, 2009).

The Constantia valley presents multidirectional aspects (Klein Constantia, 2023a). Constantia is situated within a shallow, mountainous amphitheatre. Surrounding it are the Kalkaaiberg, Constantiaberg, Vlakkenberg and Table Mountain ranges. Most of this area faces Southeast and is open to cool sea breezes. Higher altitudes in the Constantia valley experience cooler climates and generally receive slightly fewer hours of sunshine each day. The lower, more Northern-facing areas receive more sunshine and are better for ripening. Due to topographical variations, viticulture can differ significantly over short distances. This implies substantial quality differentiation throughout the Constantia valley (Swart & Smit, 2009).

6.7. Grape varieties

The Constantia valley produces wines from both white and red grape varieties. Heat-sensitive varieties such as Chardonnay or Sauvignon Blanc thrive in the cooler Constantia climate, displaying high acidity and complex aromas. The red wines from the Constantia valley tend to display elegant structure with tight tannins and red berry notes typical of reds grown in cooler climates (Swart & Smit, 2009).

6.8. Links with Tradition / History

At the time of writing, the South African wine industry is 364 years old (James, 2013). In 1685, the vineyards of the Constantia Valley were founded by Simon van der Stel, the son of an official of the Dutch East India Company or the Vereenigde Oostindische Compagnie (VOC) (Estreicher, 2014).

The Dutch Cape colony was on land originally inhabited by iKhoikhoi and San people, often referred to academically as Khoisan (James, 2013). In 1679, Simon van der Stel was appointed as the first governor of the Cape and played important role in the development of the Cape wine industry. He planted his first vines in the Constantia valley and, after seeing how prolific the vines were, encouraged many free burghers to focus agricultural efforts on vinification, although the enthusiasm for the practice seemed to get out of hand by the end of the century, with over a million vines planted (James, 2013).

While many vineyards were initially tended to without expertise, van der Stel ensured that his vines in Constantia were tended to with far greater care and his wines were subsequently of far greater reputation, eventually gaining global appeal as one of the most iconic wines to come from the Southern hemisphere (Robinson & Harding, 2015). His vineyards and cellar are still operating today and have been divided over the years into many parts – the most relevant for this text being Groot Constantia, Klein Constantia and Buitenverwachting (Groot Constantia, n.d.-c). This occurred after the death of Simon van der Stel in 1712 (James, 2013).

Demand for Constantia wines outstripped supply in the 1730's, by the movements of Johannes Colijn, who was in charge of Klein Constantia. Groot Constantia's quality trailed off until Hendrick Cloete took over and brought it back to standard, perhaps even improving performance, in 1776. This was one year after the Cape had passed into the hands of British control (James, 2013).

After Simon van der Stel passed and his son took control of the estate, the reputation dwindled somewhat. The Groot Constantia estate was transferred to the hands of Henderick Cloete in the 1770's, after which the wines were well received and esteemed for their redemption of quality (Groot Constantia, n.d.-c; Klein Constantia, 2023b). In the mid-1800's, Constantia wines made approximately 0,15 % of the exported wine volume, but around 4,5 % of the exported value of Cape wines, showing their quality and value. It was seen as increasingly unique to the Cape style of wine making, as the Cape style tended to include fortification and progressively favoured dry white wines. The flagship Constantia wines of these times were the sweet white from Muscat de Frontignan and the red from Pontac grapes (James, 2013).

Poor quality restricted export potential from South African wines, but Constantia wines were well-known outliers for their quality. Export of Constantia wines was tightly managed to avoid alterations or diminished perception of the wines despite overproduction from Constantia estates (James, 2013).

Constantia wines were famously requested by Napoleon Bonaparte while he was exiled on the island of Saint Helena from 1815 until his death in 1821. During the eighteenth century, the sweet wines from Constantia gained recognition and competitive pricing for its premium quality, going as far as being mentioned in famous novels by Jane Austen and Charles Dickens (Austen, 1896; Dickens, 1870)

After its high acclaim in the early-to-mid 1800's, South Africa went through a series of unfortunate events that caused the decline of the wine industry, being mildew, phylloxera and the consequences of wars and political events. To reorganize the industry and facilitate its recovery, the KWV cooperative was founded in 1918 . The KWV did serve its purpose in several ways that are still relevant to this day, but its mission supported the apartheid regime, and so, it was forced to cease reorganization operations and is now an independent company.

Over time, many producers have opted out of cooperatives and have started creating their own, smaller brands with quality wines that are available in the global market (James, 2013).

Klein Constantia formed as a sub-division of Groot Constantia in 1823, with Johan Gerhard Cloete as its first owner (Klein Constantia, 2023b). By 1825, wine exports were steadily increasing and roughly three quarters were destined for Britain. Wine was the Cape's most valuable export until wool exports surpassed wine in the 1840's (James, 2013).

In 1861, a 10-year trade agreement was concluded between the UK and France, further reducing demand for South African wines that did not have much acclaim other than affordability (Klein Constantia, 2023b). Constantia was the one ward from which wine was reported to be of consistently good quality throughout South African history, showing that wines from the Cape could be held to a high standard if there is sufficient capital to produce such wine (James, 2013).

In the 1880's, efforts to replace vines throughout the Cape with more appropriate varieties were fiercened due to the spread of phylloxera, an aphid relative which feeds on vine roots (James, 2013; Powell, 2008). Despite being 10 km away from the site of initial phylloxera sightings, it only reached the Constantia valley in 1898 (James, 2013).

Groot Constantia was bought by the government in 1885 after the estate went bankrupt and there were intentions to open a wine research centre here in an effort to improve the quality of South African wines (Klein Constantia, 2023b).

After the birth of South Africa, it was decided that there had to be significant investments into the agricultural industry as a whole. Excise duties had been increased by government and there was general protest and a need for unionization of the South African wine industry. In response, a cooperative, the Kooperatiewe Wijnbouwers Vereniging van Zuid-Afrika (KWV), was formed to control supply and regulate selling prices of wine and brandy. Overall, there were only a few high-quality wine producers in South Africa at the time who could afford to sustain themselves without joining the cooperative. While this did pave the way for an effective wine certification and appellation system, it also further discouraged quality, product differentiation and competition (James, 2013).

The KWV was successful in raising farmer incomes for the first two years, but oversupply began to cause depreciation of wine value again. Eventually, it regulated the minimum price to be paid to farmers for brandy distilled from low-quality wine and played a major hand in South Africa's role as one of the world's biggest brandy producers (James, 2013).

The Department of Viticulture and Enology at the University of Stellenbosch had been established in 1917. Abraham Izak Perold was the first director of this department, as well as the creator of the iconic Pinotage variety (James, 2013). Most importantly, he was one of the first to prove via experiments that the highly regarded sweet wines of Constantia must have been unfortified, thereby made from dried grapes (Klein Constantia, 2023b)

Between 1963 and 1985, exports overall fell by about two thirds. This emerged after countries refused to trade with South Africa based on recognition of the blatant crimes against humanity committed during apartheid. The lack of an international market and local demand for Chenin Blanc go hand-in-hand as forces that catalysed the increase in Chenin Blanc plantings (James, 2013).

In 1971, the Cape Estate Wine Producers' Association started discussing production and marketing strategies with governmental committees, and in 1973, the WO scheme was implemented as a result of these discussions (James, 2013).

By this time, the KWV still held an impressive influence within the economy and facilitated limitation of a free-market system and competitive value of many wines. Power was lost after the collapse of the minimum pricing system in 1994. In 1997, it was no longer a regulatory organization but was converted to a company, instead. The KWV did make positive contributions such as the modernization of cellars, but these were conditional and restrictive to competition and a free market (James, 2013).

1994 was the year that marked the end of the Apartheid regime (Van Der Byl, 2014). Since then, the industry has been under scrutiny and intense evolution.

The region of origin relevant to this thesis is the oldest wine producing region of South Africa and the original producing cellar, Groot Constantia, is still active today, among other cellars that were built on the property after it had been divided. Constantia is therefore of major historical significance, and Groot Constantia has since been listed as one of the big six tourism destinations of Cape Town - a list of six tourism cores of Cape Town (Cape Town Travel, 2022).

This indicates the major influence that Groot Constantia has on tourism, which could be a major positive in terms of the promotion of a GI in the Constantia Valley. GIs are known to increase tourism in an area and it has already been noted that GI products are expected to boost rural economy, international trade and tourism in South Africa (n/a, 2017). Therefore, the fact that Groot Constantia already has the capacity, capital and skills to facilitate guests makes it a good candidate for the first South African PDO wine product.

6.9. Legal Issues

Within the South African wine industry, wines receive GI protection in certain countries via TRIPS and the Geneva Act of the Lisbon Agreement as a result of the SADC-EU EPA. However, any countries that are not part of this trade agreement or similar trade agreements signed with South Africa directly are not legally forced to respect the names of origin of South African wines unless via private protection from industry members themselves (Chidede, 2022). This has potential to cause much damage to reputation, as is demonstrated by the legal battle that motivated the registration of the name “Rooibos / Red Bush” as a PDO in 2021 (Biénabe & Marie-Vivien, 2017).

For example, we see that Constantia is a recognized name on GIView, under legal regulations by the WTO, but when searching for a specific product with strict code of practice from Constantia on *eAmbrosia*, there are none, indicating that there is no product with specified code of practice linked to this origin (Directorate-General of Agriculture and Rural Development, 2022; European Union Intellectual Property Office, 2020b). At the time of writing, 5415 names are registered on GIView. South Africa is home to 106 of those names, only one of which is registered on *eAmbrosia* (Directorate-General of Agriculture and Rural Development, 2022; European Union Intellectual Property Office, 2020b). This indicates that there is potential and capacity for creation of more South African PDO products.

The Constantia brand already represents a recognized brand of quality products and its flagship wines have fetched premium prices for centuries (James, 2013; Robinson & Harding, 2015). The GI quality scheme links a product to premium status, which is a role that could easily be filled by the wines of Constantia. With the fact that there are no products linked to the name “Constantia”, this opens an opportunity for The Sweet Wines of Constantia to be registered without any legal pushback from other product names according to the GI scheme.

When looking at the names under protection on GIView, it can be found that “Constantia” is already protected under multilateral agreements, but there are no PDO, PGI or TSG products related to this name, meaning that there is opportunity to take advantage of the lack of opposition for the application of a product which includes the name “Constantia”, onto the *eAmbrosia* register (Directorate-General of Agriculture and Rural Development, 2022; European Union Intellectual Property Office, 2020b).

There are a range of wines to consider in the creation of a code of practice for Constantia wines – premium wines from this origin include reds, whites and sweet wines (Swart & Smit, 2009). When considering the Sweet Wines of Constantia as a premium product, it is observed that this wine has experienced premium status and a fetched premium price for centuries; the willingness to buy the product throughout history being an indication of valid and sustainable premium status in the market. This product has also been noted as arguably the most legendary wine to come from the South hemisphere, based on its well-maintained premium status and demand throughout recent centuries (Robinson & Harding, 2015). The continuation of recognition and communication of this wine’s premium status and heritage is therefore important in maintaining its prices at the competitive levels, seeing that strategies to maintain quality of the product have also been maintained. PDO status of these wines could be applied as a strategy of recognizing origin and tradition of these wines, as they have only ever been produced within the Constantia Valley in South Africa, giving them a strong link to terroir (Swart & Smit, 2009).

Approaching a committee such as Special Committee on GIs and Trade in Wine and Spirits with a registration proposal would therefore be a recommended way to proceed if there were serious interest in registering a product such as the Wines of Constantia as a PDO. The existence of an established pipeline through which GIs can be registered provides curiosity as to how much discussion is occurring around this potential within the wine and spirits industries of South Africa. We know from Lubinga et al that there is already discourse on the issue at academic level as well as among members of the South African wine sector (Lubinga et al., 2021).

7. SWOT analysis

A SWOT analysis involves a breakdown of the strengths, weaknesses, opportunities and threats surrounding a particular topic (Namugenyi et al., 2019).

It is difficult to predict the impact that implementation of the GI scheme would have on the wine industry in South Africa, as the results of implementation of this scheme are highly contextual (Coombe et al., 2014; Curzi & Huysmans, 2022). Nevertheless, this SWOT analysis acts as an attempt to assess the pros and cons of this scheme in South African context, with particular focus on the Wines of Constantia as a candidate. This SWOT analysis is done according to data collected from various academic and public resources, in coordination with the information presented at the Nedbank Vinpro Information Day which took place on the 19th of January 2023. The information from these presentations is represented in many articles, as referenced in the following pages.

7.1. Strengths

The main strengths which are observed in this case studies are the following ones:

- Administration State Capacity
- Brand Reputation and Loyalty
- Biodiversity and Product Variety
- Cultural Diversity
- Education Levels
- Tourism
- Preservation
- Trade
- Premium Status
- Rural Development Potential
- Infrastructure
- Marketing Capacity
- Collaboration

The implementation of a GI scheme requires collaboration between industry agents and the state, and is strengthened by a willingness to collaborate (Marie-Vivien & Biénabe, 2017). South Africa has a long history with cooperation. For example, several successful wine cooperatives have changed the face of South African wines – the largest of which had near monopoly on control of South African wine regulations and trade until 1990 (KWV, 2023; South Africa Online, 2023). Collaboration is therefore a point of strength in the South African wine industry, despite the fact that many South African cooperatives have been focused more on quantity than on quality (Ponte & Ewert, 2007). Forming cooperatives with a focus on premium wines could therefore create a shift in this focus throughout the industry in the long term.

Regarding the role of the state in implementation of the PDO scheme, South Africa shows potential to organize and analyse data well enough to implement efficient schemes where needed. Each province in South Africa is divided according to administrative wards, which collect data and report it to Stats SA for analysis (City of Cape Town, 2023). These wards and their management display how South Africa already has useful structures in place to assist with analysis and efficient policy decisions, such as the way in which NUTS regions are used to define areas of production of GI products in Europe (European Commission, 2020). South African officials have already proven the capability to use such systems for implementation of the GI scheme with the successful registration of Rooibos as a PDO.

Within the wine industry specifically, the regulatory system that exists to monitor integrity of wines in the South African wine industry shows strong state capacity for regulation, but there is no government-regulated system to certify wines according to a quality-ranking system linked to region of origin (Lubinga et al., 2021; WoSA, n.d.). The GI scheme provides a scheme linked to quality perception, which has international recognition (Menapace & Moschini, 2012). This would provide an internationally respected wine quality ranking system for the South African wine industry.

Being within a biodiversity hotspot, South African wines are exposed to excellent range of terroir and there is incentive to make use of sustainable practices in the winelands of South Africa (WFF, 2023). The intensity of biodiversity in the winelands offers impressive product variety. Alongside growing interests in sustainability globally, there is substantial support for sustainability in the local South African market, meaning that the product variety and support for biodiversity can be used not just as incentive for more sustainable practices, but also for more expansive marketing of South African wines (Kisaka-Lwayo & Obi, 2016).

South Africa already has good footing in terms of environmental sustainability, for example having one of the lowest greenhouse gas emissions per hectare in the world from its agricultural sector (OECD, 2022). Taking advantage of this strength and preserving unique natural characteristics of the South African winelands is something fundamental to sustainability, as the surrounding activities of a vineyard can either support, harm or be neutral to the sustainability of the system (Wines of South Africa, 2023). The GI scheme is one which supports such efforts.

Another example of incentive for environmental protection includes the World Food Forum's Conservation champions (WFF, 2023). It could be useful to work with Conservation Champions in the implementation of the GI scheme, to reinforce the positive multifaceted impact that the scheme could have on the South African wine industry.

Farmer's knowledge and education are important determining factors of producer's willingness to participate in the GI scheme (Laksono et al., 2022). Multiple problems surrounding education – particularly in rural areas – cause setbacks in the development in the level of education achieved and in educational performance in South Africa (National Planning Commission, 2021). However, the Western Cape is second in the country as the province with the highest rate of education completed at least to the point of graduation from secondary schooling (stats sa, 2023a). With the number of high-quality education institutions in the Western Cape, which holds a majority of South Africa's winelands. One could assume that the Western Cape could be one of the most promising geographic units with a willingness to participate in the GI scheme (Laksono et al., 2022). Furthermore, the EU has shown willingness to share knowledge and experience that could support the creation of this PDO well (Marthane Swart, n.d.; Viljoen, 2017a).

Regarding the people of South Africa, there is great cultural diversity in the country. This encompasses race, gender, ethnic group, age, personality, cognitive style, tenure, organization, education, and more (Green et al., 2002). Despite the difficulties of a multi-cultural structure in business, it has long been accepted that cultural diversity can strengthen an economy, as it improves creative thinking and can thus enhance productivity in the absence of discrimination (Green et al., 2002). South Africa is a very diverse country, providing strength in the sense that this could connect the country more fluidly with trade partners around the globe (National Planning Commission, 2021; Yong, 2019).

Being a quality signal, GI certifications are known to increase producer profits, reduce information asymmetry and increase exports (Curzi & Huysmans, 2022). South African wine exports hold 1.8% of the total global wine export value, a relatively small number in comparison to the top exporters of wine; France with 32.2%, Italy with 20.7% and Spain with 8.5% (Daniel Workman, 2023). One can argue that South African wines still hold a stable enough position in the market, as the value of South African wine exports resided at 11th place in the world in 2021, with the top 15 countries shipping 92.9% of the global wine exports (Daniel Workman, 2023). Providing legal protection for more premium South African wines could be a proactive move towards the preservation of the increasingly impressive reputation of South African wines and it could also provide a boost in export volumes of more premium South African wines, potentially, South African wines overall (Agostino & Trivieri, 2014b; Ponte & Ewert, 2007).

The tendency for enhancement of trade flow and/or value of GI products is beneficial to trade with established and emerging markets on South Africa's export radar, and maintenance of competitive value is important in maintaining market access (WIPO, 2020). For example, the UK, South Africa wine's biggest importer, has 5 of their own wine products registered on eAmbrosia (Directorate-General of Agriculture and Rural Development, 2022). This scheme has been complicated by BREXIT but proves the recognition of the value of the GI scheme in the UK, the wine sector included. With the fact that there are already wine GIs registered in the UK and the trend that GIs result in increased competitive power of agricultural products, one can assume that it will become increasingly tough to hold a competitive place in the UK wine markets and that reputation is important for the sequestration of trade here as global warming leads to potentially increased interest in winemaking in the UK (Herrmann & Teuber, 2012).

Furthermore, improvements in reputation and value could attract more tourists to South Africa, thus boosting multiple industries related to wine and agriculture (WIPO, 2020). South Africa has a well-established tourism sector (De Filippis et al., 2021; n/a, 2017; WIPO, 2020). Constantia, for example, is known for its excellence in tourism. It is host to one of the six most iconic tourism spots in the City of Cape Town – Groot Constantia . The Constantia ward offers world-class accommodation, restaurants, wine experiences and access to a multitude of other cultural, natural, historical and lifestyle attractions among the city of Cape Town. Buitenverwagting, for example, has received accolades as one of the top restaurants to visit in South Africa for decades, and Klein Constantia offers excellent wine-related experiences (Swart & Smit, 2009). The attention to tourism in the Constantia area has built capacity for visitors, particularly when considering the proximity to the major city and ability to disperse tourists with various interests throughout a selection of areas in the Western Cape with capacity for tourists .

The Constantia Valley could be an ideal settlement with which to test the implementation of a PDO scheme. It is an area which already fosters income and investment, with settlements that have access to schools, clinics, recreational facilities, running water and sanitation (Constantia & Leibman, 2012; Gaffney, 2012). The effects of PDO registration here involve the well-being of the people who will be effected by this scheme and this could provide strong support for a scheme which could stimulate generation of similarly complex rural dynamics across South Africa, although this would need to be tested in practice. Though this scheme could enhance gentrification in the area, the ripple effects of the use of the Constantia Valley as one of the first wine PDOs from South Africa could be beneficial throughout the sector.

Consumer willingness to pay is an important aspect in the process of deciding whether to add a quality label or not, as the ultimate goal is to receive a premium price over the long term for a wine with premium reputation. Studies have shown that New World wines could benefit significantly from the incorporation of familiar quality indications on labels (Schamel, 2000). Constantia wines have shown centuries of willingness to pay for premium products (Robinson & Harding, 2015). It is therefore a good candidate for this study.

7.2. Weaknesses

Weaknesses in the South African wine industry include the following:

- Economic Freedom
- Volatility
- Supply Chain Shortages and Restrictions
- Leadership
- Infrastructure

Generating a vibrant economy which supports growth and attracts investment is an essential way to expand an economy (Holcombe, 1998; Stone, 2017). Economic freedom is an important consideration in this sense but appears to be a challenge in the South African context (The Heritage Foundation, 2023). Countries with greater economic freedom tend to have greater wealth per capita, greater prosperity and growth overall, having a well-developed economy (Gwartney et al., 1999). Lower extents of economic freedom are thus an indication of a country with low potential for growth – something already experienced in South Africa. The Gini index, degree of economic freedom and unemployment rate indicate many difficulties and the stifling of an economy which needs freedom to harness opportunities for economic growth (The Heritage Foundation, 2023; The World Bank, 2023). Nevertheless, efforts to make the country more equal are underweigh and efforts to create a more vibrant economy should always be fostered wherever possible (National Planning Commission, 2021).

One of the determining factors in the success of a GI scheme is the enforcement of regulations of frauds, particularly of counterfeit products. This would require improvement of skills and capacity, aimed at tightening of law enforcement at South Africa's apparent porous borders (Marie-Vivien & Biénabe, 2017).

Much of agriculture depends on the effective and timely execution of the administrative and regulatory tasks of government: licenses, permits, regulations, enforcement, etc (Goedde et al. 2019). These aspects have been constraining the growth and transformation of the agricultural sector for many years and require attention. Linked to this is a good land administration system, effective registration of title deeds/land rights in a well-functioning deeds office.

Within its developmental state, some of the greatest risks to South Africa's developmental agenda are limited state capacity and policy instability (National Planning Commission, 2021). Policies presented to South Africans can appear threatening and disruptive to the current state of business. While it is important that equality is reached, a scheme such as GI scheme could offer a hand in developing the system as a whole, particularly with focus on indigenous and traditional products that could aid development (National Planning Commission, 2021).

Low savings levels and dependence on foreign capital causes strain on the South African economy, increasing volatility and decreasing resilience. Making use of the GI scheme could valorize products with entire supply chains focused within South Africa, thereby generating higher value jobs and creating trade of higher-value end products rather than on raw materials, which benefit processing industries in other countries (National Planning Commission, 2021). Moreover, it should also be emphasized that corruption on all levels of government is crippling to an efficient system, particularly at the extent to which it is performed in South Africa. Political will and enhancement of education are some fundamental ways in which corruption can be addressed at its core (National Planning Commission, 2021).

It is recognized that the state plays a major role in implementation and success of the GI scheme (Marie-Vivien & Biénabe, 2017). The South African government faces challenges of poor capacity and weaknesses in administration systems (National Planning Commission, 2021). Although the administration and regulation of South Africa's wine industry is considered one of the best in the world, some inefficiencies among the state may buckle potential in PDO implementation in the South African context. This is challenged by the successful registration of Rooibos/Red Bush as a PDO, which shows state capacity at least for implementation of the GI scheme (Biénabe & Marie-Vivien, 2017; Siluale, 2021). Expanding South Africa's share in the market of premium products could contribute to long-term economic growth, although the capacity for proper management of this scheme remains to be seen (Wines of South Africa, 2023).

Moreover, the chosen method of land restitution has been state capture and redistribution of land. Unfortunately, this has meant that a large portion of the state's land had been sequestered by the state, and private farmers who are in want of this land have had to rent in the interim while ownership still belongs to the state, which causes a significant blow to profits for these individuals (Sihlobo & Kirsten, 2018). The demographics of land ownership indicates that the beneficiaries of the GI scheme in South Africa could be unequal in the beginning.

The industry suffered greatly during the pandemic, due to government restrictions on alcohol sales throughout certain periods of lockdown. This was due to the fact that 49% of South African wines are consumed locally (an inaccessible market at certain times throughout the pandemic) and exports were down majorly due to global trade restrictions. The restriction to nurture local input hurt the industry, and approximately 25,000 jobs were at risk in the wine industry alone. Only 38% of South African wineries were able to make a profit throughout this period (Veseth, 2023). Policies are therefore not traditionally focused on profitability in the wine industry and this creates uncertainty in the development of a vibrant wine industry in South Africa with capacity to generate increasing numbers of premium wines.

The condition of basic infrastructure such as electricity, roads, ports and railways are lacking (National Planning Commission, 2021). The need to repair and renew to the extent that is required is one of the reasons why funding for innovation is limited, meaning that a scheme such as the GI scheme is beneficial in the sense that it will allow agents to take advantage of existing supply chains and this could still offer a significant return on investment (Loots, 2021).

Furthermore, policy certainty and rising costs of business due to rises in the costs of electricity, logistics and labour remain oppressive forces in economic development (Jonas, 2017). Potential economic growth has been stunted over recent years, as a result of structural constraints. Economic loss due to COVID was aggravated by scheduled electricity cuts, known as load shedding. The effects of power cuts are majorly detrimental, and cause instability to the economic foundation (South African National Treasury, 2023).

Tourism is a major industry in South Africa, but negative impressions of South Africa are apparent across the globe due to associations with corruption, involvement in wars and danger (The Heritage Foundation, 2023). These factors cause apprehension in movement or travels to South Africa, but also in investments, as people are concerned about whether their investment will be safe in the hands of South Africans.

Overall, the industry is under a lot of strain – agents of the wine industry have taken on a large set of challenges after bans of the sale and export of South African wines during the COVID pandemic (Burger, 2022). Many went through a period in which the companies could not support themselves. Now, with rising costs of employment and with difficulties faced due to the energy crisis, going hand-in-hand with negative impacts of loadshedding, pressure is on for an industry that was barely managing to recover (Burger, 2022; wosa, 2023). Existing infrastructure is conducive to the production, development and movement of high-quality goods. Efficiency throughout these systems is restrictive, but proves potential (Jonas, 2017).

7.3. Opportunities

Opportunities offered through implementation of the GI scheme in the South African wine industry include:

- Tourism Boost
- Employment
- Competitive Advantage
- Exports
- Context with China
- Value Addition
- Transformation
- Transparency
- Decreased Reliance on Foreign Investment
- Lack of Clashes With Other Schemes
- Alignment of National and International Development Goals
- Resilience

Groot Constantia is an important tourist site in South Africa, being one of the top six most iconic tourist sites of Cape Town (Cape Town Travel, 2022). This means that the success of the registration of the Sweet Wines of Constantia as a PDO could bring even more attention to Cape Town, therefore bringing more tourists and stimulating more income in the tourism sector (Croce & Perri, 2017; n/a, 2017). More specifically, it is expected that this would attract tourists who are seeking premium wines. Given that local trends lean more towards cheaper, sweeter wines, this could help to encourage wine producers all over South Africa to continue pushing to create world-class wines with the aim to compete with the most prestigious wines globally. The staff at Klein Constantia are already making strides to make Vin de Constance one of the most prestigious wines of the world, and many other wineries all over South Africa are patiently working to do the same (Slone & Stetsiuk, 2022).

Generation of territorial-related value in agriculture could facilitate better opportunities for those employed in agriculture and in supporting industries, including improved livelihoods, sustainable skills transfer, expansion of opportunities in agro-processing and regulations (National Planning Commission, 2021).

Consumer willingness to pay is an important aspect in the process of deciding whether to add a quality label to a product or not, as the ultimate goal is to receive a premium price over the long term for a wine that is presented as a premium wine. Studies have shown that New World wines could benefit significantly from the incorporation of familiar quality indications on labels (Schamel, 2000). Furthermore, Constantia wines have shown centuries of willingness to pay for premium products (Robinson & Harding, 2015). It is therefore a good candidate for this study.

Over the past 20 years, there has been a decline of demand for entry-level wine and an increase in the demand for fine wine (Mariani et al., 2012). If the various agents of the South African wine sector are able to overcome hurdles, there is major potential in the value of premium wines that could be brought to light. The resultant premium prices that premium products attract hold potential to improve livelihoods and give an essential boost in quality perception throughout the value chain (National Planning Commission, 2021). Moving a larger share of export value from bulk to brands is important in the development of greater competitive strength in the South African wine industry. Application of the GI scheme in the South African context therefore satisfies the need to be more competitive in this regard (Burger, 2022).

With the aim to expand market access of South African wines globally, the incorporation of the GI scheme can enhance marketing impact as demonstrated by the spiked interest in Rooibos tea (Marthane Swart, n.d.).

South Africa's positive trade balance is due in part to relatively low commodity prices, and the trade of higher, value-added labour-intensive exports has been slowing. This is of concern and shows a need for improved marketing strategies in premium products originating from South Africa. Implementation of the GI scheme within the South African wine industry could give a necessary boost to private investment in labour-intensive areas, competitiveness and exports (National Planning Commission, 2021)(Jonas, 2017).

The percentage of agricultural income spent on research, development and innovation regarding environmental sustainability is slightly below that of the global average, meaning it is not necessarily a point of strength in terms of competitive value over the long term (Nekmahmud & Fekete-Farkas, 2020; OECD, 2022). This does mean that the South African economy stands to benefit from the valorization of quality, traditional products. It may be more financially mindful to focus on current assets and innovation simultaneously when investment in innovation is below that of competitors. The GI scheme acts as a useful tool in this regard.

When compared to the export-promoting effects of trade agreements, it was found that the legal protection of GIs does not generate additional exports above the usual increase in exports experienced through trade agreements. However, GI products of superior quality, market share and reputation do tend to enjoy the benefits of stronger external legal protection and reputation (Curzi & Huysmans, 2022). South African wine exports hold 1.8% of the wine export value, a relatively small number in comparison to the top exporters of wine; France with 32.2%, Italy with 20.7% and Spain with 8.5%. One can argue that South African wines still hold a stable enough position in the market, as the value of South African wine exports resided at 11th place in the world in 2021, with the top 15 countries shipping 92.9% of the global wine exports. South African wines also experienced an increase of 20.8% in value between 2020 and 2021 (Daniel Workman, 2023). While this is partially attributed to the negative effects that COVID had on international trade and travel during those years, it still shows stability and growth in the South African wine sector (Vinpro, 2021). Providing legal protection for more premium South African wines could be a proactive move to the preservation of the increasingly impressive reputation of South African wines (Ponte & Ewert, 2007).

Within the SADC, South Africa contributes to more than 80% of the value of all exports and imports with the EU (Stender et al., 2020). As a result, the EU is South Africa's biggest partner in trade and investment and South Africa is the EU's largest trade partner in Africa (European Commission, n.d.-b).

An increase in exports blooms from exploitation of a nation's strengths. Mineral and natural resources offer competitive industrial opportunities in South African exports, among other functional strengths such as tourism, trade relations with fast-developing countries, quality education and universities and a productive agricultural sector (Tofa & Paterson, 2018; tralac, 2023; Viljoen, 2017a).

Deeper economic integration with mutually beneficial partners requires identification of beneficial opportunities and strengthening of trade relations (Baier & Bergstrand, 2005). South Africa could take advantage of its duty-free allowance and lowered tariffs in many cases, and providing quality products with prestige could play a role in convincing other countries to adjust relations with South Africa based on prestige of its exports, of which, agricultural products are a major component.

In 2020, China became the EU's largest trading partner for the first time. This is expected to be a result of China's useful resources or the COVID pandemic and the ongoing trade war between China and America, causing China to strengthen trade relations outside of America (Jindřichovská & Uğurlu, 2021; Steinbock, 2018). This creates indirect harmony between South Africa's most established markets and China, who are an important emerging market for South Africa, and are in collaboration in terms of development as part of the BRICS countries.

The Council of the EU signed a stand-alone GIs agreement between the EU and the government of the People's Republic of China, in which a consideration was taken to extend the scope of GIs to about 200 products (including a number of fruits and vegetable products) (AGREEMENT BETWEEN THE EUROPEAN UNION AND THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF CHINA ON COOPERATION ON, AND PROTECTION OF, GEOGRAPHICAL INDICATIONS, 2020). China has the highest number of GIs protected via the sui generis system, standing at 2350 in 2022 (WIPO, 2022b). When considering GIs protected via the trademark system, China has 6562 GIs protected. Before the 1st of March, 2021, China had 10 GIs registered on the eAmbrosia platform, after which 100 products were registered (Directorate-General of Agriculture and Rural Development, 2022).

The EU-China bilateral agreement on GIs was launched on this date, after 8 years in the making (Jindřichovská & Uğurlu, 2021). This strengthens protection of European GIs from imitation in the Chinese market and gives valorization and an increased confidence in reputation to Chinese products.

These actions are expected to increase the competition faced by South Africa's primary agricultural products, particularly of export of fruits to the EU. Increasing the competitiveness of South African exports is therefore essential to the maintenance and growth of the industry and the GI scheme offers an opportunity to do exactly that.

Furthermore, China as the country with the third largest surface area of land under vine (OIV, 2022). In the international market, China is in the midst of tensions with various countries, which has opened trade opportunities in the Chinese market for South Africa due to the strengthening of relationships between China and countries that share trade agreements, such as BRICS (Thorpe, 2009).

Counterfeiting accounts for 2.1% of global trade, with China being responsible for most of the world's counterfeit products, thereby making China the largest contributor to damage of trust in functioning markets (Daxue Consulting, 2023; EUIPO & OECD, 2023). China has, however, been one of the most prolific countries in patent and GI generation in recent years (Directorate-General of Agriculture and Rural Development, 2022; WIPO, 2022b).

According to the CEO and marketing manager of Groot Constantia, China has been a large market of Grand Constance for many years, particularly when tourists from China visit the winery and hear the history of this wine. It is seen as a hallmark of wines from South African soil, and is bought for the novelty, or as gifts for people of high positions in Chinese society. The Asian market is already on the radar as a non-traditional area of trade opportunity for officials in charge of South African exports. It is expected that the elite nature of the GI seal and its ties to quality, will give South African wines a boost in the global market. This would include China, a market with appetite for quality and trends (Anderson & Harada, 2018).

South African wines are yet to experience their full potential (James, 2013). It has been recognized that there is a tendency to undervalue South African wine (Steyn, 2019). This is an issue in terms of the fact that historically, South African wines were mostly considered to be low-value wines, the reason being that they were, in fact, mostly low value wines. There have been many shifts and investments in various disciplines of the sector in recent years, in preparation for the creation and promotion of better value wines (James, 2013).

The South African Wine Industry Transformation Unit (SAWITU) uses levies, donations and sponsors for transformation activities, including improving market access for previously disadvantaged individuals and equitable access to land, including cellar and warehouse facilities and conferencing and tourism facilities (SAWITU, 2018). Part of the levies are also dedicated to provision of infrastructure for adequate functioning, and to skills development. This facilitates potential for pro-poor economic growth. Coupled with BEEE, which focuses on improving diversity among all levels of employment, this facilitates a more equal country across the entire value chain (SAWITU, 2018). Success of SAWITU's operations could provide potential for an increase in the diversity of the beneficiaries of the GI scheme.

The National Planning Commission has expressed the need for the state to mediate agreements between district and local municipalities. Assuming that the implementation of the GI scheme in the wine industry is enthusiastically positively received among all levels of management, this could be a cause through which many levels of government and management could unite and strengthen relationships (National Planning Commission, 2021). Furthermore, business confidence is enhanced by transparency in policy-making and through effective public-private partnerships (GCIS, 2023). The creation and implementation of a PDO in the South African wine sector would provide a tool that allows practice in performing effective public-private partnership transparency (Marie-Vivien & Biénabe, 2017).

Alignment of National and International Development Goals

The strategic objectives of the GI scheme align with those of the South African rural development strategy goals, for example:

- Identifying and promoting trade opportunities that arise from the SADC EU EPA, and to protect domestic industries from cheap European imports.
- Adopting a leadership role to leverage the regional benefits that may be gained under the EPA.
- Improved market access for small and medium enterprises
- Promotion of investment in small-scale farmers and capacity expansion of associations representing their interests, to expand access to international markets.
- Strengthened accountability throughout the production line and regulation process.

(Bramley et al., 2013; Bruce, 2017; Department of Planning, 2019; Tofa & Paterson, 2018)

Foreign investment can pose a threat to the resilience of a nation to outside influences due to a lack of stability within its own system, it could be a useful complementary input to growth of the South African economy, provided that the economy works hard to support itself first (Crouth, 2023). GI products are a way to generate interest in local products and shift the focus of investments from South Africans towards the South African economy (Kamperman Sanders, 2010).

Other schemes do not appear to clash with the GI scheme – for example, where the IPW seal is a sign of confidence in the integrity of the wine, it does not provide any link to terroir or to tradition (WOSA, n.d.-b). The GI scheme could therefore compliment the IPW seal and add further confidence to South Africa's WO scheme without compromising any existing schemes (WoSA, n.d.).

7.4. Threats

Threats to the South African wine industry include

- Funding to Market Superior Products at Globally Competitive Price Points
- Loadshedding
- Climate Change
- Cost of Production
- Global Market Changes
- Leadership
- Inequality
- Political Issues
- Food Security
- Encroachment & Gentrification

South African wines are known for their affordability. This is displayed by the fact the average cost of South African wines is below the first quartile of average wine prices globally.

Funding for marketing for the South African wine industry is far below that of other countries, so the search for funding for marketing puts dependence on private actors and on foreign investment, making the very perception of South African wines unstable and susceptible to outside shocks (Steyn, 2019). This is a problem that is expected to persist throughout the industry, particularly when considering the country-wide environment of slow or stagnant growth (GCIS, 2023; Ponte & Ewert, 2007). Finding methods to valorize existing products and services could be one way in which the South African economy can enhance independence. The GI scheme can act as a helpful tool in this regard.

Climate change is already causing temperature and rainfall variations in South Africa. This is considered in policy planning, but still poses a threat to the reputation of products of GIs, as particular properties of these products may change over time (Candiago et al., 2022; National Planning Commission, 2021). Many plans are in place regarding climate change action in South Africa. For example, the DALRRD's Crop Suitability programme works to promote research and practices that enhance adaptive capacity and resilience of agricultural systems. Management of the quality of the soil, climate and water and of fires that break out during hot seasons are also integral parts of climate change adaptation, all managed by DARLLD (GCIS, 2023).

It is expected that climate change could further increase the cost of winemaking in South Africa, as well as reduce the number of winegrowers. It is possible to adapt winemaking techniques to uphold quality throughout changes, but this would require research and development (Carter et al., 2006). The main concern in terms of climate change would be that rural and agricultural populations are most at risk of being deeply negatively impacted by climate change (Bosch, 2022). This is adequately considered in policy decisions in South Africa. Where GIs are considered, the problem of climate change is one which can be addressed and single documents can be designed with this in mind, and should be, due to the sustainable nature of the scheme (Borghini et al., 2023).

Regarding people and social aspects, inequality is recognized as a factor which slows growth (Jonas, 2017). As noted by the Gini index and in Figure 8, inequality is a major concern in South Africa and will need to be considered throughout the GI registration process in order to provide equality among the agents who could potentially benefit from the scheme (stats sa, 2023a; The World Bank, 2023).

The minimum wage increase of 9,6% to \$1,38 per hour in 2022 was seen by wine producers as a threat to the South African wine sector, as the industry was under immense stress after the restriction on local sales of alcohol during COVID-19 lockdowns in 2019 and 2020. Among other issues of export difficulties, glass shortage, illicit trade and electricity costs, the wine industry was under a lot of pressure during this time and called for exemption (Vinpro, 2022).

Despite the controversy of this discourse, and the ways in which workers themselves were negatively affected by this increase and despite the fact that the wine sector was able to recover in a broad sense after lockdown, it was acknowledged that the industry could simply not afford to carry its weight (Schoemanlaw Inc., 2022). This alongside the devastation caused by the impact of the invasion of Ukraine and resultant increase in costs of production shows a lack of confidence in the ability that the South African wine sector holds to support itself in the future (Sihlobo, 2022).

It is expected that emerging economies will experience an increase in their share of world trade and investment, with particular reference to China, India and Brazil. On the other hand, it is expected that there will be a decline in economic weight of the USA, Japan and Europe, with ripple effects on the structures of governance and military influence globally (National Planning Commission, 2021). Focus on expanding market share and market access within these growing economies is therefore essential, particularly when one considers the stabilization of the South African population size.

BREXIT

The UK has been our leading importer of wines since the establishment of South African wines (James, 2013). Trade with the UK has become a complicated topic after BREXIT and its impacts remain uncertain. Furthermore, BREXIT has caused changes in the UK's operations regarding the GI scheme and this may cause deeper complexities to trade in the future (Prescott et al., 2020)

BRICS

Russia's invasion on Ukraine has had major impacts on food security in South Africa due to increased living costs. 14% of imports of fertilizers come from Russia, implying a further increase in expenses for many agricultural activities. The price of oil increasing due to the invasion impacts all industries throughout the country (Johnson, 2022). Russia's decisions have continued to cause stress on food security in South Africa and around the world. Since 2019, prices of fertilisers and agrichemicals have increased more than two-fold as a direct impact of the invasion (Sihlobo, 2022). Furthermore, South Africa is potentially weakening its own reputation and its potential in trade relations through deals that include supplying arms to Russia. While the implications of this are unclear, it does give negative publicity to South African government (Johnson, 2022).

In terms of exports, one of the major points of aggravation for the South African wine industry are inefficiencies at the Cape Town port – an essential site of global trade with multiple complications, including strikes and inefficiencies due to loadshedding or mishandling (Burger, 2022; wosa, 2023)

Loadshedding is a particularly large threat to the South African wine industry (Jonas, 2017). Eskom supplies most of the electricity throughout South Africa, and commonly schedules power cut-offs daily throughout the country. To add salt to the wound, Eskom is applying for a 32% tariff increase for the 2023/2024 tariff year. The cost of electricity alone is significant, but to run generators where there is a lack of electricity is even more costly and poses a threat to the wine industry. Efforts to declare that agriculture is an essential service and should not receive power cuts are underweigh (Jankielsohn, 2023).

Loadshedding has been putting pressure on the agricultural supply chain and deepening national anxiety on the topic of food security. These are complex issues, and it does not seem that officials are considering the negative impact on food security with enough urgency. Food security and the overall functionality of the agri-food systems in South Africa are major issues that the country is facing, with loadshedding being an ultimate blow to an already fragile system (AgriSA, 2023). The raising cost of food production has detrimental effects on a country in which 17,3% of the population experience food insecurity, of which 7% experience severe food insecurity according to 2019 statistics (stats sa, 2022).

Some of the most effective ways to improve food security are to increase household income, offer additional resources and stimulate economic growth (FAO et al., 2014). The current climate of low economic growth and low employment rate in South Africa provides a threat to the goal of increased food security throughout the country (stats sa, 2022).

Constantia's vicinity to densely populated areas of Cape Town puts it at risk of encroachment, an issue which has already impacted the land used for vineyards and nature reserves (Gaffney, 2012). The space taken for human settlement is land capital thus used for purposes other than nature or agriculture. Furthermore, Constantia holds much value as a residential area . It is an attractive place to live, and has already experienced much gentrification due to the fact that it holds some of the most valuable land in Cape Town (Pape, 2002). Increased value of agricultural products in this area adds more pressure to the gentrification and to the maintenance of other issues, such as the oppressive discrepancies of rates between Constantia and other areas, particularly Grassy Park. The implementation of this scheme with Constantia Wines would therefore require thorough research and planning, as it could either support multifaceted growth for diverse groups of people, or contribute to further gentrification.

8. Discussion and Conclusion

The IPW and WO schemes give South African wines a baseline of quality control, but there are no internationally acclaimed schemes in use in South Africa that contribute beyond a baseline of confidence in quality and safety (WoSA, n.d.). Sales of South African wines internationally have been increasing significantly since trade borders reopened in 1994 (James, 2013). Having an internationally acclaimed quality seal on the labels of South African wines could improve exports, particularly in the sense that export value would improve. For this study, a SWOT analysis has been performed, in order to assess the potential that the implementation of the GI scheme holds in the South African wine industry. An example case study is also observed, and framework for potential development of a single document for the Sweet Wines of Constantia is created.

Marketing strength is specifically important in medium-term sustainability of the wine sector in South Africa – with trade being stunted by the COVID pandemic and with commodity prices rising due to the energy crisis following Russia’s invasion of Ukraine alongside the effects that loadshedding has on the cost of food production (Sihlobo, 2023). It is expected that the South African wine industry will be under stress in the near future, as it recovers from the. Impacts of COVID and deals with new challenges, and the creation of improved and sustainable interest in the industry is important for its long-term wellbeing.

As a strategy to sustainably add more value to South African wines, there is potential for the GI scheme to be implemented within the wine industry. This would require collaboration between the state and wine producers (Marie-Vivien & Biénabe, 2017). There is perception that regulations based on quality and codes of practice could cause restrictions on innovations, which are important in an emerging wine region such as South Africa. However, the GI scheme does provide for more flexible PGI products among the premium, more restricted PDO products. The GI scheme is thus not entirely restrictive. Careful measures will have to be taken to make sure that it is implemented in an inclusive manner, which allows collaboration between premium producers of an area, rather than exclusion.

South Africa has one product registered on eAmbrosia so far, being Rooibos / Redbush tea. The successful registration of this product proves state capacity in the implementation of the scheme in South African context, and the results of implementation were largely positive. Being registered in 2021, this is too recent to assess the long-term impacts of registration within South Africa, but in the short term, it is clear to see that demand in Rooibos tea peaked after registration, indicating the possibility that GI registration could have a positive impact on the value and reputation of South African agricultural products.

When referring to the wine industry, the Western Cape is an obvious choice as a place to search for PDO opportunity. It has a lot to offer due to the intensity of biodiversity and resultant uniqueness of its agricultural products, including in wines (Swart & Smit, 2009). Being strong in its reputation over recent centuries, the Constantia pocket could be an interesting case study as the first South African PDO for the wine sector. The main varieties planted in Constantia include Merlot, Cabernet Sauvignon, Sauvignon Blanc, Sémillon and Muscat de Frontignan. This leads to the creation of still reds and whites, as well as sparkling wines, all of which have potential to benefit from a PGI that covers the Cape Town ward, or from a PDO that focuses on the Constantia Valley. With the fact that names used in the GI scheme are intended to boost marketing potential, using names with strong reputation on international markets could reinforce confidence in the GI scheme within South African context. This would be an interesting point of debate, as there is a push to celebrate tradition while there is a pull to allow innovation and prevent restriction within a budding industry (Lubinga et al., 2021).

It is assumed that the implementation of this scheme would act as a tool to improve strength in marketing, rural development, reputation and value of South African wines. It seems that a PDO for the Wines of Constantia is feasible, and the results of such a policy would need to be monitored carefully if it were to be implemented in order to assess the impact.

It is obvious that deeper research should be done on the impact that the registration of Rooibos tea as a PDO has had on its market performance, and on the perception of South African agricultural products. The process of registration for other agricultural products and the impacts of this should be analyzed as well, to assess the sustainability of this scheme. Eventually, research could include the impact of South African PDO or PGI products on rural development and impact on other industries, such as food tourism. Over the long term, this could be molded

into research on the impact that the GI scheme could have regarding its use as a tool to support transformation and empowerment of previously marginalized peoples.

The research in this paper refers only to one type of wine that should be included in the final single document – the Sweet Wines of Constantia. Constantia is host to a multitude of wines, produced with great care (Swart & Smit, 2009). Its proximity to other famous, South African wine regions opens the way to deeper exploration of the South African winelands.

More research could be done on the expansion of potential in the Constantia pocket regarding the red, white and sparkling wines that could receive the same status as PDO products. To move from this point, one could consider the generation of a PGI that covers multiple wards and perhaps reaches over the entire district of Cape Town or expands into the Coastal Region.

To add to quantitative market research, studies could be performed on the consumer willingness to pay a premium price for certified, premium products from the South African wine industry.

This study focuses on the particulars of one wine and its potential as a PDO product, as well as the factors to consider in the process of registration and the implementation of the GI scheme. It could be interesting to use this as a launchpad for further research – for example, to conduct qualitative analysis on how willing the producers of the entire Cape Town ward, Cape South Coast region and select areas of the Western Cape geographical unit would be to adopt the scheme. Furthermore, to compile a single document comprising all potential wines from these and going through with the process in order to analyze impact. This would include varied foci – product value, reputation, export volumes and value, wellbeing of producers and staff, tourism etc.

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11. Annex

Table 1: Specifics of each vineyard's grape selection and vinification for the chosen wine

| | Groot Constantia | Klein Constantia | Buitenverwachting |
|---------------------------------|--|--|----------------------|
| Climate | Mediterranean-like, marine climate with cool breezes from the Atlantic Ocean. Average rainfall of 1100mm per annum, 78% of which is experienced in the winter period between May and October. | | |
| Soil Type | Deep mountain soils, mostly Table Mountain Granite soils such as Glenrosa, Hutton, Avalon and Oakleaf soils. Alluvial type soils are found at lower altitudes between 100 – 300 m. These are acidic, red granite soils with excellent water retention and drainage capacity. | | |
| Aspect for Muscat de Frontignan | Southeast facing slopes. | | - |
| Altitude | 80m to 90m above sea level. | 130 m average for MdF | - |
| Vines | White and red Muscat de Frontignan | A unique clone is being created from the oldest vines of MdF, planted in 1983 – which were planted from cuttings of the original MdF imported in the 1650's. | Muscat de Frontignan |
| Viticulture | A long ripening period, with a yield of 4.0 t/ha. Vineyards are trained on vertical shoot position trellis systems. Pruning, canopy management and harvesting are done by hand. Biological pest control is applied, and a selected mix of cover crop is grown over winter. | Each of the vineyard blocks is managed individually and grapes are carefully monitored for quality. Vineyard activities are executed by hand. The 2019 Muscat de Frontignan harvest was very short, taking place from late February until late March. | - |

The Southeast, East and North-facing slopes allow the berries to ripen fully before raisining begins, producing fruit of optimal concentration and flavour. This aspect is moderately cool, but warm during hours of sunlight exposure. The aspects and lower chosen altitudes for the Muscat de Frontignan grapes are therefore suitably chosen, making them more ideal for the long ripening period.

In general, the yield of 4.0 t/ha from the harvest of Muscat de Frontignan in Groot Constantia suggests that these grapes are destined to become premium wine, as a lower yield indicates a higher focus on the quality of the wine produced (Groot Constantia, n.d.-b).

Table 2: Winemaking and bottle specifications for each vineyard

| | Groot Constantia | Klein Constantia | Buitenverwachting |
|------------|--|--|-------------------|
| Winemaking | <p>Grapes were fermented on the skins for about 1 week before pressing. After fermentation, the wines were racked and put back into barrels to mature for another 24 months.</p> | <p>26 different passes were made, ranging from high acidity to the later portion of very ripe raisins. Each pass undergoes cold maceration for 2 weeks. After light pressing, selected yeast strains are inoculated, and fermentation takes place in 500L barrels. Fermentation is allowed to stop naturally and without any intervention. The wine remains in these barrels between 6 months and 1 year.</p> <p>The wine is aged on the lees in a combination of new French oak, Hungarian oak and French acacia for at least three years, with no racking or movement until the final blend.</p> <p>The wine is aged for 18 months in 50% new oak 500L barrels & then a further 18 months in large format fourdres</p> | - |

| | | | |
|---------------------|---|---|--|
| | | before blending and bottling. | |
| Harvest period | Mid-April | Batch harvesting – 21 different batches are harvested between early February and mid-April to provide the wines with acidity and sugars necessary for the style desired. | “Noble Late Harvest “ |
| Product description | The touch of red muscat gives the wine a beautiful amber color. The nose shows an abundance of ripe and dried fruit, like crushed pineapple, apricot and raisins. The ageing in barrels adds some wood spice and a hint of honey to the wine. The dried fruit and honey follow on the palate, and a fresh acidity balances the sweetness. | Bright light gold in color. A delicately perfumed yet elevated nose with flavors of white peach, citrus blossom and orange zest. There is an intriguing creaminess on the nose followed by nutmeg and lemon curd. The palate abounds with complex flavors of oak spice, ginger and bright fruit. A delicate balance between sugar and acidity creating a seemingly dryer style of Vin de Constance. The wine concludes with a long and evolving finish with texture and a delicate spice. | Flavours of ripe apricot, melon, fynbos, almond and apple. |
| Bottle | Antique-inspired design, 375 ml capacity | Trademarked bottle shape, 500 ml capacity | Standard 750 ml |

Data collected for the product specifications is according to official websites of each winery, information noted during interviews and data sheets from the chosen vintage. Specifics for each vintage chosen are noted below (Buitenverwachting, n.d.; Klein Constantia, n.d.; Messina et al., n.d.)

Groot Constantia – 2017

Higher rainfall than average, but very dry during the ripening season. Warm days, cold nights and standard wind conditions provided exceptionally healthy fruits (Messina et al., n.d.).

Klein Constantia – 2019

A cold, wet and more windy spring led to smaller berries than usual and thus, to a reduced crop. Slow ripening led to a harvest in late autumn. Smaller concentrated berries, ideal pH levels and fresh acidity characterize this harvest (Klein Constantia, n.d.).

In terms of South Africa's Wines of Origin system, the Sweet Wines of Constantia are all made within the Constantia ward. The wines being made on each estate from grapes harvested directly on the estates, meaning this could be considered an estate wine according to South Africa's wine classification scheme. It would not be considered single vineyard or cru, as there are multiple vineyards for Muscat de Frontignan, particularly from the Klein Constantia farm, and the number of hectares used for this wine exceeds that of the South African limitation for single-vineyard wines (WoSA, n.d.).

Vine Varieties

Grape variety: 100% Muscat de Frontignan (only variation here is that Klein Constantia and Buitenverwachting use white varieties, where Groot Constantia uses a blend of white and red varieties).

Vinification

A yield maximum of 4.0 t/ha is assumed to be adhered to. Vines are planted between 80 – 150 m altitude using a vertical shoot trellis method. Vines should be oriented to allow wind to pass through efficiently and thus limit infection during the long ripening period. Grapes can be harvested at different stages after ripening, but it is essential to allow a number of bunches to raisin on the vine in order to achieve desired sweetness in the wine. Ripening should be carefully monitored, and grapes should be harvested with great care and each harvest should be kept separated throughout the entire winemaking process, until blending.

Winemaking

All grapes have been harvested from the Constantia ward as described by the South African Wine of Origin scheme, and the same is true for all winemaking processes (WoSA, n.d.). Grapes are crushed, destemmed, and then undergo cold maceration for a minimum of one week before light pressing. Fermentation is then done in large barrels, with selected yeast, and fermentation is left to stop naturally. The wine is matured on the lees in barrels for a minimum of 24 months.

Product Description

Colour ranges from bright gold to deep amber. Aromas of stone fruit and citrus. Flavours of honey, dried fruits and secondary flavours of the barrels used for aging. Well-balanced sweetness and acidity.

Chemical Properties

- Alcohol: 9 – 15% abv
- Residual sugar: 150 – 200 g/l
- pH: 3,5 – 4
- Total acidity: minimum of 5 g/l expressed as tartaric acid
- Volatile acidity: no measure decided as of yet

Management

During the process of harvesting, wine-making and storage, specifics of each step must be recorded for traceability purposes.

Table 3: Specifics of the sweet wine produced from each cellar

| | Groot Constantia | Klein Constantia | Buitenverwachting |
|--|--|------------------|-------------------|
| Chosen vintage for analysis | 2017 | 2019 | 2020 |
| First year of introduction or recreation of the sweet wine | 2003 | 1990 | 2006 |
| Grapes used | <ul style="list-style-type: none"> • Red MdF • White MdF | White MdF | White MdF |
| Alcohol % | 11.85 | 13.89 | 10 |
| Residual sugar (g/l) | 176.7 | 166 | - |
| pH | 3.90 | 3.71 | - |
| Total acidity (g/l) | 5.90 | 6.1 | - |
| Bottle capacity (standard) | 375 ml | 500 ml | 500 ml |
| Winemaker | Boela Gerber | Matthew Day | - |

(Buitenverwachting, n.d.; Groot Constantia, n.d.-b; Klein Constantia, n.d.)

From these specifications, it would be assumed that the common factors of the Sweet Wines of Constantia are that each wine should be made from Muscat de Frontignan grapes and have properties similar to those shown in Table 1.